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January 26, 2021

VIA EMAIL AND PRIVATE CARRIER

Gary Schold, Project Manager
Land Restoration Program
Land and Materials Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230

Subject: Transmittal of the Groundwater Investigation South of Building C Report
Lockheed Martin Corporation – Middle River Complex
2323 Eastern Boulevard, Middle River, Baltimore County, Maryland

Dear Mr. Schold,

For your review, please find enclosed two hard copies with a CD of the above-referenced document. This prepared report documents the investigation conducted to further investigate the extent of trichloroethene impacted groundwater directly south of Building C at the Middle River Complex in Middle River, Maryland.

If possible, we respectfully request to receive MDE's document review comments by February 22, 2021.

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

Sincerely,

Thomas D. Blackman
Project Lead, Environmental Remediation

cc: (via email without enclosure)
Mark Mank, MDE
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GROUNDWATER INVESTIGATION SOUTH OF BUILDING C REPORT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
2323 EASTERN BOULEVARD
MIDDLE RIVER, MARYLAND

Prepared for:
Lockheed Martin Corporation

Prepared by:
Tetra Tech, Inc.

January 2021

Approved by:
Lockheed Martin, Inc.

Revision: 0



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ACRONYMS

bgs	below ground surface
COC	contaminants of concern
CSM	conceptual site model
DHC	*dehalococcoides*
DO	dissolved oxygen
DPT	direct-push technology
EDN	Earth Data Northeast, Inc
EGIS	environmental geographic information system
ESA	environmental site assessment
ESH	environment, safety and health
ESS	environmental sequence stratigraphy
GC	gas chromatograph
GPR	ground penetrating radar
Ground Zero	Ground Zero Environmental Field Services
HASP	health and safety plan
HPT	hydraulic profiling tool
HRSC	high-resolution site characterization
IDW	investigation-derived waste
LMCPI	LMC Properties, Inc.
Lockheed Martin	Lockheed Martin Corporation
MCL	maximum contaminant level
µg/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
MRAS	MRA Systems, Inc.
MRC	Middle River Complex

ORP	oxidation reduction potential
PCB	polychlorinated biphenyl
PID	photoionization detector
ppb	parts per billion
PPE	personal protective equipment
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
REC	recognized environmental condition
RTO	Remediation Technical Operations
SVOC	semi-volatile organic compounds
1,2,4-TCB	1,2,4-trichlorobenzene
TCLP	target characteristic leaching procedure
Tetra Tech	Tetra Tech, Inc.
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
VOC(s)	volatile organic compounds
WMP	waste management plan

SECTION 1
INTRODUCTION

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech Inc. (Tetra Tech) has prepared this report to document the investigation conducted to further investigate the extent of trichloroethene (TCE)-impacted groundwater directly south of Building C at the Middle River Complex (MRC) in Middle River, Maryland (Figure 1-1). This work was conducted in accordance with the approved work plan (*Groundwater Investigation South of Building C Work Plan* [Tetra Tech, 2020]).

Results from previous investigations indicate that trichloroethene and its degradation products are present in the groundwater beneath the southern portion of Building C basement. Several historical operational areas of concern occurred within the Building C basement; these areas were investigated in the mid-2000s (Tetra Tech, 2005 and 2006). A subslab depressurization system was installed at the south end of Building C in 2008 based on elevated concentrations of trichloroethene found in subslab vapor. This system was expanded to include the central portion of the basement. Remediation for these groundwater contaminants has successfully been conducted south of Building C within the groundwater response action area (Tetra Tech, 2019). However, the relationship between possible source areas (and associated groundwater contamination) under Building C and impacted groundwater outside the building footprint (for which a source has not been identified) has not been explored proximate to the southern perimeter of Building C.

The objectives of this investigation were to:

- refine the extent of trichloroethene-contaminated groundwater identified external to Building C (in wells MW-60A/B) and within the southern portion of the building (at soil borings SB-303 and SB-313) via installation of temporary groundwater monitoring points and the collection of vertical profiling samples for volatile organic compounds (VOCs) analysis

- advance and evaluate continuous cores for lithologic characterization to confirm the bottom of the B-zone

- complete gamma ray logging to obtain a detailed record of the existing stratigraphy in Block I wells located south of Building C, and to support interpretation of the conceptual site model (CSM)

- update Building C area cross-sections using lithology information gained from these temporary monitoring points and borings to interpret the extent of trichloroethene associated with Block I and relevant site features

- use the cross-sections to update the conceptual site model for Block I

This report is organized into the following sections: (1) Introduction, (2) Generalized Building C Conceptual Site Model, (3) Investigation Approach and Methodology, (4) Project Deliverables, and (5) References. Tables and figures are at the end of the report body following Section 5.

SECTION 2
GENERALIZED BUILDING C CONCEPTUAL SITE MODEL

This section summarizes the generalized conceptual site model (CSM) as understood before the current investigation. Building C is one of the primary manufacturing buildings in Block I and has been the subject of site characterization studies since 2004. The groundwater response action using *in situ* bioremediation was approved by the Maryland Department of the Environment (MDE) and was successfully conducted just south of Building C within the response action area. At that time, a workplan was prepared, and a 'No Further Action' determination was pending from MDE for Block I groundwater response. Other relevant onsite remediation activities include a sub-slab depressurization system (SSDS) that has been operating in Building C since March 2008 to mitigate the potential for sub-slab contaminants to move into the indoor air of Building C basement. Previous environmental characterization has identified subsurface soil and groundwater contamination from chlorinated volatile organic compounds (cVOCs), primarily trichloroethene (TCE), under and near Building C.

2.1 BUILDING C FEATURES

Building C is a large rectangular industrial building (approximately 900 feet long and 300 feet wide) constructed with a full-dimension basement level and a first floor. The first floor is generally comprised of large open work areas with some minor partitions for offices, and is suitable for large-scale airplane manufacturing and assembly. The concrete floor in the basement is typically between six to 12 inches thick, and the building has concrete footers that anchor the building into the soil beneath it. Floor drains, sumps, storm-drain lines, and other utilities run beneath the building slab. The loading dock connected to the first floor on the southern and western side of the building was added sometime after original building construction.

2.2 GEOLOGY

The Patapsco formation is directly beneath the site and is the primary formation of interest in this investigation. Detailed cross-sections of the site geology are presented and discussed in Section 4.0. The Patapsco formation is composed primarily of silty sand, fine- to medium-grained sand, silty clay, clayey silt, and plastic clay. Arundel clay beneath the Patapsco formation is composed of dark gray and maroon lignitic clay (including some interlayered silt/sand) and was found to be up to approximately 120 feet thick beneath the site. Thick sequences of low-permeability clay, silty clay, clayey silt, and silt are present in the northern two-thirds of the Middle River Complex (MRC) site. Interbedded sand, silty sand, sandy silt, and silt are encountered south of Building C. Local cut and fill material from building construction may be evident, but little evidence of fill use is generally found within Block I.

Only a limited number of soil borings have been advanced beneath the Building C basement floor relative to the size of the building, so geology is extrapolated under the building footprint in areas between historical shallow borings.

Within the building footprint, the predominant lithology is a clay/silt/sand mixture beneath the southern/southeastern portion of the basement, with some more permeable thin sand layers encountered in the upper five to seven feet. Groundwater in this area is generally encountered at depths between five and 14 feet; the elevation of the water table at the southern end of Building C is generally the same as water table elevations measured in monitoring wells located outside the building. The mixture of clay/sand/silt with interbedded sand layers continues south of Building C.

The geology east-west across Building C basement shows the lithology grading from more clay rich matrix encountered under the western side of the building to silty clay/clayey silt under the central portion of the building, and to a clay/silt/sand mix moving toward the eastern side of the building.

2.3 HYDROGEOLOGY

The hydrogeologic system beneath the MRC consists of multiple laterally and vertically discontinuous and relatively permeable units that provide the primary pathways for groundwater flow and contaminant migration. Water enters these units via natural infiltration/recharge of

precipitation (although this would be limited within the footprint of Building C and its surrounding area where the surface is mostly covered by asphalt and concrete), and via collected and redirected stormwater and snowmelt. Shallow groundwater ultimately discharges to surface waters that border the site to the southeast (Dark Head Cove) and west (Cow Pen Creek). The data obtained during this current investigation will be interpreted from an environmental sequence stratigraphy (ESS) perspective; hydrogeologic units will be identified, and where possible these units will be stratigraphically correlated with those already identified to the northwest and south to expand the site-wide ESS framework. That ESS interpretation of the area south of Building C is included in Section 4.0. Shallow groundwater wells in the study area are within relatively permeable zones of the Patapsco formation. These relatively shallow permeable zones are underlain (at depths of 70 to 100 feet below surface) by the Arundel formation, a regionally extensive, thick, dense clay confining unit.

As stated above, the more permeable units beneath the site are laterally and vertically discontinuous, making it difficult to delineate distinct aquifer layers and confining units, particularly near Building C. Permeability tests conducted at the site indicate that the hydraulic conductivity of the more permeable deposits increases with depth. The respective average hydraulic conductivities in shallow, intermediate, and deeper wells are 0.22, 0.48, and 3.82 feet per day (Tetra Tech, 2012).

Generally, shallow groundwater at the MRC follows the site topography, and flows radially from the hydraulically upgradient northern portion of the complex (immediately south of Building C) to the southeast/south toward Dark Head Cove. Shallow groundwater flow at Building C is southeasterly, toward wells MRC-MW60A-B and MRC-MW27A-B (Figure 2-1). Groundwater extraction from sump pumps in the central and northern portions of Buildings B and C may be suppressing the groundwater table beneath Building C.

2.4 WATER BUDGET AND RECHARGE

Groundwater flow at the site is generated almost exclusively by recharge (i.e., precipitation infiltration, and infiltration of redirected storm runoff and snowmelt). Recharge rates are influenced by variations in topography and surficial geology, such as the presence or absence of

paved surfaces. Most of the Building C study area is paved or covered by buildings. As such, evapotranspiration is expected to be minimal.

Runoff from precipitation likely follows topography of the site, which gently slopes from Building C to the southeast and south and toward Dark Head Cove. As stated earlier, as most surfaces are paved or covered by buildings, most of the associated runoff generated from these areas is captured and conveyed through the storm drain system.

Precipitation at MRC is approximately 42 inches per year as reported by the National Oceanic and Atmospheric Administration (https://www.weather.gov/media/lwx/climate/bwiprecip.pdf). Recharge is expected to occur primarily in the late winter and early spring months, when precipitation is relatively high and evapotranspiration minimal. Tenbus and Fleck (2001) have estimated recharge rates of 0-9 inches per year at the nearby Graces Quarters site, which is in the Edgewood Area of Aberdeen Proving Ground (and north of the MRC). Recharge to the groundwater system in MRC locations where the ground surface is not covered by buildings or pavement is expected to be at the low end of the range estimated by Tenbus and Fleck (2001), due to the low permeability of the surface soil.

2.5 BUILDING C SUMMARY OF INVESTIGATIONS

2.5.1 Data Summary for Soil

Significant observations from the soil investigations at and near Building C (Earth Tech, 2008; Tetra Tech, 2005; 2009; 2011; 2012; 2014) are discussed below:

- Although low or nondetect results for VOCs were detected at most sampling locations, the lateral distribution of sampling locations (with only a few exceptions) generally do not correlate well with identified areas of concern.

- Samples (not attributed to building materials [i.e., not asbestos-containing materials or materials containing lead-based paint]) collected during the 2008 hazardous materials study and survey (Earth Tech, 2008) demonstrated that although contaminants such as total petroleum hydrocarbons and polychlorinated biphenyls (PCBs) were found in some samples, a significant release to the surrounding subsurface soils had not occurred in sampled areas.

- Samples that did show cVOC impacts were collected in the southern end of Building C, and are generally consistent with findings in groundwater discussed below.

- Boring logs for soil under Building C reflect soil is comprised primarily of clays and silty clays, typically recorded as very dry.

2.5.2 Groundwater Data Summary

Significant observations from the groundwater investigations (Tetra Tech, 2005; 2009; 2011; 2012; 2014) include the following:

- Groundwater samples collected under the Building C foundation slab primarily show detectable COC concentrations only near the southern end of the building. However, as sampling was focused on the southern end of the building, groundwater data from areas in the northern portion of the building is limited.

- The groundwater table under Building C appears to be significantly depressed, likely due to the presence of shallow clays, the operation of the numerous sumps in the northern and northwestern areas of Buildings B and C, and the inhibition of groundwater recharge from the buildings. Although these sumps are labeled as sanitary sumps on historical drawings, they likely also pump infiltrating groundwater.

- Data from impacted groundwater on the southern end of the building (as correlated with data from monitoring wells outside the building) indicates that significant degradation of trichloroethene and carbon tetrachloride is occurring under the building.

- The vertical extent of contamination beneath the building has not been delineated but concentrations decrease rapidly moving north.

2.6 FATE AND TRANSPORT

Whether groundwater contamination at the southern end of the building is from a release inside or outside the building is currently unknown. The prevalence of shallow subsurface clay and the lack of water recharge under the building likely inhibit vertical migration unless large volumes of chemicals were released. TCE releases to shallow soil beneath known areas of concern or other operation areas may have occurred, and chemicals in the soil (and groundwater) volatilized to sub-slab vapor and migrated along preferential pathways. Some sumps within Building C that collect groundwater have been sampled, but TCE was not detected at that time. Note that soil data collected under Building C is generally inconclusive as to whether releases have occurred at identified sources, but since the historical use of the basement area has varied over time, they likely do not represent all possible source areas. The source of groundwater impacts outside the southern end of Building C has not been identified and may possibly be the result of source(s) under the building or from a historical release outside the southern side of the building.

SECTION 3
FIELD INVESTIGATION

Section 3 presents the technical approach that was used for all field activities and describes the field methodology. The Tetra Tech, Inc. (Tetra Tech) field operations leader coordinated mobilization and demobilization, procured the required subcontractors, and mobilized personnel and materials to the field. Investigation results obtained from the comprehensive field program are in Section 4 of this report.

3.1 SITE ACCESS, NOTIFICATIONS, AND PERMITS

Before starting any field work, the assigned Tetra Tech field personnel became familiar with the site-specific health and safety plan (HASP) and the respective "Safe Work" permits and emergency response plan included in the HASP. Tetra Tech conducted mandatory health and safety tailgate meetings before each day's fieldwork. The Tetra Tech site health and safety officer documented the topics covered and personnel in attendance.

Tetra Tech provided notification and coordinated access arrangements through Lockheed Martin Security and EMCOR (site maintenance) to gain access to Block I. Middle River Complex (MRC) tenants were informed and updated about the proposed investigation activities at the LMC Properties, Inc. (LMCPI) bi-weekly meeting. LMCPI was notified of the proposed tasks and schedule and approved the work and schedule before mobilization to the field. Tetra Tech submitted the standard digging authorization form and risk handling checklist through EMCOR.

3.2 UTILITY CLEARANCE

Before starting any intrusive field activities, each soil boring, groundwater profiling, and monitoring well location was screened for the presence of subsurface utilities. In addition to calling in a Miss Utility ticket, Tetra Tech obtained the available MRC facility engineering and utility maps and contracted with a private utility locating service (RETTEW [formerly Enviroscan, Inc.]) to locate and mark underground utilities.

Tetra Tech complied with all federal, state, and local laws, regulations, and ordinances relating to the performance of this work. Any required permit, certification, and license applications were made in advance and the sought-after documentation was obtained before field operation. No site operations were affected due to the location of the work. Boring and monitoring well locations were concentrated south of Building C in Block I, and away from Lockheed Martin personnel. During field work, pedestrian and vehicle traffic (golf carts) were present in the near vicinity but the work area was enclosed by safety cones and caution tape.

On May 22, 2020, RETTEW walked the area, noting presence of valves, manholes, and visible outfall piping, and completed utility clearance using a Fisher TW-6 electromagnetic pipe and cable locator/tracer, a cable detector, cable locator, and cable avoidance passive locator, and a ground penetrating radar (GPR) system. Located utilities were marked on the ground with the appropriate paint color corresponding to each unique utility. Copies of permits, Miss Utility tickets, and the report prepared by the utility locating company are included as Appendix A.

3.3 FIELD ACTIVITIES

3.3.1 Soil Boring Advancement

On June 1, 2020, before groundwater profiling and monitoring well installation were completed, a Maryland-licensed driller used a direct push technology (DPT) drill rig to collect a continuous soil core at two locations (I-SB-315 and I-SB-316) to determine the approximate depths for groundwater screening sampling (Figure 3-1). Soil cores were screened for volatile organic compounds (VOCs) using a portable photoionization detector (PID) and a consistent headspace screening methodology (i.e., sealable plastic bag technique). Headspace sampling in the field consisted of cutting the soil core along its long axis, instantly placing one side of the core sample into a sealable plastic bag, and immediately closing the top of the bag. A qualified Tetra Tech field geologist performed lithologic logging and all pertinent information, including boring location, soil/lithology descriptions, and PID readings were recorded electronically into gINT professional boring log software. The information from these electronic records were used to determine screening intervals for each groundwater profiling boring location. Soil boring logs from I-SB-315 and I-SB-316 are included as Appendix B.

3.3.2 Groundwater Profiling

On June 2-5, 2020, vertical groundwater profiling (GWP) was conducted using a reusable, three-foot-long stainless-steel probe fitted with a one-foot screen at six boring locations (I-GWP-1A through I-GWP-1F on Figure 3-1). Boring locations 1E and 1F were drilled underneath the ramp with a smaller geo-probe unit due to access restrictions.

Groundwater was collected using a peristaltic pump and disposable polyethylene tubing, at a pumping rate of 100-300 milliliters per minute, and was field analyzed for trichloroethene (TCE) by experienced Tetra Tech personnel using a FROG 5000™ field gas chromatograph calibrated to detect TCE. Twenty percent (three samples) of the groundwater intervals screened by the Frog 5000™ were also submitted to an offsite laboratory (TestAmerica Canton, Ohio) for volatile organic compounds (VOCs) analysis of TCE on a standard turnaround time. FROG 5000™ field graphs are included as Appendix C. Field graphs for borings 1E and 1F are not available as no water was encountered in those borings.

After sampling was concluded at each interval, all down-hole equipment was decontaminated using a mild detergent (Alconox) solution wash and a potable water rinse. The above procedure was then repeated for each successive interval. Each borehole was abandoned with bentonite upon completion.

3.3.3 Monitoring Well Installation, Development, and Sampling

Tetra Tech installed, developed, and sampled monitoring well (MW) MW164B. The shallower well of the proposed well pair (MW164A) was not installed because the shallower interval of the boring lacked a permeable zone in which to install a well screen, as shown in the boring log (Appendix D).

3.3.3.1 Borehole Drilling and Soil Sampling

One groundwater monitoring well was installed in Block I, South of Building C (Figure 3-1) on July 16, 2020. Per the work plan, the estimated bottom depth of the A-zone well was to be 25 feet below ground surface (bgs) while the estimated bottom depth for the B-zone well was to be 40 feet

bgs. However, the typical permeable zone was not observed when drilling in the shallow interval (around 25 feet bgs), so a well was not installed in the upper (A)-zone.

A thick confining layer was observed from approximately 4 feet bgs to 33 feet bgs. The lower permeable B-zone was clearly defined from 33 to 40 feet bgs; therefore, a well was installed in this interval to capture information from this zone. The well was installed to its targeted depth of 30 to 40 feet bgs using a roto-sonic drill rig under the supervision and direction of a Maryland-licensed driller, with a four-inch by six-inch drill-rod/override-casing configuration (with temporary casing). Soil was continuously screened by a qualified Tetra Tech field geologist while drilling; lithologic logging was performed using the four-inch-diameter, 10-foot-long cores obtained from the borehole. One soil sample was collected from the 15-20 foot interval and sent to the laboratory for volatile organic compound analysis as it was associated with a PID headspace reading of 21.8 parts-per-million (ppm), which was the highest reading observed at the boring location. All pertinent information, including boring location, soil/lithology descriptions, and PID readings were recorded on a soil boring log form electronically using *gINT professional* software; these forms are in Appendix D. Log sheets for soil samples collected from monitoring well borehole drillings are also in Appendix D.

3.3.3.2 Well Construction

Groundwater monitoring well MW164B was installed on July 16, 2020, and was constructed of two-inch-diameter flush-threaded Schedule-40 polyvinyl chloride (PVC) well casing with a manufactured 10-foot-long PVC well-screen with 0.010-inch wire-wrapped openings. A sand filter-pack of washed #1 filter sand was placed around the well screen and up to at least two feet above the top of the screen. Following placement of the sand pack, the wells were pre-developed using the drill rig and a combination of surging and air lifting to settle the sand pack around the well screens.

A two-foot thick bentonite seal was installed above the sand pack using bentonite pellets and was allowed to hydrate during installation. The bentonite was vibrated in place using the sonic drill stem to promote pellet hydration and settlement. Grout, consisting of Type II Portland cement and powdered bentonite, was placed above the bentonite seal to approximately two feet below grade.

Grout was made by mixing a 94-pound bag of Type II Portland cement, nine pounds of powdered sodium bentonite, and no more than eight gallons of water per bag of cement.

A protective, locking, flush-mounted well cover was secured over the well casing to protect the well. The PVC well casing was cut below grade and made watertight by installing a locking, expandable, sanitary seal in the well casing top. Concrete was installed above the grout in the annular space between the well borehole and outer well casing, and up to approximately six-inches below grade, to provide a surface seal for the well, and to provide support for the flush-mounted cover. The flush-mounted cover was set in a two-by-two-foot square concrete pad.

The highest point on the top of the PVC well casing was marked using a file (i.e., filing a small groove in the casing). Precision Survey, LLC surveyed the marked location of the well on October 27, 2020; this information will be used to measure the depth to groundwater at the well. Well construction details were recorded in the field logbook and electronically using *gINT professional* software. The completed well construction log is included with the boring logs in Appendix D, while the professional surveying report is in Appendix E.

3.3.3.3 Well Development

The newly installed well was developed to remove fines from the well filter pack and casing, and to ensure a hydraulic connection between the well and the geologic formation. Well development was completed on July 22, 2020 (six days after well installation) to allow the grout to fully set. The well was developed by hand bailing to remove heavy sediments, then by gentle surging and purging with a submersible pump and/or air lifting to remove fines and sediment from the sand pack and well screen.

Development began at the bottom of the well screen, worked up incrementally to the top of the screened interval, and then back down to the bottom of the well. During well development, water level drawdown measurements and groundwater parameters (including pH, temperature, specific conductance, dissolved oxygen [DO], oxidation reduction potential [ORP], and turbidity) were collected every five minutes until pumping was complete. These data were recorded in the appropriate site-specific logbook and on a well development record (see Appendix D). Water quality parameters were measured using a Horiba U-52 water quality meter. Turbidity readings

were collected using a separate LaMotte 2020e turbidity meter (due to the instability of turbidity meters on multi-meters) and recorded in the field logbook and on a well development record. Development continued until groundwater ran clear and was free of suspended solids, or for a maximum of three hours, whichever occurred first. All development water was collected in United States Department of Transportation (USDOT)-approved, properly labeled, 55-gallon steel drums in a facility-approved location.

3.3.3.4 Well Sampling

On August 11, 2020, MW164B was sampled using the United States Environmental Protection Agency (USEPA) low flow purging/sampling method (USEPA, 1996; updated 2017), whereby water is pumped from the well at a low flow rate and water quality parameters are monitored and recorded during the purging. Wells were purged via a peristaltic pump using disposable polyethylene tubing, at a pumping rate of 100-300 milliliters per minute. The final adjustment of the purge rate depended on water stabilization, and how fast the well recharged (without drawdown below the initial static water level occurring).

During groundwater purging, water level drawdown measurements and groundwater parameters, including pH, temperature, specific conductance, DO, ORP, and turbidity were collected every five minutes until purging was complete. These parameters were recorded in the appropriate site-specific logbook, as well as on "Low Flow Purge Data Sheets." Water quality parameters were measured using an in-line water quality meter (Horiba U-52). Turbidity readings were collected using a separate turbidity meter (LaMotte 2020e) and were recorded in the field logbook and on low flow purge data sheets.

Purging was considered complete when the monitored water quality parameters stabilized, the well was purged dry, or the well had been purged for 90 minutes. Stabilization was considered achieved when three consecutive readings, taken at five-minute intervals were within ±0.1 standard units for pH, ±3% for specific conductance, and ±10% for ORP and turbidity.

Groundwater samples for VOCs and metals were collected first, followed by samples to be analyzed for the remaining analyses. Samples for each analytical parameter were placed in a cooler containing ice immediately upon collection and shipped to the appropriate laboratory for analysis

at the end of the day. All pertinent field logs including low flow purge data sheet, sample log sheet, and calibration records are in Appendix D.

3.3.3.5 Laboratory Analysis and Data Validation

Tetra Tech completed groundwater sampling to be collected for laboratory analysis. This included preparation of all chain-of-custody forms and required paperwork relating to sample transport. Tetra Tech used laboratories accredited in the State of Maryland (Eurofins TestAmerica Canton, Ohio and TestAmerica Chicago, Illinois) for chemical analyses, as well as Microbial Insights, (in Knoxville, Tennessee) for *dehalococcoides* (DHC) analysis. Groundwater samples collected from the newly installed well was analyzed for the following parameters:

- VOCs by SW846 Method 8260C
- Sulfate by USEPA Method 9056A
- Bromide by USEPA Method 300.0
- Nitrates by USEPA Method 4500-NO3E
- Iron/manganese by USEPA Method 6010C
- Alkalinity by USEPA Method 2320B
- Total dissolved solids by USEPA Method 2540C
- Salinity by USEPA Method 2520B
- Hardness (ions) by USEPA Method 2340C
- Dissolved gasses (methane, ethane, ethene) by Method RSK-175
- *Dehalococcoides* (DHC) bacterial species and functional genes (Microbial Insights standard method)
- Polychlorinated biphenyls (PCBs) by USEPA Method 680
- Total metals by USEPA Method 6020A
- Hexavalent chromium by USEPA Method 218.6 (TestAmerica Chicago)
- Ferrous iron (field kit)

As stated earlier, groundwater VOC and metal samples were collected first, followed by samples to be analyzed for the remaining analyses. All samples were placed in a cooler containing ice immediately upon collection (for example, VOC containers were placed in a cooler containing ice immediately after the VOC containers were filled and closed). Aqueous trip blanks were placed in cooler(s) used to store and ship VOC samples at the beginning of each sampling day; this trip blank accompanied the VOC samples throughout the day and were sent along with the samples to the laboratory. The trip blank(s) were analyzed for VOCs by SW846 Method 8260C. Samples were analyzed on a standard turnaround of 21 calendar days. Full data packages from Eurofins TestAmerica (covering soil, water screening, and monitoring well sampling data) from Microbial Insights (DHC population monitoring well data) are in Appendix F.

All data provided by the laboratory was validated for all quality assurance (QA)/quality control (QC) parameters, including accuracy, precision, completeness, and comparability, in accordance with USEPA national functional guidelines for inorganic and organic data (USEPA, 2017a and 2017b, respectively), and in accordance with the USEPA *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (USEPA, 2009a). Oversight of laboratory QA/QC was as proactive as possible to ensure valid data are produced during the sampling event. An evaluation of laboratory methodology, method compliance, and any corrective actions was also performed. Data validation reports are also in Appendix F.

3.3.4 Gamma Ray Logging

Gamma ray logging was conducted in selected existing monitoring wells within Block I and in the newly installed monitoring well (MW-164B) to obtain a detailed record of borehole lithostratigraphy. Note that 12 of the identified wells located west of Building A are not associated with the objectives of this investigation; rather, gamma logging was opportunistically conducted there to further investigate that area and to capitalize on the presence of the logging contractor. Gamma ray logging was conducted using passive instruments (scintillation meters) that count the number of natural gamma ray emissions emitted by minerals in the adjacent geologic formation. The major source of the gamma rays in the subsurface are clay particles containing the potassium

isotope. Therefore, when lowered and raised through the borehole at a constant rate, the abundance of gamma ray peaks is indicative of finer-grained formation materials, particularly silts and clays.

Gamma rays contain sufficient energy that, although somewhat attenuated, can easily pass through polyvinyl chloride (PVC) well materials; therefore, gamma ray logs are one of the few geophysical instruments that can be run within a cased and completed monitoring well. Because the well casing is of uniform vertical thickness, the degree of signal attenuation is relatively constant, thereby permitting a peak-to-peak comparison and evaluation.

Information gathered from gamma ray logs was used to further characterize and refine the stratigraphic interpretations for Block I, specifically for the area south of Building C and west of Building A. The high resolution obtained from the gamma ray logs were combined with direct observations of lithology available from the boring logs to yield a high-resolution interpretation of the subsurface lithostratigraphy and hydrogeology within Block I.

Gamma ray logging was performed by the geophysical subcontractor Earth Data Northeast, Inc. (EDN), of Exton, Pennsylvania on October 13, 2020. The gamma scintillation meter was run up and down the well's casing on a wireline extending from the EDN field vehicle, and results were viewable in real time and stored digitally on EDN software. EDN provided a hard-copy field log after each well was logged, electronic copies of the final composite field logs in portable document format (PDF), and the digital results for each well in Microsoft Excel® format. A compilation of each PDF printout of gamma readings is included as Appendix G.

All downhole equipment (scintillation meters and their cables) was decontaminated with Alconox and potable water rinse to eliminate cross-contamination between well locations. Decontamination water was containerized in a five-gallon bucket and will be combined with decontamination water generated on-site and handled following protocols described in Section 3.5.

3.4 SURVEYING

A professional field surveyor from a qualified, state-licensed, land-surveying firm (Precision Survey and Mapping, LLC) surveyed the horizontal and vertical coordinates of the newly installed well on October 27, 2020. Surveyed locations are accurate to the nearest 0.01 foot for vertical

elevations in the North American Vertical Datum 1988, and to the nearest 0.1 foot for horizontal coordinates in the North American Datum 1983. Ground elevations and top of PVC elevations at the wells were surveyed within a vertical accuracy of 0.1 foot. This information was also used to update the MRC environmental geographic information system (EGIS). The full survey report from Precision Survey and Mapping, LLC is included as Appendix E.

3.5 INVESTIGATION-DERIVED WASTE

Investigation-derived waste (IDW) consisting of all drill cuttings and soil cuttings, decontamination rinse water, purge water, tubing, and personal protective equipment (PPE) was generated during this investigation. PPE and tubing IDW were placed in trash bags which were placed in a facility trash receptacle to be disposed of as general refuse. Soil cuttings and water were collected and stored in USDOT-approved 55-gallon drums. All drums were appropriately labeled and logged on a drum inventory form. Wastes were characterized and were disposed of in accordance with applicable state and federal regulations. After generation, the drums were relocated to a drum staging area (located in Building C basement) as identified by Lockheed Martin personnel. Samples of IDW were collected on June 6, 2020 and submitted for analysis of VOCs, polychlorinated biphenyls (PCBs), toxicity characteristic leaching procedure (TCLP) metals, ignitability, and per- and poly-fluoroalkyl substances. All waste was classified as nonhazardous waste. On August 28, 2020, Tetra Tech and the authorized waste removal representative from Lockheed Martin oversaw drum removal by Clean Harbors to the designated removal facility. Signed waste manifests are included as Appendix H. The minimal decontamination water generated during the gamma ray logging in October 2020 was collected in a five-gallon bucket and combined with decontamination water waste at the site, and will be removed from the site in the same manner as described above.

3.6 SAMPLE NOMENCLATURE

Each groundwater screening sample collected from groundwater profiling borings during this investigation was identified with a unique sample identification tag consisting of the site designation (i.e., Block I), sample-type designation (i.e., GWP for groundwater profiling), followed by the transect number (1, 2, or 3) and letter (A, B, C…) for the transect location,

followed by the depth of the sample. For example, a groundwater screening sample collected at location A in transect 1, at a depth of 20 to 25 feet bgs, was identified as "I-GWP-1A-20-25."

Each groundwater sample collected during this investigation was identified with a unique sample identification tag consisting of the site designation (i.e., MRC for Middle River Complex), followed by the sample-type designation (i.e., MW for monitoring well) and well location number (i.e., 164B), followed by the date of the sample. For example, a groundwater sample collected at well location 164B on August 11, 2020 was identified as "MRC-MW164B-081120."

The lone soil sample collected during the investigation was identified with a unique sample identification tag consisting of the sample-type designation (i.e., SB for soil boring), followed by the well boring number, followed by the depth of the sample.

Trip blanks for groundwater samples sent to the laboratory were identified as "TB-mm/dd/yyyy" and were sent with each cooler containing samples to be analyzed for VOCs.

SECTION 4
INVESTIGATION RESULTS

4.1 SOIL BORING INSTALLATION

Two soil borings, I-SB-315 and I-SB-316, were drilled to a depth of 40 feet below ground surface (bgs) in Block I south of Building C to provide lithology information which was used to determine approximate target depths for groundwater profiling (Figure 4-1). Boring I-SB-315, located on the western edge of the project area, consisted of sandy permeable lithology at 3–5.5 feet bgs, 23–29 feet bgs, and 30–32 feet bgs. Lithology observed in the same boring at 5.5–23 feet bgs and at 32-–40 feet bgs was impermeable clay. Boring I-SB-316, on the eastern edge of the target area (west of the ramp), consisted of permeable zones at 3–5.5 feet bgs, 7–23 feet bgs, and 25-38 feet bgs, while impermeable clay-rich zones were observed at 23-25 feet bgs and 38-40 feet bgs. No soil samples were collected from I-SB-315 or I-SB-316 for laboratory chemical analysis.

The zones of higher permeability were targeted for discrete groundwater sampling and field screening of trichloroethene to develop a high-resolution vertical profile of the chemical stratigraphy at each boring location.

4.2 GROUNDWATER PROFILING

Discrete samples for vertical groundwater profiling were obtained using a Geoprobe rig at borings 1A through 1D, via low-flow pumping through a stainless-steel probe fitted with a one-foot screen. Boring locations 1E and 1F were located under the ramp at the eastern edge of the project area. Probe refusal occurred 2 feet bgs at location 1E, and at 18 feet bgs at location 1F; neither boring yielded water. Aqueous samples from borings 1A through 1D were analyzed in the field by Tetra Tech using a calibrated FROG 5000™ gas chromatograph calibrated to trichloroethene (TCE). For quality control, a subset of the field samples (three samples) was submitted to an offsite laboratory (Eurofins TestAmerica Canton, Ohio) for volatile organic compounds (VOCs) analysis.

Trichloroethene concentrations detected in the field and analyzed in the laboratory during groundwater profiling activities are summarized in Table 4-1 and Table 4-2 and are illustrated in cross-section on Figure 4-2. The individual gas chromatograms generated for each FROG 5000™ sample are included in Appendix C. Groundwater samples were successfully obtained from most intervals identified as zones of higher permeability. Samples could not be obtained from some zones of marginal permeability as water was not available to be collected.

Table 4-1 summarizes field results obtained during groundwater profiling (GWP), TCE results from field screening using the FROG 5000™, and laboratory results for TCE collected at specific intervals for quality control (QC). As shown in Table 4-1, the highest TCE screening concentrations (18.70 micrograms per liter [µg/L], 13.83 µg/L, and 10.58 µg/L) detected via FROG 5000™ were observed at the following borings and depths, respectively: GWP-1C (30-35 feet bgs), GWP-1A (20-25 ft bgs), and GWP-1D (30-35 feet bgs).

Table 4-2 summarizes the VOCs detected in the three groundwater samples collected as QC duplicate samples and sent to the laboratory for full VOC analysis; these samples were collected from three borings at groundwater intervals in which TCE was detected during field screening (via FROG 5000™), and include locations GWP-1B (collected at 25-30 feet bgs), GWP-1C (collected at 25-30 feet bgs), and GWP-1D (collected at 30-35 feet bgs). TCE was detected in all three QC samples, at concentrations of 74 µg/L (GWP-1D), 19 µg/L (GWP-1B), and 8.2 µg/L (GWP-1C).

Eleven other VOCs were detected at low concentrations in the laboratory-analyzed GWP samples, notably including *cis*-1,2-dichloroethene (*cis*-1,2-DCE), benzene, and toluene. Benzene and *cis*-1,2-DCE were detected in all three samples, and toluene was detected in two of three samples (GWP-1B and GWP-1D).

Also shown on Tables 4-1 and 4-2, all groundwater detections were compared to federal maximum contaminant levels (MCLs) for drinking water (USEPA, 2009b), noting that these samples are from groundwater not used as a drinking water source. Maryland groundwater cleanup standards (MDE, 2018) are also used for comparison. TCE concentrations in five field groundwater screening samples and in all three laboratory analyzed samples, exceed the drinking water

maximum concentration level (MCL) and Maryland groundwater cleanup standard (both are 5 µg/L).

Groundwater profiling indicated that the concentrations of trichloroethene are present in the area directly south of Building C, and supported monitoring well installation to evaluate groundwater chemical concentrations.

GWP sampling results prompted the field team to install well MW164B targeted in-between GWP locations 1C and 1D, located on the eastern portion of the project area and west of the ramp.

4.3 MONITORING WELL DRILLING AND INSTALLATION

A continuous soil core was obtained from the ground surface to 40 feet below ground surface (bgs) at the monitoring well location for MRC-MW164. The completed boring log as well as the well construction details are in Appendix D.

As summarized on Table 4-3, one soil sample was collected and analysed for VOCs from the MW164B well installation boring at a depth of 15-20 feet bgs based on an elevated PID reading of 21.8 ppm. Trichloroethene was the only VOC detected, at a concentration of 50 micrograms per kilogram (µg/kg). The TCE concentration detected was well below the Maryland residential soil screening criteria of 410 µg/kg (MDE, 2018).

The lithology described in the boring log of well MRC-MW164 was not consistent with the boring (I-SB-316) drilled in the same area. I-SB-316 consisted of permeable sandy layers at 6.5-23 feet bgs and at 33-35 feet bgs, with impermeable clay-rich layers at 23-25 feet bgs and 35-40 feet bgs. MW-164 was drilled approximately 5 feet to the west of I-SB-316 and consisted of a varying lithology including a thick clay-rich impermeable zone starting at 14 feet bgs and continuing to 33 feet bgs. This impermeable zone hindered the proposed installation of a shallow monitoring well in this boring from 15 feet bgs to 25 feet bgs. The sandy permeable zone in the boring was from 33 to 40 feet bgs, which allowed for the B-zone well to be installed and screened from 30-40 feet bgs.

4.4 GROUNDWATER SAMPLING

The newly installed monitoring well in Block I was sampled for multiple parameters (see Section 3.3.3.5). The analytical data are tabulated and reported in Table 4-4 and volatile organic compound concentrations are illustrated in the tag map included as Figure 4-3. The complete laboratory data packages and data validation reports are in Appendix F. Data validation procedures were completed for all available data packages. Hexavalent chromium was sampled and arrived at the laboratory within hold time requirements of 24 hours; the sample was preserved upon receipt by the laboratory. The non-detection of 2-chloroethyl vinyl ether from two data packages were qualified as rejected due to the laboratory narrative indicating the sample was acid preserved.

4.4.1 Volatile Organic Compound Results

Four volatile organic compounds were detected in the newly installed monitoring well MW-164B in Block I, including a trichloroethene (TCE) concentration (9.9 µg/L) above the screening level (5 µg/L). Benzene (4.6 µg/L), cis-1,2-dichloroethene (1.7 µg/L), and isopropylbenzene (0.52 µg/L) were also detected at MW164B below their respective screening levels.

Groundwater from MW164B was also sampled and detected for volatile gases via method RSK-175; three volatile gases were detected, with concentrations of methane (11 µg/L), ethane (1.2 µg/L), and ethene (0.83 µg/L). The presence of methane may be, but is not necessarily, indicative of reductive dechlorination occurring in groundwater, as degradation of any organic matter often leads to methane generation. Therefore, the elevated methane detection observed could be an indication that bioactivity is occurring at this well location.

VOCs samples collected during this investigation were compared to the federal maximum concentration levels (MCLs) for drinking water, noting that these samples are from groundwater and not used as a drinking water source. TCE exceeded its respective federal drinking water MCL (USEPA, 2009b) and Maryland Groundwater Cleanup Standard (MDE, 2018), both of which are 5 µg/L, with a groundwater concentration of 9.9 µg/L. All other detected VOCs were below their respective federal drinking water MCLs.

TCE was also detected during groundwater sampling conducted at intermediate monitoring wells in 2020 (AECOM, 2020) near the newly installed well (MW164B) south of Building C. MW164B

is upgradient of MW92C, MW60B, and MW76B, and appears to confirm TCE contours in the area, because the 9.9 µg/L concentration at MW164B, is located near the inferred 10 µg/L logarithmic concentration contour line for TCE (Figure 4-3).

4.4.2 Polychlorinated Biphenyl Results

MW164B was sampled for polychlorinated biphenyls (PCBs) via USEPA Method 680, but all results were nondetect. PCB samples were not collected at monitoring wells near MW164B during the 2020 groundwater sampling event (AECOM, 2020), so no comparison/trend analysis can be conducted.

4.4.3 Metals Results

Seventeen total metals were detected from the newly installed monitoring well MW164B, as summarized in Table 4-4. Detected metals were compared to federal drinking water MCLs (USEPA, 2009b), noting that these samples are from groundwater not used as a drinking water source, and Maryland groundwater cleanup standards (MDE, 2018). All metals detections were lower than their respective drinking water MCLs, except for iron (24,000 µg/L), manganese (2,700 µg/L), and nickel (42 µg/L); their respective MCLs are 1,400 µg/L, 43 µg/L, and 39 µg/L. Manganese and nickel were also detected at nearby well MW60B during the 2020 annual groundwater sampling event, at concentrations of 2,300 µg/L and 46 µg/L, respectively. MW60B is located downgradient of MW164B and south of Building C (AECOM, 2020).

Hexavalent chromium was sampled from MW164B but yielded nondetect results.

4.4.4 Microbial DHC Results

MW164B was also sampled (but was nondetect) for microbial *Dehalococcoides* (DHC) and functional genes. DHC gene sampling detects bacterial species that are capable of a complete degradation of chlorinated ethenes (PCE, TCE, DCE and VC) to ethene. Low levels of TCE were detected at MW164B. DHC are usually associated with elevated levels of chlorinated VOCs such as TCE and thus the result that DHC were not detected in this location appear reasonable.

4.4.5 Miscellaneous Results

As shown on Table 4-4, groundwater from MW164B was also sampled at the laboratory for alkalinity (98 m/L), bromide (0.21 mg/L), hardness as calcium carbonate (96 mg/L), specific conductance (250 umhos/cm), sulfate (9 mg/L), and total dissolved solids (120 mg/L). These parameters are consistent with similar analysis of wells in this area of the MRC.

4.5 GAMMA RAY LOGGING RESULTS

Gamma ray logging was performed by the geophysical subcontractor Earth Data Northeast, Inc. (EDN), of Exton, Pennsylvania on October 13, 2020 at 21 monitoring wells (Table 4-5, Figure 4-4). Nine monitoring wells were logged in Block I south of Building C, while 12 wells were logged in Blocks G, H, and I, but west of Building A. The gamma scintillation meter was run up and down the well's casing on a wireline extending from the EDN field vehicle, and results were viewable in real time and stored digitally on EDN software. EDN provided a hard-copy field log after each well was logged, electronic copies of the final composite field logs in portable document format (PDF), and the digital results for each well in Microsoft Excel® format. A compilation of each PDF printout of gamma readings is included as Appendix G. Gamma logs were utilized to support the updated interpretation of the conceptual site model (CSM), as described below.

4.6 UPDATE TO THE CONCEPTUAL SITE MODEL

The generalized conceptual site model (CSM) upon which this investigation was scoped is presented in Section 2. As discussed, one objective of the investigation was to integrate the newly acquired hydrogeological information with the historical data to develop a revised CSM within the framework of an environmental sequence stratigraphy (ESS) model that is similar to the model that has been developed immediately to the south in Blocks E and F, where chlorinated benzenes and chlorinated solvents are also present in groundwater.

The primary goal of reinterpreting the project area hydrogeology within the ESS framework is to reconstruct the local paleoenvironment, including the lateral (facies) changes within the depositional sequences (chiefly highstand or lowstand), and to vertically stack sequential reconstructions to identify and map the three-dimensional distribution and continuity of the

primary aquifers (the fluvial paleochannels) at the site. These paleochannels often created incised valleys that filled with coarser and well-sorted fluvial sediment, forming highly transmissive aquifers that represent the current preferred groundwater migration pathways at the site.

4.6.1 General Geology

The project area is underlain by the unconsolidated sediments of the Patapsco and Arundel Formations that overall represent a thick sequence of fluvial-deltaic sedimentary deposits. The Patapsco Formation is composed primarily of plastic clays, silts, and fine- to medium-grained sands of variable thickness that are mixed or interbedded to varying degrees. The underlying Arundel Clay is chiefly composed of dark gray and maroon lignitic clay with thin to significantly thicker intervals of silt and fine- to coarse-grained sand. Based on the boring log for monitoring well MRC-MW94D, which is located near the border of Block C and Block E (Figure 4-1), the top of the Arundel Clay in the project area occurs at an elevation of approximately 0 feet relative mean sea level, roughly 30 to 40 feet below the ground surface.

4.6.2 Groundwater Conditions and TCE Plume

The project area south of Building C lies between two investigational site areas (Blocks E/F to the south and the area west of Building A in Block I to the west) where hydrogeologic units have been identified and integrated into an ESS framework. Figure 4-2, and Figures 4-5 through 4-7 show cross-sections of area-specific ESS interpretations south of Building C. The general footprint of the TCE plume within the study area and within the northern portion of Block E is illustrated on Figure 4-8; this figure vertically collapses the plume into one plane to define its total lateral extent and does not capture its three-dimensional distribution. This figure indicates:

- The plume is elongated and narrow, and is oriented and migrates in a generally northwest-to-southeast direction.
- The highest concentrations of TCE (> 2,000µg/L) are detected at monitoring wells MW60B (2,320 µg/L).
- The plume extends into the northern portion of Block E and does not appear to significantly dissipate in the downgradient direction, as a TCE concentration of 968 µg/L was detected at monitoring well MW79B, which is nearly 500 feet downgradient from MW60B.

- The plume exhibits a chemical stratigraphy, as wells completed at different depths within the same geographic location contain varying concentrations of TCE. In general, the TCE concentrations increase with depth with increasing distance downgradient of Building C.

The results of the high-resolution site characterization (HRSC) investigation conducted immediately south of Building C is presented in cross-section A-A′ (Figure 4-2). The HRSC, developed using groundwater profiling (GWP) and two soil borings, indicates that the lateral and vertical distributions of the primary sand-prone intervals are highly heterogeneous. The cross-sectional geometries illustrate how sand-prone intervals can be relatively narrow, how they do not necessarily consist entirely of sand, and how they can contain discrete zones of low hydraulic conductivity within zones or sequences of overall higher conductivity. Conclusions drawn from the HRSC include:

- In general, the dominant lithology is clay.
- The amount of sand varies both laterally and vertically in the eastern half of the section, but no thick or laterally continuous sand beds were encountered.
- Saturated conditions were encountered as shallow as 15 feet bgs in sand encountered in soil boring SB-316. However, clay encountered at similar depths in adjacent borings was dry, indicating that the sand is the preferential pathway for groundwater occurrence and migration.
- TCE concentrations detected across the A-A′ section from both field and laboratory samples are generally similar (<100 µg/L) and two orders of magnitude lower than those detected immediately downgradient.
- The soil sample taken from a depth of 15–20 feet bgs in boring MW164B contained TCE at 50 µg/kg, which is consistent with the concentrations detected in the groundwater.
- Some TCE appears to originate along the immediate southern side or beneath the footprint of Building C, but the concentrations do not suggest that the primary source of the TCE plume in the project area lies beneath the building.

4.6.3 ESS Framework for South of Building C and Northern Portion of Block E

The hydrogeological and chemical data obtained during this current investigation and past investigations were interpreted using ESS theory and methods for this project area. Hydrogeologic units were identified and mapped, and their extent on the project area's TCE plume were assessed. This interpretation includes the area south of Building C only, and the lateral and vertical extent of the stratigraphic units will be defined only as they exist within the project area. Where possible, the stratigraphic equivalence of the Block I units with those previously defined in Blocks E/F and west of Building A are identified or discussed.

The ESS framework was developed through the construction of four hydrogeologic cross-sections that traverse through the project area (Figures 4-2, and 4-5 through 4-7). The passive gamma geophysical logs, where available, are posted next to the boring log. The hydraulic head and detected TCE concentrations for each well, as reported for the 2020 annual sampling event (AECOM, 2020), are posted next to the well screens.

Cross-section A-A′ (Figure 4-2) extends along the southern boundary of Building C and includes data obtained from the HRSC GWP program, soil borings, and the installation of new monitoring well MW-164B. Cross-section B-B′ (Figure 4-5) extends from Building C in Block I to monitoring well MW-79B in Block E, and represents a northwest-to-southwest section that is oriented along the axis of the TCE plume. Cross-section C-C′ (Figure 4-6) is a southwest-to-northeast section that is oriented perpendicular to the TCE plume. Cross-section D-D′ (Figure 4-7) is a southwest-to-northeast section that is oriented perpendicular to the TCE plume within the northern portion of Block E.

Three hydrogeologic units have been identified through the construction of the hydrogeologic cross-sections. These consist of two units within the Patapsco Formation (hydrogeologic units C-1 and C-2) that are separated by a sequence boundary (SQB-C1) and one hydrogeologic unit within the Arundel Clay (hydrogeologic unit C-3) that is separated from the lower Patapsco Formation by an older sequence boundary (SQB-C2). The following ESS observations are noted through the construction of these cross-sections:

- The subsurface area immediately adjacent to Building C (cross-section A-A′) is lithologically characterized by clays and clayey sediments to the west that become somewhat coarser-grained or sandier to the east. Although the lithologic information is limited (no lithologies were available for the GWP points), the sandier units overall are interpreted to be laterally discontinuous. For example, a saturated sand was encountered in soil boring SB-316 between the elevations of zero to ten feet above mean sea level. In the adjacent GWP point 1D, no water was obtained from the same vertical interval, which implies that the sand is not present in the GWP point. Also, the saturated sand encountered at the base of MW-164B does not have a laterally equivalent unit.

  — The two eastern-most GWP points (1E and 1F) could not be completed to total depth due to logistical constraints. GWP-1E encountered refusal due to construction materials just below the surface. GWP-1F encountered refusal at 18 feet because the smaller drilling rig required at this location could not penetrate what was believed to be a tough clay, which supports the observation that the sand encountered in SB-316 is not laterally continuous.

- Similar to the conditions noted adjacent to the building, the area just to the south (near MW-92C) is lithologically characterized by clays and finer-grained sediments that also include interbedded and laterally discontinuous sands. Sand and coarser-grained deposits become thicker and more widespread in the area south of the location of MW92C.

- Hydrogeologic unit C-1 is mostly characterized by a high gamma log response that displays a stacked or aggrading signal. Generally, this response in a fluvial-deltaic setting is indicative of a low-energy depositional environment such as a floodplain.

- In the southern (downgradient) portion of (cross-section B-B′) and in the eastern portion of downgradient section D-D′, hydrogeologic unit C-1 contains thick sand displaying "blocky" gamma log signatures that are suggestive of high-energy, paleochannel depositional conditions. The sand occurs at the base of unit C-1 and just above sequence boundary SQB-C1, which is consistent with ESS theory. The sand is best developed and evident at borehole locations MW48A and MW79B.

- Although not consistent or well developed, hydrogeologic unit C-2 is generally characterized by a "fining-upward" gamma log response that reflects a "coarsening-upward" distribution of sediment grain size. This signal is typically indicative of a pro-grading, delta-front environment.

- The overall lithology within hydrogeologic unit C-2 is similar to that of unit C-1, with clay dominating to the north and west of the project area, and sand increasing in abundance to the south and east. Thick sand displaying "blocky" gamma log signatures is strongly

suggestive that high-energy, paleochannel depositional conditions occurs at the base of hydrogeologic unit C-2 and just above sequence boundary SQB-C2. The sand is best developed and evident at borehole locations MW27A/B/C, MW79B, and MW102A/B (cross-sections B-B′ and D-D′), but it is also present and well developed near Building C and the former drum storage area, as noted at locations MW164B and MW60A/B (section B-B′).

- Hydrogeologic unit C-3 (the Arundel Clay) is encountered only in the deepest borings within the project area. The unit is characterized by a thick sequence of stiff, black, organic-rich clay. In the southern, most downgradient portion of the project area (at MW27C and MW94D), the unit contains several sequences of thick sand displaying blocky gamma log signatures and representing significant high-energy channeling events. Note that the stratigraphic equivalence of these paleochannels was not evaluated due to their limited presence and the distance between the monitoring wells.

The following hydraulic observations were noted through the construction of the cross-sections:

- The hydraulic head elevation in newly installed monitoring well (MW164B) appears to be abnormally high. The static water level in the well is near the top of casing, even though saturated conditions were not encountered until the bottom of the well boring, at depths of about 30–40 feet bgs. The reason(s) for this elevated head reading is not known; conditions in this well will continue to be monitored and evaluated during future sampling events. The hydraulic head elevation suggests that the sand may be recharged hydraulically upgradient (north) of the well location (potentially under Building C) and that the building slab is creating locally confining conditions for this sand unit.

- The hydraulic head elevations within hydrogeologic units C-1 and C-2 at well cluster locations in the northern and western portions of the project area are similar and indicate that the units are hydraulically interconnected and likely function as a common hydrogeologic unit in this area (cross-sections B-B′ and C-C′). The hydraulic gradient is low and is mostly oriented vertically downward (for example, MW60A/B, MW76A/B, MW81A/B, MW101A/B).

- The vertical hydraulic gradient between hydrogeologic units C-1 and C-2 increases in the southeastern portion of the project area, where the presence of the paleochannels (as revealed by the presence of sands and silts) is best defined. The lithologic character of the clays and their ability to function as an aquitard is not significantly different throughout the project area, so it is hypothesized that the gradients result from the lower hydraulic heads created within the highly transmissive paleochannels present within both units (for example, at MW102A/B and MW27A/B/C). Note that at monitoring well cluster MW27,

groundwater flow converges into hydrogeologic unit C-2 from both above (unit C-1) and below (unit C-3), suggesting that the unit C-2 sand at this location is highly transmissive.

The following chemical (TCE plume) observations were noted through the construction of the cross-sections:

- The TCE concentrations detected adjacent to Building C are relatively low, with the highest detection of 74 ug/L obtained from GWP-1D.
- The overall highest TCE concentrations occur south of Building C to the east of the drum storage facility and (with the exception of MW-48A) are associated with hydrogeologic unit C-2, even near a possible source area (cross-section B-B′, monitoring well location MW60A/B). This is interpreted to reflect the interconnectedness of hydrogeologic units C-1 and C-2 and the downward vertical hydraulic gradient.
- The lateral extent of the plume is restricted, which is interpreted to reflect the highly channelized nature of the plume's migration pathway.

4.6.4 Conclusions

The ESS investigation for the area south of Building C has detected and defined the presence and orientation of sand-prone paleochannels within the dominantly clay-rich subsurface environment. The transmissive paleochannels serve as primary migration pathways for groundwater migration, and consequently, the TCE groundwater plume. The geometry of the sand-prone paleochannels results in the elongated length and narrow width of the TCE plume.

The highest TCE concentrations are found within both hydrogeologic unit C-1 (2,160 ug/L at MW-48A and unit C-2 (2,320 ug/L at MW-60B. Overall, the highest TCE groundwater concentrations, and the presumably highest TCE mass concentrations, occur mostly within hydrogeologic unit C-2. The hydraulic heads posted on the cross-sections indicate that groundwater flow also converges into hydrogeologic unit C-2 from both above (hydrogeologic zone C-1) and potentially in isolated areas from below (hydrogeologic zone C-3), if there is a high presence of interbedded sands such as those present at well cluster location MW-27). Although the lateral distribution of hydraulic head within the units was not mapped or contoured (because many of the wells are not yet tied into the ESS framework), it is likely that groundwater flow also converges laterally into the sand-prone paleochannels.

The HRSC did not identify high concentrations of TCE flowing downgradient from beneath the footprint of Building C. Although a migration pathway (a paleochannel) was possibly missed, the limited lateral and vertical extent of permeable sand immediately south of the building supports the conclusion that this pathway is not present. If true, this indicates that a relatively minor source of TCE exists within the footprint of Building C, and a second, more significant source of TCE exists within the vicinity of MW-60A/B and MW-48A.

It is possible that the downgradient extent of the TCE plume has not been fully defined, as the most downgradient plume well (MW-79B in Block E) contains TCE at 968 µg/L, and groundwater in that area is migrating within a well-defined channel in hydrogeologic unit C-2.

SECTION 5
REFERENCES

AECOM Technical Services, Inc. (AECOM), 2020. *2020 Groundwater Monitoring Report*, Lockheed Martin Corporation, Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland. Prepared by AECOM, Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. July.

Agency for Toxic Substances and Disease Registry (ATSDR), 2014. *Toxicological Profile for Trichlorobenzenes.* U.S. Public Health Service. Atlanta, Georgia. October.

Code of Maryland Regulations (COMAR) 26.04.04.11, 2016. Well Construction. July.

Earth Tech, Inc. (Earth Tech), 2003. *Phase I Environmental Site Assessment Report. Lockheed Martin Middle River Complex. Revision 1.* Report prepared by Earth Tech, Inc., Trevose, Pennsylvania for Lockheed Martin Corporation, Bethesda, Maryland. May.

Earth Tech, Inc. (Earth Tech), 2008. *Hazardous Materials Survey Report, Lockheed Martin—Middle River Facility, Baltimore, Maryland*. May.

LMC Properties, Inc. (LMCPI), 2020. *Environment, Safety, and Health (ESH) Contractor Handbook,* Revision 6. June.

State of Maryland Department of the Environment (MDE), 2018. Cleanup Standards for Soil and Groundwater, Interim Final Guidance Update No. 3, October 2018. https://mde.state.md.us/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/MDE%20Soil%20and%20Groundwater%20Cleanup%20Standards%2010-2018%20Interim%20Final%20Update%203-2.pdf

Tenbus, Frederick J., and W.B. Fleck, 2001. Simulation of ground-water flow and transport of chlorinated hydrocarbons at Graces Quarters, Aberdeen Proving Ground, Maryland. United States Geological Survey Water-Resources Investigations Report 2001-4106. https://doi.org/10.3133/wri014106.

Tetra Tech, Inc. (Tetra Tech), 2004. *Historical Research Report. Lockheed Martin Middle River Complex.* Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. August.

Tetra Tech, Inc. (Tetra Tech), 2005. *Final Report Phase II Site Investigations of Exterior Areas Lockheed Martin Middle River Complex.* Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, MD. Prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. April.

Tetra Tech, Inc. (Tetra Tech), 2006. *Site Characterization Report.* Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, MD. Prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. May.

Tetra Tech, Inc. (Tetra Tech), 2008. *Historical Data Review for Block I. Lockheed Martin Middle River Complex.* Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. August.

Tetra Tech, Inc. (Tetra Tech), 2009. *Block I Phase II Site Investigation Report, Lockheed Martin Middle River Complex.* Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. July.

Tetra Tech, Inc. (Tetra Tech), 2011. *Supplemental Block I Characterization Report, Lockheed Martin Middle River Complex.* Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. June.

Tetra Tech, Inc. (Tetra Tech), 2012. *Supplemental Block I Source Investigation Report, Middle River Complex*, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland. Prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. November.

Tetra Tech, Inc. (Tetra Tech), 2019. *Groundwater Response Action Completion Report for Groundwater at Block I*, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland. Prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. September.

Tetra Tech, Inc. (Tetra Tech), 2020. *Groundwater Investigation South of Building C Work Plan, Middle River Complex*, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland. Prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. March.

United States Environmental Protection Agency (USEPA), 1996. *Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*, EQASOP-GW4. Updated September 2017.

United States Environmental Protection Agency (USEPA), 2009a. *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*, EPA-540-R-08-005, January 2009.

United States Environmental Protection Agency (USEPA), 2009b. *National Primary Drinking Water Regulation Table*, EPA-816-F-09-004, May 2009. https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulation-table

United States Environmental Protection Agency (USEPA), 2017a. *National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA-540-R-2017-001.

United States Environmental Protection Agency (USEPA), 2017b. *National Functional Guidelines for Organic Superfund Methods Data Review*, EPA-540-R-2017-002.

FIGURES

Figure 1-1 Site Location Map, Block I, Blocks E/F, Middle River Complex

Figure 2-1 Groundwater Well Locations South of Building C

Figure 3-1 Soil Boring, Groundwater Profiling, and Monitoring Well Locations, Block I

Figure 4-1 Middle River Complex Cross Section Locations

Figure 4-2 Groundwater Profiling, Soil Boring, and Monitoring Well Locations with Trichloroethene Concentrations, South of Building C, Cross Section A-A′

Figure 4-3 Volatile Organic Compound Groundwater Sampling Results, MW-164B, Block I

Figure 4-4 Groundwater Wells Selected for Gamma Ray Logging

Figure 4-5 Area-Specific Preliminary Environmental Site Stratigraphic (ESS) Interpretation, South of Building C, Cross Section B-B′

Figure 4-6 Area-Specific Preliminary Environmental Site Stratigraphic (ESS) Interpretation, South of Building C, Cross Section C-C′

Figure 4-7 Area-Specific Preliminary Environmental Site Stratigraphic (ESS) Interpretation, South of Building C, Cross Section D-D′

Figure 4-8 General Extent of TCE Plume South of Building C



2014 aerial photograph provided by U.S. Geological Survey.

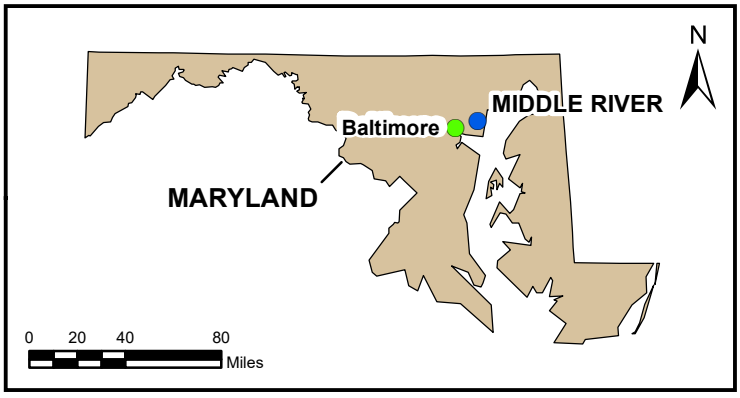

FIGURE 1-1

SITE LOCATION MAP, BLOCKS E/F
MIDDLE RIVER COMPLEX

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
01/10/20	PFO

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_sitemap_blocks_ef_dec2019.mxd)
01/10/20 -- PFO

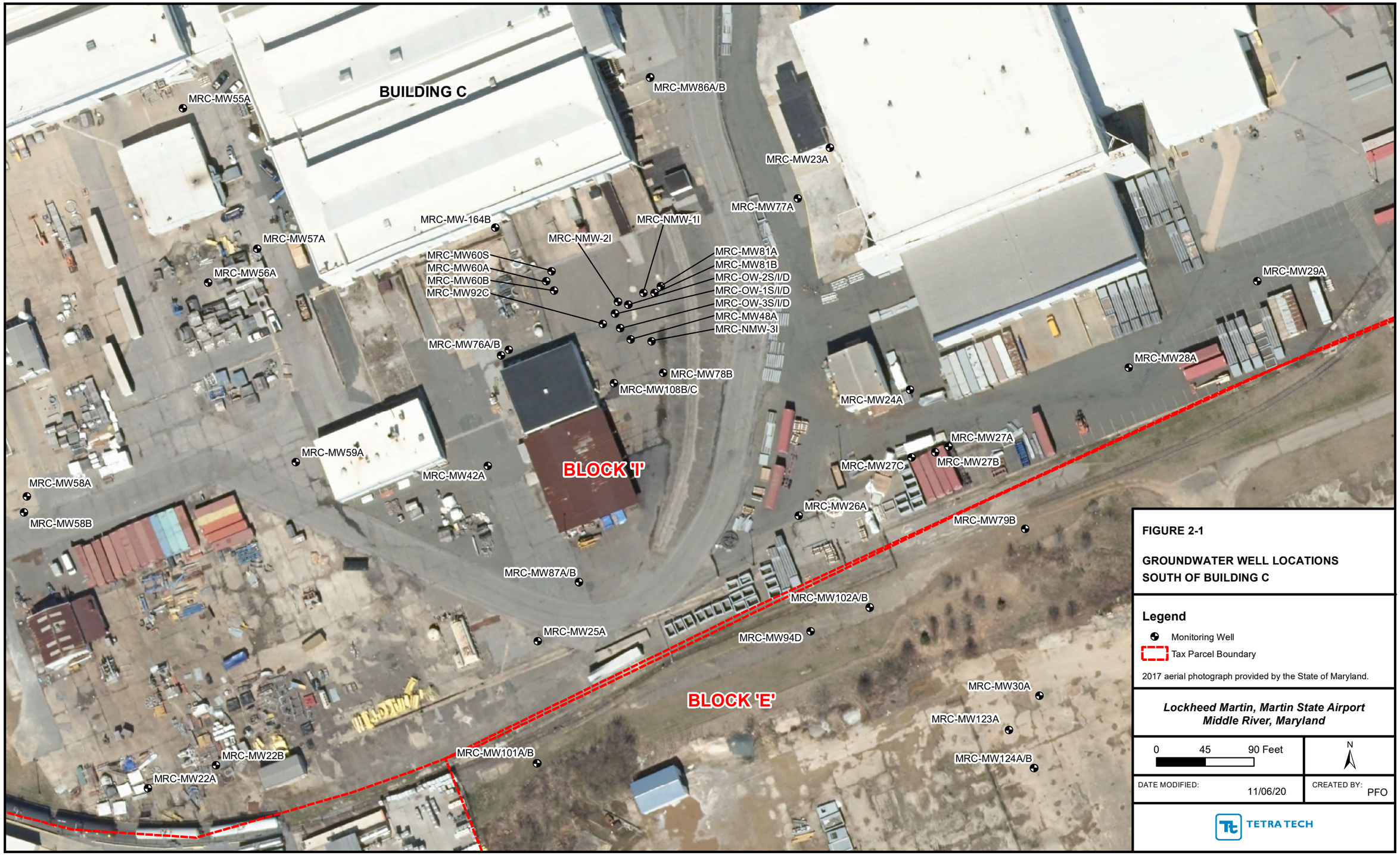

FIGURE 2-1

GROUNDWATER WELL LOCATIONS SOUTH OF BUILDING C

Legend

- Monitoring Well
- Tax Parcel Boundary

2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 45 90 Feet

N

DATE MODIFIED: 11/06/20

CREATED BY: PFO

TETRA TECH

Map Document: GER (K:\Patrick\GIS\Middle River\MapDocs\MXDs\south_building_c_gw_locs_jul2020.mxd)
11/06/20 -- PFO



FIGURE 3-1

SOIL BORING, GROUNDWATER PROFILING, AND MONITORING WELL LOCATIONS, SOUTH OF BUILDING C

Legend

- Groundwater Screening Wells with DPT
- New Monitoring Well
- Soil Boring Location for Lithology to 40'
- Existing Monitoring Well
- Existing Monitoring Well - Analyte Not Detected
- Inferred Logarithmic TCE Concentration Contour
- Regular Logarithmic TCE Concentration Contour
- Response Action Area
- Former Vertical Launch Tower
- Tax Parcel Boundary

DPT = Direct Push Technology
TCE = Trichloroethene
Concentrations given in micrograms per liter (µg/L)
Green monitoring well label denotes analyte is not detected

2017 aerial photograph provided by the State of Maryland. TCE concentration contours and data collected in April, 2020 by AECOM.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 50 100 Feet

DATE MODIFIED: 12/07/20

CREATED BY: PFO

TETRA TECH

Map Document: GER (K:\Patrick\GIS\Middle River\MapDocs\MXDs\block_i_gw_sb_locs_a_zone_oct2020.mxd)
12/07/20 -- PFO

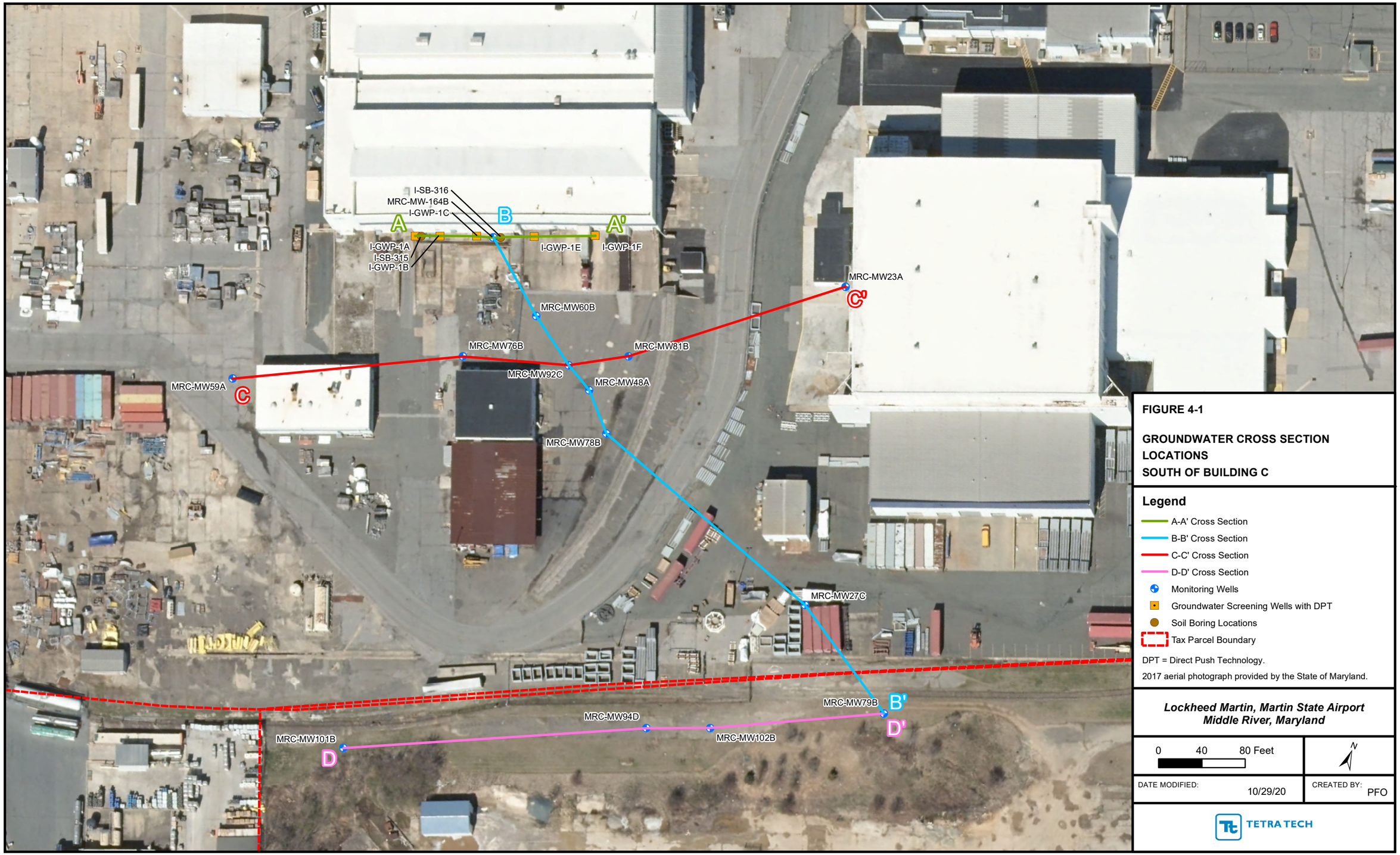

FIGURE 4-1

GROUNDWATER CROSS SECTION LOCATIONS SOUTH OF BUILDING C

Legend

- A-A' Cross Section
- B-B' Cross Section
- C-C' Cross Section
- D-D' Cross Section
- Monitoring Wells
- Groundwater Screening Wells with DPT
- Soil Boring Locations
- Tax Parcel Boundary

DPT = Direct Push Technology.

2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 40 80 Feet

DATE MODIFIED: 10/29/20

CREATED BY: PFO

TETRA TECH

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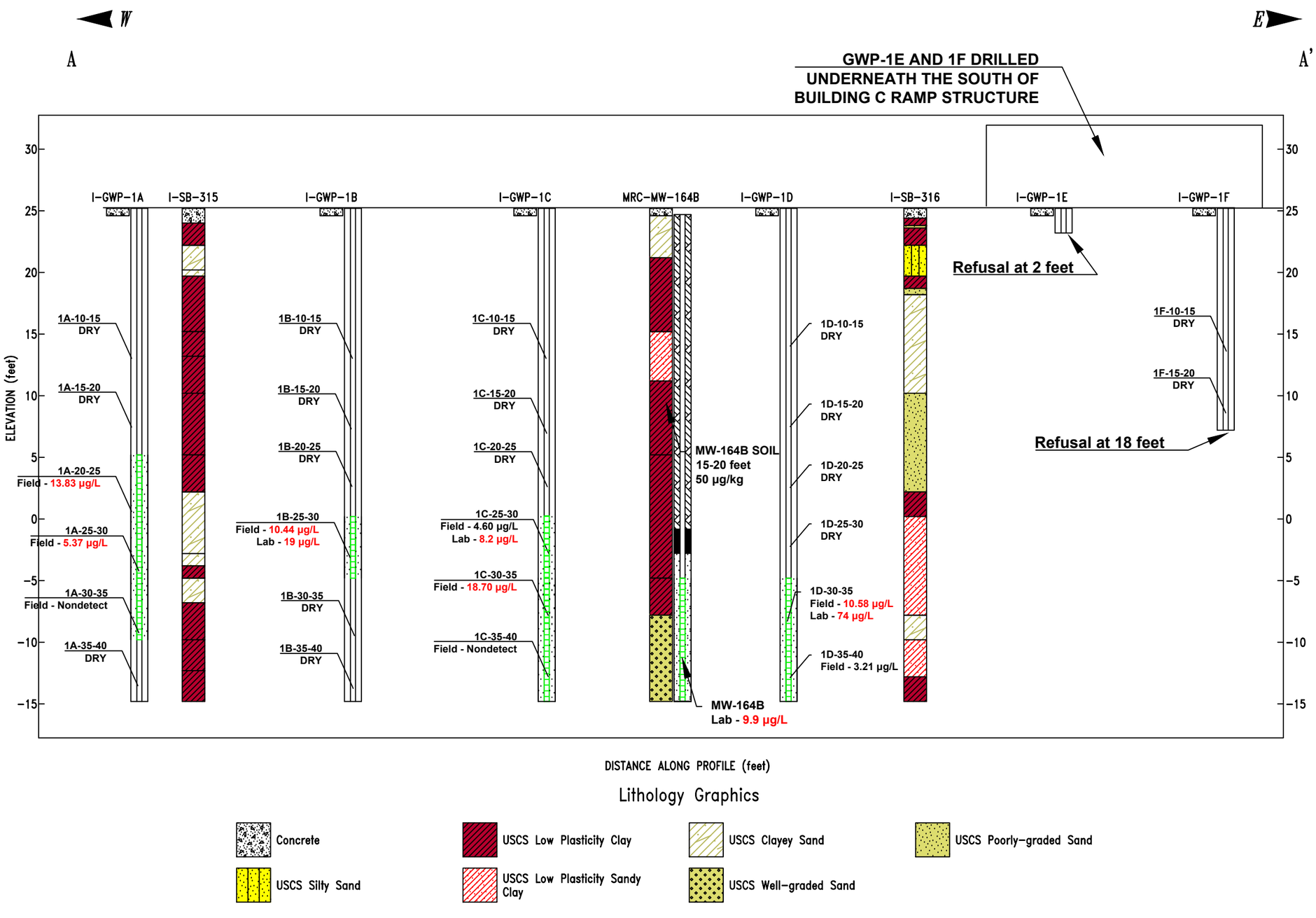

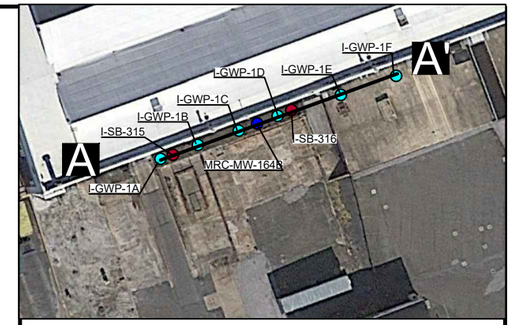

Figure 4-2
Groundwater Profiling, Soil Boring, and Monitoring Well Locations with Tricholoroethene Groundwater Concentrations,
South of Building C: Cross Section A-A'

Legend:

MRC-MW-43A
Borehole Number
Borehole Lithology
Well Construction

9.9 µg/L 2020 Field/Laboratory Trichloroethene (TCE) groundwater concentration (micrograms per liter)

GWP - temporary groundwater profiling boring

MW - monitoring well **SB - soil boring**

µg/kg - microgram per kilogram

Field concentrations analyzed with a Frog5000 portable gas chromatograph calibrated for TCE

Duplicate samples were sent for laboratory analysis by Eurofins TestAmerica, North Canton, Ohio at three locations

Concentrations in RED indicate an exceedance of the Federal/MDE MCL for groundwater of 5 µg/L

0 19
Horizontal Scale (feet)

Vertical Exaggeration: 2x

South of Building C Investigation
Middle River, Maryland

TETRA TECH
Tetra Tech Inc.
Germantown, MD, 20874

JOB NUMBER	CREATED BY / DATE
112IC09011	JAM / 11-2-2020

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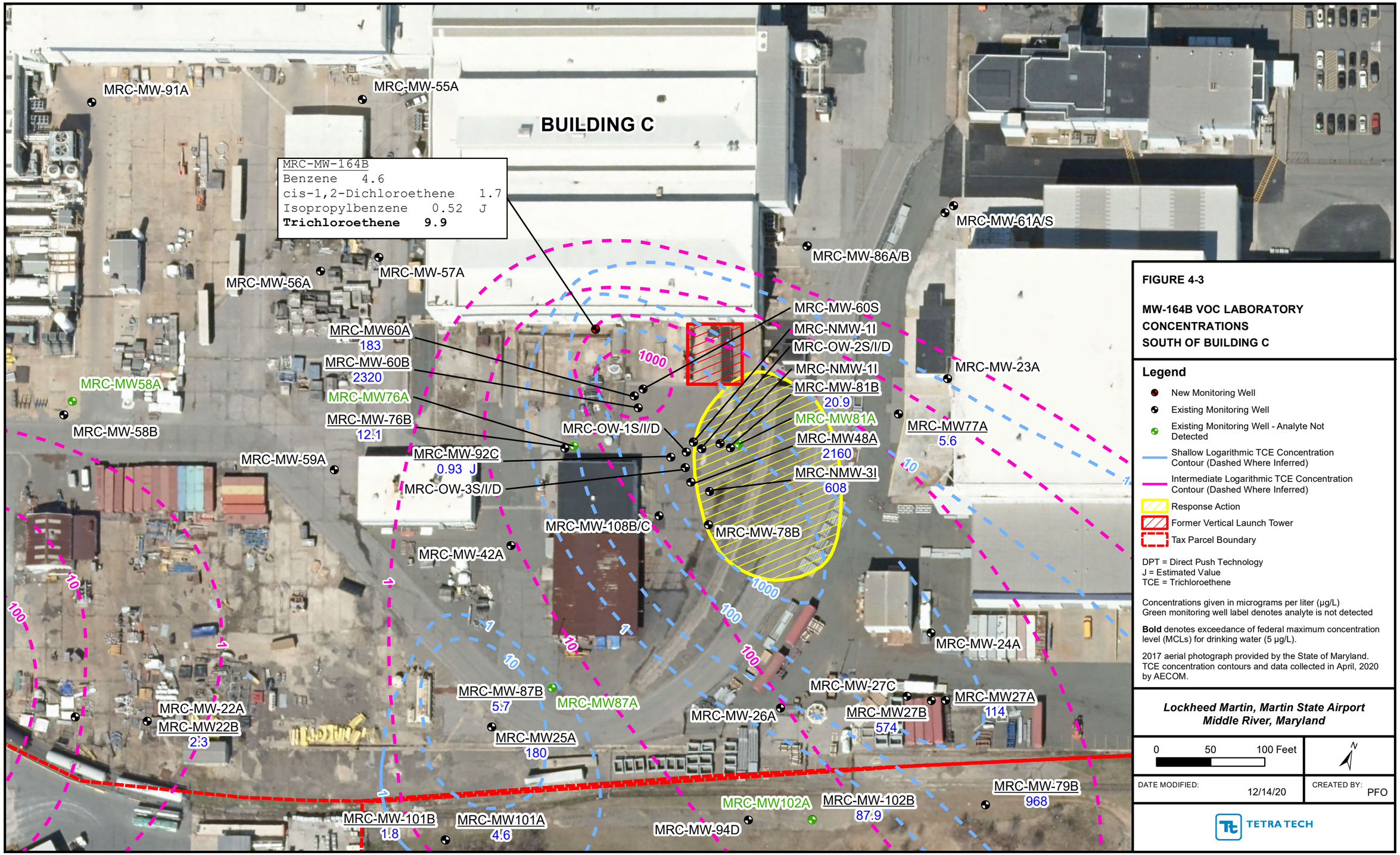

FIGURE 4-3

MW-164B VOC LABORATORY CONCENTRATIONS SOUTH OF BUILDING C

Legend

- New Monitoring Well
- Existing Monitoring Well
- Existing Monitoring Well - Analyte Not Detected
- Shallow Logarithmic TCE Concentration Contour (Dashed Where Inferred)
- Intermediate Logarithmic TCE Concentration Contour (Dashed Where Inferred)
- Response Action
- Former Vertical Launch Tower
- Tax Parcel Boundary

DPT = Direct Push Technology
J = Estimated Value
TCE = Trichloroethene

Concentrations given in micrograms per liter (µg/L)
Green monitoring well label denotes analyte is not detected

Bold denotes exceedance of federal maximum concentration level (MCLs) for drinking water (5 µg/L).

2017 aerial photograph provided by the State of Maryland. TCE concentration contours and data collected in April, 2020 by AECOM.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 50 100 Feet

N

DATE MODIFIED: 12/14/20

CREATED BY: PFO

TETRA TECH

Map Document: GER (K:\Patrick\GIS\Middle River\MapDocs\MXDs\block_i_mw164b_voc_tag_rev121420.mxd)
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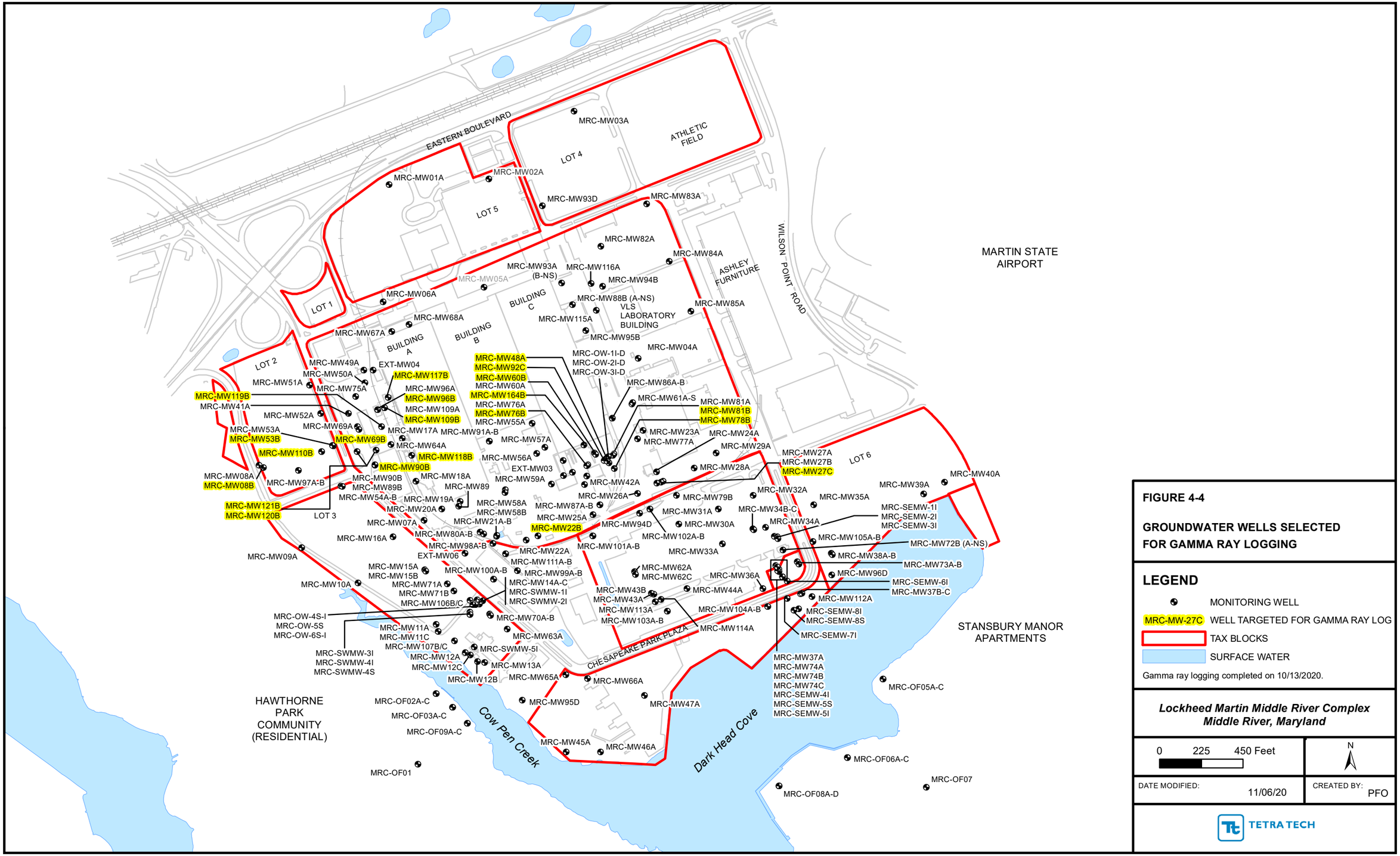

FIGURE 4-4

GROUNDWATER WELLS SELECTED FOR GAMMA RAY LOGGING

LEGEND

- MONITORING WELL
- MRC-MW-27C — WELL TARGETED FOR GAMMA RAY LOG
- TAX BLOCKS
- SURFACE WATER

Gamma ray logging completed on 10/13/2020.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 11/06/20

CREATED BY: PFO

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Map Document: GER (K:\Patrick\GIS\Middle River\MapDocs\MXDs\south_building_c_gw_gamma_locs_oct2020.mxd)
11/06/20 -- PFO

N

B

S

B'

Sequence Boundary
SQB-C1

Hydrogeologic Unit C-1

MRC-MW-164B

MRC-MW-60A/B

MRC-MW-92C

MRC-MW-48A

MRC-MW-78B

MRC-MW-27A/B/C

MRC-MW-79B

9.9 µg/L
20.28

183 µg/L
16.74

2320 µg/L
16.39

2160 µg/L
16.14

ND
15.46

114 µg/L
11.09

574 µg/L
6.04

968 µg/L
9.3

Hydrogeologic Unit C-2

Sequence Boundary
SQB-C2

>>
0.93 µg/L
13.95

Hydrogeologic Unit C-3

ND
8.20

ELEVATION (feet)

40
30
20
10
0
−10
−20
−30
−40
−50
−60

DISTANCE ALONG PROFILE (feet)

Lithology Graphics

- Asphalt
- USCS Low Plasticity Clay
- USCS Clayey Sand
- USCS High Plasticity Clay
- USCS Silt
- USCS Low Plasticity Sandy Clay
- USCS Poorly-graded Gravel
- USCS Well-graded Sand
- USCS Silty Sand
- Concrete
- USCS Low Plasticity Organic silt or clay
- USCS Poorly-graded Sand
- NO RECOVERY
- USCS Elastic Silt

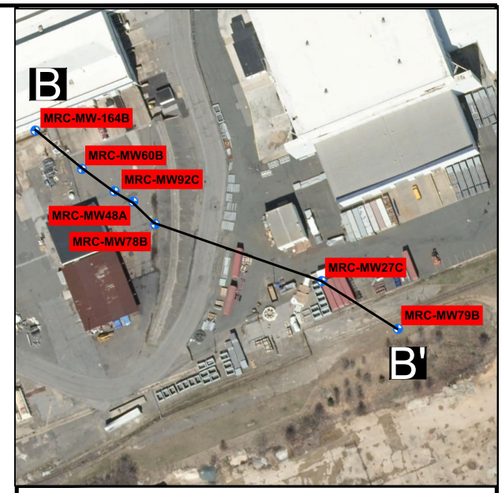

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Figure 4-5
Area-Specific Preliminary Environmental Site Stratigraphic (ESS) Interpretation,
South of Building C: Cross Section B-B'

Legend:

MRC-MW-43A — Borehole Number

Borehole Lithology — Well Construction

9.9 µg/L — 2020 Trichloroethene groundwater concentration (micrograms per liter)

20.28 — 2020 groundwater elevation (feet)

Gamma Levels (cps)

Sequence Boundary

0 — 63
Horizontal Scale (feet)

Vertical Exaggeration: 3x

South of Building C Investigation
Middle River, Maryland

TETRA TECH

Tetra Tech Inc.
Germantown, MD, 20874

JOB NUMBER	CREATED BY / DATE
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W

C

E

C'

N

MRC-MW-59A

NS

MRC-MW-76A/B

ND
17.01

12.1 µg/L
16.81

MRC-MW-92C

MRC-MW-81A/B

ND
16.23

20.9 µg/L
16.07

MRC-MW-23A

NS
18.72

Hydrogeologic Unit C-1

Sequence Boundary
SQB-C1

Hydrogeologic Unit C-2

Sequence Boundary
SQB-C2

0.93 µg/L
13.95

Hydrogeologic Unit C-3
Arundel Clay

ELEVATION (feet)

40
30
20
10
0
-10
-20
-30
-40
-50
-60

DISTANCE ALONG PROFILE (feet)

Lithology Graphics

- USCS Poorly-graded Gravel
- USCS Well-graded Sand
- USCS Silt
- NO RECOVERY
- USCS Low Plasticity Clay
- Asphalt
- USCS Silty Sand
- USCS Clayey Gravel
- USCS Clayey Sand
- USCS High Plasticity Clay
- USCS Poorly-graded Sand

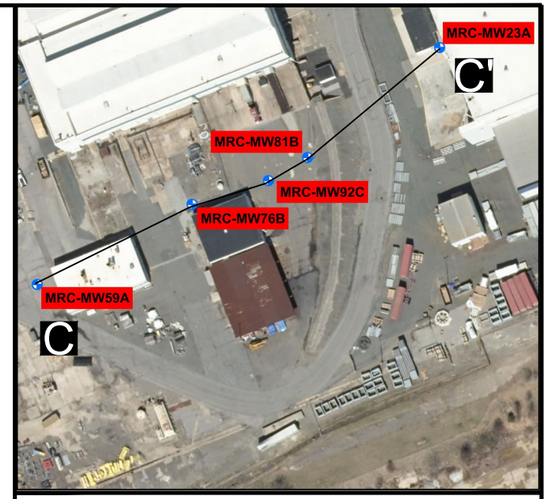

Figure 4-6
Area-Specific Preliminary Environmental Site Stratigraphic (ESS) Interpretation, South of Building C: Cross Section C-C'

Legend:

MRC-MW-43A — Borehole Number

Borehole Lithology — Well Construction

9.9 µg/L — 2020 Trichloroethene groundwater concentration (micrograms per liter)

20.28 — 2020 groundwater elevation (feet)

Gamma Levels (cps)

Sequence Boundary

0 — 63

Horizontal Scale (feet)

Vertical Exaggeration: 3x

South of Building C Investigation
Middle River, Maryland

TETRA TECH

Tetra Tech Inc.
Germantown, MD, 20874

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W

D

E

D'

MRC-MW-101A/B

Sequence Boundary
SQB-1

MRC-MW-94D

Hydrogeologic Unit C-1

MRC-MW-102A/B

MRC-MW-79B

4.6 µg/L
12.17

1.8 µg/L
12.47

Hydrogeologic Unit C-2

ND
11.31

87.9 µg/L
9.94

96 µg/L
9.3

Hydrogeologic Unit C-3
Arundel Clay

ELEVATION (feet)

30 20 10 0 −10 −20 −30 −40 −50 −60 −70 −80

DISTANCE ALONG PROFILE (feet)

Lithology Graphics

- USCS Low Plasticity Organic silt or clay
- USCS Elastic Silt
- USCS Low Plasticity Clay
- USCS Poorly-graded Sand
- USCS Clayey Sand
- Asphalt
- Concrete
- USCS Well-graded Gravel
- USCS Silty Sand
- USCS Silt
- USCS High Plasticity Organic silt or clay

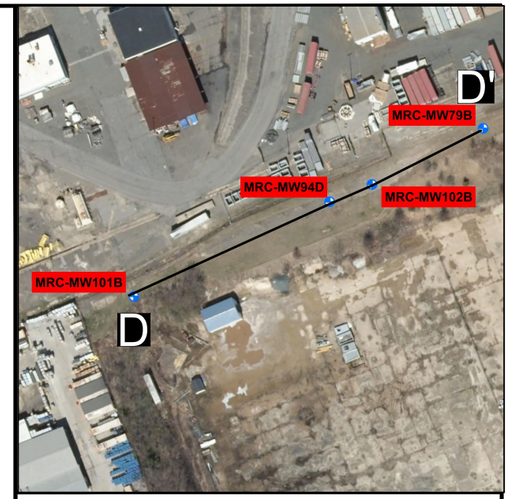

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Figure 4-7
Area-Specific Preliminary Environmental Site Stratigraphic (ESS) Interpretation,
South of Building C: Cross Section D-D'

Legend:

MRC-MW-43A — Borehole Number
Borehole Lithology — Well Construction

9.9 µg/L 2020 Trichloroethene groundwater concentration (micrograms per liter)

20.28 2020 groundwater elevation (feet)

Gamma Levels (cps)

Sequence Boundary

0 52
Horizontal Scale (feet)

Vertical Exaggeration: 2.5x

South of Building C Investigation
Middle River, Maryland

TETRA TECH

Tetra Tech Inc.
Germantown, MD, 20874

JOB NUMBER	CREATED BY / DATE
112IC09011	JAM / 10-28-2020

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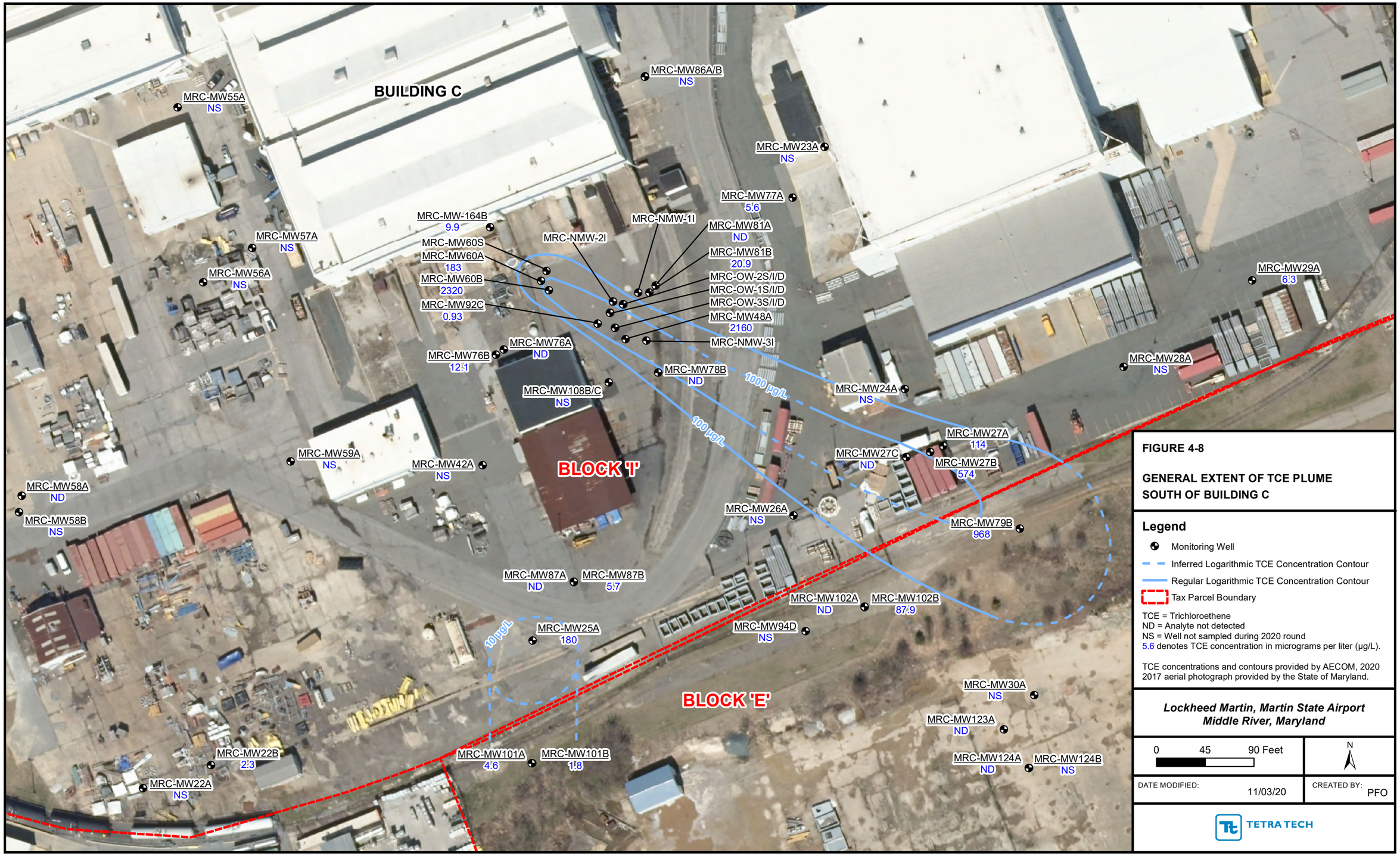

FIGURE 4-8

GENERAL EXTENT OF TCE PLUME SOUTH OF BUILDING C

Legend

- Monitoring Well
- Inferred Logarithmic TCE Concentration Contour
- Regular Logarithmic TCE Concentration Contour
- Tax Parcel Boundary

TCE = Trichloroethene
ND = Analyte not detected
NS = Well not sampled during 2020 round
5.6 denotes TCE concentration in micrograms per liter (µg/L).

TCE concentrations and contours provided by AECOM, 2020
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 45 90 Feet

N

DATE MODIFIED: 11/03/20

CREATED BY: PFO

TETRA TECH

Map Document: GER (K:\Patrick\GIS\Middle River\MapDocs\MXDs\south_building_c_tce_plume_oct2020.mxd)
11/03/20 -- PFO

TABLES

Table 2-1 Chronological Summary of Historical Investigations around Building C

Table 4–1 Summary of Groundwater Profiling Results, Block I

Table 4–2 Laboratory Analyzed Groundwater Profiling Results, Block I

Table 4–3 Soil Sampling Results, MW-164B Well Installation

Table 4–4 MW-164B Groundwater Results, Block I

Table 4–5 Groundwater Monitoring Wells Selected for Gamma Ray Logging, Block I

Table 2-1

Chronological Summary of Historical Investigations around Building C
Lockheed Martin, Middle River Complex
Middle River, Maryland

Building C Investigations (report reference, date)	Date(s) Investigation conducted
Phase I Environmental Site Assessment Report (Earth Tech, 2003)	2003
Historical Research Report (Tetra Tech, 2004)	2004
Final Report Phase II Site Investigation of Exterior Areas (Tetra Tech, 2005)	2004
Site Characterization Report (Tetra Tech, 2006)	2006
Historical Data Review for Block I (Tetra Tech, 2008)	2008
Hazardous Material Survey (Earth Tech, 2008)	March 2008
Block I Phase II Site Investigation Report (Tetra Tech, 2009)	August 2008 through January 2009
Indoor Air and Sub-slab Vapor Intrusion Investigations (numerous investigation performed by Tetra Tech between 2006-2020)	2006 through 2020
Supplemental Block I Characterization Report (Tetra Tech, 2011)	September 2010 through January 2011
Supplemental Block I Source Investigation Report (Tetra Tech, 2012)	2012
Supplemental Investigation: Block E and Block I - 2013 Report (Tetra Tech, 2014)	2013
Block I Historical Information and Conceptual Site Model Report (Tetra Tech, 2017)	2017

Table 4-1
Summary of Groundwater Profiling and Laboratory-Analyzed Results for TCE, Block I
Groundwater Investigation South of Building C
Middle River Complex, Middle River, Maryland

Location	Depth	Frog 5000™ TCE concentration (µg/L)	Laboratory-analyzed TCE concentration (µg/L)	Notes
I-GWP-1A	10-15	Dry	--	No sample collected, no water available
	15-20	Dry	--	No sample collected, no water available
	20-25	**13.83**	--	Water available, Frog 5000™ sample collected
	25-30	**5.37**	--	Water available, Frog 5000™ sample collected
	30-35	ND	--	Water available, Frog 5000™ sample collected
	35-40	Dry	--	No sample collected, no water available
I-GWP-1B	10-15	Dry	--	No sample collected, no water available
	15-20	Dry	--	No sample collected, no water available
	20-25	Dry	--	No sample collected, no water available
	25-30	**10.44**	**19**	Water available, sample also collected for laboratory analysis
	30-35	Dry	--	No sample collected, no water available
	35-40	Dry	--	No sample collected, no water available
I-GWP-1C	10-15	Dry	--	No sample collected, no water available
	15-20	Dry	--	No sample collected, no water available
	20-25	Dry	--	No sample collected, no water available
	25-30	4.60	**8.2**	Water available, sample also collected for laboratory analysis
	30-35	**18.70**	--	Water available, Frog 5000™ sample collected
	35-40	ND	--	Water available, Frog 5000™ sample collected
I-GWP-1D	10-15	Dry	--	No sample collected, no water available
	15-20	Dry	--	No sample collected, no water available
	20-25	Dry	--	No sample collected, no water available
	25-30	Dry	--	No sample collected, no water available
	30-35	**10.58**	**74**	Water available, sample also collected for laboratory analysis
	35-40	3.21	--	Water available, Frog 5000™ sample collected
I-GWP-1E	--	--	--	Refusal hit at 1-2 feet bgs. Not able to bore any further
I-GWP-1F	10-15	Dry	--	No sample collected, no water available
	15-20	Dry	--	Hit refusal at 18 feet bgs, no water available to sample.

Bold and shaded concentrations indicate exceedance of federal maximum concentration level (MCL) and Maryland groundwater cleanup standard for TCE (both= 5 µg/L)

-- - not sampled for laboratory analysis
µg/L - microgram per liter
bgs - below ground surface
Dry - no water was available to sample
GWP - groundwater profiling
ND - concentration not detected
TCE - trichloroethene

Table 4-2
Laboratory-Analyzed Groundwater Profiling Results, Block I
Groundwater Investigation South of Building C
Middle River Complex, Middle River, Maryland

LOCATION	Federal MCL and Maryland Groundwater Cleanup Values (µg/L)	I-GWP-1B	I-GWP-1C	I-GWP-1D
SAMPLE DEPTH (FEET)		25-30	25-30	30-35
SAMPLE DATE		20200603	20200604	20200605
Volatile organic compounds (µg/L)				
1,1,2-TRICHLOROETHANE	5	0.09 U	0.09 U	**0.13 J**
2-BUTANONE	560	1.2 U	1.2 U	**2.7 J**
ACETONE	1400	**13**	5.4 U	**34**
BENZENE	5	**0.63 J**	**0.82 J**	**1.9**
CHLOROMETHANE	19	**0.27 J**	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	70	**2.5**	**1.3**	**4.4**
ETHYLBENZENE	700	0.11 U	0.11 U	**0.12 J**
ISOPROPYLBENZENE	45	0.09 U	0.09 U	**0.29 J**
TOLUENE	1000	**0.17 J**	0.14 U	**0.84 J**
TOTAL XYLENES	1000	0.15 U	0.15 U	**0.68 J**
TRICHLOROETHENE	5	**19**	**8.2**	**74**
VINYL CHLORIDE	2	0.2 U	0.2 U	**0.32 J**

Bold font denotes sample detection
Bolded and shaded vells indicates sample exceeded its MCL and Maryland groundwater cleanup standard of 5 µg/L
µg/L - microgram per liter
J - estimated value
MCL - federal maximum concentration level criteria for drinking water
U - nondetect

Table 4-3
Soil Sampling Results from MW164B Well Installation
Block I Groundwater Investigation South of Building C
Middle River Complex, Middle River, Maryland

LOCATION	**Maryland Residential Soil Cleanup Criteria (ug/kg)**	**Maryland Industrial Soil Cleanup Criteria (ug/kg)**	**MRC-MW-164B**
SAMPLE DEPTH (FEET)			**15-20**
SAMPLE DATE			**20200716**
Volatile organic compounds (µg/kg)			
TRICHLOROETHENE	410	1900	**50**

µg/kg - micrograms per kilogram
Maryland residential and industrial soil cleanup criteria based on October 2018 guidance.
https://mde.state.md.us/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/MDE%20Soil%20and%20Groundwater%20Cleanup%20Standards%2010-2018%20Interim%20Final%20Update%203-2.pdf

Table 4-4
MW164B Groundwater Results
Block I Groundwater Investigation South of Building C
Middle River Complex, Middle River, Maryland

LOCATION	Federal MCL Drinking Water Criteria and Maryland Groundwater Cleanup Criteria (µg/L)	MRC-MW-164B
SAMPLE ID		MRC-MW-164B-081120
SAMPLE DATE		20200811
Volatile organic compounds (µg/L)		
BENZENE	5	**4.6**
CIS -1,2-DICHLOROETHENE	70	**1.7**
ISOPROPYLBENZENE	45	**0.52 J**
TRICHLOROETHENE	5	**9.9**
Volatile gases (µg/L)		
ETHANE	NC	**1.2**
ETHENE	NC	**0.83 J**
METHANE	NC	**11**
Metals (µg/L)		
ALUMINUM	2000	**950 J**
BARIUM	2000	**180**
BERYLLIUM	4	**0.51 J**
CALCIUM	NC	**14000**
CHROMIUM	100	**2.9**
COBALT	NC	**41**
COPPER	1300	**1.8 J**
IRON	1400	**24000**
LEAD	15	**1.2**
MAGNESIUM	NC	**6400**
MANGANESE	43	**2700**
NICKEL	39	**42**
POTASSIUM	NC	**5700**
SODIUM	NC	**16000**
THALLIUM	2	**0.28 J**
VANADIUM	8.6	**5.3**
ZINC	600	**60 J**
Miscellaneous (mg/L)		
ALKALINITY	NC	**98**
BROMIDE	NC	**0.21 J**
HARDNESS (as calcium carbonate)	NC	**96**
SPECIFIC CONDUCTANCE (umhos/cm)	NC	**250**
SULFATE	NC	**9**
TOTAL DISSOLVED SOLIDS	NC	**120**

Groundwater results compared to federal MCL drinking water standards (where available and Maryland Groundwater Cleanup Standards, shading indicates an exceedance of the criteria

µg/L - micrograms per liter
J - sample result qualified as estimated
MCL - federal maximum contaminant level in drinking water
mg/L - milligrams per liter
NC - no criteria

Table 4-5

Groundwater Monitoring Wells Selected for Gamma Ray Logging
Block I Groundwater Investigation South of Building C
Middle River Complex, Middle River, Maryland

Location	Well ID	Rationale/purpose
Block I - South of Building C	MW164B (new boring)	To obtain a detailed record of the borehole's lithostratigraphy and to provide further characterization and refine the environmental sequence stratigraphic interpretations for Block I south of Building C.
	MW60B	
	MW48A	
	MW27C	
	MW78B	
	MW81B	
	MW76B	
	MW22B	
	MW92C	
Blocks I, H, and G - West of Building A	MW117B	To obtain a detailed record of the borehole's lithostratigraphy and to provide further characterization and refine the environmental sequence stratigraphic interpretations for Blocks I, H, and G west of Building A.
	MW96B	
	MW69B	
	MW53B	
	MW110B	
	MW08B	
	MW109B	
	MW119B	
	MW120B	
	MW90B	
	MW118B	
	MW121B	

APPENDICES

Appendix A—Dig Permit, Utility Clearance

Appendix B—Soil Boring Logs; I-SB-315 and I-SB-316

Appendix C—Frog 5000 Field Graphs Calibrated for TCE

Appendix D—MW-164B Well Installation and Sampling Field Forms

Appendix E—Precision Survey Report

Appendix F—Full and Validated Laboratory Data Reports, including Microbial Insights

Appendix G— Natural Gamma Logs, Block I

Appendix H— Signed Waste Manifests

APPENDIX A—DIG PERMIT, UTILITY CLEARANCE

LOCKHEED MARTIN

Dig Permit

See Enterprise Operations Procedure EO-28, Digging Projects, for instructions.

Date	Project Manager
May 20, 2020	Tom Blackman (Lockheed Martin EESH) Mike Martin (Tetra Tech)

Building/Location

Tax Block I (South of Building C)

Purpose of work:

DPT soil boring installation and vertical aquifer sampling in area directly south of building C in small corridor between building C and the ramp, at a maximum of eight locations to a maximum depth of 40 feet bgs.

Well installation (two nested wells) will be completed in early July, the wells will be set at 25' and 40' bgs.

Company/LM organization performing dig

Tetra Tech overseeing GroundZero (DPT contractor) and Cascade (sonic contractor for well installation in July)

Planned dig date	Duration	Start time
Week of June 1st, 2020 (DPT) Week of July 7th, 2020 (sonic well install)	Total of two weeks	0700
Expected depth	**Width**	**Length**
No more than 40 feet bgs	6 inches	Up to nine total locations

Underground utilities identified?	Overhead utilities?	Electrical lines?	Gas lines?
☒ Yes ☐ No	☒ Yes ☐ No ☐ N/A	☐ Yes ☒ No	☐ Yes ☒ No
Sewer?	**Water?**	**Telecommunications?**	**Other? Specify:**
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No ☐ N/A	☐ Yes ☒ No

Site-specific or customer utility locating requirements completed?

☒ Yes ☐ No ☐ N/A

Sketch of dig project (or attach drawing)

See Attached

A private utility locating contractor (Rettew) will be used to mark subsurface utilities on May 22, 2020. Confirmation letter and report will be provided..

Miss Utility Ticket # 20314575

The proposed soil boring locations are shown on the figure attached.

Project Manager	Date	Customer	Date
Michael Martin Michael Martin	May 20, 2020		
Telecommunications	**Date**	**Customer**	**Date**
ESH	**Date**	**Customer**	**Date**
Keller, Christopher S1 Digitally signed by: Keller, Christopher S1 DN: CN = Keller, Christopher S1 OU = CorpHQ, Users Date: 2020.05.20 12:28:50 -04'00'			
Building/Facility Manager			**Date**

Form EO-28-1 (January 26, 2009)

LOCKHEED MARTIN

Dig Permit

See Enterprise Operations Procedure EO-28, Digging Projects, for instructions.

Date	Project Manager
May 20, 2020	Tom Blackman (Lockheed Martin EESH) Mike Martin (Tetra Tech)

Building/Location

Tax Block I (South of Building C)

Purpose of work:

DPT soil boring installation and vertical aquifer sampling in area directly south of building C in small corridor between building C and the ramp, at a maximum of eight locations to a maximum depth of 40 feet bgs.

Well installation (two nested wells) will be completed in early July, the wells will be set at 25' and 40' bgs.

Company/LM organization performing dig

Tetra Tech overseeing GroundZero (DPT contractor) and Cascade (sonic contractor for well installation in July)

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Week of June 1st, 2020 (DPT) Week of July 7th, 2020 (sonic well install)	Total of two weeks	0700
Expected depth	**Width**	**Length**
No more than 40 feet bgs	6 inches	Up to nine total locations

Underground utilities identified?	Overhead utilities?	Electrical lines?	Gas lines?
☒ Yes ☐ No	☒ Yes ☐ No ☐ N/A	☐ Yes ☒ No	☐ Yes ☒ No
Sewer?	**Water?**	**Telecommunications?**	**Other? Specify:**
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No ☐ N/A	☐ Yes ☒ No

Site-specific or customer utility locating requirements completed?

☒ Yes ☐ No ☐ N/A

Sketch of dig project (or attach drawing)

See Attached

A private utility locating contractor (Rettew) will be used to mark subsurface utilities on May 22, 2020. Confirmation letter and report will be provided..

Miss Utility Ticket # 20314575

The proposed soil boring locations are shown on the figure attached.

Project Manager	Date	Customer	Date
Michael Martin Michael Martin	May 20, 2020		
Telecommunications	**Date**	**Customer**	**Date**
ESH	**Date**	**Customer**	**Date**
Building/Facility Manager Harriel, Glen A		Digitally signed by: Harriel, Glen A DN: CN = Harriel, Glen A Date: 2020.05.21 16:13:21 -04'00'	**Date**

LOCKHEED MARTIN

Dig Permit

See Enterprise Operations Procedure EO-28, Digging Projects, for instructions.

Date	Project Manager
May 20, 2020	Tom Blackman (Lockheed Martin EESH) Mike Martin (Tetra Tech)

Building/Location

Tax Block I (South of Building C)

Purpose of work:

DPT soil boring installation and vertical aquifer sampling in area directly south of building C in small corridor between building C and the ramp, at a maximum of eight locations to a maximum depth of 40 feet bgs.

Well installation (two nested wells) will be completed in early July, the wells will be set at 25' and 40' bgs.

Company/LM organization performing dig

Tetra Tech overseeing GroundZero (DPT contractor) and Cascade (sonic contractor for well installation in July)

Planned dig date	Duration	Start time
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No more than 40 feet bgs	6 inches	Up to nine total locations

Underground utilities identified?	Overhead utilities?	Electrical lines?	Gas lines?
☒ Yes ☐ No	☒ Yes ☐ No ☐ N/A	☐ Yes ☒ No	☐ Yes ☒ No
Sewer?	**Water?**	**Telecommunications?**	**Other? Specify:**
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No ☐ N/A	☐ Yes ☒ No

Site-specific or customer utility locating requirements completed?

☒ Yes ☐ No ☐ N/A

Sketch of dig project (or attach drawing)

See Attached

A private utility locating contractor (Rettew) will be used to mark subsurface utilities on May 22, 2020. Confirmation letter and report will be provided..

Miss Utility Ticket # 20314575

The proposed soil boring locations are shown on the figure attached.

Project Manager	Date	Customer	Date
Michael Martin	May 20, 2020		
Telecommunications	Date	Customer	Date
ESH	Date	Customer	Date
Building/Facility Manager			Date

LOCKHEED MARTIN

Risk Handling Checklist

Project Manager: Use this checklist to develop risk handling plans before the dig starts. You must also review Enterprise Operations Procedure EO-28, Digging Projects.

General Questions	☒	What Lockheed Martin processes could be affected by the dig? **No Lockheed Martin processes or operations are expected to be impacted as all work will be conducted outside the factory south of Building C. Tetra Tech will work with Lockheed Martin and their tenants to minimize potential impacts, if present.**
	☒	What are the safety hazards? **Utilities, slips/trips/falls, vehicle traffic, DPT rig hazards, pinch points**
	☒	What could fail? **Mechanical components on excavator and auger equipment**
	☒	How could it fail? **A component of the drilling rig and or equipment could potentially fail. An inspection of the equipment will be conducted on arrival at the site and daily to ensure proper working condition. Approved Health and Safety Plan in place (reviewed by corporate EESH)**
	☒	Does the area need to be returned to its normal state when the work is complete? **Yes, soil borings will be grouted to surface upon completion.**
	☐	How could the dig affect operations/test/production? **No operations will be affected, work has been conducted in these areas many times without any impact to facility operations.**
	☐	Have potential risks been addressed with area management? **No risks identified**
	☒	Am I comfortable with any risk handling plans, understanding the potential impact? **Yes**
Traffic Control	☒	Ensure proper signage and communication. **Existing security fencing separates roads from proposed work areas.**
	☒	Coordinate road or access closures through Industrial Security before starting the dig. **Existing fencing separates roads from proposed work areas.**
	☒	Ensure the work area is isolated from foot traffic by placing barriers and warning lights as required by EO-28.
	☒	Ensure that vehicle traffic will be safe. **Access to Chesapeake Park Plaza will proceed with caution.**
	☒	Ensure that product transport will be safe. **Access to Chesapeake Park Plaza will proceed with caution.**
Excavation	☒	Review facility drawings to identify utilities. Research old drawings as necessary. **Available site engineering and utility maps were reviewed.**
	☒	Discuss the project with Facility Engineering/Maintenance staff that may have unique knowledge about the construction area not documented in facility drawings. **Work has been completed in this area many times in the past. All third party utility clearance was completed.**
	☒	Process form EO-28-1, Dig Permit. Use this opportunity to explain the process and relate expectations to the contractor/LM organization that will perform the dig.
	☒	Have LM Telecommunications and the local utility identification service locate and mark utilities/underground obstacles.
	☒	Coordinate with other ongoing projects in the affected area. **N/A**
	☒	Make every effort not to excavate around live utilities in service. Schedule an outage in advance or have Maintenance temporarily shut down and isolate the utilities while excavating. **Underground utilities marked by Miss Utility and private utility locating service. All utilities will be avoided.**
	☒	If live utilities cannot be shut down while excavating, know where to isolate or shut them down if they are damaged while excavating**. No utilities will be encountered**
	☒	Have a spotter(s) work with the equipment operator. Hand dig when necessary. **Spotters will always be utilized**
	☒	Excavate along the side of the utility; not on top. **No utilities will be encountered**
	☐	Weather may affect the dig. Ensure water pipes are protected during freezing weather, especially if the trench will be left open over night. Rain may cause the side of the trench to slough, which can undermine and break pipes/conduit. **N/A**
	☐	Ensure care when moving trench boxes in and out of trenches so pipes/conduit aren't damaged by the boxes. **N/A**
	☒	Ensure surface drainage is controlled so that water doesn't get into the excavation and undermine soil supporting utilities. **Protections will be incorporated as necessary to protect storm drain piping and outlets.**
	☐	Ensure stocked material is kept far enough back (minimum 2 feet) so that material and rocks don't fall on utilities in the open hole. **N/A.**
	☒	Ensure backfilling is done carefully: Re-bed utilities with proper material, filling all voids below. Keep inappropriate material from falling on or being placed in the trench. Be careful when compacting backfill in the two feet directly above the utility. **Site restoration consisting of backfilling all auger holes will be completed when each boring is done as well as asphalt replacement (cold patch).**
	☒	Keeps the as-built utility drawing in the field while the excavation site is open. Take pictures if possible (horizontal alignment and elevations), if known utilities deviate from facility drawings or if utilities are found that are not on facility drawings. Give the modified as-built drawings to the Building/Facility Manager, who will update the drawing database.
	☒	Ensure that the equipment operator digs slowly and remains in control. **All site activities will be monitored by Tetra Tech.**

Personal Safety	☐	Ensure that trenching and shoring methods comply with the applicable OSHA regulations and are overseen by a "Competent Person," as defined in those regulations. **NA**
	☒	Regularly inspect methods to prevent violations. **All construction is monitored by Tetra Tech, all personnel have stop work authority.**
	☒	Ensure LM employees do not dig or enter any excavation that is more than four feet deep. **All work is being completed by Tetra Tech and its subcontractors.**

Project Manager signature indicating completion of checklist review	Date
Michael Martin 	May 20, 2020

From: mditic@occinc.com
To: Mullis, Josh
Subject: Ticket-20314575
Date: Wednesday, May 20, 2020 11:45:03 AM

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Miss Utility

Ticket No: 20314575 Header: STANDARD

Original Call Date: 05/15/20 02:33 pm **Op:** webusr2
Response Due By: 05/19/20 11:59 pm **Op:** mddana
Expiration Date: 06/03/20 23:59 pm
File Attachments have been added to this ticket.

Caller Information

Company Name: TETRA TECH, INC **Fax Phone:**
Contact Name: JOSHUA MULLIS **Phone:** (410)279-2700
Caller Address: 20251 CENTURY BLVD SUITE 200 GERMANTOWN,MD 20874
Email Address: josh.mullis@tetratech.com
Job Site Contact: JOSH MULLIS **Phone:** (410)279-2700

Dig Site Information

Type of Work: SOIL BORING AND WELL INSTALLATION SOUTH OF BUILDING C
Work Being Done For: LOCKHEED MARTIN
Explosives: N
Trenchless: UNKNOWN
Permit:
Job Number: 112IC09011

Dig Site Location

State: MD **County:** BALTIMORE
Place: MIDDLE RIVER **Subdivision**
Address: 103
Street: CHESAPEAKE PARK PLAZA
Intersecting Street: MARTIN BLVD
Extent of Work:

LOCATE/MARK:SOIL BORINGS WILL BE COMPLETED SOUTH OF BUILDING C, INSIDE LOCKHEED MIDDLE RIVER COMPLEX. PRIVATE UTILITY CONTRACTOR WILL CLEAR COMPLEX UTILITIES.

Remarks:

Map Coord NW Lat:	39.3293694	**Lon:**	-76.4318446	**SE Lat:**	39.3290588	**Lon:**	-76.4309475

MEMBERS NOTIFIED:

District	**Company Name**
BGEBA	BGE ELECTRIC-USIC
BGEBAG	BGE GAS-USIC
CBW04	BALTIMORE CITY DPW - PRO COMM
MAA02	MD AVIATION ADMIN/OCCLS
TDEX01	TERRADEX



FIGURE 3-1

PROPOSED GROUNDWATER WELL AND SOIL BORING LOCATIONS IN BLOCK I AND A-ZONE TCE CONCENTRATION CONTOURS

Legend

- Groundwater Screening Wells with DPT
- Proposed Monitoring Well
- Proposed Soil Boring Location for Lithology to 40'
- Existing Monitoring Well
- Existing Monitoring Well - Analyte Not Detected
- Inferred Logarithmic TCE Concentration Contour
- Groundwater Remediation Area
- Former Vertical Launch Tower
- Tax Parcel Boundary

DPT = Direct Push Technology
TCE = Trichloroethene
Concentrations given in micrograms per liter (µg/L)
Green monitoring well label denotes analyte is not detected

2017 aerial photograph provided by the State of Maryland.
TCE concentration contours and data provided by AECOM, 2019.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 50 100 Feet

N

DATE MODIFIED: 02/18/20

CREATED BY: PFO

TETRA TECH

Map Document: (C:\Users\Patrick.OBrien\Desktop\block_i_prop_gw_sb_locs_a_zone_dec2019.mxd)
02/18/20 -- PFO

SUBSURFACE UTILITY ENGINEERING PROJECT COMPLETION REPORT

RETTEW

TO: Mike Martin, Tetra Tech

FROM: Bill Steinhart, RETTEW Field Services, Inc.

CC: John B. Stipe III, RETTEW Associates, Inc.

DATE: June 17, 2020

CLIENT: Tetra Tech	PROJECT LOCATION: Middle River Complex Middle River, MD
PROJECT NO: 019872020	
PROJECT NAME: Middle River Drop Hammer and Building C	
TECHNICIANS: Bill Steinhart	
UTILITIES LOCATED:	**EQUIPMENT:**
• **Water Line** • **Storm Sewer**	☒ EM Locator (RD8000/Metrotech) ☒ Ground Penetrating Radar (GPR) ☒ TW-6 (metal detector) ☒ C.A.T. Passive Locator ☐ Acoustic Leak Detector ☐ Magnetometer ☐ Integrity Assessment Camera ☐ Traceable Rodder ☐ Concrete GPR

SCOPE OF WORK

RETTEW completed a subsurface utility survey to mark-out utilities near eight proposed soil boring locations south of Building C, and 10 proposed soil vapor test locations in and around the Drop Hammer Building.

METHODOLOGIES

RETTEW first traced utilities with visible surface features (i.e. manhole covers, valves, utility poles, hydrants) utilizing the EM locator. RETTEW then searched the site for unknown utilities with GPR, the M-scope, and the passive utility locator.

RESULTS/CONCLUSIONS

On May 22, 2020, Bill Steinhart of RETTEW arrived on site and with Josh Mullis of Tetra Tech. Together they identified the proposed soil boring locations and soil vapor test locations. The Drop Hammer Building had a reinforced concrete floor. The only instruments utilized in the Drop Hammer building were the C.A.T. and GPR. The soil vapor testing, proposed by Tetra Tech, requires a small penetration through the concrete inside and the asphalt outside; marking the utility locations in these areas was not necessary. At each soil vapor testing location, a small area clear of utilities was marked on the floor or asphalt. The soil vapor test locations are depicted on **Figure 1**, bottom left panel.

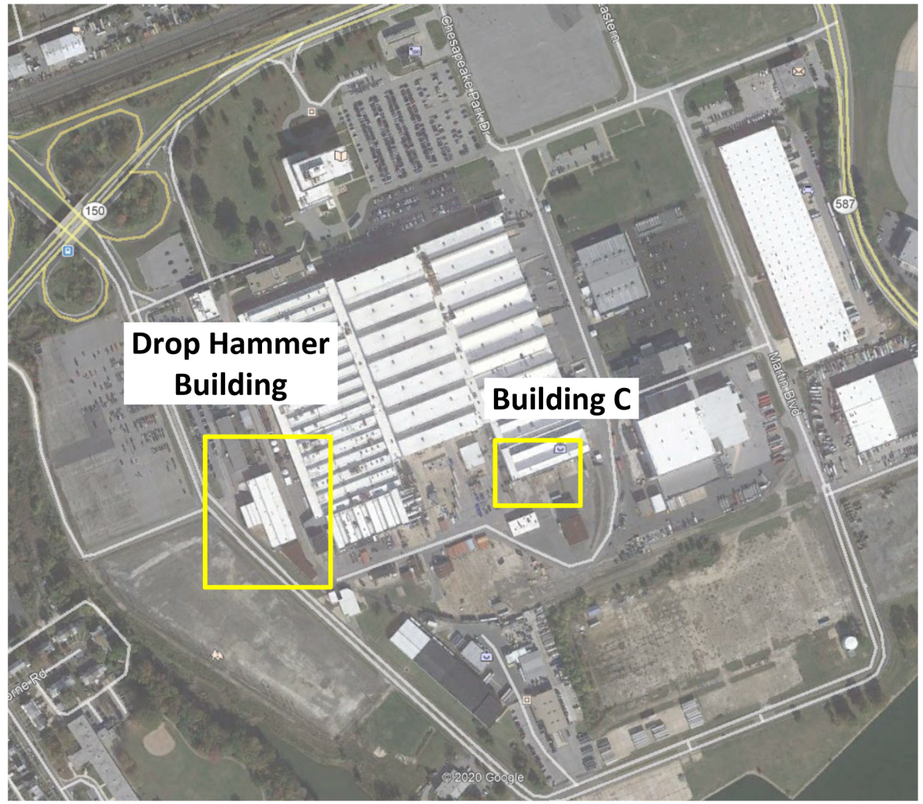
The soil borings south of Building C were cleared for utilities. A storm sewer line and fire protection line run adjacent to the array of soil borings. The concrete was wet from rain, and the utility locations could not be marked. The client was shown ground surface storm inlets that were coincident with the storm line. It was determined that the water line would not be encountered by the soil borings. The soil boring locations and utilities are depicted in **Figure 1**, upper right corner.

Enclosures: Annotated map is provided in **Figure 1**. Photos taken at the site are included in **Attachment A**.

RETTEW strives to provide quality and accurate locating services to all of its clients, but due to the nature of underground facilities, RETTEW will not be held liable for any damaged facilities. All clients are advised that they are required to follow their state's One-Call-Law before beginning excavation. The marks placed during this investigation are temporary markings for utility mapping purposes. The marks are not intended, nor should they be used, for construction; legal and/or recommended construction tolerance zones associated with the identified utilities were not marked by RETTEW. Prior to construction activities, RETTEW should be contacted for re-marking of the utilities and construction tolerance zones.

RETTEW will not guarantee the longevity of utility markings, due to activities on site that may destroy, or otherwise alter, the markings that were placed on the ground by RETTEW. If the marks have been altered or destroyed, the client is advised to contact RETTEW for re-markings. Any electronically determined depths provided to the client are estimates only, and due to equipment limitations, cannot be guaranteed. The client acknowledges that due to the limitations of the equipment used, safe exposure and measurements are the only methods which can precisely determine location and depth of structures marked.

PREPARED BY:	RECEIVED BY:
William E. Steinhart III, PG – Senior Geophysicist	
_____	_____
	(Name and Title)







- Proposed Soil Boring
- Proposed Soil Vapor Point
- Water Line
- Storm Line

N

Maps Not To Scale

SURVEY DATE:	05/22/20
PROJECT No.:	019872020
REVIEWED BY:	JBS
DRAWN BY:	WES
DATE:	06/17/2020
SCALE:	NA - Site Sketch
FIGURE No.	1 of 1

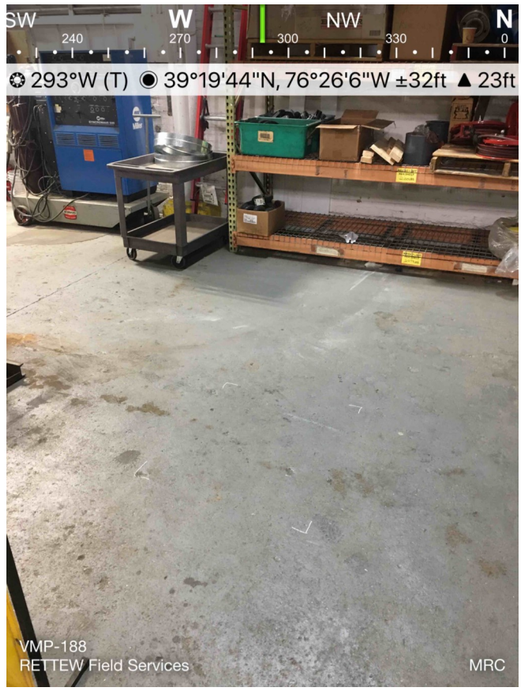
RETTEW
RETTEW Field Services, Inc.
3020 Columbia Avenue, Lancaster, PA 17603
Phone (717) 394-3721 Fax (717) 394-1063

Figure 1: Subsurface Utility Survey Results Building C

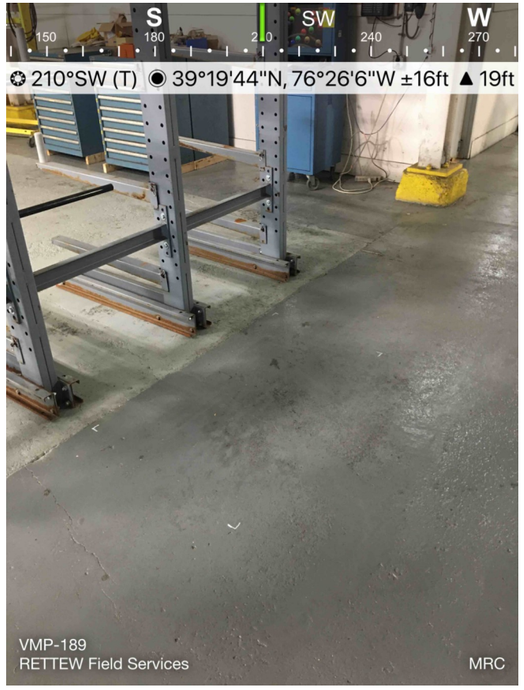
Middle River Complex
Middle River, MD

BALTIMORE COUNTY, MD

MIDDLE RIVER, MD



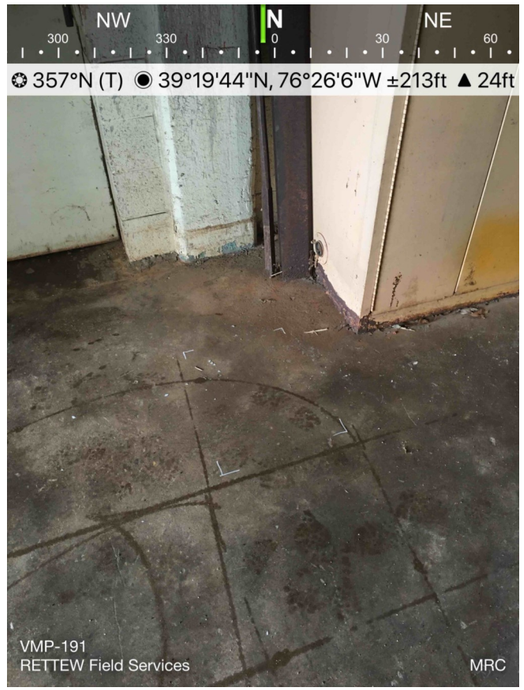
VMP-188



VMP-189



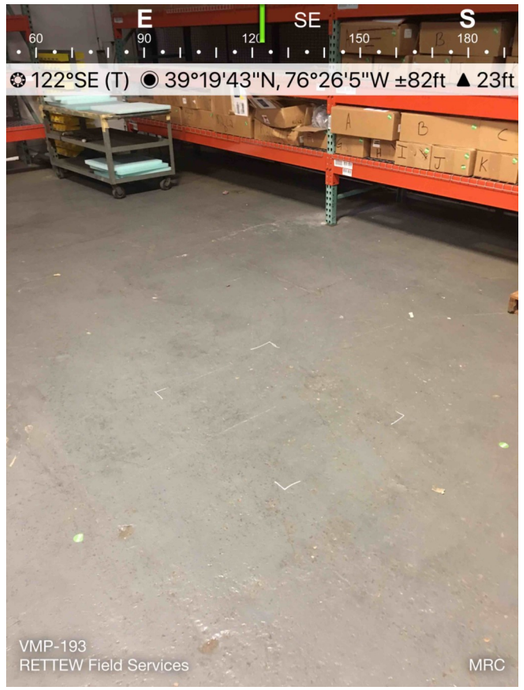
VMP-190



VMP-191



VMP-192



VMP-193



Drop Hammer Exterior North 1



Drop Hammer Exterior North 2

SURVEY DATE:	05/13/2020
PROJECT No.:	019872020
REVIEWED BY:	JBS
DRAWN BY:	WES
DATE:	6/17/2020
SCALE:	—
FIGURE No.:	1 OF 3

RETTEW SM
RETTEW Associates, Inc.
3020 Columbia Avenue, Lancaster, PA 17603
Phone (717) 394-3721 Fax (717) 394-1063

Attachment A: Site Photographs

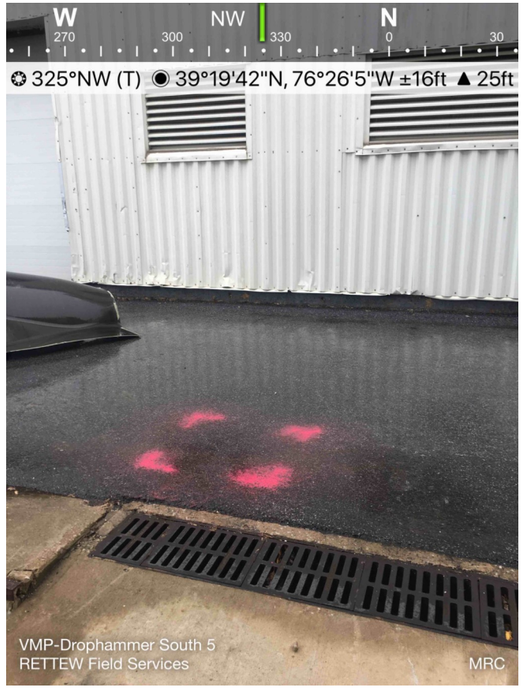
Martin Sate Airport
Middle River, MD

BALTIMORE COUNTY, MD

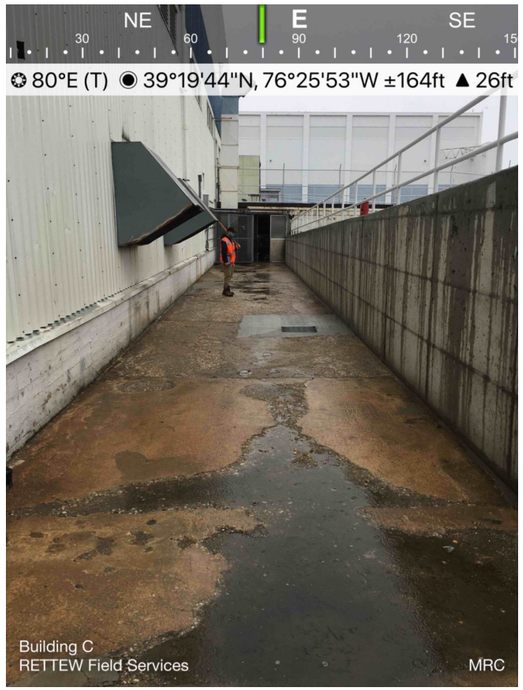
MIDDLE RIVER



Drop Hammer Exterior South 4



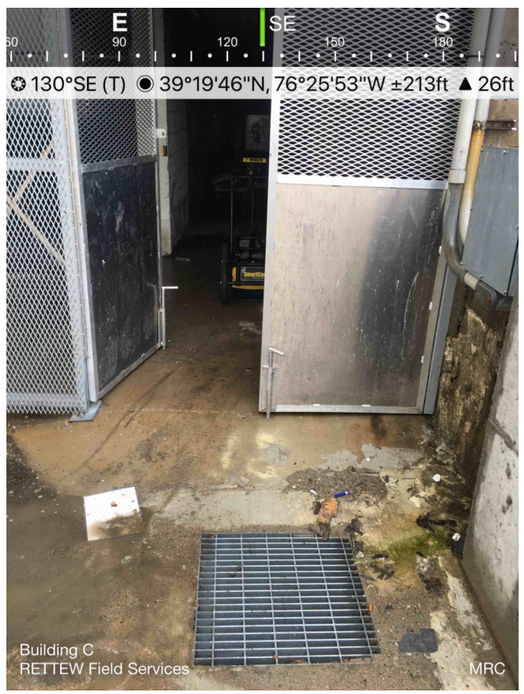
Drop Hammer Exterior South 5



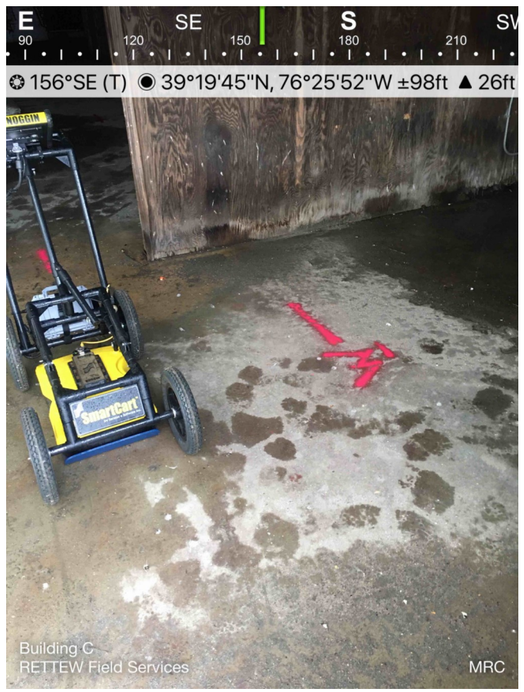
Building C Location



Building C Location



Building C Location



Building C Location



Building C Location



Building C Location

SURVEY DATE:	05/13/2020
PROJECT No.:	019872020
REVIEWED BY:	JBS
DRAWN BY:	WES
DATE:	6/17/2020
SCALE:	—
FIGURE No.:	1 OF 3

RETTEW SM
RETTEW Associates, Inc.
3020 Columbia Avenue, Lancaster, PA 17603
Phone (717) 394-3721 Fax (717) 394-1063

Attachment A: Site Photographs

Martin Sate Airport
Middle River, MD

BALTIMORE COUNTY, MD

MIDDLE RIVER

APPENDIX B—SOIL BORING LOGS, I-SB-315 AND I-SB-316

Tetra Tech Inc.
20251 Century Blvd Suite 200
Germantown, MD
Telephone: 301-528-3000

BORING NUMBER I-SB-315

CLIENT Lockheed Martin Corporation
PROJECT NAME South of Building C DPT Investigation
PROJECT NUMBER 112IC09011
PROJECT LOCATION MIDDLE RIVER, MARYLAND
DATE STARTED 6/1/20 **COMPLETED** 6/1/20
GROUND ELEVATION _____ **HOLE SIZE** 3 inches
DRILLING CONTRACTOR GroundZero
DRILLING METHOD DPT
NOTES _____
LOGGED BY J. Mullis
NORTHING 605,953.050 **EASTING** 1,473,086.785
DATUM: MD STATE; Horizontal: NAD83/2011 Epoch 2011, Vertical: NAVD88

DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0	CONCRETE		CONCRETE	PID = 0.4
			1.2	
	CL		tan to brown silty CLAY, dry	PID = 0.3
			3.0	
	SC		light brown sl moist clayey SAND, dry	PID = 0.3
5			5.0	
	SC		5.5 light brown sl moist clayey SAND, sl moist	
	CL		reddish brown stiff silty CLAY, sl moist	PID = 0.4
				PID = 0.3
10			10.0	
	CL		brown to dark brown stiff silty CLAY, dry	PID = 0.4
			12.0	
	CL		brown to dark brown stiff silty CLAY, sl moist	PID = 0.5
15			15.0	PID = 0.4
	CL		reddish brown/light brown w/white mottles stiff silty CLAY, sl moist	PID = 0.6
				PID = 0.8
20			20.0	
	CL		reddish brown/light brown stiff silty CLAY, sl moist	PID = 0.6
			23.0	PID = 0.6
	SC		gray 23-24', purple 24-25', light brown 25-28', low plastic SAND w/trace clay, medium, moist	PID = 0.2
25				PID = 1
			28.0	
	SC		29.0 brown high plastic clayey SAND, sl moist	PID = 1.4
30	CL		30.0 brown stiff silty CLAY, sl moist	
	SC		light brown low plastic SAND w/trace clay, med sand, very moist	PID = 0.4
			32.0	
	CL		brown stiff silty CLAY, sl moist	PID = 1.2
35			35.0	PID = 0.8
	CL		reddish brown stiff silty CLAY, very moist	PID = 0.3
			37.5	
	CL		gray w/red mottled very stiff silty CLAY, sl moist	PID = 0.3
40			40.0	

Bottom of borehole at 40.0 feet.

TT SOIL BORING E - GINT STD US LAB.GDT - 6/18/20 11:48 - C:\USERS\JOSH.MULLIS\DESKTOP\PRACTICE 022618.GPJ

Tetra Tech Inc.
20251 Century Blvd Suite 200
Germantown, MD
Telephone: 301-528-3000

BORING NUMBER I-SB-316

CLIENT Lockheed Martin Corporation
PROJECT NAME South of Building C DPT Investigation
PROJECT NUMBER 112IC09011
PROJECT LOCATION MIDDLE RIVER, MARYLAND
DATE STARTED 6/1/20 **COMPLETED** 6/1/20
GROUND ELEVATION _____ **HOLE SIZE** 3 inches
DRILLING CONTRACTOR GroundZero
DRILLING METHOD DPT
NOTES _____
LOGGED BY J. Mullis
NORTHING 605,980.808 **EASTING** 1,473,157.333
DATUM: MD STATE; Horizontal: NAD83/2011 Epoch 2011, Vertical: NAVD88

DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0	CONCRETE		0.8 CONCRETE	PID = 0.8
	CL		1.4 dark tan/gray stiff silty CLAY, sl moist	
	SP		1.6 tan/orange loose medium SAND, sl moist	PID = 1.1
	CL		3.0 green/gray high plastic silty CLAY, moist	
5	SM		red/brown dry sandy clayey SILT, crumbles	PID = 1.2
			5.5	
	CL		6.5 red/brown w/gray low plastic silty CLAY, sl moist	PID = 2.4
	SP		7.0 red, loose, medium SAND, poorly sorted, moist	
10	SC		dark red stiff sandy CLAY, v sl moist	PID = 2.8
				PID = 2.7
				PID = 6.7
15			15.0	PID = 1.6
	SP		orange, loose, medium SAND, wet	PID = 0
20				PID = 0
				PID = 0
			23.0	PID = 1.9
25	CL		red/purple stiff silty CLAY, moist	PID = 0
			25.0	
30	CLS		red/purple stiff to low plast sandy CLAY to clayey SAND, moist	PID = 0
				PID = 0
				PID = 0
			33.0	PID = 0.5
35	SC		purple/gray low plastic clayey SAND, medium sand, moist to very moist	PID = 1.2
			35.0	
	CLS		purple/brown high plastic sandy CLAY, moist	PID = 3.4
			38.0	
40	CL		light purple/gray very stiff silty CLAY to CLAY, dry	PID = 0.7
			40.0	

Bottom of borehole at 40.0 feet.

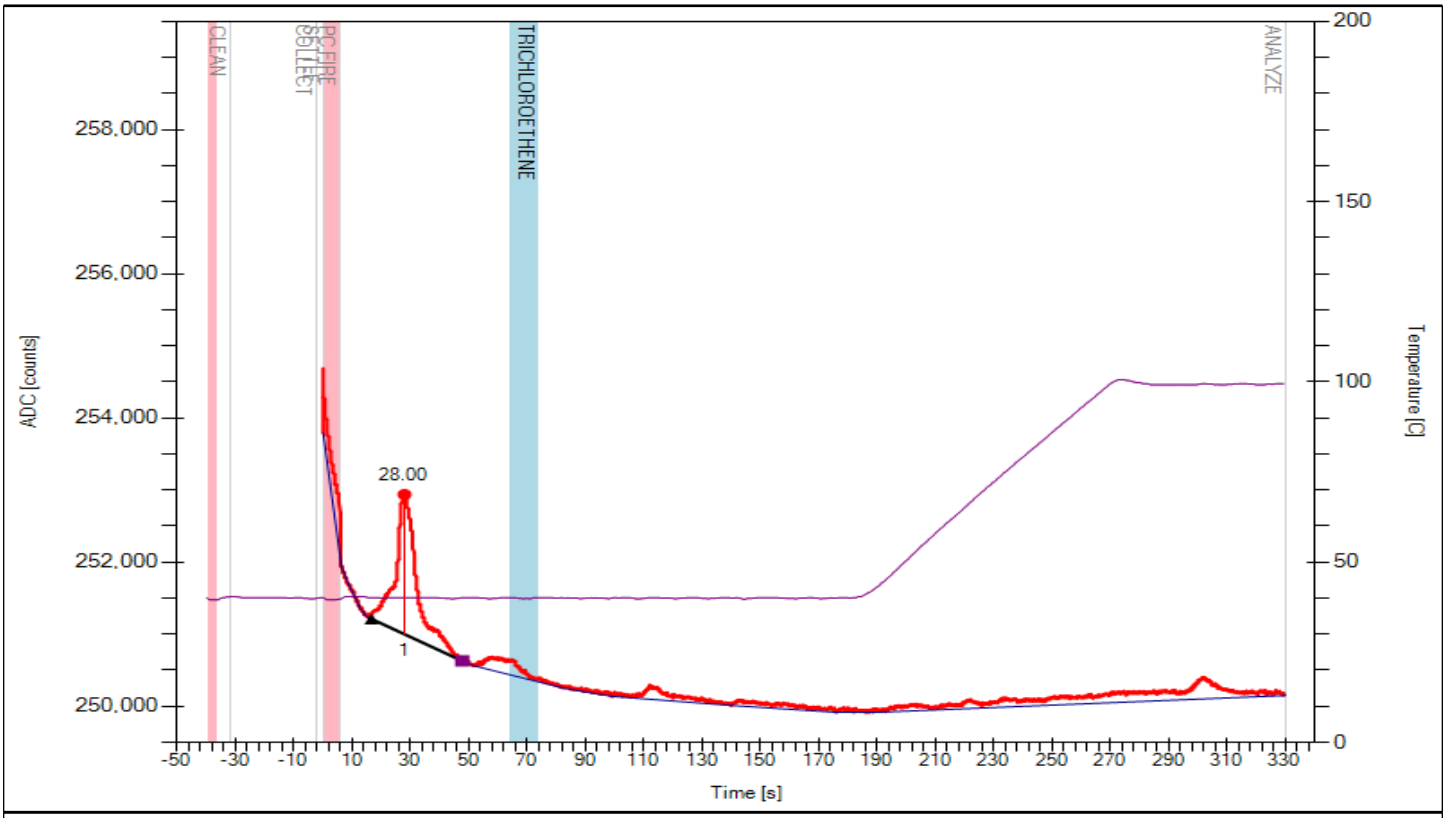
TT SOIL BORING E - GINT STD US LAB.GDT - 6/18/20 11:48 - C:\USERS\JOSH.MULLIS\DESKTOP\PRACTICE 022618.GPJ

APPENDIX C—FROG 5000 FIELD GRAPHS CALIBRATED FOR TRICHLOROETHENE

INITIAL BLANK 6/3/2020

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		28	1938	16818		



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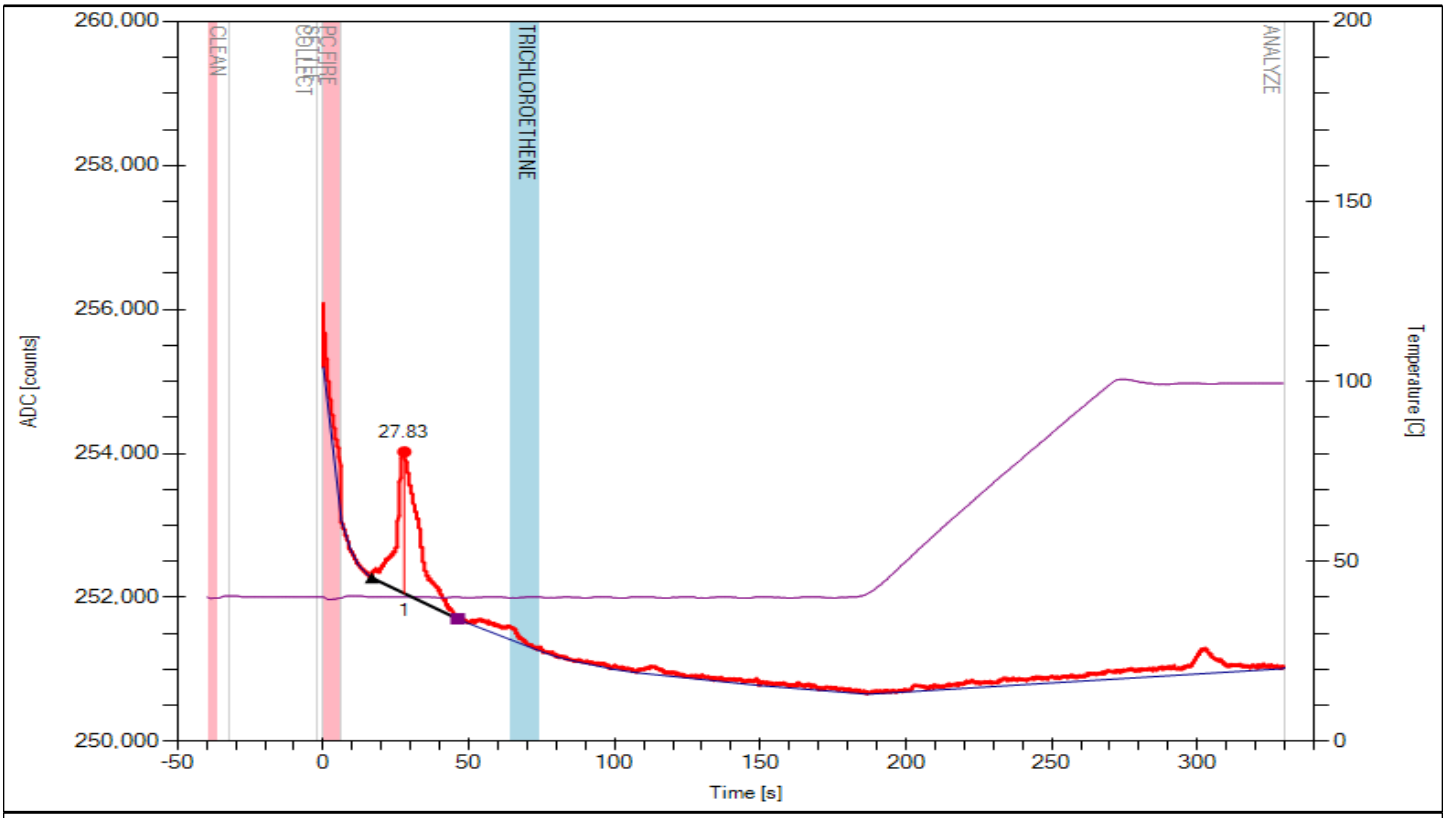
FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.83	1965	17870		



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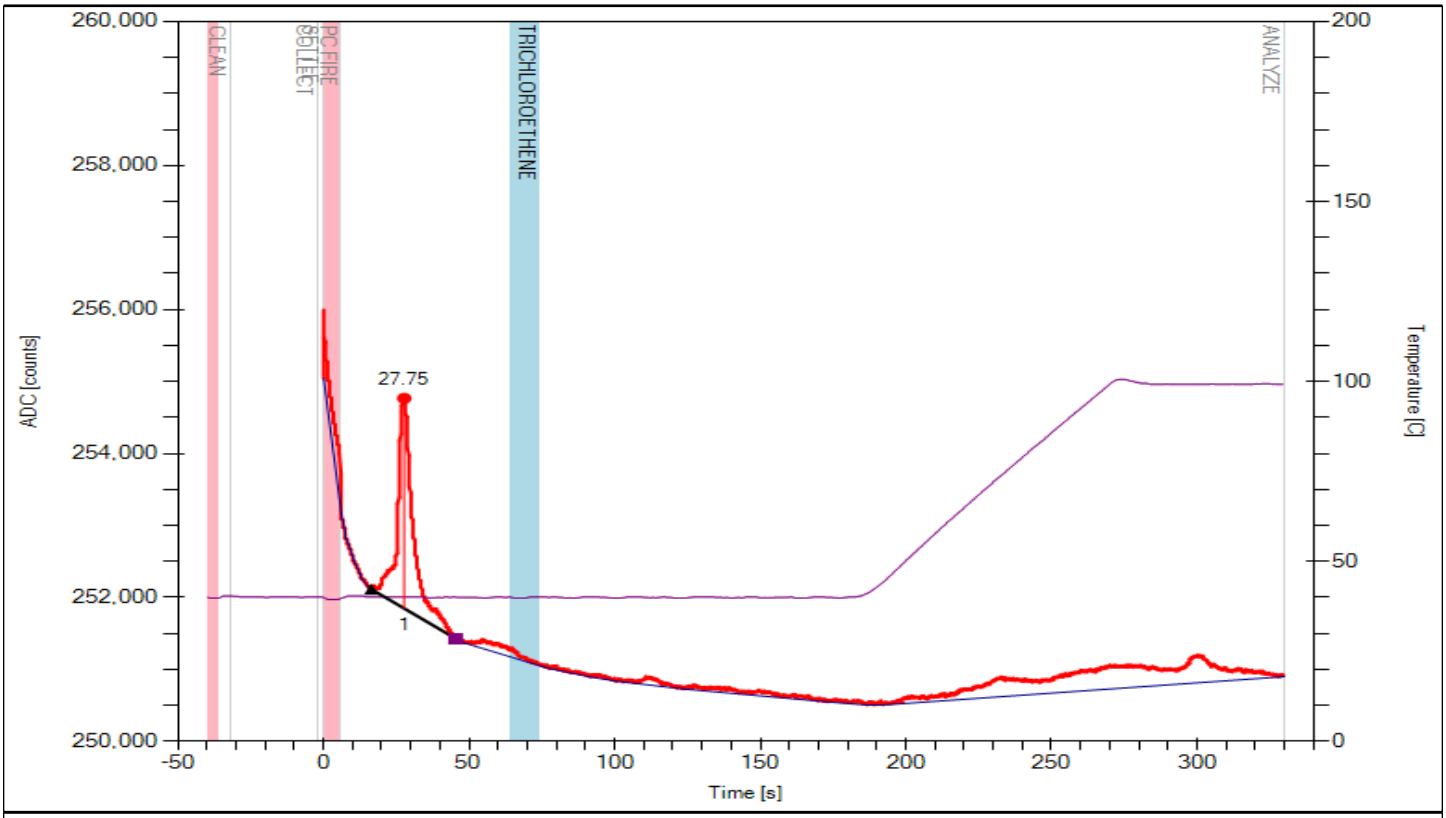
FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.75	2919	18594		



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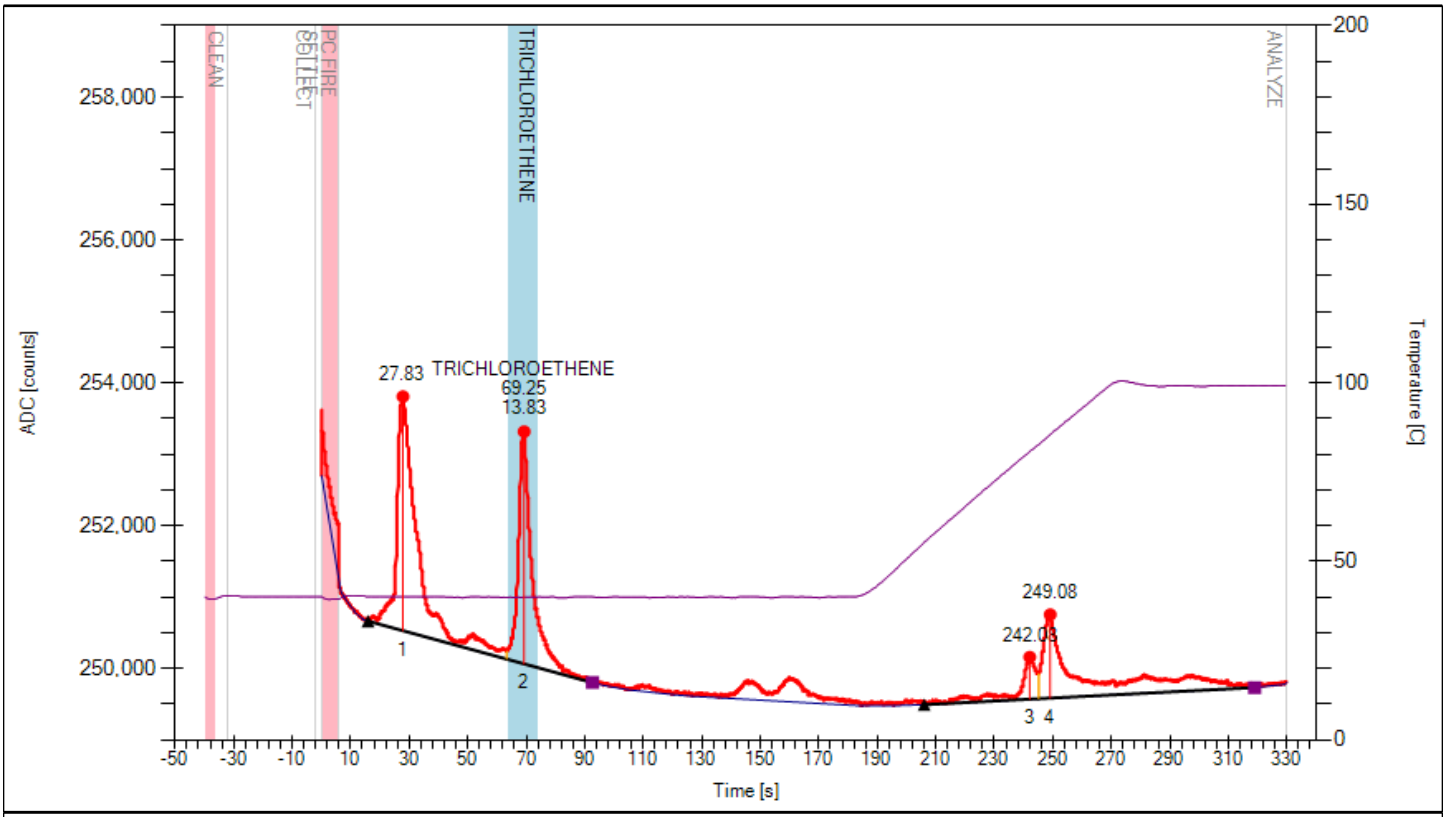
I-GWP-1A-20-25

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.83	3279	26695		
2	TRICHLOROETHENE	69.25	3252	17940	13.83	13.83
3		242.08	589	4236		
4		249.08	1170	17507		



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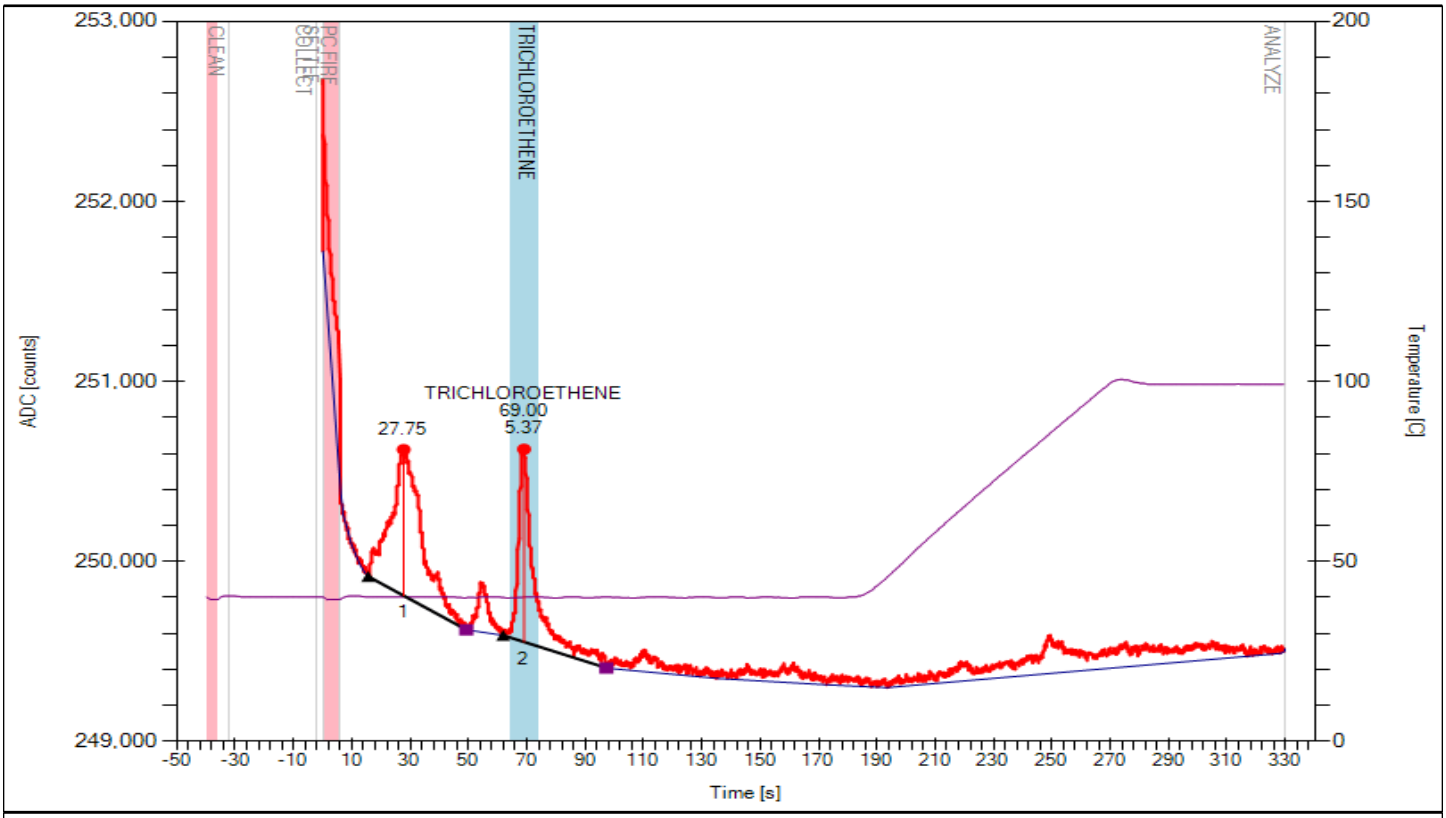
I-GWP-1A-25-30

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.75	812	10261		
2	TRICHLOROETHENE	69	1071	6973	5.37	5.37



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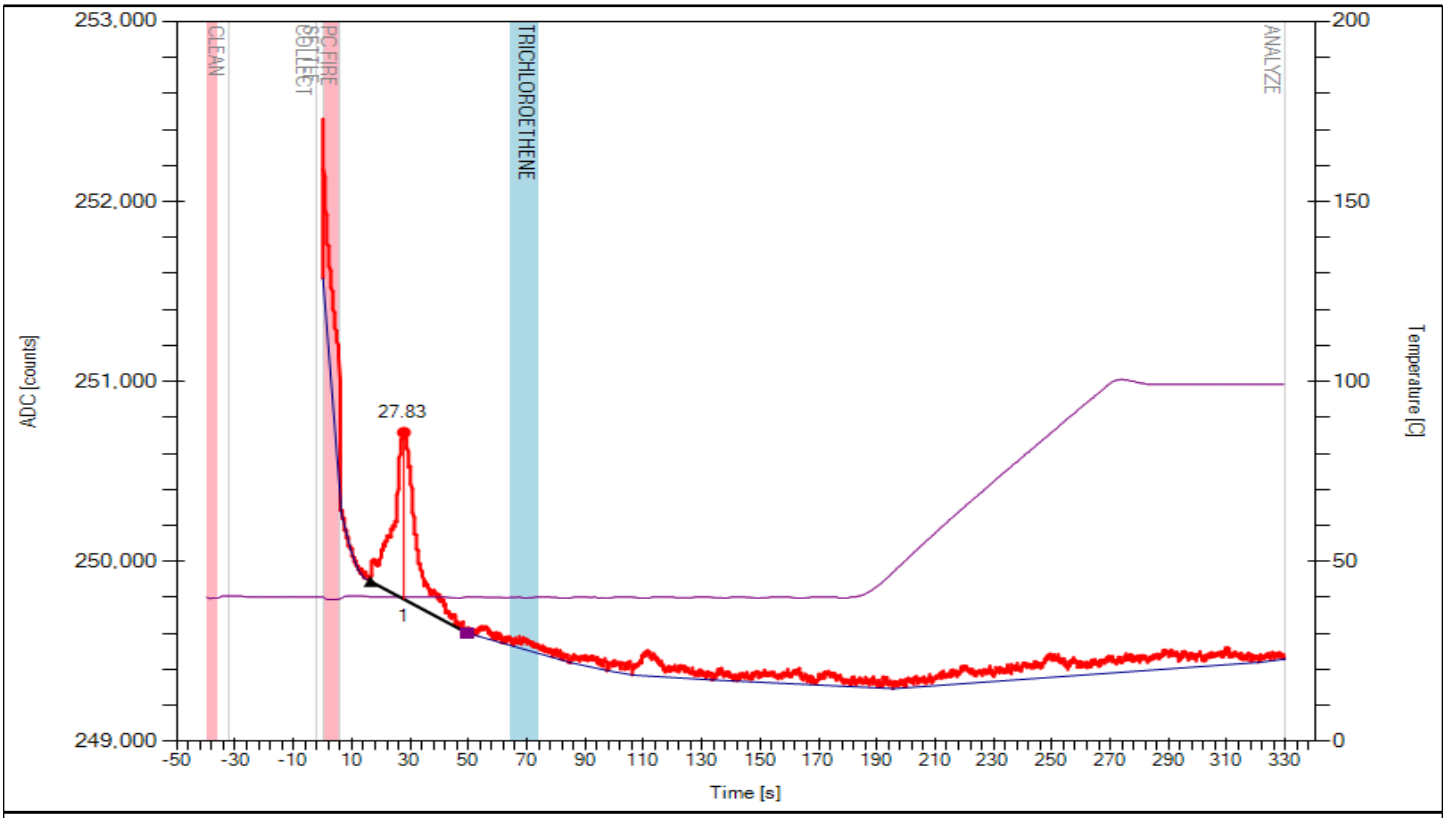
I-GWP-1A-30-35

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.83	927	8739		



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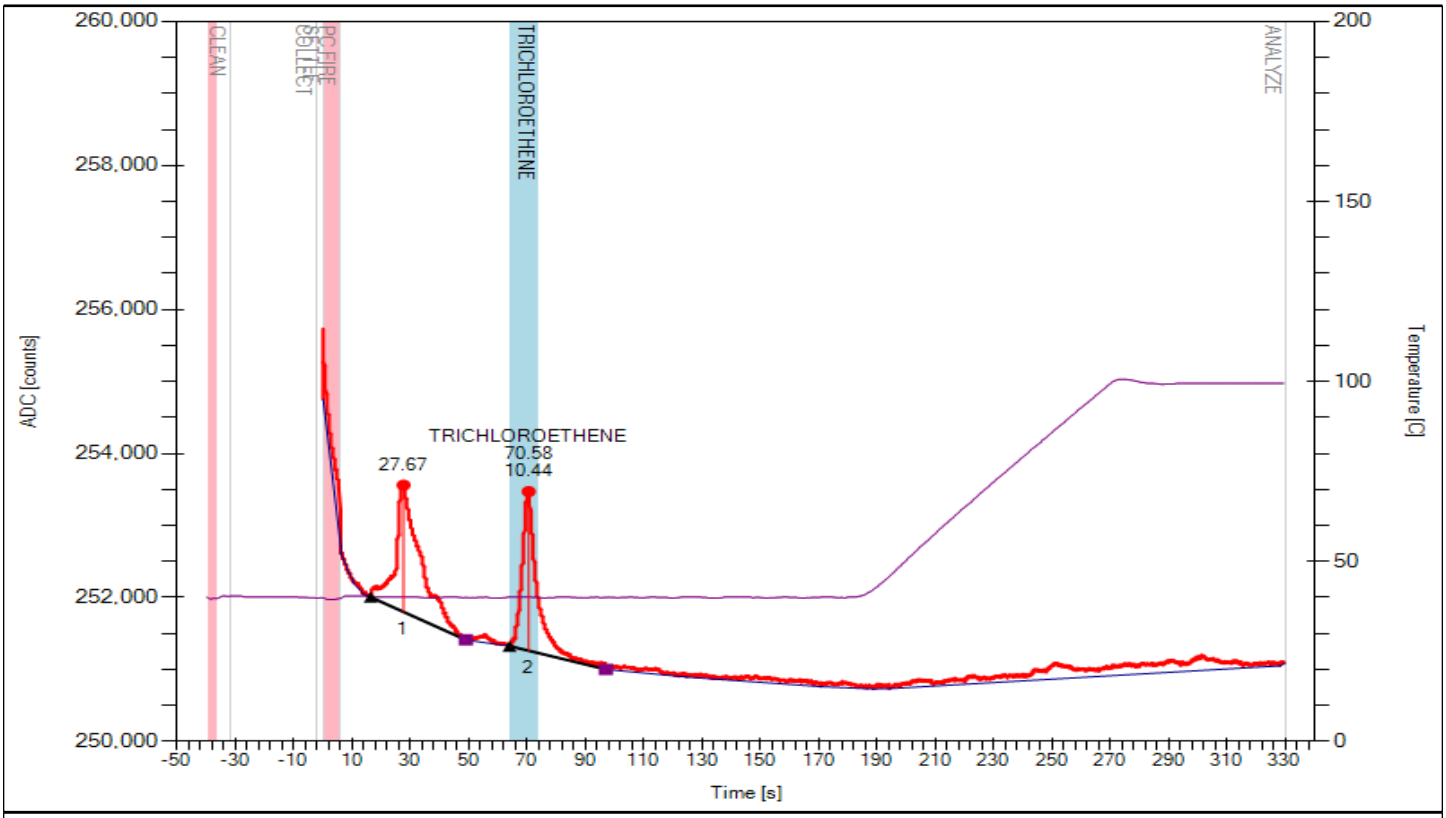
I-GWP-1B-25-30

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.67	1761	17708		
2	TRICHLOROETHENE	70.58	2210	13549	10.44	10.44



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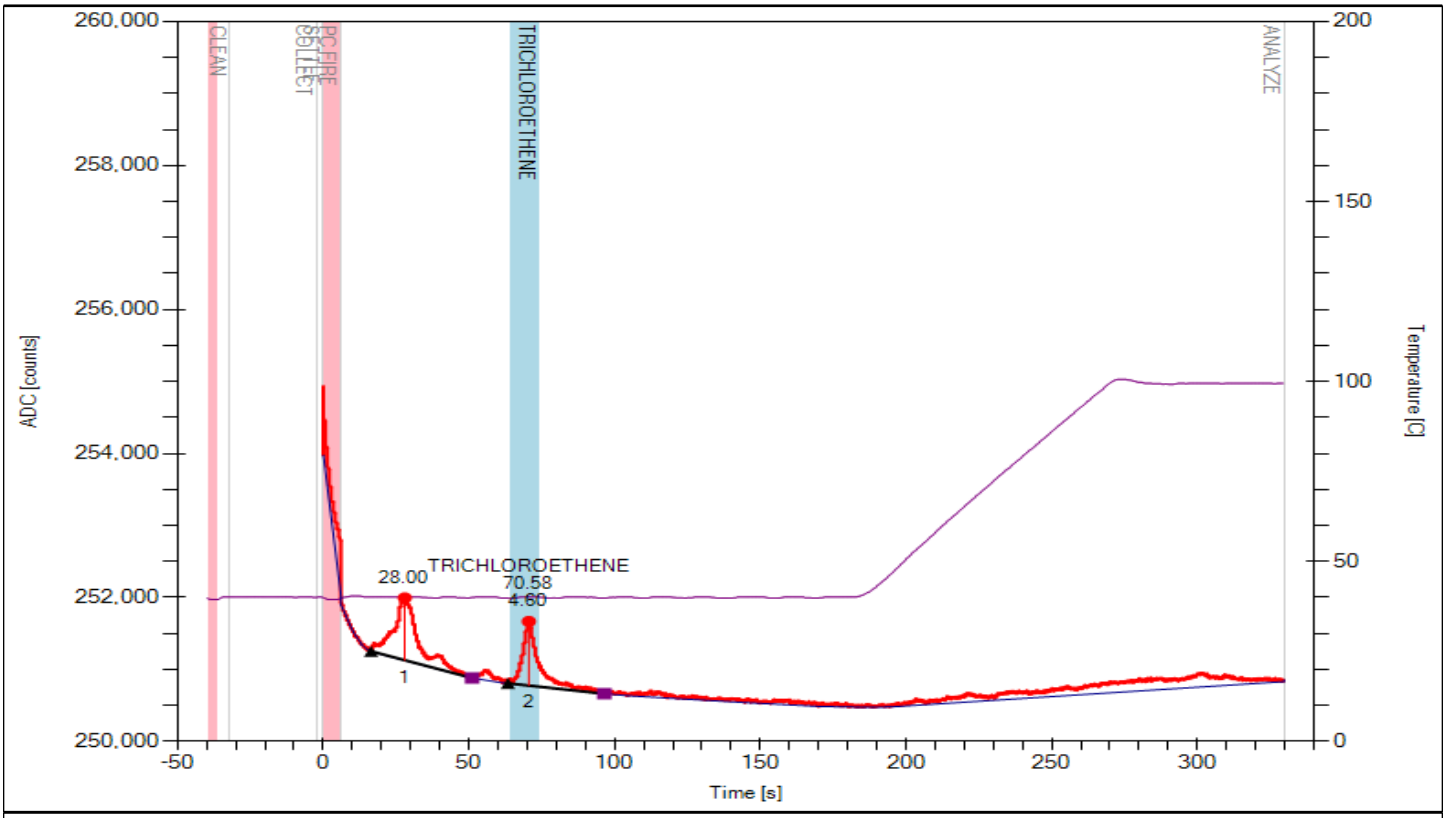
I-GWP-1C-25-30

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		28	865	8739		
2	TRICHLOROETHENE	70.58	890	5967	4.60	4.6



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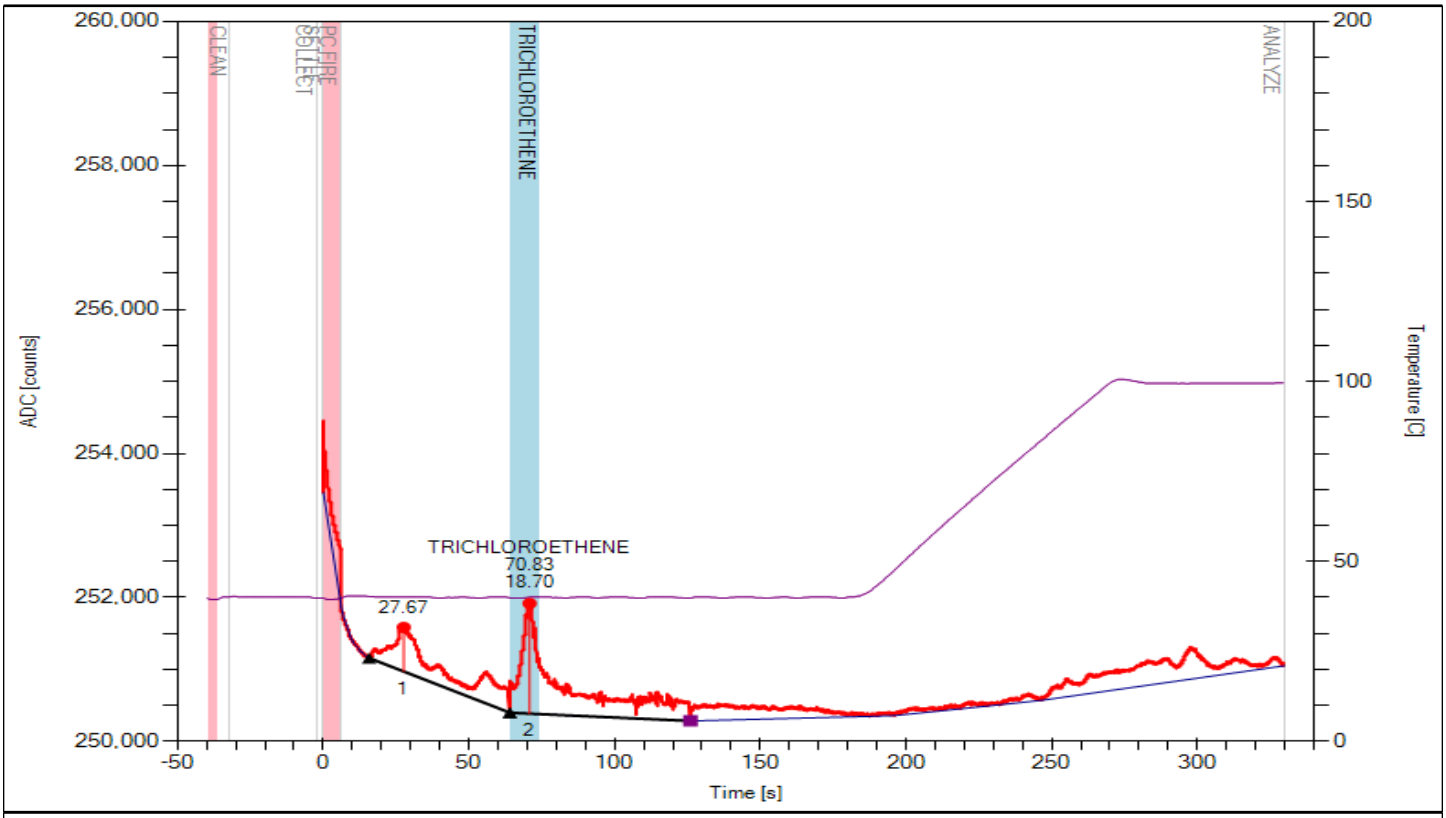
I-GWP-1C-30-35

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.67	613	13096		
2	TRICHLOROETHENE	70.83	1531	24260	18.70	18.7



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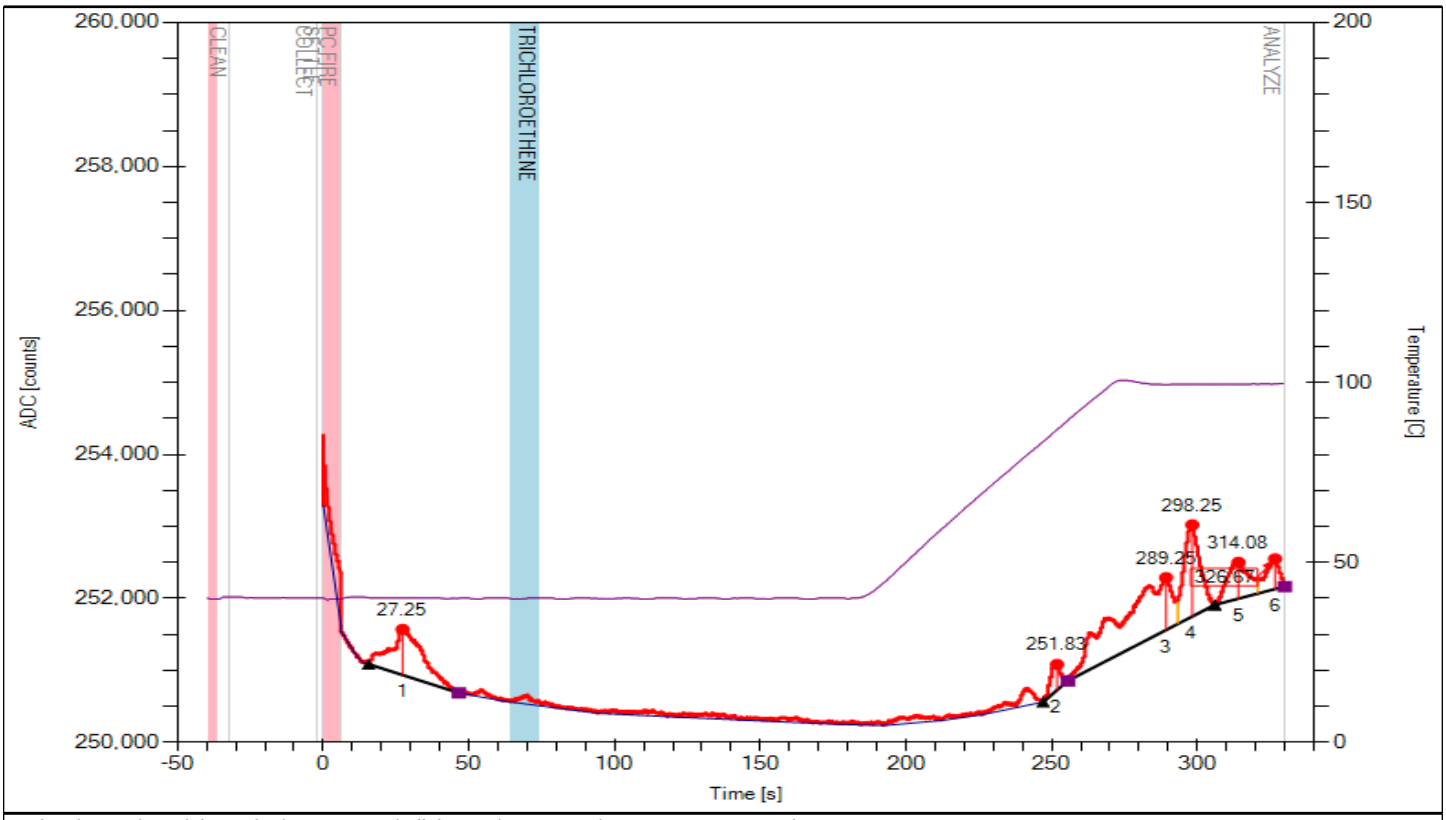
I-GWP-1C-35-40

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		27.25	634	8609		
2		251.83	356	1439		
3		289.25	727	17278		
4		298.25	1271	8250		
5		314.08	504	4269		
6		326.67	419	2365		



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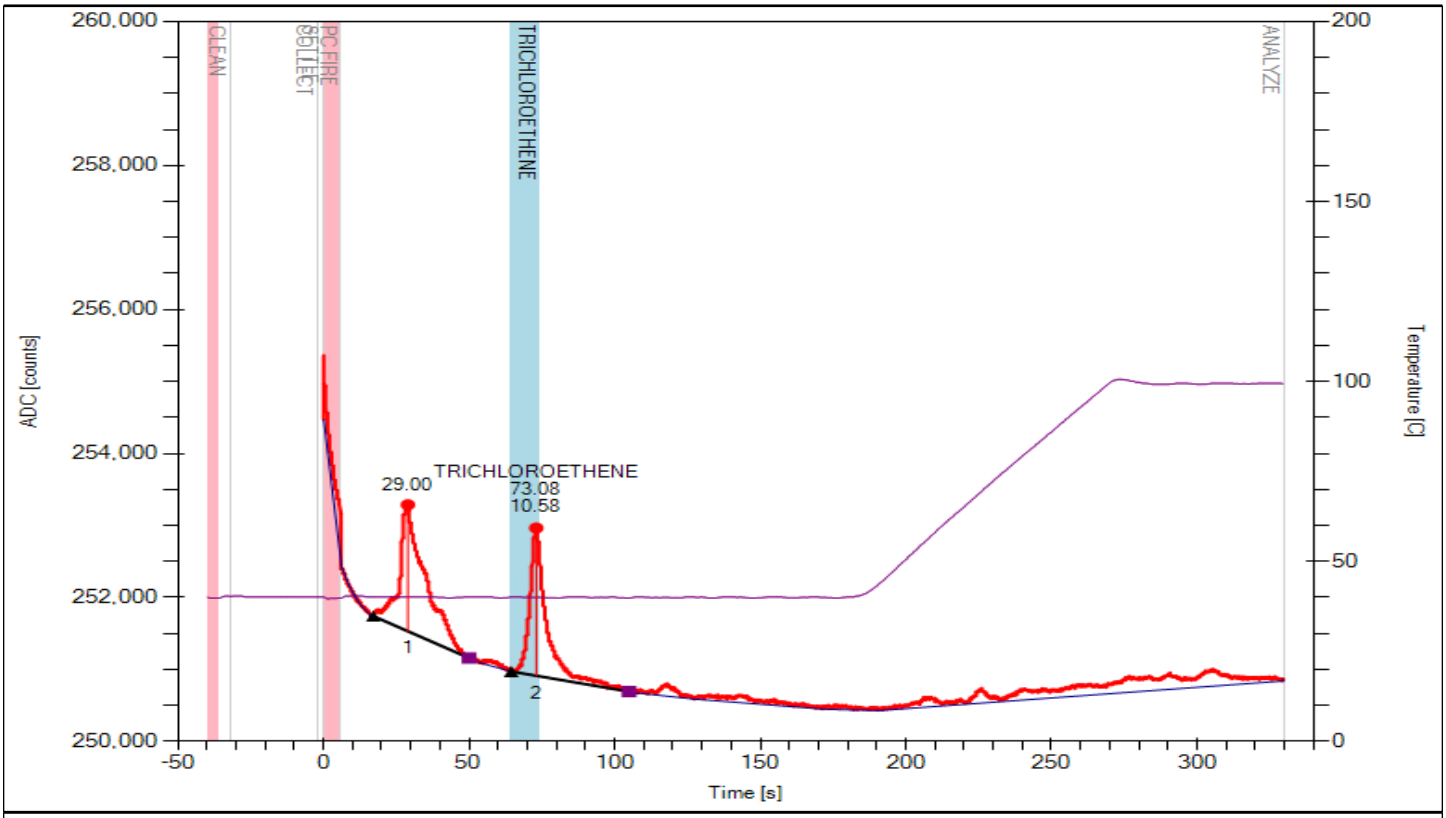
I-GWP-1D-30-35

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		29	1757	18183		
2	TRICHLOROETHENE	73.08	2052	13724	10.58	10.58



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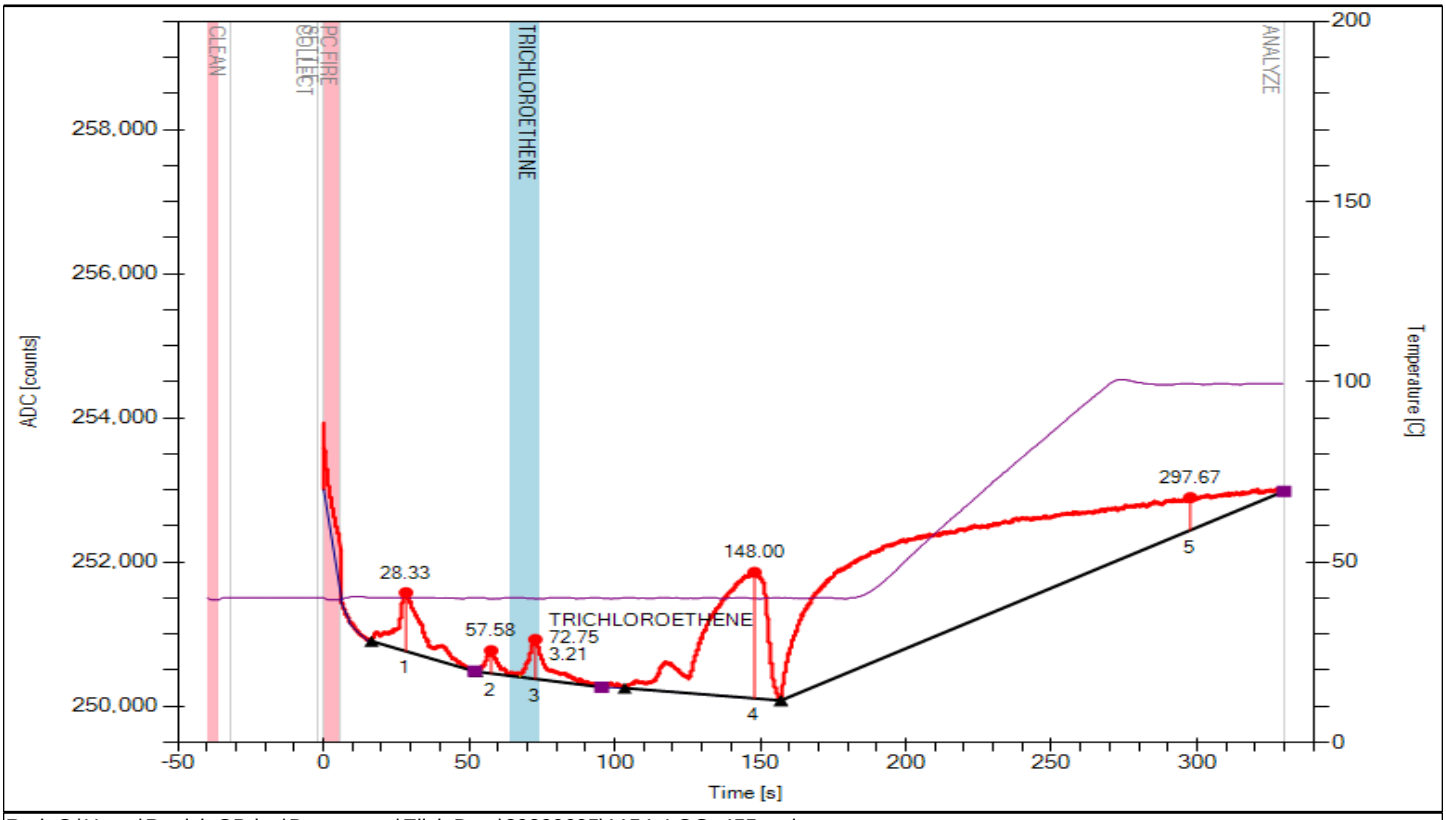
I-GWP-1D-35-40

FROG-0020:Ta=180, Tb=90, Tc=60, Ct=40, Ht=100, collect=30, clean=4, presettle=4, settle=2, fire=6
Dilution = 1.0

Peak	Analyte Name	Time	Height	Area	Concentration	Final Conc.
1		28.33	813	8939		
2		57.58	316	1680		
3	TRICHLOROETHENE	72.75	547	4160	3.21	3.21
4		148	1749	40391		
5		297.67	452	159589		



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APPENDIX D—MW-164B WELL INSTALLATION AND SAMPLING FIELD FORMS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: South of Building C Well Install
Project No.: 112IC09011

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: MRC-MW164B-15-20
Sample Location: MRC
Sampled By: P. OBRIEN
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7/16/2020	**Depth Interval**	**Color**	**Description (Sand, Silt, Clay, Moisture, etc.)**
Time: 1330	**15-20**	**RED W/BROWN**	**low plastic CLAY, dry**
Method: ROTOSONIC GRAB			
Monitor Reading (ppm): 21.8			

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirem	Collected	Other
VOCs 8260	none	4 oz glass jar	YES	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech Inc.
20251 Century Blvd Suite 200
Germantown, MD
Telephone: 301-528-3000

WELL NUMBER MRC-MW-164B

CLIENT Lockheed Martin Corporation **PROJECT NAME** South of Building C Investigation

PROJECT NUMBER 112IC09011 **PROJECT LOCATION** MIDDLE RIVER, MARYLAND

DATE STARTED 7/16/20 **COMPLETED** 7/16/20 **GROUND ELEVATION** _____ **HOLE SIZE** 6 inches

DRILLING CONTRACTOR Cascade **DRILLING METHOD** SONIC

NOTES well screened from 30-40 feet **LOGGED BY** P. Obrien

NORTHING _____ **EASTING** _____ **DATUM:** MD STATE; Horizontal: NAD83/2011 Epoch 2011, Vertical: NAVD88

DEPTH (ft)	PCB Soil Sample Collected	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0		CONCRETE		0.6 Concrete slab	PID = 1.1	
		SC		reddish brown low plastic sandy LOAM, sl moist		
				4.0		
5		CL		red w/light brown medium plastic silty CLAY, sl moist	PID = 14.1	
10				10.0		
		CLS		light brown with black mottled medium plast sandy CLAY, sl moist	PID = 4.5	Cement
				14.0		
15				red w/brown mottled low plastic silty CLAY, dry	PID = 21.8	
	15-20(ft)	CL				
20				20.0		
				dark brown high plastic silty CLAY, sl moist	PID = 3.5	
25		CL			PID = 2.4	Bentonite Chips
30				30.0		
		CL		reddish brown high plastic silty CLAY, moist	PID = 0.1	
				33.0		
35		SW		orange brown loose medium SAND, wet	PID = 0.1	#1 Silica Filter Pack 2-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
40				40.0		Bottom Cap

Bottom of borehole at 40.0 feet.

TT MW BORING 3 - GINT STD US LAB.GDT - 7/30/20 12:36 - C:\USERS\JOSH.MULLIS\DESKTOP\PRACTICE 022618.GPJ

Tetra Tech

MONITORING WELL DEVELOPMENT RECORD

Well: MRC-MW-164B Depth to Bottom (ft.): 38.34' Responsible Personnel: W. PRYOR

Site: MRC Static Water Level Before (ft.): 2.20' Drilling Co.: cascade

Date Installed:	7/16/2020	Static Water Level After (ft.)	14.8	Project Name:	South of Building C
Date Developed:	7/22/2020	Screen Length (ft.)	5'	Project Number:	112IC09011
Dev. Method:	SURGE + MACRO	Specific Capacity			
Pump Type:	MACRO MONSOON	Casing ID (in.)	2" PVC		

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks (odor, color, etc.)
1000		START SURGE, VERY SOFT BOTTOM						
1030	<1/2 inch		START PUMPING WELL					NO ODOR, BROWN
1035	<1/2 inch		2.2	23.11	6.82	0.322	>999	NO ODOR, BROWN
1040	<1/2 inch		8.3	21.6	7.06	0.276	>999	NO ODOR, BROWN
1045	<1/2 inch		21.9	22.09	6.4	0.255	>999	NO ODOR, BROWN
1050	<1/2 inch		25.83	22.24	6.11	0.236	>999	NO ODOR, BROWN
1055	<1/2 inch		27.75	21.87	6.19	0.230	>999	NO ODOR, BROWN
1100	<1/2 inch		28.75	21.83	6.19	0.220	>999	NO ODOR, BROWN
1105	<1/2 inch		28.7	21.79	6.2	0.214	>999	NO ODOR, BROWN
1115	<1/2 inch		29.6	21.8	6.05	0.212	>999	NO ODOR, BROWN
1125	0		29.6	23.18	5.77	0.189	385	NO ODOR, BROWN
1135	0		29.6	23.19	6.14	0.188	109	NO ODOR, BROWN
1145	0		29.6	23.22	6.15	0.190	85.6	NO ODOR, BROWN
1155	0		29.6	24.25	6.14	0.215	80.1	SLIGHTLY CLOUDY
1200	0	30 gallons	29.6	24.5	5.76	0.210	75.9	SLIGHTLY CLOUDY
	WELL DEVELOPMENT COMPLETED DUE TO 2 HOUR PURGE TIME AND 30 GALLONS REMOVED.							

GROUNDWATER SAMPLE LOG SHEET

Tetra Tech, Inc.

Event:	South of Building C Groundwater
Project Site Name:	Middle River Complex
Project No.:	112IC09011

Sample ID:	MRC-MW-164B-081120	**Sampled By:**	Mullis
QA/QC Duplicate ID:		**Sample Date:**	08/11/20
MS/MSD Collected:		**Sample Time:**	1420

WELL INFORMATION:

Well ID :	MSA-MW-164B	**Purge Date:**	08/11/20
Well Diameter (in):	2 inches	**Static Water Level (ft-BTOR):**	1.86
Top of Screen (ft-BTOR):		**PID Monitor Reading:**	N/A
Bottom of Screen (ft-BTOR):		**Purge Method:**	Low Flow - Direct Fill
Total Well Depth (ft-BTOR):	38.05	**Sample Method:**	Low Flow - Direct Fill

MONITORING WELL INSPECTION

Condition of Seal: **Well Photograph - See next page**

( ) None (X) Good ( ) Cracked

Condition of Protective Casing:

(X) Good ( ) Damaged ( ) Loose ( ) None Present

Inner Casing: (X) PVC ( ) Steel ( ) None

Condition: (X) Good ( ) Cracked/Broken

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U-52	**Pump Controller:**	Geopump Peristaltic
Turbidity Meter:	LaMotte 2020e		

PURGE DATA:

Time (Hrs)	Water Level (ft. below TOC)	Flow mL / min.	pH (S.U.)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Comments
1250	1.86	START	--	--	--	--	--	--	--	
1255	2.60	300	6.46	0.122	657.0	0.18	33.70	-128	0.1	
1300	3.40	300	6.47	0.122	571.0	0.08	32.77	-134	0.1	
1305	4.45	300	6.47	0.121	479.0	0.00	30.96	-137	0.1	
1310	4.55	300	6.38	0.115	500.0	0.00	30.55	-120	0.1	
1315	4.62	300	6.32	0.107	516.0	0.00	30.47	-115	0.0	
1320	4.90	300	6.21	0.099	484.0	0.00	30.04	-100	0.0	
1325	4.98	300	6.18	0.096	472.0	0.00	29.99	-95	0.0	
1330	4.98	300	6.19	0.102	395.0	0.00	29.87	-100	0.0	
1335	4.98	300	6.15	0.097	52.2	0.00	29.88	-94	0.0	
1340	4.98	300	6.19	0.096	40.9	0.00	29.69	-95	0.0	
1345	4.98	300	6.10	0.090	33.3	0.00	29.50	-85	0.0	
1355	4.98	300	6.11	0.091	26.3	0.00	29.60	-85	0.0	
1405	4.98	300	6.09	0.091	21.2	0.00	29.53	-84	0.0	
1415	4.98	300	6.08	0.091	13.4	0.00	29.50	-84	0.0	
1420	4.98	300	6.08	0.091	8.6	0.00	29.48	-83	0.0	

FINAL PURGE / SAMPLE DATA:

Start Purge	End Purge	Total (min.)	Total Vol. (gal.)	pH (S.U.)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temp. (C°)	ORP (mV)	Salinity (ppt)	
1250	1420	90	~3	6.08	0.091	8.56	0.0	29.50	-83	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS

Analysis	Method	Preservative	Quantity	Vol.	Bottle Type	Collected
VOCs	8260C	HCl	3	40 mL	glass vials	YES
MEE	RSK-175	HCl	3	40 mL	amber glass	YES
Total Priority Pollutant Metals and Mercury	6020B / 7470A	HNO3	1	500 mL	poly	YES
Dissolved PPM and Mercury	6020B / 7470A	HNO3, filtered	1	500 mL	poly	YES
Alkalinity	2320B	None	1	250 mL	poly	YES
Salinity	2520B	None	1	250 mL	poly	YES
TDS	2540C	None	1	250 mL	poly	YES
Anions / Conductance	9056A/2510B	None	1	500 mL	poly	YES
Hexavalent chromium (dissolved)	218.6	Buffer solution, filtered	1	400 mL	poly	YES

OBSERVATIONS / NOTES:

All samples shipped to TestAmerica in North Canton, OH except for Hexavalent Chromium which is analyzed by TestAmerica in Chicago, IL. Ferrous iron 4 mg/L

NAA Parameter (if applicable) Ferrous Iron Kit: 4 mg/L

Duplicate information:	Signature(s):
	JOSHUA MULLIS

INSTRUMENT CALIBRATION LOGSHEET

TETRA TECH

PROJECT NAME : South of Building C Well Sampling
SITE NAME: Middle River Complex
PROJECT NO.: 112IC09011

INSTRUMENT NAME/MODEL: Horiba U52 / LaMotte 2020we
MANUFACTURER: Horiba / LaMotte
SERIAL NUMBER: 22192/35004 / 25110

Date of Calibration (mm/dd/yr)	Person Performing Calibration (Initial)		pH (S.U.)	S.C (mS/cm)	D.O. (mg/L)	Temp. ºC	ORP (mV)	Salinity (%)	Turbidity (1) (NTUs)	Turbidity (10) (NTUs)	Calibration Standard Lot # / Expiration Date	Remarks
	JAM	*Pre*	5.35	3.56	12.23	N/A	N/A	N/A	0.99	9.85	***Lot # 191301780***	
8/11/2020	JAM	*Post*	4.00	4.49	9.05	N/A	N/A	N/A	1.00	10.00	***Exp. Date: 05/21***	

APPENDIX E—PRECISION SURVEY REPORT

PRECISION
SURVEY AND MAPPING LLC
Using Modern Technology to Map America

Date: October 28, 2020

Tetra Tech
20251 Century Boulevard, Suite 200,
Germantown, MD 20874-7114

Re: Chesapeake Park (LMC) Well Monitoring Report

Attn: Mr. Josh Mullis

Dear Mr. Mullis,

In accordance with your request, I am providing this letter and attachment which represents the measurements associated with the MRC Monitoring Well Locations performed in October 2020. The datum used for the measurements are based on the Maryland Coordinate System NAD83/2011 epoch 2011 for horizontal position and NAVD88 for vertical position.

Chesapeake Park Monitoring

Point	Northing	Easting	Elevation	Date	Monitoring Pt	Description
2010	605978.405	1473151.772	22.4974	10/27/2020	164B	Ground
2011	605978.424	1473151.740	22.1431	10/27/2020	164B	TOP PVC

**Observations were guided by on-site Tetra Tech personnel in terms of position and elevation*

Feel free to give me a call if you have any questions or require additional information regarding the effort.

Thank you,





Charles S. Ruzicka, L.S., President
Professional Land Surveyor MD/DE/DC
Office: 410-459-2124
Cell: 410-925-0080
chuck@precisionsurveys.us

APPENDIX F—FULL AND VALIDATED LABORATORY DATA REPORTS, INCLUDING MICROBIAL INSIGHTS

Appendices

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **JUNE 24, 2020**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
BLDG. C
SDG 240-131288-1

SAMPLES: 1 / Aqueous / VOCs

I-GWP-1B-25-30

1 / Trip Blank / VOCs

TB-060320

Overview

The sample set for LMC-MRC BLDG.C, SDG 240-131288-1, consisted of one (1) aqueous sample and one (1) trip blank. All samples were analyzed for volatile organic compounds (VOCs) as referenced above.

The samples were collected by Tetra Tech, Inc. on June 3, 2020 and analyzed by Eurofins – Canton. All analyses were conducted in accordance with SW-846 Method 8260B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, GC/MS tuning, laboratory method/trip blank results, surrogate spike recoveries, laboratory control sample results, matrix spike / matrix spike duplicate recoveries, internal standard areas, field duplicate results, chromatographic resolution, compound identification, compound quantitation and detection limits. Areas of concern are listed below.

Major

- None.

Minor

- The VOC Initial calibration verification (ICV) performed on instrument A3UX16 on 5/18/2020 @ 12:38 had %Ds for dichlorodifluormethane and chloromethane which exceeded the 20% quality control limit. All samples were affected. The detected and non-detected results reported for dichlorodifluormethane and chloromethane in the affected samples were qualified as estimated, (J) and (UJ), respectively.

- The VOC continuing calibration verification (CCV) performed on instrument A3UX16 on 6/10/2020 @ 09:28 had %Ds for bromomethane, 1,1-dichloroethane, cyclohexane, toluene, trans-1,3-dichloropropene, and styrene which exceeded the 20% quality control limit. All samples were affected. The detected and non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (J) and (UJ), respectively.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

Notes

Non-detected results were reported to the method detection limit (MDL).

The VOC batch QC MS/MSD had percent recoveries greater than the QC limit for 1,1-dichloroethane, 1,2-dichloropropane, and chloroform. No action was taken on this basis as the MS/MSD was not performed on a Tetra Tech sample.

Executive Summary

Laboratory Performance: VOC CCV %D exceedance of the 20% quality control limit resulted in qualification of the data.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Edward Sedlmyer
Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

PROJ_NO: 09011	NSAMPLE	I-GWP-1B-25-30			TB-060320		
SDG: 240-131288-1	LAB_ID	240-131288-1			240-131288-2		
FRACTION: OV	SAMP_DATE	6/3/2020			6/3/2020		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U	
1,1,2-TRICHLOROETHANE		0.09	U		0.09	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	UJ	C	0.17	UJ	C
1,1-DICHLOROETHENE		0.19	U		0.19	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U	
2-BUTANONE		1.2	U		1.2	U	
2-HEXANONE		0.54	U		0.54	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U	
ACETONE		13			5.4	U	
BENZENE		0.63	J	P	0.13	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U	
BROMOMETHANE		0.42	UJ	C	0.42	UJ	C
CARBON DISULFIDE		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U	
CHLOROETHANE		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U	
CHLOROMETHANE		0.27	J	CP	0.2	UJ	C
CIS-1,2-DICHLOROETHENE		2.5			0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U	
CYCLOHEXANE		0.24	UJ	C	0.24	UJ	C
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C
ETHYLBENZENE		0.11	U		0.11	U	
ISOPROPYLBENZENE		0.09	U		0.09	U	

PROJ_NO: 09011	NSAMPLE	I-GWP-1B-25-30			TB-060320		
SDG: 240-131288-1	LAB_ID	240-131288-1			240-131288-2		
FRACTION: OV	SAMP_DATE	6/3/2020			6/3/2020		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.7	U		1.7	U	
METHYL CYCLOHEXANE		0.33	U		0.33	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U	
STYRENE		0.1	UJ	C	0.1	UJ	C
TETRACHLOROETHENE		0.15	U		0.15	U	
TOLUENE		0.17	J	CP	0.14	UJ	C
TOTAL XYLENES		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	UJ	C	0.67	UJ	C
TRICHLOROETHENE		19			0.1	U	
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U	
VINYL CHLORIDE		0.2	U		0.2	U	

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Client Sample ID: I-GWP-1B-25-30 Lab Sample ID: 240-131288-1

Matrix: Water Lab File ID: UXM28629.D

Analysis Method: 8260C Date Collected: 06/03/2020 10:30

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	13		10	5.4
71-43-2	Benzene	0.63	J	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.27	J	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	2.5		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Client Sample ID: I-GWP-1B-25-30 Lab Sample ID: 240-131288-1

Matrix: Water Lab File ID: UXM28629.D

Analysis Method: 8260C Date Collected: 06/03/2020 10:30

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.17	J	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	19		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		69-122
1868-53-7	Dibromofluoromethane (Surr)	90		78-129
460-00-4	4-Bromofluorobenzene (Surr)	101		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		75-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Client Sample ID: TB-060320 Lab Sample ID: 240-131288-2

Matrix: Water Lab File ID: UXM28630.D

Analysis Method: 8260C Date Collected: 06/03/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 18:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Client Sample ID: TB-060320 Lab Sample ID: 240-131288-2

Matrix: Water Lab File ID: UXM28630.D

Analysis Method: 8260C Date Collected: 06/03/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 18:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		69-122
1868-53-7	Dibromofluoromethane (Surr)	93		78-129
460-00-4	4-Bromofluorobenzene (Surr)	103		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		75-130

Appendix C

Support Documentation

A/ Conton

Baltimore #201 Chain of Custody Record

321401

401417

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Samantha Brenner	Site Contact: Patrick O'Brien	Date: 6/3/20	COC No:
Company Name: Tetra Tech	Tel/Fax:	Lab Contact: John McFadden	Carrier: Courier	1 of 1 COCs
Address: 20251 Century Blvd. Suite 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone: 301-528	TAT if different from Below ____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: South of Building C GLP	☐ 1 week			
Site: MRC	☐ 2 days			Job / SDG No.:
P O # 112E009011	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Total VOCs	Sample Specific Notes:
I-GWP-1B-25-30	6/3/20	1030	G	AQ	3			X	
TB-060320	6/3/20	0000	G	AQ	2			2	

240-131288 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 2

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	6/3/20 15:30	[signature]		6/3/20 15:30
[signature]	TETA	6/3/20 1200	[signature]	TETAC	6-4-20 1000
			Received in Laboratory by:		

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 131288

Client Tetra Tech Site Name

Cooler Received on 6-4-20 Opened on 6-4-20

Cooler unpacked by:

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # 1 Foam Box (Client Cooler) Box Other

Packing material used: ~~Bubble Wrap~~ Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 4.0 °C Corrected Cooler Temp. 4.7 °C
   IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. ~~4.0~~ °C Corrected Cooler Temp. ~~4.9~~ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were the seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
   -Were tamper/custody seals intact and uncompromised? (Yes) No NA
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes (No)
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC902937
13. Were VOAs on the COC? (Yes) No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes (No) NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # NA (Yes) No
16. Was a LL Hg or Me Hg trip blank present? Yes (No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: AG

18. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

ANALYTICAL REPORT

Job Number: 240-131288-1

Job Description: MRC South of Building C

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

Attention: Samantha Brenner



Approved for release.
John McFadden
Project Manager I
6/15/2020 11:49 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
(330)497-9396
john.mcfadden@testamericainc.com
06/15/2020

cc: Tony Apanavage
Kelly Carper

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC South of Building C

Report Number: 240-131288-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 6/4/2020 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples I-GWP-1B-25-30 (240-131288-1) and TB-060320 (240-131288-2) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 06/10/2020.

The continuing calibration verification (CCV) analyzed in batch 240-437675 was outside the method criteria for the following analytes: Multiple Analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

Method Summary

Client: Tetra Tech, Inc. Job ID: 240-131288-1
Project/Site: MRC South of Building C

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Job ID: 240-131288-1
Project/Site: MRC South of Building C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-131288-1	I-GWP-1B-25-30	Water	06/03/20 10:30	06/04/20 10:00	
240-131288-2	TB-060320	Water	06/03/20 00:00	06/04/20 10:00	

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
I-GWP-1B-25-30	240-131288-1	90	107	97	101
TB-060320	240-131288-2	93	109	98	103
	MB 240-437675/8	93	109	99	104
	LCS 240-437675/5	88	106	102	109
	240-131297-B-3 MS	86	104	102	107
	240-131297-B-3 MSD	91	100	101	106

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	78-129
DCA = 1,2-Dichloroethane-d4 (Surr)	75-130
TOL = Toluene-d8 (Surr)	69-122
BFB = 4-Bromofluorobenzene (Surr)	47-134

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28610.D

Lab ID: LCS 240-437675/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.0	100	65-141	
1,1,2,2-Tetrachloroethane	20.0	22.7	114	45-151	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0	100	54-148	
1,1,2-Trichloroethane	20.0	22.3	112	79-121	
1,1-Dichloroethane	20.0	23.6	118	74-126	
1,1-Dichloroethene	20.0	21.3	107	73-129	
1,2,4-Trichlorobenzene	20.0	20.1	100	47-120	
1,2-Dibromo-3-Chloropropane	20.0	18.4	92	34-136	
Ethylene Dibromide	20.0	20.4	102	73-120	
1,2-Dichlorobenzene	20.0	20.7	104	74-120	
1,2-Dichloroethane	20.0	22.0	110	66-129	
1,2-Dichloropropane	20.0	23.8	119	79-127	
1,3-Dichlorobenzene	20.0	21.3	106	74-120	
1,4-Dichlorobenzene	20.0	22.0	110	75-120	
2-Butanone (MEK)	40.0	35.7	89	41-151	
2-Hexanone	40.0	46.1	115	43-142	
4-Methyl-2-pentanone (MIBK)	40.0	42.4	106	43-145	
Acetone	40.0	35.2	88	33-155	
Benzene	20.0	22.0	110	77-123	
Dichlorobromomethane	20.0	21.6	108	73-122	
Bromoform	20.0	19.9	100	47-133	
Bromomethane	20.0	14.6	73	48-144	
Carbon disulfide	20.0	21.1	106	67-127	
Carbon tetrachloride	20.0	19.4	97	61-142	
Chlorobenzene	20.0	21.7	109	80-120	
Chloroethane	20.0	24.8	124	41-147	
Chloroform	20.0	21.5	107	74-127	
Chloromethane	20.0	23.2	116	46-148	
cis-1,2-Dichloroethene	20.0	21.5	107	75-124	
cis-1,3-Dichloropropene	20.0	21.2	106	68-128	
Cyclohexane	20.0	25.7	128	69-133	
Chlorodibromomethane	20.0	20.1	101	75-120	
Dichlorodifluoromethane	20.0	23.1	115	35-137	
Ethylbenzene	20.0	22.2	111	80-120	
Isopropylbenzene	20.0	22.5	112	73-123	
Methyl acetate	40.0	40.4	101	47-140	
Methyl tert-butyl ether	20.0	20.5	102	57-127	
Methylcyclohexane	20.0	21.9	110	64-123	
Methylene Chloride	20.0	21.8	109	63-134	
Styrene	20.0	22.8	114	75-121	
Tetrachloroethene	20.0	21.4	107	70-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28610.D

Lab ID: LCS 240-437675/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	23.1	115	79-122	
trans-1,2-Dichloroethene	20.0	20.5	102	74-130	
trans-1,3-Dichloropropene	20.0	21.7	108	64-120	
Trichloroethene	20.0	19.1	95	71-121	
Trichlorofluoromethane	20.0	22.4	112	52-148	
Vinyl chloride	20.0	23.4	117	61-134	
Xylenes, Total	40.0	45.3	113	78-122	
m-Xylene & p-Xylene	20.0	22.6	113	79-121	
o-Xylene	20.0	22.7	113	75-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28634.D

Lab ID: 240-131297-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20000	240 U	20900	105	62-135	
1,1,2,2-Tetrachloroethane	20000	130 U	24700	123	37-149	
1,1,2-Trichloro-1,2,2-trifluoroethane	20000	410 U	18000	90	41-145	
1,1-Dichloroethane	20000	170 U	25900	129	71-121	F1
1,1-Dichloroethene	20000	190 U	22600	113	64-132	
1,2,4-Trichlorobenzene	20000	260 U	21600	108	37-120	
1,2-Dibromo-3-Chloropropane	20000	910 U	19000	95	31-130	
Ethylene Dibromide	20000	120 U	22100	111	66-120	
1,2-Dichlorobenzene	20000	150 U	22600	113	65-120	
1,2-Dichloroethane	20000	210 U	24500	122	65-127	
1,2-Dichloropropane	20000	150 U	25500	128	73-125	F1
1,3-Dichlorobenzene	20000	150 U	22800	114	64-120	
1,4-Dichlorobenzene	20000	160 U	23300	117	65-120	
2-Butanone (MEK)	40000	1200 U	35900	90	40-147	
2-Hexanone	40000	540 U	49000	122	44-142	
4-Methyl-2-pentanone (MIBK)	40000	420 U	44000	110	40-147	
Acetone	40000	5400 U	39200	98	32-157	
Benzene	20000	130 U	23700	119	70-121	
Dichlorobromomethane	20000	170 U	22900	114	69-120	
Bromoform	20000	760 U	20400	102	41-128	
Bromomethane	20000	420 U	15200	76	41-136	
Carbon disulfide	20000	280 U	23100	116	54-131	
Carbon tetrachloride	20000	6000	26300	101	53-142	
Chlorobenzene	20000	140 U	23500	117	73-120	
Chloroethane	20000	830 U	24300	122	37-142	
Chloroform	20000	2000	25000	115	66-126	
Chloromethane	20000	200 U	23300	117	33-146	
cis-1,2-Dichloroethene	20000	4800	27600	114	68-121	
cis-1,3-Dichloropropene	20000	610 U	22300	111	56-121	
Chlorodibromomethane	20000	390 U	21100	106	66-120	
Dichlorodifluoromethane	20000	350 U	18800	94	27-132	
Ethylbenzene	20000	110 U	23400	117	66-122	
Isopropylbenzene	20000	90 U	23400	117	56-122	
Methyl tert-butyl ether	20000	70 U	21300	106	50-126	
Methylene Chloride	20000	2600 U	23700	118	59-127	
Styrene	20000	100 U	24400	122	57-126	
Tetrachloroethene	20000	150 U	21800	109	52-129	
Toluene	20000	1700	26600	124	68-124	
trans-1,2-Dichloroethene	20000	190 U	22400	112	69-126	
trans-1,3-Dichloropropene	20000	670 U	22700	113	53-120	
Trichloroethene	20000	18000	38700	103	56-124	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28634.D

Lab ID: 240-131297-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichlorofluoromethane	20000	450 U	20100	101	45-152	
Vinyl chloride	20000	290 J	23100	114	49-136	
Xylenes, Total	40000	150 U	47700	119	64-124	
m-Xylene & p-Xylene	20000	80 U	23600	118	65-123	
o-Xylene	20000	90 U	24100	121	63-124	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28635.D

Lab ID: 240-131297-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20000	22000	110	5	35	62-135	
1,1,2,2-Tetrachloroethane	20000	25300	126	2	35	37-149	
1,1,2-Trichloro-1,2,2-trifluoroethane	20000	18700	94	4	35	41-145	
1,1-Dichloroethane	20000	25300	127	2	35	71-121	F1
1,1-Dichloroethene	20000	21800	109	4	35	64-132	
1,2,4-Trichlorobenzene	20000	20900	104	4	25	37-120	
1,2-Dibromo-3-Chloropropane	20000	19500	98	3	35	31-130	
Ethylene Dibromide	20000	22100	110	0	35	66-120	
1,2-Dichlorobenzene	20000	21900	109	4	35	65-120	
1,2-Dichloroethane	20000	23900	119	2	35	65-127	
1,2-Dichloropropane	20000	25300	127	1	35	73-125	F1
1,3-Dichlorobenzene	20000	22000	110	4	35	64-120	
1,4-Dichlorobenzene	20000	22600	113	3	35	65-120	
2-Butanone (MEK)	40000	37400	93	4	35	40-147	
2-Hexanone	40000	51600	129	5	35	44-142	
4-Methyl-2-pentanone (MIBK)	40000	45300	113	3	35	40-147	
Acetone	40000	40400	101	3	35	32-157	
Benzene	20000	23300	117	2	35	70-121	
Dichlorobromomethane	20000	22900	114	0	35	69-120	
Bromoform	20000	20600	103	1	35	41-128	
Bromomethane	20000	16400	82	7	35	41-136	
Carbon disulfide	20000	22000	110	5	35	54-131	
Carbon tetrachloride	20000	25500	97	3	35	53-142	
Chlorobenzene	20000	22700	114	3	35	73-120	
Chloroethane	20000	24000	120	2	35	37-142	
Chloroform	20000	27500	128	10	35	66-126	F1
Chloromethane	20000	22300	112	4	35	33-146	
cis-1,2-Dichloroethene	20000	27300	112	1	35	68-121	
cis-1,3-Dichloropropene	20000	22300	112	0	35	56-121	
Chlorodibromomethane	20000	21700	109	3	35	66-120	
Dichlorodifluoromethane	20000	18500	92	2	35	27-132	
Ethylbenzene	20000	23300	116	1	35	66-122	
Isopropylbenzene	20000	22800	114	3	20	56-122	
Methyl tert-butyl ether	20000	21600	108	1	17	50-126	
Methylene Chloride	20000	23200	116	2	32	59-127	
Styrene	20000	24400	122	0	35	57-126	
Tetrachloroethene	20000	21400	107	2	35	52-129	
Toluene	20000	26100	122	2	35	68-124	
trans-1,2-Dichloroethene	20000	21800	109	3	35	69-126	
trans-1,3-Dichloropropene	20000	23200	116	2	35	53-120	
Trichloroethene	20000	37600	97	3	35	56-124	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28635.D

Lab ID: 240-131297-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichlorofluoromethane	20000	19600	98	3	35	45-152	
Vinyl chloride	20000	22300	110	4	35	49-136	
Xylenes, Total	40000	47300	118	1	35	64-124	
m-Xylene & p-Xylene	20000	23500	118	0	35	65-123	
o-Xylene	20000	23800	119	1	35	63-124	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab File ID: UXM28613.D Lab Sample ID: MB 240-437675/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 06/10/2020 11:30

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-437675/5	UXM28610.D	06/10/2020 10:17
I-GWP-1B-25-30	240-131288-1	UXM28629.D	06/10/2020 17:59
TB-060320	240-131288-2	UXM28630.D	06/10/2020 18:23
	240-131297-B-3 MS	UXM28634.D	06/10/2020 20:00
	240-131297-B-3 MSD	UXM28635.D	06/10/2020 20:24

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab File ID: BFB6395.D BFB Injection Date: 05/18/2020

Instrument ID: A3UX16 BFB Injection Time: 08:55

Analysis Batch No.: 434666

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.0	
75	30.0 - 60.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	77.0	
175	5.0 - 9.0 % of mass 174	5.7	(7.4) 1
176	95.0 - 101.0 % of mass 174	74.1	(96.2) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-434666/9	UXM27982.D	05/18/2020	9:45
	STD8260 240-434666/10	UXM27983.D	05/18/2020	10:10
	STD8260 240-434666/11	UXM27984.D	05/18/2020	10:34
	ICIS 240-434666/12	UXM27985.D	05/18/2020	10:59
	STD8260 240-434666/13	UXM27986.D	05/18/2020	11:24
	STD8260 240-434666/14	UXM27987.D	05/18/2020	11:48
	STD8260 240-434666/15	UXM27988.D	05/18/2020	12:13
	ICV 240-434666/16	UXM27989.D	05/18/2020	12:38
	ICV 240-434666/25	UXM27998.D	05/18/2020	16:21

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab File ID: BFB6415.D BFB Injection Date: 06/10/2020

Instrument ID: A3UX16 BFB Injection Time: 09:01

Analysis Batch No.: 437675

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	77.3	
175	5.0 - 9.0 % of mass 174	5.9	(7.6) 1
176	95.0 - 101.0 % of mass 174	75.1	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-437675/3	UXM28608.D	06/10/2020	9:28
	CCV 240-437675/4	UXM28609.D	06/10/2020	9:53
	LCS 240-437675/5	UXM28610.D	06/10/2020	10:17
	MB 240-437675/8	UXM28613.D	06/10/2020	11:30
I-GWP-1B-25-30	240-131288-1	UXM28629.D	06/10/2020	17:59
TB-060320	240-131288-2	UXM28630.D	06/10/2020	18:23
	240-131297-B-3 MS	UXM28634.D	06/10/2020	20:00
	240-131297-B-3 MSD	UXM28635.D	06/10/2020	20:24

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Sample No.: ICIS 240-434666/12 Date Analyzed: 05/18/2020 10:59

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM27985.D Heated Purge: (Y/N) N

Calibration ID: 57113

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		940402	5.87	779729	8.60	415718	10.87
UPPER LIMIT		1880804	6.37	1559458	9.10	831436	11.37
LOWER LIMIT		470201	5.37	389865	8.10	207859	10.37
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-434666/16		955833	5.87	797746	8.60	422197	10.87
CCVIS 240-437675/3		1042981	5.87	771050	8.60	413277	10.86

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Sample No.: CCVIS 240-437675/3 Date Analyzed: 06/10/2020 09:28

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM28608.D Heated Purge: (Y/N) N

Calibration ID: 57118

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1042981	5.87	771050	8.60	413277	10.86
UPPER LIMIT		2085962	6.37	1542100	9.10	826554	11.36
LOWER LIMIT		521491	5.37	385525	8.10	206639	10.36
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-437675/4		909845	5.87	708379	8.60	346701	10.86
LCS 240-437675/5		973282	5.87	743471	8.60	389728	10.86
MB 240-437675/8		880698	5.87	711003	8.60	356488	10.86
240-131288-1	I-GWP-1B-25-30	811176	5.87	652875	8.60	326945	10.86
240-131288-2	TB-060320	813172	5.87	662029	8.60	328774	10.86
240-131297-B-3 MS		933315	5.87	704525	8.60	367360	10.86
240-131297-B-3 MSD		978075	5.87	727349	8.60	387418	10.86

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-434666/15	UXM27988.D
Level 2	STD8260 240-434666/14	UXM27987.D
Level 3	STD8260 240-434666/13	UXM27986.D
Level 4	ICIS 240-434666/12	UXM27985.D
Level 5	STD8260 240-434666/11	UXM27984.D
Level 6	STD8260 240-434666/10	UXM27983.D
Level 7	STD8260 240-434666/9	UXM27982.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3060 0.3885	0.3668 0.3529	0.4201	0.4469	0.4111	Ave		0.3846			0.1000	12.3		20.0			
Chloromethane	0.4789 0.3892	0.4828 0.3718	0.4478	0.4378	0.4404	Ave		0.4355			0.1000	9.6		20.0			
Vinyl chloride	0.4188 0.4659	0.4573 0.4564	0.4854	0.5064	0.5139	Ave		0.4720			0.1000	6.9		20.0			
Butadiene	0.3569 0.4174	0.3867 0.4025	0.4205	0.4338	0.4532	Ave		0.4102				7.7		20.0			
Bromomethane	0.2466 +++++	0.2621 +++++	0.2392	0.2372	0.2573	Ave		0.2485			0.0500	4.4		20.0			
Chloroethane	0.1911 0.2320	0.2186 0.2355	0.2285	0.2390	0.2444	Ave		0.2270			0.0500	7.8		20.0			
Dichlorofluoromethane	0.4933 0.5177	0.5286 0.5144	0.5285	0.5583	0.5623	Ave		0.5290				4.6		20.0			
Trichlorofluoromethane	0.3838 0.4914	0.4343 0.4633	0.5147	0.5362	0.5226	Ave		0.4780			0.1000	11.4		20.0			
Ethyl ether	0.1634 0.2068	0.1862 0.2060	0.2077	0.2141	0.2234	Ave		0.2011				10.0		20.0			
Acrolein	0.0359 0.0408	0.0374 0.0399	0.0391	0.0383	0.0436	Ave		0.0393				6.3		20.0			
1,1-Dichloroethene	0.2421 0.2754	0.2667 0.2687	0.2797	0.2922	0.2961	Ave		0.2744			0.1000	6.6		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2283	0.1925 0.2075	0.2423	0.2574	0.2367	Ave		0.2274			0.0500	10.5		20.0			
Acetone	+++++ 0.0215	0.0326 0.0224	0.0228	0.0226	0.0241	Ave		0.0243			0.0100	17.0		20.0			
Iodomethane	0.3065 0.3517	0.3145 0.3312	0.3016	0.3549	0.3657	Ave		0.3323				7.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.9180 0.8984	0.9325 0.8804	0.9222	0.9440	0.9742	Ave		0.9242			0.1000	3.3		20.0			
Methyl acetate	0.1593 0.1651	0.1673 0.1664	0.1684	0.1663	0.1760	Ave		0.1670			0.1000	3.0		20.0			
3-Chloro-1-propene	0.3675 0.3935	0.4048 0.3863	0.3814	0.4035	0.4169	Ave		0.3934				4.2		20.0			
Methylene Chloride	0.3315 0.2955	0.3360 0.2916	0.3052	0.3075	0.3192	Ave		0.3124			0.1000	5.5		20.0			
2-Methyl-2-propanol	0.0203 0.0238	0.0233 0.0236	0.0252	0.0231	0.0256	Ave		0.0235				7.4		20.0			
Acrylonitrile	0.0896 0.1014	0.0978 0.1019	0.0987	0.0997	0.1073	Ave		0.0995				5.4		20.0			
Methyl tert-butyl ether	0.6135 0.8113	0.6730 0.8143	0.7680	0.7895	0.8586	Ave		0.7612			0.1000	11.4		20.0			
trans-1,2-Dichloroethene	0.3170 0.3200	0.3190 0.3205	0.3251	0.3356	0.3429	Ave		0.3257			0.1000	3.0		20.0			
Hexane	+++++ 0.4357	0.2946 0.4071	0.4182	0.4503	0.4306	Ave		0.4061				13.9		20.0			
Vinyl acetate	+++++ 0.5022	0.3551 0.5045	0.4134	0.4565	0.5201	Ave		0.4586				14.0		20.0			
1,1-Dichloroethane	0.4359 0.5136	0.5061 0.5092	0.5163	0.5319	0.5500	Ave		0.5090			0.2000	7.0		20.0			
2-Butanone (MEK)	+++++ 0.0330	0.0237 0.0333	0.0313	0.0311	0.0345	Ave		0.0311			0.0100	12.5		20.0			
cis-1,2-Dichloroethene	0.2796 0.3418	0.3542 0.3361	0.3514	0.3598	0.3695	Ave		0.3418			0.1000	8.6		20.0			
2,2-Dichloropropane	0.4099 0.4945	0.4408 0.4879	0.4777	0.5069	0.5158	Ave		0.4762				8.0		20.0			
Chlorobromomethane	0.1461 0.1477	0.1819 0.1453	0.1633	0.1655	0.1622	Ave		0.1589				8.4		20.0			
Tetrahydrofuran	0.0665 0.0676	0.0661 0.0685	0.0699	0.0681	0.0705	Ave		0.0682				2.4		20.0			
Chloroform	0.4819 0.5139	0.5292 0.5085	0.5330	0.5434	0.5533	Ave		0.5233			0.2000	4.6		20.0			
1,1,1-Trichloroethane	0.4305 0.4780	0.4682 0.4706	0.4835	0.4995	0.5095	Ave		0.4771			0.1000	5.3		20.0			
Cyclohexane	0.3507 0.4924	0.4145 0.4763	0.4935	0.5227	0.5089	Ave		0.4656			0.1000	13.2		20.0			
1,1-Dichloropropene	0.3234 0.4437	0.3777 0.4378	0.4334	0.4586	0.4718	Ave		0.4209				12.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3595 0.4240	0.3715 0.4161	0.4163	0.4421	0.4521	Ave		0.4117			0.1000	8.3		20.0			
Isobutyl alcohol	0.0063 0.0070	0.0057 0.0071	0.0071	0.0070	0.0076	Ave		0.0068				9.1		20.0			
Benzene	1.0736 1.2674	1.1320 1.2617	1.2088	1.2774	1.3344	Ave		1.2222			0.5000	7.4		20.0			
1,2-Dichloroethane	0.3845 0.3848	0.3877 0.3818	0.3808	0.4006	0.4122	Ave		0.3903			0.1000	3.0		20.0			
n-Heptane	+++++ 0.2302	0.7419 0.2158	0.2728	0.2603	0.2379	Lin1	0.5399	0.2181				5.7			0.9980		0.9900
Trichloroethene	0.2943 0.3495	0.3229 0.3479	0.3477	0.3664	0.3727	Ave		0.3431			0.1500	7.8		20.0			
Methylcyclohexane	+++++ 0.5704	0.4486 0.5470	0.5608	0.5978	0.5785	Ave		0.5505			0.1000	9.6		20.0			
1,2-Dichloropropane	0.2423 0.2875	0.2813 0.2870	0.2756	0.2920	0.3038	Ave		0.2814			0.1000	6.9		20.0			
1,4-Dioxane	+++++ 0.0037	0.0041 0.0037	0.0038	0.0036	0.0040	Ave		0.0038				4.6		20.0			
Dibromomethane	0.1637 0.1699	0.1728 0.1710	0.1685	0.1784	0.1857	Ave		0.1729				4.2		20.0			
Dichlorobromomethane	0.3432 0.3904	0.3943 0.3900	0.3871	0.4024	0.4184	Ave		0.3894			0.1500	5.9		20.0			
2-Chloroethyl vinyl ether	0.1442 0.1824	0.1477 0.1859	0.1692	0.1759	0.1941	Ave		0.1713				11.1		20.0			
cis-1,3-Dichloropropene	0.4225 0.4985	0.4160 0.4994	0.4764	0.5005	0.5273	Ave		0.4772			0.1500	8.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.1948 0.2124	0.2016 0.2140	0.2099	0.2071	0.2280	Ave		0.2097			0.0500	5.0		20.0			
Toluene	1.4142 1.7223	1.4826 1.6795	1.6148	1.6777	1.7666	Ave		1.6225			0.4000	8.0		20.0			
trans-1,3-Dichloropropene	0.3862 0.5752	0.4539 0.5685	0.5222	0.5495	0.5937	Ave		0.5213			0.1000	14.4		20.0			
Ethyl methacrylate	+++++ 0.4132	0.2835 0.4090	0.3803	0.3984	0.4355	Ave		0.3867				13.9		20.0			
1,1,2-Trichloroethane	0.2563 0.3164	0.2522 0.3104	0.2927	0.3054	0.3288	Ave		0.2946			0.1000	10.1		20.0			
Tetrachloroethene	0.2450 0.3495	0.2804 0.3362	0.3306	0.3423	0.3612	Ave		0.3207			0.1500	13.1		20.0			
1,3-Dichloropropane	0.4057 0.5658	0.4582 0.5484	0.5290	0.5490	0.5839	Ave		0.5200				12.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1472 0.1793	0.1719 0.1792	0.1821	0.1782	0.1930	Ave		0.1759			0.0500	8.0		20.0			
Chlorodibromomethane	0.2785 0.3694	0.3067 0.3618	0.3369	0.3565	0.3855	Ave		0.3422				11.0		20.0			
Ethylene Dibromide	0.2527 0.3337	0.2857 0.3253	0.3134	0.3262	0.3485	Ave		0.3122				10.5		20.0			
Chlorobenzene	0.8678 1.1062	1.0112 1.0779	1.0619	1.0897	1.1519	Ave		1.0524			0.3000	8.7		20.0			
1,1,1,2-Tetrachloroethane	0.2683 0.3929	0.3026 0.3834	0.3520	0.3755	0.4038	Ave		0.3541				14.3		20.0			
Ethylbenzene	0.4731 0.6317	0.5107 0.6160	0.5961	0.6256	0.6507	Ave		0.5863				11.5		20.0			
m-Xylene & p-Xylene	0.5811 0.7744	0.6563 0.7512	0.7417	0.7573	0.8032	Ave		0.7236				10.7		20.0			
o-Xylene	0.5361 0.7420	0.6389 0.7219	0.7124	0.7268	0.7643	Ave		0.6917				11.4		20.0			
Styrene	0.9223 1.2653	0.9807 1.2494	1.1650	1.2240	1.3086	Ave		1.1593			0.3000	12.9		20.0			
Bromoform	0.1762 0.2466	0.1894 0.2437	0.2237	0.2340	0.2564	Ave		0.2243			0.1000	13.5		20.0			
Isopropylbenzene	1.4672 1.9441	1.6201 1.8940	1.8547	1.9133	1.9952	Ave		1.8126			0.1000	10.7		20.0			
1,1,2,2-Tetrachloroethane	0.6368 0.7157	0.6681 0.7062	0.7116	0.7173	0.7557	Ave		0.7016			0.3000	5.5		20.0			
Bromobenzene	0.6813 0.8376	0.7064 0.8191	0.8337	0.8488	0.8749	Ave		0.8003				9.4		20.0			
trans-1,4-Dichloro-2-butene	0.1767 0.2427	0.2284 0.2364	0.2188	0.2286	0.2494	Ave		0.2258				10.6		20.0			
1,2,3-Trichloropropane	0.2415 0.2406	0.2546 0.2405	0.2519	0.2590	0.2571	Ave		0.2493				3.3		20.0			
N-Propylbenzene	0.8285 1.0314	0.8662 1.0019	0.9931	1.0423	1.0693	Ave		0.9761				9.4		20.0			
2-Chlorotoluene	0.7100 0.8506	0.7564 0.8103	0.8320	0.8485	0.8756	Ave		0.8119				7.2		20.0			
1,3,5-Trimethylbenzene	2.2350 2.8921	2.6143 2.8243	2.7714	2.8784	2.9844	Ave		2.7428				9.2		20.0			
4-Chlorotoluene	0.7530 0.8816	0.8287 0.8642	0.8689	0.8851	0.9071	Ave		0.8555				6.0		20.0			
tert-Butylbenzene	2.0231 2.5936	2.3413 2.5253	2.4866	2.5972	2.6906	Ave		2.4654				9.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.3083 2.9097	2.5059 2.8566	2.7992	2.8961	2.9984	Ave		2.7535				9.1		20.0			
sec-Butylbenzene	2.8678 3.8451	3.2664 3.7580	3.6650	3.8058	3.9411	Ave		3.5927				10.8		20.0			
1,3-Dichlorobenzene	1.3584 1.6070	1.4425 1.5528	1.5911	1.6088	1.6670	Ave		1.5468			0.6000	7.0		20.0			
4-Isopropyltoluene	2.5058 3.3051	2.8485 3.2195	3.1572	3.3048	3.3823	Ave		3.1033				10.2		20.0			
1,4-Dichlorobenzene	1.4038 1.6034	1.4607 1.5535	1.5778	1.6127	1.6638	Ave		1.5537			0.5000	5.9		20.0			
n-Butylbenzene	2.1178 2.8800	2.3772 2.7988	2.7342	2.8599	2.9756	Ave		2.6776				11.7		20.0			
1,2-Dichlorobenzene	1.2369 1.4707	1.4595 1.4366	1.4509	1.4773	1.5444	Ave		1.4395			0.4000	6.7		20.0			
1,2-Dibromo-3-Chloropropane	0.1141 0.1709	0.1700 0.1725	0.1674	0.1708	0.1781	Ave		0.1634			0.0500	13.4		20.0			
1,2,4-Trichlorobenzene	0.7555 0.9016	0.8327 0.8659	0.8427	0.8771	0.9247	Ave		0.8572			0.2000	6.4		20.0			
Hexachlorobutadiene	0.3344 0.3934	0.3482 0.3820	0.3896	0.3975	0.4167	Ave		0.3803				7.6		20.0			
Naphthalene	2.1977 2.4008	2.3923 2.3167	2.3825	2.3740	2.5023	Ave		2.3666				3.9		20.0			
1,2,3-Trichlorobenzene	0.7017 0.7984	0.7911 0.7616	0.7950	0.7764	0.8146	Ave		0.7770				4.8		20.0			
Dibromofluoromethane (Surr)	0.2746 0.2838	0.2972 0.2792	0.2934	0.3025	0.3085	Ave		0.2913				4.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3096 0.3096	0.3269 0.3098	0.3207	0.3254	0.3357	Ave		0.3197				3.2		20.0			
Toluene-d8 (Surr)	1.2582 1.4517	1.2042 1.4110	1.3904	1.4346	1.5092	Ave		1.3799				7.9		20.0			
4-Bromofluorobenzene (Surr)	0.4539 0.5147	0.4878 0.5001	0.5196	0.5206	0.5477	Ave		0.5063				5.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-434666/15	UXM27988.D
Level 2	STD8260 240-434666/14	UXM27987.D
Level 3	STD8260 240-434666/13	UXM27986.D
Level 4	ICIS 240-434666/12	UXM27985.D
Level 5	STD8260 240-434666/11	UXM27984.D
Level 6	STD8260 240-434666/10	UXM27983.D
Level 7	STD8260 240-434666/9	UXM27982.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	6563 1208196	15558 1432874	201880	420230	803379	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	10272 1210252	20474 1509898	215176	411713	860798	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	8983 1448881	19393 1853421	233249	476196	1004340	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	7656 1298085	16402 1634394	202039	407993	885755	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	5289 +++++	11114 +++++	114916	223035	502954	0.500 +++++	1.00 +++++	10.0	20.0	40.0
Chloroethane	FB	Ave	4100 721559	9271 956400	109794	224743	477574	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	10581 1609987	22418 2088787	253943	525044	1098986	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8232 1528094	18420 1881205	247301	504256	1021397	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	3506 643134	7898 836555	99784	201374	436603	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	3854 634943	7925 811033	93897	180101	425813	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	5193 856509	11311 1091325	134402	274773	578690	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 709841	8162 842658	116438	242050	462567	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 133988	2763 181656	21894	42484	94124	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	6574 1093884	13336 1345058	144903	333719	714664	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19691 2793956	39549 3574986	443121	887730	1903952	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	6834 1026956	14187 1351739	161797	312857	687826	1.00 120	2.00 160	20.0	40.0	80.0
3-Chloro-1-propene	FB	Ave	7883 1223666	17166 1568836	183250	379431	814769	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylene Chloride	FB	Ave	7111 919029	14251 1184066	146672	289171	623880	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	4346 739265	9866 959298	121041	217318	500636	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	19213 3152086	41489 4139989	474326	937151	2097844	5.00 600	10.0 800	100	200	400
Methyl tert-butyl ether	FB	Ave	13159 2523225	28540 3306607	369044	742436	1678039	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,2-Dichloroethene	FB	Ave	6800 995135	13527 1301441	156233	315592	670221	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	+++++ 1355106	12496 1653309	200954	423483	841613	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	+++++ 1561700	15059 2048709	198633	429306	1016429	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	9351 1597351	21465 2067956	248107	500218	1074904	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	+++++ 205327	2007 270440	30096	58448	134863	+++++ 120	2.00 160	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	5998 1062904	15022 1364914	168828	338400	722204	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	8793 1537904	18693 1981435	229537	476654	1008144	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	3133 459200	7715 590068	78481	155674	316974	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	2855 420192	5604 556184	67136	128058	275724	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10337 1598073	22443 2065010	256130	510975	1081418	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9235 1486661	19858 1910834	232307	469738	995675	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	7523 1531270	17579 1934032	237147	491567	994654	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	6937 1379872	16020 1777935	208238	431230	922144	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7712 1318751	15757 1689538	200039	415764	883538	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3366 547640	6089 723216	85586	164209	371068	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	23030 3941460	48007 5123544	580846	1201253	2607947	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8247 1196614	16443 1550331	182966	376690	805704	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 715802	31464 876244	131103	244814	464970	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	6313 1087064	13694 1412865	167067	344595	728457	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	+++++ 1773861	19026 2221307	269469	562163	1130580	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	5197 893985	11930 1165540	132429	274588	593751	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 228108	3440 300686	36374	68205	155348	+++++ 1200	20.0 1600	200	400	800
Dibromomethane	FB	Ave	3511 528365	7329 694361	80968	167791	362920	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorobromomethane	FB	Ave	7362 1214015	16724 1583652	186019	378429	817722	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	6188 1134684	12527 1509802	162569	330841	758544	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	9062 1550183	17643 2027839	228920	470694	1030548	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8355 1321092	17101 1737738	201734	389532	891382	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	26996 4260299	54963 5540850	641681	1308155	2819001	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7372 1422751	16828 1875599	207516	428491	947406	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	+++++ 1021981	10511 1349215	151121	310679	695031	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4893 782747	9350 1024150	116305	238120	524667	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4676 864608	10396 1109337	131382	266869	576318	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	7744 1399520	16985 1809414	210225	428084	931813	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	5621 887053	12744 1182182	144758	277943	615969	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5316 913646	11370 1193687	133886	277968	615203	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	4823 825478	10593 1073148	124538	254321	556097	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	16566 2736134	37487 3556172	421952	849656	1838077	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5121 971974	11216 1264758	139890	292777	644312	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9031 1562427	18931 2032451	236876	487819	1038368	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11092 1915463	24331 2478229	294747	590454	1281765	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10233 1835268	23684 2381598	283077	566672	1219662	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17606 3129810	36356 4121930	462947	954414	2088257	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	3363 609860	7023 804127	88887	182438	409166	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	28007 4808786	60059 6248523	737005	1491822	3183890	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6455 960821	13344 1265431	150050	298213	656058	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6906 1124463	14109 1467701	175795	352879	759556	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1791 325755	4561 423641	46132	95037	216496	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2448 322990	5084 430917	53122	107679	223227	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8398 1384613	17300 1795321	209400	433284	928345	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7197 1141891	15107 1452042	175443	352752	760181	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	22656 3882524	52213 5060818	584379	1196596	2591098	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7633 1183437	16552 1548562	183214	367969	787574	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	20508 3481793	46762 4525084	524316	1079707	2336013	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	23399 3906169	50048 5118659	590229	1203961	2603241	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	29070 5161872	65238 6733878	772805	1582135	3421656	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13770 2157328	28811 2782519	335492	668787	1447316	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25401 4436896	56892 5769048	665728	1373885	2936542	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	14230 2152493	29173 2783675	332695	670413	1444498	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	21468 3866269	47478 5015197	576522	1188929	2583389	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	12538 1974289	29150 2574200	305937	614140	1340841	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1157 229360	3395 309159	35308	71022	154667	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	7658 1210318	16631 1551579	177699	364647	802854	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	3390 528160	6955 684493	82153	165229	361806	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	22277 3222971	47780 4151252	502370	986906	2172484	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	7113 1071754	15800 1364667	167624	322784	707210	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5891 882660	12605 1133701	140972	284465	603010	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6642 962950	13862 1258205	154104	305962	656015	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	24017 3590922	44640 4655018	552509	1118576	2408325	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8664 1273155	18085 1649907	206467	405920	874040	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-434666/15	UXM27988.D
Level 2	STD8260 240-434666/14	UXM27987.D
Level 3	STD8260 240-434666/13	UXM27986.D
Level 4	ICIS 240-434666/12	UXM27985.D
Level 5	STD8260 240-434666/11	UXM27984.D
Level 6	STD8260 240-434666/10	UXM27983.D
Level 7	STD8260 240-434666/9	UXM27982.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
n-Heptane	+++++	-7.4						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: ICV 240-434666/16 Calibration Date: 05/18/2020 12:38

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM27989.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3846	0.2941	0.1000	0.0153	0.0200	-23.5	30.0
Chloromethane	Ave	0.4355	0.3441	0.1000	0.0158	0.0200	-21.0	30.0
Vinyl chloride	Ave	0.4720	0.4072	0.1000	0.0173	0.0200	-13.7	30.0
Butadiene	Ave	0.4102	0.3881		0.0189	0.0200	-5.4	30.0
Bromomethane	Ave	0.2485	0.1993	0.0500	0.0160	0.0200	-19.8	30.0
Chloroethane	Ave	0.2270	0.2072	0.0500	0.0183	0.0200	-8.7	30.0
Dichlorofluoromethane	Ave	0.5290	0.5078		0.0192	0.0200	-4.0	30.0
Trichlorofluoromethane	Ave	0.4780	0.4567	0.1000	0.0191	0.0200	-4.5	30.0
Ethyl ether	Ave	0.2011	0.1875		0.0186	0.0200	-6.8	30.0
Acrolein	Ave	0.0393	0.0258		0.0656	0.100	-34.4*	30.0
1,1-Dichloroethene	Ave	0.2744	0.2583	0.1000	0.0188	0.0200	-5.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2274	0.2093	0.0500	0.0184	0.0200	-8.0	30.0
Acetone	Ave	0.0243	0.0210	0.0100	0.0345	0.0400	-13.8	50.0
Iodomethane	Ave	0.3323	0.2740		0.0165	0.0200	-17.6	30.0
Carbon disulfide	Ave	0.9242	0.7989	0.1000	0.0173	0.0200	-13.6	30.0
Methyl acetate	Ave	0.1670	0.1450	0.1000	0.0347	0.0400	-13.2	50.0
3-Chloro-1-propene	Ave	0.3934	0.3405		0.0173	0.0200	-13.5	30.0
Methylene Chloride	Ave	0.3124	0.2896	0.1000	0.0185	0.0200	-7.3	50.0
2-Methyl-2-propanol	Ave	0.0235	0.0213		0.181	0.200	-9.6	30.0
Acrylonitrile	Ave	0.0995	0.0878		0.176	0.200	-11.8	30.0
Methyl tert-butyl ether	Ave	0.7612	0.7042	0.1000	0.0185	0.0200	-7.5	30.0
trans-1,2-Dichloroethene	Ave	0.3257	0.3017	0.1000	0.0185	0.0200	-7.4	30.0
Hexane	Ave	0.4061	0.3605		0.0178	0.0200	-11.2	30.0
Vinyl acetate	Ave	0.4586	0.3566		0.0156	0.0200	-22.2	30.0
1,1-Dichloroethane	Ave	0.5090	0.4758	0.2000	0.0187	0.0200	-6.5	30.0
2-Butanone (MEK)	Ave	0.0311	0.0278	0.0100	0.0356	0.0400	-10.9	50.0
cis-1,2-Dichloroethene	Ave	0.3418	0.3322	0.1000	0.0194	0.0200	-2.8	30.0
2,2-Dichloropropane	Ave	0.4762	0.4480		0.0188	0.0200	-5.9	30.0
Chlorobromomethane	Ave	0.1589	0.1475		0.0186	0.0200	-7.2	30.0
Tetrahydrofuran	Ave	0.0682	0.0587		0.0344	0.0400	-13.9	30.0
Chloroform	Ave	0.5233	0.4943	0.2000	0.0189	0.0200	-5.5	30.0
1,1,1-Trichloroethane	Ave	0.4771	0.4629	0.1000	0.0194	0.0200	-3.0	30.0
Cyclohexane	Ave	0.4656	0.4399	0.1000	0.0189	0.0200	-5.5	30.0
1,1-Dichloropropene	Ave	0.4209	0.3926		0.0187	0.0200	-6.7	30.0
Carbon tetrachloride	Ave	0.4117	0.3924	0.1000	0.0191	0.0200	-4.7	30.0
Isobutyl alcohol	Ave	0.0068	0.0060		0.440	0.500	-11.9	30.0
Benzene	Ave	1.222	1.139	0.5000	0.0186	0.0200	-6.8	30.0
1,2-Dichloroethane	Ave	0.3903	0.3554	0.1000	0.0182	0.0200	-9.0	30.0
n-Heptane	Lin1		0.2273		0.0184	0.0200	-8.2	30.0
Trichloroethene	Ave	0.3431	0.3372	0.1500	0.0197	0.0200	-1.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: ICV 240-434666/16 Calibration Date: 05/18/2020 12:38

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM27989.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5505	0.5076	0.1000	0.0184	0.0200	-7.8	30.0
1,2-Dichloropropane	Ave	0.2814	0.2590	0.1000	0.0184	0.0200	-8.0	30.0
1,4-Dioxane	Ave	0.0038	0.0033		0.351	0.400	-12.3	50.0
Dibromomethane	Ave	0.1729	0.1647		0.0191	0.0200	-4.7	30.0
Dichlorobromomethane	Ave	0.3894	0.3750	0.1500	0.0193	0.0200	-3.7	30.0
2-Chloroethyl vinyl ether	Ave	0.1713	0.1546		0.0180	0.0200	-9.8	30.0
cis-1,3-Dichloropropene	Ave	0.4772	0.4478	0.1500	0.0188	0.0200	-6.2	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2097	0.1793	0.0500	0.0342	0.0400	-14.5	50.0
Toluene	Ave	1.623	1.518	0.4000	0.0187	0.0200	-6.5	30.0
trans-1,3-Dichloropropene	Ave	0.5213	0.4504	0.1000	0.0173	0.0200	-13.6	30.0
Ethyl methacrylate	Ave	0.3867	0.3466		0.0179	0.0200	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.2946	0.2765	0.1000	0.0188	0.0200	-6.1	30.0
Tetrachloroethene	Ave	0.3207	0.3102	0.1500	0.0193	0.0200	-3.3	30.0
1,3-Dichloropropane	Ave	0.5200	0.4778		0.0184	0.0200	-8.1	30.0
2-Hexanone	Ave	0.1759	0.1528	0.0500	0.0348	0.0400	-13.1	50.0
Chlorodibromomethane	Ave	0.3422	0.3274		0.0191	0.0200	-4.3	30.0
Ethylene Dibromide	Ave	0.3122	0.2941		0.0188	0.0200	-5.8	30.0
Chlorobenzene	Ave	1.052	0.998	0.3000	0.0190	0.0200	-5.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3541	0.3394		0.0192	0.0200	-4.1	30.0
Ethylbenzene	Ave	0.5863	0.5628		0.0192	0.0200	-4.0	30.0
m-Xylene & p-Xylene	Ave	0.7236	0.6962		0.0192	0.0200	-3.8	30.0
o-Xylene	Ave	0.6917	0.6596		0.0191	0.0200	-4.6	30.0
Styrene	Ave	1.159	1.111	0.3000	0.0192	0.0200	-4.2	30.0
Bromoform	Ave	0.2243	0.2118	0.1000	0.0189	0.0200	-5.6	30.0
Isopropylbenzene	Ave	1.813	1.734	0.1000	0.0191	0.0200	-4.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7016	0.6377	0.3000	0.0182	0.0200	-9.1	30.0
Bromobenzene	Ave	0.8003	0.7760		0.0194	0.0200	-3.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2258	0.2035		0.0180	0.0200	-9.9	30.0
1,2,3-Trichloropropane	Ave	0.2493	0.2339		0.0188	0.0200	-6.2	30.0
N-Propylbenzene	Ave	0.9761	0.9318		0.0191	0.0200	-4.5	30.0
2-Chlorotoluene	Ave	0.8119	0.7816		0.0193	0.0200	-3.7	30.0
1,3,5-Trimethylbenzene	Ave	2.743	2.620		0.0191	0.0200	-4.5	30.0
4-Chlorotoluene	Ave	0.8555	0.8178		0.0191	0.0200	-4.4	30.0
tert-Butylbenzene	Ave	2.465	2.341		0.0190	0.0200	-5.0	30.0
1,2,4-Trimethylbenzene	Ave	2.753	2.643		0.0192	0.0200	-4.0	30.0
sec-Butylbenzene	Ave	3.593	3.404		0.0189	0.0200	-5.3	30.0
1,3-Dichlorobenzene	Ave	1.547	1.458	0.6000	0.0188	0.0200	-5.8	30.0
4-Isopropyltoluene	Ave	3.103	2.958		0.0191	0.0200	-4.7	30.0
1,4-Dichlorobenzene	Ave	1.554	1.471	0.5000	0.0189	0.0200	-5.3	30.0
n-Butylbenzene	Ave	2.678	2.548		0.0190	0.0200	-4.8	30.0
1,2-Dichlorobenzene	Ave	1.439	1.319	0.4000	0.0183	0.0200	-8.4	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: ICV 240-434666/16 Calibration Date: 05/18/2020 12:38

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM27989.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1634	0.1596	0.0500	0.0195	0.0200	-2.4	50.0
1,2,4-Trichlorobenzene	Ave	0.8572	0.8269	0.2000	0.0193	0.0200	-3.5	50.0
Hexachlorobutadiene	Ave	0.3803	0.3689		0.0194	0.0200	-3.0	50.0
Naphthalene	Ave	2.367	2.151		0.0182	0.0200	-9.1	50.0
1,2,3-Trichlorobenzene	Ave	0.7770	0.7239		0.0186	0.0200	-6.8	30.0
Dibromofluoromethane (Surr)	Ave	0.2913	0.2720		0.0187	0.0200	-6.6	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3197	0.2807		0.0176	0.0200	-12.2	30.0
Toluene-d8 (Surr)	Ave	1.380	1.249		0.0181	0.0200	-9.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5063	0.5119		0.0202	0.0200	1.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: ICV 240-434666/25 Calibration Date: 05/18/2020 16:21

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM27998.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2913	0.2907		0.0200	0.0200	-0.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3197	0.3021		0.0189	0.0200	-5.5	30.0
Toluene-d8 (Surr)	Ave	1.380	1.256		0.0182	0.0200	-9.0	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5063	0.5194		0.0205	0.0200	2.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: ICV 240-434666/25 Calibration Date: 05/18/2020 16:21

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 13:52

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 15:56

Lab File ID: UXM27998.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0338	0.0335		0.198	0.200	-1.0	30.0
Isopropyl ether	Ave	0.2462	0.2613		0.0212	0.0200	6.1	30.0
2-Chloro-1,3-butadiene	Ave	0.4163	0.4479		0.0215	0.0200	7.6	30.0
Tert-butyl ethyl ether	Ave	0.7263	0.7685		0.0212	0.0200	5.8	30.0
Propionitrile	Ave	0.0369	0.0385		0.209	0.200	4.3	30.0
Methacrylonitrile	Ave	0.1342	0.1375		0.205	0.200	2.4	30.0
Tert-amyl methyl ether	Ave	0.7175	0.7815		0.0218	0.0200	8.9	30.0
n-Butanol	Ave	0.0057	0.0059		0.517	0.500	3.5	30.0
2-Nitropropane	Ave	0.0674	0.0683		0.0405	0.0400	1.3	30.0
1-Chlorohexane	Ave	0.5712	0.6019		0.0211	0.0200	5.4	30.0
Cyclohexanone	Ave	0.0183	0.0171		0.187	0.200	-6.4	30.0
Pentachloroethane	Lin1		0.1481		0.0269	0.0400	-32.6*	30.0
1,2,3-Trimethylbenzene	Ave	2.714	2.967		0.0219	0.0200	9.3	30.0
Benzyl chloride	Ave	0.3360	0.3304		0.0197	0.0200	-1.7	30.0
1,3,5-Trichlorobenzene	Ave	1.038	1.085		0.0209	0.0200	4.6	30.0
2-Methylnaphthalene	Ave	1.186	0.998		0.0337	0.0400	-15.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: CCVIS 240-437675/3 Calibration Date: 06/10/2020 09:28

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM28608.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3846	0.3855	0.1000	0.0200	0.0200	0.2	20.0
Chloromethane	Ave	0.4355	0.4266	0.1000	0.0196	0.0200	-2.1	20.0
Vinyl chloride	Ave	0.4720	0.4929	0.1000	0.0209	0.0200	4.4	20.0
Butadiene	Ave	0.4102	0.4402		0.0215	0.0200	7.3	20.0
Bromomethane	Ave	0.2485	0.1562	0.0500	0.0126	0.0200	-37.1*	20.0
Chloroethane	Ave	0.2270	0.2596	0.0500	0.0229	0.0200	14.3	20.0
Dichlorofluoromethane	Ave	0.5290	0.6084		0.0230	0.0200	15.0	20.0
Trichlorofluoromethane	Ave	0.4780	0.4837	0.1000	0.0202	0.0200	1.2	20.0
Ethyl ether	Ave	0.2011	0.2348		0.0233	0.0200	16.7	20.0
Acrolein	Ave	0.0393	0.0321		0.0818	0.100	-18.2	20.0
1,1-Dichloroethene	Ave	0.2744	0.2920	0.1000	0.0213	0.0200	6.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2274	0.2369	0.0500	0.0208	0.0200	4.2	20.0
Acetone	Ave	0.0243	0.0226	0.0100	0.0372	0.0400	-7.0	50.0
Iodomethane	Ave	0.3323	0.3543		0.0213	0.0200	6.6	20.0
Carbon disulfide	Ave	0.9242	1.014	0.1000	0.0219	0.0200	9.7	20.0
Methyl acetate	Ave	0.1670	0.1653	0.1000	0.0396	0.0400	-1.0	50.0
3-Chloro-1-propene	Ave	0.3934	0.5211		0.0265	0.0200	32.5*	20.0
Methylene Chloride	Ave	0.3124	0.3394	0.1000	0.0217	0.0200	8.7	50.0
2-Methyl-2-propanol	Ave	0.0235	0.0191		0.162	0.200	-19.0	20.0
Acrylonitrile	Ave	0.0995	0.0997		0.200	0.200	0.2	20.0
Methyl tert-butyl ether	Ave	0.7612	0.7607	0.1000	0.0200	0.0200	-0.0	20.0
trans-1,2-Dichloroethene	Ave	0.3257	0.3365	0.1000	0.0207	0.0200	3.3	20.0
Hexane	Ave	0.4061	0.5316		0.0262	0.0200	30.9*	20.0
Vinyl acetate	Ave	0.4586	0.4373		0.0191	0.0200	-4.7	20.0
1,1-Dichloroethane	Ave	0.5090	0.6312	0.2000	0.0248	0.0200	24.0*	20.0
2-Butanone (MEK)	Ave	0.0311	0.0261	0.0100	0.0335	0.0400	-16.2	50.0
cis-1,2-Dichloroethene	Ave	0.3418	0.3674	0.1000	0.0215	0.0200	7.5	20.0
2,2-Dichloropropane	Ave	0.4762	0.5277		0.0222	0.0200	10.8	20.0
Chlorobromomethane	Ave	0.1589	0.1574		0.0198	0.0200	-0.9	20.0
Tetrahydrofuran	Ave	0.0682	0.0649		0.0381	0.0400	-4.8	20.0
Chloroform	Ave	0.5233	0.5721	0.2000	0.0219	0.0200	9.3	20.0
1,1,1-Trichloroethane	Ave	0.4771	0.4852	0.1000	0.0203	0.0200	1.7	20.0
Cyclohexane	Ave	0.4656	0.6355	0.1000	0.0273	0.0200	36.5*	20.0
1,1-Dichloropropene	Ave	0.4209	0.4788		0.0228	0.0200	13.8	20.0
Carbon tetrachloride	Ave	0.4117	0.4074	0.1000	0.0198	0.0200	-1.0	20.0
Isobutyl alcohol	Ave	0.0068	0.0064		0.471	0.500	-5.9	20.0
Benzene	Ave	1.222	1.384	0.5000	0.0226	0.0200	13.2	20.0
1,2-Dichloroethane	Ave	0.3903	0.4429	0.1000	0.0227	0.0200	13.5	20.0
n-Heptane	Lin1		0.3167		0.0266	0.0200	32.8*	20.0
Trichloroethene	Ave	0.3431	0.3331	0.1500	0.0194	0.0200	-2.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: CCVIS 240-437675/3 Calibration Date: 06/10/2020 09:28

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM28608.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5505	0.6378	0.1000	0.0232	0.0200	15.9	20.0
1,2-Dichloropropane	Ave	0.2814	0.3359	0.1000	0.0239	0.0200	19.4	20.0
1,4-Dioxane	Ave	0.0038	0.0031		0.324	0.400	-19.0	50.0
Dibromomethane	Ave	0.1729	0.1752		0.0203	0.0200	1.3	20.0
Dichlorobromomethane	Ave	0.3894	0.4189	0.1500	0.0215	0.0200	7.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1713	0.1832		0.0428	0.0400	6.9	20.0
cis-1,3-Dichloropropene	Ave	0.4772	0.5204	0.1500	0.0218	0.0200	9.0	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2097	0.2198	0.0500	0.0419	0.0400	4.8	50.0
Toluene	Ave	1.623	1.999	0.4000	0.0246	0.0200	23.2*	20.0
trans-1,3-Dichloropropene	Ave	0.5213	0.6355	0.1000	0.0244	0.0200	21.9*	20.0
Ethyl methacrylate	Ave	0.3867	0.4635		0.0240	0.0200	19.9	20.0
1,1,2-Trichloroethane	Ave	0.2946	0.3302	0.1000	0.0224	0.0200	12.1	20.0
Tetrachloroethene	Ave	0.3207	0.3516	0.1500	0.0219	0.0200	9.6	20.0
1,3-Dichloropropane	Ave	0.5200	0.6313		0.0243	0.0200	21.4*	20.0
2-Hexanone	Ave	0.1759	0.2080	0.0500	0.0473	0.0400	18.3	50.0
Chlorodibromomethane	Ave	0.3422	0.3573		0.0209	0.0200	4.4	20.0
Ethylene Dibromide	Ave	0.3122	0.3301		0.0211	0.0200	5.7	20.0
Chlorobenzene	Ave	1.052	1.198	0.3000	0.0228	0.0200	13.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3541	0.3817		0.0216	0.0200	7.8	20.0
Ethylbenzene	Ave	0.5863	0.6888		0.0235	0.0200	17.5	20.0
m-Xylene & p-Xylene	Ave	0.7236	0.8604		0.0238	0.0200	18.9	20.0
o-Xylene	Ave	0.6917	0.8170		0.0236	0.0200	18.1	20.0
Styrene	Ave	1.159	1.412	0.3000	0.0244	0.0200	21.8*	20.0
Bromoform	Ave	0.2243	0.2239	0.1000	0.0200	0.0200	-0.2	20.0
Isopropylbenzene	Ave	1.813	2.146	0.1000	0.0237	0.0200	18.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7016	0.8051	0.3000	0.0229	0.0200	14.7	20.0
Bromobenzene	Ave	0.8003	0.8762		0.0219	0.0200	9.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2258	0.2642		0.0234	0.0200	17.0	20.0
1,2,3-Trichloropropane	Ave	0.2493	0.2426		0.0195	0.0200	-2.7	20.0
N-Propylbenzene	Ave	0.9761	1.131		0.0232	0.0200	15.9	20.0
2-Chlorotoluene	Ave	0.8119	0.9278		0.0229	0.0200	14.3	20.0
1,3,5-Trimethylbenzene	Ave	2.743	3.331		0.0243	0.0200	21.4*	20.0
4-Chlorotoluene	Ave	0.8555	0.9857		0.0230	0.0200	15.2	20.0
tert-Butylbenzene	Ave	2.465	2.828		0.0229	0.0200	14.7	20.0
1,2,4-Trimethylbenzene	Ave	2.753	3.306		0.0240	0.0200	20.1*	20.0
sec-Butylbenzene	Ave	3.593	4.391		0.0244	0.0200	22.2*	20.0
1,3-Dichlorobenzene	Ave	1.547	1.716	0.6000	0.0222	0.0200	11.0	20.0
4-Isopropyltoluene	Ave	3.103	3.626		0.0234	0.0200	16.8	20.0
1,4-Dichlorobenzene	Ave	1.554	1.746	0.5000	0.0225	0.0200	12.4	20.0
n-Butylbenzene	Ave	2.678	3.411		0.0255	0.0200	27.4*	20.0
1,2-Dichlorobenzene	Ave	1.439	1.598	0.4000	0.0222	0.0200	11.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Lab Sample ID: CCVIS 240-437675/3 Calibration Date: 06/10/2020 09:28

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM28608.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1634	0.1449	0.0500	0.0177	0.0200	-11.3	50.0
1,2,4-Trichlorobenzene	Ave	0.8572	0.8840	0.2000	0.0206	0.0200	3.1	50.0
Hexachlorobutadiene	Ave	0.3803	0.4207		0.0221	0.0200	10.6	50.0
Naphthalene	Ave	2.367	2.071		0.0175	0.0200	-12.5	50.0
1,2,3-Trichlorobenzene	Ave	0.7770	0.7730		0.0199	0.0200	-0.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2913	0.2446		0.0168	0.0200	-16.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3197	0.3105		0.0194	0.0200	-2.9	20.0
Toluene-d8 (Surr)	Ave	1.380	1.387		0.0201	0.0200	0.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5063	0.5316		0.0210	0.0200	5.0	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-437675/8

Matrix: Water Lab File ID: UXM28613.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-437675/8

Matrix: Water Lab File ID: UXM28613.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		69-122
1868-53-7	Dibromofluoromethane (Surr)	93		78-129
460-00-4	4-Bromofluorobenzene (Surr)	104		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		75-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Instrument ID: A3UX16 Start Date: 05/18/2020 08:55

Analysis Batch Number: 434666 End Date: 05/18/2020 16:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-434666/1		05/18/2020 08:55	1	BFB6395.D	DB-624 0.18(mm)
STD8260 240-434666/9 IC		05/18/2020 09:45	1	UXM27982.D	DB-624 0.18(mm)
STD8260 240-434666/10 IC		05/18/2020 10:10	1	UXM27983.D	DB-624 0.18(mm)
STD8260 240-434666/11 IC		05/18/2020 10:34	1	UXM27984.D	DB-624 0.18(mm)
ICIS 240-434666/12		05/18/2020 10:59	1	UXM27985.D	DB-624 0.18(mm)
STD8260 240-434666/13 IC		05/18/2020 11:24	1	UXM27986.D	DB-624 0.18(mm)
STD8260 240-434666/14 IC		05/18/2020 11:48	1	UXM27987.D	DB-624 0.18(mm)
STD8260 240-434666/15 IC		05/18/2020 12:13	1	UXM27988.D	DB-624 0.18(mm)
ICV 240-434666/16		05/18/2020 12:38	1	UXM27989.D	DB-624 0.18(mm)
STDA9 240-434666/19 IC		05/18/2020 13:52	1		DB-624 0.18(mm)
STDA9 240-434666/20 IC		05/18/2020 14:17	1		DB-624 0.18(mm)
STDA9 240-434666/21 IC		05/18/2020 14:42	1		DB-624 0.18(mm)
STDA9 240-434666/22 IC		05/18/2020 15:07	1		DB-624 0.18(mm)
STDA9 240-434666/23 IC		05/18/2020 15:31	1		DB-624 0.18(mm)
STDA9 240-434666/24 IC		05/18/2020 15:56	1		DB-624 0.18(mm)
ICV 240-434666/25		05/18/2020 16:21	1	UXM27998.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Instrument ID: A3UX16 Start Date: 06/10/2020 09:01

Analysis Batch Number: 437675 End Date: 06/10/2020 20:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-437675/1		06/10/2020 09:01	1	BFB6415.D	DB-624 0.18(mm)
CCVIS 240-437675/3		06/10/2020 09:28	1	UXM28608.D	DB-624 0.18(mm)
CCV 240-437675/4		06/10/2020 09:53	1	UXM28609.D	DB-624 0.18(mm)
LCS 240-437675/5		06/10/2020 10:17	1	UXM28610.D	DB-624 0.18(mm)
MRL 240-437675/6 MDLV		06/10/2020 10:41	1		DB-624 0.18(mm)
MRL 240-437675/7 MDLV		06/10/2020 11:05	1		DB-624 0.18(mm)
MB 240-437675/8		06/10/2020 11:30	1	UXM28613.D	DB-624 0.18(mm)
ZZZZZ		06/10/2020 11:55	66.67		DB-624 0.18(mm)
ZZZZZ		06/10/2020 12:19	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 12:43	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 13:08	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 13:32	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 13:56	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 14:20	4		DB-624 0.18(mm)
ZZZZZ		06/10/2020 14:44	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 15:09	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 15:33	4		DB-624 0.18(mm)
ZZZZZ		06/10/2020 15:57	10		DB-624 0.18(mm)
ZZZZZ		06/10/2020 16:22	50		DB-624 0.18(mm)
ZZZZZ		06/10/2020 16:46	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 17:10	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 17:34	1		DB-624 0.18(mm)
240-131288-1		06/10/2020 17:59	1	UXM28629.D	DB-624 0.18(mm)
240-131288-2		06/10/2020 18:23	1	UXM28630.D	DB-624 0.18(mm)
ZZZZZ		06/10/2020 18:47	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 19:11	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 19:36	1000		DB-624 0.18(mm)
240-131297-B-3 MS		06/10/2020 20:00	1000	UXM28634.D	DB-624 0.18(mm)
240-131297-B-3 MSD		06/10/2020 20:24	1000	UXM28635.D	DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Batch Number: 434666 Batch Start Date: 05/18/20 08:55 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_a 00006	vm50ss 00401	vm50ss_stk 00083	vmarolistdw 00345
BFB 240-434666/1		8260C		5 mL	5 mL				
STD8260 240-434666/9 IC		8260C		5 mL	5 mL	2 uL	64 uL		64 uL
STD8260 240-434666/10 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-434666/11 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
ICIS 240-434666/12		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-434666/13 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
STD8260 240-434666/14 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-434666/15 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
ICV 240-434666/16		8260C		5 mL	5 mL	2 uL		2 uL	
ICV 240-434666/25		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00024	vmfasa9w 00276	vmfasaw 00328	vmfasgw 00359	vmfaspw 00351	vmrgas 00339
BFB 240-434666/1		8260C		1 uL					
STD8260 240-434666/9 IC		8260C							64 uL
STD8260 240-434666/10 IC		8260C							48 uL
STD8260 240-434666/11 IC		8260C							32 uL
ICIS 240-434666/12		8260C							16 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Batch Number: 434666 Batch Start Date: 05/18/20 08:55 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00024	vmfasa9w 00276	vmfasaw 00328	vmfasgw 00359	vmfaspw 00351	vmrgas 00339
STD8260 240-434666/13 IC		8260C							8 uL
STD8260 240-434666/14 IC		8260C							0.8 uL
STD8260 240-434666/15 IC		8260C							0.4 uL
ICV 240-434666/16		8260C				16 uL	16 uL	16 uL	
ICV 240-434666/25		8260C			16 uL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00386					
BFB 240-434666/1		8260C							
STD8260 240-434666/9 IC		8260C		64 uL					
STD8260 240-434666/10 IC		8260C		48 uL					
STD8260 240-434666/11 IC		8260C		32 uL					
ICIS 240-434666/12		8260C		16 uL					
STD8260 240-434666/13 IC		8260C		8 uL					
STD8260 240-434666/14 IC		8260C		0.8 uL					
STD8260 240-434666/15 IC		8260C		0.4 uL					
ICV 240-434666/16		8260C							
ICV 240-434666/25		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Batch Number: 434666 Batch Start Date: 05/18/20 08:55 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Batch Number: 437675 Batch Start Date: 06/10/20 09:01 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk_A 00005	vm50is_stk_a 00006	vm50ss_stk 00085
BFB 240-437675/1		8260C		5 mL	5 mL				
CCVIS 240-437675/3		8260C		5 mL	5 mL			2 uL	2 uL
CCV 240-437675/4		8260C		5 mL	5 mL		1 uL		
LCS 240-437675/5		8260C		5 mL	5 mL			2 uL	2 uL
MB 240-437675/8		8260C		5 mL	5 mL			2 uL	2 uL
240-131288-B-1	I-GWP-1B-25-30	8260C	T	5 mL	5 mL	<2 SU		2 uL	2 uL
240-131288-A-2	TB-060320	8260C	T	5 mL	5 mL	<2 SU		2 uL	2 uL
240-131297-B-3 MS		8260C	T	5 mL	5 mL	<2 SU		2 uL	2 uL
240-131297-B-3 MSD		8260C	T	5 mL	5 mL	<2 SU		2 uL	2 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00348	vmbfb 00025	vmfasaw 00331	vmfasgw 00363	vmfaspw 00354	vmra9w 00348
BFB 240-437675/1		8260C			1 uL				
CCVIS 240-437675/3		8260C		16 uL					
CCV 240-437675/4		8260C							16 uL
LCS 240-437675/5		8260C				16 uL	16 uL	16 uL	
MB 240-437675/8		8260C							
240-131288-B-1	I-GWP-1B-25-30	8260C	T						
240-131288-A-2	TB-060320	8260C	T						
240-131297-B-3 MS		8260C	T			16 uL	16 uL	16 uL	
240-131297-B-3 MSD		8260C	T			16 uL	16 uL	16 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00342	vmrprimw 00389				
BFB 240-437675/1		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Batch Number: 437675 Batch Start Date: 06/10/20 09:01 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00342	vmrprimw 00389				
CCVIS 240-437675/3		8260C		16 uL	16 uL				
CCV 240-437675/4		8260C							
LCS 240-437675/5		8260C							
MB 240-437675/8		8260C							
240-131288-B-1	I-GWP-1B-25-30	8260C	T						
240-131288-A-2	TB-060320	8260C	T						
240-131297-B-3 MS		8260C	T						
240-131297-B-3 MSD		8260C	T						

Batch Notes	
pH Indicator ID	HC861525

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOC CALCULATION	SAMPLE I-GWP-1B-25-30		
TARGET ANALYTE	TRICHLOROETHENE		
ANALYTE RESPONSE	261897		
INTERNAL STANDARD	fluorobenzene		
I.S. RESPONSE	811176		
I.S. CONCENTRATION	20	µg/l	
ANALYTE CAL. RF	0.3431		
DILUTION FACTOR (DF)	1		
INITIAL SAMPLE VOLUME - V1	5	ml	
FINAL SAMPLE VOLUME - V2	5	ml	

$$\frac{\text{(ANALYTE RESPONSE) x (I.S. CONCENTRATION) X DF x V2}}{\text{(I.S. RESPONSE) x (CAL. R.F.) x V1}} = \textbf{18.82}\ \textbf{µg/l}$$

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1

SDG No.:

Client Sample ID: I-GWP-1B-25-30 Lab Sample ID: 240-131288-1

Matrix: Water Lab File ID: UXM28629.D

Analysis Method: 8260C Date Collected: 06/03/2020 10:30

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.17	J	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	19		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		69-122
1868-53-7	Dibromofluoromethane (Surr)	90		78-129
460-00-4	4-Bromofluorobenzene (Surr)	101		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		75-130

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX16\20200610-98995.b\UXM28629.D
Lims ID: 240-131288-B-1
Client ID: I-GWP-1B-25-30
Sample Type: Client
Inject. Date: 10-Jun-2020 17:59:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098995-024
Operator ID: 001765 Instrument ID: A3UX16

Method: \\chromfs\Canton\ChromData\A3UX16\20200610-98995.b\8260_16.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jun-2020 07:56:19 Calib Date: 18-May-2020 15:56:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX16\20200518-98338.b\UXM27997.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1053

First Level Reviewer: bosworthh Date: 11-Jun-2020 07:56:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.869	5.869	0.000	99	811176	20.0	
* 2 Chlorobenzene-d5	117	8.597	8.597	0.000	88	652875	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.862	10.862	0.000	97	326945	20.0	
$ 4 Dibromofluoromethane (Surr)	113	5.300	5.300	0.000	93	212832	18.0	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.596	5.597	-0.001	98	276206	21.3	
$ 6 Toluene-d8 (Surr)	98	7.257	7.257	0.000	94	875517	19.4	
$ 7 4-Bromofluorobenzene (Surr)	95	9.723	9.723	0.000	86	332541	20.1	
9 Dichlorodifluoromethane	85		1.719				ND	
10 Chloromethane	50	1.908	1.909	-0.001	94	4757	0.2693	
11 Vinyl chloride	62		2.027				ND	
13 Bromomethane	94		2.371				ND	
14 Chloroethane	64		2.490				ND	
16 Trichlorofluoromethane	101		2.751				ND	
19 1,1-Dichloroethene	96		3.260				ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.272				ND	
21 Acetone	58	3.308	3.308	0.000	100	12803	13.0	
24 Carbon disulfide	76	3.474	3.474	0.000	99	7608	0.2030	
27 Methyl acetate	43		3.593				ND	
28 Methylene Chloride	84		3.735				ND	
31 Methyl tert-butyl ether	73		3.972				ND	
32 trans-1,2-Dichloroethene	96		3.984				ND	
34 1,1-Dichloroethane	63		4.375				ND	
40 2-Butanone (MEK)	72		4.861				ND	
39 cis-1,2-Dichloroethene	96	4.873	4.873	0.000	81	34382	2.48	
47 Chloroform	83		5.158				ND	
48 1,1,1-Trichloroethane	97		5.312				ND	
49 Cyclohexane	56		5.371				ND	
51 Carbon tetrachloride	117		5.442				ND	
54 Benzene	78	5.620	5.620	0.000	95	31069	0.6268	
53 1,2-Dichloroethane	62		5.656				ND	
58 Trichloroethene	130	6.177	6.178	-0.001	98	261897	18.8	
60 Methylcyclohexane	83		6.391				ND	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131288-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3595 0.4240	0.3715 0.4161	0.4163	0.4421	0.4521	Ave		0.4117			0.1000	8.3		20.0			
Isobutyl alcohol	0.0063 0.0070	0.0057 0.0071	0.0071	0.0070	0.0076	Ave		0.0068				9.1		20.0			
Benzene	1.0736 1.2674	1.1320 1.2617	1.2088	1.2774	1.3344	Ave		1.2222			0.5000	7.4		20.0			
1,2-Dichloroethane	0.3845 0.3848	0.3877 0.3818	0.3808	0.4006	0.4122	Ave		0.3903			0.1000	3.0		20.0			
n-Heptane	+++++ 0.2302	0.7419 0.2158	0.2728	0.2603	0.2379	Lin1	0.5399	0.2181				5.7			0.9980		0.9900
Trichloroethene	0.2943 0.3495	0.3229 0.3479	0.3477	0.3664	0.3727	Ave		0.3431			0.1500	7.8		20.0			
Methylcyclohexane	+++++ 0.5704	0.4486 0.5470	0.5608	0.5978	0.5785	Ave		0.5505			0.1000	9.6		20.0			
1,2-Dichloropropane	0.2423 0.2875	0.2813 0.2870	0.2756	0.2920	0.3038	Ave		0.2814			0.1000	6.9		20.0			
1,4-Dioxane	+++++ 0.0037	0.0041 0.0037	0.0038	0.0036	0.0040	Ave		0.0038				4.6		20.0			
Dibromomethane	0.1637 0.1699	0.1728 0.1710	0.1685	0.1784	0.1857	Ave		0.1729				4.2		20.0			
Dichlorobromomethane	0.3432 0.3904	0.3943 0.3900	0.3871	0.4024	0.4184	Ave		0.3894			0.1500	5.9		20.0			
2-Chloroethyl vinyl ether	0.1442 0.1824	0.1477 0.1859	0.1692	0.1759	0.1941	Ave		0.1713				11.1		20.0			
cis-1,3-Dichloropropene	0.4225 0.4985	0.4160 0.4994	0.4764	0.5005	0.5273	Ave		0.4772			0.1500	8.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.1948 0.2124	0.2016 0.2140	0.2099	0.2071	0.2280	Ave		0.2097			0.0500	5.0		20.0			
Toluene	1.4142 1.7223	1.4826 1.6795	1.6148	1.6777	1.7666	Ave		1.6225			0.4000	8.0		20.0			
trans-1,3-Dichloropropene	0.3862 0.5752	0.4539 0.5685	0.5222	0.5495	0.5937	Ave		0.5213			0.1000	14.4		20.0			
Ethyl methacrylate	+++++ 0.4132	0.2835 0.4090	0.3803	0.3984	0.4355	Ave		0.3867				13.9		20.0			
1,1,2-Trichloroethane	0.2563 0.3164	0.2522 0.3104	0.2927	0.3054	0.3288	Ave		0.2946			0.1000	10.1		20.0			
Tetrachloroethene	0.2450 0.3495	0.2804 0.3362	0.3306	0.3423	0.3612	Ave		0.3207			0.1500	13.1		20.0			
1,3-Dichloropropane	0.4057 0.5658	0.4582 0.5484	0.5290	0.5490	0.5839	Ave		0.5200				12.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **JUNE 25, 2020**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
BLDG. C
SDG 240-131413-1

SAMPLES: 1 / Aqueous / VOCs

I-GWP-1C-25-30

1 / Trip Blank / VOCs

TB-060420

Overview

The sample set for LMC-MRC BLDG.C, SDG 240-131413-1, consisted of one (1) aqueous sample and one (1) trip blank. All samples were analyzed for volatile organic compounds (VOCs) as referenced above.

The samples were collected by Tetra Tech, Inc. on June 4, 2020 and analyzed by Eurofins – Canton. All analyses were conducted in accordance with SW-846 Method 8260B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, GC/MS tuning, laboratory method/trip blank results, surrogate spike recoveries, laboratory control sample results, matrix spike / matrix spike duplicate recoveries, internal standard areas, field duplicate results, chromatographic resolution, compound identification, compound quantitation and detection limits. Areas of concern are listed below.

Major

- None.

Minor

- The VOC continuing calibration verification (CCV) performed on instrument A3UX12 on 6/15/2020 @ 17:06 had a %D for dichlorodifluoromethane which exceeded the 20% quality control limit. All samples were affected. The non-detected results reported for dichlorodifluoromethane in the affected samples were qualified as estimated, (UJ).

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

Notes

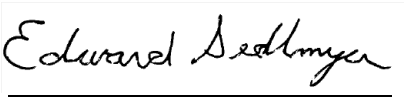
Non-detected results were reported to the method detection limit (MDL).

Executive Summary

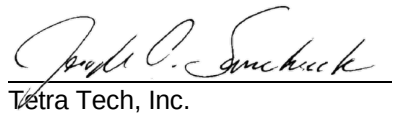
Laboratory Performance: VOC CCV %D exceedance of the 20% quality control limit resulted in qualification of the dichlorodifluoromethane data.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.



Tetra Tech, Inc.
Edward Sedlmyer
Data Validator



Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

PROJ_NO: 09011	NSAMPLE	I-GWP-1C-25-30			TB-060420		
SDG: 240-131413-1	LAB_ID	240-131413-1			240-131413-2		
FRACTION: OV	SAMP_DATE	6/4/2020			6/4/2020		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U	
1,1,2-TRICHLOROETHANE		0.09	U		0.09	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U	
2-BUTANONE		1.2	U		1.2	U	
2-HEXANONE		0.54	U		0.54	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U	
BENZENE		0.82	J	P	0.13	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U	
CARBON DISULFIDE		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U	
CHLOROETHANE		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		1.3			0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U	
CYCLOHEXANE		0.24	U		0.24	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C
ETHYLBENZENE		0.11	U		0.11	U	
ISOPROPYLBENZENE		0.09	U		0.09	U	

PROJ_NO: 09011	NSAMPLE	I-GWP-1C-25-30			TB-060420		
SDG: 240-131413-1	LAB_ID	240-131413-1			240-131413-2		
FRACTION: OV	SAMP_DATE	6/4/2020			6/4/2020		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.7	U		1.7	U	
METHYL CYCLOHEXANE		0.33	U		0.33	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U	
STYRENE		0.1	U		0.1	U	
TETRACHLOROETHENE		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U	
TRICHLOROETHENE		8.2			0.1	U	
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U	
VINYL CHLORIDE		0.2	U		0.2	U	

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: I-GWP-1C-25-30 Lab Sample ID: 240-131413-1

Matrix: Water Lab File ID: U1278431.D

Analysis Method: 8260C Date Collected: 06/04/2020 08:20

Sample wt/vol: 5(mL) Date Analyzed: 06/16/2020 02:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.82	J	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.3		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: I-GWP-1C-25-30 Lab Sample ID: 240-131413-1

Matrix: Water Lab File ID: U1278431.D

Analysis Method: 8260C Date Collected: 06/04/2020 08:20

Sample wt/vol: 5(mL) Date Analyzed: 06/16/2020 02:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	8.2		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		69-122
1868-53-7	Dibromofluoromethane (Surr)	91		78-129
460-00-4	4-Bromofluorobenzene (Surr)	92		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		75-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: TB-060420 Lab Sample ID: 240-131413-2

Matrix: Water Lab File ID: U1278432.D

Analysis Method: 8260C Date Collected: 06/04/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/16/2020 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: TB-060420 Lab Sample ID: 240-131413-2

Matrix: Water Lab File ID: U1278432.D

Analysis Method: 8260C Date Collected: 06/04/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/16/2020 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		69-122
1868-53-7	Dibromofluoromethane (Surr)	97		78-129
460-00-4	4-Bromofluorobenzene (Surr)	92		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		75-130

Appendix C

Support Documentation

North Canton 3.3/4.2

Chain of Custody Record Baltimore #201

321400

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Samantha Brenner	Site Contact: Patrick O'Brien	Date: 6/4/20	COC No:
Company Name: Tetra Tech	Tel/Fax:	Lab Contact: John McFadden	Carrier: Courier	___ of ___ COCs
Address: 2025 Century Blvd, Suite 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below ____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: South of Building C GWP	☐ 1 week			
Site: MRC	☐ 2 days			Job / SDG No.:
P O # MRC090911	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total VOCs	Sample Specific Notes:
I-GWP-1C-25-30	6/4/20	0820	G	AQ	3			3	
TB-060420	6/4/20	0000	G	AQ	2			2	

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 131413

Client Tetra tech Site Name _____ Cooler unpacked by: [signature]

Cooler Received on 6-5-20 Opened on 6-5-20

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 17 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 3.3 °C Corrected Cooler Temp. 4.2 °C
   IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. 3.3 °C Corrected Cooler Temp. 4.0 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC902937
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: AMM

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

ANALYTICAL REPORT

Job Number: 240-131413-1

Job Description: MRC South of Building C

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

Attention: Samantha Brenner

Approved for release.
John McFadden
Project Manager I
6/17/2020 12:35 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
(330)497-9396
john.mcfadden@testamericainc.com
06/17/2020

cc: Tony Apanavage
Kelly Carper

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC South of Building C

Report Number: 240-131413-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 6/5/2020 9:40 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples I-GWP-1C-25-30 (240-131413-1) and TB-060420 (240-131413-2) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 06/16/2020.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-438414.

The continuing calibration verification (CCV) analyzed in batch 240-438414 was outside the method criteria for difluorodichloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

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

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC South of Building C

Job ID: 240-131413-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Job ID: 240-131413-1
Project/Site: MRC South of Building C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-131413-1	I-GWP-1C-25-30	Water	06/04/20 08:20	06/05/20 09:40	
240-131413-2	TB-060420	Water	06/04/20 00:00	06/05/20 09:40	

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
I-GWP-1C-25-30	240-131413-1	91	106	95	92
TB-060420	240-131413-2	97	108	97	92
	MB 240-438414/8	96	109	95	91
	LCS 240-438414/5	92	99	90	90

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	78-129
DCA = 1,2-Dichloroethane-d4 (Surr)	75-130
TOL = Toluene-d8 (Surr)	69-122
BFB = 4-Bromofluorobenzene (Surr)	47-134

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1278406a.D

Lab ID: LCS 240-438414/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.4	102	65-141	
1,1,2,2-Tetrachloroethane	20.0	20.4	102	45-151	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.3	102	54-148	
1,1,2-Trichloroethane	20.0	18.6	93	79-121	
1,1-Dichloroethane	20.0	20.1	100	74-126	
1,1-Dichloroethene	20.0	21.4	107	73-129	
1,2,4-Trichlorobenzene	20.0	17.8	89	47-120	
1,2-Dibromo-3-Chloropropane	20.0	17.3	87	34-136	
Ethylene Dibromide	20.0	19.1	95	73-120	
1,2-Dichlorobenzene	20.0	18.2	91	74-120	
1,2-Dichloroethane	20.0	21.0	105	66-129	
1,2-Dichloropropane	20.0	20.2	101	79-127	
1,3-Dichlorobenzene	20.0	18.0	90	74-120	
1,4-Dichlorobenzene	20.0	17.9	89	75-120	
2-Butanone (MEK)	40.0	32.8	82	41-151	
2-Hexanone	40.0	37.9	95	43-142	
4-Methyl-2-pentanone (MIBK)	40.0	37.0	93	43-145	
Acetone	40.0	32.1	80	33-155	
Benzene	20.0	19.1	96	77-123	
Dichlorobromomethane	20.0	19.1	96	73-122	
Bromoform	20.0	18.2	91	47-133	
Bromomethane	20.0	18.9	95	48-144	
Carbon disulfide	20.0	17.1	86	67-127	
Carbon tetrachloride	20.0	20.2	101	61-142	
Chlorobenzene	20.0	18.3	91	80-120	
Chloroethane	20.0	19.3	97	41-147	
Chloroform	20.0	19.7	98	74-127	
Chloromethane	20.0	27.4	137	46-148	
cis-1,2-Dichloroethene	20.0	18.6	93	75-124	
cis-1,3-Dichloropropene	20.0	19.2	96	68-128	
Cyclohexane	20.0	19.0	95	69-133	
Chlorodibromomethane	20.0	18.3	92	75-120	
Dichlorodifluoromethane	20.0	15.6	78	35-137	
Ethylbenzene	20.0	18.7	93	80-120	
Isopropylbenzene	20.0	19.1	96	73-123	
Methyl acetate	40.0	32.1	80	47-140	
Methyl tert-butyl ether	20.0	20.6	103	57-127	
Methylcyclohexane	20.0	17.9	90	64-123	
Methylene Chloride	20.0	19.0	95	63-134	
Styrene	20.0	18.3	91	75-121	
Tetrachloroethene	20.0	18.5	92	70-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1278406a.D

Lab ID: LCS 240-438414/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	18.8	94	79-122	
trans-1,2-Dichloroethene	20.0	20.4	102	74-130	
trans-1,3-Dichloropropene	20.0	18.5	92	64-120	
Trichloroethene	20.0	18.8	94	71-121	
Trichlorofluoromethane	20.0	20.6	103	52-148	
Vinyl chloride	20.0	17.8	89	61-134	
Xylenes, Total	40.0	37.5	94	78-122	
m-Xylene & p-Xylene	20.0	18.8	94	79-121	
o-Xylene	20.0	18.7	93	75-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab File ID: U1278409.D Lab Sample ID: MB 240-438414/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/15/2020 18:36

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-438414/5	U1278406a.D	06/15/2020 17:29
I-GWP-1C-25-30	240-131413-1	U1278431.D	06/16/2020 02:48
TB-060420	240-131413-2	U1278432.D	06/16/2020 03:10

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab File ID: BFB4108.D BFB Injection Date: 04/30/2019

Instrument ID: A3UX12 BFB Injection Time: 13:47

Analysis Batch No.: 378870

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.1	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	86.4	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	83.6	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-378870/8	U1269795.D	04/30/2019	14:10
	STD8260 240-378870/9	U1269796.D	04/30/2019	14:33
	STD8260 240-378870/10	U1269797.D	04/30/2019	14:55
	ICIS 240-378870/11	U1269798.D	04/30/2019	15:17
	STD8260 240-378870/12	U1269799.D	04/30/2019	15:39
	STD8260 240-378870/13	U1269800.D	04/30/2019	16:02
	STD8260 240-378870/14	U1269801.D	04/30/2019	16:24
	ICV 240-378870/15	U1269802.D	04/30/2019	16:46
	ICV 240-378870/25	U1269812.D	04/30/2019	20:27

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab File ID: BFB4409.D BFB Injection Date: 06/15/2020

Instrument ID: A3UX12 BFB Injection Time: 16:21

Analysis Batch No.: 438414

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	50.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	86.3	
175	5.0 - 9.0 % of mass 174	6.4	(7.4) 1
176	95.0 - 101.0 % of mass 174	83.8	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-438414/3	U1278404a.D	06/15/2020	16:44
	CCVIS 240-438414/4	U1278405.D	06/15/2020	17:06
	LCS 240-438414/5	U1278406a.D	06/15/2020	17:29
	MB 240-438414/8	U1278409.D	06/15/2020	18:36
I-GWP-1C-25-30	240-131413-1	U1278431.D	06/16/2020	2:48
TB-060420	240-131413-2	U1278432.D	06/16/2020	3:10

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Sample No.: ICIS 240-378870/11 Date Analyzed: 04/30/2019 15:17

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1269798.D Heated Purge: (Y/N) N

Calibration ID: 50823

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1246876	5.10	855324	7.76	464704	9.97
UPPER LIMIT		2493752	5.60	1710648	8.26	929408	10.47
LOWER LIMIT		623438	4.60	427662	7.26	232352	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 240-438414/4		1211995	5.10	819064	7.75	441802	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Sample No.: CCVIS 240-438414/4 Date Analyzed: 06/15/2020 17:06

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1278405.D Heated Purge: (Y/N) N

Calibration ID: 50829

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1211995	5.10	819064	7.75	441802	9.97
UPPER LIMIT		2423990	5.60	1638128	8.25	883604	10.47
LOWER LIMIT		605998	4.60	409532	7.25	220901	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-438414/5		1220131	5.10	826106	7.75	434810	9.97
MB 240-438414/8		1145616	5.10	758359	7.75	417521	9.97
240-131413-1	I-GWP-1C-25-30	1194512	5.10	834317	7.75	429712	9.97
240-131413-2	TB-060420	1126004	5.10	722424	7.75	384750	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-378870/14	U1269801.D
Level 2	STD8260 240-378870/13	U1269800.D
Level 3	STD8260 240-378870/12	U1269799.D
Level 4	ICIS 240-378870/11	U1269798.D
Level 5	STD8260 240-378870/10	U1269797.D
Level 6	STD8260 240-378870/9	U1269796.D
Level 7	STD8260 240-378870/8	U1269795.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3633 0.4173	0.3307 0.4106	0.3625	0.3979	0.4130	Ave		0.3850			0.1000	8.6		20.0			
Chloromethane	+++++ 0.3349	0.3157 0.3582	0.3458	0.3237	0.3462	Ave		0.3374			0.1000	4.7		20.0			
Butadiene	0.3642 0.3859	0.3535 0.3787	0.3596	0.3692	0.3849	Ave		0.3709				3.4		20.0			
Vinyl chloride	0.3531 0.3876	0.3746 0.3870	0.3765	0.3716	0.3891	Ave		0.3771			0.1000	3.4		20.0			
Bromomethane	0.2359 0.2352	0.2527 0.1909	0.2447	0.2332	0.2368	Ave		0.2328			0.0500	8.5		20.0			
Chloroethane	0.2531 0.2446	0.2455 0.2027	0.2395	0.2349	0.2376	Ave		0.2368			0.0500	6.8		20.0			
Dichlorofluoromethane	0.4736 0.4813	0.4798 0.4585	0.4834	0.4616	0.4743	Ave		0.4732				2.1		20.0			
Trichlorofluoromethane	0.4112 0.4427	0.3928 0.4146	0.4217	0.4207	0.4388	Ave		0.4204			0.1000	4.0		20.0			
Ethyl ether	0.2685 0.2474	0.2624 0.2312	0.2543	0.2471	0.2570	Ave		0.2526				4.8		20.0			
Acrolein	0.0778 0.0735	0.0754 +++++	0.0774	0.0729	0.0759	Ave		0.0755				2.7		20.0			
1,1-Dichloroethene	0.4303 0.4053	0.4157 0.4052	0.4117	0.4077	0.4183	Ave		0.4135			0.1000	2.2		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2628 0.2806	0.2614 0.2733	0.2761	0.2772	0.2842	Ave		0.2737			0.0500	3.2		20.0			
Acetone	+++++ 0.1421	0.2958 +++++	0.1578	0.1420	0.1462	Lin1	0.3105	0.1398			0.0100	2.7			1.0000		0.9900
Iodomethane	0.4620 0.4312	0.4507 0.4253	0.4283	0.4317	0.4473	Ave		0.4395				3.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	1.1582 0.8815	1.0493 0.8578	0.9096	0.8961	0.9091	Ave		0.9516			0.1000	11.6		20.0			
3-Chloro-1-propene	0.5306 0.4520	0.4842 0.4523	0.4599	0.4492	0.4714	Ave		0.4714				6.1		20.0			
Methyl acetate	0.3734 0.3369	0.3585 +++++	0.3445	0.3309	0.3439	Ave		0.3480			0.1000	4.4		20.0			
Methylene Chloride	+++++ 0.3493	1.2721 0.3463	0.4243	0.3723	0.3728	Lin1	0.9295	0.3363			0.1000	2.8			1.0000		0.9900
2-Methyl-2-propanol	0.0805 0.0680	0.0761 +++++	0.0730	0.0700	0.0718	Ave		0.0732				6.1		20.0			
Acrylonitrile	0.1960 0.1727	0.1891 +++++	0.1798	0.1713	0.1778	Ave		0.1811				5.3		20.0			
trans-1,2-Dichloroethene	0.4388 0.3861	0.4327 0.3845	0.4006	0.3951	0.4062	Ave		0.4063			0.1000	5.3		20.0			
Methyl tert-butyl ether	0.8683 0.8061	0.8857 0.7696	0.8607	0.8334	0.8545	Ave		0.8398			0.1000	4.8		20.0			
Hexane	0.4565 0.4534	0.4143 0.4249	0.4503	0.4473	0.4579	Ave		0.4435				3.8		20.0			
1,1-Dichloroethane	0.5177 0.4943	0.5212 0.4907	0.5091	0.4989	0.5149	Ave		0.5067			0.2000	2.4		20.0			
Vinyl acetate	0.5580 0.5787	0.5728 +++++	0.5589	0.5619	0.5864	Ave		0.5694				2.1		20.0			
2,2-Dichloropropane	0.3469 0.3079	0.3283 0.3227	0.3273	0.3311	0.3375	Ave		0.3288				3.7		20.0			
cis-1,2-Dichloroethene	0.3560 0.3343	0.3649 0.3316	0.3413	0.3352	0.3475	Ave		0.3444			0.1000	3.6		20.0			
2-Butanone (MEK)	0.0615 0.0642	0.0597 +++++	0.0632	0.0607	0.0645	Ave		0.0623			0.0100	3.2		20.0			
Chlorobromomethane	0.2785 0.2285	0.2509 0.2244	0.2357	0.2316	0.2400	Ave		0.2413				7.7		20.0			
Tetrahydrofuran	0.1604 0.1508	0.1429 +++++	0.1501	0.1446	0.1514	Ave		0.1500				4.1		20.0			
Chloroform	0.5004 0.4703	0.4870 0.4731	0.4836	0.4829	0.4938	Ave		0.4844			0.2000	2.2		20.0			
1,1,1-Trichloroethane	0.3922 0.4192	0.4015 0.4179	0.4170	0.4276	0.4345	Ave		0.4157			0.1000	3.5		20.0			
Cyclohexane	0.5033 0.5135	0.4858 0.4766	0.5239	0.5157	0.5153	Ave		0.5049			0.1000	3.5		20.0			
1,1-Dichloropropene	0.4381 0.4050	0.4072 0.3945	0.4119	0.4049	0.4145	Ave		0.4109				3.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3547 0.3535	0.3314 0.3513	0.3425	0.3636	0.3768	Ave		0.3534			0.1000	4.1		20.0			
Isobutyl alcohol	0.0214 0.0190	0.0189 +++++	0.0202	0.0197	0.0201	Ave		0.0199				4.6		20.0			
Benzene	1.2351 1.1561	1.2006 1.1376	1.1748	1.1526	1.1878	Ave		1.1778			0.5000	2.8		20.0			
1,2-Dichloroethane	0.3915 0.3540	0.3893 0.3393	0.3455	0.3539	0.3641	Ave		0.3625			0.1000	5.7		20.0			
n-Heptane	+++++ 0.2241	0.8189 0.2083	0.2765	0.2406	0.2291	Lin1	0.6210	0.2083				3.9			0.9990		0.9900
Trichloroethene	0.3459 0.3108	0.3166 0.3021	0.3026	0.3105	0.3179	Ave		0.3152			0.1500	4.7		20.0			
Methylcyclohexane	0.5757 0.5798	0.5136 0.5210	0.5842	0.5782	0.5985	Ave		0.5644			0.1000	5.9		20.0			
1,2-Dichloropropane	0.2504 0.2495	0.2406 0.2466	0.2499	0.2468	0.2580	Ave		0.2488			0.1000	2.1		20.0			
Dibromomethane	0.2511 0.2018	0.2266 0.1879	0.1970	0.2002	0.2123	Ave		0.2110				10.2		20.0			
1,4-Dioxane	0.0035 0.0040	0.0034 0.0038	0.0047	0.0044	0.0043	Ave		0.0040				12.1		20.0			
Dichlorobromomethane	0.3369 0.3474	0.3224 0.3346	0.3359	0.3412	0.3584	Ave		0.3396			0.1500	3.3		20.0			
2-Chloroethyl vinyl ether	0.1875 0.1911	0.1776 0.1507	0.1862	0.1818	0.1895	Ave		0.1806				7.7		20.0			
cis-1,3-Dichloropropene	0.4366 0.4171	0.4107 0.3952	0.4011	0.4068	0.4265	Ave		0.4134			0.1500	3.5		20.0			
4-Methyl-2-pentanone (MIBK)	0.3839 0.3806	0.3808 +++++	0.3872	0.3769	0.3911	Ave		0.3834			0.0500	1.3		20.0			
Toluene	1.8023 1.6267	1.6891 1.6145	1.6659	1.6181	1.7001	Ave		1.6738			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.5769 0.5343	0.5645 0.5065	0.5263	0.5262	0.5576	Ave		0.5418			0.1000	4.6		20.0			
Ethyl methacrylate	0.5226 0.5394	0.4946 0.4478	0.5518	0.5362	0.5613	Ave		0.5220				7.5		20.0			
1,1,2-Trichloroethane	0.3778 0.3286	0.3178 0.3033	0.3333	0.3248	0.3429	Ave		0.3327			0.1000	7.1		20.0			
Tetrachloroethene	0.4570 0.4417	0.4243 0.4396	0.4476	0.4415	0.4623	Ave		0.4449			0.1500	2.8		20.0			
1,3-Dichloropropane	0.6595 0.5804	0.5855 0.5367	0.5879	0.5738	0.6044	Ave		0.5898				6.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.4148 0.3823	0.3921 +++++	0.4171	0.3943	0.3992	Ave		0.4000			0.0500	3.4		20.0			
Chlorodibromomethane	0.3436 0.3509	0.3261 0.3352	0.3393	0.3492	0.3738	Ave		0.3454				4.4		20.0			
Ethylene Dibromide	0.3803 0.3593	0.3661 0.3178	0.3511	0.3562	0.3736	Ave		0.3578				5.7		20.0			
Chlorobenzene	1.1917 1.0431	1.0788 1.0358	1.0620	1.0437	1.1063	Ave		1.0802			0.3000	5.1		20.0			
1,1,1,2-Tetrachloroethane	0.3770 0.3768	0.3617 0.3870	0.3721	0.3706	0.3978	Ave		0.3776				3.1		20.0			
Ethylbenzene	0.6003 0.5897	0.5954 0.5969	0.6098	0.5997	0.6287	Ave		0.6029				2.1		20.0			
m-Xylene & p-Xylene	0.7152 0.7393	0.7520 0.7353	0.7549	0.7557	0.7836	Ave		0.7480				2.8		20.0			
o-Xylene	0.7592 0.7370	0.7654 0.7387	0.7487	0.7584	0.7848	Ave		0.7560				2.2		20.0			
Styrene	1.2553 1.2064	1.1402 1.1932	1.2030	1.2192	1.2715	Ave		1.2127			0.3000	3.5		20.0			
Bromoform	0.2213 0.2662	0.2350 0.2312	0.2485	0.2670	0.2802	Ave		0.2499			0.1000	8.7		20.0			
Isopropylbenzene	1.9470 1.9256	1.9183 1.9274	2.0090	1.9856	2.0675	Ave		1.9686			0.1000	2.8		20.0			
1,1,2,2-Tetrachloroethane	0.9347 1.0089	0.9925 0.8398	1.0421	1.0190	1.0529	Ave		0.9843			0.3000	7.6		20.0			
Bromobenzene	0.9090 0.8447	0.8758 0.8518	0.8455	0.8624	0.8771	Ave		0.8666				2.6		20.0			
1,2,3-Trichloropropane	0.3616 0.3604	0.3856 +++++	0.3726	0.3724	0.3827	Ave		0.3726				2.8		20.0			
trans-1,4-Dichloro-2-butene	0.3307 0.3153	0.3082 +++++	0.3131	0.3186	0.3275	Ave		0.3189				2.7		20.0			
N-Propylbenzene	0.9647 0.9889	0.9069 0.9978	0.9987	1.0115	1.0363	Ave		0.9864				4.2		20.0			
2-Chlorotoluene	0.8029 0.8162	0.7917 0.8480	0.8225	0.8298	0.8726	Ave		0.8263				3.3		20.0			
1,3,5-Trimethylbenzene	2.7098 2.8199	2.6571 2.8891	2.8991	2.9082	3.0109	Ave		2.8420				4.3		20.0			
4-Chlorotoluene	0.8644 0.8286	0.8857 0.8408	0.8361	0.8393	0.8746	Ave		0.8528				2.6		20.0			
tert-Butylbenzene	2.4839 2.5923	2.3390 2.6462	2.6216	2.6249	2.7660	Ave		2.5820				5.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.9044 2.8957	2.7731 2.9649	2.9896	2.9855	3.0915	Ave		2.9435				3.4		20.0			
sec-Butylbenzene	3.4931 3.7070	3.4481 3.7162	3.8562	3.8180	3.9769	Ave		3.7165				5.1		20.0			
1,3-Dichlorobenzene	1.8530 1.6328	1.7598 1.6496	1.6537	1.6730	1.7292	Ave		1.7073			0.6000	4.6		20.0			
4-Isopropyltoluene	2.9898 3.1812	3.0425 3.2731	3.2720	3.2957	3.4448	Ave		3.2142				4.9		20.0			
1,4-Dichlorobenzene	1.9866 1.6505	1.8499 1.6771	1.6636	1.7046	1.7595	Ave		1.7560			0.5000	7.0		20.0			
n-Butylbenzene	2.5658 2.7237	2.6277 2.8018	2.7646	2.7987	2.9054	Ave		2.7411				4.2		20.0			
1,2-Dichlorobenzene	1.8655 1.5698	1.6719 1.6169	1.5834	1.6103	1.6665	Ave		1.6549			0.4000	6.1		20.0			
1,2-Dibromo-3-Chloropropane	0.3275 0.3332	0.2864 +++++	0.3130	0.3187	0.3491	Ave		0.3213			0.0500	6.6		20.0			
1,2,4-Trichlorobenzene	1.2956 1.0915	1.2328 1.2075	1.0259	1.0636	1.1751	Ave		1.1560			0.2000	8.5		20.0			
Hexachlorobutadiene	0.5365 0.4716	0.6238 0.5042	0.4510	0.4832	0.5034	Ave		0.5105				11.1		20.0			
Naphthalene	3.8848 3.4986	3.9098 3.2717	3.4440	3.5237	3.8266	Ave		3.6227				6.9		20.0			
1,2,3-Trichlorobenzene	1.2332 0.9963	1.1549 1.1194	0.9312	0.9820	1.0736	Ave		1.0701				10.0		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2632	0.2807 0.2572	0.2551	0.2667	0.2730	Ave		0.2660				3.6		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2956	0.3370 0.2788	0.2849	0.2939	0.3026	Ave		0.2988				6.9		20.0			
Toluene-d8 (Surr)	+++++ 1.3548	1.6210 1.3318	1.3946	1.3817	1.4168	Ave		1.4168				7.4		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4999	0.6202 0.4892	0.5085	0.4983	0.5153	Ave		0.5219				9.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-378870/14	U1269801.D
Level 2	STD8260 240-378870/13	U1269800.D
Level 3	STD8260 240-378870/12	U1269799.D
Level 4	ICIS 240-378870/11	U1269798.D
Level 5	STD8260 240-378870/10	U1269797.D
Level 6	STD8260 240-378870/9	U1269796.D
Level 7	STD8260 240-378870/8	U1269795.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	11044 1567191	19984 2052069	224597	496091	1030351	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	+++++ 1257715	19082 1789816	214265	403612	863765	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	11073 1449292	21365 1892418	222795	460371	960327	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	10733 1455844	22643 1934142	233314	463335	970649	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	7170 883232	15275 953805	151619	290732	590824	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	7695 918797	14836 1012997	148379	292854	592754	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	14396 1807740	29001 2290963	299518	575498	1183160	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	12502 1662729	23742 2071934	261265	524611	1094737	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	8163 929149	15857 1155554	157567	308106	641131	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	11833 1380457	22786 +++++	239777	454386	946268	2.50 300	5.00 +++++	50.0	100	200
1,1-Dichloroethene	FB	Ave	13081 1522285	25123 2024854	255094	508373	1043595	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	7988 1054000	15799 1365935	171045	345600	708990	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 1067191	35750 +++++	195589	354093	729471	+++++ 120	2.00 +++++	20.0	40.0	80.0
Iodomethane	FB	Ave	14045 1619670	27241 2125484	265387	538227	1115860	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	35208 3310792	63418 4286373	563594	1117299	2267883	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	16129 1697487	29262 2260088	284969	560067	1176034	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	22700 2530486	43336 +++++	426943	825132	1715851	1.00 120	2.00 +++++	20.0	40.0	80.0
Methylene Chloride	FB	Lin1	+++++ 1311846	76885 1730659	262888	464186	930086	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	24459 2552659	46009 +++++	452013	872907	1790088	5.00 600	10.0 +++++	100	200	400
Acrylonitrile	FB	Ave	59579 6486159	114297 +++++	1113771	2135420	4436089	5.00 600	10.0 +++++	100	200	400
trans-1,2-Dichloroethene	FB	Ave	13341 1450217	26151 1921542	248232	492658	1013326	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	26396 3027404	53530 3846016	533312	1039087	2131851	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	13878 1702774	25038 2123105	279012	557732	1142313	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	15738 1856520	31501 2451944	315456	622049	1284657	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	16963 2173371	34619 +++++	346293	700651	1462850	0.500 60.0	1.00 +++++	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	10546 1156337	19842 1612711	202782	412857	841953	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	10822 1255612	22054 1657053	211496	417933	866934	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	3739 482200	7212 +++++	78345	151425	322049	1.00 120	2.00 +++++	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	8465 858112	15161 1121143	146065	288735	598675	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	9753 1132369	17279 +++++	185955	360495	755334	1.00 120	2.00 +++++	20.0	40.0	80.0
Chloroform	FB	Ave	15213 1766502	29434 2363996	299618	602114	1231881	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	11924 1574408	24264 2088351	258363	533200	1083939	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	15299 1928649	29359 2381579	324586	642956	1285622	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	13318 1521069	24613 1971517	255221	504905	1034085	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	10783 1327796	20029 1755611	212237	453383	940122	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	16262 1784970	28500 +++++	312412	615511	1254651	12.5 1500	25.0 +++++	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	37546 4341955	72564 5684570	727951	1437120	2963156	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	11902 1329568	23529 1695389	214099	441298	908435	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 841832	49490 1041160	171315	299975	571599	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	10516 1167306	19135 1509661	187506	387176	793097	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	17502 2177617	31043 2603437	361953	720921	1493017	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	7613 937223	14544 1232396	154817	307704	643520	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	7633 757811	13696 938835	122075	249664	529643	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	2151 298901	4063 374894	58179	110260	212766	10.0 1200	20.0 1600	200	400	800
Dichlorobromomethane	FB	Ave	10242 1304681	19488 1672281	208118	425494	894000	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	11398 1435551	21468 1506274	230721	453314	945507	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	13273 1566673	24819 1974815	248543	507172	1063891	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	23343 2858560	46025 +++++	479830	939875	1951525	1.00 120	2.00 +++++	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	36733 4263658	69512 5446274	693965	1384009	2883485	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	11758 1400355	23230 1708636	219235	450107	945703	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	10652 1413898	20354 1510478	229870	458650	952052	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	7700 861361	13079 1023274	138863	277803	581540	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	9314 1157587	17463 1482922	186459	377626	784044	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	13441 1521180	24096 1810575	244890	490824	1025142	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	16906 2004012	32274 +++++	347483	674546	1354308	1.00 120	2.00 +++++	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	7003 919717	13420 1130859	141322	298689	633936	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	7750 941630	15068 1071876	146267	304693	633639	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	24288 2734043	44396 3494036	442384	892667	1876430	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	7683 987481	14884 1305612	154999	316979	674622	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	12234 1545630	24504 2013623	254036	512928	1066262	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	14577 1937780	30946 2480479	314453	646378	1329053	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	15474 1931683	31499 2491810	311889	648657	1331003	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	25585 3161922	46924 4024869	501125	1042824	2156541	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	4510 697809	9669 780055	103500	228364	475190	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	39682 5047046	78943 6501576	836910	1698359	3506656	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10861 1444688	23506 1530842	237420	473524	982071	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	10562 1209647	20743 1552619	192642	400745	818090	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	4202 516092	9133 +++++	84888	173052	356976	0.500 60.0	1.00 +++++	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3843 451551	7300 +++++	71337	148061	305416	0.500 60.0	1.00 +++++	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	11209 1416141	21478 1818752	227545	470058	966595	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	9330 1168744	18750 1545785	187392	385627	813877	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	31487 4038075	62930 5266204	660502	1351432	2808258	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	10044 1186575	20976 1532612	190484	390042	815761	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	28862 3712091	55395 4823562	597272	1219799	2579873	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	33748 4146548	65676 5404391	681127	1387358	2883392	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	40589 5308368	81663 6773871	878572	1774243	3709245	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	21531 2338079	41679 3006850	376754	777449	1612862	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	34741 4555449	72056 5966210	745472	1531521	3212945	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	23084 2363448	43811 3056952	379011	792152	1641044	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	29814 3900305	62232 5107201	629870	1300578	2709817	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	21676 2247875	39597 2947208	360738	748334	1554362	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	3806 477069	6783 +++++	71305	148124	325575	0.500 60.0	1.00 +++++	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	15055 1562937	29197 2200965	233740	494279	1096024	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	6234 675267	14773 918998	102755	224541	469488	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	45140 5009873	92597 5963618	784648	1637491	3569051	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	14329 1426661	27351 2040460	212164	456339	1001370	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 988457	16968 1285236	158064	332600	680998	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 1110364	20365 1393127	176503	366398	754824	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 3550979	66709 4492583	580962	1181805	2403057	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1310206	25525 1650135	211821	426237	874019	+++++ 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-378870/14	U1269801.D
Level 2	STD8260 240-378870/13	U1269800.D
Level 3	STD8260 240-378870/12	U1269799.D
Level 4	ICIS 240-378870/11	U1269798.D
Level 5	STD8260 240-378870/10	U1269797.D
Level 6	STD8260 240-378870/9	U1269796.D
Level 7	STD8260 240-378870/8	U1269795.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	+++++ +++++	0.5						50				
Methylene Chloride	+++++	1.9						50				
n-Heptane	+++++	-5.0						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: ICV 240-378870/15 Calibration Date: 04/30/2019 16:46

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1269802.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.3222	0.1000	0.0167	0.0200	-16.3	30.0
Chloromethane	Ave	0.3374	0.3285	0.1000	0.0195	0.0200	-2.6	30.0
Butadiene	Ave	0.3709	0.3353		0.0181	0.0200	-9.6	30.0
Vinyl chloride	Ave	0.3771	0.3787	0.1000	0.0201	0.0200	0.4	30.0
Bromomethane	Ave	0.2328	0.2224	0.0500	0.0191	0.0200	-4.4	30.0
Chloroethane	Ave	0.2368	0.2302	0.0500	0.0194	0.0200	-2.8	30.0
Dichlorofluoromethane	Ave	0.4732	0.4997		0.0211	0.0200	5.6	30.0
Trichlorofluoromethane	Ave	0.4204	0.4076	0.1000	0.0194	0.0200	-3.0	30.0
Ethyl ether	Ave	0.2526	0.2615		0.0207	0.0200	3.5	30.0
Acrolein	Ave	0.0755	0.0650		0.0861	0.100	-13.9	30.0
1,1-Dichloroethene	Ave	0.4135	0.4227	0.1000	0.0204	0.0200	2.2	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2737	0.2804	0.0500	0.0205	0.0200	2.5	30.0
Acetone	Lin1		0.1555	0.0100	0.0423	0.0400	5.7	50.0
Iodomethane	Ave	0.4395	0.4317		0.0196	0.0200	-1.8	30.0
Carbon disulfide	Ave	0.9516	0.8606	0.1000	0.0181	0.0200	-9.6	30.0
3-Chloro-1-propene	Ave	0.4714	0.4556		0.0193	0.0200	-3.3	30.0
Methyl acetate	Ave	0.3480	0.3354	0.1000	0.0385	0.0400	-3.6	50.0
Methylene Chloride	Lin1		0.3744	0.1000	0.0195	0.0200	-2.5	50.0
2-Methyl-2-propanol	Ave	0.0732	0.0784		0.214	0.200	7.1	30.0
Acrylonitrile	Ave	0.1811	0.1775		0.196	0.200	-2.0	30.0
trans-1,2-Dichloroethene	Ave	0.4063	0.4067	0.1000	0.0200	0.0200	0.0	30.0
Methyl tert-butyl ether	Ave	0.8398	0.8451	0.1000	0.0201	0.0200	0.6	30.0
Hexane	Ave	0.4435	0.4479		0.0202	0.0200	1.0	30.0
1,1-Dichloroethane	Ave	0.5067	0.5009	0.2000	0.0198	0.0200	-1.1	30.0
Vinyl acetate	Ave	0.5694	0.6286		0.0221	0.0200	10.4	30.0
2,2-Dichloropropane	Ave	0.3288	0.3089		0.0188	0.0200	-6.1	30.0
cis-1,2-Dichloroethene	Ave	0.3444	0.3344	0.1000	0.0194	0.0200	-2.9	30.0
2-Butanone (MEK)	Ave	0.0623	0.0642	0.0100	0.0412	0.0400	3.1	50.0
Chlorobromomethane	Ave	0.2413	0.2321		0.0192	0.0200	-3.8	30.0
Tetrahydrofuran	Ave	0.1500	0.1525		0.0407	0.0400	1.6	30.0
Chloroform	Ave	0.4844	0.4803	0.2000	0.0198	0.0200	-0.8	30.0
1,1,1-Trichloroethane	Ave	0.4157	0.4258	0.1000	0.0205	0.0200	2.4	30.0
Cyclohexane	Ave	0.5049	0.5068	0.1000	0.0201	0.0200	0.4	30.0
1,1-Dichloropropene	Ave	0.4109	0.4100		0.0200	0.0200	-0.2	30.0
Carbon tetrachloride	Ave	0.3534	0.3567	0.1000	0.0202	0.0200	0.9	30.0
Isobutyl alcohol	Ave	0.0199	0.0212		0.534	0.500	6.8	30.0
Benzene	Ave	1.178	1.160	0.5000	0.0197	0.0200	-1.5	30.0
1,2-Dichloroethane	Ave	0.3625	0.3568	0.1000	0.0197	0.0200	-1.6	30.0
n-Heptane	Lin1		0.2434		0.0204	0.0200	1.9	30.0
Trichloroethene	Ave	0.3152	0.3133	0.1500	0.0199	0.0200	-0.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: ICV 240-378870/15 Calibration Date: 04/30/2019 16:46

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1269802.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5644	0.5547	0.1000	0.0197	0.0200	-1.7	30.0
1,2-Dichloropropane	Ave	0.2488	0.2556	0.1000	0.0205	0.0200	2.7	30.0
Dibromomethane	Ave	0.2110	0.1998		0.0189	0.0200	-5.3	30.0
1,4-Dioxane	Ave	0.0040	0.0050		0.498	0.400	24.5	50.0
Dichlorobromomethane	Ave	0.3396	0.3391	0.1500	0.0200	0.0200	-0.1	30.0
2-Chloroethyl vinyl ether	Ave	0.1806	0.1852		0.0205	0.0200	2.5	30.0
cis-1,3-Dichloropropene	Ave	0.4134	0.4266	0.1500	0.0206	0.0200	3.2	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3834	0.3876	0.0500	0.0404	0.0400	1.1	50.0
Toluene	Ave	1.674	1.670	0.4000	0.0200	0.0200	-0.2	30.0
trans-1,3-Dichloropropene	Ave	0.5418	0.5319	0.1000	0.0196	0.0200	-1.8	30.0
Ethyl methacrylate	Ave	0.5220	0.5312		0.0204	0.0200	1.8	30.0
1,1,2-Trichloroethane	Ave	0.3327	0.3406	0.1000	0.0205	0.0200	2.4	30.0
Tetrachloroethene	Ave	0.4449	0.4485	0.1500	0.0202	0.0200	0.8	30.0
1,3-Dichloropropane	Ave	0.5898	0.5904		0.0200	0.0200	0.1	30.0
2-Hexanone	Ave	0.4000	0.4074	0.0500	0.0407	0.0400	1.9	50.0
Chlorodibromomethane	Ave	0.3454	0.3577		0.0207	0.0200	3.6	30.0
Ethylene Dibromide	Ave	0.3578	0.3607		0.0202	0.0200	0.8	30.0
Chlorobenzene	Ave	1.080	1.065	0.3000	0.0197	0.0200	-1.4	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3776	0.3797		0.0201	0.0200	0.6	30.0
Ethylbenzene	Ave	0.6029	0.6034		0.0200	0.0200	0.0	30.0
m-Xylene & p-Xylene	Ave	0.7480	0.7610		0.0203	0.0200	1.7	30.0
o-Xylene	Ave	0.7560	0.7537		0.0199	0.0200	-0.3	30.0
Styrene	Ave	1.213	1.155	0.3000	0.0191	0.0200	-4.7	30.0
Bromoform	Ave	0.2499	0.2587	0.1000	0.0207	0.0200	3.5	30.0
Isopropylbenzene	Ave	1.969	2.009	0.1000	0.0204	0.0200	2.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.9843	1.035	0.3000	0.0210	0.0200	5.1	30.0
Bromobenzene	Ave	0.8666	0.8526		0.0197	0.0200	-1.6	30.0
1,2,3-Trichloropropane	Ave	0.3726	0.3857		0.0207	0.0200	3.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.3232		0.0203	0.0200	1.4	30.0
N-Propylbenzene	Ave	0.9864	1.003		0.0203	0.0200	1.7	30.0
2-Chlorotoluene	Ave	0.8263	0.8265		0.0200	0.0200	0.0	30.0
1,3,5-Trimethylbenzene	Ave	2.842	2.880		0.0203	0.0200	1.3	30.0
4-Chlorotoluene	Ave	0.8528	0.8188		0.0192	0.0200	-4.0	30.0
tert-Butylbenzene	Ave	2.582	2.643		0.0205	0.0200	2.4	30.0
1,2,4-Trimethylbenzene	Ave	2.944	2.923		0.0199	0.0200	-0.7	30.0
sec-Butylbenzene	Ave	3.717	3.788		0.0204	0.0200	1.9	30.0
1,3-Dichlorobenzene	Ave	1.707	1.638	0.6000	0.0192	0.0200	-4.1	30.0
4-Isopropyltoluene	Ave	3.214	3.318		0.0206	0.0200	3.2	30.0
1,4-Dichlorobenzene	Ave	1.756	1.667	0.5000	0.0190	0.0200	-5.0	30.0
n-Butylbenzene	Ave	2.741	2.726		0.0199	0.0200	-0.6	30.0
1,2-Dichlorobenzene	Ave	1.655	1.606	0.4000	0.0194	0.0200	-2.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: ICV 240-378870/15 Calibration Date: 04/30/2019 16:46

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1269802.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.3213	0.3347	0.0500	0.0208	0.0200	4.2	50.0
1,2,4-Trichlorobenzene	Ave	1.156	1.069	0.2000	0.0185	0.0200	-7.5	50.0
Hexachlorobutadiene	Ave	0.5105	0.4509		0.0177	0.0200	-11.7	50.0
Naphthalene	Ave	3.623	3.581		0.0198	0.0200	-1.2	50.0
1,2,3-Trichlorobenzene	Ave	1.070	0.9941		0.0186	0.0200	-7.1	30.0
Dibromofluoromethane (Surr)	Ave	0.2660	0.2632		0.0198	0.0200	-1.1	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2988	0.2950		0.0197	0.0200	-1.3	30.0
Toluene-d8 (Surr)	Ave	1.417	1.397		0.0197	0.0200	-1.4	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5219	0.5000		0.0192	0.0200	-4.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: ICV 240-378870/25 Calibration Date: 04/30/2019 20:27

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1269812.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2660	0.2521		0.0190	0.0200	-5.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2988	0.2907		0.0195	0.0200	-2.7	30.0
Toluene-d8 (Surr)	Ave	1.417	1.342		0.0189	0.0200	-5.3	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5219	0.4893		0.0188	0.0200	-6.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: ICV 240-378870/25 Calibration Date: 04/30/2019 20:27

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 17:52

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 20:05

Lab File ID: U1269812.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0552		0.175	0.200	-12.3	30.0
Isopropyl ether	Ave	0.2698	0.2559		0.0190	0.0200	-5.2	30.0
2-Chloro-1,3-butadiene	Ave	0.4548	0.4546		0.0200	0.0200	-0.0	30.0
Tert-butyl ethyl ether	Ave	0.8827	0.8165		0.0185	0.0200	-7.5	30.0
Ethyl acetate	Ave	0.3663	0.3852		0.0421	0.0400	5.1	30.0
Propionitrile	Lin1		0.0721		0.189	0.200	-5.7	30.0
Methacrylonitrile	Ave	0.2471	0.2359		0.191	0.200	-4.5	30.0
Tert-amyl methyl ether	Ave	0.9065	0.8735		0.0193	0.0200	-3.6	30.0
n-Butanol	Ave	0.0237	0.0184		0.388	0.500	-22.4	30.0
Ethyl acrylate	Ave	0.3838	0.4392		0.0229	0.0200	14.4	30.0
Methyl methacrylate	Ave	0.2550	0.2817		0.0442	0.0400	10.4	30.0
2-Nitropropane	Ave	0.0769	0.0706		0.0368	0.0400	-8.1	30.0
n-Butyl acetate	Ave	0.7023	0.7079		0.0202	0.0200	0.8	30.0
1-Chlorohexane	Ave	0.5721	0.5724		0.0200	0.0200	0.0	30.0
Cyclohexanone	Lin1		0.0233		0.166	0.200	-16.8	30.0
Pentachloroethane	Ave	0.4435	0.4317		0.0389	0.0400	-2.7	30.0
1,2,3-Trimethylbenzene	Ave	2.954	2.951		0.0200	0.0200	-0.1	30.0
Benzyl chloride	Ave	2.132	1.954		0.0183	0.0200	-8.4	30.0
1,3,5-Trichlorobenzene	Ave	1.258	1.110		0.0176	0.0200	-11.8	30.0
2-Methylnaphthalene	Ave	2.484	1.588		0.0256	0.0400	-36.1*	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: CCVIS 240-438414/4 Calibration Date: 06/15/2020 17:06

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1278405.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.2540	0.1000	0.0132	0.0200	-34.0*	20.0
Chloromethane	Ave	0.3374	0.4008	0.1000	0.0238	0.0200	18.8	20.0
Butadiene	Ave	0.3709	0.2773		0.0150	0.0200	-25.2*	20.0
Vinyl chloride	Ave	0.3771	0.3025	0.1000	0.0160	0.0200	-19.8	20.0
Bromomethane	Ave	0.2328	0.2003	0.0500	0.0172	0.0200	-14.0	20.0
Chloroethane	Ave	0.2368	0.2115	0.0500	0.0179	0.0200	-10.7	20.0
Dichlorofluoromethane	Ave	0.4732	0.4710		0.0199	0.0200	-0.5	20.0
Trichlorofluoromethane	Ave	0.4204	0.3868	0.1000	0.0184	0.0200	-8.0	20.0
Ethyl ether	Ave	0.2526	0.2491		0.0197	0.0200	-1.4	20.0
Acrolein	Ave	0.0755	0.0504		0.0668	0.100	-33.2*	20.0
1,1-Dichloroethene	Ave	0.4135	0.4315	0.1000	0.0209	0.0200	4.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2737	0.2818	0.0500	0.0206	0.0200	3.0	20.0
Acetone	Lin1		0.1358	0.0100	0.0366	0.0400	-8.4	50.0
Iodomethane	Ave	0.4395	0.4381		0.0199	0.0200	-0.3	20.0
Carbon disulfide	Ave	0.9516	0.8197	0.1000	0.0172	0.0200	-13.9	20.0
3-Chloro-1-propene	Ave	0.4714	0.4370		0.0185	0.0200	-7.3	20.0
Methyl acetate	Ave	0.3480	0.2837	0.1000	0.0326	0.0400	-18.5	50.0
Methylene Chloride	Lin1		0.3567	0.1000	0.0184	0.0200	-7.8	50.0
2-Methyl-2-propanol	Ave	0.0732	0.0409		0.112	0.200	-44.1*	20.0
Acrylonitrile	Ave	0.1811	0.1478		0.163	0.200	-18.4	20.0
Methyl tert-butyl ether	Ave	0.8398	0.8817	0.1000	0.0210	0.0200	5.0	20.0
trans-1,2-Dichloroethene	Ave	0.4063	0.4120	0.1000	0.0203	0.0200	1.4	20.0
Hexane	Ave	0.4435	0.4361		0.0197	0.0200	-1.7	20.0
1,1-Dichloroethane	Ave	0.5067	0.5197	0.2000	0.0205	0.0200	2.6	20.0
Vinyl acetate	Ave	0.5694	0.5993		0.0210	0.0200	5.2	20.0
2,2-Dichloropropane	Ave	0.3288	0.3690		0.0224	0.0200	12.2	20.0
cis-1,2-Dichloroethene	Ave	0.3444	0.3153	0.1000	0.0183	0.0200	-8.5	20.0
2-Butanone (MEK)	Ave	0.0623	0.0538	0.0100	0.0345	0.0400	-13.7	50.0
Chlorobromomethane	Ave	0.2413	0.2452		0.0203	0.0200	1.6	20.0
Tetrahydrofuran	Ave	0.1500	0.1338		0.0357	0.0400	-10.8	20.0
Chloroform	Ave	0.4844	0.4848	0.2000	0.0200	0.0200	0.0	20.0
1,1,1-Trichloroethane	Ave	0.4157	0.4224	0.1000	0.0203	0.0200	1.6	20.0
Cyclohexane	Ave	0.5049	0.4880	0.1000	0.0193	0.0200	-3.3	20.0
1,1-Dichloropropene	Ave	0.4109	0.4184		0.0204	0.0200	1.8	20.0
Carbon tetrachloride	Ave	0.3534	0.3560	0.1000	0.0201	0.0200	0.7	20.0
Isobutyl alcohol	Ave	0.0199	0.0156		0.391	0.500	-21.7*	20.0
Benzene	Ave	1.178	1.137	0.5000	0.0193	0.0200	-3.4	20.0
1,2-Dichloroethane	Ave	0.3625	0.3848	0.1000	0.0212	0.0200	6.1	20.0
n-Heptane	Lin1		0.1986		0.0161	0.0200	-19.5	20.0
Trichloroethene	Ave	0.3152	0.2916	0.1500	0.0185	0.0200	-7.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: CCVIS 240-438414/4 Calibration Date: 06/15/2020 17:06

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1278405.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5644	0.5250	0.1000	0.0186	0.0200	-7.0	20.0
1,2-Dichloropropane	Ave	0.2488	0.2498	0.1000	0.0201	0.0200	0.4	20.0
Dibromomethane	Ave	0.2110	0.1878		0.0178	0.0200	-11.0	20.0
1,4-Dioxane	Ave	0.0040	0.0038		0.384	0.400	-3.9	50.0
Dichlorobromomethane	Ave	0.3396	0.3165	0.1500	0.0186	0.0200	-6.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1806	0.1747		0.0387	0.0400	-3.3	20.0
cis-1,3-Dichloropropene	Ave	0.4134	0.3937	0.1500	0.0190	0.0200	-4.8	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3834	0.3812	0.0500	0.0398	0.0400	-0.6	50.0
Toluene	Ave	1.674	1.589	0.4000	0.0190	0.0200	-5.1	20.0
trans-1,3-Dichloropropene	Ave	0.5418	0.5227	0.1000	0.0193	0.0200	-3.5	20.0
Ethyl methacrylate	Ave	0.5220	0.5285		0.0203	0.0200	1.3	20.0
1,1,2-Trichloroethane	Ave	0.3327	0.3071	0.1000	0.0185	0.0200	-7.7	20.0
Tetrachloroethene	Ave	0.4449	0.4165	0.1500	0.0187	0.0200	-6.4	20.0
1,3-Dichloropropane	Ave	0.5898	0.5818		0.0197	0.0200	-1.3	20.0
2-Hexanone	Ave	0.4000	0.3918	0.0500	0.0392	0.0400	-2.0	50.0
Chlorodibromomethane	Ave	0.3454	0.3133		0.0181	0.0200	-9.3	20.0
Ethylene Dibromide	Ave	0.3578	0.3398		0.0190	0.0200	-5.0	20.0
Chlorobenzene	Ave	1.080	0.998	0.3000	0.0185	0.0200	-7.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3776	0.3563		0.0189	0.0200	-5.6	20.0
Ethylbenzene	Ave	0.6029	0.5622		0.0186	0.0200	-6.8	20.0
m-Xylene & p-Xylene	Ave	0.7480	0.7028		0.0188	0.0200	-6.0	20.0
o-Xylene	Ave	0.7560	0.7071		0.0187	0.0200	-6.5	20.0
Styrene	Ave	1.213	1.121	0.3000	0.0185	0.0200	-7.6	20.0
Bromoform	Ave	0.2499	0.2210	0.1000	0.0177	0.0200	-11.6	20.0
Isopropylbenzene	Ave	1.969	1.849	0.1000	0.0188	0.0200	-6.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9843	0.9858	0.3000	0.0200	0.0200	0.2	20.0
Bromobenzene	Ave	0.8666	0.7952		0.0184	0.0200	-8.2	20.0
1,2,3-Trichloropropane	Ave	0.3726	0.3493		0.0187	0.0200	-6.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2800		0.0176	0.0200	-12.2	20.0
N-Propylbenzene	Ave	0.9864	0.9468		0.0192	0.0200	-4.0	20.0
2-Chlorotoluene	Ave	0.8263	0.8046		0.0195	0.0200	-2.6	20.0
1,3,5-Trimethylbenzene	Ave	2.842	2.737		0.0193	0.0200	-3.7	20.0
4-Chlorotoluene	Ave	0.8528	0.7932		0.0186	0.0200	-7.0	20.0
tert-Butylbenzene	Ave	2.582	2.309		0.0179	0.0200	-10.6	20.0
1,2,4-Trimethylbenzene	Ave	2.944	2.754		0.0187	0.0200	-6.4	20.0
sec-Butylbenzene	Ave	3.717	3.401		0.0183	0.0200	-8.5	20.0
1,3-Dichlorobenzene	Ave	1.707	1.525	0.6000	0.0179	0.0200	-10.7	20.0
4-Isopropyltoluene	Ave	3.214	3.009		0.0187	0.0200	-6.4	20.0
1,4-Dichlorobenzene	Ave	1.756	1.548	0.5000	0.0176	0.0200	-11.9	20.0
n-Butylbenzene	Ave	2.741	2.525		0.0184	0.0200	-7.9	20.0
1,2-Dichlorobenzene	Ave	1.655	1.558	0.4000	0.0188	0.0200	-5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Lab Sample ID: CCVIS 240-438414/4 Calibration Date: 06/15/2020 17:06

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1278405.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.3213	0.2695	0.0500	0.0168	0.0200	-16.1	50.0
1,2,4-Trichlorobenzene	Ave	1.156	1.033	0.2000	0.0179	0.0200	-10.6	50.0
Hexachlorobutadiene	Ave	0.5105	0.3563		0.0140	0.0200	-30.2	50.0
Naphthalene	Ave	3.623	3.459		0.0191	0.0200	-4.5	50.0
1,2,3-Trichlorobenzene	Ave	1.070	0.9882		0.0185	0.0200	-7.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2660	0.2495		0.0188	0.0200	-6.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2988	0.2989		0.0200	0.0200	0.0	20.0
Toluene-d8 (Surr)	Ave	1.417	1.303		0.0184	0.0200	-8.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5219	0.4635		0.0178	0.0200	-11.2	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-438414/8

Matrix: Water Lab File ID: U1278409.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/15/2020 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-438414/8

Matrix: Water Lab File ID: U1278409.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/15/2020 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		69-122
1868-53-7	Dibromofluoromethane (Surr)	96		78-129
460-00-4	4-Bromofluorobenzene (Surr)	91		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		75-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Instrument ID: A3UX12 Start Date: 04/30/2019 13:47

Analysis Batch Number: 378870 End Date: 04/30/2019 21:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-378870/1		04/30/2019 13:47	1	BFB4108.D	DB-624 0.18(mm)
STD8260 240-378870/8 IC		04/30/2019 14:10	1	U1269795.D	DB-624 0.18(mm)
STD8260 240-378870/9 IC		04/30/2019 14:33	1	U1269796.D	DB-624 0.18(mm)
STD8260 240-378870/10 IC		04/30/2019 14:55	1	U1269797.D	DB-624 0.18(mm)
ICIS 240-378870/11		04/30/2019 15:17	1	U1269798.D	DB-624 0.18(mm)
STD8260 240-378870/12 IC		04/30/2019 15:39	1	U1269799.D	DB-624 0.18(mm)
STD8260 240-378870/13 IC		04/30/2019 16:02	1	U1269800.D	DB-624 0.18(mm)
STD8260 240-378870/14 IC		04/30/2019 16:24	1	U1269801.D	DB-624 0.18(mm)
ICV 240-378870/15		04/30/2019 16:46	1	U1269802.D	DB-624 0.18(mm)
MRL 240-378870/16 MDLV		04/30/2019 17:09	1		DB-624 0.18(mm)
STDA9 240-378870/18 IC		04/30/2019 17:52	1		DB-624 0.18(mm)
STDA9 240-378870/19 IC		04/30/2019 18:14	1		DB-624 0.18(mm)
STDA9 240-378870/20 IC		04/30/2019 18:37	1		DB-624 0.18(mm)
STDA9 240-378870/21 IC		04/30/2019 18:59	1		DB-624 0.18(mm)
STDA9 240-378870/22 IC		04/30/2019 19:21	1		DB-624 0.18(mm)
STDA9 240-378870/23 IC		04/30/2019 19:43	1		DB-624 0.18(mm)
STDA9 240-378870/24 IC		04/30/2019 20:05	1		DB-624 0.18(mm)
ICV 240-378870/25		04/30/2019 20:27	1	U1269812.D	DB-624 0.18(mm)
MRL 240-378870/26 MDLV		04/30/2019 20:50	1		DB-624 0.18(mm)
ZZZZZ		04/30/2019 21:12	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Instrument ID: A3UX12 Start Date: 06/15/2020 16:21

Analysis Batch Number: 438414 End Date: 06/16/2020 03:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-438414/1		06/15/2020 16:21	1	BFB4409.D	DB-624 0.18(mm)
CCV 240-438414/3		06/15/2020 16:44	1	U1278404a.D	DB-624 0.18(mm)
CCVIS 240-438414/4		06/15/2020 17:06	1	U1278405.D	DB-624 0.18(mm)
LCS 240-438414/5		06/15/2020 17:29	1	U1278406a.D	DB-624 0.18(mm)
MRL 240-438414/6 MDLV		06/15/2020 17:51	1		DB-624 0.18(mm)
MRL 240-438414/7 MDLV		06/15/2020 18:13	1		DB-624 0.18(mm)
MB 240-438414/8		06/15/2020 18:36	1	U1278409.D	DB-624 0.18(mm)
MRL 240-438414/9 MDLV		06/15/2020 18:58	1		DB-624 0.18(mm)
ZZZZZ		06/15/2020 21:34	1		DB-624 0.18(mm)
ZZZZZ		06/15/2020 21:56	1		DB-624 0.18(mm)
ZZZZZ		06/15/2020 23:03	1		DB-624 0.18(mm)
ZZZZZ		06/15/2020 23:26	1		DB-624 0.18(mm)
ZZZZZ		06/15/2020 23:48	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 00:11	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 00:33	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 00:55	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 01:18	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 01:40	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 02:03	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 02:25	1		DB-624 0.18(mm)
240-131413-1		06/16/2020 02:48	1	U1278431.D	DB-624 0.18(mm)
240-131413-2		06/16/2020 03:10	1	U1278432.D	DB-624 0.18(mm)
ZZZZZ		06/16/2020 03:32	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 03:55	1		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Batch Number: 378870 Batch Start Date: 04/30/19 13:47 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00003	vm50ss 00362	vm50ss_stk 00080	vmarolistdw 00294
BFB 240-378870/1		8260C		5 mL	5 mL				
STD8260 240-378870/8 IC		8260C		5 mL	5 mL	2 uL	64 uL		64 uL
STD8260 240-378870/9 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-378870/10 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
ICIS 240-378870/11		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-378870/12 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
STD8260 240-378870/13 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-378870/14 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
ICV 240-378870/15		8260C		5 mL	5 mL	2 uL		2 uL	
ICV 240-378870/25		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00021	VMFASA9W 00228	vmfasaw 00277	vmfasgw 00307	vmfaspw 00297	vmrgas 00291
BFB 240-378870/1		8260C		1 uL					
STD8260 240-378870/8 IC		8260C							64 uL
STD8260 240-378870/9 IC		8260C							48 uL
STD8260 240-378870/10 IC		8260C							32 uL
ICIS 240-378870/11		8260C							16 uL
STD8260 240-378870/12 IC		8260C							8 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Batch Number: 378870 Batch Start Date: 04/30/19 13:47 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00021	VMFASA9W 00228	vmfasaw 00277	vmfasgw 00307	vmfaspw 00297	vmrgas 00291
STD8260 240-378870/13 IC		8260C							0.8 uL
STD8260 240-378870/14 IC		8260C							0.4 uL
ICV 240-378870/15		8260C				16 uL	16 uL	16 uL	
ICV 240-378870/25		8260C			16 uL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00331					
BFB 240-378870/1		8260C							
STD8260 240-378870/8 IC		8260C		64 uL					
STD8260 240-378870/9 IC		8260C		48 uL					
STD8260 240-378870/10 IC		8260C		32 uL					
ICIS 240-378870/11		8260C		16 uL					
STD8260 240-378870/12 IC		8260C		8 uL					
STD8260 240-378870/13 IC		8260C		0.8 uL					
STD8260 240-378870/14 IC		8260C		0.4 uL					
ICV 240-378870/15		8260C							
ICV 240-378870/25		8260C							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Batch Number: 378870 Batch Start Date: 04/30/19 13:47 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Batch Number: 438414 Batch Start Date: 06/15/20 16:21 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_a 00006	vm50ss_stk 00085	vmarolistdw 00348
BFB 240-438414/1		8260C		5 mL	5 mL				
CCV 240-438414/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-438414/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-438414/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-438414/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-131413-B-1	I-GWP-1C-25-30	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-131413-B-2	TB-060420	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00025	vmfasaw 00332	vmfasgw 00363	vmfaspw 00354	vmra9w 00348	vmrgas 00342
BFB 240-438414/1		8260C		1 uL					
CCV 240-438414/3		8260C						16 uL	
CCVIS 240-438414/4		8260C							16 uL
LCS 240-438414/5		8260C			16 uL	16 uL	16 uL		
MB 240-438414/8		8260C							
240-131413-B-1	I-GWP-1C-25-30	8260C	T						
240-131413-B-2	TB-060420	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00390					
BFB 240-438414/1		8260C							
CCV 240-438414/3		8260C							
CCVIS 240-438414/4		8260C		16 uL					
LCS 240-438414/5		8260C							
MB 240-438414/8		8260C							
240-131413-B-1	I-GWP-1C-25-30	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Batch Number: 438414 Batch Start Date: 06/15/20 16:21 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00390					
240-131413-B-2	TB-060420	8260C	T						

Batch Notes	
pH Indicator ID	HC861525

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOC CALCULATION	SAMPLE I-GWP-1C-25-30		
TARGET ANALYTE	TRICHLOROETHENE		
ANALYTE RESPONSE	154055		
INTERNAL STANDARD	fluorobenzene		
I.S. RESPONSE	1194512		
I.S. CONCENTRATION	20	µg/l	
ANALYTE CAL. RF	0.3152		
DILUTION FACTOR (DF)	1		
INITIAL SAMPLE VOLUME - V1	5	ml	
FINAL SAMPLE VOLUME - V2	5	ml	

$$\frac{\text{(ANALYTE RESPONSE) x (I.S. CONCENTRATION) X DF x V2}}{\text{(I.S. RESPONSE) x (CAL. R.F.) x V1}} = \textbf{8.18}\ \textbf{µg/l}$$

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: I-GWP-1C-25-30 Lab Sample ID: 240-131413-1

Matrix: Water Lab File ID: U1278431.D

Analysis Method: 8260C Date Collected: 06/04/2020 08:20

Sample wt/vol: 5(mL) Date Analyzed: 06/16/2020 02:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.82	J	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.3		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1

SDG No.:

Client Sample ID: I-GWP-1C-25-30 Lab Sample ID: 240-131413-1

Matrix: Water Lab File ID: U1278431.D

Analysis Method: 8260C Date Collected: 06/04/2020 08:20

Sample wt/vol: 5(mL) Date Analyzed: 06/16/2020 02:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438414 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	8.2		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		69-122
1868-53-7	Dibromofluoromethane (Surr)	91		78-129
460-00-4	4-Bromofluorobenzene (Surr)	92		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		75-130

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX12\20200615-99157.b\U1278431.D
Lims ID: 240-131413-B-1
Client ID: I-GWP-1C-25-30
Sample Type: Client
Inject. Date: 16-Jun-2020 02:48:30 ALS Bottle#: 29 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0099157-030
Operator ID: 001904 Instrument ID: A3UX12

Method: \\chromfs\Canton\ChromData\A3UX12\20200615-99157.b\8260_12_h2o.m
Limit Group: MSV 8260C ICAL
Last Update: 16-Jun-2020 15:11:16 Calib Date: 30-Apr-2019 20:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX12\20190430-86631.b\U1269811.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1035

First Level Reviewer: laveyt Date: 16-Jun-2020 15:13:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1194512	20.0	
* 2 Chlorobenzene-d5	117	7.746	7.746	0.000	86	834317	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.971	9.970	0.001	95	429712	20.0	
$ 4 Dibromofluoromethane (Surr)	111	4.539	4.539	0.000	94	289370	18.2	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.811	4.811	0.000	95	377976	21.2	
$ 6 Toluene-d8 (Surr)	98	6.444	6.444	0.000	93	1124280	19.0	
$ 7 4-Bromofluorobenzene (Surr)	95	8.846	8.858	-0.012	94	399354	18.3	
9 Dichlorodifluoromethane	85		1.392				ND	
10 Chloromethane	50		1.593				ND	
12 Vinyl chloride	62		1.675				ND	
14 Bromomethane	94		1.936				ND	
15 Chloroethane	64		1.983				ND	
17 Trichlorofluoromethane	101		2.232				ND	
21 1,1-Dichloroethene	61		2.622				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.658				ND	
23 Acetone	43	2.681	2.681	0.000	99	53060	4.13	
25 Carbon disulfide	76		2.847				ND	
28 Methyl acetate	43		2.965				ND	
29 Methylene Chloride	49		3.048				ND	
33 Methyl tert-butyl ether	73		3.285				ND	
32 trans-1,2-Dichloroethene	61		3.285				ND	
35 1,1-Dichloroethane	63		3.640				ND	
41 cis-1,2-Dichloroethene	96	4.137	4.137	0.000	79	27446	1.33	
42 2-Butanone (MEK)	72	4.149	4.149	0.000	98	3032	0.8148	
48 Chloroform	83		4.397				ND	
49 1,1,1-Trichloroethane	97		4.551				ND	
50 Cyclohexane	84		4.598				ND	
52 Carbon tetrachloride	117		4.693				ND	
54 Benzene	78	4.859	4.859	0.000	92	57402	0.8160	
55 1,2-Dichloroethane	62		4.882				ND	
59 Trichloroethene	130	5.403	5.403	0.000	97	154055	8.18	
61 Methylcyclohexane	83		5.557				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 1,2-Dichloropropane	63		5.592				ND	
66 Dichlorobromomethane	83		5.829				ND	
69 cis-1,3-Dichloropropene	75		6.219				ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.349				ND	
71 Toluene	91		6.503				ND	
72 trans-1,3-Dichloropropene	75		6.704				ND	
75 1,1,2-Trichloroethane	97		6.870				ND	
76 Tetrachloroethene	166		6.988				ND	
78 2-Hexanone	43	7.095	7.083	0.012	87	1859	0.1114	
80 Chlorodibromomethane	129		7.225				ND	
81 Ethylene Dibromide	107		7.332				ND	
83 Chlorobenzene	112		7.781				ND	
85 Ethylbenzene	106		7.876				ND	
86 m-Xylene & p-Xylene	106		7.982				ND	
87 o-Xylene	106		8.361				ND	
88 Styrene	104		8.373				ND	
89 Bromoform	173		8.550				ND	
90 Isopropylbenzene	105		8.704				ND	
93 1,1,2,2-Tetrachloroethane	83		9.000				ND	
106 1,3-Dichlorobenzene	146		9.911				ND	
108 1,4-Dichlorobenzene	146		9.994				ND	
112 1,2-Dichlorobenzene	146		10.361				ND	
113 1,2-Dibromo-3-Chloropropane	157		11.130				ND	
115 1,2,4-Trichlorobenzene	180		11.946				ND	
S 128 Xylenes, Total	106		16.020				ND	

Reagents:

vmDist_H2o_00173	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00085	Amount Added:	2.00	Units: uL	Run Reagent
vm50is_stk_a_00006	Amount Added:	2.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131413-1 Analy Batch No.: 378870

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2019 14:10 Calibration End Date: 04/30/2019 16:24 Calibration ID: 50823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3547 0.3535	0.3314 0.3513	0.3425	0.3636	0.3768	Ave		0.3534			0.1000	4.1		20.0			
Isobutyl alcohol	0.0214 0.0190	0.0189 +++++	0.0202	0.0197	0.0201	Ave		0.0199				4.6		20.0			
Benzene	1.2351 1.1561	1.2006 1.1376	1.1748	1.1526	1.1878	Ave		1.1778			0.5000	2.8		20.0			
1,2-Dichloroethane	0.3915 0.3540	0.3893 0.3393	0.3455	0.3539	0.3641	Ave		0.3625			0.1000	5.7		20.0			
n-Heptane	+++++ 0.2241	0.8189 0.2083	0.2765	0.2406	0.2291	Lin1	0.6210	0.2083				3.9			0.9990		0.9900
Trichloroethene	0.3459 0.3108	0.3166 0.3021	0.3026	0.3105	0.3179	Ave		0.3152			0.1500	4.7		20.0			
Methylcyclohexane	0.5757 0.5798	0.5136 0.5210	0.5842	0.5782	0.5985	Ave		0.5644			0.1000	5.9		20.0			
1,2-Dichloropropane	0.2504 0.2495	0.2406 0.2466	0.2499	0.2468	0.2580	Ave		0.2488			0.1000	2.1		20.0			
Dibromomethane	0.2511 0.2018	0.2266 0.1879	0.1970	0.2002	0.2123	Ave		0.2110				10.2		20.0			
1,4-Dioxane	0.0035 0.0040	0.0034 0.0038	0.0047	0.0044	0.0043	Ave		0.0040				12.1		20.0			
Dichlorobromomethane	0.3369 0.3474	0.3224 0.3346	0.3359	0.3412	0.3584	Ave		0.3396			0.1500	3.3		20.0			
2-Chloroethyl vinyl ether	0.1875 0.1911	0.1776 0.1507	0.1862	0.1818	0.1895	Ave		0.1806				7.7		20.0			
cis-1,3-Dichloropropene	0.4366 0.4171	0.4107 0.3952	0.4011	0.4068	0.4265	Ave		0.4134			0.1500	3.5		20.0			
4-Methyl-2-pentanone (MIBK)	0.3839 0.3806	0.3808 +++++	0.3872	0.3769	0.3911	Ave		0.3834			0.0500	1.3		20.0			
Toluene	1.8023 1.6267	1.6891 1.6145	1.6659	1.6181	1.7001	Ave		1.6738			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.5769 0.5343	0.5645 0.5065	0.5263	0.5262	0.5576	Ave		0.5418			0.1000	4.6		20.0			
Ethyl methacrylate	0.5226 0.5394	0.4946 0.4478	0.5518	0.5362	0.5613	Ave		0.5220				7.5		20.0			
1,1,2-Trichloroethane	0.3778 0.3286	0.3178 0.3033	0.3333	0.3248	0.3429	Ave		0.3327			0.1000	7.1		20.0			
Tetrachloroethene	0.4570 0.4417	0.4243 0.4396	0.4476	0.4415	0.4623	Ave		0.4449			0.1500	2.8		20.0			
1,3-Dichloropropane	0.6595 0.5804	0.5855 0.5367	0.5879	0.5738	0.6044	Ave		0.5898				6.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **SEPTEMBER 15, 2020**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
MRC – BLOCK E – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-133597-1

SAMPLES: 1 / Soil /

MRC-MW-164B-15-20

1 / Aqueous /

TB-071620

OVERVIEW

The sample set for MRC – Block E, SDG 240-133597-1, consists of one (1) soil environmental sample and one (1) trip blank. Samples were analyzed for volatile organic compounds (VOC). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on July 16, 2020 and analyzed by Eurofins TestAmerica. Analyses were conducted in accordance with SW-846 Method 8260B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method/trip blank results, surrogate spike recoveries, laboratory control sample results, internal standard recoveries, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that sample TB-071620 was preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected result for 2-chloroethyl vinyl ether was rejected (UR) in sample TB-071620.

MINOR PROBLEMS

- The VOC continuing calibration verification performed on 07/23/2020 at 12:58 on instrument A3UX10 had percent differences (%Ds) that were greater than the 20% quality control limit for the following analytes: dichlorodifluoromethane, chloromethane, trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, tertiary-butyl alcohol, 2,2-dichloropropane, 1,1,1-trichloroethane, carbon tetrachloride, 2-chloroethyl vinyl ether, tetrachloroethene, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, tert-butylbenzene, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, hexachlorobutadiene, and naphthalene. Sample TB-071620 was affected. Non-detected results for the aforementioned analytes were qualified as estimated (UJ) in the affected sample.

- The VOC continuing calibration performed on 07/22/2020 at 13:03 on instrument A3UX14 had %Ds that were greater than the 20% quality control limit for bromomethane, chloroethane, acetone, tertiary-butyl alcohol, vinyl acetate, 1,2-dichloroethane, dibromomethane, bromoform, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, and 1,2,3-trichlorobenzene. Sample MRC-MW-164B-15-20 was affected.

Non-detected results for the aforementioned analytes were qualified as estimated (UJ) in the affected sample.

- One VOC compound was detected in the laboratory blanks at the following maximum concentration:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Carbon disulfide	1.37 ug/kg(1)	< RL

1 - Maximum concentration detected in method blank associated with batch 240-443733 affecting sample MRC-MW-164B-15-20.

The detected result for carbon disulfide in sample MRC-MW-164B-15-20 was less than the RL and was qualified as non-detected (U) due to laboratory blank contamination.

NOTES

Non-detected results were reported to the MDL.

The laboratory control sample (LCS) 240-443947/4 associated with 240-443947 had percent recoveries (%Rs) for carbon tetrachloride, 1,1,1-trichloroethane, 1,1,2-trichlorotrifluoroethane, 1,2,4-trichlorobenzene, 4-isopropyltoluene, tetrachloroethane, hexachlorobutadiene, n-butylbenzene, trichlorofluoromethane, and sec-butylbenzene that were greater than the laboratory quality control limit. Sample TB-071620 was associated with this LCS. No qualification was necessary because results for these analytes were non-detected in sample TB-071620.

The laboratory LCS forms did not include tert-amyl methyl ether. The laboratory case narrative noted that the LCS associated with preparation batch 240-443751 recovered outside control limits for tert-amyl methyl ether and was biased high in the LCS. No qualification is necessary on this basis because the result for tert-amyl methyl ether is non-detected in the associated sample, MRC-MW-164B-15-20. The associated laboratory quantitation report for the LCS has been included in this validation report.

The laboratory case narrative noted the following associated with sample TB-071620: The reporting limit (RL) provided for the following analyte (Hexachlorobutadiene) falls below the laboratory's verified standard quantitation limit: Results reported below the verified standard quantitation limit have less certainty (i.e., are estimated) and must be used at the clients discretion. The continuing calibration blanks and method blanks may not support the lower RL." The result for hexachlorobutadiene in sample TB-071620 was qualified as estimated due to calibration noncompliance; no additional qualification was added.

The laboratory case narrative notes the following associated with sample TB-071620: "LCS was above calibration limit but passed percent recovery limits for 1,2,3-trichlorobenzene. Sample was ND and a low-level standard (MRL) was analyzed and the affected compound was detected." No qualification was necessary on this basis.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several non-detected results were qualified due to calibration noncompliance. One result was qualified due to method blank noncompliance.

Other Factors Affecting Data Quality: The non-detected result for 2-chloroethyl vinyl ether in the trip blank was rejected due to preservation noncompliance.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to

address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 09034	NSAMPLE	MRC-MW-164B-15-20		
SDG: 240-133597-1	LAB_ID	240-133597-2		
FRACTION: OV	SAMP_DATE	7/16/2020		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	84.6		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		3.4	U	
1,1,1-TRICHLOROETHANE		0.93	U	
1,1,2,2-TETRACHLOROETHANE		1.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.4	U	
1,1-DICHLOROETHANE		0.78	U	
1,1-DICHLOROETHENE		1	U	
1,1-DICHLOROPROPENE		1.1	U	
1,2,3-TRICHLOROBENZENE		0.65	UJ	C
1,2,3-TRICHLOROPROPANE		1.8	UJ	C
1,2,3-TRIMETHYLBENZENE		2.1	U	
1,2,4-TRICHLOROBENZENE		0.65	U	
1,2,4-TRIMETHYLBENZENE		1.1	U	
1,2-DIBROMO-3-CHLOROPROPANE		4.1	UJ	C
1,2-DIBROMOETHANE		0.87	U	
1,2-DICHLOROBENZENE		1.3	U	
1,2-DICHLOROETHANE		0.87	UJ	C
1,2-DICHLOROPROPANE		0.96	U	
1,3-DICHLOROBENZENE		0.92	U	
1,3-DICHLOROPROPANE		1.1	U	
1,4-DICHLOROBENZENE		1	U	
2,2-DICHLOROPROPANE		1.3	U	
2-BUTANONE		4	U	
2-CHLOROETHYL VINYL ETHER		10	U	
2-CHLOROTOLUENE		1.1	U	
2-HEXANONE		4.6	U	
4-CHLOROTOLUENE		0.97	U	
4-ISOPROPYLTOLUENE		3.3	U	
4-METHYL-2-PENTANONE		4.2	U	
ACETONE		24	UJ	C
BENZENE		0.79	U	
BROMOBENZENE		1.3	U	
BROMOCHLOROMETHANE		0.67	U	
BROMODICHLOROMETHANE		0.77	U	
BROMOFORM		2.7	UJ	C
BROMOMETHANE		1.1	UJ	C

PROJ_NO: 09034	NSAMPLE	MRC-MW-164B-15-20		
SDG: 240-133597-1	LAB_ID	240-133597-2		
FRACTION: OV	SAMP_DATE	7/16/2020		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	84.6		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		1.5	U	A
CARBON TETRACHLORIDE		3.7	U	
CHLOROBENZENE		1	U	
CHLORODIBROMOMETHANE		3.1	U	
CHLOROETHANE		1.4	UJ	C
CHLOROFORM		0.89	U	
CHLOROMETHANE		1.2	U	
CIS-1,2-DICHLOROETHENE		0.74	U	
CIS-1,3-DICHLOROPROPENE		1.6	U	
DIBROMOMETHANE		0.76	UJ	C
DICHLORODIFLUOROMETHANE		1.1	U	
DIISOPROPYL ETHER		0.86	U	
ETHYL TERT-BUTYL ETHER		2.5	U	
ETHYLBENZENE		1.2	U	
HEXACHLOROBUTADIENE		4.2	U	
ISOPROPYLBENZENE		0.94	U	
METHYL TERT-BUTYL ETHER		0.93	U	
METHYLENE CHLORIDE		14	U	
NAPHTHALENE		3.1	U	
N-BUTYLBENZENE		3.9	U	
N-PROPYLBENZENE		0.83	U	
SEC-BUTYLBENZENE		0.98	U	
STYRENE		1.3	U	
TERT-AMYL METHYL ETHER		2.5	U	
TERT-BUTYLBENZENE		1	U	
TERTIARY-BUTYL ALCOHOL		19	UJ	C
TETRACHLOROETHENE		0.83	U	
TOLUENE		0.87	U	
TOTAL XYLENES		1.8	U	
TRANS-1,2-DICHLOROETHENE		0.53	U	
TRANS-1,3-DICHLOROPROPENE		1.2	U	
TRICHLOROETHENE		50		
TRICHLOROFLUOROMETHANE		1.2	U	
VINYL ACETATE		2.4	UJ	C
VINYL CHLORIDE		0.95	U	

PROJ_NO: 09034	NSAMPLE	TB-071620		
SDG: 240-133597-1	LAB_ID	240-133597-1		
FRACTION: OV	SAMP_DATE	7/16/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.41	U	
1,1,1-TRICHLOROETHANE		0.24	UJ	C
1,1,2,2-TETRACHLOROETHANE		0.56	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C
1,1-DICHLOROETHANE		0.41	U	
1,1-DICHLOROETHENE		0.46	U	
1,1-DICHLOROPROPENE		0.37	U	
1,2,3-TRICHLOROBENZENE		0.54	U	
1,2,3-TRICHLOROPROPANE		0.51	UJ	C
1,2,3-TRIMETHYLBENZENE		0.36	U	
1,2,4-TRICHLOROBENZENE		0.81	UJ	C
1,2,4-TRIMETHYLBENZENE		0.45	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	UJ	C
1,2-DIBROMOETHANE		0.37	U	
1,2-DICHLOROBENZENE		0.43	U	
1,2-DICHLOROETHANE		0.43	U	
1,2-DICHLOROPROPANE		0.37	U	
1,3-DICHLOROBENZENE		0.4	U	
1,3-DICHLOROPROPANE		0.21	U	
1,4-DICHLOROBENZENE		0.37	U	
2,2-DICHLOROPROPANE		0.95	UJ	C
2-BUTANONE		2.4	U	
2-CHLOROETHYL VINYL ETHER		1.1	UR	M
2-CHLOROTOLUENE		0.42	U	
2-HEXANONE		2.1	U	
4-CHLOROTOLUENE		0.44	U	
4-ISOPROPYLTOLUENE		0.49	UJ	C
4-METHYL-2-PENTANONE		2.1	U	
ACETONE		5.4	U	
BENZENE		0.38	U	
BROMOBENZENE		0.38	U	
BROMOCHLOROMETHANE		0.52	U	
BROMODICHLOROMETHANE		0.35	U	
BROMOFORM		0.76	U	
BROMOMETHANE		0.42	U	

PROJ_NO: 09034	NSAMPLE	TB-071620		
SDG: 240-133597-1	LAB_ID	240-133597-1		
FRACTION: OV	SAMP_DATE	7/16/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U	
CARBON TETRACHLORIDE		0.26	UJ	C
CHLOROBENZENE		0.32	U	
CHLORODIBROMOMETHANE		0.39	U	
CHLOROETHANE		0.83	U	
CHLOROFORM		0.4	U	
CHLOROMETHANE		0.64	UJ	C
CIS-1,2-DICHLOROETHENE		0.38	U	
CIS-1,3-DICHLOROPROPENE		0.61	U	
DIBROMOMETHANE		0.33	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C
DIISOPROPYL ETHER		0.36	U	
ETHYL TERT-BUTYL ETHER		0.43	U	
ETHYLBENZENE		0.39	U	
HEXACHLOROBUTADIENE		0.83	UJ	C
ISOPROPYLBENZENE		0.45	U	
METHYL TERT-BUTYL ETHER		0.44	U	
METHYLENE CHLORIDE		1.3	U	
NAPHTHALENE		0.82	UJ	C
N-BUTYLBENZENE		0.59	UJ	C
N-PROPYLBENZENE		0.46	U	
SEC-BUTYLBENZENE		0.63	UJ	C
STYRENE		0.4	U	
TERT-AMYL METHYL ETHER		0.39	U	
TERT-BUTYLBENZENE		0.51	UJ	C
TERTIARY-BUTYL ALCOHOL		1.7	UJ	C
TETRACHLOROETHENE		0.33	UJ	C
TOLUENE		0.35	U	
TOTAL XYLENES		0.42	U	
TRANS-1,2-DICHLOROETHENE		0.43	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U	
TRICHLOROETHENE		0.36	U	
TRICHLOROFLUOROMETHANE		0.45	UJ	C
VINYL ACETATE		0.78	U	
VINYL CHLORIDE		0.5	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.4	U	5.7	3.4
71-55-6	1,1,1-Trichloroethane	0.93	U	5.7	0.93
79-34-5	1,1,2,2-Tetrachloroethane	1.6	U	5.7	1.6
76-13-1	1,1,2-Trichlorotrifluoroethane	1.4	U	5.7	1.4
75-34-3	1,1-Dichloroethane	0.78	U	5.7	0.78
75-35-4	1,1-Dichloroethene	1.0	U	5.7	1.0
563-58-6	1,1-Dichloropropene	1.1	U	5.7	1.1
87-61-6	1,2,3-Trichlorobenzene	0.65	U	5.7	0.65
96-18-4	1,2,3-Trichloropropane	1.8	U	5.7	1.8
526-73-8	1,2,3-Trimethylbenzene	2.1	U	5.7	2.1
120-82-1	1,2,4-Trichlorobenzene	0.65	U	5.7	0.65
95-63-6	1,2,4-Trimethylbenzene	1.1	U	5.7	1.1
96-12-8	1,2-Dibromo-3-Chloropropane	4.1	U	11	4.1
95-50-1	1,2-Dichlorobenzene	1.3	U	5.7	1.3
107-06-2	1,2-Dichloroethane	0.87	U	5.7	0.87
78-87-5	1,2-Dichloropropane	0.96	U	5.7	0.96
541-73-1	1,3-Dichlorobenzene	0.92	U	5.7	0.92
142-28-9	1,3-Dichloropropane	1.1	U	5.7	1.1
106-46-7	1,4-Dichlorobenzene	1.0	U	5.7	1.0
594-20-7	2,2-Dichloropropane	1.3	U	5.7	1.3
110-75-8	2-Chloroethyl vinyl ether	10	U	57	10
95-49-8	2-Chlorotoluene	1.1	U	5.7	1.1
591-78-6	2-Hexanone	4.6	U	23	4.6
108-86-1	Bromobenzene	1.3	U	5.7	1.3
74-97-5	Bromochloromethane	0.67	U	5.7	0.67
106-43-4	4-Chlorotoluene	0.97	U	5.7	0.97
99-87-6	4-Isopropyltoluene	3.3	U	5.7	3.3
67-64-1	Acetone	24	U	28	24
71-43-2	Benzene	0.79	U	5.7	0.79
75-25-2	Bromoform	2.7	U	5.7	2.7
74-83-9	Bromomethane	1.1	U	5.7	1.1
75-15-0	Carbon disulfide	1.5	J B	5.7	1.3
56-23-5	Carbon tetrachloride	3.7	U	5.7	3.7
108-90-7	Chlorobenzene	1.0	U	5.7	1.0
75-00-3	Chloroethane	1.4	U	5.7	1.4
67-66-3	Chloroform	0.89	U	5.7	0.89

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.2	U	5.7	1.2
156-59-2	cis-1,2-Dichloroethene	0.74	U	5.7	0.74
10061-01-5	cis-1,3-Dichloropropene	1.6	U	5.7	1.6
87-68-3	Hexachlorobutadiene	4.2	U	5.7	4.2
74-95-3	Dibromomethane	0.76	U	5.7	0.76
75-27-4	Bromodichloromethane	0.77	U	5.7	0.77
75-71-8	Dichlorodifluoromethane	1.1	U	5.7	1.1
100-41-4	Ethylbenzene	1.2	U	5.7	1.2
106-93-4	1,2-Dibromoethane	0.87	U	5.7	0.87
108-20-3	Diisopropyl ether	0.86	U	11	0.86
91-20-3	Naphthalene	3.1	U	5.7	3.1
104-51-8	n-Butylbenzene	3.9	U	5.7	3.9
98-82-8	Isopropylbenzene	0.94	U	5.7	0.94
103-65-1	N-Propylbenzene	0.83	U	5.7	0.83
78-93-3	2-Butanone (MEK)	4.0	U	23	4.0
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2	U	23	4.2
135-98-8	sec-Butylbenzene	0.98	U	5.7	0.98
1634-04-4	Methyl tert-butyl ether	0.93	U	5.7	0.93
994-05-8	Tert-amyl methyl ether	2.5	U *	5.7	2.5
75-09-2	Methylene Chloride	14	U	28	14
100-42-5	Styrene	1.3	U	5.7	1.3
637-92-3	Ethyl tert-butyl ether	2.5	U	5.7	2.5
98-06-6	tert-Butylbenzene	1.0	U	5.7	1.0
127-18-4	Tetrachloroethene	0.83	U	5.7	0.83
108-88-3	Toluene	0.87	U	5.7	0.87
156-60-5	trans-1,2-Dichloroethene	0.53	U	5.7	0.53
10061-02-6	trans-1,3-Dichloropropene	1.2	U	5.7	1.2
79-01-6	Trichloroethene	50		5.7	0.72
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	2.4	U	11	2.4
75-01-4	Vinyl chloride	0.95	U	5.7	0.95
75-65-0	tert-Butyl alcohol	19	U	230	19
1330-20-7	Xylenes, Total	1.8	U	11	1.8
124-48-1	Chlorodibromomethane	3.1	U	5.7	3.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		59-120
460-00-4	4-Bromofluorobenzene (Surr)	95		51-127
2037-26-5	Toluene-d8 (Surr)	87		64-124
1868-53-7	Dibromofluoromethane (Surr)	77		56-122

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: TB-071620 Lab Sample ID: 240-133597-1

Matrix: Water Lab File ID: UXX8834.D

Analysis Method: 8260B Date Collected: 07/16/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 23:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	5.4	U	10	5.4
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
71-43-2	Benzene	0.38	U	1.0	0.38
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U *	1.0	0.26
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.40	U	1.0	0.40
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
74-87-3	Chloromethane	0.64	U	1.0	0.64
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
591-78-6	2-Hexanone	2.1	U	10	2.1
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
100-42-5	Styrene	0.40	U	1.0	0.40
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
127-18-4	Tetrachloroethene	0.33	U *	1.0	0.33
108-88-3	Toluene	0.35	U	1.0	0.35
79-01-6	Trichloroethene	0.36	U	1.0	0.36
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	0.24	U *	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: TB-071620 Lab Sample ID: 240-133597-1

Matrix: Water Lab File ID: UXX8834.D

Analysis Method: 8260B Date Collected: 07/16/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 23:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
156-59-2	cis-1,2-Dichloroethene	0.38	U	1.0	0.38
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
98-82-8	Isopropylbenzene	0.45	U	1.0	0.45
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
120-82-1	1,2,4-Trichlorobenzene	0.81	U *	1.0	0.81
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
110-75-8	2-Chloroethyl vinyl ether	1.1	U	10	1.1
75-69-4	Trichlorofluoromethane	0.45	U *	1.0	0.45
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
108-86-1	Bromobenzene	0.38	U	1.0	0.38
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
99-87-6	4-Isopropyltoluene	0.49	U *	1.0	0.49
87-68-3	Hexachlorobutadiene	0.83	U *	1.0	0.83
74-95-3	Dibromomethane	0.33	U	1.0	0.33
108-20-3	Diisopropyl ether	0.36	U	10	0.36
91-20-3	Naphthalene	0.82	U	1.0	0.82
104-51-8	n-Butylbenzene	0.59	U *	1.0	0.59
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
135-98-8	sec-Butylbenzene	0.63	U *	1.0	0.63
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: TB-071620 Lab Sample ID: 240-133597-1

Matrix: Water Lab File ID: UXX8834.D

Analysis Method: 8260B Date Collected: 07/16/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 23:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		75-130
460-00-4	4-Bromofluorobenzene (Surr)	98		47-134
2037-26-5	Toluene-d8 (Surr)	94		69-122
1868-53-7	Dibromofluoromethane (Surr)	98		78-129

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block E

Report Number: 240-133597-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 7/17/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample MRC-MW-164B-15-20 (240-133597-2) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The sample was prepared on 07/22/2020 and analyzed on 07/23/2020.

Carbon disulfide was detected in method blank MB 240-443733/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Method 8260B: The continuing calibration verification (CCV) associated with batch 240-443733 recovered above the upper calibration limit for Carbon Disulfide. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MRC-MW-164B-15-20 (240-133597-2), (CCV 240-443733/4), (CCVIS 240-443733/3), (LCS 240-443733/5), (LCS 240-443733/6), (MB 240-443733/7), (240-133595-C-3-A), (240-133595-C-3-B MS) and (240-133595-C-3-C MSD).

Method 8260B: The laboratory control sample (LCS) for preparation batch 240-443751 and 240-443751 and analytical batch 240-443733 recovered above the upper calibration limits for the following analytes: Carbon Disulfide. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samplesMRC-MW-164B-15-20 (240-133597-2), (LCS 240-443733/5), (LCS 240-443733/6), (MB 240-443733/7), (240-133595-C-3-A), (240-133595-C-3-B MS) and (240-133595-C-3-C MSD) ; therefore, the data have been reported.

Method 8260B: The laboratory control sample (LCS) for preparation batch 240-443751 and 240-443751 and analytical batch 240-443733 recovered outside control limits for the following analytes: tert-Amyl Methyl Ether. These analytes were biased high in the LCS and were not detected in the associated samplesMRC-MW-164B-15-20 (240-133597-2), (LCS 240-443733/6), (MB 240-443733/7), (240-133595-C-3-A), (240-133595-C-3-B MS) and (240-133595-C-3-C MSD) ; therefore, the data have been reported.

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

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample TB-071620 (240-133597-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 07/23/2020.

Several analytes failed the recovery criteria high for LCS 240-443947/4. Refer to the QC report for details.

Several analytes failed the recovery criteria high for the MS and the MSD of sample 240-133570-1 in batch 240-443947.

Refer to the QC report for details.

Method 8260B: The preservative used in the sample containers received is not compatible with the analytes requested. 2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample. TB-071620 (240-133597-1)

Method 8260B: The laboratory control sample (LCS) for analytical batch 240-443947 recovered outside control limits for multiple analytes: These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. TB-071620 (240-133597-1) and (LCS 240-443947/4)

Method 8260B: The reporting limit (RL) provided for the following analyte (Hexachlorobutadiene) falls below the laboratory's verified standard quantitation limit: Results reported below the verified standard quantitation limit have less certainty (i.e., are estimated) and must be used at the clients discretion. The continuing calibration blanks and method blanks may not support the lower RL. TB-071620 (240-133597-1)

Method 8260B: LCS was above calibration limit but passed percent recovery limits for 1,2,3-Trichlorobenzene. Sample was ND and a low level standard (MRL) was analyzed and the affected compound was detected.
TB-071620 (240-133597-1)

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

PERCENT SOLIDS

Sample MRC-MW-164B-15-20 (240-133597-2) was analyzed for percent solids in accordance with ASTM Method D2216-80. The sample was analyzed on 07/22/2020.

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

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 240-133597-1
Project/Site: MRC Block E

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
5030A	Purge and Trap	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-133597-1	TB-071620	Water	07/16/20 00:00	07/17/20 10:00	
240-133597-2	MRC-MW-164B-15-20	Solid	07/16/20 13:00	07/17/20 10:00	

4.3/5.2

Baltimore #201

Chain of Custody Record

273360

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Samantha Brenner	Site Contact: Josh Mullis	Date: 7/16/20	COC No:
Company Name: Tetra Tech	Tel/Fax: 301-528-3052	Lab Contact: Gordon	Carrier: Fedex	1 of 1 COCs
Address: 20251 Century Blvd. Suite 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3021	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks			Lab Sampling:
Project Name: South of Building C	☐ 1 week Standard			
Site: MRC	☐ 2 days			Job / SDG No.:
PO# 112EC09011	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Sample Specific Notes:
TB-071620	7/16/20	0000	Blank	water	2			X	
MRC-MW-164B-15-20	7/16/20	1330	Grab	Soil	1			X	
								1	

240-133597 Chain of Custody

7/16/20

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	7/16/20 1515	[signature]	ETA	7/16/20 1520
[signature]	EYA	7/16/20 1700	[signature]	ETA	7-17-20 1000
			Received in Laboratory by:		

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 133597

Client Tetra Tech Site Name

Cooler Received on 7-1-20 Opened on 7-17-20

Cooler unpacked by: Tamy Rapp

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # 74 Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. 4.3 °C Corrected Cooler Temp. 5.2 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC911298
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
16. Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

18. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW-164B-15-20	240-133597-2	77	75	87	95
	MB 240-443733/7	73	71	86	94
	LCS 240-443733/5	73	68	84	85
	LCS 240-443733/6	73	70	86	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	56-122
DCA = 1,2-Dichloroethane-d4 (Surr)	59-120
TOL = Toluene-d8 (Surr)	64-124
BFB = 4-Bromofluorobenzene (Surr)	51-127

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-071620	240-133597-1	98	95	94	98
	MB 240-443947/7	99	93	97	94
	LCS 240-443947/4	102	97	92	97

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	78-129
DCA = 1,2-Dichloroethane-d4 (Surr)	75-130
TOL = Toluene-d8 (Surr)	69-122
BFB = 4-Bromofluorobenzene (Surr)	47-134

Column to be used to flag recovery values

FORM II 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: 1425536.D Lab Sample ID: MB 240-443733/7

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 07/22/2020 14:32

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-443733/5	1425534.D	07/22/2020 13:48
	LCS 240-443733/6	1425535.D	07/22/2020 14:10
MRC-MW-164B-15-20	240-133597-2	1425562.D	07/23/2020 00:10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443733/7

Matrix: Solid Lab File ID: 1425536.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.0	U	5.0	3.0
563-58-6	1,1-Dichloropropene	0.99	U	5.0	0.99
75-34-3	1,1-Dichloroethane	0.69	U	5.0	0.69
87-61-6	1,2,3-Trichlorobenzene	0.57	U	5.0	0.57
96-18-4	1,2,3-Trichloropropane	1.6	U	5.0	1.6
107-06-2	1,2-Dichloroethane	0.77	U	5.0	0.77
75-35-4	1,1-Dichloroethene	0.90	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	1.8	U	5.0	1.8
78-87-5	1,2-Dichloropropane	0.85	U	5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	1.0	U	5.0	1.0
591-78-6	2-Hexanone	4.1	U	20	4.1
79-34-5	1,1,2,2-Tetrachloroethane	1.4	U	5.0	1.4
67-64-1	Acetone	21	U	25	21
71-43-2	Benzene	0.70	U	5.0	0.70
75-25-2	Bromoform	2.4	U	5.0	2.4
74-83-9	Bromomethane	0.99	U	5.0	0.99
75-15-0	Carbon disulfide	1.37	J	5.0	1.2
56-23-5	Carbon tetrachloride	3.3	U	5.0	3.3
71-55-6	1,1,1-Trichloroethane	0.82	U	5.0	0.82
108-90-7	Chlorobenzene	0.92	U	5.0	0.92
142-28-9	1,3-Dichloropropane	0.99	U	5.0	0.99
75-00-3	Chloroethane	1.2	U	5.0	1.2
96-12-8	1,2-Dibromo-3-Chloropropane	3.6	U	10	3.6
67-66-3	Chloroform	0.79	U	5.0	0.79
74-87-3	Chloromethane	1.0	U	5.0	1.0
156-59-2	cis-1,2-Dichloroethene	0.65	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	1.4	U	5.0	1.4
75-27-4	Bromodichloromethane	0.68	U	5.0	0.68
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3
75-71-8	Dichlorodifluoromethane	0.94	U	5.0	0.94
120-82-1	1,2,4-Trichlorobenzene	0.57	U	5.0	0.57
100-41-4	Ethylbenzene	1.0	U	5.0	1.0
106-93-4	1,2-Dibromoethane	0.77	U	5.0	0.77
594-20-7	2,2-Dichloropropane	1.2	U	5.0	1.2
95-50-1	1,2-Dichlorobenzene	1.1	U	5.0	1.1
541-73-1	1,3-Dichlorobenzene	0.82	U	5.0	0.82

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443733/7

Matrix: Solid Lab File ID: 1425536.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.88	U	5.0	0.88
110-75-8	2-Chloroethyl vinyl ether	8.9	U	50	8.9
98-82-8	Isopropylbenzene	0.83	U	5.0	0.83
95-49-8	2-Chlorotoluene	0.95	U	5.0	0.95
78-93-3	2-Butanone (MEK)	3.6	U	20	3.6
108-10-1	4-Methyl-2-pentanone (MIBK)	3.7	U	20	3.7
108-86-1	Bromobenzene	1.2	U	5.0	1.2
1634-04-4	Methyl tert-butyl ether	0.82	U	5.0	0.82
74-97-5	Bromochloromethane	0.59	U	5.0	0.59
75-09-2	Methylene Chloride	12	U	25	12
106-43-4	4-Chlorotoluene	0.86	U	5.0	0.86
100-42-5	Styrene	1.2	U	5.0	1.2
99-87-6	4-Isopropyltoluene	2.9	U	5.0	2.9
127-18-4	Tetrachloroethene	0.73	U	5.0	0.73
87-68-3	Hexachlorobutadiene	3.7	U	5.0	3.7
108-88-3	Toluene	0.77	U	5.0	0.77
74-95-3	Dibromomethane	0.67	U	5.0	0.67
108-20-3	Diisopropyl ether	0.76	U	10	0.76
156-60-5	trans-1,2-Dichloroethene	0.47	U	5.0	0.47
91-20-3	Naphthalene	2.7	U	5.0	2.7
10061-02-6	trans-1,3-Dichloropropene	1.0	U	5.0	1.0
104-51-8	n-Butylbenzene	3.5	U	5.0	3.5
79-01-6	Trichloroethene	0.63	U	5.0	0.63
103-65-1	N-Propylbenzene	0.73	U	5.0	0.73
75-69-4	Trichlorofluoromethane	1.1	U	5.0	1.1
135-98-8	sec-Butylbenzene	0.86	U	5.0	0.86
994-05-8	Tert-amyl methyl ether	2.2	U	5.0	2.2
637-92-3	Ethyl tert-butyl ether	2.3	U	5.0	2.3
75-01-4	Vinyl chloride	0.84	U	5.0	0.84
98-06-6	tert-Butylbenzene	0.91	U	5.0	0.91
108-05-4	Vinyl acetate	2.1	U	10	2.1
1330-20-7	Xylenes, Total	1.6	U	10	1.6
124-48-1	Chlorodibromomethane	2.8	U	5.0	2.8
75-65-0	tert-Butyl alcohol	17	U	200	17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443733/7

Matrix: Solid Lab File ID: 1425536.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	71		59-120
460-00-4	4-Bromofluorobenzene (Surr)	94		51-127
2037-26-5	Toluene-d8 (Surr)	86		64-124
1868-53-7	Dibromofluoromethane (Surr)	73		56-122

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 1425534.D

Lab ID: LCS 240-443733/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	47.6	95	72-120	
1,1-Dichloropropene	50.0	47.2	94	69-120	
1,1-Dichloroethane	50.0	47.3	95	69-120	
1,2,3-Trichlorobenzene	50.0	41.8	84	55-124	
1,2,3-Trichloropropane	50.0	41.6	83	68-130	
1,2-Dichloroethane	50.0	43.7	87	66-120	
1,1-Dichloroethene	50.0	58.1	116	48-140	
1,2-Dichloropropane	50.0	45.6	91	77-120	
1,2,4-Trimethylbenzene	50.0	52.8	106	69-122	
2-Hexanone	100	98.7	99	54-135	
1,1,2,2-Tetrachloroethane	50.0	42.3	85	61-134	
Acetone	100	130	130	47-157	
Benzene	50.0	46.8	94	75-120	
Bromoform	50.0	40.4	81	44-131	
Bromomethane	20.0	26.1	131	10-158	
Carbon disulfide	50.0	57.9	116	33-144	E
Carbon tetrachloride	50.0	49.9	100	54-130	
1,1,1-Trichloroethane	50.0	47.8	96	60-126	
Chlorobenzene	50.0	47.5	95	79-120	
1,3-Dichloropropane	50.0	44.6	89	76-120	
Chloroethane	20.0	24.1	121	10-159	
1,2-Dibromo-3-Chloropropane	50.0	45.0	90	35-137	
Chloroform	50.0	46.7	93	74-120	
Chloromethane	20.0	20.1	101	40-127	
cis-1,2-Dichloroethene	50.0	48.3	97	76-120	
cis-1,3-Dichloropropene	50.0	46.5	93	62-124	
Bromodichloromethane	50.0	47.7	95	63-121	
1,1,2-Trichlorotrifluoroethane	50.0	46.5	93	58-144	
Dichlorodifluoromethane	20.0	16.5	83	18-137	
1,2,4-Trichlorobenzene	50.0	43.4	87	56-120	
Ethylbenzene	50.0	47.1	94	75-120	
1,2-Dibromoethane	50.0	45.2	90	73-126	
2,2-Dichloropropane	50.0	57.3	115	47-131	
1,2-Dichlorobenzene	50.0	44.7	89	74-120	
1,3-Dichlorobenzene	50.0	46.1	92	74-120	
1,4-Dichlorobenzene	50.0	45.8	92	74-120	
2-Chloroethyl vinyl ether	50.0	41.2 J	82	36-132	
Isopropylbenzene	50.0	50.3	101	74-120	
2-Chlorotoluene	50.0	48.2	96	72-121	
2-Butanone (MEK)	100	88.6	89	61-131	
4-Methyl-2-pentanone (MIBK)	100	102	102	56-124	
Bromobenzene	50.0	47.0	94	73-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 1425534.D

Lab ID: LCS 240-443733/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Methyl tert-butyl ether	50.0	49.5	99	66-120	
Bromochloromethane	50.0	44.5	89	74-120	
Methylene Chloride	50.0	51.5	103	48-142	
4-Chlorotoluene	50.0	48.5	97	72-124	
Styrene	50.0	52.0	104	70-120	
4-Isopropyltoluene	50.0	54.4	109	70-121	
m-Xylene & p-Xylene	50.0	47.9	96	76-120	
o-Xylene	50.0	49.9	100	76-120	
Tetrachloroethene	50.0	49.1	98	75-124	
Hexachlorobutadiene	50.0	48.9	98	63-130	
Toluene	50.0	50.5	101	76-120	
Dibromomethane	50.0	43.9	88	74-120	
trans-1,2-Dichloroethene	50.0	48.6	97	74-125	
Naphthalene	50.0	42.8	86	43-127	
trans-1,3-Dichloropropene	50.0	45.7	91	58-120	
n-Butylbenzene	50.0	55.4	111	64-123	
Trichloroethene	50.0	47.0	94	75-123	
N-Propylbenzene	50.0	53.1	106	70-122	
Trichlorofluoromethane	20.0	23.0	115	33-152	
sec-Butylbenzene	50.0	54.7	109	69-122	
Vinyl chloride	20.0	19.5	98	39-140	
tert-Butylbenzene	50.0	53.1	106	68-121	
Vinyl acetate	50.0	37.6	75	55-138	
Xylenes, Total	100	97.8	98	77-120	
tert-Butyl alcohol	500	389	78	40-138	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: UXX8814.D Lab Sample ID: MB 240-443947/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 07/23/2020 15:04

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-443947/4	UXX8811.D	07/23/2020 13:48
TB-071620	240-133597-1	UXX8834.D	07/23/2020 23:33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443947/7

Matrix: Water Lab File ID: UXX8814.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 15:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
591-78-6	2-Hexanone	2.1	U	10	2.1
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.38	U	1.0	0.38
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
75-00-3	Chloroethane	0.83	U	1.0	0.83
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
67-66-3	Chloroform	0.40	U	1.0	0.40
74-87-3	Chloromethane	0.64	U	1.0	0.64
156-59-2	cis-1,2-Dichloroethene	0.38	U	1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.81	U	1.0	0.81
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443947/7

Matrix: Water Lab File ID: UXX8814.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 15:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
110-75-8	2-Chloroethyl vinyl ether	1.1	U	10	1.1
98-82-8	Isopropylbenzene	0.45	U	1.0	0.45
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
108-86-1	Bromobenzene	0.38	U	1.0	0.38
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
100-42-5	Styrene	0.40	U	1.0	0.40
99-87-6	4-Isopropyltoluene	0.49	U	1.0	0.49
127-18-4	Tetrachloroethene	0.33	U	1.0	0.33
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-88-3	Toluene	0.35	U	1.0	0.35
74-95-3	Dibromomethane	0.33	U	1.0	0.33
108-20-3	Diisopropyl ether	0.36	U	10	0.36
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
91-20-3	Naphthalene	0.82	U	1.0	0.82
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
104-51-8	n-Butylbenzene	0.59	U	1.0	0.59
79-01-6	Trichloroethene	0.36	U	1.0	0.36
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
135-98-8	sec-Butylbenzene	0.63	U	1.0	0.63
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443947/7

Matrix: Water Lab File ID: UXX8814.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 15:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		75-130
460-00-4	4-Bromofluorobenzene (Surr)	94		47-134
2037-26-5	Toluene-d8 (Surr)	97		69-122
1868-53-7	Dibromofluoromethane (Surr)	99		78-129

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX8811.D

Lab ID: LCS 240-443947/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	11.2	112	77-120	
1,1-Dichloropropene	10.0	10.1	101	78-120	
1,1-Dichloroethane	10.0	10.0	100	74-126	
1,2,3-Trichlorobenzene	10.0	10.9	109	42-126	E
1,2,3-Trichloropropane	10.0	6.99	70	57-137	
1,2-Dichloroethane	10.0	10.3	103	66-129	
1,1-Dichloroethene	10.0	10.9	109	73-129	
1,2-Dichloropropane	10.0	9.51	95	79-127	
1,2,4-Trimethylbenzene	10.0	10.7	107	66-129	
2-Hexanone	20.0	15.8	79	43-142	
1,1,2,2-Tetrachloroethane	10.0	6.85	69	45-151	
Acetone	20.0	17.1	86	33-155	
Benzene	10.0	8.82	88	77-123	
Bromoform	10.0	9.40	94	47-133	
Bromomethane	10.0	9.24	92	48-144	
Carbon disulfide	10.0	9.32	93	67-127	
Carbon tetrachloride	10.0	15.2	152	61-142	*
1,1,1-Trichloroethane	10.0	14.3	143	65-141	*
Chlorobenzene	10.0	10.1	101	80-120	
1,3-Dichloropropane	10.0	8.27	83	74-122	
Chloroethane	10.0	10.7	107	41-147	
1,2-Dibromo-3-Chloropropane	10.0	6.37	64	34-136	
Chloroform	10.0	10.3	103	74-127	
Chloromethane	10.0	14.3	143	46-148	
cis-1,2-Dichloroethene	10.0	9.99	100	75-124	
cis-1,3-Dichloropropene	10.0	8.67	87	68-128	
Bromodichloromethane	10.0	10.1	101	73-122	
1,1,2-Trichlorotrifluoroethane	10.0	14.9	149	54-148	*
Dichlorodifluoromethane	10.0	13.1	131	35-137	
1,2,4-Trichlorobenzene	10.0	12.8	128	47-120	*
Ethylbenzene	10.0	9.77	98	80-120	
1,2-Dibromoethane	10.0	8.94	89	73-120	
2,2-Dichloropropane	10.0	12.2	122	67-137	
1,2-Dichlorobenzene	10.0	10.8	108	74-120	
1,3-Dichlorobenzene	10.0	10.4	104	74-120	
1,4-Dichlorobenzene	10.0	9.97	100	75-120	
2-Chloroethyl vinyl ether	10.0	7.34 J	73	29-146	
Isopropylbenzene	10.0	11.7	117	73-123	
2-Chlorotoluene	10.0	9.95	99	73-126	
2-Butanone (MEK)	20.0	17.6	88	41-151	
4-Methyl-2-pentanone (MIBK)	20.0	17.5	87	43-145	
Bromobenzene	10.0	9.87	99	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX8811.D

Lab ID: LCS 240-443947/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methyl tert-butyl ether	10.0	9.34	93	57-127	
Bromochloromethane	10.0	9.45	94	70-128	
Methylene Chloride	10.0	9.92	99	63-134	
4-Chlorotoluene	10.0	9.74	97	73-126	
Styrene	10.0	9.36	94	75-121	
4-Isopropyltoluene	10.0	13.6	136	66-127	*
m-Xylene & p-Xylene	10.0	10.0	100	79-121	
o-Xylene	10.0	10.4	104	75-123	
Tetrachloroethene	10.0	12.6	126	70-125	*
Hexachlorobutadiene	10.0	19.9	199	40-120	*
Toluene	10.0	9.13	91	79-122	
Dibromomethane	10.0	10.0	100	67-121	
trans-1,2-Dichloroethene	10.0	10.3	103	74-130	
Naphthalene	10.0	6.94	69	28-130	
trans-1,3-Dichloropropene	10.0	7.63	76	64-120	
n-Butylbenzene	10.0	13.7	137	54-129	*
Trichloroethene	10.0	10.6	106	71-121	
N-Propylbenzene	10.0	10.8	108	67-130	
Trichlorofluoromethane	10.0	15.4	154	52-148	*
sec-Butylbenzene	10.0	13.4	134	60-131	*
Vinyl chloride	10.0	11.5	115	61-134	
tert-Butylbenzene	10.0	12.4	124	63-126	
Vinyl acetate	10.0	10.4	104	44-160	
Xylenes, Total	20.0	20.4	102	78-122	
tert-Butyl alcohol	100	78.5	79	15-169	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB1718.D BFB Injection Date: 01/15/2020

Instrument ID: A3UX10 BFB Injection Time: 14:40

Analysis Batch No.: 419116

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.2	
75	30.0 - 60.0 % of mass 95	43.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.1	(0.2) 1
174	50.0 - 120.00 % of mass 95	57.3	
175	5.0 - 9.0 % of mass 174	3.9	(6.7) 1
176	95.0 - 101.0 % of mass 174	55.8	(97.3) 1
177	5.0 - 9.0 % of mass 176	3.8	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-419116/2	UXX5174.D	01/15/2020	15:09
	STD8260 240-419116/3	UXX5175.D	01/15/2020	15:34
	STD8260 240-419116/4	UXX5176.D	01/15/2020	16:00
	STD8260 240-419116/5	UXX5177.D	01/15/2020	16:25
	STD8260 240-419116/6	UXX5178.D	01/15/2020	16:50
	STD8260 240-419116/7	UXX5179.D	01/15/2020	17:15
	STD8260 240-419116/8	UXX5180.D	01/15/2020	17:40
	ICV 240-419116/9	UXX5181.D	01/15/2020	18:04
	STDA9 240-419116/10	UXX5182.D	01/15/2020	18:29
	STDA9 240-419116/11	UXX5183.D	01/15/2020	18:54
	STDA9 240-419116/12	UXX5184.D	01/15/2020	19:19
	STDA9 240-419116/13	UXX5185.D	01/15/2020	19:44
	STDA9 240-419116/14	UXX5186.D	01/15/2020	20:09
	STDA9 240-419116/15	UXX5187.D	01/15/2020	20:34
	STDA9 240-419116/16	UXX5188.D	01/15/2020	20:59
	ICV 240-419116/17	UXX5189.D	01/15/2020	21:24

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-419116/8	UXX5180.D
Level 2	STD8260 240-419116/7	UXX5179.D
Level 3	STD8260 240-419116/6	UXX5178.D
Level 4	STD8260 240-419116/5	UXX5177.D
Level 5	STD8260 240-419116/4	UXX5176.D
Level 6	STD8260 240-419116/3	UXX5175.D
Level 7	STD8260 240-419116/2	UXX5174.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2231 0.2266	0.2138 0.2044	0.2139	0.2119	0.2226	Ave		0.2166				3.6		15.0			
Chloromethane	0.4313 0.4793	0.4329 0.4334	0.4357	0.4347	0.4526	Ave		0.4428			0.1000	4.0		15.0			
Vinyl chloride	0.3215 0.3396	0.3271 0.3129	0.3254	0.3364	0.3217	Ave		0.3264				2.8		15.0			
Butadiene	0.2674 0.1864	0.1841 0.1755	0.1807	0.2254	0.1903	Lin1	0.0770	0.1780							0.9950		0.9900
Bromomethane	0.1746 0.1417	0.1731 0.1321	0.1551	0.1639	0.1480	Ave		0.1555				10.3		15.0			
Chloroethane	0.1620 0.1933	0.1633 0.1723	0.1652	0.1827	0.1852	Ave		0.1748				7.0		15.0			
Dichlorofluoromethane	0.5744 0.4160	0.4527 0.3593	0.4309	0.4469	0.4094	Ave		0.4414				15.0		15.0			
Trichlorofluoromethane	0.2205 0.2592	0.2133 0.2329	0.2353	0.2461	0.2357	Ave		0.2347				6.5		15.0			
Ethyl ether	0.2863 0.3072	0.3234 0.2892	0.3019	0.3276	0.3216	Ave		0.3082				5.4		15.0			
Acrolein	0.0532 0.0546	0.0659 0.0525	0.0620	0.0652	0.0592	Ave		0.0590				9.5		15.0			
1,1-Dichloroethene	0.2174 0.2346	0.2365 0.2259	0.2416	0.2436	0.2502	Ave		0.2357				4.7		15.0			
1,1,2-Trichlorotrifluoroethane	0.0261 0.1129	0.0445 0.1141	0.0942	0.1061	0.1141	Lin1	-0.101	0.1182							0.9980		0.9900
Acetone	0.2164 0.1260	0.1933 0.1199	0.1570	0.1459	0.1435	Lin1	0.2457	0.1201							0.9970		0.9900
Iodomethane	0.2382 0.2814	0.2725 0.2959	0.2717	0.2857	0.2836	Ave		0.2756				6.7		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.7649 0.8227	0.8241 0.8044	0.8344	0.8601	0.8712	Ave		0.8260				4.3		15.0			
3-Chloro-1-propene	0.1921 0.2288	0.2026 0.2131	0.2224	0.2257	0.2104	Ave		0.2136				6.2		15.0			
Methyl acetate	0.3177 0.3494	0.3440 0.3435	0.3593	0.3871	0.3724	Ave		0.3533				6.3		15.0			
Methylene Chloride	0.2813 0.2925	0.2989 0.2814	0.2793	0.3043	0.2977	Ave		0.2908				3.5		15.0			
tert-Butyl alcohol	0.0417 0.0403	0.0416 0.0380	0.0395	0.0424	0.0457	Ave		0.0413				5.9		15.0			
Acrylonitrile	0.1619 0.1691	0.1761 0.1662	0.1702	0.1812	0.1808	Ave		0.1722				4.3		15.0			
trans-1,2-Dichloroethene	0.2579 0.2766	0.2619 0.2768	0.2645	0.2926	0.2817	Ave		0.2732				4.5		15.0			
Methyl tert-butyl ether	0.7646 0.8157	0.7784 0.7766	0.7983	0.7932	0.8554	Ave		0.7975				3.8		15.0			
Hexane	0.0479 0.0540	0.0504 0.0530	0.0530	0.0550	0.0555	Ave		0.0527				5.1		15.0			
1,1-Dichloroethane	0.5806 0.6524	0.6629 0.6235	0.6496	0.6745	0.6735	Ave		0.6453			0.1000	5.2		15.0			
Vinyl acetate	0.4330 0.8220	0.5494 +++++	0.6411	0.7034	0.7697	Lin1	-0.497	0.8269							0.9980		0.9900
2,2-Dichloropropane	0.0549 0.0607	0.0580 0.0582	0.0685	0.0639	0.0645	Ave		0.0612				7.6		15.0			
cis-1,2-Dichloroethene	0.2870 0.3049	0.3008 0.3094	0.2845	0.3160	0.3273	Ave		0.3043				5.0		15.0			
2-Butanone (MEK)	0.2117 0.2052	0.2465 0.1981	0.2190	0.2168	0.2331	Ave		0.2186				7.6		15.0			
Bromochloromethane	0.1035 0.1315	0.1201 0.1313	0.1205	0.1287	0.1319	Ave		0.1239				8.3		15.0			
Tetrahydrofuran	0.1718 0.1403	0.1641 0.1323	0.1442	0.1607	0.1587	Ave		0.1532				9.4		15.0			
Chloroform	0.4329 0.4666	0.4946 0.4530	0.4790	0.4847	0.4973	Ave		0.4726				4.9		15.0			
1,1,1-Trichloroethane	0.2833 0.2915	0.3142 0.2816	0.3076	0.3062	0.3111	Ave		0.2994				4.5		15.0			
Cyclohexane	0.5332 0.5650	0.5502 0.5422	0.5899	0.5885	0.5987	Ave		0.5668				4.6		15.0			
1,1-Dichloropropene	0.3400 0.3704	0.3756 0.3647	0.3741	0.3789	0.3915	Ave		0.3707				4.3		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.1973 0.2491	0.2266 0.2381	0.2508	0.2592	0.2520	Ave		0.2390				8.9		15.0			
Isobutyl alcohol	0.0195 0.0212	0.0295 0.0209	0.0197	0.0224	0.0233	Lin1	0.0972	0.0212							0.9940		0.9900
Benzene	1.1617 1.2333	1.2090 1.1865	1.2560	1.3184	1.2952	Ave		1.2372				4.6		15.0			
1,2-Dichloroethane	0.4567 0.4561	0.4396 0.4380	0.4391	0.4803	0.4743	Ave		0.4549				3.8		15.0			
n-Heptane	0.0334 0.0439	0.0389 0.0437	0.0393	0.0447	0.0485	Ave		0.0418				11.8		15.0			
Trichloroethene	0.2218 0.2537	0.2685 0.2593	0.2511	0.2722	0.2716	Ave		0.2569				6.9		15.0			
Methylcyclohexane	0.3242 0.3286	0.3040 0.3151	0.3410	0.3292	0.3503	Ave		0.3275				4.7		15.0			
1,2-Dichloropropane	0.3857 0.3769	0.3873 0.3695	0.3915	0.4040	0.4082	Ave		0.3890				3.5		15.0			
Dibromomethane	0.1477 0.1614	0.1532 0.1597	0.1604	0.1599	0.1659	Ave		0.1583				3.8		15.0			
1,4-Dioxane	+++++ 0.0030	0.0021 0.0023	0.0017	0.0021	0.0034	Qua	-0.145	0.0043	-0.000002						0.9960		0.9900
Bromodichloromethane	0.3180 0.3532	0.3637 0.3463	0.3597	0.3678	0.3663	Ave		0.3536				4.9		15.0			
2-Chloroethyl vinyl ether	0.2444 0.2801	0.2845 0.2717	0.2829	0.3020	0.3002	Ave		0.2808				6.9		15.0			
cis-1,3-Dichloropropene	0.4266 0.4937	0.4789 0.4784	0.4829	0.5177	0.5104	Ave		0.4841				6.1		15.0			
4-Methyl-2-pentanone (MIBK)	0.4484 0.4254	0.4766 0.3767	0.4756	0.4819	0.4806	Ave		0.4522				8.7		15.0			
Toluene	1.7205 1.7966	1.8772 1.7992	1.8087	1.8914	1.9275	Ave		1.8316				3.9		15.0			
trans-1,3-Dichloropropene	0.5409 0.6732	0.6054 0.6739	0.6471	0.6622	0.6998	Ave		0.6432				8.4		15.0			
Ethyl methacrylate	0.6942 0.6834	0.6980 0.6595	0.6910	0.7715	0.7453	Ave		0.7061				5.5		15.0			
1,1,2-Trichloroethane	0.3803 0.3790	0.3855 0.3720	0.3770	0.4112	0.4116	Ave		0.3881				4.2		15.0			
Tetrachloroethene	0.1902 0.2161	0.2076 0.2215	0.2159	0.2171	0.2200	Ave		0.2126				5.1		15.0			
1,3-Dichloropropane	0.6545 0.7256	0.6722 0.7014	0.7096	0.7265	0.7546	Ave		0.7063				4.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.4156 0.4438	0.4863 0.4087	0.4608	0.4840	0.4963	Ave		0.4565				7.7		15.0			
Chlorodibromomethane	0.3264 0.3370	0.3138 0.3376	0.3274	0.3457	0.3617	Ave		0.3357				4.6		15.0			
1,2-Dibromoethane	0.3082 0.3424	0.3344 0.3602	0.3331	0.3592	0.3807	Ave		0.3454				6.8		15.0			
Chlorobenzene	0.9030 0.9827	0.9914 0.9576	0.9582	1.0016	1.0531	Ave		0.9782			0.3000	4.7		15.0			
1,1,1,2-Tetrachloroethane	0.2631 0.3177	0.3144 0.2830	0.3055	0.3189	0.3358	Ave		0.3055				8.1		15.0			
Ethylbenzene	0.5341 0.5466	0.5358 0.5226	0.5226	0.5630	0.5835	Ave		0.5440				4.1		15.0			
m-Xylene & p-Xylene	0.6363 0.6459	0.6398 0.6126	0.6348	0.6570	0.7016	Ave		0.6468				4.3		15.0			
o-Xylene	0.5449 0.6027	0.6347 0.5493	0.6147	0.6515	0.6426	Ave		0.6058				7.2		15.0			
Styrene	1.0759 1.0790	1.1060 1.0106	1.0637	1.1055	1.1451	Ave		1.0837				3.9		15.0			
Bromoform	0.1526 0.1820	0.1679 0.1742	0.1670	0.1984	0.2017	Ave		0.1777			0.1000	10.0		15.0			
Isopropylbenzene	1.4441 1.3701	1.4527 1.1836	1.4047	1.4639	1.5067	Ave		1.4037				7.6		15.0			
1,1,2,2-Tetrachloroethane	1.1743 1.2118	1.2388 1.1148	1.2107	1.2743	1.2387	Ave		1.2090			0.3000	4.3		15.0			
Bromobenzene	0.7291 0.7835	0.7638 0.8641	0.7334	0.7727	0.7708	Ave		0.7739				5.8		15.0			
1,2,3-Trichloropropane	0.2226 0.3309	0.3455 0.3203	0.3325	0.3615	0.3476	Ave		0.3230				14.3		15.0			
trans-1,4-Dichloro-2-butene	0.3793 0.5104	0.3885 0.6178	0.4568	0.4813	0.4924	Lin1	-0.350	0.5815							0.9900		0.9900
N-Propylbenzene	0.8859 0.8798	0.8809 0.9040	0.8833	0.8972	0.9111	Ave		0.8917				1.4		15.0			
2-Chlorotoluene	0.7413 0.8067	0.8092 0.7983	0.8251	0.8399	0.8154	Ave		0.8051				3.9		15.0			
1,3,5-Trimethylbenzene	2.4943 2.6153	2.6057 2.4043	2.5768	2.8374	2.7364	Ave		2.6100				5.5		15.0			
4-Chlorotoluene	0.7566 0.8677	0.8065 0.8884	0.8728	0.9005	0.8737	Ave		0.8523				6.1		15.0			
tert-Butylbenzene	1.8958 1.8968	1.9891 1.7047	2.0520	2.0614	2.0184	Ave		1.9454				6.5		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.8613 2.7170	2.8372 2.4453	2.8747	2.9402	2.9039	Ave		2.7971				6.1		15.0			
sec-Butylbenzene	2.7585 2.5997	2.7812 2.3235	2.8021	2.9453	2.8184	Ave		2.7184				7.4		15.0			
1,3-Dichlorobenzene	1.3127 1.4116	1.3949 1.3583	1.4331	1.4774	1.4006	Ave		1.3984				3.8		15.0			
4-Isopropyltoluene	2.1057 2.1201	2.2535 1.8288	2.3016	2.2939	2.2858	Ave		2.1699				7.9		15.0			
1,4-Dichlorobenzene	1.3016 1.4125	1.4017 1.4241	1.4605	1.4951	1.4599	Ave		1.4222				4.4		15.0			
n-Butylbenzene	2.1791 1.9468	2.1065 1.5980	2.1151	2.2093	2.1436	Ave		2.0426				10.4		15.0			
1,2-Dichlorobenzene	1.4293 1.3804	1.4162 1.1577	1.4359	1.4803	1.4604	Ave		1.3943				7.8		15.0			
1,2-Dibromo-3-Chloropropane	0.1480 0.1640	0.2203 0.1043	0.2126	0.2381	0.2136	Qua	-0.004	0.2353	-0.003283						0.9970		0.9900
1,2,4-Trichlorobenzene	0.5926 0.4504	0.6437 +++++	0.6710	0.6843	0.6575	Ave		0.6166				14.2		15.0			
Hexachlorobutadiene	+++++ 0.1124	0.1677 +++++	0.1560	0.1658	0.1535	Ave		0.1511				14.9		15.0			
Naphthalene	3.0521 +++++	3.3633 +++++	3.2929	3.4186	3.0306	Ave		3.2315				5.6		15.0			
1,2,3-Trichlorobenzene	0.6329 +++++	0.5701 +++++	0.6175	0.6528	0.5954	Ave		0.6137				5.2		15.0			
Dibromofluoromethane (Surr)	0.2409 0.2371	0.2333 0.2245	0.2361	0.2274	0.2369	Ave		0.2337				2.5		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3531 0.3409	0.3476 0.3204	0.3544	0.3476	0.3384	Ave		0.3432				3.4		15.0			
Toluene-d8 (Surr)	1.7460 1.5195	1.5440 1.4667	1.5253	1.4774	1.4848	Ave		1.5377				6.2		15.0			
4-Bromofluorobenzene (Surr)	0.5136 0.4885	0.4963 0.4427	0.4843	0.4785	0.4845	Ave		0.4841				4.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-419116/8	UXX5180.D
Level 2	STD8260 240-419116/7	UXX5179.D
Level 3	STD8260 240-419116/6	UXX5178.D
Level 4	STD8260 240-419116/5	UXX5177.D
Level 5	STD8260 240-419116/4	UXX5176.D
Level 6	STD8260 240-419116/3	UXX5175.D
Level 7	STD8260 240-419116/2	UXX5174.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	8588 184971	16579 348415	33680	41891	89573	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Chloromethane	FB	Ave	16600 391156	33571 738754	68617	85933	182157	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Vinyl chloride	FB	Ave	12374 277193	25364 533232	51236	66500	129471	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Butadiene	FB	Lin1	10294 152127	14274 299133	28448	44552	76586	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Bromomethane	FB	Ave	6719 115685	13424 225093	24430	32401	59557	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Chloroethane	FB	Ave	6234 157736	12664 293599	26016	36120	74548	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	22111 339518	35107 612424	67854	88338	164760	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	8487 211561	16539 396905	37050	48652	94875	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl ether	FB	Ave	11022 250763	25076 492860	47544	64767	129451	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Acrolein	FB	Ave	10247 222686	25566 447463	48809	64403	119223	5.00 100	10.0 200	20.0	25.0	50.0
1,1-Dichloroethene	FB	Ave	8368 191503	18341 384984	38047	48165	100715	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,2-Trichlorotrifluoroethane	FB	Lin1	1003 92141	3454 194447	14837	20968	45925	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Acetone	FB	Lin1	16660 205689	29985 408717	49433	57675	115530	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Iodomethane	FB	Ave	9168 229631	21134 504270	42781	56486	114147	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Carbon disulfide	FB	Ave	29441 671488	63899 1371104	131388	170025	350621	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	7394 186739	15710 363226	35023	44624	84698	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methyl acetate	FB	Ave	24455 570411	53355 1170999	113148	153053	299742	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Methylene Chloride	FB	Ave	10827 238705	23178 479700	43982	60151	119814	1.00 20.0	2.00 40.0	4.00	5.00	10.0
tert-Butyl alcohol	FB	Ave	16060 328526	32261 647317	62130	83819	183739	10.0 200	20.0 400	40.0	50.0	100
Acrylonitrile	FB	Ave	62326 1379901	136584 2832530	267966	358288	727779	10.0 200	20.0 400	40.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	9928 225779	20309 471758	41658	57846	113370	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	29432 665746	60357 1323684	125702	156813	344262	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Hexane	FB	Ave	1843 44066	3912 90384	8352	10877	22347	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	22348 532464	51406 1062752	102290	133331	271075	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Vinyl acetate	FB	Lin1	16668 670872	42604 +++++	100952	139049	309795	1.00 20.0	2.00 +++++	4.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	2112 49556	4499 99183	10781	12641	25966	1.00 20.0	2.00 40.0	4.00	5.00	10.0
cis-1,2-Dichloroethene	FB	Ave	11048 248831	23327 527277	44803	62462	131741	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	16294 334871	38232 675419	68978	85736	187669	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Bromochloromethane	FB	Ave	3985 107315	9314 223761	18971	25448	53066	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Tetrahydrofuran	FB	Ave	13222 229072	25452 451105	45424	63550	127746	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Chloroform	FB	Ave	16664 380793	38353 772060	75432	95814	200134	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	10906 237910	24363 479949	48446	60526	125222	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Cyclohexane	FB	Ave	20523 461154	42667 924168	92889	116343	240944	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	13086 302315	29124 621625	58913	74907	157561	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Carbon tetrachloride	FB	Ave	7596 203301	17573 405876	39488	51250	101403	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Isobutyl alcohol	CBNZ d5	Lin1	12344 280839	37582 563013	51890	73630	152214	25.0 500	50.0 1000	100	125	250

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	44716 1006535	93751 2022315	197778	260636	521274	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichloroethane	FB	Ave	17578 372263	34090 746590	69151	94942	190893	1.00 20.0	2.00 40.0	4.00	5.00	10.0
n-Heptane	FB	Ave	1287 35822	3016 74422	6183	8836	19537	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Trichloroethene	FB	Ave	8538 207059	20817 441948	39540	53807	109296	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methylcyclohexane	FB	Ave	12478 268151	23572 537031	53694	65075	141004	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	14848 307572	30035 629714	61647	79871	164272	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Dibromomethane	FB	Ave	5684 131742	11876 272179	25254	31602	66754	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,4-Dioxane	FB	Qua	+++++ 49426	3204 78837	5481	8358	27049	+++++ 400	40.0 800	80.0	100	200
Bromodichloromethane	FB	Ave	12241 288240	28201 590156	56640	72710	147444	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Ave	18817 457211	44119 926284	89098	119394	241641	2.00 40.0	4.00 80.0	8.00	10.0	20.0
cis-1,3-Dichloropropene	FB	Ave	16420 402901	37132 815403	76037	102349	205433	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	34518 694450	73911 1284192	149794	190519	386894	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Toluene	CBNZ d5	Ave	43545 952043	95639 1934151	190560	248868	504086	1.00 20.0	2.00 40.0	4.00	5.00	10.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	13691 356734	30847 724427	68179	87136	183024	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	17569 362159	35561 708973	72802	101519	194915	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Ave	9626 200859	19641 399922	39718	54109	107654	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	4815 114500	10579 238119	22751	28561	57524	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	16566 384481	34250 753983	74760	95599	197340	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Hexanone	CBNZ d5	Ave	21037 470395	49553 878609	97100	127375	259574	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Chlorodibromomethane	CBNZ d5	Ave	8260 178566	15988 362910	34500	45488	94601	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	7801 181419	17038 387178	35096	47261	99558	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	22854 520761	50513 1029417	100955	131794	275411	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6659 168350	16020 304231	32187	41967	87822	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	13519 289622	27299 561828	55060	74081	152603	1.00 20.0	2.00 40.0	4.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	16104 342261	32596 658521	66882	86448	183493	1.00 20.0	2.00 40.0	4.00	5.00	10.0
o-Xylene	CBNZ d5	Ave	13792 319375	32337 590509	64763	85719	168052	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Styrene	CBNZ d5	Ave	27230 571751	56348 1086333	112067	145465	299470	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Bromoform	CBNZ d5	Ave	3862 96445	8554 187221	17599	26105	52762	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Isopropylbenzene	CBNZ d5	Ave	36550 726047	74013 1272350	148004	192618	394049	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	11743 251928	25562 397452	49998	67486	133615	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	7291 162882	15762 308073	30286	40920	83151	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Ave	2226 68790	7129 114214	13733	19146	37501	1.00 20.0	2.00 40.0	4.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	3793 106104	8016 220280	18866	25489	53115	1.00 20.0	2.00 40.0	4.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	8859 182904	18177 322291	36476	47514	98281	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	7413 167723	16698 284610	34073	44478	87963	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24944 543712	53769 857216	106414	150264	295183	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	7566 180386	16643 316754	36045	47687	94251	1.00 20.0	2.00 40.0	4.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Ave	18959 394340	41045 607771	84741	109170	217722	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	28614 564871	58546 871849	118715	155708	313247	1.00 20.0	2.00 40.0	4.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	27586 540475	57391 828401	115720	155977	304021	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	13128 293479	28783 484300	59183	78243	151080	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	21058 440776	46502 652029	95048	121479	246570	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	13017 293656	28924 507740	60314	79180	157477	1.00 20.0	2.00 40.0	4.00	5.00	10.0
n-Butylbenzene	DCBd 4	Ave	21792 404747	43467 569737	87348	117002	231231	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	14294 286985	29223 412773	59299	78394	157537	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Qua	1480 34090	4546 37189	8781	12607	23044	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	5926 93635	13282 +++++	27711	36240	70921	1.00 20.0	2.00 +++++	4.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 23374	3460 +++++	6441	8782	16555	+++++ 20.0	2.00 +++++	4.00	5.00	10.0
Naphthalene	DCBd 4	Ave	30522 +++++	69402 +++++	135986	181044	326917	1.00 +++++	2.00 +++++	4.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	6329 +++++	11763 +++++	25501	34569	64230	1.00 +++++	2.00 +++++	4.00	5.00	10.0
Dibromofluoromethane (Surr)	FB	Ave	9272 193471	18094 382594	37185	44962	95327	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	13590 278242	26957 546102	55814	68712	136206	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	44192 805170	78667 1576678	160706	194389	388305	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	12999 258874	25288 475939	51023	62957	126701	1.00 20.0	2.00 40.0	4.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/9 Calibration Date: 01/15/2020 18:04

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX5181.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2166	0.1995		0.00921	0.0100	-7.9	50.0
Chloromethane	Ave	0.4428	0.4326	0.1000	0.00977	0.0100	-2.3	50.0
Vinyl chloride	Ave	0.3264	0.3234		0.00991	0.0100	-0.9	20.0
Butadiene	Lin1		0.1908		0.0103	0.0100	2.8	50.0
Bromomethane	Ave	0.1555	0.1436		0.00924	0.0100	-7.6	50.0
Chloroethane	Ave	0.1748	0.1707		0.00976	0.0100	-2.4	50.0
Dichlorofluoromethane	Ave	0.4414	0.4340		0.00983	0.0100	-1.7	50.0
Trichlorofluoromethane	Ave	0.2347	0.2386		0.0102	0.0100	1.6	50.0
Ethyl ether	Ave	0.3082	0.3119		0.0101	0.0100	1.2	50.0
Acrolein	Ave	0.0590	0.0554		0.0470	0.0500	-6.1	50.0
1,1-Dichloroethene	Ave	0.2357	0.2396		0.0102	0.0100	1.6	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.1057		0.00980	0.0100	-2.0	50.0
Acetone	Lin1		0.1261		0.0189	0.0200	-5.3	50.0
Iodomethane	Ave	0.2756	0.2852		0.0103	0.0100	3.5	50.0
Carbon disulfide	Ave	0.8260	0.8473		0.0103	0.0100	2.6	50.0
3-Chloro-1-propene	Ave	0.2136	0.2316		0.0108	0.0100	8.4	50.0
Methyl acetate	Ave	0.3533	0.3580		0.0203	0.0200	1.3	50.0
Methylene Chloride	Ave	0.2908	0.2958		0.0102	0.0100	1.7	50.0
tert-Butyl alcohol	Ave	0.0413	0.0404		0.0977	0.100	-2.3	50.0
Acrylonitrile	Ave	0.1722	0.1675		0.0973	0.100	-2.7	50.0
Methyl tert-butyl ether	Ave	0.7975	0.8002		0.0100	0.0100	0.3	50.0
trans-1,2-Dichloroethene	Ave	0.2732	0.2816		0.0103	0.0100	3.1	50.0
Hexane	Ave	0.0527	0.0544		0.0103	0.0100	3.2	20.0
1,1-Dichloroethane	Ave	0.6453	0.6693	0.1000	0.0104	0.0100	3.7	50.0
Vinyl acetate	Lin1		0.6686		0.00869	0.0100	-13.1	50.0
2,2-Dichloropropane	Ave	0.0612	0.0602		0.00983	0.0100	-1.7	50.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3130		0.0103	0.0100	2.9	50.0
2-Butanone (MEK)	Ave	0.2186	0.1982		0.0181	0.0200	-9.4	50.0
Bromochloromethane	Ave	0.1239	0.1240		0.0100	0.0100	0.0	50.0
Tetrahydrofuran	Ave	0.1532	0.1379		0.0180	0.0200	-9.9	50.0
Chloroform	Ave	0.4726	0.4588		0.00971	0.0100	-2.9	20.0
1,1,1-Trichloroethane	Ave	0.2994	0.3068		0.0102	0.0100	2.5	50.0
Cyclohexane	Ave	0.5668	0.5620		0.00991	0.0100	-0.9	50.0
1,1-Dichloropropene	Ave	0.3707	0.3656		0.00986	0.0100	-1.4	50.0
Carbon tetrachloride	Ave	0.2390	0.2462		0.0103	0.0100	3.0	50.0
Isobutyl alcohol	Lin1		0.0218		0.253	0.250	1.1	50.0
Benzene	Ave	1.237	1.231		0.00995	0.0100	-0.5	50.0
1,2-Dichloroethane	Ave	0.4549	0.4515		0.00992	0.0100	-0.8	50.0
n-Heptane	Ave	0.0418	0.0390		0.00934	0.0100	-6.6	50.0
Trichloroethene	Ave	0.2569	0.2532		0.00986	0.0100	-1.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/9 Calibration Date: 01/15/2020 18:04

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX5181.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3275	0.3273		0.00999	0.0100	-0.0	50.0
1,2-Dichloropropane	Ave	0.3890	0.3954		0.0102	0.0100	1.7	20.0
Dibromomethane	Ave	0.1583	0.1640		0.0104	0.0100	3.6	50.0
1,4-Dioxane	Qua		0.0021		0.140	0.200	-30.1	50.0
Bromodichloromethane	Ave	0.3536	0.3595		0.0102	0.0100	1.7	50.0
2-Chloroethyl vinyl ether	Ave	0.2808	0.2842		0.0101	0.0100	1.2	50.0
cis-1,3-Dichloropropene	Ave	0.4841	0.4930		0.0102	0.0100	1.8	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4522	0.4292		0.0190	0.0200	-5.1	50.0
Toluene	Ave	1.832	1.849		0.0101	0.0100	0.9	20.0
trans-1,3-Dichloropropene	Ave	0.6432	0.6327		0.00984	0.0100	-1.6	50.0
Ethyl methacrylate	Ave	0.7061	0.7214		0.0102	0.0100	2.2	50.0
1,1,2-Trichloroethane	Ave	0.3881	0.3848		0.00992	0.0100	-0.8	50.0
Tetrachloroethene	Ave	0.2126	0.2099		0.00987	0.0100	-1.3	50.0
1,3-Dichloropropane	Ave	0.7063	0.7204		0.0102	0.0100	2.0	50.0
2-Hexanone	Ave	0.4565	0.4434		0.0194	0.0200	-2.9	50.0
Chlorodibromomethane	Ave	0.3357	0.3450		0.0103	0.0100	2.8	50.0
1,2-Dibromoethane	Ave	0.3454	0.3525		0.0102	0.0100	2.0	50.0
Chlorobenzene	Ave	0.9782	0.996	0.3000	0.0102	0.0100	1.8	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3055	0.3183		0.0104	0.0100	4.2	50.0
Ethylbenzene	Ave	0.5440	0.5438		0.0100	0.0100	-0.0	20.0
m-Xylene & p-Xylene	Ave	0.6468	0.6456		0.00998	0.0100	-0.2	50.0
o-Xylene	Ave	0.6058	0.6435		0.0106	0.0100	6.2	50.0
Styrene	Ave	1.084	1.104		0.0102	0.0100	1.8	50.0
Bromoform	Ave	0.1777	0.1798	0.1000	0.0101	0.0100	1.2	50.0
Isopropylbenzene	Ave	1.404	1.412		0.0101	0.0100	0.6	50.0
1,1,2,2-Tetrachloroethane	Ave	1.209	1.188	0.3000	0.00983	0.0100	-1.7	50.0
Bromobenzene	Ave	0.7739	0.7459		0.00964	0.0100	-3.6	50.0
1,2,3-Trichloropropane	Ave	0.3230	0.3332		0.0103	0.0100	3.1	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.4687		0.00866	0.0100	-13.4	50.0
N-Propylbenzene	Ave	0.8917	0.9129		0.0102	0.0100	2.4	50.0
2-Chlorotoluene	Ave	0.8051	0.7696		0.00956	0.0100	-4.4	50.0
1,3,5-Trimethylbenzene	Ave	2.610	2.665		0.0102	0.0100	2.1	50.0
4-Chlorotoluene	Ave	0.8523	0.8373		0.00982	0.0100	-1.8	50.0
tert-Butylbenzene	Ave	1.945	1.967		0.0101	0.0100	1.1	50.0
1,2,4-Trimethylbenzene	Ave	2.797	2.805		0.0100	0.0100	0.3	50.0
sec-Butylbenzene	Ave	2.718	2.775		0.0102	0.0100	2.1	50.0
1,3-Dichlorobenzene	Ave	1.398	1.375		0.00983	0.0100	-1.7	50.0
4-Isopropyltoluene	Ave	2.170	2.233		0.0103	0.0100	2.9	50.0
1,4-Dichlorobenzene	Ave	1.422	1.414		0.00994	0.0100	-0.6	50.0
n-Butylbenzene	Ave	2.043	2.092		0.0102	0.0100	2.4	50.0
1,2-Dichlorobenzene	Ave	1.394	1.391		0.00997	0.0100	-0.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/9 Calibration Date: 01/15/2020 18:04

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX5181.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Qua		0.2035		0.0101	0.0100	0.9	50.0
1,2,4-Trichlorobenzene	Ave	0.6166	0.6303		0.0102	0.0100	2.2	50.0
Hexachlorobutadiene	Ave	0.1511	0.1382		0.00915	0.0100	-8.5	50.0
Naphthalene	Ave	3.231	2.958		0.00915	0.0100	-8.5	50.0
1,2,3-Trichlorobenzene	Ave	0.6137	0.5666		0.00923	0.0100	-7.7	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2180		0.00933	0.0100	-6.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3432	0.3363		0.00980	0.0100	-2.0	50.0
Toluene-d8 (Surr)	Ave	1.538	1.501		0.00976	0.0100	-2.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4841	0.4796		0.00991	0.0100	-0.9	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-419116/16	UXX5188.D
Level 2	STDA9 240-419116/15	UXX5187.D
Level 3	STDA9 240-419116/14	UXX5186.D
Level 4	STDA9 240-419116/13	UXX5185.D
Level 5	STDA9 240-419116/12	UXX5184.D
Level 6	STDA9 240-419116/11	UXX5183.D
Level 7	STDA9 240-419116/10	UXX5182.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0589 0.0494	0.0401 0.0511	0.0474	0.0440	0.0461	Ave		0.0481				12.4		15.0			
Diisopropyl ether	0.2404 0.2573	0.2637 0.2676	0.2679	0.2671	0.2527	Ave		0.2595				3.9		15.0			
2-Chloro-1,3-butadiene	0.5938 0.5956	0.6126 0.6176	0.6253	0.6519	0.6028	Ave		0.6142				3.3		15.0			
Ethyl tert-butyl ether	1.0995 1.1534	1.1757 1.1713	1.2497	1.2142	1.1682	Ave		1.1760				4.0		15.0			
Ethyl acetate	0.5678 0.4431	0.4956 0.4404	0.4582	0.4528	0.4286	Ave		0.4695				10.3		15.0			
Propionitrile	0.0578 0.0621	0.0633 0.0639	0.0628	0.0617	0.0605	Ave		0.0617				3.3		15.0			
Methacrylonitrile	0.2970 0.2818	0.2919 0.2806	0.2995	0.2972	0.2818	Ave		0.2900				2.9		15.0			
Isooctane	0.7121 0.6604	0.6795 0.6323	0.6641	0.6824	0.6724	Ave		0.6719				3.6		15.0			
Tert-amyl methyl ether	0.8272 0.8674	0.8820 0.8633	0.9192	0.9192	0.8707	Ave		0.8784				3.7		15.0			
n-Butanol	0.0227 0.0182	0.0198 0.0177	0.0181	0.0192	0.0171	Ave		0.0190				9.9		15.0			
Ethyl acrylate	0.6515 0.6151	0.6646 0.6217	0.6800	0.6631	0.6091	Ave		0.6436				4.3		15.0			
Methyl methacrylate	0.4314 0.4029	0.4037 0.4103	0.4429	0.4349	0.4106	Ave		0.4195				3.9		15.0			
2-Nitropropane	0.1614 0.1153	0.1281 0.1163	0.1309	0.1240	0.1115	Ave		0.1268				13.3		15.0			
n-Butyl acetate	0.8652 0.4561	0.4730 0.4526	0.4725	0.4612	0.4320	Lin1	0.2663	0.4352							0.9940		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1-Chlorohexane	0.4604 0.4699	0.4961 0.4838	0.4487	0.4894	0.4531	Ave		0.4716				3.9		15.0			
Cyclohexanone	0.0819 0.0541	0.0735 0.0499	0.0593	0.0581	0.0541	Lin1	0.3759	0.0502							0.9990		0.9900
Pentachloroethane	+++++ 0.0101	+++++ 0.0181	+++++	+++++	0.0064	Ave		0.0115				51.8	*	15.0			
1,2,3-Trimethylbenzene	2.7574 2.9873	3.1666 2.9031	3.0731	3.0946	2.8067	Ave		2.9698				5.2		15.0			
Benzyl chloride	0.3913 0.4908	0.4121 0.4770	0.4437	0.4744	0.4404	Ave		0.4471				8.1		15.0			
1,3,5-Trichlorobenzene	0.5619 0.6617	0.6959 0.6473	0.6443	0.7278	0.6444	Ave		0.6548				7.9		15.0			
2-Methylnaphthalene	1.3022 1.2244	1.4627 1.0195	1.3767	1.4829	1.4250	Ave		1.3276				12.3		15.0			
1-Methylnaphthalene	1.2042 1.0340	1.3224 0.8301	1.2414	1.3162	1.2477	Qua	0.4176	1.2752	-0.005656						0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-419116/16	UXX5188.D
Level 2	STDA9 240-419116/15	UXX5187.D
Level 3	STDA9 240-419116/14	UXX5186.D
Level 4	STDA9 240-419116/13	UXX5185.D
Level 5	STDA9 240-419116/12	UXX5184.D
Level 6	STDA9 240-419116/11	UXX5183.D
Level 7	STDA9 240-419116/10	UXX5182.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	22326 387210	30899 804112	71172	85178	174378	10.0 200	20.0 400	40.0	50.0	100
Diisopropyl ether	FB	Ave	9115 201661	20324 420963	40231	51743	95494	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Chloro-1,3-butadiene	FB	Ave	22517 466776	47217 971506	93888	126274	227831	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl tert-butyl ether	FB	Ave	41694 903838	90627 1842498	187654	235175	441552	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl acetate	FB	Ave	43063 694517	76406 1385528	137619	175395	323958	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Propionitrile	FB	Ave	21923 486302	48805 1004432	94227	119502	228755	10.0 200	20.0 400	40.0	50.0	100
Methacrylonitrile	FB	Ave	112647 2207980	225005 4413774	449745	575674	1065185	10.0 200	20.0 400	40.0	50.0	100
Isooctane	FB	Ave	27006 517501	52377 994685	99723	132175	254140	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	31368 679750	67983 1358090	138034	178050	329089	1.00 20.0	2.00 40.0	4.00	5.00	10.0
n-Butanol	CBNZ d5	Ave	14107 227412	24300 448867	44686	59427	107061	25.0 500	50.0 1000	100	125	250
Ethyl acrylate	FB	Ave	24708 482042	51225 978024	102105	128437	230238	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methyl methacrylate	FB	Ave	32716 631443	62234 1290765	133013	168485	310366	2.00 40.0	4.00 80.0	8.00	10.0	20.0
2-Nitropropane	FB	Ave	12240 180757	19747 365757	39325	48053	84287	2.00 40.0	4.00 80.0	8.00	10.0	20.0
n-Butyl acetate	CBNZ d5	Lin1	21494 228176	23227 458854	46721	57193	108023	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	11436 235081	24366 490471	44370	60683	113305	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Cyclohexanone	DCBd 4	Lin1	7948 108175	14117 204545	23190	28685	55613	10.0 200	20.0 400	40.0	50.0	100
Pentachloroethane	CBNZ d5	Ave	+++++ 10130	+++++ 36659	+++++	+++++	3193	+++++ 40.0	+++++ 80.0	+++++	+++++	20.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	26769 597281	60787 1190239	120084	152865	288280	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	3799 98124	7911 195574	17339	23435	45235	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	5455 132305	13359 265396	25178	35952	66188	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Methylnaphthalene	DCBd 4	Ave	25284 489625	56155 835955	107595	146502	292734	2.00 40.0	4.00 80.0	8.00	10.0	20.0
1-Methylnaphthalene	DCBd 4	Qua	23381 413463	50770 680653	97016	130032	256312	2.00 40.0	4.00 80.0	8.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/17 Calibration Date: 01/15/2020 21:24

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 18:29

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 20:59

Lab File ID: UXX5189.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0481	0.0443		0.0921	0.100	-7.9	50.0
Diisopropyl ether	Ave	0.2595	0.2675		0.0103	0.0100	3.1	50.0
2-Chloro-1,3-butadiene	Ave	0.6142	0.6454		0.0105	0.0100	5.1	50.0
Ethyl tert-butyl ether	Ave	1.176	1.231		0.0105	0.0100	4.7	50.0
Ethyl acetate	Ave	0.4695	0.4651		0.0198	0.0200	-0.9	50.0
Propionitrile	Ave	0.0617	0.0611		0.0989	0.100	-1.1	50.0
Methacrylonitrile	Ave	0.2900	0.3015		0.104	0.100	4.0	50.0
Tert-amyl methyl ether	Ave	0.8784	0.9427		0.0107	0.0100	7.3	50.0
n-Butanol	Ave	0.0190	0.0178		0.234	0.250	-6.4	50.0
Ethyl acrylate	Ave	0.6436	0.6543		0.0102	0.0100	1.7	50.0
Methyl methacrylate	Ave	0.4195	0.4240		0.0202	0.0200	1.1	50.0
2-Nitropropane	Ave	0.1268	0.1172		0.0185	0.0200	-7.6	50.0
n-Butyl acetate	Lin1		0.4825		0.0105	0.0100	4.7	50.0
1-Chlorohexane	Ave	0.4716	0.4831		0.0102	0.0100	2.4	50.0
Cyclohexanone	Lin1		0.0543		0.101	0.100	0.7	50.0
1,2,3-Trimethylbenzene	Ave	2.970	3.097		0.0104	0.0100	4.3	50.0
Benzyl chloride	Ave	0.4471	0.4530		0.0101	0.0100	1.3	50.0
1,3,5-Trichlorobenzene	Ave	0.6548	0.6556		0.0100	0.0100	0.1	50.0
2-Methylnaphthalene	Ave	1.328	1.255		0.0189	0.0200	-5.4	50.0
Pentachloroethane	Ave	0.0115			0.00100	0.0200	0*	45-155

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB1897.D BFB Injection Date: 07/23/2020

Instrument ID: A3UX10 BFB Injection Time: 12:33

Analysis Batch No.: 443947

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	29.0	
75	30.0 - 60.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.4	(0.6) 1
174	50.0 - 120.00 % of mass 95	62.7	
175	5.0 - 9.0 % of mass 174	4.1	(6.6) 1
176	95.0 - 101.0 % of mass 174	62.3	(99.3) 1
177	5.0 - 9.0 % of mass 176	3.8	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-443947/2	UXX8809.D	07/23/2020	12:58
	CCV 240-443947/3	UXX8810.D	07/23/2020	13:23
	LCS 240-443947/4	UXX8811.D	07/23/2020	13:48
	MB 240-443947/7	UXX8814.D	07/23/2020	15:04
TB-071620	240-133597-1	UXX8834.D	07/23/2020	23:33

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443947/2 Calibration Date: 07/23/2020 12:58

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX8809.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2166	0.2745		0.0127	0.0100	26.7	50.0
Chloromethane	Ave	0.4428	0.6563	0.1000	0.0148	0.0100	48.2	50.0
Vinyl chloride	Ave	0.3264	0.3643		0.0112	0.0100	11.6	20.0
Butadiene	Lin1		0.4226		0.0233	0.0100	133.0*	50.0
Bromomethane	Ave	0.1555	0.1346		0.00865	0.0100	-13.5	50.0
Chloroethane	Ave	0.1748	0.1785		0.0102	0.0100	2.1	50.0
Dichlorofluoromethane	Ave	0.4414	0.3668		0.00831	0.0100	-16.9	50.0
Trichlorofluoromethane	Ave	0.2347	0.3305		0.0141	0.0100	40.8	50.0
Ethyl ether	Ave	0.3082	0.3394		0.0110	0.0100	10.1	50.0
Acrolein	Ave	0.0590	0.0201		0.0170	0.0500	-66.0*	50.0
1,1-Dichloroethene	Ave	0.2357	0.2510		0.0106	0.0100	6.5	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.1676		0.0150	0.0100	50.4*	50.0
Acetone	Lin1		0.1113		0.0165	0.0200	-17.6	50.0
Iodomethane	Ave	0.2756	0.3933		0.0143	0.0100	42.7	50.0
Carbon disulfide	Ave	0.8260	0.7879		0.00954	0.0100	-4.6	50.0
3-Chloro-1-propene	Ave	0.2136	0.1830		0.00857	0.0100	-14.3	50.0
Methyl acetate	Ave	0.3533	0.3315		0.0188	0.0200	-6.2	50.0
Methylene Chloride	Ave	0.2908	0.2799		0.00963	0.0100	-3.7	50.0
tert-Butyl alcohol	Ave	0.0413	0.0300		0.0726	0.100	-27.4	50.0
Acrylonitrile	Ave	0.1722	0.1507		0.0875	0.100	-12.5	50.0
trans-1,2-Dichloroethene	Ave	0.2732	0.2822		0.0103	0.0100	3.3	50.0
Methyl tert-butyl ether	Ave	0.7975	0.7623		0.00956	0.0100	-4.4	50.0
Hexane	Ave	0.0527	0.0782		0.0148	0.0100	48.5*	20.0
1,1-Dichloroethane	Ave	0.6453	0.6561	0.1000	0.0102	0.0100	1.7	50.0
Vinyl acetate	Lin1		0.9317		0.0119	0.0100	18.7	50.0
2,2-Dichloropropane	Ave	0.0612	0.0775		0.0127	0.0100	26.5	50.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3063		0.0101	0.0100	0.7	50.0
2-Butanone (MEK)	Ave	0.2186	0.1762		0.0161	0.0200	-19.4	50.0
Bromochloromethane	Ave	0.1239	0.1346		0.0109	0.0100	8.6	50.0
Tetrahydrofuran	Ave	0.1532	0.1206		0.0158	0.0200	-21.2	50.0
Chloroform	Ave	0.4726	0.4965		0.0105	0.0100	5.1	20.0
1,1,1-Trichloroethane	Ave	0.2994	0.4221		0.0141	0.0100	41.0	50.0
Cyclohexane	Ave	0.5668	0.7990		0.0141	0.0100	41.0	50.0
1,1-Dichloropropene	Ave	0.3707	0.3825		0.0103	0.0100	3.2	50.0
Carbon tetrachloride	Ave	0.2390	0.3379		0.0141	0.0100	41.4	50.0
Isobutyl alcohol	Lin1		0.0165		0.190	0.250	-23.9	50.0
Benzene	Ave	1.237	1.133		0.00916	0.0100	-8.4	50.0
1,2-Dichloroethane	Ave	0.4549	0.4895		0.0108	0.0100	7.6	50.0
n-Heptane	Ave	0.0418	0.0679		0.0163	0.0100	62.6*	50.0
Trichloroethene	Ave	0.2569	0.2894		0.0113	0.0100	12.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443947/2 Calibration Date: 07/23/2020 12:58

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX8809.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3275	0.4092		0.0125	0.0100	25.0	50.0
1,2-Dichloropropane	Ave	0.3890	0.3666		0.00942	0.0100	-5.8	20.0
Dibromomethane	Ave	0.1583	0.1457		0.00921	0.0100	-7.9	50.0
1,4-Dioxane	Qua		0.0018		0.124	0.200	-38.1	50.0
Bromodichloromethane	Ave	0.3536	0.3602		0.0102	0.0100	1.9	50.0
2-Chloroethyl vinyl ether	Ave	0.2808	0.1985		0.0141	0.0200	-29.3	50.0
cis-1,3-Dichloropropene	Ave	0.4841	0.4145		0.00856	0.0100	-14.4	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4522	0.3902		0.0173	0.0200	-13.7	50.0
Toluene	Ave	1.832	1.724		0.00942	0.0100	-5.8	20.0
trans-1,3-Dichloropropene	Ave	0.6432	0.5670		0.00882	0.0100	-11.8	50.0
Ethyl methacrylate	Ave	0.7061	0.4603		0.00652	0.0100	-34.8	50.0
1,1,2-Trichloroethane	Ave	0.3881	0.3352		0.00864	0.0100	-13.6	50.0
Tetrachloroethene	Ave	0.2126	0.2773		0.0130	0.0100	30.4	50.0
1,3-Dichloropropane	Ave	0.7063	0.5806		0.00822	0.0100	-17.8	50.0
2-Hexanone	Ave	0.4565	0.3716		0.0163	0.0200	-18.6	50.0
Chlorodibromomethane	Ave	0.3357	0.3426		0.0102	0.0100	2.1	50.0
1,2-Dibromoethane	Ave	0.3454	0.3224		0.00933	0.0100	-6.7	50.0
Chlorobenzene	Ave	0.9782	1.016	0.3000	0.0104	0.0100	3.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3055	0.3612		0.0118	0.0100	18.2	50.0
Ethylbenzene	Ave	0.5440	0.5824		0.0107	0.0100	7.0	20.0
m-Xylene & p-Xylene	Ave	0.6468	0.6820		0.0105	0.0100	5.4	50.0
o-Xylene	Ave	0.6058	0.6498		0.0107	0.0100	7.3	50.0
Styrene	Ave	1.084	1.102		0.0102	0.0100	1.7	50.0
Bromoform	Ave	0.1777	0.1691	0.1000	0.00952	0.0100	-4.8	50.0
Isopropylbenzene	Ave	1.404	1.655		0.0118	0.0100	17.9	50.0
1,1,2,2-Tetrachloroethane	Ave	1.209	0.7968	0.3000	0.00659	0.0100	-34.1	50.0
Bromobenzene	Ave	0.7739	0.7422		0.00959	0.0100	-4.1	50.0
1,2,3-Trichloropropane	Ave	0.3230	0.2395		0.00741	0.0100	-25.9	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.3446		0.00653	0.0100	-34.7	50.0
N-Propylbenzene	Ave	0.8917	0.9483		0.0106	0.0100	6.3	50.0
2-Chlorotoluene	Ave	0.8051	0.8577		0.0107	0.0100	6.5	50.0
1,3,5-Trimethylbenzene	Ave	2.610	2.931		0.0112	0.0100	12.3	50.0
4-Chlorotoluene	Ave	0.8523	0.8391		0.00984	0.0100	-1.6	50.0
tert-Butylbenzene	Ave	1.945	2.442		0.0126	0.0100	25.5	50.0
1,2,4-Trimethylbenzene	Ave	2.797	2.971		0.0106	0.0100	6.2	50.0
sec-Butylbenzene	Ave	2.718	3.578		0.0132	0.0100	31.6	50.0
1,3-Dichlorobenzene	Ave	1.398	1.493		0.0107	0.0100	6.7	50.0
4-Isopropyltoluene	Ave	2.170	2.931		0.0135	0.0100	35.1	50.0
1,4-Dichlorobenzene	Ave	1.422	1.491		0.0105	0.0100	4.9	50.0
n-Butylbenzene	Ave	2.043	2.586		0.0127	0.0100	26.6	50.0
1,2-Dichlorobenzene	Ave	1.394	1.452		0.0104	0.0100	4.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443947/2 Calibration Date: 07/23/2020 12:58

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX8809.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Qua		0.1449		0.00683	0.0100	-31.7	50.0
1,2,4-Trichlorobenzene	Ave	0.6166	0.8278		0.0134	0.0100	34.3	50.0
Hexachlorobutadiene	Ave	0.1511	0.3000		0.0199	0.0100	98.6*	50.0
Naphthalene	Ave	3.231	2.263		0.00700	0.0100	-30.0	50.0
1,2,3-Trichlorobenzene	Ave	0.6137	0.7364		0.0120	0.0100	20.0	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2481		0.0106	0.0100	6.2	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3432	0.3325		0.00969	0.0100	-3.1	50.0
Toluene-d8 (Surr)	Ave	1.538	1.406		0.00915	0.0100	-8.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4841	0.4367		0.00902	0.0100	-9.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCV 240-443947/3 Calibration Date: 07/23/2020 13:23

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 18:29

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 20:59

Lab File ID: UXX8810.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0481	0.0439		0.0912	0.100	-8.8	50.0
Diisopropyl ether	Ave	0.2595	0.2283		0.00880	0.0100	-12.0	50.0
2-Chloro-1,3-butadiene	Ave	0.6142	0.7412		0.0121	0.0100	20.7	50.0
Ethyl acetate	Ave	0.4695	0.0523		0.00223	0.0200	-88.9*	50.0
Ethyl tert-butyl ether	Ave	1.176	1.169		0.00994	0.0100	-0.6	50.0
Propionitrile	Ave	0.0617	0.0525		0.0851	0.100	-14.9	50.0
Methacrylonitrile	Ave	0.2900	0.2447		0.0844	0.100	-15.6	50.0
Tert-amyl methyl ether	Ave	0.8784	0.7070		0.00805	0.0100	-19.5	50.0
n-Butanol	Ave	0.0190	0.0135		0.177	0.250	-29.0	50.0
Ethyl acrylate	Ave	0.6436	0.4708		0.00731	0.0100	-26.9	50.0
Methyl methacrylate	Ave	0.4195	0.3228		0.0154	0.0200	-23.1	50.0
2-Nitropropane	Ave	0.1268	0.0732		0.0115	0.0200	-42.3	50.0
n-Butyl acetate	Lin1		0.3663		0.00780	0.0100	-22.0	50.0
1-Chlorohexane	Ave	0.4716	0.4782		0.0101	0.0100	1.4	50.0
Cyclohexanone	Lin1		0.0421		0.0764	0.100	-23.6	50.0
Pentachloroethane	Ave	0.0115	0.1227		0.213	0.0200	964.4*	50.0
1,2,3-Trimethylbenzene	Ave	2.970	2.924		0.00984	0.0100	-1.6	50.0
Benzyl chloride	Ave	0.4471	0.2995		0.00670	0.0100	-33.0	50.0
1,3,5-Trichlorobenzene	Ave	0.6548	0.8848		0.0135	0.0100	35.1	50.0
2-Methylnaphthalene	Ave	1.328	0.9132		0.0138	0.0200	-31.2	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14138.D BFB Injection Date: 03/19/2020

Instrument ID: A3UX14 BFB Injection Time: 14:52

Analysis Batch No.: 427472

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.5	
75	30.0 - 60.0 % of mass 95	55.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	67.0	
175	5.0 - 9.0 % of mass 174	5.2	(7.8) 1
176	95.0 - 101.0 % of mass 174	65.0	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-427472/3	1424107.D	03/19/2020	15:34
	IC 240-427472/4	1424108.D	03/19/2020	15:57
	IC 240-427472/5	1424109.D	03/19/2020	16:19
	ICIS 240-427472/6	1424110.D	03/19/2020	16:41
	IC 240-427472/7	1424111.D	03/19/2020	17:03
	IC 240-427472/8	1424112.D	03/19/2020	17:25
	IC 240-427472/9	1424113.D	03/19/2020	17:47
	IC 240-427472/10	1424114.D	03/19/2020	18:10
	IC 240-427472/11	1424115.D	03/19/2020	18:32

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427472/11	1424115.D
Level 2	IC 240-427472/10	1424114.D
Level 3	IC 240-427472/9	1424113.D
Level 4	IC 240-427472/8	1424112.D
Level 5	IC 240-427472/7	1424111.D
Level 6	ICIS 240-427472/6	1424110.D
Level 7	IC 240-427472/5	1424109.D
Level 8	IC 240-427472/4	1424108.D
Level 9	IC 240-427472/3	1424107.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2965	+++++ 0.3260	0.3036 0.3328	0.2878 0.3210	0.2919	Ave		0.3085				5.8		15.0			
Chloromethane	0.3328 0.2988	0.2628 0.3371	0.3131 0.3374	0.3033 0.3150	0.2989	Ave		0.3110			0.1000	7.7		15.0			
Vinyl chloride	0.2933 0.2757	0.2129 0.3099	0.2839 0.3165	0.2732 0.2998	0.2803	Ave		0.2828				10.7		15.0			
Butadiene	0.2247 0.2496	0.1791 0.2767	0.2568 0.2838	0.2440 0.2750	0.2500	Ave		0.2489				12.9		15.0			
Bromomethane	0.1756 0.1383	0.1497 0.1108	0.1693 +++++	0.1646 +++++	0.1519	Ave		0.1515				14.5		15.0			
Chloroethane	0.1710 0.1613	0.1353 +++++	0.1899 +++++	0.1769 +++++	0.1722	Ave		0.1677				11.0		15.0			
Dichlorofluoromethane	0.4073 0.3506	0.3117 0.3407	0.3728 +++++	0.3624 +++++	0.3635	Ave		0.3584				8.2		15.0			
Trichlorofluoromethane	0.3291 0.3423	0.2569 0.3358	0.3597 0.2920	0.3567 +++++	0.3613	Ave		0.3292				11.2		15.0			
Ethyl ether	0.2347 0.2471	0.2507 0.2272	0.2624 0.1930	0.2396 0.1798	0.2461	Ave		0.2312				11.9		15.0			
Acrolein	0.0358 0.0363	0.0347 0.0330	0.0364 0.0287	0.0335 0.0264	0.0339	Ave		0.0332				10.5		15.0			
1,1-Dichloroethene	+++++ 0.2087	0.1876 0.2086	0.2192 0.2018	0.2014 0.2028	0.2037	Ave		0.2042				4.4		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.1310	+++++ 0.1445	0.1411 0.1460	0.1357 0.1488	0.1367	Ave		0.1405				4.5		15.0			
Acetone	+++++ 0.0750	+++++ 0.0669	0.0961 +++++	0.0798 +++++	0.0712	Ave		0.0778				14.5		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Iodomethane	0.2959 0.3311	0.3117 0.3337	0.3462 0.3273	0.3162 0.3297	0.3195	Ave		0.3235				4.5		15.0			
Carbon disulfide	0.5098 0.6410	0.5402 0.6499	0.6221 0.6628	0.6194 0.6563	0.6521	Ave		0.6171				8.9		15.0			
3-Chloro-1-propene	+++++ 0.1528	+++++ 0.1535	0.1408 0.1553	0.1368 0.1573	0.1459	Ave		0.1489				5.3		15.0			
Methyl acetate	0.1758 0.1898	0.1887 0.1814	0.1913 0.1771	0.1779 0.1831	0.1812	Ave		0.1829				3.1		15.0			
Methylene Chloride	+++++ 0.2420	0.2893 0.2302	0.2730 0.2287	0.2438 0.2315	0.2417	Ave		0.2475				8.9		15.0			
2-Methyl-2-propanol	0.0180 0.0185	0.0178 0.0168	0.0182 0.0149	0.0167 +++++	0.0181	Ave		0.0174				6.9		15.0			
Acrylonitrile	0.0867 0.0898	0.0908 0.0844	0.0909 0.0825	0.0832 0.0837	0.0873	Ave		0.0866				3.9		15.0			
trans-1,2-Dichloroethene	0.2166 0.2522	0.2288 0.2435	0.2598 0.2504	0.2404 0.2590	0.2527	Ave		0.2448				5.9		15.0			
Methyl tert-butyl ether	0.4412 0.4672	0.4587 0.4731	0.4847 0.4705	0.4535 0.4441	0.4713	Ave		0.4627				3.1		15.0			
Hexane	+++++ 0.0832	0.0716 0.0855	0.0860 0.0872	0.0832 0.0903	0.0859	Ave		0.0841				6.6		15.0			
1,1-Dichloroethane	0.4227 0.4825	0.4567 0.4754	0.4934 0.4815	0.4719 0.4880	0.4870	Ave		0.4732			0.1000	4.6		15.0			
Vinyl acetate	0.0399 0.0541	0.0416 0.0558	0.0510 0.0557	0.0464 0.0574	0.0491	Ave		0.0501				12.7		15.0			
2,2-Dichloropropane	0.0396 0.0508	0.0458 0.0507	0.0509 0.0485	0.0473 0.0482	0.0496	Ave		0.0479				7.4		15.0			
cis-1,2-Dichloroethene	0.2508 0.2787	0.2738 0.2701	0.2848 0.2693	0.2692 0.2735	0.2790	Ave		0.2721				3.5		15.0			
2-Butanone (MEK)	+++++ 0.1237	0.1349 0.1209	0.1307 0.1156	0.1217 0.1189	0.1186	Ave		0.1231				5.3		15.0			
Chlorobromomethane	0.1261 0.1340	0.1365 0.1277	0.1365 0.1290	0.1295 0.1290	0.1343	Ave		0.1314				3.0		15.0			
Tetrahydrofuran	0.0901 0.0776	0.0767 0.0757	0.0805 0.0730	0.0714 0.0745	0.0741	Ave		0.0771				7.2		15.0			
Chloroform	0.4712 0.4793	0.4727 0.4630	0.4970 0.4597	0.4645 0.4646	0.4812	Ave		0.4726				2.5		15.0			
1,1,1-Trichloroethane	+++++ 0.3576	0.2849 0.3654	0.3443 0.3662	0.3384 0.3693	0.3529	Ave		0.3474				7.9		15.0			
Cyclohexane	+++++ 0.4410	0.3536 0.4495	0.4451 0.4537	0.4419 0.4661	0.4543	Ave		0.4382				8.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Carbon tetrachloride	+++++ 0.3112	+++++ 0.3232	0.2779 0.3357	0.2729 0.3491	0.2983	Ave		0.3098				9.2		15.0			
1,1-Dichloropropene	0.3030 0.3991	0.3492 0.3953	0.4135 0.3916	0.3944 0.4025	0.4001	Ave		0.3832				9.1		15.0			
Benzene	0.9795 1.0712	1.0496 1.0568	1.1545 1.0115	1.0822 1.0152	1.0915	Ave		1.0569				4.9		15.0			
1,2-Dichloroethane	0.4634 0.4633	0.4832 0.4568	0.4881 0.4417	0.4573 0.4431	0.4673	Ave		0.4627				3.4		15.0			
Isobutyl alcohol	+++++ 0.0087	+++++ 0.0087	0.0067 0.0086	0.0072 0.0088	0.0081	Ave		0.0081				10.5		15.0			
n-Heptane	+++++ 0.0972	+++++ 0.1022	0.0976 0.1039	0.0971 0.1082	0.1006	Ave		0.1010				4.1		15.0			
Trichloroethene	0.2403 0.2808	0.2655 0.2796	0.2927 0.2721	0.2862 0.2790	0.2860	Ave		0.2758				5.6		15.0			
Methylcyclohexane	+++++ 0.4473	+++++ 0.4456	0.4576 0.4543	0.4477 0.4682	0.4529	Ave		0.4534				1.7		15.0			
1,2-Dichloropropane	0.2531 0.2823	0.2790 0.2872	0.2938 0.2806	0.2727 0.2833	0.2839	Ave		0.2795				4.1		15.0			
Dibromomethane	0.1612 0.1692	0.1683 0.1659	0.1781 0.1595	0.1620 0.1621	0.1697	Ave		0.1662				3.5		15.0			
1,4-Dioxane	0.0023 0.0026	0.0025 0.0026	0.0026 0.0025	0.0027 0.0025	0.0027	Ave		0.0026				4.0		15.0			
Dichlorobromomethane	0.2762 0.3571	0.2956 0.3637	0.3340 0.3603	0.3311 0.3637	0.3463	Ave		0.3364				9.3		15.0			
2-Chloroethyl vinyl ether	+++++ 0.1699	0.1462 0.1788	0.1580 0.1764	0.1563 0.1817	0.1631	Ave		0.1663				7.5		15.0			
cis-1,3-Dichloropropene	0.3163 0.4429	0.3518 0.4619	0.3941 0.4521	0.4021 0.4608	0.4267	Ave		0.4121				12.4		15.0			
4-Methyl-2-pentanone (MIBK)	0.3308 0.3764	0.3157 0.3576	0.3414 0.3490	0.3357 0.3537	0.3500	Ave		0.3456				5.0		15.0			
Toluene	1.5154 1.5862	1.5859 1.5415	1.6620 1.4631	1.5844 1.4466	1.5970	Ave		1.5536				4.4		15.0			
trans-1,3-Dichloropropene	+++++ 0.5786	+++++ 0.6027	0.4568 0.6184	0.4820 0.6253	0.5200	Ave		0.5548				12.3		15.0			
Ethyl methacrylate	+++++ 0.5009	+++++ 0.4957	0.4139 0.5011	0.4194 0.5114	0.4529	Ave		0.4707				8.8		15.0			
1,1,2-Trichloroethane	0.2790 0.3052	0.3153 0.3100	0.3199 0.3075	0.3023 0.3008	0.2973	Ave		0.3041				3.9		15.0			
Tetrachloroethene	0.2260 0.2960	0.2673 0.2920	0.3066 0.2925	0.2906 0.3010	0.2977	Ave		0.2855				8.7		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,3-Dichloropropane	0.5631 0.6009	0.6063 0.5948	0.6271 0.5893	0.5937 0.5870	0.5938	Ave		0.5951				2.9		15.0			
2-Hexanone	0.1822 0.2740	0.2325 0.2678	0.2437 0.2630	0.2384 0.2638	0.2499	Ave		0.2461				11.3		15.0			
Chlorodibromomethane	+++++ 0.3359	+++++ 0.3396	0.2762 0.3462	0.2787 0.3552	0.3053	Ave		0.3196				10.2		15.0			
Ethylene Dibromide	0.2848 0.3278	0.3040 0.3162	0.3209 0.3151	0.3095 0.3144	0.3179	Ave		0.3123				3.9		15.0			
Chlorobenzene	1.0273 1.0077	1.0281 0.9786	1.0682 0.9460	1.0125 0.9466	1.0267	Ave		1.0046			0.3000	4.0		15.0			
1,1,1,2-Tetrachloroethane	0.2097 0.3058	0.2326 0.3009	0.2560 0.3123	0.2624 0.3182	0.2864	Ave		0.2760				13.8		15.0			
Ethylbenzene	0.4867 0.5494	0.5038 0.5416	0.5631 0.5333	0.5405 0.5476	0.5495	Ave		0.5351				4.6		15.0			
m-Xylene & p-Xylene	0.5877 0.6695	0.6284 0.6597	0.6810 0.6522	0.6614 0.6633	0.6721	Ave		0.6528				4.4		15.0			
o-Xylene	0.5147 0.6181	0.5629 0.5973	0.6326 0.6030	0.6070 0.6107	0.6208	Ave		0.5963				6.1		15.0			
Styrene	0.8967 1.0607	0.9178 1.0534	1.0114 1.0335	1.0038 1.0347	1.0449	Ave		1.0063				5.9		15.0			
Bromoform	+++++ 0.1687	+++++ 0.1777	0.1187 0.1879	0.1285 0.1942	0.1453	Lin1	-0.546	0.1905			0.1000				0.9980		0.9900
Isopropylbenzene	1.1806 1.5275	1.3673 1.4746	1.5444 1.4257	1.5110 1.3735	1.5474	Ave		1.4391				8.3		15.0			
Bromobenzene	0.8597 0.8457	0.8245 0.8079	0.9026 0.7582	0.8433 0.7497	0.8627	Ave		0.8283				6.0		15.0			
1,1,2,2-Tetrachloroethane	0.6696 0.8323	0.7629 0.7853	0.8342 0.7400	0.7767 0.7389	0.8190	Ave		0.7732			0.3000	6.9		15.0			
1,2,3-Trichloropropane	0.2615 0.2804	0.2900 0.2629	0.2997 0.2437	0.2734 0.2425	0.2815	Ave		0.2706				7.3		15.0			
trans-1,4-Dichloro-2-butene	0.2542 0.2939	0.2561 0.2972	0.2540 0.2841	0.2474 0.2917	0.2693	Ave		0.2720				7.3		15.0			
N-Propylbenzene	0.7546 1.0316	0.8647 0.9880	1.0288 0.9370	1.0234 0.9543	1.0642	Ave		0.9607				10.2		15.0			
2-Chlorotoluene	0.7124 0.8483	0.7916 0.8086	0.8872 0.7630	0.8573 0.7768	0.8623	Ave		0.8119				7.0		15.0			
1,3,5-Trimethylbenzene	2.1183 2.9098	2.4671 2.7729	2.8558 2.6714	2.8252 2.6378	2.9589	Ave		2.6908				9.8		15.0			
4-Chlorotoluene	0.8195 0.8929	0.8818 0.8456	0.9445 0.7920	0.8904 0.8081	0.9096	Ave		0.8649				5.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
tert-Butylbenzene	1.8666 2.4506	2.1526 2.4176	2.4969 2.4297	2.4416 2.4030	2.5209	Ave		2.3533				9.0		15.0			
1,2,4-Trimethylbenzene	2.2273 2.9148	2.5080 2.8386	2.9017 2.7295	2.8154 2.6104	2.9280	Ave		2.7193				8.6		15.0			
sec-Butylbenzene	2.4478 3.5794	3.0757 3.4967	3.6732 3.2549	3.5963 3.1370	3.7294	Ave		3.3323				12.2		15.0			
1,3-Dichlorobenzene	1.5703 1.5133	1.5472 1.4586	1.5910 1.4509	1.5180 1.4482	1.5499	Ave		1.5164				3.5		15.0			
4-Isopropyltoluene	2.1092 3.0903	2.5858 3.0301	3.0728 2.9152	3.0031 2.8048	3.1776	Ave		2.8654				11.7		15.0			
1,4-Dichlorobenzene	1.7456 1.5356	1.7303 1.4795	1.6635 1.4594	1.5646 1.4792	1.5701	Ave		1.5809				6.9		15.0			
1,2-Dichlorobenzene	1.4592 1.4253	1.4604 1.4176	1.4801 1.3981	1.4036 1.3997	1.4590	Ave		1.4337				2.2		15.0			
n-Butylbenzene	1.8449 2.8325	2.2656 2.8122	2.7161 2.7400	2.7229 2.7140	2.8346	Ave		2.6092				12.8		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1310	+++++ 0.1412	0.0942 0.1525	0.0915 0.1539	0.1115	Lin1	-0.488	0.1523							0.9970		0.9900
1,2,4-Trichlorobenzene	1.0759 1.0643	1.0489 1.0597	1.0344 1.0405	1.0177 1.0329	1.0433	Ave		1.0464				1.7		15.0			
Hexachlorobutadiene	0.4039 0.5202	0.4284 0.5336	0.5068 0.5242	0.5098 0.5382	0.5206	Ave		0.4984				9.6		15.0			
Naphthalene	2.4058 2.7083	2.4340 2.6606	2.5540 2.4771	2.4853 2.3571	2.6052	Ave		2.5208				4.7		15.0			
1,2,3-Trichlorobenzene	1.0209 1.0341	1.0203 1.0123	1.0487 0.9814	0.9989 0.9597	1.0069	Ave		1.0093				2.7		15.0			
Dibromofluoromethane (Surr)	+++++ 0.2538	+++++ 0.2422	0.2589 0.2430	0.2611 0.2437	0.2603	Ave		0.2518				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3734	+++++ 0.3558	0.4181 0.3504	0.4058 0.3501	0.3893	Ave		0.3776				7.3		15.0			
Toluene-d8 (Surr)	+++++ 1.4085	+++++ 1.3345	1.4792 1.3141	1.4883 1.3018	1.4367	Ave		1.3947				5.6		15.0			
4-Bromofluorobenzene (Surr)	+++++ 1.1954	+++++ 1.0970	1.3422 1.0485	1.2983 1.0325	1.2463	Ave		1.1800				10.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427472/11	1424115.D
Level 2	IC 240-427472/10	1424114.D
Level 3	IC 240-427472/9	1424113.D
Level 4	IC 240-427472/8	1424112.D
Level 5	IC 240-427472/7	1424111.D
Level 6	ICIS 240-427472/6	1424110.D
Level 7	IC 240-427472/5	1424109.D
Level 8	IC 240-427472/4	1424108.D
Level 9	IC 240-427472/3	1424107.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 697900	+++++ 1428638	67869 2852545	130201 3432015	267799	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Chloromethane	FB	Ave	14681 703449	23337 1477417	69991 2891344	137228 3367448	274217	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl chloride	FB	Ave	12938 648944	18909 1358170	63465 2712833	123595 3205130	257133	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Butadiene	FB	Ave	9911 587695	15903 1212639	57406 2432750	110400 2939985	229287	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromomethane	FB	Ave	7746 325596	13295 485599	37835 +++++	74486 +++++	139340	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
Chloroethane	FB	Ave	7541 379617	12019 +++++	42440 +++++	80022 +++++	157936	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
Dichlorofluoromethane	FB	Ave	17967 825457	27685 1493076	83324 +++++	163960 +++++	333395	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
Trichlorofluoromethane	FB	Ave	14515 805819	22818 1471787	80392 2502320	161370 +++++	331407	1.00 50.0	2.00 100	5.00 200	10.0 +++++	20.0
Ethyl ether	FB	Ave	10351 581807	22264 995632	58653 1653801	108391 1921829	225702	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acrolein	FB	Ave	7888 427281	15414 722982	40732 1228064	75740 1410656	155275	5.00 250	10.0 500	25.0 1000	50.0 1250	100
1,1-Dichloroethene	FB	Ave	+++++ 491249	16662 914277	48998 1729836	91104 2168053	186812	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	+++++ 308296	+++++ 633290	31546 1251054	61396 1590721	125365	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Acetone	FB	Ave	+++++ 353146	+++++ 586605	42955 +++++	72193 +++++	130613	+++++ 100	+++++ 200	10.0 +++++	20.0 +++++	40.0
Iodomethane	FB	Ave	13053 779541	27686 1462659	77373 2805566	143049 3524079	293036	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Carbon disulfide	FB	Ave	22485 1508927	47976 2848303	139061 5680588	280228 7015873	598172	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
3-Chloro-1-propene	FB	Ave	+++++ 359697	+++++ 672721	31470 1330766	61883 1681303	133873	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Methyl acetate	FB	Ave	15511 893468	33525 1590175	85500 3035597	160975 3915185	332363	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Methylene Chloride	FB	Ave	+++++ 569789	25697 1009019	61012 1959841	110325 2474911	221671	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Methyl-2-propanol	FB	Ave	7933 435388	15845 737896	40744 1277888	75452 +++++	166475	10.0 500	20.0 1000	50.0 2000	100 +++++	200
Acrylonitrile	FB	Ave	38226 2114614	80686 3699193	203127 7067516	376567 8945149	800455	10.0 500	20.0 1000	50.0 2000	100 2500	200
trans-1,2-Dichloroethene	FB	Ave	9553 593607	20320 1066950	58059 2146109	108781 2769224	231811	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl tert-butyl ether	FB	Ave	19463 1099953	40740 2073315	108332 4032244	205181 4747664	432346	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexane	FB	Ave	+++++ 195963	6359 374678	19213 747697	37666 965617	78838	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1-Dichloroethane	FB	Ave	18646 1135916	40557 2083457	110277 4126701	213491 5216455	446719	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl acetate	FB	Ave	1762 127300	3697 244767	11401 477471	20983 613182	45078	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2,2-Dichloropropane	FB	Ave	1748 119474	4071 222127	11379 416017	21418 515678	45473	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
cis-1,2-Dichloroethene	FB	Ave	11064 656062	24316 1183752	63655 2307967	121782 2923493	255938	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Butanone (MEK)	FB	Ave	+++++ 582622	23953 1059951	58420 1982089	110102 2542525	217593	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
Chlorobromomethane	FB	Ave	5564 315422	12122 559569	30520 1105502	58574 1378833	123211	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrahydrofuran	FB	Ave	7951 365521	13630 663376	35988 1251179	64577 1593824	135913	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Chloroform	FB	Ave	20783 1128417	41982 2029145	111099 3939584	210184 4966143	441394	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1-Trichloroethane	FB	Ave	+++++ 841907	25299 1601338	76954 3138287	153090 3947769	323743	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Cyclohexane	FB	Ave	+++++ 1038132	31403 1969926	99488 3888232	199954 4982798	416754	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Carbon tetrachloride	FB	Ave	+++++ 732611	+++++ 1416615	62115 2877082	123494 3732341	273658	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1-Dichloropropene	FB	Ave	13363 939618	31012 1732432	92416 3356554	178452 4302380	366967	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzene	FB	Ave	43205 2521836	93217 4631358	258045 8668982	489630 10852834	1001214	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane	FB	Ave	20439 1090722	42916 2001768	109109 3785966	206900 4736798	428631	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Isobutyl alcohol	FB	Ave	+++++ 514254	+++++ 951267	37311 1840823	81393 2349298	185091	+++++ 1250	+++++ 2500	125 5000	250 6250	500
n-Heptane	FB	Ave	+++++ 228903	+++++ 447796	21822 890125	43952 1156557	92292	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Trichloroethene	FB	Ave	10599 661098	23581 1225231	65418 2332090	129509 2982643	262328	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methylcyclohexane	FB	Ave	+++++ 1053090	+++++ 1952934	102273 3893589	202562 5005191	415418	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloropropane	FB	Ave	11162 664558	24778 1258794	65659 2405134	123391 3028445	260457	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromomethane	FB	Ave	7112 398437	14950 727174	39815 1366746	73315 1733334	155647	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dioxane	FB	Ave	2048 122270	4496 227715	11468 433855	24176 542085	48885	20.0 1000	40.0 2000	100 4000	200 5000	400
Dichlorobromomethane	FB	Ave	12184 840699	26256 1593946	74646 3087773	149786 3887891	317668	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 800110	25963 1567235	70636 3023581	141471 3884208	299148	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
cis-1,3-Dichloropropene	FB	Ave	13953 1042650	31246 2024446	88078 3874633	181938 4925832	391438	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	21045 1242008	40469 2263522	111848 4177039	220110 5315006	461809	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Toluene	CBNZ d5	Ave	48204 2616779	101641 4879330	272206 8755342	519352 10868726	1053701	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	+++++ 954560	+++++ 1907673	74812 3700477	157999 4698061	343088	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Ethyl methacrylate	CBNZ d5	Ave	+++++ 826347	+++++ 1569023	67785 2998299	137464 3842125	298836	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	8876 503491	20207 981164	52395 1840337	99092 2259767	196171	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrachloroethene	CBNZ d5	Ave	7189 488308	17129 924263	50223 1750436	95245 2261741	196431	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichloropropane	CBNZ d5	Ave	17913 991303	38860 1882710	102703 3526314	194628 4410066	391758	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Hexanone	CBNZ d5	Ave	11590 903982	29798 1695462	79835 3147377	156303 3963402	329740	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Chlorodibromomethane	CBNZ d5	Ave	+++++ 554119	+++++ 1074859	45232 2071872	91368 2668424	201436	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Ethylene Dibromide	CBNZ d5	Ave	9060 540779	19482 1000940	52559 1885676	101449 2362057	209725	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chlorobenzene	CBNZ d5	Ave	32677 1662397	65894 3097365	174959 5660779	331906 7112267	677420	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6669 504544	14909 952276	41928 1868682	86024 2390368	188954	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethylbenzene	CBNZ d5	Ave	15483 906432	32289 1714306	92223 3191236	177179 4114135	362526	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	18694 1104568	40276 2087998	111537 3902698	216818 4983741	443430	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
o-Xylene	CBNZ d5	Ave	16372 1019795	36077 1890569	103603 3608103	198966 4587996	409571	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Styrene	CBNZ d5	Ave	28524 1749909	58822 3334262	165645 6184174	329046 7773796	689416	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromoform	CBNZ d5	Lin1	+++++ 278247	+++++ 562395	19437 1124378	42128 1459436	95889	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Isopropylbenzene	CBNZ d5	Ave	37555 2520033	87632 4667643	252947 8531229	495302 10319343	1020989	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromobenzene	DCBd 4	Ave	11540 581701	22490 1108284	61798 2100037	116575 2624235	236095	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	8988 572481	20808 1077298	57110 2049689	107367 2586431	224152	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	3510 192849	7910 360669	20516 674918	37800 848921	77054	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3412 202163	6984 407671	17393 787034	34202 1021155	73700	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
N-Propylbenzene	DCBd 4	Ave	10129 709505	23585 1355367	70438 2595360	141472 3340375	291248	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chlorotoluene	DCBd 4	Ave	9563 583482	21591 1109320	60742 2113451	118512 2719008	235991	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	28436 2001377	67292 3804060	195520 7399458	390565 9233054	809796	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Chlorotoluene	DCBd 4	Ave	11001 614148	24051 1159972	64668 2193848	123088 2828480	248939	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
tert-Butylbenzene	DCBd 4	Ave	25057 1685544	58713 3316622	170952 6729960	337536 8411072	689916	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	29899 2004771	68408 3894180	198664 7560483	389206 9137208	801337	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
sec-Butylbenzene	DCBd 4	Ave	32859 2461889	83892 4796947	251486 9015690	497162 10980413	1020664	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	21079 1040864	42200 2001034	108927 4018783	209850 5069066	424174	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Isopropyltoluene	DCBd 4	Ave	28313 2125501	70529 4156902	210380 8074807	415150 9817561	869651	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	23433 1056177	47194 2029704	113890 4042340	216291 5177601	429713	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	19588 980309	39834 1944765	101334 3872594	194038 4899268	399310	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butylbenzene	DCBd 4	Ave	24765 1948224	61797 3857948	185958 7589432	376421 9499815	775767	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 90109	+++++ 193771	6451 422516	12651 538656	30513	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	14442 732041	28610 1453748	70820 2881989	140686 3615490	285519	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexachlorobutadiene	DCBd 4	Ave	5422 357766	11685 731992	34701 1452071	70478 1883848	142481	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Naphthalene	DCBd 4	Ave	32295 1862741	66388 3649999	174860 6861366	343576 8250406	713001	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	13705 711228	27829 1388770	71801 2718388	138084 3359164	275580	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 597481	+++++ 1061279	57878 2082385	118130 2604988	238777	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 878963	+++++ 1559539	93446 3003529	183604 3742678	357081	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2323729	+++++ 4224142	242266 7863729	487866 9780562	947945	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
4-Bromofluorobenzene (Surr)	DCBd 4	Ave	+++++ 822184	+++++ 1504876	91894 2904349	179484 3614018	341079	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14139.D BFB Injection Date: 03/20/2020

Instrument ID: A3UX14 BFB Injection Time: 10:36

Analysis Batch No.: 427647

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.6	
75	30.0 - 60.0 % of mass 95	56.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	66.6	
175	5.0 - 9.0 % of mass 174	5.0	(7.5) 1
176	95.0 - 101.0 % of mass 174	64.6	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-427647/4	1424122.D	03/20/2020	11:42
	IC 240-427647/5	1424123.D	03/20/2020	12:04
	IC 240-427647/6	1424124.D	03/20/2020	12:26
	IC 240-427647/7	1424125.D	03/20/2020	12:48
	IC 240-427647/8	1424126.D	03/20/2020	13:11
	IC 240-427647/9	1424127.D	03/20/2020	13:33
	IC 240-427647/10	1424128.D	03/20/2020	13:55
	IC 240-427647/11	1424129.D	03/20/2020	14:17
	IC 240-427647/12	1424130.D	03/20/2020	14:39
	ICV 240-427647/13	1424131.D	03/20/2020	15:02

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427647/12	1424130.D
Level 2	IC 240-427647/11	1424129.D
Level 3	IC 240-427647/10	1424128.D
Level 4	IC 240-427647/9	1424127.D
Level 5	IC 240-427647/8	1424126.D
Level 6	IC 240-427647/7	1424125.D
Level 7	IC 240-427647/6	1424124.D
Level 8	IC 240-427647/5	1424123.D
Level 9	IC 240-427647/4	1424122.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Acetonitrile	0.0214 0.0223	0.0214 0.0228	0.0212 0.0215	0.0196 0.0212	0.0221	Ave		0.0215				4.2		15.0			
2-Chloro-1,3-butadiene	0.3795 0.4715	0.3864 0.4761	0.4179 0.4666	0.4361 0.4786	0.4560	Ave		0.4410				8.7		15.0			
Diisopropyl ether	0.2041 0.2224	0.2157 0.2222	0.2119 0.2131	0.2144 0.2149	0.2189	Ave		0.2153				2.6		15.0			
Ethyl tert-butyl ether	0.5674 0.6175	0.6045 0.5919	0.5794 0.5731	0.5914 0.5615	0.6150	Ave		0.5891				3.5		15.0			
Propionitrile	0.0365 0.0347	0.0336 0.0348	0.0317 0.0325	0.0336 0.0326	0.0342	Ave		0.0338				4.3		15.0			
Ethyl acetate	0.2664 0.2665	0.2583 0.2705	0.2432 0.2534	0.2506 0.2563	0.2596	Ave		0.2583				3.4		15.0			
Methacrylonitrile	0.1498 0.1683	0.1700 0.1669	0.1586 0.1516	0.1633 0.1496	0.1666	Ave		0.1605				5.2		15.0			
Isooctane	0.6999 0.9230	0.8047 0.9192	0.8722 0.9278	0.9179 0.9357	0.9125	Ave		0.8792				8.9		15.0			
Tert-amyl methyl ether	0.5271 0.6028	0.5518 0.5917	0.5652 0.5485	0.5906 0.5403	0.6101	Ave		0.5698				5.2		15.0			
n-Butanol	+++++ 0.0088	0.0054 0.0098	0.0062 0.0097	0.0064 0.0100	0.0073	Lin1	-0.413	0.0098							0.9970		0.9900
Ethyl acrylate	0.2751 0.3638	0.2902 0.3761	0.2805 0.3646	0.3184 0.3666	0.3370	Ave		0.3303				12.2		15.0			
Methyl methacrylate	0.1928 0.2680	0.2240 0.2706	0.2311 0.2608	0.2466 0.2594	0.2542	Ave		0.2453				10.3		15.0			
2-Nitropropane	+++++ 0.0662	+++++ 0.0749	0.0575 0.0750	0.0524 0.0790	0.0594	Lin1	-0.383	0.0770							0.9970		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
n-Butyl acetate	+++++ 0.5861	0.6011 0.5995	0.5473 0.5607	0.5814 0.5638	0.5654	Ave		0.5757				3.4		15.0			
1-Chlorohexane	0.4185 0.5423	0.4551 0.5441	0.4698 0.5394	0.5050 0.5544	0.5217	Ave		0.5056				9.4		15.0			
Cyclohexanone	0.0087 0.0116	0.0090 0.0119	0.0093 0.0115	0.0099 0.0115	0.0108	Ave		0.0105				12.0		15.0			
Pentachloroethane	+++++ 0.3108	+++++ 0.3439	0.2020 0.3564	0.2260 0.3724	0.2767	Lin1	-2.381	0.3645							0.9980		0.9900
1,2,3-Trimethylbenzene	2.2559 2.8157	2.4665 2.8477	2.4952 2.7345	2.6508 2.7334	2.7625	Ave		2.6403				7.4		15.0			
Benzyl chloride	+++++ 0.1856	+++++ 0.2330	0.0957 0.2616	0.1130 0.2873	0.1371	Qua	-0.856	0.1935	0.0003826						1.0000		0.9900
1,3,5-Trichlorobenzene	1.0031 1.0632	1.0167 1.1131	0.9765 1.1124	1.0295 1.1546	1.0634	Ave		1.0592				5.5		15.0			
2-Methylnaphthalene	1.3861 1.8264	1.4725 1.8422	1.4735 1.6799	1.6732 1.6145	1.7565	Ave		1.6361				10.0		15.0			
1-Methylnaphthalene	1.4353 1.6393	1.5583 1.6313	1.5098 1.4811	1.6121 1.4403	1.6082	Ave		1.5462				5.3		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427647/12	1424130.D
Level 2	IC 240-427647/11	1424129.D
Level 3	IC 240-427647/10	1424128.D
Level 4	IC 240-427647/9	1424127.D
Level 5	IC 240-427647/8	1424126.D
Level 6	IC 240-427647/7	1424125.D
Level 7	IC 240-427647/6	1424124.D
Level 8	IC 240-427647/5	1424123.D
Level 9	IC 240-427647/4	1424122.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Acetonitrile	FB	Ave	9423 516056	18953 1069125	47628 1927242	86892 2487004	206804	10.0 500	20.0 1000	50.0 2000	100 2500	200
2-Chloro-1,3-butadiene	FB	Ave	16741 1089150	34214 2234408	93694 4179005	193345 5603216	426320	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Diisopropyl ether	FB	Ave	9003 513797	19095 1042985	47502 1908669	95075 2515644	204616	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethyl tert-butyl ether	FB	Ave	25030 1426340	53522 2777950	129892 5132626	262200 6574080	574971	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Propionitrile	FB	Ave	16105 800810	29751 1635501	71158 2911055	149115 3812247	319275	10.0 500	20.0 1000	50.0 2000	100 2500	200
Ethyl acetate	FB	Ave	23502 1231189	45730 2539380	109032 4537928	222193 6002052	485327	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Methacrylonitrile	FB	Ave	66100 3888082	150502 7834977	355642 13575802	723895 17513676	1557393	10.0 500	20.0 1000	50.0 2000	100 2500	200
Isooctane	FB	Ave	30876 2131993	71247 4314120	195528 8308763	406996 10954782	853054	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tert-amyl methyl ether	FB	Ave	23254 1392439	48858 2777062	126698 4912118	261840 6325383	570341	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butanol	CBNZ d5	Lin1	+++++ 367070	8690 832337	25310 1593206	52184 2094039	122856	+++++ 1250	50.0 2500	125 5000	250 6250	500
Ethyl acrylate	FB	Ave	12136 840442	25697 1765300	62886 3265556	141190 4292255	315047	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl methacrylate	FB	Ave	17014 1238086	39667 2540279	103601 4670644	218694 6074732	475332	2.00 100	4.00 200	10.0 400	20.0 500	40.0
2-Nitropropane	FB	Lin1	+++++ 305916	+++++ 703243	25770 1342896	46486 1849948	111123	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
n-Butyl acetate	CBNZ d5	Ave	+++++ 974473	38733 2038578	88872 3684044	188947 4736713	380268	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Chlorohexane	CBNZ d5	Ave	13535 901546	29320 1850126	76292 3543907	164126 4657707	350901	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Cyclohexanone	CBNZ d5	Ave	2821 192749	5776 405577	15164 758883	32201 963646	72739	10.0 500	20.0 1000	50.0 2000	100 2500	200
Pentachloroethane	DCBd 4	Lin1	+++++ 427811	+++++ 954102	27293 1931379	60580 2504440	152158	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	30144 1937913	64899 3949918	168544 7409230	355236 9192508	759492	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Benzyl chloride	DCBd 4	Qua	+++++ 127733	+++++ 323179	6465 708776	15143 966194	37690	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	13403 731748	26753 1543945	65958 3014015	137969 3882888	292363	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Methylnaphthalene	DCBd 4	Ave	37044 2513962	77490 5110378	199056 9103294	448457 10859326	965836	2.00 100	4.00 200	10.0 400	20.0 500	40.0
1-Methylnaphthalene	DCBd 4	Ave	38357 2256459	82005 4525454	203968 8026227	432078 9687593	884277	2.00 100	4.00 200	10.0 400	20.0 500	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-427647/13 Calibration Date: 03/20/2020 15:02

Instrument ID: A3UX14 Calib Start Date: 03/19/2020 15:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/19/2020 18:32

Lab File ID: 1424131.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2518	0.2297		0.0456	0.0500	-8.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3776	0.3297		0.0437	0.0500	-12.7	50.0
Toluene-d8 (Surr)	Ave	1.395	1.294		0.0464	0.0500	-7.2	50.0
4-Bromofluorobenzene (Surr)	Ave	1.180	1.080		0.0458	0.0500	-8.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-427647/13 Calibration Date: 03/20/2020 15:02

Instrument ID: A3UX14 Calib Start Date: 03/20/2020 11:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/20/2020 14:39

Lab File ID: 1424131.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0215	0.0222		0.515	0.500	3.1	50.0
2-Chloro-1,3-butadiene	Ave	0.4410	0.4981		0.0565	0.0500	13.0	50.0
Diisopropyl ether	Ave	0.2153	0.2284		0.0531	0.0500	6.1	50.0
Ethyl tert-butyl ether	Ave	0.5891	0.6121		0.0520	0.0500	3.9	50.0
Propionitrile	Ave	0.0338	0.0355		0.525	0.500	4.9	50.0
Ethyl acetate	Ave	0.2583	0.2667		0.103	0.100	3.3	50.0
Methacrylonitrile	Ave	0.1605	0.1731		0.539	0.500	7.8	50.0
Tert-amyl methyl ether	Ave	0.5698	0.6318		0.0554	0.0500	10.9	50.0
n-Butanol	Lin1		0.0086		1.13	1.25	-9.2	50.0
Ethyl acrylate	Ave	0.3303	0.3598		0.0545	0.0500	8.9	50.0
Methyl methacrylate	Ave	0.2453	0.2729		0.111	0.100	11.2	50.0
2-Nitropropane	Lin1		0.0670		0.0919	0.100	-8.1	50.0
n-Butyl acetate	Ave	0.5757	0.5738		0.0498	0.0500	-0.3	50.0
1-Chlorohexane	Ave	0.5056	0.5477		0.0542	0.0500	8.3	50.0
Cyclohexanone	Ave	0.0105	0.0109		0.522	0.500	4.4	50.0
Pentachloroethane	Lin1		0.2759		0.0822	0.100	-17.8	50.0
1,2,3-Trimethylbenzene	Ave	2.640	2.986		0.0565	0.0500	13.1	50.0
Benzyl chloride	Qua		0.1743		0.0454	0.0500	-9.2	50.0
1,3,5-Trichlorobenzene	Ave	1.059	1.089		0.0514	0.0500	2.9	50.0
2-Methylnaphthalene	Ave	1.636	1.706		0.104	0.100	4.3	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14153.D BFB Injection Date: 04/20/2020

Instrument ID: A3UX14 BFB Injection Time: 13:56

Analysis Batch No.: 431364

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.9	
75	30.0 - 60.0 % of mass 95	57.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.1	(0.1) 1
174	50.0 - 120.00 % of mass 95	77.6	
175	5.0 - 9.0 % of mass 174	5.4	(7.0) 1
176	95.0 - 101.0 % of mass 174	76.8	(99.0) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-431364/3	1424358.D	04/20/2020	14:38
	IC 240-431364/4	1424359.D	04/20/2020	15:00
	IC 240-431364/5	1424360.D	04/20/2020	15:22
	ICIS 240-431364/6	1424361.D	04/20/2020	15:45
	IC 240-431364/7	1424362.D	04/20/2020	16:07
	IC 240-431364/8	1424363.D	04/20/2020	16:29
	IC 240-431364/9	1424364.D	04/20/2020	16:51
	IC 240-431364/10	1424365.D	04/20/2020	17:13
	IC 240-431364/11	1424366.D	04/20/2020	17:35
	ICV 240-431364/13	1424368.D	04/20/2020	18:20

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-431364/11	1424366.D
Level 2	IC 240-431364/10	1424365.D
Level 3	IC 240-431364/9	1424364.D
Level 4	IC 240-431364/8	1424363.D
Level 5	IC 240-431364/7	1424362.D
Level 6	ICIS 240-431364/6	1424361.D
Level 7	IC 240-431364/5	1424360.D
Level 8	IC 240-431364/4	1424359.D
Level 9	IC 240-431364/3	1424358.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2933	+++++ 0.2862	0.3044 0.3003	0.3099 0.3083	0.3083	Ave		0.3015				3.0		15.0			
Chloromethane	0.3249 0.3422	0.3539 0.3385	0.3787 0.3445	0.3839 0.3409	0.3725	Ave		0.3533			0.1000	5.8		15.0			
Vinyl chloride	+++++ 0.3966	0.3671 0.3909	0.4454 0.4125	0.4343 0.4186	0.4345	Ave		0.4125				6.4		15.0			
Butadiene	+++++ 0.3061	0.2617 0.3030	0.3341 0.3225	0.3277 0.3329	0.3292	Ave		0.3147				7.8		15.0			
Bromomethane	0.3296 0.2535	0.3134 +++++	0.3563 +++++	0.3614 +++++	0.3693	Ave		0.3306				13.1		15.0			
Chloroethane	0.2193 0.2514	0.2457 +++++	0.2684 +++++	0.2937 +++++	0.3045	Ave		0.2638				12.0		15.0			
Dichlorofluoromethane	0.5181 0.6535	0.6386 0.5957	0.6851 +++++	0.6931 +++++	0.7026	Ave		0.6409				10.2		15.0			
Trichlorofluoromethane	+++++ 0.7276	+++++ 0.6698	0.7516 0.5555	0.7755 +++++	0.7662	Ave		0.7077				11.8		15.0			
Ethyl ether	0.4412 0.3944	0.4050 0.3913	0.4100 0.3662	0.4200 0.3350	0.3665	Ave		0.3922				8.2		15.0			
Acrolein	0.0419 0.0442	0.0436 0.0429	0.0455 0.0416	0.0430 0.0397	0.0403	Ave		0.0425				4.4		15.0			
1,1-Dichloroethene	0.3634 0.4038	0.3254 0.4018	0.3934 0.4300	0.4362 0.4416	0.3862	Ave		0.3980				9.3		15.0			
1,1,2-Trichlorotrifluoroethane	+++++ 0.3156	+++++ 0.3169	0.3095 0.3473	0.3292 +++++	0.3141	Ave		0.3221				4.3		15.0			
Acetone	+++++ 0.1092	+++++ 0.1037	0.1346 0.0971	0.1363 0.0938	0.1154	Lin1	0.6098	0.0959							0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Iodomethane	0.6667 0.7622	0.6150 0.7010	0.7573 0.7719	0.8077 0.8488	0.7467	Ave		0.7419				9.6		15.0			
Carbon disulfide	0.6541 1.2315	0.5664 +++++	0.8154 +++++	0.8344 +++++	1.2309	Qua	-1.578	1.2095	0.0011327						0.9970		0.9900
3-Chloro-1-propene	0.1520 0.1814	0.1499 0.1839	0.1664 0.1996	0.1776 0.1930	0.1639	Ave		0.1742				10.0		15.0			
Methyl acetate	0.2154 0.1930	0.1963 0.1883	0.1836 0.1954	0.1934 0.1836	0.1773	Ave		0.1918				5.7		15.0			
Methylene Chloride	+++++ 0.2917	+++++ 0.2784	0.3429 0.2923	0.3458 0.2880	0.2870	Ave		0.3037				9.3		15.0			
tert-Butyl alcohol	0.0274 0.0237	0.0227 0.0218	0.0278 0.0277	0.0275 0.0281	0.0243	Ave		0.0257				9.7		15.0			
Acrylonitrile	0.0940 0.0920	0.0891 0.0911	0.0852 0.0976	0.0935 0.0957	0.0837	Ave		0.0913				5.1		15.0			
trans-1,2-Dichloroethene	0.2876 0.3080	0.2594 0.3217	0.2933 0.3708	0.3152 0.3718	0.2805	Ave		0.3120				12.3		15.0			
Methyl tert-butyl ether	0.6932 0.7527	0.6710 0.7393	0.6995 0.7761	0.7895 0.7787	0.7017	Ave		0.7335				5.9		15.0			
Hexane	+++++ 0.0878	+++++ 0.0913	0.0809 0.1000	0.0925 0.1024	0.0841	Ave		0.0913				8.6		15.0			
1,1-Dichloroethane	0.4951 0.5269	0.4753 0.5282	0.5209 0.5573	0.5512 0.5430	0.4944	Ave		0.5214			0.1000	5.4		15.0			
Vinyl acetate	+++++ 0.0608	+++++ 0.0587	0.0491 0.0652	0.0560 0.0658	0.0533	Ave		0.0584				10.5		15.0			
2,2-Dichloropropane	0.0589 0.0671	0.0543 0.0639	0.0589 0.0686	0.0670 0.0681	0.0591	Ave		0.0629				8.2		15.0			
cis-1,2-Dichloroethene	0.3590 0.3315	0.3114 0.3304	0.3302 0.3510	0.3518 0.3448	0.3123	Ave		0.3358				5.1		15.0			
2-Butanone (MEK)	+++++ 0.1176	0.1394 0.1147	0.1210 0.1146	0.1261 0.1120	0.1155	Ave		0.1201				7.4		15.0			
Bromochloromethane	0.1480 0.1583	0.1556 0.1598	0.1542 0.1669	0.1703 0.1638	0.1513	Ave		0.1587				4.6		15.0			
Tetrahydrofuran	+++++ 0.0772	0.0884 0.0748	0.0743 0.0741	0.0742 0.0715	0.0712	Ave		0.0757				7.2		15.0			
Chloroform	0.5234 0.5364	0.4950 0.5348	0.5197 0.5655	0.5785 0.5522	0.5072	Ave		0.5347				5.1		15.0			
1,1,1-Trichloroethane	+++++ 0.4215	+++++ 0.4329	0.3838 0.4711	0.4182 0.4842	0.3816	Ave		0.4276				9.2		15.0			
Cyclohexane	+++++ 0.4167	+++++ 0.4234	0.4055 0.4431	0.4356 0.4600	0.3966	Ave		0.4259				5.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Carbon tetrachloride	+++++ 0.3774	+++++ 0.3996	0.3286 +++++	0.3646 +++++	0.3373	Ave		0.3615				8.0		15.0			
1,1-Dichloropropene	0.3559 0.4385	0.3154 0.4506	0.4113 0.4977	0.4378 0.5045	0.4140	Ave		0.4251				14.3		15.0			
Benzene	1.1517 1.1957	1.0814 1.1934	1.1615 1.2759	1.2512 1.2967	1.1530	Ave		1.1956				5.7		15.0			
1,2-Dichloroethane	0.4760 0.4642	0.4452 0.4580	0.4527 0.4855	0.4837 0.4903	0.4452	Ave		0.4667				3.8		15.0			
Isobutyl alcohol	0.0071 0.0092	0.0078 0.0083	0.0094 0.0085	0.0096 0.0087	0.0090	Ave		0.0086				9.2		15.0			
n-Heptane	+++++ 0.0995	+++++ 0.1029	0.0898 0.1160	0.1007 0.1247	0.0982	Ave		0.1045				11.3		15.0			
Trichloroethene	0.2866 0.3163	0.2613 0.3196	0.3088 0.3533	0.3250 0.3605	0.3076	Ave		0.3155				9.7		15.0			
Methylcyclohexane	+++++ 0.5096	+++++ 0.5265	0.4847 0.5587	0.5231 0.5880	0.4738	Ave		0.5235				7.6		15.0			
1,2-Dichloropropane	0.2923 0.2883	0.2664 0.2923	0.2818 0.3114	0.2952 0.3237	0.2798	Ave		0.2924				5.8		15.0			
Dibromomethane	0.2095 0.1946	0.1770 0.1903	0.1881 0.2004	0.1992 0.2059	0.1869	Ave		0.1947				5.2		15.0			
1,4-Dioxane	0.0027 0.0030	0.0031 0.0027	0.0031 0.0027	0.0033 0.0029	0.0032	Ave		0.0030				7.6		15.0			
Bromodichloromethane	0.3364 0.3967	0.3160 0.3996	0.3378 0.4374	0.3810 0.4481	0.3673	Ave		0.3800				12.0		15.0			
2-Chloroethyl vinyl ether	0.1500 0.1688	0.1268 0.1690	0.1432 0.1840	0.1604 0.1999	0.1665	Ave		0.1632				13.3		15.0			
cis-1,3-Dichloropropene	0.3879 0.4800	0.3482 0.4832	0.3954 0.5243	0.4525 0.5603	0.4574	Ave		0.4543				14.9		15.0			
4-Methyl-2-pentanone (MIBK)	0.3251 0.3018	0.2221 0.2902	0.2546 0.2973	0.2960 0.2908	0.2884	Ave		0.2851				10.5		15.0			
Toluene	1.4697 1.4999	1.3579 1.5258	1.4088 1.7010	1.5078 1.6897	1.4161	Ave		1.5085				7.9		15.0			
trans-1,3-Dichloropropene	+++++ 0.5257	+++++ 0.5491	0.4017 +++++	0.4699 +++++	0.4756	Ave		0.4844				11.8		15.0			
Ethyl methacrylate	+++++ 0.4420	+++++ 0.4408	0.3211 0.4734	0.3841 0.4851	0.4036	Ave		0.4214				13.5		15.0			
1,1,2-Trichloroethane	0.2976 0.2876	0.2657 0.2911	0.2756 0.3118	0.2893 0.3155	0.2768	Ave		0.2901				5.7		15.0			
Tetrachloroethene	+++++ 0.2742	+++++ 0.2857	0.2605 0.3314	0.2766 0.3471	0.2573	Ave		0.2904				12.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,3-Dichloropropane	0.5478 0.5486	0.4987 0.5443	0.5234 0.5880	0.5632 0.5997	0.5342	Ave		0.5498				5.6		15.0			
2-Hexanone	0.1880 0.2137	0.1605 0.2014	0.1791 0.2009	0.2071 0.2043	0.2144	Ave		0.1966				9.0		15.0			
Chlorodibromomethane	+++++ 0.3284	+++++ 0.3372	0.2576 0.3773	0.3017 0.3847	0.3016	Ave		0.3269				13.7		15.0			
1,2-Dibromoethane	0.2822 0.3085	0.2473 0.3028	0.2874 0.3184	0.3006 0.3222	0.2961	Ave		0.2962				7.6		15.0			
Chlorobenzene	1.0434 0.9763	0.9032 0.9799	0.9419 1.0729	1.0143 1.1091	0.9267	Ave		0.9964			0.3000	6.9		15.0			
1,1,1,2-Tetrachloroethane	+++++ 0.3204	+++++ 0.3274	0.2696 0.3714	0.3041 0.3867	0.2944	Ave		0.3249				12.8		15.0			
Ethylbenzene	+++++ 0.5248	+++++ 0.5362	0.4789 0.6079	0.5193 0.6522	0.4847	Ave		0.5434				11.8		15.0			
m-Xylene & p-Xylene	+++++ 0.6341	+++++ 0.6427	0.5670 0.7240	0.6217 0.7806	0.5920	Ave		0.6517				11.5		15.0			
o-Xylene	+++++ 0.6234	+++++ 0.6453	0.5353 0.7562	0.6131 +++++	0.5688	Ave		0.6237				12.2		15.0			
Styrene	+++++ 1.0409	+++++ 1.0867	0.8212 +++++	0.9426 +++++	0.9524	Ave		0.9688				10.6		15.0			
Bromoform	+++++ 0.1812	+++++ 0.1802	0.1327 0.2078	0.1503 0.2217	0.1639	Lin1	-0.609	0.2106			0.1000				0.9940		0.9900
Isopropylbenzene	+++++ 1.4981	+++++ 1.4942	1.3276 1.6681	1.4951 1.7857	1.4019	Ave		1.5244				10.2		15.0			
Bromobenzene	0.7685 0.7494	0.7275 0.6864	0.7728 0.6444	0.8224 0.6051	0.7466	Ave		0.7248				9.4		15.0			
1,1,2,2-Tetrachloroethane	0.7587 0.7452	0.6339 0.6374	0.7707 +++++	0.8233 +++++	0.8021	Ave		0.7388			0.3000	10.2		15.0			
1,2,3-Trichloropropane	0.2581 0.2320	0.2235 0.1973	0.2481 0.1739	0.2506 +++++	0.2510	Ave		0.2293				13.0		15.0			
trans-1,4-Dichloro-2-butene	0.2026 0.1920	0.1749 0.1775	0.1677 0.1605	0.1888 0.1466	0.1914	Ave		0.1780				9.9		15.0			
N-Propylbenzene	0.6881 0.8751	0.6257 0.8029	0.8247 0.7585	0.8819 0.7315	0.8329	Ave		0.7802				11.1		15.0			
2-Chlorotoluene	0.7426 0.7246	0.6774 0.6586	0.7383 0.6187	0.7823 0.5976	0.7146	Ave		0.6950				8.8		15.0			
1,3,5-Trimethylbenzene	2.0695 2.6050	1.8368 2.5526	2.3331 2.5940	2.5612 2.4491	2.4537	Ave		2.3839				11.1		15.0			
4-Chlorotoluene	0.7524 0.7977	0.7206 0.7838	0.7456 0.8058	0.8077 0.8004	0.7708	Ave		0.7761				4.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
tert-Butylbenzene	1.7705 2.1136	1.5657 1.9562	2.0291 1.9640	2.1961 1.8966	2.0863	Ave		1.9531				9.8		15.0			
1,2,4-Trimethylbenzene	1.9202 2.4366	1.9260 2.3014	2.2844 2.2852	2.5063 2.1414	2.4130	Ave		2.2461				9.4		15.0			
sec-Butylbenzene	2.3575 3.1431	2.2246 2.9097	2.9912 2.7506	3.2015 2.5076	3.0555	Ave		2.7935				12.7		15.0			
1,3-Dichlorobenzene	1.5614 1.3209	1.2980 1.2224	1.3752 1.2122	1.4194 1.1977	1.3903	Ave		1.3331				8.8		15.0			
4-Isopropyltoluene	2.1887 2.8205	2.0148 2.6633	2.6483 2.6519	2.8780 2.4127	2.7794	Ave		2.5620				11.6		15.0			
1,4-Dichlorobenzene	1.7353 1.3804	1.4723 1.2793	1.4869 1.2743	1.5008 1.2465	1.4426	Ave		1.4243				10.7		15.0			
1,2-Dichlorobenzene	1.5388 1.3717	1.2952 1.3120	1.3672 1.4318	1.4369 1.4625	1.3997	Ave		1.4018				5.4		15.0			
n-Butylbenzene	1.8152 2.4903	1.6073 2.4372	2.2688 2.5753	2.4646 2.4723	2.4616	Ave		2.2881				14.9		15.0			
1,2-Dibromo-3-Chloropropane	0.1157 0.1360	0.0977 0.1228	0.1108 0.1192	0.1426 0.1095	0.1347	Ave		0.1210				12.0		15.0			
1,2,4-Trichlorobenzene	1.0875 0.9585	0.9310 0.9084	0.9834 0.9357	1.0248 0.9099	1.0245	Ave		0.9737				6.3		15.0			
Hexachlorobutadiene	0.3463 0.4445	0.3511 0.4302	0.4341 0.4536	0.4764 0.4411	0.4571	Ave		0.4261				10.8		15.0			
Naphthalene	2.6802 2.5551	2.3025 2.2544	2.5839 2.1402	2.9118 1.9045	2.7519	Ave		2.4538				13.2		15.0			
1,2,3-Trichlorobenzene	1.1886 0.9590	0.9211 0.8809	1.0360 0.9016	1.1213 0.8456	1.0565	Ave		0.9901				11.8		15.0			
Dibromofluoromethane (Surr)	+++++ 0.3020	0.3708 0.3062	0.3208 0.3275	0.3191 0.3266	0.2897	Ave		0.3203				7.6		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3868	+++++ 0.3846	0.4467 0.3975	0.4318 0.3966	0.3905	Ave		0.4049				6.0		15.0			
Toluene-d8 (Surr)	+++++ 1.3232	+++++ 1.3646	1.4462 1.4902	1.4031 1.5071	1.2978	Ave		1.4046				5.8		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.8897	+++++ 0.8297	1.0588 0.7433	1.0143 +++++	0.9131	Lin1	2.1292	0.7715							0.9950		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-431364/11	1424366.D
Level 2	IC 240-431364/10	1424365.D
Level 3	IC 240-431364/9	1424364.D
Level 4	IC 240-431364/8	1424363.D
Level 5	IC 240-431364/7	1424362.D
Level 6	ICIS 240-431364/6	1424361.D
Level 7	IC 240-431364/5	1424360.D
Level 8	IC 240-431364/4	1424359.D
Level 9	IC 240-431364/3	1424358.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 408288	+++++ 820924	38889 1670279	79480 1896788	155421	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Chloromethane	FB	Ave	7430 476438	17170 971036	48389 1915708	98480 2096905	187787	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl chloride	FB	Ave	+++++ 552201	17810 1121301	56910 2293828	111413 2575114	219059	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Butadiene	FB	Ave	+++++ 426151	12700 869302	42690 1793462	84055 2047904	165994	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromomethane	FB	Ave	7538 352907	15207 +++++	45527 +++++	92695 +++++	186215	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
Chloroethane	FB	Ave	5016 350021	11923 +++++	34286 +++++	75340 +++++	153518	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
Dichlorofluoromethane	FB	Ave	11847 909780	30984 1709035	87533 +++++	177780 +++++	354229	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
Trichlorofluoromethane	FB	Ave	+++++ 1012946	+++++ 1921587	96028 3089278	198919 +++++	386305	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0
Ethyl ether	FB	Ave	10089 549140	19653 1122440	52387 2036454	107737 2060847	184807	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acrolein	FB	Ave	4787 307965	10568 614808	29097 1155837	55125 1220563	101709	5.00 250	10.0 500	25.0 1000	50.0 1250	100
1,1-Dichloroethene	FB	Ave	8310 562238	15788 1152776	50259 2391097	111885 2716401	194715	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	+++++ 439412	+++++ 909142	39545 1931527	84437 +++++	158343	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0
Acetone	FB	Lin1	+++++ 304147	+++++ 594962	34385 1080339	69914 1153699	116329	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
Iodomethane	FB	Ave	15247 1061211	29840 2010906	96750 4292382	207182 5221350	376495	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Carbon disulfide	FB	Qua	14958 1714588	27480 +++++	104180 +++++	214044 +++++	620611	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
3-Chloro-1-propene	FB	Ave	3475 252532	7275 527596	21256 1109923	45545 1187219	82630	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl acetate	FB	Ave	9850 537491	19050 1080195	46904 2173560	99199 2258740	178765	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Methylene Chloride	FB	Ave	+++++ 406166	+++++ 798638	43803 1625399	88692 1771594	144722	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
tert-Butyl alcohol	FB	Ave	6274 329335	11038 625337	35477 1538863	70440 1728127	122528	10.0 500	20.0 1000	50.0 2000	100 2500	200
Acrylonitrile	FB	Ave	21501 1280533	43225 2613641	108862 5429557	239859 5890008	421837	10.0 500	20.0 1000	50.0 2000	100 2500	200
trans-1,2-Dichloroethene	FB	Ave	6577 428749	12584 922796	37473 2062248	80861 2287294	141440	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl tert-butyl ether	FB	Ave	15852 1047907	32558 2120921	89372 4315908	202521 4790105	353795	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexane	FB	Ave	+++++ 122222	+++++ 261792	10331 555959	23737 629945	42387	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1-Dichloroethane	FB	Ave	11322 733585	23064 1515207	66552 3099495	141394 3340573	249243	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl acetate	FB	Ave	+++++ 84582	+++++ 168439	6270 362615	14361 404931	26859	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
2,2-Dichloropropane	FB	Ave	1348 93406	2637 183269	7524 381551	17183 418835	29822	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
cis-1,2-Dichloroethene	FB	Ave	8209 461513	15107 947939	42192 1951992	90228 2121167	157454	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Butanone (MEK)	FB	Ave	+++++ 327441	13524 658016	30925 1274886	64667 1378028	116445	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
Bromochloromethane	FB	Ave	3385 220451	7552 458434	19701 927958	43691 1007384	76282	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrahydrofuran	FB	Ave	+++++ 215001	8583 429292	18994 824089	38057 879461	71841	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
Chloroform	FB	Ave	11969 746853	24016 1534122	66392 3144803	148379 3396706	255704	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1-Trichloroethane	FB	Ave	+++++ 586787	+++++ 1241912	49031 2619640	107273 2978650	192412	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Cyclohexane	FB	Ave	+++++ 580210	+++++ 1214650	51810 2464230	111725 2830076	199963	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Carbon tetrachloride	FB	Ave	+++++ 525454	+++++ 1146323	41982 +++++	93536 +++++	170056	+++++ 50.0	+++++ 100	5.00 +++++	10.0 +++++	20.0
1,1-Dichloropropene	FB	Ave	8139 610489	15304 1292565	52546 2767621	112304 3103334	208710	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzene	FB	Ave	26337 1664669	52468 3423758	148399 7095705	320940 7977037	581301	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane	FB	Ave	10885 646258	21602 1314032	57834 2699835	124072 3016051	224443	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Isobutyl alcohol	FB	Ave	4080 319083	9416 591880	29957 1183131	61285 1341623	113599	25.0 1250	50.0 2500	125 5000	250 6250	500
n-Heptane	FB	Ave	+++++ 138505	+++++ 295187	11472 644975	25826 767010	49493	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Trichloroethene	FB	Ave	6555 440370	12679 916976	39446 1964864	83377 2217921	155106	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methylcyclohexane	FB	Ave	+++++ 709433	+++++ 1510385	61926 3107157	134181 3617122	238877	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloropropane	FB	Ave	6685 401399	12925 838473	36000 1731956	75731 1991491	141063	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromomethane	FB	Ave	4790 270972	8589 545975	24036 1114495	51097 1266803	94255	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dioxane	FB	Ave	1214 82961	2970 157778	7965 300353	16957 358559	32040	20.0 1000	40.0 2000	100 4000	200 5000	400
Bromodichloromethane	FB	Ave	7694 552278	15330 1146421	43152 2432214	97742 2756848	185162	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chloroethyl vinyl ether	FB	Ave	6859 470107	12309 969528	36589 2046418	82278 2459059	167931	2.00 100	4.00 200	10.0 400	20.0 500	40.0
cis-1,3-Dichloropropene	FB	Ave	8870 668326	16895 1386226	50511 2915441	116075 3446527	230590	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	12808 686853	18306 1340905	54855 2543799	126180 2931123	251097	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Toluene	CBNZ d5	Ave	28954 1706558	55958 3524637	151772 7277219	321395 8515625	616460	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	+++++ 598091	+++++ 1268487	43278 +++++	100168 +++++	207025	+++++ 50.0	+++++ 100	5.00 +++++	10.0 +++++	20.0
Ethyl methacrylate	CBNZ d5	Ave	+++++ 502853	+++++ 1018279	34595 2025345	81879 2444605	175714	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	5862 327181	10950 672387	29694 1334132	61674 1590300	120508	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrachloroethene	CBNZ d5	Ave	+++++ 312003	+++++ 659917	28060 1417897	58961 1749188	112014	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,3-Dichloropropane	CBNZ d5	Ave	10793 624140	20552 1257362	56390 2515446	120050 3022545	232541	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Hexanone	CBNZ d5	Ave	7409 486375	13230 930483	38588 1719298	88269 2059671	186696	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Chlorodibromomethane	CBNZ d5	Ave	+++++ 373637	+++++ 778967	27754 1614409	64313 1938602	131311	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dibromoethane	CBNZ d5	Ave	5559 350976	10191 699589	30957 1362076	64063 1623723	128915	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chlorobenzene	CBNZ d5	Ave	20555 1110813	37220 2263717	101477 4590347	216206 5589417	403433	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	+++++ 364540	+++++ 756358	29048 1589000	64814 1948930	128176	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Ethylbenzene	CBNZ d5	Ave	+++++ 597108	+++++ 1238616	51593 2600874	110686 3287024	211012	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	+++++ 721457	+++++ 1484586	61088 3097659	132524 3934051	257704	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
o-Xylene	CBNZ d5	Ave	+++++ 709221	+++++ 1490722	57673 3235109	130690 +++++	247608	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0
Styrene	CBNZ d5	Ave	+++++ 1184255	+++++ 2510314	88472 +++++	200918 +++++	414596	+++++ 50.0	+++++ 100	5.00 +++++	10.0 +++++	20.0
Bromoform	CBNZ d5	Lin1	+++++ 206106	+++++ 416163	14295 888927	32043 1117258	71346	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Isopropylbenzene	CBNZ d5	Ave	+++++ 1704481	+++++ 3451760	143025 7136526	318682 8999450	610304	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Bromobenzene	DCBd 4	Ave	6952 413816	13753 831120	37413 1793260	80048 2314031	154619	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6863 411525	11983 771816	37309 +++++	80139 +++++	166131	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	2335 128134	4225 238934	12010 483882	24389 +++++	51986	1.00 50.0	2.00 100	5.00 200	10.0 +++++	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1833 106012	3307 214875	8120 446529	18375 560438	39633	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
N-Propylbenzene	DCBd 4	Ave	6225 483247	11828 972181	39923 2110697	85843 2797416	172512	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chlorotoluene	DCBd 4	Ave	6718 400137	12805 797443	35743 1721803	76146 2285352	148009	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	18721 1438514	34723 3090665	112949 7218731	249308 9365749	508193	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Chlorotoluene	DCBd 4	Ave	6806 440507	13623 948977	36094 2242415	78625 3060947	159640	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
tert-Butylbenzene	DCBd 4	Ave	16016 1167139	29598 2368509	98231 5465444	213770 7252972	432100	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	17371 1345522	36408 2786563	110593 6359261	243960 8189139	499765	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
sec-Butylbenzene	DCBd 4	Ave	21327 1735655	42053 3523084	144806 7654432	311634 9589415	632828	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	14125 729427	24537 1480066	66575 3373255	138160 4580236	287954	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Isopropyltoluene	DCBd 4	Ave	19800 1557478	38088 3224774	128209 7379673	280148 9226437	575637	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	15698 762271	27832 1548944	71981 3546072	146090 4766968	298782	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	13920 757474	24484 1588591	66190 3984382	139863 5592786	289899	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butylbenzene	DCBd 4	Ave	16421 1375168	30384 2951016	109835 7166612	239908 9454538	509830	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1047 75117	1847 148704	5363 331838	13883 418807	27902	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9838 529292	17600 1099896	47606 2603865	99751 3479430	212185	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexachlorobutadiene	DCBd 4	Ave	3133 245456	6637 520855	21017 1262386	46370 1686752	94677	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Naphthalene	DCBd 4	Ave	24246 1410934	43526 2729575	125090 5955855	283434 7283101	569941	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	10752 529585	17413 1066636	50152 2508945	109149 3233682	218805	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 420410	17989 878465	40980 1821239	81852 2009189	146059	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 538572	+++++ 1103400	57068 2210376	110754 2439599	196884	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 1505463	+++++ 3152329	155805 6375467	299065 7595647	564977	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
4-Bromofluorobenzene (Surr)	DCBd 4	Lin1	+++++ 491284	+++++ 1004545	51258 2068445	98735 +++++	189103	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-431364/13 Calibration Date: 04/20/2020 18:20

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1424368.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3015	0.2711		0.0180	0.0200	-10.1	50.0
Chloromethane	Ave	0.3533	0.3675	0.1000	0.0208	0.0200	4.0	50.0
Vinyl chloride	Ave	0.4125	0.4279		0.0207	0.0200	3.7	20.0
Butadiene	Ave	0.3147	0.3488		0.0222	0.0200	10.9	50.0
Bromomethane	Ave	0.3306	0.3405		0.0206	0.0200	3.0	50.0
Chloroethane	Ave	0.2638	0.3139		0.0238	0.0200	19.0	50.0
Dichlorofluoromethane	Ave	0.6409	0.7604		0.0237	0.0200	18.6	50.0
Trichlorofluoromethane	Ave	0.7077	0.7987		0.0226	0.0200	12.9	50.0
Ethyl ether	Ave	0.3922	0.4315		0.0550	0.0500	10.0	50.0
Acrolein	Ave	0.0425	0.0506		0.297	0.250	18.9	50.0
1,1-Dichloroethene	Ave	0.3980	0.4531		0.0569	0.0500	13.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3221	0.3466		0.0538	0.0500	7.6	50.0
Acetone	Lin1		0.1126		0.111	0.100	11.1	50.0
Iodomethane	Ave	0.7419	0.8326		0.0561	0.0500	12.2	50.0
Carbon disulfide	Qua		1.078		0.0441	0.0500	-11.9	50.0
3-Chloro-1-propene	Ave	0.1742	0.1820		0.0522	0.0500	4.5	50.0
Methyl acetate	Ave	0.1918	0.1854		0.0967	0.100	-3.3	50.0
Methylene Chloride	Ave	0.3037	0.3158		0.0520	0.0500	4.0	50.0
tert-Butyl alcohol	Ave	0.0257	0.0230		0.448	0.500	-10.4	50.0
Acrylonitrile	Ave	0.0913	0.0910		0.498	0.500	-0.3	50.0
trans-1,2-Dichloroethene	Ave	0.3120	0.3190		0.0511	0.0500	2.2	50.0
Methyl tert-butyl ether	Ave	0.7335	0.7730		0.0527	0.0500	5.4	50.0
Hexane	Ave	0.0913	0.0942		0.0516	0.0500	3.2	20.0
1,1-Dichloroethane	Ave	0.5214	0.5327	0.1000	0.0511	0.0500	2.2	50.0
Vinyl acetate	Ave	0.0584	0.0646		0.0553	0.0500	10.6	50.0
2,2-Dichloropropane	Ave	0.0629	0.0645		0.0513	0.0500	2.5	50.0
cis-1,2-Dichloroethene	Ave	0.3358	0.3447		0.0513	0.0500	2.6	50.0
2-Butanone (MEK)	Ave	0.1201	0.1196		0.0996	0.100	-0.4	50.0
Bromochloromethane	Ave	0.1587	0.1605		0.0506	0.0500	1.1	50.0
Tetrahydrofuran	Ave	0.0757	0.0786		0.104	0.100	3.8	50.0
Chloroform	Ave	0.5347	0.5542		0.0518	0.0500	3.6	20.0
1,1,1-Trichloroethane	Ave	0.4276	0.4371		0.0511	0.0500	2.2	50.0
Cyclohexane	Ave	0.4259	0.4346		0.0510	0.0500	2.0	50.0
Carbon tetrachloride	Ave	0.3615	0.3881		0.0537	0.0500	7.4	50.0
1,1-Dichloropropene	Ave	0.4251	0.4362		0.0513	0.0500	2.6	50.0
Benzene	Ave	1.196	1.227		0.0513	0.0500	2.6	50.0
1,2-Dichloroethane	Ave	0.4667	0.4718		0.0505	0.0500	1.1	50.0
Isobutyl alcohol	Ave	0.0086	0.0087		1.27	1.25	1.3	50.0
n-Heptane	Ave	0.1045	0.1067		0.0510	0.0500	2.1	50.0
Trichloroethene	Ave	0.3155	0.3226		0.0511	0.0500	2.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-431364/13 Calibration Date: 04/20/2020 18:20

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1424368.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5235	0.5266		0.0503	0.0500	0.6	50.0
1,2-Dichloropropane	Ave	0.2924	0.3048		0.0521	0.0500	4.3	20.0
Dibromomethane	Ave	0.1947	0.2042		0.0525	0.0500	4.9	50.0
1,4-Dioxane	Ave	0.0030	0.0032		1.08	1.00	8.3	50.0
Bromodichloromethane	Ave	0.3800	0.4212		0.0554	0.0500	10.8	50.0
2-Chloroethyl vinyl ether	Ave	0.1632	0.1736		0.0532	0.0500	6.4	50.0
cis-1,3-Dichloropropene	Ave	0.4543	0.4923		0.0542	0.0500	8.4	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2851	0.3006		0.105	0.100	5.4	50.0
Toluene	Ave	1.509	1.507		0.0500	0.0500	-0.0	20.0
trans-1,3-Dichloropropene	Ave	0.4844	0.4959		0.0512	0.0500	2.4	50.0
Ethyl methacrylate	Ave	0.4214	0.4430		0.0526	0.0500	5.1	50.0
1,1,2-Trichloroethane	Ave	0.2901	0.2910		0.0502	0.0500	0.3	50.0
Tetrachloroethene	Ave	0.2904	0.2771		0.0477	0.0500	-4.6	50.0
1,3-Dichloropropane	Ave	0.5498	0.5584		0.0508	0.0500	1.6	50.0
2-Hexanone	Ave	0.1966	0.2114		0.108	0.100	7.5	50.0
Chlorodibromomethane	Ave	0.3269	0.3356		0.0513	0.0500	2.6	50.0
1,2-Dibromoethane	Ave	0.2962	0.3104		0.0524	0.0500	4.8	50.0
Chlorobenzene	Ave	0.996	0.995	0.3000	0.0499	0.0500	-0.1	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3249	0.3157		0.0486	0.0500	-2.8	50.0
Ethylbenzene	Ave	0.5434	0.5317		0.0489	0.0500	-2.2	20.0
m-Xylene & p-Xylene	Ave	0.6517	0.6409		0.0492	0.0500	-1.7	50.0
o-Xylene	Ave	0.6237	0.6348		0.0509	0.0500	1.8	50.0
Styrene	Ave	0.9688	1.057		0.0546	0.0500	9.1	50.0
Bromoform	Lin1		0.1821	0.1000	0.0461	0.0500	-7.8	50.0
Isopropylbenzene	Ave	1.524	1.523		0.0499	0.0500	-0.1	50.0
Bromobenzene	Ave	0.7248	0.7307		0.0504	0.0500	0.8	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7388	0.7116	0.3000	0.0482	0.0500	-3.7	50.0
1,2,3-Trichloropropane	Ave	0.2293	0.2264		0.0494	0.0500	-1.3	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1780	0.1822		0.0512	0.0500	2.4	50.0
N-Propylbenzene	Ave	0.7802	0.8233		0.0528	0.0500	5.5	50.0
2-Chlorotoluene	Ave	0.6950	0.7056		0.0508	0.0500	1.5	50.0
1,3,5-Trimethylbenzene	Ave	2.384	2.484		0.0521	0.0500	4.2	50.0
4-Chlorotoluene	Ave	0.7761	0.7750		0.0499	0.0500	-0.1	50.0
tert-Butylbenzene	Ave	1.953	2.041		0.0522	0.0500	4.5	50.0
1,2,4-Trimethylbenzene	Ave	2.246	2.401		0.0534	0.0500	6.9	50.0
sec-Butylbenzene	Ave	2.793	2.984		0.0534	0.0500	6.8	50.0
1,3-Dichlorobenzene	Ave	1.333	1.270		0.0476	0.0500	-4.7	50.0
4-Isopropyltoluene	Ave	2.562	2.731		0.0533	0.0500	6.6	50.0
1,4-Dichlorobenzene	Ave	1.424	1.333		0.0468	0.0500	-6.4	50.0
1,2-Dichlorobenzene	Ave	1.402	1.289		0.0460	0.0500	-8.0	50.0
n-Butylbenzene	Ave	2.288	2.392		0.0523	0.0500	4.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-431364/13 Calibration Date: 04/20/2020 18:20

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1424368.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1210	0.1293		0.0534	0.0500	6.8	50.0
1,2,4-Trichlorobenzene	Ave	0.9737	0.9001		0.0462	0.0500	-7.6	50.0
Hexachlorobutadiene	Ave	0.4261	0.4199		0.0493	0.0500	-1.4	50.0
Naphthalene	Ave	2.454	2.297		0.0468	0.0500	-6.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9901	0.8880		0.0448	0.0500	-10.3	50.0
Dibromofluoromethane (Surr)	Ave	0.3203	0.2697		0.0421	0.0500	-15.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4049	0.3328		0.0411	0.0500	-17.8	50.0
Toluene-d8 (Surr)	Ave	1.405	1.233		0.0439	0.0500	-12.2	50.0
4-Bromofluorobenzene (Surr)	Lin1		0.8115		0.0498	0.0500	-0.3	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14195.D BFB Injection Date: 07/22/2020

Instrument ID: A3UX14 BFB Injection Time: 12:18

Analysis Batch No.: 443733

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.0	
75	30.0 - 60.0 % of mass 95	58.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	81.0	
175	5.0 - 9.0 % of mass 174	5.8	(7.2) 1
176	95.0 - 101.0 % of mass 174	77.4	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-443733/3	1425532.D	07/22/2020	13:03
	CCV 240-443733/4	1425533.D	07/22/2020	13:25
	LCS 240-443733/5	1425534.D	07/22/2020	13:48
	LCS 240-443733/6	1425535.D	07/22/2020	14:10
	MB 240-443733/7	1425536.D	07/22/2020	14:32
MRC-MW-164B-15-20	240-133597-2	1425562.D	07/23/2020	0:10

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443733/3 Calibration Date: 07/22/2020 13:03

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1425532.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3015	0.2634		0.0175	0.0200	-12.6	50.0
Chloromethane	Ave	0.3533	0.3582	0.1000	0.0203	0.0200	1.4	50.0
Vinyl chloride	Ave	0.4125	0.4107		0.0199	0.0200	-0.4	20.0
Butadiene	Ave	0.3147	0.3676		0.0234	0.0200	16.8	50.0
Bromomethane	Ave	0.3306	0.4243		0.0257	0.0200	28.3	50.0
Chloroethane	Ave	0.2638	0.3169		0.0240	0.0200	20.1	50.0
Dichlorofluoromethane	Ave	0.6409	0.7102		0.0222	0.0200	10.8	50.0
Trichlorofluoromethane	Ave	0.7077	0.8024		0.0227	0.0200	13.4	50.0
Ethyl ether	Ave	0.3922	0.3780		0.0482	0.0500	-3.6	50.0
Acrolein	Ave	0.0425	0.0237		0.139	0.250	-44.2	50.0
1,1-Dichloroethene	Ave	0.3980	0.4084		0.0513	0.0500	2.6	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3221	0.2816		0.0437	0.0500	-12.6	50.0
Acetone	Lin1		0.1225		0.121	0.100	21.3	50.0
Iodomethane	Ave	0.7419	0.7247		0.0488	0.0500	-2.3	50.0
Carbon disulfide	Qua		1.284		0.0519	0.0500	3.7	50.0
3-Chloro-1-propene	Ave	0.1742	0.1586		0.0455	0.0500	-8.9	50.0
Methyl acetate	Ave	0.1918	0.1658		0.0864	0.100	-13.6	50.0
Methylene Chloride	Ave	0.3037	0.2605		0.0429	0.0500	-14.2	50.0
tert-Butyl alcohol	Ave	0.0257	0.0162		0.315	0.500	-36.9	50.0
Acrylonitrile	Ave	0.0913	0.0757		0.414	0.500	-17.2	50.0
trans-1,2-Dichloroethene	Ave	0.3120	0.2627		0.0421	0.0500	-15.8	50.0
Methyl tert-butyl ether	Ave	0.7335	0.6291		0.0429	0.0500	-14.2	50.0
Hexane	Ave	0.0913	0.0726		0.0398	0.0500	-20.5*	20.0
1,1-Dichloroethane	Ave	0.5214	0.4331	0.1000	0.0415	0.0500	-16.9	50.0
Vinyl acetate	Ave	0.0584	0.0427		0.0365	0.0500	-26.9	50.0
2,2-Dichloropropane	Ave	0.0629	0.0595		0.0473	0.0500	-5.4	50.0
cis-1,2-Dichloroethene	Ave	0.3358	0.2781		0.0414	0.0500	-17.2	50.0
2-Butanone (MEK)	Ave	0.1201	0.0969		0.0807	0.100	-19.3	50.0
Bromochloromethane	Ave	0.1587	0.1320		0.0416	0.0500	-16.8	50.0
Tetrahydrofuran	Ave	0.0757	0.0608		0.0803	0.100	-19.7	50.0
Chloroform	Ave	0.5347	0.4449		0.0416	0.0500	-16.8	20.0
1,1,1-Trichloroethane	Ave	0.4276	0.3609		0.0422	0.0500	-15.6	50.0
Cyclohexane	Ave	0.4259	0.3794		0.0445	0.0500	-10.9	50.0
Carbon tetrachloride	Ave	0.3615	0.3229		0.0447	0.0500	-10.7	50.0
1,1-Dichloropropene	Ave	0.4251	0.3659		0.0430	0.0500	-13.9	50.0
Benzene	Ave	1.196	1.003		0.0419	0.0500	-16.1	50.0
1,2-Dichloroethane	Ave	0.4667	0.3669		0.0393	0.0500	-21.4	50.0
Isobutyl alcohol	Ave	0.0086	0.0063		0.908	1.25	-27.3	50.0
n-Heptane	Ave	0.1045	0.0838		0.0401	0.0500	-19.8	50.0
Trichloroethene	Ave	0.3155	0.2629		0.0417	0.0500	-16.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443733/3 Calibration Date: 07/22/2020 13:03

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1425532.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5235	0.4392		0.0420	0.0500	-16.1	50.0
1,2-Dichloropropane	Ave	0.2924	0.2409		0.0412	0.0500	-17.6	20.0
Dibromomethane	Ave	0.1947	0.1495		0.0384	0.0500	-23.2	50.0
1,4-Dioxane	Ave	0.0030	0.0021		0.716	1.00	-28.4	50.0
Bromodichloromethane	Ave	0.3800	0.3204		0.0422	0.0500	-15.7	50.0
2-Chloroethyl vinyl ether	Ave	0.1632	0.1332		0.0816	0.100	-18.4	50.0
cis-1,3-Dichloropropene	Ave	0.4543	0.3759		0.0414	0.0500	-17.3	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2851	0.2682		0.0940	0.100	-6.0	50.0
Toluene	Ave	1.509	1.378		0.0457	0.0500	-8.6	20.0
trans-1,3-Dichloropropene	Ave	0.4844	0.4259		0.0440	0.0500	-12.1	50.0
Ethyl methacrylate	Ave	0.4214	0.3432		0.0407	0.0500	-18.6	50.0
1,1,2-Trichloroethane	Ave	0.2901	0.2505		0.0432	0.0500	-13.7	50.0
Tetrachloroethene	Ave	0.2904	0.2557		0.0440	0.0500	-11.9	50.0
1,3-Dichloropropane	Ave	0.5498	0.4512		0.0410	0.0500	-17.9	50.0
2-Hexanone	Ave	0.1966	0.1834		0.0933	0.100	-6.7	50.0
Chlorodibromomethane	Ave	0.3269	0.2807		0.0429	0.0500	-14.1	50.0
1,2-Dibromoethane	Ave	0.2962	0.2463		0.0416	0.0500	-16.8	50.0
Chlorobenzene	Ave	0.996	0.8577	0.3000	0.0430	0.0500	-13.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3249	0.2838		0.0437	0.0500	-12.6	50.0
Ethylbenzene	Ave	0.5434	0.4692		0.0432	0.0500	-13.7	20.0
m-Xylene & p-Xylene	Ave	0.6517	0.5752		0.0441	0.0500	-11.7	50.0
o-Xylene	Ave	0.6237	0.5654		0.0453	0.0500	-9.3	50.0
Styrene	Ave	0.9688	0.9307		0.0480	0.0500	-3.9	50.0
Bromoform	Lin1		0.1447	0.1000	0.0372	0.0500	-25.5	50.0
Isopropylbenzene	Ave	1.524	1.394		0.0457	0.0500	-8.5	50.0
Bromobenzene	Ave	0.7248	0.6409		0.0442	0.0500	-11.6	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7388	0.5938	0.3000	0.0402	0.0500	-19.6	50.0
1,2,3-Trichloropropane	Ave	0.2293	0.1812		0.0395	0.0500	-21.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1780	0.1614		0.0453	0.0500	-9.3	50.0
N-Propylbenzene	Ave	0.7802	0.7884		0.0505	0.0500	1.1	50.0
2-Chlorotoluene	Ave	0.6950	0.6448		0.0464	0.0500	-7.2	50.0
1,3,5-Trimethylbenzene	Ave	2.384	2.383		0.0500	0.0500	-0.0	50.0
4-Chlorotoluene	Ave	0.7761	0.7126		0.0459	0.0500	-8.2	50.0
tert-Butylbenzene	Ave	1.953	1.950		0.0499	0.0500	-0.2	50.0
1,2,4-Trimethylbenzene	Ave	2.246	2.218		0.0494	0.0500	-1.2	50.0
sec-Butylbenzene	Ave	2.793	2.836		0.0508	0.0500	1.5	50.0
1,3-Dichlorobenzene	Ave	1.333	1.181		0.0443	0.0500	-11.4	50.0
4-Isopropyltoluene	Ave	2.562	2.651		0.0517	0.0500	3.5	50.0
1,4-Dichlorobenzene	Ave	1.424	1.226		0.0430	0.0500	-13.9	50.0
1,2-Dichlorobenzene	Ave	1.402	1.219		0.0435	0.0500	-13.0	50.0
n-Butylbenzene	Ave	2.288	2.394		0.0523	0.0500	4.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443733/3 Calibration Date: 07/22/2020 13:03

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1425532.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1210	0.0927		0.0383	0.0500	-23.4	50.0
1,2,4-Trichlorobenzene	Ave	0.9737	0.8108		0.0416	0.0500	-16.7	50.0
Hexachlorobutadiene	Ave	0.4261	0.3812		0.0447	0.0500	-10.5	50.0
Naphthalene	Ave	2.454	1.973		0.0402	0.0500	-19.6	50.0
1,2,3-Trichlorobenzene	Ave	0.9901	0.7805		0.0394	0.0500	-21.2	50.0
Dibromofluoromethane (Surr)	Ave	0.3203	0.2198		0.0343	0.0500	-31.4	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4049	0.2592		0.0320	0.0500	-36.0	50.0
Toluene-d8 (Surr)	Ave	1.405	1.114		0.0396	0.0500	-20.7	50.0
4-Bromofluorobenzene (Surr)	Lin1		0.6836		0.0415	0.0500	-16.9	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCV 240-443733/4 Calibration Date: 07/22/2020 13:25

Instrument ID: A3UX14 Calib Start Date: 03/20/2020 11:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/20/2020 14:39

Lab File ID: 1425533.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0215	0.0403		0.937	0.500	87.4*	50.0
2-Chloro-1,3-butadiene	Ave	0.4410	0.4084		0.0463	0.0500	-7.4	50.0
Diisopropyl ether	Ave	0.2153	0.2307		0.0536	0.0500	7.2	50.0
Ethyl tert-butyl ether	Ave	0.5891	0.6561		0.0557	0.0500	11.4	50.0
Propionitrile	Ave	0.0338	0.0312		0.461	0.500	-7.8	50.0
Ethyl acetate	Ave	0.2583	0.2163		0.0837	0.100	-16.3	50.0
Methacrylonitrile	Ave	0.1605	0.1578		0.491	0.500	-1.7	50.0
Tert-amyl methyl ether	Ave	0.5698	0.6769		0.0594	0.0500	18.8	50.0
n-Butanol	Lin1		0.0065		0.869	1.25	-30.5	50.0
Ethyl acrylate	Ave	0.3303	0.2696		0.0408	0.0500	-18.4	50.0
Methyl methacrylate	Ave	0.2453	0.2163		0.0882	0.100	-11.8	50.0
2-Nitropropane	Lin1		0.0605		0.0835	0.100	-16.5	50.0
n-Butyl acetate	Ave	0.5757	0.4129		0.0359	0.0500	-28.3	50.0
1-Chlorohexane	Ave	0.5056	0.4590		0.0454	0.0500	-9.2	50.0
Cyclohexanone	Ave	0.0105	0.0097		0.463	0.500	-7.5	50.0
Pentachloroethane	Lin1		0.3767		0.110	0.100	9.9	50.0
1,2,3-Trimethylbenzene	Ave	2.640	2.523		0.0478	0.0500	-4.4	50.0
Benzyl chloride	Qua		0.1754		0.0456	0.0500	-8.8	50.0
1,3,5-Trichlorobenzene	Ave	1.059	1.040		0.0491	0.0500	-1.8	50.0
2-Methylnaphthalene	Ave	1.636	1.694		0.104	0.100	3.5	50.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: STD8260 240-419116/4 Date Analyzed: 01/15/2020 16:00

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX5176.D Heated Purge: (Y/N) N

Calibration ID: 54865

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		402471	4.97	261526	7.65	107871	9.87
UPPER LIMIT		804942	5.47	523052	8.15	215742	10.37
LOWER LIMIT		201236	4.47	130763	7.15	53936	9.37
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-419116/9		391338	4.97	251783	7.65	102138	9.87
ICV 240-419116/17		377866	4.98	240230	7.64	96745	9.86
CCVIS 240-443947/2		339527	4.97	221162	7.65	100871	9.87

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: CCVIS 240-443947/2 Date Analyzed: 07/23/2020 12:58

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX8809.D Heated Purge: (Y/N) N

Calibration ID: 54867

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		339527	4.97	221162	7.65	100871	9.87
UPPER LIMIT		679054	5.47	442324	8.15	201742	10.37
LOWER LIMIT		169764	4.47	110581	7.15	50436	9.37
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-443947/3		330147	4.96	206470	7.64	88928	9.86
LCS 240-443947/4		319478	4.97	213960	7.65	97980	9.87
MB 240-443947/7		324658	4.96	201003	7.64	83933	9.86
240-133597-1	TB-071620	274816	4.97	176932	7.65	81915	9.87

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: ICIS 240-431364/6 Date Analyzed: 04/20/2020 15:45

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 1424361.D Heated Purge: (Y/N) Y

Calibration ID: 56769

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1392237	6.23	1137744	9.21	552205	11.21
UPPER LIMIT		2784474	6.73	2275488	9.71	1104410	11.71
LOWER LIMIT		696119	5.73	568872	8.71	276103	10.71
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-431364/13		1210983	6.23	1053695	9.21	538773	11.21
CCVIS 240-443733/3		1466192	6.23	1129115	9.22	557646	11.22

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: CCVIS 240-443733/3 Date Analyzed: 07/22/2020 13:03

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 1425532.D Heated Purge: (Y/N) Y

Calibration ID: 56769

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1466192	6.23	1129115	9.22	557646	11.22
UPPER LIMIT		2932384	6.73	2258230	9.72	1115292	11.72
LOWER LIMIT		733096	5.73	564558	8.72	278823	10.72
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-443733/4		1318412	6.23	1042717	9.22	484343	11.22
LCS 240-443733/5		1382583	6.23	1064700	9.22	545673	11.22
LCS 240-443733/6		1367380	6.23	1034906	9.22	488790	11.22
MB 240-443733/7		1263405	6.23	979016	9.22	460885	11.22
240-133597-2	MRC-MW-164B-15-20	889511	6.23	728276	9.22	340351	11.22

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443733/6

Matrix: Solid Lab File ID: 1425535.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
526-73-8	1,2,3-Trimethylbenzene	47.8		5.0	1.8
108-20-3	Diisopropyl ether	54.8		10	0.76
994-05-8	Tert-amyl methyl ether	63.1		5.0	2.2
637-92-3	Ethyl tert-butyl ether	57.5		5.0	2.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	70		59-120
460-00-4	4-Bromofluorobenzene (Surr)	96		51-127
2037-26-5	Toluene-d8 (Surr)	86		64-124
1868-53-7	Dibromofluoromethane (Surr)	73		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425535.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 22-Jul-2020 14:10:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 240-0100262-006
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 14:37:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1367380	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	1034906	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	98	488790	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	92	318902	50.0	36.4	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	96	386750	50.0	34.9	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	1247629	50.0	42.9	
$ 7 4-Bromofluorobenzene (Surr)	95	10.239	10.240	-0.001	0	381034	50.0	47.8	
28 Acetonitrile	41	2.572	2.572	0.000	99	548335	500.0	932.0	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	95	575000	50.0	47.7	
38 Isopropyl ether	87	3.826	3.826	0.000	91	322713	50.0	54.8	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	96	925730	50.0	57.5	
44 Propionitrile	54	4.749	4.749	0.000	98	436891	500.0	472.6	
45 Ethyl acetate	43	4.844	4.844	0.000	100	594193	100.0	84.1	
47 Methacrylonitrile	41	4.998	4.997	0.001	92	2158795	500.0	491.7	
159 Isooctane	57	6.027	6.027	0.000	92	1319656	50.0	54.9	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	98	983714	50.0	63.1	
60 n-Butanol	56	6.725	6.725	0.000	91	175677	1250.0	909.0	
61 Ethyl acrylate	55	6.855	6.855	0.000	100	354699	50.0	39.3	
66 Methyl methacrylate	41	7.092	7.092	0.000	89	583732	100.0	87.0	
69 2-Nitropropane	41	7.447	7.447	0.000	100	157454	100.0	79.8	
81 n-Butyl acetate	43	8.760	8.760	0.000	97	447892	50.0	37.6	
84 1-Chlorohexane	91	9.257	9.246	0.011	85	481256	50.0	46.0	
93 Cyclohexanone	55	10.180	10.180	0.000	94	93865	500.0	432.9	
104 Pentachloroethane	167	10.902	10.902	0.000	83	216413	100.0	67.3	
111 1,2,3-Trimethylbenzene	105	11.293	11.293	0.000	98	1234159	50.0	47.8	
112 Benzyl chloride	126	11.352	11.352	0.000	98	86581	50.0	46.0	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	502434	50.0	48.5	
121 2-Methylnaphthalene	142	14.002	14.002	0.000	93	1656392	100.0	103.6	
158 1-Methylnaphthalene	142	14.133	14.132	0.000	97	1475913	100.0	97.6	

SAMPLE CALCULATION - VOC	SOIL	
SAMPLE IDENTIFICATION	MRC-MW-164B-15-20	
COMPOUND	TRICHLOROETHENE	
COMPOUND AREA	247542	
INTERNAL STANDARD AMOUNT (ng)	50	
INTERNAL STANDARD AREA	889511	
AVERAGE RRF	0.3155	
247542 x 50 x 1 / 889511 x 0.3155	44.1030	ug/L
PERCENT SOLIDS	0.846	
FINAL AMOUNT	5	mL
INITIAL WEIGHT	5.23	g
44.1030082090315 x 5 / 5.23 / 0.846	49.84	µg/kg √.

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.4	U	5.7	3.4
71-55-6	1,1,1-Trichloroethane	0.93	U	5.7	0.93
79-34-5	1,1,2,2-Tetrachloroethane	1.6	U	5.7	1.6
76-13-1	1,1,2-Trichlorotrifluoroethane	1.4	U	5.7	1.4
75-34-3	1,1-Dichloroethane	0.78	U	5.7	0.78
75-35-4	1,1-Dichloroethene	1.0	U	5.7	1.0
563-58-6	1,1-Dichloropropene	1.1	U	5.7	1.1
87-61-6	1,2,3-Trichlorobenzene	0.65	U	5.7	0.65
96-18-4	1,2,3-Trichloropropane	1.8	U	5.7	1.8
526-73-8	1,2,3-Trimethylbenzene	2.1	U	5.7	2.1
120-82-1	1,2,4-Trichlorobenzene	0.65	U	5.7	0.65
95-63-6	1,2,4-Trimethylbenzene	1.1	U	5.7	1.1
96-12-8	1,2-Dibromo-3-Chloropropane	4.1	U	11	4.1
95-50-1	1,2-Dichlorobenzene	1.3	U	5.7	1.3
107-06-2	1,2-Dichloroethane	0.87	U	5.7	0.87
78-87-5	1,2-Dichloropropane	0.96	U	5.7	0.96
541-73-1	1,3-Dichlorobenzene	0.92	U	5.7	0.92
142-28-9	1,3-Dichloropropane	1.1	U	5.7	1.1
106-46-7	1,4-Dichlorobenzene	1.0	U	5.7	1.0
594-20-7	2,2-Dichloropropane	1.3	U	5.7	1.3
110-75-8	2-Chloroethyl vinyl ether	10	U	57	10
95-49-8	2-Chlorotoluene	1.1	U	5.7	1.1
591-78-6	2-Hexanone	4.6	U	23	4.6
108-86-1	Bromobenzene	1.3	U	5.7	1.3
74-97-5	Bromochloromethane	0.67	U	5.7	0.67
106-43-4	4-Chlorotoluene	0.97	U	5.7	0.97
99-87-6	4-Isopropyltoluene	3.3	U	5.7	3.3
67-64-1	Acetone	24	U	28	24
71-43-2	Benzene	0.79	U	5.7	0.79
75-25-2	Bromoform	2.7	U	5.7	2.7
74-83-9	Bromomethane	1.1	U	5.7	1.1
75-15-0	Carbon disulfide	1.5	J B	5.7	1.3
56-23-5	Carbon tetrachloride	3.7	U	5.7	3.7
108-90-7	Chlorobenzene	1.0	U	5.7	1.0
75-00-3	Chloroethane	1.4	U	5.7	1.4
67-66-3	Chloroform	0.89	U	5.7	0.89

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.2	U	5.7	1.2
156-59-2	cis-1,2-Dichloroethene	0.74	U	5.7	0.74
10061-01-5	cis-1,3-Dichloropropene	1.6	U	5.7	1.6
87-68-3	Hexachlorobutadiene	4.2	U	5.7	4.2
74-95-3	Dibromomethane	0.76	U	5.7	0.76
75-27-4	Bromodichloromethane	0.77	U	5.7	0.77
75-71-8	Dichlorodifluoromethane	1.1	U	5.7	1.1
100-41-4	Ethylbenzene	1.2	U	5.7	1.2
106-93-4	1,2-Dibromoethane	0.87	U	5.7	0.87
108-20-3	Diisopropyl ether	0.86	U	11	0.86
91-20-3	Naphthalene	3.1	U	5.7	3.1
104-51-8	n-Butylbenzene	3.9	U	5.7	3.9
98-82-8	Isopropylbenzene	0.94	U	5.7	0.94
103-65-1	N-Propylbenzene	0.83	U	5.7	0.83
78-93-3	2-Butanone (MEK)	4.0	U	23	4.0
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2	U	23	4.2
135-98-8	sec-Butylbenzene	0.98	U	5.7	0.98
1634-04-4	Methyl tert-butyl ether	0.93	U	5.7	0.93
994-05-8	Tert-amyl methyl ether	2.5	U *	5.7	2.5
75-09-2	Methylene Chloride	14	U	28	14
100-42-5	Styrene	1.3	U	5.7	1.3
637-92-3	Ethyl tert-butyl ether	2.5	U	5.7	2.5
98-06-6	tert-Butylbenzene	1.0	U	5.7	1.0
127-18-4	Tetrachloroethene	0.83	U	5.7	0.83
108-88-3	Toluene	0.87	U	5.7	0.87
156-60-5	trans-1,2-Dichloroethene	0.53	U	5.7	0.53
10061-02-6	trans-1,3-Dichloropropene	1.2	U	5.7	1.2
79-01-6	Trichloroethene	50	✓	5.7	0.72
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	2.4	U	11	2.4
75-01-4	Vinyl chloride	0.95	U	5.7	0.95
75-65-0	tert-Butyl alcohol	19	U	230	19
1330-20-7	Xylenes, Total	1.8	U	11	1.8
124-48-1	Chlorodibromomethane	3.1	U	5.7	3.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		59-120
460-00-4	4-Bromofluorobenzene (Surr)	95		51-127
2037-26-5	Toluene-d8 (Surr)	87		64-124
1868-53-7	Dibromofluoromethane (Surr)	77		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D
Lims ID: 240-133597-B-2-A
Client ID: MRC-MW-164B-15-20
Sample Type: Client
Inject. Date: 23-Jul-2020 00:10:30 ALS Bottle#: 32 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-133597-b-2-a
Misc. Info.: 240-0100262-033
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 23-Jul-2020 11:48:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	889511	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	728276	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	98	340351	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	91	220636	38.7	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	96	269255	37.4	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	893013	43.6	
$ 7 4-Bromofluorobenzene (Surr)	95	10.239	10.240	-0.001	0	264103	47.5	
9 Dichlorodifluoromethane	85		1.057				ND	
10 Chloromethane	50		1.187				ND	
11 Vinyl chloride	62		1.270				ND	
13 Bromomethane	94		1.519				ND	
15 Chloroethane	64		1.590				ND	
17 Trichlorofluoromethane	101		1.791				ND	
21 1,1-Dichloroethene	96		2.240				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.276				ND	
24 Acetone	43	2.300	2.300	0.000	99	40333	17.3	
26 Carbon disulfide	76	2.418	2.430	-0.012	91	1405	1.37	
30 Methylene Chloride	84	2.737	2.737	0.000	94	13592	2.52	
31 2-Methyl-2-propanol	59	2.974	2.962	0.012	39	588	1.29	
32 trans-1,2-Dichloroethene	96		3.069				ND	
33 Methyl tert-butyl ether	73		3.104				ND	
36 1,1-Dichloroethane	63		3.625				ND	
39 Vinyl acetate	86		3.779				ND	
38 Isopropyl ether	87		3.826				ND	
40 Tert-butyl ethyl ether	59		4.430				ND	
41 2,2-Dichloropropane	97		4.572				ND	
42 cis-1,2-Dichloroethene	96		4.583				ND	
43 2-Butanone (MEK)	43	4.678	4.678	0.000	73	3623	1.70	
46 Chlorobromomethane	128		4.974				ND	
49 Chloroform	83		5.151				ND	
50 1,1,1-Trichloroethane	97		5.364				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
52 Carbon tetrachloride	117		5.589				ND	
53 1,1-Dichloropropene	75		5.601				ND	
54 Benzene	78		5.861				ND	
56 1,2-Dichloroethane	62	5.909	5.897	0.012	26	1018	0.1226	
57 Tert-amyl methyl ether	73		6.086				ND	
59 Trichloroethene	130	6.654	6.654	0.000	95	247542	44.1	
63 1,2-Dichloropropane	63		6.891				ND	
65 Dibromomethane	93		7.009				ND	
68 Dichlorobromomethane	83		7.198				ND	
70 2-Chloroethyl vinyl ether	63		7.553				ND	
71 cis-1,3-Dichloropropene	75		7.660				ND	
73 4-Methyl-2-pentanone (MIBK)	43		7.837				ND	
74 Toluene	91		7.968				ND	
75 trans-1,3-Dichloropropene	75		8.204				ND	
78 Tetrachloroethene	164		8.476				ND	
79 1,3-Dichloropropane	76		8.500				ND	
80 2-Hexanone	43		8.618				ND	
82 Chlorodibromomethane	129		8.701				ND	
83 Ethylene Dibromide	107		8.796				ND	
85 Chlorobenzene	112		9.246				ND	
86 1,1,1,2-Tetrachloroethane	131		9.328				ND	
87 Ethylbenzene	106		9.352				ND	
88 m-Xylene & p-Xylene	106		9.459				ND	
89 o-Xylene	106		9.802				ND	
90 Styrene	104		9.814				ND	
91 Bromoform	173		9.956				ND	
92 Isopropylbenzene	105		10.121				ND	
94 Bromobenzene	156		10.358				ND	
95 1,1,2,2-Tetrachloroethane	83		10.370				ND	
96 1,2,3-Trichloropropane	110		10.405				ND	
98 N-Propylbenzene	120		10.476				ND	
99 2-Chlorotoluene	126		10.535				ND	
101 4-Chlorotoluene	126		10.630				ND	
103 tert-Butylbenzene	119		10.902				ND	
105 1,2,4-Trimethylbenzene	105		10.938				ND	
107 sec-Butylbenzene	105		11.080				ND	
108 1,3-Dichlorobenzene	146		11.162				ND	U
109 4-Isopropyltoluene	119		11.210				ND	U
110 1,4-Dichlorobenzene	146		11.233				ND	
111 1,2,3-Trimethylbenzene	105		11.293				ND	U
114 1,2-Dichlorobenzene	146		11.553				ND	
113 n-Butylbenzene	91		11.553				ND	
115 1,2-Dibromo-3-Chloropropane	157		12.192				ND	
117 1,2,4-Trichlorobenzene	180		12.890				ND	
118 Hexachlorobutadiene	225		13.056				ND	
119 Naphthalene	128		13.091				ND	U
120 1,2,3-Trichlorobenzene	180		13.292				ND	
S 134 Xylenes, Total	106		16.530				ND	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Carbon tetrachloride	+++++ 0.3774	+++++ 0.3996	0.3286 +++++	0.3646 +++++	0.3373	Ave		0.3615				8.0		15.0			
1,1-Dichloropropene	0.3559 0.4385	0.3154 0.4506	0.4113 0.4977	0.4378 0.5045	0.4140	Ave		0.4251				14.3		15.0			
Benzene	1.1517 1.1957	1.0814 1.1934	1.1615 1.2759	1.2512 1.2967	1.1530	Ave		1.1956				5.7		15.0			
1,2-Dichloroethane	0.4760 0.4642	0.4452 0.4580	0.4527 0.4855	0.4837 0.4903	0.4452	Ave		0.4667				3.8		15.0			
Isobutyl alcohol	0.0071 0.0092	0.0078 0.0083	0.0094 0.0085	0.0096 0.0087	0.0090	Ave		0.0086				9.2		15.0			
n-Heptane	+++++ 0.0995	+++++ 0.1029	0.0898 0.1160	0.1007 0.1247	0.0982	Ave		0.1045				11.3		15.0			
Trichloroethene	0.2866 0.3163	0.2613 0.3196	0.3088 0.3533	0.3250 0.3605	0.3076	Ave		0.3155				9.7		15.0			
Methylcyclohexane	+++++ 0.5096	+++++ 0.5265	0.4847 0.5587	0.5231 0.5880	0.4738	Ave		0.5235				7.6		15.0			
1,2-Dichloropropane	0.2923 0.2883	0.2664 0.2923	0.2818 0.3114	0.2952 0.3237	0.2798	Ave		0.2924				5.8		15.0			
Dibromomethane	0.2095 0.1946	0.1770 0.1903	0.1881 0.2004	0.1992 0.2059	0.1869	Ave		0.1947				5.2		15.0			
1,4-Dioxane	0.0027 0.0030	0.0031 0.0027	0.0031 0.0027	0.0033 0.0029	0.0032	Ave		0.0030				7.6		15.0			
Bromodichloromethane	0.3364 0.3967	0.3160 0.3996	0.3378 0.4374	0.3810 0.4481	0.3673	Ave		0.3800				12.0		15.0			
2-Chloroethyl vinyl ether	0.1500 0.1688	0.1268 0.1690	0.1432 0.1840	0.1604 0.1999	0.1665	Ave		0.1632				13.3		15.0			
cis-1,3-Dichloropropene	0.3879 0.4800	0.3482 0.4832	0.3954 0.5243	0.4525 0.5603	0.4574	Ave		0.4543				14.9		15.0			
4-Methyl-2-pentanone (MIBK)	0.3251 0.3018	0.2221 0.2902	0.2546 0.2973	0.2960 0.2908	0.2884	Ave		0.2851				10.5		15.0			
Toluene	1.4697 1.4999	1.3579 1.5258	1.4088 1.7010	1.5078 1.6897	1.4161	Ave		1.5085				7.9		15.0			
trans-1,3-Dichloropropene	+++++ 0.5257	+++++ 0.5491	0.4017 +++++	0.4699 +++++	0.4756	Ave		0.4844				11.8		15.0			
Ethyl methacrylate	+++++ 0.4420	+++++ 0.4408	0.3211 0.4734	0.3841 0.4851	0.4036	Ave		0.4214				13.5		15.0			
1,1,2-Trichloroethane	0.2976 0.2876	0.2657 0.2911	0.2756 0.3118	0.2893 0.3155	0.2768	Ave		0.2901				5.7		15.0			
Tetrachloroethene	+++++ 0.2742	+++++ 0.2857	0.2605 0.3314	0.2766 0.3471	0.2573	Ave		0.2904				12.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443733 Batch Start Date: 07/22/20 12:18 Batch Analyst: Macenczak, Steven

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	VM250SS 00058	VM568718 00018	VMAROLISTDW 00353	vmbfb 00025
BFB 240-443733/1		8260B		5 mL	5 mL				1 uL
CCVIS 240-443733/3		8260B		5 mL	5 mL	1 uL	1 uL	5 uL	
CCV 240-443733/4		8260B		5 mL	5 mL		1 uL		
LCS 240-443733/5		8260B		5 g	5 mL	1 uL	1 uL		
LCS 240-443733/6		8260B		5 g	5 mL	1 uL	1 uL		
MB 240-443733/7		8260B		5 g	5 mL	1 uL	1 uL		
240-133595-C-3-B MS	2020AN-SED-03	8260B	T	5 g	5 mL	1 uL	1 uL		
240-133595-C-3-C MSD	2020AN-SED-03	8260B	T	5 g	5 mL	1 uL	1 uL		
240-133597-B-2-A	MRC-MW-164B-15-20	8260B	T	5 g	5 mL	1 uL	1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMFASA9W 00285	VMFASAW 00336	VMFASGW 00368	VMFASPW 00359	VMRA9W 00353	VMRGAS 00347
BFB 240-443733/1		8260B							
CCVIS 240-443733/3		8260B							2 uL
CCV 240-443733/4		8260B						5 uL	
LCS 240-443733/5		8260B			5 uL	2 uL	5 uL		
LCS 240-443733/6		8260B		5 uL					
MB 240-443733/7		8260B							
240-133595-C-3-B MS	2020AN-SED-03	8260B	T		5 uL	2 uL	5 uL		
240-133595-C-3-C MSD	2020AN-SED-03	8260B	T		5 uL	2 uL	5 uL		
240-133597-B-2-A	MRC-MW-164B-15-20	8260B	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00394					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443751 Batch Start Date: 07/22/20 13:48 Batch Analyst: Macenczak, Steven

Batch Method: 5030A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
240-133595-C-3 MS		5030A, 8260B	T	5.46 g	5 mL				
240-133595-C-3 MSD		5030A, 8260B	T	5.22 g	5 mL				
240-133597-B-2	MRC-MW-164B-15-20	5030A, 8260B	T	5.23 g	5 mL				

Batch Notes	
Balance ID	B050
Blank Matrix ID	195327
Vial Lot Number	4771193

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **SEPTEMBER 25, 2020**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC/PCB/METALS/MISC**
MIDDLE RIVER CENTER (MRC) BUILDING C
SAMPLE DELIVERY GROUP (SDG) 240-134814-1

SAMPLES: 1/ Aqueous

MRC-MW-164B-081120

OVERVIEW

The sample set for MRC SDG 240-134814-1 consists of one (1) aqueous environmental sample. No field duplicate pairs are included in this SDG.

The sample was collected by collected by Tetra Tech on August 11, 2020 and analyzed by Eurofins TestAmerica. Analyses were conducted in accordance with Method 8260B EPA Method 218.6 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibration data, laboratory method/preparation blanks, laboratory control sample results, detection limits, and analyte quantitation. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The nondetected result for 2-chloroethylvinyl ether was qualified as unreilable because of acid preservation during sample collection. The result is qualified (UR).

MINOR PROBLEMS

- None.

NOTES

Non-detected results were reported to the method detection limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Some blank spike recoveries were high in the VOC and PCB fractions.

Other Factors Affecting Data Quality: The result for 2-chloroethyl vinyl ether was qualified as rejected because of acidic sample preservation..

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Organic Superfund Methods Data Review” (January 2017) and “National Functional Guidelines for Inorganic Superfund Methods Data Review” (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 09011	NSAMPLE	MRC-MW-164B-081120		
SDG: 240-134814-1	LAB_ID	240-134814-1		
FRACTION: OV	SAMP_DATE	8/11/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.41	U	
1,1,1-TRICHLOROETHANE		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.56	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.41	U	
1,1-DICHLOROETHENE		0.46	U	
1,1-DICHLOROPROPENE		0.37	U	
1,2,3-TRICHLOROBENZENE		0.54	U	
1,2,3-TRICHLOROPROPANE		0.51	U	
1,2,3-TRIMETHYLBENZENE		0.36	U	
1,2,4-TRICHLOROBENZENE		0.81	U	
1,2,4-TRIMETHYLBENZENE		0.45	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U	
1,2-DIBROMOETHANE		0.37	U	
1,2-DICHLOROBENZENE		0.43	U	
1,2-DICHLOROETHANE		0.43	U	
1,2-DICHLOROPROPANE		0.37	U	
1,3-DICHLOROBENZENE		0.4	U	
1,3-DICHLOROPROPANE		0.21	U	
1,4-DICHLOROBENZENE		0.37	U	
2,2-DICHLOROPROPANE		0.95	U	
2-BUTANONE		2.4	U	
2-CHLOROETHYL VINYL ETHER		1.1	UR	M
2-CHLOROTOLUENE		0.42	U	
2-HEXANONE		2.1	U	
4-CHLOROTOLUENE		0.44	U	
4-ISOPROPYLTOLUENE		0.49	U	
4-METHYL-2-PENTANONE		2.1	U	
ACETONE		5.4	UJ	C
BENZENE		4.6		
BROMOBENZENE		0.38	U	
BROMOCHLOROMETHANE		0.52	U	
BROMODICHLOROMETHANE		0.35	U	
BROMOFORM		0.76	U	
BROMOMETHANE		0.42	U	

PROJ_NO: 09011	NSAMPLE	MRC-MW-164B-081120		
SDG: 240-134814-1	LAB_ID	240-134814-1		
FRACTION: OV	SAMP_DATE	8/11/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U	
CARBON TETRACHLORIDE		0.26	U	
CHLOROBENZENE		0.32	U	
CHLORODIBROMOMETHANE		0.39	U	
CHLOROETHANE		0.83	U	
CHLOROFORM		0.4	U	
CHLOROMETHANE		0.64	U	
CIS-1,2-DICHLOROETHENE		1.7		
CIS-1,3-DICHLOROPROPENE		0.61	U	
DIBROMOMETHANE		0.33	UJ	C
DICHLORODIFLUOROMETHANE		0.35	U	
DIISOPROPYL ETHER		0.36	U	
ETHYL TERT-BUTYL ETHER		0.43	U	
ETHYLBENZENE		0.39	U	
HEXACHLOROBUTADIENE		0.83	UJ	C
ISOPROPYLBENZENE		0.52	J	P
METHYL TERT-BUTYL ETHER		0.44	U	
METHYLENE CHLORIDE		1.3	U	
NAPHTHALENE		0.82	U	
N-BUTYLBENZENE		0.59	U	
N-PROPYLBENZENE		0.46	U	
SEC-BUTYLBENZENE		0.63	U	
STYRENE		0.4	U	
TERT-AMYL METHYL ETHER		0.39	U	
TERT-BUTYLBENZENE		0.51	U	
TERTIARY-BUTYL ALCOHOL		1.7	U	
TETRACHLOROETHENE		0.33	U	
TOLUENE		0.35	U	
TOTAL XYLENES		0.42	U	
TRANS-1,2-DICHLOROETHENE		0.43	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U	
TRICHLOROETHENE		9.9		
TRICHLOROFLUOROMETHANE		0.45	U	
VINYL ACETATE		0.78	U	
VINYL CHLORIDE		0.5	U	

PROJ_NO: 09011	NSAMPLE	MRC-MW-164B-081120		
SDG: 240-134814-1	LAB_ID	240-134814-1		
FRACTION: OVG	SAMP_DATE	8/11/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHANE		1.2		
ETHENE		0.83	J	P
METHANE		11		

PROJ_NO: 09011	NSAMPLE	MRC-MW-164B-081120		
SDG: 240-134814-1	LAB_ID	240-134814-1		
FRACTION: PCB	SAMP_DATE	8/11/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.22	U	
DICHLOROBIPHENYLS		0.022	U	
HEPTACHLOROBIPHENYLS		0.044	U	
HEXACHLOROBIPHENYLS		0.033	U	
MONOCHLOROBIPHENYLS		0.022	U	
NONACHLOROBIPHENYLS		0.22	U	
PENTACHLOROBIPHENYLS		0.033	U	
TETRACHLOROBIPHENYLS		0.033	U	
TOTAL AROCLOR		0.022	U	
TOTAL OCTACHLOROBIPHENYLS		0.055	U	
TOTAL TRICHLOROBIPHENYLS		0.022	U	

PROJ_NO: 09011	NSAMPLE	MRC-MW-164B-081120								
SDG: 240-134814-1	LAB_ID	240-134814-1								
FRACTION: MISC	SAMP_DATE	8/11/2020								
MEDIA: WATER	QC_TYPE	NM								
	UNITS	MG/L			UMHOS/CM			UNITLESS		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		98								
BROMIDE		0.21	J	P						
HARDNESS AS CACO3		96								
NITRATE-N		0.014	U							
NITRITE-N		0.014	U							
SALINITY								2	U	
SPECIFIC CONDUCTANCE					250					
SULFATE		9								
TOTAL DISSOLVED SOLIDS		120								

PROJ_NO: 09011	NSAMPLE	MRC-MW-164B-081120		
SDG: 240-134814-1	LAB_ID	240-134814-1		
FRACTION: M	SAMP_DATE	8/11/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALUMINUM		950	J	D
ANTIMONY		0.57	U	
ARSENIC		0.75	U	
BARIUM		180		
BERYLLIUM		0.51	J	P
CADMIUM		0.2	U	
CALCIUM		14000		
CHROMIUM		2.9		
COBALT		41		
COPPER		1.8	J	P
IRON		24000		
LEAD		1.2		
MAGNESIUM		6400		
MANGANESE		2500		
MERCURY		0.13	U	
NICKEL		42		
POTASSIUM		5700		
SELENIUM		0.89	U	
SILVER		0.053	U	
SODIUM		16000		
THALLIUM		0.28	J	P
VANADIUM		5.3		
ZINC		60	J	C

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: U1916374.d

Analysis Method: 8260C Date Collected: 08/11/2020 14:20

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 22:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
120-82-1	1,2,4-Trichlorobenzene	0.81	U	1.0	0.81
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
110-75-8	2-Chloroethyl vinyl ether	1.1	U *	10	1.1
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
591-78-6	2-Hexanone	2.1	U	10	2.1
108-86-1	Bromobenzene	0.38	U	1.0	0.38
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
99-87-6	4-Isopropyltoluene	0.49	U	1.0	0.49
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	4.6		1.0	0.38
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.40	U	1.0	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: U1916374.d

Analysis Method: 8260C Date Collected: 08/11/2020 14:20

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 22:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	0.64	U	1.0	0.64
156-59-2	cis-1,2-Dichloroethene	1.7		1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
74-95-3	Dibromomethane	0.33	U	1.0	0.33
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
108-20-3	Diisopropyl ether	0.36	U	10	0.36
91-20-3	Naphthalene	0.82	U	1.0	0.82
104-51-8	n-Butylbenzene	0.59	U	1.0	0.59
98-82-8	Isopropylbenzene	0.52	J	1.0	0.45
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
135-98-8	sec-Butylbenzene	0.63	U	1.0	0.63
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
100-42-5	Styrene	0.40	U	1.0	0.40
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
127-18-4	Tetrachloroethene	0.33	U	1.0	0.33
108-88-3	Toluene	0.35	U	1.0	0.35
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	9.9		1.0	0.36
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: U1916374.d

Analysis Method: 8260C Date Collected: 08/11/2020 14:20

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 22:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		75-130
460-00-4	4-Bromofluorobenzene (Surr)	94		47-134
2037-26-5	Toluene-d8 (Surr)	105		69-122
1868-53-7	Dibromofluoromethane (Surr)	104		78-129

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: 2320_008.D

Analysis Method: 680 Date Collected: 08/11/2020 14:20

Extract. Method: 680 Date Extracted: 08/18/2020 07:43

Sample wt/vol: 908(mL) Date Analyzed: 08/19/2020 14:29

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 34909 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.22	U *	0.55	0.22
1336-36-3	Polychlorinated biphenyls, Total	0.022	U	0.11	0.022
25512-42-9	Total Dichlorobiphenyls	0.022	U *	0.11	0.022
28655-71-2	Total Heptachlorobiphenyls	0.044	U	0.33	0.044
26601-64-9	Total Hexachlorobiphenyls	0.033	U	0.22	0.033
27323-18-8	Total Monochlorobiphenyls	0.022	U *	0.11	0.022
53742-07-7	Total Nonachlorobiphenyls	0.22	U	0.55	0.22
55722-26-4	Total Octachlorobiphenyls	0.055	U	0.33	0.055
25429-29-2	Total Pentachlorobiphenyls	0.033	U	0.22	0.033
26914-33-0	Total Tetrachlorobiphenyls	0.033	U *	0.22	0.033
25323-68-6	Total Trichlorobiphenyls	0.022	U *	0.11	0.022

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-66-5	PCB-138L	81		39-131
208263-80-3	PCB-52L	91		42-105

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: Z0813009.D

Analysis Method: RSK-175 Date Collected: 08/11/2020 14:20

Sample wt/vol: 23(mL) Date Analyzed: 08/13/2020 12:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 446979 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	11		1.0	0.17
74-84-0	Ethane	1.2		1.0	0.29
74-85-1	Ethylene	0.83	J	1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	108		60-140

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	24000	200	26	ug/L			1	6010C
7439-96-5	Manganese	2500	15	2.1	ug/L			1	6010C
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7429-90-5	Aluminum	950	50	34	ug/L		F1	1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	180	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.51	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-48-4	Cobalt	41	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.8	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Iron	24000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2700	5.0	2.1	ug/L			1	6020A
7440-02-0	Nickel	42	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.2	1.0	0.45	ug/L			1	6020A
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	5.3	5.0	0.82	ug/L			1	6020A
7440-66-6	Zinc	60	20	15	ug/L			1	6020A
7440-70-2	Calcium	14000	1000	580	ug/L			1	6020A
7440-09-7	Potassium	5700	1000	220	ug/L			1	6020A
7439-95-4	Magnesium	6400	1000	200	ug/L			1	6020A
7440-23-5	Sodium	16000	1000	330	ug/L			1	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Hardness as calcium carbonate	96	5.0	2.4	mg/L			1	2340C-2011
	Alkalinity	98	5.0	2.6	mg/L			1	2320B-2011
	Total Dissolved Solids	120	10	7.8	mg/L			1	2540 C-2011
24959-67-9	Bromide	0.21	0.50	0.044	mg/L	J		1	9056A
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U		1	9056A
14797-55-8	Nitrate as N	0.014	0.10	0.014	mg/L	U		1	9056A
14808-79-8	Sulfate	9.0	1.0	0.35	mg/L			1	9056A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Specific Conductance	250	1.0	1.0	umhos/cm			1	SM 2510B
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

APPENDIX C

SUPPORT DOCUMENTATION

ANALYTICAL REPORT

Job Number: 240-134814-1

Job Description: MRC South of Building C

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

Attention: Samantha Brenner

Roxanne Cisneros

Approved for release.
Roxanne Cisneros
Senior Project Manager
9/4/2020 4:54 PM

Roxanne Cisneros, Senior Project Manager
4101 Shuffel Street NW, North Canton, OH, 44720
(615)301-5761
roxanne.cisneros@Eurofinset.com
09/04/2020

cc: Tony Apanavage
Kelly Carper

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
240-134814-1

Comments
No additional comments.

Receipt
The sample was received on 8/12/2020 11:00 AM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2º C.

GC/MS VOA
Method 8260C: The laboratory control sample (LCS) for analytical batch 240-447281 recovered outside control limits for 2-chloroethyl vinyl ether. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: MRC-MW-164B-081120 (240-134814-1). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 240-447281 was outside the method criteria for some analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260C: Batch analytical batch 240-447281 is reported without a matrix spike/matrix spike duplicate (MS/MSD), because the batch MS/MSD was canceled. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

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

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

Dioxin
Method 680: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 410-34321 and analytical batch 410-34909 recovered outside control limits for the following analytes: DCB Decachlorobiphenyl, Total Dichlorobiphenyls Total Monochlorobiphenyls Total Tetrachlorobiphenyls Total Trichlorobiphenyls. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

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

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

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

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

Baltimore
#201

4.3/5-2

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Samantha Brenner	Site Contact: Josh Mullis	Date: 8/11/2020	COC No:
Tetra Tech	Tel: (301) 528-3056	Lab Contact: Delmonico/Johnson	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC South of Building C	☐ 1 week			Sampler: Mullis
Site: Middle River Complex	☐ 2 days			
Project # 112IC09011	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs 8260C	Sulfate 9056A	BROMIDE 300.0	NITRATES 4500-NO3E	IRON/MANGANESE 6010C	ALKALINITY 2320B	TDS 2540C	SALINITY 2520B	Total Metals/Hardness 6020A/2340C	MEE RSK-175	PCBs 680
TB-081120	8/11/2020	0000	BLANK	Water	2		X										
MRC-MW-164B-081120	8/11/2020	1420	G	AQ	16		X	X	X	X	X	X	X	X	X	X	X
							2	1	1	1	4	1	1	1	4	2	1

240-134814 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Ammonium Chloride

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: South of Building C Groundwater. 48 hour hold time on some parameters. Josh.mullis@tetratech.com

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech Inc	8/11/20 1530		BTA Balt	8/11/20 1538
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	BTA Balt	8/11/20 1720		TA	8-12-20 1100
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

09/04/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 134814

Client Tetra Tech Site Name

Cooler Received on 6-12-20 Opened on 6-12-20

Cooler unpacked by: Matt Smith

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-10 (CF **+0.7** °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
   IR GUN #IR-11 (CF **+0.9**°C) Observed Cooler Temp. 4.3 °C Corrected Cooler Temp. 5.2 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC911298
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
16. Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

No trip blanks rec'd in cooler

18. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

Part # 159470-434 RIT2 EXP 05/21

eurofins | Environment Testing TestAmerica

ORIGIN ID:PHDA (330) 312-0176
EUROFINS TESTAMERICA CANTON
4101 SHUFFEL STREET NW
NORTH CANTON, OH 447206900
UNITED STATES US

SHIP DATE: 12AUG20
ACTWGT: 15.65 LB
CAD: 0562057/CAFE3313
BILL RECIPIENT

TO ENVIRONMENTAL SAMPLE RECEIPT
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
DEPT: AL HAIDET

FedEx Express

TRK# 0201 9148 7501 0116

THU - 13 AUG 10:30A
PRIORITY OVERNIGHT

65 AGCA

15238
PA-US PIT

Uncorrected temp 4.4 °C
Thermometer ID 14
CF 0 Initials B

PT-WI-SR-001 effective 11/8/18

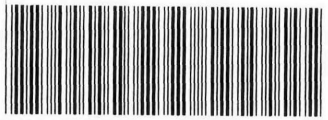
240-134814 Waybill

09/04/2020

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

1809

Chain of Custody Record


240-134814 Chain of Custody

Eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	o: 23996.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin: Maryland
			Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):	Job #: 240-134814-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 8/24/2020		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: MRC Block E	Project #: 24015851		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM2520_B/ Salinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MRC-MW-164B-081120 (240-134814-1)	8/11/20	14:20 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 3	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 8-12-20 1500	Company 240	Received by:	Date/Time: 8/13/20 900	Company LCDAPitt
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

09/04/2020

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 460-59139.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin: Maryland	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env LLC		Accreditations Required (See note):		Job #: 240-134814-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/26/2020			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: MRC South of Building C	Project #: 24025527			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680/680_P_Liquid EPA 680- PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
MRC-MW-164B-081120 (240-134814-1)	8/11/20	14:20 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 3	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/13/20	EA	Brad Boyd	8/13/20 18:20	Eurofins
2	Brad Boyd	8/13/20 21:02	Eurofins			
3					8-13-20 8-21-20	ECL

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		1.5°C

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-123995.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin: Maryland	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-134814-1
Address: 777 New Durham Road, ,	Due Date Requested: 8/24/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: MRC Block E	Project #: 24015851			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_NO3_F/ Nitrogen, Nitrate	680/680_P_Liquid Total 680	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MRC-MW-164B-081120 (240-134814-1)	8/11/20	14:20 Eastern		Water			X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 3	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	C. Gantt	8-12-20 1504	240		8/13 11:00	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR1 5.9°C

Ver: 01/16/2019

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09/04/2020

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-134814-1

Login Number: 134814
List Number: 4
Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env
List Creation: 08/13/20 11:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-134814-1

Login Number: 134814
List Number: 2
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh
List Creation: 08/13/20 02:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW-164B-081120	240-134814-1	104	103	105	94
	MB 240-447281/8	105	103	106	96
	LCS 240-447281/5	96	93	108	102

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	78-129
DCA = 1,2-Dichloroethane-d4 (Surr)	75-130
TOL = Toluene-d8 (Surr)	69-122
BFB = 4-Bromofluorobenzene (Surr)	47-134

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1916362.d

Lab ID: LCS 240-447281/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.0	100	77-120	
1,1,1-Trichloroethane	20.0	18.5	93	65-141	
1,1,2,2-Tetrachloroethane	20.0	23.6	118	45-151	
1,1,2-Trichlorotrifluoroethane	20.0	20.4	102	54-148	
1,1-Dichloroethane	20.0	21.1	105	74-126	
1,1-Dichloroethene	20.0	19.4	97	73-129	
1,1-Dichloropropene	20.0	20.4	102	78-120	
1,2,3-Trichlorobenzene	20.0	18.5	93	42-126	
1,2,3-Trichloropropane	20.0	21.3	107	57-137	
1,2,4-Trichlorobenzene	20.0	16.7	83	47-120	
1,2,4-Trimethylbenzene	20.0	21.2	106	66-129	
1,2-Dibromo-3-Chloropropane	20.0	19.8	99	34-136	
1,2-Dichlorobenzene	20.0	20.9	104	74-120	
1,2-Dichloroethane	20.0	18.0	90	66-129	
1,2-Dichloropropane	20.0	21.6	108	79-127	
1,3-Dichlorobenzene	20.0	19.3	96	74-120	
1,3-Dichloropropane	20.0	21.8	109	74-122	
1,4-Dichlorobenzene	20.0	19.1	95	75-120	
2,2-Dichloropropane	20.0	22.4	112	67-137	
2-Chloroethyl vinyl ether	20.0	39.3	196	29-146	*
2-Chlorotoluene	20.0	21.3	106	73-126	
2-Hexanone	40.0	42.9	107	43-142	
Bromobenzene	20.0	19.3	96	77-120	
Bromochloromethane	20.0	19.8	99	70-128	
4-Chlorotoluene	20.0	20.5	102	73-126	
4-Isopropyltoluene	20.0	20.2	101	66-127	
Acetone	40.0	48.4	121	33-155	
Benzene	20.0	21.4	107	77-123	
Bromoform	20.0	17.3	86	47-133	
Bromomethane	20.0	18.5	92	48-144	
Carbon disulfide	20.0	19.5	98	67-127	
Carbon tetrachloride	20.0	17.7	88	61-142	
Chlorobenzene	20.0	20.3	102	80-120	
Chloroethane	20.0	21.7	108	41-147	
Chloroform	20.0	19.8	99	74-127	
Chloromethane	20.0	20.8	104	46-148	
cis-1,2-Dichloroethene	20.0	19.2	96	75-124	
cis-1,3-Dichloropropene	20.0	19.3	97	68-128	
Hexachlorobutadiene	20.0	14.1	71	40-120	
Dibromomethane	20.0	16.2	81	67-121	
Bromodichloromethane	20.0	18.6	93	73-122	
Dichlorodifluoromethane	20.0	17.2	86	35-137	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1916362.d

Lab ID: LCS 240-447281/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethylbenzene	20.0	20.5	102	80-120	
1,2-Dibromoethane	20.0	19.6	98	73-120	
Naphthalene	20.0	20.8	104	28-130	
m-Xylene & p-Xylene	20.0	20.8	104	79-121	
n-Butylbenzene	20.0	20.1	100	54-129	
Isopropylbenzene	20.0	20.7	103	73-123	
N-Propylbenzene	20.0	21.0	105	67-130	
2-Butanone (MEK)	40.0	40.1	100	41-151	
4-Methyl-2-pentanone (MIBK)	40.0	41.4	103	43-145	
sec-Butylbenzene	20.0	20.6	103	60-131	
Methyl tert-butyl ether	20.0	19.4	97	57-127	
Methylene Chloride	20.0	20.6	103	63-134	
o-Xylene	20.0	21.1	105	75-123	
Styrene	20.0	20.7	103	75-121	
tert-Butylbenzene	20.0	19.6	98	63-126	
Tetrachloroethene	20.0	18.1	91	70-125	
Toluene	20.0	21.5	108	79-122	
trans-1,2-Dichloroethene	20.0	20.4	102	74-130	
trans-1,3-Dichloropropene	20.0	19.6	98	64-120	
Trichloroethene	20.0	18.2	91	71-121	
Trichlorofluoromethane	20.0	16.9	84	52-148	
Vinyl acetate	20.0	21.5	107	44-160	
Vinyl chloride	20.0	21.4	107	61-134	
tert-Butyl alcohol	200	225	112	15-169	
Xylenes, Total	40.0	41.9	105	78-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: U1916365.d Lab Sample ID: MB 240-447281/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 08/14/2020 19:36

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-447281/5	U1916362.d	08/14/2020 18:29
MRC-MW-164B-081120	240-134814-1	U1916374.d	08/14/2020 22:57

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb036.d BFB Injection Date: 07/24/2018

Instrument ID: A3UX19 BFB Injection Time: 17:22

Analysis Batch No.: 337766

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	53.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	1.1	(1.2) 1
174	Greater than 50% of mass 95	84.3	
175	5.0 - 9.0 % of mass 174	6.2	(7.4) 1
176	95.0 - 101.0 % of mass 174	80.7	(95.7) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-337766/2	U1900783.d	07/24/2018	17:50
	STD8260 240-337766/3	U1900784.d	07/24/2018	18:13
	STD8260 240-337766/9	U1900790.d	07/24/2018	18:35
	ICIS 240-337766/10	U1900791.d	07/24/2018	18:57
	STD8260 240-337766/11	U1900792.d	07/24/2018	19:20
	STD8260 240-337766/12	U1900793.d	07/24/2018	19:42
	STD8260 240-337766/13	U1900794.d	07/24/2018	20:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb037.d BFB Injection Date: 07/25/2018

Instrument ID: A3UX19 BFB Injection Time: 11:28

Analysis Batch No.: 337917

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	52.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	1.1	(1.3) 1
174	Greater than 50% of mass 95	82.7	
175	5.0 - 9.0 % of mass 174	6.4	(7.8) 1
176	95.0 - 101.0 % of mass 174	80.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STDA9 240-337917/8	U1900802.d	07/25/2018	13:24
	STDA9 240-337917/9	U1900803.d	07/25/2018	13:46
	STDA9 240-337917/10	U1900804.d	07/25/2018	14:08
	STDA9 240-337917/11	U1900805.d	07/25/2018	14:30
	STDA9 240-337917/12	U1900806.d	07/25/2018	14:52
	STDA9 240-337917/13	U1900807.d	07/25/2018	15:15
	ICV 240-337917/14	U1900808.d	07/25/2018	15:37

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb058.d BFB Injection Date: 08/27/2018

Instrument ID: A3UX19 BFB Injection Time: 16:23

Analysis Batch No.: 342719

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	Greater than 50% of mass 95	94.9	
175	5.0 - 9.0 % of mass 174	7.3	(7.7) 1
176	95.0 - 101.0 % of mass 174	92.7	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-342719/7	U1901323.d	08/27/2018	17:09
	STD8260 240-342719/8	U1901324.d	08/27/2018	17:31
	STD8260 240-342719/9	U1901325.d	08/27/2018	17:53
	ICIS 240-342719/10	U1901326.d	08/27/2018	18:16
	STD8260 240-342719/11	U1901327.d	08/27/2018	18:38
	STD8260 240-342719/12	U1901328.d	08/27/2018	19:01
	STD8260 240-342719/13	U1901329.d	08/27/2018	19:23
	ICV 240-342719/14	U1901330.d	08/27/2018	19:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb599.d BFB Injection Date: 08/14/2020

Instrument ID: A3UX19 BFB Injection Time: 17:20

Analysis Batch No.: 447281

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	85.2	
175	5.0 - 9.0 % of mass 174	7.2	(8.5) 1
176	95.0 - 101.0 % of mass 174	82.6	(97.0) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-447281/3	U1916360.d	08/14/2020	17:44
	CCVIS 240-447281/4	U1916361.d	08/14/2020	18:06
	LCS 240-447281/5	U1916362.d	08/14/2020	18:29
	MB 240-447281/8	U1916365.d	08/14/2020	19:36
MRC-MW-164B-081120	240-134814-1	U1916374.d	08/14/2020	22:57

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: ICIS 240-342719/10 Date Analyzed: 08/27/2018 18:16

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1901326.d Heated Purge: (Y/N) N

Calibration ID: 46687

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		972482	5.65	783101	8.50	430906	10.88
UPPER LIMIT		1944964	6.15	1566202	9.00	861812	11.38
LOWER LIMIT		486241	5.15	391551	8.00	215453	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-342719/14		955207	5.65	765531	8.50	424750	10.88
CCVIS 240-447281/4		1022055	5.67	752909	8.50	402555	10.90

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: CCVIS 240-447281/4 Date Analyzed: 08/14/2020 18:06

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1916361.d Heated Purge: (Y/N) N

Calibration ID: 57283

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1022055	5.67	752909	8.50	402555	10.90
UPPER LIMIT		2044110	6.17	1505818	9.00	805110	11.40
LOWER LIMIT		511028	5.17	376455	8.00	201278	10.40
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-447281/5		1014792	5.67	743246	8.50	391665	10.90
MB 240-447281/8		958064	5.67	707631	8.50	352282	10.90
240-134814-1	MRC-MW-164B-081120	929552	5.67	682652	8.50	343713	10.90

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2985 0.3869	0.3275 0.3899	0.3189	0.3531	0.3613	Ave		0.3480			0.1000	10.0		20.0			
Chloromethane	0.3558 0.3258	0.3705 0.3191	0.3263	0.3392	0.3223	Ave		0.3370			0.1000	5.8		20.0			
Butadiene	0.3408 0.3374	0.3424 0.3377	0.2895	0.3248	0.3219	Ave		0.3278				5.7		20.0			
Vinyl chloride	0.2746 0.3390	0.3544 0.3374	0.3113	0.3366	0.3288	Ave		0.3260			0.1000	8.0		20.0			
Bromomethane	0.2749 0.2254	0.2866 0.2173	0.2405	0.2466	0.2251	Ave		0.2452			0.0500	10.8		20.0			
Chloroethane	0.2109 0.1921	0.2097 0.1854	0.1960	0.2032	0.1901	Ave		0.1982			0.0500	5.0		20.0			
Dichlorofluoromethane	0.5221 0.4475	0.4917 0.4372	0.4526	0.4727	0.4486	Ave		0.4675				6.5		20.0			
Trichlorofluoromethane	0.4494 0.4561	0.4680 0.4427	0.3932	0.4472	0.4396	Ave		0.4423			0.1000	5.3		20.0			
Ethyl ether	0.2193 0.1979	0.2111 0.1891	0.1902	0.1939	0.1890	Ave		0.1987				6.0		20.0			
Acrolein	0.0586 0.0546	0.0507 0.0535	0.0446	0.0490	0.0542	Ave		0.0522				8.7		20.0			
1,1-Dichloroethene	0.3808 0.3850	0.3828 0.3735	0.3902	0.3740	0.3655	Ave		0.3788			0.1000	2.2		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2602 0.2706	0.2860 0.2683	0.2820	0.2661	0.2580	Ave		0.2702			0.0500	3.9		20.0			
Acetone	+++++ 0.0784	0.0790 0.0643	0.0549	0.0580	0.0606	Ave		0.0659			0.0100	15.8		20.0			
Iodomethane	0.4645 0.4649	0.4824 0.4542	0.4796	0.4736	0.4610	Ave		0.4686				2.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	1.0264 0.7904	0.9769 0.7703	0.8143	0.7839	0.7630	Ave		0.8465			0.1000	12.8		20.0			
3-Chloro-1-propene	0.4236 0.3955	0.4245 0.3845	0.3864	0.3828	0.3812	Ave		0.3969				4.8		20.0			
Methyl acetate	0.2893 0.2388	0.2199 0.2093	0.2069	0.2105	0.2113	Ave		0.2266			0.1000	13.1		20.0			
Methylene Chloride	+++++ 0.2977	0.3380 0.2854	0.3031	0.3009	0.2892	Ave		0.3024			0.1000	6.2		20.0			
2-Methyl-2-propanol	+++++ 0.0272	0.0286 +++++	0.0233	0.0231	0.0210	Ave		0.0246				12.8		20.0			
Acrylonitrile	0.1149 0.1149	0.0936 0.0991	0.0942	0.0985	0.1008	Ave		0.1023				8.8		20.0			
trans-1,2-Dichloroethene	0.4272 0.3621	0.3980 0.3508	0.3681	0.3544	0.3490	Ave		0.3728			0.1000	7.8		20.0			
Methyl tert-butyl ether	0.6889 0.7038	0.7226 0.6502	0.7037	0.7046	0.6888	Ave		0.6946			0.1000	3.3		20.0			
Hexane	0.4016 0.4127	0.4088 0.4136	0.4369	0.3839	0.3905	Ave		0.4069				4.3		20.0			
1,1-Dichloroethane	0.4297 0.4479	0.4309 0.4358	0.4483	0.4451	0.4391	Ave		0.4395			0.2000	1.8		20.0			
Vinyl acetate	0.4180 0.4211	0.3784 0.4083	0.3943	0.3850	0.3928	Ave		0.3997				4.1		20.0			
cis-1,2-Dichloroethene	0.3259 0.3058	0.3308 0.2928	0.3020	0.3030	0.2971	Ave		0.3082			0.1000	4.7		20.0			
2-Butanone (MEK)	+++++ 0.0411	0.0357 0.0381	0.0358	0.0358	0.0391	Ave		0.0376			0.0100	6.0		20.0			
2,2-Dichloropropane	0.2667 0.2404	0.2856 0.2633	0.2822	0.2661	0.2457	Ave		0.2643				6.4		20.0			
Chlorobromomethane	0.2447 0.2004	0.2207 0.1830	0.1878	0.1937	0.1884	Ave		0.2027				11.0		20.0			
Tetrahydrofuran	0.0995 0.1054	0.1040 0.0940	0.0907	0.0913	0.0950	Ave		0.0971				6.1		20.0			
Chloroform	0.4629 0.4616	0.4798 0.4429	0.4485	0.4541	0.4433	Ave		0.4561			0.2000	2.9		20.0			
1,1,1-Trichloroethane	0.3956 0.4177	0.3988 0.4154	0.4324	0.4070	0.4089	Ave		0.4108			0.1000	3.0		20.0			
Cyclohexane	0.4246 0.4364	0.4382 0.4292	0.4507	0.4156	0.4161	Ave		0.4301			0.1000	3.0		20.0			
1,1-Dichloropropene	0.3755 0.3758	0.3903 0.3692	0.3840	0.3595	0.3614	Ave		0.3737				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3639 0.3981	0.3846 0.3917	0.3944	0.3722	0.3729	Ave		0.3825			0.1000	3.4		20.0			
Isobutyl alcohol	0.0095 0.0104	0.0071 0.0087	0.0088	0.0079	0.0092	Ave		0.0088				12.2		20.0			
Benzene	0.9890 1.0452	1.0827 1.0051	1.0373	1.0007	1.0215	Ave		1.0259			0.5000	3.1		20.0			
1,2-Dichloroethane	0.3674 0.3257	0.3549 0.3127	0.3205	0.3110	0.3150	Ave		0.3296			0.1000	6.8		20.0			
n-Heptane	+++++ 0.2252	0.7970 0.2266	0.2839	0.2324	0.2217	Lin1	0.5799	0.2147				4.3			0.9990		0.9900
Trichloroethene	0.3122 0.3167	0.3258 0.3140	0.3258	0.3068	0.3105	Ave		0.3160			0.1500	2.3		20.0			
Methylcyclohexane	0.4985 0.5342	0.5073 0.5200	0.5394	0.4970	0.4957	Ave		0.5132			0.1000	3.6		20.0			
1,2-Dichloropropane	0.2050 0.2404	0.2394 0.2326	0.2309	0.2270	0.2376	Ave		0.2304			0.1000	5.3		20.0			
Dibromomethane	0.2379 0.2151	0.2154 0.2010	0.2009	0.2115	0.2105	Ave		0.2132				5.8		20.0			
1,4-Dioxane	+++++ 0.0024	0.0017 0.0024	0.0024	0.0024	0.0023	Ave		0.0023				13.5		20.0			
Dichlorobromomethane	0.3232 0.3408	0.3027 0.3295	0.3203	0.3127	0.3310	Ave		0.3229			0.1500	3.9		20.0			
2-Chloroethyl vinyl ether	0.1601 0.1755	0.1580 0.1783	0.1797	0.1698	0.1774	Ave		0.1713				5.2		20.0			
cis-1,3-Dichloropropene	0.3599 0.3873	0.3811 0.3872	0.3686	0.3735	0.3865	Ave		0.3777			0.1500	2.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.2834 0.3221	0.2998 0.3046	0.3240	0.2983	0.3095	Ave		0.3059			0.0500	4.6		20.0			
Toluene	1.5618 1.4027	1.4672 1.4180	1.4098	1.3276	1.3894	Ave		1.4252			0.4000	5.1		20.0			
trans-1,3-Dichloropropene	0.4760 0.4702	0.4587 0.4631	0.4478	0.4252	0.4649	Ave		0.4580			0.1000	3.7		20.0			
Ethyl methacrylate	0.4185 0.4604	0.4061 0.4531	0.4309	0.4112	0.4583	Ave		0.4341				5.3		20.0			
1,1,2-Trichloroethane	0.2547 0.2895	0.2773 0.2862	0.2834	0.2725	0.2908	Ave		0.2792			0.1000	4.5		20.0			
Tetrachloroethene	0.4086 0.4320	0.4228 0.4317	0.4309	0.4048	0.4173	Ave		0.4212			0.1500	2.7		20.0			
1,3-Dichloropropane	0.4853 0.4890	0.5028 0.4855	0.4893	0.4635	0.4865	Ave		0.4860				2.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.2860 0.3061	0.2740 0.2989	0.3048	0.2770	0.2999	Ave		0.2924			0.0500	4.5		20.0			
Chlorodibromomethane	0.3153 0.3531	0.3347 0.3456	0.3254	0.3197	0.3424	Ave		0.3337				4.2		20.0			
Ethylene Dibromide	0.3316 0.3186	0.3371 0.3125	0.3153	0.3013	0.3163	Ave		0.3190				3.8		20.0			
Chlorobenzene	0.9988 0.9439	1.0195 0.9268	0.9392	0.9052	0.9346	Ave		0.9526			0.3000	4.3		20.0			
1,1,1,2-Tetrachloroethane	0.2852 0.3466	0.3288 0.3341	0.3290	0.3310	0.3341	Ave		0.3270				5.9		20.0			
Ethylbenzene	0.4594 0.5246	0.5226 0.5211	0.5127	0.4996	0.5108	Ave		0.5073				4.5		20.0			
m-Xylene & p-Xylene	0.6169 0.6437	0.6148 0.6359	0.6355	0.6137	0.6232	Ave		0.6262				1.9		20.0			
o-Xylene	0.5941 0.6233	0.5896 0.6029	0.6245	0.6014	0.5968	Ave		0.6047				2.3		20.0			
Styrene	0.9580 1.0545	0.9583 1.0320	1.0135	0.9872	1.0201	Ave		1.0034			0.3000	3.7		20.0			
Bromoform	+++++ 0.2846	0.2440 0.2826	0.2606	0.2566	0.2726	Ave		0.2668			0.1000	6.0		20.0			
Isopropylbenzene	1.5546 1.6483	1.5581 1.6164	1.6482	1.5866	1.5868	Ave		1.5999			0.1000	2.4		20.0			
1,1,2,2-Tetrachloroethane	0.7561 0.8073	0.8321 0.7913	0.8175	0.7659	0.8099	Ave		0.7972			0.3000	3.5		20.0			
Bromobenzene	0.8153 0.7490	0.7267 0.7427	0.7731	0.7237	0.7577	Ave		0.7555				4.2		20.0			
1,2,3-Trichloropropane	0.3160 0.2796	0.2566 0.2769	0.2966	0.2651	0.2852	Ave		0.2823				7.0		20.0			
trans-1,4-Dichloro-2-butene	0.2699 0.2473	0.2213 0.2516	0.2435	0.2261	0.2517	Ave		0.2445				6.7		20.0			
N-Propylbenzene	0.7798 0.8210	0.7523 0.8202	0.8514	0.7731	0.8029	Ave		0.8001				4.2		20.0			
2-Chlorotoluene	0.6509 0.6957	0.7125 0.6833	0.7132	0.6770	0.6858	Ave		0.6883				3.1		20.0			
1,3,5-Trimethylbenzene	2.0585 2.3418	2.1282 2.3386	2.4321	2.2627	2.2905	Ave		2.2646				5.7		20.0			
4-Chlorotoluene	0.7199 0.7173	0.7260 0.7141	0.7528	0.6936	0.7171	Ave		0.7201				2.4		20.0			
tert-Butylbenzene	2.0893 2.2086	2.2305 2.1805	2.3049	2.0958	2.1272	Ave		2.1767				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.3016 2.3641	2.3139 2.3974	2.4350	2.3225	2.3165	Ave		2.3501				2.1		20.0			
sec-Butylbenzene	2.8312 3.0965	2.8639 3.1341	3.2011	2.9684	2.9595	Ave		3.0078				4.6		20.0			
1,3-Dichlorobenzene	1.6206 1.4203	1.5501 1.4165	1.4543	1.3821	1.4074	Ave		1.4645			0.6000	6.0		20.0			
4-Isopropyltoluene	2.3868 2.6740	2.3755 2.7456	2.7383	2.5786	2.5586	Ave		2.5796				5.9		20.0			
1,4-Dichlorobenzene	1.7882 1.4335	1.6574 1.4328	1.4853	1.4002	1.4320	Ave		1.5185			0.5000	9.7		20.0			
n-Butylbenzene	2.0220 2.3242	2.1252 2.3914	2.3447	2.2111	2.1782	Ave		2.2281				5.9		20.0			
1,2-Dichlorobenzene	1.3936 1.3079	1.4283 1.3217	1.3446	1.2913	1.2861	Ave		1.3391			0.4000	4.0		20.0			
1,2-Dibromo-3-Chloropropane	0.2394 0.2501	0.2225 0.2556	0.2287	0.2293	0.2369	Ave		0.2375			0.0500	5.0		20.0			
1,2,4-Trichlorobenzene	1.0063 0.8577	1.0084 0.9508	0.8893	0.8765	0.8484	Ave		0.9196			0.2000	7.4		20.0			
Hexachlorobutadiene	0.4988 0.4431	0.5134 0.5128	0.4874	0.4604	0.4444	Ave		0.4800				6.4		20.0			
Naphthalene	2.5280 2.5374	2.6896 2.7560	2.5594	2.5256	2.5586	Ave		2.5935				3.5		20.0			
1,2,3-Trichlorobenzene	0.8270 0.7867	0.8451 0.9084	0.8355	0.8114	0.8072	Ave		0.8316				4.7		20.0			
Dibromofluoromethane (Surr)	0.2924 0.2586	0.2650 0.2453	0.2515	0.2531	0.2466	Ave		0.2589				6.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3213 0.2669	0.3001 0.2485	0.2625	0.2659	0.2555	Ave		0.2744				9.6		20.0			
Toluene-d8 (Surr)	1.2522 1.2151	1.2033 1.2031	1.2111	1.1433	1.2004	Ave		1.2041				2.7		20.0			
4-Bromofluorobenzene (Surr)	0.5696 0.4390	0.4918 0.4279	0.4472	0.4315	0.4318	Ave		0.4627				11.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	6894 1134505	14647 1522047	151920	328230	708511	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	8217 955231	16570 1245553	155433	315290	632033	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	7871 989374	15313 1318121	137925	301883	631099	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	6342 993940	15847 1317064	148293	312915	644632	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	6350 660888	12818 848050	114577	229239	441425	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	4872 563348	9377 723733	93395	188891	372825	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	12059 1312016	21989 1706469	215631	439391	879608	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	10381 1337225	20928 1728039	187339	415720	861954	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	5066 580370	9442 738330	90620	180269	370565	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	6772 800130	11339 1043418	106196	227879	531628	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	8796 1128785	17119 1458107	185910	347690	716665	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	6009 793296	12789 1047375	134365	247358	505930	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 459712	7064 501797	52355	107763	237768	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	10728 1363038	21574 1772860	228493	440198	903919	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	23708 2317545	43688 3006958	387941	728690	1496184	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	9784 1159498	18985 1500878	184068	355801	747474	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	13362 1400331	19667 1633788	197122	391356	828794	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 872855	15117 1113978	144386	279726	566982	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	+++++ 798354	12788 +++++	110777	215092	411966	+++++ 600	10.0 +++++	100	200	400
Acrylonitrile	FB	Ave	26540 3368428	41875 3868018	448754	915892	1977138	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	9868 1061569	17800 1369327	175373	329454	684359	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	15911 2063462	32315 2537900	335243	654948	1350698	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	9277 1210166	18280 1614587	208123	356826	765779	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	9924 1313347	19272 1701003	213583	413734	860929	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	9654 1234805	16923 1593713	187841	357825	770166	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7528 896669	14795 1142993	143871	281663	582599	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	+++++ 241145	3193 297238	34072	66486	153177	+++++ 120	2.00 160	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	6159 704769	12773 1027916	134434	247316	481767	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5651 587580	9868 714392	89489	180080	369472	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	4596 618274	9301 734202	86462	169823	372381	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10692 1353439	21458 1728769	213657	422069	869181	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9137 1224716	17835 1621508	206006	378348	801860	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	9806 1279473	19597 1675220	214696	386296	815868	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8674 1102013	17455 1441115	182947	334178	708682	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	8406 1167256	17198 1528972	187898	345961	731238	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5482 758926	7910 849021	105355	183028	449380	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	22844 3064496	48419 3923346	494183	930203	2003056	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8485 954899	15873 1220640	152677	289097	617748	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 660181	35642 884598	135257	216048	434651	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	7211 928718	14571 1225880	155201	285190	608912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	11515 1566351	22689 2029926	256970	461990	972024	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4734 704987	10704 908144	110015	210992	465852	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	5496 630606	9635 784539	95707	196594	412829	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 142512	1478 187742	23290	43840	91591	+++++ 1200	20.0 1600	200	400	800
Dichlorobromomethane	FB	Ave	7466 999127	13539 1286301	152581	290639	649042	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	7395 1029389	14128 1392220	171233	315645	695808	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8313 1135535	17042 1511629	175580	347181	757793	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	13091 1889071	26811 2377711	308673	554613	1213622	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	28549 3229981	51989 4260144	544060	985962	2123092	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	8702 1082760	16254 1391341	172822	315763	710372	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	7650 1060082	14391 1361372	166277	305349	700245	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4656 666583	9825 859718	109350	202390	444369	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7470 994717	14983 1297004	166266	300622	637692	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8871 1126088	17817 1458618	188817	344194	743433	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	10457 1409861	19416 1795814	235229	411400	916606	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5763 813124	11860 1038431	125585	237418	523153	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	6061 733594	11944 938884	121691	223763	483377	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	18258 2173534	36126 2784427	362449	672294	1428038	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5213 798193	11650 1003714	126948	245845	510579	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	8398 1207976	18517 1565528	197845	371072	780525	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11276 1482266	21784 1910562	245222	455770	952249	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10860 1435324	20892 1811249	240986	446659	911893	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17512 2428268	33956 3100442	391122	733164	1558780	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 655265	8645 849153	100560	190577	416502	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	28418 3795594	55210 4856288	636049	1178300	2424662	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	8105 1065677	17817 1352703	173948	331847	686661	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8740 988831	15559 1269533	164497	313555	642419	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3387 369092	5494 473318	63108	114884	241838	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2893 326498	4738 430124	51819	97955	213375	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8359 1083875	16107 1402046	181166	334963	680756	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6977 918378	15255 1168008	151745	293354	581507	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	22067 3091430	45567 3997648	517511	980405	1942019	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7717 946982	15545 1220622	160173	300515	607997	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	22397 2915643	47758 3727392	490442	908078	1803602	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	24672 3120829	49545 4098181	518127	1006317	1964040	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	30350 4087764	61320 5357379	681132	1286147	2509293	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	17372 1874897	33191 2421314	309437	598840	1193296	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25586 3530033	50862 4693383	582655	1117286	2169356	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	19169 1892443	35488 2449293	316046	606688	1214157	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	21675 3068191	45503 4087812	498908	958018	1846843	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	14939 1726550	30581 2259323	286113	559506	1090448	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2566 330105	4764 436864	48670	99335	200822	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	10787 1132196	21592 1625332	189226	379757	719342	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	5347 584967	10992 876579	103707	199490	376786	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	27099 3349616	57589 4711177	544587	1094286	2169342	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	8865 1038523	18094 1552764	177768	351575	684438	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	6754 758227	11849 957680	119809	235239	483501	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	7422 782592	13421 970142	125069	247201	501017	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	22890 2798059	42636 3614422	467380	849081	1834190	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	10413 1010844	17427 1285631	172585	320453	659738	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
n-Heptane	+++++	1.1						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-337917/14 Calibration Date: 07/25/2018 15:37

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1900808.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0327		0.164	0.200	-17.8	30.0
Diisopropyl ether	Ave	0.2313	0.2381		0.0206	0.0200	3.0	30.0
2-Chloro-1,3-butadiene	Ave	0.3979	0.4016		0.0202	0.0200	0.9	30.0
Ethyl tert-butyl ether	Ave	0.7258	0.7451		0.0205	0.0200	2.7	30.0
Ethyl acetate	Ave	0.3007	0.2753		0.0366	0.0400	-8.5	30.0
Propionitrile	Ave	0.0408	0.0395		0.194	0.200	-3.0	30.0
Methacrylonitrile	Ave	0.1828	0.1926		0.211	0.200	5.3	30.0
Tert-amyl methyl ether	Ave	0.7700	0.7828		0.0203	0.0200	1.7	30.0
n-Butanol	Ave	0.0094	0.0086		0.457	0.500	-8.6	30.0
Ethyl acrylate	Ave	0.3703	0.3736		0.0202	0.0200	0.9	30.0
Methyl methacrylate	Ave	0.2459	0.2495		0.0406	0.0400	1.5	30.0
2-Nitropropane	Ave	0.0726	0.0727		0.0400	0.0400	0.1	30.0
n-Butyl acetate	Ave	0.5364	0.5463		0.0204	0.0200	1.9	30.0
1-Chlorohexane	Ave	0.4610	0.4451		0.0193	0.0200	-3.4	30.0
Cyclohexanone	Ave	0.0137	0.0138		0.202	0.200	1.0	30.0
Pentachloroethane	Ave	0.3462	0.3376		0.0390	0.0400	-2.5	30.0
1,2,3-Trimethylbenzene	Ave	2.276	2.407		0.0212	0.0200	5.8	30.0
Benzyl chloride	Ave	1.286	1.208		0.0188	0.0200	-6.1	30.0
1,3,5-Trichlorobenzene	Ave	1.021	1.003		0.0196	0.0200	-1.8	30.0
2-Methylnaphthalene	Ave	1.433	1.388		0.0388	0.0400	-3.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.2913	0.1000	0.0151	0.0200	-24.3	30.0
Chloromethane	Ave	0.2883	0.2492	0.1000	0.0173	0.0200	-13.6	30.0
Butadiene	Ave	0.2887	0.2477		0.0172	0.0200	-14.2	30.0
Vinyl chloride	Ave	0.2980	0.2874	0.1000	0.0193	0.0200	-3.5	30.0
Bromomethane	Ave	0.2335	0.2187	0.0500	0.0187	0.0200	-6.3	30.0
Chloroethane	Ave	0.1848	0.1799	0.0500	0.0195	0.0200	-2.7	30.0
Dichlorofluoromethane	Ave	0.4581	0.4761		0.0208	0.0200	3.9	30.0
Trichlorofluoromethane	Ave	0.4984	0.5062	0.1000	0.0203	0.0200	1.6	30.0
Ethyl ether	Ave	0.1800	0.1933		0.0215	0.0200	7.4	30.0
Acrolein	Ave	0.0445	0.0361		0.0812	0.100	-18.8	30.0
1,1-Dichloroethene	Ave	0.3589	0.3889	0.1000	0.0217	0.0200	8.3	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2567	0.2852	0.0500	0.0222	0.0200	11.1	30.0
Acetone	Ave	0.0784	0.0730	0.0100	0.0372	0.0400	-6.9	50.0
Iodomethane	Ave	0.4655	0.4827		0.0207	0.0200	3.7	30.0
Carbon disulfide	Ave	0.7515	0.7522	0.1000	0.0200	0.0200	0.0	30.0
3-Chloro-1-propene	Ave	0.3541	0.3610		0.0204	0.0200	2.0	30.0
Methyl acetate	Ave	0.2328	0.2202	0.1000	0.0378	0.0400	-5.4	50.0
Methylene Chloride	Ave	0.2846	0.2847	0.1000	0.0200	0.0200	0.0	50.0
tert-Butyl alcohol	Ave	0.0271	0.0283		0.209	0.200	4.3	30.0
Acrylonitrile	Ave	0.1006	0.1019		0.203	0.200	1.4	30.0
Methyl tert-butyl ether	Ave	0.6938	0.7063	0.1000	0.0204	0.0200	1.8	30.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3553	0.1000	0.0210	0.0200	4.9	30.0
Hexane	Ave	0.3524	0.3872		0.0220	0.0200	9.9	30.0
1,1-Dichloroethane	Ave	0.4048	0.4171	0.2000	0.0206	0.0200	3.0	30.0
Vinyl acetate	Ave	0.4639	0.5080		0.0219	0.0200	9.5	30.0
2,2-Dichloropropane	Ave	0.2438	0.2691		0.0221	0.0200	10.4	30.0
2-Butanone (MEK)	Ave	0.0472	0.0464	0.0100	0.0393	0.0400	-1.8	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.2867	0.1000	0.0198	0.0200	-0.8	30.0
Bromochloromethane	Ave	0.1945	0.1891		0.0194	0.0200	-2.8	30.0
Tetrahydrofuran	Lin1		0.1082		0.0418	0.0400	4.6	30.0
Chloroform	Ave	0.4433	0.4563	0.2000	0.0206	0.0200	2.9	30.0
1,1,1-Trichloroethane	Ave	0.4174	0.4498	0.1000	0.0216	0.0200	7.8	30.0
Cyclohexane	Ave	0.3819	0.4119	0.1000	0.0216	0.0200	7.8	30.0
1,1-Dichloropropene	Ave	0.3519	0.3667		0.0208	0.0200	4.2	30.0
Carbon tetrachloride	Ave	0.4023	0.4240	0.1000	0.0211	0.0200	5.4	30.0
Isobutyl alcohol	Ave	0.0110	0.0112		0.508	0.500	1.6	30.0
1,2-Dichloroethane	Ave	0.3600	0.3604	0.1000	0.0200	0.0200	0.1	30.0
Benzene	Ave	0.9518	0.9713	0.5000	0.0204	0.0200	2.1	30.0
n-Heptane	Lin1		0.2300		0.0213	0.0200	6.3	30.0
Trichloroethene	Ave	0.3160	0.3196	0.1500	0.0202	0.0200	1.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4590	0.4761	0.1000	0.0207	0.0200	3.7	30.0
1,2-Dichloropropane	Ave	0.2208	0.2306	0.1000	0.0209	0.0200	4.5	30.0
Dibromomethane	Ave	0.2271	0.2193		0.0193	0.0200	-3.4	30.0
1,4-Dioxane	Ave	0.0024	0.0028		0.474	0.400	18.4	50.0
Bromodichloromethane	Ave	0.3479	0.3494	0.1500	0.0201	0.0200	0.4	30.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1822		0.0206	0.0200	2.9	30.0
cis-1,3-Dichloropropene	Ave	0.3865	0.4060	0.1500	0.0210	0.0200	5.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3203	0.3230	0.0500	0.0403	0.0400	0.8	50.0
Toluene	Ave	1.352	1.362	0.4000	0.0201	0.0200	0.7	30.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4613	0.1000	0.0191	0.0200	-4.3	30.0
Ethyl methacrylate	Ave	0.4344	0.4432		0.0204	0.0200	2.0	30.0
1,1,2-Trichloroethane	Ave	0.2842	0.2905	0.1000	0.0204	0.0200	2.2	30.0
Tetrachloroethene	Ave	0.4313	0.4446	0.1500	0.0206	0.0200	3.1	30.0
1,3-Dichloropropane	Ave	0.4802	0.4738		0.0197	0.0200	-1.3	30.0
2-Hexanone	Ave	0.3149	0.3202	0.0500	0.0407	0.0400	1.7	50.0
Chlorodibromomethane	Ave	0.3583	0.3631		0.0203	0.0200	1.3	30.0
1,2-Dibromoethane	Ave	0.3346	0.3230		0.0193	0.0200	-3.5	30.0
Chlorobenzene	Ave	0.9253	0.9231	0.3000	0.0200	0.0200	-0.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3465		0.0208	0.0200	3.9	30.0
Ethylbenzene	Ave	0.4836	0.4958		0.0205	0.0200	2.5	30.0
m-Xylene & p-Xylene	Ave	0.5890	0.6110		0.0207	0.0200	3.7	30.0
o-Xylene	Ave	0.5597	0.5768		0.0206	0.0200	3.1	30.0
Styrene	Ave	0.9588	0.9701	0.3000	0.0202	0.0200	1.2	30.0
Bromoform	Ave	0.2933	0.2923	0.1000	0.0199	0.0200	-0.3	30.0
Isopropylbenzene	Ave	1.503	1.583	0.1000	0.0211	0.0200	5.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.7768	0.3000	0.0202	0.0200	0.8	30.0
Bromobenzene	Ave	0.7690	0.7545		0.0196	0.0200	-1.9	30.0
1,2,3-Trichloropropane	Ave	0.2921	0.3010		0.0206	0.0200	3.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2785		0.0203	0.0200	1.7	30.0
N-Propylbenzene	Ave	0.7729	0.7998		0.0207	0.0200	3.5	30.0
2-Chlorotoluene	Ave	0.6541	0.6592		0.0202	0.0200	0.8	30.0
1,3,5-Trimethylbenzene	Ave	2.225	2.303		0.0207	0.0200	3.5	30.0
4-Chlorotoluene	Ave	0.7072	0.7078		0.0200	0.0200	0.0	30.0
tert-Butylbenzene	Ave	2.113	2.203		0.0209	0.0200	4.3	30.0
1,2,4-Trimethylbenzene	Ave	2.256	2.278		0.0202	0.0200	1.0	30.0
sec-Butylbenzene	Ave	2.845	3.009		0.0212	0.0200	5.8	30.0
1,3-Dichlorobenzene	Ave	1.412	1.370	0.6000	0.0194	0.0200	-3.0	30.0
4-Isopropyltoluene	Ave	2.492	2.628		0.0211	0.0200	5.5	30.0
1,4-Dichlorobenzene	Ave	1.459	1.395	0.5000	0.0191	0.0200	-4.4	30.0
n-Butylbenzene	Ave	2.050	2.114		0.0206	0.0200	3.1	30.0
1,2-Dichlorobenzene	Ave	1.282	1.257	0.4000	0.0196	0.0200	-2.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2450	0.2411	0.0500	0.0197	0.0200	-1.6	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.8004	0.2000	0.0187	0.0200	-6.4	50.0
Hexachlorobutadiene	Ave	0.4392	0.4373		0.0199	0.0200	-0.4	50.0
Naphthalene	Ave	2.363	2.262		0.0191	0.0200	-4.3	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.7284		0.0190	0.0200	-5.1	30.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2769		0.0206	0.0200	2.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3266		0.0211	0.0200	5.6	30.0
Toluene-d8 (Surr)	Ave	1.199	1.238		0.0206	0.0200	3.2	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4759		0.0211	0.0200	5.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCV 240-447281/3 Calibration Date: 08/14/2020 17:44

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1916360.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0426		0.213	0.200	6.6	20.0
Diisopropyl ether	Ave	0.2313	0.2103		0.0182	0.0200	-9.1	20.0
2-Chloro-1,3-butadiene	Ave	0.3979	0.3946		0.0198	0.0200	-0.8	20.0
Ethyl tert-butyl ether	Ave	0.7258	0.6430		0.0177	0.0200	-11.4	20.0
Ethyl acetate	Ave	0.3007	0.3152		0.0419	0.0400	4.8	20.0
Propionitrile	Ave	0.0408	0.0560		0.275	0.200	37.4*	20.0
Methacrylonitrile	Ave	0.1828	0.1973		0.216	0.200	7.9	20.0
Tert-amyl methyl ether	Ave	0.7700	0.6807		0.0177	0.0200	-11.6	20.0
n-Butanol	Ave	0.0094	0.0141		0.754	0.500	50.7*	20.0
Ethyl acrylate	Ave	0.3703	0.3759		0.0203	0.0200	1.5	20.0
Methyl methacrylate	Ave	0.2459	0.2386		0.0388	0.0400	-3.0	20.0
2-Nitropropane	Ave	0.0726	0.0849		0.0468	0.0400	17.0	20.0
n-Butyl acetate	Ave	0.5364	0.5513		0.0206	0.0200	2.8	20.0
1-Chlorohexane	Ave	0.4610	0.4488		0.0195	0.0200	-2.6	20.0
Cyclohexanone	Ave	0.0137	0.0170		0.249	0.200	24.7*	20.0
Pentachloroethane	Ave	0.3462	0.4016		0.0464	0.0400	16.0	20.0
1,2,3-Trimethylbenzene	Ave	2.276	2.347		0.0206	0.0200	3.1	20.0
Benzyl chloride	Ave	1.286	1.676		0.0261	0.0200	30.3*	20.0
1,3,5-Trichlorobenzene	Ave	1.021	0.8644		0.0169	0.0200	-15.4	20.0
2-Methylnaphthalene	Ave	1.433	1.187		0.0331	0.0400	-17.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 240-447281/4 Calibration Date: 08/14/2020 18:06

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1916361.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.3135	0.1000	0.0163	0.0200	-18.6	20.0
Chloromethane	Ave	0.2883	0.2877	0.1000	0.0200	0.0200	-0.2	20.0
Vinyl chloride	Ave	0.2980	0.3024	0.1000	0.0203	0.0200	1.5	20.0
Butadiene	Ave	0.2887	0.2846		0.0197	0.0200	-1.4	20.0
Bromomethane	Ave	0.2335	0.2074	0.0500	0.0178	0.0200	-11.2	20.0
Chloroethane	Ave	0.1848	0.1906	0.0500	0.0206	0.0200	3.1	20.0
Dichlorofluoromethane	Ave	0.4581	0.4300		0.0188	0.0200	-6.1	20.0
Trichlorofluoromethane	Ave	0.4984	0.4033	0.1000	0.0162	0.0200	-19.1	20.0
Ethyl ether	Ave	0.1800	0.2018		0.0224	0.0200	12.1	20.0
Acrolein	Ave	0.0445	0.0244		0.0549	0.100	-45.1*	20.0
1,1-Dichloroethene	Ave	0.3589	0.3480	0.1000	0.0194	0.0200	-3.1	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2567	0.2616	0.0500	0.0204	0.0200	1.9	20.0
Acetone	Ave	0.0784	0.1004	0.0100	0.0512	0.0400	28.1	50.0
Iodomethane	Ave	0.4655	0.4055		0.0174	0.0200	-12.9	20.0
Carbon disulfide	Ave	0.7515	0.7289	0.1000	0.0194	0.0200	-3.0	20.0
3-Chloro-1-propene	Ave	0.3541	0.3358		0.0190	0.0200	-5.2	20.0
Methyl acetate	Ave	0.2328	0.2608	0.1000	0.0448	0.0400	12.0	50.0
Methylene Chloride	Ave	0.2846	0.2912	0.1000	0.0205	0.0200	2.3	50.0
tert-Butyl alcohol	Ave	0.0271	0.0355		0.263	0.200	31.3*	20.0
Acrylonitrile	Ave	0.1006	0.1264		0.251	0.200	25.7*	20.0
Methyl tert-butyl ether	Ave	0.6938	0.6837	0.1000	0.0197	0.0200	-1.5	20.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3392	0.1000	0.0200	0.0200	0.2	20.0
Hexane	Ave	0.3524	0.3673		0.0208	0.0200	4.2	20.0
1,1-Dichloroethane	Ave	0.4048	0.4222	0.2000	0.0209	0.0200	4.3	20.0
Vinyl acetate	Ave	0.4639	0.5017		0.0216	0.0200	8.2	20.0
2,2-Dichloropropane	Ave	0.2438	0.2689		0.0221	0.0200	10.3	20.0
2-Butanone (MEK)	Ave	0.0472	0.0507	0.0100	0.0429	0.0400	7.3	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.2797	0.1000	0.0194	0.0200	-3.2	20.0
Bromochloromethane	Ave	0.1945	0.1974		0.0203	0.0200	1.5	20.0
Tetrahydrofuran	Lin1		0.1160		0.0450	0.0400	12.6	20.0
Chloroform	Ave	0.4433	0.4440	0.2000	0.0200	0.0200	0.2	20.0
1,1,1-Trichloroethane	Ave	0.4174	0.3805	0.1000	0.0182	0.0200	-8.8	20.0
Cyclohexane	Ave	0.3819	0.3965	0.1000	0.0208	0.0200	3.8	20.0
1,1-Dichloropropene	Ave	0.3519	0.3613		0.0205	0.0200	2.7	20.0
Carbon tetrachloride	Ave	0.4023	0.3531	0.1000	0.0176	0.0200	-12.2	20.0
Isobutyl alcohol	Ave	0.0110	0.0134		0.610	0.500	22.0*	20.0
Benzene	Ave	0.9518	1.002	0.5000	0.0211	0.0200	5.3	20.0
1,2-Dichloroethane	Ave	0.3600	0.3277	0.1000	0.0182	0.0200	-9.0	20.0
n-Heptane	Lin1		0.1815		0.0160	0.0200	-19.8	20.0
Trichloroethene	Ave	0.3160	0.2860	0.1500	0.0181	0.0200	-9.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 240-447281/4 Calibration Date: 08/14/2020 18:06

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1916361.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4590	0.4301	0.1000	0.0187	0.0200	-6.3	20.0
1,2-Dichloropropane	Ave	0.2208	0.2347	0.1000	0.0213	0.0200	6.3	20.0
1,4-Dioxane	Ave	0.0024	0.0042		0.701	0.400	75.3*	50.0
Dibromomethane	Ave	0.2271	0.1806		0.0159	0.0200	-20.4*	20.0
Bromodichloromethane	Ave	0.3479	0.3163	0.1500	0.0182	0.0200	-9.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1745		0.0394	0.0400	-1.4	20.0
cis-1,3-Dichloropropene	Ave	0.3865	0.3784	0.1500	0.0196	0.0200	-2.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3203	0.3282	0.0500	0.0410	0.0400	2.5	50.0
Toluene	Ave	1.352	1.454	0.4000	0.0215	0.0200	7.6	20.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4716	0.1000	0.0196	0.0200	-2.1	20.0
Ethyl methacrylate	Ave	0.4344	0.4589		0.0211	0.0200	5.6	20.0
1,1,2-Trichloroethane	Ave	0.2842	0.3021	0.1000	0.0213	0.0200	6.3	20.0
1,3-Dichloropropane	Ave	0.4802	0.5227		0.0218	0.0200	8.8	20.0
Tetrachloroethene	Ave	0.4313	0.3951	0.1500	0.0183	0.0200	-8.4	20.0
2-Hexanone	Ave	0.3149	0.3426	0.0500	0.0435	0.0400	8.8	50.0
Chlorodibromomethane	Ave	0.3583	0.3432		0.0192	0.0200	-4.2	20.0
1,2-Dibromoethane	Ave	0.3346	0.3286		0.0196	0.0200	-1.8	20.0
Chlorobenzene	Ave	0.9253	0.9305	0.3000	0.0201	0.0200	0.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3360		0.0201	0.0200	0.7	20.0
Ethylbenzene	Ave	0.4836	0.4883		0.0202	0.0200	1.0	20.0
m-Xylene & p-Xylene	Ave	0.5890	0.6102		0.0207	0.0200	3.6	20.0
o-Xylene	Ave	0.5597	0.5945		0.0212	0.0200	6.2	20.0
Styrene	Ave	0.9588	0.9903	0.3000	0.0207	0.0200	3.3	20.0
Bromoform	Ave	0.2933	0.2561	0.1000	0.0175	0.0200	-12.7	20.0
Isopropylbenzene	Ave	1.503	1.537	0.1000	0.0205	0.0200	2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.9247	0.3000	0.0240	0.0200	20.0	20.0
Bromobenzene	Ave	0.7690	0.7327		0.0191	0.0200	-4.7	20.0
1,2,3-Trichloropropane	Ave	0.2921	0.3065		0.0210	0.0200	4.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2658		0.0194	0.0200	-2.9	20.0
N-Propylbenzene	Ave	0.7729	0.8074		0.0209	0.0200	4.5	20.0
2-Chlorotoluene	Ave	0.6541	0.6909		0.0211	0.0200	5.6	20.0
1,3,5-Trimethylbenzene	Ave	2.225	2.331		0.0210	0.0200	4.8	20.0
4-Chlorotoluene	Ave	0.7072	0.7190		0.0203	0.0200	1.7	20.0
tert-Butylbenzene	Ave	2.113	2.013		0.0191	0.0200	-4.7	20.0
1,2,4-Trimethylbenzene	Ave	2.256	2.355		0.0209	0.0200	4.4	20.0
sec-Butylbenzene	Ave	2.845	2.898		0.0204	0.0200	1.9	20.0
1,3-Dichlorobenzene	Ave	1.412	1.360	0.6000	0.0193	0.0200	-3.7	20.0
4-Isopropyltoluene	Ave	2.492	2.459		0.0197	0.0200	-1.3	20.0
1,4-Dichlorobenzene	Ave	1.459	1.367	0.5000	0.0187	0.0200	-6.3	20.0
n-Butylbenzene	Ave	2.050	2.039		0.0199	0.0200	-0.5	20.0
1,2-Dichlorobenzene	Ave	1.282	1.327	0.4000	0.0207	0.0200	3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 240-447281/4 Calibration Date: 08/14/2020 18:06

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1916361.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2450	0.2555	0.0500	0.0208	0.0200	4.2	50.0
~~1,2,4-Trichlorobenzene~~	~~Ave~~	~~0.8550~~	~~0.6871~~	~~0.2000~~	~~0.0161~~	~~0.0200~~	~~-19.6~~	~~50.0~~
Hexachlorobutadiene	Ave	0.4392	0.2895		0.0132	0.0200	-34.1	50.0
~~Naphthalene~~	~~Ave~~	~~2.363~~	~~2.421~~		~~0.0205~~	~~0.0200~~	~~2.4~~	~~50.0~~
1,2,3-Trichlorobenzene	Ave	0.7677	0.6832		0.0178	0.0200	-11.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2633		0.0196	0.0200	-2.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.2996		0.0194	0.0200	-3.1	20.0
Toluene-d8 (Surr)	Ave	1.199	1.298		0.0216	0.0200	8.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4698		0.0208	0.0200	4.1	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-447281/8

Matrix: Water Lab File ID: U1916365.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
120-82-1	1,2,4-Trichlorobenzene	0.81	U	1.0	0.81
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
110-75-8	2-Chloroethyl vinyl ether	1.1	U	10	1.1
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
591-78-6	2-Hexanone	2.1	U	10	2.1
108-86-1	Bromobenzene	0.38	U	1.0	0.38
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
99-87-6	4-Isopropyltoluene	0.49	U	1.0	0.49
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.38	U	1.0	0.38
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.40	U	1.0	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-447281/8

Matrix: Water Lab File ID: U1916365.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	0.64	U	1.0	0.64
156-59-2	cis-1,2-Dichloroethene	0.38	U	1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
74-95-3	Dibromomethane	0.33	U	1.0	0.33
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
108-20-3	Diisopropyl ether	0.36	U	10	0.36
91-20-3	Naphthalene	0.82	U	1.0	0.82
104-51-8	n-Butylbenzene	0.59	U	1.0	0.59
98-82-8	Isopropylbenzene	0.45	U	1.0	0.45
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
135-98-8	sec-Butylbenzene	0.63	U	1.0	0.63
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
100-42-5	Styrene	0.40	U	1.0	0.40
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
127-18-4	Tetrachloroethene	0.33	U	1.0	0.33
108-88-3	Toluene	0.35	U	1.0	0.35
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.36	U	1.0	0.36
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-447281/8

Matrix: Water Lab File ID: U1916365.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		75-130
460-00-4	4-Bromofluorobenzene (Surr)	96		47-134
2037-26-5	Toluene-d8 (Surr)	106		69-122
1868-53-7	Dibromofluoromethane (Surr)	105		78-129

FORM II
PCBS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): VF-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	PCB52L #	PCB138L #
MRC-MW-164B-081120	240-134814-1	91	81
	MB 410-34321/1-A	82	75
	LCS 410-34321/2-A	84	77
	LCSD 410-34321/3-A	76	73

	QC LIMITS
PCB52L = PCB-52L	42-105
PCB138L = PCB-138L	39-131

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2320_006.D

Lab ID: LCS 410-34321/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	6.28	8.69	139	52-119	*
Polychlorinated biphenyls, Total	25.0	28.8	115		
Total Dichlorobiphenyls	1.25	1.33	106	37-100	*
Total Heptachlorobiphenyls	3.76	3.98	106	47-115	
Total Hexachlorobiphenyls	2.51	2.50	100	48-115	
Total Monochlorobiphenyls	1.25	1.30	104	33-91	*
Total Octachlorobiphenyls	3.75	4.27	114	50-115	
Total Pentachlorobiphenyls	2.50	2.76	110	49-111	
Total Tetrachlorobiphenyls	2.50	2.50	100	41-96	*
Total Trichlorobiphenyls	1.26	1.42	113	37-96	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2320_007.D

Lab ID: LCSD 410-34321/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	6.28	8.13	130	7	30	52-119	*
Polychlorinated biphenyls, Total	25.0	26.8	107	7			
Total Dichlorobiphenyls	1.25	1.24	100	6	30	37-100	
Total Heptachlorobiphenyls	3.76	3.86	103	3	30	47-115	
Total Hexachlorobiphenyls	2.51	2.25	90	10	30	48-115	
Total Monochlorobiphenyls	1.25	1.23	98	5	30	33-91	*
Total Octachlorobiphenyls	3.75	3.97	106	7	30	50-115	
Total Pentachlorobiphenyls	2.50	2.46	99	11	30	49-111	
Total Tetrachlorobiphenyls	2.50	2.26	90	10	30	41-96	
Total Trichlorobiphenyls	1.26	1.35	107	5	30	37-96	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Lab File ID: 2320_005.D Lab Sample ID: MB 410-34321/1-A

Matrix: Water Date Extracted: 08/18/2020 07:43

Instrument ID: 21949 Date Analyzed: 08/19/2020 13:04

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-34321/2-A	2320_006.D	08/19/2020 13:33
	LCSD 410-34321/3-A	2320_007.D	08/19/2020 14:01
MRC-MW-164B-081120	240-134814-1	2320_008.D	08/19/2020 14:29

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Lab File ID: 2240_201.D DFTPP Injection Date: 08/11/2020

Instrument ID: 21949 DFTPP Injection Time: 14:19

Analysis Batch No.: 32133

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.4
197	Less than 1 % of mass 198	0.4
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	25.9
365	Greater than 1% of mass 198	3.9
441	Present but less than mass 443	12.4 (80.7) 2
442	Greater than 40% of mass 198	79.6
443	17 - 23% of mass 442	15.3 (19.2) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-32133/4	2240_204.D	08/11/2020	15:35
	IC 410-32133/5	2240_205.D	08/11/2020	16:03
	IC 410-32133/6	2240_206.D	08/11/2020	16:32
	IC 410-32133/7	2240_207.D	08/11/2020	17:00
	IC 410-32133/8	2240_208.D	08/11/2020	17:28
	ICV 410-32133/9	2240_209.D	08/11/2020	17:57

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Lab File ID: 2320_001.D DFTPP Injection Date: 08/19/2020

Instrument ID: 21949 DFTPP Injection Time: 11:26

Analysis Batch No.: 34909

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.9
197	Less than 1 % of mass 198	0.4
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.9
275	10 - 30% of mass 198	25.5
365	Greater than 1% of mass 198	3.8
441	Present but less than mass 443	11.4 (79.6) 2
442	Greater than 40% of mass 198	73.1
443	17 - 23% of mass 442	14.3 (19.6) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-34909/3	2320_003.D	08/19/2020	12:08
	MB 410-34321/1-A	2320_005.D	08/19/2020	13:04
	LCS 410-34321/2-A	2320_006.D	08/19/2020	13:33
	LCSD 410-34321/3-A	2320_007.D	08/19/2020	14:01
MRC-MW-164B-081120	240-134814-1	2320_008.D	08/19/2020	14:29
	CCV 410-34909/9	2320_009.D	08/19/2020	14:57

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Sample No.: CCVIS 410-34909/3 Date Analyzed: 08/19/2020 12:08

Instrument ID: 21949 GC Column: VF-5MS ID: 0.25(mm)

Lab File ID (Standard): 2320_003.D Heated Purge: (Y/N) N

Calibration ID: 8518

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	#	RT #
12/24 HOUR STD		629194	13.38	563931	17.44		
UPPER LIMIT		817952	13.88	733110	17.94		
LOWER LIMIT		440436	12.88	394752	16.94		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 410-34321/1-A		539149	13.38	507119	17.44		
LCS 410-34321/2-A		512314	13.38	466789	17.44		
LCSD 410-34321/3-A		511612	13.38	475231	17.44		
240-134814-1	MRC-MW-164B-081120	451276	13.38	402605	17.44		
CCV 410-34909/9		492712	13.38	433122	17.44		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1 Analy Batch No.: 32133

SDG No.:

Instrument ID: 21949 GC Column: VF-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/11/2020 15:35 Calibration End Date: 08/11/2020 17:28 Calibration ID: 8518

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-32133/4	2240_204.D
Level 2	IC 410-32133/5	2240_205.D
Level 3	IC 410-32133/6	2240_206.D
Level 4	IC 410-32133/7	2240_207.D
Level 5	IC 410-32133/8	2240_208.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1	0.8758	0.8569	0.8460	0.8069	0.7362	Ave		0.8244				6.7		20.0			
PCB-5	0.6103	0.6164	0.5992	0.5995	0.5574	Ave		0.5966				3.9		20.0			
PCB-29	0.4199	0.4305	0.4114	0.4360	0.4053	Ave		0.4206				3.0		20.0			
PCB-50	0.2604	0.2636	0.2474	0.2653	0.2494	Ave		0.2572				3.2		20.0			
PCB-104	0.1713	0.1758	0.1673	0.1731	0.1680	Ave		0.1711				2.1		20.0			
PCB-87	0.2577	0.2746	0.2626	0.2720	0.2646	Ave		0.2663				2.6		20.0			
PCB-154	0.2770	0.2849	0.2562	0.2938	0.2815	Ave		0.2787				5.0		20.0			
PCB-77	0.2151	0.2235	0.2164	0.2241	0.2006	Ave		0.2159				4.4		20.0			
PCB-188	0.2388	0.2480	0.2379	0.2530	0.2557	Ave		0.2467				3.3		20.0			
PCB-200	0.2012	0.2020	0.1926	0.2068	0.2061	Ave		0.2017				2.8		20.0			
PCB-208	0.0547	0.0589	0.0592	0.0600	0.0571	Ave		0.0580				3.7		20.0			
DCB Decachlorobiphenyl	0.1285	0.1392	0.1330	0.1289	0.1097	Ave		0.1278				8.6		20.0			
PCB-52L	0.3116	0.3058	0.2930	0.3096	0.2873	Ave		0.3015				3.6		20.0			
PCB-138L	0.3093	0.3002	0.2494	0.2914	0.2679	Ave		0.2836				8.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1 Analy Batch No.: 32133

SDG No.:

Instrument ID: 21949 GC Column: VF-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/11/2020 15:35 Calibration End Date: 08/11/2020 17:28 Calibration ID: 8518

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-32133/4	2240_204.D
Level 2	IC 410-32133/5	2240_205.D
Level 3	IC 410-32133/6	2240_206.D
Level 4	IC 410-32133/7	2240_207.D
Level 5	IC 410-32133/8	2240_208.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1	PHN	Ave	83490	405903	815191	1620640	3845752	0.100	0.500	1.00	2.00	5.00
PCB-5	PHN	Ave	58186	291971	577378	1204094	2911809	0.100	0.500	1.00	2.00	5.00
PCB-29	PHN	Ave	40036	203927	396431	875628	2117025	0.100	0.500	1.00	2.00	5.00
PCB-50	PHN	Ave	49647	249743	476689	1065473	2605445	0.200	1.00	2.00	4.00	10.0
PCB-104	CRY	Ave	59989	299617	587501	1250931	2926146	0.400	2.00	4.00	8.00	20.0
PCB-87	CRY	Ave	45114	234093	461226	982816	2304204	0.200	1.00	2.00	4.00	10.0
PCB-154	CRY	Ave	48491	242806	449927	1061544	2451583	0.200	1.00	2.00	4.00	10.0
PCB-77	PHN	Ave	82033	423466	833905	1800101	4191663	0.400	2.00	4.00	8.00	20.0
PCB-188	CRY	Ave	62712	317126	626783	1371313	3340594	0.300	1.50	3.00	6.00	15.0
PCB-200	CRY	Ave	52832	258314	507284	1120615	2691621	0.300	1.50	3.00	6.00	15.0
PCB-208	CRY	Ave	43060	225872	467943	975028	2238783	0.900	4.50	9.00	18.0	45.0
DCB Decachlorobiphenyl	CRY	Ave	56244	296597	583747	1164591	2387607	0.500	2.50	5.00	10.0	25.0
PCB-52L	PHN	Ave	29703	144875	282282	621865	1500772	0.100	0.500	1.00	2.00	5.00
PCB-138L	CRY	Ave	27080	127920	218996	526507	1166443	0.100	0.500	1.00	2.00	5.00

Curve Type Legend:
Ave = Average ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 410-32133/9 Calibration Date: 08/11/2020 17:57

Instrument ID: 21949 Calib Start Date: 08/11/2020 15:35

GC Column: VF-5MS ID: 0.25(mm) Calib End Date: 08/11/2020 17:28

Lab File ID: 2240_209.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-104	Ave	0.1711	0.3573		5220	2500	108.8*	20.0
PCB-77	Ave	0.2159	0.4600		5330	2500	113.0*	20.0
PCB-208	Ave	0.0580	0.1340		11600	5000	131.1*	20.0
DCB Decachlorobiphenyl	Ave	0.1278	0.1228		6030	6280	-4.0	20.0
PCB-52L	Ave	0.3015	0.3045		1260	1250	1.0	
PCB-138L	Ave	0.2836	0.2723		1200	1250	-4.0	

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 410-34909/3 Calibration Date: 08/19/2020 12:08

Instrument ID: 21949 Calib Start Date: 08/11/2020 15:35

GC Column: VF-5MS ID: 0.25(mm) Calib End Date: 08/11/2020 17:28

Lab File ID: 2320_003.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	Ave	0.8244	0.8415		1020	1000	2.1	20.0
PCB-5	Ave	0.5966	0.6099		1020	1000	2.2	20.0
PCB-29	Ave	0.4206	0.4135		983	1000	-1.7	20.0
PCB-50	Ave	0.2572	0.2465		1920	2000	-4.2	20.0
PCB-104	Ave	0.1711	0.1682		3930	4000	-1.7	20.0
PCB-87	Ave	0.2663	0.2618		1970	2000	-1.7	20.0
PCB-154	Ave	0.2787	0.2525		1810	2000	-9.4	20.0
PCB-77	Ave	0.2159	0.2141		3970	4000	-0.9	20.0
PCB-188	Ave	0.2467	0.2341		2850	3000	-5.1	20.0
PCB-200	Ave	0.2017	0.1899		2820	3000	-5.8	20.0
PCB-208	Ave	0.0580	0.0583		9060	9000	0.6	20.0
DCB Decachlorobiphenyl	Ave	0.1278	0.1331		5200	5000	4.1	20.0
PCB-52L	Ave	0.3015	0.2936		974	1000	-2.6	20.0
PCB-138L	Ave	0.2836	0.2441		860	1000	-14.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCV 410-34909/9 Calibration Date: 08/19/2020 14:57

Instrument ID: 21949 Calib Start Date: 08/11/2020 15:35

GC Column: VF-5MS ID: 0.25(mm) Calib End Date: 08/11/2020 17:28

Lab File ID: 2320_009.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	Ave	0.8244	0.8781		1070	1000	6.5	20.0
PCB-5	Ave	0.5966	0.6322		1060	1000	6.0	20.0
PCB-29	Ave	0.4206	0.4498		1070	1000	6.9	20.0
PCB-50	Ave	0.2572	0.2684		2090	2000	4.3	20.0
PCB-104	Ave	0.1711	0.1863		4360	4000	8.9	20.0
PCB-87	Ave	0.2663	0.2935		2200	2000	10.2	20.0
PCB-154	Ave	0.2787	0.2839		2040	2000	1.9	20.0
PCB-77	Ave	0.2159	0.2351		4350	4000	8.9	20.0
PCB-188	Ave	0.2467	0.2618		3180	3000	6.1	20.0
PCB-200	Ave	0.2017	0.2167		3220	3000	7.4	20.0
PCB-208	Ave	0.0580	0.0660		10200	9000	13.8	20.0
DCB Decachlorobiphenyl	Ave	0.1278	0.1451		5670	5000	13.5	20.0
PCB-52L	Ave	0.3015	0.3269		1080	1000	8.4	20.0
PCB-138L	Ave	0.2836	0.2795		985	1000	-1.5	20.0

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-34321/1-A

Matrix: Water Lab File ID: 2320_005.D

Analysis Method: 680 Date Collected:

Extract. Method: 680 Date Extracted: 08/18/2020 07:43

Sample wt/vol: 1000(mL) Date Analyzed: 08/19/2020 13:04

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 34909 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.20	U	0.50	0.20
1336-36-3	Polychlorinated biphenyls, Total	0.020	U	0.10	0.020
25512-42-9	Total Dichlorobiphenyls	0.020	U	0.10	0.020
28655-71-2	Total Heptachlorobiphenyls	0.040	U	0.30	0.040
26601-64-9	Total Hexachlorobiphenyls	0.030	U	0.20	0.030
27323-18-8	Total Monochlorobiphenyls	0.020	U	0.10	0.020
53742-07-7	Total Nonachlorobiphenyls	0.20	U	0.50	0.20
55722-26-4	Total Octachlorobiphenyls	0.050	U	0.30	0.050
25429-29-2	Total Pentachlorobiphenyls	0.030	U	0.20	0.030
26914-33-0	Total Tetrachlorobiphenyls	0.030	U	0.20	0.030
25323-68-6	Total Trichlorobiphenyls	0.020	U	0.10	0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-66-5	PCB-138L	75		39-131
208263-80-3	PCB-52L	82		42-105

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW-164B-081120	240-134814-1	108
	MB 240-446979/3	110
	LCS 240-446979/4	113

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	60-140

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0813004.D

Lab ID: LCS 240-446979/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	475	443	93	80-120	
Ethane	438	463	106	80-120	
Ethylene	405	446	110	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: MB 240-446979/3

Matrix: Water Date Extracted:

Lab File ID:(1) Z0813003.D Lab File ID:(2)

Date Analyzed:(1) 08/13/2020 11:00 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-446979/4	08/13/2020 11:17	
MRC-MW-164B-081120	240-134814-1	08/13/2020 12:44	

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: STD 240-433969/6 Date Analyzed: 05/12/2020 09:44

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): Z0512006.D Heated Purge: (Y/N) N

Calibration ID: 57022

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
INITIAL CALIBRATION SURROGATE				3.58		
UPPER LIMIT				3.63		
LOWER LIMIT				3.53		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD 240-433969/6 ICRT		05/12/2020 09:44	Z0512006.D	3.58		
ICV 240-433969/11		05/12/2020 11:10	Z0512011.D	3.58		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: CCVRT 240-446979/2 Date Analyzed: 08/13/2020 10:43

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): Z0813002.D Heated Purge: (Y/N) N

Calibration ID: 57022

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.60		
UPPER LIMIT				3.65		
LOWER LIMIT				3.55		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-446979/2		08/13/2020 10:43	Z0813002.D	3.60		
MB 240-446979/3		08/13/2020 11:00	Z0813003.D	3.59		
LCS 240-446979/4		08/13/2020 11:17	Z0813004.D	3.60		
240-134814-1	MRC-MW-164B-081120	08/13/2020 12:44	Z0813009.D	3.59		
CCV 240-446979/10		08/13/2020 13:01	Z0813010.D	3.59		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 433969

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2020 08:36 Calibration End Date: 05/12/2020 10:18 Calibration ID: 57022

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-433969/2	Z0512002.D
Level 2	STD 240-433969/3	Z0512003.D
Level 3	STD 240-433969/4	Z0512004.D
Level 4	STD 240-433969/5	Z0512005.D
Level 5	STD 240-433969/6	Z0512006.D
Level 6	STD 240-433969/7	Z0512007.D
Level 7	STD 240-433969/8	Z0512008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Methane	1.343	1.342	1.342	1.340	1.340	1.340	1.339				1.290 - 1.390	1.341
Ethylene	2.098	2.096	2.095	2.094	2.093	2.093	2.088				2.043 - 2.143	2.094
Acetylene	+++++	2.214	2.212	2.212	2.210	2.211	2.208				2.160 - 2.260	2.211
Ethane	2.431	2.431	2.429	2.429	2.427	2.428	2.419				2.377 - 2.477	2.428
Propene	4.573	4.571	4.570	4.569	4.568	4.566	4.546				4.518 - 4.618	4.566
Propane	4.791	4.791	4.790	4.789	4.788	4.786	4.766				4.738 - 4.838	4.786
Isobutane	6.793	6.791	6.789	6.789	6.788	6.786	6.763				6.688 - 6.888	6.786
Butane	7.014	7.014	7.012	7.012	7.010	7.008	6.978				6.910 - 7.110	7.007
1-Butene	7.246	7.244	7.244	7.242	7.242	7.240	7.209				7.142 - 7.342	7.238
Pentane	9.318	9.317	9.317	9.315	9.315	9.311	9.278				9.215 - 9.415	9.310
1,1,1-Trifluoroethane	3.589	3.587	3.587	3.585	3.583	3.581					3.533 - 3.633	3.585

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 433969

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2020 08:36 Calibration End Date: 05/12/2020 10:18 Calibration ID: 57022

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-433969/2	Z0512002.D
Level 2	STD 240-433969/3	Z0512003.D
Level 3	STD 240-433969/4	Z0512004.D
Level 4	STD 240-433969/5	Z0512005.D
Level 5	STD 240-433969/6	Z0512006.D
Level 6	STD 240-433969/7	Z0512007.D
Level 7	STD 240-433969/8	Z0512008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Methane	8726.0 4937.8	7101.9 5392.2	4891.5 5350.4	5194.3	Lin1	729.999244	5344.31128							1.0000		0.9900
Ethylene	4888.2 4677.6	4540.2 4989.1	4397.5 4953.1	4838.4	Ave		4754.86335				4.7		20.0			
Acetylene	+++++ 2801.8	1827.6 3098.6	2012.1 3226.4	2464.0	Ave		2571.74095				22.3		30.0			
Ethane	4984.6 4804.3	4614.1 5262.3	4461.5 5281.8	4908.3	Ave		4902.41325				6.3		20.0			
Propene	4700.5 4536.3	4057.5 4916.5	4262.6 4877.9	4744.1	Ave		4585.05974				7.0		30.0			
Propane	4960.8 5012.1	4389.6 5435.6	4649.0 5417.5	5161.6	Ave		5003.73741				7.7		20.0			
Isobutane	4509.9 4845.5	4149.5 5287.6	4507.9 5263.3	4950.5	Ave		4787.75392				8.8		30.0			
Butane	4178.2 4499.6	4020.6 4885.7	4144.6 4855.9	4572.8	Ave		4451.07291				7.8		30.0			
1-Butene	5295.0 5257.4	4596.5 5781.5	4898.9 5620.1	5387.2	Ave		5262.38224				7.7		30.0			
Pentane	4549.5 4537.2	4155.6 5243.4	4264.6 5231.2	4646.5	Ave		4661.14691				9.2		30.0			
1,1,1-Trifluoroethane	2203.6 2186.1	2159.9 2201.3	2155.7	2226.0	Ave		2188.77108				1.2		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 433969

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2020 08:36 Calibration End Date: 05/12/2020 10:18 Calibration ID: 57022

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-433969/2	Z0512002.D
Level 2	STD 240-433969/3	Z0512003.D
Level 3	STD 240-433969/4	Z0512004.D
Level 4	STD 240-433969/5	Z0512005.D
Level 5	STD 240-433969/6	Z0512006.D
Level 6	STD 240-433969/7	Z0512007.D
Level 7	STD 240-433969/8	Z0512008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methane	Lin1	2485 2301637	4045 22838100	13930	51774	492166	0.285 427	0.570 4268	2.85	9.97	99.7
Ethylene	Ave	2493 3815349	4631 37877978	22427	86366	834949	0.510 765	1.02 7647	5.10	17.9	179
Acetylene	Ave	+++++ 2317264	1710 24128450	9413	40345	458769	+++++ 748	0.936 7478	4.68	16.4	164
Ethane	Ave	2657 4208960	4919 42245173	23782	91571	896314	0.533 800	1.07 7998	5.33	18.7	187
Propene	Ave	3509 5505768	6058 54625347	31821	123955	1185268	0.747 1120	1.49 11198	7.47	26.1	261
Propane	Ave	3891 6395154	6886 63737669	36464	141697	1375918	0.784 1177	1.57 11765	7.84	27.5	275
Isobutane	Ave	4655 8188003	8566 81503838	46529	178843	1750504	1.03 1549	2.06 15485	10.3	36.1	361
Butane	Ave	4309 7557937	8293 75119269	42743	165060	1624175	1.03 1547	2.06 15470	10.3	36.1	361
1-Butene	Ave	5272 8635652	9153 83946674	48776	187733	1832095	0.996 1494	1.99 14937	9.96	34.8	348
Pentane	Ave	5851 10116285	10689 100927212	54847	209151	2042332	1.29 1929	2.57 19293	12.9	45.0	450
1,1,1-Trifluoroethane	Ave	659779 24715789	970026	1613576	5831653	11454120	299 11228	449	749	2620	5240

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-433969/11 Calibration Date: 05/12/2020 11:10

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0512011.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin1		5127		272	284	-4.1	20.0
Ethylene	Ave	4755	4789		510	506	0.7	20.0
Acetylene	Ave	2572	3088		553	461	20.1	30.0
Ethane	Ave	4902	4988		546	537	1.7	20.0
Propene	Ave	4585	4639		758	750	1.2	30.0
Propane	Ave	5004	5146		809	787	2.8	20.0
Isobutane	Ave	4788	4942		1070	1040	3.2	30.0
Butane	Ave	4451	4418		1030	1030	-0.7	30.0
1-Butene	Ave	5262	5226		989	996	-0.7	30.0
Pentane	Ave	4661	4185		1170	1310	-10.2	30.0
1,1,1-Trifluoroethane	Ave	2189	2395		10100	9240	9.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-433969/11 Calibration Date: 05/12/2020 11:10

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0512011.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.34	1.29	1.39
Ethylene	2.09	2.04	2.14
Acetylene	2.21	2.16	2.26
Ethane	2.43	2.38	2.48
Propene	4.57	4.52	4.62
Propane	4.79	4.74	4.84
Isobutane	6.79	6.69	6.89
Butane	7.01	6.91	7.11
1-Butene	7.24	7.14	7.34
Pentane	9.31	9.22	9.42
1,1,1-Trifluoroethane	3.58	3.53	3.63

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVRT 240-446979/2 Calibration Date: 08/13/2020 10:43

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0813002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin1		5681		302	285	6.3	20.0
Ethylene	Ave	4755	5405		580	510	13.7	20.0
Acetylene	Ave	2572	3410		661	499	32.6*	30.0
Ethane	Ave	4902	5698		620	533	16.2	20.0
Propene	Ave	4585	5356		872	747	16.8	30.0
Propane	Ave	5004	5934		930	784	18.6	20.0
Isobutane	Ave	4788	5720		1230	1030	19.5	30.0
Butane	Ave	4451	5178		1200	1030	16.3	30.0
1-Butene	Ave	5262	6066		1150	996	15.3	30.0
Pentane	Ave	4661	5198		1430	1290	11.5	30.0
1,1,1-Trifluoroethane	Ave	2189	2472		10400	9240	12.9	20.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCV 240-446979/10 Calibration Date: 08/13/2020 13:01

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0813010.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin1		5821		310	285	8.9	20.0
Ethylene	Ave	4755	5559		596	510	16.9	20.0
Acetylene	Ave	2572	3674		712	499	42.8*	30.0
Ethane	Ave	4902	5865		638	533	19.6	20.0
Propene	Ave	4585	5492		894	747	19.8	30.0
Propane	Ave	5004	6075		952	784	21.4*	20.0
Isobutane	Ave	4788	5846		1260	1030	22.1	30.0
Butane	Ave	4451	5263		1220	1030	18.2	30.0
1-Butene	Ave	5262	6182		1170	996	17.5	30.0
Pentane	Ave	4661	5338		1470	1290	14.5	30.0
1,1,1-Trifluoroethane	Ave	2189	2524		10700	9240	15.3	20.0

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-446979/3

Matrix: Water Lab File ID: Z0813003.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 23(mL) Date Analyzed: 08/13/2020 11:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 446979 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.17	U	1.0	0.17
74-84-0	Ethane	0.29	U	1.0	0.29
74-85-1	Ethylene	0.27	U	1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	110		60-140

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICPICV_00022 Concentration Units: ug/L

CCV Source: ICPCCV_00035

Analyte	ICV 240-447390/4 08/14/2020 09:33				CCV 240-447390/43 08/14/2020 12:24				CCV 240-447390/55 08/14/2020 13:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	25500		25000	102	25200		25000	101	24800		25000	99
Manganese	2000		2000	100	1960		2000	98	1950		2000	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICPICV_00022 Concentration Units: ug/L

CCV Source: ICPCCV_00035

Analyte	CCV 240-447390/67 08/14/2020 14:10											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	24800		25000	99								
Manganese	1940		2000	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: MTTRCRIC_00087 Concentration Units: ug/L

CCV Source: MTTRCRIC_00087

Analyte	ICVL 240-447390/6 08/14/2020 09:41				CCVL 240-447390/69 08/14/2020 14:18							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	211		200	106	224		200	112				
Manganese	15.4		15.0	103	15.8		15.0	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICPMS ICV_00010 Concentration Units: ug/L

CCV Source: ICPMSCAL2/CCV_00022

Analyte	ICV 240-447397/4 08/14/2020 12:15				CCV 240-447397/79 08/14/2020 15:41				CCV 240-447397/91 08/14/2020 16:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	24200		25000	97	26600		25000	107	26800		25000	107
Antimony	52.8		50.0	106	52.4		50.0	105	53.7		50.0	107
Arsenic	49.4		50.0	99	52.1		50.0	104	50.7		50.0	101
Barium	50.0		50.0	100	52.0		50.0	104	54.4		50.0	109
Beryllium	50.8		50.0	102	51.5		50.0	103	52.2		50.0	104
Cadmium	50.9		50.0	102	52.6		50.0	105	54.1		50.0	108
Calcium	23900		25000	96	26800		25000	107	27000		25000	108
Chromium	49.3		50.0	99	53.0		50.0	106	54.4		50.0	109
Cobalt	49.3		50.0	99	50.5		50.0	101	50.8		50.0	102
Copper	49.6		50.0	99	51.1		50.0	102	51.6		50.0	103
Iron	23600		25000	94	25500		25000	102	25700		25000	103
Lead	49.6		50.0	99	52.5		50.0	105	53.2		50.0	106
Magnesium	24600		25000	99	27000		25000	108	27100		25000	109
Manganese	50.5		50.0	101	53.9		50.0	108	54.6		50.0	109
Nickel	49.7		50.0	99	50.6		50.0	101	50.6		50.0	101
Potassium	24400		25000	97	27000		25000	108	27400		25000	110
Selenium	49.6		50.0	99	52.5		50.0	105	52.6		50.0	105
Silver	50.3		50.0	101	52.4		50.0	105	52.9		50.0	106
Sodium	24700		25000	99	27000		25000	108	26900		25000	108
Thallium	49.6		50.0	99	52.7		50.0	105	53.9		50.0	108
Vanadium	50.3		50.0	101	53.2		50.0	106	54.4		50.0	109
Zinc	48.2		50.0	96	50.1		50.0	100	50.4		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00012 Concentration Units: ug/L

CCV Source: ICVLCCVLICPMS_00012

Analyte	ICVL 240-447397/6 08/14/2020 12:20				CCVL 240-447397/95 08/14/2020 16:20							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	47.3	J	50.0	95	52.0		50.0	104				
Antimony	2.14		2.00	107	2.33		2.00	116				
Arsenic	4.71	J	5.00	94	4.89	J	5.00	98				
Barium	4.95	J	5.00	99	5.34		5.00	107				
Beryllium	0.952	J	1.00	95	1.15		1.00	115				
Cadmium	1.05		1.00	105	1.09		1.00	109				
Calcium	1020		1000	102	1100		1000	110				
Chromium	2.05		2.00	103	2.39		2.00	119				
Cobalt	0.977	J	1.00	98	1.02		1.00	102				
Copper	2.01		2.00	101	2.07		2.00	104				
Iron	99.5	J	100	99	111		100	111				
Lead	0.985	J	1.00	99	1.11		1.00	111				
Magnesium	987	J	1000	99	1050		1000	105				
Manganese	5.03		5.00	101	5.52		5.00	110				
Nickel	1.97	J	2.00	98	2.06		2.00	103				
Potassium	1010		1000	101	1130		1000	113				
Selenium	4.82	J	5.00	96	5.16		5.00	103				
Silver	1.04		1.00	104	1.08		1.00	108				
Sodium	969	J	1000	97	1050		1000	105				
Thallium	0.985	J	1.00	99	1.13		1.00	113				
Vanadium	4.95	J	5.00	99	5.77		5.00	115				
Zinc	15	U	20.0	74	15.8	J	20.0	79				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: MTHgICV_00001_00701 Concentration Units: ug/L

CCV Source: MTHGCALW_02460

Analyte	ICV 240-447004/7-A 08/13/2020 13:25				CCV 240-447004/10-A 08/13/2020 15:48				CCV 240-447004/10-A 08/13/2020 16:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.09		5.00	102	4.88		5.00	98	4.88		5.00	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: MTHgICV_00001_00701 Concentration Units: ug/L

CCV Source: MTHGCALW_02460

Analyte	CCV 240-447004/10-A 08/13/2020 16:42											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.02		5.00	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Method: 7470A Instrument ID: H2

Lab Sample ID: CRA 240-447004/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_02460

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.225		112	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-447390/5 08/14/2020 09:37		CCB 240-447390/44 08/14/2020 12:28		CCB 240-447390/56 08/14/2020 13:23		CCB 240-447390/68 08/14/2020 14:14	
		Found	C	Found	C	Found	C	Found	C
Iron	200	26	U	26	U	26	U	26	U
Manganese	15	2.1	U	2.1	U	2.1	U	2.1	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-447397/5 08/14/2020 12:17		CCB 240-447397/80 08/14/2020 15:44		CCB 240-447397/92 08/14/2020 16:13			
		Found	C	Found	C	Found	C	Found	C
Aluminum	50	34	U	34	U	34	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Cadmium	1.0	0.20	U	0.20	U	0.20	U		
Calcium	1000	580	U	580	U	580	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Iron	100	47	U	47	U	47	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Magnesium	1000	200	U	200	U	200	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Potassium	1000	220	U	220	U	220	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Sodium	1000	330	U	330	U	330	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-447004/8-A 08/13/2020 13:27		CCB 240-447004/11-A 08/13/2020 15:50		CCB 240-447004/11-A 08/13/2020 16:17		CCB 240-447004/11-A 08/13/2020 16:44	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-447010/1-A

Instrument Code: I12 Batch No.: 447390

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	26	U		6010C
7439-96-5	Manganese	2.1	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-447010/1-A

Instrument Code: I14 Batch No.: 447397

CAS No.	Analyte	Concentration	C	Q	Method
7440-22-4	Silver	0.053	U		6020A
7429-90-5	Aluminum	34	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.20	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Lead	0.45	U		6020A
7440-36-0	Antimony	0.57	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-70-2	Calcium	580	U		6020A
7440-09-7	Potassium	220	U		6020A
7439-95-4	Magnesium	200	U		6020A
7440-23-5	Sodium	330	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-447011/1-A

Instrument Code: H2 Batch No.: 447205

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSA 240-447390/8 Instrument ID: I12

Lab File ID: I12081420.asc ICS Source: MTTRICSAW_00052

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Iron	**200000**	**187090**	**94**
Manganese		**2.11**	
Aluminum	*500000*	*496350*	*99*
Antimony		*2.62*	
Arsenic		*-2.24*	
Barium		*6.83*	
Beryllium		*0.293*	
Boron		*5.07*	
Cadmium		*1.70*	
Calcium	*500000*	*473650*	*95*
Chromium		*2.71*	
Cobalt		*-3.62*	
Copper		*3.05*	
Lead		*2.96*	
Lithium		*-2.20*	
Magnesium	*500000*	*474100*	*95*
Molybdenum		*-0.304*	
Nickel		*3.09*	
Potassium		*-5.87*	
Selenium		*-3.15*	
Silicon		*9.21*	
Silver		*-1.97*	
Sodium		*131*	
Strontium		*20.4*	
Thallium		*-1.88*	
Tin		*-0.181*	
Titanium		*-1.23*	
Vanadium		*1.45*	
Zinc		*-1.19*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSAB 240-447390/9 Instrument ID: I12

Lab File ID: I12081420.asc ICS Source: ICPICSAB_00004

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Iron	**200000**	**187020**	**94**
Manganese	**1000**	**984**	**98**
Aluminum	*500000*	*496910*	*99*
Antimony	*1000*	*946*	*95*
Arsenic	*1000*	*1030*	*103*
Barium	*1000*	*995*	*99*
Beryllium	*500*	*498*	*100*
Boron	*10000*	*10143*	*101*
Cadmium	*1000*	*1029*	*103*
Calcium	*500000*	*473740*	*95*
Chromium	*1000*	*967*	*97*
Cobalt	*1000*	*1004*	*100*
Copper	*1000*	*1017*	*102*
Lead	*1000*	*891*	*89*
Lithium	*500*	*529*	*106*
Magnesium	*500000*	*473880*	*95*
Molybdenum	*1000*	*972*	*97*
Nickel	*1000*	*1014*	*101*
Potassium	*10000*	*10535*	*105*
Selenium	*1000*	*1006*	*101*
Silicon	*10000*	*10238*	*102*
Silver	*1000*	*1054*	*105*
Sodium	*10000*	*10511*	*105*
Strontium	*1000*	*985*	*99*
Thallium	*1000*	*981*	*98*
Tin	*1000*	*1036*	*104*
Titanium	*1000*	*1007*	*101*
Vanadium	*1000*	*981*	*98*
Zinc	*1000*	*1038*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSA 240-447397/7 Instrument ID: I14

Lab File ID: 007ICSA.d ICS Source: ICPMS ICSA_00005

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**50000**	**48129**	**96**
Antimony		**0.0860**	
Arsenic		**-0.134**	
Barium		**0.236**	
Beryllium		**0.0070**	
Cadmium		**0.171**	
Calcium	**50000**	**48972**	**98**
Chromium		**0.523**	
Cobalt		**0.150**	
Copper		**1.49**	
Iron	**50000**	**49670**	**99**
Lead		**0.199**	
Magnesium	**50000**	**49320**	**99**
Manganese		**0.225**	
Nickel		**0.214**	
Potassium	**50000**	**48551**	**97**
Selenium		**-0.0010**	
Silver		**0.0110**	
Sodium	**50000**	**49638**	**99**
Thallium		**0.0120**	
Vanadium		**0.120**	
Zinc		**-3.60**	
Boron		*1.37*	
Lithium		*-0.695*	
Molybdenum	*1000*	*1022*	*102*
Strontium		*1.56*	
Tin		*0.147*	
Titanium	*1000*	*967*	*97*
Tungsten		*0.198*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSAB 240-447397/8 Instrument ID: I14

Lab File ID: 008ICAB.d ICS Source: MTMSICSABW_00095

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**50000**	**49430**	**99**
Antimony	**100**	**104**	**104**
Arsenic	**200**	**200**	**100**
Barium	**200**	**203**	**101**
Beryllium	**200**	**192**	**96**
Cadmium	**200**	**205**	**103**
Calcium	**50000**	**50636**	**101**
Chromium	**200**	**197**	**99**
Cobalt	**200**	**198**	**99**
Copper	**200**	**199**	**100**
Iron	**50000**	**51306**	**103**
Lead	**200**	**200**	**100**
Magnesium	**50000**	**50626**	**101**
Manganese	**200**	**200**	**100**
Nickel	**200**	**196**	**98**
Potassium	**50000**	**50194**	**100**
Selenium	**200**	**203**	**102**
Silver	**100**	**100**	**100**
Sodium	**50000**	**52175**	**104**
Thallium	**100**	**100**	**100**
Vanadium	**200**	**200**	**100**
Zinc	**100**	**102**	**102**
Boron	*100*	*99.9*	*100*
Lithium	*200*	*202*	*101*
Molybdenum	*1000*	*1049*	*105*
Strontium	*200*	*201*	*101*
Tin	*200*	*203*	*102*
Titanium	*1000*	*986*	*99*
Tungsten	*2000*	*2112*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MRC-MW-164B-081120 MS
Lab ID: 240-134814-1 MS
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.02		0.13	U	1.00	102	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW-164B-081120 MS
Lab ID: 240-134814-1 MS
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Silver	104		0.053	U	100	104	75-125		6020A
Aluminum	7620		950		5000	133	75-125	F1	6020A
Arsenic	1010		0.75	U	1000	101	75-125		6020A
Barium	1200		180		1000	102	75-125		6020A
Beryllium	487		0.51	J	500	97	75-125		6020A
Cadmium	510		0.20	U	500	102	75-125		6020A
Cobalt	564		41		500	105	75-125		6020A
Chromium	517		2.9		500	103	75-125		6020A
Copper	495		1.8	J	500	99	75-125		6020A
Iron	29400		24000		5000	110	75-125	4	6020A
Manganese	3300		2700		500	112	75-125	4	6020A
Nickel	532		42		500	98	75-125		6020A
Lead	510		1.2		500	102	75-125		6020A
Antimony	112		0.57	U	100	112	75-125		6020A
Selenium	999		0.89	U	1000	100	75-125		6020A
Thallium	1020		0.28	J	1000	102	75-125		6020A
Vanadium	526		5.3		500	104	75-125		6020A
Zinc	609		60		500	110	75-125		6020A
Calcium	41000		14000		25000	108	75-125		6020A
Potassium	32600		5700		25000	108	75-125		6020A
Magnesium	33600		6400		25000	109	75-125		6020A
Sodium	41600		16000		25000	103	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-134778-A-1-B MS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	12100		2200		10000	99	75-125		6010C
Manganese	1700		710		1000	100	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MRC-MW-164B-081120 MSD
Lab ID: 240-134814-1 MSD
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	80-120	2	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW-164B-081120 MSD
Lab ID: 240-134814-1 MSD
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Silver	103		100	103	75-125	1	20		6020A
Aluminum	7940		5000	140	75-125	4	20	F1	6020A
Arsenic	1020		1000	102	75-125	1	20		6020A
Barium	1230		1000	106	75-125	3	20		6020A
Beryllium	498		500	100	75-125	2	20		6020A
Cadmium	524		500	105	75-125	3	20		6020A
Cobalt	565		500	105	75-125	0	20		6020A
Chromium	525		500	104	75-125	2	20		6020A
Copper	504		500	101	75-125	2	20		6020A
Iron	29400		5000	109	75-125	0	20	4	6020A
Manganese	3340		500	119	75-125	1	20	4	6020A
Nickel	537		500	99	75-125	1	20		6020A
Lead	530		500	106	75-125	4	20		6020A
Antimony	113		100	113	75-125	1	20		6020A
Selenium	1020		1000	102	75-125	2	20		6020A
Thallium	1050		1000	105	75-125	3	20		6020A
Vanadium	531		500	105	75-125	1	20		6020A
Zinc	613		500	111	75-125	1	20		6020A
Calcium	41000		25000	108	75-125	0	20		6020A
Potassium	32700		25000	108	75-125	0	20		6020A
Magnesium	33500		25000	108	75-125	0	20		6020A
Sodium	41400		25000	103	75-125	0	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: Lab ID: 240-134778-A-1-C MSD

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	11500		10000	93	75-125	5	20		6010C
Manganese	1620		1000	91	75-125	5	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW-164B-081120 PDS Lab ID: 240-134814-1 PDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	6160		950		5000	104	80-120		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-447010/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

Sample Matrix: Water LCS Source: SPIKE2_00007

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	10000	10100		101	80	120		6010C
Manganese	1000	985		98	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-447010/3-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

Sample Matrix: Water LCS Source: ICPMSspike3_00007

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Silver	100	102		102	80	120		6020A
Aluminum	5000	4880		98	80	120		6020A
Arsenic	1000	1000		100	80	120		6020A
Barium	1000	1020		102	80	120		6020A
Beryllium	500	502		100	80	120		6020A
Cadmium	500	513		103	80	120		6020A
Cobalt	500	512		102	80	120		6020A
Chromium	500	507		101	80	120		6020A
Copper	500	489		98	80	120		6020A
Iron	5000	5000		100	80	120		6020A
Manganese	500	511		102	80	120		6020A
Nickel	500	486		97	80	120		6020A
Lead	500	516		103	80	120		6020A
Antimony	100	110		110	80	120		6020A
Selenium	1000	1020		102	80	120		6020A
Thallium	1000	1030		103	80	120		6020A
Vanadium	500	512		102	80	120		6020A
Zinc	500	539		108	80	120		6020A
Calcium	25000	26000		104	80	120		6020A
Potassium	25000	26400		106	80	120		6020A
Magnesium	25000	26300		105	80	120		6020A
Sodium	25000	26000		104	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-447011/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

Sample Matrix: Water LCS Source: MTHGCALW_02460

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.91		98	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-134778-A-1-A SD ^5

SDG No:

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	2200		2250		1.8		6010C
Manganese	710		731		3.1		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-134814-1

SDG No:

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Silver	0.053	U	0.27	U	NC		6020A
Aluminum	950		1180		NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Barium	180		174		NC		6020A
Beryllium	0.51	J	1.5	U	NC		6020A
Cadmium	0.20	U	0.99	U	NC		6020A
Cobalt	41		40.7		NC		6020A
Chromium	2.9		4.9	U	NC		6020A
Copper	1.8	J	8.5	U	NC		6020A
Iron	24000		23600		1.5		6020A
Manganese	2700		2670		2.7		6020A
Nickel	42		42.1		NC		6020A
Lead	1.2		2.3	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Selenium	0.89	U	4.5	U	NC		6020A
Thallium	0.28	J	1.0	U	NC		6020A
Vanadium	5.3		5.85	J	NC		6020A
Zinc	60		75	U	NC		6020A
Calcium	14000		13900		NC		6020A
Potassium	5700		5860		NC		6020A
Magnesium	6400		6440		NC		6020A
Sodium	16000		15200		NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 06/21/2019 08:58

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Iron	271.441	200	25.958
Manganese	257.610	15	2.119

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 06/21/2019 08:58

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron	271.441	200	25.958
Manganese	257.610	15	2.119

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I14

Method: 6020A MDL Date: 08/12/2019 14:16

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Aluminum	27.00	50	34
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.197
Calcium	43.00	1000	583
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Magnesium	25.00	1000	199
Manganese	55.00	5	2.06
Nickel	60.00	2	1.47
Potassium	39.00	1000	216
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Sodium	23.00	1000	329
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I14

Method: 6020A XMDL Date: 08/12/2019 14:16

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum	27.00	50	34
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.197
Calcium	43.00	1000	583
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Magnesium	25.00	1000	199
Manganese	55.00	5	2.06
Nickel	60.00	2	1.47
Potassium	39.00	1000	216
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Sodium	23.00	1000	329
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 06/03/2020

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.027342				0.013726	
Antimony		-0.000073			-0.000663			-0.000065						0.003776	
Arsenic		0.000022			-0.000395	0.00931			-0.000625	0.001108					
Beryllium														0.000608	
Cadmium			0.008754					-0.000002							
Chromium									0.000415						
Cobalt													0.002089		
Copper				0.000018	0.000600			-0.000035					-0.002322		
Lead		-0.000147					0.00619	0.000021			0.000131	0.000025			
Lithium				0.000011											
Nickel					0.000518			0.000059							
Selenium		-0.000021							0.000613						
Thallium		-0.000001			0.005964			-0.00004	0.000941					0.002131	
Vanadium								0.000059							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

SDG No.:

Instrument ID: I12 Date: 06/04/2020 10:17

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Iron		500000	6010C
Manganese		15000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

SDG No.:

Instrument ID: I14 Date: 02/14/2020 14:57

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Silver		300	6020A
Aluminum		500000	6020A
Arsenic		20000	6020A
Barium		20000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		10000	6020A
Chromium		10000	6020A
Copper		20000	6020A
Iron		500000	6020A
Manganese		20000	6020A
Nickel		20000	6020A
Lead		4000	6020A
Antimony		200	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		20000	6020A
Zinc		20000	6020A
Calcium		3000000	6020A
Potassium		3000000	6020A
Magnesium		3000000	6020A
Sodium		3000000	6020A

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

SDG No.:

Instrument ID: H2 Date: 05/15/2016 09:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-447010/1-A	08/13/2020 14:00	447010		50	50
LCS 240-447010/2-A	08/13/2020 14:00	447010		50	50
240-134778-A-1-B MS	08/13/2020 14:00	447010		50	50
240-134778-A-1-C MSD	08/13/2020 14:00	447010		50	50
240-134814-1	08/13/2020 14:00	447010		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-447010/1-A	08/13/2020 14:00	447010		50	50
LCS 240-447010/3-A	08/13/2020 14:00	447010		50	50
240-134814-1	08/13/2020 14:00	447010		50	50
240-134814-1 MS	08/13/2020 14:00	447010		50	50
240-134814-1 MSD	08/13/2020 14:00	447010		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-447011/1-A	08/13/2020 12:00	447011		50	50
LCS 240-447011/2-A	08/13/2020 12:00	447011		50	50
240-134814-1	08/13/2020 12:00	447011		50	50
240-134814-1 MS	08/13/2020 12:00	447011		50	50
240-134814-1 MSD	08/13/2020 12:00	447011		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
ICIS 240-447390/1	1		09:20	X	X																							
CALSTD 240-447390/2 IC			09:24	X	X																							
CALSTD 240-447390/3 IC			09:28	X	X																							
ICV 240-447390/4	1		09:33	X	X																							
ICB 240-447390/5	1		09:37	X	X																							
ICVL 240-447390/6	1		09:41	X	X																							
ZZZZZZ			09:45																									
ICSA 240-447390/8	1		09:50	X	X																							
ICSAB 240-447390/9	1		09:54	X	X																							
CCV 240-447390/10			09:58																									
CCB 240-447390/11			10:02																									
ZZZZZZ			10:06																									
ZZZZZZ			10:11																									
ZZZZZZ			10:15																									
ZZZZZZ			10:20																									
ZZZZZZ			10:24																									
ZZZZZZ			10:28																									
CCV 240-447390/18			10:33																									
CCB 240-447390/19			10:37																									
ZZZZZZ			10:44																									
ZZZZZZ			10:50																									
ZZZZZZ			10:55																									
ZZZZZZ			10:59																									
ZZZZZZ			11:03																									
ZZZZZZ			11:08																									
ZZZZZZ			11:12																									
ZZZZZZ			11:16																									
CCV 240-447390/28			11:21																									
CCB 240-447390/29			11:25																									
ZZZZZZ			11:29																									
CCV 240-447390/31			11:33																									
CCB 240-447390/32			11:37																									
ZZZZZZ			11:42																									
ZZZZZZ			11:46																									
ZZZZZZ			11:50																									
CCV 240-447390/36			11:55																									
CCB 240-447390/37			11:59																									
ZZZZZZ			12:03																									
ZZZZZZ			12:07																									
ZZZZZZ			12:11																									
ZZZZZZ			12:16																									
ZZZZZZ			12:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																									
				Fe	Mn																								
CCV 240-447390/43	1		12:24	X	X																								
CCB 240-447390/44	1		12:28	X	X																								
ZZZZZZ			12:32																										
ZZZZZZ			12:37																										
ZZZZZZ			12:41																										
MB 240-447010/1-A	1	R	12:45	X	X																								
LCS 240-447010/2-A	1	R	12:49	X	X																								
ZZZZZZ			12:53																										
240-134778-A-1-A SD ^5	5	R	13:00	X	X																								
ZZZZZZ			13:04																										
240-134778-A-1-B MS	1	R	13:08	X	X																								
240-134778-A-1-C MSD	1	R	13:12	X	X																								
CCV 240-447390/55	1		13:19	X	X																								
CCB 240-447390/56	1		13:23	X	X																								
240-134814-1	1	R	13:27	X	X																								
ZZZZZZ			13:31																										
ZZZZZZ			13:36																										
ZZZZZZ			13:40																										
ZZZZZZ			13:44																										
ZZZZZZ			13:48																										
ZZZZZZ			13:53																										
ZZZZZZ			13:57																										
ZZZZZZ			14:01																										
ZZZZZZ			14:05																										
CCV 240-447390/67	1		14:10	X	X																								
CCB 240-447390/68	1		14:14	X	X																								
CCVL 240-447390/69	1		14:18	X	X																								
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:31																										
ZZZZZZ			14:35																										
ZZZZZZ			14:39																										
ZZZZZZ			14:43																										
ZZZZZZ			14:47																										
ZZZZZZ			14:51																										
ZZZZZZ			14:55																										
CCV 240-447390/79			14:59																										
CCB 240-447390/80			15:03																										
ZZZZZZ			15:08																										
ZZZZZZ			15:12																										
ZZZZZZ			15:17																										
ZZZZZZ			15:21																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
ZZZZZZ			15:25																									
ZZZZZZ			15:29																									
ZZZZZZ			15:33																									
ZZZZZZ			15:37																									
ZZZZZZ			15:41																									
ZZZZZZ			15:46																									
CCV 240-447390/91			15:50																									
CCB 240-447390/92			15:54																									
ZZZZZZ			15:58																									
ZZZZZZ			16:02																									
ZZZZZZ			16:07																									
ZZZZZZ			16:11																									
ZZZZZZ			16:15																									
ZZZZZZ			16:19																									
ZZZZZZ			16:23																									
ZZZZZZ			16:27																									
ZZZZZZ			16:31																									
ZZZZZZ			16:36																									
CCV 240-447390/103			16:40																									
CCB 240-447390/104			16:44																									
ZZZZZZ			16:48																									
ZZZZZZ			16:53																									
ZZZZZZ			16:57																									
ZZZZZZ			17:01																									
ZZZZZZ			17:06																									
ZZZZZZ			17:10																									
ZZZZZZ			17:14																									
ZZZZZZ			17:19																									
ZZZZZZ			17:23																									
ZZZZZZ			17:27																									
CCV 240-447390/115			17:32																									
CCB 240-447390/116			17:36																									
ZZZZZZ			17:40																									
ZZZZZZ			17:45																									
ZZZZZZ			17:49																									
ZZZZZZ			17:54																									
ZZZZZZ			17:58																									
ZZZZZZ			18:03																									
ZZZZZZ			18:07																									
ZZZZZZ			18:12																									
CCVL 240-447390/125			18:16																									
ZZZZZZ			18:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
CCV 240-447390/127			18:24																									
CCB 240-447390/128			18:28																									
ZZZZZZ			18:32																									
ZZZZZZ			18:37																									
ZZZZZZ			18:41																									
ZZZZZZ			18:45																									
ZZZZZZ			18:49																									
ZZZZZZ			18:53																									
ZZZZZZ			18:57																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									
ZZZZZZ			19:10																									
CCV 240-447390/139			19:15																									
CCB 240-447390/140			19:18																									
ZZZZZZ			19:23																									
ZZZZZZ			19:27																									
ZZZZZZ			19:31																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:44																									
ZZZZZZ			19:48																									
ZZZZZZ			19:53																									
ZZZZZZ			19:57																									
ZZZZZZ			20:01																									
CCV 240-447390/151			20:06																									
CCB 240-447390/152			20:10																									
ZZZZZZ			20:14																									
ZZZZZZ			20:18																									
ZZZZZZ			20:22																									
ZZZZZZ			20:26																									
ZZZZZZ			20:31																									
ZZZZZZ			20:35																									
ZZZZZZ			20:39																									
ZZZZZZ			20:43																									
ZZZZZZ			20:47																									
ZZZZZZ			20:51																									
CCV 240-447390/163			20:55																									
CCB 240-447390/164			20:59																									
ZZZZZZ			21:04																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:17																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
ZZZZZZ			21:21																									
ZZZZZZ			21:25																									
ZZZZZZ			21:30																									
ZZZZZZ			21:34																									
ZZZZZZ			21:38																									
ZZZZZZ			21:42																									
CCV 240-447390/175			21:47																									
CCB 240-447390/176			21:51																									
ZZZZZZ			21:55																									
ZZZZZZ			21:59																									
ZZZZZZ			22:04																									
ZZZZZZ			22:08																									
ZZZZZZ			22:12																									
ZZZZZZ			22:16																									
ZZZZZZ			22:20																									
ZZZZZZ			22:25																									
ZZZZZZ			22:29																									
ZZZZZZ			22:33																									
CCV 240-447390/187			22:37																									
CCB 240-447390/188			22:41																									
ZZZZZZ			22:45																									
ZZZZZZ			22:50																									
ZZZZZZ			22:54																									
ZZZZZZ			22:58																									
ZZZZZZ			23:02																									
ZZZZZZ			23:07																									
ZZZZZZ			23:11																									
ZZZZZZ			23:16																									
ZZZZZZ			23:20																									
ZZZZZZ			23:24																									
CCV 240-447390/199			23:28																									
CCB 240-447390/200			23:32																									
ZZZZZZ			23:37																									
ZZZZZZ			23:41																									
ZZZZZZ			23:45																									
ZZZZZZ			23:50																									
ZZZZZZ			23:54																									
ZZZZZZ			23:58																									
ZZZZZZ			00:02																									
ZZZZZZ			00:07																									
ZZZZZZ			00:11																									
ZZZZZZ			00:15																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
CCV 240-447390/211			00:20																									
CCB 240-447390/212			00:24																									
ZZZZZZ			00:28																									
ZZZZZZ			00:32																									
ZZZZZZ			00:36																									
ZZZZZZ			00:40																									
ZZZZZZ			00:45																									
ZZZZZZ			00:49																									
ZZZZZZ			00:53																									
ZZZZZZ			00:57																									
ZZZZZZ			01:02																									
ZZZZZZ			01:06																									
CCV 240-447390/223			01:11																									
CCB 240-447390/224			01:15																									
ZZZZZZ			01:19																									
ZZZZZZ			01:23																									
ZZZZZZ			01:28																									
ZZZZZZ			01:32																									
ZZZZZZ			01:36																									
ZZZZZZ			01:41																									
ZZZZZZ			01:45																									
ZZZZZZ			01:49																									
ZZZZZZ			01:54																									
ZZZZZZ			01:58																									
CCV 240-447390/235			02:02																									
CCB 240-447390/236			02:06																									
ZZZZZZ			02:11																									
ZZZZZZ			02:15																									
ZZZZZZ			02:19																									
ZZZZZZ			02:23																									
CCV 240-447390/241			02:28																									
CCB 240-447390/242			02:32																									

Prep Types:
R = Total Recoverable

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020A

Start Date: 08/14/2020 12:07 End Date: 08/14/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn				
ZZZZZZ			12:07																											
ICIS 240-447397/2			12:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
STD3 240-447397/3 IC	1		12:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICV 240-447397/4	1		12:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICB 240-447397/5	1		12:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICVL 240-447397/6	1		12:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICSA 240-447397/7	1		12:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICSAB 240-447397/8	1		12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 240-447397/9			12:27																											
CCB 240-447397/10			12:29																											
ZZZZZZ			12:53																											
ZZZZZZ			12:55																											
ZZZZZZ			12:58																											
ZZZZZZ			13:00																											
ZZZZZZ			13:03																											
ZZZZZZ			13:06																											
ZZZZZZ			13:08																											
ZZZZZZ			13:11																											
ZZZZZZ			13:13																											
ZZZZZZ			13:16																											
CCV 240-447397/21			13:18																											
CCB 240-447397/22			13:21																											
ZZZZZZ			13:23																											
ZZZZZZ			13:26																											
ZZZZZZ			13:28																											
ZZZZZZ			13:31																											
ZZZZZZ			13:33																											
ZZZZZZ			13:36																											
ZZZZZZ			13:38																											
ZZZZZZ			13:41																											
ZZZZZZ			13:43																											
ZZZZZZ			13:46																											
CCV 240-447397/33			13:48																											
CCB 240-447397/34			13:51																											
ZZZZZZ			13:53																											
ZZZZZZ			13:56																											
ZZZZZZ			13:58																											
ZZZZZZ			14:01																											
ZZZZZZ			14:03																											
ZZZZZZ			14:05																											
CCV 240-447397/41			14:08																											
CCB 240-447397/42			14:10																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020A

Start Date: 08/14/2020 12:07 End Date: 08/14/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn				
CCVL 240-447397/43			14:13																												
ZZZZZZ			14:15																												
ZZZZZZ			14:18																												
ZZZZZZ			14:20																												
ZZZZZZ			14:23																												
ZZZZZZ			14:25																												
ZZZZZZ			14:27																												
ZZZZZZ			14:30																												
ZZZZZZ			14:32																												
ZZZZZZ			14:35																												
CCV 240-447397/53			14:37																												
CCB 240-447397/54			14:39																												
CCV 240-447397/55			14:42																												
CCB 240-447397/56			14:45																												
CCVL 240-447397/57			14:47																												
ZZZZZZ			14:50																												
ZZZZZZ			14:52																												
ZZZZZZ			14:54																												
ZZZZZZ			14:57																												
ZZZZZZ			14:59																												
ZZZZZZ			15:02																												
ZZZZZZ			15:04																												
ZZZZZZ			15:07																												
ZZZZZZ			15:09																												
CCV 240-447397/67			15:12																												
CCB 240-447397/68			15:14																												
ZZZZZZ			15:17																												
ZZZZZZ			15:19																												
ZZZZZZ			15:22																												
ZZZZZZ			15:24																												
ZZZZZZ			15:27																												
ZZZZZZ			15:29																												
ZZZZZZ			15:31																												
ZZZZZZ			15:34																												
ZZZZZZ			15:36																												
ZZZZZZ			15:39																												
CCV 240-447397/79	1		15:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 240-447397/80	1		15:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			15:46																												
MB 240-447010/1-A	1	R	15:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCS 240-447010/3-A	1	R	15:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
240-134814-1	1	R	15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020A

Start Date: 08/14/2020 12:07 End Date: 08/14/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn							
240-134814-1 SD	5	R	15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			15:59																												
ZZZZZZ			16:01																												
240-134814-1 PDS	1	R	16:03		X																										
240-134814-1 MS	1	R	16:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-134814-1 MSD	1	R	16:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-447397/91	1		16:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-447397/92	1		16:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-447397/93			16:15																												
CCB 240-447397/94			16:18																												
CCVL 240-447397/95	1		16:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			16:23																												
ZZZZZZ			16:25																												
ZZZZZZ			16:28																												
ZZZZZZ			16:30																												
ZZZZZZ			16:33																												
ZZZZZZ			16:35																												
ZZZZZZ			16:38																												
ZZZZZZ			16:40																												
ZZZZZZ			16:43																												
CCV 240-447397/105			16:45																												
CCB 240-447397/106			16:48																												
ZZZZZZ			16:50																												
CCV 240-447397/108			16:53																												
CCB 240-447397/109			16:55																												

Prep Types:
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-447004/1-A			13:11	X																								
IC 240-447004/2-A			13:13	X																								
IC 240-447004/3-A			13:15	X																								
IC 240-447004/4-A			13:17	X																								
IC 240-447004/5-A			13:20	X																								
IC 240-447004/6-A			13:22	X																								
ICV 240-447004/7-A	1		13:25	X																								
ICB 240-447004/8-A	1		13:27	X																								
CRA 240-447004/9-A	1		13:30	X																								
CCV 240-447004/10-A			13:32																									
CCB 240-447004/11-A			13:34																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									
ZZZZZZ			13:43																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									
ZZZZZZ			13:57																									
CCV 240-447004/10-A			13:59																									
CCB 240-447004/11-A			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
ZZZZZZ			14:23																									
ZZZZZZ			14:25																									
CCV 240-447004/10-A			14:27																									
CCB 240-447004/11-A			14:29																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:37																									
ZZZZZZ			14:39																									
ZZZZZZ			14:41																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:48	
ZZZZZZ			14:50	
ZZZZZZ			14:52	
CCV 240-447004/10-A			14:54	
CCB 240-447004/11-A			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:04	
ZZZZZZ			15:06	
ZZZZZZ			15:08	
ZZZZZZ			15:10	
ZZZZZZ			15:12	
ZZZZZZ			15:15	
ZZZZZZ			15:17	
ZZZZZZ			15:19	
CCV 240-447004/10-A			15:21	
CCB 240-447004/11-A			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:28	
ZZZZZZ			15:31	
ZZZZZZ			15:33	
ZZZZZZ			15:35	
ZZZZZZ			15:37	
ZZZZZZ			15:39	
ZZZZZZ			15:41	
ZZZZZZ			15:44	
ZZZZZZ			15:46	
CCV 240-447004/10-A	1		15:48	X
CCB 240-447004/11-A	1		15:50	X
ZZZZZZ			15:53	
ZZZZZZ			15:55	
ZZZZZZ			15:57	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:04	
MB 240-447011/1-A	1	T	16:06	X
LCS 240-447011/2-A	1	T	16:08	X
ZZZZZZ			16:10	
ZZZZZZ			16:13	
CCV 240-447004/10-A	1		16:15	X
CCB 240-447004/11-A	1		16:17	X
ZZZZZZ			16:20	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-134814-1	1	T	16:22	X																								
240-134814-1 MS	1	T	16:24	X																								
240-134814-1 MSD	1	T	16:26	X																								
ZZZZZZ			16:29																									
ZZZZZZ			16:31																									
ZZZZZZ			16:33																									
ZZZZZZ			16:35																									
ZZZZZZ			16:37																									
ZZZZZZ			16:40																									
CCV 240-447004/10-A	1		16:42	X																								
CCB 240-447004/11-A	1		16:44	X																								
ZZZZZZ			16:46																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									
ZZZZZZ			16:53																									
ZZZZZZ			16:55																									
ZZZZZZ			16:57																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
ZZZZZZ			17:04																									
ZZZZZZ			17:06																									
CCV 240-447004/10-A			17:09																									
CCB 240-447004/11-A			17:11																									
ZZZZZZ			17:14																									
ZZZZZZ			17:16																									
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:22																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
ZZZZZZ			17:30																									
ZZZZZZ			17:32																									
ZZZZZZ			17:34																									
CCV 240-447004/10-A			17:37																									
CCB 240-447004/11-A			17:39																									
ZZZZZZ			17:41																									
ZZZZZZ			17:43																									
ZZZZZZ			17:46																									
ZZZZZZ			17:48																									
ZZZZZZ			17:50																									
ZZZZZZ			17:52																									
ZZZZZZ			17:54																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:57																									
ZZZZZZ			17:59																									
ZZZZZZ			18:01																									
CCV 240-447004/10-A			18:04																									
CCB 240-447004/11-A			18:06																									
ZZZZZZ			18:08																									
ZZZZZZ			18:10																									
ZZZZZZ			18:13																									
ZZZZZZ			18:15																									
ZZZZZZ			18:17																									
ZZZZZZ			18:19																									
ZZZZZZ			18:22																									
ZZZZZZ			18:24																									
ZZZZZZ			18:26																									
ZZZZZZ			18:28																									
CCV 240-447004/10-A			18:30																									
CCB 240-447004/11-A			18:33																									
ZZZZZZ			18:35																									
ZZZZZZ			18:37																									
ZZZZZZ			18:39																									
CCV 240-447004/10-A			18:42																									
CCB 240-447004/11-A			18:44																									

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP Instrument ID: I12 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 371.030	Q	Element	Q
ICIS 240-447390/1	09:20										
ICV 240-447390/4	09:33	91		99		98		100			
ICB 240-447390/5	09:37	102		102		102		103			
ICVL 240-447390/6	09:41	98		101		100		103			
ICSA 240-447390/8	09:50	76		90		86		97			
ICSAB 240-447390/9	09:54	75		89		85		96			
CCV 240-447390/43	12:24	97		106		106		112			
CCB 240-447390/44	12:28	108		109		110		113			
MB 240-447010/1-A	12:45	110		111		111		114			
LCS 240-447010/2-A	12:49	95		105		104		112			
240-134778-A-1-A SD ^5	13:00	92		101		100		112			
240-134778-A-1-B MS	13:08	78		93		90		104			
240-134778-A-1-C MSD	13:12	79		93		91		105			
CCV 240-447390/55	13:19	93		102		101		103			
CCB 240-447390/56	13:23	104		105		105		105			
240-134814-1	13:27	101		106		104		108			
CCV 240-447390/67	14:10	95		103		103		106			
CCB 240-447390/68	14:14	106		107		107		109			
CCVL 240-447390/69	14:18	103		105		105		108			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Rh/2	Q
STD3 240-447397/3 IC	12:12	98		100		100		100		96	
ICV 240-447397/4	12:15	100		101		101		101		98	
ICB 240-447397/5	12:17	102		101		100		101		99	
ICVL 240-447397/6	12:20	100		101		101		101		99	
ICSA 240-447397/7	12:22	99		100		100		101		95	
ICSAB 240-447397/8	12:25	97		100		100		100		94	
CCV 240-447397/79	15:41	88		87		86		86		87	
CCB 240-447397/80	15:44	85		84		84		84		88	
MB 240-447010/1-A	15:49	92		89		88		90		92	
LCS 240-447010/3-A	15:51	86		86		87		90		89	
240-134814-1	15:54	87		86		87		88		88	
240-134814-1 SD	15:56	87		84		85		85		88	
240-134814-1 PDS	16:03	84		85		84		87		86	
240-134814-1 MS	16:05	84		86		85		87		87	
240-134814-1 MSD	16:08	83		85		85		86		86	
CCV 240-447397/91	16:10	85		84		84		85		85	
CCB 240-447397/92	16:13	85		84		83		84		87	
CCVL 240-447397/95	16:20	85		83		83		84		86	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh/3	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
STD3 240-447397/3 IC	12:12	96		99		98		100		100	
ICV 240-447397/4	12:15	98		100		99		100		101	
ICB 240-447397/5	12:17	100		101		101		100		101	
ICVL 240-447397/6	12:20	101		102		100		101		101	
ICSA 240-447397/7	12:22	96		98		98		101		101	
ICSAB 240-447397/8	12:25	96		98		97		101		100	
CCV 240-447397/79	15:41	88		88		90		91		92	
CCB 240-447397/80	15:44	90		89		90		90		91	
MB 240-447010/1-A	15:49	91		90		92		91		93	
LCS 240-447010/3-A	15:51	90		89		91		91		92	
240-134814-1	15:54	90		89		90		90		92	
240-134814-1 SD	15:56	90		89		90		90		92	
240-134814-1 PDS	16:03	87		88		89		90		91	
240-134814-1 MS	16:05	88		89		90		91		93	
240-134814-1 MSD	16:08	88		88		88		90		91	
CCV 240-447397/91	16:10	88		87		88		90		92	
CCB 240-447397/92	16:13	90		89		88		90		92	
CCVL 240-447397/95	16:20	89		88		89		90		92	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD3 240-447397/3 IC	12:12	98									
ICV 240-447397/4	12:15	99									
ICB 240-447397/5	12:17	101									
ICVL 240-447397/6	12:20	100									
ICSA 240-447397/7	12:22	98									
ICSAB 240-447397/8	12:25	98									
CCV 240-447397/79	15:41	90									
CCB 240-447397/80	15:44	92									
MB 240-447010/1-A	15:49	92									
LCS 240-447010/3-A	15:51	90									
240-134814-1	15:54	92									
240-134814-1 SD	15:56	92									
240-134814-1 PDS	16:03	90									
240-134814-1 MS	16:05	89									
240-134814-1 MSD	16:08	90									
CCV 240-447397/91	16:10	89									
CCB 240-447397/92	16:13	91									
CCVL 240-447397/95	16:20	92									

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447010 Batch Start Date: 08/13/20 14:00 Batch Analyst: Loeb, Matthew R

Batch Method: 3005A Batch End Date: 08/13/20 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ICPspike3 00013	MTTMHCL 00300	MTTMHNO3 00230	SPIKE1 00008
MB 240-447010/1		3005A, 6010C		50 mL	50 mL		2.5 mL	1 mL	
LCS 240-447010/2		3005A, 6010C		50 mL	50 mL	0.5 mL	2.5 mL	1 mL	0.5 mL
240-134778-A-1 MS		3005A, 6010C	R	50 mL	50 mL	0.5 mL	2.5 mL	1 mL	0.5 mL
240-134778-A-1 MSD		3005A, 6010C	R	50 mL	50 mL	0.5 mL	2.5 mL	1 mL	0.5 mL
240-134814-M-1	MRC-MW-164B-081120	3005A, 6010C	R	50 mL	50 mL		2.5 mL	1 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00007					
MB 240-447010/1		3005A, 6010C							
LCS 240-447010/2		3005A, 6010C		0.5 mL					
240-134778-A-1 MS		3005A, 6010C	R	0.5 mL					
240-134778-A-1 MSD		3005A, 6010C	R	0.5 mL					
240-134814-M-1	MRC-MW-164B-081120	3005A, 6010C	R						

Batch Notes	
Batch Comment	filter paper 81206102
Temperature - Corrected - End	Timer Degrees C
Temperature - Corrected - Start	95 Degrees C
Digestion Unit ID	HB4
Pipette/Syringe/Dispenser ID	MP1 MP3
Thermometer ID	TempLog
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	Timer Degrees C
Temperature - Uncorrected - Start	95 Degrees C

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447010 Batch Start Date: 08/13/20 14:00 Batch Analyst: Loeb, Matthew R

Batch Method: 3005A Batch End Date: 08/13/20 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ICPMSspike3 00007	MTTMHCL 00300	MTTMHNO3 00230	SPIKE1 00008
MB 240-447010/1		3005A, 6020A		50 mL	50 mL		2.5 mL	1 mL	
LCS 240-447010/3		3005A, 6020A		50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-134814-M-1	MRC-MW-164B-081120	3005A, 6020A	R	50 mL	50 mL		2.5 mL	1 mL	
240-134814-M-1 MS	MRC-MW-164B-081120	3005A, 6020A	R	50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-134814-M-1 MSD	MRC-MW-164B-081120	3005A, 6020A	R	50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00007	TungstenSpike 00024				
MB 240-447010/1		3005A, 6020A							
LCS 240-447010/3		3005A, 6020A		0.25 mL	0.25 mL				
240-134814-M-1	MRC-MW-164B-081120	3005A, 6020A	R						
240-134814-M-1 MS	MRC-MW-164B-081120	3005A, 6020A	R	0.25 mL	0.25 mL				
240-134814-M-1 MSD	MRC-MW-164B-081120	3005A, 6020A	R	0.25 mL	0.25 mL				

Batch Notes	
Batch Comment	filter paper 81206102
Temperature - Corrected - End	Timer Degrees C
Temperature - Corrected - Start	95 Degrees C
Digestion Unit ID	HB4
Pipette/Syringe/Dispenser ID	MP1 MP3
Thermometer ID	TempLog
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	Timer Degrees C
Temperature - Uncorrected - Start	95 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447010 Batch Start Date: 08/13/20 14:00 Batch Analyst: Loeb, Matthew R

Batch Method: 3005A Batch End Date: 08/13/20 22:00

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447004 Batch Start Date: 08/13/20 09:50 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 08/13/20 11:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00119	MTH2S04 00090	MTHGCALW 02460	MTHgICV_00001 00701
ICV 240-447004/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-447004/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-447004/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-447004/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-447004/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00230	MTTMHNO3 00230				
ICV 240-447004/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-447004/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-447004/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-447004/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-447004/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Temperature - Corrected - End	95 Degrees C
Temperature - Corrected - Start	93 Degrees C
Digestion Unit ID	C1
Pipette/Syringe/Dispenser ID	MP1, MP2, A7
Thermometer ID	temp log
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	95 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447011 Batch Start Date: 08/13/20 12:00 Batch Analyst: Loeb, Matthew R

Batch Method: 7470A Batch End Date: 08/13/20 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00119	MTH2S04 00090	MTHGCALW 02460	MTKMN04W 00230
MB 240-447011/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-447011/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-134814-M-1	MRC-MW-164B-081120	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-134814-M-1 MS	MRC-MW-164B-081120	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-134814-M-1 MSD	MRC-MW-164B-081120	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00230
MB 240-447011/1		7470A, 7470A		1.25 mL
LCS 240-447011/2		7470A, 7470A		1.25 mL
240-134814-M-1	MRC-MW-164B-081120	7470A, 7470A	T	1.25 mL
240-134814-M-1 MS	MRC-MW-164B-081120	7470A, 7470A	T	1.25 mL
240-134814-M-1 MSD	MRC-MW-164B-081120	7470A, 7470A	T	1.25 mL

Batch Notes	
Temperature - Corrected - End	94 Degrees C
Temperature - Corrected - Start	93 Degrees C
Digestion Unit ID	D2
Pipette/Syringe/Dispenser ID	MP2 MP3
Thermometer ID	TempLog
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	95 Degrees C
Temperature - Uncorrected - Start	94 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 07/24/2020

Reporting Units: mg/L Analytical Batch No.: 444170

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	22:49	Bromide	10.2	10.0	102	90-110		WCICLCS_00775
			Sulfate	52.1	50.0	104	90-110		WCICLCS_00775
11	ICB	23:09	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 07/24/2020

Reporting Units: mg/L Analytical Batch No.: 444171

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	22:49	Nitrite as N	2.67	2.50	107	90-110		WCICLCS_00775
			Nitrate as N	2.68	2.50	107	90-110		WCICLCS_00775
11	ICB	23:09	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 08/12/2020

Reporting Units: mg/L Analytical Batch No.: 446838

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:29	Bromide	10.6	10.0	106	90-110		WCICCCV_00946
			Sulfate	51.9	50.0	104	90-110		WCICCCV_00946
2	CCB	15:49	Bromide	0.044				U	
			Sulfate	0.35				U	
13	CCV	19:30	Bromide	10.7	10.0	107	90-110		WCICCCV_00946
			Sulfate	52.1	50.0	104	90-110		WCICCCV_00946
14	CCB	19:51	Bromide	0.044				U	
			Sulfate	0.35				U	
18	CCV	21:11	Bromide	10.6	10.0	106	90-110		WCICCCV_00946
			Sulfate	52.2	50.0	104	90-110		WCICCCV_00946
19	CCB	21:31	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 08/12/2020

Reporting Units: mg/L Analytical Batch No.: 446839

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:29	Nitrite as N	2.64	2.50	106	90-110		WCICCCV_00946
			Nitrate as N	2.64	2.50	106	90-110		WCICCCV_00946
2	CCB	15:49	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
13	CCV	19:30	Nitrite as N	2.66	2.50	107	90-110		WCICCCV_00946
			Nitrate as N	2.66	2.50	106	90-110		WCICCCV_00946
14	CCB	19:51	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
18	CCV	21:11	Nitrite as N	2.65	2.50	106	90-110		WCICCCV_00946
			Nitrate as N	2.65	2.50	106	90-110		WCICCCV_00946
19	CCB	21:31	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Analyst: AGP Batch Start Date: 08/19/2020

Reporting Units: umhos/cm Analytical Batch No.: 326269

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	20:04	Specific Conductance	510	500	102	90-110		Cond. CCV_00023
14	CCB	20:04	Specific Conductance	1.0				U	
25	CCV	20:04	Specific Conductance	499	500	100	90-110		Cond. CCV_00023
26	CCB	20:04	Specific Conductance	1.0				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 447305	Date: 08/13/2020 22:18						
2320B-2011	MB 240-447305/30	Alkalinity	2.6	U	mg/L	5.0	1
Batch ID: 447678	Date: 08/18/2020 15:48						
2340C-2011	MB 240-447678/1	Hardness as calcium carbonate	2.4	U	mg/L	5.0	1
Batch ID: 447201	Date: 08/14/2020 09:02						
2540 C-2011	MB 240-447201/1	Total Dissolved Solids	7.8	U	mg/L	10	1
Batch ID: 446838	Date: 08/12/2020 16:09						
9056A	MB 240-446838/3	Bromide	0.044	U	mg/L	0.50	1
9056A	MB 240-446838/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 446839	Date: 08/12/2020 16:09						
9056A	MB 240-446839/3	Nitrite as N	0.014	U	mg/L	0.10	1
9056A	MB 240-446839/3	Nitrate as N	0.014	U	mg/L	0.10	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 326269	Date: 08/19/2020 20:04						
SM 2510B	MB 180-326269/2	Specific Conductance	1.0	U	umhos/cm	1.0	1
Batch ID: 327204	Date: 08/26/2020 12:16						
SM 2520B	MB 180-327204/2	Salinity	2.0	U	No Unit	2.0	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 447678 Date: 08/18/2020 15:48											
2340C-2011	240-134554-B-7	Hardness as calcium carbonate	480		mg/L						
2340C-2011	240-134554-B-7 MS	Hardness as calcium carbonate	1490		mg/L	1000	101	80-120			
Batch ID: 446838 Date: 08/12/2020 20:31											
9056A	240-134791-K-3	Bromide	0.22	J	mg/L						
9056A	240-134791-K-3 MS	Bromide	11.7		mg/L	10.0	115	80-120			
9056A	240-134791-K-3	Sulfate	5.4		mg/L						
9056A	240-134791-K-3 MS	Sulfate	60.3		mg/L	50.0	110	80-120			
Batch ID: 446839 Date: 08/12/2020 20:31											
9056A	240-134791-K-3	Nitrite as N	0.078	J	mg/L						
9056A	240-134791-K-3 MS	Nitrite as N	2.91		mg/L	2.50	113	80-120			
9056A	240-134791-K-3	Nitrate as N	0.68		mg/L						
9056A	240-134791-K-3 MS	Nitrate as N	3.55		mg/L	2.50	115	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 447678 Date: 08/18/2020 15:48											
2340C-2011	240-134554-B-7 MSD	Hardness as calcium carbonate	1490		mg/L	1000	101	80-120	0	10	
Batch ID: 446838 Date: 08/12/2020 20:51											
9056A	240-134791-K-3 MSD	Bromide	11.9		mg/L	10.0	117	80-120	2	15	
9056A	240-134791-K-3 MSD	Sulfate	61.4		mg/L	50.0	112	80-120	2	15	
Batch ID: 446839 Date: 08/12/2020 20:51											
9056A	240-134791-K-3 MSD	Nitrite as N	2.94		mg/L	2.50	114	80-120	1	15	
9056A	240-134791-K-3 MSD	Nitrate as N	3.60		mg/L	2.50	117	80-120	1	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 447305 Date: 08/13/2020 23:34								
2320B-2011	MRC-MW-164B-081120	240-134814-1	Alkalinity	98	mg/L			
2320B-2011	MRC-MW-164B-081120	240-134814-1 DU	Alkalinity	96.4	mg/L	2	20	
Batch ID: 447678 Date: 08/18/2020 15:48								
2340C-2011		240-134554-B-7	Hardness as calcium carbonate	480	mg/L			
2340C-2011		240-134554-B-7 DU	Hardness as calcium carbonate	490	mg/L	2	20	
Batch ID: 447201 Date: 08/14/2020 09:02								
2540 C-2011		190-23825-D-2	Total Dissolved Solids	1100	mg/L			
2540 C-2011		190-23825-D-2 DU	Total Dissolved Solids	1130	mg/L	4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 326269 Date: 08/19/2020 20:04								
SM 2510B	MRC-MW-164B-081120	240-134814-1	Specific Conductance	250	umhos/cm			
SM 2510B	MRC-MW-164B-081120	240-134814-1 DU	Specific Conductance	249	umhos/cm	0.2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 447305	Date: 08/13/2020 22:14										
						LCS Source: WCPHENOMINER_00029					
2320B-2011	LCS 240-447305/29	Alkalinity	163		mg/L	166	98	86-123			
Batch ID: 447678	Date: 08/18/2020 15:48										
						LCS Source: WCHARDNESS_00037					
2340C-2011	LCS 240-447678/2	Hardness as calcium carbonate	126		mg/L	134	94	90-110			
Batch ID: 447201	Date: 08/14/2020 09:02										
						LCS Source: WCPHENOVSOLID_00051					
2540 C-2011	LCS 240-447201/2	Total Dissolved Solids	547		mg/L	567	96	80-120			
Batch ID: 446838	Date: 08/12/2020 16:29										
						LCS Source: WCICLCS_00778					
9056A	LCS 240-446838/4	Bromide	10.2		mg/L	10.0	102	90-110			
9056A	LCS 240-446838/4	Sulfate	52.1		mg/L	50.0	104	90-110			
Batch ID: 446839	Date: 08/12/2020 16:29										
						LCS Source: WCICLCS_00778					
9056A	LCS 240-446839/4	Nitrite as N	2.59		mg/L	2.50	104	90-110			
9056A	LCS 240-446839/4	Nitrate as N	2.68		mg/L	2.50	107	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 326269	Date: 08/19/2020 20:04										
						LCS Source: WCond84SP_00046					
SM 2510B	LCS 180-326269/1	Specific Conductance	86.2		umhos/cm	84.0	103	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340C-2011 MDL Date: 04/25/2017 11:12

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Hardness as calcium carbonate		5	2.389

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340C-2011 XMDL Date: 04/25/2017 11:12

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness as calcium carbonate		5	2.389

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: Severus

Method: 2320B-2011 MDL Date: 08/21/2018 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: Severus

Method: 2320B-2011 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2540 C-2011 MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2540 C-2011 XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2510B MDL Date: 01/01/2011 18:59

Analyte	Wavelength/ Mass	RL (umhos/cm)	MDL (umhos/cm)
Specific Conductance		1	1

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2510B XMDL Date: 01/01/2011 18:59

Analyte	Wavelength/ Mass	XRL (umhos/cm)	XMDL (umhos/cm)
Specific Conductance		1	1

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B RL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	RL (No Unit)	
Salinity		2	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B XRL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	XRL (No Unit)	
Salinity		2	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340C-2011

Start Date: 08/18/2020 15:48 End Date: 08/18/2020 15:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
MB 240-447678/1	1	T	15:48	X																								
LCS 240-447678/2	1	T	15:48	X																								
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
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ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
240-134554-B-7 MS	1	T	15:48	X																								
240-134554-B-7 MSD	1	T	15:48	X																								
240-134554-B-7 DU	1	T	15:48	X																								
ZZZZZZ			15:48																									
ZZZZZZ			15:49																									
ZZZZZZ			15:49																									
240-134814-1	1	T	15:49	X																								
ZZZZZZ			15:49																									
ZZZZZZ			15:49																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: Severus Analysis Method: 2320B-2011

Start Date: 08/13/2020 20:11 End Date: 08/14/2020 00:49

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			20:11	
ZZZZZZ			20:19	
ZZZZZZ			20:25	
ZZZZZZ			20:28	
ZZZZZZ			20:33	
ZZZZZZ			20:37	
ZZZZZZ			20:42	
ZZZZZZ			20:46	
ZZZZZZ			20:50	
ZZZZZZ			20:54	
ZZZZZZ			20:58	
ZZZZZZ			21:02	
ZZZZZZ			21:04	
ZZZZZZ			21:08	
ZZZZZZ			21:12	
ZZZZZZ			21:17	
ZZZZZZ			21:21	
ZZZZZZ			21:25	
ZZZZZZ			21:30	
ZZZZZZ			21:35	
ZZZZZZ			21:40	
ZZZZZZ			21:44	
ZZZZZZ			21:49	
ZZZZZZ			21:51	
ZZZZZZ			21:55	
ZZZZZZ			22:00	
ZZZZZZ			22:05	
ZZZZZZ			22:10	
LCS 240-447305/29	1	T	22:14	X
MB 240-447305/30	1	T	22:18	X
ZZZZZZ			22:25	
ZZZZZZ			22:30	
ZZZZZZ			22:33	
ZZZZZZ			22:37	
ZZZZZZ			22:39	
ZZZZZZ			22:43	
ZZZZZZ			22:47	
ZZZZZZ			22:56	
ZZZZZZ			23:05	
ZZZZZZ			23:15	
ZZZZZZ			23:25	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: Severus Analysis Method: 2320B-2011

Start Date: 08/13/2020 20:11 End Date: 08/14/2020 00:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
240-134814-1	1	T	23:30	X																								
240-134814-1 DU	1	T	23:34	X																								
ZZZZZZ			23:38																									
ZZZZZZ			23:42																									
ZZZZZZ			23:44																									
ZZZZZZ			23:48																									
ZZZZZZ			23:53																									
ZZZZZZ			23:58																									
ZZZZZZ			00:03																									
ZZZZZZ			00:08																									
ZZZZZZ			00:13																									
ZZZZZZ			00:17																									
ZZZZZZ			00:21																									
ZZZZZZ			00:25																									
ZZZZZZ			00:29																									
ZZZZZZ			00:31																									
ZZZZZZ			00:36																									
ZZZZZZ			00:41																									
ZZZZZZ			00:45																									
ZZZZZZ			00:47																									
ZZZZZZ			00:49																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540 C-2011

Start Date: 08/14/2020 09:02 End Date: 08/14/2020 09:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-447201/1	1	T	09:02	X																								
LCS 240-447201/2	1	T	09:02	X																								
ZZZZZZ			09:02																									
190-23825-D-2 DU	1	T	09:02	X																								
240-134814-1	1	T	09:02	X																								
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
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ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
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ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/24/2020 19:48 End Date: 07/24/2020 23:09

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	SO4																								
STD1 240-444170/1 IC	1		19:48	X	X																								
STD2 240-444170/2 IC	1		20:08	X	X																								
STD3 240-444170/3 IC	1		20:28	X	X																								
STD4 240-444170/4 IC	1		20:48	X	X																								
STD5 240-444170/5 ICRT	1		21:08	X	X																								
STD6 240-444170/6 IC	1		21:29	X	X																								
STD7 240-444170/7 IC	1		21:49	X	X																								
STD8 240-444170/8 IC	1		22:09	X	X																								
STD9 240-444170/9 IC	1		22:29	X	X																								
ICV 240-444170/10	1		22:49	X	X																								
ICB 240-444170/11	1		23:09	X	X																								

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/24/2020 19:48 End Date: 07/24/2020 23:09

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
STD1 240-444171/1 IC	1		19:48	X	X																								
STD2 240-444171/2 IC	1		20:08	X	X																								
STD3 240-444171/3 IC	1		20:28	X	X																								
STD4 240-444171/4 IC	1		20:48	X	X																								
STD5 240-444171/5 ICRT	1		21:08	X	X																								
STD6 240-444171/6 IC	1		21:29	X	X																								
STD7 240-444171/7 IC	1		21:49	X	X																								
STD8 240-444171/8 IC	1		22:09	X	X																								
STD9 240-444171/9 IC	1		22:29	X	X																								
ICV 240-444171/10	1		22:49	X	X																								
ICB 240-444171/11	1		23:09	X	X																								

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 08/12/2020 15:29 End Date: 08/12/2020 21:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	SO4																								
CCV 240-446838/1	1		15:29	X	X																								
CCB 240-446838/2	1		15:49	X	X																								
MB 240-446838/3	1	T	16:09	X	X																								
LCS 240-446838/4	1	T	16:29	X	X																								
ZZZZZZ			16:49																										
ZZZZZZ			17:09																										
ZZZZZZ			17:29																										
ZZZZZZ			17:49																										
240-134814-1	1	T	18:10	X	X																								
ZZZZZZ			18:30																										
ZZZZZZ			18:50																										
ZZZZZZ			19:10																										
CCV 240-446838/13	1		19:30	X	X																								
CCB 240-446838/14	1		19:51	X	X																								
ZZZZZZ			20:11																										
240-134791-K-3 MS	1	T	20:31	X	X																								
240-134791-K-3 MSD	1	T	20:51	X	X																								
CCV 240-446838/18	1		21:11	X	X																								
CCB 240-446838/19	1		21:31	X	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 08/12/2020 15:29 End Date: 08/12/2020 21:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
CCV 240-446839/1	1		15:29	X	X																								
CCB 240-446839/2	1		15:49	X	X																								
MB 240-446839/3	1	T	16:09	X	X																								
LCS 240-446839/4	1	T	16:29	X	X																								
ZZZZZZ			16:49																										
ZZZZZZ			17:09																										
ZZZZZZ			17:29																										
ZZZZZZ			17:49																										
240-134814-1	1	T	18:10	X	X																								
ZZZZZZ			18:30																										
ZZZZZZ			18:50																										
ZZZZZZ			19:10																										
CCV 240-446839/13	1		19:30	X	X																								
CCB 240-446839/14	1		19:51	X	X																								
ZZZZZZ			20:11																										
240-134791-K-3 MS	1	T	20:31	X	X																								
240-134791-K-3 MSD	1	T	20:51	X	X																								
CCV 240-446839/18	1		21:11	X	X																								
CCB 240-446839/19	1		21:31	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2510B

Start Date: 08/19/2020 20:04 End Date: 08/19/2020 20:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				SC																								
LCS 180-326269/1	1	T	20:04	X																								
MB 180-326269/2	1	T	20:04	X																								
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
CCV 180-326269/13	1		20:04	X																								
CCB 180-326269/14	1		20:04	X																								
240-134814-1	1	T	20:04	X																								
240-134814-1 DU	1	T	20:04	X																								
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
CCV 180-326269/25	1		20:04	X																								
CCB 180-326269/26	1		20:04	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2520B

Start Date: 08/26/2020 12:08 End Date: 08/26/2020 12:16

Lab Sample Id	D/F	Type	Time	Analytes																								
				Salin																								
240-134814-1	1	T	12:08	X																								
MB 180-327204/2	1	T	12:16	X																								
ZZZZZZ			12:16																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447678 Batch Start Date: 08/18/20 15:48 Batch Analyst: Rodgers, Jacob M

Batch Method: 2340C-2011 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
MB 240-447678/1		2340C-2011		25 mL	25 mL	- SU	- SU	0 mL	0 mL
LCS 240-447678/2		2340C-2011		25 mL	25 mL	- SU	- SU	0 mL	3.15 mL
240-134554-B-7 MS		2340C-2011	T	5 mL	25 mL	- SU	- SU	0 mL	7.45 mL
240-134554-B-7 MSD		2340C-2011	T	5 mL	25 mL	- SU	- SU	0 mL	7.45 mL
240-134554-B-7 DU		2340C-2011	T	5 mL	25 mL	- SU	- SU	0 mL	2.45 mL
240-134814-N-1	MRC-MW-164B-081120	2340C-2011	T	25 mL	25 mL	- SU	- SU	0 mL	2.40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	WCCALCIUMCARB 00024	WCHARDNESS 00037			
MB 240-447678/1		2340C-2011		0 mL					
LCS 240-447678/2		2340C-2011		3.15 mL		25 mL			
240-134554-B-7 MS		2340C-2011	T	7.45 mL	5 mL				
240-134554-B-7 MSD		2340C-2011	T	7.45 mL	5 mL				
240-134554-B-7 DU		2340C-2011	T	2.45 mL					
240-134814-N-1	MRC-MW-164B-081120	2340C-2011	T	2.4 mL					

Batch Notes	
Buffer Reagent ID	3944945
Indicator Reagent ID	4134599
Nominal Amount Used	25 mL
Pipette/Syringe/Dispenser ID	C6
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447305 Batch Start Date: 08/13/20 20:11 Batch Analyst: Weimer, Joshua W

Batch Method: 2320B-2011 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	WCPHENOMINER 00029				
LCS 240-447305/29		2320B-2011		InitialAmount is blank	10 mL				
MB 240-447305/30		2320B-2011		InitialAmount is blank					
240-134814-K-1	MRC-MW-164B-081120	2320B-2011	T	InitialAmount is blank					
240-134814-K-1 DU	MRC-MW-164B-081120	2320B-2011	T	InitialAmount is blank					

Batch Notes	
Acid ID	4617138
pH Buffer 1 ID	4-4772832
pH Buffer 2 ID	7-4596436
pH Buffer 3 ID	10-4853006
pH Buffer 4 ID	12-4526574
Nominal Amount Used	10 mL
pH Meter ID	Severus
Probe ID	WCP-149
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447201 Batch Start Date: 08/14/20 09:01 Batch Analyst: Reidenbach, Kendall L

Batch Method: 2540 C-2011 Batch End Date: 08/17/20 12:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	TareWeight	InitialAmount	Weight1	Weight2	WeightOne%Diff
MB 240-447201/1		2540 C-2011			3.9281 g	100 mL	3.9288 g	3.9286 g	Pass No Unit
LCS 240-447201/2		2540 C-2011			3.8397 g	100 mL	3.8945 g	3.8944 g	Pass No Unit
190-23825-D-2 DU		2540 C-2011	T	1985 umhos/cm	3.8500 g	50 mL	3.9068 g	3.9067 g	Pass No Unit
240-134814-J-1	MRC-MW-164B-081120	2540 C-2011	T	373 umhos/cm	3.8645 g	100 mL	3.8765 g	3.8768 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-447201/1		2540 C-2011		N/A No Unit	N/A	0.0007 g	0.0005 g	N/A g	N/A g
LCS 240-447201/2		2540 C-2011		N/A No Unit	N/A	0.0548 g	0.0547 g	N/A g	N/A g
190-23825-D-2 DU		2540 C-2011	T	N/A No Unit	N/A	0.0568 g	0.0567 g	N/A g	N/A g
240-134814-J-1	MRC-MW-164B-081120	2540 C-2011	T	N/A No Unit	N/A	0.012 g	0.0123 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00051			
MB 240-447201/1		2540 C-2011		100 mL	OK				
LCS 240-447201/2		2540 C-2011		100 mL	OK	100 mL			
190-23825-D-2 DU		2540 C-2011	T	100 mL	OK				
240-134814-J-1	MRC-MW-164B-081120	2540 C-2011	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447201 Batch Start Date: 08/14/20 09:01 Batch Analyst: Reidenbach, Kendall L

Batch Method: 2540 C-2011 Batch End Date: 08/17/20 12:25

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Date/Time - In - CW (WT2)	08/17/2020 10:10
Date/Time - Out - CW (WT2)	08/17/2020 11:10
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	179.1 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180.4 Celsius
Temperature - End-CW(WT2) -Uncorrected	179.5 Celsius
Temperature - Start - Corrected	103.8 Celsius
Temperature - End - Corrected	105 Celsius
Date/Time - In	08/14/2020 09:50
Date/Time - Out	08/14/2020 14:30
Filter ID	17055937
Nominal Amount Used	100 mL
Oven ID	001
Oven ID - Low Temperature	O06
Thermometer ID - Low Temperature	FELICIA
Thermometer ID	FELICIA
Temperature - Start - Uncorrected	104.2 Celsius
Temperature - End - Uncorrected	105.4 Celsius
Vessel Lot ID	RW0004801-0093-LR
Weight(WT1) Start Date/Time	08/14/2020 14:30 No Unit
Weight(WT1) Date/Time Out	08/17/2020 08:30
Weight(WT1) Start Temp	181.5 Celsius
Weight(WT1) Temp Out	181 Celsius
Uncorrected Weight(WT1) Start Temp	181.9 Celsius
Uncorrected Weight(WT1) Temp Out	181.4 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 444170 Batch Start Date: 07/24/20 19:48 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00331	WCICLCS 00775			
STD1 240-444170/1 IC		9056A		5 mL	0.025 mL				
STD2 240-444170/2 IC		9056A		5 mL	0.125 mL				
STD3 240-444170/3 IC		9056A		5 mL	0.25 mL				
STD4 240-444170/4 IC		9056A		5 mL	0.5 mL				
STD5 240-444170/5 ICRT		9056A		5 mL	1.25 mL				
STD6 240-444170/6 IC		9056A		5 mL	2 mL				
STD7 240-444170/7 IC		9056A		5 mL	2.5 mL				
STD8 240-444170/8 IC		9056A		5 mL	3.75 mL				
STD9 240-444170/9 IC		9056A		5 mL	5 mL				
ICV 240-444170/10		9056A		5 mL		5 mL			
ICB 240-444170/11		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 444171 Batch Start Date: 07/24/20 19:48 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00331	WCICLCS 00775			
STD1 240-444171/1 IC		9056A		5 mL	0.025 mL				
STD2 240-444171/2 IC		9056A		5 mL	0.125 mL				
STD3 240-444171/3 IC		9056A		5 mL	0.25 mL				
STD4 240-444171/4 IC		9056A		5 mL	0.5 mL				
STD5 240-444171/5 ICRT		9056A		5 mL	1.25 mL				
STD6 240-444171/6 IC		9056A		5 mL	2 mL				
STD7 240-444171/7 IC		9056A		5 mL	2.5 mL				
STD8 240-444171/8 IC		9056A		5 mL	3.75 mL				
STD9 240-444171/9 IC		9056A		5 mL	5 mL				
ICV 240-444171/10		9056A		5 mL		5 mL			
ICB 240-444171/11		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 446838 Batch Start Date: 08/12/20 15:29 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCICCCV 00946	WCICLCS 00778	WCICSOLNA1 00023	WCICSOLNB1 00023
CCV 240-446838/1		9056A		5 mL		5 mL			
CCB 240-446838/2		9056A		5 mL					
MB 240-446838/3		9056A		5 mL					
LCS 240-446838/4		9056A		5 mL			5 mL		
240-134814-J-1	MRC-MW-164B-081120	9056A	T	5 mL	1.0 mL				
CCV 240-446838/13		9056A		5 mL		5 mL			
CCB 240-446838/14		9056A		5 mL					
240-134791-K-3 MS		9056A	T	5 mL				0.1 mL	0.1 mL
240-134791-K-3 MSD		9056A	T	5 mL				0.1 mL	0.1 mL
CCV 240-446838/18		9056A		5 mL		5 mL			
CCB 240-446838/19		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 446839 Batch Start Date: 08/12/20 15:29 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00946	WCICLCS 00778	WCICSOLNA1 00023	WCICSOLNB1 00023	
CCV 240-446839/1		9056A		5 mL	5 mL				
CCB 240-446839/2		9056A		5 mL					
MB 240-446839/3		9056A		5 mL					
LCS 240-446839/4		9056A		5 mL		5 mL			
240-134814-J-1	MRC-MW-164B-081120	9056A	T	5 mL					
CCV 240-446839/13		9056A		5 mL	5 mL				
CCB 240-446839/14		9056A		5 mL					
240-134791-K-3 MS		9056A	T	5 mL			0.1 mL	0.1 mL	
240-134791-K-3 MSD		9056A	T	5 mL			0.1 mL	0.1 mL	
CCV 240-446839/18		9056A		5 mL	5 mL				
CCB 240-446839/19		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Pittsbur Job No.: 240-134814-1

SDG No.:

Batch Number: 326269 Batch Start Date: 08/19/20 20:04 Batch Analyst: Partridge, Angela G

Batch Method: SM 2510B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	UnCorSampTemp	Cond. CCV 00023	WCond84SP 00046		
LCS 180-326269/1		SM 2510B		2 mL	21.1 Degrees C		2 mL		
MB 180-326269/2		SM 2510B		2 mL	24.7 Degrees C				
CCV 180-326269/13		SM 2510B		2 mL	21.1 Degrees C	2 mL			
CCB 180-326269/14		SM 2510B		2 mL	24.7 Degrees C				
240-134814-G-1	MRC-MW-164B-081120	SM 2510B	T	2 mL	19.1 Degrees C				
240-134814-G-1 DU	MRC-MW-164B-081120	SM 2510B	T	2 mL	19.1 Degrees C				
CCV 180-326269/25		SM 2510B		2 mL	21.1 Degrees C	2 mL			
CCB 180-326269/26		SM 2510B		2 mL	24.7 Degrees C				

Batch Notes	
Conductivity Standard ID	3825077
Instrument ID	Ultrameter II Psi SN 6205309

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

General Chemistry Raw Data Report

Job ID: 240-134814-1

Batch: 447678 **Analyst Initials: JMR**

Method: 2340C-2011 **Instrument: No Equipment**

Lab Sample ID: MB 240-447678/1

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	0	mg/L	25 mL	25 mL

Lab Sample ID: LCS 240-447678/2

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	126	mg/L	25 mL	25 mL

Lab Sample ID: 240-134554-B-7 MS

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	298	mg/L	5 mL	25 mL

Lab Sample ID: 240-134554-B-7 MSD

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	298	mg/L	5 mL	25 mL

Lab Sample ID: 240-134554-B-7 DU

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	98	mg/L	5 mL	25 mL

Lab Sample ID: 240-134814-N-1

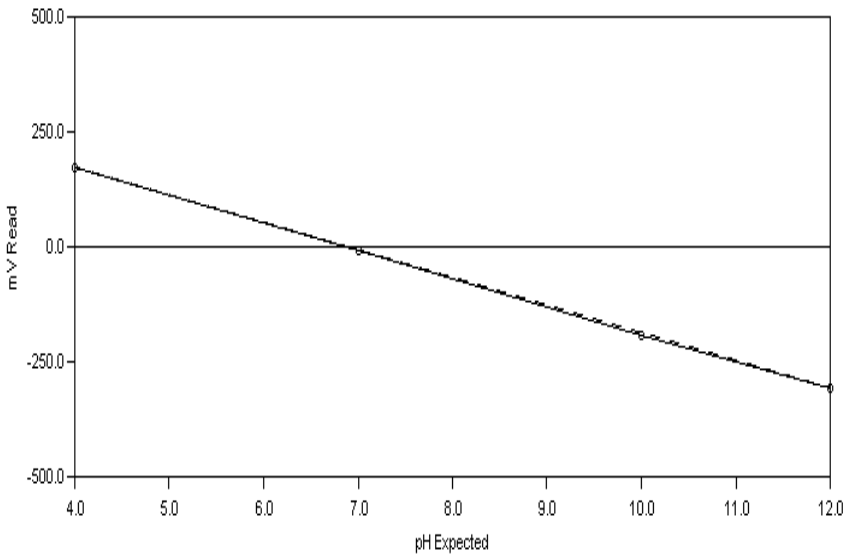
Analysis Date: Aug 18, 2020 15:49

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	96	mg/L	25 mL	25 mL

Test America-Canton

Calibration Report

Calibration Record # 387



Calibration Settings

Calibration ID	PH	Date	8/13/2020
Channel	1	Time	8:17 PM
Probe Type	pH	Temperature	302.43 K 29.28 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.871	CorrCoeff	0.9999
Intercept	-8.896	Equation:	Y = (-59.871) X + (-8.896)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.871	-65.00	-54.00
Intercept	-8.896	-100.00	100.00
Correlation Coefficient	0.9999	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	171.63
	7.00	-9.15
	10.00	-191.52
	12.00	-305.90

General Chemistry Raw Data Report

Job ID: 240-134814-1

Batch: 447201 **Analyst Initials: KLR**

Method: 2540 C-2011 **Instrument: No Equipment**

Lab Sample ID: MB 240-447201/1

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	5	mg/L	100 mL	100 mL

Lab Sample ID: LCS 240-447201/2

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	547	mg/L	100 mL	100 mL

Lab Sample ID: 190-23825-D-2 DU

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	567	mg/L	50 mL	100 mL

Lab Sample ID: 240-134814-J-1

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	123	mg/L	100 mL	100 mL

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-003_04_ECD_1.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 12-Aug-2020 16:09:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-003
Misc. Info.: MB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		4.237				ND	
	2 Chloride		6.570				ND	
	3 Nitrite as N		8.117				ND	
	4 Bromide		10.163				ND	
	5 Nitrate as N		11.660				ND	
	6 Sulfate		14.307				ND	
	11 Nitrate as NO3		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
S	7 Nitrate Nitrite as N		0.000				ND	

eurofins | Environment Testing TestAmerica

Pittsburgh
SPECIFIC CONDUCTANCE LOGSHEET
Methods 120.1/9050A/SM2510B
NB-2020-028

2510B batch 3262609

LCS True Value: 84 | 100 mS Standard | Meter ID: Ultrameter II Psi SN 6205309
LCS TALS Reagent ID: 38i5752 | TALS Reagent ID: 3825077 | Reporting Limit Acceptance: < 1 µmho/cm
CCV True Value: 500 | 100 mS STD Reading: 99.98ms | Analyst: Angela Partridge
CCV TALS Reagent ID: 38i5751 | Analysis Date: 8/19/2020

CALCULATIONS:

Cell Correction Factor:

100 mS / 100 mS Reading

SPECIFIC CONDUCTANCE:

Sample Reading x Cell Correction Factor (meter does calculation)

Conductivity Meter performs automatic temperature compensation.

Sample ID	Conductivity Reading (µmhos/cm)	Temperature °C
LCS	86.15	21.1
MB	0.12	24.7
180-109438-C-1	372.0	18.1
C-1 DU	372.2	18.1
180-109440-C-1	377.4	18.1
180-109443-C-1	629.0	18.1
180-109444-C-1	542.5	18.1
180-109446-C-1	314.0	18.1
180-109447-C-1	307.4	18.1
180-109464-C-1	188.4	18.1
180-109467-C-1	135.8	18.1
180-109468-C-1	265.2	19.1
CCV	509.8	21.1
CCB	0.18	24.7
~~180~~ A6P 8/19/20 240-134814-G-1	248.4	19.1
G-1 DU	248.8	19.1
180-109532-C-1	304.4	19.1
180-109533-C-1	410.0	19.1
180-109536-C-1	412.4	18.7
180-109537-C-1	294.0	18.1
180-109539-C-1	358.4	18.1
180-109540-C-1	229.0	18.7
180-109596-N-1	197.2 ms	19.1
180-109695-B-1	4640	19.1
CCV	499.4	21.1
CCB	0.16	24.7
		A6P 8/20/20

Reviewed By: _____ Date: _____

General Chemistry Raw Data Report

Job ID: 240-134814-1

Batch: 327204 **Analyst Initials: EMB**

Method: SM 2520B **Instrument: No Equipment**

Lab Sample ID: 240-134814-G-1 **Analysis Date: Aug 26, 2020 12:08**

Analyte	Detector	Dilution	Raw Result	Unit
Salinity	None	1	<2	No Unit

Lab Sample ID: MB 180-327204/2 **Analysis Date: Aug 26, 2020 12:16**

Analyte	Detector	Dilution	Raw Result	Unit
Salinity	None	1	<2	No Unit

Analysis Date: 8/26/2020 **Analyst:** EMB
Analysis Start Time: NA

R_t = [C(S,T,P)/C(35,15,0 where $r_t = c_0 + c_1T + c_2T^2 + c_3T^3 + c_4T^4$

Salinity = $a_o + a_1R_t^{1/2} + a_2R_t + a_3R_t^{3/2} + a_4R_t^2 + a_5R_t^{5/2}$ + temperature correction

Temperature correction = $[((t-15)/(1+(0.0162*(t-15))))] * [b_o + b_1R_t^{1/2} + b_2R_t + b_3R_t^{3/2} + b_4R_t^2 + b_5R_t^{5/2}]$

a_o =	0.0080	b_o =	0.0005	c_o =	6.766097E-01
a_1 =	-0.1692	b_1 =	-0.0056	c_1 =	2.005640E-02
a_2 =	25.3851	b_2 =	-0.0066	c_2 =	1.104258E-04
a_3 =	14.0941	b_3 =	-0.0375	c_3 =	-6.969800E-07
a_4 =	-7.0261	b_4 =	0.0636	c_4 =	1.003100E-09
a_5 =	2.7081	b_5 =	-0.0144	at T=25°C, r_t =	1.23654

Constants: Temp. = 25.0^0 C C(35,15,0) = 42.914 mS/cm

Laboratory ID	Dilution Factor	Conductivity (umhos/cm)	Rt	$Rt^{1/2}$	Rt^2	$Rt^{3/2}$	$Rt^{5/2}$	Temp. Corr.	Salinity
MB	1	0.12	2.261E-06	1.504E-03	5.114E-12	3.401E-09	7.690E-15	4.230E-03	<2
240-134814-1	1	248.4	4.681E-03	6.842E-02	2.191E-05	3.203E-04	1.499E-06	6.482E-04	<2
240-134814-1DU	1	248.8	4.689E-03	6.847E-02	2.198E-05	3.210E-04	1.505E-06	6.449E-04	<2
	1								
	1								
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	1								

This calculation only valid for Salinities of 2 to 42

TETRA TECH INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **SEPTEMBER 25, 2020**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MIDDLE RIVER CENTER (MRC) BUILDING C
SAMPLE DELIVERY GROUP (SDG) 500-186280

SAMPLES: 1 / Aqueous / Hexavalent Chromium

MRC-MW-164B-081120

OVERVIEW

The sample set for MRC SDG 500-186280-1 consists of one (1) aqueous environmental sample. No field duplicate pairs are included in this SDG.

The sample was collected by collected by Tetra Tech on August 11, 2020 and analyzed by Eurofins TestAmerica. Analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibration data, laboratory method/preparation blanks, laboratory control sample results, detection limits, and analyte quantitation. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The holding time of 24 hours from collection to analysis was grossly exceeded and the nondetected result in the affected sample was qualified unreliable, (UR). The chain of custody record indicated that the sample was not preserved with buffering agent.

MINOR PROBLEMS

- None.

NOTES

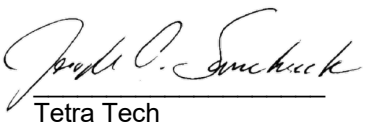
Non-detected results were reported to the method detection limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: The 24 hour holding time was exceeded by seven days.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 09011	NSAMPLE	MRC-MW-164B-081120		
SDG: 500-186280-1	LAB_ID	500-186280-1		
FRACTION: MISC	SAMP_DATE	8/11/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.23	UR	H

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 500-186280-1

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18540-29-9	Chromium, hexavalent	0.23	0.30	0.23	ug/L	U		1	218.6

APPENDIX C

SUPPORT DOCUMENTATION

Chicago
2417 Bond Street

University Park, IL 60484
phone 708.534.5200 fax 708.534.5363

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Samantha Brenner	Site Contact: Josh Mullis	Date: 8/11/2020	COC No:
Tetra Tech	Tel: (301) 528-3021	Lab Contact: Donna Campbell	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 500-186280
Germantown, MD 20874	Calendar (C) or Work Days (W)			SDG No.
(301) 528-3021 Phone	TAT if different from Below: 24 HOURS			
(301) 528-3000 FAX	☐ 2 weeks			Sampler: Mullis
Project Name: MRC South of Building C	☐ 1 week			Filtered but NO Buffer!
Site: Middle River Complex	☐ 2 days			
Project # 112IC09011	☐ 1 day			

500-186280 COC

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Hexavalent Chromium (218.6)	Sample Specific Notes:
1 MRC-MW-164B-081120	8/11/2020	1420	AQ	Water	1	X	X	No Buffer!

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _Ammonium Sulfate_____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: South of Building C groundwater. Sample is filtered and ~~preserved in field~~ to extend hold time to 28 days. Analyze ASAP. Contact samantha.brenner@tetratech.com or josh.mullis@tetratech.com NOT PRESERVED

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	8/11/2020 1530		BTA Burlington	8/11/20 1530
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	BTA Burlington	8/11/20 1700	Stephanie Hernandez	TA-CHI	8/12/20 0945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

0.1 → 1.1

ANALYTICAL REPORT

Job Number: 500-186280-1

Job Description: MRC South of Building C

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

Attention: Samantha Brenner

Roxanne Cisneros

Approved for release.
Roxanne Cisneros
Senior Project Manager
8/21/2020 3:29 PM

Roxanne Cisneros, Senior Project Manager
4101 Shuffel Street NW, North Canton, OH, 44720
(615)301-5761
roxanne.cisneros@Eurofinset.com
08/21/2020

cc: Tony Apanavage
Kelly Carper

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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

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

Eurofins TestAmerica, Chicago
2417 Bond Street, University Park, IL 60484
Tel (708) 534-5200 Fax (708) 534-5211 www.testamericainc.com

Method Summary

Client: Tetra Tech, Inc. Job ID: 500-186280-1
Project/Site: MRC South of Building C

Method	Method Description	Protocol	Laboratory
218.6	Chromium, Hexavalent (Ion Chromatography)	EPA	TAL CHI
Filtration	Sample Filtration	None	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Tetra Tech, Inc.
Job ID: 500-186280-1
Project/Site: MRC South of Building C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-186280-1	MRC-MW-164B-081120	Water	08/11/20 14:20	08/12/20 09:45	

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Analyst: EAT Batch Start Date: 08/06/2020

Reporting Units: ug/L Analytical Batch No.: 555539

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	03:46	Chromium, hexavalent	24.0	25.0	96	95-105		WSTICCR2-5.0_00066
9	ICB	03:59	Chromium, hexavalent	0.23				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Analyst: EAT Batch Start Date: 08/19/2020

Reporting Units: ug/L Analytical Batch No.: 557485

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	01:35	Chromium, hexavalent	4.86	5.00	97	95-105		WSTICCR1-0.5_00069
2	CCB	01:48	Chromium, hexavalent	0.23				U	
11	CCV	03:44	Chromium, hexavalent	4.94	5.00	99	95-105		WSTICCR1-0.5_00069
12	CCB	03:57	Chromium, hexavalent	0.23				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 557485	Date: 08/19/2020 02:01						
218.6	MB 500-557485/3	Chromium, hexavalent	0.23	U	ug/L	0.30	1

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 557485	Date: 08/19/2020 02:13										
						LCS Source: WSTICCR2-5.0_00067					
218.6	LCS 500-557485/4	Chromium, hexavalent	24.9		ug/L	25.0	100	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Chicago Job Number: 500-186280-1

SDG Number:

Matrix: Water Instrument ID: IC7C

Method: 218.6 MDL Date: 03/29/2017 10:49

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Chromium, hexavalent		0.3	0.23

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Chicago Job Number: 500-186280-1

SDG Number:

Matrix: Water Instrument ID: IC7C

Method: 218.6 XMDL Date: 03/29/2017 10:49

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Chromium, hexavalent		0.3	0.23

11-IN
LINEAR RANGES
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No: 500-186280-1

SDG No.:

Instrument ID: IC7C Date: 10/01/2018 07:22

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Chromium, hexavalent		50	218.6

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Instrument ID: IC7C Analysis Method: 218.6

Start Date: 08/06/2020 02:16 End Date: 08/06/2020 10:01

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cr6																								
ZZZZZZ			02:16																									
STD1 500-555539/2 IC	1		02:28	X																								
STD2 500-555539/3 IC	1		02:41	X																								
STD3 500-555539/4 IC	1		02:54	X																								
STD4 500-555539/5 IC	1		03:07	X																								
STD5 500-555539/6 ICRT	1		03:20	X																								
STD6 500-555539/7 IC	1		03:33	X																								
ICV 500-555539/8	1		03:46	X																								
ICB 500-555539/9	1		03:59	X																								
ZZZZZZ			04:12																									
ZZZZZZ			04:25																									
ZZZZZZ			04:38																									
ZZZZZZ			04:51																									
ZZZZZZ			05:04																									
ZZZZZZ			05:16																									
ZZZZZZ			05:29																									
ZZZZZZ			05:42																									
ZZZZZZ			05:55																									
ZZZZZZ			06:08																									
CCV 500-555539/20			06:21																									
CCB 500-555539/21			06:34																									
ZZZZZZ			06:47																									
ZZZZZZ			07:00																									
ZZZZZZ			07:13																									
ZZZZZZ			07:26																									
ZZZZZZ			07:39																									
ZZZZZZ			07:52																									
ZZZZZZ			08:04																									
ZZZZZZ			08:17																									
ZZZZZZ			08:30																									
ZZZZZZ			08:43																									
CCV 500-555539/32			08:56																									
CCB 500-555539/33			09:09																									
ZZZZZZ			09:22																									
ZZZZZZ			09:35																									
CCV 500-555539/36			09:48																									
CCB 500-555539/37			10:01																									

Prep Types:

=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Instrument ID: IC7C Analysis Method: 218.6

Start Date: 08/19/2020 01:35 End Date: 08/19/2020 03:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cr6																								
CCV 500-557485/1	1		01:35	X																								
CCB 500-557485/2	1		01:48	X																								
MB 500-557485/3	1	T	02:01	X																								
LCS 500-557485/4	1	T	02:13	X																								
ZZZZZZ			02:26																									
ZZZZZZ			02:39																									
ZZZZZZ			02:52																									
ZZZZZZ			03:05																									
ZZZZZZ			03:18																									
500-186280-1	1	D	03:31	X																								
CCV 500-557485/11	1		03:44	X																								
CCB 500-557485/12	1		03:57	X																								

Prep Types:
D = Dissolved
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Batch Number: 555539 Batch Start Date: 08/06/20 02:16 Batch Analyst: Treadwell, Eliane A

Batch Method: 218.6 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WSTICCR1-0.5 00068	WSTICCR1-5.0 00066	WSTICCR2-5.0 00066		
STD1 500-555539/2 IC		218.6		1 mL	30 uL				
STD2 500-555539/3 IC		218.6		1 mL	100 uL				
STD3 500-555539/4 IC		218.6		1 mL	500 uL				
STD4 500-555539/5 IC		218.6		1 mL	1000 uL				
STD5 500-555539/6 ICRT		218.6		1 mL		250 uL			
STD6 500-555539/7 IC		218.6		1 mL		500 uL			
ICV 500-555539/8		218.6		1 mL			250 uL		
ICB 500-555539/9		218.6		1 mL					

Batch Notes	
Buffer Lot #	CRVI-BUFFER-00093
Eluent 1 ID	CRVI-ELUENT00107
Filter ID	WHATMAN-1693120-0.45
pH Meter ID	C2939
Post Column Reagent ID	CRVI-PCR-00231

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Batch Number: 557485 Batch Start Date: 08/19/20 01:35 Batch Analyst: Treadwell, Eliane A

Batch Method: 218.6 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WSTICCR1-0.5 00069	WSTICCR2-5.0 00067			
CCV 500-557485/1		218.6		1 mL	500 uL				
CCB 500-557485/2		218.6		1 mL					
MB 500-557485/3		218.6		1 mL					
LCS 500-557485/4		218.6		1 mL		250 uL			
500-186280-A-1-A	MRC-MW-164B-081120	218.6	D	1 mL					
CCV 500-557485/11		218.6		1 mL	500 uL				
CCB 500-557485/12		218.6		1 mL					

Batch Notes	
Buffer Lot #	CRVI-BUFFER-00093
Eluent 1 ID	CRVI-ELUENT00107
Filter ID	WHATMAN-1693120-0.45
pH Meter ID	C2939
Post Column Reagent ID	CRVI-PCR-00231

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

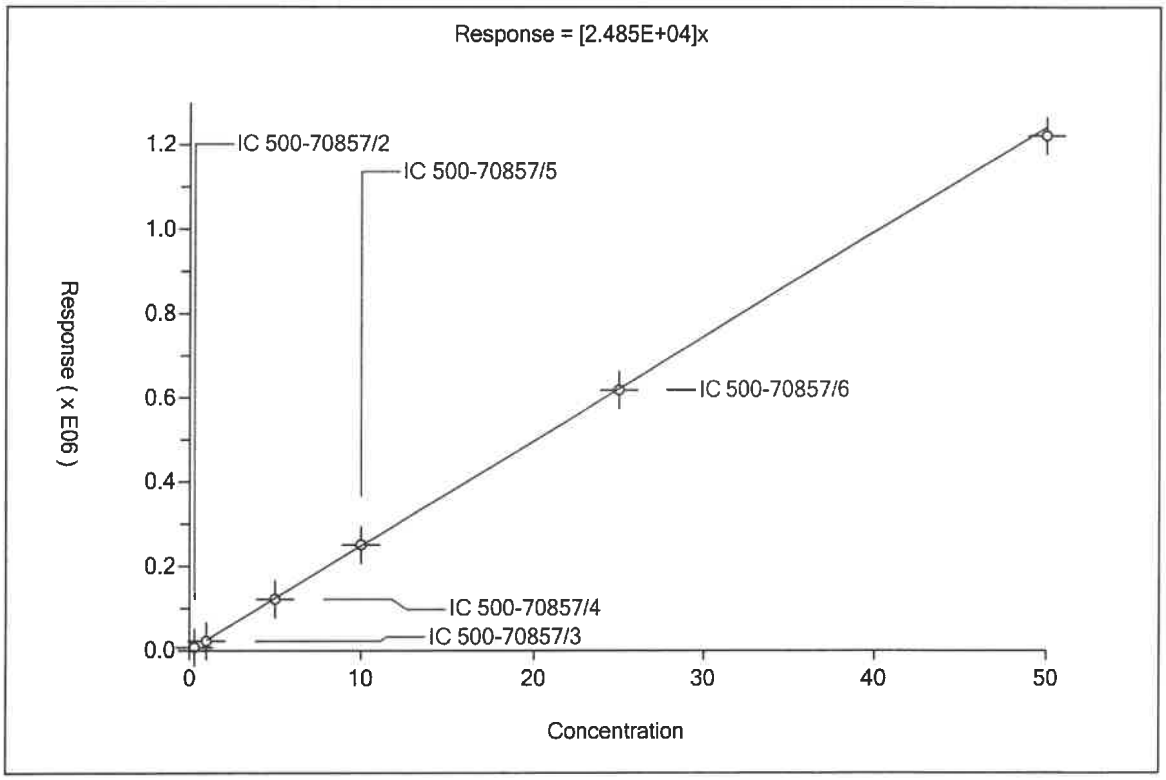
Curve Coefficients

Intercept:	0
Slope:	2.485E+04

Error Coefficients

Standard Error:	9200
Relative Standard Error:	5.5
Correlation Coefficient:	1.00
Coefficient of Determination (Adjusted):	1.00 (1.00)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 500-70857/2	0.3	8175.0			27250.0	Y
2	IC 500-70857/3	1	23015.0			23015.0	Y
3	IC 500-70857/4	5	122609.0			24521.8	Y
4	IC 500-70857/5	10	251434.0			25143.4	Y
5	IC 500-70857/6	25	618198.0			24727.92	Y
6	IC 500-70857/7	50	1222489.0			24449.78	Y



Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 500-186280-1

Login Number: 186280
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TETRA TECH INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **OCTOBER 26, 2020**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC/PCB/METALS/MISC**
MIDDLE RIVER CENTER (MRC)
SAMPLE DELIVERY GROUP (SDG) 240-131486-1

SAMPLES: 3/ Aqueous

I-GWP-1D-30-35 TB-060520 WC-SBC-W-060520

1/Solid WC-SBC-S-060520

OVERVIEW

The sample set for MRC SDG 240-131486-1 consists of one (1) aqueous environmental sample, one trip blank, and two waste samples. No field duplicate pairs are included in this SDG.

The sample was collected by collected by Tetra Tech on June 5, 2020 and were analyzed by Eurofins TestAmerica. Analyses were conducted in accordance with Method 8260B, 8082A, 6010B 7470A, 1010C, 1030, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibration data, laboratory method/preparation blanks, laboratory control sample results, detection limits, and analyte quantitation. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None

MINOR PROBLEMS

- The continuing calibration analyzed on 6/10/20 contained percent differences for bromomethane, 1,1,-dichloroethane, toluene, trans 1,3-dichloropropene, styrene, and cyclohexane, were greater than 20%. The nondetected result was qualified as estimated, (UJ).

- Detected results below the reporting limit were qualified as estimated, (J).

NOTES

Non-detected results were reported to the method detection limit (MDL).

The waste samples were not validated because these samples were collected for characterization and for disposal.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Six analytes were outside of the VOC CCV %D criterion.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 09011	NSAMPLE	I-GWP-1D-30-35			TB-060520			WC-SBC-W-060520		
SDG: 240-131486-1	LAB_ID	240-131486-1			240-131486-2			240-131486-3		
FRACTION: OV	SAMP_DATE	6/5/2020			6/5/2020			6/5/2020		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROETHANE		0.13	J	P	0.09	U		0.09	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	UJ	C	0.17	UJ	C	0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.75	J	P
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U	
2-BUTANONE		2.7	J	P	1.2	U		2.1	J	P
2-HEXANONE		0.54	U		0.54	U		0.54	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U	
ACETONE		34			5.4	U		20		
BENZENE		1.9			0.13	U		0.13	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	UJ	C	0.42	UJ	C	0.42	U	
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U	
CHLOROETHANE		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		4.4			0.16	U		8.7		
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U	
CYCLOHEXANE		0.24	UJ	C	0.24	UJ	C	0.24	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U	
ETHYLBENZENE		0.12	J	P	0.11	U		0.11	U	
ISOPROPYLBENZENE		0.29	J	P	0.09	U		0.09	U	

PROJ_NO: 09011	NSAMPLE	I-GWP-1D-30-35			TB-060520			WC-SBC-W-060520		
SDG: 240-131486-1	LAB_ID	240-131486-1			240-131486-2			240-131486-3		
FRACTION: OV	SAMP_DATE	6/5/2020			6/5/2020			6/5/2020		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.7	U		1.7	U		1.7	U	
METHYL CYCLOHEXANE		0.33	U		0.33	U		0.33	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U	
STYRENE		0.1	UJ	C	0.1	UJ	C	0.1	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U	
TOLUENE		0.84	J	CP	0.14	UJ	C	0.14	U	
TOTAL XYLENES		0.68	J	P	0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	UJ	C	0.67	UJ	C	0.67	U	
TRICHLOROETHENE		74			0.1	U		41		
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U	
VINYL CHLORIDE		0.32	J	P	0.2	U		0.2	U	

PROJ_NO: 09011	NSAMPLE	WC-SBC-S-060520		
SDG: 240-131486-1	LAB_ID	240-131486-4		
FRACTION: OV	SAMP_DATE	6/5/2020		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	81.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		3.6	U	
1,1,1-TRICHLOROETHANE		0.99	U	
1,1,2,2-TETRACHLOROETHANE		1.7	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.5	U	
1,1-DICHLOROETHANE		0.83	U	
1,1-DICHLOROETHENE		1.1	U	
1,1-DICHLOROPROPENE		1.2	U	
1,2,3-TRICHLOROBENZENE		0.69	U	
1,2,3-TRICHLOROPROPANE		1.9	U	
1,2,3-TRIMETHYLBENZENE		2.2	U	
1,2,4-TRICHLOROBENZENE		0.69	U	
1,2,4-TRIMETHYLBENZENE		1.2	U	
1,2-DIBROMO-3-CHLOROPROPANE		4.3	U	
1,2-DIBROMOETHANE		0.93	U	
1,2-DICHLOROBENZENE		1.3	U	
1,2-DICHLOROETHANE		0.93	U	
1,2-DICHLOROPROPANE		1	U	
1,3-DICHLOROBENZENE		0.98	U	
1,3-DICHLOROPROPANE		1.2	U	
1,4-DICHLOROBENZENE		1.1	U	
2,2-DICHLOROPROPANE		1.4	U	
2-BUTANONE		4.3	U	
2-CHLOROETHYL VINYL ETHER		11	U	
2-CHLOROTOLUENE		1.1	U	
2-HEXANONE		4.9	U	
4-CHLOROTOLUENE		1	U	
4-ISOPROPYLTOLUENE		3.5	U	
4-METHYL-2-PENTANONE		4.5	U	
ACETONE		29	J	P
BENZENE		0.84	U	
BROMOBENZENE		1.4	U	
BROMOCHLOROMETHANE		0.71	U	
BROMODICHLOROMETHANE		0.82	U	
BROMOFORM		2.9	U	
BROMOMETHANE		1.2	U	

PROJ_NO: 09011	NSAMPLE	WC-SBC-S-060520		
SDG: 240-131486-1	LAB_ID	240-131486-4		
FRACTION: OV	SAMP_DATE	6/5/2020		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	81.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		1.4	U	
CARBON TETRACHLORIDE		3.9	U	
CHLOROBENZENE		1.1	U	
CHLORODIBROMOMETHANE		3.3	U	
CHLOROETHANE		1.5	U	
CHLOROFORM		0.95	U	
CHLOROMETHANE		1.3	U	
CIS-1,2-DICHLOROETHENE		0.78	U	
CIS-1,3-DICHLOROPROPENE		1.7	U	
DIBROMOMETHANE		0.8	U	
DICHLORODIFLUOROMETHANE		1.1	U	
DIISOPROPYL ETHER		0.91	U	
ETHYL TERT-BUTYL ETHER		2.7	U	
ETHYLBENZENE		1.3	U	
HEXACHLOROBUTADIENE		4.5	U	
ISOPROPYLBENZENE		1	U	
M+P-XYLENES		0.94	U	
METHYL TERT-BUTYL ETHER		0.99	U	
METHYLENE CHLORIDE		14	U	
NAPHTHALENE		3.2	U	
N-BUTYLBENZENE		4.2	U	
N-PROPYLBENZENE		0.88	U	
O-XYLENE		1	U	
SEC-BUTYLBENZENE		1	U	
STYRENE		1.4	U	
TERT-AMYL METHYL ETHER		2.7	U	
TERT-BUTYLBENZENE		1.1	U	
TERTIARY-BUTYL ALCOHOL		20	U	
TETRACHLOROETHENE		0.88	U	
TOLUENE		0.93	U	
TOTAL XYLENES		1.9	U	
TRANS-1,2-DICHLOROETHENE		0.56	U	
TRANS-1,3-DICHLOROPROPENE		1.2	U	
TRICHLOROETHENE		51		
TRICHLOROFLUOROMETHANE		1.3	U	

PROJ_NO: 09011	NSAMPLE	WC-SBC-S-060520		
SDG: 240-131486-1	LAB_ID	240-131486-4		
FRACTION: OV	SAMP_DATE	6/5/2020		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	81.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
VINYL ACETATE		2.6	U	
VINYL CHLORIDE		1	U	

PROJ_NO: 09011	NSAMPLE	WC-SBC-W-060520		
SDG: 240-131486-1	LAB_ID	240-131486-3		
FRACTION: PCB	SAMP_DATE	6/5/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.062	U	
AROCLOR-1221		0.063	U	
AROCLOR-1232		0.082	U	
AROCLOR-1242		0.084	U	
AROCLOR-1248		0.056	U	
AROCLOR-1254		0.044	U	
AROCLOR-1260		0.48		

PROJ_NO: 09011	NSAMPLE	WC-SBC-S-060520		
SDG: 240-131486-1	LAB_ID	240-131486-4		
FRACTION: TCLPM	SAMP_DATE	6/5/2020		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ARSENIC		0.0051	J	
BARIUM		0.24	J B	
CADMIUM		0.0002	U	
CHROMIUM		0.0063	J B	
LEAD		0.0028	U	
MERCURY		0.00013	U	
SELENIUM		0.006	U	
SILVER		0.00062	U	

PROJ_NO: 09011	NSAMPLE	WC-SBC-W-060520		
SDG: 240-131486-1	LAB_ID	240-131486-3		
FRACTION: TCLPM	SAMP_DATE	6/5/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ARSENIC		0.0041	U	
BARIUM		0.022	J	P
CADMIUM		0.0002	U	
CHROMIUM		0.0045	J	P
LEAD		0.0028	U	
MERCURY		0.00013	U	
SELENIUM		0.006	U	
SILVER		0.00062	U	

PROJ_NO: 09011	NSAMPLE	WC-SBC-S-060520		
SDG: 240-131486-1	LAB_ID	240-131486-4		
FRACTION: MISC	SAMP_DATE	6/5/2020		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UNITLESS		
	PCT_SOLIDS	100.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
IGNITABILITY		-99	PASS	

PROJ_NO: 09011	NSAMPLE	WC-SBC-W-060520		
SDG: 240-131486-1	LAB_ID	240-131486-3		
FRACTION: MISC	SAMP_DATE	6/5/2020		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	F		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
FLASHPOINT		200	>	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: I-GWP-1D-30-35 Lab Sample ID: 240-131486-1

Matrix: Water Lab File ID: UXM28626.D

Analysis Method: 8260C Date Collected: 06/05/2020 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 16:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.13	J	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	2.7	J	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	34		10	5.4
71-43-2	Benzene	1.9		1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	4.4		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.12	J	1.0	0.11
98-82-8	Isopropylbenzene	0.29	J	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: I-GWP-1D-30-35 Lab Sample ID: 240-131486-1

Matrix: Water Lab File ID: UXM28626.D

Analysis Method: 8260C Date Collected: 06/05/2020 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 16:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.84	J	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	74		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.32	J	1.0	0.20
1330-20-7	Xylenes, Total	0.68	J	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		69-122
1868-53-7	Dibromofluoromethane (Surr)	94		78-129
460-00-4	4-Bromofluorobenzene (Surr)	105		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		75-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-W-060520 Lab Sample ID: 240-131486-3

Matrix: Water Lab File ID: UXM28628.D

Analysis Method: 8260C Date Collected: 06/05/2020 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 17:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.75	J	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	2.1	J	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	20		10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	8.7		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-W-060520 Lab Sample ID: 240-131486-3

Matrix: Water Lab File ID: UXM28628.D

Analysis Method: 8260C Date Collected: 06/05/2020 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 17:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	41		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		69-122
1868-53-7	Dibromofluoromethane (Surr)	96		78-129
460-00-4	4-Bromofluorobenzene (Surr)	104		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		75-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: TB-060520 Lab Sample ID: 240-131486-2

Matrix: Water Lab File ID: UXM28627.D

Analysis Method: 8260C Date Collected: 06/05/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 17:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
110-82-7	Cyclohexane	0.24	U	1.0	0.24
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: TB-060520 Lab Sample ID: 240-131486-2

Matrix: Water Lab File ID: UXM28627.D

Analysis Method: 8260C Date Collected: 06/05/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 17:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.7	U	10	1.7
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		69-122
1868-53-7	Dibromofluoromethane (Surr)	95		78-129
460-00-4	4-Bromofluorobenzene (Surr)	104		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		75-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-S-060520 Lab Sample ID: 240-131486-4

Matrix: Solid Lab File ID: 183843.D

Analysis Method: 8260C Date Collected: 06/05/2020 10:30

Sample wt/vol: 5.11(g) Date Analyzed: 06/16/2020 08:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.6 Level: (low/med) Low

Analysis Batch No.: 438469 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.6	U	6.0	3.6
71-55-6	1,1,1-Trichloroethane	0.99	U	6.0	0.99
79-34-5	1,1,2,2-Tetrachloroethane	1.7	U	6.0	1.7
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	6.0	1.5
75-34-3	1,1-Dichloroethane	0.83	U	6.0	0.83
75-35-4	1,1-Dichloroethene	1.1	U	6.0	1.1
563-58-6	1,1-Dichloropropene	1.2	U	6.0	1.2
87-61-6	1,2,3-Trichlorobenzene	0.69	U	6.0	0.69
96-18-4	1,2,3-Trichloropropane	1.9	U	6.0	1.9
526-73-8	1,2,3-Trimethylbenzene	2.2	U	6.0	2.2
120-82-1	1,2,4-Trichlorobenzene	0.69	U	6.0	0.69
95-63-6	1,2,4-Trimethylbenzene	1.2	U	6.0	1.2
96-12-8	1,2-Dibromo-3-Chloropropane	4.3	U	12	4.3
95-50-1	1,2-Dichlorobenzene	1.3	U	6.0	1.3
107-06-2	1,2-Dichloroethane	0.93	U	6.0	0.93
78-87-5	1,2-Dichloropropane	1.0	U	6.0	1.0
541-73-1	1,3-Dichlorobenzene	0.98	U	6.0	0.98
142-28-9	1,3-Dichloropropane	1.2	U	6.0	1.2
106-46-7	1,4-Dichlorobenzene	1.1	U	6.0	1.1
594-20-7	2,2-Dichloropropane	1.4	U	6.0	1.4
78-93-3	2-Butanone (MEK)	4.3	U	24	4.3
110-75-8	2-Chloroethyl vinyl ether	11	U	60	11
95-49-8	2-Chlorotoluene	1.1	U	6.0	1.1
591-78-6	2-Hexanone	4.9	U	24	4.9
106-43-4	4-Chlorotoluene	1.0	U	6.0	1.0
99-87-6	p-Isopropyltoluene	3.5	U	6.0	3.5
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5	U	24	4.5
67-64-1	Acetone	29	J	30	25
71-43-2	Benzene	0.84	U	6.0	0.84
108-86-1	Bromobenzene	1.4	U	6.0	1.4
75-25-2	Bromoform	2.9	U	6.0	2.9
74-83-9	Bromomethane	1.2	U	6.0	1.2
75-15-0	Carbon disulfide	1.4	U	6.0	1.4
56-23-5	Carbon tetrachloride	3.9	U	6.0	3.9
108-90-7	Chlorobenzene	1.1	U	6.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-S-060520 Lab Sample ID: 240-131486-4

Matrix: Solid Lab File ID: 183843.D

Analysis Method: 8260C Date Collected: 06/05/2020 10:30

Sample wt/vol: 5.11(g) Date Analyzed: 06/16/2020 08:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.6 Level: (low/med) Low

Analysis Batch No.: 438469 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	3.3	U	6.0	3.3
75-00-3	Chloroethane	1.5	U	6.0	1.5
67-66-3	Chloroform	0.95	U	6.0	0.95
74-87-3	Chloromethane	1.3	U	6.0	1.3
156-59-2	cis-1,2-Dichloroethene	0.78	U	6.0	0.78
10061-01-5	cis-1,3-Dichloropropene	1.7	U	6.0	1.7
74-95-3	Dibromomethane	0.80	U	6.0	0.80
74-97-5	Bromochloromethane	0.71	U	6.0	0.71
75-71-8	Dichlorodifluoromethane	1.1	U	6.0	1.1
75-27-4	Bromodichloromethane	0.82	U	6.0	0.82
75-65-0	tert-Butyl alcohol (TBA)	20	U	240	20
100-41-4	Ethylbenzene	1.3	U	6.0	1.3
87-68-3	Hexachlorobutadiene	4.5	U	6.0	4.5
108-20-3	Diisopropyl ether	0.91	U	12	0.91
98-82-8	Isopropylbenzene	1.0	U	6.0	1.0
1634-04-4	Methyl tert-butyl ether	0.99	U	6.0	0.99
75-09-2	Methylene Chloride	14	U	30	14
179601-23-1	m-Xylene & p-Xylene	0.94	U	12	0.94
91-20-3	Naphthalene	3.2	U	6.0	3.2
104-51-8	n-Butylbenzene	4.2	U	6.0	4.2
103-65-1	N-Propylbenzene	0.88	U	6.0	0.88
95-47-6	o-Xylene	1.0	U	6.0	1.0
135-98-8	sec-Butylbenzene	1.0	U	6.0	1.0
100-42-5	Styrene	1.4	U	6.0	1.4
994-05-8	Tert-amyl methyl ether	2.7	U	6.0	2.7
637-92-3	Ethyl t-butyl ether	2.7	U	6.0	2.7
127-18-4	Tetrachloroethene	0.88	U	6.0	0.88
108-88-3	Toluene	0.93	U	6.0	0.93
156-60-5	trans-1,2-Dichloroethene	0.56	U	6.0	0.56
10061-02-6	trans-1,3-Dichloropropene	1.2	U	6.0	1.2
79-01-6	Trichloroethene	51		6.0	0.76
75-69-4	Trichlorofluoromethane	1.3	U	6.0	1.3
108-05-4	Vinyl acetate	2.6	U	12	2.6
75-01-4	Vinyl chloride	1.0	U	6.0	1.0
1330-20-7	Xylenes, Total	1.9	U	12	1.9
98-06-6	tert-Butylbenzene	1.1	U	6.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-S-060520 Lab Sample ID: 240-131486-4

Matrix: Solid Lab File ID: 183843.D

Analysis Method: 8260C Date Collected: 06/05/2020 10:30

Sample wt/vol: 5.11(g) Date Analyzed: 06/16/2020 08:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.6 Level: (low/med) Low

Analysis Batch No.: 438469 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.93	U	6.0	0.93

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		64-124
1868-53-7	Dibromofluoromethane (Surr)	82		56-122
460-00-4	4-Bromofluorobenzene (Surr)	85		51-127
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		59-120

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-W-060520 Lab Sample ID: 240-131486-3

Matrix: Water Lab File ID: P19061026.D

Analysis Method: 8082A Date Collected: 06/05/2020 11:00

Extraction Method: 3510C Date Extracted: 06/08/2020 07:11

Sample wt/vol: 900(mL) Date Analyzed: 06/10/2020 13:13

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 437638 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.062	U	0.11	0.062
11104-28-2	Aroclor-1221	0.063	U	0.11	0.063
11141-16-5	Aroclor-1232	0.082	U	0.11	0.082
53469-21-9	Aroclor-1242	0.084	U	0.11	0.084
12672-29-6	Aroclor-1248	0.056	U	0.11	0.056
11097-69-1	Aroclor-1254	0.044	U	0.11	0.044
11096-82-5	Aroclor-1260	0.48		0.11	0.051

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	85		22-120
2051-24-3	DCB Decachlorobiphenyl	27		10-120

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-S-060520 Lab Sample ID: 240-131486-4

Matrix: Solid Lab File ID: P19061433.D

Analysis Method: 8082A Date Collected: 06/05/2020 10:30

Extraction Method: 3540C Date Extracted: 06/11/2020 07:49

Sample wt/vol: 10.15(g) Date Analyzed: 06/14/2020 20:23

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

% Moisture: 18.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 438244 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	27	U	61	27
11104-28-2	Aroclor-1221	29	U	61	29
11141-16-5	Aroclor-1232	28	U	61	28
53469-21-9	Aroclor-1242	23	U	61	23
12672-29-6	Aroclor-1248	29	U	61	29
11097-69-1	Aroclor-1254	28	U	61	28
11096-82-5	Aroclor-1260	27	U	61	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	70		14-128
2051-24-3	DCB Decachlorobiphenyl	53		10-132

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: WC-SBC-W-060520 Lab Sample ID: 240-131486-3

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG ID.:

Matrix: Water Date Sampled: 06/05/2020 11:00

Reporting Basis: WET Date Received: 06/06/2020 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.0041	0.050	0.0041	mg/L	U		1	6010B
7440-39-3	Barium	0.022	0.50	0.0013	mg/L	J	B	1	6010B
7440-43-9	Cadmium	0.00020	0.050	0.00020	mg/L	U		1	6010B
7440-47-3	Chromium	0.0045	0.050	0.00063	mg/L	J	B	1	6010B
7439-92-1	Lead	0.0028	0.050	0.0028	mg/L	U		1	6010B
7782-49-2	Selenium	0.0060	0.050	0.0060	mg/L	U		1	6010B
7440-22-4	Silver	0.00062	0.050	0.00062	mg/L	U		1	6010B
7439-97-6	Mercury	0.00013	0.0020	0.00013	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: WC-SBC-S-060520 Lab Sample ID: 240-131486-4

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG ID.:

Matrix: Solid Date Sampled: 06/05/2020 10:30

Reporting Basis: WET Date Received: 06/06/2020 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.0051	0.050	0.0041	mg/L	J		1	6010B
7440-39-3	Barium	0.24	0.50	0.0013	mg/L	J	B	1	6010B
7440-43-9	Cadmium	0.00020	0.050	0.00020	mg/L	U		1	6010B
7440-47-3	Chromium	0.0063	0.050	0.00063	mg/L	J	B	1	6010B
7439-92-1	Lead	0.0028	0.050	0.0028	mg/L	U		1	6010B
7782-49-2	Selenium	0.0060	0.050	0.0060	mg/L	U		1	6010B
7440-22-4	Silver	0.00062	0.050	0.00062	mg/L	U		1	6010B
7439-97-6	Mercury	0.00013	0.0020	0.00013	mg/L	U		1	7470A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WC-SBC-W-060520 Lab Sample ID: 240-131486-3

Lab Name: Eurofins TestAmerica, Cedar Falls Job No.: 240-131486-1

SDG ID.:

Matrix: Water Date Sampled: 06/05/2020 11:00

Reporting Basis: WET Date Received: 06/06/2020 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Flashpoint	>200	40.0	40.0	Degrees F			1	1010A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WC-SBC-S-060520 Lab Sample ID: 240-131486-4

Lab Name: Eurofins TestAmerica, Cedar Falls Job No.: 240-131486-1

SDG ID.:

Matrix: Solid Date Sampled: 06/05/2020 10:30

Reporting Basis: WET Date Received: 06/06/2020 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Ignitability	pass			NONE			1	1030

APPENDIX C

SUPPORT DOCUMENTATION

North Canton 06/15

Baltimore #201 Chain of Custody Record

321399

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Samantha Benner	Site Contact: John McFadden	Date: 6/5/20	COC No:
Company Name: Tetra Tech	Tel/Fax: 301-528-3056	Lab Contact: Preston	Carrier: N/A	1 of 1 COCs
Address: 20251 Century Blvd. Suite 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3056	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week STANDARD ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: South of Building C GWP				Job / SDG No.:
Site: MRA				
PO # MRA09011				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total VOCs	PCBs 8082A	TCLP metals	Ignitability	Sample Specific Notes:
I-GWP-1D-30-35	6/5/20	1100	G	AQ	3			3				Jam
TB-060520		0000	G	AQ	2			2				Jam
WC-SBC-W-060520		1100	G	AQ	8			3	2	2	1	Jam
WC-SBC-S-060520	↓	1030	G	S	3			X	X	X	X	3 Jars

6/5/2020

240-131486 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ 2 1 1 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: South of Building C - Groundwater profiling and Waste Characterization

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	6/5/20 1400		EMA	6/5/20 1400
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	6/5/20 17:30		Adam Jones	EMA	6-6-20 950
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
WC-SBC-S-060520	240-131486-4	82	80	99	85
	MB 240-438469/6	87	84	96	86
	LCS 240-438469/5	90	81	97	83

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	56-122
DCA = 1,2-Dichloroethane-d4 (Surr)	59-120
TOL = Toluene-d8 (Surr)	64-124
BFB = 4-Bromofluorobenzene (Surr)	51-127

Column to be used to flag recovery values

FORM II 8260C

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 131486

Client Tetra Tech Site Name

Cooler Received on 6-6-20 Opened on 6-7-20

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # NA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
   IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 1.5 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC902937
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 0403101F Yes No
16. Was a LL Hg or Me Hg trip blank present? ____ Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: MS

18. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

VOA Sample Preservation - Date/Time VOAs Frozen: ____

WI-NC-099

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-131486-1

Login Number: 131486
List Number: 2
Creator: Homolar, Dana J

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/09/20 11:31 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-131486-1

Login Number: 131486
List Number: 3
Creator: Homolar, Dana J

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/09/20 11:31 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
I-GWP-1D-30-35	240-131486-1	94	109	102	105
TB-060520	240-131486-2	95	111	101	104
WC-SBC-W-060520	240-131486-3	96	110	100	104
	MB 240-437675/8	93	109	99	104
	LCS 240-437675/5	88	106	102	109

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	78-129
DCA = 1,2-Dichloroethane-d4 (Surr)	75-130
TOL = Toluene-d8 (Surr)	69-122
BFB = 4-Bromofluorobenzene (Surr)	47-134

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28610.D

Lab ID: LCS 240-437675/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.0	100	65-141	
1,1,2,2-Tetrachloroethane	20.0	22.7	114	45-151	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0	100	54-148	
1,1,2-Trichloroethane	20.0	22.3	112	79-121	
1,1-Dichloroethane	20.0	23.6	118	74-126	
1,1-Dichloroethene	20.0	21.3	107	73-129	
1,2,4-Trichlorobenzene	20.0	20.1	100	47-120	
1,2-Dibromo-3-Chloropropane	20.0	18.4	92	34-136	
1,2-Dichlorobenzene	20.0	20.7	104	74-120	
1,2-Dichloroethane	20.0	22.0	110	66-129	
1,2-Dichloropropane	20.0	23.8	119	79-127	
1,3-Dichlorobenzene	20.0	21.3	106	74-120	
1,4-Dichlorobenzene	20.0	22.0	110	75-120	
2-Butanone (MEK)	40.0	35.7	89	41-151	
2-Hexanone	40.0	46.1	115	43-142	
4-Methyl-2-pentanone (MIBK)	40.0	42.4	106	43-145	
Acetone	40.0	35.2	88	33-155	
Benzene	20.0	22.0	110	77-123	
Bromoform	20.0	19.9	100	47-133	
Bromomethane	20.0	14.6	73	48-144	
Carbon disulfide	20.0	21.1	106	67-127	
Carbon tetrachloride	20.0	19.4	97	61-142	
Cyclohexane	20.0	25.7	128	69-133	
Chlorobenzene	20.0	21.7	109	80-120	
Chlorodibromomethane	20.0	20.1	101	75-120	
Chloroethane	20.0	24.8	124	41-147	
Chloroform	20.0	21.5	107	74-127	
Chloromethane	20.0	23.2	116	46-148	
Methyl acetate	40.0	40.4	101	47-140	
cis-1,2-Dichloroethene	20.0	21.5	107	75-124	
cis-1,3-Dichloropropene	20.0	21.2	106	68-128	
Methylcyclohexane	20.0	21.9	110	64-123	
Dichlorodifluoromethane	20.0	23.1	115	35-137	
Dichlorobromomethane	20.0	21.6	108	73-122	
Ethylbenzene	20.0	22.2	111	80-120	
Isopropylbenzene	20.0	22.5	112	73-123	
Methyl tert-butyl ether	20.0	20.5	102	57-127	
Methylene Chloride	20.0	21.8	109	63-134	
m-Xylene & p-Xylene	20.0	22.6	113	79-121	
o-Xylene	20.0	22.7	113	75-123	
Styrene	20.0	22.8	114	75-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM28610.D

Lab ID: LCS 240-437675/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Tetrachloroethene	20.0	21.4	107	70-125	
Toluene	20.0	23.1	115	79-122	
trans-1,2-Dichloroethene	20.0	20.5	102	74-130	
trans-1,3-Dichloropropene	20.0	21.7	108	64-120	
Trichloroethene	20.0	19.1	95	71-121	
Trichlorofluoromethane	20.0	22.4	112	52-148	
Vinyl chloride	20.0	23.4	117	61-134	
Xylenes, Total	40.0	45.3	113	78-122	
Ethylene Dibromide	20.0	20.4	102	73-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 183839.D

Lab ID: LCS 240-438469/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	45.2	90	72-120	
1,1,1-Trichloroethane	50.0	36.6	73	60-126	
1,1,2,2-Tetrachloroethane	50.0	45.9	92	61-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	44.1	88	58-144	
1,1-Dichloropropene	50.0	41.3	83	69-120	
1,1-Dichloroethane	50.0	42.0	84	69-120	
1,2,3-Trichlorobenzene	50.0	47.2	94	55-124	
1,1-Dichloroethene	50.0	43.4	87	48-140	
1,2,3-Trichloropropane	50.0	50.1	100	68-130	
1,2,4-Trichlorobenzene	50.0	45.9	92	56-120	
1,2,4-Trimethylbenzene	50.0	42.3	85	69-122	
1,2-Dibromo-3-Chloropropane	50.0	41.6	83	35-137	
1,2-Dichlorobenzene	50.0	45.9	92	74-120	
1,2-Dichloroethane	50.0	44.7	89	66-120	
1,2-Dichloropropane	50.0	46.7	93	77-120	
1,3-Dichlorobenzene	50.0	44.5	89	74-120	
1,3-Dichloropropane	50.0	48.2	96	76-120	
1,4-Dichlorobenzene	50.0	45.4	91	74-120	
2,2-Dichloropropane	50.0	32.0	64	47-131	
2-Butanone (MEK)	100	111	111	61-131	
2-Chloroethyl vinyl ether	50.0	36.6 J	73	36-132	
2-Chlorotoluene	50.0	44.0	88	72-121	
2-Hexanone	100	109	109	54-135	
4-Chlorotoluene	50.0	44.2	88	72-124	
p-Isopropyltoluene	50.0	43.6	87	70-121	
4-Methyl-2-pentanone (MIBK)	100	107	107	56-124	
Acetone	100	124	124	47-157	
Benzene	50.0	46.1	92	75-120	
Bromobenzene	50.0	47.3	95	73-120	
Bromoform	50.0	50.8	102	44-131	
Bromomethane	20.0	13.9	69	10-158	
Carbon disulfide	50.0	38.9	78	33-144	
Carbon tetrachloride	50.0	38.3	77	54-130	
Chlorobenzene	50.0	47.3	95	79-120	
Dibromochloromethane	50.0	46.9	94	60-121	
Chloroethane	20.0	15.8	79	10-159	
Chloroform	50.0	42.9	86	74-120	
Chloromethane	20.0	15.3	76	40-127	
cis-1,2-Dichloroethene	50.0	46.0	92	76-120	
cis-1,3-Dichloropropene	50.0	42.3	85	62-124	
Dibromomethane	50.0	49.9	100	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 183839.D

Lab ID: LCS 240-438469/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	50.0	48.9	98	74-120	
Dichlorodifluoromethane	20.0	14.2	71	18-137	
Bromodichloromethane	50.0	42.9	86	63-121	
tert-Butyl alcohol (TBA)	500	384	77	40-138	
Ethylbenzene	50.0	45.0	90	75-120	
Hexachlorobutadiene	50.0	48.4	97	63-130	
Isopropylbenzene	50.0	45.9	92	74-120	
Methyl tert-butyl ether	50.0	35.9	72	66-120	
Methylene Chloride	50.0	44.2	88	48-142	
m-Xylene & p-Xylene	50.0	45.3	91	76-120	
Naphthalene	50.0	44.6	89	43-127	
n-Butylbenzene	50.0	40.6	81	64-123	
N-Propylbenzene	50.0	42.4	85	70-122	
o-Xylene	50.0	46.7	93	76-120	
sec-Butylbenzene	50.0	41.8	84	69-122	
Styrene	50.0	46.7	93	70-120	
Tetrachloroethene	50.0	49.8	100	75-124	
Toluene	50.0	44.4	89	76-120	
trans-1,2-Dichloroethene	50.0	45.6	91	74-125	
trans-1,3-Dichloropropene	50.0	37.8	76	58-120	
Trichloroethene	50.0	49.1	98	75-123	
Trichlorofluoromethane	20.0	13.7	69	33-152	
Vinyl acetate	50.0	39.4	79	55-138	
Vinyl chloride	20.0	17.7	89	39-140	
Xylenes, Total	100	92.0	92	77-120	
tert-Butylbenzene	50.0	42.7	85	68-121	
1,2-Dibromoethane	50.0	49.7	99	73-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab File ID: 183840.D Lab Sample ID: MB 240-438469/6

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX18 Date Analyzed: 06/16/2020 06:49

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-438469/5	183839.D	06/16/2020 06:23
WC-SBC-S-060520	240-131486-4	183843.D	06/16/2020 08:06

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab File ID: UXM28613.D Lab Sample ID: MB 240-437675/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 06/10/2020 11:30

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-437675/5	UXM28610.D	06/10/2020 10:17
I-GWP-1D-30-35	240-131486-1	UXM28626.D	06/10/2020 16:46
TB-060520	240-131486-2	UXM28627.D	06/10/2020 17:10
WC-SBC-W-060520	240-131486-3	UXM28628.D	06/10/2020 17:34

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab File ID: BFB6395.D BFB Injection Date: 05/18/2020

Instrument ID: A3UX16 BFB Injection Time: 08:55

Analysis Batch No.: 434666

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.0	
75	30.0 - 60.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	77.0	
175	5.0 - 9.0 % of mass 174	5.7	(7.4) 1
176	95.0 - 101.0 % of mass 174	74.1	(96.2) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-434666/9	UXM27982.D	05/18/2020	9:45
	STD8260 240-434666/10	UXM27983.D	05/18/2020	10:10
	STD8260 240-434666/11	UXM27984.D	05/18/2020	10:34
	ICIS 240-434666/12	UXM27985.D	05/18/2020	10:59
	STD8260 240-434666/13	UXM27986.D	05/18/2020	11:24
	STD8260 240-434666/14	UXM27987.D	05/18/2020	11:48
	STD8260 240-434666/15	UXM27988.D	05/18/2020	12:13
	ICV 240-434666/16	UXM27989.D	05/18/2020	12:38
	ICV 240-434666/25	UXM27998.D	05/18/2020	16:21

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab File ID: BFB6415.D BFB Injection Date: 06/10/2020

Instrument ID: A3UX16 BFB Injection Time: 09:01

Analysis Batch No.: 437675

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	77.3	
175	5.0 - 9.0 % of mass 174	5.9	(7.6) 1
176	95.0 - 101.0 % of mass 174	75.1	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-437675/3	UXM28608.D	06/10/2020	9:28
	CCV 240-437675/4	UXM28609.D	06/10/2020	9:53
	LCS 240-437675/5	UXM28610.D	06/10/2020	10:17
	MB 240-437675/8	UXM28613.D	06/10/2020	11:30
I-GWP-1D-30-35	240-131486-1	UXM28626.D	06/10/2020	16:46
TB-060520	240-131486-2	UXM28627.D	06/10/2020	17:10
WC-SBC-W-060520	240-131486-3	UXM28628.D	06/10/2020	17:34

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab File ID: BFB18690.D BFB Injection Date: 11/15/2019

Instrument ID: A3UX18 BFB Injection Time: 14:53

Analysis Batch No.: 411175

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.8	
75	30.0 - 60.0 % of mass 95	48.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	67.1	
175	5.0 - 9.0 % of mass 174	4.9	(7.3) 1
176	95.0 - 101.0 % of mass 174	64.8	(96.6) 1
177	5.0 - 9.0 % of mass 176	4.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-411175/3	181402.D	11/15/2019	15:42
	IC 240-411175/4	181403.D	11/15/2019	16:07
	IC 240-411175/5	181404.D	11/15/2019	16:32
	ICIS 240-411175/6	181405.D	11/15/2019	16:57
	IC 240-411175/7	181406.D	11/15/2019	17:22
	IC 240-411175/8	181407.D	11/15/2019	17:47
	IC 240-411175/9	181408.D	11/15/2019	18:13
	IC 240-411175/10	181409.D	11/15/2019	18:37
	IC 240-411175/11	181410.D	11/15/2019	19:02
	ICV 240-411175/12	181411.D	11/15/2019	19:28

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab File ID: BFB18691.D BFB Injection Date: 11/18/2019

Instrument ID: A3UX18 BFB Injection Time: 11:30

Analysis Batch No.: 411420

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.8	
75	30.0 - 60.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.4	(0.6) 1
174	50.0 - 120.00 % of mass 95	66.5	
175	5.0 - 9.0 % of mass 174	5.0	(7.5) 1
176	95.0 - 101.0 % of mass 174	64.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-411420/4	181417.D	11/18/2019	12:42
	IC 240-411420/5	181418.D	11/18/2019	13:07
	IC 240-411420/6	181419.D	11/18/2019	13:32
	IC 240-411420/7	181420.D	11/18/2019	13:58
	IC 240-411420/8	181421.D	11/18/2019	14:23
	IC 240-411420/9	181422.D	11/18/2019	14:48
	IC 240-411420/10	181423.D	11/18/2019	15:13
	IC 240-411420/11	181424.D	11/18/2019	15:38
	IC 240-411420/12	181425.D	11/18/2019	16:03

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab File ID: BFB18785.D BFB Injection Date: 06/16/2020

Instrument ID: A3UX18 BFB Injection Time: 04:55

Analysis Batch No.: 438469

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.5	
75	30.0 - 60.0 % of mass 95	47.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	77.9	
175	5.0 - 9.0 % of mass 174	5.7	(7.3) 1
176	95.0 - 101.0 % of mass 174	75.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-438469/3	183837.D	06/16/2020	5:32
	CCV 240-438469/4	183838.D	06/16/2020	5:57
	LCS 240-438469/5	183839.D	06/16/2020	6:23
	MB 240-438469/6	183840.D	06/16/2020	6:49
WC-SBC-S-060520	240-131486-4	183843.D	06/16/2020	8:06

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: ICIS 240-434666/12 Date Analyzed: 05/18/2020 10:59

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM27985.D Heated Purge: (Y/N) N

Calibration ID: 57113

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		940402	5.87	779729	8.60	415718	10.87
UPPER LIMIT		1880804	6.37	1559458	9.10	831436	11.37
LOWER LIMIT		470201	5.37	389865	8.10	207859	10.37
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-434666/16		955833	5.87	797746	8.60	422197	10.87
CCVIS 240-437675/3		1042981	5.87	771050	8.60	413277	10.86

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: CCVIS 240-437675/3 Date Analyzed: 06/10/2020 09:28

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM28608.D Heated Purge: (Y/N) N

Calibration ID: 57118

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1042981	5.87	771050	8.60	413277	10.86
UPPER LIMIT		2085962	6.37	1542100	9.10	826554	11.36
LOWER LIMIT		521491	5.37	385525	8.10	206639	10.36
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-437675/4		909845	5.87	708379	8.60	346701	10.86
LCS 240-437675/5		973282	5.87	743471	8.60	389728	10.86
MB 240-437675/8		880698	5.87	711003	8.60	356488	10.86
240-131486-1	I-GWP-1D-30-35	778277	5.87	620733	8.60	308125	10.86
240-131486-2	TB-060520	752686	5.87	614420	8.60	307612	10.87
240-131486-3	WC-SBC-W-060520	757695	5.87	621543	8.60	311422	10.87

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: ICIS 240-411175/6 Date Analyzed: 11/15/2019 16:57

Instrument ID: A3UX18 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 181405.D Heated Purge: (Y/N) Y

Calibration ID: 54342

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		327899	6.53	248592	9.28	108979	11.24
UPPER LIMIT		655798	7.03	497184	9.78	217958	11.74
LOWER LIMIT		163950	6.03	124296	8.78	54490	10.74
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-411175/12		314067	6.53	249240	9.27	112370	11.24
CCVIS 240-438469/3		311318	6.53	239803	9.28	114243	11.24

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: CCVIS 240-438469/3 Date Analyzed: 06/16/2020 05:32

Instrument ID: A3UX18 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 183837.D Heated Purge: (Y/N) Y

Calibration ID: 54346

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		311318	6.53	239803	9.28	114243	11.24
UPPER LIMIT		622636	7.03	479606	9.78	228486	11.74
LOWER LIMIT		155659	6.03	119902	8.78	57122	10.74
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-438469/4		313542	6.53	233383	9.28	106441	11.24
LCS 240-438469/5		303343	6.53	235770	9.28	113195	11.24
MB 240-438469/6		295342	6.53	226361	9.28	104433	11.24
240-131486-4	WC-SBC-S-060520	288407	6.53	210911	9.28	95151	11.24

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-434666/15	UXM27988.D
Level 2	STD8260 240-434666/14	UXM27987.D
Level 3	STD8260 240-434666/13	UXM27986.D
Level 4	ICIS 240-434666/12	UXM27985.D
Level 5	STD8260 240-434666/11	UXM27984.D
Level 6	STD8260 240-434666/10	UXM27983.D
Level 7	STD8260 240-434666/9	UXM27982.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3060 0.3885	0.3668 0.3529	0.4201	0.4469	0.4111	Ave		0.3846			0.1000	12.3		20.0			
Chloromethane	0.4789 0.3892	0.4828 0.3718	0.4478	0.4378	0.4404	Ave		0.4355			0.1000	9.6		20.0			
Vinyl chloride	0.4188 0.4659	0.4573 0.4564	0.4854	0.5064	0.5139	Ave		0.4720			0.1000	6.9		20.0			
Butadiene	0.3569 0.4174	0.3867 0.4025	0.4205	0.4338	0.4532	Ave		0.4102				7.7		20.0			
Bromomethane	0.2466 +++++	0.2621 +++++	0.2392	0.2372	0.2573	Ave		0.2485			0.0500	4.4		20.0			
Chloroethane	0.1911 0.2320	0.2186 0.2355	0.2285	0.2390	0.2444	Ave		0.2270			0.0500	7.8		20.0			
Dichlorofluoromethane	0.4933 0.5177	0.5286 0.5144	0.5285	0.5583	0.5623	Ave		0.5290				4.6		20.0			
Trichlorofluoromethane	0.3838 0.4914	0.4343 0.4633	0.5147	0.5362	0.5226	Ave		0.4780			0.1000	11.4		20.0			
Ethyl ether	0.1634 0.2068	0.1862 0.2060	0.2077	0.2141	0.2234	Ave		0.2011				10.0		20.0			
Acrolein	0.0359 0.0408	0.0374 0.0399	0.0391	0.0383	0.0436	Ave		0.0393				6.3		20.0			
1,1-Dichloroethene	0.2421 0.2754	0.2667 0.2687	0.2797	0.2922	0.2961	Ave		0.2744			0.1000	6.6		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2283	0.1925 0.2075	0.2423	0.2574	0.2367	Ave		0.2274			0.0500	10.5		20.0			
Acetone	+++++ 0.0215	0.0326 0.0224	0.0228	0.0226	0.0241	Ave		0.0243			0.0100	17.0		20.0			
Iodomethane	0.3065 0.3517	0.3145 0.3312	0.3016	0.3549	0.3657	Ave		0.3323				7.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.9180 0.8984	0.9325 0.8804	0.9222	0.9440	0.9742	Ave		0.9242			0.1000	3.3		20.0			
Methyl acetate	0.1593 0.1651	0.1673 0.1664	0.1684	0.1663	0.1760	Ave		0.1670			0.1000	3.0		20.0			
3-Chloro-1-propene	0.3675 0.3935	0.4048 0.3863	0.3814	0.4035	0.4169	Ave		0.3934				4.2		20.0			
Methylene Chloride	0.3315 0.2955	0.3360 0.2916	0.3052	0.3075	0.3192	Ave		0.3124			0.1000	5.5		20.0			
2-Methyl-2-propanol	0.0203 0.0238	0.0233 0.0236	0.0252	0.0231	0.0256	Ave		0.0235				7.4		20.0			
Acrylonitrile	0.0896 0.1014	0.0978 0.1019	0.0987	0.0997	0.1073	Ave		0.0995				5.4		20.0			
Methyl tert-butyl ether	0.6135 0.8113	0.6730 0.8143	0.7680	0.7895	0.8586	Ave		0.7612			0.1000	11.4		20.0			
trans-1,2-Dichloroethene	0.3170 0.3200	0.3190 0.3205	0.3251	0.3356	0.3429	Ave		0.3257			0.1000	3.0		20.0			
Hexane	+++++ 0.4357	0.2946 0.4071	0.4182	0.4503	0.4306	Ave		0.4061				13.9		20.0			
Vinyl acetate	+++++ 0.5022	0.3551 0.5045	0.4134	0.4565	0.5201	Ave		0.4586				14.0		20.0			
1,1-Dichloroethane	0.4359 0.5136	0.5061 0.5092	0.5163	0.5319	0.5500	Ave		0.5090			0.2000	7.0		20.0			
2-Butanone (MEK)	+++++ 0.0330	0.0237 0.0333	0.0313	0.0311	0.0345	Ave		0.0311			0.0100	12.5		20.0			
cis-1,2-Dichloroethene	0.2796 0.3418	0.3542 0.3361	0.3514	0.3598	0.3695	Ave		0.3418			0.1000	8.6		20.0			
2,2-Dichloropropane	0.4099 0.4945	0.4408 0.4879	0.4777	0.5069	0.5158	Ave		0.4762				8.0		20.0			
Chlorobromomethane	0.1461 0.1477	0.1819 0.1453	0.1633	0.1655	0.1622	Ave		0.1589				8.4		20.0			
Tetrahydrofuran	0.0665 0.0676	0.0661 0.0685	0.0699	0.0681	0.0705	Ave		0.0682				2.4		20.0			
Chloroform	0.4819 0.5139	0.5292 0.5085	0.5330	0.5434	0.5533	Ave		0.5233			0.2000	4.6		20.0			
1,1,1-Trichloroethane	0.4305 0.4780	0.4682 0.4706	0.4835	0.4995	0.5095	Ave		0.4771			0.1000	5.3		20.0			
Cyclohexane	0.3507 0.4924	0.4145 0.4763	0.4935	0.5227	0.5089	Ave		0.4656			0.1000	13.2		20.0			
1,1-Dichloropropene	0.3234 0.4437	0.3777 0.4378	0.4334	0.4586	0.4718	Ave		0.4209				12.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3595 0.4240	0.3715 0.4161	0.4163	0.4421	0.4521	Ave		0.4117			0.1000	8.3		20.0			
Isobutyl alcohol	0.0063 0.0070	0.0057 0.0071	0.0071	0.0070	0.0076	Ave		0.0068				9.1		20.0			
Benzene	1.0736 1.2674	1.1320 1.2617	1.2088	1.2774	1.3344	Ave		1.2222			0.5000	7.4		20.0			
1,2-Dichloroethane	0.3845 0.3848	0.3877 0.3818	0.3808	0.4006	0.4122	Ave		0.3903			0.1000	3.0		20.0			
n-Heptane	+++++ 0.2302	0.7419 0.2158	0.2728	0.2603	0.2379	Lin1	0.5399	0.2181				5.7			0.9980		0.9900
Trichloroethene	0.2943 0.3495	0.3229 0.3479	0.3477	0.3664	0.3727	Ave		0.3431			0.1500	7.8		20.0			
Methylcyclohexane	+++++ 0.5704	0.4486 0.5470	0.5608	0.5978	0.5785	Ave		0.5505			0.1000	9.6		20.0			
1,2-Dichloropropane	0.2423 0.2875	0.2813 0.2870	0.2756	0.2920	0.3038	Ave		0.2814			0.1000	6.9		20.0			
1,4-Dioxane	+++++ 0.0037	0.0041 0.0037	0.0038	0.0036	0.0040	Ave		0.0038				4.6		20.0			
Dibromomethane	0.1637 0.1699	0.1728 0.1710	0.1685	0.1784	0.1857	Ave		0.1729				4.2		20.0			
Dichlorobromomethane	0.3432 0.3904	0.3943 0.3900	0.3871	0.4024	0.4184	Ave		0.3894			0.1500	5.9		20.0			
2-Chloroethyl vinyl ether	0.1442 0.1824	0.1477 0.1859	0.1692	0.1759	0.1941	Ave		0.1713				11.1		20.0			
cis-1,3-Dichloropropene	0.4225 0.4985	0.4160 0.4994	0.4764	0.5005	0.5273	Ave		0.4772			0.1500	8.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.1948 0.2124	0.2016 0.2140	0.2099	0.2071	0.2280	Ave		0.2097			0.0500	5.0		20.0			
Toluene	1.4142 1.7223	1.4826 1.6795	1.6148	1.6777	1.7666	Ave		1.6225			0.4000	8.0		20.0			
trans-1,3-Dichloropropene	0.3862 0.5752	0.4539 0.5685	0.5222	0.5495	0.5937	Ave		0.5213			0.1000	14.4		20.0			
Ethyl methacrylate	+++++ 0.4132	0.2835 0.4090	0.3803	0.3984	0.4355	Ave		0.3867				13.9		20.0			
1,1,2-Trichloroethane	0.2563 0.3164	0.2522 0.3104	0.2927	0.3054	0.3288	Ave		0.2946			0.1000	10.1		20.0			
Tetrachloroethene	0.2450 0.3495	0.2804 0.3362	0.3306	0.3423	0.3612	Ave		0.3207			0.1500	13.1		20.0			
1,3-Dichloropropane	0.4057 0.5658	0.4582 0.5484	0.5290	0.5490	0.5839	Ave		0.5200				12.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1472 0.1793	0.1719 0.1792	0.1821	0.1782	0.1930	Ave		0.1759			0.0500	8.0		20.0			
Chlorodibromomethane	0.2785 0.3694	0.3067 0.3618	0.3369	0.3565	0.3855	Ave		0.3422				11.0		20.0			
Ethylene Dibromide	0.2527 0.3337	0.2857 0.3253	0.3134	0.3262	0.3485	Ave		0.3122				10.5		20.0			
Chlorobenzene	0.8678 1.1062	1.0112 1.0779	1.0619	1.0897	1.1519	Ave		1.0524			0.3000	8.7		20.0			
1,1,1,2-Tetrachloroethane	0.2683 0.3929	0.3026 0.3834	0.3520	0.3755	0.4038	Ave		0.3541				14.3		20.0			
Ethylbenzene	0.4731 0.6317	0.5107 0.6160	0.5961	0.6256	0.6507	Ave		0.5863				11.5		20.0			
m-Xylene & p-Xylene	0.5811 0.7744	0.6563 0.7512	0.7417	0.7573	0.8032	Ave		0.7236				10.7		20.0			
o-Xylene	0.5361 0.7420	0.6389 0.7219	0.7124	0.7268	0.7643	Ave		0.6917				11.4		20.0			
Styrene	0.9223 1.2653	0.9807 1.2494	1.1650	1.2240	1.3086	Ave		1.1593			0.3000	12.9		20.0			
Bromoform	0.1762 0.2466	0.1894 0.2437	0.2237	0.2340	0.2564	Ave		0.2243			0.1000	13.5		20.0			
Isopropylbenzene	1.4672 1.9441	1.6201 1.8940	1.8547	1.9133	1.9952	Ave		1.8126			0.1000	10.7		20.0			
1,1,2,2-Tetrachloroethane	0.6368 0.7157	0.6681 0.7062	0.7116	0.7173	0.7557	Ave		0.7016			0.3000	5.5		20.0			
Bromobenzene	0.6813 0.8376	0.7064 0.8191	0.8337	0.8488	0.8749	Ave		0.8003				9.4		20.0			
trans-1,4-Dichloro-2-butene	0.1767 0.2427	0.2284 0.2364	0.2188	0.2286	0.2494	Ave		0.2258				10.6		20.0			
1,2,3-Trichloropropane	0.2415 0.2406	0.2546 0.2405	0.2519	0.2590	0.2571	Ave		0.2493				3.3		20.0			
N-Propylbenzene	0.8285 1.0314	0.8662 1.0019	0.9931	1.0423	1.0693	Ave		0.9761				9.4		20.0			
2-Chlorotoluene	0.7100 0.8506	0.7564 0.8103	0.8320	0.8485	0.8756	Ave		0.8119				7.2		20.0			
1,3,5-Trimethylbenzene	2.2350 2.8921	2.6143 2.8243	2.7714	2.8784	2.9844	Ave		2.7428				9.2		20.0			
4-Chlorotoluene	0.7530 0.8816	0.8287 0.8642	0.8689	0.8851	0.9071	Ave		0.8555				6.0		20.0			
tert-Butylbenzene	2.0231 2.5936	2.3413 2.5253	2.4866	2.5972	2.6906	Ave		2.4654				9.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.3083 2.9097	2.5059 2.8566	2.7992	2.8961	2.9984	Ave		2.7535				9.1		20.0			
sec-Butylbenzene	2.8678 3.8451	3.2664 3.7580	3.6650	3.8058	3.9411	Ave		3.5927				10.8		20.0			
1,3-Dichlorobenzene	1.3584 1.6070	1.4425 1.5528	1.5911	1.6088	1.6670	Ave		1.5468			0.6000	7.0		20.0			
4-Isopropyltoluene	2.5058 3.3051	2.8485 3.2195	3.1572	3.3048	3.3823	Ave		3.1033				10.2		20.0			
1,4-Dichlorobenzene	1.4038 1.6034	1.4607 1.5535	1.5778	1.6127	1.6638	Ave		1.5537			0.5000	5.9		20.0			
n-Butylbenzene	2.1178 2.8800	2.3772 2.7988	2.7342	2.8599	2.9756	Ave		2.6776				11.7		20.0			
1,2-Dichlorobenzene	1.2369 1.4707	1.4595 1.4366	1.4509	1.4773	1.5444	Ave		1.4395			0.4000	6.7		20.0			
1,2-Dibromo-3-Chloropropane	0.1141 0.1709	0.1700 0.1725	0.1674	0.1708	0.1781	Ave		0.1634			0.0500	13.4		20.0			
1,2,4-Trichlorobenzene	0.7555 0.9016	0.8327 0.8659	0.8427	0.8771	0.9247	Ave		0.8572			0.2000	6.4		20.0			
Hexachlorobutadiene	0.3344 0.3934	0.3482 0.3820	0.3896	0.3975	0.4167	Ave		0.3803				7.6		20.0			
Naphthalene	2.1977 2.4008	2.3923 2.3167	2.3825	2.3740	2.5023	Ave		2.3666				3.9		20.0			
1,2,3-Trichlorobenzene	0.7017 0.7984	0.7911 0.7616	0.7950	0.7764	0.8146	Ave		0.7770				4.8		20.0			
Dibromofluoromethane (Surr)	0.2746 0.2838	0.2972 0.2792	0.2934	0.3025	0.3085	Ave		0.2913				4.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3096 0.3096	0.3269 0.3098	0.3207	0.3254	0.3357	Ave		0.3197				3.2		20.0			
Toluene-d8 (Surr)	1.2582 1.4517	1.2042 1.4110	1.3904	1.4346	1.5092	Ave		1.3799				7.9		20.0			
4-Bromofluorobenzene (Surr)	0.4539 0.5147	0.4878 0.5001	0.5196	0.5206	0.5477	Ave		0.5063				5.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-434666/15	UXM27988.D
Level 2	STD8260 240-434666/14	UXM27987.D
Level 3	STD8260 240-434666/13	UXM27986.D
Level 4	ICIS 240-434666/12	UXM27985.D
Level 5	STD8260 240-434666/11	UXM27984.D
Level 6	STD8260 240-434666/10	UXM27983.D
Level 7	STD8260 240-434666/9	UXM27982.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	6563 1208196	15558 1432874	201880	420230	803379	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	10272 1210252	20474 1509898	215176	411713	860798	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	8983 1448881	19393 1853421	233249	476196	1004340	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	7656 1298085	16402 1634394	202039	407993	885755	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	5289 +++++	11114 +++++	114916	223035	502954	0.500 +++++	1.00 +++++	10.0	20.0	40.0
Chloroethane	FB	Ave	4100 721559	9271 956400	109794	224743	477574	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	10581 1609987	22418 2088787	253943	525044	1098986	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8232 1528094	18420 1881205	247301	504256	1021397	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	3506 643134	7898 836555	99784	201374	436603	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	3854 634943	7925 811033	93897	180101	425813	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	5193 856509	11311 1091325	134402	274773	578690	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	+++++ 709841	8162 842658	116438	242050	462567	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 133988	2763 181656	21894	42484	94124	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	6574 1093884	13336 1345058	144903	333719	714664	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19691 2793956	39549 3574986	443121	887730	1903952	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	6834 1026956	14187 1351739	161797	312857	687826	1.00 120	2.00 160	20.0	40.0	80.0
3-Chloro-1-propene	FB	Ave	7883 1223666	17166 1568836	183250	379431	814769	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylene Chloride	FB	Ave	7111 919029	14251 1184066	146672	289171	623880	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	4346 739265	9866 959298	121041	217318	500636	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	19213 3152086	41489 4139989	474326	937151	2097844	5.00 600	10.0 800	100	200	400
Methyl tert-butyl ether	FB	Ave	13159 2523225	28540 3306607	369044	742436	1678039	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,2-Dichloroethene	FB	Ave	6800 995135	13527 1301441	156233	315592	670221	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	+++++ 1355106	12496 1653309	200954	423483	841613	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	+++++ 1561700	15059 2048709	198633	429306	1016429	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	9351 1597351	21465 2067956	248107	500218	1074904	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	+++++ 205327	2007 270440	30096	58448	134863	+++++ 120	2.00 160	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	5998 1062904	15022 1364914	168828	338400	722204	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	8793 1537904	18693 1981435	229537	476654	1008144	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	3133 459200	7715 590068	78481	155674	316974	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	2855 420192	5604 556184	67136	128058	275724	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10337 1598073	22443 2065010	256130	510975	1081418	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9235 1486661	19858 1910834	232307	469738	995675	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	7523 1531270	17579 1934032	237147	491567	994654	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	6937 1379872	16020 1777935	208238	431230	922144	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7712 1318751	15757 1689538	200039	415764	883538	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3366 547640	6089 723216	85586	164209	371068	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	23030 3941460	48007 5123544	580846	1201253	2607947	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8247 1196614	16443 1550331	182966	376690	805704	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 715802	31464 876244	131103	244814	464970	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	6313 1087064	13694 1412865	167067	344595	728457	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	+++++ 1773861	19026 2221307	269469	562163	1130580	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	5197 893985	11930 1165540	132429	274588	593751	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 228108	3440 300686	36374	68205	155348	+++++ 1200	20.0 1600	200	400	800
Dibromomethane	FB	Ave	3511 528365	7329 694361	80968	167791	362920	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorobromomethane	FB	Ave	7362 1214015	16724 1583652	186019	378429	817722	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	6188 1134684	12527 1509802	162569	330841	758544	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	9062 1550183	17643 2027839	228920	470694	1030548	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8355 1321092	17101 1737738	201734	389532	891382	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	26996 4260299	54963 5540850	641681	1308155	2819001	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7372 1422751	16828 1875599	207516	428491	947406	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	+++++ 1021981	10511 1349215	151121	310679	695031	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4893 782747	9350 1024150	116305	238120	524667	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4676 864608	10396 1109337	131382	266869	576318	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	7744 1399520	16985 1809414	210225	428084	931813	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	5621 887053	12744 1182182	144758	277943	615969	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5316 913646	11370 1193687	133886	277968	615203	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	4823 825478	10593 1073148	124538	254321	556097	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	16566 2736134	37487 3556172	421952	849656	1838077	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5121 971974	11216 1264758	139890	292777	644312	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9031 1562427	18931 2032451	236876	487819	1038368	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11092 1915463	24331 2478229	294747	590454	1281765	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10233 1835268	23684 2381598	283077	566672	1219662	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17606 3129810	36356 4121930	462947	954414	2088257	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	3363 609860	7023 804127	88887	182438	409166	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	28007 4808786	60059 6248523	737005	1491822	3183890	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6455 960821	13344 1265431	150050	298213	656058	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6906 1124463	14109 1467701	175795	352879	759556	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1791 325755	4561 423641	46132	95037	216496	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2448 322990	5084 430917	53122	107679	223227	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8398 1384613	17300 1795321	209400	433284	928345	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7197 1141891	15107 1452042	175443	352752	760181	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	22656 3882524	52213 5060818	584379	1196596	2591098	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7633 1183437	16552 1548562	183214	367969	787574	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	20508 3481793	46762 4525084	524316	1079707	2336013	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	23399 3906169	50048 5118659	590229	1203961	2603241	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	29070 5161872	65238 6733878	772805	1582135	3421656	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13770 2157328	28811 2782519	335492	668787	1447316	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25401 4436896	56892 5769048	665728	1373885	2936542	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	14230 2152493	29173 2783675	332695	670413	1444498	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	21468 3866269	47478 5015197	576522	1188929	2583389	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	12538 1974289	29150 2574200	305937	614140	1340841	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1157 229360	3395 309159	35308	71022	154667	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	7658 1210318	16631 1551579	177699	364647	802854	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	3390 528160	6955 684493	82153	165229	361806	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	22277 3222971	47780 4151252	502370	986906	2172484	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	7113 1071754	15800 1364667	167624	322784	707210	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5891 882660	12605 1133701	140972	284465	603010	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6642 962950	13862 1258205	154104	305962	656015	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	24017 3590922	44640 4655018	552509	1118576	2408325	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8664 1273155	18085 1649907	206467	405920	874040	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 434666

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2020 09:45 Calibration End Date: 05/18/2020 12:13 Calibration ID: 57113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-434666/15	UXM27988.D
Level 2	STD8260 240-434666/14	UXM27987.D
Level 3	STD8260 240-434666/13	UXM27986.D
Level 4	ICIS 240-434666/12	UXM27985.D
Level 5	STD8260 240-434666/11	UXM27984.D
Level 6	STD8260 240-434666/10	UXM27983.D
Level 7	STD8260 240-434666/9	UXM27982.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
n-Heptane	+++++	-7.4						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICV 240-434666/16 Calibration Date: 05/18/2020 12:38

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM27989.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3846	0.2941	0.1000	0.0153	0.0200	-23.5	30.0
Chloromethane	Ave	0.4355	0.3441	0.1000	0.0158	0.0200	-21.0	30.0
Vinyl chloride	Ave	0.4720	0.4072	0.1000	0.0173	0.0200	-13.7	30.0
Butadiene	Ave	0.4102	0.3881		0.0189	0.0200	-5.4	30.0
Bromomethane	Ave	0.2485	0.1993	0.0500	0.0160	0.0200	-19.8	30.0
Chloroethane	Ave	0.2270	0.2072	0.0500	0.0183	0.0200	-8.7	30.0
Dichlorofluoromethane	Ave	0.5290	0.5078		0.0192	0.0200	-4.0	30.0
Trichlorofluoromethane	Ave	0.4780	0.4567	0.1000	0.0191	0.0200	-4.5	30.0
Ethyl ether	Ave	0.2011	0.1875		0.0186	0.0200	-6.8	30.0
Acrolein	Ave	0.0393	0.0258		0.0656	0.100	-34.4*	30.0
1,1-Dichloroethene	Ave	0.2744	0.2583	0.1000	0.0188	0.0200	-5.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2274	0.2093	0.0500	0.0184	0.0200	-8.0	30.0
Acetone	Ave	0.0243	0.0210	0.0100	0.0345	0.0400	-13.8	50.0
Iodomethane	Ave	0.3323	0.2740		0.0165	0.0200	-17.6	30.0
Carbon disulfide	Ave	0.9242	0.7989	0.1000	0.0173	0.0200	-13.6	30.0
Methyl acetate	Ave	0.1670	0.1450	0.1000	0.0347	0.0400	-13.2	50.0
3-Chloro-1-propene	Ave	0.3934	0.3405		0.0173	0.0200	-13.5	30.0
Methylene Chloride	Ave	0.3124	0.2896	0.1000	0.0185	0.0200	-7.3	50.0
2-Methyl-2-propanol	Ave	0.0235	0.0213		0.181	0.200	-9.6	30.0
Acrylonitrile	Ave	0.0995	0.0878		0.176	0.200	-11.8	30.0
Methyl tert-butyl ether	Ave	0.7612	0.7042	0.1000	0.0185	0.0200	-7.5	30.0
trans-1,2-Dichloroethene	Ave	0.3257	0.3017	0.1000	0.0185	0.0200	-7.4	30.0
Hexane	Ave	0.4061	0.3605		0.0178	0.0200	-11.2	30.0
Vinyl acetate	Ave	0.4586	0.3566		0.0156	0.0200	-22.2	30.0
1,1-Dichloroethane	Ave	0.5090	0.4758	0.2000	0.0187	0.0200	-6.5	30.0
2-Butanone (MEK)	Ave	0.0311	0.0278	0.0100	0.0356	0.0400	-10.9	50.0
cis-1,2-Dichloroethene	Ave	0.3418	0.3322	0.1000	0.0194	0.0200	-2.8	30.0
2,2-Dichloropropane	Ave	0.4762	0.4480		0.0188	0.0200	-5.9	30.0
Chlorobromomethane	Ave	0.1589	0.1475		0.0186	0.0200	-7.2	30.0
Tetrahydrofuran	Ave	0.0682	0.0587		0.0344	0.0400	-13.9	30.0
Chloroform	Ave	0.5233	0.4943	0.2000	0.0189	0.0200	-5.5	30.0
1,1,1-Trichloroethane	Ave	0.4771	0.4629	0.1000	0.0194	0.0200	-3.0	30.0
Cyclohexane	Ave	0.4656	0.4399	0.1000	0.0189	0.0200	-5.5	30.0
1,1-Dichloropropene	Ave	0.4209	0.3926		0.0187	0.0200	-6.7	30.0
Carbon tetrachloride	Ave	0.4117	0.3924	0.1000	0.0191	0.0200	-4.7	30.0
Isobutyl alcohol	Ave	0.0068	0.0060		0.440	0.500	-11.9	30.0
Benzene	Ave	1.222	1.139	0.5000	0.0186	0.0200	-6.8	30.0
1,2-Dichloroethane	Ave	0.3903	0.3554	0.1000	0.0182	0.0200	-9.0	30.0
n-Heptane	Lin1		0.2273		0.0184	0.0200	-8.2	30.0
Trichloroethene	Ave	0.3431	0.3372	0.1500	0.0197	0.0200	-1.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICV 240-434666/16 Calibration Date: 05/18/2020 12:38

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM27989.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5505	0.5076	0.1000	0.0184	0.0200	-7.8	30.0
1,2-Dichloropropane	Ave	0.2814	0.2590	0.1000	0.0184	0.0200	-8.0	30.0
1,4-Dioxane	Ave	0.0038	0.0033		0.351	0.400	-12.3	50.0
Dibromomethane	Ave	0.1729	0.1647		0.0191	0.0200	-4.7	30.0
Dichlorobromomethane	Ave	0.3894	0.3750	0.1500	0.0193	0.0200	-3.7	30.0
2-Chloroethyl vinyl ether	Ave	0.1713	0.1546		0.0180	0.0200	-9.8	30.0
cis-1,3-Dichloropropene	Ave	0.4772	0.4478	0.1500	0.0188	0.0200	-6.2	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2097	0.1793	0.0500	0.0342	0.0400	-14.5	50.0
Toluene	Ave	1.623	1.518	0.4000	0.0187	0.0200	-6.5	30.0
trans-1,3-Dichloropropene	Ave	0.5213	0.4504	0.1000	0.0173	0.0200	-13.6	30.0
Ethyl methacrylate	Ave	0.3867	0.3466		0.0179	0.0200	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.2946	0.2765	0.1000	0.0188	0.0200	-6.1	30.0
Tetrachloroethene	Ave	0.3207	0.3102	0.1500	0.0193	0.0200	-3.3	30.0
1,3-Dichloropropane	Ave	0.5200	0.4778		0.0184	0.0200	-8.1	30.0
2-Hexanone	Ave	0.1759	0.1528	0.0500	0.0348	0.0400	-13.1	50.0
Chlorodibromomethane	Ave	0.3422	0.3274		0.0191	0.0200	-4.3	30.0
Ethylene Dibromide	Ave	0.3122	0.2941		0.0188	0.0200	-5.8	30.0
Chlorobenzene	Ave	1.052	0.998	0.3000	0.0190	0.0200	-5.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3541	0.3394		0.0192	0.0200	-4.1	30.0
Ethylbenzene	Ave	0.5863	0.5628		0.0192	0.0200	-4.0	30.0
m-Xylene & p-Xylene	Ave	0.7236	0.6962		0.0192	0.0200	-3.8	30.0
o-Xylene	Ave	0.6917	0.6596		0.0191	0.0200	-4.6	30.0
Styrene	Ave	1.159	1.111	0.3000	0.0192	0.0200	-4.2	30.0
Bromoform	Ave	0.2243	0.2118	0.1000	0.0189	0.0200	-5.6	30.0
Isopropylbenzene	Ave	1.813	1.734	0.1000	0.0191	0.0200	-4.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7016	0.6377	0.3000	0.0182	0.0200	-9.1	30.0
Bromobenzene	Ave	0.8003	0.7760		0.0194	0.0200	-3.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2258	0.2035		0.0180	0.0200	-9.9	30.0
1,2,3-Trichloropropane	Ave	0.2493	0.2339		0.0188	0.0200	-6.2	30.0
N-Propylbenzene	Ave	0.9761	0.9318		0.0191	0.0200	-4.5	30.0
2-Chlorotoluene	Ave	0.8119	0.7816		0.0193	0.0200	-3.7	30.0
1,3,5-Trimethylbenzene	Ave	2.743	2.620		0.0191	0.0200	-4.5	30.0
4-Chlorotoluene	Ave	0.8555	0.8178		0.0191	0.0200	-4.4	30.0
tert-Butylbenzene	Ave	2.465	2.341		0.0190	0.0200	-5.0	30.0
1,2,4-Trimethylbenzene	Ave	2.753	2.643		0.0192	0.0200	-4.0	30.0
sec-Butylbenzene	Ave	3.593	3.404		0.0189	0.0200	-5.3	30.0
1,3-Dichlorobenzene	Ave	1.547	1.458	0.6000	0.0188	0.0200	-5.8	30.0
4-Isopropyltoluene	Ave	3.103	2.958		0.0191	0.0200	-4.7	30.0
1,4-Dichlorobenzene	Ave	1.554	1.471	0.5000	0.0189	0.0200	-5.3	30.0
n-Butylbenzene	Ave	2.678	2.548		0.0190	0.0200	-4.8	30.0
1,2-Dichlorobenzene	Ave	1.439	1.319	0.4000	0.0183	0.0200	-8.4	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICV 240-434666/16 Calibration Date: 05/18/2020 12:38

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM27989.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1634	0.1596	0.0500	0.0195	0.0200	-2.4	50.0
1,2,4-Trichlorobenzene	Ave	0.8572	0.8269	0.2000	0.0193	0.0200	-3.5	50.0
Hexachlorobutadiene	Ave	0.3803	0.3689		0.0194	0.0200	-3.0	50.0
Naphthalene	Ave	2.367	2.151		0.0182	0.0200	-9.1	50.0
1,2,3-Trichlorobenzene	Ave	0.7770	0.7239		0.0186	0.0200	-6.8	30.0
Dibromofluoromethane (Surr)	Ave	0.2913	0.2720		0.0187	0.0200	-6.6	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3197	0.2807		0.0176	0.0200	-12.2	30.0
Toluene-d8 (Surr)	Ave	1.380	1.249		0.0181	0.0200	-9.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5063	0.5119		0.0202	0.0200	1.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICV 240-434666/25 Calibration Date: 05/18/2020 16:21

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 13:52

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 15:56

Lab File ID: UXM27998.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0338	0.0335		0.198	0.200	-1.0	30.0
Isopropyl ether	Ave	0.2462	0.2613		0.0212	0.0200	6.1	30.0
2-Chloro-1,3-butadiene	Ave	0.4163	0.4479		0.0215	0.0200	7.6	30.0
Tert-butyl ethyl ether	Ave	0.7263	0.7685		0.0212	0.0200	5.8	30.0
Propionitrile	Ave	0.0369	0.0385		0.209	0.200	4.3	30.0
Methacrylonitrile	Ave	0.1342	0.1375		0.205	0.200	2.4	30.0
Tert-amyl methyl ether	Ave	0.7175	0.7815		0.0218	0.0200	8.9	30.0
n-Butanol	Ave	0.0057	0.0059		0.517	0.500	3.5	30.0
2-Nitropropane	Ave	0.0674	0.0683		0.0405	0.0400	1.3	30.0
1-Chlorohexane	Ave	0.5712	0.6019		0.0211	0.0200	5.4	30.0
Cyclohexanone	Ave	0.0183	0.0171		0.187	0.200	-6.4	30.0
Pentachloroethane	Lin1		0.1481		0.0269	0.0400	-32.6*	30.0
1,2,3-Trimethylbenzene	Ave	2.714	2.967		0.0219	0.0200	9.3	30.0
Benzyl chloride	Ave	0.3360	0.3304		0.0197	0.0200	-1.7	30.0
1,3,5-Trichlorobenzene	Ave	1.038	1.085		0.0209	0.0200	4.6	30.0
2-Methylnaphthalene	Ave	1.186	0.998		0.0337	0.0400	-15.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: CCVIS 240-437675/3 Calibration Date: 06/10/2020 09:28

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM28608.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3846	0.3855	0.1000	0.0200	0.0200	0.2	20.0
Chloromethane	Ave	0.4355	0.4266	0.1000	0.0196	0.0200	-2.1	20.0
Vinyl chloride	Ave	0.4720	0.4929	0.1000	0.0209	0.0200	4.4	20.0
Butadiene	Ave	0.4102	0.4402		0.0215	0.0200	7.3	20.0
Bromomethane	Ave	0.2485	0.1562	0.0500	0.0126	0.0200	-37.1*	20.0
Chloroethane	Ave	0.2270	0.2596	0.0500	0.0229	0.0200	14.3	20.0
Dichlorofluoromethane	Ave	0.5290	0.6084		0.0230	0.0200	15.0	20.0
Trichlorofluoromethane	Ave	0.4780	0.4837	0.1000	0.0202	0.0200	1.2	20.0
Ethyl ether	Ave	0.2011	0.2348		0.0233	0.0200	16.7	20.0
Acrolein	Ave	0.0393	0.0321		0.0818	0.100	-18.2	20.0
1,1-Dichloroethene	Ave	0.2744	0.2920	0.1000	0.0213	0.0200	6.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2274	0.2369	0.0500	0.0208	0.0200	4.2	20.0
Acetone	Ave	0.0243	0.0226	0.0100	0.0372	0.0400	-7.0	50.0
Iodomethane	Ave	0.3323	0.3543		0.0213	0.0200	6.6	20.0
Carbon disulfide	Ave	0.9242	1.014	0.1000	0.0219	0.0200	9.7	20.0
Methyl acetate	Ave	0.1670	0.1653	0.1000	0.0396	0.0400	-1.0	50.0
3-Chloro-1-propene	Ave	0.3934	0.5211		0.0265	0.0200	32.5*	20.0
Methylene Chloride	Ave	0.3124	0.3394	0.1000	0.0217	0.0200	8.7	50.0
2-Methyl-2-propanol	Ave	0.0235	0.0191		0.162	0.200	-19.0	20.0
Acrylonitrile	Ave	0.0995	0.0997		0.200	0.200	0.2	20.0
Methyl tert-butyl ether	Ave	0.7612	0.7607	0.1000	0.0200	0.0200	-0.0	20.0
trans-1,2-Dichloroethene	Ave	0.3257	0.3365	0.1000	0.0207	0.0200	3.3	20.0
Hexane	Ave	0.4061	0.5316		0.0262	0.0200	30.9*	20.0
Vinyl acetate	Ave	0.4586	0.4373		0.0191	0.0200	-4.7	20.0
1,1-Dichloroethane	Ave	0.5090	0.6312	0.2000	0.0248	0.0200	24.0*	20.0
2-Butanone (MEK)	Ave	0.0311	0.0261	0.0100	0.0335	0.0400	-16.2	50.0
cis-1,2-Dichloroethene	Ave	0.3418	0.3674	0.1000	0.0215	0.0200	7.5	20.0
2,2-Dichloropropane	Ave	0.4762	0.5277		0.0222	0.0200	10.8	20.0
Chlorobromomethane	Ave	0.1589	0.1574		0.0198	0.0200	-0.9	20.0
Tetrahydrofuran	Ave	0.0682	0.0649		0.0381	0.0400	-4.8	20.0
Chloroform	Ave	0.5233	0.5721	0.2000	0.0219	0.0200	9.3	20.0
1,1,1-Trichloroethane	Ave	0.4771	0.4852	0.1000	0.0203	0.0200	1.7	20.0
Cyclohexane	Ave	0.4656	0.6355	0.1000	0.0273	0.0200	36.5*	20.0
1,1-Dichloropropene	Ave	0.4209	0.4788		0.0228	0.0200	13.8	20.0
Carbon tetrachloride	Ave	0.4117	0.4074	0.1000	0.0198	0.0200	-1.0	20.0
Isobutyl alcohol	Ave	0.0068	0.0064		0.471	0.500	-5.9	20.0
Benzene	Ave	1.222	1.384	0.5000	0.0226	0.0200	13.2	20.0
1,2-Dichloroethane	Ave	0.3903	0.4429	0.1000	0.0227	0.0200	13.5	20.0
n-Heptane	Lin1		0.3167		0.0266	0.0200	32.8*	20.0
Trichloroethene	Ave	0.3431	0.3331	0.1500	0.0194	0.0200	-2.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: CCVIS 240-437675/3 Calibration Date: 06/10/2020 09:28

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM28608.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5505	0.6378	0.1000	0.0232	0.0200	15.9	20.0
1,2-Dichloropropane	Ave	0.2814	0.3359	0.1000	0.0239	0.0200	19.4	20.0
1,4-Dioxane	Ave	0.0038	0.0031		0.324	0.400	-19.0	50.0
Dibromomethane	Ave	0.1729	0.1752		0.0203	0.0200	1.3	20.0
Dichlorobromomethane	Ave	0.3894	0.4189	0.1500	0.0215	0.0200	7.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1713	0.1832		0.0428	0.0400	6.9	20.0
cis-1,3-Dichloropropene	Ave	0.4772	0.5204	0.1500	0.0218	0.0200	9.0	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2097	0.2198	0.0500	0.0419	0.0400	4.8	50.0
Toluene	Ave	1.623	1.999	0.4000	0.0246	0.0200	23.2*	20.0
trans-1,3-Dichloropropene	Ave	0.5213	0.6355	0.1000	0.0244	0.0200	21.9*	20.0
Ethyl methacrylate	Ave	0.3867	0.4635		0.0240	0.0200	19.9	20.0
1,1,2-Trichloroethane	Ave	0.2946	0.3302	0.1000	0.0224	0.0200	12.1	20.0
Tetrachloroethene	Ave	0.3207	0.3516	0.1500	0.0219	0.0200	9.6	20.0
1,3-Dichloropropane	Ave	0.5200	0.6313		0.0243	0.0200	21.4*	20.0
2-Hexanone	Ave	0.1759	0.2080	0.0500	0.0473	0.0400	18.3	50.0
Chlorodibromomethane	Ave	0.3422	0.3573		0.0209	0.0200	4.4	20.0
Ethylene Dibromide	Ave	0.3122	0.3301		0.0211	0.0200	5.7	20.0
Chlorobenzene	Ave	1.052	1.198	0.3000	0.0228	0.0200	13.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3541	0.3817		0.0216	0.0200	7.8	20.0
Ethylbenzene	Ave	0.5863	0.6888		0.0235	0.0200	17.5	20.0
m-Xylene & p-Xylene	Ave	0.7236	0.8604		0.0238	0.0200	18.9	20.0
o-Xylene	Ave	0.6917	0.8170		0.0236	0.0200	18.1	20.0
Styrene	Ave	1.159	1.412	0.3000	0.0244	0.0200	21.8*	20.0
Bromoform	Ave	0.2243	0.2239	0.1000	0.0200	0.0200	-0.2	20.0
Isopropylbenzene	Ave	1.813	2.146	0.1000	0.0237	0.0200	18.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7016	0.8051	0.3000	0.0229	0.0200	14.7	20.0
Bromobenzene	Ave	0.8003	0.8762		0.0219	0.0200	9.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2258	0.2642		0.0234	0.0200	17.0	20.0
1,2,3-Trichloropropane	Ave	0.2493	0.2426		0.0195	0.0200	-2.7	20.0
N-Propylbenzene	Ave	0.9761	1.131		0.0232	0.0200	15.9	20.0
2-Chlorotoluene	Ave	0.8119	0.9278		0.0229	0.0200	14.3	20.0
1,3,5-Trimethylbenzene	Ave	2.743	3.331		0.0243	0.0200	21.4*	20.0
4-Chlorotoluene	Ave	0.8555	0.9857		0.0230	0.0200	15.2	20.0
tert-Butylbenzene	Ave	2.465	2.828		0.0229	0.0200	14.7	20.0
1,2,4-Trimethylbenzene	Ave	2.753	3.306		0.0240	0.0200	20.1*	20.0
sec-Butylbenzene	Ave	3.593	4.391		0.0244	0.0200	22.2*	20.0
1,3-Dichlorobenzene	Ave	1.547	1.716	0.6000	0.0222	0.0200	11.0	20.0
4-Isopropyltoluene	Ave	3.103	3.626		0.0234	0.0200	16.8	20.0
1,4-Dichlorobenzene	Ave	1.554	1.746	0.5000	0.0225	0.0200	12.4	20.0
n-Butylbenzene	Ave	2.678	3.411		0.0255	0.0200	27.4*	20.0
1,2-Dichlorobenzene	Ave	1.439	1.598	0.4000	0.0222	0.0200	11.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: CCVIS 240-437675/3 Calibration Date: 06/10/2020 09:28

Instrument ID: A3UX16 Calib Start Date: 05/18/2020 09:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/18/2020 12:13

Lab File ID: UXM28608.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1634	0.1449	0.0500	0.0177	0.0200	-11.3	50.0
1,2,4-Trichlorobenzene	Ave	0.8572	0.8840	0.2000	0.0206	0.0200	3.1	50.0
Hexachlorobutadiene	Ave	0.3803	0.4207		0.0221	0.0200	10.6	50.0
Naphthalene	Ave	2.367	2.071		0.0175	0.0200	-12.5	50.0
1,2,3-Trichlorobenzene	Ave	0.7770	0.7730		0.0199	0.0200	-0.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2913	0.2446		0.0168	0.0200	-16.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3197	0.3105		0.0194	0.0200	-2.9	20.0
Toluene-d8 (Surr)	Ave	1.380	1.387		0.0201	0.0200	0.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5063	0.5316		0.0210	0.0200	5.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICV 240-411175/12 Calibration Date: 11/15/2019 19:28

Instrument ID: A3UX18 Calib Start Date: 11/15/2019 15:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/15/2019 19:02

Lab File ID: 181411.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2229	0.1260	0.1000	0.0113	0.0200	-43.5*	30.0
Chloromethane	Ave	0.3411	0.2562	0.1000	0.0150	0.0200	-24.9	30.0
Vinyl chloride	Ave	0.2433	0.1987	0.1000	0.0163	0.0200	-18.3	30.0
Butadiene	Ave	0.3147	0.2533		0.0161	0.0200	-19.5	30.0
Bromomethane	Ave	0.1704	0.1368	0.0500	0.0161	0.0200	-19.7	30.0
Chloroethane	Ave	0.1566	0.1383	0.0500	0.0177	0.0200	-11.7	30.0
Dichlorofluoromethane	Ave	0.3811	0.3368		0.0177	0.0200	-11.6	30.0
Trichlorofluoromethane	Ave	0.3161	0.2741	0.1000	0.0173	0.0200	-13.3	30.0
Ethyl ether	Ave	0.2380	0.2431		0.0511	0.0500	2.2	30.0
Acrolein	Ave	0.0369	0.0321		0.217	0.250	-13.2	30.0
1,1-Dichloroethene	Ave	0.2001	0.1986	0.1000	0.0496	0.0500	-0.7	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1423	0.1407	0.0500	0.0494	0.0500	-1.2	30.0
Acetone	Lin1		0.0530	0.0100	0.0854	0.100	-14.6	50.0
Iodomethane	Ave	0.3422	0.3744		0.0547	0.0500	9.4	30.0
Carbon disulfide	Ave	0.6741	0.6593	0.1000	0.0489	0.0500	-2.2	30.0
3-Chloro-1-propene	Ave	0.1558	0.1447		0.0464	0.0500	-7.2	30.0
Methyl acetate	Ave	0.1745	0.1685	0.1000	0.0965	0.100	-3.5	50.0
Methylene Chloride	Ave	0.2554	0.2452	0.1000	0.0480	0.0500	-4.0	50.0
tert-Butyl alcohol (TBA)	Ave	0.0224	0.0225		0.502	0.500	0.3	30.0
Acrylonitrile	Ave	0.0782	0.0806		0.515	0.500	3.0	30.0
trans-1,2-Dichloroethene	Ave	0.2466	0.2518	0.1000	0.0511	0.0500	2.1	30.0
Methyl tert-butyl ether	Ave	0.6098	0.5851	0.1000	0.0480	0.0500	-4.0	30.0
Hexane	Ave	0.0747	0.0711		0.0476	0.0500	-4.7	30.0
1,1-Dichloroethane	Ave	0.5124	0.4721	0.2000	0.0461	0.0500	-7.9	30.0
Vinyl acetate	Ave	0.0423	0.0468		0.0553	0.0500	10.7	30.0
2,2-Dichloropropane	Ave	0.0638	0.0630		0.0494	0.0500	-1.2	30.0
cis-1,2-Dichloroethene	Ave	0.2835	0.2939	0.1000	0.0518	0.0500	3.7	30.0
2-Butanone (MEK)	Ave	0.1065	0.1052	0.0100	0.0988	0.100	-1.2	50.0
Bromochloromethane	Ave	0.1279	0.1352		0.0529	0.0500	5.8	30.0
Tetrahydrofuran	Ave	0.0740	0.0781		0.106	0.100	5.5	30.0
Chloroform	Ave	0.4464	0.4228	0.2000	0.0474	0.0500	-5.3	30.0
1,1,1-Trichloroethane	Ave	0.3697	0.3427	0.1000	0.0464	0.0500	-7.3	30.0
Cyclohexane	Ave	0.5338	0.4998	0.1000	0.0468	0.0500	-6.4	30.0
1,1-Dichloropropene	Ave	0.3549	0.3109		0.0438	0.0500	-12.4	30.0
Carbon tetrachloride	Ave	0.3214	0.2923	0.1000	0.0455	0.0500	-9.0	30.0
Isobutyl alcohol	Ave	0.0114	0.0124		1.36	1.25	8.8	30.0
Benzene	Ave	1.026	1.017	0.5000	0.0495	0.0500	-0.9	30.0
1,2-Dichloroethane	Ave	0.3807	0.3398	0.1000	0.0446	0.0500	-10.8	30.0
n-Heptane	Ave	0.0902	0.0872		0.0483	0.0500	-3.4	30.0
Trichloroethene	Ave	0.2577	0.2683	0.1500	0.0520	0.0500	4.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICV 240-411175/12 Calibration Date: 11/15/2019 19:28

Instrument ID: A3UX18 Calib Start Date: 11/15/2019 15:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/15/2019 19:02

Lab File ID: 181411.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4601	0.4116	0.1000	0.0447	0.0500	-10.5	30.0
1,2-Dichloropropane	Ave	0.2881	0.2969	0.1000	0.0515	0.0500	3.1	30.0
Dibromomethane	Ave	0.1327	0.1357		0.0511	0.0500	2.3	30.0
1,4-Dioxane	Ave	0.0018	0.0020		1.13	1.00	13.2	50.0
Bromodichloromethane	Ave	0.3265	0.3244	0.1500	0.0497	0.0500	-0.6	30.0
2-Chloroethyl vinyl ether	Ave	0.1190	0.1206		0.0507	0.0500	1.4	30.0
cis-1,3-Dichloropropene	Ave	0.4162	0.4228	0.1500	0.0508	0.0500	1.6	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3166	0.3166	0.0500	0.100	0.100	0.0	50.0
Toluene	Ave	1.481	1.408	0.4000	0.0475	0.0500	-4.9	30.0
trans-1,3-Dichloropropene	Ave	0.4783	0.4311	0.1000	0.0451	0.0500	-9.9	30.0
Ethyl methacrylate	Ave	0.4153	0.4076		0.0491	0.0500	-1.9	30.0
1,1,2-Trichloroethane	Ave	0.2602	0.2567	0.1000	0.0493	0.0500	-1.3	30.0
Tetrachloroethene	Ave	0.2377	0.2335	0.1500	0.0491	0.0500	-1.8	30.0
1,3-Dichloropropane	Ave	0.4754	0.4550		0.0479	0.0500	-4.3	30.0
2-Hexanone	Ave	0.2144	0.2203	0.0500	0.103	0.100	2.7	50.0
Dibromochloromethane	Ave	0.2840	0.2980		0.0525	0.0500	4.9	30.0
1,2-Dibromoethane	Ave	0.2458	0.2476		0.0504	0.0500	0.7	30.0
Chlorobenzene	Ave	0.9485	0.9349	0.3000	0.0493	0.0500	-1.4	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3124	0.3185		0.0510	0.0500	1.9	30.0
Ethylbenzene	Ave	0.5013	0.4756		0.0474	0.0500	-5.1	30.0
m-Xylene & p-Xylene	Ave	0.6152	0.5786		0.0470	0.0500	-6.0	30.0
o-Xylene	Ave	0.5978	0.5715		0.0478	0.0500	-4.4	30.0
Styrene	Ave	1.029	1.016	0.3000	0.0494	0.0500	-1.3	30.0
Bromoform	Ave	0.1363	0.1556	0.1000	0.0571	0.0500	14.2	30.0
Isopropylbenzene	Ave	1.475	1.386	0.1000	0.0470	0.0500	-6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6443	0.6360	0.3000	0.0494	0.0500	-1.3	30.0
Bromobenzene	Ave	0.7839	0.7828		0.0499	0.0500	-0.1	30.0
1,2,3-Trichloropropane	Ave	0.1985	0.1997		0.0503	0.0500	0.6	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2368	0.2164		0.0457	0.0500	-8.6	30.0
N-Propylbenzene	Ave	0.9714	0.8734		0.0450	0.0500	-10.1	30.0
2-Chlorotoluene	Ave	0.8133	0.7593		0.0467	0.0500	-6.6	30.0
1,3,5-Trimethylbenzene	Ave	2.800	2.500		0.0446	0.0500	-10.7	30.0
4-Chlorotoluene	Ave	0.8471	0.7855		0.0464	0.0500	-7.3	30.0
tert-Butylbenzene	Ave	2.590	2.352		0.0454	0.0500	-9.2	30.0
1,2,4-Trimethylbenzene	Ave	2.883	2.587		0.0449	0.0500	-10.2	30.0
sec-Butylbenzene	Ave	3.493	3.031		0.0434	0.0500	-13.2	30.0
1,3-Dichlorobenzene	Ave	1.504	1.419	0.6000	0.0472	0.0500	-5.6	30.0
p-Isopropyltoluene	Ave	3.088	2.704		0.0438	0.0500	-12.5	30.0
1,4-Dichlorobenzene	Ave	1.531	1.437	0.5000	0.0469	0.0500	-6.1	30.0
n-Butylbenzene	Ave	2.709	2.222		0.0410	0.0500	-18.0	30.0
1,2-Dichlorobenzene	Ave	1.414	1.320	0.4000	0.0467	0.0500	-6.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICV 240-411175/12 Calibration Date: 11/15/2019 19:28

Instrument ID: A3UX18 Calib Start Date: 11/15/2019 15:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/15/2019 19:02

Lab File ID: 181411.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1104	0.1170	0.0500	0.0530	0.0500	5.9	50.0
1,2,4-Trichlorobenzene	Ave	0.9424	0.8633	0.2000	0.0458	0.0500	-8.4	50.0
Hexachlorobutadiene	Ave	0.4263	0.3568		0.0418	0.0500	-16.3	50.0
Naphthalene	Ave	2.207	2.113		0.0479	0.0500	-4.3	50.0
1,2,3-Trichlorobenzene	Ave	0.8621	0.8101		0.0470	0.0500	-6.0	30.0
Dibromofluoromethane (Surr)	Ave	0.2342	0.2158		0.0276	0.0300	-7.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2848	0.2187		0.0230	0.0300	-23.2	30.0
Toluene-d8 (Surr)	Ave	1.223	1.181		0.0290	0.0300	-3.4	30.0
4-Bromofluorobenzene (Surr)	Ave	1.057	0.9281		0.0263	0.0300	-12.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: CCVIS 240-438469/3 Calibration Date: 06/16/2020 05:32

Instrument ID: A3UX18 Calib Start Date: 11/15/2019 15:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/15/2019 19:02

Lab File ID: 183837.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1104	0.0897	0.0500	0.0406	0.0500	-18.8	50.0
1,2,4-Trichlorobenzene	Ave	0.9424	0.9478	0.2000	0.0503	0.0500	0.6	50.0
Hexachlorobutadiene	Ave	0.4263	0.4739		0.0556	0.0500	11.2	50.0
Naphthalene	Ave	2.207	1.989		0.0451	0.0500	-9.9	50.0
1,2,3-Trichlorobenzene	Ave	0.8621	0.8594		0.0498	0.0500	-0.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2342	0.1907		0.0244	0.0300	-18.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2848	0.2073		0.0218	0.0300	-27.2*	20.0
Toluene-d8 (Surr)	Ave	1.223	1.082		0.0266	0.0300	-11.5	20.0
4-Bromofluorobenzene (Surr)	Ave	1.057	0.7986		0.0227	0.0300	-24.4*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: CCV 240-438469/4 Calibration Date: 06/16/2020 05:57

Instrument ID: A3UX18 Calib Start Date: 11/18/2019 12:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/18/2019 16:03

Lab File ID: 183838.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0280	0.0237		0.422	0.500	-15.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4985	0.4861		0.0488	0.0500	-2.5	20.0
Diisopropyl ether	Ave	0.2526	0.2458		0.0487	0.0500	-2.7	20.0
Ethyl t-butyl ether	Ave	0.7810	0.5455		0.0349	0.0500	-30.2*	20.0
Propionitrile	Ave	0.0313	0.0317		0.507	0.500	1.4	20.0
Ethyl acetate	Ave	0.2574	0.2526		0.0981	0.100	-1.9	20.0
Methacrylonitrile	Ave	0.1678	0.1594		0.475	0.500	-5.0	20.0
Isooctane	Ave	1.107	1.175		0.0531	0.0500	6.1	50.0
Tert-amyl methyl ether	Ave	0.6185	0.4228		0.0342	0.0500	-31.6*	20.0
n-Butanol	Ave	0.0098	0.0058		0.744	1.25	-40.4*	20.0
Ethyl acrylate	Ave	0.3695	0.3222		0.0436	0.0500	-12.8	20.0
Methyl methacrylate	Ave	0.2674	0.2509		0.0938	0.100	-6.2	20.0
2-Nitropropane	Ave	0.0866	0.0457		0.0528	0.100	-47.2*	20.0
n-Butyl acetate	Ave	0.5917	0.5167		0.0437	0.0500	-12.7	20.0
1-Chlorohexane	Ave	0.4784	0.4884		0.0510	0.0500	2.1	20.0
Cyclohexanone	Ave	0.0109	0.0110		0.503	0.500	0.5	20.0
Pentachloroethane	Ave	0.1733	0.1472		0.0850	0.100	-15.0	20.0
1,2,3-Trimethylbenzene	Ave	2.953	2.888		0.0489	0.0500	-2.2	20.0
Benzyl chloride	Qua		0.0530		0.0231	0.0500	-53.7*	20.0
1,3,5-Trichlorobenzene	Ave	1.054	1.151		0.0546	0.0500	9.3	20.0
2-Methylnaphthalene	Ave	1.552	1.412		0.0910	0.100	-9.0	20.0
1-Methylnaphthalene	Ave	1.333	1.249		0.0937	0.100	-6.3	50.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-437675/8

Matrix: Water Lab File ID: UXM28613.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.090	U	1.0	0.090
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
591-78-6	2-Hexanone	0.54	U	10	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.24	U	1.0	0.24
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
79-20-9	Methyl acetate	1.7	U	10	1.7
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
108-87-2	Methylcyclohexane	0.33	U	1.0	0.33
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Dichlorobromomethane	0.17	U	1.0	0.17
100-41-4	Ethylbenzene	0.11	U	1.0	0.11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-437675/8

Matrix: Water Lab File ID: UXM28613.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/10/2020 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 437675 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
95-47-6	o-Xylene	0.090	U	1.0	0.090
100-42-5	Styrene	0.10	U	1.0	0.10
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
106-93-4	Ethylene Dibromide	0.12	U	1.0	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		69-122
1868-53-7	Dibromofluoromethane (Surr)	93		78-129
460-00-4	4-Bromofluorobenzene (Surr)	104		47-134
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		75-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-438469/6

Matrix: Solid Lab File ID: 183840.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 06/16/2020 06:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438469 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.0	U	5.0	3.0
71-55-6	1,1,1-Trichloroethane	0.82	U	5.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	1.4	U	5.0	1.4
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.3	U	5.0	1.3
563-58-6	1,1-Dichloropropene	0.99	U	5.0	0.99
75-34-3	1,1-Dichloroethane	0.69	U	5.0	0.69
87-61-6	1,2,3-Trichlorobenzene	0.57	U	5.0	0.57
75-35-4	1,1-Dichloroethene	0.90	U	5.0	0.90
96-18-4	1,2,3-Trichloropropane	1.6	U	5.0	1.6
526-73-8	1,2,3-Trimethylbenzene	1.8	U	5.0	1.8
120-82-1	1,2,4-Trichlorobenzene	0.57	U	5.0	0.57
95-63-6	1,2,4-Trimethylbenzene	1.0	U	5.0	1.0
96-12-8	1,2-Dibromo-3-Chloropropane	3.6	U	10	3.6
95-50-1	1,2-Dichlorobenzene	1.1	U	5.0	1.1
107-06-2	1,2-Dichloroethane	0.77	U	5.0	0.77
78-87-5	1,2-Dichloropropane	0.85	U	5.0	0.85
541-73-1	1,3-Dichlorobenzene	0.82	U	5.0	0.82
142-28-9	1,3-Dichloropropane	0.99	U	5.0	0.99
106-46-7	1,4-Dichlorobenzene	0.88	U	5.0	0.88
594-20-7	2,2-Dichloropropane	1.2	U	5.0	1.2
78-93-3	2-Butanone (MEK)	3.6	U	20	3.6
110-75-8	2-Chloroethyl vinyl ether	8.9	U	50	8.9
95-49-8	2-Chlorotoluene	0.95	U	5.0	0.95
591-78-6	2-Hexanone	4.1	U	20	4.1
106-43-4	4-Chlorotoluene	0.86	U	5.0	0.86
99-87-6	p-Isopropyltoluene	2.9	U	5.0	2.9
108-10-1	4-Methyl-2-pentanone (MIBK)	3.7	U	20	3.7
67-64-1	Acetone	21	U	25	21
71-43-2	Benzene	0.70	U	5.0	0.70
108-86-1	Bromobenzene	1.2	U	5.0	1.2
75-25-2	Bromoform	2.4	U	5.0	2.4
74-83-9	Bromomethane	0.99	U	5.0	0.99
75-15-0	Carbon disulfide	1.2	U	5.0	1.2
56-23-5	Carbon tetrachloride	3.3	U	5.0	3.3
108-90-7	Chlorobenzene	0.92	U	5.0	0.92

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-438469/6

Matrix: Solid Lab File ID: 183840.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 06/16/2020 06:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438469 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	2.8	U	5.0	2.8
75-00-3	Chloroethane	1.2	U	5.0	1.2
67-66-3	Chloroform	0.79	U	5.0	0.79
74-87-3	Chloromethane	1.0	U	5.0	1.0
156-59-2	cis-1,2-Dichloroethene	0.65	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	1.4	U	5.0	1.4
74-95-3	Dibromomethane	0.67	U	5.0	0.67
74-97-5	Bromochloromethane	0.59	U	5.0	0.59
75-71-8	Dichlorodifluoromethane	0.94	U	5.0	0.94
75-27-4	Bromodichloromethane	0.68	U	5.0	0.68
75-65-0	tert-Butyl alcohol (TBA)	17	U	200	17
100-41-4	Ethylbenzene	1.0	U	5.0	1.0
87-68-3	Hexachlorobutadiene	3.7	U	5.0	3.7
108-20-3	Diisopropyl ether	0.76	U	10	0.76
98-82-8	Isopropylbenzene	0.83	U	5.0	0.83
1634-04-4	Methyl tert-butyl ether	0.82	U	5.0	0.82
75-09-2	Methylene Chloride	12	U	25	12
179601-23-1	m-Xylene & p-Xylene	0.78	U	10	0.78
91-20-3	Naphthalene	2.7	U	5.0	2.7
104-51-8	n-Butylbenzene	3.5	U	5.0	3.5
103-65-1	N-Propylbenzene	0.73	U	5.0	0.73
95-47-6	o-Xylene	0.86	U	5.0	0.86
135-98-8	sec-Butylbenzene	0.86	U	5.0	0.86
100-42-5	Styrene	1.2	U	5.0	1.2
994-05-8	Tert-amyl methyl ether	2.2	U	5.0	2.2
637-92-3	Ethyl t-butyl ether	2.3	U	5.0	2.3
127-18-4	Tetrachloroethene	0.73	U	5.0	0.73
108-88-3	Toluene	0.77	U	5.0	0.77
156-60-5	trans-1,2-Dichloroethene	0.47	U	5.0	0.47
10061-02-6	trans-1,3-Dichloropropene	1.0	U	5.0	1.0
79-01-6	Trichloroethene	0.63	U	5.0	0.63
75-69-4	Trichlorofluoromethane	1.1	U	5.0	1.1
108-05-4	Vinyl acetate	2.1	U	10	2.1
75-01-4	Vinyl chloride	0.84	U	5.0	0.84
1330-20-7	Xylenes, Total	1.6	U	10	1.6
98-06-6	tert-Butylbenzene	0.91	U	5.0	0.91

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-438469/6

Matrix: Solid Lab File ID: 183840.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 06/16/2020 06:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438469 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.77	U	5.0	0.77

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		64-124
1868-53-7	Dibromofluoromethane (Surr)	87		56-122
460-00-4	4-Bromofluorobenzene (Surr)	86		51-127
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		59-120

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: A3UX18 Start Date: 11/15/2019 14:53

Analysis Batch Number: 411175 End Date: 11/15/2019 20:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-411175/1		11/15/2019 14:53	1	BFB18690.D	DB-624 0.18(mm)
IC 240-411175/3		11/15/2019 15:42	1	181402.D	DB-624 0.18(mm)
IC 240-411175/4		11/15/2019 16:07	1	181403.D	DB-624 0.18(mm)
IC 240-411175/5		11/15/2019 16:32	1	181404.D	DB-624 0.18(mm)
ICIS 240-411175/6		11/15/2019 16:57	1	181405.D	DB-624 0.18(mm)
IC 240-411175/7		11/15/2019 17:22	1	181406.D	DB-624 0.18(mm)
IC 240-411175/8		11/15/2019 17:47	1	181407.D	DB-624 0.18(mm)
IC 240-411175/9		11/15/2019 18:13	1	181408.D	DB-624 0.18(mm)
IC 240-411175/10		11/15/2019 18:37	1	181409.D	DB-624 0.18(mm)
IC 240-411175/11		11/15/2019 19:02	1	181410.D	DB-624 0.18(mm)
ICV 240-411175/12		11/15/2019 19:28	1	181411.D	DB-624 0.18(mm)
ZZZZZ		11/15/2019 19:53	1		DB-624 0.18(mm)
ZZZZZ		11/15/2019 20:20	1		DB-624 0.18(mm)
ZZZZZ		11/15/2019 20:46	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: A3UX18 Start Date: 11/18/2019 11:30

Analysis Batch Number: 411420 End Date: 11/18/2019 18:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-411420/1		11/18/2019 11:30	1	BFB18691.D	DB-624 0.18(mm)
CCVIS 240-411420/3		11/18/2019 12:17	1		DB-624 0.18(mm)
IC 240-411420/4		11/18/2019 12:42	1	181417.D	DB-624 0.18(mm)
IC 240-411420/5		11/18/2019 13:07	1	181418.D	DB-624 0.18(mm)
IC 240-411420/6		11/18/2019 13:32	1	181419.D	DB-624 0.18(mm)
IC 240-411420/7		11/18/2019 13:58	1	181420.D	DB-624 0.18(mm)
IC 240-411420/8		11/18/2019 14:23	1	181421.D	DB-624 0.18(mm)
IC 240-411420/9		11/18/2019 14:48	1	181422.D	DB-624 0.18(mm)
IC 240-411420/10		11/18/2019 15:13	1	181423.D	DB-624 0.18(mm)
IC 240-411420/11		11/18/2019 15:38	1	181424.D	DB-624 0.18(mm)
IC 240-411420/12		11/18/2019 16:03	1	181425.D	DB-624 0.18(mm)
ICV 240-411420/13		11/18/2019 16:28	1		DB-624 0.18(mm)
ZZZZZ		11/18/2019 16:54	1		DB-624 0.18(mm)
ZZZZZ		11/18/2019 17:20	1		DB-624 0.18(mm)
ZZZZZ		11/18/2019 17:47	1		DB-624 0.18(mm)
ZZZZZ		11/18/2019 18:13	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: A3UX16 Start Date: 05/18/2020 08:55

Analysis Batch Number: 434666 End Date: 05/18/2020 16:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-434666/1		05/18/2020 08:55	1	BFB6395.D	DB-624 0.18(mm)
STD8260 240-434666/9 IC		05/18/2020 09:45	1	UXM27982.D	DB-624 0.18(mm)
STD8260 240-434666/10 IC		05/18/2020 10:10	1	UXM27983.D	DB-624 0.18(mm)
STD8260 240-434666/11 IC		05/18/2020 10:34	1	UXM27984.D	DB-624 0.18(mm)
ICIS 240-434666/12		05/18/2020 10:59	1	UXM27985.D	DB-624 0.18(mm)
STD8260 240-434666/13 IC		05/18/2020 11:24	1	UXM27986.D	DB-624 0.18(mm)
STD8260 240-434666/14 IC		05/18/2020 11:48	1	UXM27987.D	DB-624 0.18(mm)
STD8260 240-434666/15 IC		05/18/2020 12:13	1	UXM27988.D	DB-624 0.18(mm)
ICV 240-434666/16		05/18/2020 12:38	1	UXM27989.D	DB-624 0.18(mm)
STDA9 240-434666/19 IC		05/18/2020 13:52	1		DB-624 0.18(mm)
STDA9 240-434666/20 IC		05/18/2020 14:17	1		DB-624 0.18(mm)
STDA9 240-434666/21 IC		05/18/2020 14:42	1		DB-624 0.18(mm)
STDA9 240-434666/22 IC		05/18/2020 15:07	1		DB-624 0.18(mm)
STDA9 240-434666/23 IC		05/18/2020 15:31	1		DB-624 0.18(mm)
STDA9 240-434666/24 IC		05/18/2020 15:56	1		DB-624 0.18(mm)
ICV 240-434666/25		05/18/2020 16:21	1	UXM27998.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: A3UX16 Start Date: 06/10/2020 09:01

Analysis Batch Number: 437675 End Date: 06/10/2020 20:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-437675/1		06/10/2020 09:01	1	BFB6415.D	DB-624 0.18(mm)
CCVIS 240-437675/3		06/10/2020 09:28	1	UXM28608.D	DB-624 0.18(mm)
CCV 240-437675/4		06/10/2020 09:53	1	UXM28609.D	DB-624 0.18(mm)
LCS 240-437675/5		06/10/2020 10:17	1	UXM28610.D	DB-624 0.18(mm)
MRL 240-437675/6 MDLV		06/10/2020 10:41	1		DB-624 0.18(mm)
MRL 240-437675/7 MDLV		06/10/2020 11:05	1		DB-624 0.18(mm)
MB 240-437675/8		06/10/2020 11:30	1	UXM28613.D	DB-624 0.18(mm)
ZZZZZ		06/10/2020 11:55	66.67		DB-624 0.18(mm)
ZZZZZ		06/10/2020 12:19	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 12:43	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 13:08	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 13:32	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 13:56	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 14:20	4		DB-624 0.18(mm)
ZZZZZ		06/10/2020 14:44	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 15:09	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 15:33	4		DB-624 0.18(mm)
ZZZZZ		06/10/2020 15:57	10		DB-624 0.18(mm)
ZZZZZ		06/10/2020 16:22	50		DB-624 0.18(mm)
240-131486-1		06/10/2020 16:46	1	UXM28626.D	DB-624 0.18(mm)
240-131486-2		06/10/2020 17:10	1	UXM28627.D	DB-624 0.18(mm)
240-131486-3		06/10/2020 17:34	1	UXM28628.D	DB-624 0.18(mm)
ZZZZZ		06/10/2020 17:59	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 18:23	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 18:47	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 19:11	1		DB-624 0.18(mm)
ZZZZZ		06/10/2020 19:36	1000		DB-624 0.18(mm)
ZZZZZ		06/10/2020 20:00	1000		DB-624 0.18(mm)
ZZZZZ		06/10/2020 20:24	1000		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: A3UX18 Start Date: 06/16/2020 04:55

Analysis Batch Number: 438469 End Date: 06/16/2020 11:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-438469/1		06/16/2020 04:55	1	BFB18785.D	DB-624 0.18(mm)
CCVIS 240-438469/3		06/16/2020 05:32	1	183837.D	DB-624 0.18(mm)
CCV 240-438469/4		06/16/2020 05:57	1	183838.D	DB-624 0.18(mm)
LCS 240-438469/5		06/16/2020 06:23	1	183839.D	DB-624 0.18(mm)
MB 240-438469/6		06/16/2020 06:49	1	183840.D	DB-624 0.18(mm)
ZZZZZ		06/16/2020 07:15	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 07:40	1		DB-624 0.18(mm)
240-131486-4		06/16/2020 08:06	1	183843.D	DB-624 0.18(mm)
ZZZZZ		06/16/2020 08:32	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 08:58	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 09:23	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 09:50	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 10:15	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 10:41	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 11:07	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 11:32	1		DB-624 0.18(mm)
ZZZZZ		06/16/2020 11:58	1		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 434666 Batch Start Date: 05/18/20 08:55 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_a 00006	vm50ss 00401	vm50ss_stk 00083	vmarolistdw 00345
BFB 240-434666/1		8260C		5 mL	5 mL				
STD8260 240-434666/9 IC		8260C		5 mL	5 mL	2 uL	64 uL		64 uL
STD8260 240-434666/10 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-434666/11 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
ICIS 240-434666/12		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-434666/13 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
STD8260 240-434666/14 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-434666/15 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
ICV 240-434666/16		8260C		5 mL	5 mL	2 uL		2 uL	
ICV 240-434666/25		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00024	vmfasa9w 00276	vmfasaw 00328	vmfasgw 00359	vmfaspw 00351	vmrgas 00339
BFB 240-434666/1		8260C		1 uL					
STD8260 240-434666/9 IC		8260C							64 uL
STD8260 240-434666/10 IC		8260C							48 uL
STD8260 240-434666/11 IC		8260C							32 uL
ICIS 240-434666/12		8260C							16 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 434666 Batch Start Date: 05/18/20 08:55 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00024	vmfasa9w 00276	vmfasaw 00328	vmfasgw 00359	vmfaspw 00351	vmrgas 00339
STD8260 240-434666/13 IC		8260C							8 uL
STD8260 240-434666/14 IC		8260C							0.8 uL
STD8260 240-434666/15 IC		8260C							0.4 uL
ICV 240-434666/16		8260C				16 uL	16 uL	16 uL	
ICV 240-434666/25		8260C			16 uL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00386					
BFB 240-434666/1		8260C							
STD8260 240-434666/9 IC		8260C		64 uL					
STD8260 240-434666/10 IC		8260C		48 uL					
STD8260 240-434666/11 IC		8260C		32 uL					
ICIS 240-434666/12		8260C		16 uL					
STD8260 240-434666/13 IC		8260C		8 uL					
STD8260 240-434666/14 IC		8260C		0.8 uL					
STD8260 240-434666/15 IC		8260C		0.4 uL					
ICV 240-434666/16		8260C							
ICV 240-434666/25		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 434666 Batch Start Date: 05/18/20 08:55 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 437675 Batch Start Date: 06/10/20 09:01 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk_A 00005	vm50is_stk_a 00006	vm50ss_stk 00085
BFB 240-437675/1		8260C		5 mL	5 mL				
CCVIS 240-437675/3		8260C		5 mL	5 mL			2 uL	2 uL
CCV 240-437675/4		8260C		5 mL	5 mL		1 uL		
LCS 240-437675/5		8260C		5 mL	5 mL			2 uL	2 uL
MB 240-437675/8		8260C		5 mL	5 mL			2 uL	2 uL
240-131486-B-1	I-GWP-1D-30-35	8260C	T	5 mL	5 mL	<2 SU		2 uL	2 uL
240-131486-A-2	TB-060520	8260C	T	5 mL	5 mL	<2 SU		2 uL	2 uL
240-131486-B-3	WC-SBC-W-060520	8260C	T	5 mL	5 mL	<2 SU		2 uL	2 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00348	vmbfb 00025	vmfasaw 00331	vmfasgw 00363	vmfaspw 00354	vmra9w 00348
BFB 240-437675/1		8260C			1 uL				
CCVIS 240-437675/3		8260C		16 uL					
CCV 240-437675/4		8260C							16 uL
LCS 240-437675/5		8260C				16 uL	16 uL	16 uL	
MB 240-437675/8		8260C							
240-131486-B-1	I-GWP-1D-30-35	8260C	T						
240-131486-A-2	TB-060520	8260C	T						
240-131486-B-3	WC-SBC-W-060520	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00342	vmrprimw 00389				
BFB 240-437675/1		8260C							
CCVIS 240-437675/3		8260C		16 uL	16 uL				
CCV 240-437675/4		8260C							
LCS 240-437675/5		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 437675 Batch Start Date: 06/10/20 09:01 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00342	vmrprimw 00389				
MB 240-437675/8		8260C							
240-131486-B-1	I-GWP-1D-30-35	8260C	T						
240-131486-A-2	TB-060520	8260C	T						
240-131486-B-3	WC-SBC-W-060520	8260C	T						

Batch Notes	
pH Indicator ID	HC861525

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 438469 Batch Start Date: 06/16/20 04:55 Batch Analyst: Lata, Todd

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm150is 00169	vm150is 00171	vm150ss 00021	VMAROLISTDW 00348
BFB 240-438469/1		8260C		5 mL	5 mL				
CCVIS 240-438469/3		8260C		5 mL	5 mL		1 uL	1 uL	5 uL
CCV 240-438469/4		8260C		5 mL	5 mL	1 uL			
LCS 240-438469/5		8260C		5 g	5 mL		1 uL	1 uL	
MB 240-438469/6		8260C		5 g	5 mL		1 uL	1 uL	
240-131486-B-4-A	WC-SBC-S-060520	8260C	T	5 g	5 mL		1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00025	VMFASAW 00332	VMFASGW 00363	VMFASPW 00354	vmra9w 00348	VMRGAS 00343
BFB 240-438469/1		8260C		1 uL					
CCVIS 240-438469/3		8260C							2 uL
CCV 240-438469/4		8260C						5 uL	
LCS 240-438469/5		8260C			5 uL	2 uL	5 uL		
MB 240-438469/6		8260C							
240-131486-B-4-A	WC-SBC-S-060520	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00390					
BFB 240-438469/1		8260C							
CCVIS 240-438469/3		8260C		5 uL					
CCV 240-438469/4		8260C							
LCS 240-438469/5		8260C							
MB 240-438469/6		8260C							
240-131486-B-4-A	WC-SBC-S-060520	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 438469 Batch Start Date: 06/16/20 04:55 Batch Analyst: Lata, Todd

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 438516 Batch Start Date: 06/16/20 07:05 Batch Analyst: Lata, Todd

Batch Method: 5030C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
240-131486-B-4	WC-SBC-S-060520	5030C, 8260C	T	5.11 g	5 mL				

Batch Notes	
Balance ID	B035
Blank Matrix ID	195327

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
PCBS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Solid Level: Low

GC Column (2): CLP-1 (0.53 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX2 #	DCBP2 #
WC-SBC-S-060520	240-131486-4	70	53
	MB 240-437867/23-A	83	90
	LCS 240-437867/24-A	88	92

	QC LIMITS
TCX = Tetrachloro-m-xylene	14-128
DCBP = DCB Decachlorobiphenyl	10-132

Column to be used to flag recovery values

FORM II 8082A

FORM II
PCBS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): CLP-2 (0.53 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCBP1 #
WC-SBC-W-060520	240-131486-3	85	27
	MB 240-437244/18-A	94	92
	LCS 240-437244/19-A	89	83

	QC LIMITS
TCX = Tetrachloro-m-xylene	22-120
DCBP = DCB Decachlorobiphenyl	10-120

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P19061010.D

Lab ID: LCS 240-437244/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	2.50	2.15	86	28-120	
Aroclor-1260	2.50	2.08	83	30-120	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P19061428.D

Lab ID: LCS 240-437867/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	1000	814	81	47-120	
Aroclor-1260	1000	910	91	46-120	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: MB 240-437244/18-A

Matrix: Water Date Extracted: 06/08/2020 07:11

Lab File ID:(1) P19061009.D Lab File ID:(2) P19061009.D

Date Analyzed:(1) 06/10/2020 08:58 Date Analyzed:(2) 06/10/2020 08:58

Instrument ID:(1) A2HP19 Instrument ID:(2) A2HP19

GC Column:(1) CLP-2 (0.53m ID: 0.53(mm) GC Column:(2) CLP-1 (0.53m ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-437244/19-A	06/10/2020 09:13	06/10/2020 09:13
WC-SBC-W-060520	240-131486-3	06/10/2020 13:13	06/10/2020 13:13

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: MB 240-437867/23-A

Matrix: Solid Date Extracted: 06/11/2020 07:49

Lab File ID:(1) P19061427.D Lab File ID:(2) P19061427.D

Date Analyzed:(1) 06/14/2020 18:53 Date Analyzed:(2) 06/14/2020 18:53

Instrument ID:(1) A2HP19 Instrument ID:(2) A2HP19

GC Column:(1) CLP-2 (0.53m ID: 0.53(mm) GC Column:(2) CLP-1 (0.53m ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-437867/24-A	06/14/2020 19:08	06/14/2020 19:08
WC-SBC-S-060520	240-131486-4	06/14/2020 20:23	06/14/2020 20:23

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: STD05 240-436786/31 Date Analyzed: 06/04/2020 00:23

Instrument ID: A2HP19 GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P19060331.D Heated Purge: (Y/N) N

Calibration ID: 57254

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		48515795	1.37				
UPPER LIMIT		97031590	1.87				
LOWER LIMIT		24257898	0.87				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-436786/34		49935823	1.37				
ICV 240-436786/35		50835248	1.37				
ICV 240-436786/36		48749318	1.37				
ICV 240-436786/37		49747288	1.37				
ICV 240-436786/38		48303582	1.37				
ICV 240-436786/39		48962045	1.37				
ICV 240-436786/40		48977926	1.37				
ICV 240-436786/41		47912854	1.37				
MB 240-437867/23-A		48301278	1.37				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: CCV 240-437638/3 Date Analyzed: 06/10/2020 07:28

Instrument ID: A2HP19 GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P19061003.D Heated Purge: (Y/N) N

Calibration ID: 57255

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		56617075	1.65				
UPPER LIMIT		113234150	2.15				
LOWER LIMIT		28308538	1.15				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-437638/4		57512616	1.65				
CCV 240-437638/5		57777420	1.65				
CCV 240-437638/6		51171393	1.65				
CCV 240-437638/7		62609026	1.65				
MB 240-437244/18-A		56128912	1.65				
LCS 240-437244/19-A		55436224	1.65				
240-131486-3	WC-SBC-W-060520	55400827	1.65				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: CCV 240-438244/3 Date Analyzed: 06/14/2020 12:54

Instrument ID: A2HP19 GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P19061403.D Heated Purge: (Y/N) N

Calibration ID: 57254

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		45249631	1.37				
UPPER LIMIT		90499262	1.87				
LOWER LIMIT		22624816	0.87				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-438244/4		43714521	1.37				
CCV 240-438244/5		44129957	1.37				
CCV 240-438244/6		45095604	1.37				
CCV 240-438244/7		47827290	1.37				
MB 240-437867/23-A		48301278	1.37				
LCS 240-437867/24-A		46899995	1.37				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Sample No.: CCV 240-438244/29 Date Analyzed: 06/14/2020 19:23

Instrument ID: A2HP19 GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P19061429.D Heated Purge: (Y/N) N

Calibration ID: 57254

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		49325505	1.37				
UPPER LIMIT		98651010	1.87				
LOWER LIMIT		24662753	0.87				
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-131486-4	WC-SBC-S-060520	53575199	1.37				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: WC-SBC-W-060520 Lab Sample ID: 240-131486-3

Instrument ID (1): A2HP19 Instrument ID (2): A2HP19

Date Analyzed (1): 06/10/2020 13:13 Date Analyzed (2): 06/10/2020 13:13

GC Column (1): CLP-2 (0.53mm ID: 0.53(mm) GC Column (2): CLP-1 (0.53mm ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1260	1	1	7.03	7.00	7.06	0.445	0.48	8.1
		2	7.34	7.31	7.37	0.574		
		3	7.68	7.65	7.71	0.517		
		4	7.90	7.87	7.93	0.437		
		5	8.20	8.17	8.23	0.449		
	2	1	5.98	5.95	6.01	0.601	0.53	
		2	6.24	6.22	6.28	0.498		
		3	6.50	6.47	6.53	0.598		
		4	7.11	7.08	7.14	0.394		
		5	7.35	7.32	7.38	0.536		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-437244/19-A

Instrument ID (1): A2HP19 Instrument ID (2): A2HP19

Date Analyzed (1): 06/10/2020 09:13 Date Analyzed (2): 06/10/2020 09:13

GC Column (1): CLP-2 (0.53mm ID: 0.53(mm) GC Column (2): CLP-1 (0.53mm ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1016	1	1	3.77	3.74	3.80	1.97	2.15	3.9
		2	4.36	4.33	4.39	2.08		
		3	4.93	4.90	4.96	2.27		
		4	5.08	5.05	5.11	2.24		
		5	5.36	5.33	5.39	2.18		
	2	1	2.77	2.74	2.80	2.02	2.07	
		2	3.33	3.29	3.35	2.10		
		3	3.99	3.97	4.03	1.77		
		4	4.18	4.15	4.21	2.23		
		5	4.49	4.46	4.52	2.21		
Aroclor-1260	1	1	7.03	7.00	7.06	1.96	2.08	0.5
		2	7.34	7.31	7.37	1.97		
		3	7.68	7.65	7.71	2.15		
		4	7.90	7.87	7.93	2.15		
		5	8.20	8.17	8.23	2.16		
	2	1	5.98	5.95	6.01	2.02	2.09	
		2	6.25	6.22	6.28	2.01		
		3	6.50	6.47	6.53	2.02		
		4	7.11	7.08	7.14	2.20		
		5	7.35	7.32	7.38	2.21		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-437867/24-A

Instrument ID (1): A2HP19 Instrument ID (2): A2HP19

Date Analyzed (1): 06/14/2020 19:08 Date Analyzed (2): 06/14/2020 19:08

GC Column (1): CLP-2 (0.53mm ID: 0.53(mm) GC Column (2): CLP-1 (0.53mm ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1016	1	1	3.77	3.74	3.80	782	849	4.3
		2	4.37	4.33	4.39	834		
		3	4.93	4.90	4.96	918		
		4	5.08	5.05	5.11	876		
		5	5.36	5.33	5.39	835		
	2	1	2.77	2.74	2.80	753	814	
		2	3.33	3.30	3.36	828		
		3	4.00	3.97	4.03	748		
		4	4.18	4.15	4.21	887		
		5	4.50	4.46	4.52	852		
Aroclor-1260	1	1	7.03	7.00	7.06	876	920	1.2
		2	7.34	7.31	7.37	843		
		3	7.68	7.65	7.71	900		
		4	7.90	7.87	7.93	1000		
		5	8.20	8.17	8.23	983		
	2	1	5.98	5.95	6.01	832	910	
		2	6.25	6.22	6.28	889		
		3	6.50	6.47	6.53	868		
		4	7.11	7.08	7.14	1010		
		5	7.35	7.32	7.38	945		

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 436786

SDG No.:

Instrument ID: A2HP19 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2020 17:36 Calibration End Date: 06/03/2020 18:52 Calibration ID: 57222

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-436786/4	P19060304.D
Level 2	STD01 240-436786/5	P19060305.D
Level 3	STD02 240-436786/6	P19060306.D
Level 4	STD05 240-436786/7	P19060307.D
Level 5	STD1 240-436786/8	P19060308.D
Level 6	STD15 240-436786/9	P19060309.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0279 0.0195	0.0246	0.0227	0.0212	0.0196	Ave		0.0226				14.3		20.0			
PCB-1232 Peak 2	0.0171 0.0146	0.0163	0.0163	0.0146	0.0146	Ave		0.0156				7.1		20.0			
PCB-1232 Peak 3	0.0375 0.0327	0.0355	0.0345	0.0338	0.0322	Ave		0.0344				5.8		20.0			
PCB-1232 Peak 4	0.0168 0.0143	0.0164	0.0151	0.0151	0.0141	Ave		0.0153				7.0		20.0			
PCB-1232 Peak 5	0.0143 0.0125	0.0141	0.0137	0.0134	0.0124	Ave		0.0134				6.0		20.0			
PCB-1262 Peak 1	0.0393 0.0340	0.0374	0.0357	0.0351	0.0335	Ave		0.0358				6.1		20.0			
PCB-1262 Peak 2	0.0802 0.0692	0.0755	0.0739	0.0716	0.0682	Ave		0.0731				6.0		20.0			
PCB-1262 Peak 3	0.0761 0.0711	0.0758	0.0736	0.0728	0.0703	Ave		0.0733				3.3		20.0			
PCB-1262 Peak 4	0.1593 0.1519	0.1546	0.1543	0.1553	0.1496	Ave		0.1542				2.1		20.0			
PCB-1262 Peak 5	0.0678 0.0609	0.0637	0.0622	0.0621	0.0596	Ave		0.0627				4.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1 Analy Batch No.: 436786

SDG No.:

Instrument ID: A2HP19 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2020 17:36 Calibration End Date: 06/03/2020 18:52 Calibration ID: 57222

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-436786/4	P19060304.D
Level 2	STD01 240-436786/5	P19060305.D
Level 3	STD02 240-436786/6	P19060306.D
Level 4	STD05 240-436786/7	P19060307.D
Level 5	STD1 240-436786/8	P19060308.D
Level 6	STD15 240-436786/9	P19060309.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Ave	1291355 27727806	2296729	4277919	9844013	18655749	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Ave	792564 20797585	1523996	3061708	6775883	13895239	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Ave	1740540 46447131	3320871	6491861	15646204	30669130	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Ave	776797 20336580	1530380	2847707	7016282	13474169	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Ave	664745 17802501	1314848	2576052	6197201	11826667	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Ave	1822773 48404113	3491941	6729735	16260211	31952338	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Ave	3716046 98464535	7053495	13914418	33164674	65062062	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Ave	3527866 101088679	7081759	13849511	33738670	67028708	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Ave	7383453 215941998	14441194	29044198	71962928	142703922	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Ave	3141778 86566185	5953338	11705085	28761379	56872409	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average ISTD

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

ICV Source: ICPICV_00019 Concentration Units: ug/L

CCV Source: ICPCCV_00027

Analyte	ICV 240-437749/4 06/10/2020 10:54				CCV 240-437749/18 06/10/2020 11:57				CCV 240-437749/30 06/10/2020 12:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	2050		2000	103	2080		2000	104	2080		2000	104
Barium	2010		2000	101	2060		2000	103	2060		2000	103
Cadmium	2050		2000	103	2050		2000	103	2070		2000	103
Chromium	1990		2000	100	1980		2000	99	1980		2000	99
Lead	1950		2000	98	1990		2000	99	1990		2000	100
Selenium	2040		2000	102	2080		2000	104	2080		2000	104
Silver	1010		1000	101	1040		1000	104	1040		1000	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

ICV Source: ICPICV_00019 Concentration Units: ug/L

CCV Source: ICPCCV_00027

Analyte	CCV 240-437749/43 06/10/2020 13:55				CCV 240-437749/55 06/10/2020 14:51							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	2050		2000	102	2070		2000	103				
Barium	2030		2000	101	2050		2000	102				
Cadmium	2030		2000	102	2060		2000	103				
Chromium	1940		2000	97	1980		2000	99				
Lead	1980		2000	99	1990		2000	100				
Selenium	2040		2000	102	2070		2000	104				
Silver	1030		1000	103	1040		1000	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

ICV Source: MTTRCRIC_00083 Concentration Units: ug/L

CCV Source: ICPCCV_00027

Analyte	ICVL 240-437749/6 06/10/2020 11:03				CCV 240-437749/18 06/10/2020 11:57				CCV 240-437749/30 06/10/2020 12:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	15.5		15.0	103	2080		2000	104	2080		2000	104
Barium	196	J	200	98	2060		2000	103	2060		2000	103
Cadmium	5.31		5.00	106	2050		2000	103	2070		2000	103
Chromium	10.2		10.0	102	1980		2000	99	1980		2000	99
Lead	8.26		10.0	83	1990		2000	99	1990		2000	100
Selenium	20.4		20.0	102	2080		2000	104	2080		2000	104
Silver	10.4		10.0	104	1040		1000	104	1040		1000	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

ICV Source: MTTRCRIC_00083 Concentration Units: ug/L

CCV Source: ICPCCV_00027

Analyte	CCV 240-437749/43 06/10/2020 13:55				CCV 240-437749/55 06/10/2020 14:51							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	2050		2000	102	2070		2000	103				
Barium	2030		2000	101	2050		2000	102				
Cadmium	2030		2000	102	2060		2000	103				
Chromium	1940		2000	97	1980		2000	99				
Lead	1980		2000	99	1990		2000	100				
Selenium	2040		2000	102	2070		2000	104				
Silver	1030		1000	103	1040		1000	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

ICV Source: MTHgICV_00001_00680 Concentration Units: ug/L

CCV Source: MTHGCALW_02413

Analyte	ICV 240-437568/7-A 06/10/2020 12:06				CCV 240-437568/10-A 06/10/2020 12:12				CCV 240-437568/10-A 06/10/2020 12:38			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.89		5.00	98	5.09		5.00	102	4.97		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

ICV Source: MTHgICV_00001_00680 Concentration Units: ug/L

CCV Source: MTHGCALW_02413

Analyte	CCV 240-437568/10-A 06/10/2020 12:46				CCV 240-437568/10-A 06/10/2020 13:06							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.03		5.00	101	4.98		5.00	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-437568/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_02413

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.190	J	95	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-437749/5 06/10/2020 10:58		CCB 240-437749/19 06/10/2020 12:01		CCB 240-437749/31 06/10/2020 12:58		CCB 240-437749/44 06/10/2020 13:59	
		Found	C	Found	C	Found	C	Found	C
Arsenic	10	4.1	U	4.1	U	4.1	U	4.1	U
Barium	200	1.3	U	1.3	U	1.3	U	1.3	U
Cadmium	2.0	0.20	U	0.593	J	0.20	U	0.302	J
Chromium	5.0	0.63	U	0.885	J	0.63	U	0.63	U
Lead	5.0	2.8	U	2.8	U	2.8	U	2.8	U
Selenium	15	6.0	U	6.0	U	6.0	U	6.0	U
Silver	5.0	0.62	U	1.01	J	0.826	J	0.62	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-437749/56 06/10/2020 14:55							
		Found	C	Found	C	Found	C	Found	C
Arsenic	10	4.1	U						
Barium	200	1.3	U						
Cadmium	2.0	0.20	U						
Chromium	5.0	0.63	U						
Lead	5.0	2.8	U						
Selenium	15	6.0	U						
Silver	5.0	0.62	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-437568/8-A 06/10/2020 12:08		CCB 240-437568/11-A 06/10/2020 12:14		CCB 240-437568/11-A 06/10/2020 12:40		CCB 240-437568/11-A 06/10/2020 12:48	
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-437568/11-A 06/10/2020 13:08							
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-437498/2-A

Instrument Code: I12 Batch No.: 437749

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0041	U		6010B
7440-39-3	Barium	0.0013	U		6010B
7440-43-9	Cadmium	0.00020	U		6010B
7440-47-3	Chromium	0.00063	U		6010B
7439-92-1	Lead	0.0028	U		6010B
7782-49-2	Selenium	0.0060	U		6010B
7440-22-4	Silver	0.00062	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-437342/1-B

Instrument Code: I12 Batch No.: 437749

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0041	U		6010B
7440-39-3	Barium	0.0443	J		6010B
7440-43-9	Cadmium	0.00020	U		6010B
7440-47-3	Chromium	0.00318	J		6010B
7439-92-1	Lead	0.0028	U		6010B
7782-49-2	Selenium	0.0060	U		6010B
7440-22-4	Silver	0.00062	U		6010B

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-437499/2-A

Instrument Code: H3 Batch No.: 437748

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00013	U		7470A

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-437342/1-C

Instrument Code: H3 Batch No.: 437748

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00013	U		7470A

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICSA 240-437749/8 Instrument ID: I12

Lab File ID: I12061020A.asc ICS Source: MTTRICSAW_00051

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-7.75**	
Barium		**1.41**	
Cadmium		**1.51**	
Chromium		**2.51**	
Lead		**3.44**	
Selenium		**0.299**	
Silver		**-1.82**	
Aluminum	*500000*	*494330*	*99*
Antimony		*2.93*	
Beryllium		*0.499*	
Boron		*3.46*	
Calcium	*500000*	*465280*	*93*
Cobalt		*-4.75*	
Copper		*3.11*	
Iron	*200000*	*185490*	*93*
Lithium		*1.04*	
Magnesium	*500000*	*480220*	*96*
Manganese		*2.48*	
Molybdenum		*1.39*	
Nickel		*4.39*	
Potassium		*5.59*	
Silicon		*11.7*	
Sodium		*140*	
Strontium		*13.2*	
Thallium		*1.71*	
Tin		*1.66*	
Titanium		*-1.32*	
Vanadium		*-6.41*	
Zinc		*-2.45*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Lab Sample ID: ICSAB 240-437749/9 Instrument ID: I12

Lab File ID: I12061020A.asc ICS Source: ICPICSAB_00003

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**1000**	**1068**	**107**
Barium	**1000**	**1049**	**105**
Cadmium	**1000**	**1076**	**108**
Chromium	**1000**	**1002**	**100**
Lead	**1000**	**932**	**93**
Selenium	**1000**	**1057**	**106**
Silver	**1000**	**1120**	**112**
Aluminum	*500000*	*496420*	*99*
Antimony	*1000*	*1052*	*105*
Beryllium	*500*	*513*	*103*
Boron	*10000*	*10272*	*103*
Calcium	*500000*	*467760*	*94*
Cobalt	*1000*	*1048*	*105*
Copper	*1000*	*1071*	*107*
Iron	*200000*	*186580*	*93*
Lithium	*500*	*560*	*112*
Magnesium	*500000*	*481530*	*96*
Manganese	*1000*	*1017*	*102*
Molybdenum	*1000*	*1022*	*102*
Nickel	*1000*	*1048*	*105*
Potassium	*10000*	*10690*	*107*
Silicon	*10000*	*10626*	*106*
Sodium	*10000*	*10882*	*109*
Strontium	*1000*	*1033*	*103*
Thallium	*1000*	*1012*	*101*
Tin	*1000*	*1087*	*109*
Titanium	*1000*	*1052*	*105*
Vanadium	*1000*	*1016*	*102*
Zinc	*1000*	*1048*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-437498/3-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

Sample Matrix: Water LCS Source: SPIKE1_00007

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	2.00	2.18		109	50	150		6010B
Barium	2.00	2.02		101	50	150		6010B
Cadmium	1.00	1.04		104	50	150		6010B
Chromium	1.00	0.968		97	50	150		6010B
Lead	1.00	0.924		92	50	150		6010B
Selenium	2.00	2.16		108	50	150		6010B
Silver	0.100	0.108		108	50	150		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-437499/3-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

Sample Matrix: Water LCS Source: MTHGCALW_02412

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00500	0.00493		99	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Solid Instrument ID: I12

Method: 6010B MDL Date: 06/21/2019 09:04

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.05	0.004051
Barium	493.409	0.5	0.001328
Cadmium	226.502	0.05	0.000203
Chromium	267.716	0.05	0.000625
Lead	220.353	0.05	0.002765
Selenium	196.026	0.05	0.00596
Silver	328.068	0.05	0.000623

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Solid Instrument ID: I12

Method: 6010B XMDL Date: 06/21/2019 08:55

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Arsenic	189.042	10	0.004051
Barium	493.409	200	0.001328
Cadmium	226.502	2	0.000203
Chromium	267.716	5	0.000625
Lead	220.353	5	0.002765
Selenium	196.026	15	0.00596
Silver	328.068	5	0.000623

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B MDL Date: 06/21/2019 09:04

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.05	0.004051
Barium	493.409	0.5	0.001328
Cadmium	226.502	0.05	0.000203
Chromium	267.716	0.05	0.000625
Lead	220.353	0.05	0.002765
Selenium	196.026	0.05	0.00596
Silver	328.068	0.05	0.000623

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B XMDL Date: 06/21/2019 08:55

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Arsenic	189.042	10	0.004051
Barium	493.409	200	0.001328
Cadmium	226.502	2	0.000203
Chromium	267.716	5	0.000625
Lead	220.353	5	0.002765
Selenium	196.026	15	0.00596
Silver	328.068	5	0.000623

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Solid Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:32

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.002	0.00013

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Solid Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Mercury	253.7	2	0.00013

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:32

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.002	0.00013

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Mercury	253.7	2	0.00013

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 12/10/2019

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.0117417				0.016041	
Antimony		-0.000062			-0.000422			-0.000024						0.002880	
Arsenic		-0.000008			-0.000204	0.00931			-0.0006246 8	0.0022076					
Beryllium														0.000235	
Cadmium			0.012511					-0.000002							
Chromium									0.000149						
Cobalt													0.002089		
Copper				0.000018	0.000600			-0.000045					-0.003346		
Lead		-0.000086					0.00011243	0.000047			0.000131	0.000025			
Lithium				0.000011											
Nickel					0.000518			0.000059							
Selenium		-0.000005							0.00061322						
Thallium		0.000012			0.003650			-0.000014	0.0009409					0.002131	
Vanadium								0.000061							
Zinc						-0.001092									

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-131486-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 06/03/2020

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.027342				0.013726	
Antimony		-0.000073			-0.000663			-0.000065						0.003776	
Arsenic		0.000022			-0.000395	0.00931			-0.000625	0.001108					
Beryllium														0.000608	
Cadmium			0.008754					-0.000002							
Chromium									0.000415						
Cobalt													0.002089		
Copper				0.000018	0.000600			-0.000035					-0.002322		
Lead		-0.000147					0.00619	0.000021			0.000131	0.000025			
Lithium				0.000011											
Nickel					0.000518			0.000059							
Selenium		-0.000021							0.000613						
Thallium		-0.000001			0.005964			-0.00004	0.000941					0.002131	
Vanadium								0.000059							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-131486-1

SDG No.:

Instrument ID: I12 Date: 06/04/2020 10:17

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		5000	6010B
Barium		25000	6010B
Cadmium		4000	6010B
Chromium		20000	6010B
Lead		30000	6010B
Selenium		10000	6010B
Silver		2000	6010B

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-437342/1-B	06/09/2020 14:00	437498		50	50
MB 240-437498/2-A	06/09/2020 14:00	437498		50	50
LCS 240-437498/3-A	06/09/2020 14:00	437498		50	50
240-131486-3	06/09/2020 14:00	437498		50	50
240-131486-4	06/09/2020 14:00	437498		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-437342/1-C	06/09/2020 12:00	437499		50	50
MB 240-437499/2-A	06/09/2020 12:00	437499		50	50
LCS 240-437499/3-A	06/09/2020 12:00	437499		50	50
240-131486-3	06/09/2020 12:00	437499		50	50
240-131486-4	06/09/2020 12:00	437499		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 06/10/2020 10:40 End Date: 06/11/2020 02:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
ICIS 240-437749/1	1		10:40	X	X	X	X	X	X	X																		
CALSTD 240-437749/2 IC			10:45	X	X	X	X	X	X	X																		
CALSTD 240-437749/3 IC			10:49	X	X	X	X	X	X	X																		
ICV 240-437749/4	1		10:54	X	X	X	X	X	X	X																		
ICB 240-437749/5	1		10:58	X	X	X	X	X	X	X																		
ICVL 240-437749/6	1		11:03	X	X	X	X	X	X	X																		
ZZZZZZ			11:07																									
ICSA 240-437749/8	1		11:12	X	X	X	X	X	X	X																		
ICSAB 240-437749/9	1		11:16	X	X	X	X	X	X	X																		
CCV 240-437749/10			11:21																									
CCB 240-437749/11			11:25																									
ZZZZZZ			11:29																									
ZZZZZZ			11:34																									
ZZZZZZ			11:39																									
ZZZZZZ			11:43																									
ZZZZZZ			11:48																									
ZZZZZZ			11:52																									
CCV 240-437749/18	1		11:57	X	X	X	X	X	X	X																		
CCB 240-437749/19	1		12:01	X	X	X	X	X	X	X																		
LB 240-437342/1-B	1	P	12:06	X	X	X	X	X	X	X																		
MB 240-437498/2-A	1	T	12:11	X	X	X	X	X	X	X																		
LCS 240-437498/3-A	1	T	12:15	X	X	X	X	X	X	X																		
ZZZZZZ			12:19																									
ZZZZZZ			12:24																									
ZZZZZZ			12:29																									
ZZZZZZ			12:34																									
ZZZZZZ			12:39																									
ZZZZZZ			12:44																									
ZZZZZZ			12:49																									
CCV 240-437749/30	1		12:54	X	X	X	X	X	X	X																		
CCB 240-437749/31	1		12:58	X	X	X	X	X	X	X																		
CCVL 240-437749/32			13:02																									
ZZZZZZ			13:08																									
ZZZZZZ			13:12																									
ZZZZZZ			13:17																									
ZZZZZZ			13:22																									
ZZZZZZ			13:27																									
ZZZZZZ			13:31																									
ZZZZZZ			13:36																									
ZZZZZZ			13:41																									
ZZZZZZ			13:45																									
ZZZZZZ			13:50																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 06/10/2020 10:40 End Date: 06/11/2020 02:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
CCV 240-437749/43	1		13:55	X	X	X	X	X	X	X																		
CCB 240-437749/44	1		13:59	X	X	X	X	X	X	X																		
ZZZZZZ			14:04																									
ZZZZZZ			14:09																									
ZZZZZZ			14:13																									
ZZZZZZ			14:18																									
240-131486-3	1	P	14:23	X	X	X	X	X	X	X																		
240-131486-4	1	P	14:27	X	X	X	X	X	X	X																		
ZZZZZZ			14:32																									
ZZZZZZ			14:37																									
ZZZZZZ			14:41																									
ZZZZZZ			14:46																									
CCV 240-437749/55	1		14:51	X	X	X	X	X	X	X																		
CCB 240-437749/56	1		14:55	X	X	X	X	X	X	X																		
ZZZZZZ			14:59																									
ZZZZZZ			15:04																									
ZZZZZZ			15:09																									
ZZZZZZ			15:14																									
ZZZZZZ			15:18																									
ZZZZZZ			15:22																									
ZZZZZZ			15:27																									
ZZZZZZ			15:32																									
ZZZZZZ			15:36																									
ZZZZZZ			15:41																									
CCV 240-437749/67			15:45																									
CCB 240-437749/68			15:50																									
ZZZZZZ			15:54																									
ZZZZZZ			15:59																									
ZZZZZZ			16:03																									
ZZZZZZ			16:08																									
ZZZZZZ			16:13																									
ZZZZZZ			16:17																									
ZZZZZZ			16:22																									
ZZZZZZ			16:26																									
ZZZZZZ			16:31																									
CCVL 240-437749/78			16:36																									
CCV 240-437749/79			16:40																									
CCB 240-437749/80			16:44																									
ZZZZZZ			16:49																									
ZZZZZZ			16:54																									
ZZZZZZ			16:58																									
ZZZZZZ			17:03																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 06/10/2020 10:40 End Date: 06/11/2020 02:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
ZZZZZZ			17:08																									
ZZZZZZ			17:12																									
ZZZZZZ			17:17																									
ZZZZZZ			17:21																									
ZZZZZZ			17:26																									
ZZZZZZ			17:31																									
CCV 240-437749/91			17:35																									
CCB 240-437749/92			17:39																									
ZZZZZZ			17:44																									
ZZZZZZ			17:49																									
ZZZZZZ			17:53																									
ZZZZZZ			17:58																									
ZZZZZZ			18:02																									
ZZZZZZ			18:07																									
ZZZZZZ			18:12																									
ZZZZZZ			18:16																									
ZZZZZZ			18:21																									
ZZZZZZ			18:26																									
CCV 240-437749/103			18:31																									
CCB 240-437749/104			18:35																									
ZZZZZZ			18:40																									
ZZZZZZ			18:44																									
ZZZZZZ			18:49																									
ZZZZZZ			18:53																									
ZZZZZZ			18:58																									
ZZZZZZ			19:03																									
ZZZZZZ			19:08																									
ZZZZZZ			19:12																									
ZZZZZZ			19:17																									
ZZZZZZ			19:22																									
CCV 240-437749/115			19:26																									
CCB 240-437749/116			19:30																									
ZZZZZZ			19:35																									
ZZZZZZ			19:39																									
ZZZZZZ			19:44																									
ZZZZZZ			19:48																									
ZZZZZZ			19:53																									
ZZZZZZ			19:57																									
ZZZZZZ			20:02																									
ZZZZZZ			20:06																									
ZZZZZZ			20:12																									
ZZZZZZ			20:16																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 06/10/2020 10:40 End Date: 06/11/2020 02:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
CCV 240-437749/127			20:21																									
CCB 240-437749/128			20:25																									
ZZZZZZ			20:30																									
ZZZZZZ			20:34																									
ZZZZZZ			20:39																									
ZZZZZZ			20:43																									
ZZZZZZ			20:48																									
ZZZZZZ			20:52																									
ZZZZZZ			20:57																									
ZZZZZZ			21:01																									
ZZZZZZ			21:06																									
ZZZZZZ			21:10																									
CCV 240-437749/139			21:15																									
CCB 240-437749/140			21:19																									
CCVL 240-437749/141			21:24																									
ZZZZZZ			21:28																									
ZZZZZZ			21:33																									
ZZZZZZ			21:37																									
ZZZZZZ			21:42																									
ZZZZZZ			21:46																									
ZZZZZZ			21:51																									
ZZZZZZ			21:55																									
ZZZZZZ			22:00																									
ZZZZZZ			22:04																									
CCV 240-437749/151			22:09																									
CCB 240-437749/152			22:13																									
ZZZZZZ			22:18																									
ZZZZZZ			22:22																									
ZZZZZZ			22:27																									
ZZZZZZ			22:31																									
ZZZZZZ			22:36																									
ZZZZZZ			22:41																									
ZZZZZZ			22:45																									
ZZZZZZ			22:50																									
ZZZZZZ			22:54																									
ZZZZZZ			22:59																									
CCV 240-437749/163			23:03																									
CCB 240-437749/164			23:07																									
ZZZZZZ			23:12																									
ZZZZZZ			23:17																									
ZZZZZZ			23:21																									
ZZZZZZ			23:26																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 06/10/2020 10:40 End Date: 06/11/2020 02:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
ZZZZZZ			23:30																									
ZZZZZZ			23:35																									
ZZZZZZ			23:40																									
ZZZZZZ			23:44																									
ZZZZZZ			23:49																									
ZZZZZZ			23:54																									
CCV 240-437749/175			23:58																									
CCB 240-437749/176			00:03																									
ZZZZZZ			00:07																									
ZZZZZZ			00:12																									
ZZZZZZ			00:17																									
ZZZZZZ			00:21																									
ZZZZZZ			00:26																									
ZZZZZZ			00:31																									
ZZZZZZ			00:35																									
ZZZZZZ			00:40																									
ZZZZZZ			00:44																									
ZZZZZZ			00:49																									
CCV 240-437749/187			00:53																									
CCB 240-437749/188			00:58																									
ZZZZZZ			01:02																									
ZZZZZZ			01:06																									
ZZZZZZ			01:11																									
ZZZZZZ			01:15																									
ZZZZZZ			01:20																									
ZZZZZZ			01:24																									
ZZZZZZ			01:29																									
ZZZZZZ			01:33																									
ZZZZZZ			01:38																									
ZZZZZZ			01:42																									
CCV 240-437749/199			01:47																									
CCB 240-437749/200			01:51																									
ZZZZZZ			01:55																									
ZZZZZZ			02:00																									
ZZZZZZ			02:04																									
CCV 240-437749/204			02:09																									
CCB 240-437749/205			02:13																									

Prep Types:
P = TCLP
T = Total/NA

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/10/2020 11:53 End Date: 06/10/2020 15:27

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-437568/1-A			11:53	X
IC 240-437568/2-A			11:55	X
IC 240-437568/3-A			11:57	X
IC 240-437568/4-A			11:59	X
IC 240-437568/5-A			12:01	X
IC 240-437568/6-A			12:03	X
ICV 240-437568/7-A	1		12:06	X
ICB 240-437568/8-A	1		12:08	X
CRA 240-437568/9-A	1		12:10	X
CCV 240-437568/10-A	1		12:12	X
CCB 240-437568/11-A	1		12:14	X
LB 240-437342/1-C	1	P	12:17	X
MB 240-437499/2-A	1	T	12:19	X
LCS 240-437499/3-A	1	T	12:21	X
ZZZZZZ			12:23	
ZZZZZZ			12:25	
ZZZZZZ			12:27	
ZZZZZZ			12:29	
ZZZZZZ			12:31	
ZZZZZZ			12:33	
ZZZZZZ			12:35	
CCV 240-437568/10-A	1		12:38	X
CCB 240-437568/11-A	1		12:40	X
ZZZZZZ			12:42	
ZZZZZZ			12:44	
CCV 240-437568/10-A	1		12:46	X
CCB 240-437568/11-A	1		12:48	X
ZZZZZZ			12:50	
ZZZZZZ			12:52	
ZZZZZZ			12:54	
ZZZZZZ			12:56	
240-131486-3	1	P	12:58	X
240-131486-4	1	P	13:00	X
ZZZZZZ			13:02	
ZZZZZZ			13:04	
CCV 240-437568/10-A	1		13:06	X
CCB 240-437568/11-A	1		13:08	X
ZZZZZZ			13:10	
ZZZZZZ			13:12	
ZZZZZZ			13:14	
ZZZZZZ			13:17	
ZZZZZZ			13:19	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/10/2020 11:53 End Date: 06/10/2020 15:27

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			13:21	
ZZZZZZ			13:23	
ZZZZZZ			13:25	
ZZZZZZ			13:27	
ZZZZZZ			13:29	
CCV 240-437568/10-A			13:31	
CCB 240-437568/11-A			13:34	
ZZZZZZ			13:36	
ZZZZZZ			13:38	
ZZZZZZ			13:40	
ZZZZZZ			13:42	
ZZZZZZ			13:44	
ZZZZZZ			13:46	
ZZZZZZ			13:48	
ZZZZZZ			13:50	
ZZZZZZ			13:52	
ZZZZZZ			13:54	
CCV 240-437568/10-A			13:56	
CCB 240-437568/11-A			13:58	
ZZZZZZ			14:00	
ZZZZZZ			14:02	
ZZZZZZ			14:05	
ZZZZZZ			14:07	
ZZZZZZ			14:09	
ZZZZZZ			14:11	
ZZZZZZ			14:13	
ZZZZZZ			14:15	
ZZZZZZ			14:17	
ZZZZZZ			14:19	
CCV 240-437568/10-A			14:21	
CCB 240-437568/11-A			14:23	
ZZZZZZ			14:25	
ZZZZZZ			14:27	
ZZZZZZ			14:29	
ZZZZZZ			14:31	
CCV 240-437568/10-A			14:33	
CCB 240-437568/11-A			14:35	
CCV 240-437568/10-A			14:54	
CCB 240-437568/11-A			14:56	
ZZZZZZ			14:58	
ZZZZZZ			15:00	
ZZZZZZ			15:02	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/10/2020 11:53 End Date: 06/10/2020 15:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCV 240-437568/10-A			15:04																									
CCB 240-437568/11-A			15:07																									
ZZZZZZ			15:09																									
ZZZZZZ			15:10																									
ZZZZZZ			15:12																									
ZZZZZZ			15:14																									
ZZZZZZ			15:23																									
CCV 240-437568/10-A			15:25																									
CCB 240-437568/11-A			15:27																									

Prep Types:
P = TCLP
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

ICP Instrument ID: I12 Start Date: 06/10/2020 End Date: 06/10/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 371.030	Q	Element	Q
ICIS 240-437749/1	10:40										
ICV 240-437749/4	10:54	89		97		96		99			
ICB 240-437749/5	10:58	100		100		99		99			
ICVL 240-437749/6	11:03	97		99		99		100			
ICSA 240-437749/8	11:12	76		89		85		95			
ICSAB 240-437749/9	11:16	75		89		85		95			
CCV 240-437749/18	11:57	89		97		96		100			
CCB 240-437749/19	12:01	99		100		100		101			
LB 240-437342/1-B	12:06	78		89		84		98			
MB 240-437498/2-A	12:11	100		101		102		103			
LCS 240-437498/3-A	12:15	76		89		85		100			
CCV 240-437749/30	12:54	88		96		94		97			
CCB 240-437749/31	12:58	97		98		98		97			
CCV 240-437749/43	13:55	86		93		92		94			
CCB 240-437749/44	13:59	96		97		97		96			
240-131486-3	14:23	90		95		95		97			
240-131486-4	14:27	74		86		82		94			
CCV 240-437749/55	14:51	86		93		92		94			
CCB 240-437749/56	14:55	95		96		96		95			

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 437342 Batch Start Date: 06/08/20 16:05 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 06/09/20 08:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00036	EXTCLPBUFF1 02269	EXTCLPBUFF1 02270	EXTCLPFILTERS 00054	EXTCLPHClW 00073	EXTCLPPlastic 00023
LB 240-437342/1		1311, 3010A, 6010B		1 No Unit	1 mL	1 mL	1	1 mL	1
240-131486-F-3	WC-SBC-W-060520	1311, 3010A, 6010B	P	1 No Unit	1 mL	1 mL	1	1 mL	1
240-131486-D-4	WC-SBC-S-060520	1311, 3010A, 6010B	P	1 No Unit	1 mL	1 mL	1	1 mL	1

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
LB 240-437342/1		1311, 3010A, 6010B		Buffer 1					
240-131486-F-3	WC-SBC-W-060520	1311, 3010A, 6010B	P	Filter only H2O					
240-131486-D-4	WC-SBC-S-060520	1311, 3010A, 6010B	P						

Batch Notes	
Tumbler Rotations per Minute	A, B, C, E, I = 31 RPM

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 437498 Batch Start Date: 06/09/20 14:00 Batch Analyst: Loeb, Matthew R

Batch Method: 3010A Batch End Date: 06/09/20 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ICPspike3 00011	MT1to1HCL 00112	MTTMHNO3 00224	SPIKE1 00007
LB 240-437342/1-A		3010A, 6010B		50 mL	50 mL		5 mL	3 mL	
MB 240-437498/2		3010A, 6010B		50 mL	50 mL		5 mL	3 mL	
LCS 240-437498/3		3010A, 6010B		50 mL	50 mL	0.5 mL	5 mL	3 mL	0.5 mL
240-131486-F-3-A	WC-SBC-W-060520	3010A, 6010B	P	50 mL	50 mL		5 mL	3 mL	
240-131486-D-4-A	WC-SBC-S-060520	3010A, 6010B	P	50 mL	50 mL		5 mL	3 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00006					
LB 240-437342/1-A		3010A, 6010B							
MB 240-437498/2		3010A, 6010B							
LCS 240-437498/3		3010A, 6010B		0.5 mL					
240-131486-F-3-A	WC-SBC-W-060520	3010A, 6010B	P						
240-131486-D-4-A	WC-SBC-S-060520	3010A, 6010B	P						

Batch Notes	
Batch Comment	FILTER PAPER 81206102
Temperature - Corrected - End	TIMER Degrees C
Temperature - Corrected - Start	93 Degrees C
Digestion Unit ID	HB4
Pipette/Syringe/Dispenser ID	MP1 MP3
Thermometer ID	TEMP LOG
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	TIMER Degrees C
Temperature - Uncorrected - Start	93 Degrees C

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 437342 Batch Start Date: 06/08/20 16:05 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 06/09/20 08:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00036	EXTCLPBUFF1 02269	EXTCLPBUFF1 02270	EXTCLPFILTERS 00054	EXTCLPHClW 00073	EXTCLPPlastic 00023
LB 240-437342/1		1311, 7470A, 7470A		1 No Unit	1 mL	1 mL	1	1 mL	1
240-131486-F-3	WC-SBC-W-060520	1311, 7470A, 7470A	P	1 No Unit	1 mL	1 mL	1	1 mL	1
240-131486-D-4	WC-SBC-S-060520	1311, 7470A, 7470A	P	1 No Unit	1 mL	1 mL	1	1 mL	1

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
LB 240-437342/1		1311, 7470A, 7470A		Buffer 1					
240-131486-F-3	WC-SBC-W-060520	1311, 7470A, 7470A	P	Filter only H2O					
240-131486-D-4	WC-SBC-S-060520	1311, 7470A, 7470A	P						

Batch Notes	
Tumbler Rotations per Minute	A, B, C, E, I = 31 RPM

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 437499 Batch Start Date: 06/09/20 12:00 Batch Analyst: Loeb, Matthew R

Batch Method: 7470A Batch End Date: 06/09/20 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00116	MTH2S04 00087	MTHGCALW 02412	MTKMN04W 00226
LB 240-437342/1-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
MB 240-437499/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-437499/3		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-131486-F-3-A	WC-SBC-W-060520	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-131486-D-4-A	WC-SBC-S-060520	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00224					
LB 240-437342/1-A		7470A, 7470A		1.25 mL					
MB 240-437499/2		7470A, 7470A		1.25 mL					
LCS 240-437499/3		7470A, 7470A		1.25 mL					
240-131486-F-3-A	WC-SBC-W-060520	7470A, 7470A	P	1.25 mL					
240-131486-D-4-A	WC-SBC-S-060520	7470A, 7470A	P	1.25 mL					

Batch Notes	
Temperature - Corrected - End	93 Degrees C
Temperature - Corrected - Start	91 Degrees C
Digestion Unit ID	D2
Pipette/Syringe/Dispenser ID	MP2
Thermometer ID	TEMP LOG
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	94 Degrees C
Temperature - Uncorrected - Start	92 Degrees C

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-131486-1

SDG No.:

Batch Number: 437568 Batch Start Date: 06/10/20 09:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 06/10/20 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00116	MTH2S04 00087	MTHGCALW 02413	MTHgICV_00001 00680
ICV 240-437568/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-437568/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-437568/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-437568/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-437568/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00226	MTTMHNO3 00225				
ICV 240-437568/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-437568/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-437568/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-437568/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-437568/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Temperature - Corrected - End	93 Degrees C
Temperature - Corrected - Start	91 Degrees C
Digestion Unit ID	C1
Pipette/Syringe/Dispenser ID	MP1, MP2, A8
Thermometer ID	temp log
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

ANALYTICAL REPORT

Job Number: 500-186280-1

Job Description: MRC South of Building C

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

Attention: Samantha Brenner

Roxanne Cisneros

Approved for release.
Roxanne Cisneros
Senior Project Manager
8/21/2020 3:29 PM

Roxanne Cisneros, Senior Project Manager
4101 Shuffel Street NW, North Canton, OH, 44720
(615)301-5761
roxanne.cisneros@Eurofinset.com
08/21/2020

cc: Tony Apanavage
Kelly Carper

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

Eurofins TestAmerica, Chicago
2417 Bond Street, University Park, IL 60484
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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 500-186280-1
Project/Site: MRC South of Building C

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job Narrative
500-186280-1

Comments
No additional comments.

Receipt
The sample was received on 8/12/2020 9:45 AM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.1° C.

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

Detection Summary

Client: Tetra Tech, Inc.
Job ID: 500-186280-1
Project/Site: MRC South of Building C

Client Sample ID: MRC-MW-164B-081120
Lab Sample ID: 500-186280-1

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MRC-MW-164B-081120 **Lab Sample ID: 500-186280-1**
Date Collected: 08/11/20 14:20 **Matrix: Water**
Date Received: 08/12/20 09:45

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.23	U	0.30	0.23	ug/L			08/19/20 03:31	1

Default Detection Limits

Client: Tetra Tech, Inc.
Job ID: 500-186280-1
Project/Site: MRC South of Building C

General Chemistry - Dissolved

Analyte	RL	MDL	Units
Chromium, hexavalent	0.30	0.23	ug/L

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography)

Lab Sample ID: MB 500-557485/3
Matrix: Water
Analysis Batch: 557485

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.23	U	0.30	0.23	ug/L			08/19/20 02:01	1

Lab Sample ID: LCS 500-557485/4
Matrix: Water
Analysis Batch: 557485

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent			25.0	24.9		ug/L		100	90 - 110		

QC Association Summary

Client: Tetra Tech, Inc.
Job ID: 500-186280-1
Project/Site: MRC South of Building C

General Chemistry

Analysis Batch: 557485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-186280-1	MRC-MW-164B-081120	Dissolved	Water	218.6	557506
MB 500-557485/3	Method Blank	Total/NA	Water	218.6	
LCS 500-557485/4	Lab Control Sample	Total/NA	Water	218.6	

Filtration Batch: 557506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-186280-1	MRC-MW-164B-081120	Dissolved	Water	Filtration	

Lab Chronicle

Client: Tetra Tech, Inc.
Job ID: 500-186280-1
Project/Site: MRC South of Building C

Client Sample ID: MRC-MW-164B-081120
Lab Sample ID: 500-186280-1

Date Collected: 08/11/20 14:20
Matrix: Water
Date Received: 08/12/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			557506	08/18/20 19:00	EAT	TAL CHI
Dissolved	Analysis	218.6		1	557485	08/19/20 03:31	EAT	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Tetra Tech, Inc. Job ID: 500-186280-1
Project/Site: MRC South of Building C

Laboratory: Eurofins TestAmerica, Chicago

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2903	04-30-20 *
Georgia	State	N/A	04-30-20 *
Georgia (DW)	State	939	04-30-21
Hawaii	State	NA	04-30-20 *
Illinois	NELAP	IL00035	04-29-21
Indiana	State	C-IL-02	06-29-21
Iowa	State	082	05-01-20 *
Kansas	NELAP	E-10161	11-01-20
Kentucky (UST)	State	AI # 108083	04-30-20 *
Kentucky (WW)	State	KY90023	12-31-20
Louisiana	NELAP	02046	06-30-21
Mississippi	State	NA	04-30-20 *
New York	NELAP	12019	04-01-21
North Carolina (WW/SW)	State	291	12-31-20
North Dakota	State	R-194	04-29-21
Oklahoma	State	8908	08-31-20
South Carolina	State	77001003	04-30-20 *
USDA	US Federal Programs	P330-18-00018	02-11-21
Wisconsin	State	999580010	08-31-21
Wyoming	State	8TMS-Q	04-30-20 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Tetra Tech, Inc. Job ID: 500-186280-1
Project/Site: MRC South of Building C

Method	Method Description	Protocol	Laboratory
218.6	Chromium, Hexavalent (Ion Chromatography)	EPA	TAL CHI
Filtration	Sample Filtration	None	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Tetra Tech, Inc.
Job ID: 500-186280-1
Project/Site: MRC South of Building C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-186280-1	MRC-MW-164B-081120	Water	08/11/20 14:20	08/12/20 09:45	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Chicag Job No.: 500-186280-1

SDG No.:

Instrument ID: IC7C Analysis Batch Number: 555539

Lab Sample ID: STD1 500-555539/2 IC Client Sample ID:

Date Analyzed: 08/06/20 02:28 Lab File ID: 500-0070857-002_02_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.91	Instrument noise	treadwell e	08/06/20 01:47

Lab Sample ID: STD2 500-555539/3 IC Client Sample ID:

Date Analyzed: 08/06/20 02:41 Lab File ID: 500-0070857-003_03_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.92	Incomplete Integration	treadwell e	08/06/20 01:49

Lab Sample ID: STD3 500-555539/4 IC Client Sample ID:

Date Analyzed: 08/06/20 02:54 Lab File ID: 500-0070857-004_04_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.93	Instrument noise	treadwell e	08/06/20 01:44

Lab Sample ID: STD4 500-555539/5 IC Client Sample ID:

Date Analyzed: 08/06/20 03:07 Lab File ID: 500-0070857-005_05_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.93	Instrument noise	treadwell e	08/06/20 01:46

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Chicag Job No.: 500-186280-1

SDG No.:

Instrument ID: IC7C Analysis Batch Number: 555539

Lab Sample ID: STD5 500-555539/6 ICRT Client Sample ID:

Date Analyzed: 08/06/20 03:20 Lab File ID: 500-0070857-006_06_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.93	Instrument noise	treadwell e	08/06/20 01:45

Lab Sample ID: STD6 500-555539/7 IC Client Sample ID:

Date Analyzed: 08/06/20 03:33 Lab File ID: 500-0070857-007_07_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.93	Instrument noise	treadwell e	08/06/20 01:45

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Chicag Job No.: 500-186280-1

SDG No.:

Instrument ID: IC7C Analysis Batch Number: 557485

Lab Sample ID: CCV 500-557485/1 Client Sample ID:

Date Analyzed: 08/19/20 01:35 Lab File ID: 500-0071157-001_01_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.88	Instrument noise	treadwell e	08/18/20 21:07

Lab Sample ID: LCS 500-557485/4 Client Sample ID:

Date Analyzed: 08/19/20 02:13 Lab File ID: 500-0071157-004_04_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.87	Instrument noise	treadwell e	08/18/20 21:41

Lab Sample ID: CCV 500-557485/11 Client Sample ID:

Date Analyzed: 08/19/20 03:44 Lab File ID: 500-0071157-011_11_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent	4.80	Instrument noise	treadwell e	08/18/20 23:25

Lab Sample ID: CCB 500-557485/12 Client Sample ID:

Date Analyzed: 08/19/20 03:57 Lab File ID: 500-0071157-012_12_UV_VIS GC Column: AS7 ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chromium, hexavalent		Invalid Compound ID	treadwell e	08/18/20 23:25

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
WSTICCR1-0.5_00068	08/09/20	07/09/20	Water, Lot CrVIDilH2O_00026	50 mL	WSTICCR1-5.0_00066	5 mL	Chromium, hexavalent	0.5 mg/L
.WSTICCR1-5.0_00066	08/09/20	07/09/20	DI WATER, Lot CrVIDilH2O_00021	50 mL	WSTICCR1_00019	5 mL	Chromium, hexavalent	5 mg/L
..WSTICCR1_00019	07/16/21	01/16/20	DI WATER, Lot Milli-Q H2O	500 mL	WSTCR1_00015	25 mL	Chromium, hexavalent	50 mg/L
...WSTCR1_00015	04/12/22		ERA, Lot 230419m		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
WSTICCR1-0.5_00069	09/05/20	08/05/20	Water, Lot CrVIDilH2O_00026	50 mL	WSTICCR1-5.0_00067	5 mL	Chromium, hexavalent	0.5 mg/L
.WSTICCR1-5.0_00067	09/05/20	08/05/20	DI WATER, Lot CrVIDilH2O_00021	50 mL	WSTICCR1_00019	5 mL	Chromium, hexavalent	5 mg/L
..WSTICCR1_00019	07/16/21	01/16/20	DI WATER, Lot Milli-Q H2O	500 mL	WSTCR1_00015	25 mL	Chromium, hexavalent	50 mg/L
...WSTCR1_00015	04/12/22		ERA, Lot 230419m		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
WSTICCR1-5.0_00066	08/09/20	07/09/20	DI WATER, Lot CrVIDilH2O_00021	50 mL	WSTICCR1_00019	5 mL	Chromium, hexavalent	5 mg/L
.WSTICCR1_00019	07/16/21	01/16/20	DI WATER, Lot Milli-Q H2O	500 mL	WSTCR1_00015	25 mL	Chromium, hexavalent	50 mg/L
..WSTCR1_00015	04/12/22		ERA, Lot 230419m		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
WSTICCR2-5.0_00066	08/09/20	07/09/20	Water, Lot CrVIDilH2O_00026	50 mL	WSTICCR2_00019	5 mL	Chromium, hexavalent	5 mg/L
.WSTICCR2_00019	07/16/21	01/16/20	DI WATER, Lot MilliQ H2O	500 mL	WSTCR2_00016	25 mL	Chromium, hexavalent	50 mg/L
..WSTCR2_00016	01/31/25		Ultra Scientific, Lot CR-6044		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
WSTICCR2-5.0_00067	09/05/20	08/05/20	Water, Lot CrVIDilH2O_00026	50 mL	WSTICCR2_00019	5 mL	Chromium, hexavalent	5 mg/L
.WSTICCR2_00019	07/16/21	01/16/20	DI WATER, Lot MilliQ H2O	500 mL	WSTCR2_00016	25 mL	Chromium, hexavalent	50 mg/L
..WSTCR2_00016	01/31/25		Ultra Scientific, Lot CR-6044		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job Number: 500-186280-1

SDG No.:

Project: MRC South of Building C

Client Sample ID	Lab Sample ID
MRC-MW-164B-081120	500-186280-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 500-186280-1

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18540-29-9	Chromium, hexavalent	0.23	0.30	0.23	ug/L	U		1	218.6

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Analyst: EAT Batch Start Date: 08/06/2020

Reporting Units: ug/L Analytical Batch No.: 555539

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	03:46	Chromium, hexavalent	24.0	25.0	96	95-105		WSTICCR2-5.0_00066
9	ICB	03:59	Chromium, hexavalent	0.23				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Analyst: EAT Batch Start Date: 08/19/2020

Reporting Units: ug/L Analytical Batch No.: 557485

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	01:35	Chromium, hexavalent	4.86	5.00	97	95-105		WSTICCR1-0.5_00069
2	CCB	01:48	Chromium, hexavalent	0.23				U	
11	CCV	03:44	Chromium, hexavalent	4.94	5.00	99	95-105		WSTICCR1-0.5_00069
12	CCB	03:57	Chromium, hexavalent	0.23				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 557485	Date: 08/19/2020 02:01						
218.6	MB 500-557485/3	Chromium, hexavalent	0.23	U	ug/L	0.30	1

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 557485	Date: 08/19/2020 02:13										
						LCS Source: WSTICCR2-5.0_00067					
218.6	LCS 500-557485/4	Chromium, hexavalent	24.9		ug/L	25.0	100	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Chicago Job Number: 500-186280-1

SDG Number:

Matrix: Water Instrument ID: IC7C

Method: 218.6 MDL Date: 03/29/2017 10:49

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Chromium, hexavalent		0.3	0.23

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Chicago Job Number: 500-186280-1

SDG Number:

Matrix: Water Instrument ID: IC7C

Method: 218.6 XMDL Date: 03/29/2017 10:49

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Chromium, hexavalent		0.3	0.23

11-IN
LINEAR RANGES
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No: 500-186280-1

SDG No.:

Instrument ID: IC7C Date: 10/01/2018 07:22

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Chromium, hexavalent		50	218.6

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Instrument ID: IC7C Analysis Method: 218.6

Start Date: 08/06/2020 02:16 End Date: 08/06/2020 10:01

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cr6																								
ZZZZZZ			02:16																									
STD1 500-555539/2 IC	1		02:28	X																								
STD2 500-555539/3 IC	1		02:41	X																								
STD3 500-555539/4 IC	1		02:54	X																								
STD4 500-555539/5 IC	1		03:07	X																								
STD5 500-555539/6 ICRT	1		03:20	X																								
STD6 500-555539/7 IC	1		03:33	X																								
ICV 500-555539/8	1		03:46	X																								
ICB 500-555539/9	1		03:59	X																								
ZZZZZZ			04:12																									
ZZZZZZ			04:25																									
ZZZZZZ			04:38																									
ZZZZZZ			04:51																									
ZZZZZZ			05:04																									
ZZZZZZ			05:16																									
ZZZZZZ			05:29																									
ZZZZZZ			05:42																									
ZZZZZZ			05:55																									
ZZZZZZ			06:08																									
CCV 500-555539/20			06:21																									
CCB 500-555539/21			06:34																									
ZZZZZZ			06:47																									
ZZZZZZ			07:00																									
ZZZZZZ			07:13																									
ZZZZZZ			07:26																									
ZZZZZZ			07:39																									
ZZZZZZ			07:52																									
ZZZZZZ			08:04																									
ZZZZZZ			08:17																									
ZZZZZZ			08:30																									
ZZZZZZ			08:43																									
CCV 500-555539/32			08:56																									
CCB 500-555539/33			09:09																									
ZZZZZZ			09:22																									
ZZZZZZ			09:35																									
CCV 500-555539/36			09:48																									
CCB 500-555539/37			10:01																									

Prep Types:

=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Instrument ID: IC7C Analysis Method: 218.6

Start Date: 08/19/2020 01:35 End Date: 08/19/2020 03:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cr6																								
CCV 500-557485/1	1		01:35	X																								
CCB 500-557485/2	1		01:48	X																								
MB 500-557485/3	1	T	02:01	X																								
LCS 500-557485/4	1	T	02:13	X																								
ZZZZZZ			02:26																									
ZZZZZZ			02:39																									
ZZZZZZ			02:52																									
ZZZZZZ			03:05																									
ZZZZZZ			03:18																									
500-186280-1	1	D	03:31	X																								
CCV 500-557485/11	1		03:44	X																								
CCB 500-557485/12	1		03:57	X																								

Prep Types:
D = Dissolved
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Batch Number: 555539 Batch Start Date: 08/06/20 02:16 Batch Analyst: Treadwell, Eliane A

Batch Method: 218.6 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WSTICCR1-0.5 00068	WSTICCR1-5.0 00066	WSTICCR2-5.0 00066		
STD1 500-555539/2 IC		218.6		1 mL	30 uL				
STD2 500-555539/3 IC		218.6		1 mL	100 uL				
STD3 500-555539/4 IC		218.6		1 mL	500 uL				
STD4 500-555539/5 IC		218.6		1 mL	1000 uL				
STD5 500-555539/6 ICRT		218.6		1 mL		250 uL			
STD6 500-555539/7 IC		218.6		1 mL		500 uL			
ICV 500-555539/8		218.6		1 mL			250 uL		
ICB 500-555539/9		218.6		1 mL					

Batch Notes	
Buffer Lot #	CRVI-BUFFER-00093
Eluent 1 ID	CRVI-ELUENT00107
Filter ID	WHATMAN-1693120-0.45
pH Meter ID	C2939
Post Column Reagent ID	CRVI-PCR-00231

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Chicago Job No.: 500-186280-1

SDG No.:

Batch Number: 557485 Batch Start Date: 08/19/20 01:35 Batch Analyst: Treadwell, Eliane A

Batch Method: 218.6 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WSTICCR1-0.5 00069	WSTICCR2-5.0 00067			
CCV 500-557485/1		218.6		1 mL	500 uL				
CCB 500-557485/2		218.6		1 mL					
MB 500-557485/3		218.6		1 mL					
LCS 500-557485/4		218.6		1 mL		250 uL			
500-186280-A-1-A	MRC-MW-164B-081120	218.6	D	1 mL					
CCV 500-557485/11		218.6		1 mL	500 uL				
CCB 500-557485/12		218.6		1 mL					

Batch Notes	
Buffer Lot #	CRVI-BUFFER-00093
Eluent 1 ID	CRVI-ELUENT00107
Filter ID	WHATMAN-1693120-0.45
pH Meter ID	C2939
Post Column Reagent ID	CRVI-PCR-00231

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-002_02_UV_VIS_1.d			
Lims ID:	std1			
Client ID:				
Sample Type:	IC	Calib Level:	1	
Inject. Date:	06-Aug-2020 02:28:00	ALS Bottle#:	0	Worklist Smp#: 2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	
Sample Info:	500-0070857-002			
Misc. Info.:	STD1			
Operator ID:		Instrument ID:	IC7C	
Sublist:	chrom-Cr6+*sub2			
Method:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m			
Limit Group:	IC_CR+6			
Last Update:	06-Aug-2020 18:47:17	Calib Date:	06-Aug-2020 03:33:00	
Integrator:	Falcon			
Quant Method:	External Standard	Quant By:	Initial Calibration	
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d			
Column 1 :			Det: ICV_01_UV_VIS_1	
Process Host:	CTX1059			

First Level Reviewer: treadwelle Date: 06-Aug-2020 01:42:00

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						Ma
4.910	4.913	-0.003	8175	0.3000	0.3290	M

QC Flag Legend

Review Flags

M - Manually Integrated
a - User Assigned ID

Reagents:

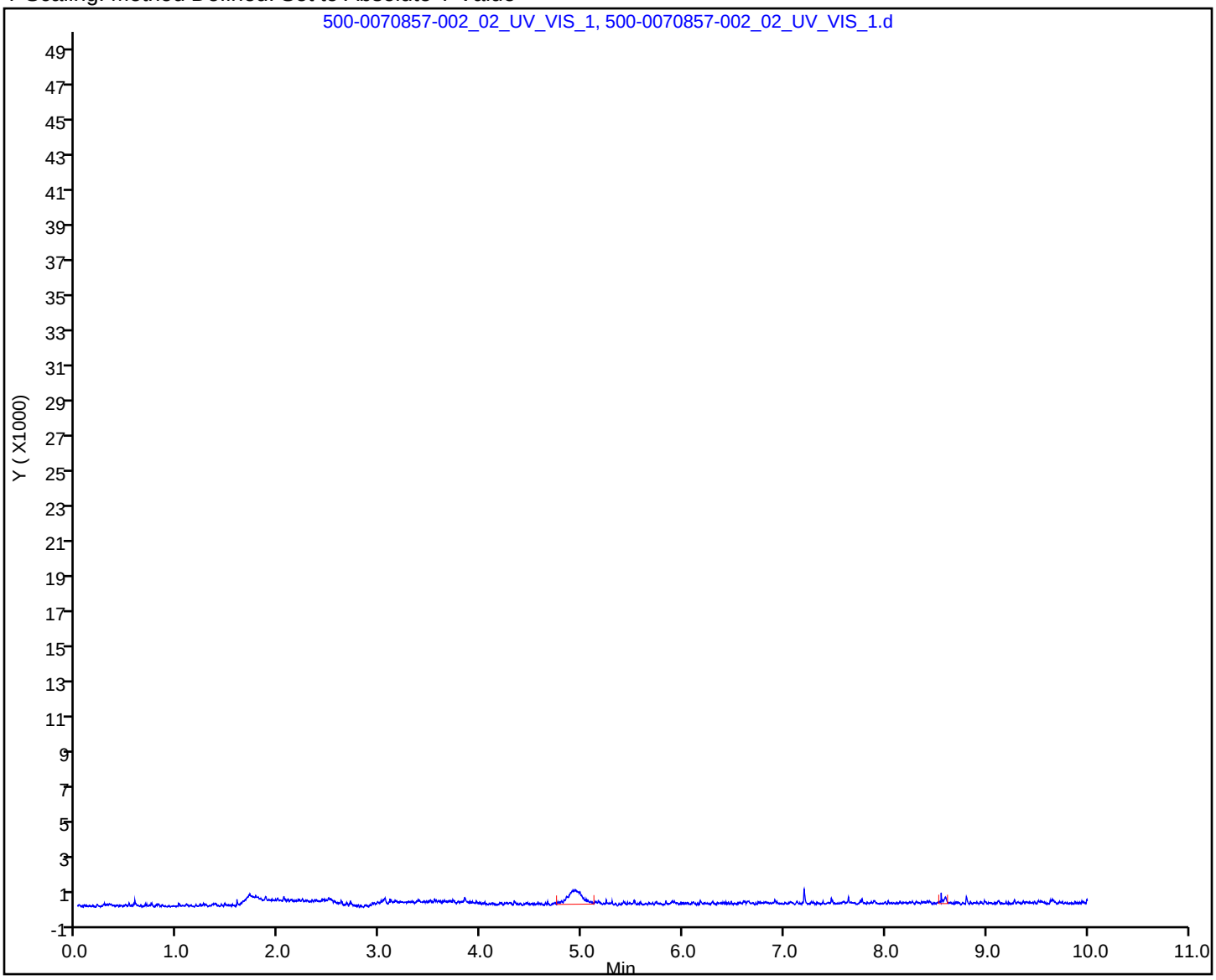
WSTICCR1-0.5_00068 Amount Added: 30.00 Units: uL

Report Date: 06-Aug-2020 18:47:17 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-002_02_UV_VIS_1.d				
Injection Date:	06-Aug-2020 02:28:00	Instrument ID:	IC7C		
Lims ID:	std1				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

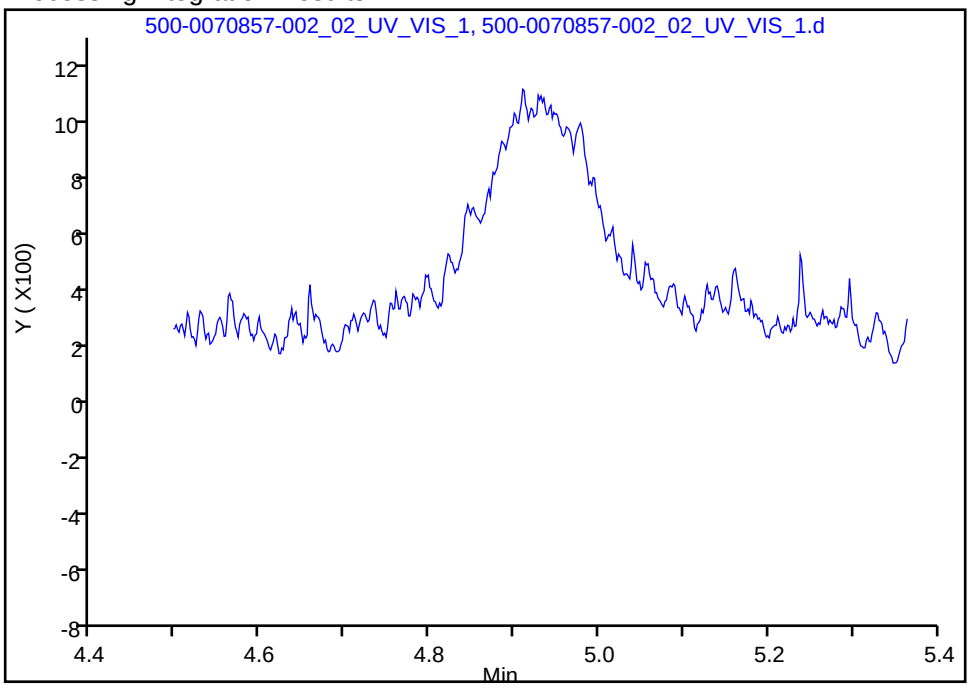
Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-002_02_UV_VIS_1.d
Injection Date: 06-Aug-2020 02:28:00 Instrument ID: IC7C
Lims ID: std1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

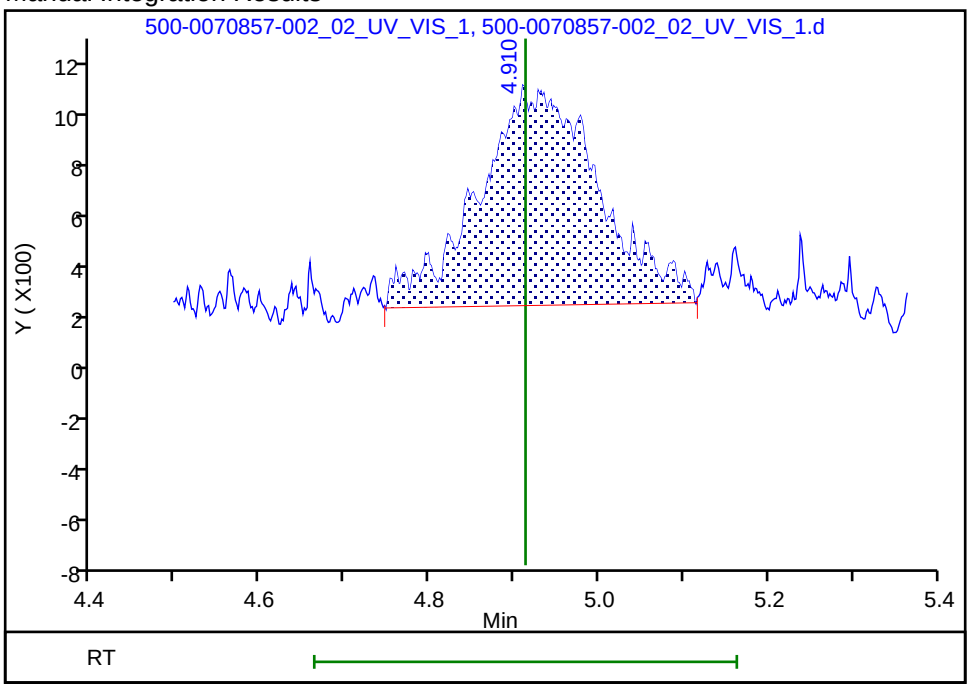
Not Detected
Expected RT: 4.91

Processing Integration Results



Manual Integration Results

RT: 4.91
Area: 8175
Amount: 0.328956
Amount Units: ug/l



Reviewer: treadwelle, 06-Aug-2020 01:47:20
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-003_03_UV_VIS_1.d			
Lims ID:	std2			
Client ID:				
Sample Type:	IC	Calib Level:	2	
Inject. Date:	06-Aug-2020 02:41:00	ALS Bottle#:	0	Worklist Smp#: 3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	
Sample Info:	500-0070857-003			
Misc. Info.:	STD2			
Operator ID:		Instrument ID:	IC7C	
Sublist:	chrom-Cr6+*sub2			
Method:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m			
Limit Group:	IC_CR+6			
Last Update:	06-Aug-2020 18:47:17	Calib Date:	06-Aug-2020 03:33:00	
Integrator:	Falcon			
Quant Method:	External Standard	Quant By:	Initial Calibration	
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d			
Column 1 :			Det: ICV_01_UV_VIS_1	
Process Host:	CTX1059			

First Level Reviewer: treadwelle Date: 06-Aug-2020 01:42:24

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.918	4.913	0.005	23015	1.00	0.9261	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

WSTICCR1-0.5_00068 Amount Added: 100.00 Units: uL

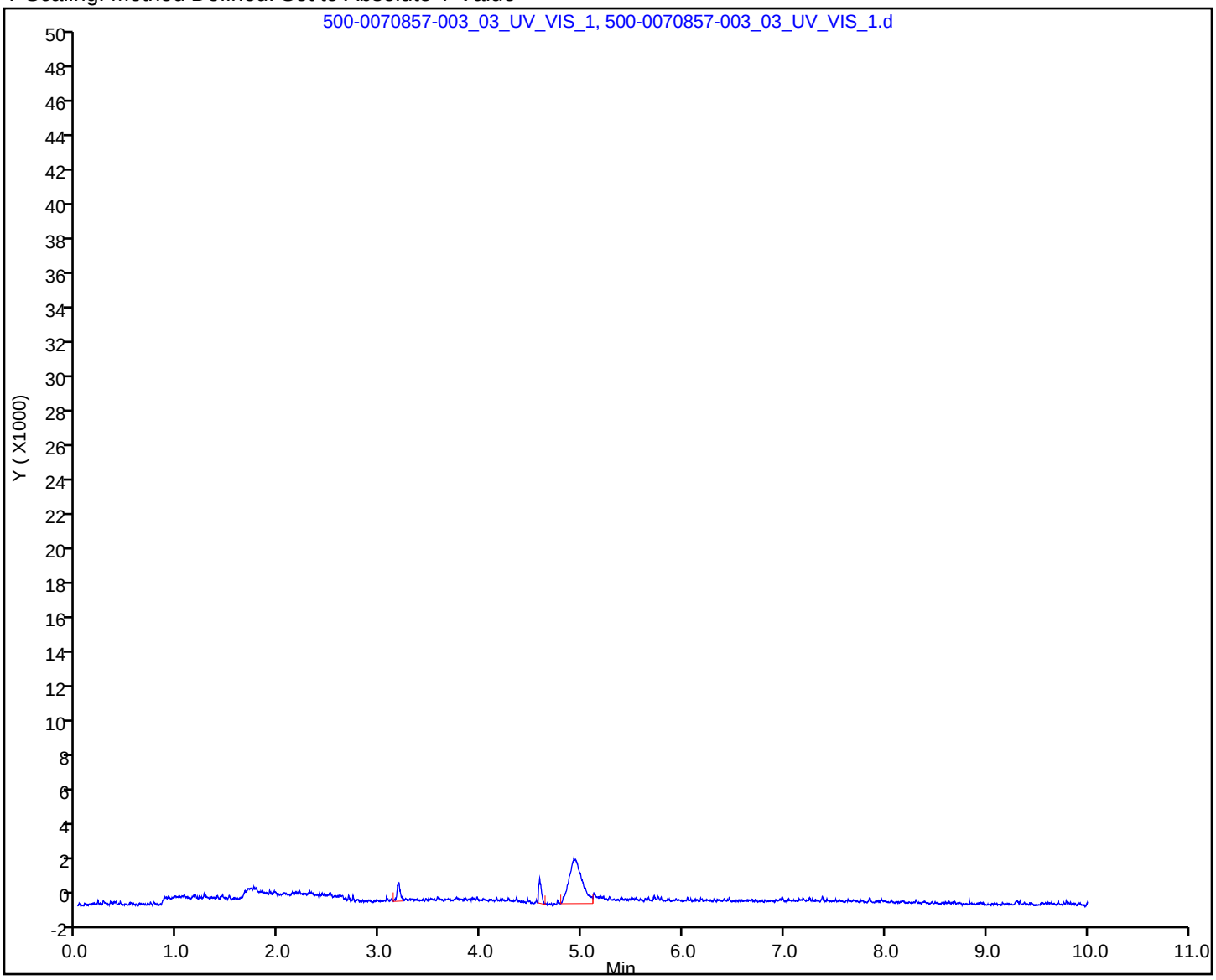
Report Date: 06-Aug-2020 18:47:17 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-003_03_UV_VIS_1.d

Injection Date:	06-Aug-2020 02:41:00	Instrument ID:	IC7C		
Lims ID:	std2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

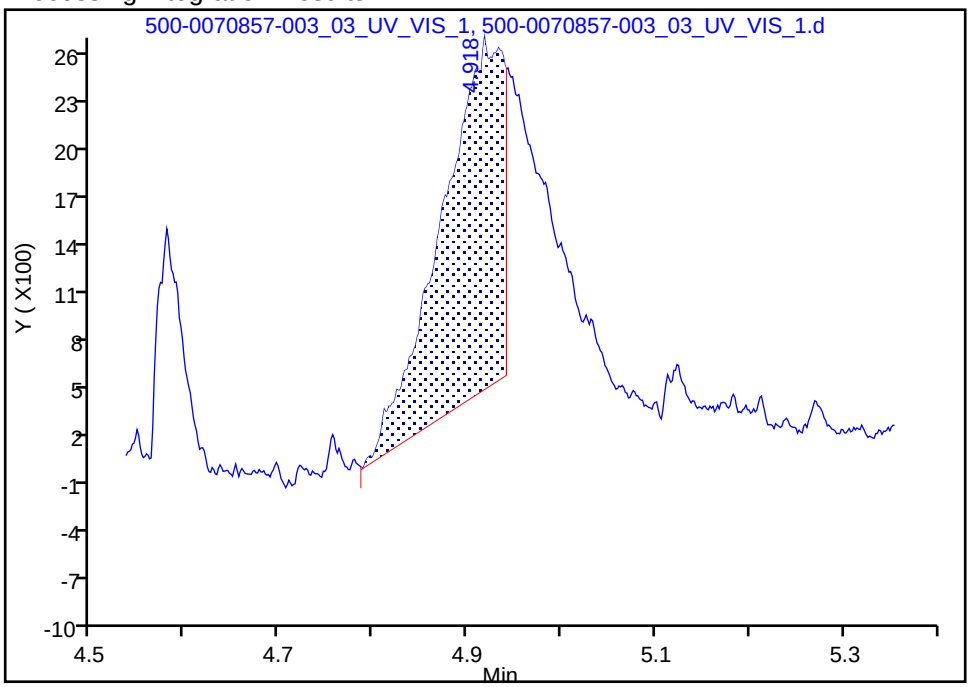
Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-003_03_UV_VIS_1.d
Injection Date: 06-Aug-2020 02:41:00 Instrument ID: IC7C
Lims ID: std2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

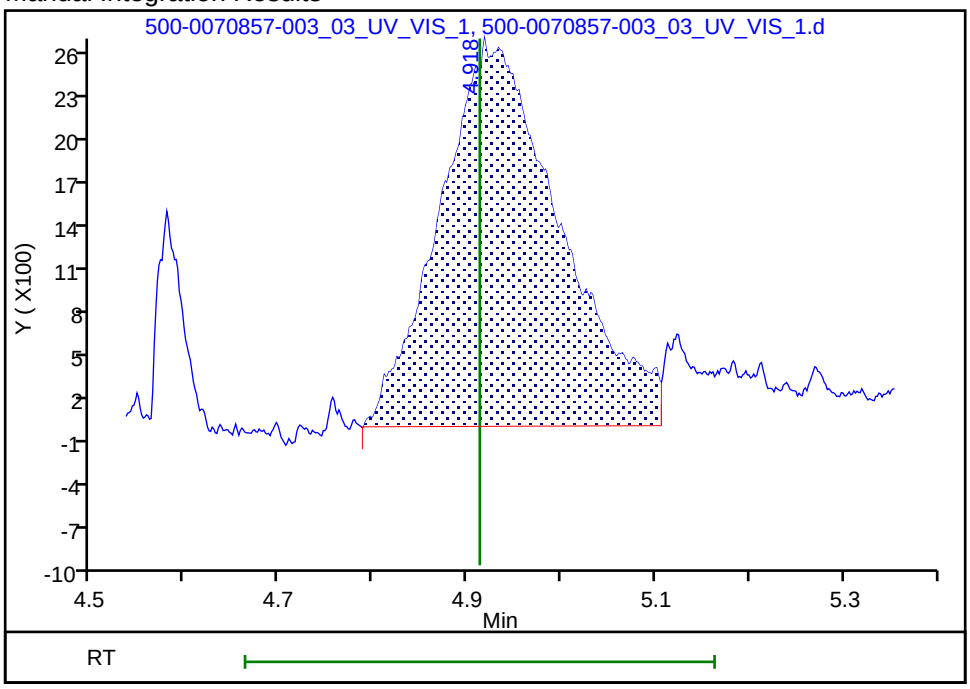
Processing Integration Results

RT: 4.92
Area: 9660
Amount: 0.466249
Amount Units: ug/l



Manual Integration Results

RT: 4.92
Area: 23015
Amount: 0.926108
Amount Units: ug/l



Reviewer: treadwelle, 06-Aug-2020 01:49:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-004_04_UV_VIS_1.d				
Lims ID:	std3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	06-Aug-2020 02:54:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	500-0070857-004				
Misc. Info.:	STD3				
Operator ID:		Instrument ID:	IC7C		
Sublist:	chrom-Cr6+*sub2				
Method:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m				
Limit Group:	IC_CR+6				
Last Update:	06-Aug-2020 18:47:18	Calib Date:	06-Aug-2020 03:33:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Column 1 :			Det: ICV_01_UV_VIS_1		
Process Host:	CTX1059				
First Level Reviewer: treadwelle		Date:	06-Aug-2020 01:44:07		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.925	4.925	0.000	122609	5.00	4.93	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

WSTICCR1-0.5_00068 Amount Added: 500.00 Units: uL

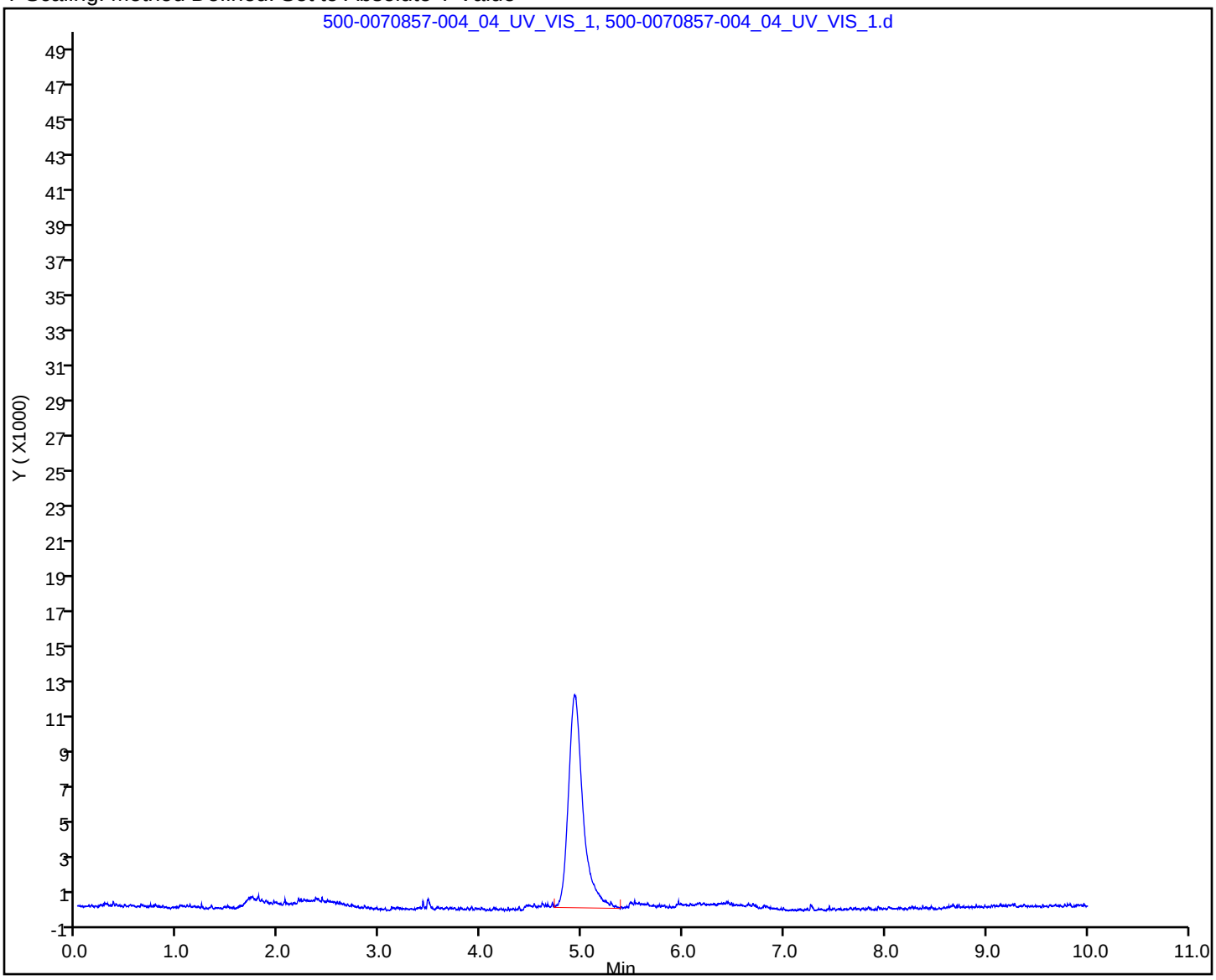
Report Date: 06-Aug-2020 18:47:18 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-004_04_UV_VIS_1.d

Injection Date:	06-Aug-2020 02:54:00	Instrument ID:	IC7C		
Lims ID:	std3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

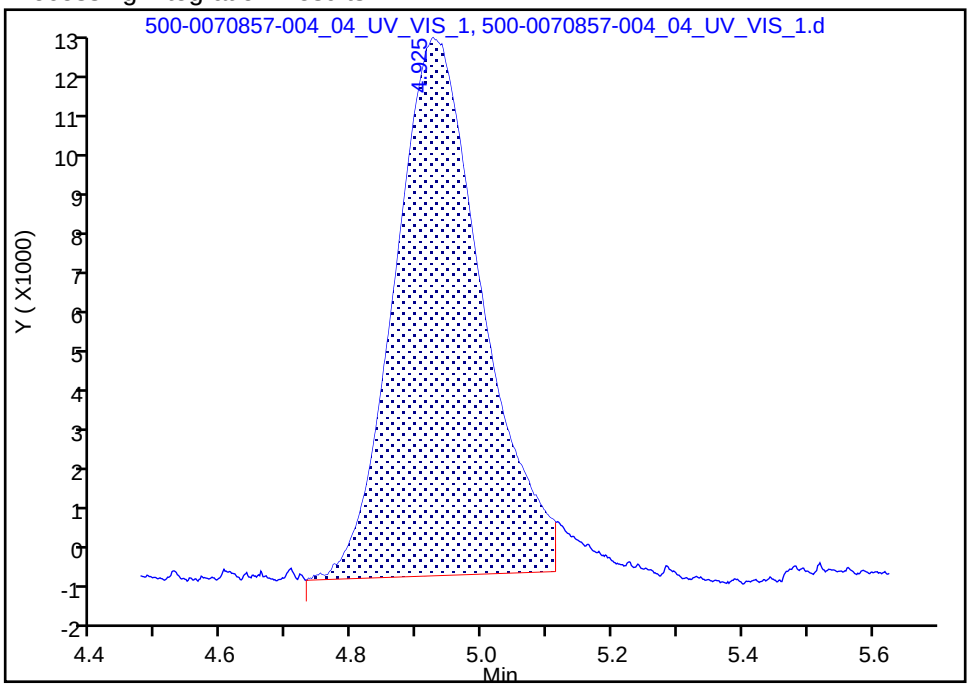
Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-004_04_UV_VIS_1.d
Injection Date: 06-Aug-2020 02:54:00 Instrument ID: IC7C
Lims ID: std3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

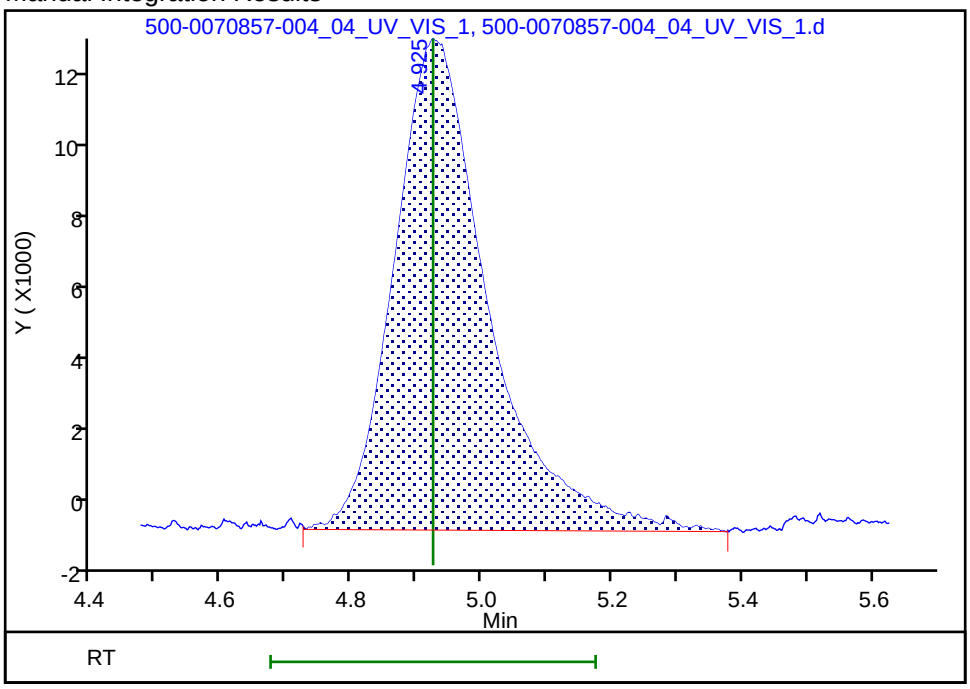
Processing Integration Results

RT: 4.92
Area: 112748
Amount: 4.607072
Amount Units: ug/l



Manual Integration Results

RT: 4.92
Area: 122609
Amount: 4.933702
Amount Units: ug/l



Reviewer: treadwelle, 06-Aug-2020 01:44:05
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-005_05_UV_VIS_1.d
Lims ID: std4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 06-Aug-2020 03:07:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 500-0070857-005
Misc. Info.: STD4
Operator ID: Instrument ID: IC7C
Sublist: chrom-Cr6+*sub2

Method: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m
Limit Group: IC_CR+6
Last Update: 06-Aug-2020 18:47:18 Calib Date: 06-Aug-2020 03:33:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d

Column 1 : Det: ICV_01_UV_VIS_1
Process Host: CTX1059

First Level Reviewer: treadwelle Date: 06-Aug-2020 01:44:23

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.928	4.925	0.003	251434	10.0	10.1	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

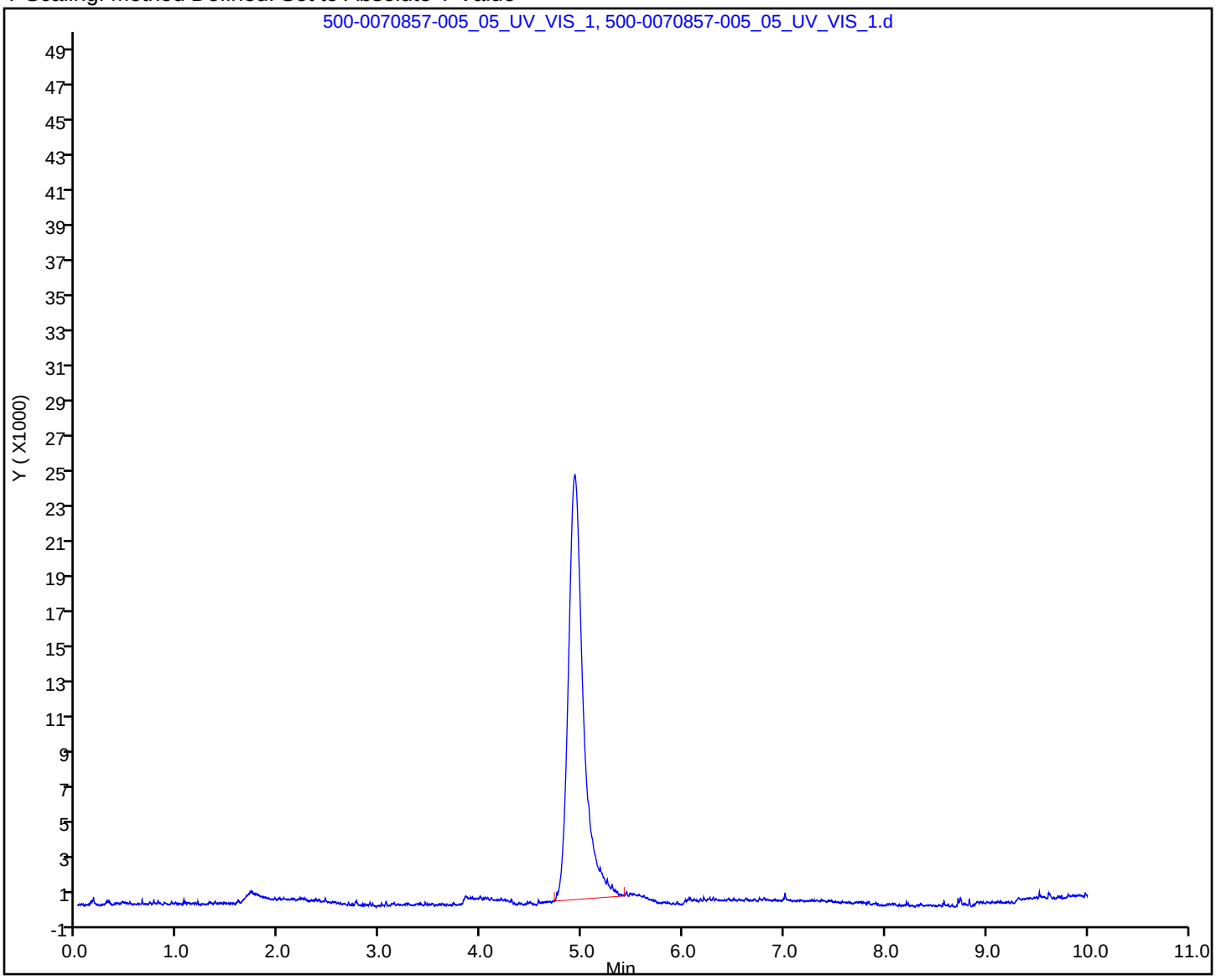
WSTICCR1-0.5_00068 Amount Added: 1000.00 Units: uL

Report Date: 06-Aug-2020 18:47:18 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-005_05_UV_VIS_1.d				
Injection Date:	06-Aug-2020 03:07:00	Instrument ID:	IC7C		
Lims ID:	std4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

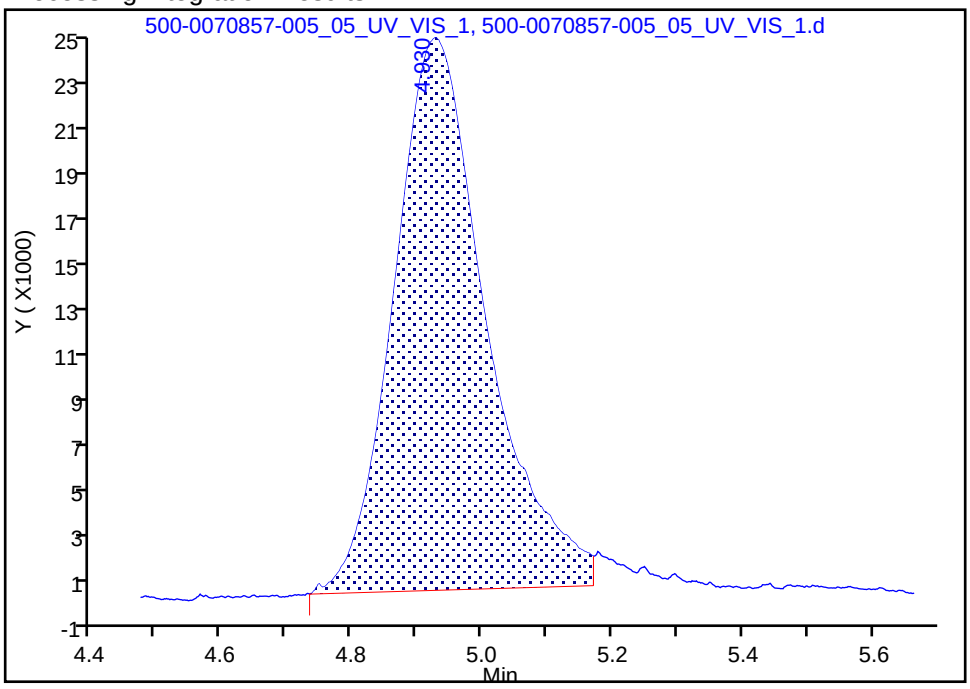
Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-005_05_UV_VIS_1.d
Injection Date: 06-Aug-2020 03:07:00 Instrument ID: IC7C
Lims ID: std4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

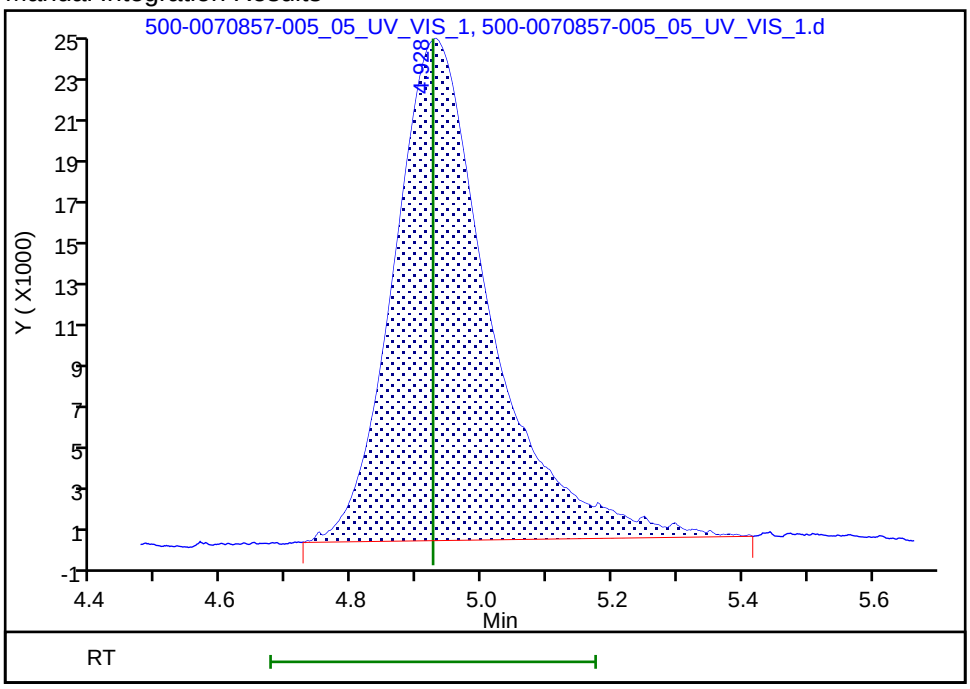
Processing Integration Results

RT: 4.93
Area: 239050
Amount: 9.753327
Amount Units: ug/l



Manual Integration Results

RT: 4.93
Area: 251434
Amount: 10.117532
Amount Units: ug/l



Reviewer: treadwelle, 06-Aug-2020 01:46:15
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-006_06_UV_VIS_1.d			
Lims ID:	std5			
Client ID:				
Sample Type:	ICRT	Calib Level:	5	
Inject. Date:	06-Aug-2020 03:20:00	ALS Bottle#:	0	Worklist Smp#: 6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	
Sample Info:	500-0070857-006			
Misc. Info.:	STD1			
Operator ID:		Instrument ID:	IC7C	
Sublist:	chrom-Cr6+*sub2			
Method:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m			
Limit Group:	IC_CR+6			
Last Update:	06-Aug-2020 18:47:18	Calib Date:	06-Aug-2020 03:33:00	
Integrator:	Falcon			
Quant Method:	External Standard	Quant By:	Initial Calibration	
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d			
Column 1 :			Det: ICV_01_UV_VIS_1	
Process Host:	CTX1059			

First Level Reviewer: treadwelle Date: 06-Aug-2020 01:44:39

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.926	4.926	0.000	618198	25.0	24.9	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

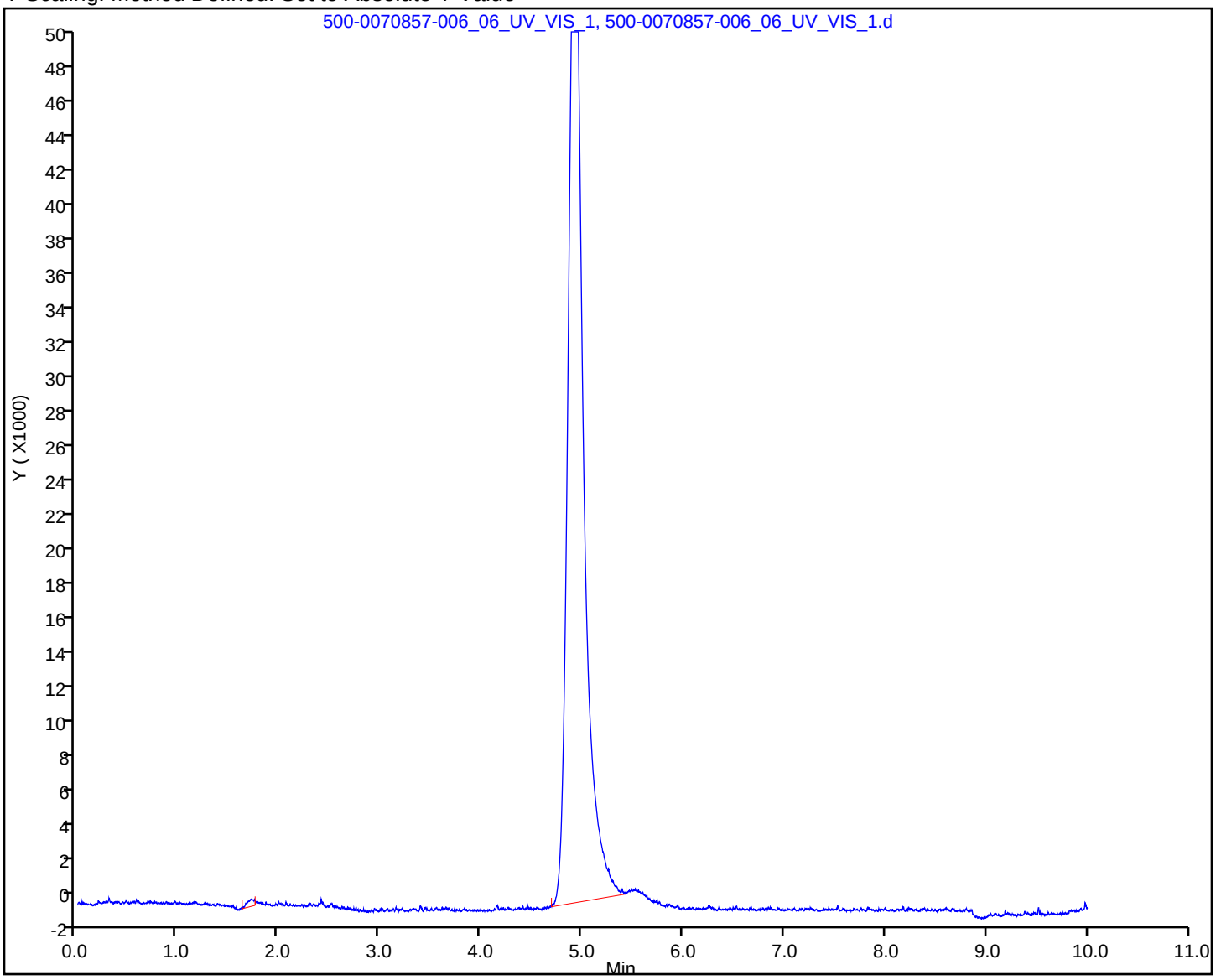
WSTICCR1-5.0_00066 Amount Added: 250.00 Units: uL

Report Date: 06-Aug-2020 18:47:18 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-006_06_UV_VIS_1.d				
Injection Date:	06-Aug-2020 03:20:00	Instrument ID:	IC7C		
Lims ID:	std5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

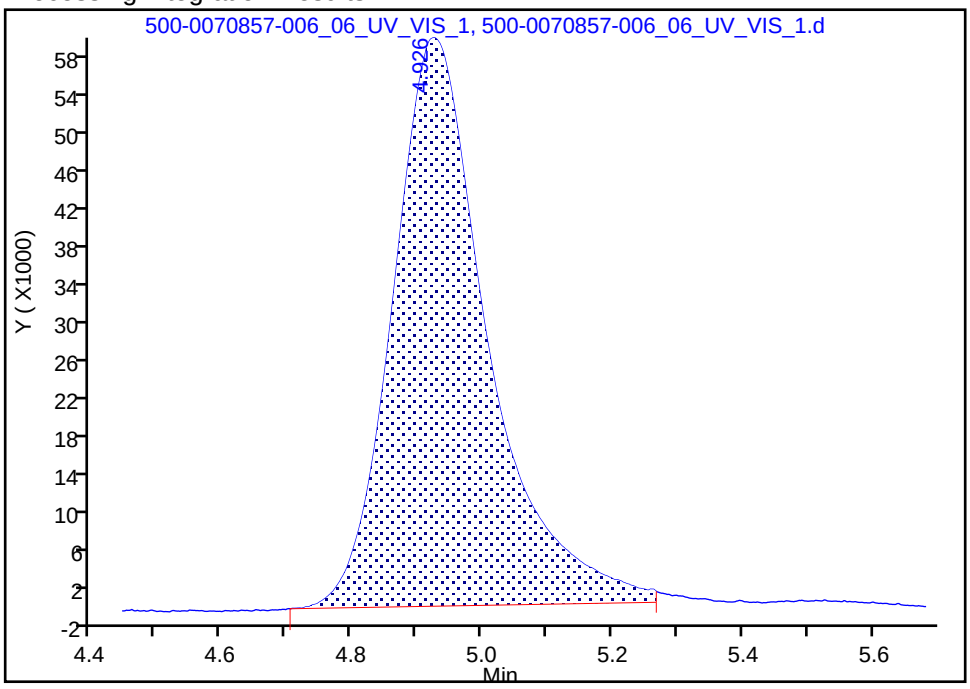
Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-006_06_UV_VIS_1.d
Injection Date: 06-Aug-2020 03:20:00 Instrument ID: IC7C
Lims ID: std5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

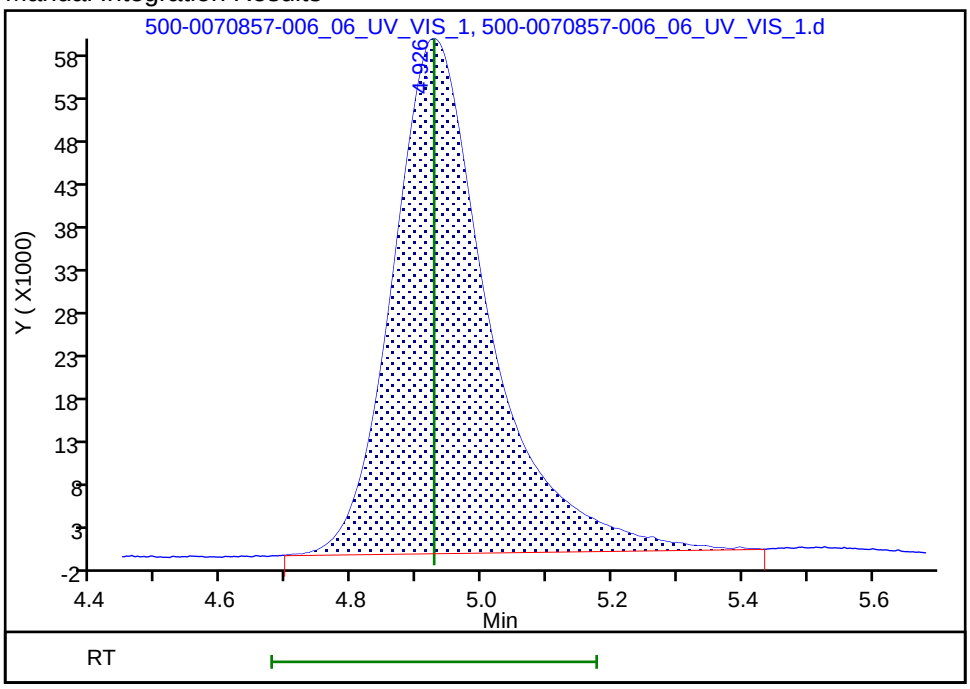
RT: 4.93
Area: 607765
Amount: 24.605851
Amount Units: ug/l

Processing Integration Results



RT: 4.93
Area: 618198
Amount: 24.875865
Amount Units: ug/l

Manual Integration Results



Reviewer: treadwelle, 06-Aug-2020 01:45:07
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d
Lims ID: std6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 06-Aug-2020 03:33:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 500-0070857-007
Misc. Info.: STD6
Operator ID: Instrument ID: IC7C
Sublist: chrom-Cr6+*sub2

Method: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m
Limit Group: IC_CR+6
Last Update: 06-Aug-2020 18:47:19 Calib Date: 06-Aug-2020 03:33:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d

Column 1 : Det: ICV_01_UV_VIS_1
Process Host: CTX1059

First Level Reviewer: treadwelle Date: 06-Aug-2020 01:45:23

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.925	4.926	-0.001	1222489	50.0	49.2	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

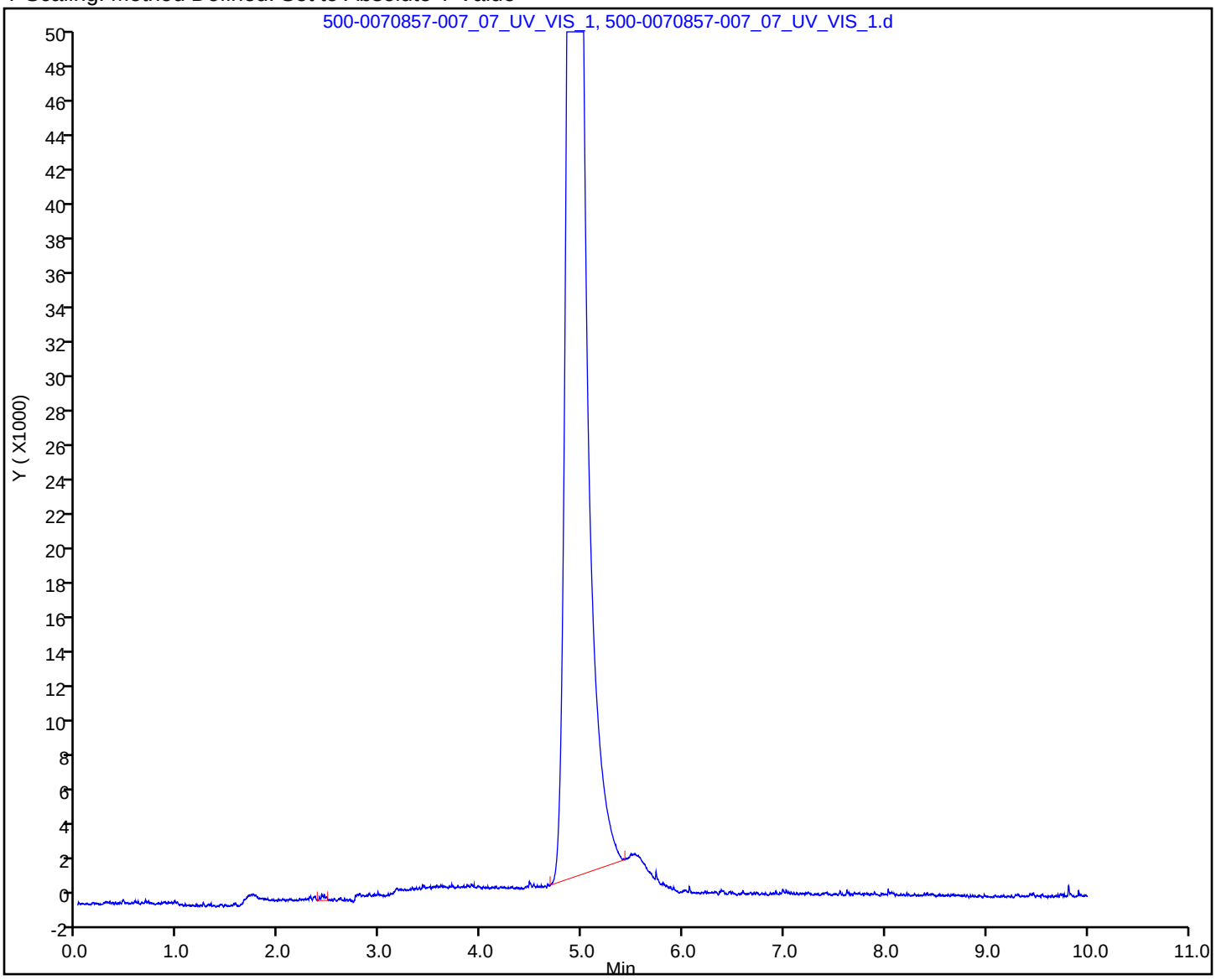
WSTICCR1-5.0_00066 Amount Added: 500.00 Units: uL

Report Date: 06-Aug-2020 18:47:19 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Injection Date:	06-Aug-2020 03:33:00	Instrument ID:	IC7C		
Lims ID:	std6				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

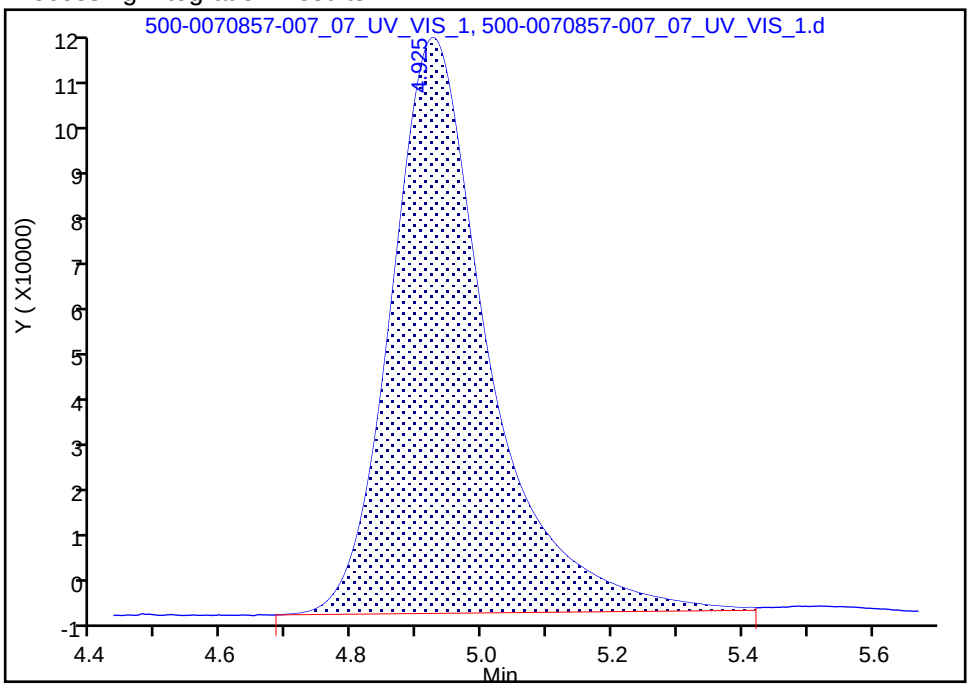
Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d
Injection Date: 06-Aug-2020 03:33:00 Instrument ID: IC7C
Lims ID: std6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

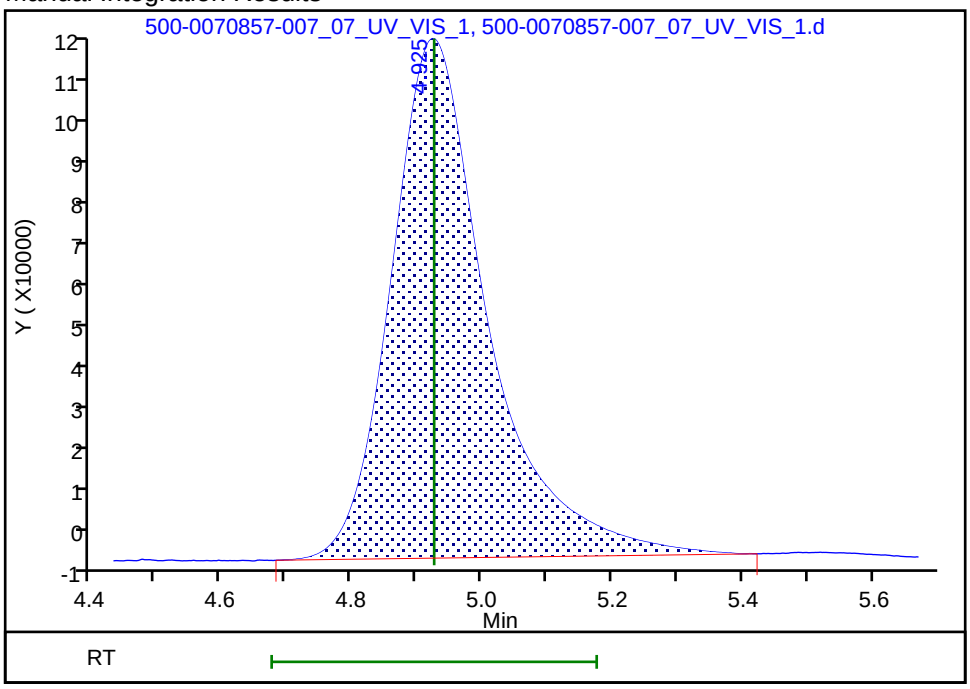
Processing Integration Results

RT: 4.92
Area: 1234466
Amount: 49.792691
Amount Units: ug/l



Manual Integration Results

RT: 4.92
Area: 1222489
Amount: 49.192122
Amount Units: ug/l



Reviewer: treadwelle, 06-Aug-2020 01:45:20
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-008_08_UV_VIS_1.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 06-Aug-2020 03:46:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 500-0070857-008
Misc. Info.: ICV
Operator ID: Instrument ID: IC7C
Sublist:

Method: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m
Limit Group: IC_CR+6
Last Update: 06-Aug-2020 01:52:52 Calib Date: 06-Aug-2020 03:33:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d

Column 1 : Det: ICV_01_UV_VIS_1
Process Host: CTX1034

First Level Reviewer: treadwelle Date: 06-Aug-2020 01:51:09

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						
4.913	4.913	0.000	596885	25.0	24.0	

Reagents:

WSTICCR2-5.0_00066 Amount Added: 250.00 Units: uL

Report Date: 06-Aug-2020 01:52:52 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-008_08_UV_VIS_1.d

Injection Date: 06-Aug-2020 03:46:00 Instrument ID: IC7C

Lims ID: ICV

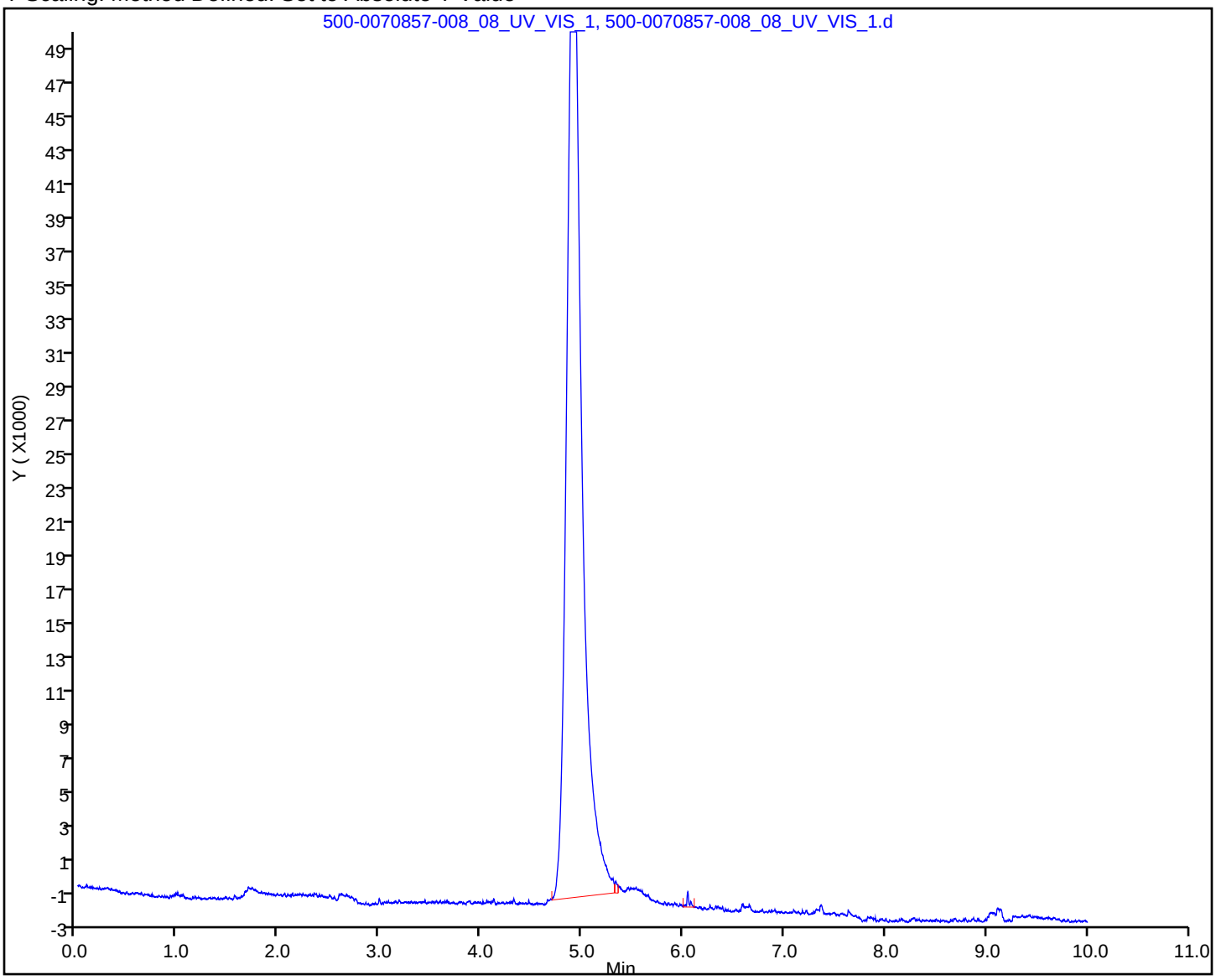
Client ID:

Operator ID: ALS Bottle#: 0 Worklist Smp#: 8

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: Cr6+ Limit Group: IC_CR+6

Y Scaling: Method Defined: Set to Absolute Y Value



Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-009_09_UV_VIS_1.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	06-Aug-2020 03:59:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	500-0070857-009				
Misc. Info.:	ICB				
Operator ID:		Instrument ID:	IC7C		
Method:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m				
Limit Group:	IC_CR+6				
Last Update:	06-Aug-2020 01:52:52	Calib Date:	06-Aug-2020 03:33:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Column 1 :			Det: ICV_01_UV_VIS_1		
Process Host:	CTX1034				

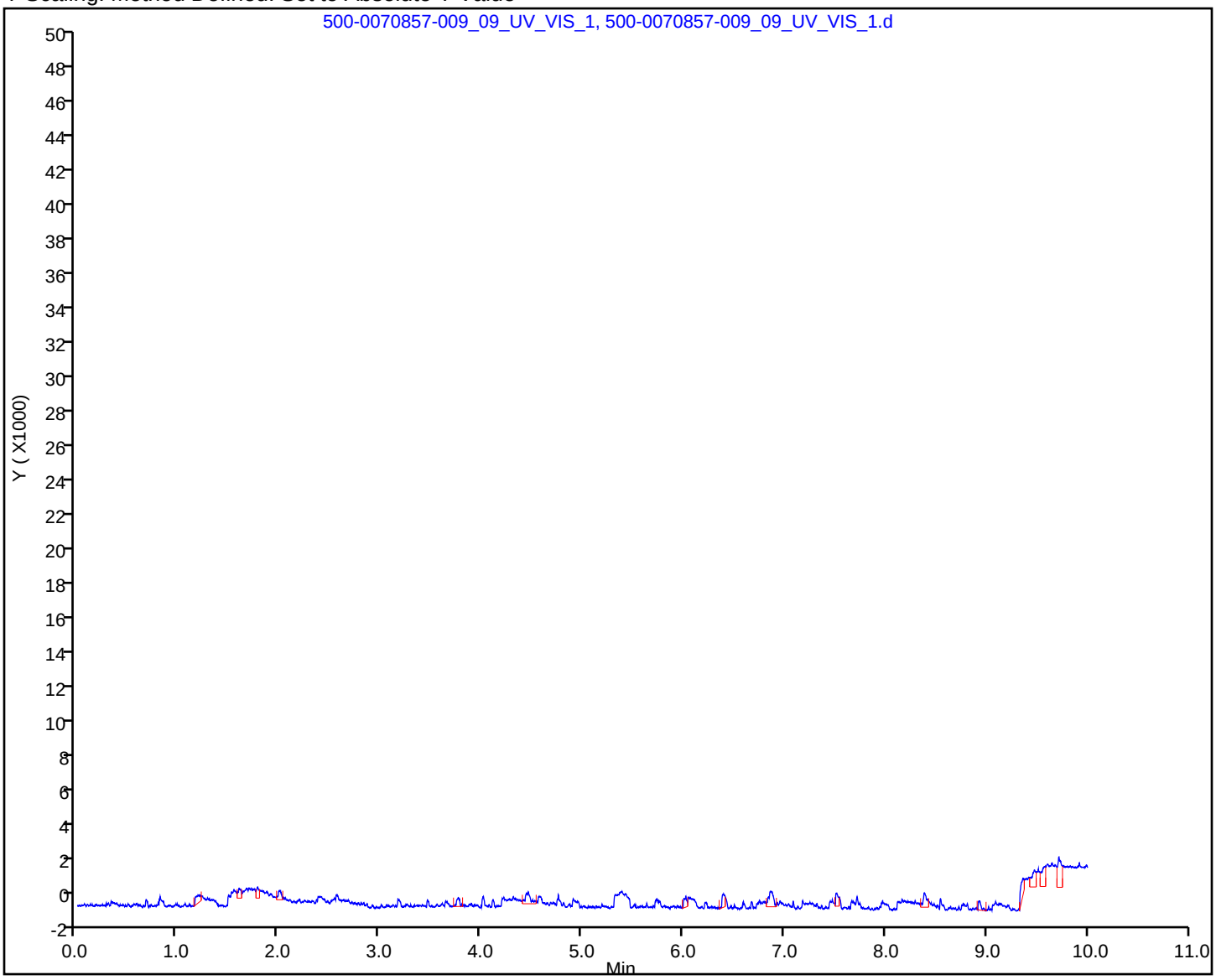
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

Report Date: 06-Aug-2020 01:52:52 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Chicago

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-009_09_UV_VIS_1.d				
Injection Date:	06-Aug-2020 03:59:00	Instrument ID:	IC7C		
Lims ID:	ICB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-001_01_UV_VIS_1.d				
Lims ID:	CCV				
Client ID:					
Sample Type:	CCV				
Inject. Date:	19-Aug-2020 01:35:00	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	500-0071157-001				
Misc. Info.:	ICV				
Operator ID:		Instrument ID:	IC7C		
Sublist:	chrom-Cr6+*sub2				
Method:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\Cr6+.m				
Limit Group:	IC_CR+6				
Last Update:	18-Aug-2020 23:25:59	Calib Date:	06-Aug-2020 03:33:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Column 1 :			Det: ICV_01_UV_VIS_1		
Process Host:	CTX1062				
First Level Reviewer: treadwelle		Date:	18-Aug-2020 21:08:03		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.876	4.926	-0.050	120880	5.00	4.86	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

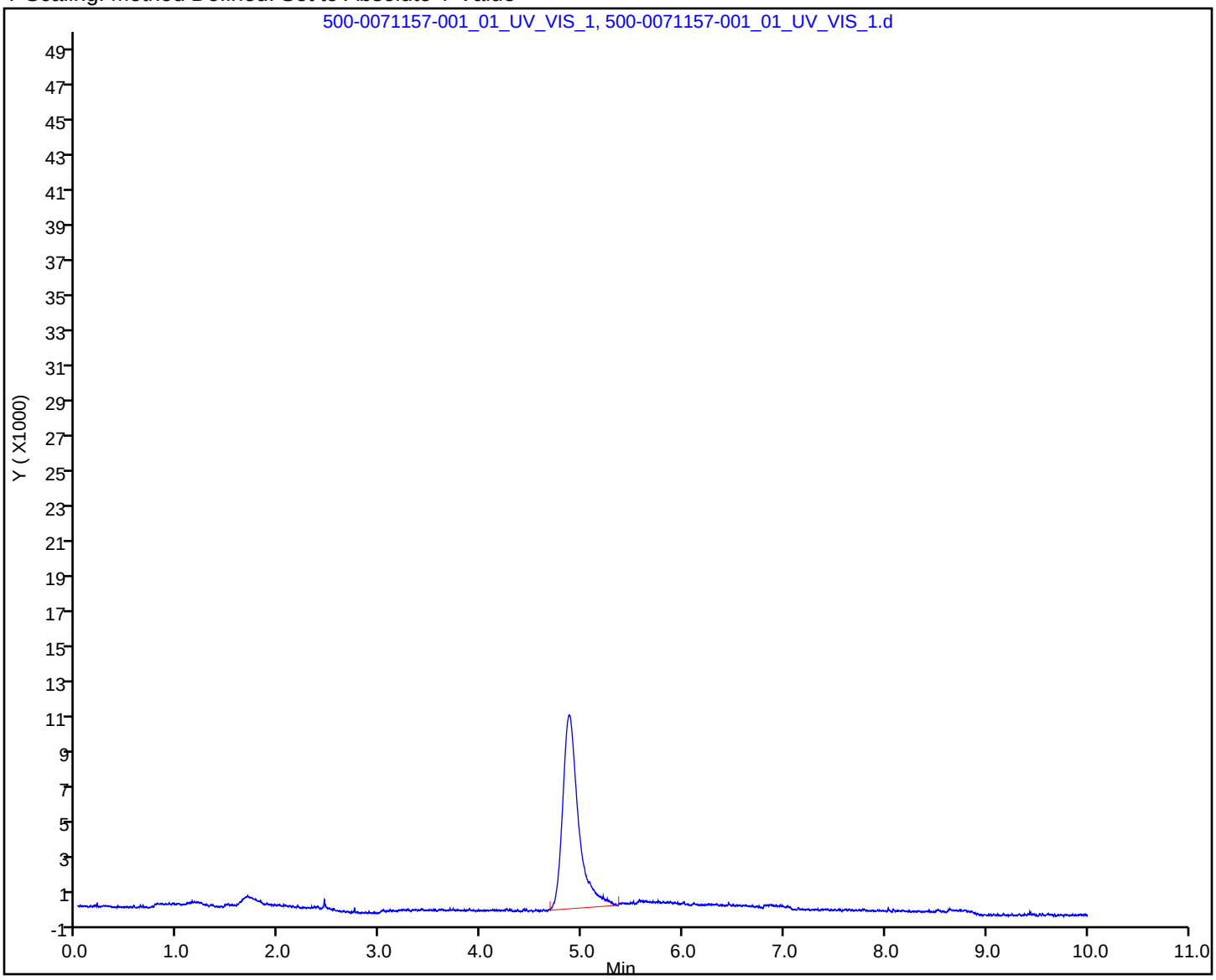
WSTICCR1-0.5_00069 Amount Added: 500.00 Units: uL

Report Date: 18-Aug-2020 23:25:59 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins TestAmerica, Chicago

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-001_01_UV_VIS_1.d				
Injection Date:	19-Aug-2020 01:35:00	Instrument ID:	IC7C		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

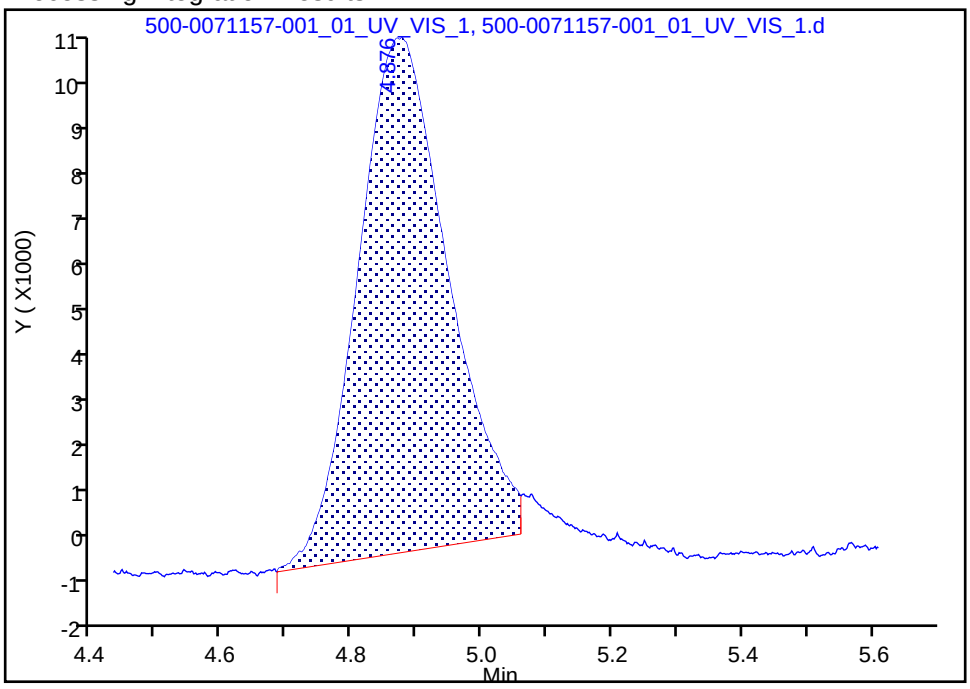
Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-001_01_UV_VIS_1.d
Injection Date: 19-Aug-2020 01:35:00 Instrument ID: IC7C
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

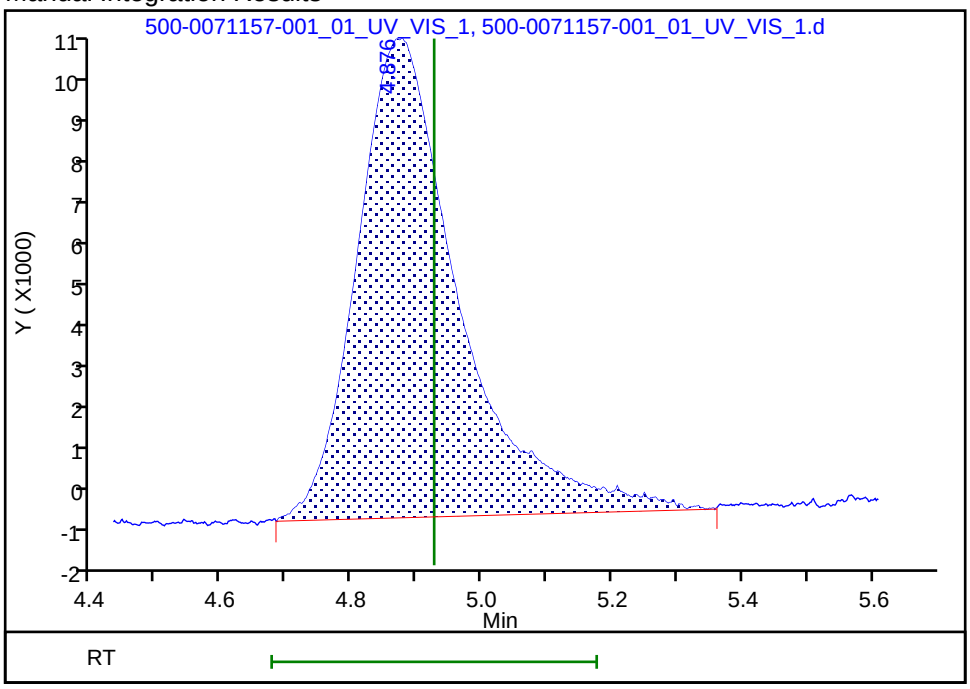
Processing Integration Results

RT: 4.88
Area: 104179
Amount: 4.192092
Amount Units: ug/l



Manual Integration Results

RT: 4.88
Area: 120880
Amount: 4.864129
Amount Units: ug/l



Reviewer: treadwelle, 18-Aug-2020 21:07:58
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-002_02_UV_VIS_1.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	19-Aug-2020 01:48:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	500-0071157-002				
Misc. Info.:	ICB				
Operator ID:		Instrument ID:	IC7C		
Method:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\Cr6+.m				
Limit Group:	IC_CR+6				
Last Update:	18-Aug-2020 23:25:59	Calib Date:	06-Aug-2020 03:33:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Column 1 :			Det: ICV_01_UV_VIS_1		
Process Host:	CTX1062				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

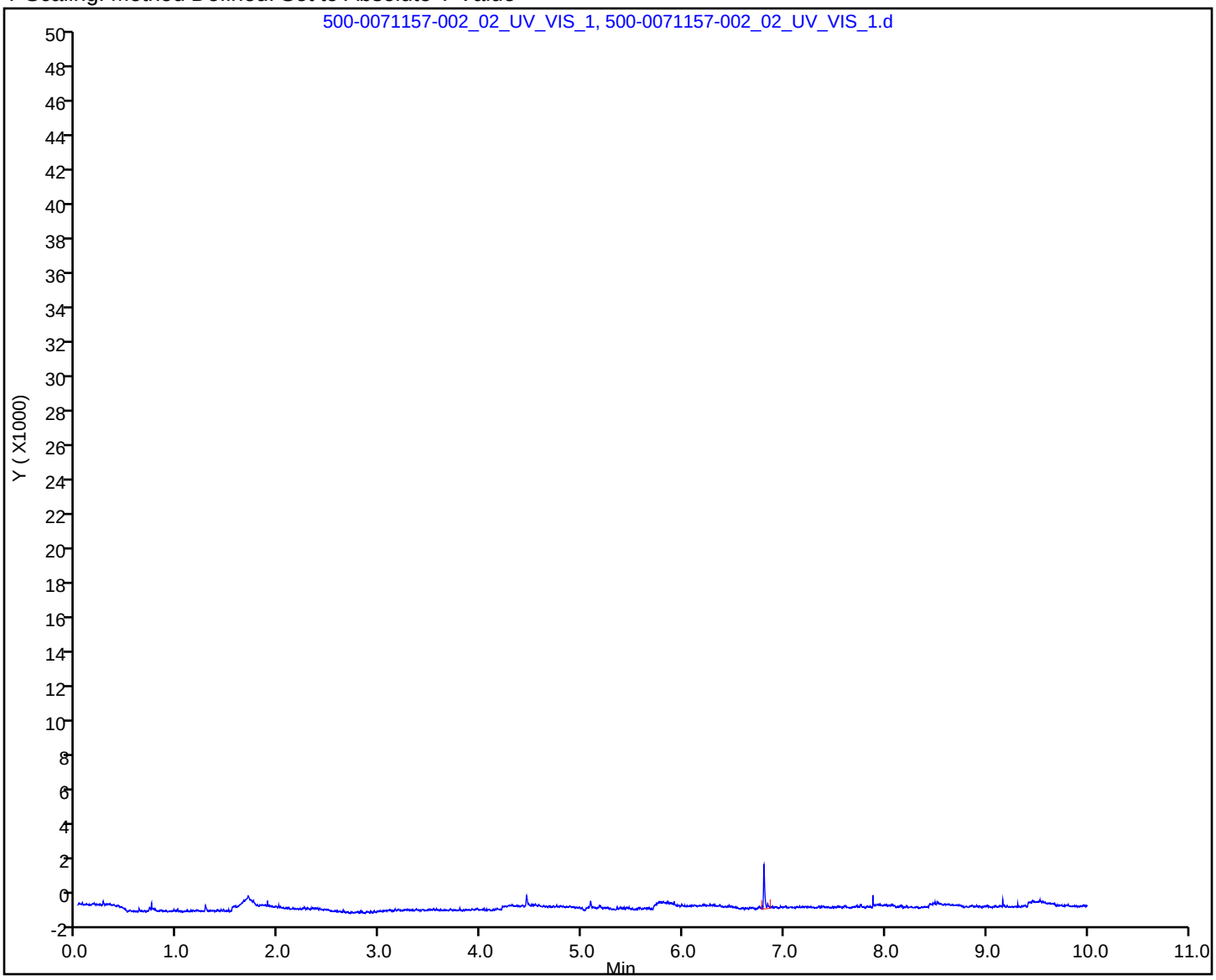
Report Date: 18-Aug-2020 23:26:00 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-002_02_UV_VIS_1.d

Injection Date:	19-Aug-2020 01:48:00	Instrument ID:	IC7C		
Lims ID:	CCB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-003_03_UV_VIS_1.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	19-Aug-2020 02:01:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	500-0071157-003				
Misc. Info.:	MB				
Operator ID:		Instrument ID:	IC7C		
Method:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\Cr6+.m				
Limit Group:	IC_CR+6				
Last Update:	18-Aug-2020 23:25:59	Calib Date:	06-Aug-2020 03:33:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Column 1 :			Det: ICV_01_UV_VIS_1		
Process Host:	CTX1062				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

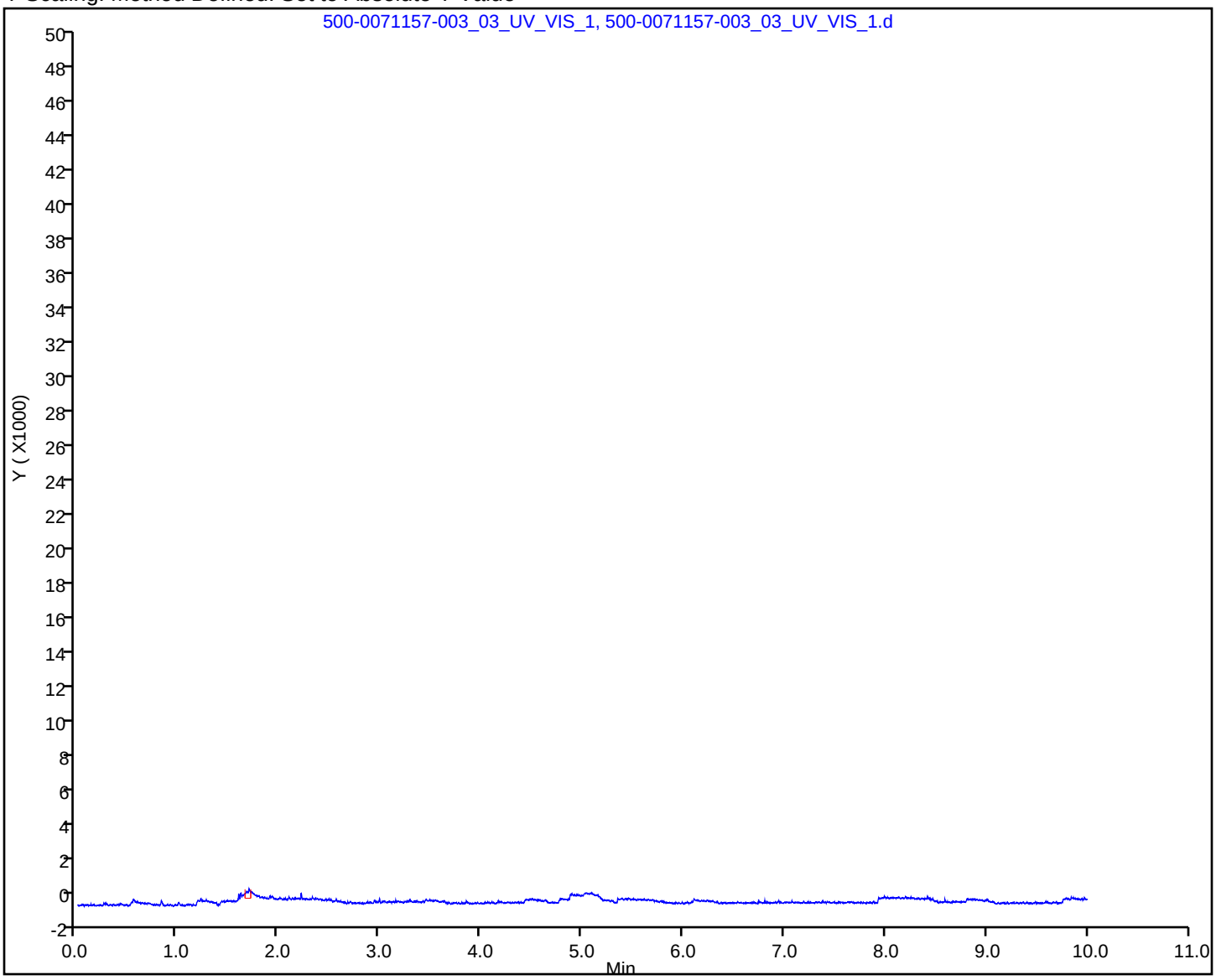
Report Date: 18-Aug-2020 23:26:00 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-003_03_UV_VIS_1.d

Injection Date:	19-Aug-2020 02:01:00	Instrument ID:	IC7C		
Lims ID:	MB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-004_04_UV_VIS_1.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Aug-2020 02:13:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 500-0071157-004
Misc. Info.: LCS
Operator ID: Instrument ID: IC7C

Method: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\Cr6+.m
Limit Group: IC_CR+6
Last Update: 18-Aug-2020 23:25:59 Calib Date: 06-Aug-2020 03:33:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d

Column 1 : Det: ICV_01_UV_VIS_1
Process Host: CTX1062

First Level Reviewer: treadwelle Date: 18-Aug-2020 21:41:57

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.873	4.926	-0.053	618277	25.0	24.9	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

WSTICCR2-5.0_00067 Amount Added: 250.00 Units: uL

Report Date: 18-Aug-2020 23:26:00 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-004_04_UV_VIS_1.d

Injection Date: 19-Aug-2020 02:13:00 Instrument ID: IC7C

Lims ID: LCS

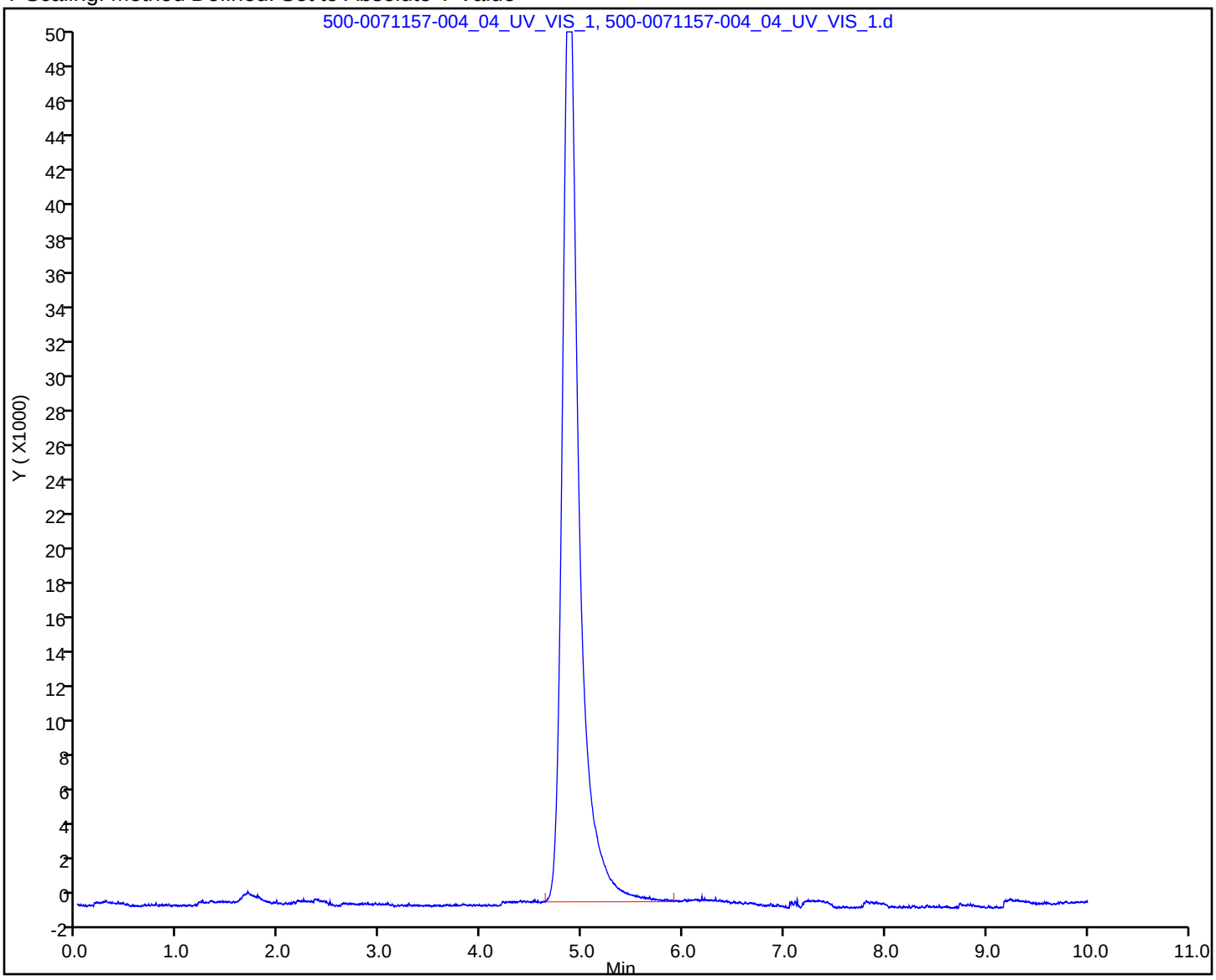
Client ID:

Operator ID: ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: Cr6+ Limit Group: IC_CR+6

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

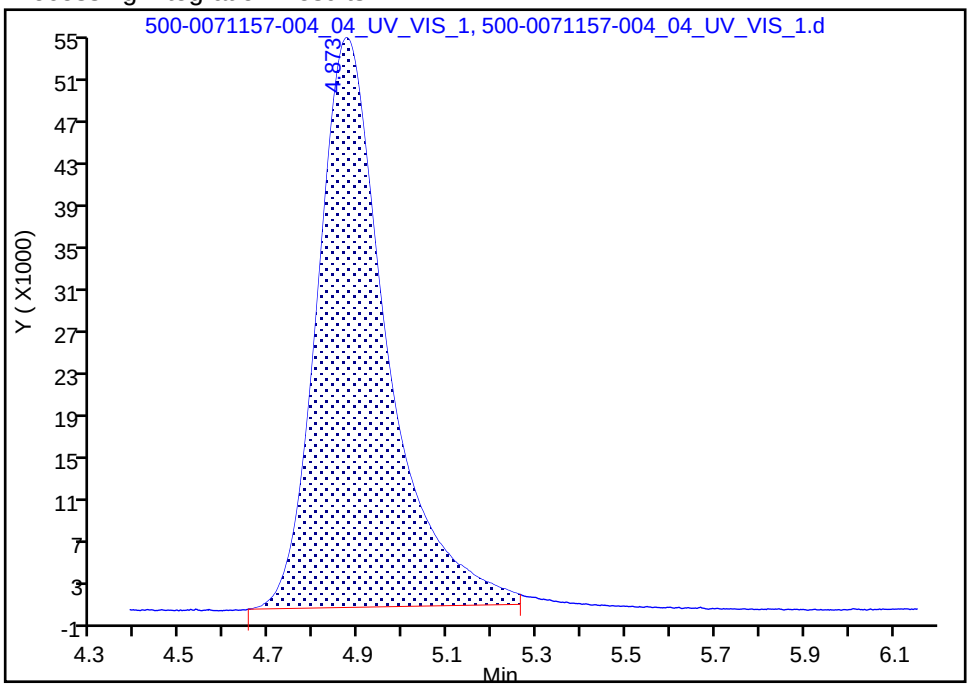
Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-004_04_UV_VIS_1.d
Injection Date: 19-Aug-2020 02:13:00 Instrument ID: IC7C
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

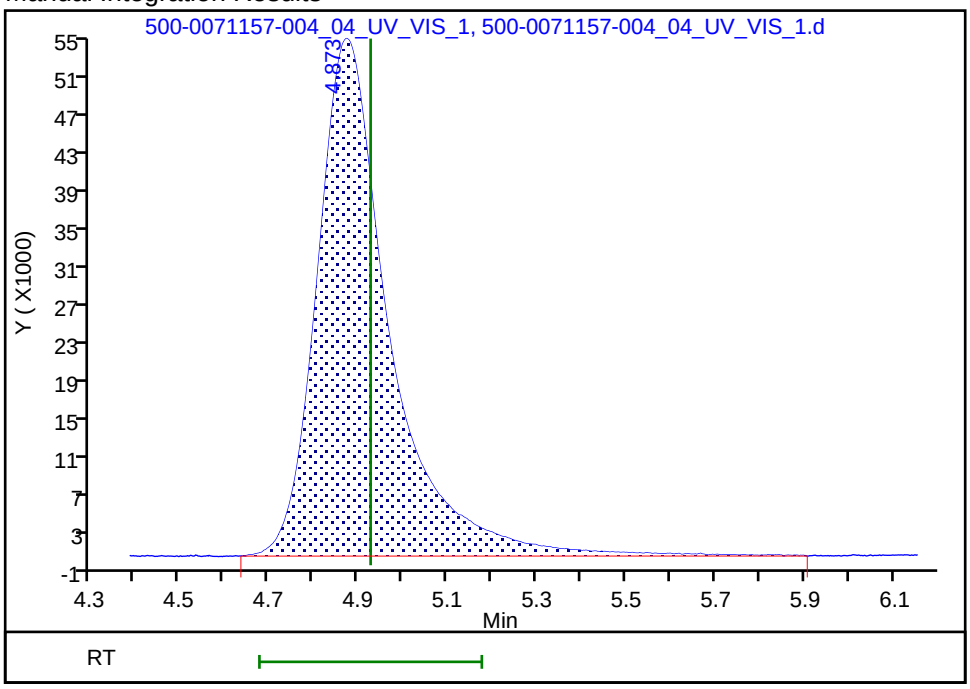
Processing Integration Results

RT: 4.87
Area: 591384
Amount: 23.796888
Amount Units: ug/l



Manual Integration Results

RT: 4.87
Area: 618277
Amount: 24.879044
Amount Units: ug/l



Reviewer: treadwelle, 18-Aug-2020 21:41:53
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-010_10_UV_VIS_1.d				
Lims ID:	500-186280-A-1				
Client ID:	MRC-MW-164B-081120				
Sample Type:	Client				
Inject. Date:	19-Aug-2020 03:31:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	500-0071157-010				
Misc. Info.:	500-186280-A-1				
Operator ID:		Instrument ID:	IC7C		
Method:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\Cr6+.m				
Limit Group:	IC_CR+6				
Last Update:	18-Aug-2020 23:25:59	Calib Date:	06-Aug-2020 03:33:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Column 1 :			Det: ICV_01_UV_VIS_1		
Process Host:	CTX1062				

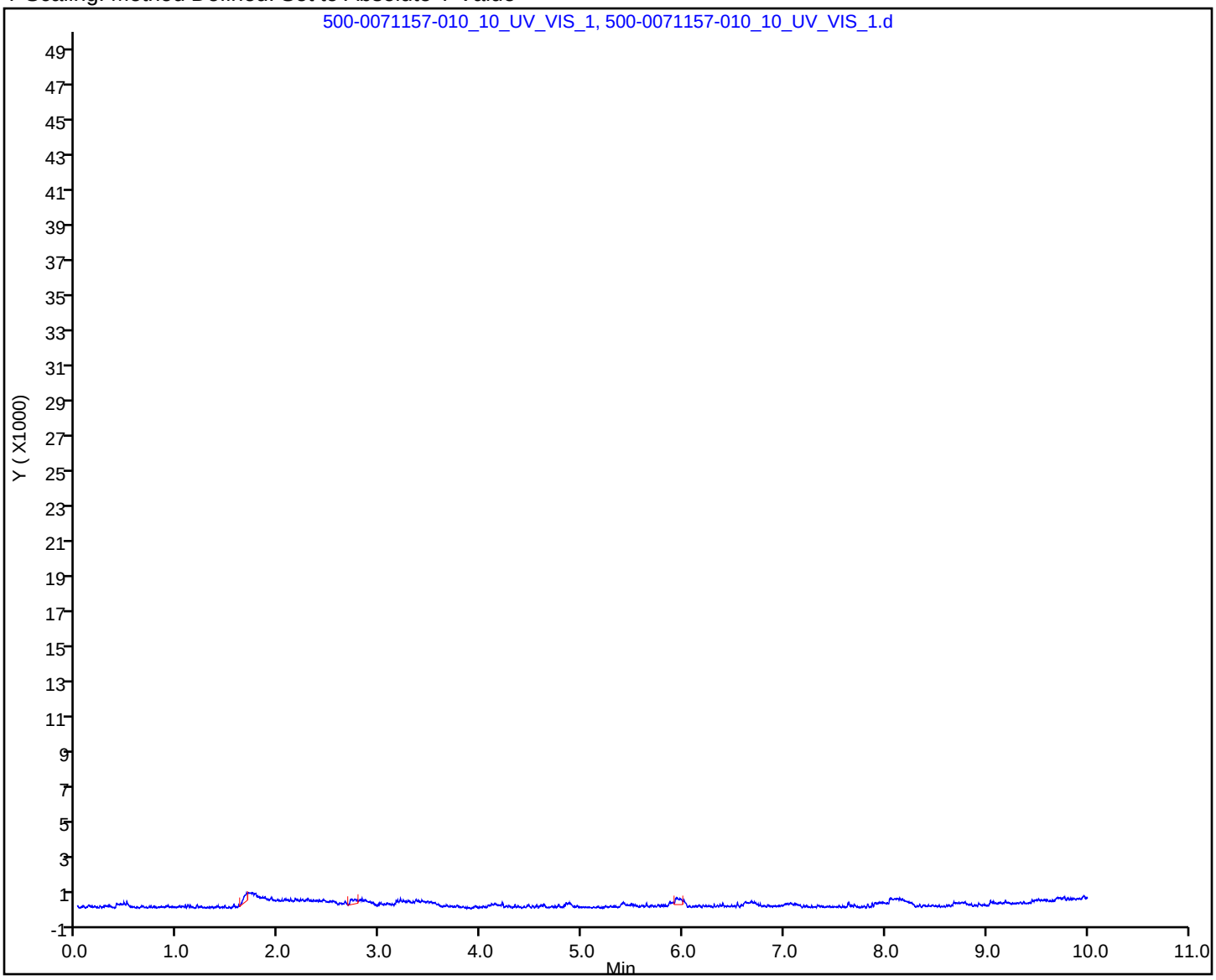
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags

Report Date: 18-Aug-2020 23:26:03 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins TestAmerica, Chicago

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-010_10_UV_VIS_1.d				
Injection Date:	19-Aug-2020 03:31:00	Instrument ID:	IC7C		
Lims ID:	500-186280-A-1	Lab Sample ID:	500-186280-1		
Client ID:	MRC-MW-164B-081120				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-011_11_UV_VIS_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-Aug-2020 03:44:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 500-0071157-011
Misc. Info.: CCV
Operator ID: Instrument ID: IC7C
Sublist: chrom-Cr6+*sub2

Method: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\Cr6+.m
Limit Group: IC_CR+6
Last Update: 18-Aug-2020 23:26:03 Calib Date: 06-Aug-2020 03:33:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d

Column 1 : Det: ICV_01_UV_VIS_1
Process Host: CTX1062

First Level Reviewer: treadwelle Date: 18-Aug-2020 23:25:38

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Cr (VI)						M
4.796	4.926	-0.130	122863	5.00	4.94	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

WSTICCR1-0.5_00069 Amount Added: 500.00 Units: uL

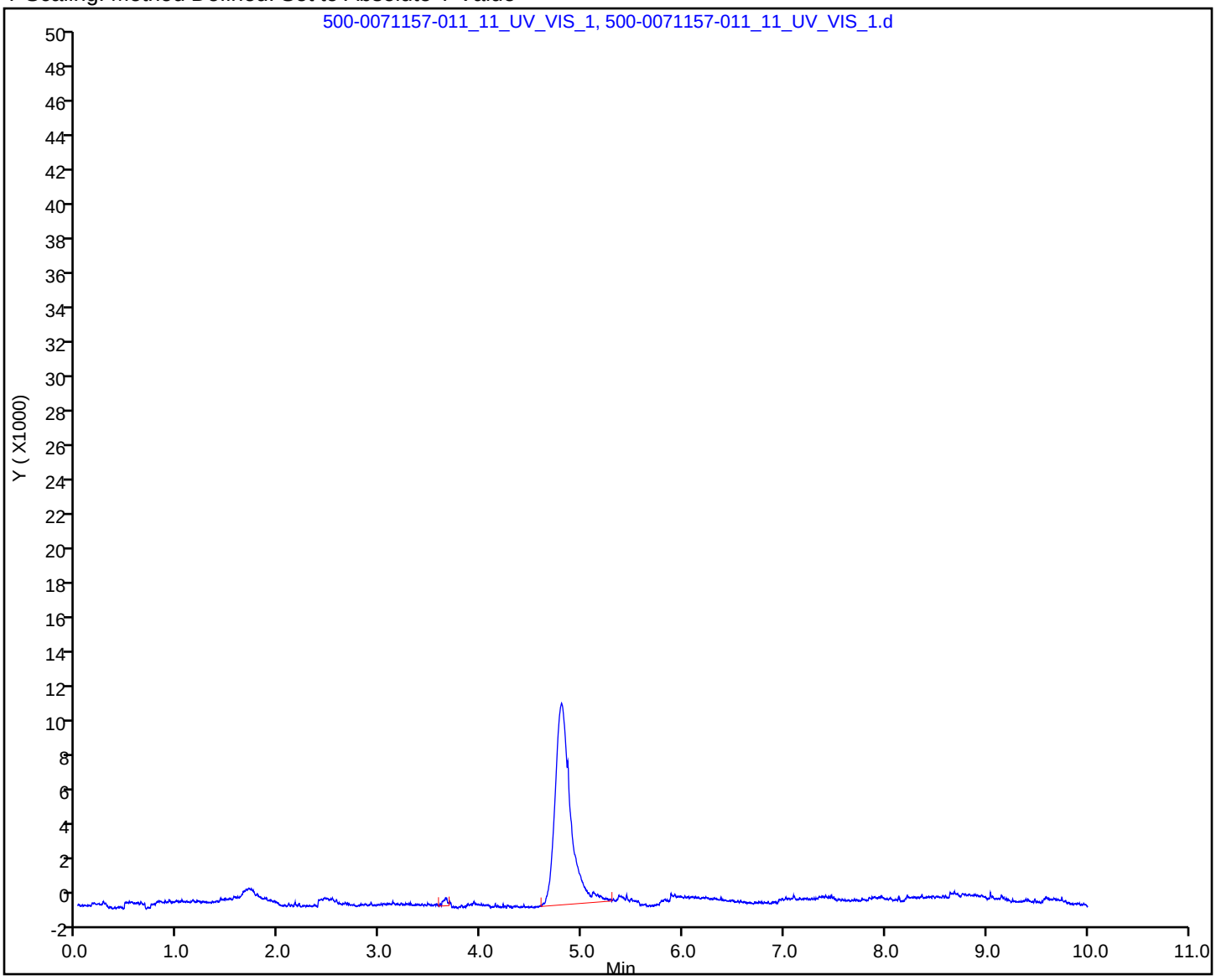
Report Date: 18-Aug-2020 23:26:03 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-011_11_UV_VIS_1.d

Injection Date:	19-Aug-2020 03:44:00	Instrument ID:	IC7C		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Chicago

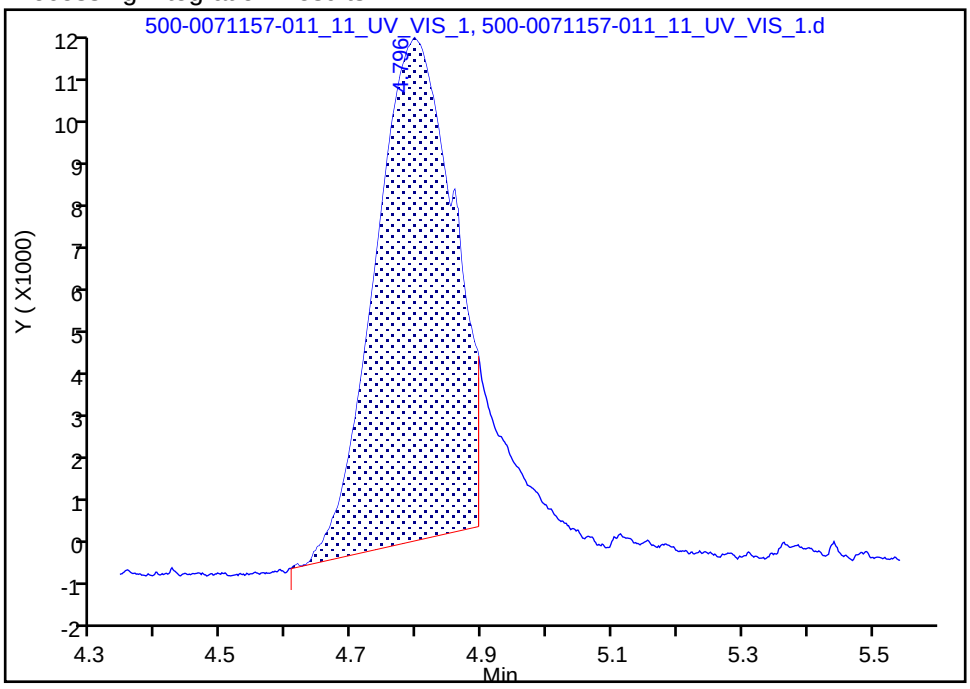
Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-011_11_UV_VIS_1.d
Injection Date: 19-Aug-2020 03:44:00 Instrument ID: IC7C
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6
Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9

Signal: 1

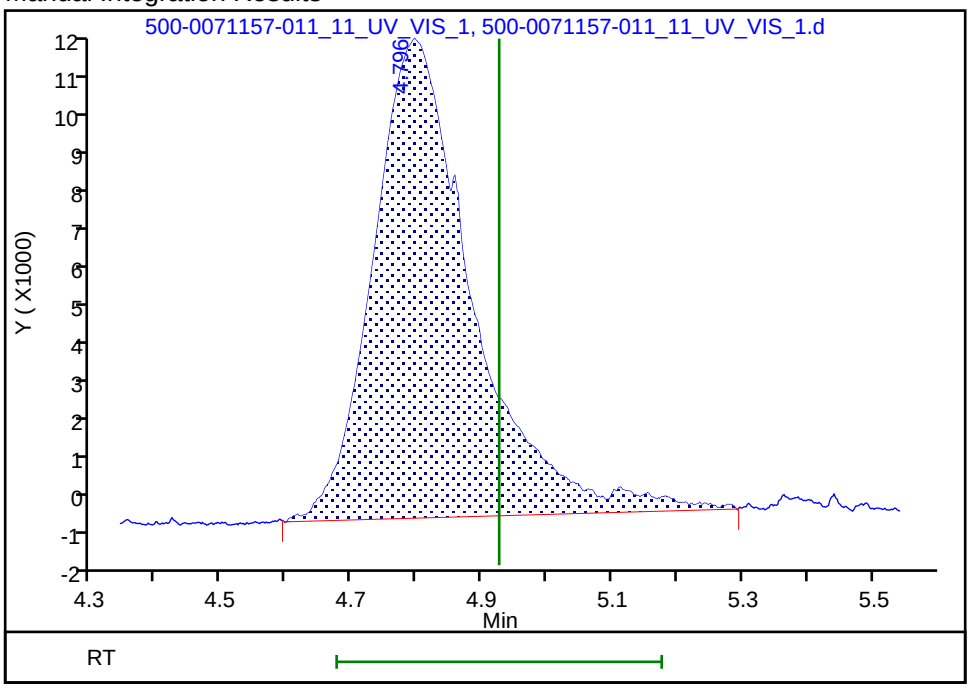
Processing Integration Results

RT: 4.80
Area: 91988
Amount: 3.701534
Amount Units: ug/l



Manual Integration Results

RT: 4.80
Area: 122863
Amount: 4.943923
Amount Units: ug/l



Reviewer: treadwelle, 18-Aug-2020 23:25:34
Audit Action: Manually Integrated Audit Reason: Instrument noise

Eurofins TestAmerica, Chicago
Target Compound Quantitation Report

Data File:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-012_12_UV_VIS_1.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	19-Aug-2020 03:57:00	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	500-0071157-012				
Misc. Info.:	CCB				
Operator ID:		Instrument ID:	IC7C		
Method:	\\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\Cr6+.m				
Limit Group:	IC_CR+6				
Last Update:	18-Aug-2020 23:26:03	Calib Date:	06-Aug-2020 03:33:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\500-0070857-007_07_UV_VIS_1.d				
Column 1 :			Det: ICV_01_UV_VIS_1		
Process Host:	CTX1062				
First Level Reviewer: treadwelle		Date:	18-Aug-2020 23:25:47		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

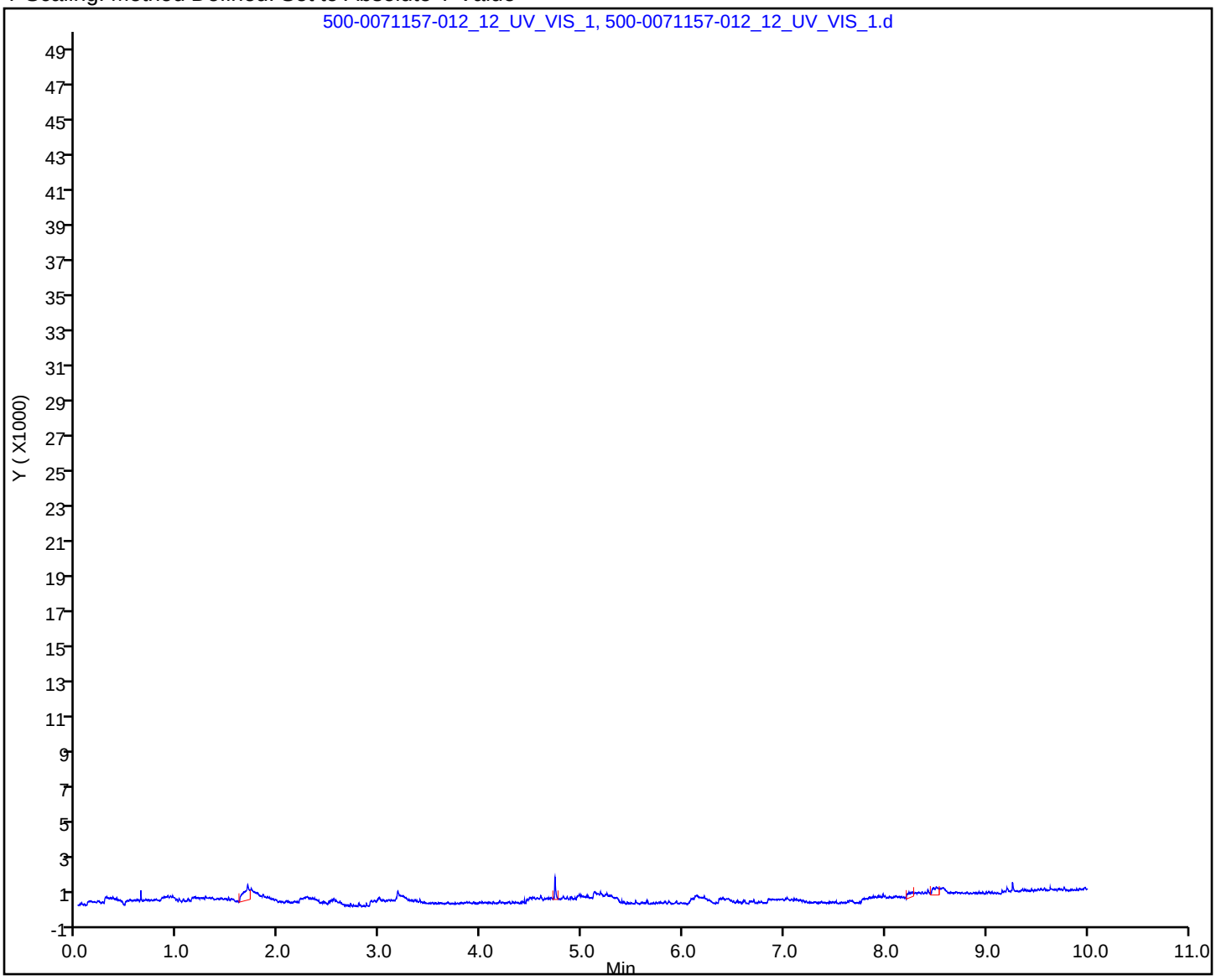
Report Date: 18-Aug-2020 23:26:04 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-012_12_UV_VIS_1.d

Injection Date:	19-Aug-2020 03:57:00	Instrument ID:	IC7C		
Lims ID:	CCB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	Cr6+	Limit Group:	IC_CR+6		

Y Scaling: Method Defined: Set to Absolute Y Value



User Disabled Compound Report

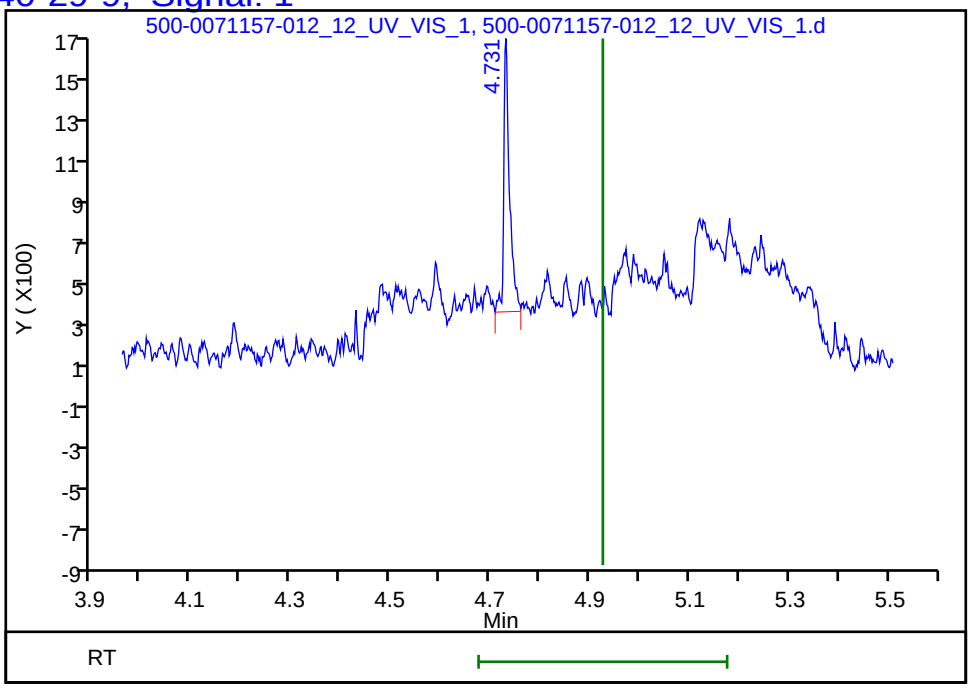
Eurofins TestAmerica, Chicago

Data File: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b\500-0071157-012_12_UV_VIS_1.d
Injection Date: 19-Aug-2020 03:57:00 Instrument ID: IC7C
Lims ID: CCB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: Cr6+ Limit Group: IC_CR+6

Column: Detector ICV_01_UV_VIS_1

1 Cr (VI), CAS: 18540-29-9, Signal: 1

RT: 4.73
Response: 1043
Amount: 0.041970



Reviewer: treadwelle, 18-Aug-2020 23:25:47
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Environment Testing America
Initial Calibration RF Report

AD : 555539

Method: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b\Cr6+.m

Instrument:	IC7C	Lims Location:	500
Lock State:	Initial Calib Locked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	06-Aug-2020 18:47:19

No.Compounds:1

Initial Calibration Batches

Ical Batch: \\chromfs\Chicago\ChromData\IC7C\20200805-70857.b
Inj Date : 06-Aug-2020 02:28:00, Sublist: chrom-Cr6+*sub2

Limit Group: IC_CR+6

Column 1 : Det: ICV_01_UV_VIS_1

Compound	Level 1 RF/%Drift	Level 2 RF/%Drift	Level 3 RF/%Drift	Level 4 RF/%Drift	Level 5 RF/%Drift	Level 6 RF/%Drift	Avg RF	Curve	Rse/ Rsd	R^2/ COD	Flags
1 Cr (VI)	27250	23015	24522	25143	24728	24450	24851	WAvg	5.5		
	9.7	-7.4	-1.3	1.2	-0.5	-1.6					

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

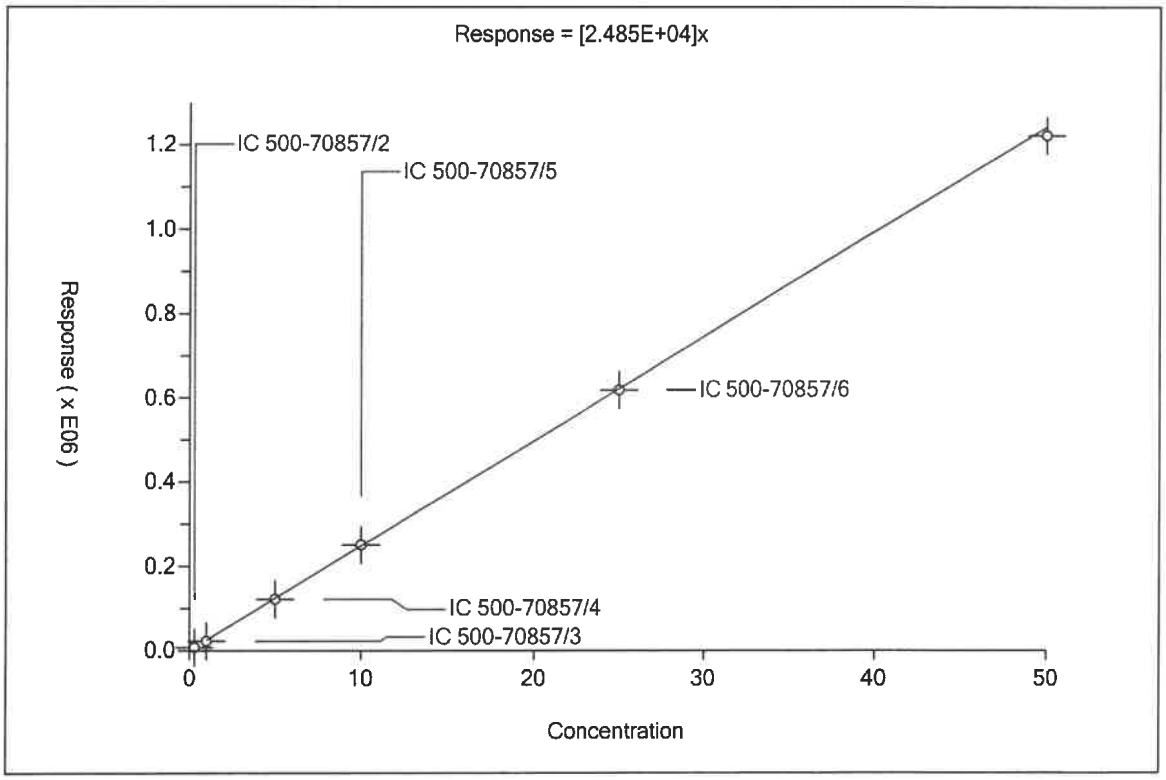
Curve Coefficients

Intercept:	0
Slope:	2.485E+04

Error Coefficients

Standard Error:	9200
Relative Standard Error:	5.5
Correlation Coefficient:	1.00
Coefficient of Determination (Adjusted):	1.00 (1.00)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 500-70857/2	0.3	8175.0			27250.0	Y
2	IC 500-70857/3	1	23015.0			23015.0	Y
3	IC 500-70857/4	5	122609.0			24521.8	Y
4	IC 500-70857/5	10	251434.0			25143.4	Y
5	IC 500-70857/6	25	618198.0			24727.92	Y
6	IC 500-70857/7	50	1222489.0			24449.78	Y



Eurofins TestAmerica Chicago

Cover Page - IC_Chromium, Hexavalent by Method 218.6 / 7199

ICAL Batch: 555534 Worklist ID: 70857 Instrument: ____ IC7: Dionex IC ICS-5000

Analytical Batch: 557485 Worklist ID: 71157

Filtration Batch:

Filter Lot# 170384139

Preservation Start Date: 8/18/20

Start Time: 954 **End Time:** 1004

Calibration[2]

	Source ID#	pH	Temp °C	Slope[3]
Standard 4.0	Red- 00189	4.00	20.9	
Standard 7.0	Yellow- 00125	7.01	20.9	
Standard 10.0	Blue- 00115	10.06	20.8	98.3
ICV 7.0	Clear- 00201	7.08	21.1	

[2] Calibration Acceptance Criteria: ± 0.1 SU

[3] Slope Acceptance Criteria: 92% to 102%

pH Adjustment Buffer ID:	CrVI-Buffer- 00091			
Sample ID	Initial pH	Final pH Criteria 9.3 to 9.7	Buffer Vol added (ul)	
180-173904-A-1	8.24	9.47	80	TH-081720

Analyst Signature: _____ Date: 8/18/20

Reviewer Signature: _____ Date: 8-18-2020

CHI-22-12-142/I-05/20

Eurofins TestAmerica Chicago

Cover Page - IC_Chromium, Hexavalent by Method 218.6 / 7199

ICAL Batch: 555534 Worklist ID: 70857 Instrument: ____ IC7: Dionex IC ICS-5000

Analytical Batch: 557485 Worklist ID: 71157

Filtration Batch:

Filter Lot# 17038439

Preservation Start Date: 8/14/20

Start Time: 1040 **End Time:** 1045

Calibration[2]

	Source ID#	pH	Temp °C	Slope[3]
Standard 4.0	Red- 00189	4.00	20.8	
Standard 7.0	Yellow- 00125	7.01	20.8	
Standard 10.0	Blue- 00115	10.06	20.8	98.9
ICV 7.0	Clear- 00201	7.05	20.8	

[2] Calibration Acceptance Criteria: ± 0.1 SU

[3] Slope Acceptance Criteria: 92% to 102%

pH Adjustment Buffer ID: CrVI-Buffer 00091

Sample ID	Initial pH	Final pH Criteria 9.3 to 9.7	Buffer Vol added (ul)	
480-173811-A-1	6.45	9.37	140	T-10 081320

Analyst Signature: [signature] Date: 8/14/20

Reviewer Signature: [signature] Date: 8-16-2020

CHI-22-12-142/I-05/20

Eurofins TestAmerica Chicago

Cover Page - IC_Chromium, Hexavalent by Method 218.6 / 7199

ICAL Batch: 555539 Worklist ID: 71157 Instrument: ____ IC7: Dionex IC ICS-5000

Analytical Batch: 557485 Worklist ID: 70857

Filtration Batch:

Filter Lot# 17038439

Preservation Start Date: 8-13-2020

Start Time: 1030 **End Time:** 1120

Calibration[2]

	Source ID#	pH	Temp °C	Slope[3]
Standard 4.0	Red- 00189	4.01	21.0	
Standard 7.0	Yellow- 00125	6.99	26.2	
Standard 10.0	Blue- 00115	9.95	21.2	99.3
ICV 7.0	Clear- 00201	7.02	21.4	

[2] Calibration Acceptance Criteria: ± 0.1 SU

[3] Slope Acceptance Criteria: 92% to 102%

pH Adjustment Buffer ID: CrVI-Buffer- 00091

Sample ID	Initial pH	Final pH Criteria 9.3 to 9.7	Buffer Vol added (ul) PGL 8-13-20	
INF-081320	5.93	9.30	400	480-173736-A-1

Analyst Signature: Paul Kaeff Date: 8-13-2020

Reviewer Signature: EC Date: 8-18-2020

CHI-22-12-142/I-05/20

Eurofins TestAmerica Chicago

Cover Page - IC_Chromium, Hexavalent by Method 218.6 / 7199

ICAL Batch: 555539 Worklist ID: 70857 Instrument: ____ IC7: Dionex IC ICS-5000

Analytical Batch: 557485 Worklist ID: 71157

Filtration Batch:

Filter Lot# 17038439

Preservation Start Date: 8/12/20

Start Time: 1210 **End Time:** 1305

Calibration[2]

	Source ID#	pH	Temp °C	Slope[3]
Standard 4.0	Red- 00189	4.01	21.0	
Standard 7.0	Yellow- 00125	7.01	21.2	
Standard 10.0	Blue- 00115	10.04	21.2	98.4
ICV 7.0	Clear- 00201	7.03	21.2	

[2] Calibration Acceptance Criteria: ± 0.1 SU

[3] Slope Acceptance Criteria: 92% to 102%

pH Adjustment Buffer ID:	CrVI-Buffer 00091		
Sample ID	Initial pH	Final pH Criteria 9.3 to 9.7	Buffer Vol added (ul)
500-180280-A-1	6.22	9.30	600
480-173662-A-1	8.00	9.32	180

T-11-081120

Analyst Signature: _____ Date: 8/12/20

Reviewer Signature: _____ Date: 8-18-2020

CHI-22-12-142/I-05/20

Eurofins TestAmerica Chicago

Cover Page - IC_Chromium, Hexavalent by Method 218.6 / 7199

ICAL Batch: 555539 Worklist ID: 70857 Instrument: ____ IC7: Dionex IC ICS-5000

Analytical Batch: 557485 Worklist ID: 71157

Filtration Batch:

Filter Lot# 17038439

Preservation Start Date: 8-11-20

Start Time: 12:15 **End Time:** 1236

Calibration[2]

	Source ID#	pH	Temp °C	Slope[3]
Standard 4.0	Red- 00189	4.01	21.1	
Standard 7.0	Yellow- 00125	7.01	21.1	
Standard 10.0	Blue- 00115	10.05	21.2	96.2
ICV 7.0	Clear- 00201	7.02	21.1	

[2] Calibration Acceptance Criteria: ± 0.1 SU

[3] Slope Acceptance Criteria: 92% to 102%

pH Adjustment Buffer ID:	CrVI-Buffer- 00091		
Sample ID	Initial pH	Final pH Criteria 9.3 to 9.7	Buffer Vol added (ul)
500-186221-B-2	8.70	9.30	260

Analyst Signature: Paul Kuhl Date: 8-11-20

Reviewer Signature: EC Date: 8-18-2020

CHI-22-12-142/I-05/20

Eurofins Environment Testing America
Worklist Report

Worklist Name: 08-18-2020VI
Instrument Name: IC7C
Injection Volume: 1.000
Analysis Type: Semi VOA
Batch Directory: \\chromfs\Chicago\ChromData\IC7C\20200818-71157.b
Upload Directory: \\corptalsapp16\500-CH-RawData\WetChem\IC7
Batch #s: 557485

Worklist Number: 71157
Chrom Method: Cr6+
Units: ul

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
500-0071157-001	# 1 CCV	WSTICCR1-0.5_00069	CCV	sv	1.000	mL	1.000
500-0071157-002	# 2 CCB		CCB	sv	1.000	mL	1.000
500-0071157-003	# 3 MB		MB	sv	1.000	mL	1.000
500-0071157-004	# 4 LCS	WSTICCR2-5.0_00067	LCS	sv	1.000	mL	1.000
500-0071157-005	# 5 480-173662-A-1		Client	sv	1.000	mL	1.000
500-0071157-006	# 6 480-173736-A-1		Client	sv	1.000	mL	1.000
500-0071157-007	# 7 480-173811-A-1		Client	sv	1.000	mL	1.000
500-0071157-008	# 8 480-173904-A-1		Client	sv	1.000	mL	1.000
500-0071157-009	# 9 500-186221-B-2		Client	sv	1.000	mL	1.000
500-0071157-010	#10 500-186280-A-1		Client	sv	1.000	mL	1.000
500-0071157-011	#11 CCV	WSTICCR1-0.5_00069	CCV	sv	1.000	mL	1.000
500-0071157-012	#12 CCB		CCB	sv	1.000	mL	1.000

Shipping and Receiving Documents

Chicago
2417 Bond Street

University Park, IL 60484
phone 708.534.5200 fax 708.534.5363

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Samantha Brenner	Site Contact: Josh Mullis	Date: 8/11/2020	COC No:
Tetra Tech	Tel: (301) 528-3021	Lab Contact: Donna Campbell	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 500-186280
Germantown, MD 20874	Calendar (C) or Work Days (W)			SDG No.
(301) 528-3021 Phone	TAT if different from Below: 24 HOURS			
(301) 528-3000 FAX	☐ 2 weeks			Sampler: Mullis
Project Name: MRC South of Building C	☐ 1 week			Filtered but NO Buffer!
Site: Middle River Complex	☐ 2 days			
Project # 112IC09011	☐ 1 day			

500-186280 COC

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Hexavalent Chromium (218.6)	Sample Specific Notes:
1 MRC-MW-164B-081120	8/11/2020	1420	AQ	Water	1	X	X	No Buffer!

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _Ammonium Sulfate_____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: South of Building C groundwater. Sample is filtered and ~~preserved in field~~ to extend hold time to 28 days. Analyze ASAP. Contact samantha.brenner@tetratech.com or josh.mullis@tetratech.com NOT PRESERVED

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	8/11/2020 1530		BTA Burlington	8/11/20 1530
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	BTA Burlington	8/11/20 1700	Stephanie Hernandez	TA-CHI	8/12/20 0945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

0.1 → 1.1


ORIGIN ID:KEUA (410) 869-0085
SETH CAPLAN
EUROFINS TESTAMERICA
7526 CONNELLEY DR
SUITE F
BALTIMORE, MD 21228
UNITED STATES US
SHIP DATE: 11AUG20
ACTWGT: 10.00 LB
CAD: 1030460/INET4280
BILL RECIPIENT
TO SHIPPING & RECIEVEING
TEST AMERICA CHICAGO
2417 BOND STREET
CHICAGO IL 60484
(708) 534-5200
REF: TETRA TECH MRC
500-186280 Wayb
INV:
PO:
DEPT:
FedEx Express
WED - 12 AUG 10:30A
PRIORITY OVERNIGHT
TRK# 0201 7712 3448 9078
60484
NA JOTA
480T
IL-US
ORD

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 500-186280-1

Login Number: 186280
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Job Number: 240-134814-1

Job Description: MRC South of Building C

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

Attention: Samantha Brenner

Roxanne Cisneros

Approved for release.
Roxanne Cisneros
Senior Project Manager
9/4/2020 4:54 PM

Roxanne Cisneros, Senior Project Manager
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09/04/2020

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
240-134814-1

Comments
No additional comments.

Receipt
The sample was received on 8/12/2020 11:00 AM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2º C.

GC/MS VOA
Method 8260C: The laboratory control sample (LCS) for analytical batch 240-447281 recovered outside control limits for 2-chloroethyl vinyl ether. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: MRC-MW-164B-081120 (240-134814-1). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 240-447281 was outside the method criteria for some analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260C: Batch analytical batch 240-447281 is reported without a matrix spike/matrix spike duplicate (MS/MSD), because the batch MS/MSD was canceled. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

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

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

Dioxin
Method 680: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 410-34321 and analytical batch 410-34909 recovered outside control limits for the following analytes: DCB Decachlorobiphenyl, Total Dichlorobiphenyls Total Monochlorobiphenyls Total Tetrachlorobiphenyls Total Trichlorobiphenyls. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

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

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

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

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MRC South of Building C

Job ID: 240-134814-1

Client Sample ID: MRC-MW-164B-081120

Lab Sample ID: 240-134814-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.6		1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.7		1.0	0.38	ug/L	1		8260C	Total/NA
Isopropylbenzene	0.52	J	1.0	0.45	ug/L	1		8260C	Total/NA
Trichloroethene	9.9		1.0	0.36	ug/L	1		8260C	Total/NA
Methane	11		1.0	0.17	ug/L	1		RSK-175	Total/NA
Ethane	1.2		1.0	0.29	ug/L	1		RSK-175	Total/NA
Ethylene	0.83	J	1.0	0.27	ug/L	1		RSK-175	Total/NA
Iron	24000		200	26	ug/L	1		6010C	Total Recoverable
Manganese	2500		15	2.1	ug/L	1		6010C	Total Recoverable
Aluminum	950	F1	50	34	ug/L	1		6020A	Total Recoverable
Barium	180		5.0	2.2	ug/L	1		6020A	Total Recoverable
Beryllium	0.51	J	1.0	0.31	ug/L	1		6020A	Total Recoverable
Cobalt	41		1.0	0.19	ug/L	1		6020A	Total Recoverable
Chromium	2.9		2.0	0.98	ug/L	1		6020A	Total Recoverable
Copper	1.8	J	2.0	1.7	ug/L	1		6020A	Total Recoverable
Iron	24000		100	47	ug/L	1		6020A	Total Recoverable
Manganese	2700		5.0	2.1	ug/L	1		6020A	Total Recoverable
Nickel	42		2.0	1.5	ug/L	1		6020A	Total Recoverable
Lead	1.2		1.0	0.45	ug/L	1		6020A	Total Recoverable
Thallium	0.28	J	1.0	0.20	ug/L	1		6020A	Total Recoverable
Vanadium	5.3		5.0	0.82	ug/L	1		6020A	Total Recoverable
Zinc	60		20	15	ug/L	1		6020A	Total Recoverable
Calcium	14000		1000	580	ug/L	1		6020A	Total Recoverable
Potassium	5700		1000	220	ug/L	1		6020A	Total Recoverable
Magnesium	6400		1000	200	ug/L	1		6020A	Total Recoverable
Sodium	16000		1000	330	ug/L	1		6020A	Total Recoverable
Alkalinity	98		5.0	2.6	mg/L	1		2320B-2011	Total/NA
Hardness as calcium carbonate	96		5.0	2.4	mg/L	1		2340C-2011	Total/NA
Total Dissolved Solids	120		10	7.8	mg/L	1		2540 C-2011	Total/NA
Bromide	0.21	J	0.50	0.044	mg/L	1		9056A	Total/NA
Sulfate	9.0		1.0	0.35	mg/L	1		9056A	Total/NA
Specific Conductance	250		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Date Collected: 08/11/20 14:20 **Matrix: Water**
Date Received: 08/12/20 11:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41	ug/L			08/14/20 22:57	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			08/14/20 22:57	1
1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56	ug/L			08/14/20 22:57	1
1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41	ug/L			08/14/20 22:57	1
1,1-Dichloroethane	0.41	U	1.0	0.41	ug/L			08/14/20 22:57	1
1,1-Dichloroethene	0.46	U	1.0	0.46	ug/L			08/14/20 22:57	1
1,1-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/14/20 22:57	1
1,2,3-Trichlorobenzene	0.54	U	1.0	0.54	ug/L			08/14/20 22:57	1
1,2,3-Trichloropropane	0.51	U	1.0	0.51	ug/L			08/14/20 22:57	1
1,2,3-Trimethylbenzene	0.36	U	5.0	0.36	ug/L			08/14/20 22:57	1
1,2,4-Trichlorobenzene	0.81	U	1.0	0.81	ug/L			08/14/20 22:57	1
1,2,4-Trimethylbenzene	0.45	U	1.0	0.45	ug/L			08/14/20 22:57	1
1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91	ug/L			08/14/20 22:57	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			08/14/20 22:57	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			08/14/20 22:57	1
1,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			08/14/20 22:57	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	ug/L			08/14/20 22:57	1
1,3-Dichloropropane	0.21	U	1.0	0.21	ug/L			08/14/20 22:57	1
1,4-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			08/14/20 22:57	1
2,2-Dichloropropane	0.95	U	1.0	0.95	ug/L			08/14/20 22:57	1
2-Chloroethyl vinyl ether	1.1	U *	10	1.1	ug/L			08/14/20 22:57	1
2-Chlorotoluene	0.42	U	1.0	0.42	ug/L			08/14/20 22:57	1
2-Hexanone	2.1	U	10	2.1	ug/L			08/14/20 22:57	1
Bromobenzene	0.38	U	1.0	0.38	ug/L			08/14/20 22:57	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			08/14/20 22:57	1
4-Chlorotoluene	0.44	U	1.0	0.44	ug/L			08/14/20 22:57	1
4-Isopropyltoluene	0.49	U	1.0	0.49	ug/L			08/14/20 22:57	1
Acetone	5.4	U	10	5.4	ug/L			08/14/20 22:57	1
Benzene	**4.6**		1.0	0.38	ug/L			08/14/20 22:57	1
Bromoform	0.76	U	1.0	0.76	ug/L			08/14/20 22:57	1
Bromomethane	0.42	U	1.0	0.42	ug/L			08/14/20 22:57	1
Carbon disulfide	0.28	U	1.0	0.28	ug/L			08/14/20 22:57	1
Carbon tetrachloride	0.26	U	1.0	0.26	ug/L			08/14/20 22:57	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			08/14/20 22:57	1
Chloroethane	0.83	U	1.0	0.83	ug/L			08/14/20 22:57	1
Chloroform	0.40	U	1.0	0.40	ug/L			08/14/20 22:57	1
Chloromethane	0.64	U	1.0	0.64	ug/L			08/14/20 22:57	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.38	ug/L			08/14/20 22:57	1
cis-1,3-Dichloropropene	0.61	U	1.0	0.61	ug/L			08/14/20 22:57	1
Hexachlorobutadiene	0.83	U	1.0	0.83	ug/L			08/14/20 22:57	1
Dibromomethane	0.33	U	1.0	0.33	ug/L			08/14/20 22:57	1
Bromodichloromethane	0.35	U	1.0	0.35	ug/L			08/14/20 22:57	1
Dichlorodifluoromethane	0.35	U	1.0	0.35	ug/L			08/14/20 22:57	1
Ethylbenzene	0.39	U	1.0	0.39	ug/L			08/14/20 22:57	1
1,2-Dibromoethane	0.37	U	1.0	0.37	ug/L			08/14/20 22:57	1
Diisopropyl ether	0.36	U	10	0.36	ug/L			08/14/20 22:57	1
Naphthalene	0.82	U	1.0	0.82	ug/L			08/14/20 22:57	1
n-Butylbenzene	0.59	U	1.0	0.59	ug/L			08/14/20 22:57	1
Isopropylbenzene	**0.52**	**J**	1.0	0.45	ug/L			08/14/20 22:57	1

Client Sample ID: MRC-MW-164B-081120
Lab Sample ID: 240-134814-1

Date Collected: 08/11/20 14:20
Matrix: Water
Date Received: 08/12/20 11:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	0.46	U	1.0	0.46	ug/L			08/14/20 22:57	1
2-Butanone (MEK)	2.4	U	10	2.4	ug/L			08/14/20 22:57	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			08/14/20 22:57	1
sec-Butylbenzene	0.63	U	1.0	0.63	ug/L			08/14/20 22:57	1
Methyl tert-butyl ether	0.44	U	1.0	0.44	ug/L			08/14/20 22:57	1
Tert-amyl methyl ether	0.39	U	5.0	0.39	ug/L			08/14/20 22:57	1
Methylene Chloride	1.3	U	5.0	1.3	ug/L			08/14/20 22:57	1
Styrene	0.40	U	1.0	0.40	ug/L			08/14/20 22:57	1
Ethyl tert-butyl ether	0.43	U	5.0	0.43	ug/L			08/14/20 22:57	1
tert-Butylbenzene	0.51	U	1.0	0.51	ug/L			08/14/20 22:57	1
Tetrachloroethene	0.33	U	1.0	0.33	ug/L			08/14/20 22:57	1
Toluene	0.35	U	1.0	0.35	ug/L			08/14/20 22:57	1
trans-1,2-Dichloroethene	0.43	U	1.0	0.43	ug/L			08/14/20 22:57	1
trans-1,3-Dichloropropene	0.67	U	1.0	0.67	ug/L			08/14/20 22:57	1
Trichloroethene	**9.9**		1.0	0.36	ug/L			08/14/20 22:57	1
Trichlorofluoromethane	0.45	U	1.0	0.45	ug/L			08/14/20 22:57	1
Vinyl acetate	0.78	U	2.0	0.78	ug/L			08/14/20 22:57	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			08/14/20 22:57	1
tert-Butyl alcohol	1.7	U	40	1.7	ug/L			08/14/20 22:57	1
Xylenes, Total	0.42	U	2.0	0.42	ug/L			08/14/20 22:57	1
Chlorodibromomethane	0.39	U	1.0	0.39	ug/L			08/14/20 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 130*		*08/14/20 22:57*	*1*
4-Bromofluorobenzene (Surr)	*94*		*47 - 134*		*08/14/20 22:57*	*1*
Toluene-d8 (Surr)	*105*		*69 - 122*		*08/14/20 22:57*	*1*
Dibromofluoromethane (Surr)	*104*		*78 - 129*		*08/14/20 22:57*	*1*

Method: 680 - Polychlorinated Biphenyls by GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0.22	U *	0.55	0.22	ug/L		08/18/20 07:43	08/19/20 14:29	1
Polychlorinated biphenyls, Total	0.022	U	0.11	0.022	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Dichlorobiphenyls	0.022	U *	0.11	0.022	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Heptachlorobiphenyls	0.044	U	0.33	0.044	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Hexachlorobiphenyls	0.033	U	0.22	0.033	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Monochlorobiphenyls	0.022	U *	0.11	0.022	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Nonachlorobiphenyls	0.22	U	0.55	0.22	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Octachlorobiphenyls	0.055	U	0.33	0.055	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Pentachlorobiphenyls	0.033	U	0.22	0.033	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Tetrachlorobiphenyls	0.033	U *	0.22	0.033	ug/L		08/18/20 07:43	08/19/20 14:29	1
Total Trichlorobiphenyls	0.022	U *	0.11	0.022	ug/L		08/18/20 07:43	08/19/20 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-138L	*81*		*39 - 131*	*08/18/20 07:43*	*08/19/20 14:29*	*1*
PCB-52L	*91*		*42 - 105*	*08/18/20 07:43*	*08/19/20 14:29*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**11**		1.0	0.17	ug/L			08/13/20 12:44	1
Ethane	**1.2**		1.0	0.29	ug/L			08/13/20 12:44	1

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Date Collected: 08/11/20 14:20 **Matrix: Water**
Date Received: 08/12/20 11:00

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene	**0.83**	**J**	1.0	0.27	ug/L			08/13/20 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,1-Trifluoroethane	*108*		*60 - 140*		*08/13/20 12:44*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**24000**		200	26	ug/L		08/13/20 14:00	08/14/20 13:27	1
Manganese	**2500**		15	2.1	ug/L		08/13/20 14:00	08/14/20 13:27	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.053	U	1.0	0.053	ug/L		08/13/20 14:00	08/14/20 15:54	1
Aluminum	**950**	**F1**	50	34	ug/L		08/13/20 14:00	08/14/20 15:54	1
Arsenic	0.75	U	5.0	0.75	ug/L		08/13/20 14:00	08/14/20 15:54	1
Barium	**180**		5.0	2.2	ug/L		08/13/20 14:00	08/14/20 15:54	1
Beryllium	**0.51**	**J**	1.0	0.31	ug/L		08/13/20 14:00	08/14/20 15:54	1
Cadmium	0.20	U	1.0	0.20	ug/L		08/13/20 14:00	08/14/20 15:54	1
Cobalt	**41**		1.0	0.19	ug/L		08/13/20 14:00	08/14/20 15:54	1
Chromium	**2.9**		2.0	0.98	ug/L		08/13/20 14:00	08/14/20 15:54	1
Copper	**1.8**	**J**	2.0	1.7	ug/L		08/13/20 14:00	08/14/20 15:54	1
Iron	**24000**		100	47	ug/L		08/13/20 14:00	08/14/20 15:54	1
Manganese	**2700**		5.0	2.1	ug/L		08/13/20 14:00	08/14/20 15:54	1
Nickel	**42**		2.0	1.5	ug/L		08/13/20 14:00	08/14/20 15:54	1
Lead	**1.2**		1.0	0.45	ug/L		08/13/20 14:00	08/14/20 15:54	1
Antimony	0.57	U	2.0	0.57	ug/L		08/13/20 14:00	08/14/20 15:54	1
Selenium	0.89	U	5.0	0.89	ug/L		08/13/20 14:00	08/14/20 15:54	1
Thallium	**0.28**	**J**	1.0	0.20	ug/L		08/13/20 14:00	08/14/20 15:54	1
Vanadium	**5.3**		5.0	0.82	ug/L		08/13/20 14:00	08/14/20 15:54	1
Zinc	**60**		20	15	ug/L		08/13/20 14:00	08/14/20 15:54	1
Calcium	**14000**		1000	580	ug/L		08/13/20 14:00	08/14/20 15:54	1
Potassium	**5700**		1000	220	ug/L		08/13/20 14:00	08/14/20 15:54	1
Magnesium	**6400**		1000	200	ug/L		08/13/20 14:00	08/14/20 15:54	1
Sodium	**16000**		1000	330	ug/L		08/13/20 14:00	08/14/20 15:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	U	0.20	0.13	ug/L		08/13/20 12:00	08/13/20 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**98**		5.0	2.6	mg/L			08/13/20 23:30	1
Hardness as calcium carbonate	**96**		5.0	2.4	mg/L			08/18/20 15:49	1
Total Dissolved Solids	**120**		10	7.8	mg/L			08/14/20 09:02	1
Bromide	**0.21**	**J**	0.50	0.044	mg/L			08/12/20 18:10	1
Nitrite as N	0.014	U	0.10	0.014	mg/L			08/12/20 18:10	1
Nitrate as N	0.014	U	0.10	0.014	mg/L			08/12/20 18:10	1
Sulfate	**9.0**		1.0	0.35	mg/L			08/12/20 18:10	1
Specific Conductance	**250**		1.0	1.0	umhos/cm			08/19/20 20:04	1
Salinity	2.0	U	2.0	2.0	No Unit			08/26/20 12:08	1

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC South of Building C

Job ID: 240-134814-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	RL	MDL	Units
1,1,1,2-Tetrachloroethane	1.0	0.41	ug/L
1,1,1-Trichloroethane	1.0	0.24	ug/L
1,1,2,2-Tetrachloroethane	1.0	0.56	ug/L
1,1,2-Trichlorotrifluoroethane	1.0	0.41	ug/L
1,1-Dichloroethane	1.0	0.41	ug/L
1,1-Dichloroethene	1.0	0.46	ug/L
1,1-Dichloropropene	1.0	0.37	ug/L
1,2,3-Trichlorobenzene	1.0	0.54	ug/L
1,2,3-Trichloropropane	1.0	0.51	ug/L
1,2,3-Trimethylbenzene	5.0	0.36	ug/L
1,2,4-Trichlorobenzene	1.0	0.81	ug/L
1,2,4-Trimethylbenzene	1.0	0.45	ug/L
1,2-Dibromo-3-Chloropropane	2.0	0.91	ug/L
1,2-Dibromoethane	1.0	0.37	ug/L
1,2-Dichlorobenzene	1.0	0.43	ug/L
1,2-Dichloroethane	1.0	0.43	ug/L
1,2-Dichloropropane	1.0	0.37	ug/L
1,3-Dichlorobenzene	1.0	0.40	ug/L
1,3-Dichloropropane	1.0	0.21	ug/L
1,4-Dichlorobenzene	1.0	0.37	ug/L
2,2-Dichloropropane	1.0	0.95	ug/L
2-Butanone (MEK)	10	2.4	ug/L
2-Chloroethyl vinyl ether	10	1.1	ug/L
2-Chlorotoluene	1.0	0.42	ug/L
2-Hexanone	10	2.1	ug/L
4-Chlorotoluene	1.0	0.44	ug/L
4-Isopropyltoluene	1.0	0.49	ug/L
4-Methyl-2-pentanone (MIBK)	10	2.1	ug/L
Acetone	10	5.4	ug/L
Benzene	1.0	0.38	ug/L
Bromobenzene	1.0	0.38	ug/L
Bromochloromethane	1.0	0.52	ug/L
Bromodichloromethane	1.0	0.35	ug/L
Bromoform	1.0	0.76	ug/L
Bromomethane	1.0	0.42	ug/L
Carbon disulfide	1.0	0.28	ug/L
Carbon tetrachloride	1.0	0.26	ug/L
Chlorobenzene	1.0	0.32	ug/L
Chlorodibromomethane	1.0	0.39	ug/L
Chloroethane	1.0	0.83	ug/L
Chloroform	1.0	0.40	ug/L
Chloromethane	1.0	0.64	ug/L
cis-1,2-Dichloroethene	1.0	0.38	ug/L
cis-1,3-Dichloropropene	1.0	0.61	ug/L
Dibromomethane	1.0	0.33	ug/L
Dichlorodifluoromethane	1.0	0.35	ug/L
Diisopropyl ether	10	0.36	ug/L
Ethyl tert-butyl ether	5.0	0.43	ug/L
Ethylbenzene	1.0	0.39	ug/L
Hexachlorobutadiene	1.0	0.83	ug/L
Isopropylbenzene	1.0	0.45	ug/L
Methyl tert-butyl ether	1.0	0.44	ug/L
Methylene Chloride	5.0	1.3	ug/L

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	RL	MDL	Units
Naphthalene	1.0	0.82	ug/L
n-Butylbenzene	1.0	0.59	ug/L
N-Propylbenzene	1.0	0.46	ug/L
sec-Butylbenzene	1.0	0.63	ug/L
Styrene	1.0	0.40	ug/L
Tert-amyl methyl ether	5.0	0.39	ug/L
tert-Butyl alcohol	40	1.7	ug/L
tert-Butylbenzene	1.0	0.51	ug/L
Tetrachloroethene	1.0	0.33	ug/L
Toluene	1.0	0.35	ug/L
trans-1,2-Dichloroethene	1.0	0.43	ug/L
trans-1,3-Dichloropropene	1.0	0.67	ug/L
Trichloroethene	1.0	0.36	ug/L
Trichlorofluoromethane	1.0	0.45	ug/L
Vinyl acetate	2.0	0.78	ug/L
Vinyl chloride	1.0	0.50	ug/L
Xylenes, Total	2.0	0.42	ug/L

Method: 680 - Polychlorinated Biphenyls by GCMS

Prep: 680

Analyte	RL	MDL	Units
DCB Decachlorobiphenyl	0.50	0.20	ug/L
Polychlorinated biphenyls, Total	0.10	0.020	ug/L
Total Dichlorobiphenyls	0.10	0.020	ug/L
Total Heptachlorobiphenyls	0.30	0.040	ug/L
Total Hexachlorobiphenyls	0.20	0.030	ug/L
Total Monochlorobiphenyls	0.10	0.020	ug/L
Total Nonachlorobiphenyls	0.50	0.20	ug/L
Total Octachlorobiphenyls	0.30	0.050	ug/L
Total Pentachlorobiphenyls	0.20	0.030	ug/L
Total Tetrachlorobiphenyls	0.20	0.030	ug/L
Total Trichlorobiphenyls	0.10	0.020	ug/L

Method: RSK-175 - Dissolved Gases (GC)

Analyte	RL	MDL	Units
Ethane	1.0	0.29	ug/L
Ethylene	1.0	0.27	ug/L
Methane	1.0	0.17	ug/L

Method: 6010C - Metals (ICP) - Total Recoverable

Prep: 3005A

Analyte	RL	MDL	Units
Iron	200	26	ug/L
Manganese	15	2.1	ug/L

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Prep: 3005A

Analyte	RL	MDL	Units
Aluminum	50	34	ug/L
Antimony	2.0	0.57	ug/L
Arsenic	5.0	0.75	ug/L
Barium	5.0	2.2	ug/L

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC South of Building C

Job ID: 240-134814-1

Method: 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Prep: 3005A

Analyte	RL	MDL	Units
Beryllium	1.0	0.31	ug/L
Cadmium	1.0	0.20	ug/L
Calcium	1000	580	ug/L
Chromium	2.0	0.98	ug/L
Cobalt	1.0	0.19	ug/L
Copper	2.0	1.7	ug/L
Iron	100	47	ug/L
Lead	1.0	0.45	ug/L
Magnesium	1000	200	ug/L
Manganese	5.0	2.1	ug/L
Nickel	2.0	1.5	ug/L
Potassium	1000	220	ug/L
Selenium	5.0	0.89	ug/L
Silver	1.0	0.053	ug/L
Sodium	1000	330	ug/L
Thallium	1.0	0.20	ug/L
Vanadium	5.0	0.82	ug/L
Zinc	20	15	ug/L

Method: 7470A - Mercury (CVAA)

Prep: 7470A

Analyte	RL	MDL	Units
Mercury	0.20	0.13	ug/L

General Chemistry

Analyte	RL	MDL	Units
Alkalinity	5.0	2.6	mg/L
Hardness as calcium carbonate	5.0	2.4	mg/L
Total Dissolved Solids	10	7.8	mg/L
Bromide	0.50	0.044	mg/L
Nitrate as N	0.10	0.014	mg/L
Nitrite as N	0.10	0.014	mg/L
Sulfate	1.0	0.35	mg/L
Specific Conductance	1.0	1.0	umhos/cm
Salinity	2.0	2.0	No Unit

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: MRC South of Building C

Job ID: 240-134814-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(75-130)	(47-134)	(69-122)	(78-129)
240-134814-1	MRC-MW-164B-081120	103	94	105	104
LCS 240-447281/5	Lab Control Sample	93	102	108	96
MB 240-447281/8	Method Blank	103	96	106	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 680 - Polychlorinated Biphenyls by GCMS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		PCB138L	PCB52L
Lab Sample ID	Client Sample ID	(39-131)	(42-105)
240-134814-1	MRC-MW-164B-081120	81	91
LCS 410-34321/2-A	Lab Control Sample	77	84
LCSD 410-34321/3-A	Lab Control Sample Dup	73	76
MB 410-34321/1-A	Method Blank	75	82

Surrogate Legend

PCB138L = PCB-138L
PCB52L = PCB-52L

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TFE1
Lab Sample ID	Client Sample ID	(60-140)
240-134814-1	MRC-MW-164B-081120	108
LCS 240-446979/4	Lab Control Sample	113
MB 240-446979/3	Method Blank	110

Surrogate Legend

TFE = 1,1,1-Trifluoroethane

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-447281/8
Matrix: Water
Analysis Batch: 447281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41	ug/L			08/14/20 19:36	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			08/14/20 19:36	1
1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56	ug/L			08/14/20 19:36	1
1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41	ug/L			08/14/20 19:36	1
1,1-Dichloroethane	0.41	U	1.0	0.41	ug/L			08/14/20 19:36	1
1,1-Dichloroethene	0.46	U	1.0	0.46	ug/L			08/14/20 19:36	1
1,1-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/14/20 19:36	1
1,2,3-Trichlorobenzene	0.54	U	1.0	0.54	ug/L			08/14/20 19:36	1
1,2,3-Trichloropropane	0.51	U	1.0	0.51	ug/L			08/14/20 19:36	1
1,2,3-Trimethylbenzene	0.36	U	5.0	0.36	ug/L			08/14/20 19:36	1
1,2,4-Trichlorobenzene	0.81	U	1.0	0.81	ug/L			08/14/20 19:36	1
1,2,4-Trimethylbenzene	0.45	U	1.0	0.45	ug/L			08/14/20 19:36	1
1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91	ug/L			08/14/20 19:36	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			08/14/20 19:36	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			08/14/20 19:36	1
1,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			08/14/20 19:36	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	ug/L			08/14/20 19:36	1
1,3-Dichloropropane	0.21	U	1.0	0.21	ug/L			08/14/20 19:36	1
1,4-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			08/14/20 19:36	1
2,2-Dichloropropane	0.95	U	1.0	0.95	ug/L			08/14/20 19:36	1
2-Chloroethyl vinyl ether	1.1	U	10	1.1	ug/L			08/14/20 19:36	1
2-Chlorotoluene	0.42	U	1.0	0.42	ug/L			08/14/20 19:36	1
2-Hexanone	2.1	U	10	2.1	ug/L			08/14/20 19:36	1
Bromobenzene	0.38	U	1.0	0.38	ug/L			08/14/20 19:36	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			08/14/20 19:36	1
4-Chlorotoluene	0.44	U	1.0	0.44	ug/L			08/14/20 19:36	1
4-Isopropyltoluene	0.49	U	1.0	0.49	ug/L			08/14/20 19:36	1
Acetone	5.4	U	10	5.4	ug/L			08/14/20 19:36	1
Benzene	0.38	U	1.0	0.38	ug/L			08/14/20 19:36	1
Bromoform	0.76	U	1.0	0.76	ug/L			08/14/20 19:36	1
Bromomethane	0.42	U	1.0	0.42	ug/L			08/14/20 19:36	1
Carbon disulfide	0.28	U	1.0	0.28	ug/L			08/14/20 19:36	1
Carbon tetrachloride	0.26	U	1.0	0.26	ug/L			08/14/20 19:36	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			08/14/20 19:36	1
Chloroethane	0.83	U	1.0	0.83	ug/L			08/14/20 19:36	1
Chloroform	0.40	U	1.0	0.40	ug/L			08/14/20 19:36	1
Chloromethane	0.64	U	1.0	0.64	ug/L			08/14/20 19:36	1
cis-1,2-Dichloroethene	0.38	U	1.0	0.38	ug/L			08/14/20 19:36	1
cis-1,3-Dichloropropene	0.61	U	1.0	0.61	ug/L			08/14/20 19:36	1
Hexachlorobutadiene	0.83	U	1.0	0.83	ug/L			08/14/20 19:36	1
Dibromomethane	0.33	U	1.0	0.33	ug/L			08/14/20 19:36	1
Bromodichloromethane	0.35	U	1.0	0.35	ug/L			08/14/20 19:36	1
Dichlorodifluoromethane	0.35	U	1.0	0.35	ug/L			08/14/20 19:36	1
Ethylbenzene	0.39	U	1.0	0.39	ug/L			08/14/20 19:36	1
1,2-Dibromoethane	0.37	U	1.0	0.37	ug/L			08/14/20 19:36	1
Diisopropyl ether	0.36	U	10	0.36	ug/L			08/14/20 19:36	1
Naphthalene	0.82	U	1.0	0.82	ug/L			08/14/20 19:36	1
n-Butylbenzene	0.59	U	1.0	0.59	ug/L			08/14/20 19:36	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-447281/8
Matrix: Water
Analysis Batch: 447281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	0.45	U	1.0	0.45	ug/L			08/14/20 19:36	1
N-Propylbenzene	0.46	U	1.0	0.46	ug/L			08/14/20 19:36	1
2-Butanone (MEK)	2.4	U	10	2.4	ug/L			08/14/20 19:36	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			08/14/20 19:36	1
sec-Butylbenzene	0.63	U	1.0	0.63	ug/L			08/14/20 19:36	1
Methyl tert-butyl ether	0.44	U	1.0	0.44	ug/L			08/14/20 19:36	1
Tert-amyl methyl ether	0.39	U	5.0	0.39	ug/L			08/14/20 19:36	1
Methylene Chloride	1.3	U	5.0	1.3	ug/L			08/14/20 19:36	1
Styrene	0.40	U	1.0	0.40	ug/L			08/14/20 19:36	1
Ethyl tert-butyl ether	0.43	U	5.0	0.43	ug/L			08/14/20 19:36	1
tert-Butylbenzene	0.51	U	1.0	0.51	ug/L			08/14/20 19:36	1
Tetrachloroethene	0.33	U	1.0	0.33	ug/L			08/14/20 19:36	1
Toluene	0.35	U	1.0	0.35	ug/L			08/14/20 19:36	1
trans-1,2-Dichloroethene	0.43	U	1.0	0.43	ug/L			08/14/20 19:36	1
trans-1,3-Dichloropropene	0.67	U	1.0	0.67	ug/L			08/14/20 19:36	1
Trichloroethene	0.36	U	1.0	0.36	ug/L			08/14/20 19:36	1
Trichlorofluoromethane	0.45	U	1.0	0.45	ug/L			08/14/20 19:36	1
Vinyl acetate	0.78	U	2.0	0.78	ug/L			08/14/20 19:36	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			08/14/20 19:36	1
tert-Butyl alcohol	1.7	U	40	1.7	ug/L			08/14/20 19:36	1
Xylenes, Total	0.42	U	2.0	0.42	ug/L			08/14/20 19:36	1
Chlorodibromomethane	0.39	U	1.0	0.39	ug/L			08/14/20 19:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 130*		*08/14/20 19:36*	*1*
4-Bromofluorobenzene (Surr)	*96*		*47 - 134*		*08/14/20 19:36*	*1*
Toluene-d8 (Surr)	*106*		*69 - 122*		*08/14/20 19:36*	*1*
Dibromofluoromethane (Surr)	*105*		*78 - 129*		*08/14/20 19:36*	*1*

Lab Sample ID: LCS 240-447281/5
Matrix: Water
Analysis Batch: 447281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	20.0		ug/L		100	77 - 120
1,1,1-Trichloroethane	20.0	18.5		ug/L		93	65 - 141
1,1,2,2-Tetrachloroethane	20.0	23.6		ug/L		118	45 - 151
1,1,2-Trichlorotrifluoroethane	20.0	20.4		ug/L		102	54 - 148
1,1-Dichloroethane	20.0	21.1		ug/L		105	74 - 126
1,1-Dichloroethene	20.0	19.4		ug/L		97	73 - 129
1,1-Dichloropropene	20.0	20.4		ug/L		102	78 - 120
1,2,3-Trichlorobenzene	20.0	18.5		ug/L		93	42 - 126
1,2,3-Trichloropropane	20.0	21.3		ug/L		107	57 - 137
1,2,4-Trichlorobenzene	20.0	16.7		ug/L		83	47 - 120
1,2,4-Trimethylbenzene	20.0	21.2		ug/L		106	66 - 129
1,2-Dibromo-3-Chloropropane	20.0	19.8		ug/L		99	34 - 136
1,2-Dichlorobenzene	20.0	20.9		ug/L		104	74 - 120
1,2-Dichloroethane	20.0	18.0		ug/L		90	66 - 129

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-447281/5
Matrix: Water
Analysis Batch: 447281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	20.0	21.6		ug/L		108	79 - 127
1,3-Dichlorobenzene	20.0	19.3		ug/L		96	74 - 120
1,3-Dichloropropane	20.0	21.8		ug/L		109	74 - 122
1,4-Dichlorobenzene	20.0	19.1		ug/L		95	75 - 120
2,2-Dichloropropane	20.0	22.4		ug/L		112	67 - 137
2-Chloroethyl vinyl ether	20.0	39.3	*	ug/L		196	29 - 146
2-Chlorotoluene	20.0	21.3		ug/L		106	73 - 126
2-Hexanone	40.0	42.9		ug/L		107	43 - 142
Bromobenzene	20.0	19.3		ug/L		96	77 - 120
Bromochloromethane	20.0	19.8		ug/L		99	70 - 128
4-Chlorotoluene	20.0	20.5		ug/L		102	73 - 126
4-Isopropyltoluene	20.0	20.2		ug/L		101	66 - 127
Acetone	40.0	48.4		ug/L		121	33 - 155
Benzene	20.0	21.4		ug/L		107	77 - 123
Bromoform	20.0	17.3		ug/L		86	47 - 133
Bromomethane	20.0	18.5		ug/L		92	48 - 144
Carbon disulfide	20.0	19.5		ug/L		98	67 - 127
Carbon tetrachloride	20.0	17.7		ug/L		88	61 - 142
Chlorobenzene	20.0	20.3		ug/L		102	80 - 120
Chloroethane	20.0	21.7		ug/L		108	41 - 147
Chloroform	20.0	19.8		ug/L		99	74 - 127
Chloromethane	20.0	20.8		ug/L		104	46 - 148
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	75 - 124
cis-1,3-Dichloropropene	20.0	19.3		ug/L		97	68 - 128
Hexachlorobutadiene	20.0	14.1		ug/L		71	40 - 120
Dibromomethane	20.0	16.2		ug/L		81	67 - 121
Bromodichloromethane	20.0	18.6		ug/L		93	73 - 122
Dichlorodifluoromethane	20.0	17.2		ug/L		86	35 - 137
Ethylbenzene	20.0	20.5		ug/L		102	80 - 120
1,2-Dibromoethane	20.0	19.6		ug/L		98	73 - 120
Naphthalene	20.0	20.8		ug/L		104	28 - 130
m-Xylene & p-Xylene	20.0	20.8		ug/L		104	79 - 121
n-Butylbenzene	20.0	20.1		ug/L		100	54 - 129
Isopropylbenzene	20.0	20.7		ug/L		103	73 - 123
N-Propylbenzene	20.0	21.0		ug/L		105	67 - 130
2-Butanone (MEK)	40.0	40.1		ug/L		100	41 - 151
4-Methyl-2-pentanone (MIBK)	40.0	41.4		ug/L		103	43 - 145
sec-Butylbenzene	20.0	20.6		ug/L		103	60 - 131
Methyl tert-butyl ether	20.0	19.4		ug/L		97	57 - 127
Methylene Chloride	20.0	20.6		ug/L		103	63 - 134
o-Xylene	20.0	21.1		ug/L		105	75 - 123
Styrene	20.0	20.7		ug/L		103	75 - 121
tert-Butylbenzene	20.0	19.6		ug/L		98	63 - 126
Tetrachloroethene	20.0	18.1		ug/L		91	70 - 125
Toluene	20.0	21.5		ug/L		108	79 - 122
trans-1,2-Dichloroethene	20.0	20.4		ug/L		102	74 - 130
trans-1,3-Dichloropropene	20.0	19.6		ug/L		98	64 - 120
Trichloroethene	20.0	18.2		ug/L		91	71 - 121
Trichlorofluoromethane	20.0	16.9		ug/L		84	52 - 148

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-447281/5
Matrix: Water
Analysis Batch: 447281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl acetate	20.0	21.5		ug/L		107	44 - 160
Vinyl chloride	20.0	21.4		ug/L		107	61 - 134
tert-Butyl alcohol	200	225		ug/L		112	15 - 169
Xylenes, Total	40.0	41.9		ug/L		105	78 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 130*
4-Bromofluorobenzene (Surr)	*102*		*47 - 134*
Toluene-d8 (Surr)	*108*		*69 - 122*
Dibromofluoromethane (Surr)	*96*		*78 - 129*

Method: 680 - Polychlorinated Biphenyls by GCMS

Lab Sample ID: MB 410-34321/1-A
Matrix: Water
Analysis Batch: 34909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34321

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0.20	U	0.50	0.20	ug/L		08/18/20 07:43	08/19/20 13:04	1
Polychlorinated biphenyls, Total	0.020	U	0.10	0.020	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Dichlorobiphenyls	0.020	U	0.10	0.020	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Heptachlorobiphenyls	0.040	U	0.30	0.040	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Hexachlorobiphenyls	0.030	U	0.20	0.030	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Monochlorobiphenyls	0.020	U	0.10	0.020	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Nonachlorobiphenyls	0.20	U	0.50	0.20	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Octachlorobiphenyls	0.050	U	0.30	0.050	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Pentachlorobiphenyls	0.030	U	0.20	0.030	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Tetrachlorobiphenyls	0.030	U	0.20	0.030	ug/L		08/18/20 07:43	08/19/20 13:04	1
Total Trichlorobiphenyls	0.020	U	0.10	0.020	ug/L		08/18/20 07:43	08/19/20 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-138L	*75*		*39 - 131*	*08/18/20 07:43*	*08/19/20 13:04*	*1*
PCB-52L	*82*		*42 - 105*	*08/18/20 07:43*	*08/19/20 13:04*	*1*

Lab Sample ID: LCS 410-34321/2-A
Matrix: Water
Analysis Batch: 34909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34321

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DCB Decachlorobiphenyl	6.28	8.69	*	ug/L		139	52 - 119
Polychlorinated biphenyls, Total	25.0	28.8		ug/L		115	
Total Dichlorobiphenyls	1.25	1.33	*	ug/L		106	37 - 100
Total Heptachlorobiphenyls	3.76	3.98		ug/L		106	47 - 115
Total Hexachlorobiphenyls	2.51	2.50		ug/L		100	48 - 115
Total Monochlorobiphenyls	1.25	1.30	*	ug/L		104	33 - 91
Total Octachlorobiphenyls	3.75	4.27		ug/L		114	50 - 115
Total Pentachlorobiphenyls	2.50	2.76		ug/L		110	49 - 111
Total Tetrachlorobiphenyls	2.50	2.50	*	ug/L		100	41 - 96

Method: 680 - Polychlorinated Biphenyls by GCMS (Continued)

Lab Sample ID: LCS 410-34321/2-A
Matrix: Water
Analysis Batch: 34909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34321

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Trichlorobiphenyls			1.26	1.42	*	ug/L		113	37 - 96		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-138L	*77*		*39 - 131*
PCB-52L	*84*		*42 - 105*

Lab Sample ID: LCSD 410-34321/3-A
Matrix: Water
Analysis Batch: 34909

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34321

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DCB Decachlorobiphenyl			6.28	8.13	*	ug/L		130	52 - 119	7	30
Polychlorinated biphenyls, Total			25.0	26.8		ug/L		107		7	
Total Dichlorobiphenyls			1.25	1.24		ug/L		100	37 - 100	6	30
Total Heptachlorobiphenyls			3.76	3.86		ug/L		103	47 - 115	3	30
Total Hexachlorobiphenyls			2.51	2.25		ug/L		90	48 - 115	10	30
Total Monochlorobiphenyls			1.25	1.23	*	ug/L		98	33 - 91	5	30
Total Octachlorobiphenyls			3.75	3.97		ug/L		106	50 - 115	7	30
Total Pentachlorobiphenyls			2.50	2.46		ug/L		99	49 - 111	11	30
Total Tetrachlorobiphenyls			2.50	2.26		ug/L		90	41 - 96	10	30
Total Trichlorobiphenyls			1.26	1.35	*	ug/L		107	37 - 96	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
PCB-138L	*73*		*39 - 131*
PCB-52L	*76*		*42 - 105*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 240-446979/3
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.17	U	1.0	0.17	ug/L			08/13/20 11:00	1
Ethane	0.29	U	1.0	0.29	ug/L			08/13/20 11:00	1
Ethylene	0.27	U	1.0	0.27	ug/L			08/13/20 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,1-Trifluoroethane	*110*		*60 - 140*		*08/13/20 11:00*	*1*

Lab Sample ID: LCS 240-446979/4
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methane			475	443		ug/L		93	80 - 120		
Ethane			438	463		ug/L		106	80 - 120		
Ethylene			405	446		ug/L		110	80 - 120		

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 240-446979/4
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,1-Trifluoroethane	*113*		*60 - 140*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 240-447010/1-A
Matrix: Water
Analysis Batch: 447390

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447010

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	26	U	200	26	ug/L		08/13/20 14:00	08/14/20 12:45	1
Manganese	2.1	U	15	2.1	ug/L		08/13/20 14:00	08/14/20 12:45	1

Lab Sample ID: LCS 240-447010/2-A
Matrix: Water
Analysis Batch: 447390

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10000	10100		ug/L		101	80 - 120
Manganese	1000	985		ug/L		98	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 240-447010/1-A
Matrix: Water
Analysis Batch: 447397

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447010

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.053	U	1.0	0.053	ug/L		08/13/20 14:00	08/14/20 15:49	1
Aluminum	34	U	50	34	ug/L		08/13/20 14:00	08/14/20 15:49	1
Arsenic	0.75	U	5.0	0.75	ug/L		08/13/20 14:00	08/14/20 15:49	1
Barium	2.2	U	5.0	2.2	ug/L		08/13/20 14:00	08/14/20 15:49	1
Beryllium	0.31	U	1.0	0.31	ug/L		08/13/20 14:00	08/14/20 15:49	1
Cadmium	0.20	U	1.0	0.20	ug/L		08/13/20 14:00	08/14/20 15:49	1
Cobalt	0.19	U	1.0	0.19	ug/L		08/13/20 14:00	08/14/20 15:49	1
Chromium	0.98	U	2.0	0.98	ug/L		08/13/20 14:00	08/14/20 15:49	1
Copper	1.7	U	2.0	1.7	ug/L		08/13/20 14:00	08/14/20 15:49	1
Iron	47	U	100	47	ug/L		08/13/20 14:00	08/14/20 15:49	1
Manganese	2.1	U	5.0	2.1	ug/L		08/13/20 14:00	08/14/20 15:49	1
Nickel	1.5	U	2.0	1.5	ug/L		08/13/20 14:00	08/14/20 15:49	1
Lead	0.45	U	1.0	0.45	ug/L		08/13/20 14:00	08/14/20 15:49	1
Antimony	0.57	U	2.0	0.57	ug/L		08/13/20 14:00	08/14/20 15:49	1
Selenium	0.89	U	5.0	0.89	ug/L		08/13/20 14:00	08/14/20 15:49	1
Thallium	0.20	U	1.0	0.20	ug/L		08/13/20 14:00	08/14/20 15:49	1
Vanadium	0.82	U	5.0	0.82	ug/L		08/13/20 14:00	08/14/20 15:49	1
Zinc	15	U	20	15	ug/L		08/13/20 14:00	08/14/20 15:49	1
Calcium	580	U	1000	580	ug/L		08/13/20 14:00	08/14/20 15:49	1
Potassium	220	U	1000	220	ug/L		08/13/20 14:00	08/14/20 15:49	1
Magnesium	200	U	1000	200	ug/L		08/13/20 14:00	08/14/20 15:49	1
Sodium	330	U	1000	330	ug/L		08/13/20 14:00	08/14/20 15:49	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-447010/3-A
Matrix: Water
Analysis Batch: 447397

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	100	102		ug/L		102	80 - 120
Aluminum	5000	4880		ug/L		98	80 - 120
Arsenic	1000	1000		ug/L		100	80 - 120
Barium	1000	1020		ug/L		102	80 - 120
Beryllium	500	502		ug/L		100	80 - 120
Cadmium	500	513		ug/L		103	80 - 120
Cobalt	500	512		ug/L		102	80 - 120
Chromium	500	507		ug/L		101	80 - 120
Copper	500	489		ug/L		98	80 - 120
Iron	5000	5000		ug/L		100	80 - 120
Manganese	500	511		ug/L		102	80 - 120
Nickel	500	486		ug/L		97	80 - 120
Lead	500	516		ug/L		103	80 - 120
Antimony	100	110		ug/L		110	80 - 120
Selenium	1000	1020		ug/L		102	80 - 120
Thallium	1000	1030		ug/L		103	80 - 120
Vanadium	500	512		ug/L		102	80 - 120
Zinc	500	539		ug/L		108	80 - 120
Calcium	25000	26000		ug/L		104	80 - 120
Potassium	25000	26400		ug/L		106	80 - 120
Magnesium	25000	26300		ug/L		105	80 - 120
Sodium	25000	26000		ug/L		104	80 - 120

Lab Sample ID: 240-134814-1 MS
Matrix: Water
Analysis Batch: 447397

Client Sample ID: MRC-MW-164B-081120
Prep Type: Total Recoverable
Prep Batch: 447010

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.053	U	100	104		ug/L		104	75 - 125
Aluminum	950	F1	5000	7620	F1	ug/L		133	75 - 125
Arsenic	0.75	U	1000	1010		ug/L		101	75 - 125
Barium	180		1000	1200		ug/L		102	75 - 125
Beryllium	0.51	J	500	487		ug/L		97	75 - 125
Cadmium	0.20	U	500	510		ug/L		102	75 - 125
Cobalt	41		500	564		ug/L		105	75 - 125
Chromium	2.9		500	517		ug/L		103	75 - 125
Copper	1.8	J	500	495		ug/L		99	75 - 125
Iron	24000		5000	29400	4	ug/L		110	75 - 125
Manganese	2700		500	3300	4	ug/L		112	75 - 125
Nickel	42		500	532		ug/L		98	75 - 125
Lead	1.2		500	510		ug/L		102	75 - 125
Antimony	0.57	U	100	112		ug/L		112	75 - 125
Selenium	0.89	U	1000	999		ug/L		100	75 - 125
Thallium	0.28	J	1000	1020		ug/L		102	75 - 125
Vanadium	5.3		500	526		ug/L		104	75 - 125
Zinc	60		500	609		ug/L		110	75 - 125
Calcium	14000		25000	41000		ug/L		108	75 - 125
Potassium	5700		25000	32600		ug/L		108	75 - 125
Magnesium	6400		25000	33600		ug/L		109	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-134814-1 MS **Client Sample ID: MRC-MW-164B-081120**
Matrix: Water **Prep Type: Total Recoverable**
Analysis Batch: 447397 **Prep Batch: 447010**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sodium	16000		25000	41600		ug/L		103	75 - 125		

Lab Sample ID: 240-134814-1 MSD **Client Sample ID: MRC-MW-164B-081120**
Matrix: Water **Prep Type: Total Recoverable**
Analysis Batch: 447397 **Prep Batch: 447010**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	0.053	U	100	103		ug/L		103	75 - 125	1	20
Aluminum	950	F1	5000	7940	F1	ug/L		140	75 - 125	4	20
Arsenic	0.75	U	1000	1020		ug/L		102	75 - 125	1	20
Barium	180		1000	1230		ug/L		106	75 - 125	3	20
Beryllium	0.51	J	500	498		ug/L		100	75 - 125	2	20
Cadmium	0.20	U	500	524		ug/L		105	75 - 125	3	20
Cobalt	41		500	565		ug/L		105	75 - 125	0	20
Chromium	2.9		500	525		ug/L		104	75 - 125	2	20
Copper	1.8	J	500	504		ug/L		101	75 - 125	2	20
Iron	24000		5000	29400	4	ug/L		109	75 - 125	0	20
Manganese	2700		500	3340	4	ug/L		119	75 - 125	1	20
Nickel	42		500	537		ug/L		99	75 - 125	1	20
Lead	1.2		500	530		ug/L		106	75 - 125	4	20
Antimony	0.57	U	100	113		ug/L		113	75 - 125	1	20
Selenium	0.89	U	1000	1020		ug/L		102	75 - 125	2	20
Thallium	0.28	J	1000	1050		ug/L		105	75 - 125	3	20
Vanadium	5.3		500	531		ug/L		105	75 - 125	1	20
Zinc	60		500	613		ug/L		111	75 - 125	1	20
Calcium	14000		25000	41000		ug/L		108	75 - 125	0	20
Potassium	5700		25000	32700		ug/L		108	75 - 125	0	20
Magnesium	6400		25000	33500		ug/L		108	75 - 125	0	20
Sodium	16000		25000	41400		ug/L		103	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-447011/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 447205 **Prep Batch: 447011**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	U	0.20	0.13	ug/L		08/13/20 12:00	08/13/20 16:06	1

Lab Sample ID: LCS 240-447011/2-A **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 447205 **Prep Batch: 447011**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			5.00	4.91		ug/L		98	80 - 120		

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-134814-1 MS
Matrix: Water
Analysis Batch: 447205

Client Sample ID: MRC-MW-164B-081120
Prep Type: Total/NA
Prep Batch: 447011

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.13	U	1.00	1.02		ug/L		102	80 - 120		

Lab Sample ID: 240-134814-1 MSD
Matrix: Water
Analysis Batch: 447205

Client Sample ID: MRC-MW-164B-081120
Prep Type: Total/NA
Prep Batch: 447011

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.13	U	1.00	1.04		ug/L		104	80 - 120	2	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 240-447305/30
Matrix: Water
Analysis Batch: 447305

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	2.6	U	5.0	2.6	mg/L			08/13/20 22:18	1

Lab Sample ID: LCS 240-447305/29
Matrix: Water
Analysis Batch: 447305

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			166	163		mg/L		98	86 - 123		

Lab Sample ID: 240-134814-1 DU
Matrix: Water
Analysis Batch: 447305

Client Sample ID: MRC-MW-164B-081120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	98			96.4		mg/L				2	20

Method: 2340C-2011 - Hardness, Total

Lab Sample ID: MB 240-447678/1
Matrix: Water
Analysis Batch: 447678

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	2.4	U	5.0	2.4	mg/L			08/18/20 15:48	1

Lab Sample ID: LCS 240-447678/2
Matrix: Water
Analysis Batch: 447678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			134	126		mg/L		94	90 - 110		

Method: 2540 C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 240-447201/1
Matrix: Water
Analysis Batch: 447201

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7.8	U	10	7.8	mg/L			08/14/20 09:02	1

Lab Sample ID: LCS 240-447201/2
Matrix: Water
Analysis Batch: 447201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	567	547		mg/L		96	80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-446838/3
Matrix: Water
Analysis Batch: 446838

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.044	U	0.50	0.044	mg/L			08/12/20 16:09	1
Sulfate	0.35	U	1.0	0.35	mg/L			08/12/20 16:09	1

Lab Sample ID: LCS 240-446838/4
Matrix: Water
Analysis Batch: 446838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	10.0	10.2		mg/L		102	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

Lab Sample ID: MB 240-446839/3
Matrix: Water
Analysis Batch: 446839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.014	U	0.10	0.014	mg/L			08/12/20 16:09	1
Nitrate as N	0.014	U	0.10	0.014	mg/L			08/12/20 16:09	1

Lab Sample ID: LCS 240-446839/4
Matrix: Water
Analysis Batch: 446839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.59		mg/L		104	90 - 110
Nitrate as N	2.50	2.68		mg/L		107	90 - 110

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 180-326269/2
Matrix: Water
Analysis Batch: 326269

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1.0	U	1.0	1.0	umhos/cm			08/19/20 20:04	1

Lab Sample ID: LCS 180-326269/1
Matrix: Water
Analysis Batch: 326269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Specific Conductance			84.0	86.2		umhos/cm		103	90 - 110		

Lab Sample ID: 240-134814-1 DU
Matrix: Water
Analysis Batch: 326269

Client Sample ID: MRC-MW-164B-081120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Specific Conductance	250			249		umhos/cm				0.2	20

Method: SM 2520B - Salinity, Electrical Conductivity

Lab Sample ID: MB 180-327204/2
Matrix: Water
Analysis Batch: 327204

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.0	U	2.0	2.0	No Unit			08/26/20 12:16	1

GC/MS VOA

Analysis Batch: 447281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	8260C	
MB 240-447281/8	Method Blank	Total/NA	Water	8260C	
LCS 240-447281/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 34321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	680	
MB 410-34321/1-A	Method Blank	Total/NA	Water	680	
LCS 410-34321/2-A	Lab Control Sample	Total/NA	Water	680	
LCSD 410-34321/3-A	Lab Control Sample Dup	Total/NA	Water	680	

Analysis Batch: 34909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	680	34321
MB 410-34321/1-A	Method Blank	Total/NA	Water	680	34321
LCS 410-34321/2-A	Lab Control Sample	Total/NA	Water	680	34321
LCSD 410-34321/3-A	Lab Control Sample Dup	Total/NA	Water	680	34321

GC VOA

Analysis Batch: 446979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	RSK-175	
MB 240-446979/3	Method Blank	Total/NA	Water	RSK-175	
LCS 240-446979/4	Lab Control Sample	Total/NA	Water	RSK-175	

Metals

Prep Batch: 447010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total Recoverable	Water	3005A	
MB 240-447010/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-447010/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-447010/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-134814-1 MS	MRC-MW-164B-081120	Total Recoverable	Water	3005A	
240-134814-1 MSD	MRC-MW-164B-081120	Total Recoverable	Water	3005A	

Prep Batch: 447011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	7470A	
MB 240-447011/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-447011/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-134814-1 MS	MRC-MW-164B-081120	Total/NA	Water	7470A	
240-134814-1 MSD	MRC-MW-164B-081120	Total/NA	Water	7470A	

Analysis Batch: 447205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	7470A	447011
MB 240-447011/1-A	Method Blank	Total/NA	Water	7470A	447011
LCS 240-447011/2-A	Lab Control Sample	Total/NA	Water	7470A	447011

Metals (Continued)

Analysis Batch: 447205 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1 MS	MRC-MW-164B-081120	Total/NA	Water	7470A	447011
240-134814-1 MSD	MRC-MW-164B-081120	Total/NA	Water	7470A	447011

Analysis Batch: 447390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total Recoverable	Water	6010C	447010
MB 240-447010/1-A	Method Blank	Total Recoverable	Water	6010C	447010
LCS 240-447010/2-A	Lab Control Sample	Total Recoverable	Water	6010C	447010

Analysis Batch: 447397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total Recoverable	Water	6020A	447010
MB 240-447010/1-A	Method Blank	Total Recoverable	Water	6020A	447010
LCS 240-447010/3-A	Lab Control Sample	Total Recoverable	Water	6020A	447010
240-134814-1 MS	MRC-MW-164B-081120	Total Recoverable	Water	6020A	447010
240-134814-1 MSD	MRC-MW-164B-081120	Total Recoverable	Water	6020A	447010

General Chemistry

Analysis Batch: 326269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	SM 2510B	
MB 180-326269/2	Method Blank	Total/NA	Water	SM 2510B	
LCS 180-326269/1	Lab Control Sample	Total/NA	Water	SM 2510B	
240-134814-1 DU	MRC-MW-164B-081120	Total/NA	Water	SM 2510B	

Analysis Batch: 327204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	SM 2520B	
MB 180-327204/2	Method Blank	Total/NA	Water	SM 2520B	

Analysis Batch: 446838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	9056A	
MB 240-446838/3	Method Blank	Total/NA	Water	9056A	
LCS 240-446838/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 446839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	9056A	
MB 240-446839/3	Method Blank	Total/NA	Water	9056A	
LCS 240-446839/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 447201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	2540 C-2011	
MB 240-447201/1	Method Blank	Total/NA	Water	2540 C-2011	
LCS 240-447201/2	Lab Control Sample	Total/NA	Water	2540 C-2011	

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: MRC South of Building C

Job ID: 240-134814-1

General Chemistry

Analysis Batch: 447305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	2320B-2011	
MB 240-447305/30	Method Blank	Total/NA	Water	2320B-2011	
LCS 240-447305/29	Lab Control Sample	Total/NA	Water	2320B-2011	
240-134814-1 DU	MRC-MW-164B-081120	Total/NA	Water	2320B-2011	

Analysis Batch: 447678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134814-1	MRC-MW-164B-081120	Total/NA	Water	2340C-2011	
MB 240-447678/1	Method Blank	Total/NA	Water	2340C-2011	
LCS 240-447678/2	Lab Control Sample	Total/NA	Water	2340C-2011	

Lab Chronicle

Client: Tetra Tech, Inc.
Job ID: 240-134814-1
Project/Site: MRC South of Building C

Client Sample ID: MRC-MW-164B-081120
Lab Sample ID: 240-134814-1

Date Collected: 08/11/20 14:20
Matrix: Water
Date Received: 08/12/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	447281	08/14/20 22:57	TJL1	TAL CAN
Total/NA	Prep	680			34321	08/18/20 07:43	AN2T	ELLE
Total/NA	Analysis	680		1	34909	08/19/20 14:29	UAD3	ELLE
Total/NA	Analysis	RSK-175		1	446979	08/13/20 12:44	JBN	TAL CAN
Total Recoverable	Prep	3005A			447010	08/13/20 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6010C		1	447390	08/14/20 13:27	WKD	TAL CAN
Total Recoverable	Prep	3005A			447010	08/13/20 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020A		1	447397	08/14/20 15:54	RKT	TAL CAN
Total/NA	Prep	7470A			447011	08/13/20 12:00	MRL	TAL CAN
Total/NA	Analysis	7470A		1	447205	08/13/20 16:22	SLD	TAL CAN
Total/NA	Analysis	2320B-2011		1	447305	08/13/20 23:30	JWW	TAL CAN
Total/NA	Analysis	2340C-2011		1	447678	08/18/20 15:49	JMR	TAL CAN
Total/NA	Analysis	2540 C-2011		1	447201	08/14/20 09:02	KLR	TAL CAN
Total/NA	Analysis	9056A		1	446838	08/12/20 18:10	JWW	TAL CAN
Total/NA	Analysis	9056A		1	446839	08/12/20 18:10	JWW	TAL CAN
Total/NA	Analysis	SM 2510B		1	326269	08/19/20 20:04	AGP	TAL PIT
Total/NA	Analysis	SM 2520B		1	327204	08/26/20 12:08	EMB	TAL PIT

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Tetra Tech, Inc. Job ID: 240-134814-1
Project/Site: MRC South of Building C

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-20 *
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-20
Alaska	State	PA00009	06-30-21
Alaska (UST)	State	17-027	01-31-21
Arizona	State	AZ0780	03-12-21
Arkansas DEQ	State	19-053-0	08-09-21
California	State	2792	01-31-21
Colorado	State	PA00009	06-30-21
Connecticut	State	PH-0746	12-26-20
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	10-31-20
Delaware (DW)	State	N/A	10-31-20
Florida	NELAP	E87997	07-01-21
Hawaii	State	N/A	01-31-21
Illinois	NELAP	004559	01-31-21
Kansas	NELAP	E-10151	10-31-20
Kentucky (DW)	State	KY90088	12-31-20
Kentucky (UST)	State	1.01	11-30-20
Kentucky (WW)	State	KY90088	12-31-20
Louisiana	NELAP	02055	06-30-21
Maine	State	2019012	03-12-21
Maryland	State	100	09-30-20
Massachusetts	State	M-PA009	06-30-21
Michigan	State	9930	01-31-21
Missouri	State	450	01-31-22
Montana (DW)	State	0098	12-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Nebraska	State	NE-OS-32-17	01-31-20 *
New Hampshire	NELAP	273019	01-10-21
New Jersey	NELAP	PA011	06-30-21
New York	NELAP	10670	04-01-21
North Carolina (WW/SW)	State	521	12-31-20
North Dakota	State	R-205	01-31-20 *
Oklahoma	NELAP	R-205	02-01-21
Oregon	NELAP	PA200001-015	09-11-20
PALA	Canada	1978	05-08-21
Pennsylvania	NELAP	36-00037	01-31-21
Rhode Island	State	LAO00338	12-30-20
South Carolina	State	89002002	01-31-21
Tennessee	State	02838	01-31-21
Texas	NELAP	T104704194-20-38	08-31-20
Utah	NELAP	PA000092019-16	02-28-21
Vermont	State	VT - 36037	10-28-20
Virginia	NELAP	10561	06-14-21
Washington	State	C457	04-11-21
West Virginia (DW)	State	9906 C	12-31-20
West Virginia DEP	State	055	09-30-20
Wyoming	State	8TMS-L	01-07-21
Wyoming (UST)	A2LA	1.01	11-30-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Tetra Tech, Inc. Job ID: 240-134814-1
Project/Site: MRC South of Building C

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

Method Summary

Client: Tetra Tech, Inc. Job ID: 240-134814-1
Project/Site: MRC South of Building C

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
680	Polychlorinated Biphenyls by GCMS	EPA	ELLE
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
2320B-2011	Alkalinity, Total	SM	TAL CAN
2340C-2011	Hardness, Total	SM	TAL CAN
2540 C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL CAN
SM 2510B	Conductivity, Specific Conductance	SM	TAL PIT
SM 2520B	Salinity, Electrical Conductivity	SM	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
680	Polychlorinated Biphenyls by GCMS Preparation for Liquids	EPA	ELLE
7470A	Preparation, Mercury	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Tetra Tech, Inc.
Job ID: 240-134814-1
Project/Site: MRC South of Building C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-134814-1	MRC-MW-164B-081120	Water	08/11/20 14:20	08/12/20 11:00	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: A3UX19 Analysis Batch Number: 337766

Lab Sample ID: STD8260 240-337766/13 I Client Sample ID:

Date Analyzed: 07/24/18 20:04 Lab File ID: U1900794.d GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane		Invalid Compound ID	laveyt	07/25/18 10:11
Acetone		Invalid Compound ID	laveyt	07/25/18 09:52
Bromoform		Invalid Compound ID	laveyt	07/25/18 09:54
Methylene Chloride		Invalid Compound ID	laveyt	07/25/18 09:52
n-Heptane		Invalid Compound ID	laveyt	07/25/18 09:54
tert-Butyl alcohol		Invalid Compound ID	laveyt	07/25/18 09:53
1,3-Dichlorobenzene	10.81	Peak assignment corrected	laveyt	07/25/18 09:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: A3UX19 Analysis Batch Number: 342719

Lab Sample ID: STD8260 240-342719/13 I Client Sample ID:

Date Analyzed: 08/27/18 19:23 Lab File ID: U1901329.d GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane		Invalid Compound ID	laveyt	08/27/18 19:49
Acetone		Invalid Compound ID	laveyt	08/27/18 19:48
Methylene Chloride		Invalid Compound ID	laveyt	08/27/18 19:48
Naphthalene		Invalid Compound ID	laveyt	08/27/18 20:00
n-Heptane		Invalid Compound ID	laveyt	08/27/18 19:48
Tetrahydrofuran		Invalid Compound ID	laveyt	08/27/18 19:48
trans-1,4-Dichloro-2-butene		Invalid Compound ID	laveyt	08/27/18 19:50
1,3-Dichlorobenzene	10.82	Peak assignment corrected	laveyt	08/27/18 19:47

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: A3UX19 Analysis Batch Number: 447281

Lab Sample ID: 240-134814-1 Client Sample ID: MRC-MW-164B-081120

Date Analyzed: 08/14/20 22:57 Lab File ID: U1916374.d GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane		Invalid Compound ID	laveyt	08/17/20 14:40
2-Butanone (MEK)		Invalid Compound ID	laveyt	08/17/20 14:40
tert-Butyl alcohol		Invalid Compound ID	laveyt	08/17/20 14:40

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: ZPID Analysis Batch Number: 433969

Lab Sample ID: STD 240-433969/2 IC Client Sample ID:

Date Analyzed: 05/12/20 08:36 Lab File ID: Z0512002.D GC Column: HP-PLOT/Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutane	6.79	Peak not integrated	nestorj	05/12/20 09:13

Lab Sample ID: STD 240-433969/3 IC Client Sample ID:

Date Analyzed: 05/12/20 08:53 Lab File ID: Z0512003.D GC Column: HP-PLOT/Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	2.10	Baseline Smoothing	nestorj	05/12/20 09:22
Acetylene	2.21	Baseline Smoothing	nestorj	05/12/20 09:23
Ethane	2.43	Baseline Smoothing	nestorj	05/12/20 09:23
Propene	4.57	Baseline Smoothing	nestorj	05/12/20 09:24
Propane	4.79	Baseline Smoothing	nestorj	05/12/20 09:24
Isobutane	6.79	Baseline Smoothing	nestorj	05/12/20 09:25
Pentane	9.32	Baseline Smoothing	nestorj	05/12/20 09:25

Lab Sample ID: STD 240-433969/4 IC Client Sample ID:

Date Analyzed: 05/12/20 09:10 Lab File ID: Z0512004.D GC Column: HP-PLOT/Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	2.10	Baseline Smoothing	nestorj	05/12/20 09:34
Butane	7.01	Baseline Smoothing	nestorj	05/12/20 09:35

Lab Sample ID: STD 240-433969/5 IC Client Sample ID:

Date Analyzed: 05/12/20 09:27 Lab File ID: Z0512005.D GC Column: HP-PLOT/Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Butane	7.01	Baseline Smoothing	nestorj	05/12/20 11:06
Pentane	9.32	Baseline Smoothing	nestorj	05/12/20 10:29

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: ZPID Analysis Batch Number: 433969

Lab Sample ID: STD 240-433969/6 ICRT Client Sample ID:

Date Analyzed: 05/12/20 09:44 Lab File ID: Z0512006.D GC Column: HP-PLOT/Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentane	9.32	Baseline Smoothing	nestorj	05/12/20 10:28

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Batch Number: 444170

Lab Sample ID: STD1 240-444170/1 IC Client Sample ID:

Date Analyzed: 07/24/20 19:48 Lab File ID: 240-0100354-001_02_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	4.25	Peak not integrated	weimerj	07/27/20 15:33
Chloride	6.72	Peak not integrated	weimerj	07/27/20 15:33
Bromide	10.55	Peak not integrated	weimerj	07/27/20 15:33
Sulfate	15.34	Peak not integrated	weimerj	07/27/20 15:33

Lab Sample ID: STD2 240-444170/2 IC Client Sample ID:

Date Analyzed: 07/24/20 20:08 Lab File ID: 240-0100354-002_03_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	4.26	Peak not integrated	weimerj	07/27/20 15:34

Lab Sample ID: STD7 240-444170/7 IC Client Sample ID:

Date Analyzed: 07/24/20 21:49 Lab File ID: 240-0100354-007_08_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	4.26	Peak not integrated	weimerj	07/27/20 15:34

Lab Sample ID: STD9 240-444170/9 IC Client Sample ID:

Date Analyzed: 07/24/20 22:29 Lab File ID: 240-0100354-009_10_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	4.27	Peak not integrated	weimerj	07/27/20 15:35

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Batch Number: 444171

Lab Sample ID: STD1 240-444171/1 IC Client Sample ID:

Date Analyzed: 07/24/20 19:48 Lab File ID: 240-0100354-001_02_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.35	Peak not integrated	weimerj	07/27/20 15:33
Nitrate as N	12.17	Peak not integrated	weimerj	07/27/20 15:33

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ICPCCV_00035	02/02/21	08/07/20	DIWATER, Lot DIWATER	2000 mL	MTICP/ICPMS_00020	40 mL	Manganese	2000 ug/L
					MTICP/ICPMS_00021	25 mL	Iron	25000 ug/L
.MTICP/ICPMS_00020	09/27/21		CPI, Lot 1068140-1		(Purchased Reagent)		Manganese	100 mg/L
.MTICP/ICPMS_00021	09/13/21		CPI, Lot 1047215-1		(Purchased Reagent)		Iron	2000 mg/L
ICPICSAB_00004	09/20/20	05/11/20	DIWATER, Lot DIWATER	1000 mL	ICPICSA_00002	100 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
					ICPICSABsol1_00001	10 mL	Antimony	1 mg/L
							Mo	1 mg/L
							Si	10 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICPICSABsol2_00001	10 mL	Arsenic	1 mg/L
							B	10 mg/L
							Barium	1 mg/L
							Beryllium	0.5 mg/L
							Cadmium	1 mg/L
							Chromium	1 mg/L
							Cobalt	1 mg/L
							Copper	1 mg/L
							Lead	1 mg/L
							Manganese	1 mg/L
							Nickel	1 mg/L
							Potassium	10 mg/L
							Selenium	1 mg/L
							Silver	1 mg/L
							Sodium	10 mg/L
							Sr	1 mg/L
							Thallium	1 mg/L
							Vanadium	1 mg/L
							Zinc	1 mg/L
					MTLI_00011	0.5 mL	Li	0.5 mg/L
.ICPICSA_00002	03/30/21		CPI, Lot 1025879-1		(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
.ICPICSABsol1_00001	12/25/20		CPI, Lot 992184-1		(Purchased Reagent)		Antimony	100 mg/L
							Mo	100 mg/L
							Si	1000 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICPICSABsol2_00001	12/25/20		CPI, Lot 992185-1		(Purchased Reagent)		Arsenic	100 mg/L
							B	1000 mg/L
							Barium	100 mg/L
							Beryllium	50 mg/L
							Cadmium	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Potassium	1000 mg/L
							Selenium	100 mg/L
							Silver	100 mg/L
							Sodium	1000 mg/L
							Sr	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
							Zinc	100 mg/L
.MTLI_00011	09/20/20		CPI, Lot 751942-43		(Purchased Reagent)		Li	1000 ug/mL
ICPICV_00022	01/21/21	07/21/20	DIWATER, Lot DIWATER	1000 mL	MTICP/ICPMS_00007	20 mL	Manganese	2000 ug/L
					MTICP/ICPMS_00008	12.5 mL	Iron	25000 ug/L
.MTICP/ICPMS_00007	09/11/20		CPI, Lot 982733-2		(Purchased Reagent)		Manganese	100 mg/L
.MTICP/ICPMS_00008	09/11/20		CPI, Lot 982735-2		(Purchased Reagent)		Iron	2000 mg/L
ICPMS ICSA_00005	12/25/20	07/01/20	DIWATER, Lot DIWATER	500 mL	ICPMSICSA_00001	25 mL	Aluminum	50000 ug/L
							Calcium	50000 ug/L
							Iron	50000 ug/L
							Magnesium	50000 ug/L
							Mo	1000 ug/L
							Potassium	50000 ug/L
							Sodium	50000 ug/L
							Ti	1000 ug/L
.ICPMSICSA_00001	12/25/20		CPI, Lot 1013691-1		(Purchased Reagent)		Aluminum	1000 ug/mL
							Calcium	1000 ug/mL
							Iron	1000 ug/mL
							Magnesium	1000 ug/mL
							Mo	20 ug/mL
							Potassium	1000 ug/mL
							Sodium	1000 ug/mL
							Ti	20 ug/mL
ICPMS ICV_00010	09/11/20	06/11/20	DIWATER, Lot DIWATER	500 mL	ICVICPMSAgBZn_00002	5 mL	Silver	50 ug/L
							Zinc	50 ug/L
					MSICVINTERMED_00003	5 mL	Antimony	50 ug/L
							Arsenic	50 ug/L
							Barium	50 ug/L
							Beryllium	50 ug/L
							Cadmium	50 ug/L
							Chromium	50 ug/L
							Cobalt	50 ug/L
							Copper	50 ug/L
							Lead	50 ug/L
							Manganese	50 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nickel	50 ug/L
							Selenium	50 ug/L
							Thallium	50 ug/L
							Vanadium	50 ug/L
					MTICP/ICPMS_00008	6.25 mL	Aluminum	25000 ug/L
							Calcium	25000 ug/L
							Iron	25000 ug/L
							Magnesium	25000 ug/L
							Potassium	25000 ug/L
							Sodium	25000 ug/L
.ICVICPMSAgBZn_00002	09/11/20	03/27/20	DIWATER, Lot diwater	100 mL	MTAG_00010	0.5 mL	Silver	5 ug/mL
					MTZINC_00007	0.5 mL	Zinc	5 ug/mL
..MTAG_00010	09/11/20		CPI, Lot 711054039C-1		(Purchased Reagent)		Silver	1000 ug/mL
..MTZINC_00007	09/11/20		CPI, Lot 711054039B-1		(Purchased Reagent)		Zinc	1000 ug/mL
.MSICVINTERMED_00003	09/11/20	02/11/20	DIWATER, Lot DIWATER	100 mL	MTICP/ICPMS_00007	5 mL	Antimony	5000 ug/L
							Arsenic	5000 ug/L
							Barium	5000 ug/L
							Beryllium	5000 ug/L
							Cadmium	5000 ug/L
							Chromium	5000 ug/L
							Cobalt	5000 ug/L
							Copper	5000 ug/L
							Lead	5000 ug/L
							Manganese	5000 ug/L
							Nickel	5000 ug/L
							Selenium	5000 ug/L
							Thallium	5000 ug/L
							Vanadium	5000 ug/L
..MTICP/ICPMS_00007	09/11/20		CPI, Lot 982733-2		(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.MTICP/ICPMS_00008	09/11/20		CPI, Lot 982735-2		(Purchased Reagent)		Aluminum	2000 mg/L
							Calcium	2000 mg/L
							Iron	2000 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ICPMSCAL2/CCV_00022	10/23/20	06/12/20	DIWATER, Lot DIWATER	1000 mL	ICPMS,AgB,Zn_00006	10 mL	Silver	50 ug/L
							Zinc	50 ug/L
					ICPMSINTERMED_00004	10 mL	Antimony	50 ug/L
							Arsenic	50 ug/L
							Barium	50 ug/L
							Beryllium	50 ug/L
							Cadmium	50 ug/L
							Chromium	50 ug/L
							Cobalt	50 ug/L
							Copper	50 ug/L
							Lead	50 ug/L
							Manganese	50 ug/L
							Nickel	50 ug/L
							Selenium	50 ug/L
							Thallium	50 ug/L
							Vanadium	50 ug/L
					MTICP/ICPMS_00019	12.5 mL	Aluminum	25000 ug/L
							Calcium	25000 ug/L
							Iron	25000 ug/L
							Magnesium	25000 ug/L
							Potassium	25000 ug/L
							Sodium	25000 ug/L
.ICPMS,AgB,Zn_00006	10/23/20	04/23/20	DIWATER, Lot DIWATER	100 mL	MTAG_00011	0.5 mL	Silver	5000 ug/L
					MTZINC_00008	0.5 mL	Zinc	5000 ug/L
..MTAG_00011	12/25/20		CPI, Lot 975475-22		(Purchased Reagent)		Silver	1000 ug/mL
..MTZINC_00008	12/25/20		CPI, Lot 984272-63		(Purchased Reagent)		Zinc	1000 ug/mL
.ICPMSINTERMED_00004	11/20/20	05/20/20	DIWATER, Lot DIWATER	100 mL	MTICP/ICPMS_00017	5 mL	Antimony	5000 ug/L
							Arsenic	5000 ug/L
							Barium	5000 ug/L
							Beryllium	5000 ug/L
							Cadmium	5000 ug/L
							Chromium	5000 ug/L
							Cobalt	5000 ug/L
							Copper	5000 ug/L
							Lead	5000 ug/L
							Manganese	5000 ug/L
							Nickel	5000 ug/L
							Selenium	5000 ug/L
							Thallium	5000 ug/L
							Vanadium	5000 ug/L
..MTICP/ICPMS_00017	05/12/21		CPI, Lot 1018875-2		(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.MTICP/ICPMS_00019	08/04/21		CPI, Lot 1047215-1		(Purchased Reagent)		Aluminum	2000 mg/L
							Calcium	2000 mg/L
							Iron	2000 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
ICPMSCAL3_00009	10/23/20	07/02/20	DIWATER, Lot DIWATER	500 mL	ICPMS,AgB,Zn_00006	10 mL	Silver	100 ug/L
							Zinc	100 ug/L
					ICPMSINTERMED_00004	10 mL	Antimony	100 ug/L
							Arsenic	100 ug/L
							Barium	100 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	100 ug/L
							Cobalt	100 ug/L
							Copper	100 ug/L
							Lead	100 ug/L
							Manganese	100 ug/L
							Nickel	100 ug/L
							Selenium	100 ug/L
							Thallium	100 ug/L
							Vanadium	100 ug/L
					MTICP/ICPMS_00019	12.5 mL	Aluminum	50000 ug/L
							Calcium	50000 ug/L
							Iron	50000 ug/L
							Magnesium	50000 ug/L
							Potassium	50000 ug/L
							Sodium	50000 ug/L
.ICPMS,AgB,Zn_00006	10/23/20	04/23/20	DIWATER, Lot DIWATER	100 mL	MTAG_00011	0.5 mL	Silver	5000 ug/L
					MTZINC_00008	0.5 mL	Zinc	5000 ug/L
..MTAG_00011	12/25/20		CPI, Lot 975475-22		(Purchased Reagent)		Silver	1000 ug/mL
..MTZINC_00008	12/25/20		CPI, Lot 984272-63		(Purchased Reagent)		Zinc	1000 ug/mL
.ICPMSINTERMED_00004	11/20/20	05/20/20	DIWATER, Lot DIWATER	100 mL	MTICP/ICPMS_00017	5 mL	Antimony	5000 ug/L
							Arsenic	5000 ug/L
							Barium	5000 ug/L
							Beryllium	5000 ug/L
							Cadmium	5000 ug/L
							Chromium	5000 ug/L
							Cobalt	5000 ug/L
							Copper	5000 ug/L
							Lead	5000 ug/L

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Manganese	5000 ug/L
							Nickel	5000 ug/L
							Selenium	5000 ug/L
							Thallium	5000 ug/L
							Vanadium	5000 ug/L
..MTICP/ICPMS_00017	05/12/21		CPI, Lot 1018875-2		(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.MTICP/ICPMS_00019	08/04/21		CPI, Lot 1047215-1		(Purchased Reagent)		Aluminum	2000 mg/L
							Calcium	2000 mg/L
							Iron	2000 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
ICPMSspike3_00007	09/11/20	05/14/20	DIWATER, Lot DIWATER	500 mL	MTAG_00009	10 mL	Silver	20000 ug/L
					MTB_00015	10 mL	B	20000 ug/L
					MTSB_00007	10 mL	Antimony	20000 ug/L
					MTTMHNO3_00223	10 mL	Nitric acid	20000000 ug/L
					MTZN_00002	5 mL	Zinc	100000 ug/L
.MTAG_00009	09/12/20		CPI, Lot 975475-22		(Purchased Reagent)		Silver	1000 ug/mL
.MTB_00015	04/16/21		CPI, Lot 982524-63		(Purchased Reagent)		B	1000 ug/mL
.MTSB_00007	09/11/20		CPI, Lot 201251-11		(Purchased Reagent)		Antimony	1000 ug/mL
.MTTMHNO3_00223	04/21/22		Macron, Lot 0000244827		(Purchased Reagent)		Nitric acid	100 %
.MTZN_00002	10/15/20		CPI, Lot 166920-36		(Purchased Reagent)		Zinc	10000 mg/L
ICPspike3_00013	10/15/20	07/14/20	DIWATER, Lot DIWATER	500 mL	B 10000PPM_00001	5 mL	B	100000 ug/L
					MTAG_00011	5 mL	Silver	10000 ug/L
					MTTMHNO3_00228	25 mL	Nitric acid	50000000 ug/L
					MTZN_00002	5 mL	Zinc	100000 ug/L
					SB 10000PPM_00002	5 mL	Antimony	100000 ug/L
.B 10000PPM_00001	10/25/20		CPI, Lot 999843-1		(Purchased Reagent)		B	10000 ug/mL
.MTAG_00011	12/25/20		CPI, Lot 975475-22		(Purchased Reagent)		Silver	1000 ug/mL
.MTTMHNO3_00228	07/02/22		Macron, Lot 0000250832		(Purchased Reagent)		Nitric acid	100 %
.MTZN_00002	10/15/20		CPI, Lot 166920-36		(Purchased Reagent)		Zinc	10000 mg/L
.SB 10000PPM_00002	10/25/20		CPI, Lot 978317-2		(Purchased Reagent)		Antimony	10000 ug/mL
ICVLCCVLICPMS_00012	02/03/21	06/15/20	DIWATER, Lot DIWATER	1000 mL	MTICPMSICVL_00002	1 mL	Aluminum	50 ug/L
							Antimony	2 ug/L

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Arsenic	5 ug/L
							Barium	5 ug/L
							Beryllium	1 ug/L
							Cadmium	1 ug/L
							Calcium	1000 ug/L
							Chromium	2 ug/L
							Cobalt	1 ug/L
							Copper	2 ug/L
							Iron	100 ug/L
							Lead	1 ug/L
							Magnesium	1000 ug/L
							Manganese	5 ug/L
							Nickel	2 ug/L
							Potassium	1000 ug/L
							Selenium	5 ug/L
							Silver	1 ug/L
							Sodium	1000 ug/L
							Thallium	1 ug/L
							Vanadium	5 ug/L
							Zinc	20 ug/L
.MTICPMSICVL_00002	02/03/21		CPI, Lot 10095048-2		(Purchased Reagent)		Aluminum	50 ug/mL
							Antimony	2 ug/mL
							Arsenic	5 ug/mL
							Barium	5 ug/mL
							Beryllium	1 ug/mL
							Cadmium	1 ug/mL
							Calcium	1000 ug/mL
							Chromium	2 ug/mL
							Cobalt	1 ug/mL
							Copper	2 ug/mL
							Iron	100 ug/mL
							Lead	1 ug/mL
							Magnesium	1000 ug/mL
							Manganese	5 ug/mL
							Nickel	2 ug/mL
							Potassium	1000 ug/mL
							Selenium	5 ug/mL
							Silver	1 ug/mL
							Sodium	1000 ug/mL
							Thallium	1 ug/mL
							Vanadium	5 ug/mL
							Zinc	20 ug/mL
K2S2O8_00119	07/28/22	07/28/20	DIWATER, Lot DIWATER	2.5 L	MTK2S208_00063	125 mL	Potassium persulfate	0.05 g/g
.MTK2S208_00063	04/02/26		Macron, Lot 0000236043		(Purchased Reagent)		Potassium persulfate	1 g/g
MEEP LCS_00087	08/21/20	08/07/20	DIWATER, Lot 1	43 mL	MEEP_00025	4 mL	Ethane	438.14 ug/L
							Ethylene	404.651 ug/L
							Methane	475.349 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MEEP_00025	11/10/20	LGC, Lot 1061825			(Purchased Reagent)		Ethane	4.71 mg/L
							Ethylene	4.35 mg/L
							Methane	5.11 mg/L
MTH2S04_00090	07/23/22	Macron, Lot 0000243921			(Purchased Reagent)		Sulfuric acid	100 %
MTHGCALW_02460	08/13/20	08/13/20	DIWATER, Lot DIWATER	200 mL	MTHGCAL_00037	2 mL	Mercury	100 ug/L
					MTTMHNO3_00230	0.3 mL	Nitric acid	1500000 ug/L
.MTHGCAL_00037	01/31/21	High Purity Standards, Lot 1936401-500			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00230	07/30/22	Macron, Lot 0000248842			(Purchased Reagent)		Nitric acid	100 %
MTHgICV_00001_00701	08/13/20	08/13/20	DIWATER, Lot DIWATER	100 mL	Hg-ICV_00004	1 mL	Mercury	0.1 ug/mL
					MTTMHNO3_00230	0.15 mL	Nitric acid	1500 ug/mL
.Hg-ICV_00004	05/31/21	Elemental Scientific, Lot 2013412-100			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00230	07/30/22	Macron, Lot 0000248842			(Purchased Reagent)		Nitric acid	100 %
MTKMN04W_00230	07/20/22	07/20/20	DIWATER, Lot DIWATER	2.5 L	MTKMN04_00063	125 g	Potassium Permanganate	50000 mg/L
.MTKMN04_00063	06/04/25	Fisher, Lot 187467			(Purchased Reagent)		Potassium Permanganate	1 g/g
MTMSICSABW_00095	09/03/20	03/03/20	DIWATER, Lot DIWATER	500 mL	ICPMSICSA_00001	25 mL	Aluminum	50000 ug/L
							Calcium	50000 ug/L
							Iron	50000 ug/L
							Magnesium	50000 ug/L
							Mo	1000 ug/L
							Potassium	50000 ug/L
							Sodium	50000 ug/L
							Ti	1000 ug/L
					ICPMSICSAB_00001	10 mL	Antimony	100 ug/L
							Arsenic	200 ug/L
							Barium	200 ug/L
							Beryllium	200 ug/L
							Cadmium	200 ug/L
							Chromium	200 ug/L
							Cobalt	200 ug/L
							Copper	200 ug/L
							Lead	200 ug/L
							Li	200 ug/L
							Manganese	200 ug/L
							Nickel	200 ug/L
							Selenium	200 ug/L
							Sn	200 ug/L
							Sr	200 ug/L
							Thallium	100 ug/L
							Vanadium	200 ug/L
							W	2000 ug/L
					MTAG_00012	0.05 mL	Silver	100 ug/L
					MTB_00015	0.05 mL	B	100 ug/L
					MTZINC_00008	0.05 mL	Zinc	100 ug/L
.ICPMSICSA_00001	12/25/20	CPI, Lot 1013691-1			(Purchased Reagent)		Aluminum	1000 ug/mL
							Calcium	1000 ug/mL
							Iron	1000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Magnesium	1000 ug/mL
							Mo	20 ug/mL
							Potassium	1000 ug/mL
							Sodium	1000 ug/mL
							Ti	20 ug/mL
.ICPMSICSAB_00001	12/25/20	CPI, Lot 992327-1			(Purchased Reagent)		Antimony	5 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Lead	10 mg/L
							Li	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Sn	10 mg/L
							Sr	10 mg/L
							Thallium	5 mg/L
							Vanadium	10 mg/L
							W	100 mg/L
.MTAG_00012	12/25/20	CPI, Lot 975475-80			(Purchased Reagent)		Silver	1000 ug/mL
.MTB_00015	04/16/21	CPI, Lot 982524-63			(Purchased Reagent)		B	1000 ug/mL
.MTZINC_00008	12/25/20	CPI, Lot 984272-63			(Purchased Reagent)		Zinc	1000 ug/mL
MTTMHCL_00300	08/03/22	JT Baker(Avantor), Lot 0000253057			(Purchased Reagent)		Hydrogen Chloride	100 %
MTTMHNO3_00230	07/30/22	Macron, Lot 0000248842			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00087	02/04/21	08/04/20	DIWATER, Lot DIWATER	1000 mL	MTTRCRI6010C_00021	50 mL	Iron	200 ug/L
							Manganese	15 ug/L
.MTTRCRI6010C_00021	04/24/21	Inorganic Ventures, Lot P2-MEB682085			(Purchased Reagent)		Iron	4000 ug/L
							Manganese	300 ug/L
MTTRICSAW_00052	01/14/21	07/14/20	DIWATER, Lot DIWATER	1000 mL	ICPICSA_00003	100 mL	Aluminum	500000 ug/L
							Calcium	500000 ug/L
							Iron	200000 ug/L
							Magnesium	500000 ug/L
.ICPICSA_00003	08/04/21	CPI, Lot 1051542-1			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
SAICALSURR_00016	07/16/22	AirGas Scott, Lot 160-401520175-1			(Purchased Reagent)		1,1,1-Trifluoroethane	172158 ug/L
SARSK2NDSRCE2_00002	12/22/22	AirGas Speciality-Gasco, Lot 160-401681409-1			(Purchased Reagent)		Ethane	12350 ug/L
							Ethylene	11645 ug/L
							Methane	6532 ug/L
SARSKHighCal2_00001	09/24/22	Airgas, Lot 160-401593942-1			(Purchased Reagent)		1-Butene	22903 ug/L

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetylene	11467 ug/L
							Butane	23720 ug/L
							Ethane	12264 ug/L
							Ethylene	11726 ug/L
							Methane	6545 ug/L
							Pentane	29583 ug/L
							Propane	18040 ug/L
							Propane, 2-methyl	23744 ug/L
							Propene	17171 ug/L
SARSKHighCal2_00002	03/20/23	Airgas, Lot 160-401771917-1			(Purchased Reagent)		Ethane	12264 ug/L
							Ethylene	11726 ug/L
							Methane	6545 ug/L
SARSKLOWCAL2_00001	10/15/22	AirGas Scott, Lot 160-401623269-1			(Purchased Reagent)		1-Butene	2290 ug/L
							Acetylene	1076 ug/L
							Butane	2372 ug/L
							Ethane	1226 ug/L
							Ethylene	1173 ug/L
							Methane	655 ug/L
							Pentane	2958 ug/L
							Propane	1804 ug/L
							Propane, 2-methyl	2374 ug/L
							Propene	1717 ug/L
SARSKSURR_00014	09/27/22	AirGas, Lot 126-401608847-1			(Purchased Reagent)		1,1,1-Trifluoroethane	11190 ug/L
SPIKE1_00008	09/13/21	CPI, Lot 1051491-1			(Purchased Reagent)		Arsenic	200 mg/L
							Barium	200 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Li	100 mg/L
							Manganese	100 mg/L
							Mo	100 mg/L
							Nickel	100 mg/L
							Selenium	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Thallium	200 mg/L
							Ti	100 mg/L
							Vanadium	100 mg/L
SPIKE2_00007	09/13/21	CPI, Lot 1051493-1			(Purchased Reagent)		Aluminum	1000 mg/L
							Calcium	5000 mg/L
							Iron	1000 mg/L

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Magnesium	5000 mg/L
							Potassium	5000 mg/L
							Sodium	5000 mg/L
TungstenSpike_00024	09/18/20	07/29/20	DIWATER, Lot DIWATER	100 mL	MTTMHNO3_00229	2 mL	Nitric acid	20000000 ug/L
					SPIKE3_00001	20 mL	P	400000 ug/L
							Sulfur	200000 ug/L
							U	40000 ug/L
							W	20000 ug/L
.MTTMHNO3_00229	07/16/22		Macron, Lot 0000248842		(Purchased Reagent)		Nitric acid	100 %
.SPIKE3_00001	09/18/20		CPI, Lot 982745-1		(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L
							W	100 mg/L
vm50is_stk_A_00001	11/14/18	05/14/18	MEOH, Lot 191720	50 mL	vm30241_00007	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.vm30241_00007	01/31/23		restek, Lot A0134242		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm50is_stk_A_00007	02/07/21	08/07/20	MEOH, Lot 230446	50 mL	vm30241_00007	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.vm30241_00007	01/31/23		restek, Lot A0134242		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm50ss_00329	07/27/18	07/20/18	MEOH, Lot na	4 mL	vm50ss_stk_00078	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00078	12/20/18	06/20/18	MEOH, Lot 178178	200 mL	VM567650_00029	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00029	01/31/22		Restek, Lot A0124069		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00333	08/29/18	08/22/18	MEOH, Lot na	4 mL	vm50ss_stk_00078	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00078	12/20/18	06/20/18	MEOH, Lot 178178	200 mL	VM567650_00029	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00029	01/31/22		Restek, Lot A0124069		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00077	09/27/18	03/27/18	MEOH, Lot 0000136118	200 mL	VM567650_00027	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00027	07/31/21		Restek, Lot A0120212		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00085	11/21/20	05/21/20	MEOH, Lot 0000230446	200 mL	VM567650_00032	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00032	07/30/23		Restek, Lot A0139582		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vmarolistdw_00256	07/26/18	07/19/18	MEOH, Lot na	4 mL	VMACROLSTD_00062	4 mL	Acrolein	250 ug/mL
.VMACROLSTD_00062	08/31/18	06/01/18	MEOH, Lot 178178	100 mL	VM568720_00028	1.25 mL	Acrolein	250 ug/mL
..VM568720_00028	08/31/18		restek, Lot A0135693		(Purchased Reagent)		Acrolein	20000 ug/mL
vmarolistdw_00260	08/27/18	08/20/18	MEOH, Lot na	4 mL	VMACROLSTD_00062	4 mL	Acrolein	250 ug/mL
.VMACROLSTD_00062	08/31/18	06/01/18	MEOH, Lot 178178	100 mL	VM568720_00028	1.25 mL	Acrolein	250 ug/mL
..VM568720_00028	08/31/18		restek, Lot A0135693		(Purchased Reagent)		Acrolein	20000 ug/mL
vmbfb_00020							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					vm30026_00002	1.25 mL	BFB	50 ug/mL
.vm30026_00002	07/31/21		restek, Lot A0120567		(Purchased Reagent)		BFB	2000 ug/mL
vmbfb_00025							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					vm30026_00003	1.25 mL	BFB	50 ug/mL
.vm30026_00003	08/31/23		restek, Lot A0141187		(Purchased Reagent)		BFB	2000 ug/mL
VMFASA9W_00194	07/26/18	07/19/18	MEOH, Lot NA	4 mL	VMFASA9_00013	4 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tert-amyl methyl ether	50 ug/mL
.VMFASA9_00013	09/30/18	05/01/18	MEOH, Lot 0000177891	100 mL	VM570808S_00004	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993S_00002	2 mL	Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808S_00004	09/30/18		Restek, Lot A0126195		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993S_00002	12/31/18		restek, Lot A0123771		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMFASGW_00271	08/28/18	08/21/18	MEOH, Lot NA	4 mL	VMFASG_00074	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00074	09/13/18	08/13/18	MEOH, Lot 0000196626	100 mL	vm569722S_00004	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00004	11/30/18		Restek, Lot A0115484		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00371	08/17/20	08/10/20	MEOH, Lot NA	5 mL	VMFASG_00097	5 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00097	09/03/20	08/03/20	MEOH, Lot 0000230446	100 mL	vm569722S_00007	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00007	10/31/21		Restek, Lot A0142117		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00264	09/03/18	08/27/18	MEOH, Lot n/a	4 mL	VMRFASP_00049	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00049	10/31/18	07/18/18	MEOH, Lot 0000196626	100 mL	VM569721S_00003	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00006	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00019	1 mL	Vinyl acetate	50 ug/mL
					VM571992S_00002	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00003	03/31/19		Restek, Lot A0108013		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00006	11/30/18		Restek, Lot A0115500		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00019	10/31/18		Restek, Lot A0137486		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992S_00002	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMFASPW_00362	08/20/20	08/13/20	MEOH, Lot n/a	5 mL	VMRFASP_00068	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00068	11/05/20	08/05/20	MEOH, Lot 0000230446	100 mL	VM569721S_00005	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00008	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00029	1 mL	Vinyl acetate	50 ug/mL
					VM571992S_00006	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00005	12/31/20		Restek, Lot A0133078		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00008	11/30/21		Restek, Lot A0143264		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00029	09/30/21		Restek, Lot A0158728		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992S_00006	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
vmra9w_00259	07/30/18	07/23/18	MEOH, Lot NA	4 mL	VMRA9_00024	4 mL	1-Chloro-1-fluoroethane TIC	50 ug/mL
							Cyclohexanone	500 ug/mL
							Pentachloroethane	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00024	12/17/18	06/17/18	MEOH, Lot 173605TF	50 mL	Freon 151_00003	1 mL	1-Chloro-1-fluoroethane TIC	50 ug/mL
					VM569727_00002	1 mL	Cyclohexanone	500 ug/mL
					vm570806_00003	2 mL	Pentachloroethane	100 ug/mL
					vm570807_00003	2 mL	2-Methylnaphthalene	100 ug/mL
					VM570808_00004	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					VM570809_00005	1 mL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
					VM571993_00001	1 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..Freon 151_00003	12/17/18	06/17/18	MEOH, Lot 173605TF	20 mL	Freon 151_00001	0.5 mL	1-Chloro-1-fluoroethane TIC	2500 ug/mL
...Freon 151_00001	06/18/19	SynQuest Laboratories , Inc, Lot 270800			(Purchased Reagent)		1-Chloro-1-fluoroethane TIC	10 %
..VM569727_00002	03/31/19	RESTEK, Lot A0118487			(Purchased Reagent)		Cyclohexanone	25000 ug/mL
..vm570806_00003	04/30/22	Restek, Lot A0126447			(Purchased Reagent)		Pentachloroethane	2500 ug/mL
..vm570807_00003	02/28/22	Restek, Lot A0125050			(Purchased Reagent)		2-Methylnaphthalene	2500 ug/mL
..VM570808_00004	05/31/19	Restek, Lot A0132816			(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
..VM570809_00005	04/30/19	Restek, Lot A0131668			(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
..VM571993_00001	12/31/18	restek, Lot A0123796			(Purchased Reagent)		Acetonitrile	25000 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMRA9W_00356	08/15/20	08/08/20	MEOH, Lot NA	5 mL	VMRA9_00032	5 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00032	01/31/21	07/31/20	MEOH, Lot 0000230446	50 mL	VM570808_00006	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993_00004	1 mL	Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808_00006	05/31/21		Restek, Lot A0154734		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993_00004	03/31/22		restek, Lot A0158947		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
vmrgas_00255	07/30/18	07/23/18	MEOH, Lot 0000196626	10 mL	vm569722_00011	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00011	10/31/20		Restek, Lot A0131502		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrgas_00259	08/31/18	08/24/18	MEOH, Lot 0000196628	10 mL	vm569722_00011	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00011	10/31/20		Restek, Lot A0131502		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	2500 ug/mL
VMRGAS_00350	08/15/20	08/08/20	MEOH, Lot 0000230446	10 mL	vm569722_00017	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00017	03/31/23		Restek, Lot A0159085		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrprimw_00292	07/26/18	07/19/18	MEOH, Lot NA	4 mL	VMRPRIM_00028	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00028	07/29/18	04/29/18	MEOH, Lot 0000177891	50 mL	VM569721_00002	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00003	2 mL	2-Chloroethyl vinyl ether	100 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					VM569724_00014	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00001	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00002	08/31/18		Restek, Lot A0113194		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00003	07/31/18		restek, Lot A0112895		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00014	07/31/18		Restek, Lot A0134268		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
vmrprimw_00297	08/29/18	08/22/18	MEOH, Lot NA	4 mL	VMRPRIM_00029	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00029	10/31/18	07/28/18	MEOH, Lot 0000196626	50 mL	VM569721_00004	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00004	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00016	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00001	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00004	11/30/18		Restek, Lot A0115554		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00004	11/30/18		restek, Lot A0115628		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00016	10/31/18		Restek, Lot A0137562		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VMRPRIMW_00297	08/29/18	08/22/18	MEOH, Lot NA	4 mL	VMRPRIM_00029	4 mL	Xylenes, Total	100 ug/mL
.VMRPRIM_00029	10/31/18	07/28/18	MEOH, Lot 0000196626	50 mL	VM571992_00001	1 mL	Xylenes, Total	100 ug/mL
..VM571992_00001	12/31/18	Restek, Lot A0123711			(Purchased Reagent)		Xylenes, Total	5000 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VMRPRIMW_00399	08/19/20	08/12/20	MEOH, Lot NA	5 mL	VMRPRIM_00046	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRPRIM_00046	09/30/20	06/30/20	MEOH, Lot 0000230446	50 mL	VM569721_00006	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00008	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00024	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00006	04/30/21		Restek, Lot A0137509		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00008	02/28/22		restek, Lot A0146250		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00024	07/31/21		Restek, Lot A0156559		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00003	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
WCCALCIUMCARB_00024	12/17/21		LAB CHEM, Lot J102-17		(Purchased Reagent)		Hardness as calcium carbonate	1000 mg/L
WCHARDNESS_00037	03/01/21		PHENOVA, Lot 8187-08		(Purchased Reagent)		Hardness as calcium carbonate	134 mg/L
WCICCALSOLN_00331	07/30/20	07/23/20	DIWATER, Lot N/a	20 mL	WCICSOLNA1_00023	1.6 mL	Bromide	40 mg/L
							Chloride	200 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoride	10 mg/L
							Nitrate as N	10 mg/L
							Sulfate	200 mg/L
					WCICSOLNB1_00023	1.6 mL	Nitrite as N	10 mg/L
.WCICSOLNA1_00023	07/23/21	Inorganic Ventures, Lot R2-MEB692474			(Purchased Reagent)		Bromide	500 mg/L
							Chloride	2500 mg/L
							Fluoride	125 mg/L
							Nitrate as N	125 mg/L
							Sulfate	2500 mg/L
.WCICSOLNB1_00023	07/23/21	Inorganic Ventures, Lot R2-MEB692473			(Purchased Reagent)		Nitrite as N	125 mg/L
WCICCCV_00946	08/14/20	08/07/20	MOHMWATER, Lot N/a	50 mL	WCICSOLNA1_00023	1 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB1_00023	1 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA1_00023	07/23/21	Inorganic Ventures, Lot R2-MEB692474			(Purchased Reagent)		Bromide	500 mg/L
							Nitrate as N	125 mg/L
							Sulfate	2500 mg/L
.WCICSOLNB1_00023	07/23/21	Inorganic Ventures, Lot R2-MEB692473			(Purchased Reagent)		Nitrite as N	125 mg/L
WCICLCS_00775	07/30/20	07/23/20	MOHMWATER, Lot N/a	50 mL	WCICSOLNA2_00021	5 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB2_00021	5 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA2_00021	10/31/20	High Purity Standards, Lot 1929031-500			(Purchased Reagent)		Bromide	100 mg/L
							Nitrate as N	25 mg/L
							Sulfate	500 mg/L
.WCICSOLNB2_00021	10/31/20	High Purity Standards, Lot 1929022-500			(Purchased Reagent)		Nitrite as N	25 mg/L
WCICLCS_00778	08/14/20	08/07/20	MOHMWATER, Lot N/a	50 mL	WCICSOLNA2_00021	5 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB2_00021	5 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA2_00021	10/31/20	High Purity Standards, Lot 1929031-500			(Purchased Reagent)		Bromide	100 mg/L
							Nitrate as N	25 mg/L
							Sulfate	500 mg/L
.WCICSOLNB2_00021	10/31/20	High Purity Standards, Lot 1929022-500			(Purchased Reagent)		Nitrite as N	25 mg/L
WCICSOLNA1_00023	07/23/21	Inorganic Ventures, Lot R2-MEB692474			(Purchased Reagent)		Bromide	500 mg/L
							Nitrate as N	125 mg/L
							Sulfate	2500 mg/L
WCICSOLNB1_00023	07/23/21	Inorganic Ventures, Lot R2-MEB692473			(Purchased Reagent)		Nitrite as N	125 mg/L
WCPHENOMINER_00029	01/01/21	PHENOVA-WIBBY, Lot 8188-08			(Purchased Reagent)		Alkalinity	166 mg/L
WCPHENOVSOLID_00051	01/01/23	PHENOVA- WIBBY, Lot 8208-09B			(Purchased Reagent)		Total Dissolved Solids	567 mg/L

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
D_00001							Chrysene-d12	
							DFTPP	1000 %
							Phenanthrene-d10	
							Polychlorinated biphenyls, Total	
HRM_680_13C52_00004	06/15/21	Wellington Laboratories, Lot MB0521019			(Purchased Reagent)		PCB-52L	50 ug/mL
HRM_680_13C52_00006	01/02/21	Wellington Laboratories, Lot MB0521019			(Purchased Reagent)		PCB-52L	50 ug/mL
HRM_680_IS_WS_00002	06/15/21	06/15/20	Hexane, Lot 177930	10 mL	HRM_680_IS_00002	1 mL	Chrysene-d12	75 ug/mL
							Phenanthrene-d10	75 ug/mL
.HRM_680_IS_00002	06/08/25	ACCUSTNADARD, Lot 215061061			(Purchased Reagent)		Chrysene-d12	750 ug/mL
							Phenanthrene-d10	750 ug/mL
HRM_680_MS_00014	01/28/21	07/28/20	ACETONE, Lot 195881	20 mL	HRM_680_SS_ST_00002	0.5 mL	DCB Decachlorobiphenyl	0.0006275 %
							Total Dichlorobiphenyls	0.000125 %
							Total Heptachlorobiphenyls	0.0003755 %
							Total Hexachlorobiphenyls	0.00025075 %
							Total Monochlorobiphenyls	0.000125 %
							Total Octachlorobiphenyls	0.000375 %
							Total Pentachlorobiphenyls	0.00025 %
							Total Tetrachlorobiphenyls	0.00025025 %
							Total Trichlorobiphenyls	0.0001255 %
.HRM_680_SS_ST_00002	06/11/21	Agilent, Lot CS-6285			(Purchased Reagent)		DCB Decachlorobiphenyl	251 ug/mL
							Total Dichlorobiphenyls	50 ug/mL
							Total Heptachlorobiphenyls	150.2 ug/mL
							Total Hexachlorobiphenyls	100.3 ug/mL
							Total Monochlorobiphenyls	50 ug/mL
							Total Octachlorobiphenyls	150 ug/mL
							Total Pentachlorobiphenyls	100 ug/mL
							Total Tetrachlorobiphenyls	100.1 ug/mL
							Total Trichlorobiphenyls	50.2 ug/mL
HRM_680_PS_00001	07/10/28	Accustandard, Lot 218061791			(Purchased Reagent)		DCB Decachlorobiphenyl	250 ug/mL
							PCB-1	50 ug/mL
							PCB-104	100 ug/mL
							PCB-154	100 ug/mL
							PCB-188	150 ug/mL
							PCB-200	150 ug/mL
							PCB-208	250 ug/mL
							PCB-29	50 ug/mL
							PCB-5	50 ug/mL
							PCB-50	100 ug/mL
							PCB-77	100 ug/mL
							PCB-87	100 ug/mL
							Total Dichlorobiphenyls	50 ug/mL
							Total Heptachlorobiphenyls	150 ug/mL
							Total Hexachlorobiphenyls	100 ug/mL
							Total Monochlorobiphenyls	50 ug/mL
							Total Octachlorobiphenyls	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Total Pentachlorobiphenyls	100 ug/mL
							Total Tetrachlorobiphenyls	100 ug/mL
							Total Trichlorobiphenyls	50 ug/mL
HRM_680_RT_ST_00001	05/07/28	Agilent, Lot CM0434A			(Purchased Reagent)		PCB-104	100 ug/mL
							PCB-208	200 ug/mL
							PCB-77	100 ug/mL
HRM_680_SS_ST_00001	01/31/23	Agilent, Lot CS-6285			(Purchased Reagent)		DCB Decachlorobiphenyl	251 ug/mL
							Total Dichlorobiphenyls	50 ug/mL
							Total Heptachlorobiphenyls	150.2 ug/mL
							Total Hexachlorobiphenyls	100.3 ug/mL
							Total Monochlorobiphenyls	50 ug/mL
							Total Octachlorobiphenyls	150 ug/mL
							Total Pentachlorobiphenyls	100 ug/mL
							Total Tetrachlorobiphenyls	100.1 ug/mL
							Total Trichlorobiphenyls	50.2 ug/mL
HRM_680_SURR_00013	01/02/21	07/28/20	ACETONE, Lot 201167	50 mL	HRM_680_13C52_00006	1000 uL	PCB-52L	1 ug/mL
					HRM_68013C138_00006	1000 uL	PCB-138L	1 ug/mL
.HRM_680_13C52_00006	01/02/21	Wellington Laboratories, Lot MB0521019			(Purchased Reagent)		PCB-52L	50 ug/mL
.HRM_68013C138_00006	01/02/21	Wellington Laboratories, Lot MB1381118			(Purchased Reagent)		PCB-138L	50 ug/mL
HRM_68013C138_00004	06/15/21	Wellington Laboratories, Lot MB1381118			(Purchased Reagent)		PCB-138L	50 ug/mL
HRM_68013C138_00006	01/02/21	Wellington Laboratories, Lot MB1381118			(Purchased Reagent)		PCB-138L	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Cond. CCV_00023	07/01/22	LAB CHEM, Lot K174-34			(Purchased Reagent)		Specific Conductance	500 umho/cm
WCond84SP_00046	06/09/22	LabChem Inc, Lot K160-05			(Purchased Reagent)		Specific Conductance	84 umhos/cm

Reagent

B 10000PPM_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 4-26-19 KW

Single-Element Aqueous CRM

Product #: G34-S4400-10M76

Boron (B) – 10,000 µg/mL

Lot #: 999843-1

Matrix: NH_4OH

Element	Certified Concentration & Uncertainty
B	10,020 ± 30 µg/mL (w/v)
	9843 ± 28 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO Guide 34**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.9995% pure boric acid (H_3BO_3) dissolved in high purity ammonium hydroxide (NH_4OH) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3107, lot #110830**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	123	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	11	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	MAJOR	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	3	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

April 25, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Hg-ICV_00004

Certificate of Analysis

Product Description: Mercury

Product Number: **S1-Hg-10-100**

Lot Number: **2013412-100**

Matrix: 5% HNO3

Certified Value:

Element	µg/mL	SRM ID
Hg	10.0 ± 0.2	3133

The Certified Value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor k is about 2.
* Refer to Traceability Information, Section 4

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for one year from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: May 2020

Expiration Date: May 31, 2021

Certificate Issue Date: May 14, 2020

Chris Ramsgard, Product Manager Standard Solutions

RECEIVED: 05-28-20 SLD

7277 World Communications Dr. | Omaha, NE 68122 USA | Phone: +1.402.991.7800 | Fax: +1.402.991.7799
Email: esi@icpms.com | Web: www.icpms.com

Reagent

ICPICSA_00002

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 10-3-19 KW
2 x ~~500ml~~ 250ml 10-3-19 KW bottles

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 1025879-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Source Material Lot# Chart

Element	Source Material Lot#	Element	Source Material Lot#
Al	992545	Fe	1004971
Ca	150704	Mg	738337

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

September 30, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICPICSA_00003

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 2-7-20 lw

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 1051542-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Source Material Lot# Chart

Element	Source Material Lot#	Element	Source Material Lot#
Al	992545	Fe	1034361
Ca	150704	Mg	1013351

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

February 4, 2020
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br^-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

ICPICSABsol1_00001

CERTIFICATE OF ANALYSIS

Rec'd 6-27-19 km

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

Lot #: 992184-1

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.1 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

June 25, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICPICSABsol2_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 6-27-19 KC

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

Lot #: 992185-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	100.1 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.1 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.00 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.1 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

June 25, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICPMSICSA_00001

CERTIFICATE OF ANALYSIS

Rec'd 6-27-19 KW

Multi-Element Aqueous CRM

ICPMS ICSA Mix

Matrix: 2% HNO_3

Product #: TA-ICPMS-ICSA

Lot #: 1013691-1

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	1000 ± 5 mg/L	Fe	1000 ± 5 mg/L	Na	1000 ± 5 mg/L
C	2000 ± 10 mg/L	K	1000 ± 5 mg/L	P	1001 ± 5 mg/L
Ca	1000 ± 5 mg/L	Mg	1000 ± 5 mg/L	S	999.9 ± 5.0 mg/L
Cl	10,000 ± 50 mg/L	Mo	20.00 ± 0.10 mg/L	Ti	20.01 ± 0.10 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	MAJOR	Sb	0.9	Te	<1
Al	MAJOR	Cs	<0.5	Hf	43	Mg	MAJOR	Pb	2	Sc	<5	Ti	MAJOR
As	<2	Cr	7	Hg	<0.5	Mn	7	Pd	<0.5	Se	<2	Tl	<0.5
Au	2	Cu	5	Ho	<0.2	Mo	MAJOR	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	MAJOR	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	23	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	MAJOR	Nd	<0.2	Re	<0.2	Sr	16	Y	<0.5
Ca	MAJOR	Fe	MAJOR	La	<0.5	Ni	<2	Rh	<0.5	Ta	5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

June 25, 2019

Certification Date

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The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

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Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICPMSICSAB_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 6-27-19 km

Multi-Element Aqueous CRM

Product #: TA-ICPMS-ICSAB

ICPMS ICSAB Mix

Lot #: 992327-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	10.00 ± 0.05 mg/L	Li	10.00 ± 0.05 mg/L	Sn	10.00 ± 0.05 mg/L
Ba	10.00 ± 0.05 mg/L	Mn	10.00 ± 0.05 mg/L	Sr	10.00 ± 0.05 mg/L
Be	10.00 ± 0.05 mg/L	Ni	10.01 ± 0.05 mg/L	Tl	5.00 ± 0.03 mg/L
Cd	10.00 ± 0.05 mg/L	Pb	10.00 ± 0.05 mg/L	V	10.00 ± 0.05 mg/L
Co	10.01 ± 0.05 mg/L	Sb	5.00 ± 0.03 mg/L	W	100.0 ± 0.5 mg/L
Cr	10.00 ± 0.05 mg/L	Se	10.00 ± 0.05 mg/L		
Cu	10.01 ± 0.05 mg/L	Si	10.01 ± 0.05 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

June 25, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

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- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

MEEP_00025

Rcvd 6/11/20

VHG Labs, Inc [A LGC Standards Company]
276 Abby Road | Manchester, NH 03103 | USA
Tel:+1-603-206-0759 | Fax: 1-603-622-5180
www.lgcstandards.com

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Date manufactured: 14-Feb-2020
Original issue date: 14-Feb-2020

Certificate of Analysis

Date Received: _____
Page 1 of 2 Rev

Catalog No.	Lot No.	Storage	Solvent	Expiration Date	Description
VHG-MEEP-5-40	1061825	2°C - 8°C	Water	10-Nov-2020	Certified Reference Materials for Dissolved Gas Analysis: Methane, Ethane, Ethene, and Propane, 5 mg/L (Nom.) Laboratory Control Sample (LCS), 40 ml

Certified Values

Analytical concentration is based on gravimetric and volumetric preparation of this CRM. This CRM is certified by gas chromatography (GC). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration, mg/L
methane	74-82-8	99.97	2457.152.1P	5.11 ± 1.32
ethene	74-85-1	99	2459.152.1P	4.35 ± .66
ethane (C2)	74-84-0	99	2458.152.1P	4.71 ± .94
n-propane	74-98-6	100	4643.1.1P	5.20 ± .71

Intended Uses

This Certified Reference material (CRM) is intended for use as a laboratory control sample (LCS); but can be used as a calibration standard. Appropriate techniques for measurement include chromatographic instrumentation with appropriate detection systems; such as gas chromatography (GC/FID and GC/MS) or other techniques suitable for these analytes and matrix.

This CRM is intended to be used at the time of analysis by aliquot collection using the lined rubber septum vial. It is not recommend that the CRM be stored or left open for an extended period of time after cap removal.

It may be used for various EN, ISO, EPA, and ASTM methods.

Method of Preparation

All weights are traceable through N. I. S. T. test method 822/264157-00.

Packaging and Storage

The solution should be stored according to the following storage requirements: 2 °C - 8 °C, unopened non-pierced septum. If uncapped, the expiration is determined by user specification.

Glassware Calibration

Volumetric glassware required for the manufacture or certification of this CRM were Class A grade and calibrated using NIST calibrated weights.

Weights and Balance Calibration

Weights used to perform daily checks on balances are calibrated annually within a calibration laboratory recognized by NIST as Echelon I. Balances are checked daily in accordance to in house procedures. Balances are calibrated annually by an ISO/IEC 17025:2005 and ISO 17034:2016 accredited metrology service.

Catalog No.: VHG-MEEP-5-40 **Lot No.:** 1061825 **Expiration Date:** 10-Nov-2020

Homogeneity

Random replicate samples of the final packaged CRM have been analyzed to prove homogeneity in accordance with internal procedures. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC guide 17025:2005 and ISO 17034:2016

Hazardous Information

Refer to MSDS

Calculation of Uncertainty

The following equations are used to calculate the value of the expanded uncertainty: $U=ku_c$:

U=Expanded Uncertainty, k= the coverage factor at the 95% confidence level, k=2, u_c = the combined uncertainty u = $(u_m+u_t+u_l+u_h)^{1/2}$ with the uncertainty of characterization, transportation, homogeneity, and shelf life are considered.

Expiration Information

The expiration of this product is based on rigorous testing of short term and long term factors utilizing conditions stated in the Packaging and Storage section of this document.

Accreditation

This CRM was manufactured by an ISO 17025:2005 chemical testing lab (Certificate number 3031.01) and ISO 17034:2016 Reference Material Producer (RMP) Certificate number 3031.02 accredited by The American Association of Laboratory Accreditation (A2LA).

Manufactured By: **Certified By:** **Released By:**

Elizabeth Ford
Chemist II

Daniel Biggerstaff, Ph.D.
Technical Director

VHG Labs, Inc [A LGC Standards Company]
276 Abby Road | Manchester, NH 03103 | USA
Tel:+1-603-206-0759 | Fax: 1-603-622-5180
www.lgcstandards.com

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ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Date manufactured: 14-Feb-2020
Original issue date: 14-Feb-2020

Certificate of Analysis

Date Received: _____
Page 1 of 2 Rev

Catalog No.	Lot No.	Storage	Solvent	Expiration Date	Description
VHG-MEEP-5-40	1061825	2°C - 8°C	Water	10-Nov-2020	Certified Reference Materials for Dissolved Gas Analysis: Methane, Ethane, Ethene, and Propane, 5 mg/L (Nom.) Laboratory Control Sample (LCS), 40 ml

Certified Values

Analytical concentration is based on gravimetric and volumetric preparation of this CRM. This CRM is certified by gas chromatography (GC). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration, mg/L
methane	74-82-8	99.97	2457.152.1P	5.11 ± 1.32
ethene	74-85-1	99	2459.152.1P	4.35 ± .66
ethane (C2)	74-84-0	99	2458.152.1P	4.71 ± .94
n-propane	74-98-6	100	4643.1.1P	5.20 ± .71

Intended Uses

This Certified Reference material (CRM) is intended for use as a laboratory control sample (LCS); but can be used as a calibration standard. Appropriate techniques for measurement include chromatographic instrumentation with appropriate detection systems; such as gas chromatography (GC/FID and GC/MS) or other techniques suitable for these analytes and matrix.

This CRM is intended to be used at the time of analysis by aliquot collection using the lined rubber septum vial. It is not recommend that the CRM be stored or left open for an extended period of time after cap removal.

It may be used for various EN, ISO, EPA, and ASTM methods.

Method of Preparation

All weights are traceable through N. I. S. T. test method 822/264157-00.

Packaging and Storage

The solution should be stored according to the following storage requirements: 2 °C - 8 °C, unopened non-pierced septum. If uncapped, the expiration is determined by user specification.

Glassware Calibration

Volumetric glassware required for the manufacture or certification of this CRM were Class A grade and calibrated using NIST calibrated weights.

Weights and Balance Calibration

Weights used to perform daily checks on balances are calibrated annually within a calibration laboratory recognized by NIST as Echelon I. Balances are checked daily in accordance to in house procedures. Balances are calibrated annually by an ISO/IEC 17025:2005 and ISO 17034:2016 accredited metrology service.

Catalog No.: VHG-MEEP-5-40 **Lot No.:** 1061825 **Expiration Date:** 10-Nov-2020

Homogeneity

Random replicate samples of the final packaged CRM have been analyzed to prove homogeneity in accordance with internal procedures. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC guide 17025:2005 and ISO 17034:2016

Hazardous Information

Refer to MSDS

Calculation of Uncertainty

The following equations are used to calculate the value of the expanded uncertainty: $U=ku_c$:

U=Expanded Uncertainty, k= the coverage factor at the 95% confidence level, k=2, u_c = the combined uncertainty u = $(u_m+u_t+u_l+u_h)^{1/2}$ with the uncertainty of characterization, transportation, homogeneity, and shelf life are considered.

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Catalog No.: VHG-MEEP-5-40 **Lot No.:** 1061825 **Expiration Date:** 10-Nov-2020

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Catalog No.: VHG-MEEP-5-40 **Lot No.:** 1061825 **Expiration Date:** 10-Nov-2020

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RCVD 6/26/20

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Reagent

MTAG_00009

Rec'd 3-14-19
lm

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000511

SE Std Silver (Ag) – 1000 µg/mL

Lot #: 975475-22

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty
Ag	996 ± 3 µg/mL (w/v)
	987 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure silver (Ag) metal dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151, lot #992212**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	MAJOR	Co	<0.5	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<1	Hf	<0.2	Mg	<5	Pb	2	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	3	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	2	Cu	9	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	2	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 11, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTAG_00010

Recd 3.15.19
kw

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000511-SS

SE Std Silver (Ag) – 1000 µg/mL

Lot #: 711054039C-1

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty
Ag	1000 ± 3 µg/mL (w/v)
	984 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.992% pure silver (Ag) metal dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	MAJOR	Co	<0.05	Ge	<0.02	Lu	<0.02	P	Nd	Sb	<0.02	Te	<0.02
Al	<0.05	Cr	<0.05	Hf	<0.02	Mg	<0.5	Pb	<0.05	Sc	<0.02	Ti	<0.1
As	<0.05	Cs	5	Hg	Nd	Mn	<0.05	Pd	<0.02	Se	<0.1	Tl	<0.02
Au	<0.02	Cu	<0.02	Ho	<0.02	Mo	<0.02	Pr	<0.02	Si	35	Tm	<0.02
B	<1	Dy	<0.02	In	<0.02	Na	<3	Pt	<0.02	Sm	<0.02	V	<0.05
Ba	<0.02	Er	<0.02	Ir	<0.2	Nb	<0.02	Rb	<0.02	Sn	<0.5	W	<0.02
Bi	<0.02	Eu	<0.02	K	<1	Nd	<0.02	Re	<0.02	Sr	<0.02	Y	<0.02
Ca	<1	Fe	<1	La	<0.02	Ni	<0.02	Rh	<0.02	Ta	<0.02	Yb	<0.02
Cd	<0.02	Ga	<0.02	Li	<0.5	Os	<0.02	Ru	<0.02	Tb	<0.02	Zn	<0.02
Ce	<0.02	Gd	<0.02										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 12, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTAG_00011

CERTIFICATE OF ANALYSIS

Rec'd 6-27-19 kw

Single-Element Aqueous CRM

SE Std Silver (Ag) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000511

Lot #: 975475-22

Element	Certified Concentration & Uncertainty
Ag	996 ± 3 µg/mL (w/v)
	987 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure silver (Ag) metal dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151, lot #992212**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	MAJOR	Co	<0.5	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<1	Hf	<0.2	Mg	<5	Pb	2	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	3	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	2	Cu	9	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	2	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

June 25, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTAG_00012

CERTIFICATE OF ANALYSIS

Recd 6.27.19 ku

Single-Element Aqueous CRM

Product #: TA-1000511

SE Std Silver (Ag) – 1000 µg/mL

Lot #: 975475-80

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty
Ag	**996 ± 3 µg/mL (w/v)**
	987 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure silver (Ag) metal dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151, lot #992212**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	MAJOR	Co	<0.5	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<1	Hf	<0.2	Mg	<5	Pb	2	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	3	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	2	Cu	9	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	2	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

June 25, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTB_00015

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Recd 10-21-19 via
2x100 ml bottles

Single-Element Aqueous CRM

Product #: TA-100074

SE Std Boron (B) – 1000 µg/mL

Lot #: 982524-63

Matrix: H_2O

Element	Certified Concentration & Uncertainty
B	1001 ± 2 µg/mL (w/v)
	1003 ± 2 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9995% pure boric acid (H_3BO_3) dissolved and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3107, lot #110830**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1		
Al	<5	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2		
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5		
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2		
B	MAJOR	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1		
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5		
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2		
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2		
Ce	<0.2	Gd	<0.2												

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

October 16, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Reagent

MTHGCAL_00037

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Certificate of Analysis

Certified Reference Material

Product Description: Mercury

Product Number: **10-33-1-500**

Lot Number: **1936401-500**

Matrix: 5% HNO3

ISO 17034:2016 (RMP) Accreditation Certificate Number AR-1436

ISO/IEC 17025:2005 Accreditation Certificate Number AT-1529

Certified Value:

Element	µg/mL	SRM ID
Hg	10.0 ± 0.2	3133

The Certified value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor k is about 2.
* Refer to Traceability Information, Section 4

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for one year from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: January 2020

Expiration Date: January 31, 2021

Certificate Issue Date: December 30, 2019

Moven Mutuvari

Moven Mutuvari, Ph. D, Laboratory Manager

REC: 1-07-20 SLD

Reagent

MTICP/ICPMS_00007

Rec'd 3-14-19 kw

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1-SS

ICP ICPMS CAL Mix # 1

Lot #: 982733-2

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	100.0 ± 0.5 mg/L	Li	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	100.0 ± 0.5 mg/L	Sn	100.1 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.1 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.1 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 11, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

MTICP/ICPMS_00008

Rec'd 3-14-19
KW

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL2-SS

ICP ICPMS CAL Mix # 2

Lot #: 982735-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	2000 ± 10 mg/L	Fe	2000 ± 10 mg/L	Mg	2000 ± 10 mg/L
Ca	2000 ± 10 mg/L	K	2001 ± 10 mg/L	Na	2001 ± 10 mg/L

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 11, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

MTICP/ICPMS_00017

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 11-15-19 ka
2 x 250 mL

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1018875-2

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	100.0 ± 0.5 mg/L	Li	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	99.99 ± 0.50 mg/L	Sn	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Source Material Lot# Chart

Element	Source Material Lot#	Element	Source Material Lot#	Element	Source Material Lot#
As	166531	Li	170237	Si	983062
Ba	150283r	Mn	167540	Sn	171360
Be	989234	Mo	175215	Sr	976606
Cd	173171	Ni	752769	Ti	161694
Co	979870	Pb	168223	Tl	983036
Cr	880115	Sb	978317	V	983037
Cu	148793	Se	929078		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

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Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 12, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

MTICP/ICPMS_00019

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 2-7-20 KL
2 x 250 ml bottles

Multi-Element Aqueous CRM

Product #: TA-CAL2

ICP ICPMS CAL Mix # 2

Lot #: 1047215-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	2000 ± 10 mg/L	Fe	2000 ± 10 mg/L	Mg	2000 ± 10 mg/L
Ca	2000 ± 10 mg/L	K	2000 ± 10 mg/L	Na	2000 ± 10 mg/L

Source Material Lot# Chart

Element	Source Material Lot#	Element	Source Material Lot#	Element	Source Material Lot#
Al	992545	Fe	1034361	Mg	1013351
Ca	150704	K	983959	Na	997471

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

February 4, 2020
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

MTICP/ICPMS_00020

Recd 4-28-20
KD

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1068140-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	99.99 ± 0.50 mg/L	Li	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	100.0 ± 0.5 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	99.99 ± 0.50 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	99.99 ± 0.50 mg/L	Ni	99.99 ± 0.50 mg/L	Ti	99.99 ± 0.50 mg/L
Co	99.99 ± 0.50 mg/L	Pb	99.99 ± 0.50 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.0 ± 0.5 mg/L	Se	99.99 ± 0.50 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	981756	Li	983034	Si	983062
Ba	150283R	Mn	985851	Sn	1000985
Be	989234	Mo	175215	Sr	976606
Cd	983033	Ni	752769	Ti	983035
Co	979870	Pb	992969	Tl	983036
Cr	880115	Sb	1916107	V	983037
Cu	982824	Se	929078		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

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The Netherlands

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 27, 2020

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

MTICP/ICPMS_00021

Recd 4-28-20
KD

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL2

ICP ICPMS CAL Mix # 2

Lot #: 1047215-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	2000 ± 10 mg/L	Fe	2000 ± 10 mg/L	Mg	2000 ± 10 mg/L
Ca	2000 ± 10 mg/L	K	2000 ± 10 mg/L	Na	2000 ± 10 mg/L

Source Material Lot# Chart

Element	Source Material Lot#	Element	Source Material Lot#	Element	Source Material Lot#
Al	992545	Fe	1034361	Mg	1013351
Ca	150704	K	983959	Na	997471

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 13, 2020
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br^-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

MTICPMSICVL_00002

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 7-17-20 ku

Multi-Element Aqueous CRM

Product #: TA-CM-MAR19-CAN1-100

Custom 6020 ICVL/CCVL

Lot #: 10095048-2

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	1.02 ± 0.01 µg/mL	Cu	2.00 ± 0.01 µg/mL	Sb	2.01 ± 0.01 µg/mL
Al	49.98 ± 0.25 µg/mL	Fe	100.0 ± 0.5 µg/mL	Se	4.98 ± 0.02 µg/mL
As	5.00 ± 0.03 µg/mL	K	1000 ± 5 µg/mL	Sn	10.00 ± 0.05 µg/mL
B	19.99 ± 0.10 µg/mL	Li	8.00 ± 0.04 µg/mL	Sr	10.01 ± 0.05 µg/mL
Ba	5.00 ± 0.03 µg/mL	Mg	999.6 ± 5.0 µg/mL	Ti	9.99 ± 0.05 µg/mL
Be	1.00 ± 0.01 µg/mL	Mn	4.99 ± 0.02 µg/mL	Tl	988.0 ± 4.9 µg/L
Ca	1000 ± 5 µg/mL	Mo	5.00 ± 0.03 µg/mL	V	4.99 ± 0.02 µg/mL
Cd	1.01 ± 0.01 µg/mL	Na	999.6 ± 5.0 µg/mL	W	9.99 ± 0.05 µg/mL
Co	1.00 ± 0.01 µg/mL	Ni	2.01 ± 0.01 µg/mL	Zn	19.99 ± 0.10 µg/mL
Cr	2.01 ± 0.01 µg/mL	Pb	986.0 ± 4.9 µg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot#
Ag	975475	Cu	1019652	Sb	1045232
Al	995977	Fe	994438R	Se	982461
As	1034904	K	983959	Sn	977645
B	982524	Li	1017511	Sr	998106
Ba	994634	Mg	1013351	Ti	987438
Be	998969	Mn	997487	Tl	1025512
Ca	1038472	Mo	987189	V	990117
Cd	996631	Na	1046591	W	990666
Co	1024904	Ni	984273	Zn	1007922
Cr	1011874	Pb	981329		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was diluted with filtered (0.22 µm), 18 M-ohm deionized water and stabilized the appropriate high-purity acid(s) as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

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Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **12 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

February 3, 2020

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	—	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

MTLI_00011

CERTIFICATE OF ANALYSIS

Recv'd 3-26-19 KM

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 20, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTSB_00007

Recd 3-14-19
kw

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-100023

SE Std Antimony (Sb) – 1000 µg/mL

Lot #: 201251-11

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty
Sb	**999 ± 3 µg/mL (w/v)**
	979 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure antimony (Sb) metal dissolved in high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3102a, lot #140911**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	MAJOR	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	6	Ni	<2	Rh	<0.5	Ta	6	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 11, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTTRCRI6010C_00021

Reagent

MTZINC_00007

Rec'd 3-15-19
lw

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000681-SS

SE Std Zinc (Zn) – 1000 µg/mL

Lot #: 711054039B-1

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty
Zn	1000 ± 3 µg/mL (w/v)
	989 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure zinc (Zn) metal dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.02	Co	<0.05	Ge	<0.02	Lu	<0.02	P	Nd	Sb	<0.02	Te	<0.1
Al	<0.05	Cr	<0.05	Hf	<0.02	Mg	<0.1	Pb	3	Sc	<0.02	Ti	<0.02
As	<0.05	Cs	<0.02	Hg	Nd	Mn	<0.05	Pd	<0.02	Se	<0.1	Tl	<0.02
Au	<0.02	Cu	<0.02	Ho	<0.02	Mo	<0.02	Pr	<0.02	Si	<5	Tm	<0.02
B	<1	Dy	<0.02	In	<0.02	Na	<3	Pt	<0.02	Sm	<0.02	V	<0.05
Ba	<0.02	Er	<0.02	Ir	<0.02	Nb	<0.02	Rb	<0.02	Sn	<0.5	W	<0.02
Bi	<0.02	Eu	<0.02	K	<1	Nd	<0.02	Re	<0.02	Sr	<0.02	Y	<0.02
Ca	<1	Fe	<1	La	<0.02	Ni	<0.02	Rh	<0.02	Ta	<0.02	Yb	<0.02
Cd	<0.4	Ga	<0.02	Li	<0.02	Os	<0.02	Ru	<0.02	Tb	<0.02	Zn	MAJOR
Ce	<0.02	Gd	<0.02										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 12, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTZINC_00008

2 bottles
Recd 6.27.19 KM

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000681

SE Std Zinc (Zn) – 1000 µg/mL

Lot #: 984272-63

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty
Zn	1005 ± 3 µg/mL (w/v)
	998 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9999% pure zinc (Zn) metal dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a, lot #120629**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	3	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	6	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	12	W	<0.5
Bi	<0.2	Eu	<0.2	K	296	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	1	Tb	<0.5	Zn	MAJOR
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

June 25, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

MTZN_00002

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 4-16-19 KW

Single-Element Aqueous CRM

Product #: G34-4400-10M681-250

Zinc (Zn) – 10,000 µg/mL

Lot #: 166920-36

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty
Zn	10,030 ± 30 µg/mL (w/v)
	9714 ± 26 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO Guide 34**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.9999% pure zinc (Zn) metal dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a, lot #120629**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Mg	<50	Pd	<5	Si	<1000	V	<10
Al	<20	Cs	<5	Hf	<2	Mn	<10	Pr	<2	Sm	<2	W	<5
As	36	Cr	<5	Hg	<5	Mo	<5	Pt	<5	Sn	<5	Y	<5
Au	<5	Cu	<10	Ho	<2	Na	<250	Rb	<5	Sr	<10	Yb	<2
B	<50	Dy	<2	In	nd	Nb	<5	Re	<2	Ta	<5	Zn	MAJOR
Ba	<10	Er	<2	Ir	<2	Nd	<2	Rh	<5	Tb	<5		
Bi	<2	Eu	<2	K	<250	Ni	<20	Ru	9	Te	<10		
Ca	<250	Fe	<100	La	<5	Os	<5	Sb	<5	Ti	<20		
Cd	<5	Ga	<5	Li	<20	P	<1000	Sc	<50	Tl	<5		
Ce	<2	Gd	<2	Lu	<2	Pb	11	Se	<20	Tm	<2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

April 15, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

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Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

SAICALSURR_00016

Scott

RCVD 7/18/19

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	TESTAMERICA ANALYTICAL TESTING CORP		
Part Number:	X02HE95CP170003	Reference Number:	160-401520175-1
Cylinder Number:	ST0000196896	Cylinder Volume:	17.0 LG
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Jul 16, 2019	Valve Outlet:	600
Lot Number:	160-401520175-1		

Expiration Date: Jul 16, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
R143A TRIFLUOROETHANE	5.000 %	4.965 %	+/- 5%
HELIUM	Balance		

Permanent Notes:-NA-

Approved for Release

Reagent

SARSK2NDSRCE2_00002

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	TESTAMERICA ANALYTICAL TESTING CORP		
Part Number:	X11HE90CP170000	Reference Number:	160-401681409-1
Cylinder Number:	ST0000248555	Cylinder Volume:	17.0 LG
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Dec 11, 2019	Valve Outlet:	600
Lot Number:	160-401681409-1		

Expiration Date: Dec 11, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
1 BUTENE	1.000 %	0.9945 %	+/- 2%
ACETYLENE	1.000 %	0.9944 %	+/- 2%
ETHANE	1.000 %	1.001 %	+/- 2%
ETHYLENE	1.000 %	1.011 %	+/- 2%
ISOBUTANE	1.000 %	1.001 %	+/- 2%
METHANE	1.000 %	0.9957 %	+/- 2%
N BUTANE	1.000 %	0.9995 %	+/- 2%
N PENTANE	1.000 %	1.016 %	+/- 2%
PROPANE	1.000 %	1.001 %	+/- 2%
PROPYLENE	1.000 %	0.9990 %	+/- 2%
HELIUM	Balance		

Approved for Release

Reagent

SARSKHighCal2_00001

Scott

HIGH CAL W/LIST

RCVD 9/27/19

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	TESTAMERICA ANALYTICAL TESTING CORP		
Part Number:	X11HE90CP170000	Reference Number:	160-401593942-1
Cylinder Number:	ST0000197330	Cylinder Volume:	17.0 LG
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Sep 24, 2019	Valve Outlet:	600
Lot Number:	160-401593942-1		

Expiration Date: Sep 24, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
1 BUTENE	1.000 %	0.9945 %	+/- 2%
ACETYLENE	1.000 %	0.9944 %	+/- 2%
ETHANE	1.000 %	1.001 %	+/- 2%
ETHYLENE	1.000 %	1.011 %	+/- 2%
ISOBUTANE	1.000 %	1.001 %	+/- 2%
METHANE	1.000 %	0.9957 %	+/- 2%
N BUTANE	1.000 %	0.9995 %	+/- 2%
N PENTANE	1.000 %	1.016 %	+/- 2%
PROPANE	1.000 %	1.001 %	+/- 2%
PROPYLENE	1.000 %	0.9990 %	+/- 2%
HELIUM	Balance		

Approved for Release

Reagent

SARSKHighCal2_00002

Scott

RCVD 3/25/20

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	TESTAMERICA ANALYTICAL TESTING CORP		
Part Number:	X11HE90CP170000	Reference Number:	160-401771917-1
Cylinder Number:	ST0000225641	Cylinder Volume:	17.0 LG
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Mar 20, 2020	Valve Outlet:	600
Lot Number:	160-401771917-1		

Expiration Date: Mar 20, 2023

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
1 BUTENE	1.000 %	0.9945 %	+/- 2%
ACETYLENE	1.000 %	0.9944 %	+/- 2%
ETHANE	1.000 %	1.001 %	+/- 2%
ETHYLENE	1.000 %	1.011 %	+/- 2%
ISOBUTANE	1.000 %	1.001 %	+/- 2%
METHANE	1.000 %	0.9957 %	+/- 2%
N BUTANE	1.000 %	0.9995 %	+/- 2%
N PENTANE	1.000 %	1.016 %	+/- 2%
PROPANE	1.000 %	1.001 %	+/- 2%
PROPYLENE	1.000 %	0.9990 %	+/- 2%
HELIUM	Balance		

Approved for Release

Reagent

SARSKLOWCAL2_00001

Scott

RCVD 10/23/19

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	TESTAMERICA ANALYTICAL TESTING CORP		
Part Number:	X11NI99CP170000	Reference Number:	160-401623269-1
Cylinder Number:	ST0000197461	Cylinder Volume:	1.3 CF
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Oct 15, 2019	Valve Outlet:	600
Lot Number:	160-401623269-1		

Expiration Date: Oct 15, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
1 BUTENE	0.1000 %	0.0995 %	+/- 2%
ACETYLENE	0.1000 %	0.1010 %	+/- 2%
ETHANE	0.1000 %	0.0994 %	+/- 2%
ETHYLENE	0.1000 %	0.1018 %	+/- 2%
ISOBUTANE	0.1000 %	0.0997 %	+/- 2%
METHANE	0.1000 %	0.0998 %	+/- 2%
N BUTANE	0.1000 %	0.0996 %	+/- 2%
N PENTANE	0.1000 %	0.1001 %	+/- 2%
PROPANE	0.1000 %	0.0998 %	+/- 2%
PROPYLENE	0.1000 %	0.0995 %	+/- 2%
NITROGEN	Balance		

Approved for Release

Reagent

SARSKSURR_00014

Airgas
an Air Liquide company

RCVD 10/2/19

Airgas USA, LLC
616 Miller Cut Off Rd.
LaPorte, TX 77571
281-842-6900
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	TESTAMERICA ANALYTICAL TESTING CORP		
Part Number:	X02HE99C3000041	Reference Number:	126-401608847-1
Cylinder Number:	3245414Y	Cylinder Volume:	216.1 CF
Laboratory:	124 - La Porte Mix - TX	Cylinder Pressure:	2000 PSIG
Analysis Date:	Sep 27, 2019	Valve Outlet:	580
Lot Number:	126-401608847-1		

Expiration Date: Sep 27, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
R143A TRIFLUOROETHANE	0.3250 %	0.3252 %	+/- 2%
HELIUM	Balance		

Notes:
TESTAMERICA ANALYTICAL TESTING CORP
PO#: 3050762

Approved for Release

Reagent

SB 10000PPM_00002

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 4-26-19 KL

Single-Element Aqueous CRM

Product #: G34-4400-10M23

Antimony (Sb) – 10,000 µg/mL

Lot #: 978317-2

Matrix: 10% HNO_3/2% HF

Element	Certified Concentration & Uncertainty
Sb	10,050 ± 30 µg/mL (w/v)
	9366 ± 27 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO Guide 34**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure antimony (Sb) metal dissolved in high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3102a, lot #140911**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<5	Ge	<5	Lu	<2	P	<1000	Sb	MAJOR	Te	<10
Al	<20	Cs	<10	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	30	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	14	W	<5
Bi	90	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	30	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	10	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

April 25, 2019

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

SPIKE1_00008

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 6.30.20 kw
4x 500ml bottles

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 1051491-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	99.98 ± 0.50 mg/L	Ni	99.99 ± 0.50 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	V	99.99 ± 0.50 mg/L
Cr	99.99 ± 0.50 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	99.98 ± 0.50 mg/L	Si	200.0 ± 1.0 mg/L		

Source Material Lot# Chart

Element	Source Material Lot#	Element	Source Material Lot#	Element	Source Material Lot#
As	166531	Li	983034	Sn	1000985
Ba	150283R	Mn	985851	Sr	976606
Be	139553R	Mo	687000	Ti	1010584
Cd	173171	Ni	752769	Tl	1011878
Co	979870	Pb	992969	V	983037
Cr	880115	Se	929078		
Cu	982824	Si	977647		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see last page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

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The Netherlands

www.cpiinternational.com

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 13, 2020
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	-		Hf	3122	-		S	3154	2770
Al	3101a	-		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	-		Sc	3148a	3148a
Au	3121	-		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	-
Ba	3104a	-		La	3127a	3127a		Sm	3147a	-
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	-
Bi	3106	3106		Lu	3130a	-		SO_4^{-2}	3181	-
Br^-	3184	-		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	-
Cd	3108	-		Mo	3134	3134		Tb	3157a	-
Ce	3110	3110		Na	3152a	-		Te	3156	-
Cl^-	3182	1818a		Nb	3137	-		Th	-	-
Co	3113	3113		Nd	3135a	-		Ti	3162a	3162a
Cr	3112a	-		Ni	3136	-		Tl	3158	3158
Cs	3111a	-		NO_3^-	3185	-		Tm	3160a	-
Cu	3114	-		P	3139a	3139a		U	3164	-
Dy	3115a	-		Pb	3128	-		V	3165	-
Er	3116a	-		Pd	3138	-		W	3163	3163
Eu	3117a	-		PO_4^{-3}	3186	-		Y	3167a	3167a
F^-	3183	-		Pr	3142a	-		Yb	3166a	-
Fe	3126a	-		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	-		Rb	3145a	-		Zr	3169	3169
Gd	3118a	-		Re	3143	-				
Ge	3120a	-		Rh	3144	3144				

Reagent

SPIKE2_00007

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Rec'd 6.30.20 km
4x500mL bottles

Multi-Element Aqueous CRM

Product #: TA-SPIKE2

Spike Mix # 2

Lot #: 1051493-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	1000 ± 5 mg/L	Fe	1000 ± 5 mg/L	Mg	5000 ± 25 mg/L
Ca	5000 ± 25 mg/L	K	5000 ± 25 mg/L	Na	5000 ± 25 mg/L

Source Material Lot# Chart

Element	Source Material Lot#	Element	Source Material Lot#		Source Material Lot#
Al	992545	Fe	1034361	Mg	1013351
Ca	150704	K	983959	Na	1046591

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**.This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side).** The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 13, 2020
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	-		Hf	3122	-		S	3154	2770
Al	3101a	-		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	-		Sc	3148a	3148a
Au	3121	-		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	-
Ba	3104a	-		La	3127a	3127a		Sm	3147a	-
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	-
Bi	3106	3106		Lu	3130a	-		SO_4^{-2}	3181	-
Br-	3184	-		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	-
Cd	3108	-		Mo	3134	3134		Tb	3157a	-
Ce	3110	3110		Na	3152a	-		Te	3156	-
Cl-	3182	1818a		Nb	3137	-		Th	-	-
Co	3113	3113		Nd	3135a	-		Ti	3162a	3162a
Cr	3112a	-		Ni	3136	-		Tl	3158	3158
Cs	3111a	-		NO_3^-	3185	-		Tm	3160a	-
Cu	3114	-		P	3139a	3139a		U	3164	-
Dy	3115a	-		Pb	3128	-		V	3165	-
Er	3116a	-		Pd	3138	-		W	3163	3163
Eu	3117a	-		PO_4^{-3}	3186	-		Y	3167a	3167a
F-	3183	-		Pr	3142a	-		Yb	3166a	-
Fe	3126a	-		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	-		Rb	3145a	-		Zr	3169	3169
Gd	3118a	-		Re	3143	-				
Ge	3120a	-		Rh	3144	3144				

Reagent

SPIKE3_00001

Recd 3-21-19
ku

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE3

Spike Mix # 3

Lot #: 982745-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
P	2000 ± 10 mg/L	U	200.0 ± 1.0 mg/L
S	1000 ± 5 mg/L	W	100.0 ± 0.5 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 18, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

vm30026_00002

Rec: 4/11/17 (5)

VM30026-00002

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30026 **Lot No.:** A0120567

Description : 4-Bromofluorobenzene Mixture

4-Bromofluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,019.3 µg/mL	+/- 11.8506	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/- 113.2335	µg/mL	Unstressed
	Purity 99%		+/- 115.8825	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

vm30026_00003

Rec: 11/28/18
VM30026-00063

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Catalog No. : 30026 **Lot No.:** A0141187

Description : 4-Bromofluorobenzene Mixture

4-Bromofluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,004.7 µg/mL	+/- 11.7645	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 112.4110	µg/mL	Unstressed
	Purity 99%		+/- 115.0408	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

vm30241_00007

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30241 **Lot No.:** A0134242

Description : 8260A Internal Standard Mix

8260A Internal Standard Mix 2,500 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Fluorobenzene		2,503.6 µg/mL	+/- 14.5561	µg/mL	Gravimetric
	CAS # 462-06-6	(Lot BCBK8171V)		+/- 140.3744	µg/mL	Unstressed
	Purity 99%			+/- 143.6590	µg/mL	Stressed
2	Chlorobenzene-d5		2,506.4 µg/mL	+/- 14.5724	µg/mL	Gravimetric
	CAS # 3114-55-4	(Lot PR-22736)		+/- 140.5314	µg/mL	Unstressed
	Purity 99%			+/- 143.8196	µg/mL	Stressed
3	1,4-Dichlorobenzene-d4		2,513.4 µg/mL	+/- 14.6131	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)		+/- 140.9238	µg/mL	Unstressed
	Purity 99%			+/- 144.2213	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

VM30241-00007

REC'D 5-4-18

Reagent

VM567650_00027

VM567650-00027 Rec: 4/10/17 (39)

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0120212

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane	2,521.3 µg/mL	+/- 14.6591 µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 032015)		+/- 141.3668 µg/mL	Unstressed
	Purity 99%		+/- 144.6746 µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,523.7 µg/mL	+/- 14.6730 µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 14C-191)		+/- 141.5014 µg/mL	Unstressed
	Purity 99%		+/- 144.8123 µg/mL	Stressed
3	Toluene-d8	2,523.6 µg/mL	+/- 14.6724 µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-26623)		+/- 141.4957 µg/mL	Unstressed
	Purity 99%		+/- 144.8066 µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,510.9 µg/mL	+/- 14.5986 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/- 140.7837 µg/mL	Unstressed
	Purity 99%		+/- 144.0778 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00029

Rec: 8/22/17

VM567650-00029

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0124069

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane	2,521.2 µg/mL	+/- 14.6582	µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 0012016)		+/- 141.3584	µg/mL	Unstressed
	Purity 99%		+/- 144.6660	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,513.8 µg/mL	+/- 14.6157	µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot PR-25433)		+/- 140.9489	µg/mL	Unstressed
	Purity 98%		+/- 144.2469	µg/mL	Stressed
3	Toluene-d8	2,519.4 µg/mL	+/- 14.6480	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-27311)		+/- 141.2603	µg/mL	Unstressed
	Purity 99%		+/- 144.5656	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,520.8 µg/mL	+/- 14.6559	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/- 141.3360	µg/mL	Unstressed
	Purity 99%		+/- 144.6430	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM568720_00028

rec: 6/1/18

VM568720-00028

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0135693

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2018 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein		19,777.5	µg/mL	+/- 115.8016	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot 171116JLM)			+/- 634.1288	µg/mL	Unstressed
	Purity 99%				+/- 737.1054	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VM569721_00002

VM569721_00002 Rec: 9/16/15

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0113194

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone **CAS #** 67-64-1 **Purity** 99%	(Lot 07196AK)	12,510.0 µg/mL	+/- 73.2488 µg/mL +/- 665.8110 µg/mL +/- 666.5452 µg/mL		Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99%	(Lot BCBK4358V)	12,527.5 µg/mL	+/- 73.3513 µg/mL +/- 666.7424 µg/mL +/- 667.4776 µg/mL		Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99%	(Lot SHBF5332V)	12,503.0 µg/mL	+/- 73.2078 µg/mL +/- 665.4385 µg/mL +/- 666.1722 µg/mL		Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99%	(Lot MKBN7380V)	12,509.0 µg/mL	+/- 73.2429 µg/mL +/- 665.7578 µg/mL +/- 666.4919 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721_00004

Rec: 1-25-17

VM569721-00004

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0115554

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone		12,501.8 µg/mL	+/- 72.6865	µg/mL	Gravimetric
	CAS # 67-64-1	(Lot 07196AK)		+/- 754.2890	µg/mL	Unstressed
	Purity 99%			+/- 756.0798	µg/mL	Stressed
2	2-Butanone (MEK)		12,499.7 µg/mL	+/- 72.6744	µg/mL	Gravimetric
	CAS # 78-93-3	(Lot SHBG0444V)		+/- 754.1625	µg/mL	Unstressed
	Purity 98%			+/- 755.9530	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,500.6 µg/mL	+/- 72.6796	µg/mL	Gravimetric
	CAS # 108-10-1	(Lot SHBF9556V)		+/- 754.2166	µg/mL	Unstressed
	Purity 99%			+/- 756.0072	µg/mL	Stressed
4	2-Hexanone		12,502.4 µg/mL	+/- 72.6900	µg/mL	Gravimetric
	CAS # 591-78-6	(Lot MKBT3158V)		+/- 754.3252	µg/mL	Unstressed
	Purity 99%			+/- 756.1161	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721_00006

RCL: 12/4/18

VM569721_00006

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0137509

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot SHBH6933) **Purity** 99%	12,619.0 µg/mL	+/- 73.8870 µg/mL +/- 761.4104 µg/mL +/- 763.2179 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBF2461V) **Purity** 99%	12,602.0 µg/mL	+/- 73.7875 µg/mL +/- 760.3846 µg/mL +/- 762.1897 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBH7006) **Purity** 99%	12,531.0 µg/mL	+/- 73.3718 µg/mL +/- 756.1006 µg/mL +/- 757.8955 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBW0198V) **Purity** 99%	12,606.0 µg/mL	+/- 73.8109 µg/mL +/- 760.6260 µg/mL +/- 762.4316 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721S_00003

Rec: 7/12/16 (20)
VM569721S-00003

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721.sec **Lot No.:** A0118013

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1.SEC (Lot P14A572) **Purity** 99%	12,550.0 µg/mL	+/- 73.4830 µg/mL +/- 757.2470 µg/mL +/- 759.0446 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3.SEC (Lot RA58J) **Purity** 99%	12,603.0 µg/mL	+/- 73.7933 µg/mL +/- 760.4450 µg/mL +/- 762.2502 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1.SEC (Lot E29T040) **Purity** 99%	12,591.5 µg/mL	+/- 73.7260 µg/mL +/- 759.7511 µg/mL +/- 761.5546 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6.SEC (Lot V3NRA) **Purity** 99%	12,588.0 µg/mL	+/- 73.7055 µg/mL +/- 759.5399 µg/mL +/- 761.3429 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721S_00005

Rec: 6/15/18 20 vials

VM569721s-00005

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721.SEC **Lot No.:** A0133078

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,504.8 µg/mL	+/- 73.2184 µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot P14A572)		+/- 754.5197 µg/mL	Unstressed
	Purity 99%		+/- 756.3109 µg/mL	Stressed
2	2-Butanone (MEK)	12,504.0 µg/mL	+/- 73.2137 µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RA58J)		+/- 754.4715 µg/mL	Unstressed
	Purity 99%		+/- 756.2625 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,500.8 µg/mL	+/- 73.1949 µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 754.2784 µg/mL	Unstressed
	Purity 99%		+/- 756.0689 µg/mL	Stressed
4	2-Hexanone	12,503.6 µg/mL	+/- 73.2113 µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot V3NRA)		+/- 754.4473 µg/mL	Unstressed
	Purity 99%		+/- 756.2383 µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

vm569722_00011

Rec: 4/17/18

VM569722_00011

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Catalog No. : 569722 **Lot No.:** A0131502

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,501.3 µg/mL	+/- 20.2137 µg/mL +/- 140.9452 µg/mL +/- 144.2108 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBG9707V) **Purity** 99%	2,504.9 µg/mL	+/- 24.8531 µg/mL +/- 141.8827 µg/mL +/- 145.1364 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 1026101231B1) **Purity** 99%	2,498.3 µg/mL	+/- 21.7258 µg/mL +/- 141.0069 µg/mL +/- 144.2635 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBH7966) **Purity** 99%	2,499.9 µg/mL	+/- 19.8572 µg/mL +/- 140.8167 µg/mL +/- 144.0816 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,500.4 µg/mL	+/- 24.9675 µg/mL +/- 141.6590 µg/mL +/- 144.9064 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 23593) **Purity** 99%	2,500.1 µg/mL	+/- 25.2649 µg/mL +/- 141.6931 µg/mL +/- 144.9388 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 16.7114 µg/mL +/- 140.4149 µg/mL +/- 143.6892 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 **Purity** 99%	(Lot SHBH4155V)	2,499.5 µg/mL	+/- 20.7085 +/- 140.9189 +/- 144.1805	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

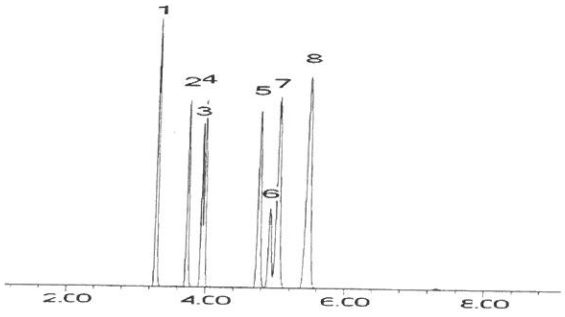
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 10-Oct-2017 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 12-Oct-2017

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Registered Quality System
Certificate #FM 80397

Reagent

vm569722_00017

Rec: 6/29/20
VM569722-00017

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0159085

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,502.3 µg/mL	+/- 16.4178 +/- 140.5076 +/- 143.7858	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,500.6 µg/mL	+/- 16.3299 +/- 140.4038 +/- 143.6799	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,500.2 µg/mL	+/- 17.2154 +/- 140.4890 +/- 143.7623	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBK2299) **Purity** 99%	2,500.7 µg/mL	+/- 17.6652 +/- 140.5681 +/- 143.8406	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,501.2 µg/mL	+/- 16.4034 +/- 140.4450 +/- 143.7217	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,500.3 µg/mL	+/- 17.7279 +/- 140.5555 +/- 143.8274	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot 8582700) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 +/- 140.1725 +/- 143.4524	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,501.4	µg/mL	+/-	16.0800	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot MKCJ8658)			+/-	140.4203	µg/mL	Unstressed
	Purity 99%				+/-	143.6982	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

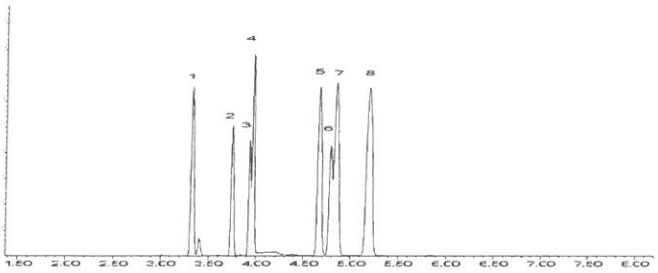
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician **Date Mixed:** 23-Mar-2020 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 26-Mar-2020

Manufactured under Restek's ISO 9001:2015
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Certificate #FM 80397

Reagent

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.sec **Lot No.:** A0115484

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 22274) **Purity** 99%	2,505.6 µg/mL	+/- 16.6251 µg/mL +/- 140.7169 µg/mL +/- 143.9990 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,517.3 µg/mL	+/- 17.3796 µg/mL +/- 141.4522 µg/mL +/- 144.7477 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,510.2 µg/mL	+/- 16.6342 µg/mL +/- 140.9727 µg/mL +/- 144.2609 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 22331) **Purity** 99%	2,516.5 µg/mL	+/- 17.4874 µg/mL +/- 141.4240 µg/mL +/- 144.7182 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot Q119-46) **Purity** 99%	2,511.5 µg/mL	+/- 16.8310 µg/mL +/- 141.0664 µg/mL +/- 144.3557 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,504.8 µg/mL	+/- 16.4341 µg/mL +/- 140.6469 µg/mL +/- 143.9283 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4.SEC (Lot SHBC0858V) **Purity** 99%	2,500.5 µg/mL	+/- 16.1659 µg/mL +/- 140.3776 µg/mL +/- 143.6540 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,524.5	µg/mL	+/- 16.8928	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q12B-59)			+/- 141.7952	µg/mL	Unstressed
	Purity 99%				+/- 145.1017	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

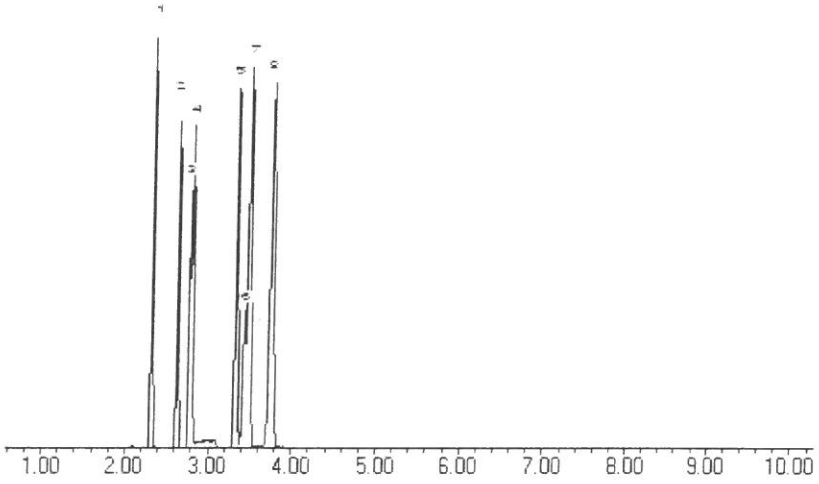
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 17-Nov-2015 **Balance:** 1127510105

Jennifer L. Pollino - QC Analyst

Date Passed: 10-Dec-2015

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Registered Quality System
Certificate #FM 80397

Reagent

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Rec: 1-23-19

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Catalog No. : 569722.SEC **Lot No.:** A0142117

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,503.0 µg/mL	+/- 23.3708 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 24847)		+/- 141.5277 µg/mL	Unstressed
	Purity 99%		+/- 144.7846 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,497.4 µg/mL	+/- 25.3963 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 141.5662 µg/mL	Unstressed
	Purity 99%		+/- 144.8078 µg/mL	Stressed
3	Vinyl chloride	2,501.8 µg/mL	+/- 19.5755 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 140.8855 µg/mL	Unstressed
	Purity 99%		+/- 144.1539 µg/mL	Stressed
4	1,3-Butadiene	2,505.3 µg/mL	+/- 20.9927 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 22331)		+/- 141.2797 µg/mL	Unstressed
	Purity 99%		+/- 144.5480 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,498.6 µg/mL	+/- 25.6449 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 141.6796 µg/mL	Unstressed
	Purity 99%		+/- 144.9218 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,498.9 µg/mL	+/- 24.9623 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 141.5741 µg/mL	Unstressed
	Purity 99%		+/- 144.8194 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/- 14.6714 µg/mL	Gravimetric
	CAS # 75-43-4 * (Lot 7766400)		+/- 140.1867 µg/mL	Unstressed
	Purity 99%		+/- 143.4662 µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,501.7 µg/mL	+/-	23.1926	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)		+/-	141.4285	µg/mL	Unstressed
	Purity 99%			+/-	144.6844	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

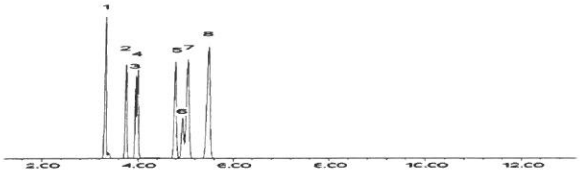
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 04-Oct-2018 **Balance:** 1127510105

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 08-Oct-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM569723_00003

VM 569723-00003 Rec'd 11/12/15

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0112895

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,503.2 µg/mL	+/- 14.6902	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBK2735V)		+/- 53.1239	µg/mL	Unstressed
	Purity 99%		+/- 53.3593	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569723_00004

VM569723-00004 Rec: 5/16/16 (20)

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Catalog No. : 569723 **Lot No.:** A0115628

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether **CAS #** 110-75-8 (Lot MKBK2735V) **Purity** 99%	2,509.2 µg/mL	+/- 14.5887 µg/mL +/- 53.7223 µg/mL +/- 55.2841 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569723_00008

Rec: 9/9/19
VM569723-00008

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0146250

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBS6526V)		+/- 53.5253	µg/mL	Unstressed
	Purity 99%		+/- 55.0814	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569723S_00006

VM569723S-00006 RCC: 9/9/20 (20)

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723.sec **Lot No.:** A0115500

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,501.5 µg/mL	+/- 14.5439	µg/mL	Gravimetric
	CAS # 110-75-8.SEC (Lot BQZ2K-QD)		+/- 53.5574	µg/mL	Unstressed
	Purity 99%		+/- 55.1144	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569723S_00008

Rec: 9/9/19
VM569723s-00008

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723.SEC **Lot No.:** A0143264

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,502.8 µg/mL	+/- 14.6878	µg/mL	Gravimetric
	CAS # 110-75-8.SEC (Lot BQZ2K-QD)		+/- 53.6224	µg/mL	Unstressed
	Purity 99%		+/- 55.1792	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569724_00014

Rec'd 4/17/18 VM569724_00014

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 **Lot No.:** A0134268

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2018 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,014.0 µg/mL	+/- 29.3581	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 302.5368	µg/mL	Unstressed
	Purity 99%		+/- 303.2550	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724_00016

VM569724_ 05016 Rcd: 7/13/18

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Catalog No. : 569724 **Lot No.:** A0137562

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2018 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,020.0 µg/mL	+/- 29.4602	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 302.9053	µg/mL	Unstressed
	Purity 99%		+/- 303.6243	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724_00024

Rcd 4-20-20 VM569724_00024

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Catalog No. : 569724 **Lot No.:** A0156559

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate		5,040.0 µg/mL	+/- 29.5103	µg/mL	Gravimetric
	CAS # 108-05-4	(Lot 192709KJ)		+/- 304.1056	µg/mL	Unstressed
	Purity 99%			+/- 304.8275	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:
08 April 2020
Expiration date extended from July 31, 2020 to July 31, 2021.

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724S_00019

Rcvd: 7/13/18

VM5697245_00019

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Catalog No. : 569724.SEC **Lot No.:** A0137486

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2018 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,035.0 µg/mL	+/- 29.5482	µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot F3Z5C)		+/- 303.8104	µg/mL	Unstressed
	Purity 99%		+/- 304.5316	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724S_00029

Rec'd: 4/20/19 VM5697245_00029

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Catalog No. : 569724.SEC **Lot No.:** A0158728

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,034.0 µg/mL	+/- 29.5423	µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot 190320CGKJ)		+/- 303.7501	µg/mL	Unstressed
	Purity 99%		+/- 304.4711	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:
08 April 2020
Expiration date extended from September 30, 2020 to September 30, 2021.

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569727_00002

VM569727_00002 Rec: 11/29/16 (10)

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Catalog No. : 569727 **Lot No.:** A0118487

Description : 8260 List 2/ Std #3 Cyclohexanone (2015)

8260 List 2/ Std #3 Cyclohexanone (2015) 25,000 µg/ml, Water, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2019 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Cyclohexanone	25,000.4 µg/mL	+/- 146.3826 µg/mL	Gravimetric
	CAS # 108-94-1 (Lot MKBN5282V)		+/- 1,508.4819 µg/mL	Unstressed
	Purity 99%		+/- 1,512.0629 µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

vm570806_00003

VM570806-00003 Rec: 12/1/17

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Catalog No. : 570806 **Lot No.:** A0126447

Description : 8260 List 2 / Std #4 Pentachloroethane

8260 List 2 / Std #4 Pentachloroethane 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachloroethane	2,519.0 µg/mL	+/- 14.7829 µg/mL	Gravimetric
	CAS # 76-01-7 (Lot 160830B-BL2)		+/- 141.2521 µg/mL	Unstressed
	Purity 99%		+/- 144.5566 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

vm570807_00003

VM570807_00003
Rec: 12/1/17

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Catalog No. : 570807 **Lot No.:** A0125050

Description : 8260 List 2 / Std #5 Methylnaphthalenes

8260 List 2 / Std #5 Methylnaphthalenes 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Methylnaphthalene	2,511.8 µg/mL	+/- 14.7406	µg/mL	Gravimetric
	CAS # 91-57-6 (Lot STBF0201V)		+/- 140.8484	µg/mL	Unstressed
	Purity 95%		+/- 144.1434	µg/mL	Stressed
2	1-Methylnaphthalene	2,514.2 µg/mL	+/- 14.7547	µg/mL	Gravimetric
	CAS # 90-12-0 (Lot 523400-9)		+/- 140.9824	µg/mL	Unstressed
	Purity 98%		+/- 144.2806	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM570808_00004

VM570808_00004 Rec: 1/11/18

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Catalog No. : 570808 **Lot No.:** A0132816

Description : 8260 List 2 / Std #6

8260 List 2 / Std #6 2,500-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Propanol (isopropanol) **CAS #** 67-63-0 (Lot SHBG8138V) **Purity** 99%	25,038.4 µg/mL	+/- 146.6053 µg/mL +/- 1,238.7172 µg/mL +/- 1,269.5131 µg/mL	Gravimetric Unstressed Stressed
2	Chloroprene (2-chloro-1,3-butadiene) **CAS #** 126-99-8 (Lot 170628JLM) **Purity** 99%	2,522.0 µg/mL	+/- 14.8005 µg/mL +/- 124.7741 µg/mL +/- 127.8760 µg/mL	Gravimetric Unstressed Stressed
3	Methacrylonitrile **CAS #** 126-98-7 (Lot 1012014) **Purity** 99%	25,034.4 µg/mL	+/- 146.5819 µg/mL +/- 1,238.5193 µg/mL +/- 1,269.3102 µg/mL	Gravimetric Unstressed Stressed
4	2,2,4-Trimethylpentane (isooctane) **CAS #** 540-84-1 (Lot SHBF8066V) **Purity** 99%	2,512.8 µg/mL	+/- 14.7465 µg/mL +/- 124.3190 µg/mL +/- 127.4095 µg/mL	Gravimetric Unstressed Stressed
5	1-Butanol **CAS #** 71-36-3 (Lot SHBH5137V) **Purity** 98%	62,503.6 µg/mL	+/- 365.9535 µg/mL +/- 3,092.2204 µg/mL +/- 3,169.0963 µg/mL	Gravimetric Unstressed Stressed
6	2-Nitropropane **CAS #** 79-46-9 (Lot BCBL0537V) **Purity** 98%	5,015.6 µg/mL	+/- 29.3677 µg/mL +/- 248.1373 µg/mL +/- 254.3062 µg/mL	Gravimetric Unstressed Stressed
7	1-Chlorohexane **CAS #** 544-10-5 (Lot 05107LK) **Purity** 98%	2,502.5 µg/mL	+/- 14.6862 µg/mL +/- 123.8108 µg/mL +/- 126.8886 µg/mL	Gravimetric Unstressed Stressed

8	1,2,3-Trimethylbenzene **CAS #** 526-73-8 **Purity** 97%	(Lot 877605-14)	2,505.7 µg/mL	+/- 14.7049 +/- 123.9679 +/- 127.0497	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Benzyl chloride **CAS #** 100-44-7 **Purity** 99%	(Lot SHBB7346V)	2,507.2 µg/mL	+/- 14.7137 +/- 124.0419 +/- 127.1255	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,3,5-Trichlorobenzene **CAS #** 108-70-3 **Purity** 99%	(Lot 11319AS)	2,502.4 µg/mL	+/- 14.6855 +/- 123.8044 +/- 126.8822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

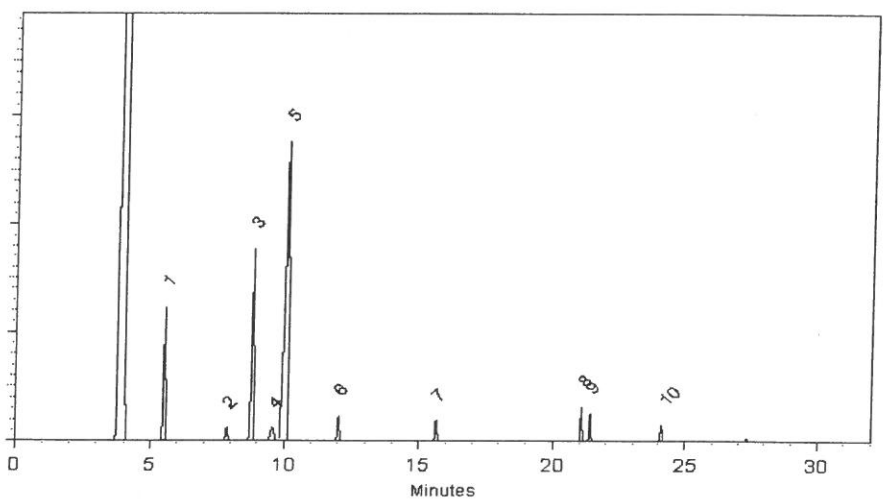
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 29-Nov-2017 **Balance:** B707717271

Amanda Miller - Operations Tech-ARM QC

Date Passed: 01-Dec-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

VM570808_00006

Rec: 6-11-20
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Catalog No. : 570808 **Lot No.:** A0154734

Description : 8260 List 2 / Std #6

8260 List 2 / Std #6 2,500-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Propanol (isopropanol) **CAS #** 67-63-0 (Lot SHBH7211) **Purity** 99%	25,135.0 µg/mL	+/- 147.1710 µg/mL +/- 1,243.4963 µg/mL +/- 1,274.4109 µg/mL	Gravimetric Unstressed Stressed
2	Chloroprene (2-chloro-1,3-butadiene) **CAS #** 126-99-8 (Lot 190814JLM) **Purity** 99%	2,523.5 µg/mL	+/- 14.8093 µg/mL +/- 124.8483 µg/mL +/- 127.9520 µg/mL	Gravimetric Unstressed Stressed
3	Methacrylonitrile **CAS #** 126-98-7 (Lot 1012019) **Purity** 99%	25,164.0 µg/mL	+/- 147.3408 µg/mL +/- 1,244.9310 µg/mL +/- 1,275.8813 µg/mL	Gravimetric Unstressed Stressed
4	2,2,4-Trimethylpentane (isooctane) **CAS #** 540-84-1 (Lot SHBD2922V) **Purity** 99%	2,512.0 µg/mL	+/- 14.7418 µg/mL +/- 124.2794 µg/mL +/- 127.3689 µg/mL	Gravimetric Unstressed Stressed
5	1-Butanol **CAS #** 71-36-3 (Lot SHBK4786) **Purity** 99%	63,024.5 µg/mL	+/- 369.0033 µg/mL +/- 3,117.9899 µg/mL +/- 3,195.5065 µg/mL	Gravimetric Unstressed Stressed
6	2-Nitropropane **CAS #** 79-46-9 (Lot BCBL0537V) **Purity** 98%	5,009.8 µg/mL	+/- 29.3332 µg/mL +/- 247.8464 µg/mL +/- 254.0081 µg/mL	Gravimetric Unstressed Stressed
7	1-Chlorohexane **CAS #** 544-10-5 (Lot BCBS3368V) **Purity** 98%	2,516.6 µg/mL	+/- 14.7691 µg/mL +/- 124.5090 µg/mL +/- 127.6042 µg/mL	Gravimetric Unstressed Stressed

8	1,2,3-Trimethylbenzene **CAS #** 526-73-8 **Purity** 98%	(Lot 877605-12)	2,510.3	µg/mL	+/- 14.7317 +/- 124.1938 +/- 127.2812	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Benzyl chloride **CAS #** 100-44-7 **Purity** 99%	(Lot SHBH2102V)	2,516.0	µg/mL	+/- 14.7653 +/- 124.4773 +/- 127.5717	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,3,5-Trichlorobenzene **CAS #** 108-70-3 **Purity** 99%	(Lot 11319AS)	2,523.0	µg/mL	+/- 14.8064 +/- 124.8236 +/- 127.9267	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

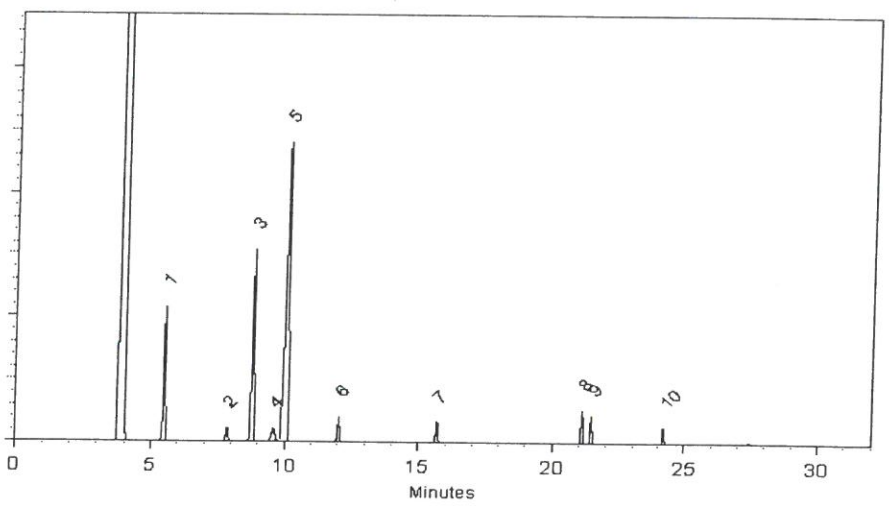
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 05-Nov-2019 **Balance:** B707717271

Fang-Yun Le - QC Analyst

Date Passed: 07-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

VM570808S_00004

VM570808S-00004 Rec 10/27/17

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Catalog No. : 570808.SEC **Lot No.:** A0126195

Description : 8260 List 2 / Std #6

8260 List 2 / Std #6 2500-62500 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Propanol (isopropanol) **CAS #** 67-63-0.SEC (Lot NWVYK) **Purity** 98%	25,010.4 µg/mL	+/- 146.4413 µg/mL +/- 1,237.3312 µg/mL +/- 1,268.0926 µg/mL	Gravimetric Unstressed Stressed
2	Chloroprene (2-chloro-1,3-butadiene) **CAS #** 126-99-8 * (Lot 170113JLM) **Purity** 99%	2,519.6 µg/mL	+/- 14.7864 µg/mL +/- 124.6554 µg/mL +/- 127.7543 µg/mL	Gravimetric Unstressed Stressed
3	Methacrylonitrile **CAS #** 126-98-7 * (Lot 1012014) **Purity** 99%	25,013.6 µg/mL	+/- 146.4601 µg/mL +/- 1,237.4903 µg/mL +/- 1,268.2556 µg/mL	Gravimetric Unstressed Stressed
4	2,2,4-Trimethylpentane (Isooctane) **CAS #** 540-84-1.SEC (Lot 4597900) **Purity** 99%	2,502.4 µg/mL	+/- 14.6855 µg/mL +/- 123.8044 µg/mL +/- 126.8822 µg/mL	Gravimetric Unstressed Stressed
5	1-Butanol **CAS #** 71-36-3.SEC (Lot QBO2D) **Purity** 99%	62,532.0 µg/mL	+/- 366.1197 µg/mL +/- 3,093.6246 µg/mL +/- 3,170.5355 µg/mL	Gravimetric Unstressed Stressed
6	2-Nitropropane **CAS #** 79-46-9.SEC (Lot 6M3NJ) **Purity** 98%	5,012.9 µg/mL	+/- 29.3516 µg/mL +/- 248.0015 µg/mL +/- 254.1671 µg/mL	Gravimetric Unstressed Stressed
7	1-Chlorohexane **CAS #** 544-10-5.SEC (Lot 3890000) **Purity** 98%	2,507.6 µg/mL	+/- 14.7161 µg/mL +/- 124.0629 µg/mL +/- 127.1470 µg/mL	Gravimetric Unstressed Stressed

8	1,2,3-Trimethylbenzene **CAS #** 526-73-8.SEC **Purity** 96%	(Lot 5602500)	2,505.6 µg/mL	+/- 14.7043 +/- 123.9628 +/- 127.0444	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Benzyl chloride **CAS #** 100-44-7.SEC **Purity** 99%	(Lot H29N03)	2,506.4 µg/mL	+/- 14.7090 +/- 124.0023 +/- 127.0850	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,3,5-Trichlorobenzene **CAS #** 108-70-3.SEC **Purity** 99%	(Lot I28U021)	2,504.0 µg/mL	+/- 14.6949 +/- 123.8836 +/- 126.9633	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

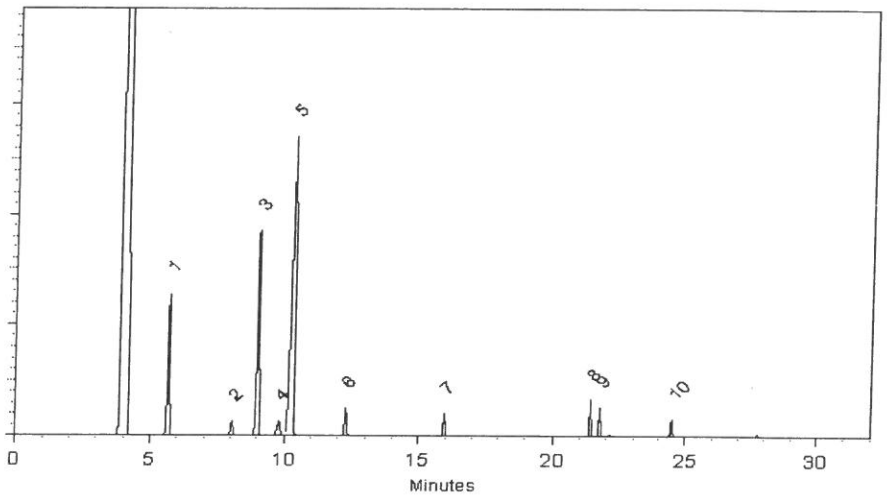
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician **Date Mixed:** 27-Mar-2017 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 29-Mar-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

VM570809_00005

Rec: 1/11/18
V M570809_00005

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Certificate #3222.01

ilac-MRA

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570809 **Lot No.:** A0131668

Description : 8260 List 2 / Std #7

8260 List 2 / Std #7 2,500-5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Ethyl acetate **CAS #** 141-78-6 (Lot SHBG6401V) **Purity** 99%	5,019.0 µg/mL	+/- 29.3873 µg/mL +/- 302.8385 µg/mL +/- 303.5574 µg/mL	Gravimetric Unstressed Stressed
2	Ethyl acrylate **CAS #** 140-88-5 (Lot 10129902) **Purity** 99%	2,521.0 µg/mL	+/- 14.7946 µg/mL +/- 152.1164 µg/mL +/- 152.4775 µg/mL	Gravimetric Unstressed Stressed
3	Methyl methacrylate **CAS #** 80-62-6 (Lot MKBV3172V) **Purity** 99%	5,027.5 µg/mL	+/- 29.4371 µg/mL +/- 303.3514 µg/mL +/- 304.0715 µg/mL	Gravimetric Unstressed Stressed
4	Butyl acetate **CAS #** 123-86-4 (Lot SHBH0056V) **Purity** 99%	2,512.0 µg/mL	+/- 14.7418 µg/mL +/- 151.5733 µg/mL +/- 151.9331 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM571992_00001

VM571992_00001 Rec'd 1-25-17

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0123711

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBG1462V) **Purity** 99%	2,501.3 µg/mL	+/- 14.5425 µg/mL +/- 150.9115 µg/mL +/- 151.2698 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00009482) **Purity** 99%	2,505.1 µg/mL	+/- 14.5650 µg/mL +/- 151.1453 µg/mL +/- 151.5041 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBG8609V) **Purity** 99%	2,511.5 µg/mL	+/- 14.6021 µg/mL +/- 151.5299 µg/mL +/- 151.8897 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBF0688V) **Purity** 99%	25,001.8 µg/mL	+/- 145.3547 µg/mL +/- 1,508.4656 µg/mL +/- 1,512.0470 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBG4345V) **Purity** 99%	5,000.5 µg/mL	+/- 29.0733 µg/mL +/- 301.7023 µg/mL +/- 302.4186 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBF2149V) **Purity** 99%	2,502.9 µg/mL	+/- 14.5519 µg/mL +/- 151.0095 µg/mL +/- 151.3681 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot SHBF8133V) **Purity** 99%	2,517.1 µg/mL	+/- 14.6348 µg/mL +/- 151.8693 µg/mL +/- 152.2299 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	(Lot SHBH2578V)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0 **Purity** 99%	(Lot S20A856)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1 **Purity** 99%	(Lot T07B2030)	25,001.3 µg/mL	+/- 145.3518 +/- 1,508.4355 +/- 1,512.0167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	(Lot SHBG2655V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 98%	(Lot MKBV2831V)	2,500.5 µg/mL	+/- 14.5379 +/- 150.8644 +/- 151.2226	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	(Lot SHBG2674V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3 **Purity** 99%	(Lot 00008621)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7 **Purity** 98%	(Lot BCBR0622V)	2,501.0 µg/mL	+/- 14.5408 +/- 150.8940 +/- 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5 **Purity** 99%	(Lot 09431AEV)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1 **Purity** 99%	(Lot SHBG8201V)	62,512.5 µg/mL	+/- 363.4341 +/- 3,771.6543 +/- 3,780.6088	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform **CAS #** 67-66-3 **Purity** 99%	(Lot MKBV2089V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5 **Purity** 99%	(Lot 00004559)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9 **Purity** 99%	(Lot SHBG2910V)	5,001.3 µg/mL	+/- 29.0777 +/- 301.7476 +/- 302.4640	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane **CAS #** 71-55-6 **Purity** 99%	(Lot B15W12061)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7 **Purity** 99%	(Lot MKBX4768V)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6 **Purity** 99%	(Lot 160727JLM)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBG1763V)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBG6171V)	2,505.5 µg/mL	+/- 14.5672 +/- 151.1679 +/- 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBF9313V)	2,504.8 µg/mL	+/- 14.5628 +/- 151.1227 +/- 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBH2056V)	2,506.9 µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBH1955V)	2,502.4 µg/mL	+/- 14.5490 +/- 150.9794 +/- 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2 **Purity** 98%	(Lot SHBG0634V)	2,500.3 µg/mL	+/- 14.5372 +/- 150.8570 +/- 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,503.0 µg/mL	+/- 14.5527 +/- 151.0171 +/- 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBH2584V)	50,011.4 µg/mL	+/- 290.7552 +/- 3,017.4064 +/- 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 98%	(Lot 10183283)	2,501.9 µg/mL	+/- 14.5465 +/- 150.9531 +/- 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 22622)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBH1932V)	2,504.3 µg/mL	+/- 14.5599 +/- 151.0925 +/- 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot SHBD9190V)	2,506.9 µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C584177)	2,503.6 µg/mL	+/- 14.5563 +/- 151.0548 +/- 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,503.5 µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD9374V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane		2,500.2 µg/mL	+/-	14.5365	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBW3597V)		+/-	150.8497	µg/mL	Unstressed
	Purity 98%			+/-	151.2078	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,501.3 µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)		+/-	150.9115	µg/mL	Unstressed
	Purity 99%			+/-	151.2698	µg/mL	Stressed
42	Chlorobenzene		2,500.1 µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBF0505V)		+/-	150.8436	µg/mL	Unstressed
	Purity 99%			+/-	151.2017	µg/mL	Stressed
43	m-Xylene		1,250.3 µg/mL	+/-	7.2691	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBG4347V)		+/-	75.4331	µg/mL	Unstressed
	Purity 99%			+/-	75.6122	µg/mL	Stressed
44	p-Xylene		1,251.3 µg/mL	+/-	7.2749	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBG3928V)		+/-	75.4935	µg/mL	Unstressed
	Purity 99%			+/-	75.6727	µg/mL	Stressed
45	Ethylbenzene		2,503.3 µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBG5920V)		+/-	151.0322	µg/mL	Unstressed
	Purity 99%			+/-	151.3907	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,500.3 µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)		+/-	150.8512	µg/mL	Unstressed
	Purity 99%			+/-	151.2093	µg/mL	Stressed
47	o-Xylene		2,504.9 µg/mL	+/-	14.5636	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBH3432V)		+/-	151.1302	µg/mL	Unstressed
	Purity 99%			+/-	151.4890	µg/mL	Stressed
48	Styrene		2,506.3 µg/mL	+/-	14.5716	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKBS7097V)		+/-	151.2132	µg/mL	Unstressed
	Purity 99%			+/-	151.5722	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,501.6 µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10185056)		+/-	150.9341	µg/mL	Unstressed
	Purity 99%			+/-	151.2925	µg/mL	Stressed
50	bromoform		2,502.9 µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBD8459V)		+/-	151.0095	µg/mL	Unstressed
	Purity 99%			+/-	151.3681	µg/mL	Stressed
51	bromodichloromethane		2,506.8 µg/mL	+/-	14.5750	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKBW5506V)		+/-	151.2490	µg/mL	Unstressed
	Purity 97%			+/-	151.6081	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,501.3 µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)		+/-	150.9115	µg/mL	Unstressed
	Purity 99%			+/-	151.2698	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,508.5 µg/mL	+/-	14.5846	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)		+/-	151.3489	µg/mL	Unstressed
	Purity 99%			+/-	151.7082	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,500.8 µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP6041V)		+/-	150.8817	µg/mL	Unstressed
	Purity 95%			+/-	151.2399	µg/mL	Stressed
55	n-Propylbenzene		2,501.9 µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBJ0332V)		+/-	150.9492	µg/mL	Unstressed
	Purity 99%			+/-	151.3076	µg/mL	Stressed

56	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot MKBD4032V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBQ2165V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBW5554V)	2,500.6 µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBL7753V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot S52237V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 98%	(Lot MKBJ6229V)	2,500.8 µg/mL	+/- 14.5401 +/- 150.8866 +/- 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBR9260V)	2,505.4 µg/mL	+/- 14.5665 +/- 151.1604 +/- 151.5193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBS2604V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBM5751V)	2,503.9 µg/mL	+/- 14.5577 +/- 151.0699 +/- 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBS1350V)	2,509.9 µg/mL	+/- 14.5926 +/- 151.4319 +/- 151.7914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09418JJV)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot SHBD7331V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	2,505.0 µg/mL	+/- 14.5643 +/- 151.1378 +/- 151.4966	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot SHBC5541V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 98%	(Lot J31X013)	2,506.5 µg/mL	+/- 14.5728 +/- 151.2266 +/- 151.5856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBW2603V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,511.1	µg/mL	+/-	14.5999	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)			+/-	151.5073	µg/mL	Unstressed
	Purity 99%				+/-	151.8670	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

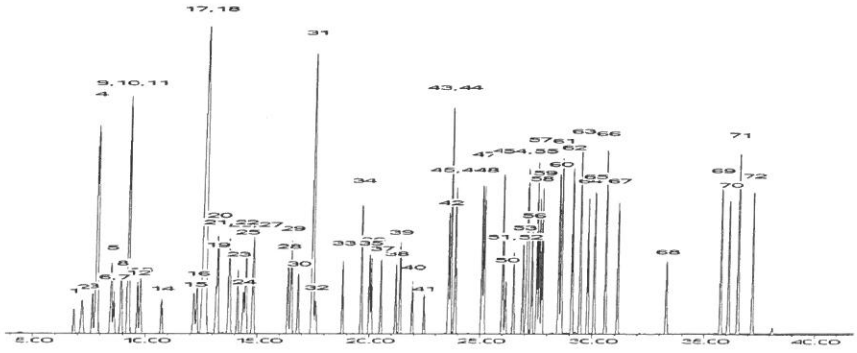
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 22-Dec-2016 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

VM571992_00003

Rec: 5/31/19
VM571992_00003

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Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0143774

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBJ5713) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00009482) **Purity** 99%	2,501.6 µg/mL	+/- 14.5447 µg/mL +/- 150.9341 µg/mL +/- 151.2925 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBG8609V) **Purity** 99%	2,501.9 µg/mL	+/- 14.5461 µg/mL +/- 150.9492 µg/mL +/- 151.3076 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBJ9404) **Purity** 99%	25,008.1 µg/mL	+/- 145.3918 µg/mL +/- 1,508.8503 µg/mL +/- 1,512.4325 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBG4345V) **Purity** 99%	5,000.8 µg/mL	+/- 29.0748 µg/mL +/- 301.7174 µg/mL +/- 302.4337 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBH4362V) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot WXBB7852V) **Purity** 99%	2,502.0 µg/mL	+/- 14.5468 µg/mL +/- 150.9567 µg/mL +/- 151.3151 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	(Lot SHBK5095)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0 **Purity** 99%	(Lot U22D706)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1 **Purity** 99%	(Lot R15D047)	25,010.4	µg/mL	+/- 145.4049 +/- 1,508.9860 +/- 1,512.5686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	(Lot SHBH9526)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 99%	(Lot MKBX5945V)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	(Lot SHBH8106)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3 **Purity** 99%	(Lot 462600)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7 **Purity** 99%	(Lot BCBT5124)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5 **Purity** 99%	(Lot MKBH9850V)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1 **Purity** 99%	(Lot SHBK0551)	62,500.9	µg/mL	+/- 363.3665 +/- 3,770.9529 +/- 3,779.9058	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform **CAS #** 67-66-3 **Purity** 99%	(Lot SHBJ9076)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5 **Purity** 98%	(Lot 00008541)	2,500.6	µg/mL	+/- 14.5387 +/- 150.8718 +/- 151.2300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9 **Purity** 99%	(Lot SHBJ6179)	5,000.6	µg/mL	+/- 29.0741 +/- 301.7099 +/- 302.4262	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane **CAS #** 71-55-6 **Purity** 99%	(Lot B15W12061)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7 **Purity** 99%	(Lot MKCC9660)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6 **Purity** 99%	(Lot 180531JLM)	2,500.6	µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBJ2110)	2,501.1	µg/mL	+/- +/- +/-	14.5418 150.9040 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBJ2424)	2,501.6	µg/mL	+/- +/- +/-	14.5447 150.9341 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBJ0707)	2,501.3	µg/mL	+/- +/- +/-	14.5425 150.9115 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBJ5344)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBH1955V)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2 **Purity** 99%	(Lot SHBJ0457)	2,501.6	µg/mL	+/- +/- +/-	14.5447 150.9341 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot BCBR0882V)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBJ7415)	50,001.1	µg/mL	+/- +/- +/-	290.6957 3,016.7880 3,023.9503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 99%	(Lot 10201030)	2,502.0	µg/mL	+/- +/- +/-	14.5468 150.9567 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 25076)	2,501.4	µg/mL	+/- +/- +/-	14.5432 150.9190 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBJ5659)	2,500.1	µg/mL	+/- +/- +/-	14.5359 150.8436 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot 69796APV)	2,502.8	µg/mL	+/- +/- +/-	14.5512 151.0020 151.3605	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 98%	(Lot C797620)	2,500.6	µg/mL	+/- +/- +/-	14.5387 150.8718 151.2300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,500.4	µg/mL	+/- +/- +/-	14.5374 150.8587 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBH9691)	2,501.0	µg/mL	+/- +/- +/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane **CAS #** 124-48-1 **Purity** 98%	(Lot MKCC0877)	2,502.4	µg/mL	+/- 14.5493 +/- 150.9827 +/- 151.3411	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 **Purity** 99%	(Lot BCBH3877V)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7 **Purity** 99%	(Lot SHBH4459V)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene **CAS #** 108-38-3 **Purity** 99%	(Lot SHBJ2338)	1,251.5	µg/mL	+/- 7.2763 +/- 75.5085 +/- 75.6878	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene **CAS #** 106-42-3 **Purity** 99%	(Lot SHBJ0052)	1,250.1	µg/mL	+/- 7.2683 +/- 75.4256 +/- 75.6047	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene **CAS #** 100-41-4 **Purity** 99%	(Lot SHBJ3183)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6 **Purity** 99%	(Lot MKBS3769V)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6 **Purity** 99%	(Lot SHBH7231)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5 **Purity** 99%	(Lot MKCC9766)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8 **Purity** 99%	(Lot 10185056)	2,500.1	µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform **CAS #** 75-25-2 **Purity** 99%	(Lot SHBG3138V)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane **CAS #** 75-27-4 **Purity** 99%	(Lot MKCF8470)	2,501.6	µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5 **Purity** 99%	(Lot CFA4D)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4 **Purity** 99%	(Lot BCBH8722V)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene **CAS #** 110-57-6 **Purity** 94%	(Lot MKBX7788V)	2,500.0	µg/mL	+/- 14.5355 +/- 150.8389 +/- 151.1971	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1 **Purity** 99%	(Lot WXBC3346V)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot WXBC5147V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBS7648V)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBW5554V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBL7753V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot STBD6954V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 97%	(Lot MKBH5027V)	2,499.9 µg/mL	+/- 14.5348 +/- 150.8320 +/- 151.1901	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBR9260V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBV3556V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBQ7100V)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBS4401V)	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09804AE)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot SHBG3111V)	2,502.9 µg/mL	+/- 14.5519 +/- 151.0095 +/- 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot SHBJ9215)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 99%	(Lot J31X013)	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBZ8680V)	2,502.8 µg/mL	+/- 14.5512 +/- 151.0020 +/- 151.3605	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

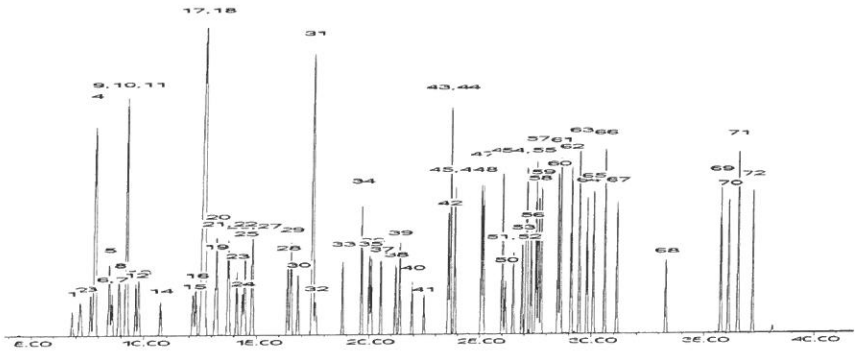
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 05-Dec-2018 **Balance:** B251644995

Diane Shaffer - Operations Tech-ARM QC **Date Passed:** 21-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM571992S_00002

Rec: 5/24/17

VMS71992S-00002

(10)

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.sec **Lot No.:** A0123775

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,501.2 µg/mL	+/- 14.5422 +/- 150.9088 +/- 151.2671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 2767000) **Purity** 99%	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,003.1 µg/mL	+/- 145.3626 +/- 1,508.5475 +/- 1,512.1291	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot YDGVD) **Purity** 99%	5,000.4 µg/mL	+/- 29.0726 +/- 301.6948 +/- 302.4111	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot VEBOC) **Purity** 98%	2,500.1 µg/mL	+/- 14.5358 +/- 150.8423 +/- 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC (Lot FGM02) **Purity** 99%		2,500.8 µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0.SEC **Purity** 99%	(Lot MKBL1376V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1.SEC **Purity** 99%	(Lot UERIL)	25,000.9 µg/mL	+/- 145.3496 +/- 1,508.4128 +/- 1,511.9941	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4.SEC **Purity** 99%	(Lot ZAQTA-MS)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2.SEC **Purity** 98%	(Lot HGC01-BLKT)	2,500.7 µg/mL	+/- 14.5394 +/- 150.8792 +/- 151.2374	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3.SEC **Purity** 99%	(Lot 10188491)	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3.SEC **Purity** 99%	(Lot 5379000)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7.SEC **Purity** 98%	(Lot 17E8E)	2,500.1 µg/mL	+/- 14.5358 +/- 150.8423 +/- 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5.SEC **Purity** 97%	(Lot TS5UB)	2,500.2 µg/mL	+/- 14.5362 +/- 150.8466 +/- 151.2048	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1.SEC **Purity** 99%	(Lot 83NHH)	62,506.9 µg/mL	+/- 363.4014 +/- 3,771.3149 +/- 3,780.2687	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Chloroform **CAS #** 67-66-3.SEC **Purity** 99%	(Lot 1297547)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5.SEC **Purity** 99%	(Lot 5670200)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9.SEC **Purity** 99%	(Lot K3V7J-SJ)	5,002.3 µg/mL	+/- 29.0835 +/- 301.8079 +/- 302.5245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-Trichloroethane **CAS #** 71-55-6.SEC **Purity** 98%	(Lot CS160712)	2,500.7 µg/mL	+/- 14.5394 +/- 150.8792 +/- 151.2374	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7.SEC **Purity** 99%	(Lot YADRA)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6.SEC **Purity** 96%	(Lot 5221100)	2,501.3 µg/mL	+/- 14.5427 +/- 150.9133 +/- 151.2716	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Carbon tetrachloride **CAS #** 56-23-5.SEC **Purity** 99%	(Lot 11466)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5.SEC **Purity** 99%	(Lot OGM01)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2.SEC **Purity** 99%	(Lot FO6PK)	2,500.1	µg/mL	+/- +/- +/-	14.5359 150.8436 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2.SEC **Purity** 99%	(Lot B28Y008)	2,501.5	µg/mL	+/- +/- +/-	14.5439 150.9266 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6.SEC **Purity** 99%	(Lot H04X050)	2,501.0	µg/mL	+/- +/- +/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2.SEC **Purity** 99%	(Lot 24MSD-CD)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5.SEC **Purity** 99%	(Lot OGG01)	2,501.1	µg/mL	+/- +/- +/-	14.5418 150.9040 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1.SEC **Purity** 99%	(Lot MUFZH)	50,007.1	µg/mL	+/- +/- +/-	290.7305 3,017.1500 3,024.3132	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3.SEC **Purity** 99%	(Lot FGI01-OICH)	2,501.6	µg/mL	+/- +/- +/-	14.5447 150.9341 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5.SEC **Purity** 99%	(Lot 487OA)	2,500.1	µg/mL	+/- +/- +/-	14.5359 150.8436 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3.SEC **Purity** 99%	(Lot YND2B-BD)	2,500.0	µg/mL	+/- +/- +/-	14.5352 150.8361 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2.SEC **Purity** 99%	(Lot MLWYK-LS)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6.SEC **Purity** 99%	(Lot ZDMSL)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5.SEC **Purity** 98%	(Lot 5034600)	2,500.8	µg/mL	+/- +/- +/-	14.5401 150.8866 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9.SEC **Purity** 99%	(Lot AGN01-EFPC)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4.SEC **Purity** 99%	(Lot F09W014)	2,501.3	µg/mL	+/- +/- +/-	14.5425 150.9115 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane **CAS #** 124-48-1.SEC **Purity** 97%	(Lot 10181507)	2,500.4 µg/mL	+/- 14.5376 +/- 150.8613 +/- 151.2194	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4.SEC **Purity** 99%	(Lot 3505900)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7.SEC **Purity** 99%	(Lot 1161936)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene **CAS #** 108-38-3.SEC **Purity** 99%	(Lot OUKMG-GB)	1,250.9 µg/mL	+/- 7.2727 +/- 75.4708 +/- 75.6500	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene **CAS #** 106-42-3.SEC **Purity** 99%	(Lot GM01)	1,250.5 µg/mL	+/- 7.2705 +/- 75.4482 +/- 75.6273	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene **CAS #** 100-41-4.SEC **Purity** 99%	(Lot PI4SE)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6.SEC **Purity** 99%	(Lot GC01)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6.SEC **Purity** 99%	(Lot FGL01-KTPK)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5.SEC **Purity** 99%	(Lot OFIOL-IA)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8.SEC **Purity** 99%	(Lot 2PHXG-IH)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform **CAS #** 75-25-2.SEC **Purity** 99%	(Lot 5139000)	2,502.3 µg/mL	+/- 14.5483 +/- 150.9718 +/- 151.3303	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 98%	(Lot 13780)	2,500.1 µg/mL	+/- 14.5358 +/- 150.8423 +/- 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5.SEC **Purity** 99%	(Lot CFA4D-AQ)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4.SEC **Purity** 98%	(Lot OGI01)	2,500.1 µg/mL	+/- 14.5358 +/- 150.8423 +/- 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene **CAS #** 110-57-6.SEC **Purity** 98%	(Lot 100700-3)	2,501.0 µg/mL	+/- 14.5408 +/- 150.8940 +/- 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1.SEC **Purity** 99%	(Lot T2HFC-IT)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot TOOOF)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
58	2-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
59	4-Chlorotoluene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot OGN01-CAI)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot SC7LO-QA)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
62	sec-Butylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 5221800)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
66	n-Butylbenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot OGN01-PNP)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,501.5	µg/mL	+/-	14.5436	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	150.9236	µg/mL	Unstressed
	Purity 98%				+/-	151.2819	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.4	µg/mL	+/-	14.5433	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	150.9198	µg/mL	Unstressed
	Purity 97%				+/-	151.2781	µg/mL	Stressed
71	Naphthalene		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot SKZ5N)			+/-	150.9417	µg/mL	Unstressed
	Purity 99%				+/-	151.3000	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,500.7 µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

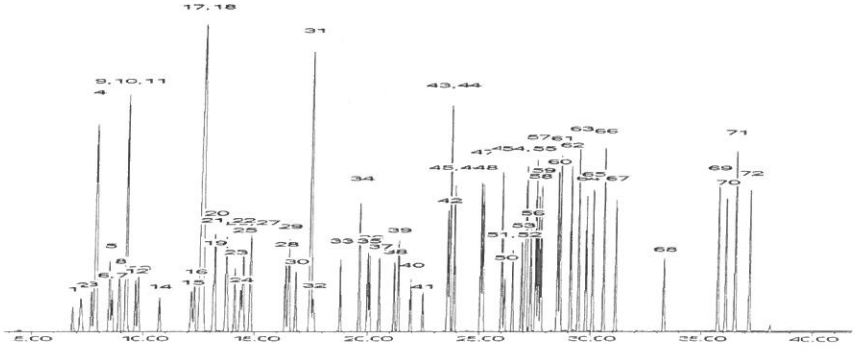
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 28-Dec-2016 **Balance:** 1127510105

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

VM571992S_00006

Rec: 9/9/19
VM571992S-00006

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.SEC **Lot No.:** A0144202

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,517.0 µg/mL	+/- 14.6339 µg/mL +/- 151.8598 µg/mL +/- 152.2203 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 µg/mL +/- 151.2383 µg/mL +/- 151.5974 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 7692300) **Purity** 99%	2,503.3 µg/mL	+/- 14.5546 µg/mL +/- 151.0372 µg/mL +/- 151.3958 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,000.8 µg/mL	+/- 145.3491 µg/mL +/- 1,508.4071 µg/mL +/- 1,511.9883 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot UCNEL) **Purity** 99%	5,002.3 µg/mL	+/- 29.0840 µg/mL +/- 301.8129 µg/mL +/- 302.5295 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,503.5 µg/mL	+/- 14.5556 µg/mL +/- 151.0472 µg/mL +/- 151.4059 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot H3HGC) **Purity** 99%	2,511.7 µg/mL	+/- 14.6030 µg/mL +/- 151.5400 µg/mL +/- 151.8998 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC (Lot FGM02) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 +/- 151.2383 +/- 151.5974	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0.SEC (Lot MKBL1376V) **Purity** 99%	2,500.7 µg/mL	+/- 14.5391 +/- 150.8763 +/- 151.2345	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1.SEC (Lot UERIL) **Purity** 99%	25,001.2 µg/mL	+/- 145.3513 +/- 1,508.4304 +/- 1,512.0117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4.SEC (Lot ZHKYA) **Purity** 99%	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2.SEC (Lot HGC01-BLKT) **Purity** 98%	2,501.3 µg/mL	+/- 14.5427 +/- 150.9137 +/- 151.2720	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3.SEC (Lot K24W001) **Purity** 97%	2,503.2 µg/mL	+/- 14.5541 +/- 151.0320 +/- 151.3905	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3.SEC (Lot 5379000) **Purity** 99%	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7.SEC (Lot I7E8E) **Purity** 98%	2,503.2 µg/mL	+/- 14.5541 +/- 151.0320 +/- 151.3905	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5.SEC (Lot TS5UB) **Purity** 97%	2,501.0 µg/mL	+/- 14.5409 +/- 150.8954 +/- 151.2537	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1.SEC (Lot PH2XK) **Purity** 99%	62,508.3 µg/mL	+/- 363.4098 +/- 3,771.4029 +/- 3,780.3569	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Chloroform **CAS #** 67-66-3.SEC (Lot 1297547) **Purity** 99%	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5.SEC (Lot 5670200) **Purity** 99%	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9.SEC (Lot 8DAOJ) **Purity** 99%	5,006.7 µg/mL	+/- 29.1092 +/- 302.0744 +/- 302.7916	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-Trichloroethane **CAS #** 71-55-6.SEC (Lot 7998000) **Purity** 99%	2,507.7 µg/mL	+/- 14.5798 +/- 151.2986 +/- 151.6579	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7.SEC (Lot YADRA) **Purity** 99%	2,508.0 µg/mL	+/- 14.5817 +/- 151.3188 +/- 151.6780	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6.SEC (Lot 5221100) **Purity** 96%	2,502.4 µg/mL	+/- 14.5492 +/- 150.9809 +/- 151.3393	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Carbon tetrachloride		2,510.3	µg/mL	+/-	14.5953	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	151.4595	µg/mL	Unstressed
	Purity 99%				+/-	151.8191	µg/mL	Stressed
25	n-Heptane (C7)		2,511.8	µg/mL	+/-	14.6040	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)			+/-	151.5500	µg/mL	Unstressed
	Purity 99%				+/-	151.9098	µg/mL	Stressed
26	1,2-Dichloroethane		2,501.3	µg/mL	+/-	14.5430	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	150.9165	µg/mL	Unstressed
	Purity 99%				+/-	151.2748	µg/mL	Stressed
27	Benzene		2,504.8	µg/mL	+/-	14.5633	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	151.1277	µg/mL	Unstressed
	Purity 99%				+/-	151.4865	µg/mL	Stressed
28	Trichloroethene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
29	Methylcyclohexane		2,504.5	µg/mL	+/-	14.5614	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot Q02QG)			+/-	151.1076	µg/mL	Unstressed
	Purity 99%				+/-	151.4663	µg/mL	Stressed
30	1,2-Dichloropropane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	151.0774	µg/mL	Unstressed
	Purity 99%				+/-	151.4361	µg/mL	Stressed
31	1,4-Dioxane		50,008.0	µg/mL	+/-	290.7356	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot YVP2C)			+/-	3,017.2028	µg/mL	Unstressed
	Purity 99%				+/-	3,024.3661	µg/mL	Stressed
32	Dibromomethane		2,509.5	µg/mL	+/-	14.5904	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)			+/-	151.4093	µg/mL	Unstressed
	Purity 99%				+/-	151.7687	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
34	Toluene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
35	Ethyl methacrylate		2,508.8	µg/mL	+/-	14.5866	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	151.3690	µg/mL	Unstressed
	Purity 99%				+/-	151.7284	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,502.9	µg/mL	+/-	14.5520	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	151.0098	µg/mL	Unstressed
	Purity 96%				+/-	151.3684	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
38	1,3-Dichloropropane		2,502.7	µg/mL	+/-	14.5507	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	150.9970	µg/mL	Unstressed
	Purity 99%				+/-	151.3555	µg/mL	Stressed
39	Tetrachloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	151.1378	µg/mL	Unstressed
	Purity 99%				+/-	151.4966	µg/mL	Stressed

40	Dibromochloromethane		2,502.4	µg/mL	+/-	14.5494	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot 10206360)			+/-	150.9832	µg/mL	Unstressed
	Purity 97%				+/-	151.3417	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed
42	Chlorobenzene		2,504.8	µg/mL	+/-	14.5633	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	151.1277	µg/mL	Unstressed
	Purity 99%				+/-	151.4865	µg/mL	Stressed
43	m-Xylene		1,251.7	µg/mL	+/-	7.2941	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	75.5202	µg/mL	Unstressed
	Purity 99%				+/-	75.6995	µg/mL	Stressed
44	p-Xylene		1,253.7	µg/mL	+/-	7.3058	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)			+/-	75.6409	µg/mL	Unstressed
	Purity 99%				+/-	75.8205	µg/mL	Stressed
45	Ethylbenzene		2,503.5	µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)			+/-	151.0472	µg/mL	Unstressed
	Purity 99%				+/-	151.4059	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,506.7	µg/mL	+/-	14.5740	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)			+/-	151.2383	µg/mL	Unstressed
	Purity 99%				+/-	151.5974	µg/mL	Stressed
47	o-Xylene		2,504.2	µg/mL	+/-	14.5594	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01)			+/-	151.0875	µg/mL	Unstressed
	Purity 99%				+/-	151.4462	µg/mL	Stressed
48	Styrene		2,507.2	µg/mL	+/-	14.5769	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)			+/-	151.2685	µg/mL	Unstressed
	Purity 99%				+/-	151.6276	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,505.2	µg/mL	+/-	14.5653	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)			+/-	151.1478	µg/mL	Unstressed
	Purity 99%				+/-	151.5067	µg/mL	Stressed
50	Bromoform		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5461400)			+/-	150.8661	µg/mL	Unstressed
	Purity 97%				+/-	151.2243	µg/mL	Stressed
51	Bromodichloromethane		2,501.3	µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)			+/-	150.9137	µg/mL	Unstressed
	Purity 98%				+/-	151.2720	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,505.7	µg/mL	+/-	14.5682	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot GUHZN)			+/-	151.1780	µg/mL	Unstressed
	Purity 99%				+/-	151.5369	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,514.2	µg/mL	+/-	14.6177	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-3)			+/-	151.6922	µg/mL	Unstressed
	Purity 98%				+/-	152.0524	µg/mL	Stressed
55	n-Propylbenzene		2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC)			+/-	151.0573	µg/mL	Unstressed
	Purity 99%				+/-	151.4159	µg/mL	Stressed

56	Bromobenzene		2,506.2	µg/mL	+/-	14.5711	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	151.2081	µg/mL	Unstressed
	Purity 99%				+/-	151.5671	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot FGH02-CMLN)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
58	2-Chlorotoluene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
59	4-Chlorotoluene		2,509.2	µg/mL	+/-	14.5885	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	151.3891	µg/mL	Unstressed
	Purity 99%				+/-	151.7486	µg/mL	Stressed
60	tert-Butylbenzene		2,505.8	µg/mL	+/-	14.5691	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot D6OHC)			+/-	151.1880	µg/mL	Unstressed
	Purity 99%				+/-	151.5470	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot JMIYD)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
62	sec-Butylbenzene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,500.3	µg/mL	+/-	14.5372	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 6628200)			+/-	150.8562	µg/mL	Unstressed
	Purity 99%				+/-	151.2143	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,506.3	µg/mL	+/-	14.5720	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	151.2182	µg/mL	Unstressed
	Purity 99%				+/-	151.5772	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,509.8	µg/mL	+/-	14.5924	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	151.4294	µg/mL	Unstressed
	Purity 99%				+/-	151.7889	µg/mL	Stressed
66	n-Butylbenzene		2,513.7	µg/mL	+/-	14.6147	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot MMPGA)			+/-	151.6607	µg/mL	Unstressed
	Purity 99%				+/-	152.0207	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.8	µg/mL	+/-	14.5459	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.9467	µg/mL	Unstressed
	Purity 99%				+/-	151.3051	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,508.5	µg/mL	+/-	14.5845	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	151.3473	µg/mL	Unstressed
	Purity 98%				+/-	151.7066	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed
70	Hexachlorobutadiene		2,504.4	µg/mL	+/-	14.5607	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	151.1002	µg/mL	Unstressed
	Purity 97%				+/-	151.4590	µg/mL	Stressed
71	Naphthalene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot 4KW3H-OO)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,512.2 µg/mL	+/-	14.6063	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	151.5740	µg/mL	Unstressed
	Purity 98%			+/-	151.9338	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

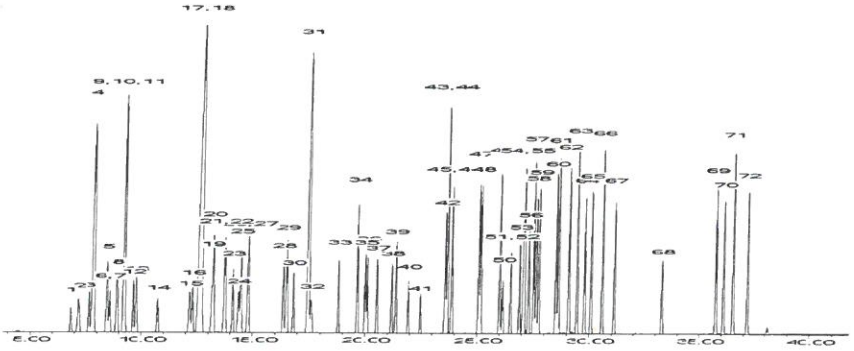
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 17-Dec-2018 **Balance:** 1127510105

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 21-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM571993_00001

VM571993-0001 Rec: 2-1-17

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571993 **Lot No.:** A0123796

Description : 8260 List 3/ Std#1 Polar Additions (2017)

8260 List 3/ Std#1 Polar Additions (2017) 2500-25,000 µg/ml, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetonitrile **CAS #** 75-05-8 **Purity** 98%	(Lot SHBB3177V)	25,004.5 µg/mL	+/- 145.3705 µg/mL +/- 1,236.9157 µg/mL +/- 1,267.6727 µg/mL	Gravimetric Unstressed Stressed
2	Diisopropyl ether (DIPE) **CAS #** 108-20-3 **Purity** 99%	(Lot SHBC0391V)	2,505.0 µg/mL	+/- 14.5643 µg/mL +/- 123.9170 µg/mL +/- 126.9983 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl-tert-butyl ether (ETBE) **CAS #** 637-92-3 **Purity** 99%	(Lot MKBT8400V)	2,501.5 µg/mL	+/- 14.5439 µg/mL +/- 123.7438 µg/mL +/- 126.8208 µg/mL	Gravimetric Unstressed Stressed
4	Propionitrile **CAS #** 107-12-0 **Purity** 99%	(Lot BCBM6569V)	25,003.8 µg/mL	+/- 145.3664 µg/mL +/- 1,236.8808 µg/mL +/- 1,267.6370 µg/mL	Gravimetric Unstressed Stressed
5	tert-Amyl alcohol **CAS #** 75-85-4 **Purity** 99%	(Lot STBB1898V)	25,006.0 µg/mL	+/- 145.3794 µg/mL +/- 1,236.9921 µg/mL +/- 1,267.7510 µg/mL	Gravimetric Unstressed Stressed
6	tert-Amyl methyl ether (TAME) **CAS #** 994-05-8 **Purity** 98%	(Lot HMBD8698V)	2,505.4 µg/mL	+/- 14.5664 µg/mL +/- 123.9353 µg/mL +/- 127.0170 µg/mL	Gravimetric Unstressed Stressed

Reagent

VM571993_00004

Rec: 6-11-20
VM571993_00004

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571993 **Lot No.:** A0158947

Description : 8260 List 3/ Std#1 Polar Additions (2017)

8260 List 3/ Std#1 Polar Additions (2017) 2,500-25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetonitrile **CAS #** 75-05-8 (Lot SHBH6233) **Purity** 99%	25,021.3 µg/mL	+/- 146.5054 µg/mL +/- 1,237.8729 µg/mL +/- 1,268.6477 µg/mL		Gravimetric Unstressed Stressed
2	Diisopropyl ether (DIPE) **CAS #** 108-20-3 (Lot SHBH1927V) **Purity** 99%	2,503.7 µg/mL	+/- 14.6929 µg/mL +/- 123.8671 µg/mL +/- 126.9464 µg/mL		Gravimetric Unstressed Stressed
3	Ethyl-tert-butyl ether (ETBE) **CAS #** 637-92-3 (Lot MKCG1429) **Purity** 99%	2,502.3 µg/mL	+/- 14.6851 µg/mL +/- 123.8011 µg/mL +/- 126.8788 µg/mL		Gravimetric Unstressed Stressed
4	Propionitrile **CAS #** 107-12-0 (Lot BCBW0865) **Purity** 99%	25,038.0 µg/mL	+/- 146.6030 µg/mL +/- 1,238.6975 µg/mL +/- 1,269.4928 µg/mL		Gravimetric Unstressed Stressed
5	tert-Amyl alcohol **CAS #** 75-85-4 (Lot STBG1140V) **Purity** 99%	25,036.7 µg/mL	+/- 146.5952 µg/mL +/- 1,238.6315 µg/mL +/- 1,269.4252 µg/mL		Gravimetric Unstressed Stressed
6	tert-Amyl methyl ether (TAME) **CAS #** 994-05-8 (Lot HMBG6382V) **Purity** 99%	2,502.7 µg/mL	+/- 14.6871 µg/mL +/- 123.8176 µg/mL +/- 126.8957 µg/mL		Gravimetric Unstressed Stressed

Reagent

VM571993S_00002

Rec: 2-1-17

VM571993S - 00002

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571993.sec **Lot No.:** A0123771

Description : 8260 List 3/ Std#1 Polar Additions (2017)

8260 List 3/ Std#1 Polar Additions (2017) 2500-25,000 µg/ml, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetonitrile **CAS #** 75-05-8.SEC (Lot 7KGDA) **Purity** 99%	25,091.5 µg/mL	+/- 146.9162 µg/mL +/- 1,241.3442 µg/mL +/- 1,272.2054 µg/mL	Gravimetric Unstressed Stressed
2	Diisopropyl ether (DIPE) **CAS #** 108-20-3.SEC (Lot LL7TN-SH) **Purity** 98%	2,525.0 µg/mL	+/- 14.8179 µg/mL +/- 124.9211 µg/mL +/- 128.0265 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl-tert-butyl ether (ETBE) **CAS #** 637-92-3.SEC (Lot MHBJG-QK) **Purity** 99%	2,509.0 µg/mL	+/- 14.7242 µg/mL +/- 124.1310 µg/mL +/- 127.2168 µg/mL	Gravimetric Unstressed Stressed
4	Propionitrile **CAS #** 107-12-0.SEC (Lot RTXQL) **Purity** 99%	25,125.5 µg/mL	+/- 147.1153 µg/mL +/- 1,243.0263 µg/mL +/- 1,273.9293 µg/mL	Gravimetric Unstressed Stressed
5	tert-Amyl alcohol **CAS #** 75-85-4.SEC (Lot MMGO1) **Purity** 99%	25,056.0 µg/mL	+/- 146.7084 µg/mL +/- 1,239.5880 µg/mL +/- 1,270.4054 µg/mL	Gravimetric Unstressed Stressed
6	tert-Amyl methyl ether (TAME) **CAS #** 994-05-8.SEC (Lot 5614600) **Purity** 99%	2,517.5 µg/mL	+/- 14.7741 µg/mL +/- 124.5515 µg/mL +/- 127.6478 µg/mL	Gravimetric Unstressed Stressed

Reagent

WCICSOLNA1_00023

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com
tel: 1800.669.6799 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Ion Chromatography Solution
Catalog Number:	TA-19REV1
Lot Number:	R2-MEB692474
Matrix:	H2O
Value / Analyte(s):	2 500 mg/L ea: Chloride, Sulfate, 500 mg/L ea: Bromide, 125 mg/L ea: Fluoride, Nitrate as N

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Bromide, Br	500.0 ± 2.5 mg/L	Chloride, Cl	2 500 ± 13 mg/L
Fluoride, F-	125.0 ± 0.5 mg/L	Nitrate as N, NNO3-	125.0 ± 0.5 mg/L
Sulfate, SO4	2 500 ± 12 mg/L		

Density: 1.006 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Br	IC Assay	3184	151130
Br	Fajans	999c	999c
Cl	IC Assay	3182	060925
Cl	Fajans	999c	999c
F-	IC Assay	3183	140203
NNO3-	IC Assay	3185	050517
SO4	IC Assay	3181	080603

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 22, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 22, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

WCICSOLNA2_00021

7221 Investment Drive • North Charleston, SC 29418
843.767.7900 • info@highpuritystandards.com • www.highpuritystandards.com

Certificate of Analysis

Certified Reference Material

Product Description: CCV

Product Number: **SM-606-140-A-500**
Lot Number: **1929031**
Matrix: H2O
Purity: 98.5+%

ISO 17034:2016 (RMP) Accreditation Certificate Number AR-1436

ISO/IEC 17025:2005 Accreditation Certificate Number AT-1529

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#
Bromide	100 ± 1	3184	151130
Chloride	500 ± 5	3182	060925
Fluoride	25.0 ± 0.3	3183	140203
NO3 as N	25.0 ± 0.3	3185	170309
Sulfate	500 ± 5	3181	080603

Certified values are based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via ion chromatography (IC) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.
* Refer to Traceability Information, Section 4

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: October 2019
Expiration Date: October 31, 2020
Certificate Issue Date: October 22, 2019

Moven Mututuvari

Moven Mututuvari, Ph. D, Laboratory Manager

Reagent

WCICSOLNB1_00023

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com
1-800-669-6799 540-585-3030
fax 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Ion Chromatography Solution
Catalog Number:	TA-18
Lot Number:	R2-MEB692473
Matrix:	H2O
Value / Analyte(s):	125 mg/L ea: Nitrite as N

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Nitrite as N, NNO2-	124.9 ± 0.6 mg/L		

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
NNO2-	IC Assay		traceable to 40h

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 22, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 22, 2024

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

WCICSOLNB2_00021

7221 Investment Drive • North Charleston, SC 29418
843.767.7900 • info@highpuritystandards.com • www.highpuritystandards.com

Certificate of Analysis

Certified Reference Material

Product Description: Special Mix

Product Number:	**SM-606-140-B-500**
Lot Number:	**1929022**
Matrix:	H2O
Purity:	99.9999%

ISO 17034:2016 (RMP) Accreditation Certificate Number AR-1436

ISO/IEC 17025:2005 Accreditation Certificate Number AT-1529

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#
NO2 as N	25.0 ± 0.5	*	

Certified values are based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via ion chromatography (IC) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

* Refer to Traceability Information, Section 4

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: October 2019

Expiration Date: October 31, 2020

Certificate Issue Date: October 22, 2019

Moven Mututuvari

Moven Mututuvari, Ph. D, Laboratory Manager

Reagent

WCPHENOMINER_00029

WP Minerals 1 and 2, and Conductivity — Lot #8188-08, -102, -72

TNI Analyte Code	Analyte	Certified Value	Acceptance Limits	
		mg/L	mg/L	%
Lot #8188-08				
1505	Total Alkalinity(as CaCO3)	166	141 - 191	84.9 - 115
1540	Bromide	6.17	5.16 - 7.19	83.6 - 117
1575	Chloride	119	104 - 133	87.4 - 112
1730	Fluoride	3.91	3.17 - 4.48	81.1 - 115
1813	Total Inorganic Carbon	39.6	31.7 - 47.5	80.1 - 120
2000	Sulfate	115	96.4 - 131	83.8 - 114
Lot #8188-102				
1035	Calcium	76.1	64.7 - 87.5	85.0 - 115
1550	Calcium Hardness (as CaCO3)	190	162 - 219	85.3 - 115
1755	Total Hardness (as CaCO3)	219	187 - 252	85.4 - 115
1085	Magnesium	7.15	6.08 - 8.23	85.0 - 115
1125	Potassium	25.5	20.4 - 30.6	80.0 - 120
1155	Sodium	74.6	59.7 - 89.5	80.0 - 120
Lot #8188-72		**µmhos/cm**	**µmhos/cm**	**%**
1610	Specific Conductance (25°C)	442	398 - 487	90.0 - 110

Certified Values = "100% true concentration" of each analyte as determined from gravimetric and volumetric measurements made during standard manufacture.

Acceptance Limits = Generated based on the criteria established by The NELAC Institute (TNI) Fields of Proficiency Testing tables using regression equations and/or fixed percentage limits, historical data and other criteria distributed by accrediting agencies as applicable. Please note that regression based acceptance criteria are based on the Assigned Value and may have different criteria at different concentrations.

Matrix: Deionized Water — Store at 20-25°C.
Expiration Date: 01/21 — Catalog #QC-MINSET-WP

Preparation Instructions: The WP Minerals and Conductivity standards are provided as whole volume standards that do not require a dilution prior to use. The standards are ready for preparation and analysis as received using your normal procedures. The standards should be stored at 20-25°C.

Notes: It is suggested that the lab analyze for Alkalinity first as soon as the Minerals 1 bottle has been opened. If the lab does not analyze Alkalinity, recap the bottle tightly as soon as possible after each use. This will minimize possible CO_2 absorption. Homogenize the Minerals 2 standard well by shaking immediately prior to taking an aliquot. The Minerals 1 and 2 standards contain no acid, so follow your normal procedures for checking and, if needed, adjusting the pH. A separate Conductivity bottle has been provided for the determination of conductivity (WP Conductivity). Do not analyze conductivity from the WP Minerals standards.

Approved by: AMB — Reviewed by: BJW
Date: 10/18 — Date: 10/18

Reagent

WCPHENOVSOLID_00051

phenova™ A Phenomenex Company
Certified Reference Materials

info@phenova.com • www.phenova.com • 1-866-942-2978

WP Solids — Lot #8208-09B

TNI Analyte Code	Analyte	Certified Value mg/L	Acceptance Limits mg/L	Acceptance Limits %
1955	Total Dissolved Solids (TDS)	567	510 - 624	89.9 - 110
1960	Total Suspended Solids (TSS)	84.7	69.4 - 94.1	81.9 - 111
1950	Total Solids (TS)	652	587 - 717	90.0 - 110

Certified Values = "100% true concentration" of each analyte as determined from gravimetric and volumetric measurements made during standard manufacture.

Acceptance Limits = Generated based on the criteria established by The NELAC Institute (TNI) Fields of Proficiency Testing tables using regression equations and/or fixed percentage limits, historical data and other criteria distributed by accrediting agencies as applicable. Please note that regression based acceptance criteria are based on the Assigned Value and may have different criteria at different concentrations.

Solvent = Deionized Water

Store at 20-25°C.

Expiration Date: 01/23

Catalog #QC-SOL-WP

Preparation Instructions: The WP Solids standard is provided as a ready-to-use standard that does not require dilution prior to use. Shake adequately to homogenize the standard before removing an aliquot for analysis. Analyze by your normal procedures.

Note: It is strongly recommended that you analyze for TSS prior to removing aliquots for other analyses from the Solids bottle.

Approved by: BJW

Reviewed by: AMB

Date: 05/20

Date: 05/20

Reagent

D_00001

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

09/04/2020

CERTIFIED WEIGHT REPORT

Part Number: 70105
Lot Number: 092717
Description: Decafluorotriphenylphosphine

Expiration Date: 092719
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 2506734D

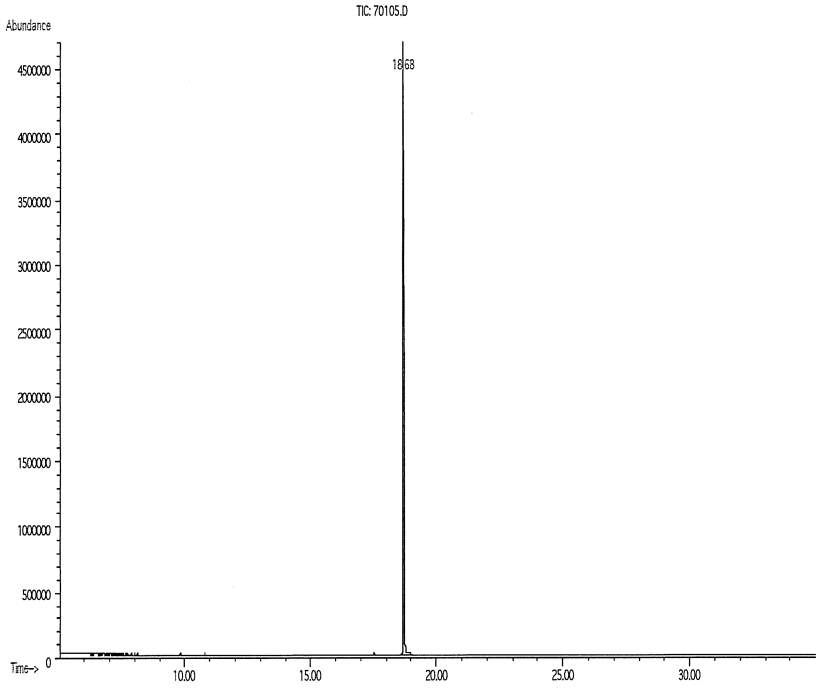
Solvent: Methylene chloride, w/ 0.1% TEA **Lot#** 061716

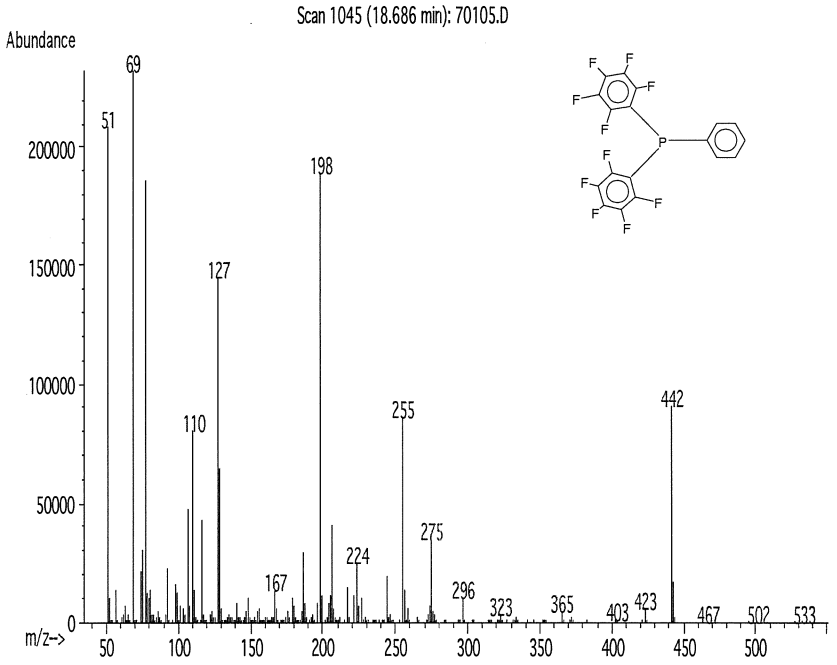
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.0005 Flask Uncertainty

Paul Barron		092717
Formulated By:	Paul Barron	DATE
Pedro Rentas		092717
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Decafluorotriphenylphosphine	105	10109917	1000	97	0.2	0.01028	0.01031	1003.1	10.6	5074-71-5	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





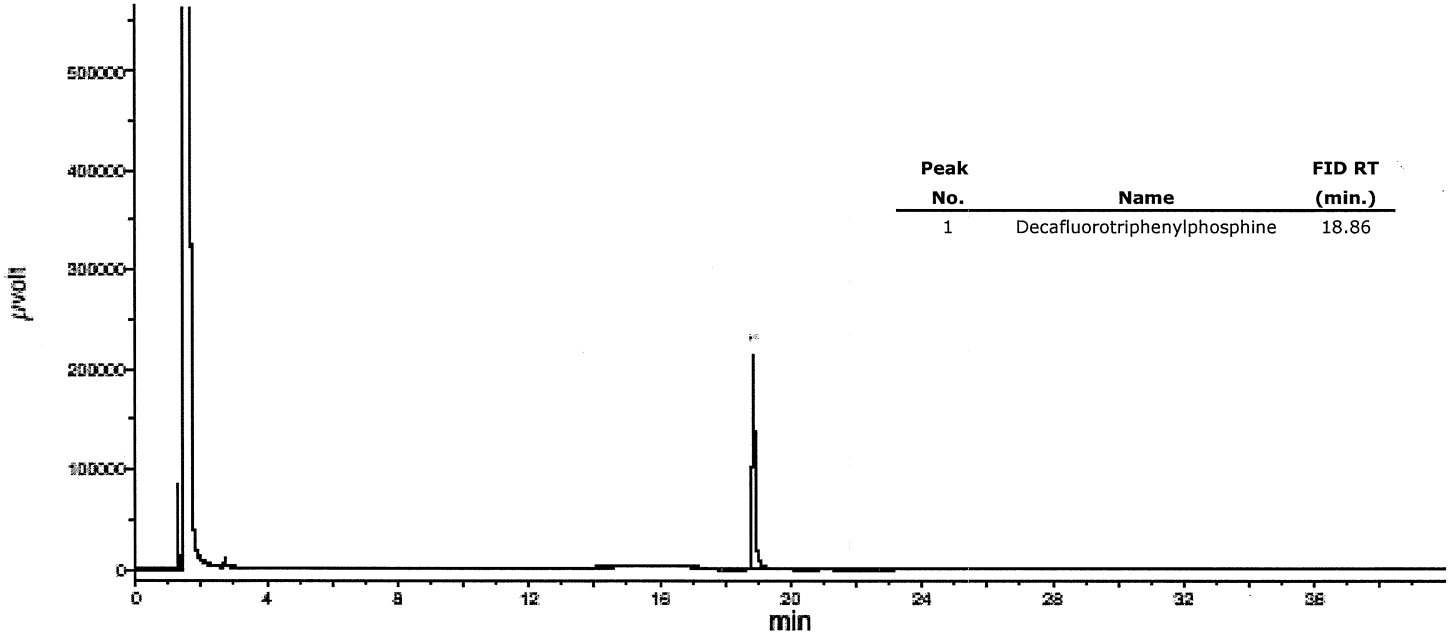
- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

09/04/2020

Run 76, "P70105 L092717 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Fri, Sep 29, 2017 at 3:06:55 PM.
Sampled: Sequence "092517-GC4M2", Method "GC4-M2".
Analyzed using Method "GC4-M2".

Comments
GC4-M2 Analysis by Melissa Stonier
Column ID SPB-5 L#60062-01A 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mLOven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 3



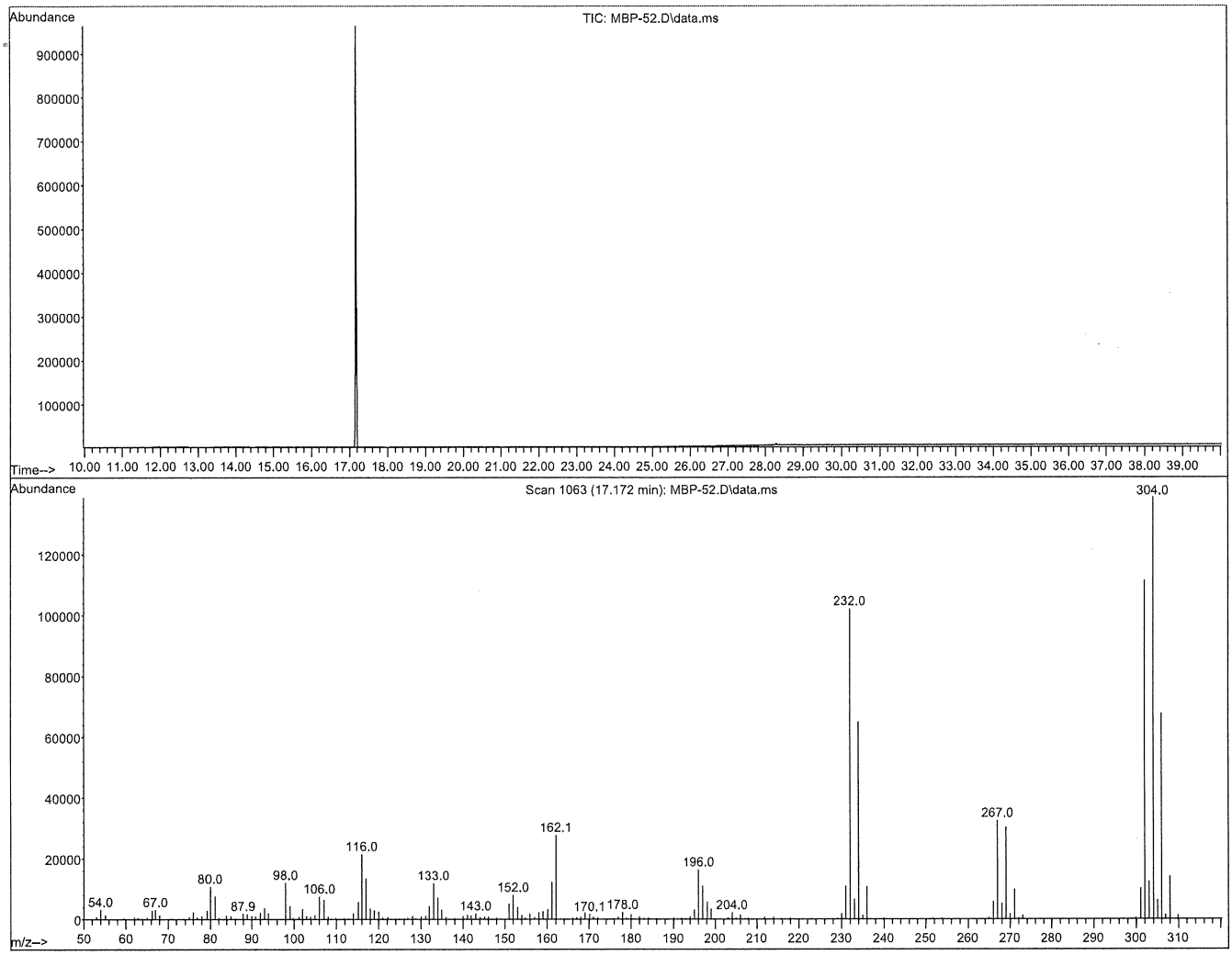
Peak No.	Name	FID RT (min.)
1	Decafluorotriphenylphosphine	18.86

Page 330 of 1698

Reagent

HRM_680_13C52_00004

Figure 1: **MBP-52; HRGC/LRMS Data (TIC and Mass Spectrum)**



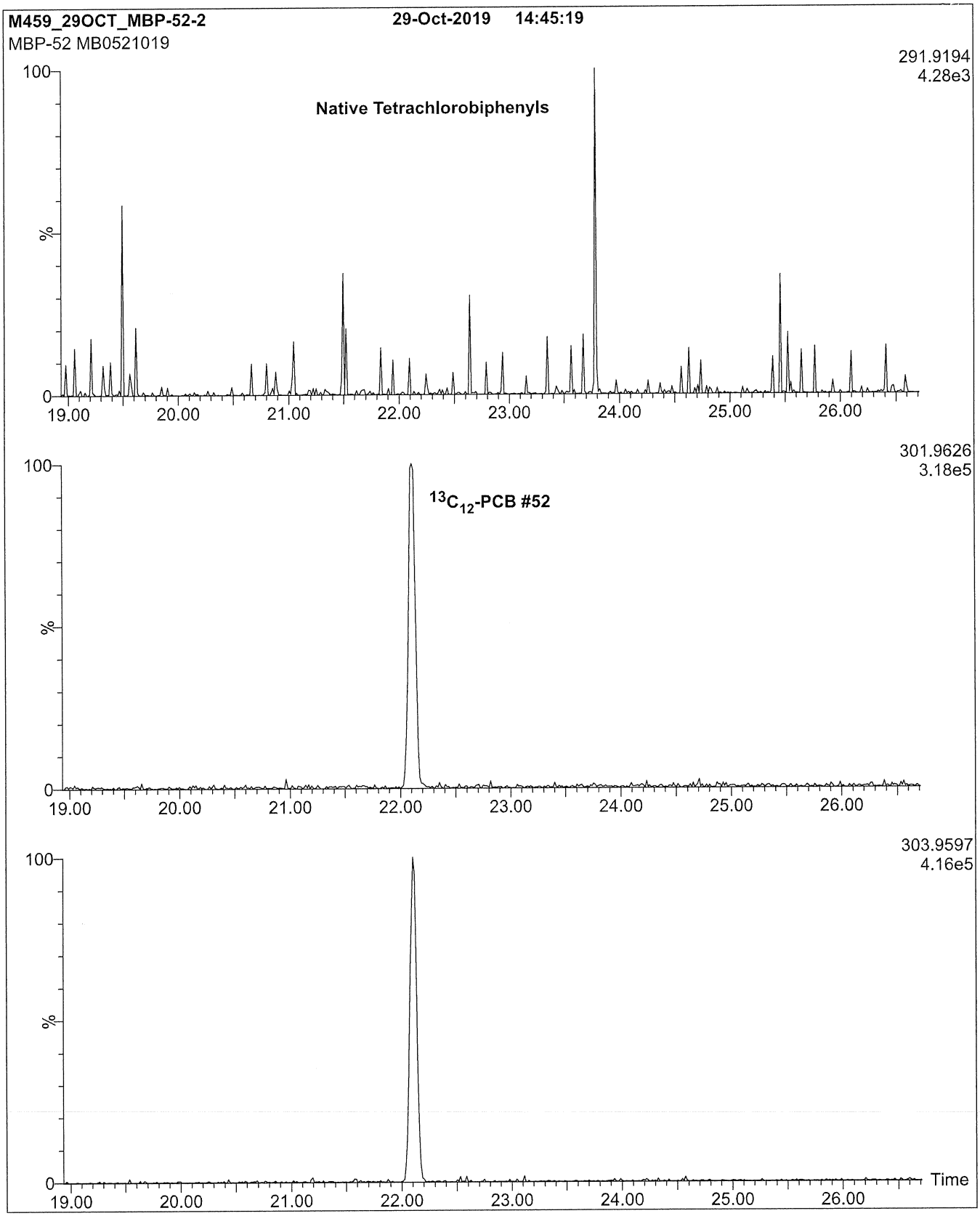
HRGC/LRMS:

Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

Figure 2: **MBP-52; HRGC/HRMS Data (60 m DB-5 column)**



WELLINGTON LABORATORIES

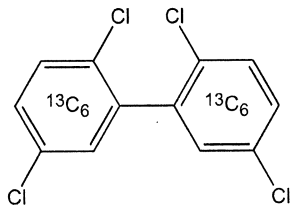
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MBP-52
COMPOUND: 2,2',5,5'-Tetrachloro[$^{13}C_{12}$]biphenyl

LOT NUMBER: MB0521019

STRUCTURE:

CAS #: 208263-80-3



MOLECULAR FORMULA:	$^{13}C_{12}H_6Cl_4$	**MOLECULAR WEIGHT:**	303.90
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Nonane Toluene (10%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99%
LAST TESTED: (mm/dd/yyyy)	10/28/2019 (HRGC/LRMS) 10/29/2019 (HRGC/HRMS)		
EXPIRY DATE: (mm/dd/yyyy)	01/01/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/05/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA
Testing
Accreditation No. A1226

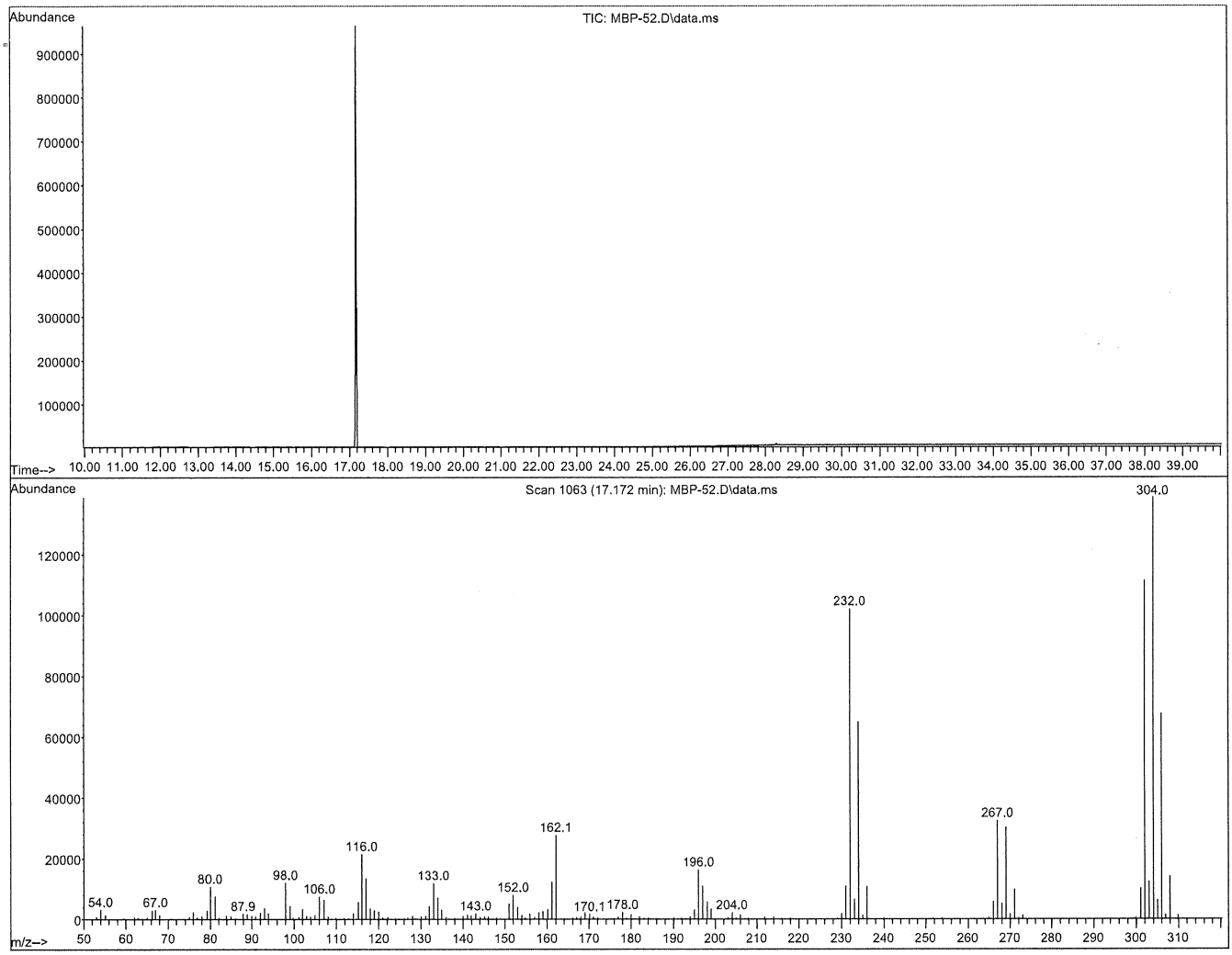
ANAB
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Reagent

HRM_680_13C52_00006

Figure 1: **MBP-52; HRGC/LRMS Data (TIC and Mass Spectrum)**



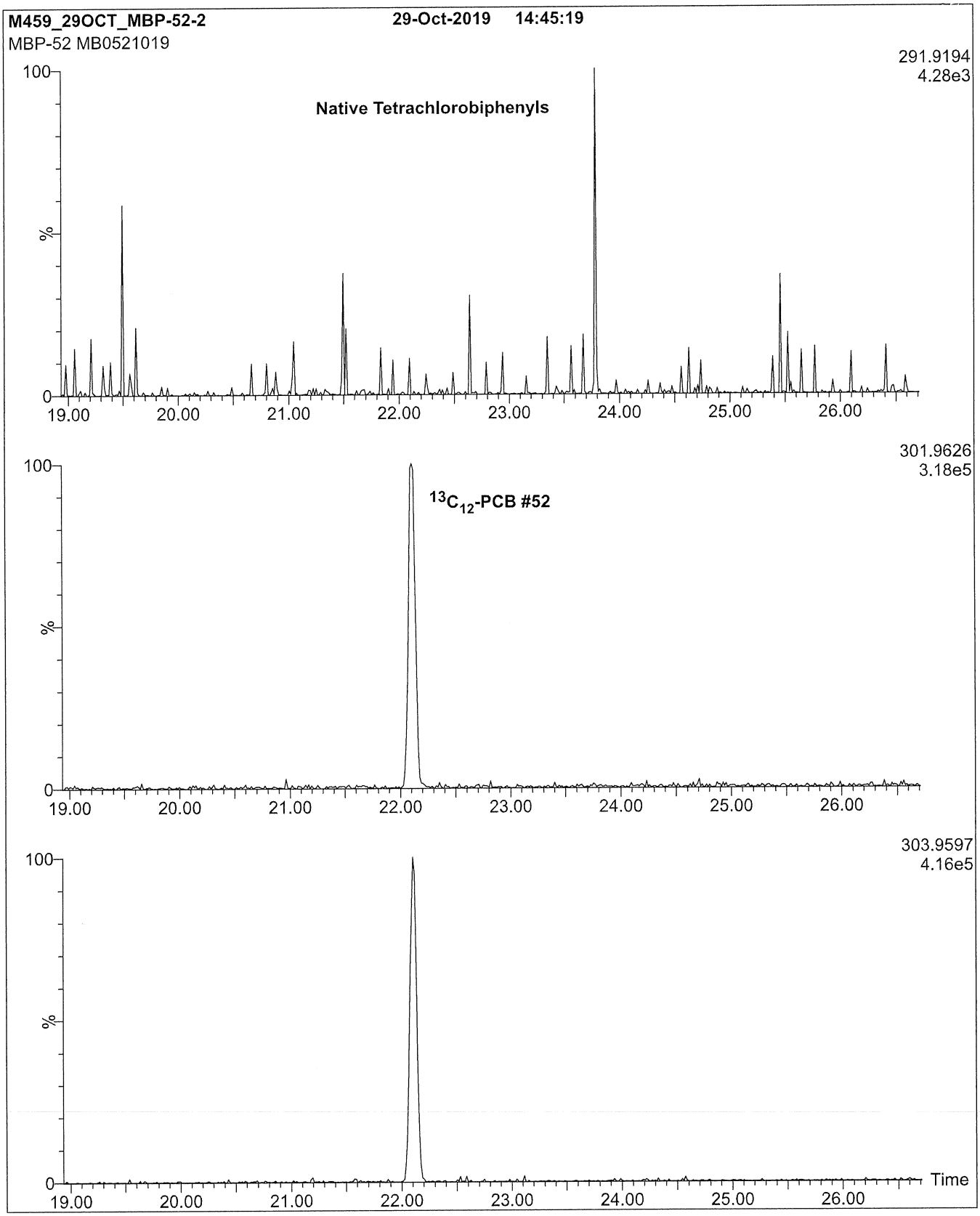
HRGC/LRMS:

Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

Figure 2: **MBP-52; HRGC/HRMS Data (60 m DB-5 column)**



WELLINGTON LABORATORIES

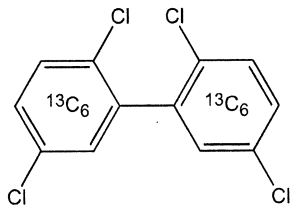
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MBP-52
COMPOUND: 2,2',5,5'-Tetrachloro[$^{13}C_{12}$]biphenyl

LOT NUMBER: MB0521019

STRUCTURE:

CAS #: 208263-80-3



MOLECULAR FORMULA:	$^{13}C_{12}H_6Cl_4$	**MOLECULAR WEIGHT:**	303.90
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Nonane Toluene (10%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99%
LAST TESTED: (mm/dd/yyyy)	10/28/2019 (HRGC/LRMS) 10/29/2019 (HRGC/HRMS)		
EXPIRY DATE: (mm/dd/yyyy)	01/01/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/05/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Reagent

HRM_680_IS_00002

1. **Quality Standards:**

   ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

   ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

6/25/2020

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-680-IS-10X
Description: Internal Standard
Lot: 219111016
Solvent: Hexane (50%)
Toluene (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Nov 6, 2019
Expiration: Nov 6, 2029
Sample Size: 1 mL
Components: 2
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Chrysene-d12	1719-03-5	100.0	759.0	759.0
Phenanthrene-d10	1517-22-2	99.8	759.0	757.5

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

Reagent

HRM_680_PS_00001

7/31/19

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-680A
Description: PCB Isomer Calibration Mix
Lot: 218061791
Solvent: Hexane
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Jul 10, 2018
Expiration: Jul 10, 2028
Sample Size: 1 mL
Components: 9
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED TESTING LABORATORY AT-1339

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2-Chlorobiphenyl	2051-60-7	98.9	50.30	49.75
2,3-Dichlorobiphenyl	16605-91-7	99.9	50.30	50.25
2,4,5-Trichlorobiphenyl	15862-07-4	100.0	50.70	50.70
2,2',4,6-Tetrachlorobiphenyl	62796-65-0	100.0	101.7	101.7
2,2',3,4,5'-Pentachlorobiphenyl	38380-02-8	99.0	100.6	99.6
2,2',4,4',5,6'-Hexachlorobiphenyl	60145-22-4	99.4	101.9	101.3
2,2',3,4',5,6,6'-Heptachlorobiphenyl	74487-85-7	99.0	152.5	151.0
2,2',3,3',4,5',6,6'-Octachlorobiphenyl	40186-71-8	98.8	151.0	149.2
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	99.1	254.1	251.8

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 822-275872-11

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

   ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this CRM.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

HRM_680_RT_ST_00001

Agilent

Certificate of Analysis

410-6845

Retention Time Calibration Standard Mixture

Product Number: CB-682MN **Page:** 1 of 1

Lot Number: CM-0434A **Lot Issue Date:** 17-Apr-2018 **Expiration Date:** 31-May-2022

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
3,3',4,4'-tetrachlorobiphenyl (BZ # 77)	032598-13-3	RM09725	100.3 ± 0.5 µg/mL
2,2',4,6,6'-pentachlorobiphenyl (BZ # 104)	056558-16-8	NT00027	100.4 ± 0.5 µg/mL
2,2',3,3',4,5,5',6,6'-nonachlorobiphenyl (BZ # 208)	052663-77-1	RM00313	200.6 ± 1.0 µg/mL

Matrix: hexane

Storage: Store at Room Temperature (15° to 30°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED TESTING LABORATORY

ISO 9001
Registered
TUV USA, Inc.

Reagent

HRM_680_SS_ST_00001

Agilent

Received 7/8/19

Certificate of Analysis
ISO Guide 34

Concentration Calibration Standard

Product Number: CB-681MN **Page:** 1 of 1

Lot Number: CS-6285 **Lot Issue Date:** 03-Jan-2019 **Expiration Date:** 31-Jan-2023

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
2-chlorobiphenyl (BZ # 1)	002051-60-7	RM00451	50.0 ± 0.3 µg/mL
2,3-dichlorobiphenyl (BZ # 5)	016605-91-7	RM11277	50.0 ± 0.3 µg/mL
2,4,5-trichlorobiphenyl (BZ # 29)	015862-07-4	RM07168	50.2 ± 0.3 µg/mL
2,2',4,6-tetrachlorobiphenyl (BZ # 50)	062796-65-0	NT00017	100.1 ± 0.5 µg/mL
2,2',3,4,5'-pentachlorobiphenyl (BZ # 87)	038380-02-8	NT00062	100.0 ± 0.5 µg/mL
2,2',4,4',5,6'-hexachlorobiphenyl (BZ # 154)	060145-22-4	NT00031	100.3 ± 0.5 µg/mL
2,2',3,4',5,6,6'-heptachlorobiphenyl (BZ # 188)	074487-85-7	NT00067	150.2 ± 0.8 µg/mL
2,2',3,3',4,5',6,6'-octachlorobiphenyl (BZ # 200)	040186-71-8	RM00694	150.0 ± 0.8 µg/mL
decachlorobiphenyl (BZ # 209)	002051-24-3	RM01256	251.0 ± 1.3 µg/mL

Matrix: hexane

Storage: Store at Room Temperature (15° to 30°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Managment System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No. AT-1937

ORG ver 1.1

Reagent

HRM_680_SS_ST_00002

Agilent

Received 7/8/19

Certificate of Analysis
ISO Guide 34

Concentration Calibration Standard

Product Number: CB-681MN **Page:** 1 of 1

Lot Number: CS-6285 **Lot Issue Date:** 03-Jan-2019 **Expiration Date:** 31-Jan-2023

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
2-chlorobiphenyl (BZ # 1)	002051-60-7	RM00451	50.0 ± 0.3 µg/mL
2,3-dichlorobiphenyl (BZ # 5)	016605-91-7	RM11277	50.0 ± 0.3 µg/mL
2,4,5-trichlorobiphenyl (BZ # 29)	015862-07-4	RM07168	50.2 ± 0.3 µg/mL
2,2',4,6-tetrachlorobiphenyl (BZ # 50)	062796-65-0	NT00017	100.1 ± 0.5 µg/mL
2,2',3,4,5'-pentachlorobiphenyl (BZ # 87)	038380-02-8	NT00062	100.0 ± 0.5 µg/mL
2,2',4,4',5,6'-hexachlorobiphenyl (BZ # 154)	060145-22-4	NT00031	100.3 ± 0.5 µg/mL
2,2',3,4',5,6,6'-heptachlorobiphenyl (BZ # 188)	074487-85-7	NT00067	150.2 ± 0.8 µg/mL
2,2',3,3',4,5',6,6'-octachlorobiphenyl (BZ # 200)	040186-71-8	RM00694	150.0 ± 0.8 µg/mL
decachlorobiphenyl (BZ # 209)	002051-24-3	RM01256	251.0 ± 1.3 µg/mL

Matrix: hexane

Storage: Store at Room Temperature (15° to 30°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Managment System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No. AT-1937

ORG ver 1.1

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Reagent

HRM_68013C138_00004

7/26/19

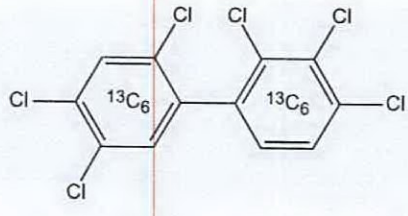
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MBP-138
COMPOUND: 2,2',3,4,4',5'-Hexachloro[$^{13}C_{12}$]biphenyl

LOT NUMBER: MB1381118

STRUCTURE:



CAS #: 208263-66-5

410-114689

MOLECULAR FORMULA:	$^{13}C_{12}H_4Cl_6$
MOLECULAR WEIGHT:	372.79
CONCENTRATION:	50 ± 2.5 µg/ml
SOLVENT(S):	Nonane Toluene (10%)
CHEMICAL PURITY:	>98%
ISOTOPIC PURITY:	≥99%
LAST TESTED: (mm/dd/yyyy)	11/26/2018 (HRGC/LRMS) 11/22/2018 (HRGC/HRMS)
EXPIRY DATE: (mm/dd/yyyy)	01/01/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.6% of a pentachloro[$^{13}C_{12}$]biphenyl impurity and ~ 0.7% of a hexachloro[$^{13}C_{12}$]biphenyl impurity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/03/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Reagent

HRM_68013C138_00006

7/26/19

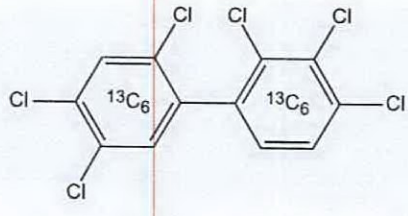
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MBP-138
COMPOUND: 2,2',3,4,4',5'-Hexachloro[$^{13}C_{12}$]biphenyl

LOT NUMBER: MB1381118

STRUCTURE:



CAS #: 208263-66-5

410-114689

MOLECULAR FORMULA:	$^{13}C_{12}H_4Cl_6$
CONCENTRATION:	50 ± 2.5 µg/ml
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	11/26/2018 (HRGC/LRMS) 11/22/2018 (HRGC/HRMS)
EXPIRY DATE: (mm/dd/yyyy)	01/01/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

MOLECULAR WEIGHT:	372.79
SOLVENT(S):	Nonane Toluene (10%)
ISOTOPIC PURITY:	≥99%

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.6% of a pentachloro[$^{13}C_{12}$]biphenyl impurity and ~ 0.7% of a hexachloro[$^{13}C_{12}$]biphenyl impurity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/03/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Reagent

Cond. CCV_00023

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

3815751
ID: Cond. CCV_00023
Exp:07/01/22 Prpd:AGP Opn:06/07/20
500umho/cm Cond. Std

CERTIFICATE OF ANALYSIS

Description: CONDUCTIVITY STANDARD 500 umho/cm

Mfg. Date: 07/01/2020

Catalog Number: LC18760

Exp. Date: 07/01/2022

Lot Number: K174-34

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Conductivity @ 25 degrees C	500umho/cm +/- 5	501 umho/cm
Traceable to NIST	Potassium Chloride	999b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

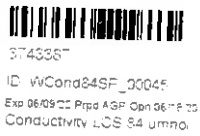
An ISO9001:2008 certified company. Registration # 0306-01

08/11/2020 1:51 PM

Form #17.13 07/28/2016

Reagent

WCond84SP_00046



LabChem
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Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CONDUCTIVITY STANDARD 84umho/cm

Mfg. Date: 06/09/2020

Catalog Number: LC18750

Exp. Date: 06/09/2022

Lot Number: K160-05

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Conductivity @ 25 C	84 umho/cm +/- 2 umho/cm	84 umho/cm
Traceable to NIST	Potassium Chloride	999b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor



An ISO9001:2008 certified company. Registration # 0306-01

06/18/2020 7:23 PM

Form #17.13 07/28/2016

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW-164B-081120	240-134814-1	104	103	105	94
	MB 240-447281/8	105	103	106	96
	LCS 240-447281/5	96	93	108	102

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	78-129
DCA = 1,2-Dichloroethane-d4 (Surr)	75-130
TOL = Toluene-d8 (Surr)	69-122
BFB = 4-Bromofluorobenzene (Surr)	47-134

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1916362.d

Lab ID: LCS 240-447281/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.0	100	77-120	
1,1,1-Trichloroethane	20.0	18.5	93	65-141	
1,1,2,2-Tetrachloroethane	20.0	23.6	118	45-151	
1,1,2-Trichlorotrifluoroethane	20.0	20.4	102	54-148	
1,1-Dichloroethane	20.0	21.1	105	74-126	
1,1-Dichloroethene	20.0	19.4	97	73-129	
1,1-Dichloropropene	20.0	20.4	102	78-120	
1,2,3-Trichlorobenzene	20.0	18.5	93	42-126	
1,2,3-Trichloropropane	20.0	21.3	107	57-137	
1,2,4-Trichlorobenzene	20.0	16.7	83	47-120	
1,2,4-Trimethylbenzene	20.0	21.2	106	66-129	
1,2-Dibromo-3-Chloropropane	20.0	19.8	99	34-136	
1,2-Dichlorobenzene	20.0	20.9	104	74-120	
1,2-Dichloroethane	20.0	18.0	90	66-129	
1,2-Dichloropropane	20.0	21.6	108	79-127	
1,3-Dichlorobenzene	20.0	19.3	96	74-120	
1,3-Dichloropropane	20.0	21.8	109	74-122	
1,4-Dichlorobenzene	20.0	19.1	95	75-120	
2,2-Dichloropropane	20.0	22.4	112	67-137	
2-Chloroethyl vinyl ether	20.0	39.3	196	29-146	*
2-Chlorotoluene	20.0	21.3	106	73-126	
2-Hexanone	40.0	42.9	107	43-142	
Bromobenzene	20.0	19.3	96	77-120	
Bromochloromethane	20.0	19.8	99	70-128	
4-Chlorotoluene	20.0	20.5	102	73-126	
4-Isopropyltoluene	20.0	20.2	101	66-127	
Acetone	40.0	48.4	121	33-155	
Benzene	20.0	21.4	107	77-123	
Bromoform	20.0	17.3	86	47-133	
Bromomethane	20.0	18.5	92	48-144	
Carbon disulfide	20.0	19.5	98	67-127	
Carbon tetrachloride	20.0	17.7	88	61-142	
Chlorobenzene	20.0	20.3	102	80-120	
Chloroethane	20.0	21.7	108	41-147	
Chloroform	20.0	19.8	99	74-127	
Chloromethane	20.0	20.8	104	46-148	
cis-1,2-Dichloroethene	20.0	19.2	96	75-124	
cis-1,3-Dichloropropene	20.0	19.3	97	68-128	
Hexachlorobutadiene	20.0	14.1	71	40-120	
Dibromomethane	20.0	16.2	81	67-121	
Bromodichloromethane	20.0	18.6	93	73-122	
Dichlorodifluoromethane	20.0	17.2	86	35-137	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1916362.d

Lab ID: LCS 240-447281/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethylbenzene	20.0	20.5	102	80-120	
1,2-Dibromoethane	20.0	19.6	98	73-120	
Naphthalene	20.0	20.8	104	28-130	
m-Xylene & p-Xylene	20.0	20.8	104	79-121	
n-Butylbenzene	20.0	20.1	100	54-129	
Isopropylbenzene	20.0	20.7	103	73-123	
N-Propylbenzene	20.0	21.0	105	67-130	
2-Butanone (MEK)	40.0	40.1	100	41-151	
4-Methyl-2-pentanone (MIBK)	40.0	41.4	103	43-145	
sec-Butylbenzene	20.0	20.6	103	60-131	
Methyl tert-butyl ether	20.0	19.4	97	57-127	
Methylene Chloride	20.0	20.6	103	63-134	
o-Xylene	20.0	21.1	105	75-123	
Styrene	20.0	20.7	103	75-121	
tert-Butylbenzene	20.0	19.6	98	63-126	
Tetrachloroethene	20.0	18.1	91	70-125	
Toluene	20.0	21.5	108	79-122	
trans-1,2-Dichloroethene	20.0	20.4	102	74-130	
trans-1,3-Dichloropropene	20.0	19.6	98	64-120	
Trichloroethene	20.0	18.2	91	71-121	
Trichlorofluoromethane	20.0	16.9	84	52-148	
Vinyl acetate	20.0	21.5	107	44-160	
Vinyl chloride	20.0	21.4	107	61-134	
tert-Butyl alcohol	200	225	112	15-169	
Xylenes, Total	40.0	41.9	105	78-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: U1916365.d Lab Sample ID: MB 240-447281/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 08/14/2020 19:36

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-447281/5	U1916362.d	08/14/2020 18:29
MRC-MW-164B-081120	240-134814-1	U1916374.d	08/14/2020 22:57

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb036.d BFB Injection Date: 07/24/2018

Instrument ID: A3UX19 BFB Injection Time: 17:22

Analysis Batch No.: 337766

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	53.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	1.1	(1.2) 1
174	Greater than 50% of mass 95	84.3	
175	5.0 - 9.0 % of mass 174	6.2	(7.4) 1
176	95.0 - 101.0 % of mass 174	80.7	(95.7) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-337766/2	U1900783.d	07/24/2018	17:50
	STD8260 240-337766/3	U1900784.d	07/24/2018	18:13
	STD8260 240-337766/9	U1900790.d	07/24/2018	18:35
	ICIS 240-337766/10	U1900791.d	07/24/2018	18:57
	STD8260 240-337766/11	U1900792.d	07/24/2018	19:20
	STD8260 240-337766/12	U1900793.d	07/24/2018	19:42
	STD8260 240-337766/13	U1900794.d	07/24/2018	20:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb037.d BFB Injection Date: 07/25/2018

Instrument ID: A3UX19 BFB Injection Time: 11:28

Analysis Batch No.: 337917

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	52.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	1.1	(1.3) 1
174	Greater than 50% of mass 95	82.7	
175	5.0 - 9.0 % of mass 174	6.4	(7.8) 1
176	95.0 - 101.0 % of mass 174	80.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STDA9 240-337917/8	U1900802.d	07/25/2018	13:24
	STDA9 240-337917/9	U1900803.d	07/25/2018	13:46
	STDA9 240-337917/10	U1900804.d	07/25/2018	14:08
	STDA9 240-337917/11	U1900805.d	07/25/2018	14:30
	STDA9 240-337917/12	U1900806.d	07/25/2018	14:52
	STDA9 240-337917/13	U1900807.d	07/25/2018	15:15
	ICV 240-337917/14	U1900808.d	07/25/2018	15:37

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb058.d BFB Injection Date: 08/27/2018

Instrument ID: A3UX19 BFB Injection Time: 16:23

Analysis Batch No.: 342719

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	Greater than 50% of mass 95	94.9	
175	5.0 - 9.0 % of mass 174	7.3	(7.7) 1
176	95.0 - 101.0 % of mass 174	92.7	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-342719/7	U1901323.d	08/27/2018	17:09
	STD8260 240-342719/8	U1901324.d	08/27/2018	17:31
	STD8260 240-342719/9	U1901325.d	08/27/2018	17:53
	ICIS 240-342719/10	U1901326.d	08/27/2018	18:16
	STD8260 240-342719/11	U1901327.d	08/27/2018	18:38
	STD8260 240-342719/12	U1901328.d	08/27/2018	19:01
	STD8260 240-342719/13	U1901329.d	08/27/2018	19:23
	ICV 240-342719/14	U1901330.d	08/27/2018	19:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab File ID: bfb599.d BFB Injection Date: 08/14/2020

Instrument ID: A3UX19 BFB Injection Time: 17:20

Analysis Batch No.: 447281

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	85.2	
175	5.0 - 9.0 % of mass 174	7.2	(8.5) 1
176	95.0 - 101.0 % of mass 174	82.6	(97.0) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-447281/3	U1916360.d	08/14/2020	17:44
	CCVIS 240-447281/4	U1916361.d	08/14/2020	18:06
	LCS 240-447281/5	U1916362.d	08/14/2020	18:29
	MB 240-447281/8	U1916365.d	08/14/2020	19:36
MRC-MW-164B-081120	240-134814-1	U1916374.d	08/14/2020	22:57

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: ICIS 240-342719/10 Date Analyzed: 08/27/2018 18:16

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1901326.d Heated Purge: (Y/N) N

Calibration ID: 46687

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		972482	5.65	783101	8.50	430906	10.88
UPPER LIMIT		1944964	6.15	1566202	9.00	861812	11.38
LOWER LIMIT		486241	5.15	391551	8.00	215453	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-342719/14		955207	5.65	765531	8.50	424750	10.88
CCVIS 240-447281/4		1022055	5.67	752909	8.50	402555	10.90

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: CCVIS 240-447281/4 Date Analyzed: 08/14/2020 18:06

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1916361.d Heated Purge: (Y/N) N

Calibration ID: 57283

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1022055	5.67	752909	8.50	402555	10.90
UPPER LIMIT		2044110	6.17	1505818	9.00	805110	11.40
LOWER LIMIT		511028	5.17	376455	8.00	201278	10.40
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-447281/5		1014792	5.67	743246	8.50	391665	10.90
MB 240-447281/8		958064	5.67	707631	8.50	352282	10.90
240-134814-1	MRC-MW-164B-081120	929552	5.67	682652	8.50	343713	10.90

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: U1916374.d

Analysis Method: 8260C Date Collected: 08/11/2020 14:20

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 22:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
120-82-1	1,2,4-Trichlorobenzene	0.81	U	1.0	0.81
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
110-75-8	2-Chloroethyl vinyl ether	1.1	U *	10	1.1
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
591-78-6	2-Hexanone	2.1	U	10	2.1
108-86-1	Bromobenzene	0.38	U	1.0	0.38
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
99-87-6	4-Isopropyltoluene	0.49	U	1.0	0.49
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	4.6		1.0	0.38
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.40	U	1.0	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: U1916374.d

Analysis Method: 8260C Date Collected: 08/11/2020 14:20

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 22:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	0.64	U	1.0	0.64
156-59-2	cis-1,2-Dichloroethene	1.7		1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
74-95-3	Dibromomethane	0.33	U	1.0	0.33
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
108-20-3	Diisopropyl ether	0.36	U	10	0.36
91-20-3	Naphthalene	0.82	U	1.0	0.82
104-51-8	n-Butylbenzene	0.59	U	1.0	0.59
98-82-8	Isopropylbenzene	0.52	J	1.0	0.45
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
135-98-8	sec-Butylbenzene	0.63	U	1.0	0.63
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
100-42-5	Styrene	0.40	U	1.0	0.40
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
127-18-4	Tetrachloroethene	0.33	U	1.0	0.33
108-88-3	Toluene	0.35	U	1.0	0.35
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	9.9		1.0	0.36
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: U1916374.d

Analysis Method: 8260C Date Collected: 08/11/2020 14:20

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 22:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		75-130
460-00-4	4-Bromofluorobenzene (Surr)	94		47-134
2037-26-5	Toluene-d8 (Surr)	105		69-122
1868-53-7	Dibromofluoromethane (Surr)	104		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d
Lims ID: 240-134814-B-1
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 14-Aug-2020 22:57:47 ALS Bottle#: 0 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-017
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 17-Aug-2020 14:40:31 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1048

First Level Reviewer: laveyt Date: 17-Aug-2020 14:40:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.665	5.666	-0.001	99	929552	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	85	682652	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.895	10.895	0.000	95	343713	20.0	
$ 4 Dibromofluoromethane (Surr)	111	5.061	5.049	0.012	93	260121	20.8	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.357	5.357	0.000	96	295339	20.6	
$ 6 Toluene-d8 (Surr)	98	7.112	7.112	0.000	93	862518	21.1	
$ 7 4-Bromofluorobenzene (Surr)	95	9.686	9.686	0.000	91	290430	18.9	
9 Dichlorodifluoromethane	85		1.598				ND	
10 Chloromethane	50		1.812				ND	
12 Vinyl chloride	62		1.907				ND	
13 Bromomethane	94		2.250				ND	
15 Chloroethane	64		2.310				ND	
17 Trichlorofluoromethane	101		2.535				ND	
20 1,1-Dichloroethene	61		3.033				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.069				ND	
22 Acetone	43	3.080	3.081	-0.001	99	7951	2.18	
25 Carbon disulfide	76		3.247				ND	
29 Methylene Chloride	49	3.484	3.472	0.012	85	1837	0.1389	
30 2-Methyl-2-propanol	59		3.579				ND	U
32 trans-1,2-Dichloroethene	61		3.733				ND	
33 Methyl tert-butyl ether	73		3.733				ND	
35 1,1-Dichloroethane	63		4.112				ND	
36 Vinyl acetate	43		4.148				ND	
37 Isopropyl ether	87		4.171				ND	
39 Tert-butyl ethyl ether	59		4.491				ND	
41 cis-1,2-Dichloroethene	96	4.634	4.634	0.000	77	23090	1.72	
40 2-Butanone (MEK)	72		4.634				ND	U
42 2,2-Dichloropropane	77		4.634				ND	
46 Chlorobromomethane	49		4.847				ND	
48 Chloroform	83		4.907				ND	
49 1,1,1-Trichloroethane	97		5.085				ND	
51 1,1-Dichloropropene	75		5.227				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
52 Carbon tetrachloride	117		5.239				ND	
54 Benzene	78	5.428	5.417	0.011	94	202073	4.57	
55 1,2-Dichloroethane	62		5.429				ND	U
56 Tert-amyl methyl ether	73		5.511				ND	
59 Trichloroethene	130	5.998	5.998	0.000	97	146010	9.94	
62 1,2-Dichloropropane	63		6.199				ND	
64 Dibromomethane	174		6.306				ND	
66 Dichlorobromomethane	83		6.437				ND	
68 2-Chloroethyl vinyl ether	63		6.697				ND	
69 cis-1,3-Dichloropropene	75		6.852				ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.982				ND	
71 Toluene	91		7.172				ND	
72 trans-1,3-Dichloropropene	75		7.361				ND	
75 Tetrachloroethene	166		7.705				ND	
76 1,3-Dichloropropane	76		7.705				ND	
77 2-Hexanone	43		7.777				ND	
79 Chlorodibromomethane	129		7.931				ND	
81 Ethylene Dibromide	107		8.049				ND	
83 Chlorobenzene	112		8.536				ND	
84 1,1,1,2-Tetrachloroethane	131		8.607				ND	
85 Ethylbenzene	106		8.642				ND	
86 m-Xylene & p-Xylene	106		8.749				ND	
87 o-Xylene	106	9.152	9.152	0.000	91	2156	0.1129	
88 Styrene	104		9.164				ND	
89 Bromoform	173		9.354				ND	
90 Isopropylbenzene	105	9.531	9.532	-0.001	96	26896	0.5244	
93 1,1,2,2-Tetrachloroethane	83		9.816				ND	
95 Bromobenzene	156		9.852				ND	
96 1,2,3-Trichloropropane	110		9.876				ND	
98 N-Propylbenzene	120		9.947				ND	
100 2-Chlorotoluene	126		10.042				ND	
102 4-Chlorotoluene	126		10.160				ND	
103 tert-Butylbenzene	119		10.480				ND	
105 1,2,4-Trimethylbenzene	105		10.528				ND	
106 sec-Butylbenzene	105		10.706				ND	
107 1,3-Dichlorobenzene	146		10.824				ND	
108 4-Isopropyltoluene	119		10.860				ND	
109 1,4-Dichlorobenzene	146		10.919				ND	
110 1,2,3-Trimethylbenzene	105		10.966				ND	
112 n-Butylbenzene	91		11.287				ND	
113 1,2-Dichlorobenzene	146		11.310				ND	
114 1,2-Dibromo-3-Chloropropane	157		12.129				ND	
116 1,2,4-Trichlorobenzene	180		13.018				ND	
117 Hexachlorobutadiene	225		13.208				ND	
118 Naphthalene	128		13.279				ND	
119 1,2,3-Trichlorobenzene	180		13.552				ND	
S 128 Xylenes, Total	106				0		0.1129	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

vm50ss_stk_00085	Amount Added:	2.00	Units: uL	Run Reagent
vmDist_H2o_00178	Amount Added:	0.00	Units:	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vm50is_stk_A_00007	Amount Added:	2.00	Units: uL	Run Reagent

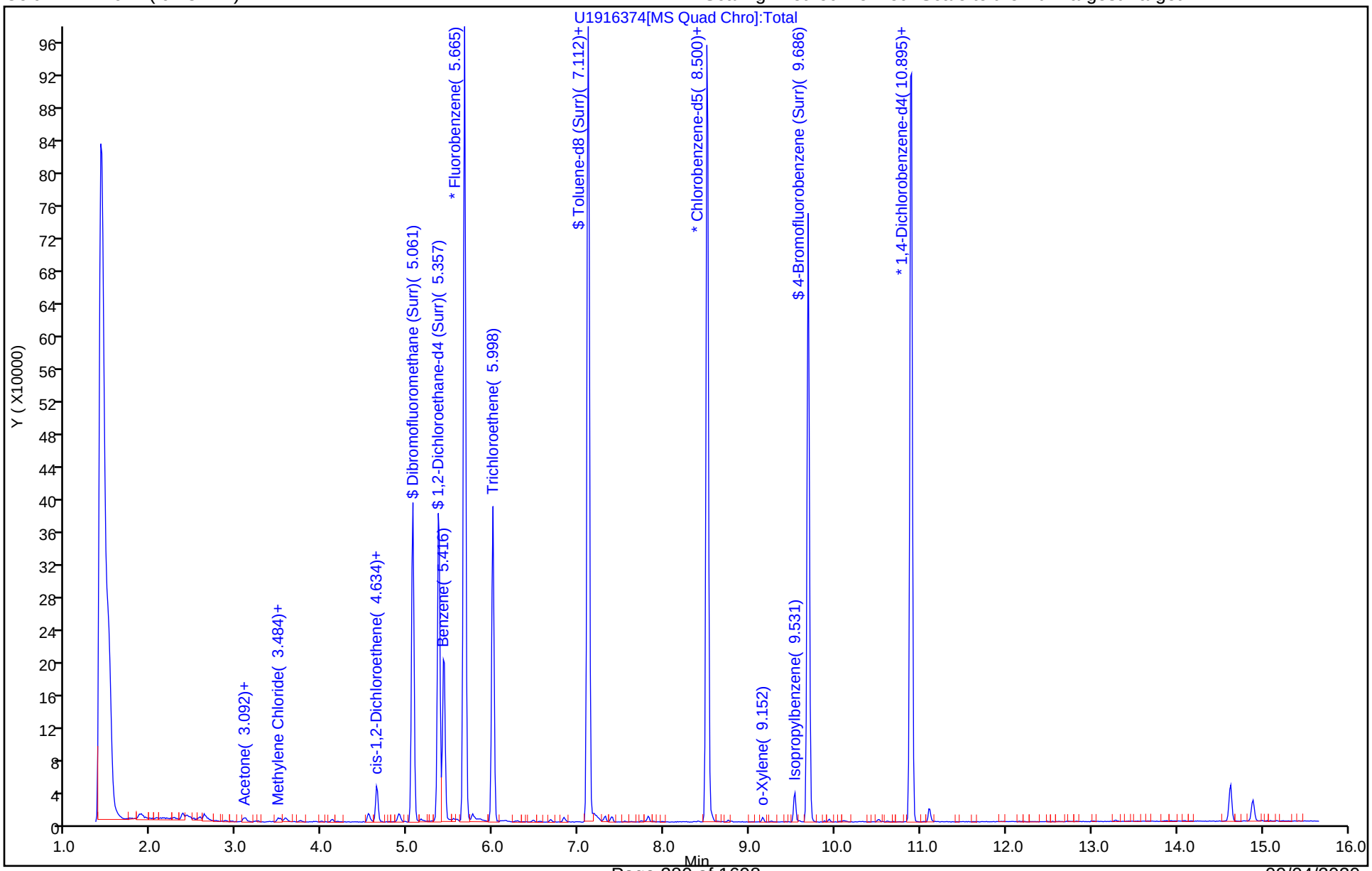
Report Date: 17-Aug-2020 14:40:31 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d

Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1	Worklist Smp#:	17
Client ID:	MRC-MW-164B-081120				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d
Lims ID: 240-134814-B-1
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 14-Aug-2020 22:57:47 ALS Bottle#: 0 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-017
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 17-Aug-2020 14:40:31 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1048

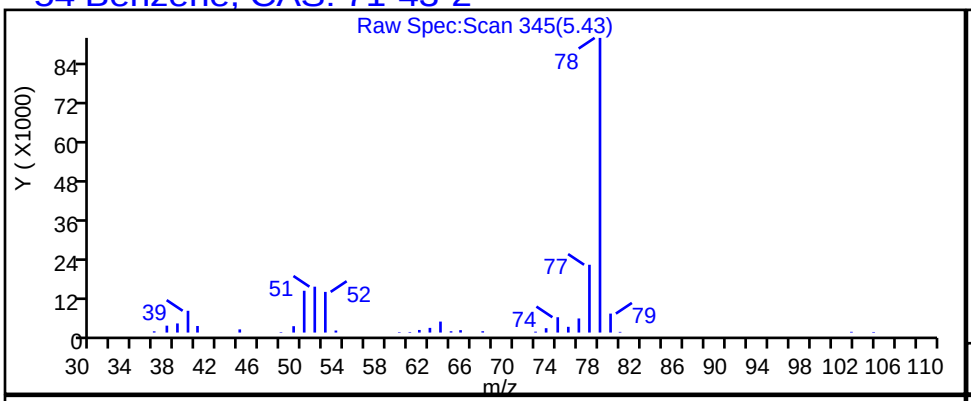
First Level Reviewer: laveyt Date: 17-Aug-2020 14:40:31

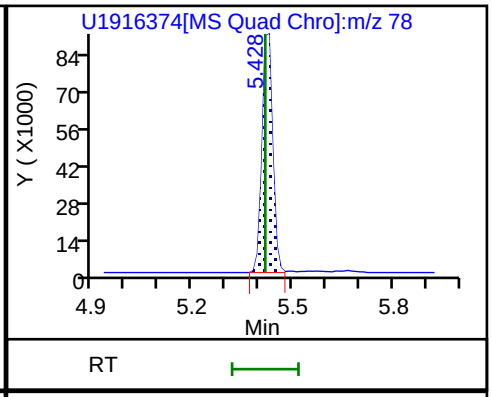
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	20.8	103.95
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	20.6	102.76
$ 6 Toluene-d8 (Surr)	20.0	21.1	105.35
$ 7 4-Bromofluorobenzene (Surr)	20.0	18.9	94.27

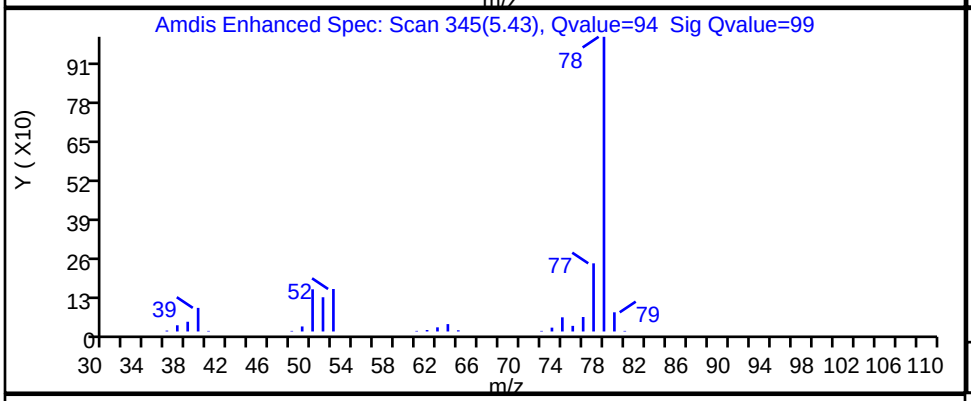
Eurofins TestAmerica, Canton

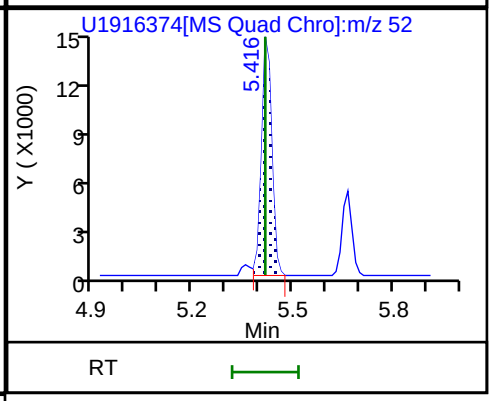
Data File:	\\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d		
Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1
Client ID:	MRC-MW-164B-081120		
Operator ID:	001904	ALS Bottle#:	0 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	8260_19	Limit Group:	MSV 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

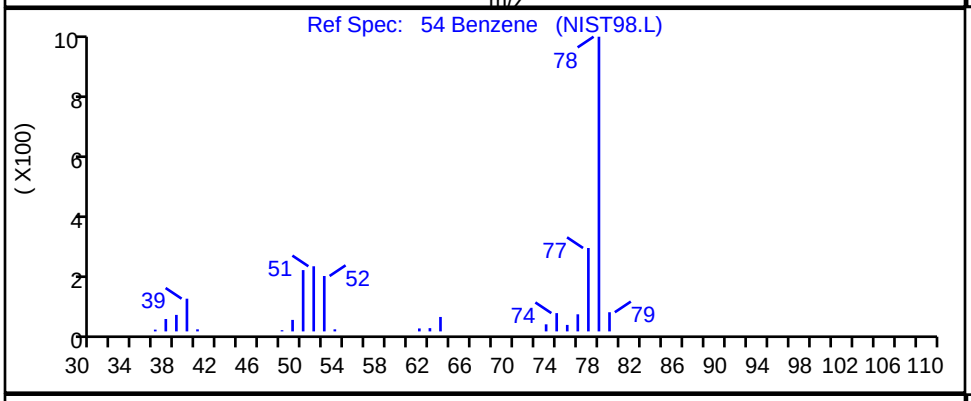
54 Benzene, CAS: 71-43-2

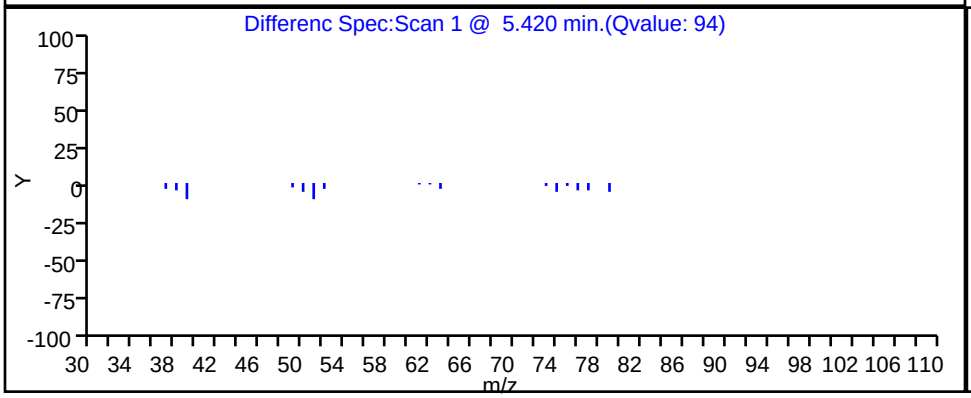


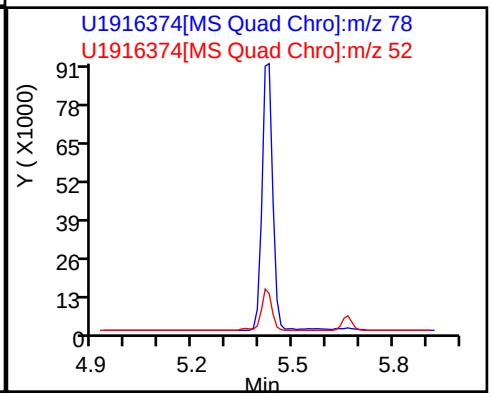












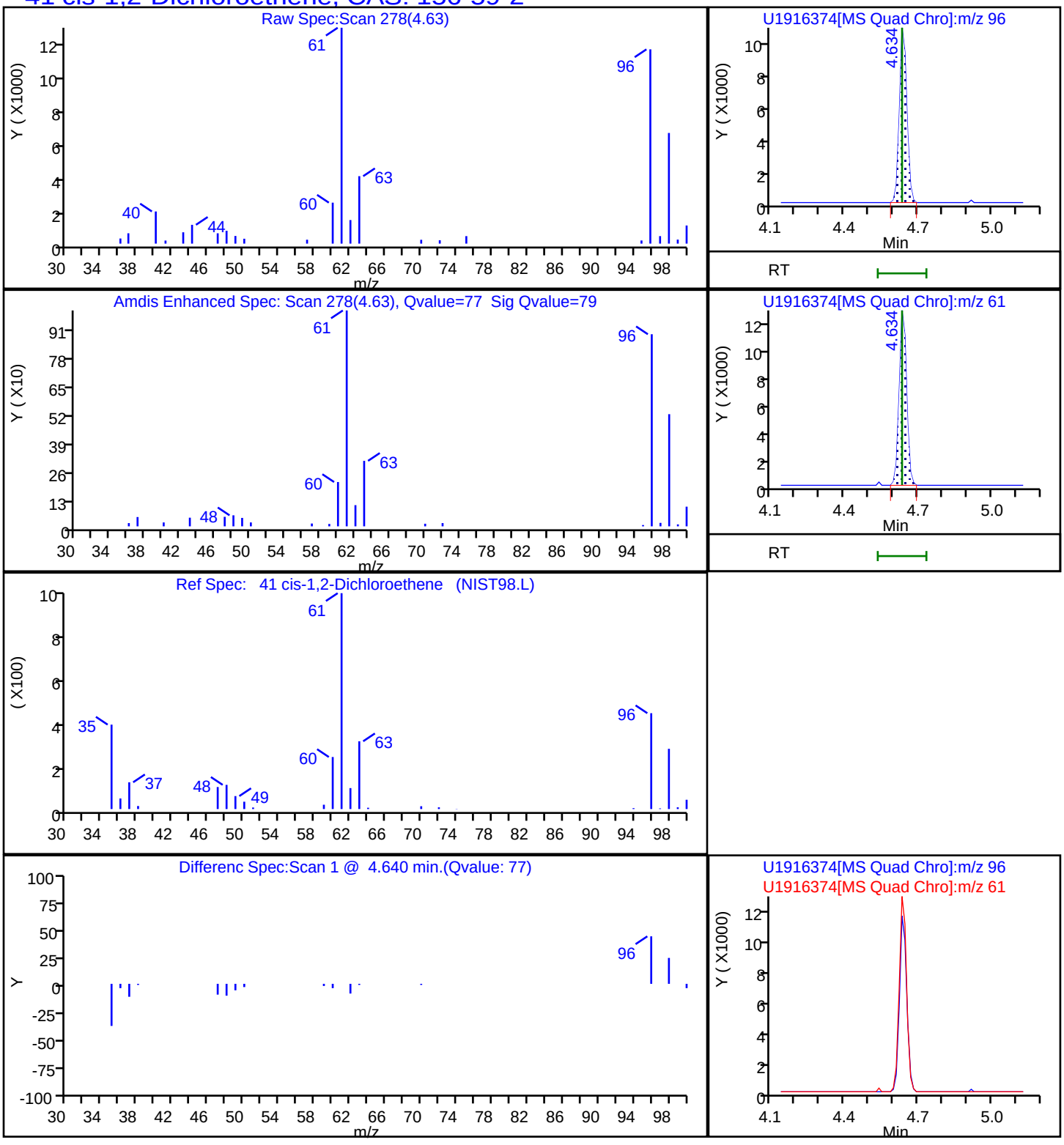
Report Date: 17-Aug-2020 14:40:31 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d

Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19		
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1		
Client ID:	MRC-MW-164B-081120				
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

41 cis-1,2-Dichloroethene, CAS: 156-59-2

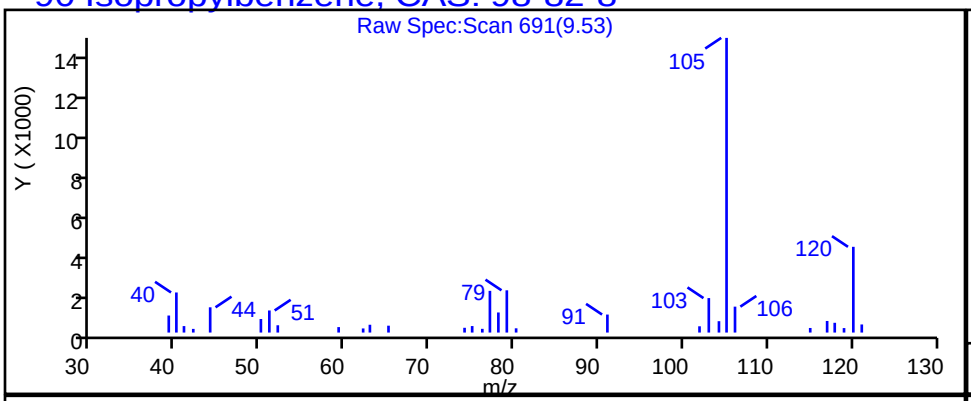


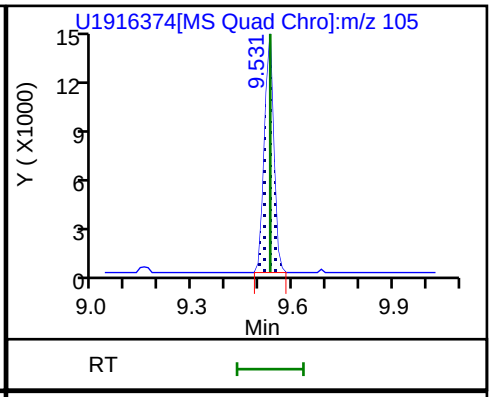
Eurofins TestAmerica, Canton

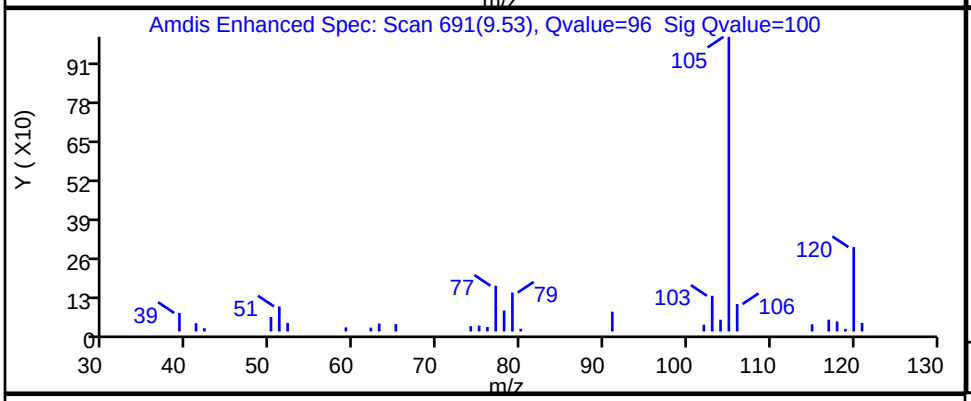
Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d

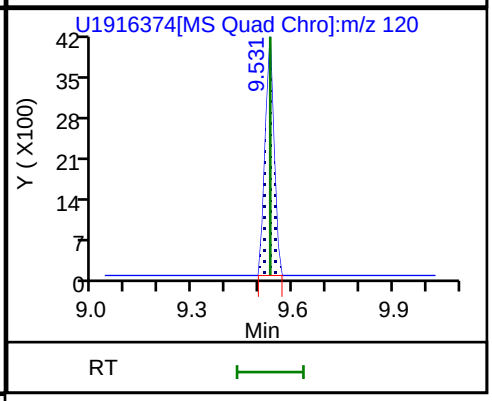
Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1
Client ID:	MRC-MW-164B-081120		
Operator ID:	001904	ALS Bottle#:	0 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	8260_19	Limit Group:	MSV 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

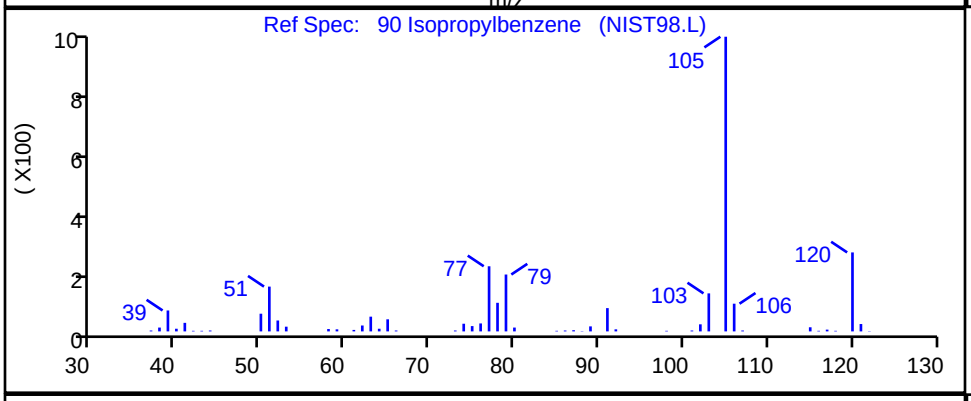
90 Isopropylbenzene, CAS: 98-82-8

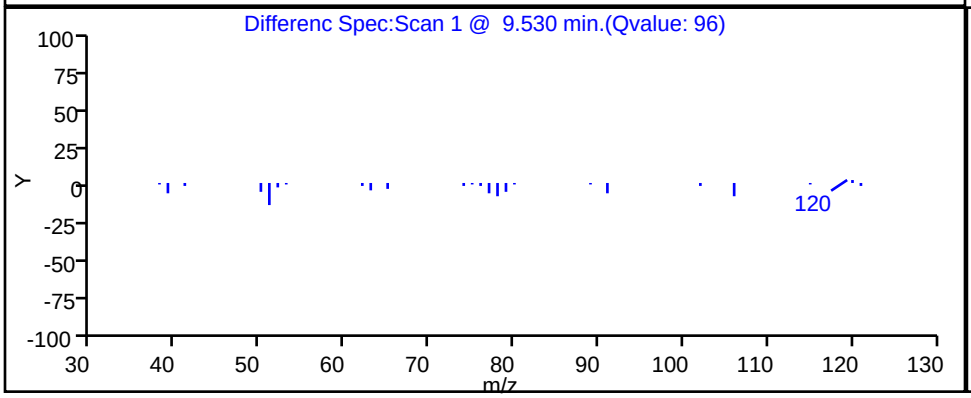


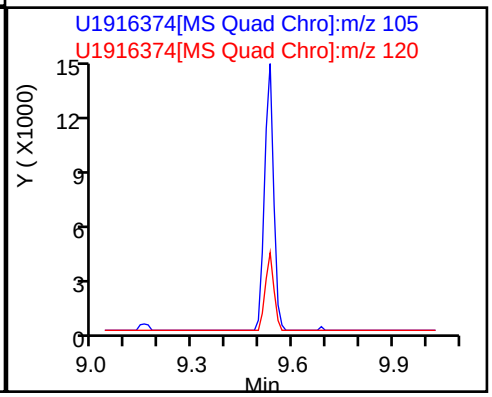












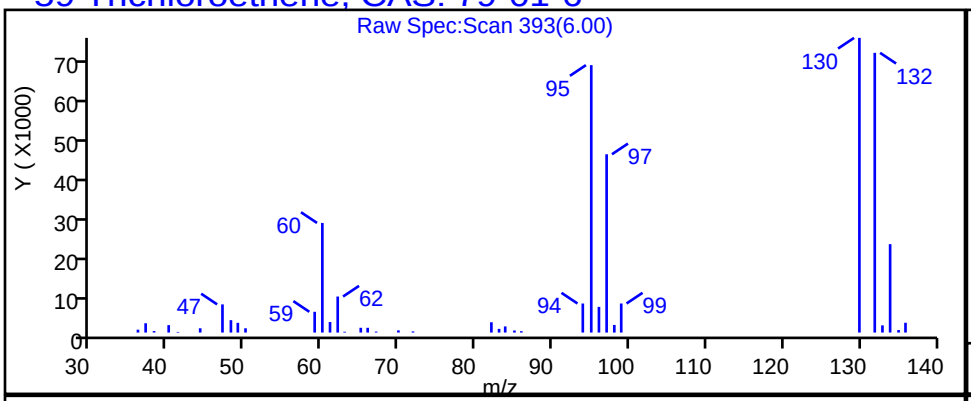
Report Date: 17-Aug-2020 14:40:31 Chrom Revision: 2.3 30-Jun-2020 12:05:54

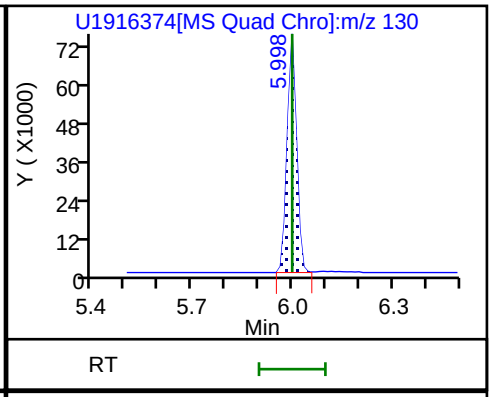
Eurofins TestAmerica, Canton

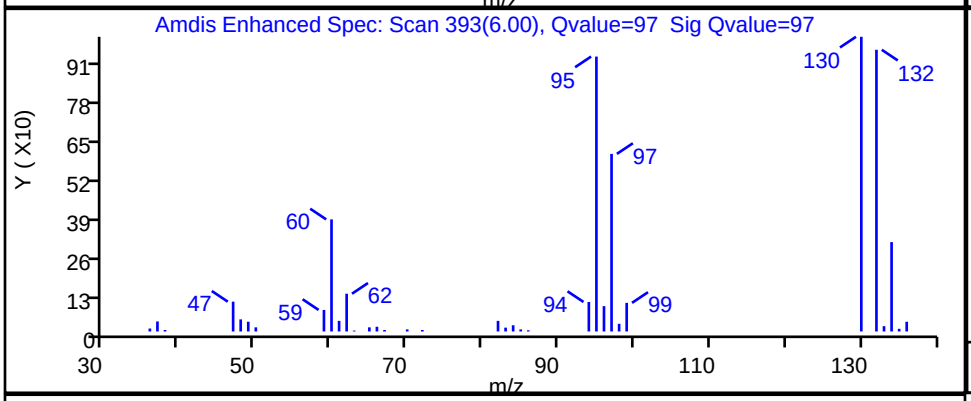
Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d

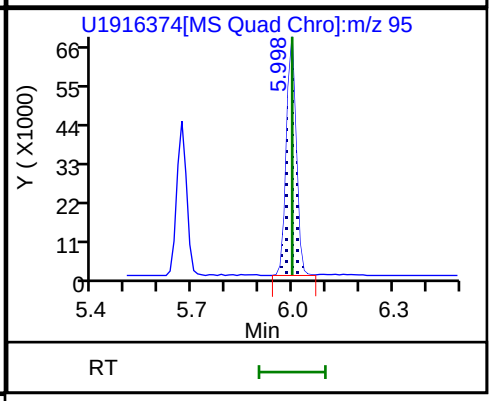
Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1
Client ID:	MRC-MW-164B-081120		
Operator ID:	001904	ALS Bottle#:	0 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	8260_19	Limit Group:	MSV 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

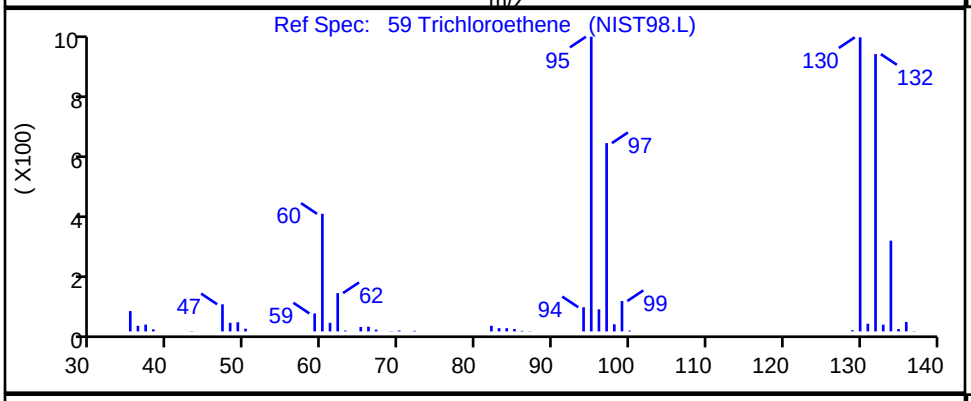
59 Trichloroethene, CAS: 79-01-6

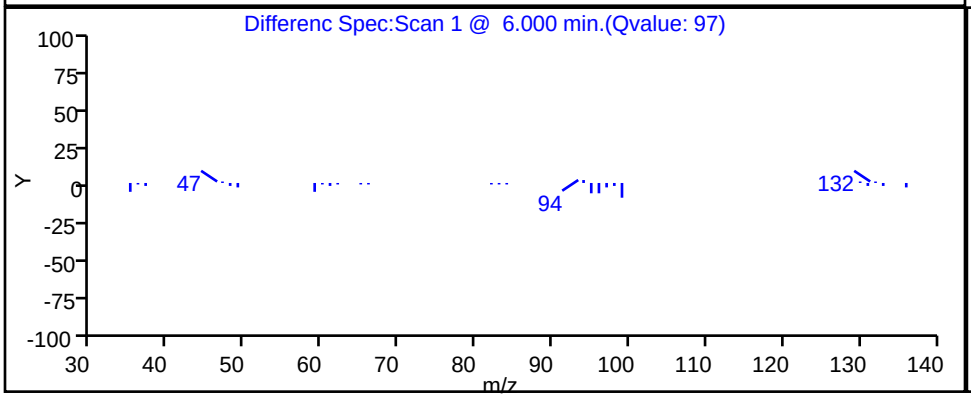


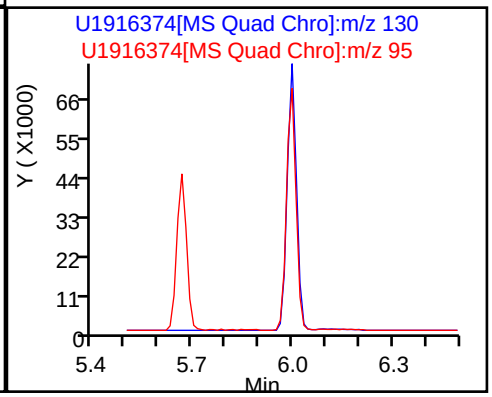












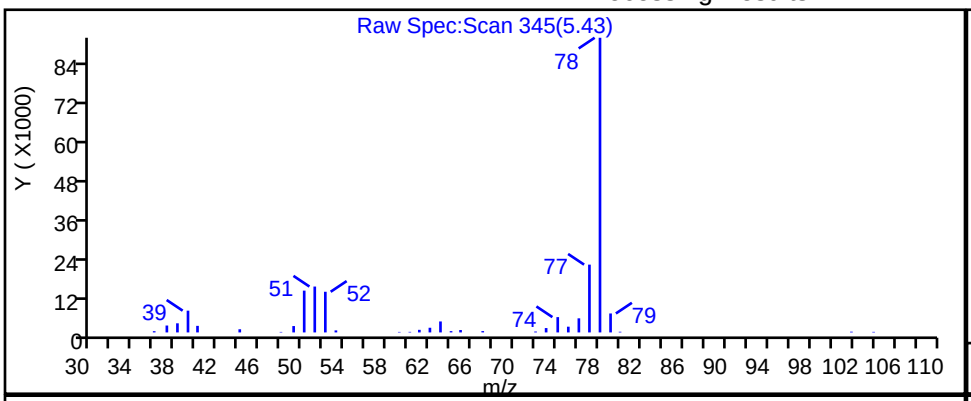
User Disabled Compound Report

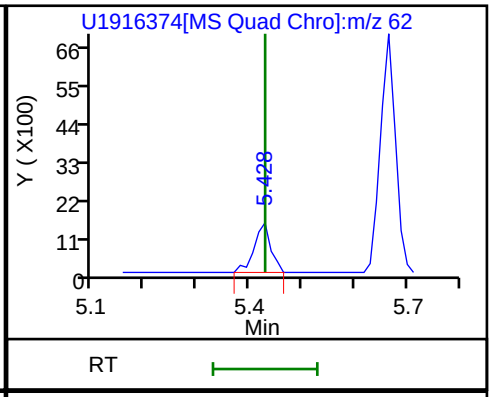
Eurofins TestAmerica, Canton

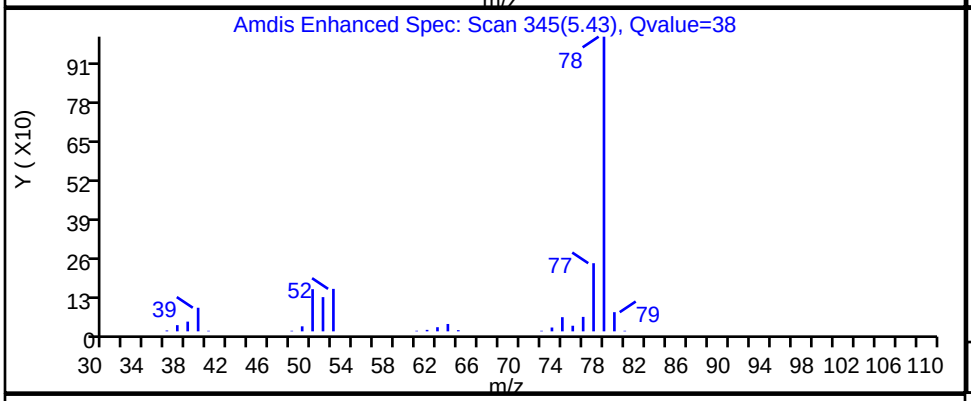
Data File:	\\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d				
Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19		
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1		
Client ID:	MRC-MW-164B-081120				
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

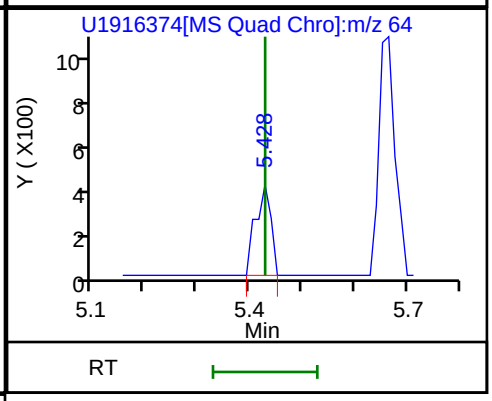
55 1,2-Dichloroethane, CAS: 107-06-2

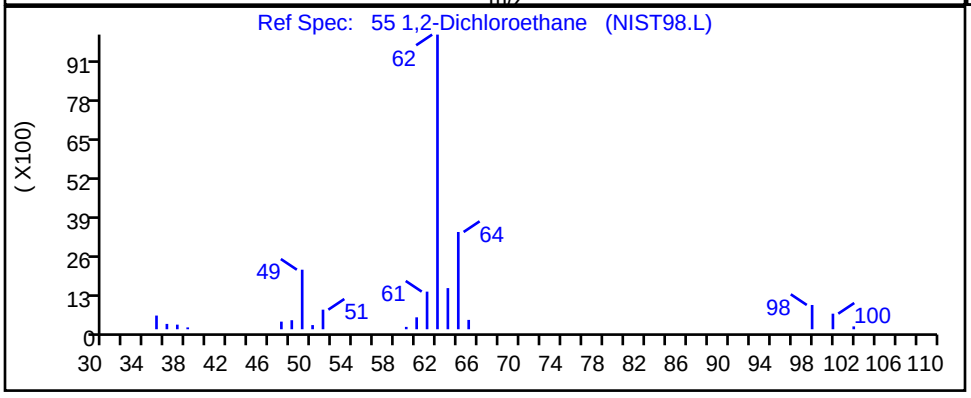
Processing Results











RT	Mass	Response	Amount
5.43	62.00	3189	0.190578
5.43	64.00	825	

Reviewer: laveyt, 17-Aug-2020 14:40:16

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

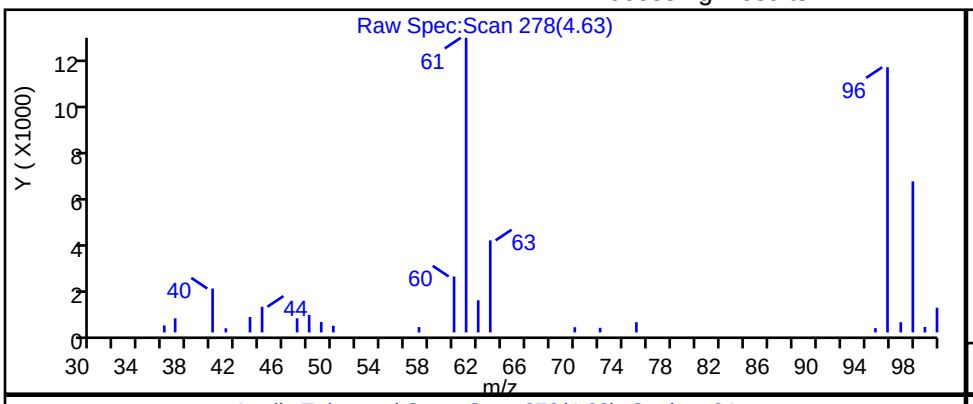
User Disabled Compound Report

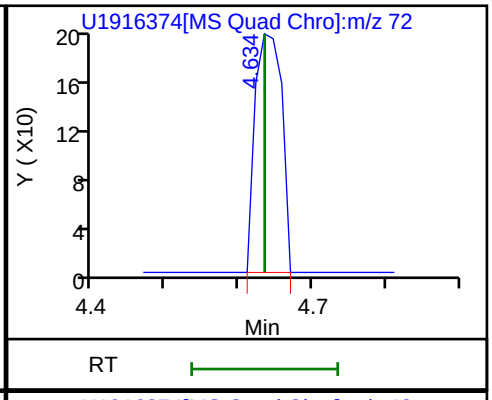
Eurofins TestAmerica, Canton

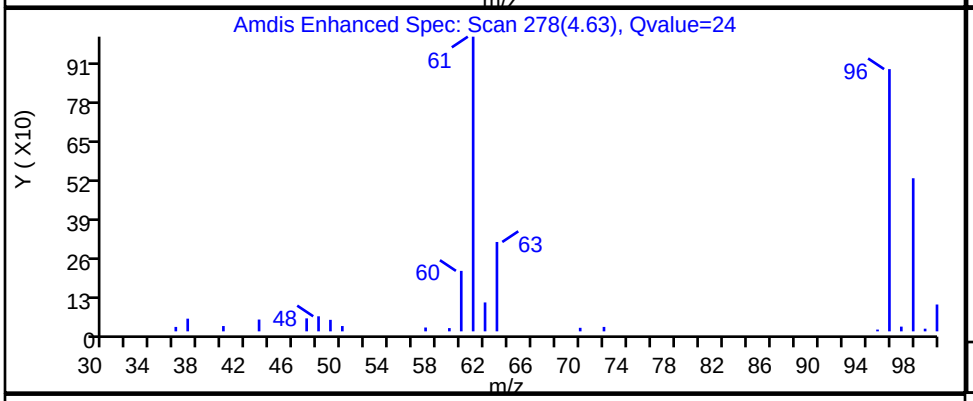
Data File:	\\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d				
Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19		
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1		
Client ID:	MRC-MW-164B-081120				
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

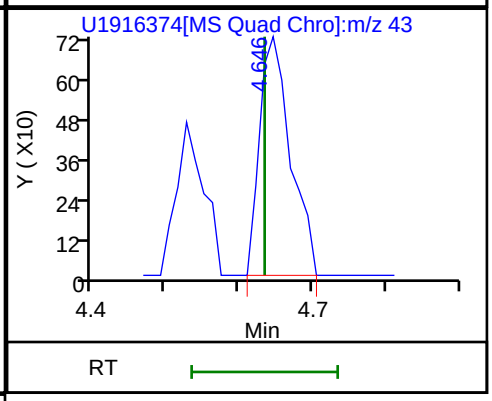
40 2-Butanone (MEK), CAS: 78-93-3

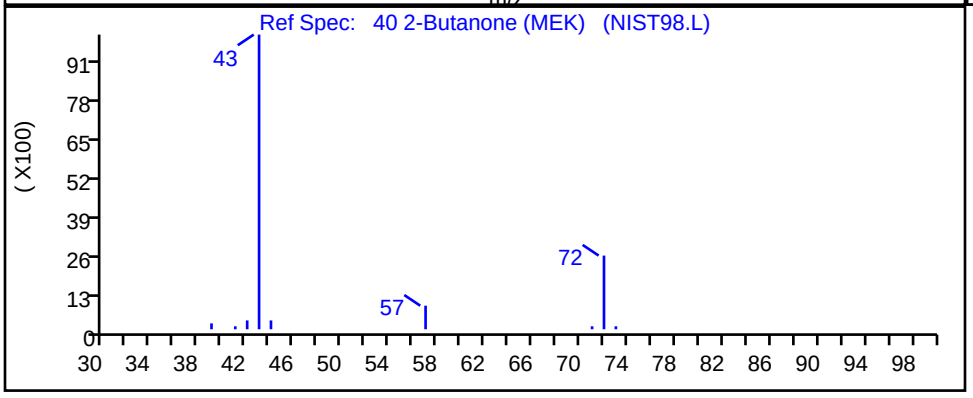
Processing Results











RT	Mass	Response	Amount
4.63	72.00	485	0.220959
4.65	43.00	2132	

Reviewer: laveyt, 17-Aug-2020 14:40:10

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

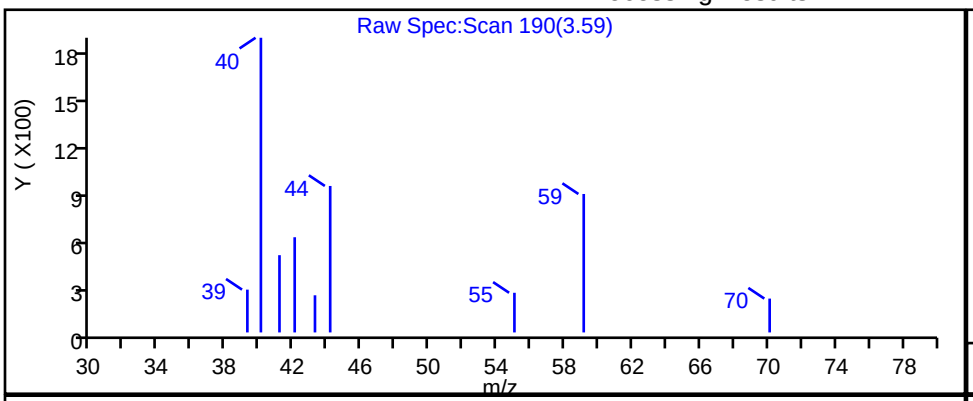
User Disabled Compound Report

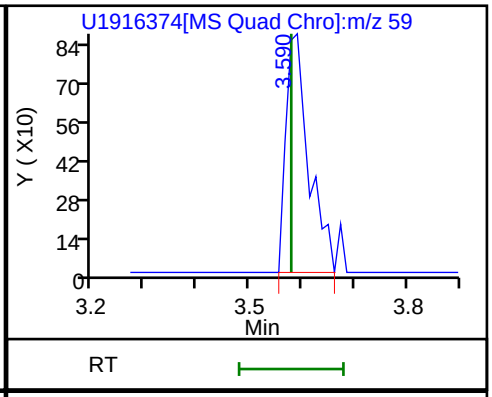
Eurofins TestAmerica, Canton

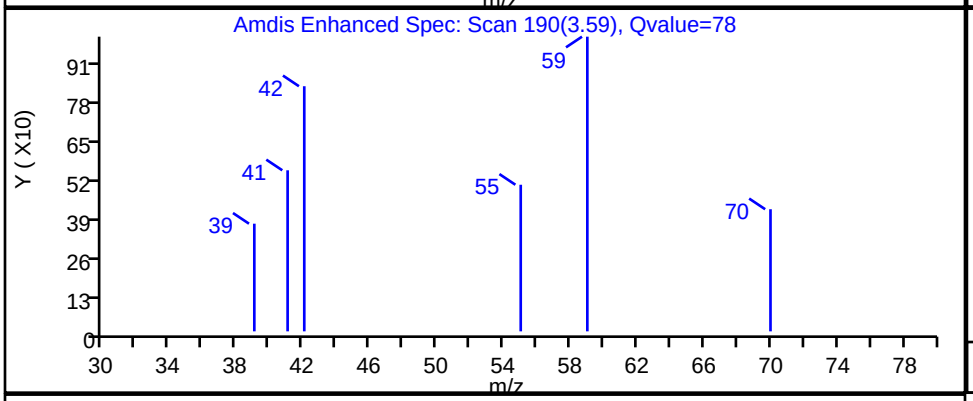
Data File:	\\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916374.d				
Injection Date:	14-Aug-2020 22:57:47	Instrument ID:	A3UX19		
Lims ID:	240-134814-B-1	Lab Sample ID:	240-134814-1		
Client ID:	MRC-MW-164B-081120				
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

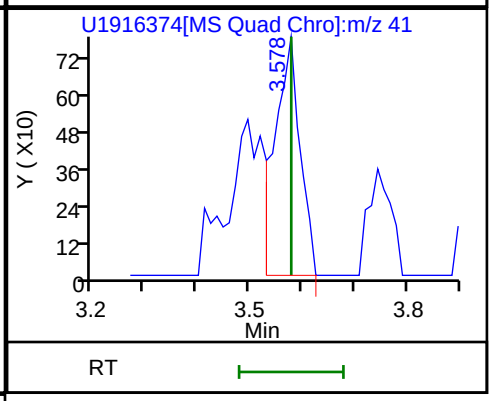
30 2-Methyl-2-propanol, CAS: 75-65-0

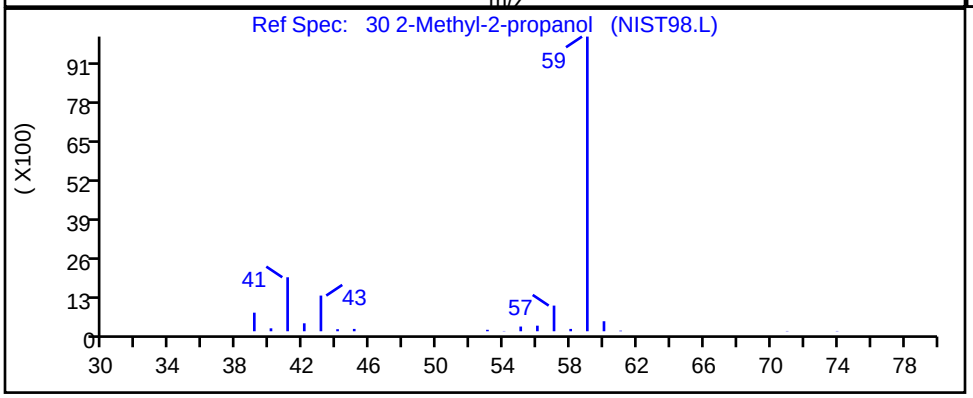
Processing Results











RT	Mass	Response	Amount
3.59	59.00	2673	2.123685
3.58	41.00	2679	

Reviewer: laveyt, 17-Aug-2020 14:40:04

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2985 0.3869	0.3275 0.3899	0.3189	0.3531	0.3613	Ave		0.3480			0.1000	10.0		20.0			
Chloromethane	0.3558 0.3258	0.3705 0.3191	0.3263	0.3392	0.3223	Ave		0.3370			0.1000	5.8		20.0			
Butadiene	0.3408 0.3374	0.3424 0.3377	0.2895	0.3248	0.3219	Ave		0.3278				5.7		20.0			
Vinyl chloride	0.2746 0.3390	0.3544 0.3374	0.3113	0.3366	0.3288	Ave		0.3260			0.1000	8.0		20.0			
Bromomethane	0.2749 0.2254	0.2866 0.2173	0.2405	0.2466	0.2251	Ave		0.2452			0.0500	10.8		20.0			
Chloroethane	0.2109 0.1921	0.2097 0.1854	0.1960	0.2032	0.1901	Ave		0.1982			0.0500	5.0		20.0			
Dichlorofluoromethane	0.5221 0.4475	0.4917 0.4372	0.4526	0.4727	0.4486	Ave		0.4675				6.5		20.0			
Trichlorofluoromethane	0.4494 0.4561	0.4680 0.4427	0.3932	0.4472	0.4396	Ave		0.4423			0.1000	5.3		20.0			
Ethyl ether	0.2193 0.1979	0.2111 0.1891	0.1902	0.1939	0.1890	Ave		0.1987				6.0		20.0			
Acrolein	0.0586 0.0546	0.0507 0.0535	0.0446	0.0490	0.0542	Ave		0.0522				8.7		20.0			
1,1-Dichloroethene	0.3808 0.3850	0.3828 0.3735	0.3902	0.3740	0.3655	Ave		0.3788			0.1000	2.2		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2602 0.2706	0.2860 0.2683	0.2820	0.2661	0.2580	Ave		0.2702			0.0500	3.9		20.0			
Acetone	+++++ 0.0784	0.0790 0.0643	0.0549	0.0580	0.0606	Ave		0.0659			0.0100	15.8		20.0			
Iodomethane	0.4645 0.4649	0.4824 0.4542	0.4796	0.4736	0.4610	Ave		0.4686				2.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	1.0264 0.7904	0.9769 0.7703	0.8143	0.7839	0.7630	Ave		0.8465			0.1000	12.8		20.0			
3-Chloro-1-propene	0.4236 0.3955	0.4245 0.3845	0.3864	0.3828	0.3812	Ave		0.3969				4.8		20.0			
Methyl acetate	0.2893 0.2388	0.2199 0.2093	0.2069	0.2105	0.2113	Ave		0.2266			0.1000	13.1		20.0			
Methylene Chloride	+++++ 0.2977	0.3380 0.2854	0.3031	0.3009	0.2892	Ave		0.3024			0.1000	6.2		20.0			
2-Methyl-2-propanol	+++++ 0.0272	0.0286 +++++	0.0233	0.0231	0.0210	Ave		0.0246				12.8		20.0			
Acrylonitrile	0.1149 0.1149	0.0936 0.0991	0.0942	0.0985	0.1008	Ave		0.1023				8.8		20.0			
trans-1,2-Dichloroethene	0.4272 0.3621	0.3980 0.3508	0.3681	0.3544	0.3490	Ave		0.3728			0.1000	7.8		20.0			
Methyl tert-butyl ether	0.6889 0.7038	0.7226 0.6502	0.7037	0.7046	0.6888	Ave		0.6946			0.1000	3.3		20.0			
Hexane	0.4016 0.4127	0.4088 0.4136	0.4369	0.3839	0.3905	Ave		0.4069				4.3		20.0			
1,1-Dichloroethane	0.4297 0.4479	0.4309 0.4358	0.4483	0.4451	0.4391	Ave		0.4395			0.2000	1.8		20.0			
Vinyl acetate	0.4180 0.4211	0.3784 0.4083	0.3943	0.3850	0.3928	Ave		0.3997				4.1		20.0			
cis-1,2-Dichloroethene	0.3259 0.3058	0.3308 0.2928	0.3020	0.3030	0.2971	Ave		0.3082			0.1000	4.7		20.0			
2-Butanone (MEK)	+++++ 0.0411	0.0357 0.0381	0.0358	0.0358	0.0391	Ave		0.0376			0.0100	6.0		20.0			
2,2-Dichloropropane	0.2667 0.2404	0.2856 0.2633	0.2822	0.2661	0.2457	Ave		0.2643				6.4		20.0			
Chlorobromomethane	0.2447 0.2004	0.2207 0.1830	0.1878	0.1937	0.1884	Ave		0.2027				11.0		20.0			
Tetrahydrofuran	0.0995 0.1054	0.1040 0.0940	0.0907	0.0913	0.0950	Ave		0.0971				6.1		20.0			
Chloroform	0.4629 0.4616	0.4798 0.4429	0.4485	0.4541	0.4433	Ave		0.4561			0.2000	2.9		20.0			
1,1,1-Trichloroethane	0.3956 0.4177	0.3988 0.4154	0.4324	0.4070	0.4089	Ave		0.4108			0.1000	3.0		20.0			
Cyclohexane	0.4246 0.4364	0.4382 0.4292	0.4507	0.4156	0.4161	Ave		0.4301			0.1000	3.0		20.0			
1,1-Dichloropropene	0.3755 0.3758	0.3903 0.3692	0.3840	0.3595	0.3614	Ave		0.3737				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3639 0.3981	0.3846 0.3917	0.3944	0.3722	0.3729	Ave		0.3825			0.1000	3.4		20.0			
Isobutyl alcohol	0.0095 0.0104	0.0071 0.0087	0.0088	0.0079	0.0092	Ave		0.0088				12.2		20.0			
Benzene	0.9890 1.0452	1.0827 1.0051	1.0373	1.0007	1.0215	Ave		1.0259			0.5000	3.1		20.0			
1,2-Dichloroethane	0.3674 0.3257	0.3549 0.3127	0.3205	0.3110	0.3150	Ave		0.3296			0.1000	6.8		20.0			
n-Heptane	+++++ 0.2252	0.7970 0.2266	0.2839	0.2324	0.2217	Lin1	0.5799	0.2147				4.3			0.9990		0.9900
Trichloroethene	0.3122 0.3167	0.3258 0.3140	0.3258	0.3068	0.3105	Ave		0.3160			0.1500	2.3		20.0			
Methylcyclohexane	0.4985 0.5342	0.5073 0.5200	0.5394	0.4970	0.4957	Ave		0.5132			0.1000	3.6		20.0			
1,2-Dichloropropane	0.2050 0.2404	0.2394 0.2326	0.2309	0.2270	0.2376	Ave		0.2304			0.1000	5.3		20.0			
Dibromomethane	0.2379 0.2151	0.2154 0.2010	0.2009	0.2115	0.2105	Ave		0.2132				5.8		20.0			
1,4-Dioxane	+++++ 0.0024	0.0017 0.0024	0.0024	0.0024	0.0023	Ave		0.0023				13.5		20.0			
Dichlorobromomethane	0.3232 0.3408	0.3027 0.3295	0.3203	0.3127	0.3310	Ave		0.3229			0.1500	3.9		20.0			
2-Chloroethyl vinyl ether	0.1601 0.1755	0.1580 0.1783	0.1797	0.1698	0.1774	Ave		0.1713				5.2		20.0			
cis-1,3-Dichloropropene	0.3599 0.3873	0.3811 0.3872	0.3686	0.3735	0.3865	Ave		0.3777			0.1500	2.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.2834 0.3221	0.2998 0.3046	0.3240	0.2983	0.3095	Ave		0.3059			0.0500	4.6		20.0			
Toluene	1.5618 1.4027	1.4672 1.4180	1.4098	1.3276	1.3894	Ave		1.4252			0.4000	5.1		20.0			
trans-1,3-Dichloropropene	0.4760 0.4702	0.4587 0.4631	0.4478	0.4252	0.4649	Ave		0.4580			0.1000	3.7		20.0			
Ethyl methacrylate	0.4185 0.4604	0.4061 0.4531	0.4309	0.4112	0.4583	Ave		0.4341				5.3		20.0			
1,1,2-Trichloroethane	0.2547 0.2895	0.2773 0.2862	0.2834	0.2725	0.2908	Ave		0.2792			0.1000	4.5		20.0			
Tetrachloroethene	0.4086 0.4320	0.4228 0.4317	0.4309	0.4048	0.4173	Ave		0.4212			0.1500	2.7		20.0			
1,3-Dichloropropane	0.4853 0.4890	0.5028 0.4855	0.4893	0.4635	0.4865	Ave		0.4860				2.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.2860 0.3061	0.2740 0.2989	0.3048	0.2770	0.2999	Ave		0.2924			0.0500	4.5		20.0			
Chlorodibromomethane	0.3153 0.3531	0.3347 0.3456	0.3254	0.3197	0.3424	Ave		0.3337				4.2		20.0			
Ethylene Dibromide	0.3316 0.3186	0.3371 0.3125	0.3153	0.3013	0.3163	Ave		0.3190				3.8		20.0			
Chlorobenzene	0.9988 0.9439	1.0195 0.9268	0.9392	0.9052	0.9346	Ave		0.9526			0.3000	4.3		20.0			
1,1,1,2-Tetrachloroethane	0.2852 0.3466	0.3288 0.3341	0.3290	0.3310	0.3341	Ave		0.3270				5.9		20.0			
Ethylbenzene	0.4594 0.5246	0.5226 0.5211	0.5127	0.4996	0.5108	Ave		0.5073				4.5		20.0			
m-Xylene & p-Xylene	0.6169 0.6437	0.6148 0.6359	0.6355	0.6137	0.6232	Ave		0.6262				1.9		20.0			
o-Xylene	0.5941 0.6233	0.5896 0.6029	0.6245	0.6014	0.5968	Ave		0.6047				2.3		20.0			
Styrene	0.9580 1.0545	0.9583 1.0320	1.0135	0.9872	1.0201	Ave		1.0034			0.3000	3.7		20.0			
Bromoform	+++++ 0.2846	0.2440 0.2826	0.2606	0.2566	0.2726	Ave		0.2668			0.1000	6.0		20.0			
Isopropylbenzene	1.5546 1.6483	1.5581 1.6164	1.6482	1.5866	1.5868	Ave		1.5999			0.1000	2.4		20.0			
1,1,2,2-Tetrachloroethane	0.7561 0.8073	0.8321 0.7913	0.8175	0.7659	0.8099	Ave		0.7972			0.3000	3.5		20.0			
Bromobenzene	0.8153 0.7490	0.7267 0.7427	0.7731	0.7237	0.7577	Ave		0.7555				4.2		20.0			
1,2,3-Trichloropropane	0.3160 0.2796	0.2566 0.2769	0.2966	0.2651	0.2852	Ave		0.2823				7.0		20.0			
trans-1,4-Dichloro-2-butene	0.2699 0.2473	0.2213 0.2516	0.2435	0.2261	0.2517	Ave		0.2445				6.7		20.0			
N-Propylbenzene	0.7798 0.8210	0.7523 0.8202	0.8514	0.7731	0.8029	Ave		0.8001				4.2		20.0			
2-Chlorotoluene	0.6509 0.6957	0.7125 0.6833	0.7132	0.6770	0.6858	Ave		0.6883				3.1		20.0			
1,3,5-Trimethylbenzene	2.0585 2.3418	2.1282 2.3386	2.4321	2.2627	2.2905	Ave		2.2646				5.7		20.0			
4-Chlorotoluene	0.7199 0.7173	0.7260 0.7141	0.7528	0.6936	0.7171	Ave		0.7201				2.4		20.0			
tert-Butylbenzene	2.0893 2.2086	2.2305 2.1805	2.3049	2.0958	2.1272	Ave		2.1767				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.3016 2.3641	2.3139 2.3974	2.4350	2.3225	2.3165	Ave		2.3501				2.1		20.0			
sec-Butylbenzene	2.8312 3.0965	2.8639 3.1341	3.2011	2.9684	2.9595	Ave		3.0078				4.6		20.0			
1,3-Dichlorobenzene	1.6206 1.4203	1.5501 1.4165	1.4543	1.3821	1.4074	Ave		1.4645			0.6000	6.0		20.0			
4-Isopropyltoluene	2.3868 2.6740	2.3755 2.7456	2.7383	2.5786	2.5586	Ave		2.5796				5.9		20.0			
1,4-Dichlorobenzene	1.7882 1.4335	1.6574 1.4328	1.4853	1.4002	1.4320	Ave		1.5185			0.5000	9.7		20.0			
n-Butylbenzene	2.0220 2.3242	2.1252 2.3914	2.3447	2.2111	2.1782	Ave		2.2281				5.9		20.0			
1,2-Dichlorobenzene	1.3936 1.3079	1.4283 1.3217	1.3446	1.2913	1.2861	Ave		1.3391			0.4000	4.0		20.0			
1,2-Dibromo-3-Chloropropane	0.2394 0.2501	0.2225 0.2556	0.2287	0.2293	0.2369	Ave		0.2375			0.0500	5.0		20.0			
1,2,4-Trichlorobenzene	1.0063 0.8577	1.0084 0.9508	0.8893	0.8765	0.8484	Ave		0.9196			0.2000	7.4		20.0			
Hexachlorobutadiene	0.4988 0.4431	0.5134 0.5128	0.4874	0.4604	0.4444	Ave		0.4800				6.4		20.0			
Naphthalene	2.5280 2.5374	2.6896 2.7560	2.5594	2.5256	2.5586	Ave		2.5935				3.5		20.0			
1,2,3-Trichlorobenzene	0.8270 0.7867	0.8451 0.9084	0.8355	0.8114	0.8072	Ave		0.8316				4.7		20.0			
Dibromofluoromethane (Surr)	0.2924 0.2586	0.2650 0.2453	0.2515	0.2531	0.2466	Ave		0.2589				6.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3213 0.2669	0.3001 0.2485	0.2625	0.2659	0.2555	Ave		0.2744				9.6		20.0			
Toluene-d8 (Surr)	1.2522 1.2151	1.2033 1.2031	1.2111	1.1433	1.2004	Ave		1.2041				2.7		20.0			
4-Bromofluorobenzene (Surr)	0.5696 0.4390	0.4918 0.4279	0.4472	0.4315	0.4318	Ave		0.4627				11.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	6894 1134505	14647 1522047	151920	328230	708511	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	8217 955231	16570 1245553	155433	315290	632033	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	7871 989374	15313 1318121	137925	301883	631099	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	6342 993940	15847 1317064	148293	312915	644632	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	6350 660888	12818 848050	114577	229239	441425	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	4872 563348	9377 723733	93395	188891	372825	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	12059 1312016	21989 1706469	215631	439391	879608	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	10381 1337225	20928 1728039	187339	415720	861954	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	5066 580370	9442 738330	90620	180269	370565	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	6772 800130	11339 1043418	106196	227879	531628	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	8796 1128785	17119 1458107	185910	347690	716665	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	6009 793296	12789 1047375	134365	247358	505930	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 459712	7064 501797	52355	107763	237768	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	10728 1363038	21574 1772860	228493	440198	903919	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	23708 2317545	43688 3006958	387941	728690	1496184	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	9784 1159498	18985 1500878	184068	355801	747474	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	13362 1400331	19667 1633788	197122	391356	828794	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 872855	15117 1113978	144386	279726	566982	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	+++++ 798354	12788 +++++	110777	215092	411966	+++++ 600	10.0 +++++	100	200	400
Acrylonitrile	FB	Ave	26540 3368428	41875 3868018	448754	915892	1977138	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	9868 1061569	17800 1369327	175373	329454	684359	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	15911 2063462	32315 2537900	335243	654948	1350698	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	9277 1210166	18280 1614587	208123	356826	765779	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	9924 1313347	19272 1701003	213583	413734	860929	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	9654 1234805	16923 1593713	187841	357825	770166	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7528 896669	14795 1142993	143871	281663	582599	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	+++++ 241145	3193 297238	34072	66486	153177	+++++ 120	2.00 160	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	6159 704769	12773 1027916	134434	247316	481767	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5651 587580	9868 714392	89489	180080	369472	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	4596 618274	9301 734202	86462	169823	372381	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10692 1353439	21458 1728769	213657	422069	869181	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9137 1224716	17835 1621508	206006	378348	801860	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	9806 1279473	19597 1675220	214696	386296	815868	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8674 1102013	17455 1441115	182947	334178	708682	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	8406 1167256	17198 1528972	187898	345961	731238	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5482 758926	7910 849021	105355	183028	449380	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	22844 3064496	48419 3923346	494183	930203	2003056	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8485 954899	15873 1220640	152677	289097	617748	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 660181	35642 884598	135257	216048	434651	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	7211 928718	14571 1225880	155201	285190	608912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	11515 1566351	22689 2029926	256970	461990	972024	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4734 704987	10704 908144	110015	210992	465852	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	5496 630606	9635 784539	95707	196594	412829	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 142512	1478 187742	23290	43840	91591	+++++ 1200	20.0 1600	200	400	800
Dichlorobromomethane	FB	Ave	7466 999127	13539 1286301	152581	290639	649042	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	7395 1029389	14128 1392220	171233	315645	695808	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8313 1135535	17042 1511629	175580	347181	757793	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	13091 1889071	26811 2377711	308673	554613	1213622	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	28549 3229981	51989 4260144	544060	985962	2123092	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	8702 1082760	16254 1391341	172822	315763	710372	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	7650 1060082	14391 1361372	166277	305349	700245	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4656 666583	9825 859718	109350	202390	444369	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7470 994717	14983 1297004	166266	300622	637692	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8871 1126088	17817 1458618	188817	344194	743433	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	10457 1409861	19416 1795814	235229	411400	916606	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5763 813124	11860 1038431	125585	237418	523153	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	6061 733594	11944 938884	121691	223763	483377	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	18258 2173534	36126 2784427	362449	672294	1428038	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5213 798193	11650 1003714	126948	245845	510579	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	8398 1207976	18517 1565528	197845	371072	780525	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11276 1482266	21784 1910562	245222	455770	952249	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10860 1435324	20892 1811249	240986	446659	911893	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17512 2428268	33956 3100442	391122	733164	1558780	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 655265	8645 849153	100560	190577	416502	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	28418 3795594	55210 4856288	636049	1178300	2424662	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	8105 1065677	17817 1352703	173948	331847	686661	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8740 988831	15559 1269533	164497	313555	642419	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3387 369092	5494 473318	63108	114884	241838	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2893 326498	4738 430124	51819	97955	213375	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8359 1083875	16107 1402046	181166	334963	680756	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6977 918378	15255 1168008	151745	293354	581507	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	22067 3091430	45567 3997648	517511	980405	1942019	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7717 946982	15545 1220622	160173	300515	607997	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	22397 2915643	47758 3727392	490442	908078	1803602	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	24672 3120829	49545 4098181	518127	1006317	1964040	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	30350 4087764	61320 5357379	681132	1286147	2509293	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	17372 1874897	33191 2421314	309437	598840	1193296	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25586 3530033	50862 4693383	582655	1117286	2169356	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	19169 1892443	35488 2449293	316046	606688	1214157	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	21675 3068191	45503 4087812	498908	958018	1846843	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	14939 1726550	30581 2259323	286113	559506	1090448	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2566 330105	4764 436864	48670	99335	200822	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	10787 1132196	21592 1625332	189226	379757	719342	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	5347 584967	10992 876579	103707	199490	376786	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	27099 3349616	57589 4711177	544587	1094286	2169342	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	8865 1038523	18094 1552764	177768	351575	684438	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	6754 758227	11849 957680	119809	235239	483501	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	7422 782592	13421 970142	125069	247201	501017	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	22890 2798059	42636 3614422	467380	849081	1834190	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	10413 1010844	17427 1285631	172585	320453	659738	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
n-Heptane	+++++	1.1						50				

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900783.d
Lims ID: std8260 L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Jul-2018 17:50:49 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078277-002
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 10:13:29 Calib Date: 24-Jul-2018 20:04:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 09:42:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	94	975875	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	80	751089	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	65	427349	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.037	5.049	-0.012	62	957680	80.0	75.8	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.357	-0.012	90	970142	80.0	72.5	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	-0.001	92	3614422	80.0	79.9	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	92	1285631	80.0	74.0	
9 Dichlorodifluoromethane	85	1.610	1.622	-0.012	88	1522047	80.0	89.6	
10 Chloromethane	50	1.811	1.823	-0.012	81	1245553	80.0	75.7	
12 Butadiene	54	1.894	1.906	-0.012	88	1318121	80.0	82.4	
11 Vinyl chloride	62	1.918	1.930	-0.012	82	1317064	80.0	82.8	
13 Bromomethane	94	2.203	2.227	-0.024	90	848050	80.0	70.9	
14 Chloroethane	64	2.286	2.310	-0.024	86	723733	80.0	74.8	
15 Dichlorofluoromethane	67	2.487	2.511	-0.024	83	1706469	80.0	74.8	
16 Trichlorofluoromethane	101	2.559	2.582	-0.023	88	1728039	80.0	80.1	
17 Ethyl ether	59	2.796	2.820	-0.024	91	738330	80.0	76.2	
18 Acrolein	56	2.914	2.938	-0.024	93	1043418	400.0	409.9	
21 1,1-Dichloroethene	61	3.021	3.033	-0.012	90	1458107	80.0	78.9	
20 1,1,2-Trichloro-1,2,2-trif	101	3.045	3.057	-0.012	83	1047375	80.0	79.5	
22 Acetone	43	3.068	3.080	-0.012	74	501797	160.0	156.1	
23 Iodomethane	142	3.175	3.199	-0.024	98	1772860	80.0	77.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.246	3.258	-0.012	98	3006958	80.0	72.8	
26 3-Chloro-1-propene	41	3.353	3.365	-0.012	83	1500878	80.0	77.5	
27 Methyl acetate	43	3.377	3.389	-0.012	97	1633788	160.0	147.8	
28 Methylene Chloride	49	3.472	3.484	-0.012	54	1113978	80.0	75.5	
29 2-Methyl-2-propanol	59	3.578	3.579	0.000	76	741744	800.0	616.8	
30 Acrylonitrile	53	3.685	3.697	-0.012	97	3868018	800.0	774.9	
32 trans-1,2-Dichloroethene	61	3.721	3.733	-0.012	80	1369327	80.0	75.3	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	69	2537900	80.0	74.9	
33 Hexane	57	3.970	3.982	-0.012	91	1614587	80.0	81.3	
34 1,1-Dichloroethane	63	4.100	4.112	-0.012	85	1701003	80.0	79.3	
35 Vinyl acetate	43	4.136	4.148	-0.012	97	1593713	80.0	81.7	
41 2-Butanone (MEK)	72	4.622	4.634	-0.012	64	297238	160.0	162.1	
39 2,2-Dichloropropane	77	4.622	4.634	-0.012	58	1027916	80.0	79.7	
40 cis-1,2-Dichloroethene	96	4.622	4.634	-0.012	68	1142993	80.0	76.0	
45 Chlorobromomethane	49	4.835	4.836	-0.001	71	714392	80.0	72.2	
46 Tetrahydrofuran	42	4.883	4.883	0.000	83	734202	160.0	154.9	
47 Chloroform	83	4.895	4.907	-0.012	68	1728769	80.0	77.7	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	89	1621508	80.0	80.9	
49 Cyclohexane	84	5.132	5.144	-0.012	87	1675220	80.0	79.8	
50 1,1-Dichloropropene	75	5.215	5.227	-0.012	92	1441115	80.0	79.0	
51 Carbon tetrachloride	117	5.227	5.239	-0.012	69	1528972	80.0	81.9	
52 Isobutyl alcohol	41	5.298	5.298	0.000	84	849021	2000.0	1980.1	
53 Benzene	78	5.405	5.417	-0.012	94	3923346	80.0	78.4	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	43	1220640	80.0	75.9	
56 n-Heptane	57	5.630	5.642	-0.012	91	884598	80.0	81.7	
58 Trichloroethene	130	5.986	5.986	0.000	90	1225880	80.0	79.5	
60 Methylcyclohexane	83	6.164	6.176	-0.012	90	2029926	80.0	81.1	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	88	908144	80.0	80.8	
63 Dibromomethane	174	6.294	6.294	0.000	85	784539	80.0	75.4	
64 1,4-Dioxane	88	6.294	6.306	-0.012	33	187742	1600.0	1694.3	
65 Dichlorobromomethane	83	6.424	6.436	-0.012	94	1286301	80.0	81.6	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	91	1392220	160.0	166.6	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	93	1511629	80.0	82.0	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	89	2377711	160.0	159.3	
70 Toluene	91	7.160	7.172	-0.012	94	4260144	80.0	79.6	
71 trans-1,3-Dichloropropene	75	7.349	7.361	-0.012	82	1391341	80.0	80.9	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	88	1361372	80.0	83.5	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	67	859718	80.0	82.0	
75 Tetrachloroethene	166	7.693	7.693	0.000	91	1297004	80.0	82.0	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	87	1458618	80.0	79.9	
77 2-Hexanone	43	7.764	7.765	-0.001	79	1795814	160.0	163.5	
79 Chlorodibromomethane	129	7.919	7.931	-0.012	88	1038431	80.0	82.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.037	8.049	-0.012	97	938884	80.0	78.4	
82 Chlorobenzene	112	8.523	8.524	-0.001	96	2784427	80.0	77.8	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	79	1003714	80.0	81.7	
84 Ethylbenzene	106	8.630	8.630	0.000	97	1565528	80.0	82.2	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	1910562	80.0	81.2	
87 Styrene	104	9.152	9.152	0.000	90	3100442	80.0	82.3	
86 o-Xylene	106	9.140	9.152	-0.012	93	1811249	80.0	79.8	
88 Bromoform	173	9.354	9.354	0.000	99	849153	80.0	84.7	
89 Isopropylbenzene	105	9.520	9.520	0.000	95	4856288	80.0	80.8	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	83	1352703	80.0	79.4	
92 Bromobenzene	156	9.840	9.840	0.000	80	1269533	80.0	78.6	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	68	473318	80.0	78.5	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	52	430124	80.0	82.3	
95 N-Propylbenzene	120	9.946	9.947	-0.001	91	1402046	80.0	82.0	
96 2-Chlorotoluene	126	10.041	10.041	0.000	96	1168008	80.0	79.4	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	3997648	80.0	82.6	
98 4-Chlorotoluene	126	10.148	10.148	0.000	97	1220622	80.0	79.3	
99 tert-Butylbenzene	119	10.468	10.468	0.000	77	3727392	80.0	80.1	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	70	4098181	80.0	81.6	
102 sec-Butylbenzene	105	10.694	10.694	0.000	94	5357379	80.0	83.4	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	96	2421314	80.0	77.4	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	4693383	80.0	85.1	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	95	2449293	80.0	75.5	
108 n-Butylbenzene	91	11.275	11.275	0.000	97	4087812	80.0	85.9	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	98	2259323	80.0	79.0	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	94	436864	80.0	86.1	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	92	1625332	80.0	82.7	
113 Hexachlorobutadiene	225	13.208	13.196	0.012	86	876579	80.0	85.5	
114 Naphthalene	128	13.279	13.279	0.000	96	4711177	80.0	85.0	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	94	1552764	80.0	87.4	
S 164 Total BTEX	1				0		400.0	401.2	
S 127 Trihalomethanes, Total	1				0		320.0	326.9	
S 124 1,2-Dichloroethene, Total	96				0			151.3	
S 125 1,3-Dichloropropene, Total	75				0			162.9	
S 126 Xylenes, Total	106				0		160.0	161.0	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00255	Amount Added:	64.00	Units: uL
vmarolistdw_00256	Amount Added:	64.00	Units: uL
vmrprimw_00292	Amount Added:	64.00	Units: uL
vm50ss_00329	Amount Added:	64.00	Units: uL

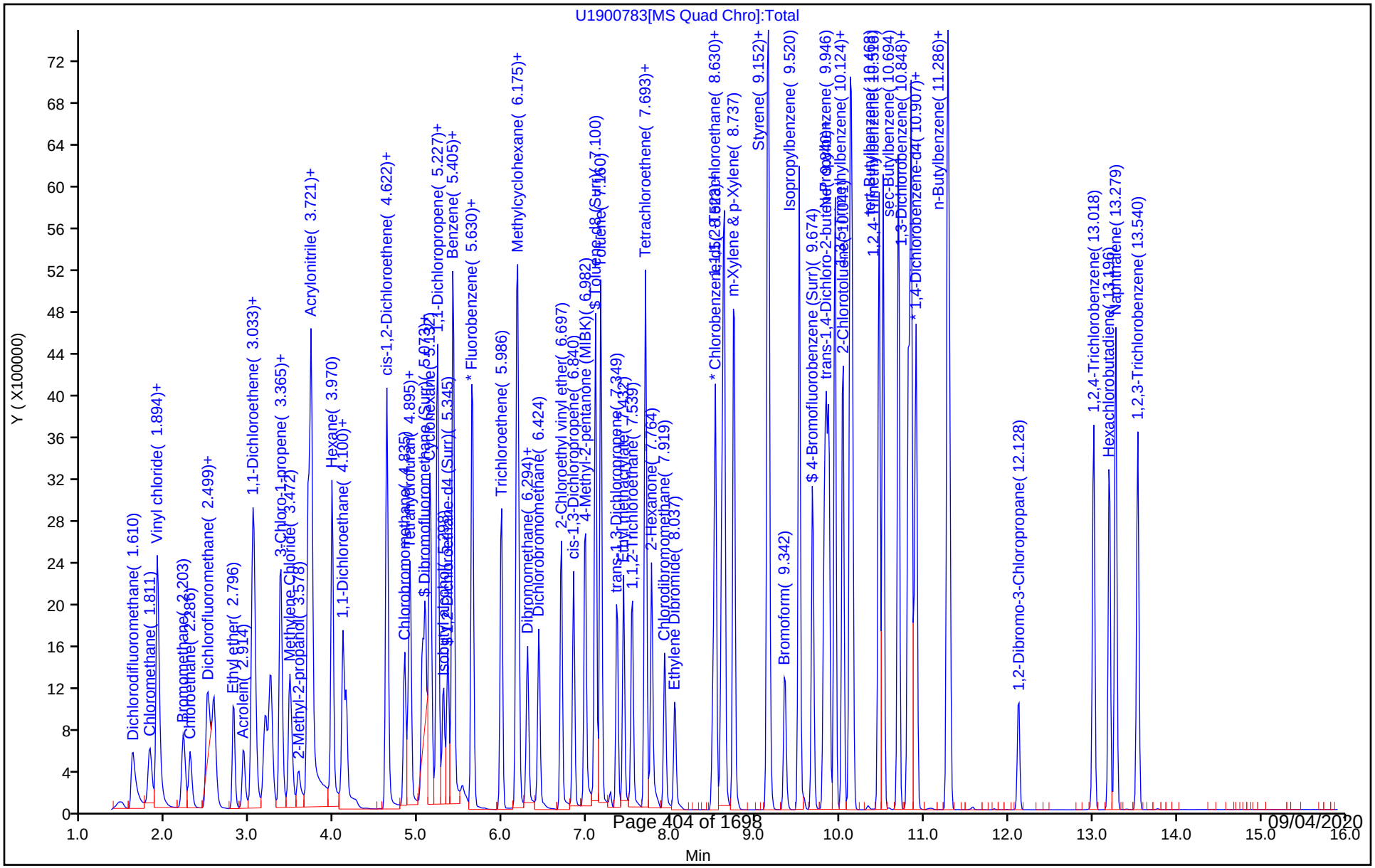
Report Date: 25-Jul-2018 10:13:31 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900783.d

Injection Date:	24-Jul-2018 17:50:49	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L7			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900784.d
Lims ID: std8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Jul-2018 18:13:04 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078277-003
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 10:13:35 Calib Date: 24-Jul-2018 20:04:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 09:44:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	92	977352	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	767566	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.884	10.883	0.001	73	440038	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	63	758227	60.0	59.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.357	0.000	98	782592	60.0	58.4	
$ 6 Toluene-d8 (Surr)	98	7.101	7.101	0.000	89	2798059	60.0	60.6	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	92	1010844	60.0	56.9	
9 Dichlorodifluoromethane	85	1.622	1.622	0.000	87	1134505	60.0	66.7	
10 Chloromethane	50	1.824	1.823	0.001	78	955231	60.0	58.0	
12 Butadiene	54	1.907	1.906	0.000	88	989374	60.0	61.8	
11 Vinyl chloride	62	1.930	1.930	0.000	82	993940	60.0	62.4	
13 Bromomethane	94	2.227	2.227	0.000	91	660888	60.0	55.2	
14 Chloroethane	64	2.310	2.310	0.000	87	563348	60.0	58.2	
15 Dichlorofluoromethane	67	2.511	2.511	0.000	83	1312016	60.0	57.4	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	87	1337225	60.0	61.9	
17 Ethyl ether	59	2.808	2.820	-0.012	90	580370	60.0	59.8	
18 Acrolein	56	2.926	2.938	-0.012	96	800130	300.0	313.8	
21 1,1-Dichloroethene	61	3.045	3.033	0.012	89	1128785	60.0	61.0	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	74	793296	60.0	60.1	
22 Acetone	43	3.081	3.080	0.001	88	459712	120.0	142.8	
23 Iodomethane	142	3.199	3.199	0.000	97	1363038	60.0	59.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	98	2317545	60.0	56.0	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	79	1159498	60.0	59.8	
27 Methyl acetate	43	3.389	3.389	0.000	96	1400331	120.0	126.5	
28 Methylene Chloride	49	3.484	3.484	0.000	51	872855	60.0	59.1	
29 2-Methyl-2-propanol	59	3.579	3.579	0.001	88	798354	600.0	662.9	
30 Acrylonitrile	53	3.697	3.697	0.000	99	3368428	600.0	673.8	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	47	2063462	60.0	60.8	
32 trans-1,2-Dichloroethene	61	3.733	3.733	0.000	71	1061569	60.0	58.3	
33 Hexane	57	3.982	3.982	0.000	89	1210166	60.0	60.9	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	84	1313347	60.0	61.1	
35 Vinyl acetate	43	4.148	4.148	0.000	97	1234805	60.0	63.2	
40 cis-1,2-Dichloroethene	96	4.634	4.634	0.000	67	896669	60.0	59.5	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	59	704769	60.0	54.6	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	79	241145	120.0	131.3	
45 Chlorobromomethane	49	4.836	4.836	0.000	75	587580	60.0	59.3	
46 Tetrahydrofuran	42	4.883	4.883	0.000	87	618274	120.0	130.2	
47 Chloroform	83	4.907	4.907	0.000	70	1353439	60.0	60.7	
48 1,1,1-Trichloroethane	97	5.085	5.085	0.000	81	1224716	60.0	61.0	
49 Cyclohexane	84	5.144	5.144	0.000	85	1279473	60.0	60.9	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	91	1102013	60.0	60.3	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	1167256	60.0	62.4	
52 Isobutyl alcohol	41	5.298	5.298	0.000	83	758926	1500.0	1767.3	
54 1,2-Dichloroethane	62	5.417	5.417	0.000	46	954899	60.0	59.3	
53 Benzene	78	5.417	5.417	0.000	94	3064496	60.0	61.1	
56 n-Heptane	57	5.642	5.642	0.000	89	660181	60.0	60.2	
58 Trichloroethene	130	5.986	5.986	0.000	92	928718	60.0	60.1	
60 Methylcyclohexane	83	6.176	6.176	0.000	89	1566351	60.0	62.5	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	86	704987	60.0	62.6	
63 Dibromomethane	174	6.294	6.294	0.000	88	630606	60.0	60.5	
64 1,4-Dioxane	88	6.306	6.306	0.000	34	142512	1200.0	1284.2	
65 Dichlorobromomethane	83	6.437	6.436	0.000	93	999127	60.0	63.3	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	86	1029389	120.0	123.0	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	95	1135535	60.0	61.5	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	93	1889071	120.0	126.4	
70 Toluene	91	7.172	7.172	0.000	94	3229981	60.0	59.1	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	80	1082760	60.0	61.6	
72 Ethyl methacrylate	69	7.433	7.433	0.000	87	1060082	60.0	63.6	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	73	666583	60.0	62.2	
75 Tetrachloroethene	166	7.694	7.693	0.001	92	994717	60.0	61.5	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	87	1126088	60.0	60.4	
77 2-Hexanone	43	7.765	7.765	0.000	79	1409861	120.0	125.6	
79 Chlorodibromomethane	129	7.919	7.931	-0.012	88	813124	60.0	63.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	99	733594	60.0	59.9	
82 Chlorobenzene	112	8.524	8.524	0.000	96	2173534	60.0	59.5	
83 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	85	798193	60.0	63.6	
84 Ethylbenzene	106	8.630	8.630	0.000	97	1207976	60.0	62.1	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	1482266	60.0	61.7	
86 o-Xylene	106	9.140	9.152	-0.012	93	1435324	60.0	61.9	
87 Styrene	104	9.152	9.152	0.000	90	2428268	60.0	63.1	
88 Bromoform	173	9.354	9.354	0.000	99	655265	60.0	64.0	
89 Isopropylbenzene	105	9.520	9.520	0.000	95	3795594	60.0	61.8	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	83	1065677	60.0	60.8	
92 Bromobenzene	156	9.840	9.840	0.000	80	988831	60.0	59.5	
93 1,2,3-Trichloropropane	110	9.864	9.864	0.000	67	369092	60.0	59.4	
94 trans-1,4-Dichloro-2-buten	53	9.876	9.875	0.001	52	326498	60.0	60.7	
95 N-Propylbenzene	120	9.947	9.947	0.000	95	1083875	60.0	61.6	
96 2-Chlorotoluene	126	10.042	10.041	0.001	96	918378	60.0	60.6	
97 1,3,5-Trimethylbenzene	105	10.125	10.124	0.001	93	3091430	60.0	62.0	
98 4-Chlorotoluene	126	10.148	10.148	0.000	97	946982	60.0	59.8	
99 tert-Butylbenzene	119	10.468	10.468	0.000	76	2915643	60.0	60.9	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	70	3120829	60.0	60.4	
102 sec-Butylbenzene	105	10.694	10.694	0.000	93	4087764	60.0	61.8	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	90	1874897	60.0	58.2	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	3530033	60.0	62.2	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	94	1892443	60.0	56.6	
108 n-Butylbenzene	91	11.275	11.275	0.000	97	3068191	60.0	62.6	
109 1,2-Dichlorobenzene	146	11.299	11.298	0.001	98	1726550	60.0	58.6	
110 1,2-Dibromo-3-Chloropropan	157	12.129	12.129	0.000	94	330105	60.0	63.2	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	92	1132196	60.0	56.0	
113 Hexachlorobutadiene	225	13.196	13.196	0.000	92	584967	60.0	55.4	
114 Naphthalene	128	13.279	13.279	0.000	96	3349616	60.0	58.7	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	94	1038523	60.0	56.8	
S 127 Trihalomethanes, Total	1				0		240.0	251.5	
S 164 Total BTEX	1				0		300.0	305.8	
S 124 1,2-Dichloroethene, Total	96				0			117.8	
S 125 1,3-Dichloropropene, Total	75				0			123.1	
S 126 Xylenes, Total	106				0		120.0	123.5	

Reagents:

vmarolistdw_00256	Amount Added:	48.00	Units: uL
vmrgas_00255	Amount Added:	48.00	Units: uL
vmrprimw_00292	Amount Added:	48.00	Units: uL
vm50ss_00329	Amount Added:	48.00	Units: uL
vm50is_stk_A_00001	Amount Added:	2.00	Units: uL

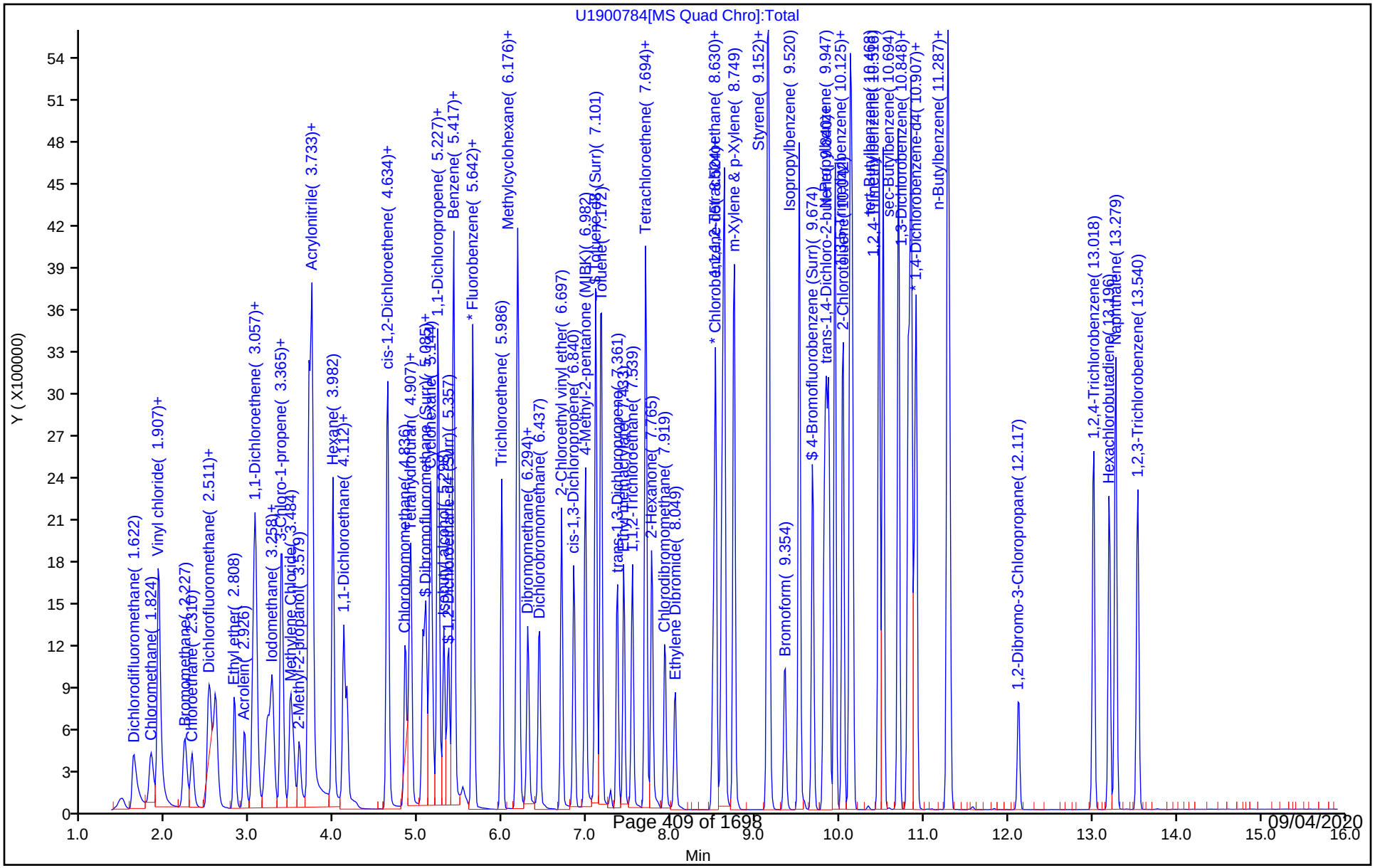
Report Date: 25-Jul-2018 10:13:37 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900784.d

Injection Date:	24-Jul-2018 18:13:04	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L6			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900790.d
Lims ID: std8260 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Jul-2018 18:35:32 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078277-009
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 10:13:42 Calib Date: 24-Jul-2018 20:04:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 09:45:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	95	980424	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	764018	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	76	423933	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	60	483501	40.0	38.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.357	-0.012	99	501017	40.0	37.2	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	-0.001	92	1834190	40.0	39.9	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	91	659738	40.0	37.3	
9 Dichlorodifluoromethane	85	1.610	1.622	-0.012	88	708511	40.0	41.5	
10 Chloromethane	50	1.811	1.823	-0.012	78	632033	40.0	38.3	
12 Butadiene	54	1.894	1.906	-0.012	87	631099	40.0	39.3	
11 Vinyl chloride	62	1.918	1.930	-0.012	83	644632	40.0	40.3	
13 Bromomethane	94	2.215	2.227	-0.012	90	441425	40.0	36.7	
14 Chloroethane	64	2.298	2.310	-0.012	86	372825	40.0	38.4	
15 Dichlorofluoromethane	67	2.499	2.511	-0.012	83	879608	40.0	38.4	
16 Trichlorofluoromethane	101	2.570	2.582	-0.012	87	861954	40.0	39.8	
17 Ethyl ether	59	2.808	2.820	-0.012	88	370565	40.0	38.0	
18 Acrolein	56	2.926	2.938	-0.012	92	531628	200.0	207.9	
21 1,1-Dichloroethene	61	3.033	3.033	0.000	89	716665	40.0	38.6	
20 1,1,2-Trichloro-1,2,2-trif	101	3.045	3.057	-0.012	76	505930	40.0	38.2	
22 Acetone	43	3.068	3.080	-0.012	63	237768	80.0	73.6	
23 Iodomethane	142	3.187	3.199	-0.012	96	903919	40.0	39.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.246	3.258	-0.012	98	1496184	40.0	36.1	
26 3-Chloro-1-propene	41	3.353	3.365	-0.012	81	747474	40.0	38.4	
27 Methyl acetate	43	3.377	3.389	-0.012	96	828794	80.0	74.6	
28 Methylene Chloride	49	3.472	3.484	-0.012	53	566982	40.0	38.3	
29 2-Methyl-2-propanol	59	3.578	3.579	0.000	9	411966	400.0	341.0	
30 Acrylonitrile	53	3.697	3.697	0.000	99	1977138	400.0	394.3	
32 trans-1,2-Dichloroethene	61	3.721	3.733	-0.012	78	684359	40.0	37.4	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	88	1350698	40.0	39.7	
33 Hexane	57	3.982	3.982	0.000	90	765779	40.0	38.4	
34 1,1-Dichloroethane	63	4.100	4.112	-0.012	85	860929	40.0	40.0	
35 Vinyl acetate	43	4.148	4.148	0.000	96	770166	40.0	39.3	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	74	153177	80.0	83.1	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	64	481767	40.0	37.2	
40 cis-1,2-Dichloroethene	96	4.622	4.634	-0.012	62	582599	40.0	38.6	
45 Chlorobromomethane	49	4.835	4.836	-0.001	89	369472	40.0	37.2	
46 Tetrahydrofuran	42	4.883	4.883	0.000	87	372381	80.0	78.2	
47 Chloroform	83	4.907	4.907	0.000	70	869181	40.0	38.9	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	89	801860	40.0	39.8	
49 Cyclohexane	84	5.144	5.144	0.000	75	815868	40.0	38.7	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	90	708682	40.0	38.7	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	731238	40.0	39.0	
52 Isobutyl alcohol	41	5.298	5.298	0.000	70	449380	1000.0	1043.2	
53 Benzene	78	5.405	5.417	-0.012	93	2003056	40.0	39.8	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	47	617748	40.0	38.2	
56 n-Heptane	57	5.642	5.642	0.000	86	434651	40.0	38.6	
58 Trichloroethene	130	5.986	5.986	0.000	92	608912	40.0	39.3	
60 Methylcyclohexane	83	6.175	6.176	-0.001	90	972024	40.0	38.6	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	86	465852	40.0	41.2	
63 Dibromomethane	174	6.294	6.294	0.000	90	412829	40.0	39.5	
64 1,4-Dioxane	88	6.306	6.306	0.000	32	91591	800.0	822.7	
65 Dichlorobromomethane	83	6.424	6.436	-0.012	94	649042	40.0	41.0	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	86	695808	80.0	82.9	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	93	757793	40.0	40.9	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	92	1213622	80.0	80.9	
70 Toluene	91	7.160	7.172	-0.012	94	2123092	40.0	39.0	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	80	710372	40.0	40.6	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	87	700245	40.0	42.2	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	73	444369	40.0	41.7	
75 Tetrachloroethene	166	7.693	7.693	0.000	91	637692	40.0	39.6	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	87	743433	40.0	40.0	
77 2-Hexanone	43	7.764	7.765	-0.001	79	916606	80.0	82.1	
79 Chlorodibromomethane	129	7.919	7.931	-0.012	88	523153	40.0	41.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	99	483377	40.0	39.7	
82 Chlorobenzene	112	8.523	8.524	-0.001	96	1428038	40.0	39.2	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	85	510579	40.0	40.9	
84 Ethylbenzene	106	8.630	8.630	0.000	98	780525	40.0	40.3	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	952249	40.0	39.8	
87 Styrene	104	9.152	9.152	0.000	89	1558780	40.0	40.7	
86 o-Xylene	106	9.152	9.152	0.000	86	911893	40.0	39.5	
88 Bromoform	173	9.354	9.354	0.000	99	416502	40.0	40.9	
89 Isopropylbenzene	105	9.520	9.520	0.000	95	2424662	40.0	39.7	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	87	686661	40.0	40.6	
92 Bromobenzene	156	9.840	9.840	0.000	87	642419	40.0	40.1	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	68	241838	40.0	40.4	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	59	213375	40.0	41.2	
95 N-Propylbenzene	120	9.946	9.947	-0.001	95	680756	40.0	40.1	
96 2-Chlorotoluene	126	10.041	10.041	0.000	96	581507	40.0	39.9	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	1942019	40.0	40.5	
98 4-Chlorotoluene	126	10.148	10.148	0.000	97	607997	40.0	39.8	
99 tert-Butylbenzene	119	10.468	10.468	0.000	77	1803602	40.0	39.1	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	70	1964040	40.0	39.4	
102 sec-Butylbenzene	105	10.694	10.694	0.000	94	2509293	40.0	39.4	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	89	1193296	40.0	38.4	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	2169356	40.0	39.7	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	94	1214157	40.0	37.7	
108 n-Butylbenzene	91	11.275	11.275	0.000	97	1846843	40.0	39.1	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	98	1090448	40.0	38.4	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	93	200822	40.0	39.9	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	92	719342	40.0	36.9	
113 Hexachlorobutadiene	225	13.208	13.196	0.012	86	376786	40.0	37.0	
114 Naphthalene	128	13.279	13.279	0.000	96	2169342	40.0	39.5	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	94	684438	40.0	38.8	
S 164 Total BTEX	1				0		200.0	198.4	
S 127 Trihalomethanes, Total	1				0		160.0	161.8	
S 124 1,2-Dichloroethene, Total	96				0			76.0	
S 125 1,3-Dichloropropene, Total	75				0			81.5	
S 126 Xylenes, Total	106				0		80.0	79.3	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00255	Amount Added:	32.00	Units: uL
vmarolistdw_00256	Amount Added:	32.00	Units: uL
vmrprimw_00292	Amount Added:	32.00	Units: uL
vm50ss_00329	Amount Added:	32.00	Units: uL

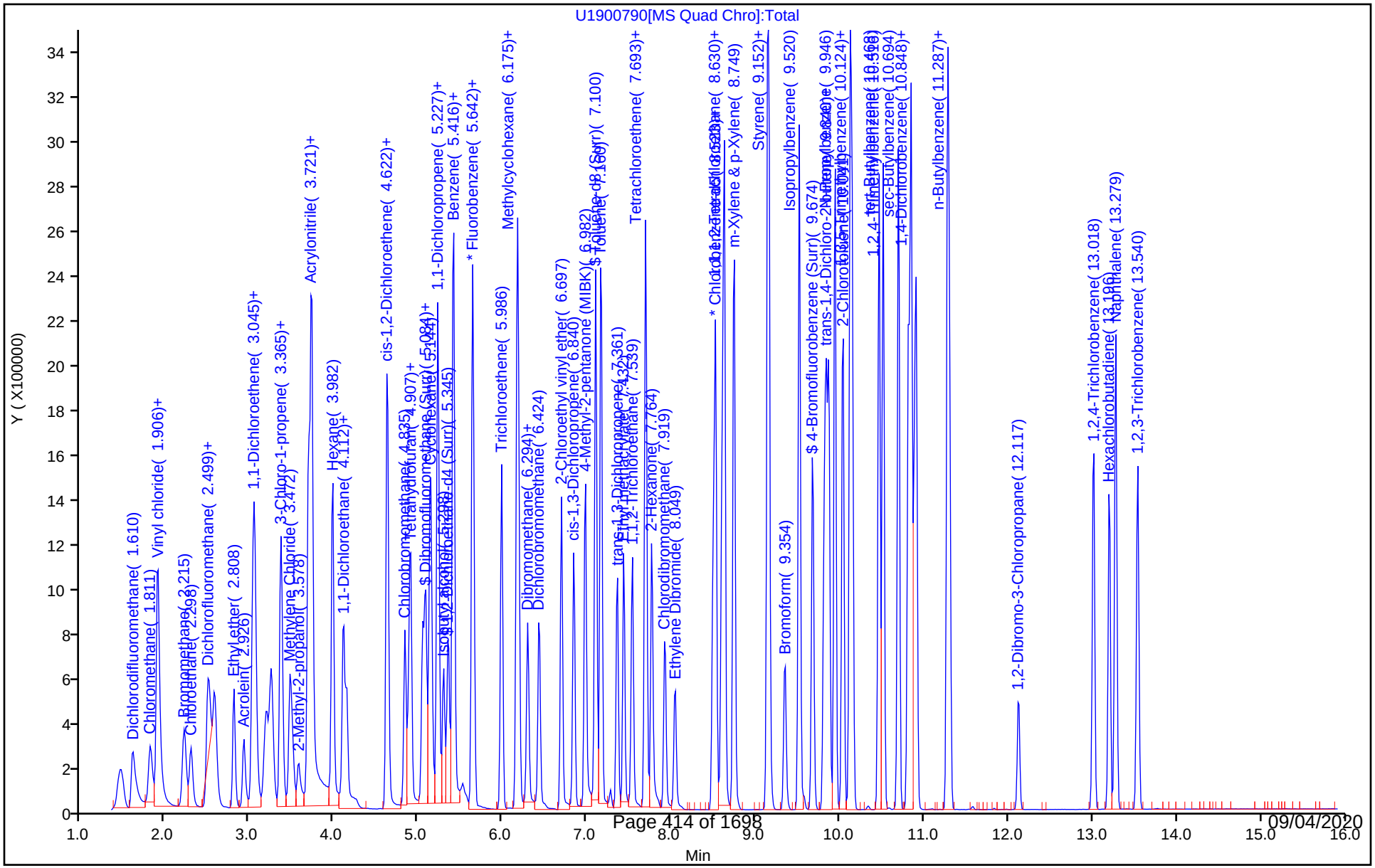
Report Date: 25-Jul-2018 10:13:44 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900790.d

Injection Date:	24-Jul-2018 18:35:32	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L5			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900791.d
Lims ID: ICIS L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 24-Jul-2018 18:57:47 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078277-010
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 10:13:48 Calib Date: 24-Jul-2018 20:04:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 09:47:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	96	929533	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	84	742668	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	89	433286	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	59	235239	20.0	19.5	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.357	0.000	98	247201	20.0	19.4	
$ 6 Toluene-d8 (Surr)	98	7.101	7.101	0.000	84	849081	20.0	19.0	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	91	320453	20.0	18.7	
9 Dichlorodifluoromethane	85	1.622	1.622	0.000	87	328230	20.0	20.3	
10 Chloromethane	50	1.823	1.823	0.000	89	315290	20.0	20.1	
12 Butadiene	54	1.906	1.906	0.000	86	301883	20.0	19.8	
11 Vinyl chloride	62	1.930	1.930	0.000	74	312915	20.0	20.7	
13 Bromomethane	94	2.227	2.227	0.000	90	229239	20.0	20.1	
14 Chloroethane	64	2.310	2.310	0.000	94	188891	20.0	20.5	
15 Dichlorofluoromethane	67	2.511	2.511	0.000	83	439391	20.0	20.2	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	86	415720	20.0	20.2	
17 Ethyl ether	59	2.820	2.820	0.000	89	180269	20.0	19.5	
18 Acrolein	56	2.938	2.938	0.000	95	227879	100.0	94.0	
21 1,1-Dichloroethene	61	3.033	3.033	0.000	90	347690	20.0	19.7	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	83	247358	20.0	19.7	
22 Acetone	43	3.080	3.080	0.000	74	107763	40.0	35.2	
23 Iodomethane	142	3.199	3.199	0.000	98	440198	20.0	20.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	98	728690	20.0	18.5	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	82	355801	20.0	19.3	
27 Methyl acetate	43	3.389	3.389	0.000	96	391356	40.0	37.2	
28 Methylene Chloride	49	3.484	3.484	0.000	51	279726	20.0	19.9	
29 2-Methyl-2-propanol	59	3.579	3.579	0.000	7	215092	200.0	187.8	
30 Acrylonitrile	53	3.697	3.697	0.000	99	915892	200.0	192.6	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	88	654948	20.0	20.3	
32 trans-1,2-Dichloroethene	61	3.733	3.733	0.000	72	329454	20.0	19.0	
33 Hexane	57	3.982	3.982	0.000	91	356826	20.0	18.9	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	85	413734	20.0	20.3	
35 Vinyl acetate	43	4.148	4.148	0.000	97	357825	20.0	19.3	
40 cis-1,2-Dichloroethene	96	4.634	4.634	0.000	67	281663	20.0	19.7	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	61	247316	20.0	20.1	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	69	66486	40.0	38.1	
45 Chlorobromomethane	49	4.836	4.836	0.000	72	180080	20.0	19.1	
46 Tetrahydrofuran	42	4.883	4.883	0.000	87	169823	40.0	37.6	
47 Chloroform	83	4.907	4.907	0.000	70	422069	20.0	19.9	
48 1,1,1-Trichloroethane	97	5.085	5.085	0.000	56	378348	20.0	19.8	
49 Cyclohexane	84	5.144	5.144	0.000	85	386296	20.0	19.3	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	92	334178	20.0	19.2	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	345961	20.0	19.5	
52 Isobutyl alcohol	41	5.298	5.298	0.000	69	183028	500.0	448.2	
54 1,2-Dichloroethane	62	5.417	5.417	0.000	45	289097	20.0	18.9	
53 Benzene	78	5.417	5.417	0.000	94	930203	20.0	19.5	
56 n-Heptane	57	5.642	5.642	0.000	84	216048	20.0	18.9	
58 Trichloroethene	130	5.986	5.986	0.000	92	285190	20.0	19.4	
60 Methylcyclohexane	83	6.176	6.176	0.000	89	461990	20.0	19.4	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	84	210992	20.0	19.7	
63 Dibromomethane	174	6.294	6.294	0.000	93	196594	20.0	19.8	
64 1,4-Dioxane	88	6.306	6.306	0.000	33	43840	400.0	415.4	
65 Dichlorobromomethane	83	6.436	6.436	0.000	93	290639	20.0	19.4	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	91	315645	40.0	39.7	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	91	347181	20.0	19.8	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	93	554613	40.0	39.0	
70 Toluene	91	7.172	7.172	0.000	94	985962	20.0	18.6	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	82	315763	20.0	18.6	
72 Ethyl methacrylate	69	7.433	7.433	0.000	87	305349	20.0	18.9	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	74	202390	20.0	19.5	
75 Tetrachloroethene	166	7.693	7.693	0.000	97	300622	20.0	19.2	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	87	344194	20.0	19.1	
77 2-Hexanone	43	7.765	7.765	0.000	79	411400	40.0	37.9	
79 Chlorodibromomethane	129	7.931	7.931	0.000	87	237418	20.0	19.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	99	223763	20.0	18.9	
82 Chlorobenzene	112	8.524	8.524	0.000	96	672294	20.0	19.0	
83 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	86	245845	20.0	20.2	
84 Ethylbenzene	106	8.630	8.630	0.000	97	371072	20.0	19.7	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	455770	20.0	19.6	
86 o-Xylene	106	9.152	9.152	0.000	87	446659	20.0	19.9	
87 Styrene	104	9.152	9.152	0.000	88	733164	20.0	19.7	
88 Bromoform	173	9.354	9.354	0.000	98	190577	20.0	19.2	
89 Isopropylbenzene	105	9.520	9.520	0.000	95	1178300	20.0	19.8	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	87	331847	20.0	19.2	
92 Bromobenzene	156	9.840	9.840	0.000	80	313555	20.0	19.2	
93 1,2,3-Trichloropropane	110	9.864	9.864	0.000	68	114884	20.0	18.8	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	52	97955	20.0	18.5	
95 N-Propylbenzene	120	9.947	9.947	0.000	91	334963	20.0	19.3	
96 2-Chlorotoluene	126	10.041	10.041	0.000	94	293354	20.0	19.7	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	980405	20.0	20.0	
98 4-Chlorotoluene	126	10.148	10.148	0.000	97	300515	20.0	19.3	
99 tert-Butylbenzene	119	10.468	10.468	0.000	76	908078	20.0	19.3	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	70	1006317	20.0	19.8	
102 sec-Butylbenzene	105	10.694	10.694	0.000	94	1286147	20.0	19.7	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	84	598840	20.0	18.9	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	1117286	20.0	20.0	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	93	606688	20.0	18.4	
108 n-Butylbenzene	91	11.275	11.275	0.000	98	958018	20.0	19.8	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	97	559506	20.0	19.3	
110 1,2-Dibromo-3-Chloropropan	157	12.129	12.129	0.000	92	99335	20.0	19.3	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	90	379757	20.0	19.1	
113 Hexachlorobutadiene	225	13.196	13.196	0.000	92	199490	20.0	19.2	
114 Naphthalene	128	13.279	13.279	0.000	96	1094286	20.0	19.5	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	94	351575	20.0	19.5	
S 127 Trihalomethanes, Total	1				0		80.0	77.7	
S 164 Total BTEX	1				0		100.0	97.3	
S 126 Xylenes, Total	106				0		40.0	39.5	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00255	Amount Added:	16.00	Units: uL
vmarolistdw_00256	Amount Added:	16.00	Units: uL
vmrprimw_00292	Amount Added:	16.00	Units: uL
vm50ss_00329	Amount Added:	16.00	Units: uL

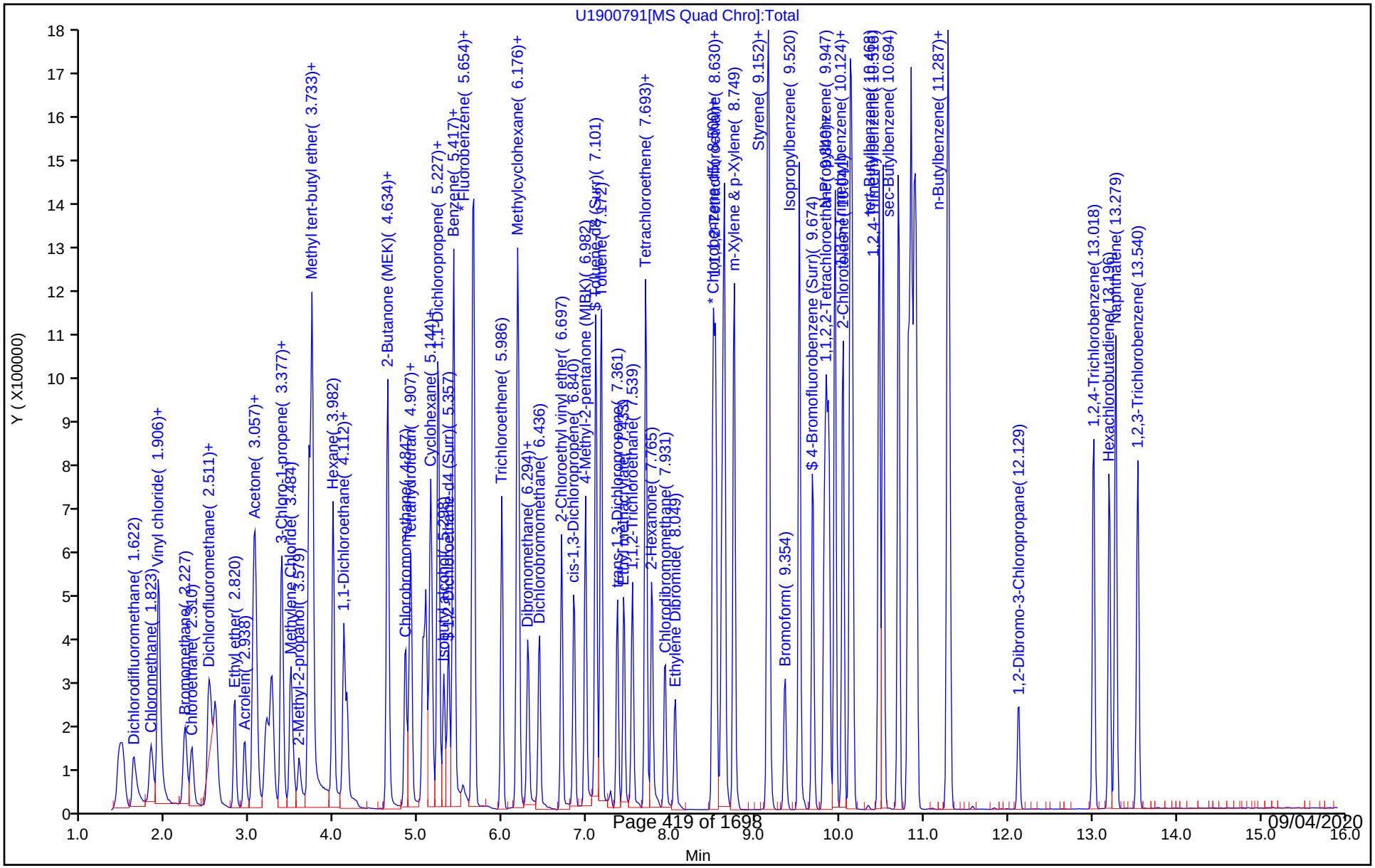
Report Date: 25-Jul-2018 10:13:50 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900791.d

Injection Date:	24-Jul-2018 18:57:47	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	ICIS L4			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900792.d
Lims ID: std8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Jul-2018 19:20:02 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078277-011
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 10:13:54 Calib Date: 24-Jul-2018 20:04:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 09:49:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.653	5.654	-0.001	98	952790	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	83	771801	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	92	425561	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	60	119809	10.0	9.71	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.357	0.000	90	125069	10.0	9.57	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	-0.001	89	467380	10.0	10.1	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	91	172585	10.0	9.67	
9 Dichlorodifluoromethane	85	1.598	1.622	-0.024	86	151920	10.0	9.16	
10 Chloromethane	50	1.811	1.823	-0.012	78	155433	10.0	9.68	
12 Butadiene	54	1.894	1.906	-0.012	88	137925	10.0	8.83	
11 Vinyl chloride	62	1.918	1.930	-0.012	73	148293	10.0	9.55	
13 Bromomethane	94	2.214	2.227	-0.013	91	114577	10.0	9.81	
14 Chloroethane	64	2.297	2.310	-0.013	94	93395	10.0	9.89	
15 Dichlorofluoromethane	67	2.499	2.511	-0.012	82	215631	10.0	9.68	
16 Trichlorofluoromethane	101	2.570	2.582	-0.012	98	187339	10.0	8.89	
17 Ethyl ether	59	2.807	2.820	-0.013	87	90620	10.0	9.57	
18 Acrolein	56	2.926	2.938	-0.012	95	106196	50.0	42.7	
21 1,1-Dichloroethene	61	3.033	3.033	0.000	90	185910	10.0	10.3	
20 1,1,2-Trichloro-1,2,2-trif	101	3.045	3.057	-0.012	76	134365	10.0	10.4	
22 Acetone	43	3.068	3.080	-0.012	55	52355	20.0	16.7	
23 Iodomethane	142	3.187	3.199	-0.012	97	228493	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.246	3.258	-0.012	98	387941	10.0	9.62	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	82	184068	10.0	9.73	
27 Methyl acetate	43	3.377	3.389	-0.012	84	197122	20.0	18.3	
28 Methylene Chloride	49	3.471	3.484	-0.013	57	144386	10.0	10.0	
29 2-Methyl-2-propanol	59	3.578	3.579	0.000	32	110777	100.0	94.4	
30 Acrylonitrile	53	3.697	3.697	0.000	99	448754	100.0	92.1	
32 trans-1,2-Dichloroethene	61	3.732	3.733	-0.001	71	175373	10.0	9.87	
31 Methyl tert-butyl ether	73	3.732	3.733	-0.001	88	335243	10.0	10.1	
33 Hexane	57	3.981	3.982	-0.001	90	208123	10.0	10.7	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	97	213583	10.0	10.2	
35 Vinyl acetate	43	4.147	4.148	-0.001	96	187841	10.0	9.87	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	71	34072	20.0	19.0	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	65	134434	10.0	10.7	
40 cis-1,2-Dichloroethene	96	4.622	4.634	-0.012	69	143871	10.0	9.80	
45 Chlorobromomethane	49	4.835	4.836	-0.001	84	89489	10.0	9.27	
46 Tetrahydrofuran	42	4.883	4.883	0.000	87	86462	20.0	18.7	
47 Chloroform	83	4.906	4.907	-0.001	70	213657	10.0	9.83	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	90	206006	10.0	10.5	
49 Cyclohexane	84	5.144	5.144	0.000	85	214696	10.0	10.5	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	93	182947	10.0	10.3	
51 Carbon tetrachloride	117	5.238	5.239	-0.001	69	187898	10.0	10.3	
52 Isobutyl alcohol	41	5.298	5.298	0.000	69	105355	250.0	251.7	
53 Benzene	78	5.416	5.417	-0.001	94	494183	10.0	10.1	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	46	152677	10.0	9.72	
56 n-Heptane	57	5.642	5.642	0.000	60	135257	10.0	10.5	
58 Trichloroethene	130	5.985	5.986	-0.001	91	155201	10.0	10.3	
60 Methylcyclohexane	83	6.175	6.176	-0.001	89	256970	10.0	10.5	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	84	110015	10.0	10.0	
63 Dibromomethane	174	6.294	6.294	0.000	91	95707	10.0	9.42	
64 1,4-Dioxane	88	6.306	6.306	0.000	33	23290	200.0	215.3	
65 Dichlorobromomethane	83	6.436	6.436	0.000	93	152581	10.0	9.92	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	86	171233	20.0	21.0	
68 cis-1,3-Dichloropropene	75	6.839	6.840	-0.001	93	175580	10.0	9.76	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	93	308673	20.0	21.2	
70 Toluene	91	7.171	7.172	-0.001	94	544060	10.0	9.89	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	85	172822	10.0	9.78	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	88	166277	10.0	9.93	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	80	109350	10.0	10.1	
75 Tetrachloroethene	166	7.693	7.693	0.000	91	166266	10.0	10.2	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	87	188817	10.0	10.1	
77 2-Hexanone	43	7.764	7.765	-0.001	80	235229	20.0	20.8	
79 Chlorodibromomethane	129	7.930	7.931	-0.001	86	125585	10.0	9.75	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	98	121691	10.0	9.89	
82 Chlorobenzene	112	8.523	8.524	-0.001	97	362449	10.0	9.86	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	80	126948	10.0	10.1	
84 Ethylbenzene	106	8.630	8.630	0.000	98	197845	10.0	10.1	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	245222	10.0	10.1	
87 Styrene	104	9.152	9.152	0.000	88	391122	10.0	10.1	
86 o-Xylene	106	9.152	9.152	0.000	87	240986	10.0	10.3	
88 Bromoform	173	9.353	9.354	-0.001	98	100560	10.0	9.77	
89 Isopropylbenzene	105	9.519	9.520	-0.001	95	636049	10.0	10.3	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	88	173948	10.0	10.3	
92 Bromobenzene	156	9.840	9.840	0.000	87	164497	10.0	10.2	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	69	63108	10.0	10.5	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	64	51819	10.0	9.96	
95 N-Propylbenzene	120	9.946	9.947	-0.001	96	181166	10.0	10.6	
96 2-Chlorotoluene	126	10.041	10.041	0.000	96	151745	10.0	10.4	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	517511	10.0	10.7	
98 4-Chlorotoluene	126	10.148	10.148	0.000	97	160173	10.0	10.5	
99 tert-Butylbenzene	119	10.468	10.468	0.000	77	490442	10.0	10.6	
101 1,2,4-Trimethylbenzene	105	10.515	10.516	-0.001	70	518127	10.0	10.4	
102 sec-Butylbenzene	105	10.693	10.694	-0.001	94	681132	10.0	10.6	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	82	309437	10.0	9.93	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	91	582655	10.0	10.6	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	91	316046	10.0	9.78	
108 n-Butylbenzene	91	11.274	11.275	-0.001	97	498908	10.0	10.5	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	97	286113	10.0	10.0	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	88	48670	10.0	9.63	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	92	189226	10.0	9.67	
113 Hexachlorobutadiene	225	13.207	13.196	0.011	85	103707	10.0	10.2	
114 Naphthalene	128	13.279	13.279	0.000	96	544587	10.0	9.87	
115 1,2,3-Trichlorobenzene	180	13.539	13.540	-0.001	96	177768	10.0	10.0	
S 164 Total BTEX	1				0		50.0	50.6	
S 127 Trihalomethanes, Total	1				0		40.0	39.3	
S 124 1,2-Dichloroethene, Total	96				0			19.7	
S 125 1,3-Dichloropropene, Total	75				0			19.5	
S 126 Xylenes, Total	106				0		20.0	20.5	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00255	Amount Added:	8.00	Units: uL
vmarolistdw_00256	Amount Added:	8.00	Units: uL
vmrprimw_00292	Amount Added:	8.00	Units: uL
vm50ss_00329	Amount Added:	8.00	Units: uL

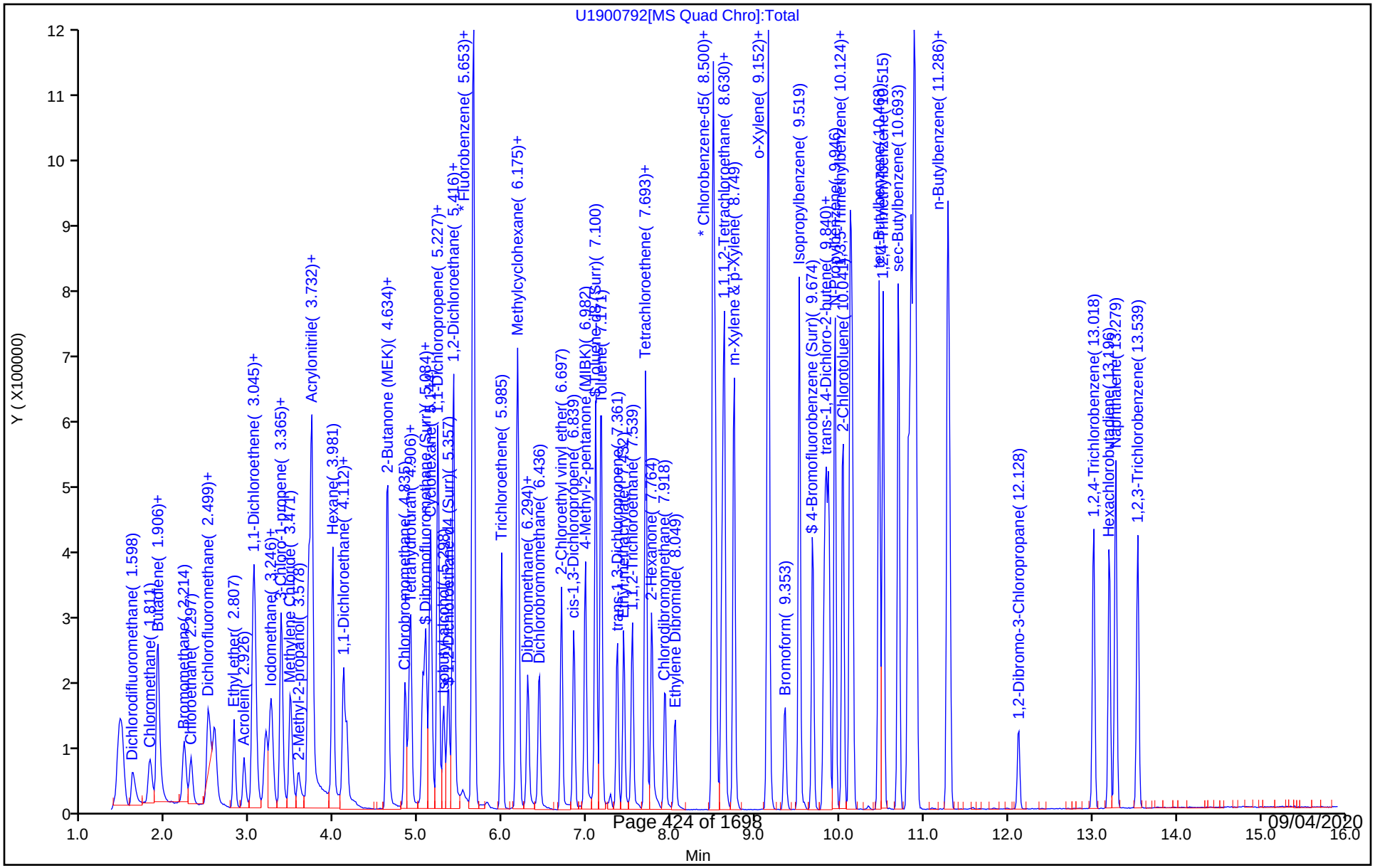
Report Date: 25-Jul-2018 10:13:56 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900792.d

Injection Date:	24-Jul-2018 19:20:02	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L3			Worklist Smp#:	11
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900793.d
Lims ID: std8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Jul-2018 19:42:05 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078277-012
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 10:14:00 Calib Date: 24-Jul-2018 20:04:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 09:51:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	894422	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	708670	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.884	10.883	0.001	93	428230	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	60	11849	1.00	1.02	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.357	0.000	88	13421	1.00	1.09	
$ 6 Toluene-d8 (Surr)	98	7.101	7.101	0.000	87	42636	1.00	1.00	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	86	17427	1.00	1.06	
9 Dichlorodifluoromethane	85	1.610	1.622	-0.012	74	14647	1.00	0.9411	
10 Chloromethane	50	1.812	1.823	-0.011	89	16570	1.00	1.10	
12 Butadiene	54	1.895	1.906	-0.011	88	15313	1.00	1.04	
11 Vinyl chloride	62	1.930	1.930	0.000	70	15847	1.00	1.09	
13 Bromomethane	94	2.215	2.227	-0.012	77	12818	1.00	1.17	
14 Chloroethane	64	2.298	2.310	-0.012	70	9377	1.00	1.06	
15 Dichlorofluoromethane	67	2.499	2.511	-0.012	82	21989	1.00	1.05	
16 Trichlorofluoromethane	101	2.559	2.582	-0.023	73	20928	1.00	1.06	
17 Ethyl ether	59	2.808	2.820	-0.012	80	9442	1.00	1.06	
18 Acrolein	56	2.926	2.938	-0.012	86	11339	5.00	4.86	
21 1,1-Dichloroethene	61	3.033	3.033	0.000	92	17119	1.00	1.01	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	63	12789	1.00	1.06	
22 Acetone	43	3.069	3.080	-0.011	66	7064	2.00	2.40	
23 Iodomethane	142	3.187	3.199	-0.012	96	21574	1.00	1.03	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.247	3.258	-0.011	96	43688	1.00	1.15	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	84	18985	1.00	1.07	
27 Methyl acetate	43	3.389	3.389	0.000	92	19667	2.00	1.94	
28 Methylene Chloride	49	3.472	3.484	-0.012	75	15117	1.00	1.12	
29 2-Methyl-2-propanol	59	3.579	3.579	0.001	70	12788	10.0	11.6	
30 Acrylonitrile	53	3.697	3.697	0.000	100	41875	10.0	9.15	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	87	32315	1.00	1.04	
32 trans-1,2-Dichloroethene	61	3.733	3.733	0.000	73	17800	1.00	1.07	
33 Hexane	57	3.982	3.982	0.000	92	18280	1.00	1.00	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	83	19272	1.00	0.9804	
35 Vinyl acetate	43	4.148	4.148	0.000	95	16923	1.00	0.9468	
40 cis-1,2-Dichloroethene	96	4.622	4.634	-0.012	78	14795	1.00	1.07	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	56	12773	1.00	1.08	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	60	3193	2.00	1.90	
45 Chlorobromomethane	49	4.836	4.836	0.000	67	9868	1.00	1.09	
46 Tetrahydrofuran	42	4.883	4.883	0.000	84	9301	2.00	2.14	
47 Chloroform	83	4.907	4.907	0.000	66	21458	1.00	1.05	
48 1,1,1-Trichloroethane	97	5.085	5.085	0.000	80	17835	1.00	0.9707	
49 Cyclohexane	84	5.144	5.144	0.000	82	19597	1.00	1.02	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	87	17455	1.00	1.04	
51 Carbon tetrachloride	117	5.239	5.239	0.000	75	17198	1.00	1.01	
52 Isobutyl alcohol	41	5.298	5.298	0.000	89	7910	25.0	20.1	
54 1,2-Dichloroethane	62	5.417	5.417	0.000	50	15873	1.00	1.08	
53 Benzene	78	5.417	5.417	0.000	94	48419	1.00	1.06	
56 n-Heptane	57	5.654	5.642	0.012	38	35642	1.00	1.01	
58 Trichloroethene	130	5.986	5.986	0.000	84	14571	1.00	1.03	
60 Methylcyclohexane	83	6.176	6.176	0.000	88	22689	1.00	0.9886	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	79	10704	1.00	1.04	
63 Dibromomethane	174	6.294	6.294	0.000	82	9635	1.00	1.01	
64 1,4-Dioxane	88	6.318	6.306	0.012	1	1478	20.0	14.6	
65 Dichlorobromomethane	83	6.425	6.436	-0.011	87	13539	1.00	0.9376	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	82	14128	2.00	1.84	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	76	17042	1.00	1.01	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	91	26811	2.00	1.96	
70 Toluene	91	7.172	7.172	0.000	93	51989	1.00	1.03	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	75	16254	1.00	1.00	
72 Ethyl methacrylate	69	7.433	7.433	0.000	77	14391	1.00	0.9357	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	74	9825	1.00	0.99	
75 Tetrachloroethene	166	7.694	7.693	0.001	89	14983	1.00	1.00	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	77	17817	1.00	1.03	
77 2-Hexanone	43	7.777	7.765	0.012	67	19416	2.00	1.87	
79 Chlorodibromomethane	129	7.931	7.931	0.000	74	11860	1.00	1.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	85	11944	1.00	1.06	
82 Chlorobenzene	112	8.524	8.524	0.000	65	36126	1.00	1.07	
83 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	59	11650	1.00	1.01	
84 Ethylbenzene	106	8.630	8.630	0.000	96	18517	1.00	1.03	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	21784	1.00	0.9817	
86 o-Xylene	106	9.140	9.152	-0.012	91	20892	1.00	0.9751	
87 Styrene	104	9.152	9.152	0.000	88	33956	1.00	0.9551	
88 Bromoform	173	9.354	9.354	0.000	82	8645	1.00	0.9144	
89 Isopropylbenzene	105	9.520	9.520	0.000	91	55210	1.00	0.9739	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	77	17817	1.00	1.04	
92 Bromobenzene	156	9.840	9.840	0.000	89	15559	1.00	0.9619	
93 1,2,3-Trichloropropane	110	9.864	9.864	0.000	70	5494	1.00	0.9090	
94 trans-1,4-Dichloro-2-buten	53	9.864	9.875	-0.011	44	4738	1.00	0.9051	
95 N-Propylbenzene	120	9.947	9.947	0.000	94	16107	1.00	0.9402	
96 2-Chlorotoluene	126	10.042	10.041	0.001	93	15255	1.00	1.04	
97 1,3,5-Trimethylbenzene	105	10.125	10.124	0.001	93	45567	1.00	0.9397	
98 4-Chlorotoluene	126	10.148	10.148	0.000	94	15545	1.00	1.01	
99 tert-Butylbenzene	119	10.468	10.468	0.000	88	47758	1.00	1.02	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	68	49545	1.00	0.9846	
102 sec-Butylbenzene	105	10.694	10.694	0.000	90	61320	1.00	0.9521	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	11	33191	1.00	1.06	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	82	50862	1.00	0.9208	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	52	35488	1.00	1.09	
108 n-Butylbenzene	91	11.275	11.275	0.000	94	45503	1.00	0.9538	
109 1,2-Dichlorobenzene	146	11.299	11.298	0.001	94	30581	1.00	1.07	
110 1,2-Dibromo-3-Chloropropan	157	12.129	12.129	0.000	47	4764	1.00	0.9369	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	82	21592	1.00	1.10	
113 Hexachlorobutadiene	225	13.208	13.196	0.012	66	10992	1.00	1.07	
114 Naphthalene	128	13.279	13.279	0.000	93	57589	1.00	1.04	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	86	18094	1.00	1.02	
S 127 Trihalomethanes, Total	1				0		4.00	3.91	
S 164 Total BTEX	1				0		5.00	5.07	
S 124 1,2-Dichloroethene, Total	96				0			2.14	
S 125 1,3-Dichloropropene, Total	75				0			2.01	
S 126 Xylenes, Total	106				0		2.00	1.96	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00255	Amount Added:	0.80	Units: uL
vmarolistdw_00256	Amount Added:	0.80	Units: uL
vmrprimw_00292	Amount Added:	0.80	Units: uL
vm50ss_00329	Amount Added:	0.80	Units: uL

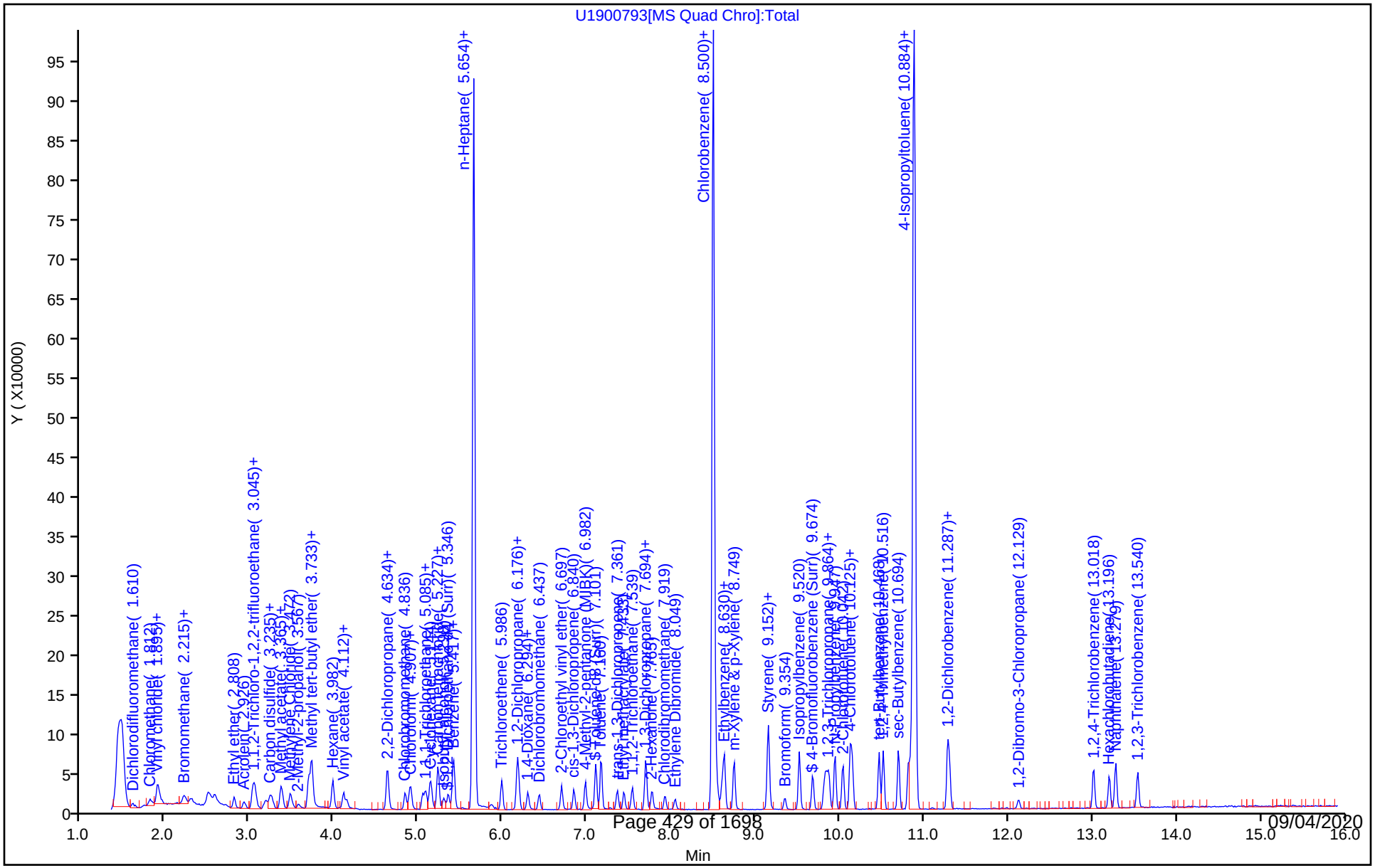
Report Date: 25-Jul-2018 10:14:02 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900793.d

Injection Date:	24-Jul-2018 19:42:05	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L2			Worklist Smp#:	12
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d
Lims ID: std8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jul-2018 20:04:28 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078277-013
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 10:14:09 Calib Date: 24-Jul-2018 20:04:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 09:56:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	923893	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	84	731189	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	93	428789	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	56	6754	0.5000	0.5647	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.357	0.000	75	7422	0.5000	0.5855	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	-0.001	74	22890	0.5000	0.5200	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	79	10413	0.5000	0.6156	
9 Dichlorodifluoromethane	85	1.633	1.622	0.011	62	6894	0.5000	0.4288	
10 Chloromethane	50	1.823	1.823	0.000	71	8217	0.5000	0.5278	
12 Butadiene	54	1.906	1.906	0.000	82	7871	0.5000	0.5198	
11 Vinyl chloride	62	1.930	1.930	0.000	64	6342	0.5000	0.4211	
13 Bromomethane	94	2.238	2.227	0.011	71	6350	0.5000	0.5606	
14 Chloroethane	64	2.309	2.310	-0.001	60	4872	0.5000	0.5321	
15 Dichlorofluoromethane	67	2.511	2.511	0.000	53	12059	0.5000	0.5584	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	75	10381	0.5000	0.5081	
17 Ethyl ether	59	2.819	2.820	-0.001	67	5066	0.5000	0.5520	
18 Acrolein	56	2.938	2.938	0.000	82	6772	2.50	2.81	
21 1,1-Dichloroethene	61	3.045	3.033	0.012	68	8796	0.5000	0.5026	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	-0.001	56	6009	0.5000	0.4815	
22 Acetone	43		3.080				ND	ND	U
23 Iodomethane	142	3.187	3.199	-0.012	82	10728	0.5000	0.4956	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.246	3.258	-0.012	95	23708	0.5000	0.6063	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	77	9784	0.5000	0.5336	
27 Methyl acetate	43	3.389	3.389	0.000	86	13362	1.00	1.28	
28 Methylene Chloride	49		3.484				ND	ND	U
29 2-Methyl-2-propanol	59		3.579				ND	ND	U
30 Acrylonitrile	53	3.697	3.697	0.000	99	26540	5.00	5.62	
32 trans-1,2-Dichloroethene	61	3.732	3.733	-0.001	74	9868	0.5000	0.5730	
31 Methyl tert-butyl ether	73	3.732	3.733	-0.001	83	15911	0.5000	0.4958	
33 Hexane	57	3.981	3.982	-0.001	90	9277	0.5000	0.4936	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	54	9924	0.5000	0.4888	
35 Vinyl acetate	43	4.148	4.148	0.000	95	9654	0.5000	0.5229	
41 2-Butanone (MEK)	72		4.634				ND	ND	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	46	6159	0.5000	0.5045	
40 cis-1,2-Dichloroethene	96	4.634	4.634	0.000	56	7528	0.5000	0.5287	
45 Chlorobromomethane	49	4.835	4.836	-0.001	65	5651	0.5000	0.6036	
46 Tetrahydrofuran	42	4.895	4.883	0.012	78	4596	1.00	1.02	
47 Chloroform	83	4.906	4.907	-0.001	60	10692	0.5000	0.5074	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	72	9137	0.5000	0.4814	
49 Cyclohexane	84	5.144	5.144	0.000	79	9806	0.5000	0.4936	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	85	8674	0.5000	0.5025	
51 Carbon tetrachloride	117	5.239	5.239	-0.001	69	8406	0.5000	0.4757	
52 Isobutyl alcohol	41	5.298	5.298	0.000	73	5482	12.5	13.5	
53 Benzene	78	5.416	5.417	-0.001	94	22844	0.5000	0.4820	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	40	8485	0.5000	0.5573	
56 n-Heptane	57		5.642				ND	ND	U
58 Trichloroethene	130	5.986	5.986	0.000	83	7211	0.5000	0.4940	
60 Methylcyclohexane	83	6.175	6.176	-0.001	83	11515	0.5000	0.4857	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	62	4734	0.5000	0.4448	
63 Dibromomethane	174	6.306	6.294	0.012	67	5496	0.5000	0.5580	
64 1,4-Dioxane	88		6.306				ND	ND	U
65 Dichlorobromomethane	83	6.436	6.436	0.000	71	7466	0.5000	0.5005	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	76	7395	1.00	0.9347	
68 cis-1,3-Dichloropropene	75	6.839	6.840	-0.001	66	8313	0.5000	0.4764	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	86	13091	1.00	0.9263	
70 Toluene	91	7.171	7.172	-0.001	90	28549	0.5000	0.5479	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	72	8702	0.5000	0.5197	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	67	7650	0.5000	0.4821	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	65	4656	0.5000	0.4562	
75 Tetrachloroethene	166	7.693	7.693	0.000	89	7470	0.5000	0.4851	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	73	8871	0.5000	0.4993	
77 2-Hexanone	43	7.764	7.765	-0.001	87	10457	1.00	0.9783	
79 Chlorodibromomethane	129	7.919	7.931	-0.012	51	5763	0.5000	0.4723	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	69	6061	0.5000	0.5198	
82 Chlorobenzene	112	8.523	8.524	-0.001	47	18258	0.5000	0.5243	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	47	5213	0.5000	0.4361	
84 Ethylbenzene	106	8.630	8.630	0.000	92	8398	0.5000	0.4528	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	96	11276	0.5000	0.4925	
87 Styrene	104	9.152	9.152	0.000	84	17512	0.5000	0.4774	
86 o-Xylene	106	9.152	9.152	0.000	82	10860	0.5000	0.4913	
88 Bromoform	173		9.354				ND	ND	U
89 Isopropylbenzene	105	9.519	9.520	-0.001	87	28418	0.5000	0.4859	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	49	8105	0.5000	0.4742	
92 Bromobenzene	156	9.840	9.840	0.000	80	8740	0.5000	0.5396	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	57	3387	0.5000	0.5596	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	36	2893	0.5000	0.5519	
95 N-Propylbenzene	120	9.946	9.947	-0.001	90	8359	0.5000	0.4873	
96 2-Chlorotoluene	126	10.041	10.041	0.000	86	6977	0.5000	0.4728	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	88	22067	0.5000	0.4545	
98 4-Chlorotoluene	126	10.148	10.148	0.000	89	7717	0.5000	0.4998	
99 tert-Butylbenzene	119	10.468	10.468	0.000	82	22397	0.5000	0.4799	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	62	24672	0.5000	0.4897	
102 sec-Butylbenzene	105	10.693	10.694	-0.001	78	30350	0.5000	0.4706	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	1	17372	0.5000	0.5533	a
104 4-Isopropyltoluene	119	10.848	10.848	0.000	80	25586	0.5000	0.4626	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	42	19169	0.5000	0.5888	
108 n-Butylbenzene	91	11.275	11.275	0.000	91	21675	0.5000	0.4537	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	87	14939	0.5000	0.5204	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	24	2566	0.5000	0.5040	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	65	10787	0.5000	0.5471	
113 Hexachlorobutadiene	225	13.196	13.196	0.000	52	5347	0.5000	0.5195	
114 Naphthalene	128	13.279	13.279	0.000	81	27099	0.5000	0.4874	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	60	8865	0.5000	0.4972	
S 164 Total BTEX	1				0		2.50	2.47	
S 127 Trihalomethanes, Total	1				0		2.00	1.48	
S 124 1,2-Dichloroethene, Total	96				0			1.10	
S 125 1,3-Dichloropropene, Total	75				0			1.00	
S 126 Xylenes, Total	106				0		1.00	0.9838	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00255	Amount Added:	0.40	Units: uL
vmarolistdw_00256	Amount Added:	0.40	Units: uL
vmrprimw_00292	Amount Added:	0.40	Units: uL
vm50ss_00329	Amount Added:	0.40	Units: uL

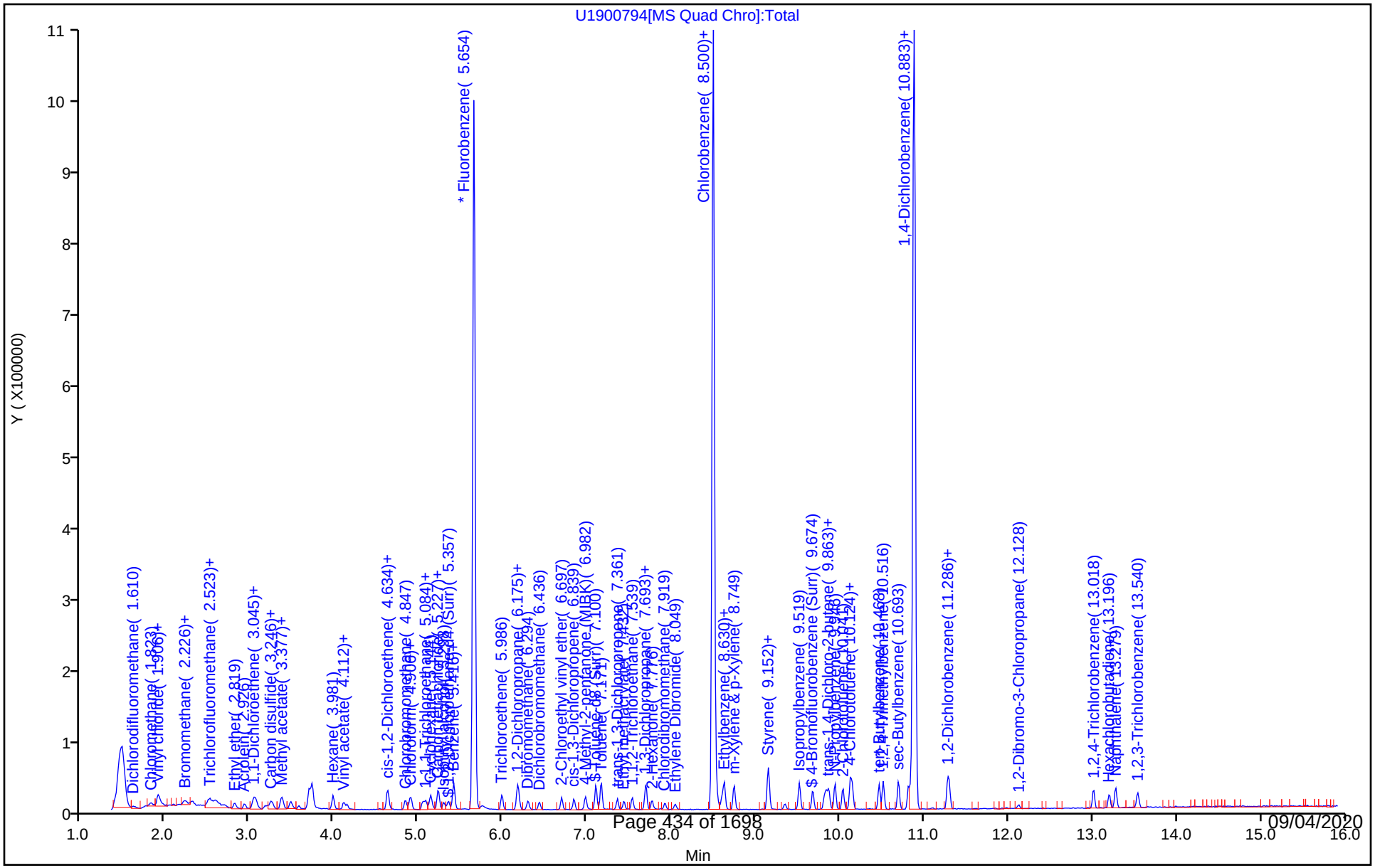
Report Date: 25-Jul-2018 10:14:11 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Injection Date:	24-Jul-2018 20:04:28	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L1			Worklist Smp#:	13
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Canton

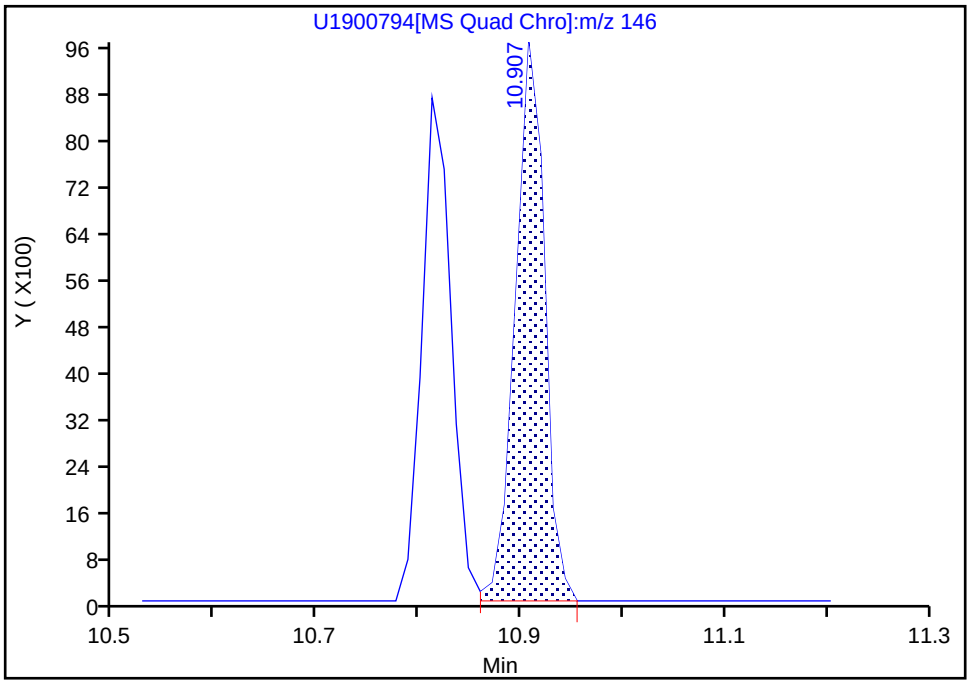
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d				
Injection Date:	24-Jul-2018 20:04:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

103 1,3-Dichlorobenzene, CAS: 541-73-1

Signal: 1

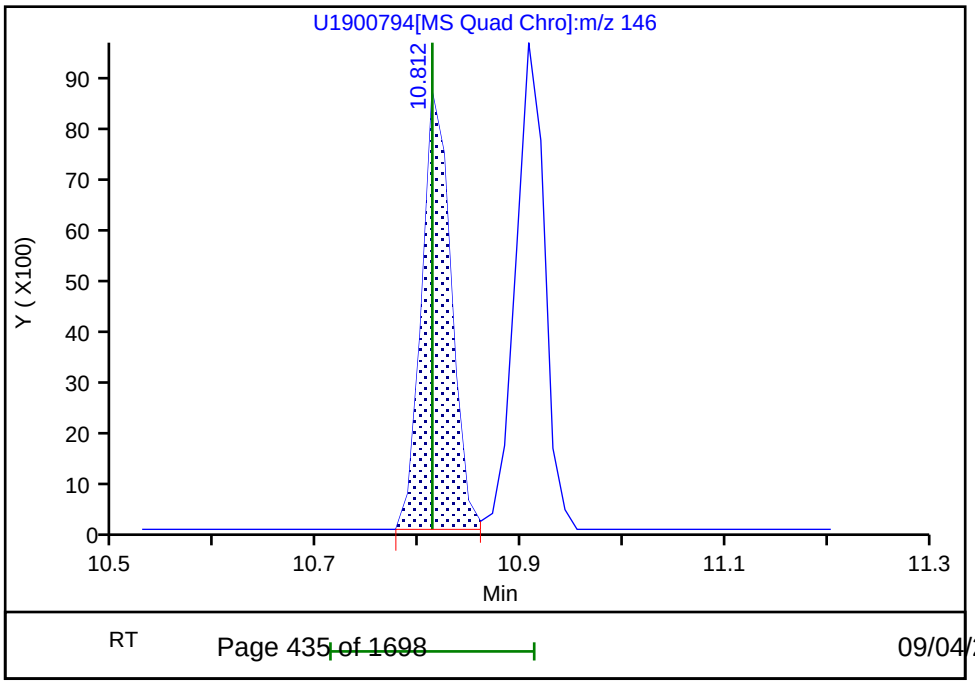
Processing Integration Results

RT: 10.91
Area: 19169
Amount: 0.600710
Amount Units: ug/l



Manual Integration Results

RT: 10.81
Area: 17372
Amount: 0.553299
Amount Units: ug/l



Reviewer: laveyt, 25-Jul-2018 09:51:37

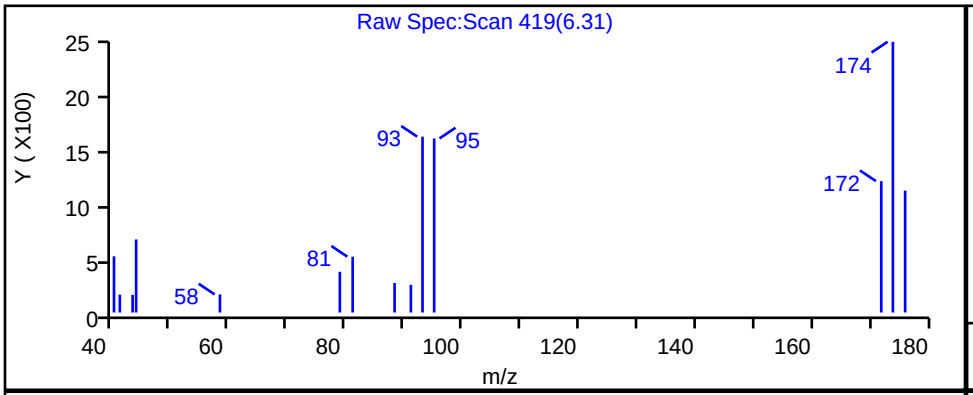
User Disabled Compound Report

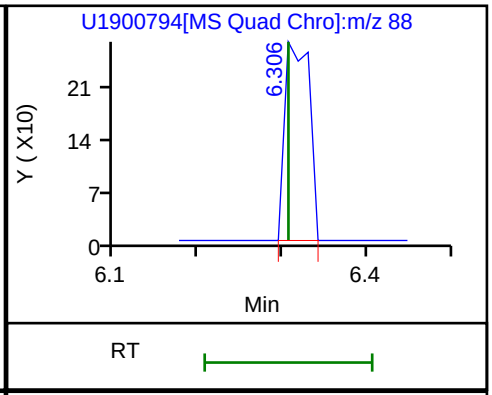
TestAmerica Canton

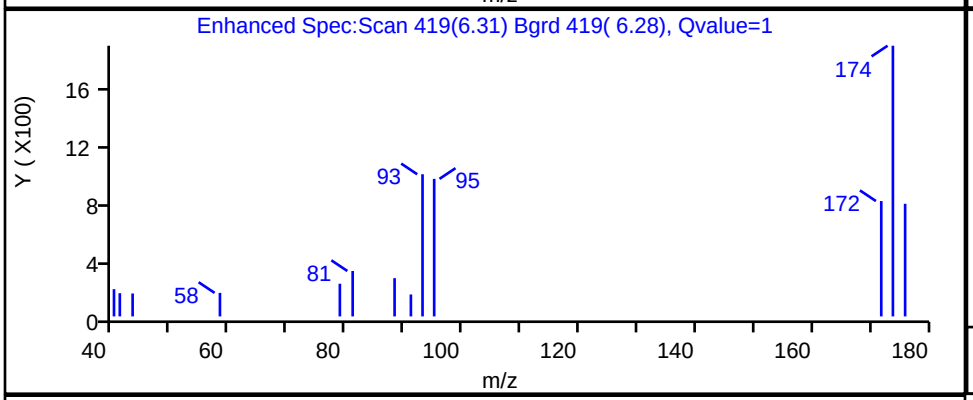
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d				
Injection Date:	24-Jul-2018 20:04:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

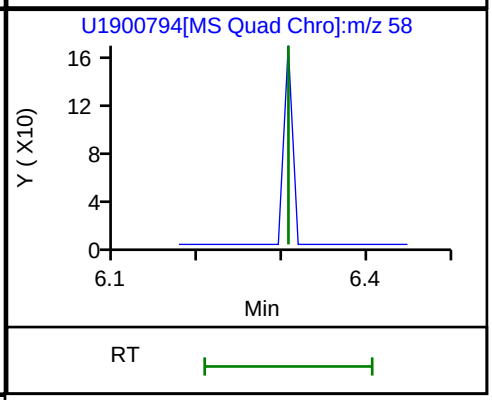
64 1,4-Dioxane, CAS: 123-91-1

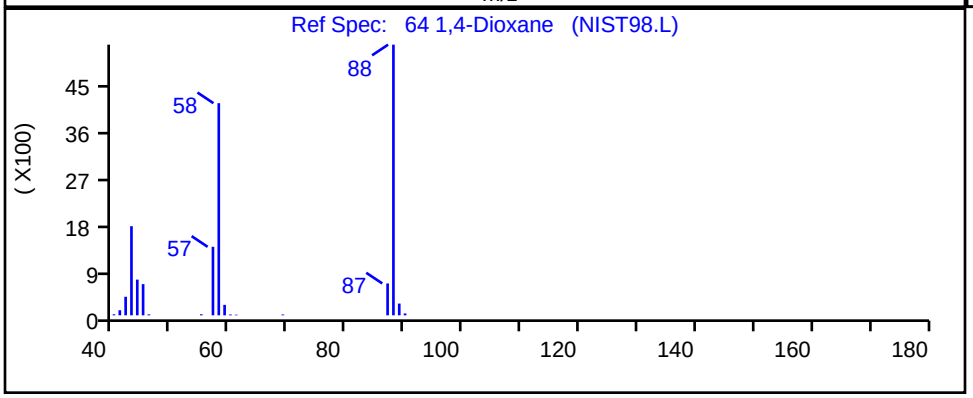
Processing Results











RT	Mass	Response	Amount
6.31	88.00	541	10.248924
6.31	58.00	0	

Reviewer: laveyt, 25-Jul-2018 10:11:40

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

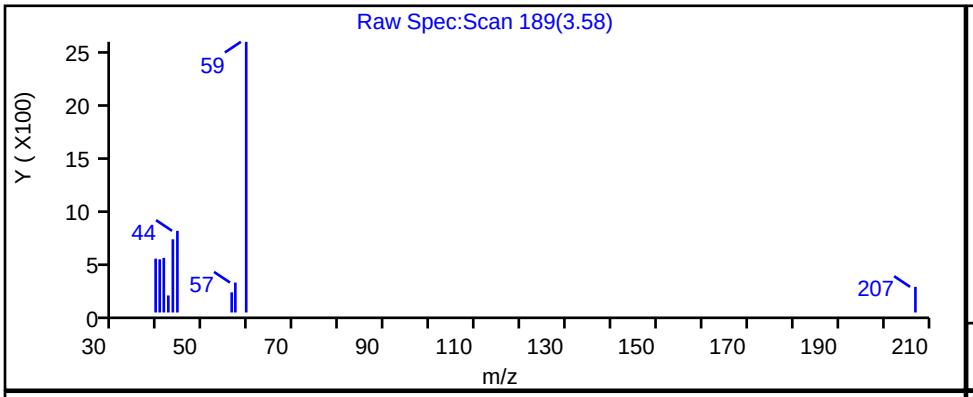
User Disabled Compound Report

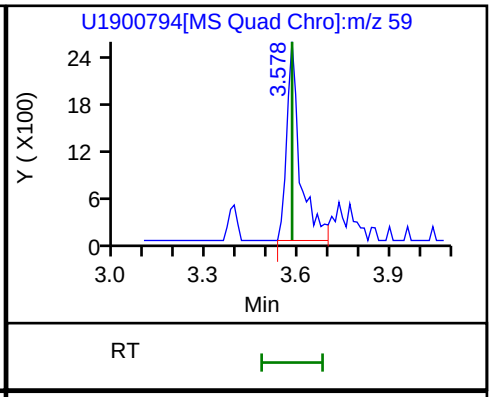
TestAmerica Canton

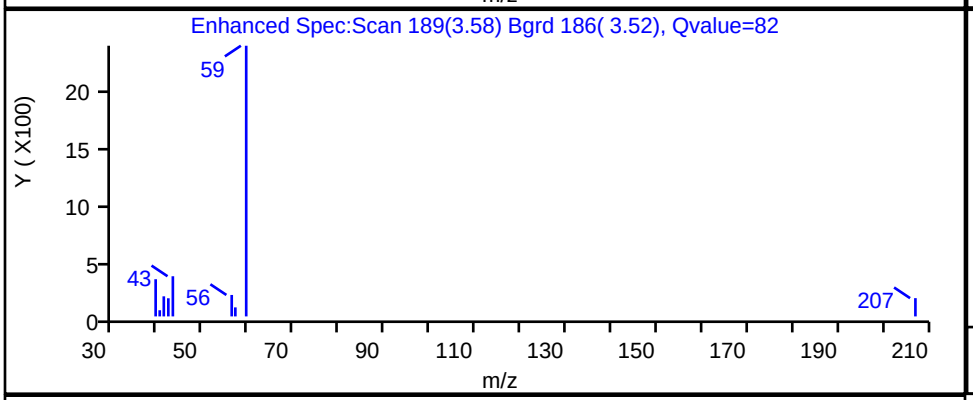
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d				
Injection Date:	24-Jul-2018 20:04:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

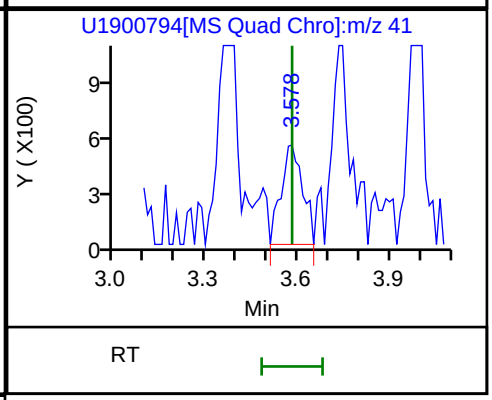
29 2-Methyl-2-propanol, CAS: 75-65-0

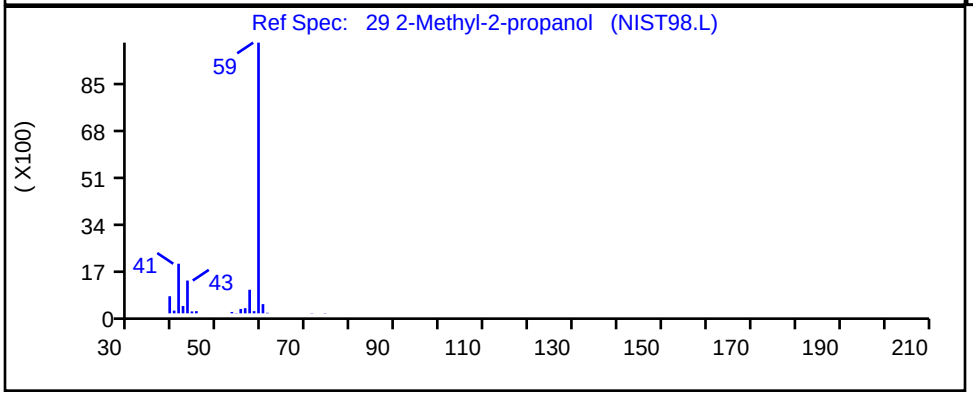
Processing Results











RT	Mass	Response	Amount
3.58	59.00	7655	6.614472
3.58	41.00	2500	

Reviewer: laveyt, 25-Jul-2018 09:53:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Injection Date: 24-Jul-2018 20:04:28 Instrument ID: A3UX19

Lims ID: std8260 L1

Client ID:

Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 13

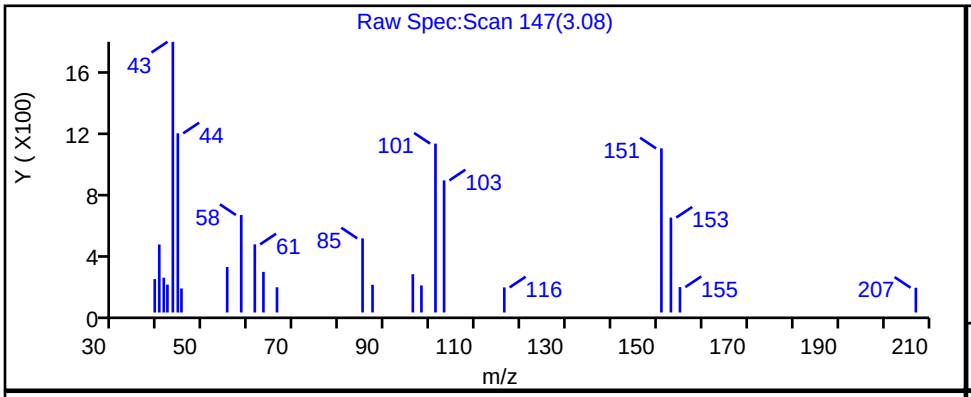
Injection Vol: 5.0 mL Dil. Factor: 1.0000

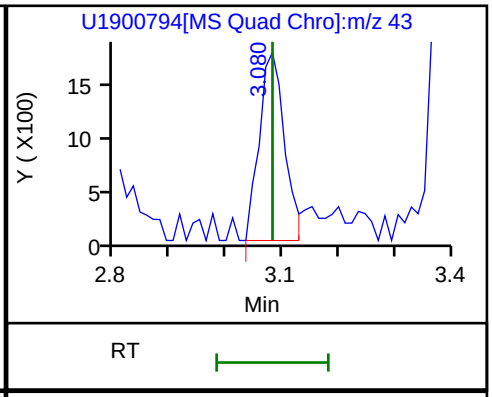
Method: 8260_19 Limit Group: MSV 8260C ICAL

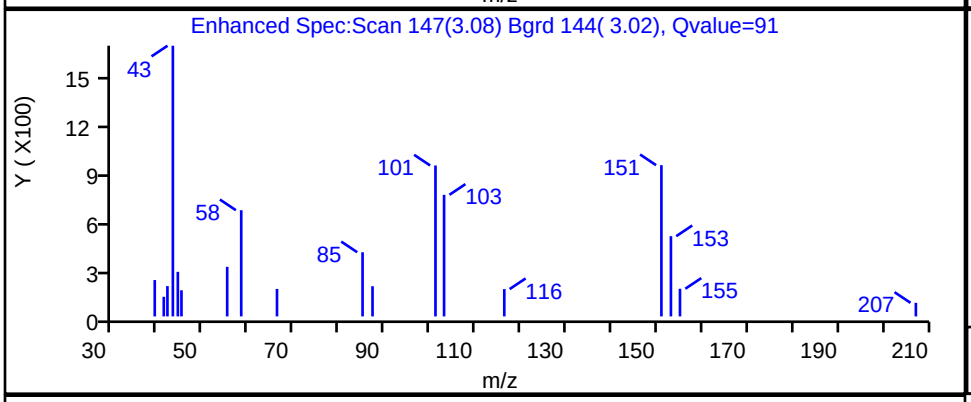
Column: DB-624 (0.18 mm) Detector MS SCAN

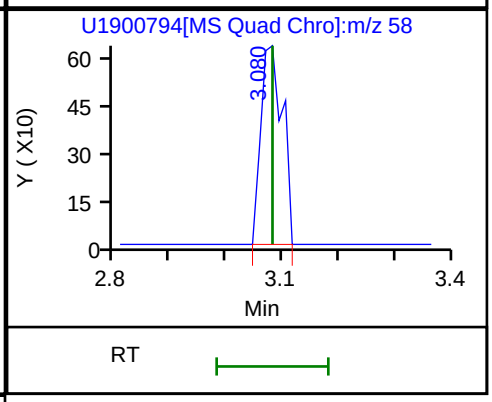
22 Acetone, CAS: 67-64-1

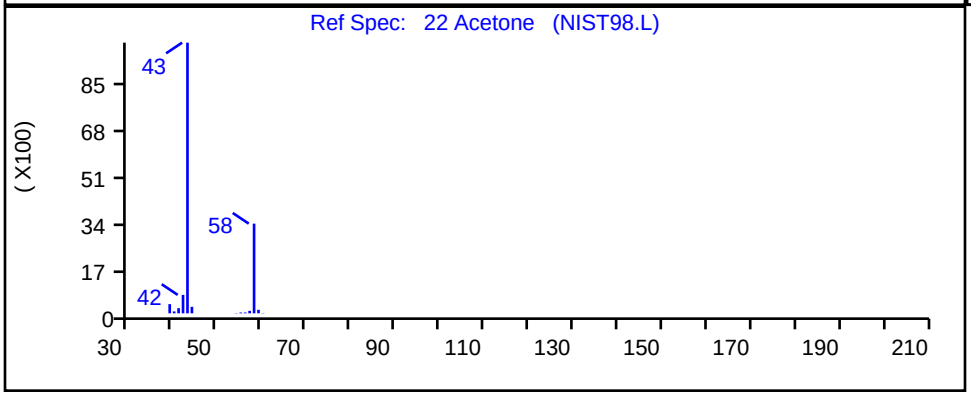
Processing Results











RT	Mass	Response	Amount
3.08	43.00	5518	1.624733
3.08	58.00	1707	

Reviewer: laveyt, 25-Jul-2018 09:52:16

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d

Injection Date: 24-Jul-2018 20:04:28 Instrument ID: A3UX19

Lims ID: std8260 L1

Client ID:

Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 13

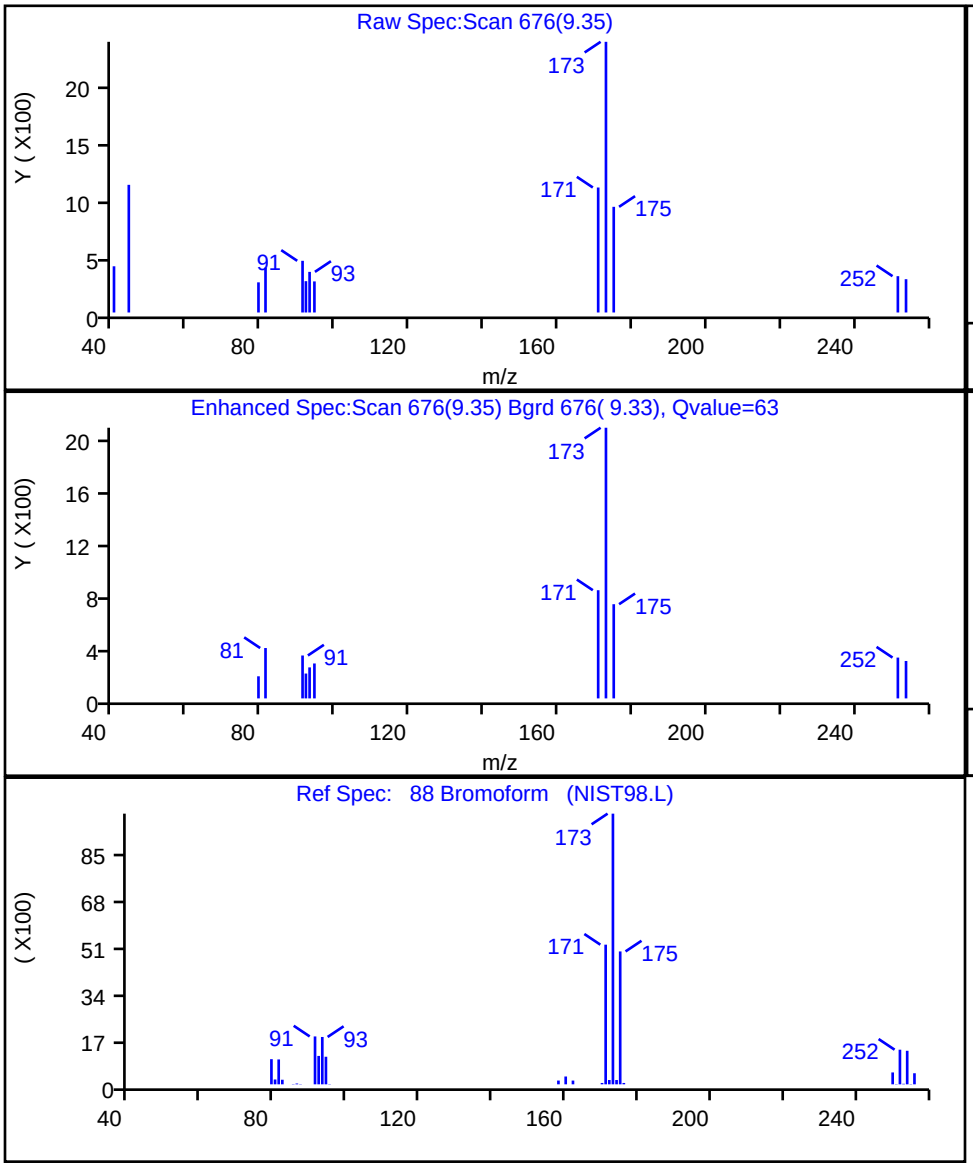
Injection Vol: 5.0 mL Dil. Factor: 1.0000

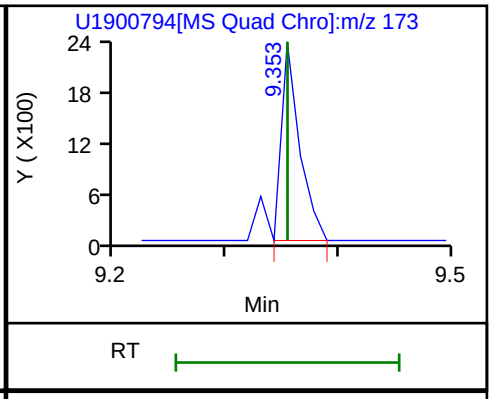
Method: 8260_19 Limit Group: MSV 8260C ICAL

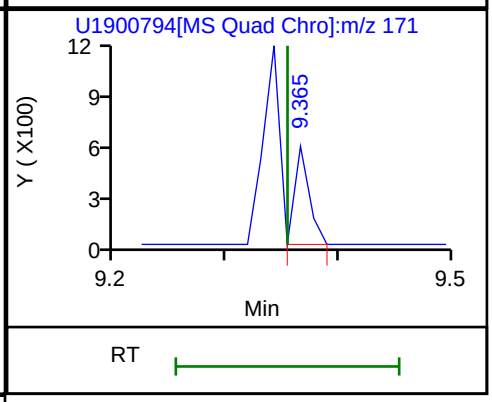
Column: DB-624 (0.18 mm) Detector MS SCAN

88 Bromoform, CAS: 75-25-2

Processing Results







RT	Mass	Response	Amount
9.35	173.00	2603	0.492517
9.37	171.00	513	

Reviewer: laveyt, 25-Jul-2018 09:54:48

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

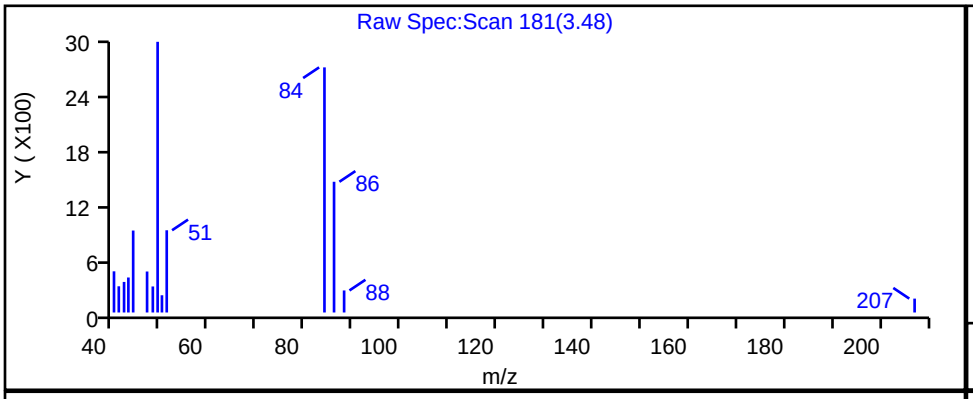
User Disabled Compound Report

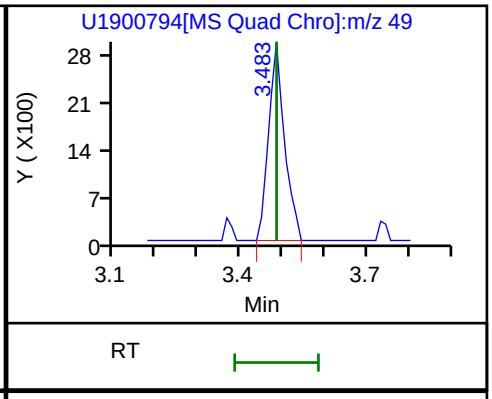
TestAmerica Canton

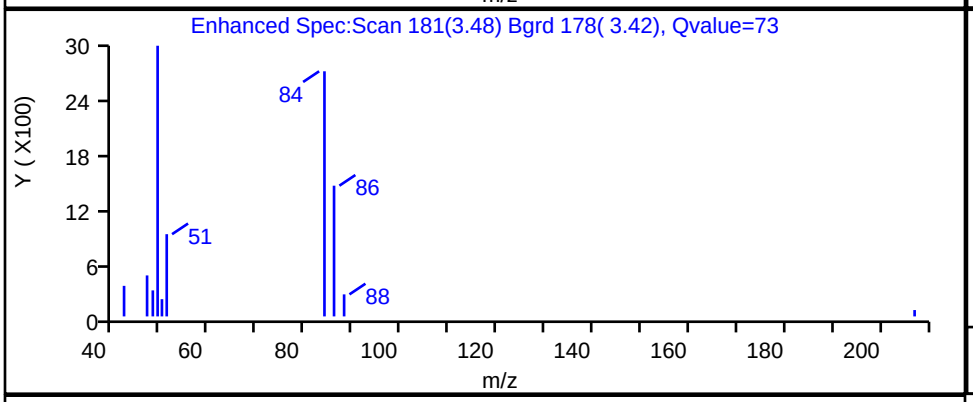
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d				
Injection Date:	24-Jul-2018 20:04:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

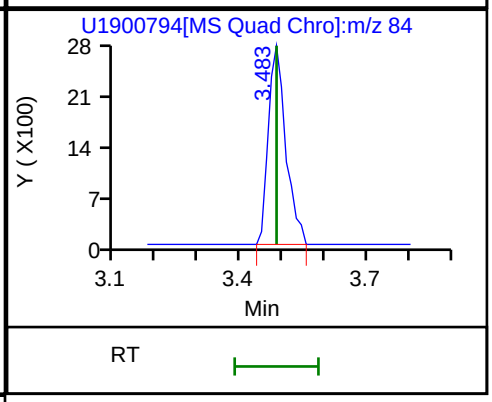
28 Methylene Chloride, CAS: 75-09-2

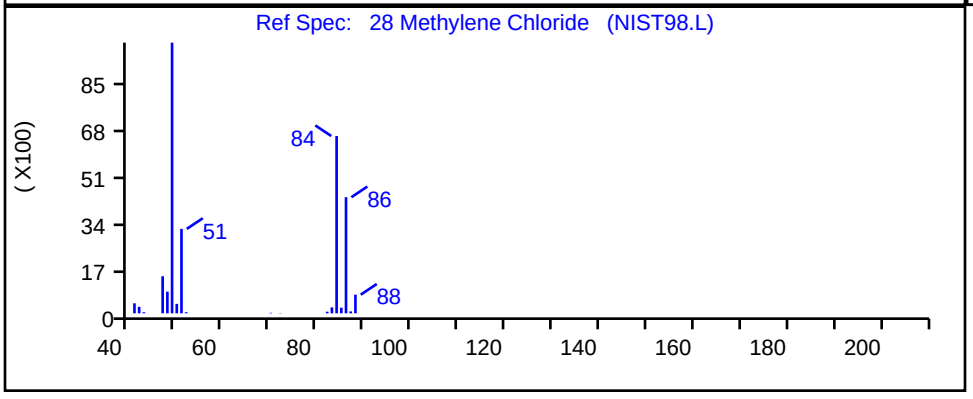
Processing Results











RT	Mass	Response	Amount
3.48	49.00	7846	0.551972
3.48	84.00	7835	

Reviewer: laveyt, 25-Jul-2018 09:52:25

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Report Date: 25-Jul-2018 10:14:11 Chrom Revision: 2.3 19-Jul-2018 15:14:50

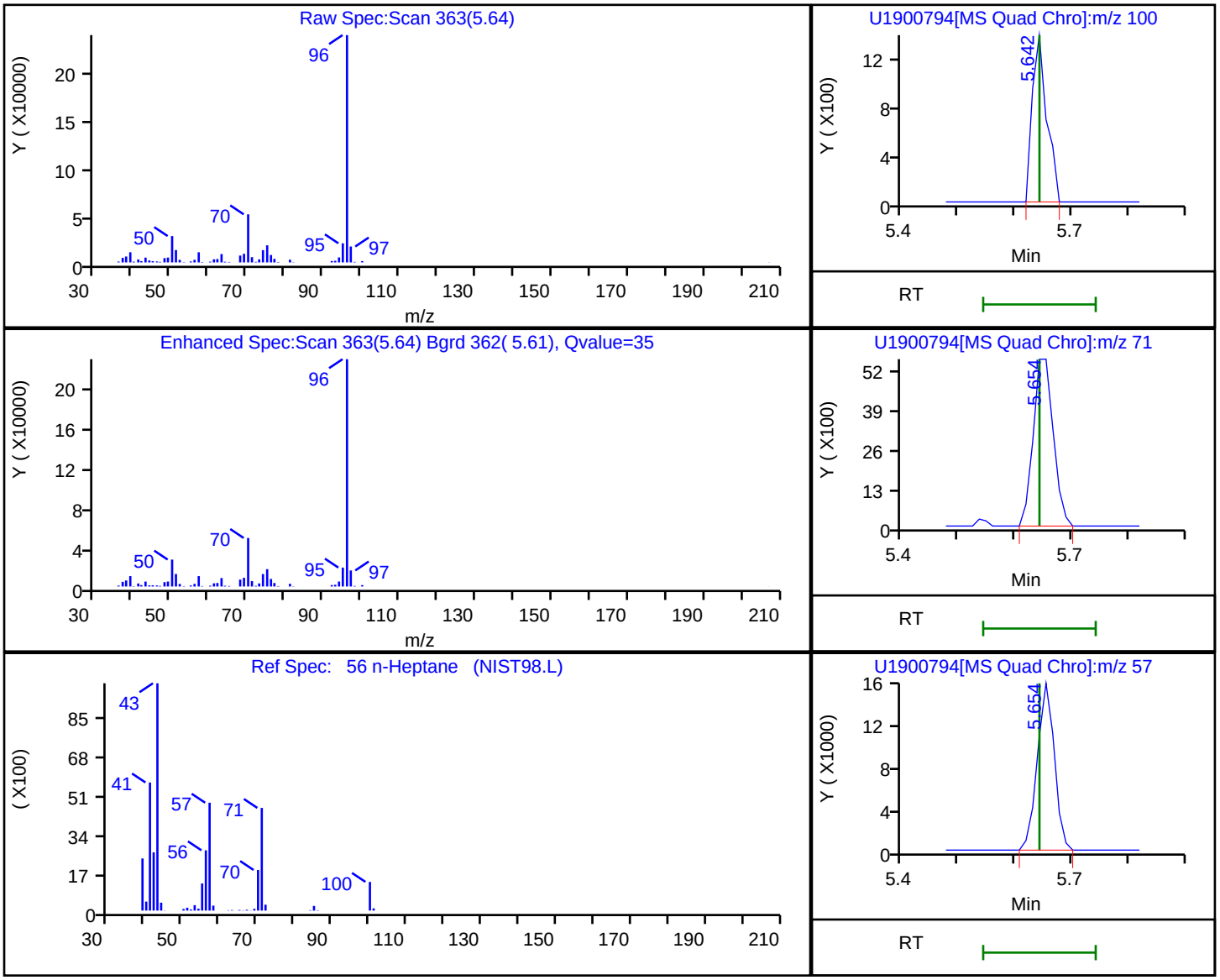
User Disabled Compound Report

TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\U1900794.d				
Injection Date:	24-Jul-2018 20:04:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

56 n-Heptane, CAS: 142-82-5

Processing Results



RT	Mass	Response	Amount
5.64	100.00	2448	
5.65	71.00	13746	
5.65	57.00	32874	0.539419

Reviewer: laveyt, 25-Jul-2018 09:54:04

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-337917/13	U1900807.d
Level 2	STDA9 240-337917/12	U1900806.d
Level 3	STDA9 240-337917/11	U1900805.d
Level 4	STDA9 240-337917/10	U1900804.d
Level 5	STDA9 240-337917/9	U1900803.d
Level 6	STDA9 240-337917/8	U1900802.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0267 0.0420	0.0243	0.0339	0.0383	0.0393	Lin1	-0.123	0.0406				15.8			0.9970		0.9900
Diisopropyl ether	0.2480 0.2295	0.2266	0.2186	0.2314	0.2335	Ave		0.2313				4.2		20.0			
2-Chloro-1,3-butadiene	0.4103 0.4183	0.3468	0.3861	0.4073	0.4185	Ave		0.3979				7.0		20.0			
Ethyl tert-butyl ether	0.6986 0.7570	0.7116	0.6979	0.7473	0.7423	Ave		0.7258				3.6		20.0			
Ethyl acetate	0.3112 0.3333	0.2920	0.2787	0.2931	0.2963	Ave		0.3007				6.3		20.0			
Propionitrile	0.0310 0.0489	0.0345	0.0381	0.0469	0.0451	Ave		0.0408				17.8		20.0			
Methacrylonitrile	0.1725 0.1953	0.1825	0.1747	0.1831	0.1889	Ave		0.1828				4.7		20.0			
Tert-amyl methyl ether	0.7358 0.8075	0.7777	0.7365	0.7842	0.7786	Ave		0.7700				3.7		20.0			
n-Butanol	0.0093 0.0103	0.0088	0.0085	0.0096	0.0096	Ave		0.0094				7.2		20.0			
Ethyl acrylate	0.3503 0.4100	0.3368	0.3674	0.3811	0.3761	Ave		0.3703				6.9		20.0			
Methyl methacrylate	0.2597 0.2591	0.2305	0.2383	0.2454	0.2423	Ave		0.2459				4.7		20.0			
2-Nitropropane	0.0701 0.0817	0.0670	0.0681	0.0750	0.0735	Ave		0.0726				7.5		20.0			
n-Butyl acetate	0.5119 0.5820	0.5042	0.5279	0.5447	0.5478	Ave		0.5364				5.3		20.0			
1-Chlorohexane	0.5172 0.4745	0.4432	0.4302	0.4451	0.4558	Ave		0.4610				6.8		20.0			
Cyclohexanone	0.0133 0.0157	0.0130	0.0126	0.0136	0.0138	Ave		0.0137				7.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.3347 0.3690	0.3068	0.3632	0.3574	0.3461	Ave		0.3462				6.6		20.0			
1,2,3-Trimethylbenzene	2.1501 2.3751	2.2616	2.2092	2.3745	2.2840	Ave		2.2757				3.9		20.0			
Benzyl chloride	1.0405 1.5547	1.1450	1.1839	1.3693	1.4244	Ave		1.2863				15.1		20.0			
1,3,5-Trichlorobenzene	1.0658 1.0430	1.1076	0.9448	1.0009	0.9668	Ave		1.0215				6.1		20.0			
2-Methylnaphthalene	1.2994 1.8015	1.3689	1.2543	1.3185	1.5534	Ave		1.4327				14.6		20.0			
1-Chloro-1-fluoroethane TIC	0.2622 0.2664	0.2640	0.2502	0.2645	0.2646	Ave		0.2620				2.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-337917/13	U1900807.d
Level 2	STDA9 240-337917/12	U1900806.d
Level 3	STDA9 240-337917/11	U1900805.d
Level 4	STDA9 240-337917/10	U1900804.d
Level 5	STDA9 240-337917/9	U1900803.d
Level 6	STDA9 240-337917/8	U1900802.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Lin1	6053 1541995	10939	154933	344974	710013	5.00 800	10.0	100	200	400
Diisopropyl ether	FB	Ave	5629 842560	10198	100050	208654	422081	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	9314 1535298	15609	176705	367286	756317	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	15860 2778668	32026	319412	673922	1341567	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	14128 2446844	26280	255115	528543	1070993	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	7042 1793207	15532	174314	423266	816037	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	39164 7168171	82133	799457	1651014	3414371	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	16704 2963984	35001	337094	707156	1407333	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	5296 949589	9875	96861	216043	435974	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	7952 1504928	15158	168159	343646	679802	0.500 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	11793 1902368	20747	218113	442524	875995	1.00 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	3185 599949	6028	62364	135288	265523	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	9641 1740666	17906	199107	397090	794623	0.500 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	9741 1419019	15739	162266	324476	661168	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	2498 468992	4617	47625	99504	200187	5.00 800	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	7164 1229564	12769	154980	304359	585743	1.00 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	23009 3957298	47067	471355	1010948	1932917	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	11135 2590360	23829	252607	582984	1205410	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	11406 1737829	23051	201583	426143	818176	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Ave	27811 6003075	56979	535247	1122673	2629143	1.00 160	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	5953 977727	11883	114539	238507	478166	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-337917/13	U1900807.d
Level 2	STDA9 240-337917/12	U1900806.d
Level 3	STDA9 240-337917/11	U1900805.d
Level 4	STDA9 240-337917/10	U1900804.d
Level 5	STDA9 240-337917/9	U1900803.d
Level 6	STDA9 240-337917/8	U1900802.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetonitrile	26.1						50					

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900802.d
Lims ID: stdA9 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 25-Jul-2018 13:24:03 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-008
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub3

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:29:55 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 14:10:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	917631	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	66	747699	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	69	416540	20.0	20.0	
165 1-Chloro-1-fluoroethane TI	47	2.215	2.226	-0.011	93	977727	80.0	81.3	
25 Acetonitrile	41	3.329	3.329	0.000	99	1541995	800.0	831.3	
36 Isopropyl ether	87	4.171	4.171	0.000	94	842560	80.0	79.4	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	87	1535298	80.0	84.1	
38 Tert-butyl ethyl ether	59	4.491	4.491	0.000	96	2778668	80.0	83.4	
42 Ethyl acetate	43	4.681	4.681	0.000	97	2446844	160.0	177.3	
43 Propionitrile	54	4.681	4.681	0.000	59	1793207	800.0	958.9	
44 Methacrylonitrile	41	4.823	4.823	0.000	91	7168171	800.0	854.5	
55 Tert-amyl methyl ether	73	5.499	5.499	0.000	90	2963984	80.0	83.9	
57 n-Butanol	56	5.891	5.891	0.000	85	949589	2000.0	2211.5	
59 Ethyl acrylate	55	6.057	6.057	0.000	99	1504928	80.0	88.6	
62 Methyl methacrylate	41	6.270	6.270	0.000	91	1902368	160.0	168.6	
66 2-Nitropropane	41	6.638	6.638	0.000	95	599949	160.0	180.2	
78 n-Butyl acetate	43	7.883	7.883	0.000	99	1740666	80.0	86.8	
81 1-Chlorohexane	91	8.488	8.488	0.000	96	1419019	80.0	82.3	
90 Cyclohexanone	55	9.614	9.614	0.000	92	468992	800.0	917.7	
100 Pentachloroethane	167	10.492	10.492	0.000	88	1229564	160.0	170.5	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	96	3957298	80.0	83.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Benzyl chloride	91	11.049	11.049	0.000	97	2590360	80.0	96.7	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	97	1737829	80.0	81.7	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	89	6003075	160.0	201.2	

Reagents:

vm50is_stk_A_00001	Amount Added: 2.00	Units: uL
vmra9w_00259	Amount Added: 64.00	Units: uL

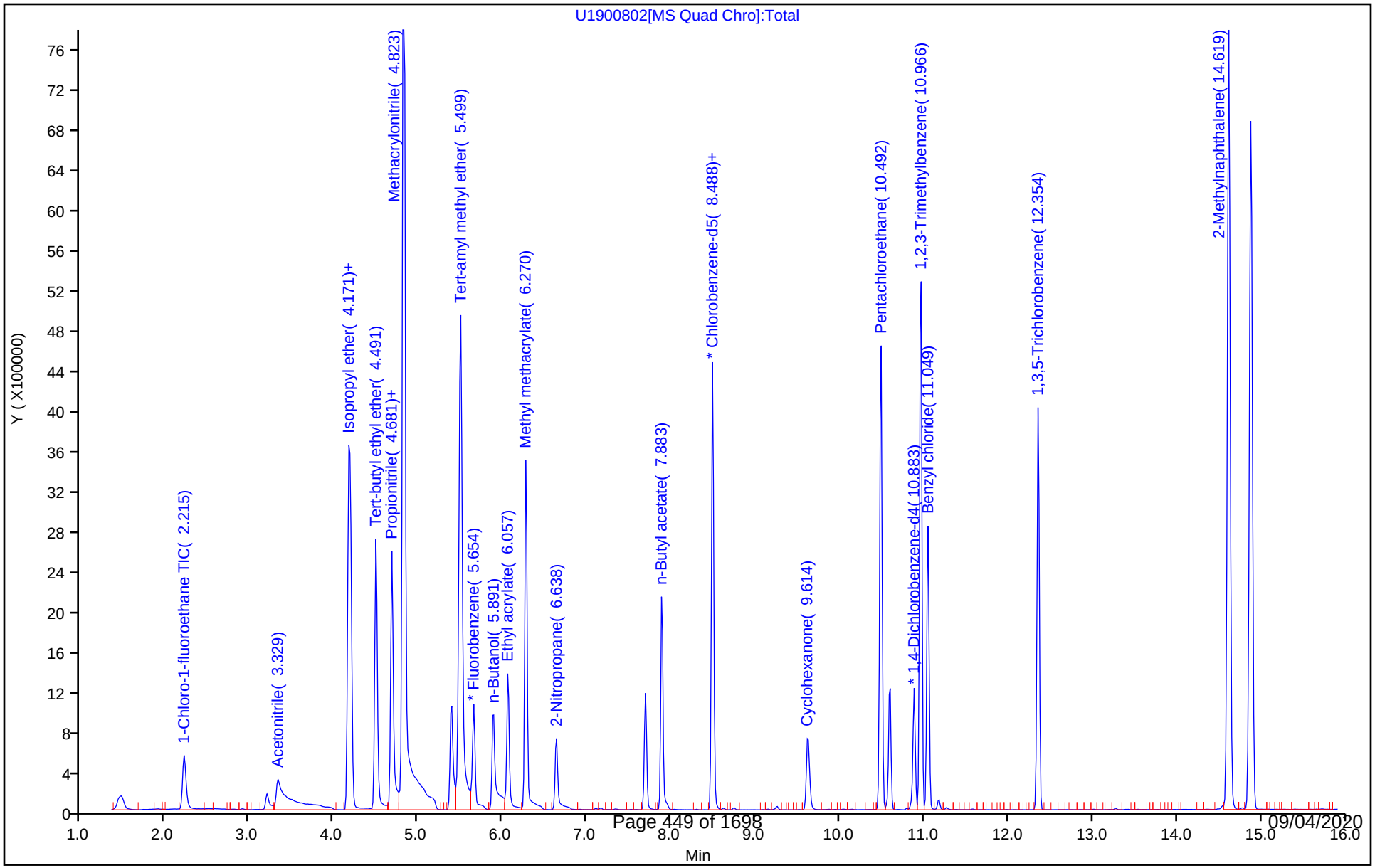
Report Date: 25-Jul-2018 16:29:56 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900802.d

Injection Date:	25-Jul-2018 13:24:03	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	stdA9 L6			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900803.d
Lims ID: stdA9 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 25-Jul-2018 13:46:28 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-009
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub3

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:29:58 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 14:11:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	903705	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	81	725276	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	74	423134	20.0	20.0	
165 1-Chloro-1-fluoroethane TI	47	2.227	2.226	0.001	94	478166	40.0	40.4	
25 Acetonitrile	41	3.329	3.329	0.000	99	710013	400.0	390.3	
36 Isopropyl ether	87	4.171	4.171	0.000	94	422081	40.0	40.4	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	87	756317	40.0	42.1	
38 Tert-butyl ethyl ether	59	4.492	4.491	0.001	87	1341567	40.0	40.9	
43 Propionitrile	54	4.681	4.681	0.000	62	816037	400.0	443.1	
42 Ethyl acetate	43	4.681	4.681	0.000	97	1070993	80.0	78.8	
44 Methacrylonitrile	41	4.824	4.823	0.001	91	3414371	400.0	413.3	
55 Tert-amyl methyl ether	73	5.511	5.499	0.012	92	1407333	40.0	40.4	
57 n-Butanol	56	5.891	5.891	0.000	85	435974	1000.0	1031.0	
59 Ethyl acrylate	55	6.057	6.057	0.000	93	679802	40.0	40.6	
62 Methyl methacrylate	41	6.270	6.270	0.000	92	875995	80.0	78.8	
66 2-Nitropropane	41	6.638	6.638	0.000	96	265523	80.0	81.0	
78 n-Butyl acetate	43	7.883	7.883	0.000	99	794623	40.0	40.8	
81 1-Chlorohexane	91	8.488	8.488	0.000	96	661168	40.0	39.6	
90 Cyclohexanone	55	9.615	9.614	0.001	91	200187	400.0	403.8	
100 Pentachloroethane	167	10.492	10.492	0.000	87	585743	80.0	80.0	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	94	1932917	40.0	40.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Benzyl chloride	91	11.049	11.049	0.000	97	1205410	40.0	44.3	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	97	818176	40.0	37.9	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	90	2629143	80.0	86.7	

Reagents:

vm50is_stk_A_00001	Amount Added: 2.00	Units: uL
vmra9w_00259	Amount Added: 32.00	Units: uL

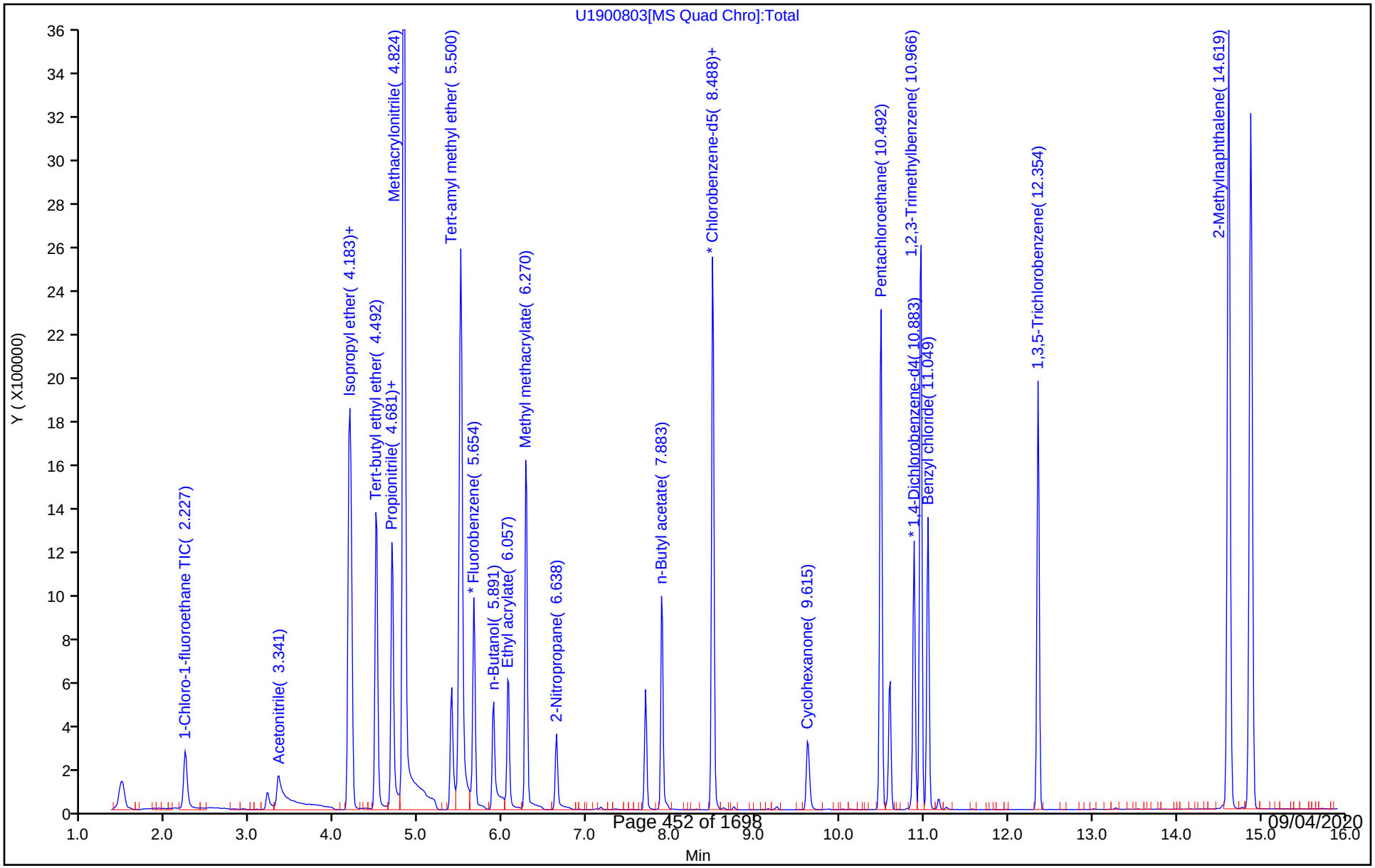
Report Date: 25-Jul-2018 16:29:59 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900803.d

Injection Date:	25-Jul-2018 13:46:28	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	stdA9 L5			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900804.d
Lims ID: stdA9 L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 25-Jul-2018 14:08:31 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-010
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub3

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:30:08 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 14:50:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	901786	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	728980	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	83	425754	20.0	20.0	
165 1-Chloro-1-fluoroethane TI	47	2.226	2.226	0.000	93	238507	20.0	20.2	
25 Acetonitrile	41	3.329	3.329	0.000	99	344974	200.0	191.6	
36 Isopropyl ether	87	4.171	4.171	0.000	94	208654	20.0	20.0	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	90	367286	20.0	20.5	
38 Tert-butyl ethyl ether	59	4.491	4.491	0.000	98	673922	20.0	20.6	
42 Ethyl acetate	43	4.681	4.681	0.000	96	528543	40.0	39.0	
43 Propionitrile	54	4.681	4.681	0.000	66	423266	200.0	230.3	
44 Methacrylonitrile	41	4.823	4.823	0.000	91	1651014	200.0	200.3	
55 Tert-amyl methyl ether	73	5.499	5.499	0.000	90	707156	20.0	20.4	
57 n-Butanol	56	5.891	5.891	0.000	85	216043	500.0	512.0	
59 Ethyl acrylate	55	6.057	6.057	0.000	92	343646	20.0	20.6	
62 Methyl methacrylate	41	6.270	6.270	0.000	92	442524	40.0	39.9	
66 2-Nitropropane	41	6.638	6.638	0.000	98	135288	40.0	41.3	
78 n-Butyl acetate	43	7.883	7.883	0.000	99	397090	20.0	20.3	
81 1-Chlorohexane	91	8.488	8.488	0.000	74	324476	20.0	19.3	
90 Cyclohexanone	55	9.614	9.614	0.000	91	99504	200.0	199.7	
100 Pentachloroethane	167	10.492	10.492	0.000	86	304359	40.0	41.3	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	86	1010948	20.0	20.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Benzyl chloride	91	11.049	11.049	0.000	97	582984	20.0	21.3	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	97	426143	20.0	19.6	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	89	1122673	40.0	36.8	

Reagents:

vm50is_stk_A_00001	Amount Added: 2.00	Units: uL
vmra9w_00259	Amount Added: 16.00	Units: uL

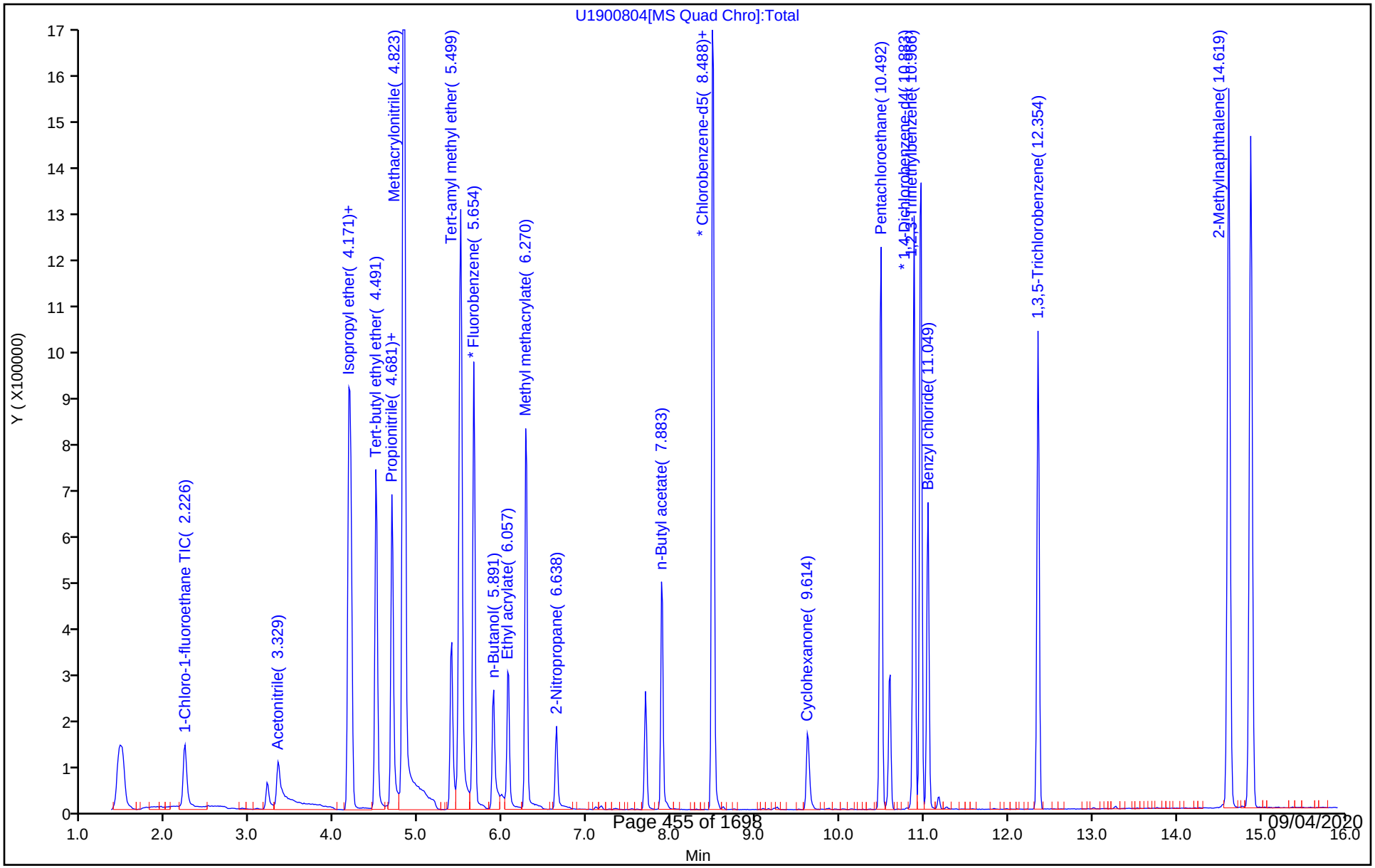
Report Date: 25-Jul-2018 16:30:10 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900804.d

Injection Date:	25-Jul-2018 14:08:31	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	stdA9 L4			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900805.d
Lims ID: stdA9 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 25-Jul-2018 14:30:45 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-011
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub3

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:30:13 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 14:49:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	915400	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	754374	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	85	426728	20.0	20.0	
165 1-Chloro-1-fluoroethane TI	47	2.215	2.226	-0.011	93	114539	10.0	9.55	
25 Acetonitrile	41	3.329	3.329	0.000	98	154933	100.0	86.5	
36 Isopropyl ether	87	4.171	4.171	0.000	93	100050	10.0	9.45	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	87	176705	10.0	9.70	
38 Tert-butyl ethyl ether	59	4.491	4.491	0.000	83	319412	10.0	9.62	
43 Propionitrile	54	4.681	4.681	0.000	52	174314	100.0	93.4	
42 Ethyl acetate	43	4.681	4.681	0.000	96	255115	20.0	18.5	
44 Methacrylonitrile	41	4.823	4.823	0.000	91	799457	100.0	95.5	
55 Tert-amyl methyl ether	73	5.499	5.499	0.000	89	337094	10.0	9.56	
57 n-Butanol	56	5.891	5.891	0.000	85	96861	250.0	226.1	
59 Ethyl acrylate	55	6.057	6.057	0.000	99	168159	10.0	9.92	
62 Methyl methacrylate	41	6.270	6.270	0.000	90	218113	20.0	19.4	
66 2-Nitropropane	41	6.638	6.638	0.000	96	62364	20.0	18.8	
78 n-Butyl acetate	43	7.883	7.883	0.000	99	199107	10.0	9.84	
81 1-Chlorohexane	91	8.488	8.488	0.000	54	162266	10.0	9.33	
90 Cyclohexanone	55	9.614	9.614	0.000	90	47625	100.0	92.4	
100 Pentachloroethane	167	10.492	10.492	0.000	86	154980	20.0	21.0	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	72	471355	10.0	9.71	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Benzyl chloride	91	11.049	11.049	0.000	97	252607	10.0	9.20	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	97	201583	10.0	9.25	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	90	535247	20.0	17.5	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmra9w_00259	Amount Added:	8.00	Units: uL

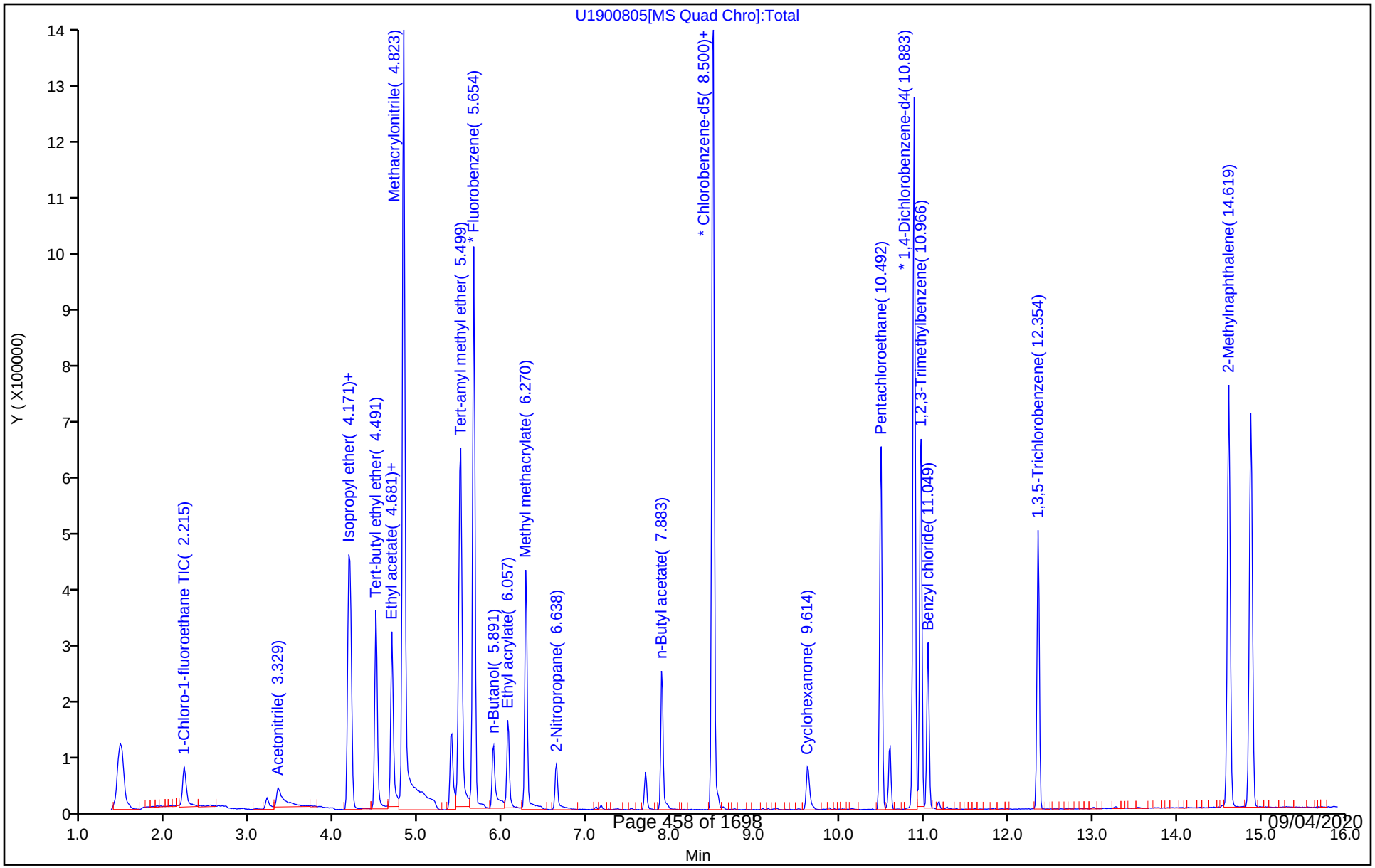
Report Date: 25-Jul-2018 16:30:14 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900805.d

Injection Date:	25-Jul-2018 14:30:45	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	stdA9 L3			Worklist Smp#:	11
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900806.d
Lims ID: stdA9 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Jul-2018 14:52:59 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-012
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub3

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:30:17 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 15:15:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	900144	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	710298	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	92	416233	20.0	20.0	
165 1-Chloro-1-fluoroethane TI	47	2.227	2.226	0.001	86	11883	1.00	1.01	
25 Acetonitrile	41	3.341	3.329	0.012	88	10939	10.0	9.01	
36 Isopropyl ether	87	4.183	4.171	0.012	93	10198	1.00	0.9798	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	82	15609	1.00	0.8717	
38 Tert-butyl ethyl ether	59	4.503	4.491	0.012	96	32026	1.00	0.9804	
42 Ethyl acetate	43	4.693	4.681	0.012	95	26280	2.00	1.94	
43 Propionitrile	54	4.693	4.681	0.012	62	15532	10.0	8.47	
44 Methacrylonitrile	41	4.824	4.823	0.001	92	82133	10.0	9.98	
55 Tert-amyl methyl ether	73	5.511	5.499	0.012	88	35001	1.00	1.01	
57 n-Butanol	56	5.891	5.891	0.000	65	9875	25.0	23.4	
59 Ethyl acrylate	55	6.069	6.057	0.012	85	15158	1.00	0.9096	
62 Methyl methacrylate	41	6.270	6.270	0.000	88	20747	2.00	1.87	
66 2-Nitropropane	41	6.638	6.638	0.000	82	6028	2.00	1.85	
78 n-Butyl acetate	43	7.883	7.883	0.000	90	17906	1.00	0.9399	
81 1-Chlorohexane	91	8.488	8.488	0.000	33	15739	1.00	0.9613	
90 Cyclohexanone	55	9.614	9.614	0.000	63	4617	10.0	9.51	
100 Pentachloroethane	167	10.492	10.492	0.000	76	12769	2.00	1.77	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	67	47067	1.00	0.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Benzyl chloride	91	11.049	11.049	0.000	84	23829	1.00	0.8901	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	91	23051	1.00	1.08	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	90	56979	2.00	1.91	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmra9w_00259	Amount Added:	0.80	Units: uL

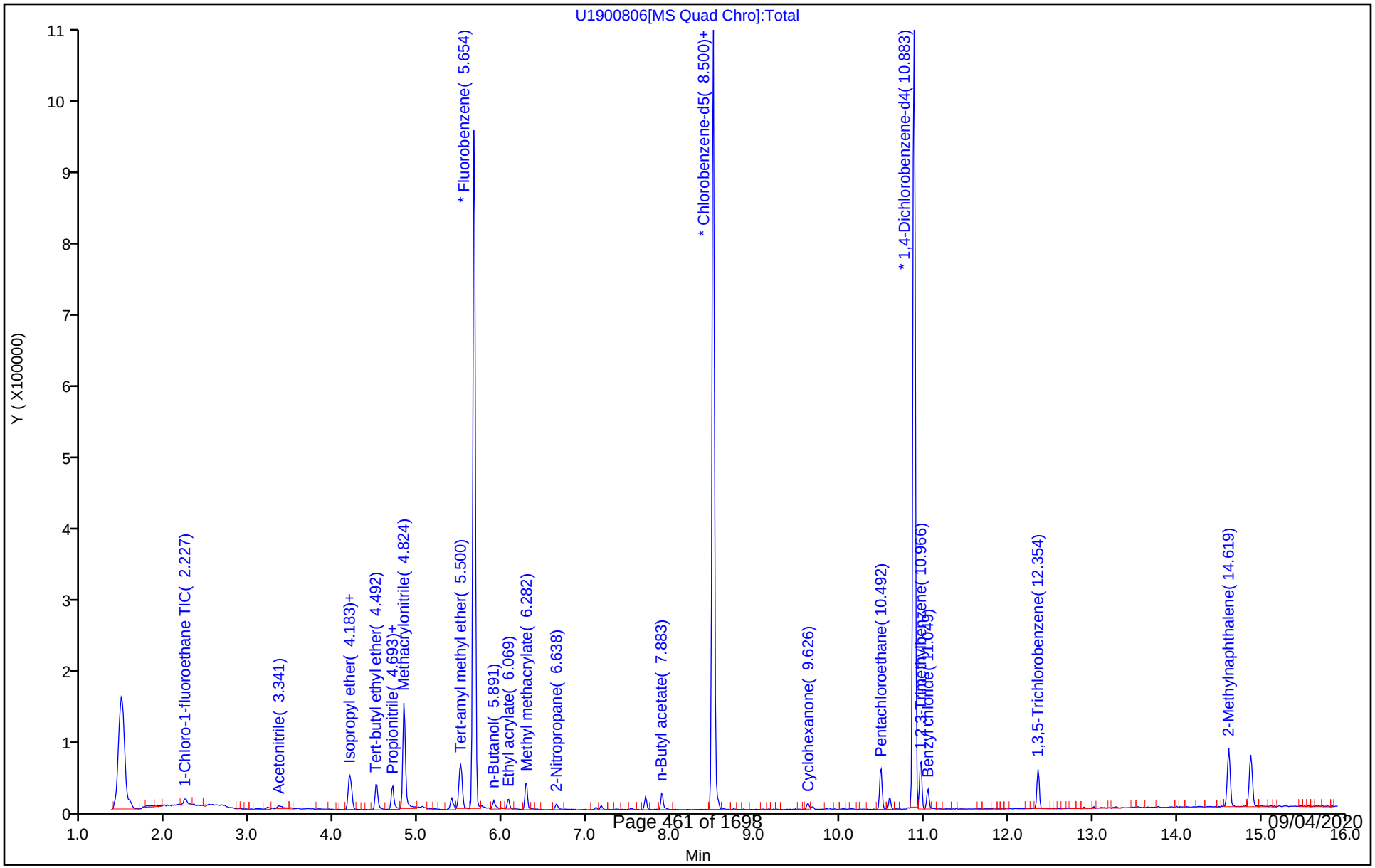
Report Date: 25-Jul-2018 16:30:18 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900806.d

Injection Date:	25-Jul-2018 14:52:59	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	stdA9 L2			Worklist Smp#:	12
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d
Lims ID: stdA9 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 25-Jul-2018 15:15:13 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-013
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub3

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:30:24 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: laveyt Date: 25-Jul-2018 15:46:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	908077	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	84	753378	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	92	428059	20.0	20.0	
165 1-Chloro-1-fluoroethane TI	47	2.226	2.226	0.000	78	5953	0.5000	0.5005	
25 Acetonitrile	41	3.341	3.329	0.012	88	6053	5.00	6.31	
36 Isopropyl ether	87	4.171	4.171	0.000	86	5629	0.5000	0.5361	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	71	9314	0.5000	0.5156	
38 Tert-butyl ethyl ether	59	4.491	4.491	0.000	92	15860	0.5000	0.4813	
43 Propionitrile	54	4.681	4.681	0.000	58	7042	5.00	3.81	
42 Ethyl acetate	43	4.681	4.681	0.000	90	14128	1.00	1.03	
44 Methacrylonitrile	41	4.823	4.823	0.000	89	39164	5.00	4.72	
55 Tert-amyl methyl ether	73	5.511	5.499	0.012	90	16704	0.5000	0.4778	
57 n-Butanol	56	5.891	5.891	0.000	79	5296	12.5	12.5	
59 Ethyl acrylate	55	6.069	6.057	0.012	84	7952	0.5000	0.4730	
62 Methyl methacrylate	41	6.270	6.270	0.000	84	11793	1.00	1.06	
66 2-Nitropropane	41	6.638	6.638	0.000	74	3185	1.00	0.9666	
78 n-Butyl acetate	43	7.895	7.883	0.012	86	9641	0.5000	0.4771	
81 1-Chlorohexane	91	8.488	8.488	0.000	32	9741	0.5000	0.5610	
90 Cyclohexanone	55	9.626	9.614	0.012	50	2498	5.00	4.85	
100 Pentachloroethane	167	10.492	10.492	0.000	68	7164	1.00	0.9669	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	62	23009	0.5000	0.4724	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Benzyl chloride	91	11.049	11.049	0.000	72	11135	0.5000	0.4045	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	67	11406	0.5000	0.5217	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	81	27811	1.00	0.9070	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmra9w_00259	Amount Added:	0.40	Units: uL

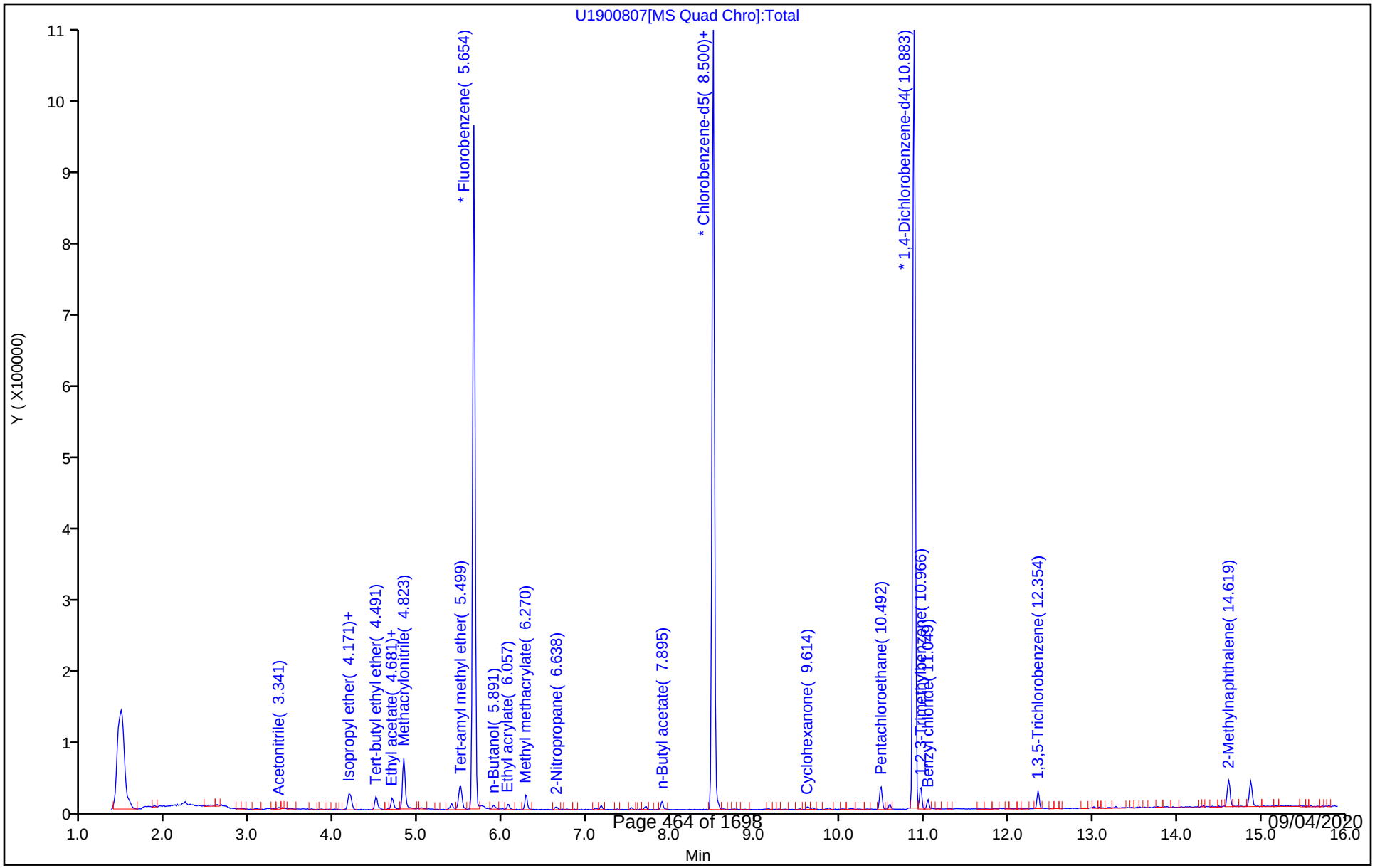
Report Date: 25-Jul-2018 16:30:25 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Injection Date:	25-Jul-2018 15:15:13	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	stdA9 L1			Worklist Smp#:	13
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-342719/13	U1901329.d
Level 2	STD8260 240-342719/12	U1901328.d
Level 3	STD8260 240-342719/11	U1901327.d
Level 4	ICIS 240-342719/10	U1901326.d
Level 5	STD8260 240-342719/9	U1901325.d
Level 6	STD8260 240-342719/8	U1901324.d
Level 7	STD8260 240-342719/7	U1901323.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3252 0.4073	0.3858 0.4041	0.3902	0.3772	0.4052	Ave		0.3850			0.1000	7.5		20.0			
Chloromethane	0.3476 0.2860	0.2731 0.2757	0.2817	0.2748	0.2796	Ave		0.2883			0.1000	9.2		20.0			
Butadiene	0.2863 0.2923	0.2971 0.2827	0.2967	0.2831	0.2826	Ave		0.2887				2.3		20.0			
Vinyl chloride	0.2799 0.3039	0.3000 0.2955	0.3102	0.2950	0.3013	Ave		0.2980			0.1000	3.2		20.0			
Bromomethane	0.2530 0.2308	0.2391 0.2251	0.2340	0.2259	0.2264	Ave		0.2335			0.0500	4.3		20.0			
Chloroethane	0.2052 0.1842	0.1766 0.1812	0.1882	0.1779	0.1807	Ave		0.1848			0.0500	5.3		20.0			
Dichlorofluoromethane	0.4944 0.4514	0.4567 0.4411	0.4677	0.4468	0.4490	Ave		0.4581				3.9		20.0			
Trichlorofluoromethane	0.4941 0.5030	0.4893 0.4931	0.5122	0.4967	0.5003	Ave		0.4984			0.1000	1.5		20.0			
Ethyl ether	0.1731 0.1798	0.1898 0.1760	0.1849	0.1771	0.1791	Ave		0.1800				3.1		20.0			
Acrolein	0.0495 0.0430	0.0446 0.0441	0.0420	0.0454	0.0427	Ave		0.0445				5.6		20.0			
1,1-Dichloroethene	0.3476 0.3661	0.3473 0.3597	0.3727	0.3582	0.3610	Ave		0.3589			0.1000	2.6		20.0			
1,1,2-Trichlorotrifluoroethane	0.2493 0.2658	0.2366 0.2616	0.2651	0.2563	0.2622	Ave		0.2567			0.0500	4.1		20.0			
Acetone	+++++ 0.0747	0.0941 0.0735	0.0766	0.0752	0.0764	Ave		0.0784			0.0100	9.9		20.0			
Iodomethane	0.4872 0.4597	0.4730 0.4538	0.4730	0.4575	0.4539	Ave		0.4655				2.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.8746 0.7168	0.8257 0.7023	0.7362	0.7031	0.7015	Ave		0.7515			0.1000	9.3		20.0			
3-Chloro-1-propene	0.3735 0.3489	0.3837 0.3396	0.3586	0.3361	0.3385	Ave		0.3541				5.3		20.0			
Methyl acetate	0.2638 0.2201	0.2366 0.2157	0.2398	0.2267	0.2267	Ave		0.2328			0.1000	6.9		20.0			
Methylene Chloride	+++++ 0.2751	0.3184 0.2694	0.2925	0.2792	0.2733	Ave		0.2846			0.1000	6.5		20.0			
tert-Butyl alcohol	0.0302 0.0245	0.0277 0.0251	0.0284	0.0260	0.0277	Ave		0.0271				7.4		20.0			
Acrylonitrile	0.1006 0.0983	0.1046 0.0951	0.1079	0.0977	0.0997	Ave		0.1006				4.3		20.0			
trans-1,2-Dichloroethene	0.3568 0.3338	0.3540 0.3216	0.3508	0.3269	0.3267	Ave		0.3387			0.1000	4.4		20.0			
Methyl tert-butyl ether	0.6459 0.7174	0.6970 0.7172	0.7178	0.6715	0.6899	Ave		0.6938			0.1000	3.9		20.0			
Hexane	0.3287 0.3643	0.3216 0.3693	0.3652	0.3577	0.3600	Ave		0.3524				5.4		20.0			
1,1-Dichloroethane	0.3877 0.4112	0.4141 0.3990	0.4182	0.3989	0.4043	Ave		0.4048			0.2000	2.6		20.0			
Vinyl acetate	0.4652 0.4557	0.4582 0.4625	0.4853	0.4584	0.4619	Ave		0.4639				2.1		20.0			
cis-1,2-Dichloroethene	0.3057 0.2869	0.2992 0.2782	0.2948	0.2801	0.2786	Ave		0.2891			0.1000	3.8		20.0			
2,2-Dichloropropane	0.2469 0.2502	0.2497 0.2458	0.2443	0.2181	0.2515	Ave		0.2438				4.8		20.0			
2-Butanone (MEK)	0.0487 0.0444	0.0481 0.0466	0.0506	0.0457	0.0465	Ave		0.0472			0.0100	4.3		20.0			
Bromochloromethane	0.2347 0.1831	0.2161 0.1713	0.1973	0.1804	0.1790	Ave		0.1945				11.9		20.0			
Tetrahydrofuran	+++++ 0.0978	0.2111 0.0981	0.1202	0.1027	0.1037	Lin1	0.2460	0.0976				7.4			0.9990		0.9900
Chloroform	0.4336 0.4423	0.4430 0.4326	0.4702	0.4398	0.4415	Ave		0.4433			0.2000	2.8		20.0			
1,1,1-Trichloroethane	0.3739 0.4296	0.4106 0.4262	0.4442	0.4096	0.4275	Ave		0.4174			0.1000	5.4		20.0			
Cyclohexane	0.3499 0.3999	0.3515 0.3986	0.3944	0.3825	0.3967	Ave		0.3819			0.1000	5.8		20.0			
1,1-Dichloropropene	0.3411 0.3565	0.3509 0.3499	0.3664	0.3469	0.3516	Ave		0.3519				2.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3818 0.4136	0.3781 0.4121	0.4219	0.3956	0.4130	Ave		0.4023			0.1000	4.3		20.0			
Isobutyl alcohol	0.0122 0.0101	0.0118 0.0103	0.0107	0.0108	0.0111	Ave		0.0110				7.0		20.0			
Benzene	0.9270 0.9480	0.9546 0.9366	1.0106	0.9431	0.9423	Ave		0.9518			0.5000	2.9		20.0			
1,2-Dichloroethane	0.3794 0.3459	0.3845 0.3369	0.3743	0.3513	0.3479	Ave		0.3600			0.1000	5.2		20.0			
n-Heptane	+++++ 0.1978	0.8214 0.1912	0.2589	0.2169	0.2053	Lin1	0.6437	0.1861				3.4			1.0000		0.9900
Trichloroethene	0.3334 0.3137	0.3081 0.3106	0.3277	0.3076	0.3109	Ave		0.3160			0.1500	3.3		20.0			
Methylcyclohexane	0.4282 0.4825	0.4267 0.4698	0.4724	0.4580	0.4751	Ave		0.4590			0.1000	5.0		20.0			
1,2-Dichloropropane	0.2171 0.2187	0.2141 0.2164	0.2362	0.2209	0.2218	Ave		0.2208			0.1000	3.3		20.0			
Dibromomethane	0.2410 0.2204	0.2408 0.2155	0.2336	0.2191	0.2191	Ave		0.2271				4.9		20.0			
1,4-Dioxane	+++++ 0.0025	0.0016 0.0027	0.0021	0.0026	0.0028	Ave		0.0024				17.9		20.0			
Bromodichloromethane	0.3399 0.3440	0.3630 0.3379	0.3620	0.3462	0.3426	Ave		0.3479			0.1500	3.0		20.0			
2-Chloroethyl vinyl ether	0.1593 0.1741	0.1654 0.1828	0.1943	0.1818	0.1815	Ave		0.1770				6.6		20.0			
cis-1,3-Dichloropropene	0.3743 0.3841	0.3867 0.3870	0.4032	0.3827	0.3872	Ave		0.3865			0.1500	2.2		20.0			
4-Methyl-2-pentanone (MIBK)	0.3150 0.3064	0.3110 0.3144	0.3487	0.3229	0.3240	Ave		0.3203			0.0500	4.4		20.0			
Toluene	1.3762 1.3312	1.3706 1.3223	1.4018	1.3282	1.3309	Ave		1.3516			0.4000	2.3		20.0			
trans-1,3-Dichloropropene	0.4999 0.4712	0.5033 0.4805	0.4835	0.4641	0.4704	Ave		0.4818			0.1000	3.1		20.0			
Ethyl methacrylate	0.3824 0.4408	0.4001 0.4600	0.4577	0.4462	0.4540	Ave		0.4344				7.1		20.0			
1,1,2-Trichloroethane	0.2808 0.2823	0.2821 0.2821	0.2973	0.2798	0.2847	Ave		0.2842			0.1000	2.1		20.0			
Tetrachloroethene	0.4234 0.4375	0.4194 0.4317	0.4508	0.4248	0.4314	Ave		0.4313			0.1500	2.4		20.0			
1,3-Dichloropropane	0.4988 0.4724	0.4733 0.4772	0.5009	0.4686	0.4705	Ave		0.4802				2.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.2781 0.3092	0.3020 0.3219	0.3438	0.3247	0.3245	Ave		0.3149			0.0500	6.6		20.0			
Chlorodibromomethane	0.3308 0.3663	0.3497 0.3646	0.3736	0.3604	0.3630	Ave		0.3583				3.9		20.0			
1,2-Dibromoethane	0.3770 0.3214	0.3321 0.3219	0.3422	0.3286	0.3194	Ave		0.3346				6.1		20.0			
Chlorobenzene	0.9370 0.9055	0.9832 0.8914	0.9544	0.9002	0.9056	Ave		0.9253			0.3000	3.7		20.0			
1,1,1,2-Tetrachloroethane	0.3225 0.3380	0.3313 0.3315	0.3490	0.3282	0.3347	Ave		0.3336				2.5		20.0			
Ethylbenzene	0.4566 0.4899	0.4640 0.4838	0.5159	0.4863	0.4886	Ave		0.4836				4.0		20.0			
m-Xylene & p-Xylene	0.5709 0.5980	0.5535 0.5943	0.6142	0.5959	0.5965	Ave		0.5890				3.4		20.0			
o-Xylene	0.5188 0.5706	0.5578 0.5579	0.5806	0.5638	0.5683	Ave		0.5597				3.5		20.0			
Styrene	0.8915 0.9829	0.9056 0.9730	1.0088	0.9699	0.9794	Ave		0.9588			0.3000	4.5		20.0			
Bromoform	0.2892 0.2933	0.2907 0.2979	0.3020	0.2847	0.2951	Ave		0.2933			0.1000	2.0		20.0			
Isopropylbenzene	1.3694 1.5447	1.4922 1.4942	1.5808	1.5060	1.5314	Ave		1.5027			0.1000	4.4		20.0			
1,1,2,2-Tetrachloroethane	0.7123 0.7674	0.7872 0.7661	0.8261	0.7624	0.7730	Ave		0.7706			0.3000	4.4		20.0			
Bromobenzene	0.7562 0.7639	0.7920 0.7473	0.8125	0.7532	0.7575	Ave		0.7690				3.1		20.0			
1,2,3-Trichloropropane	0.2805 0.2866	0.2903 0.2882	0.3178	0.2884	0.2929	Ave		0.2921				4.1		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2667	0.2763 0.2751	0.2902	0.2665	0.2675	Ave		0.2737				3.3		20.0			
N-Propylbenzene	0.7009 0.7973	0.7492 0.7772	0.8251	0.7710	0.7894	Ave		0.7729				5.1		20.0			
2-Chlorotoluene	0.6131 0.6732	0.6212 0.6509	0.7079	0.6539	0.6587	Ave		0.6541				4.9		20.0			
1,3,5-Trimethylbenzene	2.1099 2.2883	2.1099 2.2183	2.3988	2.1936	2.2594	Ave		2.2255				4.6		20.0			
4-Chlorotoluene	0.7307 0.7048	0.6944 0.6840	0.7470	0.7010	0.6888	Ave		0.7072				3.3		20.0			
tert-Butylbenzene	1.9093 2.2037	2.0260 2.1009	2.2785	2.0983	2.1715	Ave		2.1126				5.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.0996 2.3002	2.2590 2.2368	2.3762	2.2406	2.2826	Ave		2.2564				3.7		20.0			
sec-Butylbenzene	2.5921 3.0046	2.6994 2.8685	2.9965	2.8235	2.9285	Ave		2.8447				5.4		20.0			
1,3-Dichlorobenzene	1.4791 1.3933	1.5035 1.3394	1.4385	1.3676	1.3647	Ave		1.4123			0.6000	4.4		20.0			
4-Isopropyltoluene	2.2955 2.5970	2.3910 2.5362	2.6099	2.4625	2.5496	Ave		2.4917				4.6		20.0			
1,4-Dichlorobenzene	1.6054 1.4113	1.5675 1.3669	1.4816	1.3825	1.3984	Ave		1.4591			0.5000	6.5		20.0			
n-Butylbenzene	1.8944 2.1259	2.0232 2.0712	2.1091	2.0276	2.0953	Ave		2.0495				3.8		20.0			
1,2-Dichlorobenzene	1.3437 1.2534	1.3687 1.2318	1.3105	1.2348	1.2330	Ave		1.2823			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	0.2630 0.2491	0.2219 0.2547	0.2430	0.2371	0.2465	Ave		0.2450			0.0500	5.4		20.0			
1,2,4-Trichlorobenzene	0.9409 0.8412	0.9494 0.8737	0.8099	0.7792	0.7909	Ave		0.8550			0.2000	8.1		20.0			
Hexachlorobutadiene	0.4751 0.4459	0.4859 0.4196	0.4201	0.4076	0.4202	Ave		0.4392				7.0		20.0			
Naphthalene	+++++ 2.4081	2.5248 2.5673	2.2519	2.1428	2.2829	Ave		2.3630				7.0		20.0			
1,2,3-Trichlorobenzene	0.7893 0.7724	0.8277 0.8517	0.7383	0.6846	0.7103	Ave		0.7677				7.9		20.0			
Dibromofluoromethane (Surr)	0.2950 0.2630	0.2820 0.2531	0.2707	0.2587	0.2619	Ave		0.2692				5.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3515 0.2903	0.3408 0.2779	0.3137	0.2940	0.2963	Ave		0.3092				8.9		20.0			
Toluene-d8 (Surr)	1.2799 1.1805	1.2018 1.1653	1.2236	1.1594	1.1844	Ave		1.1993				3.5		20.0			
4-Bromofluorobenzene (Surr)	0.5295 0.4325	0.4716 0.4172	0.4467	0.4309	0.4307	Ave		0.4513				8.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-342719/13	U1901329.d
Level 2	STD8260 240-342719/12	U1901328.d
Level 3	STD8260 240-342719/11	U1901327.d
Level 4	ICIS 240-342719/10	U1901326.d
Level 5	STD8260 240-342719/9	U1901325.d
Level 6	STD8260 240-342719/8	U1901324.d
Level 7	STD8260 240-342719/7	U1901323.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7625 1180992	18328 1552738	186223	366772	792590	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	8152 829233	12972 1059365	134420	267203	546909	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	6713 847603	14115 1086231	141609	275330	552757	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	6564 881108	14250 1135494	148037	286894	589426	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	5934 669257	11360 864872	111689	219651	442826	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	4812 533953	8387 696179	89838	172968	353502	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11593 1308784	21694 1694878	223205	434465	878380	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	11587 1458414	23241 1894654	244417	483006	978643	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	4060 521372	9015 676475	88252	172224	350377	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	5804 622965	10600 846753	100203	220720	417769	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	8152 1061526	16498 1382045	177882	348307	706289	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	5847 770733	11240 1005400	126531	249289	512861	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 433055	8941 564923	73077	146204	298968	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	11424 1332936	22471 1743886	225726	444884	888035	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	20511 2078244	39223 2698750	351356	683722	1372316	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	8759 1011692	18227 1304832	171118	326833	662138	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	12374 1276471	22480 1658043	228841	440913	886871	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 797526	15126 1035294	139613	271471	534613	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	7089 709594	13140 963916	135517	252801	542388	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	23600 2849701	49680 3654042	514757	950386	1951040	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8368 967924	16818 1235776	167419	317885	639131	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	15146 2079947	33109 2755910	342568	653045	1349603	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	7709 1056328	15276 1419117	174299	347875	704185	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	9092 1192355	19673 1533220	199597	387941	790957	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10910 1321142	21765 1777280	231586	445770	903595	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7168 831715	14212 1069027	140685	272438	545012	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	5791 725393	11860 944363	116583	212094	491954	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	2283 257675	4567 358198	48290	88909	181887	1.00 120	2.00 160	20.0	40.0	80.0
Bromochloromethane	FB	Ave	5503 530825	10266 658069	94139	175479	350082	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Lin1	+++++ 566965	20056 753652	114720	199816	405539	+++++ 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10169 1282514	21044 1662428	224371	427697	863672	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	8767 1245609	19503 1637723	211997	398309	836381	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	8206 1159393	16696 1531667	188221	372006	776128	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7998 1033663	16667 1344377	174842	337392	687882	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	8954 1199313	17959 1583649	201366	384700	807965	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	7140 731439	14010 985172	127213	263438	540692	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	21738 2748682	45349 3599104	482300	917150	1843426	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8896 1002994	18266 1294416	178638	341638	680627	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 573367	39021 734621	123554	210893	401639	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	7819 909646	14636 1193487	156409	299123	608172	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	10042 1399000	20268 1805108	225444	445411	929492	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	5092 634222	10172 831616	112735	214790	433884	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	5652 638964	11437 828119	111478	213090	428543	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 147508	1560 204613	20257	50489	108387	+++++ 1200	20.0 1600	200	400	800
Bromodichloromethane	FB	Ave	7972 997303	17242 1298324	172767	336655	670319	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	7473 1009556	15714 1404589	185460	353595	710198	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8778 1113655	18371 1486992	192411	372198	757475	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	14774 1776570	29549 2416341	332777	627983	1267570	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	25413 3039879	50838 4036837	544474	1040131	2085055	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	9232 1076004	18668 1466824	187797	363416	737016	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	7062 1006534	14839 1404401	177753	349427	711262	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	5186 644677	10462 861140	115489	219105	445968	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7818 999011	15556 1317893	175104	332664	675866	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	9211 1078694	17554 1456758	194537	366944	737142	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	10272 1411899	22402 1965782	267096	508487	1016835	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	6108 836499	12969 1113195	145120	282195	568645	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	6962 733806	12317 982631	132926	257341	500324	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	17303 2067581	36469 2721351	370702	704913	1418747	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5956 771705	12290 1012040	135561	257026	524311	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	8431 1118678	17209 1476959	200390	380861	765441	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10542 1365436	20530 1814431	238543	466651	934583	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	9580 1302937	20689 1703380	225509	441487	890297	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16463 2244503	33591 2970527	391834	759556	1534422	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	5340 669771	10783 909465	117306	222929	462320	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25288 3527221	55346 4561888	613985	1179370	2399226	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7218 951258	16261 1271933	172140	328526	660294	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7663 946835	16361 1240722	169316	324573	647055	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2842 355186	5997 478494	66218	124262	250203	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 330637	5707 456736	60466	114842	228469	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	7103 988262	15476 1290307	171938	332244	674293	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6213 834423	12831 1080636	147510	281753	562614	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	21381 2836427	43584 3682951	499875	945225	1929863	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7405 873575	14345 1135643	155656	302046	588358	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	19348 2731529	41850 3487952	474813	904165	1854784	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21277 2851175	46663 3713592	495166	965487	1949684	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	26267 3724288	55760 4762339	624437	1216655	2501406	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	14989 1726981	31057 2223773	299776	589299	1165661	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	23262 3219084	49391 4210777	543873	1061108	2177763	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	16269 1749380	32379 2269476	308743	595729	1194426	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	19197 2635155	41792 3438646	439518	873706	1789693	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	13617 1553579	28272 2045057	273092	532075	1053180	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2665 308798	4583 422865	50642	102189	210526	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9535 1042664	19612 1450610	168774	335760	675526	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4814 552719	10037 696652	87534	175651	358938	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	+++++ 2984863	52154 4262332	469280	923339	1949946	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	7998 957428	17097 1414051	153843	295011	606712	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	6919 762443	13395 972724	129168	251584	512374	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	8242 841615	16187 1067780	149716	285917	579615	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	23636 2695636	44577 3557725	475254	907923	1855495	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	9778 987516	17494 1273707	173480	337411	674745	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-342719/13	U1901329.d
Level 2	STD8260 240-342719/12	U1901328.d
Level 3	STD8260 240-342719/11	U1901327.d
Level 4	ICIS 240-342719/10	U1901326.d
Level 5	STD8260 240-342719/9	U1901325.d
Level 6	STD8260 240-342719/8	U1901324.d
Level 7	STD8260 240-342719/7	U1901323.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Tetrahydrofuran	+++++	-9.7						50				
n-Heptane	+++++	-4.5						50				

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901323.d
Lims ID: std8260 L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Aug-2018 17:09:10 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0079307-003
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:27:48 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: laveyt Date: 27-Aug-2018 17:37:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	92	960659	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	763247	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	68	415062	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	63	972724	80.0	75.2	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.345	0.000	100	1067780	80.0	71.9	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	0.000	93	3557725	80.0	77.7	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	90	1273707	80.0	74.0	
9 Dichlorodifluoromethane	85	1.598	1.610	-0.012	88	1552738	80.0	84.0	
10 Chloromethane	50	1.811	1.812	-0.001	78	1059365	80.0	76.5	
12 Butadiene	54	1.894	1.906	-0.012	89	1086231	80.0	78.3	
11 Vinyl chloride	62	1.918	1.918	0.000	82	1135494	80.0	79.3	
13 Bromomethane	94	2.215	2.227	-0.013	84	864872	80.0	77.1	
14 Chloroethane	64	2.286	2.298	-0.012	86	696179	80.0	78.4	
15 Dichlorofluoromethane	67	2.499	2.499	0.000	83	1694878	80.0	77.0	
16 Trichlorofluoromethane	101	2.570	2.582	-0.012	87	1894654	80.0	79.1	
17 Ethyl ether	59	2.807	2.808	-0.001	88	676475	80.0	78.2	
18 Acrolein	56	2.926	2.926	0.000	91	846753	400.0	396.4	
21 1,1-Dichloroethene	61	3.033	3.045	-0.012	90	1382045	80.0	80.2	
20 1,1,2-Trichloro-1,2,2-trif	101	3.045	3.057	-0.012	78	1005400	80.0	81.5	
22 Acetone	43	3.068	3.069	-0.001	79	564923	160.0	150.0	
23 Iodomethane	142	3.187	3.199	-0.012	99	1743886	80.0	78.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	89	2698750	80.0	74.8	
26 3-Chloro-1-propene	41	3.353	3.365	-0.012	81	1304832	80.0	76.7	
27 Methyl acetate	43	3.377	3.377	0.000	96	1658043	160.0	148.3	
28 Methylene Chloride	49	3.483	3.495	-0.012	52	1035294	80.0	75.7	
29 2-Methyl-2-propanol	59	3.578	3.567	0.011	69	963916	800.0	741.0	
30 Acrylonitrile	53	3.685	3.685	0.000	98	3654042	800.0	756.5	
32 trans-1,2-Dichloroethene	61	3.721	3.721	0.000	79	1235776	80.0	76.0	
31 Methyl tert-butyl ether	73	3.732	3.733	-0.001	89	2755910	80.0	82.7	
33 Hexane	57	3.970	3.982	-0.012	93	1419117	80.0	83.8	
34 1,1-Dichloroethane	63	4.100	4.112	-0.012	85	1533220	80.0	78.9	
35 Vinyl acetate	43	4.147	4.148	-0.001	97	1777280	80.0	79.8	
40 cis-1,2-Dichloroethene	96	4.622	4.622	0.000	63	1069027	80.0	77.0	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	66	944363	80.0	80.7	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	96	358198	160.0	157.9	
45 Chlorobromomethane	49	4.835	4.836	-0.001	81	658069	80.0	70.4	
46 Tetrahydrofuran	42	4.883	4.883	0.000	83	753652	160.0	158.3	
47 Chloroform	83	4.906	4.907	-0.001	70	1662428	80.0	78.1	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	91	1637723	80.0	81.7	
49 Cyclohexane	84	5.144	5.144	0.000	75	1531667	80.0	83.5	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	89	1344377	80.0	79.5	
51 Carbon tetrachloride	117	5.238	5.239	-0.001	71	1583649	80.0	82.0	
52 Isobutyl alcohol	41	5.298	5.298	0.000	88	985172	2000.0	1867.6	
53 Benzene	78	5.404	5.417	-0.013	95	3599104	80.0	78.7	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	51	1294416	80.0	74.9	
56 n-Heptane	57	5.642	5.642	0.000	86	734621	80.0	78.7	
58 Trichloroethene	130	5.986	5.986	0.000	88	1193487	80.0	78.6	
60 Methylcyclohexane	83	6.175	6.176	-0.001	89	1805108	80.0	81.9	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	81	831616	80.0	78.4	
63 Dibromomethane	174	6.294	6.294	0.000	85	828119	80.0	75.9	
64 1,4-Dioxane	88	6.306	6.306	0.000	33	204613	1600.0	1782.8	
65 Dichlorobromomethane	83	6.424	6.436	-0.012	93	1298324	80.0	77.7	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	92	1404589	160.0	165.2	
68 cis-1,3-Dichloropropene	75	6.839	6.840	-0.001	91	1486992	80.0	80.1	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	83	2416341	160.0	157.0	
70 Toluene	91	7.171	7.172	-0.001	94	4036837	80.0	78.3	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	83	1466824	80.0	79.8	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	87	1404401	80.0	84.7	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	84	861140	80.0	79.4	
75 Tetrachloroethene	166	7.693	7.693	0.000	93	1317893	80.0	80.1	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	89	1456758	80.0	79.5	
77 2-Hexanone	43	7.764	7.765	-0.001	79	1965782	160.0	163.6	
79 Chlorodibromomethane	129	7.930	7.919	0.011	87	1113195	80.0	81.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	98	982631	80.0	76.9	
82 Chlorobenzene	112	8.523	8.524	-0.001	92	2721351	80.0	77.1	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	88	1012040	80.0	79.5	
84 Ethylbenzene	106	8.630	8.630	0.000	98	1476959	80.0	80.0	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	1814431	80.0	80.7	
86 o-Xylene	106	9.152	9.152	0.000	87	1703380	80.0	79.8	
87 Styrene	104	9.164	9.164	0.000	93	2970527	80.0	81.2	
88 Bromoform	173	9.353	9.354	-0.001	98	909465	80.0	81.3	
89 Isopropylbenzene	105	9.519	9.520	-0.001	95	4561888	80.0	79.6	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	84	1271933	80.0	79.5	
92 Bromobenzene	156	9.840	9.840	0.000	81	1240722	80.0	77.7	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	65	478494	80.0	78.9	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	62	456736	80.0	80.4	
95 N-Propylbenzene	120	9.946	9.947	-0.001	92	1290307	80.0	80.4	
96 2-Chlorotoluene	126	10.041	10.041	0.000	97	1080636	80.0	79.6	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	3682951	80.0	79.7	
98 4-Chlorotoluene	126	10.148	10.148	0.000	98	1135643	80.0	77.4	
99 tert-Butylbenzene	119	10.468	10.468	0.000	77	3487952	80.0	79.6	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	71	3713592	80.0	79.3	
102 sec-Butylbenzene	105	10.693	10.694	-0.001	94	4762339	80.0	80.7	
103 1,3-Dichlorobenzene	146	10.824	10.812	0.012	95	2223773	80.0	75.9	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	4210777	80.0	81.4	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	94	2269476	80.0	74.9	
108 n-Butylbenzene	91	11.286	11.287	-0.001	96	3438646	80.0	80.8	
109 1,2-Dichlorobenzene	146	11.310	11.298	0.012	98	2045057	80.0	76.9	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	92	422865	80.0	83.2	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	93	1450610	80.0	81.7	
113 Hexachlorobutadiene	225	13.207	13.208	-0.001	88	696652	80.0	76.4	
114 Naphthalene	128	13.279	13.279	0.000	97	4262332	80.0	86.9	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	94	1414051	80.0	88.7	
S 127 Trihalomethanes, Total	1				0		320.0	318.4	
S 164 Total BTEX	1				0		400.0	397.5	
S 124 1,2-Dichloroethene, Total	96				0			153.0	
S 125 1,3-Dichloropropene, Total	75				0			159.9	
S 126 Xylenes, Total	106				0		160.0	160.5	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00259	Amount Added:	64.00	Units: uL
vmarolistdw_00260	Amount Added:	64.00	Units: uL
vmrprimw_00297	Amount Added:	64.00	Units: uL
vm50ss_00333	Amount Added:	64.00	Units: uL

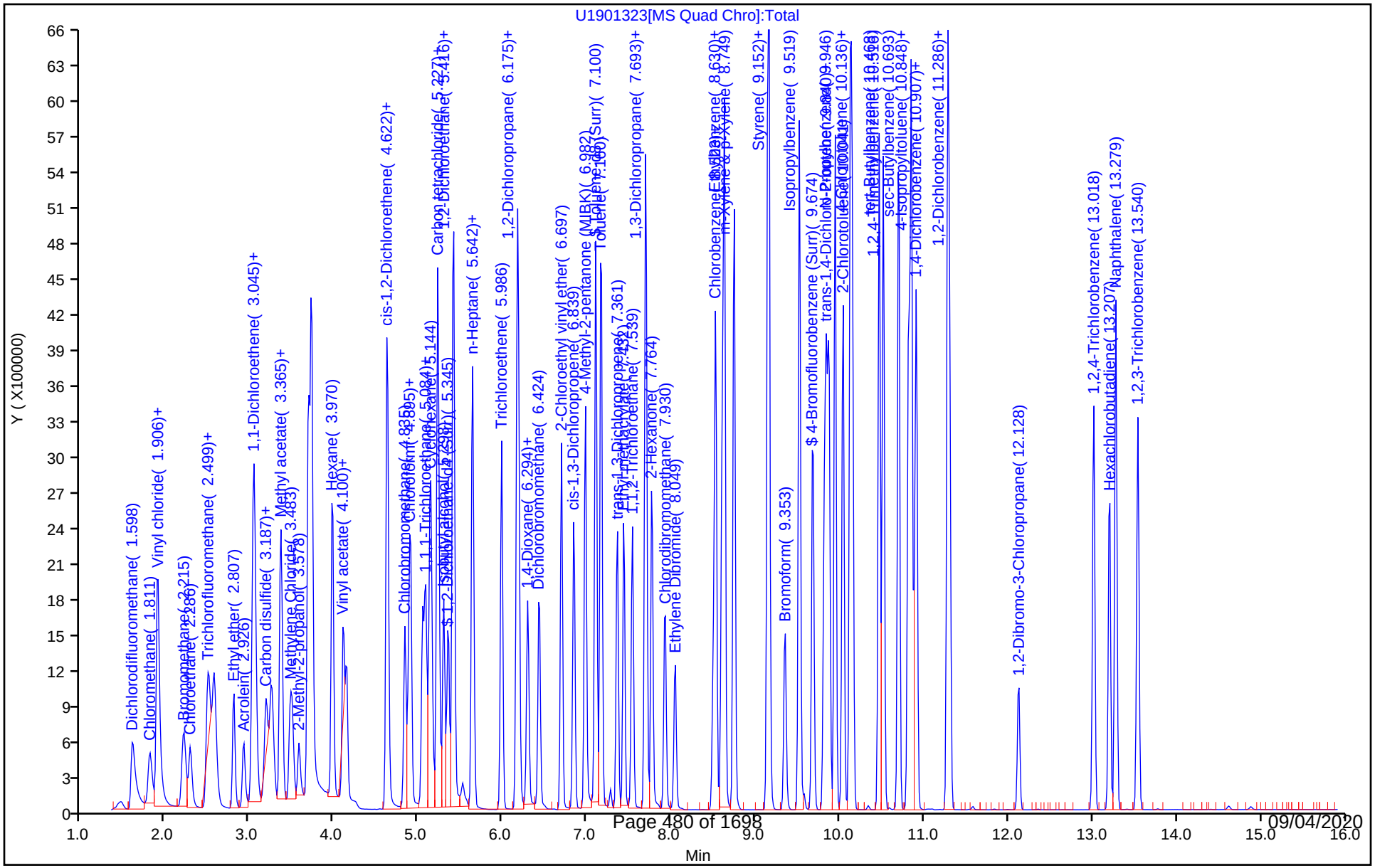
Report Date: 27-Aug-2018 21:27:50 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901323.d

Injection Date:	27-Aug-2018 17:09:10	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901324.d
Lims ID: std8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Aug-2018 17:31:36 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0079307-004
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:27:54 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: laveyt Date: 27-Aug-2018 18:08:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	92	966455	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	83	761160	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	74	413175	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	59	762443	60.0	58.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.345	0.012	99	841615	60.0	56.3	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	0.000	86	2695636	60.0	59.1	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	90	987516	60.0	57.5	
9 Dichlorodifluoromethane	85	1.610	1.610	0.000	80	1180992	60.0	63.5	
10 Chloromethane	50	1.823	1.812	0.011	77	829233	60.0	59.5	
12 Butadiene	54	1.906	1.906	0.000	88	847603	60.0	60.8	
11 Vinyl chloride	62	1.930	1.918	0.012	81	881108	60.0	61.2	
13 Bromomethane	94	2.226	2.227	-0.001	89	669257	60.0	59.3	
14 Chloroethane	64	2.298	2.298	0.000	94	533953	60.0	59.8	
15 Dichlorofluoromethane	67	2.511	2.499	0.012	82	1308784	60.0	59.1	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	88	1458414	60.0	60.6	
17 Ethyl ether	59	2.807	2.808	-0.001	90	521372	60.0	59.9	
18 Acrolein	56	2.926	2.926	0.000	95	622965	300.0	289.9	
21 1,1-Dichloroethene	61	3.045	3.045	0.000	89	1061526	60.0	61.2	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	79	770733	60.0	62.1	
22 Acetone	43	3.068	3.069	-0.001	64	433055	120.0	114.3	
23 Iodomethane	142	3.199	3.199	0.000	99	1332936	60.0	59.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	99	2078244	60.0	57.2	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	74	1011692	60.0	59.1	
27 Methyl acetate	43	3.377	3.377	0.000	96	1276471	120.0	113.5	
28 Methylene Chloride	49	3.483	3.495	-0.012	53	797526	60.0	58.0	
29 2-Methyl-2-propanol	59	3.578	3.567	0.011	86	709594	600.0	542.2	
30 Acrylonitrile	53	3.697	3.685	0.012	98	2849701	600.0	586.4	
32 trans-1,2-Dichloroethene	61	3.732	3.721	0.011	69	967924	60.0	59.1	
31 Methyl tert-butyl ether	73	3.732	3.733	-0.001	89	2079947	60.0	62.0	
33 Hexane	57	3.982	3.982	0.000	89	1056328	60.0	62.0	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	85	1192355	60.0	61.0	
35 Vinyl acetate	43	4.148	4.148	0.000	97	1321142	60.0	58.9	
40 cis-1,2-Dichloroethene	96	4.622	4.622	0.000	63	831715	60.0	59.5	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	90	257675	120.0	112.9	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	62	725393	60.0	61.6	
45 Chlorobromomethane	49	4.835	4.836	-0.001	68	530825	60.0	56.5	
46 Tetrahydrofuran	42	4.883	4.883	0.000	85	566965	120.0	117.7	
47 Chloroform	83	4.906	4.907	-0.001	70	1282514	60.0	59.9	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	89	1245609	60.0	61.8	
49 Cyclohexane	84	5.144	5.144	0.000	85	1159393	60.0	62.8	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	91	1033663	60.0	60.8	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	1199313	60.0	61.7	
52 Isobutyl alcohol	41	5.298	5.298	0.000	82	731439	1500.0	1378.3	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	49	1002994	60.0	57.7	
53 Benzene	78	5.416	5.417	-0.001	94	2748682	60.0	59.8	
56 n-Heptane	57	5.642	5.642	0.000	87	573367	60.0	60.3	
58 Trichloroethene	130	5.986	5.986	0.000	93	909646	60.0	59.6	
60 Methylcyclohexane	83	6.175	6.176	-0.001	89	1399000	60.0	63.1	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	79	634222	60.0	59.5	
63 Dibromomethane	174	6.294	6.294	0.000	86	638964	60.0	58.2	
64 1,4-Dioxane	88	6.306	6.306	0.000	32	147508	1200.0	1277.5	
65 Dichlorobromomethane	83	6.436	6.436	0.000	94	997303	60.0	59.3	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	92	1009556	120.0	118.0	
68 cis-1,3-Dichloropropene	75	6.839	6.840	-0.001	93	1113655	60.0	59.6	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	82	1776570	120.0	114.8	
70 Toluene	91	7.171	7.172	-0.001	94	3039879	60.0	59.1	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	87	1076004	60.0	58.7	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	88	1006534	60.0	60.9	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	84	644677	60.0	59.6	
75 Tetrachloroethene	166	7.693	7.693	0.000	93	999011	60.0	60.9	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	89	1078694	60.0	59.0	
77 2-Hexanone	43	7.764	7.765	-0.001	79	1411899	120.0	117.8	
79 Chlorodibromomethane	129	7.930	7.919	0.011	87	836499	60.0	61.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	99	733806	60.0	57.6	
82 Chlorobenzene	112	8.523	8.524	-0.001	95	2067581	60.0	58.7	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	88	771705	60.0	60.8	
84 Ethylbenzene	106	8.630	8.630	0.000	98	1118678	60.0	60.8	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	1365436	60.0	60.9	
86 o-Xylene	106	9.152	9.152	0.000	87	1302937	60.0	61.2	
87 Styrene	104	9.152	9.164	-0.012	88	2244503	60.0	61.5	
88 Bromoform	173	9.353	9.354	-0.001	98	669771	60.0	60.0	
89 Isopropylbenzene	105	9.519	9.520	-0.001	95	3527221	60.0	61.7	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	84	951258	60.0	59.8	
92 Bromobenzene	156	9.840	9.840	0.000	87	946835	60.0	59.6	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	63	355186	60.0	58.9	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	61	330637	60.0	58.5	
95 N-Propylbenzene	120	9.946	9.947	-0.001	91	988262	60.0	61.9	
96 2-Chlorotoluene	126	10.041	10.041	0.000	97	834423	60.0	61.7	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	2836427	60.0	61.7	
98 4-Chlorotoluene	126	10.148	10.148	0.000	98	873575	60.0	59.8	
99 tert-Butylbenzene	119	10.468	10.468	0.000	77	2731529	60.0	62.6	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	70	2851175	60.0	61.2	
102 sec-Butylbenzene	105	10.693	10.694	-0.001	94	3724288	60.0	63.4	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	90	1726981	60.0	59.2	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	3219084	60.0	62.5	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	94	1749380	60.0	58.0	
108 n-Butylbenzene	91	11.275	11.287	-0.012	98	2635155	60.0	62.2	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	97	1553579	60.0	58.6	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	91	308798	60.0	61.0	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	92	1042664	60.0	59.0	
113 Hexachlorobutadiene	225	13.208	13.208	0.000	88	552719	60.0	60.9	
114 Naphthalene	128	13.279	13.279	0.000	96	2984863	60.0	61.1	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	94	957428	60.0	60.4	
S 164 Total BTEX	1				0		300.0	301.7	
S 127 Trihalomethanes, Total	1				0		240.0	240.5	
S 124 1,2-Dichloroethene, Total	96				0			118.7	
S 125 1,3-Dichloropropene, Total	75				0			118.3	
S 126 Xylenes, Total	106				0		120.0	122.1	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00259	Amount Added:	48.00	Units: uL
vmarolistdw_00260	Amount Added:	48.00	Units: uL
vmrprimw_00297	Amount Added:	48.00	Units: uL
vm50ss_00333	Amount Added:	48.00	Units: uL

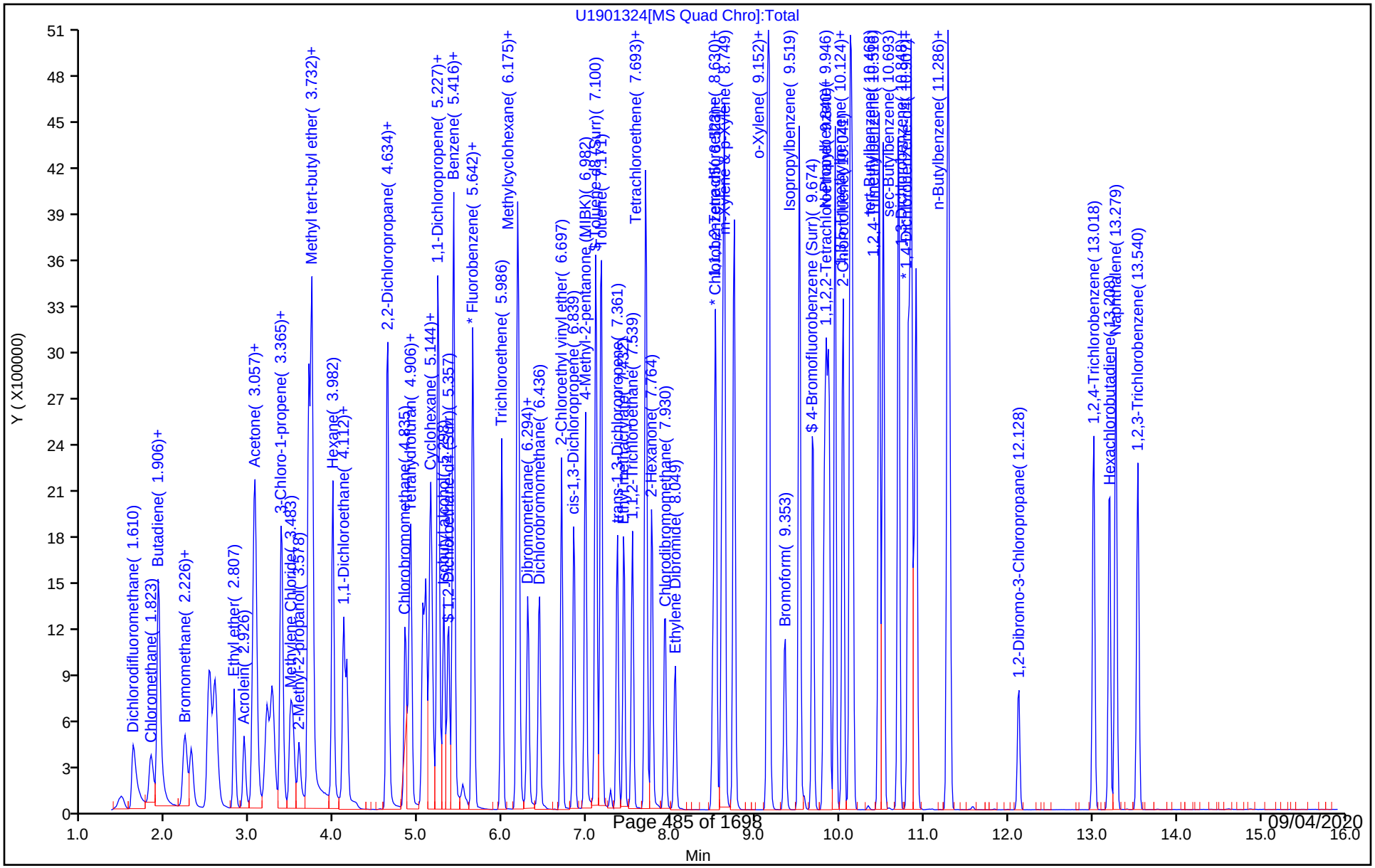
Report Date: 27-Aug-2018 21:27:59 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901324.d

Injection Date:	27-Aug-2018 17:31:36	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L6			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901325.d
Lims ID: std8260 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Aug-2018 17:53:51 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0079307-009
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:28:08 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: laveyt Date: 27-Aug-2018 18:49:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	95	978140	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	783329	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	75	427081	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	60	512374	40.0	38.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.345	0.000	100	579615	40.0	38.3	
$ 6 Toluene-d8 (Surr)	98	7.101	7.101	0.000	86	1855495	40.0	39.5	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	89	674745	40.0	38.2	
9 Dichlorodifluoromethane	85	1.598	1.610	-0.012	88	792590	40.0	42.1	
10 Chloromethane	50	1.812	1.812	0.000	78	546909	40.0	38.8	
12 Butadiene	54	1.895	1.906	-0.011	89	552757	40.0	39.2	
11 Vinyl chloride	62	1.918	1.918	0.000	83	589426	40.0	40.4	
13 Bromomethane	94	2.215	2.227	-0.012	85	442826	40.0	38.8	
14 Chloroethane	64	2.298	2.298	0.000	82	353502	40.0	39.1	
15 Dichlorofluoromethane	67	2.499	2.499	0.000	83	878380	40.0	39.2	
16 Trichlorofluoromethane	101	2.571	2.582	-0.012	87	978643	40.0	40.2	
17 Ethyl ether	59	2.808	2.808	0.000	88	350377	40.0	39.8	
18 Acrolein	56	2.926	2.926	0.000	95	417769	200.0	192.1	
21 1,1-Dichloroethene	61	3.033	3.045	-0.012	90	706289	40.0	40.2	
20 1,1,2-Trichloro-1,2,2-trif	101	3.045	3.057	-0.012	72	512861	40.0	40.8	
22 Acetone	43	3.069	3.069	0.000	82	298968	80.0	78.0	
23 Iodomethane	142	3.187	3.199	-0.012	99	888035	40.0	39.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	89	1372316	40.0	37.3	
26 3-Chloro-1-propene	41	3.353	3.365	-0.012	73	662138	40.0	38.2	
27 Methyl acetate	43	3.377	3.377	0.000	96	886871	80.0	77.9	
28 Methylene Chloride	49	3.484	3.495	-0.011	51	534613	40.0	38.4	
29 2-Methyl-2-propanol	59	3.578	3.567	0.011	69	542388	400.0	409.5	
30 Acrylonitrile	53	3.685	3.685	0.000	97	1951040	400.0	396.7	
32 trans-1,2-Dichloroethene	61	3.721	3.721	0.000	74	639131	40.0	38.6	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	87	1349603	40.0	39.8	
33 Hexane	57	3.982	3.982	0.000	92	704185	40.0	40.9	
34 1,1-Dichloroethane	63	4.100	4.112	-0.012	85	790957	40.0	40.0	
35 Vinyl acetate	43	4.148	4.148	0.000	97	903595	40.0	39.8	
40 cis-1,2-Dichloroethene	96	4.622	4.622	0.000	69	545012	40.0	38.6	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	66	491954	40.0	41.3	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	96	181887	80.0	78.7	
45 Chlorobromomethane	49	4.836	4.836	0.000	80	350082	40.0	36.8	
46 Tetrahydrofuran	42	4.883	4.883	0.000	84	405539	80.0	82.5	
47 Chloroform	83	4.907	4.907	0.000	68	863672	40.0	39.8	
48 1,1,1-Trichloroethane	97	5.085	5.085	0.000	90	836381	40.0	41.0	
49 Cyclohexane	84	5.144	5.144	0.000	75	776128	40.0	41.6	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	89	687882	40.0	40.0	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	807965	40.0	41.1	
52 Isobutyl alcohol	41	5.298	5.298	0.000	88	540692	1000.0	1006.7	
53 Benzene	78	5.405	5.417	-0.012	95	1843426	40.0	39.6	
54 1,2-Dichloroethane	62	5.417	5.417	0.000	51	680627	40.0	38.7	
56 n-Heptane	57	5.642	5.642	0.000	84	401639	40.0	40.7	
58 Trichloroethene	130	5.986	5.986	0.000	92	608172	40.0	39.4	
60 Methylcyclohexane	83	6.176	6.176	0.000	88	929492	40.0	41.4	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	80	433884	40.0	40.2	
63 Dibromomethane	174	6.294	6.294	0.000	86	428543	40.0	38.6	
64 1,4-Dioxane	88	6.306	6.306	0.000	35	108387	800.0	927.5	
65 Dichlorobromomethane	83	6.436	6.436	0.000	93	670319	40.0	39.4	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	92	710198	80.0	82.0	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	92	757475	40.0	40.1	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	82	1267570	80.0	80.9	
70 Toluene	91	7.172	7.172	0.000	95	2085055	40.0	39.4	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	83	737016	40.0	39.1	
72 Ethyl methacrylate	69	7.433	7.433	0.000	88	711262	40.0	41.8	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	84	445968	40.0	40.1	
75 Tetrachloroethene	166	7.693	7.693	0.000	92	675866	40.0	40.0	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	89	737142	40.0	39.2	
77 2-Hexanone	43	7.765	7.765	0.000	79	1016835	80.0	82.4	
79 Chlorodibromomethane	129	7.931	7.919	0.012	87	568645	40.0	40.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	99	500324	40.0	38.2	
82 Chlorobenzene	112	8.524	8.524	0.000	97	1418747	40.0	39.1	
83 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	87	524311	40.0	40.1	
84 Ethylbenzene	106	8.630	8.630	0.000	98	765441	40.0	40.4	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	934583	40.0	40.5	
86 o-Xylene	106	9.152	9.152	0.000	87	890297	40.0	40.6	
87 Styrene	104	9.164	9.164	0.000	93	1534422	40.0	40.9	
88 Bromoform	173	9.354	9.354	0.000	98	462320	40.0	40.2	
89 Isopropylbenzene	105	9.520	9.520	0.000	96	2399226	40.0	40.8	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	88	660294	40.0	40.1	
92 Bromobenzene	156	9.840	9.840	0.000	81	647055	40.0	39.4	
93 1,2,3-Trichloropropane	110	9.864	9.864	0.000	70	250203	40.0	40.1	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	61	228469	40.0	39.1	
95 N-Propylbenzene	120	9.947	9.947	0.000	91	674293	40.0	40.9	
96 2-Chlorotoluene	126	10.041	10.041	0.000	97	562614	40.0	40.3	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	1929863	40.0	40.6	
98 4-Chlorotoluene	126	10.148	10.148	0.000	98	588358	40.0	39.0	
99 tert-Butylbenzene	119	10.468	10.468	0.000	77	1854784	40.0	41.1	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	70	1949684	40.0	40.5	
102 sec-Butylbenzene	105	10.694	10.694	0.000	94	2501406	40.0	41.2	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	90	1165661	40.0	38.7	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	91	2177763	40.0	40.9	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	94	1194426	40.0	38.3	
108 n-Butylbenzene	91	11.287	11.287	0.000	97	1789693	40.0	40.9	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	96	1053180	40.0	38.5	
110 1,2-Dibromo-3-Chloropropan	157	12.129	12.129	0.000	92	210526	40.0	40.2	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	91	675526	40.0	37.0	
113 Hexachlorobutadiene	225	13.208	13.208	0.000	88	358938	40.0	38.3	
114 Naphthalene	128	13.279	13.279	0.000	96	1949946	40.0	38.6	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	93	606712	40.0	37.0	
S 127 Trihalomethanes, Total	1				0		160.0	160.0	
S 164 Total BTEX	1				0		200.0	200.5	
S 124 1,2-Dichloroethene, Total	96				0			77.1	
S 125 1,3-Dichloropropene, Total	75				0			79.1	
S 126 Xylenes, Total	106				0		80.0	81.1	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00259	Amount Added:	32.00	Units: uL
vmarolistdw_00260	Amount Added:	32.00	Units: uL
vmrprimw_00297	Amount Added:	32.00	Units: uL
vm50ss_00333	Amount Added:	32.00	Units: uL

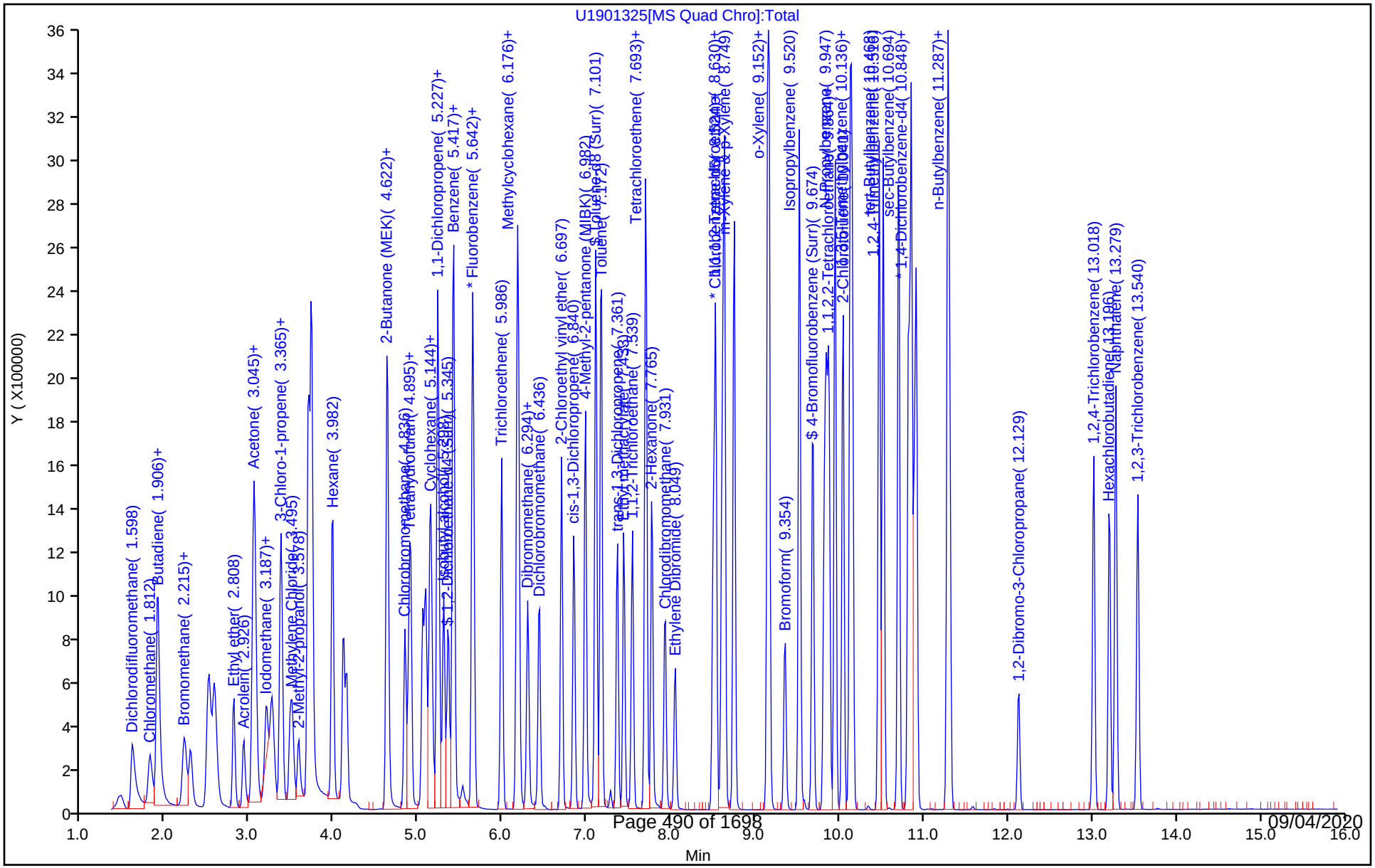
Report Date: 27-Aug-2018 21:28:11 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901325.d

Injection Date:	27-Aug-2018 17:53:51	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L5			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901326.d
Lims ID: ICIS L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 27-Aug-2018 18:16:31 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0079307-010
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:28:20 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: laveyt Date: 27-Aug-2018 18:47:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	97	972482	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	83	783101	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	86	430906	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	59	251584	20.0	19.2	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.345	0.000	99	285917	20.0	19.0	
$ 6 Toluene-d8 (Surr)	98	7.101	7.101	0.000	86	907923	20.0	19.3	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	90	337411	20.0	19.1	
9 Dichlorodifluoromethane	85	1.610	1.610	0.000	66	366772	20.0	19.6	
10 Chloromethane	50	1.812	1.812	0.000	77	267203	20.0	19.1	
12 Butadiene	54	1.906	1.906	0.000	88	275330	20.0	19.6	
11 Vinyl chloride	62	1.918	1.918	0.000	70	286894	20.0	19.8	
13 Bromomethane	94	2.227	2.227	0.000	90	219651	20.0	19.3	
14 Chloroethane	64	2.298	2.298	0.000	95	172968	20.0	19.2	
15 Dichlorofluoromethane	67	2.499	2.499	0.000	83	434465	20.0	19.5	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	86	483006	20.0	19.9	
17 Ethyl ether	59	2.808	2.808	0.000	88	172224	20.0	19.7	
18 Acrolein	56	2.926	2.926	0.000	95	220720	100.0	102.1	
21 1,1-Dichloroethene	61	3.045	3.045	0.000	89	348307	20.0	20.0	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	80	249289	20.0	20.0	
22 Acetone	43	3.069	3.069	0.000	68	146204	40.0	38.3	
23 Iodomethane	142	3.199	3.199	0.000	99	444884	20.0	19.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	99	683722	20.0	18.7	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	80	326833	20.0	19.0	
27 Methyl acetate	43	3.377	3.377	0.000	96	440913	40.0	39.0	
28 Methylene Chloride	49	3.495	3.495	0.000	55	271471	20.0	19.6	
29 2-Methyl-2-propanol	59	3.567	3.567	0.000	51	252801	200.0	192.0	
30 Acrylonitrile	53	3.685	3.685	0.000	98	950386	200.0	194.4	
32 trans-1,2-Dichloroethene	61	3.721	3.721	0.000	72	317885	20.0	19.3	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	78	653045	20.0	19.4	
33 Hexane	57	3.982	3.982	0.000	91	347875	20.0	20.3	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	85	387941	20.0	19.7	
35 Vinyl acetate	43	4.148	4.148	0.000	97	445770	20.0	19.8	
40 cis-1,2-Dichloroethene	96	4.622	4.622	0.000	69	272438	20.0	19.4	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	95	88909	40.0	38.7	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	63	212094	20.0	17.9	
45 Chlorobromomethane	49	4.836	4.836	0.000	81	175479	20.0	18.6	
46 Tetrahydrofuran	42	4.883	4.883	0.000	84	199816	40.0	39.6	
47 Chloroform	83	4.907	4.907	0.000	70	427697	20.0	19.8	
48 1,1,1-Trichloroethane	97	5.085	5.085	0.000	89	398309	20.0	19.6	
49 Cyclohexane	84	5.144	5.144	0.000	75	372006	20.0	20.0	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	90	337392	20.0	19.7	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	384700	20.0	19.7	
52 Isobutyl alcohol	41	5.298	5.298	0.000	88	263438	500.0	493.3	
54 1,2-Dichloroethane	62	5.417	5.417	0.000	51	341638	20.0	19.5	
53 Benzene	78	5.417	5.417	0.000	94	917150	20.0	19.8	
56 n-Heptane	57	5.642	5.642	0.000	76	210893	20.0	19.9	
58 Trichloroethene	130	5.986	5.986	0.000	92	299123	20.0	19.5	
60 Methylcyclohexane	83	6.176	6.176	0.000	88	445411	20.0	20.0	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	81	214790	20.0	20.0	
63 Dibromomethane	174	6.294	6.294	0.000	87	213090	20.0	19.3	
64 1,4-Dioxane	88	6.306	6.306	0.000	35	50489	400.0	434.6	
65 Dichlorobromomethane	83	6.436	6.436	0.000	93	336655	20.0	19.9	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	93	353595	40.0	41.1	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	92	372198	20.0	19.8	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	83	627983	40.0	40.3	
70 Toluene	91	7.172	7.172	0.000	94	1040131	20.0	19.7	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	85	363416	20.0	19.3	
72 Ethyl methacrylate	69	7.433	7.433	0.000	88	349427	20.0	20.5	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	86	219105	20.0	19.7	
75 Tetrachloroethene	166	7.693	7.693	0.000	92	332664	20.0	19.7	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	82	366944	20.0	19.5	
77 2-Hexanone	43	7.765	7.765	0.000	80	508487	40.0	41.2	
79 Chlorodibromomethane	129	7.919	7.919	0.000	89	282195	20.0	20.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	98	257341	20.0	19.6	
82 Chlorobenzene	112	8.524	8.524	0.000	97	704913	20.0	19.5	
83 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	87	257026	20.0	19.7	
84 Ethylbenzene	106	8.630	8.630	0.000	98	380861	20.0	20.1	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	466651	20.0	20.2	
86 o-Xylene	106	9.152	9.152	0.000	87	441487	20.0	20.1	
87 Styrene	104	9.164	9.164	0.000	93	759556	20.0	20.2	
88 Bromoform	173	9.354	9.354	0.000	98	222929	20.0	19.4	
89 Isopropylbenzene	105	9.520	9.520	0.000	95	1179370	20.0	20.0	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	88	328526	20.0	19.8	
92 Bromobenzene	156	9.840	9.840	0.000	88	324573	20.0	19.6	
93 1,2,3-Trichloropropane	110	9.864	9.864	0.000	71	124262	20.0	19.7	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	65	114842	20.0	19.5	
95 N-Propylbenzene	120	9.947	9.947	0.000	96	332244	20.0	20.0	
96 2-Chlorotoluene	126	10.041	10.041	0.000	96	281753	20.0	20.0	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	93	945225	20.0	19.7	
98 4-Chlorotoluene	126	10.148	10.148	0.000	98	302046	20.0	19.8	
99 tert-Butylbenzene	119	10.468	10.468	0.000	78	904165	20.0	19.9	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	72	965487	20.0	19.9	
102 sec-Butylbenzene	105	10.694	10.694	0.000	94	1216655	20.0	19.9	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	84	589299	20.0	19.4	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	1061108	20.0	19.8	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	92	595729	20.0	19.0	
108 n-Butylbenzene	91	11.287	11.287	0.000	96	873706	20.0	19.8	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	97	532075	20.0	19.3	
110 1,2-Dibromo-3-Chloropropan	157	12.129	12.129	0.000	91	102189	20.0	19.4	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	92	335760	20.0	18.2	
113 Hexachlorobutadiene	225	13.208	13.208	0.000	88	175651	20.0	18.6	
114 Naphthalene	128	13.279	13.279	0.000	96	923339	20.0	18.1	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	92	295011	20.0	17.8	
S 164 Total BTEX	1				0		100.0	100.0	
S 127 Trihalomethanes, Total	1				0		80.0	79.3	
S 126 Xylenes, Total	106				0		40.0	40.4	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00259	Amount Added:	16.00	Units: uL
vmarolistdw_00260	Amount Added:	16.00	Units: uL
vmrprimw_00297	Amount Added:	16.00	Units: uL
vm50ss_00333	Amount Added:	16.00	Units: uL

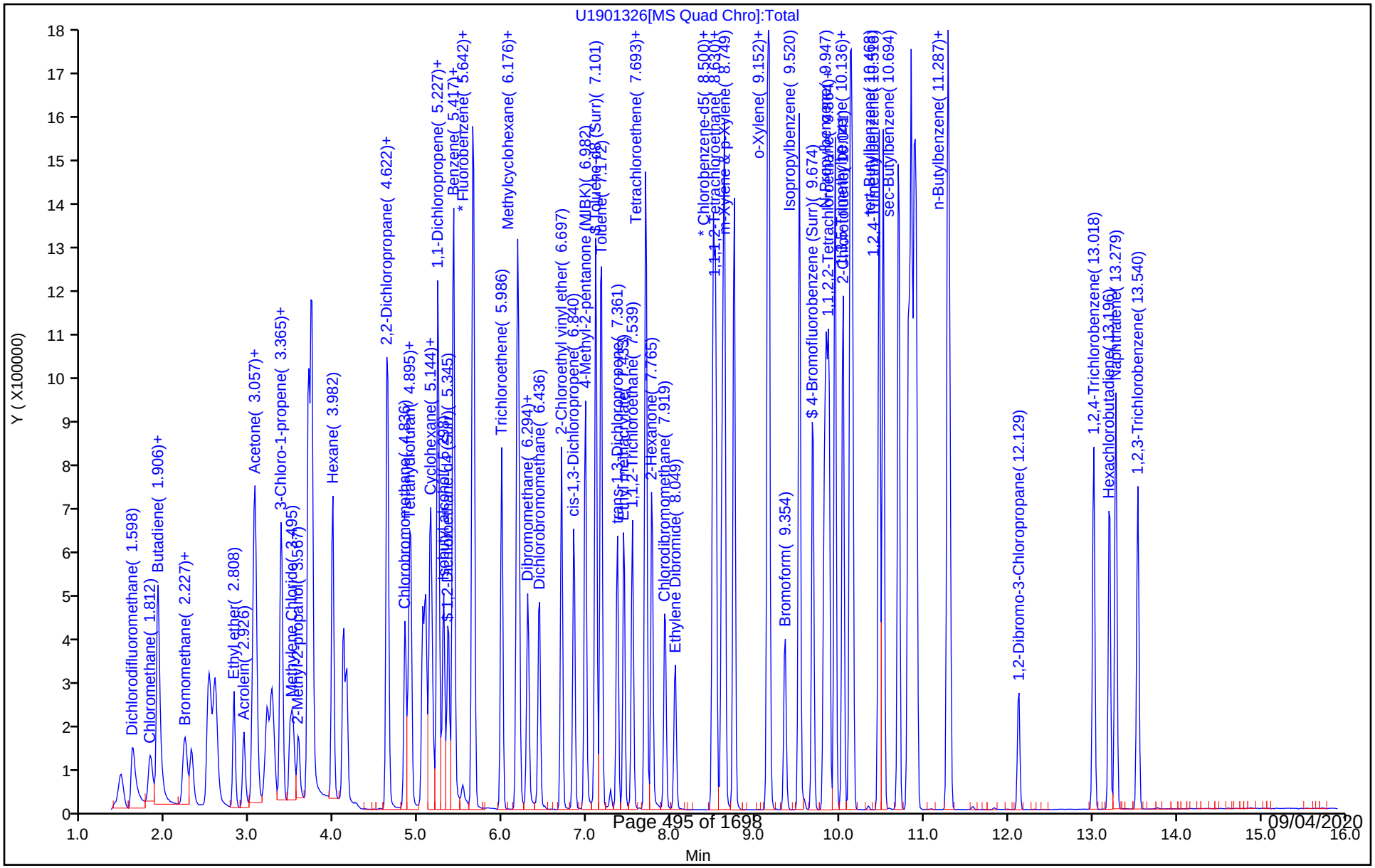
Report Date: 27-Aug-2018 21:28:24 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901326.d

Injection Date:	27-Aug-2018 18:16:31	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	ICIS L4			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901327.d
Lims ID: std8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Aug-2018 18:38:57 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info:
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:28:30 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: laveyt Date: 27-Aug-2018 19:29:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	97	954461	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	83	776799	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	92	416777	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	59	129168	10.0	10.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.345	0.012	99	149716	10.0	10.1	
$ 6 Toluene-d8 (Surr)	98	7.101	7.101	0.001	86	475254	10.0	10.2	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	89	173480	10.0	9.90	
9 Dichlorodifluoromethane	85	1.610	1.610	0.000	66	186223	10.0	10.1	
10 Chloromethane	50	1.823	1.812	0.011	81	134420	10.0	9.77	
12 Butadiene	54	1.906	1.906	0.000	90	141609	10.0	10.3	
11 Vinyl chloride	62	1.930	1.918	0.012	82	148037	10.0	10.4	
13 Bromomethane	94	2.227	2.227	0.000	90	111689	10.0	10.0	
14 Chloroethane	64	2.310	2.298	0.012	94	89838	10.0	10.2	
15 Dichlorofluoromethane	67	2.511	2.499	0.012	83	223205	10.0	10.2	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	86	244417	10.0	10.3	
17 Ethyl ether	59	2.808	2.808	0.000	90	88252	10.0	10.3	
18 Acrolein	56	2.926	2.926	0.000	96	100203	50.0	47.2	
21 1,1-Dichloroethene	61	3.045	3.045	0.000	90	177882	10.0	10.4	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	78	126531	10.0	10.3	
22 Acetone	43	3.069	3.069	0.000	71	73077	20.0	19.5	
23 Iodomethane	142	3.199	3.199	0.000	99	225726	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.270	3.258	0.012	98	351356	10.0	9.80	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	76	171118	10.0	10.1	
27 Methyl acetate	43	3.377	3.377	0.000	95	228841	20.0	20.6	
28 Methylene Chloride	49	3.484	3.495	-0.011	73	139613	10.0	10.3	
29 2-Methyl-2-propanol	59	3.579	3.567	0.012	89	135517	100.0	104.9	
30 Acrylonitrile	53	3.697	3.685	0.012	98	514757	100.0	107.3	
32 trans-1,2-Dichloroethene	61	3.733	3.721	0.012	68	167419	10.0	10.4	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	89	342568	10.0	10.3	
33 Hexane	57	3.982	3.982	0.000	93	174299	10.0	10.4	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	85	199597	10.0	10.3	
35 Vinyl acetate	43	4.148	4.148	0.000	97	231586	10.0	10.5	
40 cis-1,2-Dichloroethene	96	4.634	4.622	0.012	68	140685	10.0	10.2	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	61	116583	10.0	10.0	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	92	48290	20.0	21.4	
45 Chlorobromomethane	49	4.836	4.836	0.000	68	94139	10.0	10.1	
46 Tetrahydrofuran	42	4.883	4.883	0.000	84	114720	20.0	22.1	
47 Chloroform	83	4.907	4.907	0.000	71	224371	10.0	10.6	
48 1,1,1-Trichloroethane	97	5.085	5.085	0.000	90	211997	10.0	10.6	
49 Cyclohexane	84	5.144	5.144	0.000	86	188221	10.0	10.3	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	92	174842	10.0	10.4	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	201366	10.0	10.5	
52 Isobutyl alcohol	41	5.298	5.298	0.000	68	127213	250.0	242.7	
53 Benzene	78	5.417	5.417	0.000	94	482300	10.0	10.6	
54 1,2-Dichloroethane	62	5.417	5.417	0.000	48	178638	10.0	10.4	
56 n-Heptane	57	5.642	5.642	0.000	64	123554	10.0	10.5	
58 Trichloroethene	130	5.986	5.986	0.000	92	156409	10.0	10.4	
60 Methylcyclohexane	83	6.176	6.176	0.000	87	225444	10.0	10.3	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	78	112735	10.0	10.7	
63 Dibromomethane	174	6.306	6.294	0.012	81	111478	10.0	10.3	
64 1,4-Dioxane	88	6.306	6.306	0.000	24	20257	200.0	177.6	
65 Dichlorobromomethane	83	6.436	6.436	0.000	93	172767	10.0	10.4	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	93	185460	20.0	22.0	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	93	192411	10.0	10.4	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	83	332777	20.0	21.8	
70 Toluene	91	7.172	7.172	0.000	95	544474	10.0	10.4	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	80	187797	10.0	10.0	
72 Ethyl methacrylate	69	7.433	7.433	0.000	88	177753	10.0	10.5	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	87	115489	10.0	10.5	
75 Tetrachloroethene	166	7.693	7.693	0.000	91	175104	10.0	10.5	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	89	194537	10.0	10.4	
77 2-Hexanone	43	7.765	7.765	0.000	79	267096	20.0	21.8	
79 Chlorodibromomethane	129	7.931	7.919	0.012	88	145120	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	97	132926	10.0	10.2	
82 Chlorobenzene	112	8.524	8.524	0.000	96	370702	10.0	10.3	
83 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	88	135561	10.0	10.5	
84 Ethylbenzene	106	8.630	8.630	0.000	98	200390	10.0	10.7	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	238543	10.0	10.4	
86 o-Xylene	106	9.152	9.152	0.000	88	225509	10.0	10.4	
87 Styrene	104	9.164	9.164	0.000	93	391834	10.0	10.5	
88 Bromoform	173	9.354	9.354	0.000	98	117306	10.0	10.3	
89 Isopropylbenzene	105	9.520	9.520	0.000	96	613985	10.0	10.5	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	90	172140	10.0	10.7	
92 Bromobenzene	156	9.840	9.840	0.000	88	169316	10.0	10.6	
93 1,2,3-Trichloropropane	110	9.864	9.864	0.000	71	66218	10.0	10.9	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	63	60466	10.0	10.6	
95 N-Propylbenzene	120	9.947	9.947	0.000	90	171938	10.0	10.7	
96 2-Chlorotoluene	126	10.042	10.041	0.001	97	147510	10.0	10.8	
97 1,3,5-Trimethylbenzene	105	10.125	10.124	0.000	93	499875	10.0	10.8	
98 4-Chlorotoluene	126	10.148	10.148	0.000	98	155656	10.0	10.6	
99 tert-Butylbenzene	119	10.468	10.468	0.000	78	474813	10.0	10.8	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	72	495166	10.0	10.5	
102 sec-Butylbenzene	105	10.694	10.694	0.000	94	624437	10.0	10.5	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	83	299776	10.0	10.2	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	90	543873	10.0	10.5	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	90	308743	10.0	10.2	
108 n-Butylbenzene	91	11.287	11.287	0.000	96	439518	10.0	10.3	
109 1,2-Dichlorobenzene	146	11.299	11.298	0.001	97	273092	10.0	10.2	
110 1,2-Dibromo-3-Chloropropan	157	12.129	12.129	0.000	89	50642	10.0	9.92	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	93	168774	10.0	9.47	
113 Hexachlorobutadiene	225	13.208	13.208	0.000	90	87534	10.0	9.56	
114 Naphthalene	128	13.279	13.279	0.000	97	469280	10.0	9.53	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	95	153843	10.0	9.62	
S 127 Trihalomethanes, Total	1				0		40.0	41.7	
S 164 Total BTEX	1				0		50.0	52.5	
S 124 1,2-Dichloroethene, Total	96				0			20.6	
S 125 1,3-Dichloropropene, Total	75				0			20.5	
S 126 Xylenes, Total	106				0		20.0	20.8	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00259	Amount Added:	8.00	Units: uL
vmarolistdw_00260	Amount Added:	8.00	Units: uL
vmrprimw_00297	Amount Added:	8.00	Units: uL
vm50ss_00333	Amount Added:	8.00	Units: uL

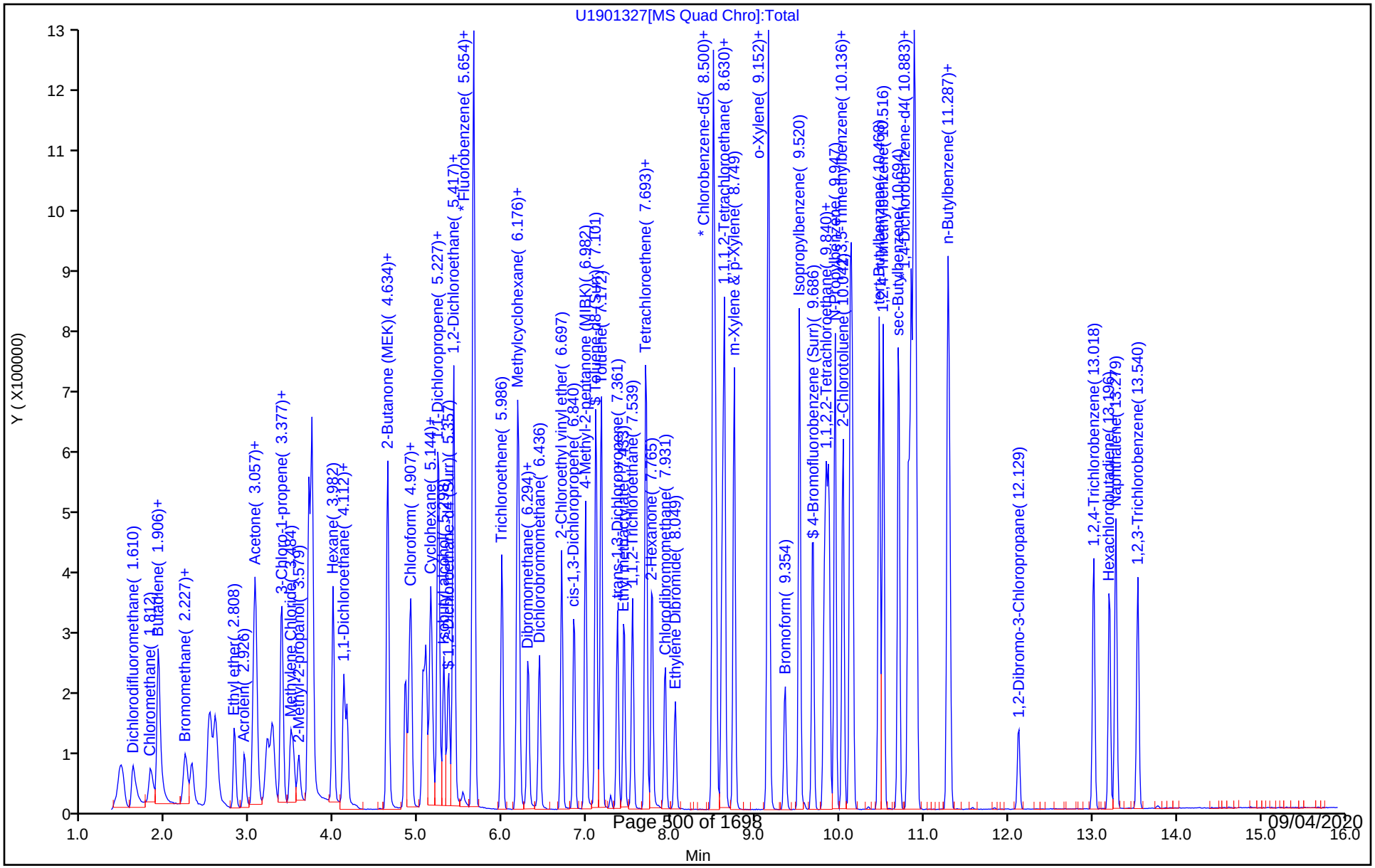
Report Date: 27-Aug-2018 21:28:34 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901327.d

Injection Date:	27-Aug-2018 18:38:57	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L3			Worklist Smp#:	11
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901328.d
Lims ID: std8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Aug-2018 19:01:13 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info:
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:28:42 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: laveyt Date: 27-Aug-2018 19:32:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.653	5.654	-0.001	99	950066	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	83	741822	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	93	413134	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	60	13395	1.00	1.05	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.345	0.000	98	16187	1.00	1.10	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	0.000	84	44577	1.00	1.00	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	85	17494	1.00	1.05	
9 Dichlorodifluoromethane	85	1.598	1.610	-0.012	61	18328	1.00	1.00	
10 Chloromethane	50	1.811	1.812	-0.001	83	12972	1.00	0.9471	
12 Butadiene	54	1.894	1.906	-0.012	89	14115	1.00	1.03	
11 Vinyl chloride	62	1.918	1.918	0.000	47	14250	1.00	1.01	
13 Bromomethane	94	2.238	2.227	0.011	86	11360	1.00	1.02	
14 Chloroethane	64	2.297	2.298	-0.001	81	8387	1.00	0.9552	
15 Dichlorofluoromethane	67	2.511	2.499	0.012	76	21694	1.00	1.00	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	84	23241	1.00	0.9817	
17 Ethyl ether	59	2.807	2.808	-0.001	83	9015	1.00	1.05	
18 Acrolein	56	2.926	2.926	0.000	86	10600	5.00	5.02	
21 1,1-Dichloroethene	61	3.045	3.045	0.000	86	16498	1.00	0.9676	
20 1,1,2-Trichloro-1,2,2-trif	101	3.045	3.057	-0.012	67	11240	1.00	0.9217	
22 Acetone	43	3.068	3.069	-0.001	90	8941	2.00	2.40	
23 Iodomethane	142	3.187	3.199	-0.012	96	22471	1.00	1.02	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	97	39223	1.00	1.10	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	76	18227	1.00	1.08	
27 Methyl acetate	43	3.377	3.377	0.000	96	22480	2.00	2.03	
28 Methylene Chloride	49	3.483	3.495	-0.012	78	15126	1.00	1.12	
29 2-Methyl-2-propanol	59	3.566	3.567	-0.001	88	13140	10.0	10.2	
30 Acrylonitrile	53	3.697	3.685	0.012	99	49680	10.0	10.4	
32 trans-1,2-Dichloroethene	61	3.732	3.721	0.011	72	16818	1.00	1.05	
31 Methyl tert-butyl ether	73	3.732	3.733	-0.001	89	33109	1.00	1.00	
33 Hexane	57	3.981	3.982	-0.001	93	15276	1.00	0.9125	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	76	19673	1.00	1.02	
35 Vinyl acetate	43	4.147	4.148	-0.001	96	21765	1.00	0.9877	
40 cis-1,2-Dichloroethene	96	4.622	4.622	0.000	70	14212	1.00	1.03	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	91	4567	2.00	2.04	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	58	11860	1.00	1.02	
45 Chlorobromomethane	49	4.835	4.836	-0.001	64	10266	1.00	1.11	
46 Tetrahydrofuran	42	4.883	4.883	0.000	85	20056	2.00	1.81	
47 Chloroform	83	4.906	4.907	-0.001	67	21044	1.00	1.00	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	84	19503	1.00	0.9837	
49 Cyclohexane	84	5.144	5.144	0.000	85	16696	1.00	0.9202	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	88	16667	1.00	1.00	
51 Carbon tetrachloride	117	5.238	5.239	-0.001	77	17959	1.00	0.9397	
52 Isobutyl alcohol	41	5.298	5.298	0.000	78	14010	25.0	26.9	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	52	18266	1.00	1.07	
53 Benzene	78	5.416	5.417	-0.001	95	45349	1.00	1.00	
56 n-Heptane	57	5.653	5.642	0.011	38	39021	1.00	0.9553	
58 Trichloroethene	130	5.985	5.986	-0.001	90	14636	1.00	0.9750	
60 Methylcyclohexane	83	6.175	6.176	-0.001	87	20268	1.00	0.9296	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	78	10172	1.00	0.9700	
63 Dibromomethane	174	6.294	6.294	0.000	83	11437	1.00	1.06	
64 1,4-Dioxane	88	6.306	6.306	0.000	1	1560	20.0	13.7	
65 Dichlorobromomethane	83	6.424	6.436	-0.012	86	17242	1.00	1.04	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	90	15714	2.00	1.87	
68 cis-1,3-Dichloropropene	75	6.839	6.840	-0.001	72	18371	1.00	1.00	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	81	29549	2.00	1.94	
70 Toluene	91	7.171	7.172	-0.001	86	50838	1.00	1.01	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	79	18668	1.00	1.04	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	70	14839	1.00	0.9209	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	87	10462	1.00	0.99	
75 Tetrachloroethene	166	7.693	7.693	0.000	95	15556	1.00	0.9725	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	79	17554	1.00	0.9855	
77 2-Hexanone	43	7.764	7.765	-0.001	94	22402	2.00	1.92	
79 Chlorodibromomethane	129	7.930	7.919	0.011	80	12969	1.00	0.9758	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	85	12317	1.00	0.99	
82 Chlorobenzene	112	8.523	8.524	-0.001	60	36469	1.00	1.06	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	75	12290	1.00	0.99	
84 Ethylbenzene	106	8.630	8.630	0.000	97	17209	1.00	0.9594	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	20530	1.00	0.9397	
86 o-Xylene	106	9.152	9.152	0.000	87	20689	1.00	1.00	
87 Styrene	104	9.164	9.164	0.000	92	33591	1.00	0.9446	
88 Bromoform	173	9.353	9.354	-0.001	89	10783	1.00	0.99	
89 Isopropylbenzene	105	9.519	9.520	-0.001	93	55346	1.00	0.99	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	75	16261	1.00	1.02	
92 Bromobenzene	156	9.840	9.840	0.000	89	16361	1.00	1.03	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	66	5997	1.00	0.99	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	38	5707	1.00	1.01	
95 N-Propylbenzene	120	9.946	9.947	-0.001	95	15476	1.00	0.9694	
96 2-Chlorotoluene	126	10.041	10.041	0.000	92	12831	1.00	0.9496	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	91	43584	1.00	0.9481	
98 4-Chlorotoluene	126	10.148	10.148	0.000	97	14345	1.00	0.9819	
99 tert-Butylbenzene	119	10.468	10.468	0.000	73	41850	1.00	0.9590	
101 1,2,4-Trimethylbenzene	105	10.515	10.516	-0.001	67	46663	1.00	1.00	
102 sec-Butylbenzene	105	10.693	10.694	-0.001	92	55760	1.00	0.9489	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	11	31057	1.00	1.06	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	77	49391	1.00	0.9596	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	49	32379	1.00	1.07	
108 n-Butylbenzene	91	11.286	11.287	-0.001	95	41792	1.00	0.9871	
109 1,2-Dichlorobenzene	146	11.310	11.298	0.012	93	28272	1.00	1.07	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	57	4583	1.00	0.9054	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	83	19612	1.00	1.11	
113 Hexachlorobutadiene	225	13.207	13.208	-0.001	72	10037	1.00	1.11	
114 Naphthalene	128	13.279	13.279	0.000	94	52154	1.00	1.07	
115 1,2,3-Trichlorobenzene	180	13.539	13.540	-0.001	86	17097	1.00	1.08	
S 164 Total BTEX	1				0		5.00	4.91	
S 127 Trihalomethanes, Total	1				0		4.00	4.01	
S 124 1,2-Dichloroethene, Total	96				0			2.08	
S 125 1,3-Dichloropropene, Total	75				0			2.05	
S 126 Xylenes, Total	106				0		2.00	1.94	

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00259	Amount Added:	0.80	Units: uL
vmarolistdw_00260	Amount Added:	0.80	Units: uL
vmrprimw_00297	Amount Added:	0.80	Units: uL
vm50ss_00333	Amount Added:	0.80	Units: uL

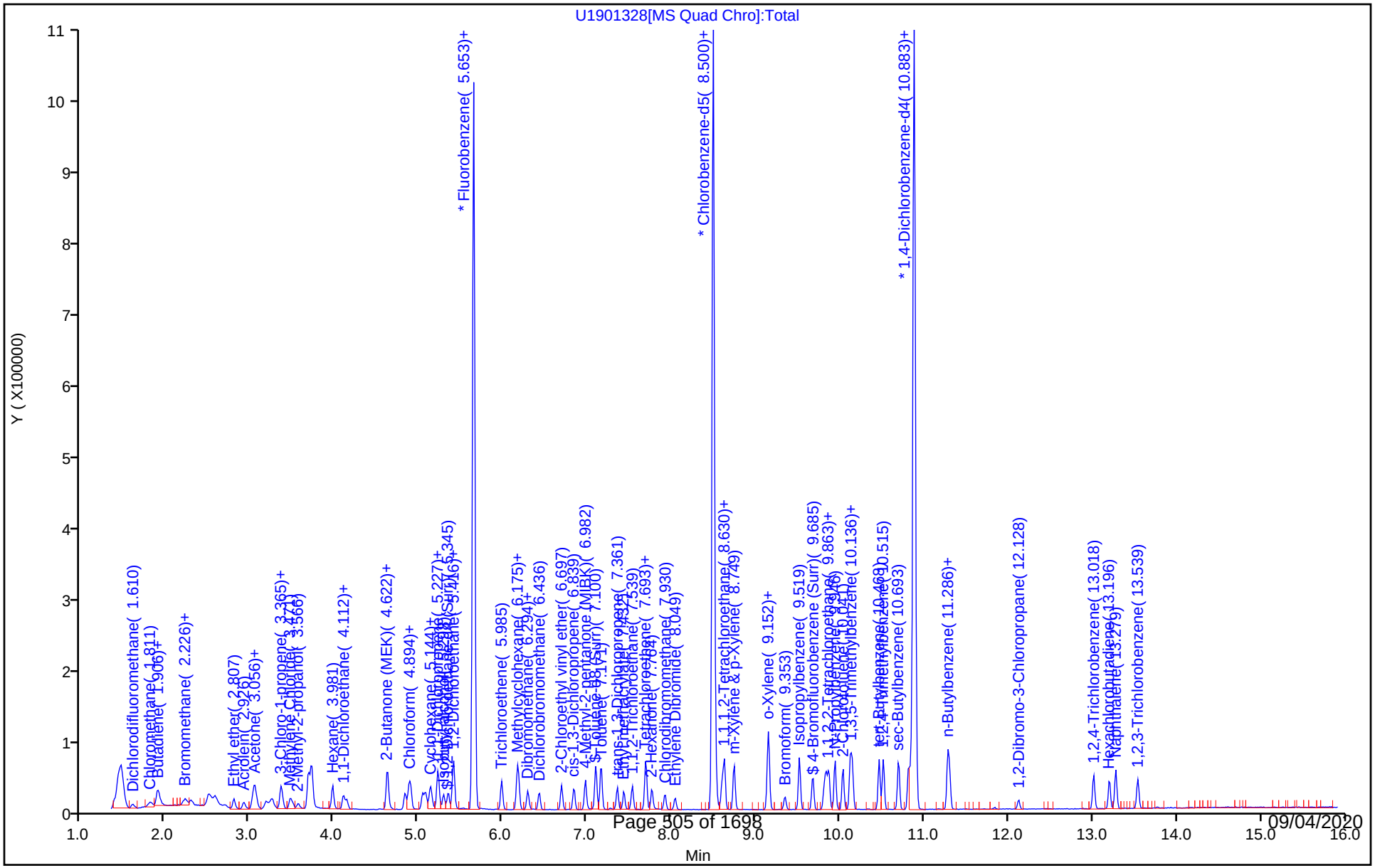
Report Date: 27-Aug-2018 21:28:46 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901328.d

Injection Date:	27-Aug-2018 19:01:13	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L2			Worklist Smp#:	12
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d
Lims ID: std8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Aug-2018 19:23:28 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info:
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:28:54 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: laveyt Date: 27-Aug-2018 19:52:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	938021	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	83	738667	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	93	405345	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	56	6919	0.5000	0.5480	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.345	0.012	94	8242	0.5000	0.5683	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	0.000	74	23636	0.5000	0.5336	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	82	9778	0.5000	0.5866	
9 Dichlorodifluoromethane	85	1.622	1.610	0.012	56	7625	0.5000	0.4223	
10 Chloromethane	50	1.812	1.812	0.000	70	8152	0.5000	0.6028	
12 Butadiene	54	1.906	1.906	0.000	92	6713	0.5000	0.4958	
11 Vinyl chloride	62	1.942	1.918	0.024	39	6564	0.5000	0.4697	
13 Bromomethane	94	2.227	2.227	0.000	83	5934	0.5000	0.5419	
14 Chloroethane	64	2.310	2.298	0.012	73	4812	0.5000	0.5551	
15 Dichlorofluoromethane	67	2.511	2.499	0.012	55	11593	0.5000	0.5395	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	76	11587	0.5000	0.4957	
17 Ethyl ether	59	2.808	2.808	0.000	84	4060	0.5000	0.4810	
18 Acrolein	56	2.938	2.926	0.012	73	5804	2.50	2.78	
21 1,1-Dichloroethene	61	3.045	3.045	0.000	72	8152	0.5000	0.4842	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	55	5847	0.5000	0.4856	
22 Acetone	43		3.069				ND	ND	U
23 Iodomethane	142	3.199	3.199	0.000	93	11424	0.5000	0.5233	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
24 Carbon disulfide	76	3.258	3.258	0.000	95	20511	0.5000	0.5820	
26 3-Chloro-1-propene	41	3.365	3.365	0.000	70	8759	0.5000	0.5274	
27 Methyl acetate	43	3.389	3.377	0.012	94	12374	1.00	1.13	
28 Methylene Chloride	49		3.495				ND	ND	U
29 2-Methyl-2-propanol	59	3.578	3.567	0.011	76	7089	5.00	5.58	
30 Acrylonitrile	53	3.697	3.685	0.012	98	23600	5.00	5.00	
32 trans-1,2-Dichloroethene	61	3.733	3.721	0.012	68	8368	0.5000	0.5268	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	83	15146	0.5000	0.4655	
33 Hexane	57	3.982	3.982	0.000	81	7709	0.5000	0.4664	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	57	9092	0.5000	0.4789	
35 Vinyl acetate	43	4.148	4.148	0.000	96	10910	0.5000	0.5015	
40 cis-1,2-Dichloroethene	96	4.634	4.622	0.012	63	7168	0.5000	0.5287	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	48	5791	0.5000	0.5065	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	82	2283	1.00	1.03	
45 Chlorobromomethane	49	4.847	4.836	0.011	57	5503	0.5000	0.6031	
46 Tetrahydrofuran	42		4.883				ND	ND	U
47 Chloroform	83	4.907	4.907	0.000	71	10169	0.5000	0.4891	
48 1,1,1-Trichloroethane	97	5.085	5.085	0.000	78	8767	0.5000	0.4479	
49 Cyclohexane	84	5.144	5.144	0.000	85	8206	0.5000	0.4581	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	80	7998	0.5000	0.4846	
51 Carbon tetrachloride	117	5.239	5.239	0.000	77	8954	0.5000	0.4745	
52 Isobutyl alcohol	41	5.298	5.298	0.000	52	7140	12.5	13.9	
53 Benzene	78	5.417	5.417	0.000	95	21738	0.5000	0.4870	
54 1,2-Dichloroethane	62	5.428	5.417	0.011	58	8896	0.5000	0.5268	
56 n-Heptane	57		5.642				ND	ND	U
58 Trichloroethene	130	5.986	5.986	0.000	77	7819	0.5000	0.5276	
60 Methylcyclohexane	83	6.176	6.176	0.000	85	10042	0.5000	0.4665	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	64	5092	0.5000	0.4918	
63 Dibromomethane	174	6.306	6.294	0.012	66	5652	0.5000	0.5307	
64 1,4-Dioxane	88		6.306				ND	ND	U
65 Dichlorobromomethane	83	6.436	6.436	0.000	75	7972	0.5000	0.4885	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	83	7473	1.00	0.9000	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	60	8778	0.5000	0.4843	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	90	14774	1.00	0.9834	
70 Toluene	91	7.172	7.172	0.000	94	25413	0.5000	0.5091	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	76	9232	0.5000	0.5188	
72 Ethyl methacrylate	69	7.433	7.433	0.000	70	7062	0.5000	0.4401	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	79	5186	0.5000	0.4942	
75 Tetrachloroethene	166	7.693	7.693	0.000	86	7818	0.5000	0.4908	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	72	9211	0.5000	0.5193	
77 2-Hexanone	43	7.765	7.765	0.000	88	10272	1.00	0.8832	
79 Chlorodibromomethane	129	7.931	7.919	0.012	54	6108	0.5000	0.4615	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
80 Ethylene Dibromide	107	8.049	8.049	0.000	74	6962	0.5000	0.5633	
82 Chlorobenzene	112	8.524	8.524	0.000	45	17303	0.5000	0.5063	
83 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	55	5956	0.5000	0.4834	
84 Ethylbenzene	106	8.630	8.630	0.000	94	8431	0.5000	0.4721	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	96	10542	0.5000	0.4846	
86 o-Xylene	106	9.140	9.152	-0.012	88	9580	0.5000	0.4635	
87 Styrene	104	9.164	9.164	0.000	83	16463	0.5000	0.4649	
88 Bromoform	173	9.354	9.354	0.000	77	5340	0.5000	0.4930	
89 Isopropylbenzene	105	9.520	9.520	0.000	90	25288	0.5000	0.4556	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	62	7218	0.5000	0.4621	
92 Bromobenzene	156	9.840	9.840	0.000	88	7663	0.5000	0.4917	
93 1,2,3-Trichloropropane	110	9.864	9.864	0.000	66	2842	0.5000	0.4801	
94 trans-1,4-Dichloro-2-buten	53		9.875				ND	ND	U
95 N-Propylbenzene	120	9.947	9.947	0.000	91	7103	0.5000	0.4535	
96 2-Chlorotoluene	126	10.041	10.041	0.000	82	6213	0.5000	0.4687	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	91	21381	0.5000	0.4740	
98 4-Chlorotoluene	126	10.148	10.148	0.000	91	7405	0.5000	0.5166	
99 tert-Butylbenzene	119	10.468	10.468	0.000	70	19348	0.5000	0.4519	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	63	21277	0.5000	0.4653	
102 sec-Butylbenzene	105	10.694	10.694	0.000	88	26267	0.5000	0.4556	
103 1,3-Dichlorobenzene	146	10.824	10.812	0.012	1	14989	0.5000	0.5237	a
104 4-Isopropyltoluene	119	10.848	10.848	0.000	68	23262	0.5000	0.4606	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	39	16269	0.5000	0.5502	
108 n-Butylbenzene	91	11.287	11.287	0.000	91	19197	0.5000	0.4622	
109 1,2-Dichlorobenzene	146	11.298	11.298	0.000	87	13617	0.5000	0.5240	
110 1,2-Dibromo-3-Chloropropan	157	12.129	12.129	0.000	31	2665	0.5000	0.5366	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	63	9535	0.5000	0.5502	
113 Hexachlorobutadiene	225	13.208	13.208	0.000	55	4814	0.5000	0.5408	
114 Naphthalene	128		13.279				ND	ND	U
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	72	7998	0.5000	0.5140	
S 127 Trihalomethanes, Total	1				0		2.00	1.93	
S 164 Total BTEX	1				0		2.50	2.42	
S 124 1,2-Dichloroethene, Total	96				0			1.06	
S 125 1,3-Dichloropropene, Total	75				0			1.00	
S 126 Xylenes, Total	106				0		1.00	0.9480	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

vm50is_stk_A_00001	Amount Added:	2.00	Units: uL
vmrgas_00259	Amount Added:	0.40	Units: uL
vmarolistdw_00260	Amount Added:	0.40	Units: uL
vmrprimw_00297	Amount Added:	0.40	Units: uL
vm50ss_00333	Amount Added:	0.40	Units: uL

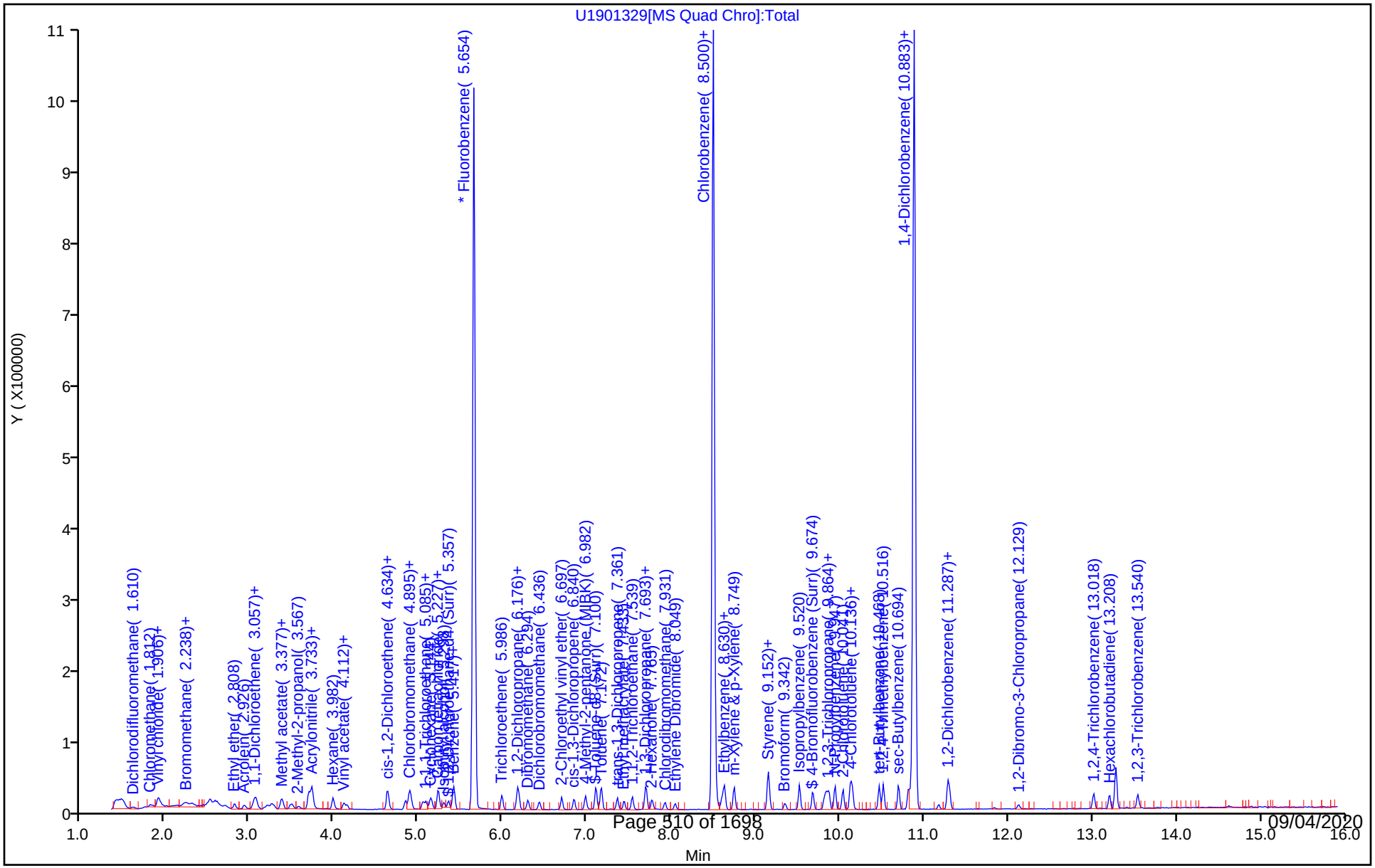
Report Date: 27-Aug-2018 21:29:03 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Injection Date:	27-Aug-2018 19:23:28	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	std8260 L1			Worklist Smp#:	13
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Canton

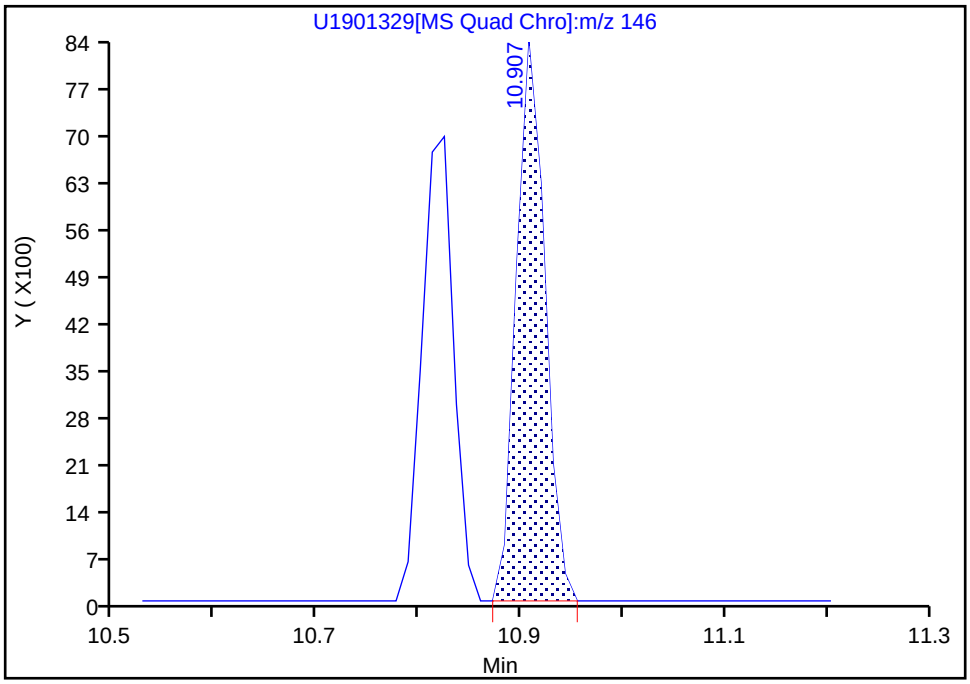
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d				
Injection Date:	27-Aug-2018 19:23:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

103 1,3-Dichlorobenzene, CAS: 541-73-1

Signal: 1

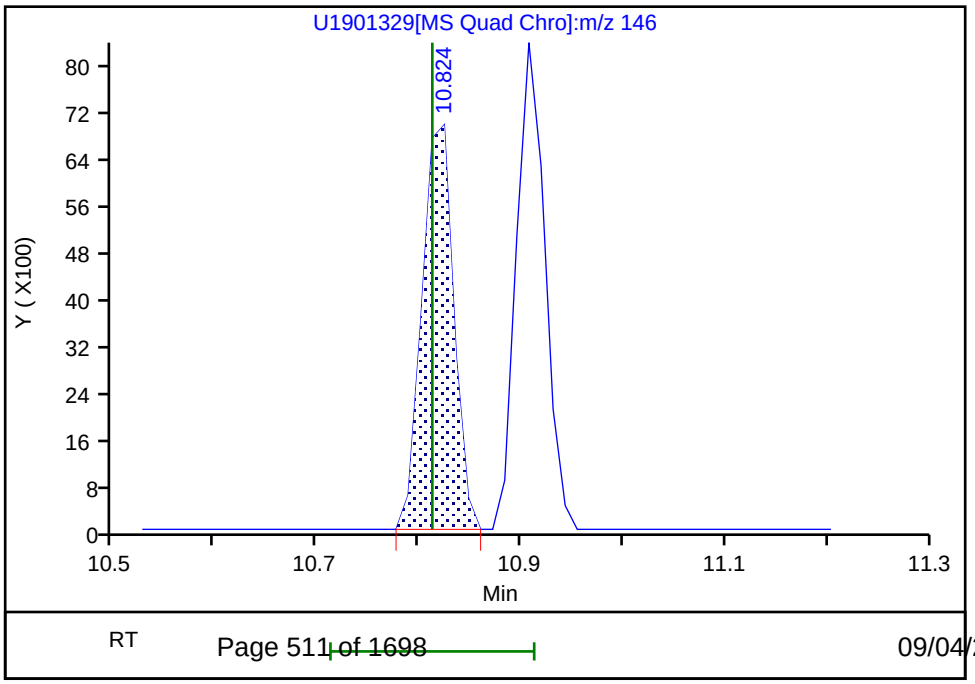
Processing Integration Results

RT: 10.91
Area: 16269
Amount: 0.561209
Amount Units: ug/l



Manual Integration Results

RT: 10.82
Area: 14989
Amount: 0.523661
Amount Units: ug/l



Reviewer: laveyt, 27-Aug-2018 19:47:35

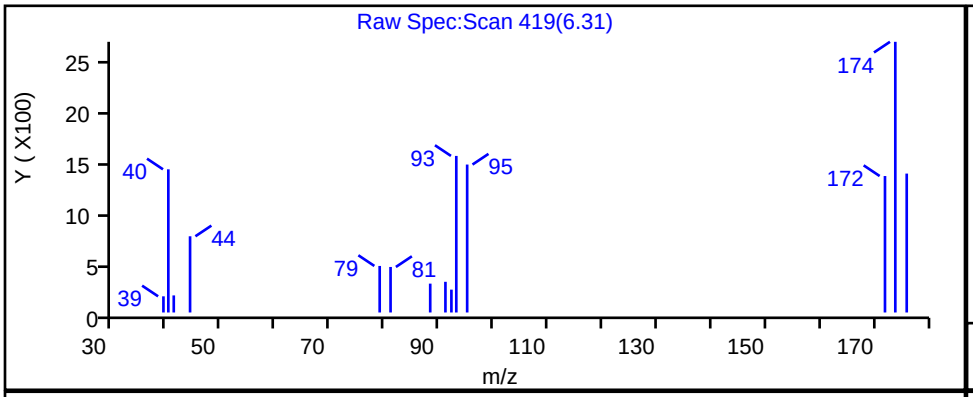
User Disabled Compound Report

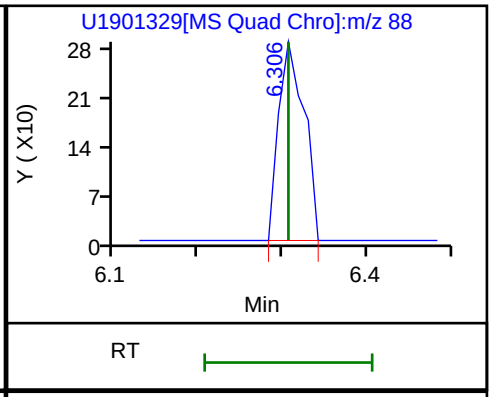
TestAmerica Canton

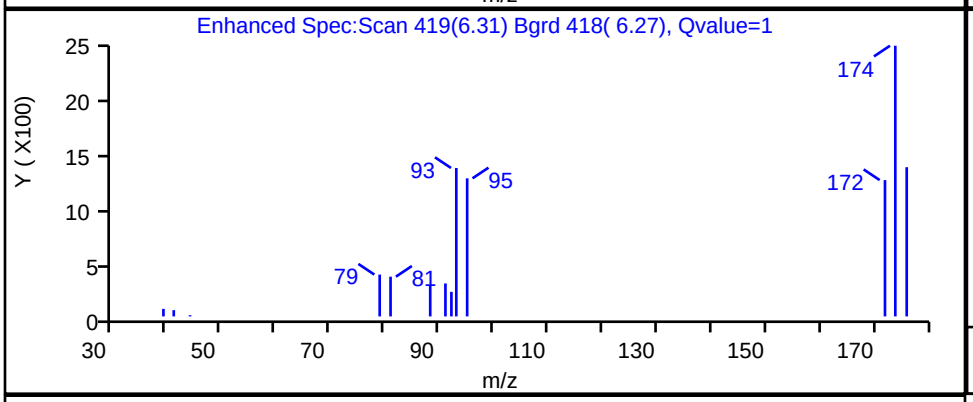
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d				
Injection Date:	27-Aug-2018 19:23:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

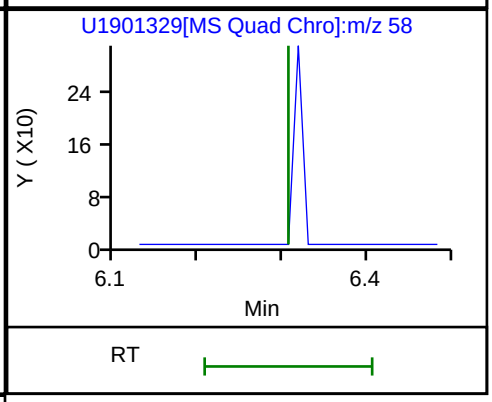
64 1,4-Dioxane, CAS: 123-91-1

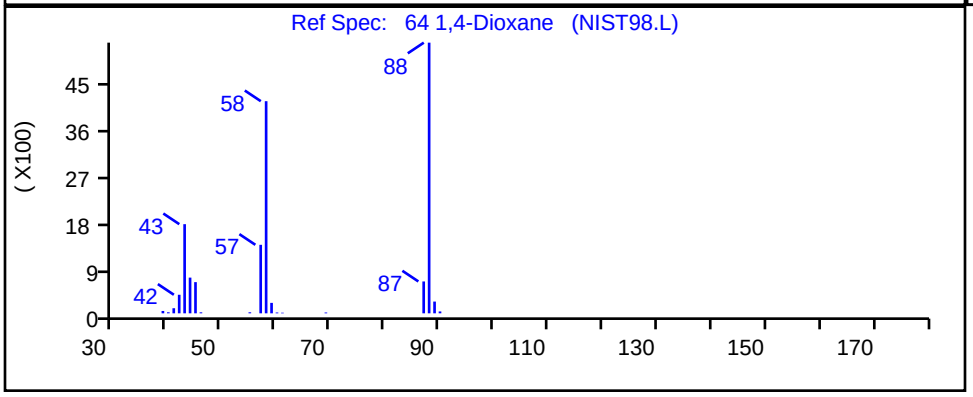
Processing Results











RT	Mass	Response	Amount
6.31	88.00	601	11.604682
6.31	58.00	0	

Reviewer: laveyt, 27-Aug-2018 19:49:09

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

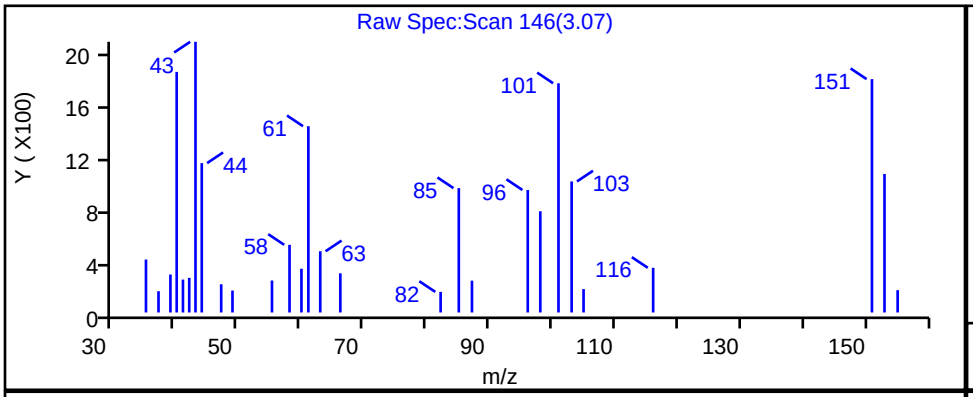
User Disabled Compound Report

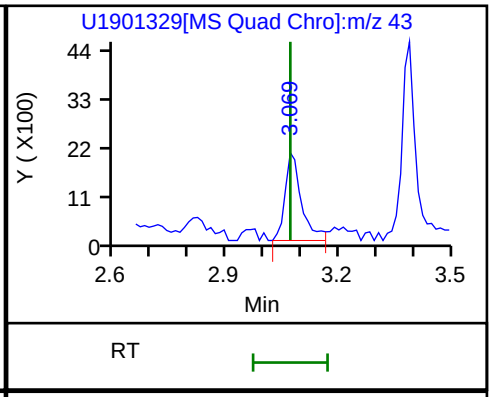
TestAmerica Canton

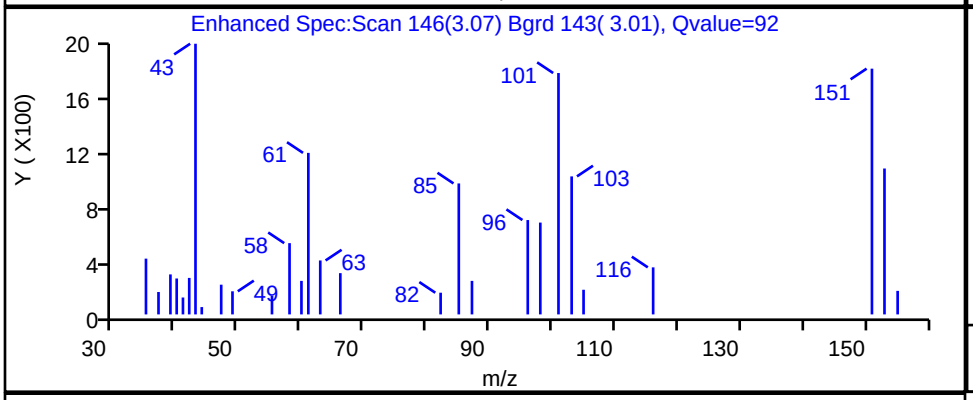
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d				
Injection Date:	27-Aug-2018 19:23:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

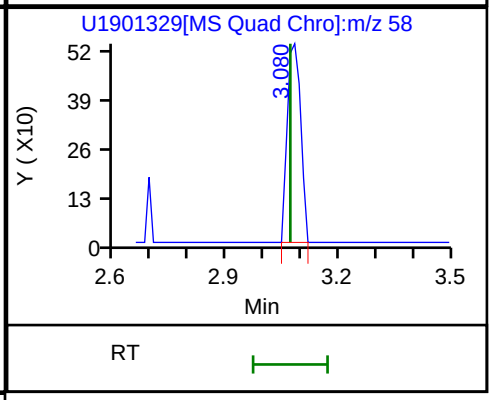
22 Acetone, CAS: 67-64-1

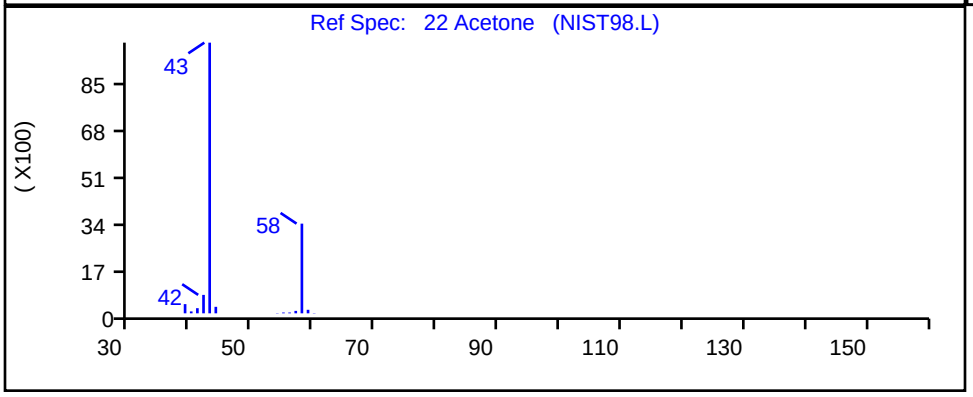
Processing Results











RT	Mass	Response	Amount
3.07	43.00	6224	1.077444
3.08	58.00	1333	

Reviewer: laveyt, 27-Aug-2018 19:48:05

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

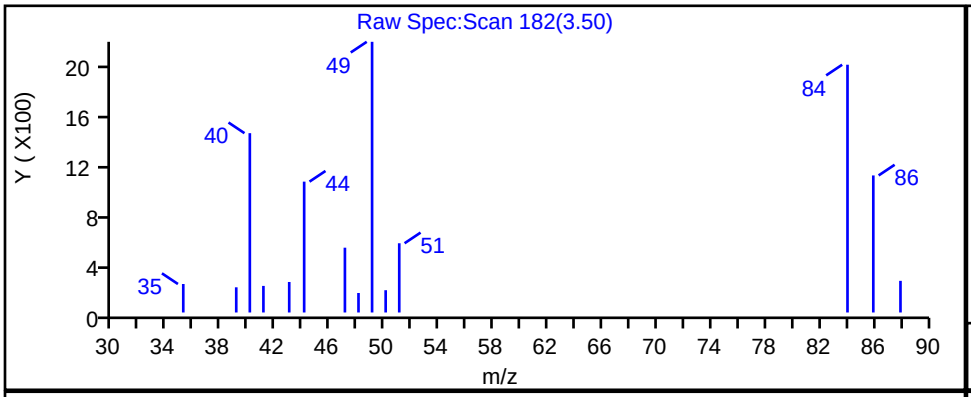
User Disabled Compound Report

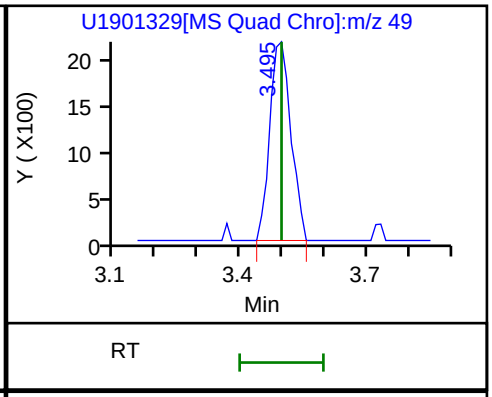
TestAmerica Canton

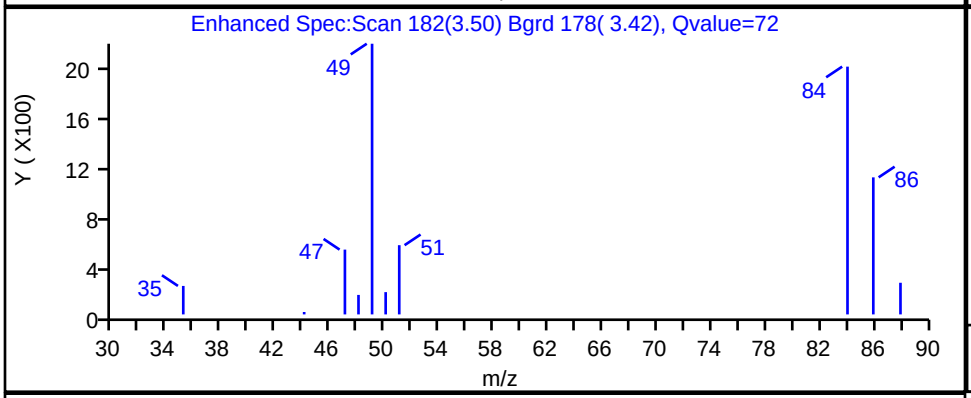
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d				
Injection Date:	27-Aug-2018 19:23:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

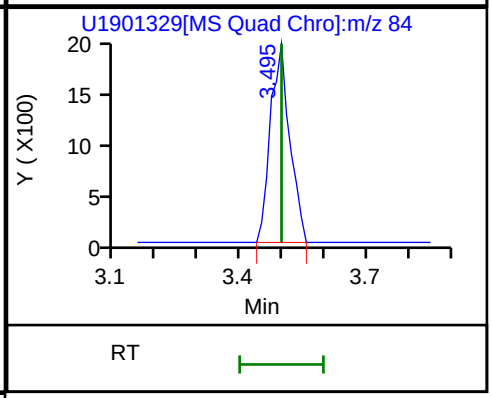
28 Methylene Chloride, CAS: 75-09-2

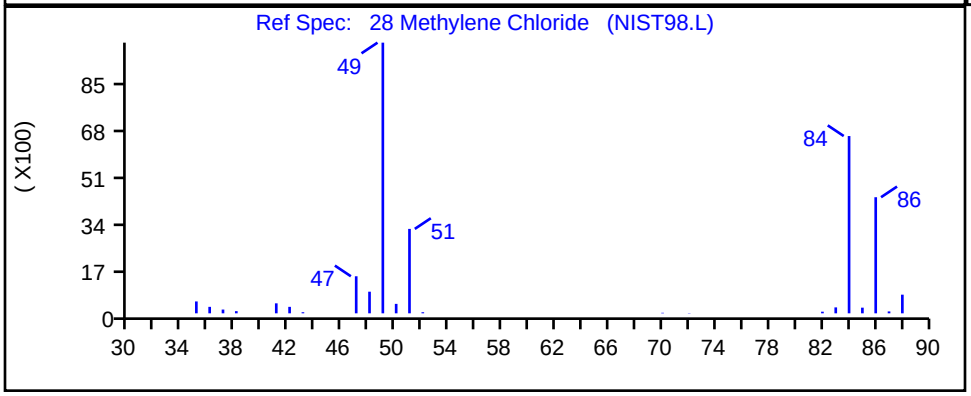
Processing Results











RT	Mass	Response	Amount
3.50	49.00	7484	0.551047
3.50	84.00	6258	

Reviewer: laveyt, 27-Aug-2018 19:48:14

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

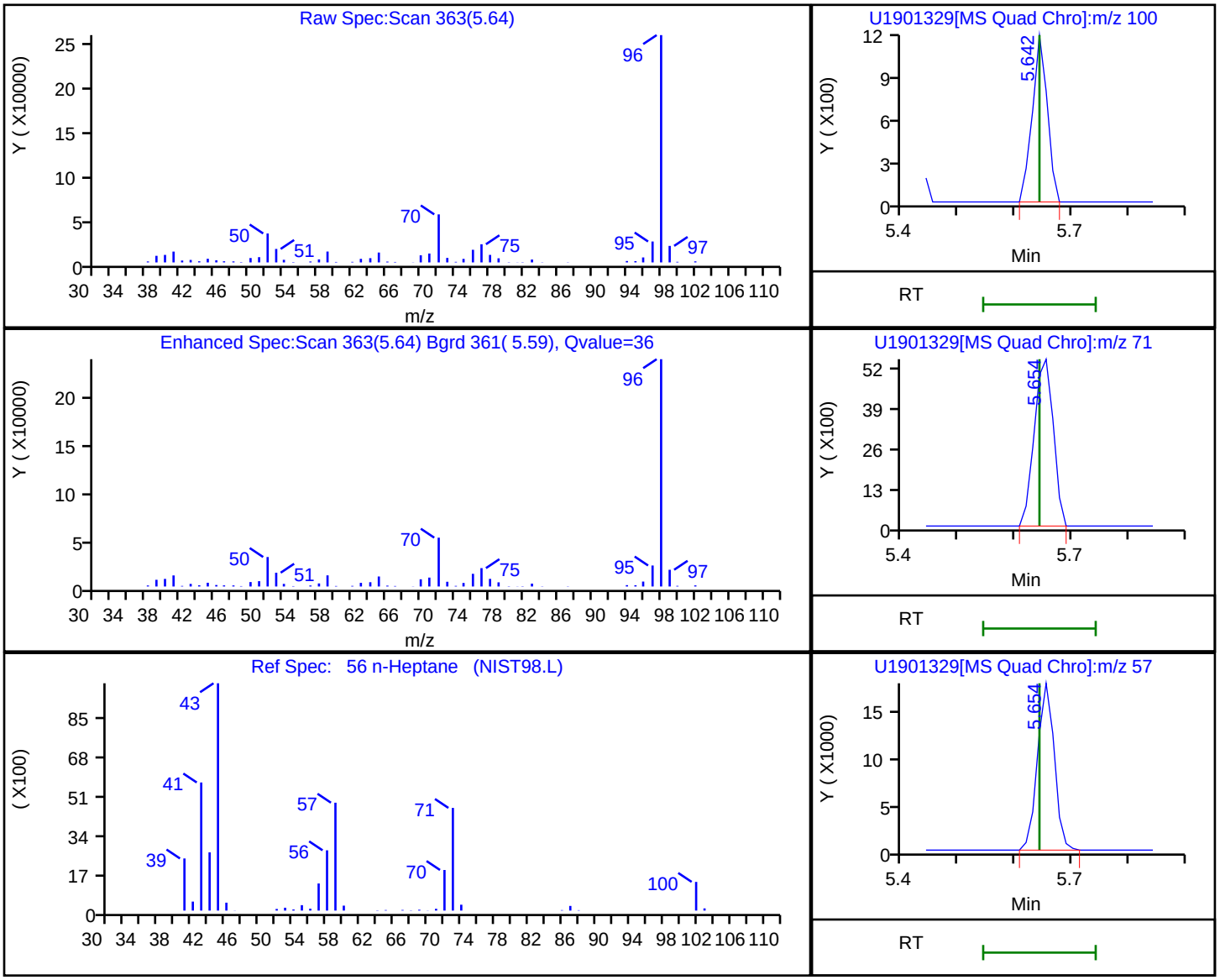
User Disabled Compound Report

TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d				
Injection Date:	27-Aug-2018 19:23:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

56 n-Heptane, CAS: 142-82-5

Processing Results



RT	Mass	Response	Amount
5.64	100.00	2131	
5.65	71.00	12900	
5.65	57.00	35542	0.539390

Reviewer: laveyt, 27-Aug-2018 19:48:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Injection Date: 27-Aug-2018 19:23:28 Instrument ID: A3UX19

Lims ID: std8260 L1

Client ID:

Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 13

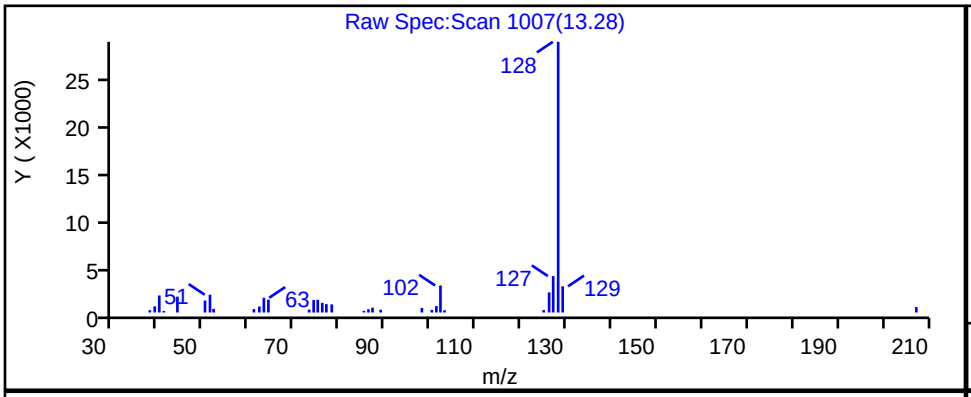
Injection Vol: 5.0 mL Dil. Factor: 1.0000

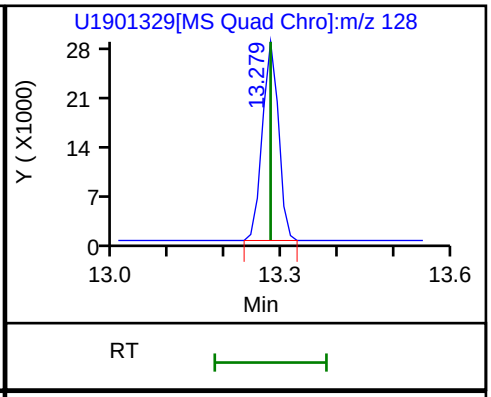
Method: 8260_19 Limit Group: MSV 8260C ICAL

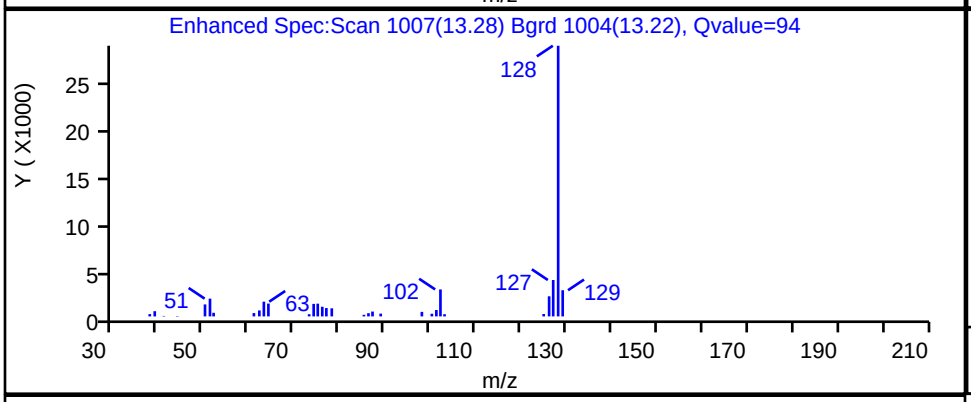
Column: DB-624 (0.18 mm) Detector MS SCAN

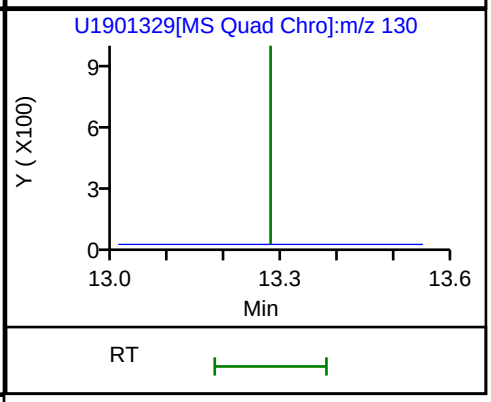
114 Naphthalene, CAS: 91-20-3

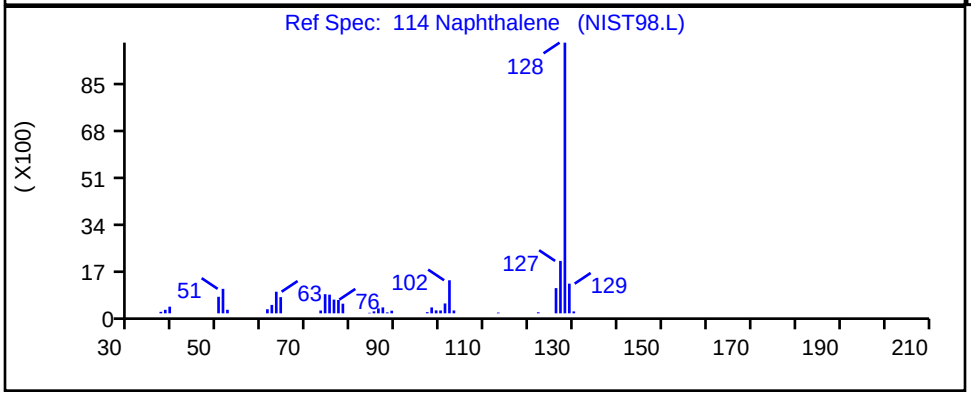
Processing Results











RT	Mass	Response	Amount
13.28	128.00	56279	0.769368
13.28	130.00	0	

Reviewer: laveyt, 27-Aug-2018 20:00:12

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Injection Date: 27-Aug-2018 19:23:28 Instrument ID: A3UX19

Lims ID: std8260 L1

Client ID:

Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 13

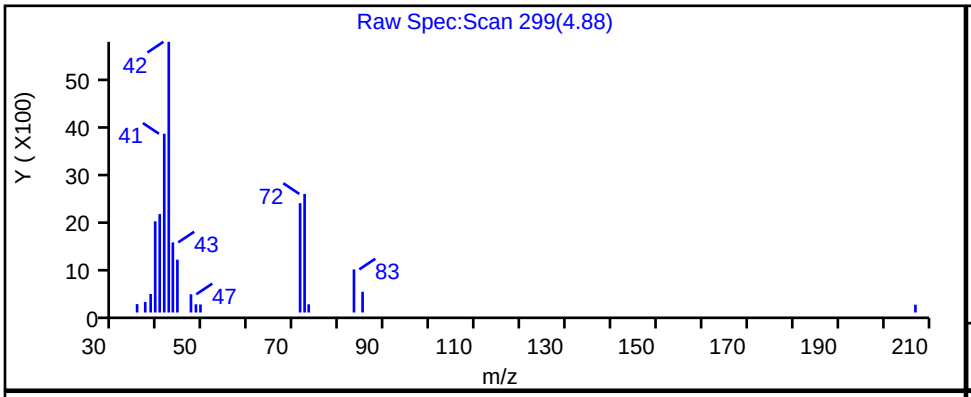
Injection Vol: 5.0 mL Dil. Factor: 1.0000

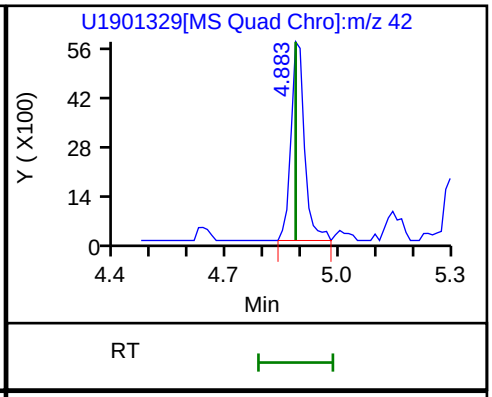
Method: 8260_19 Limit Group: MSV 8260C ICAL

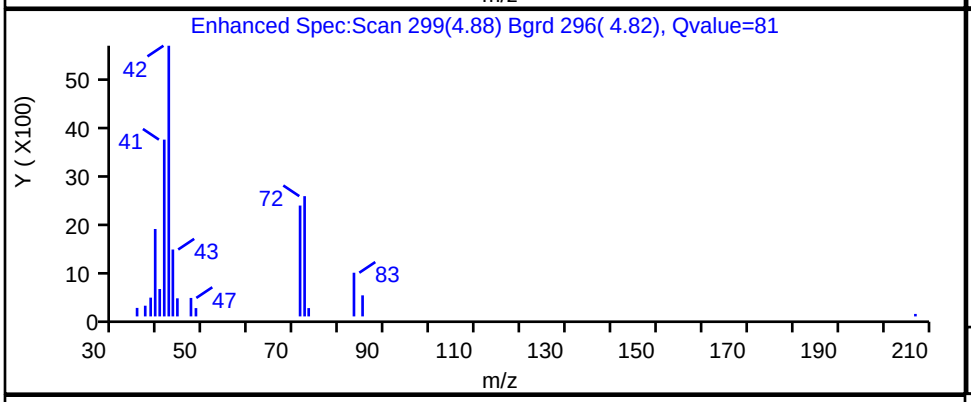
Column: DB-624 (0.18 mm) Detector MS SCAN

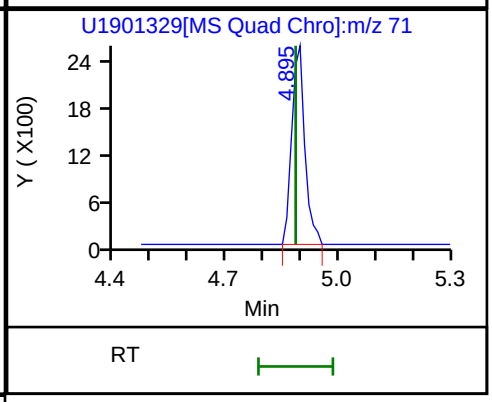
46 Tetrahydrofuran, CAS: 109-99-9

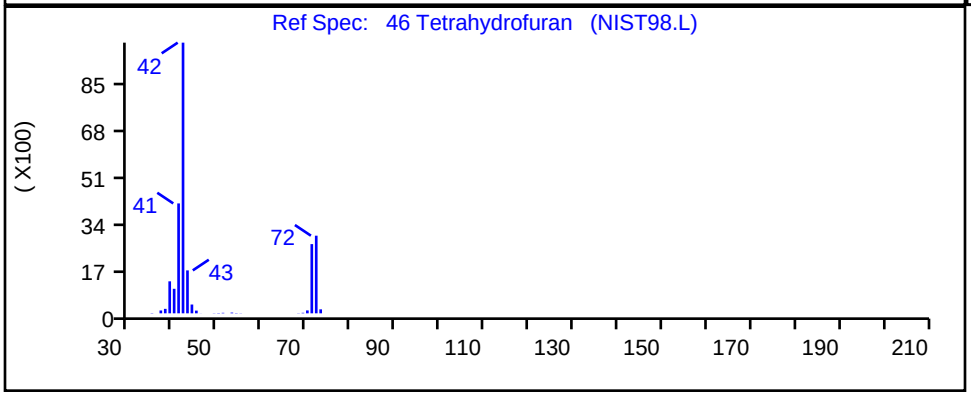
Processing Results











RT	Mass	Response	Amount
4.88	42.00	14557	0.882444
4.89	71.00	6288	

Reviewer: laveyt, 27-Aug-2018 19:48:29

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

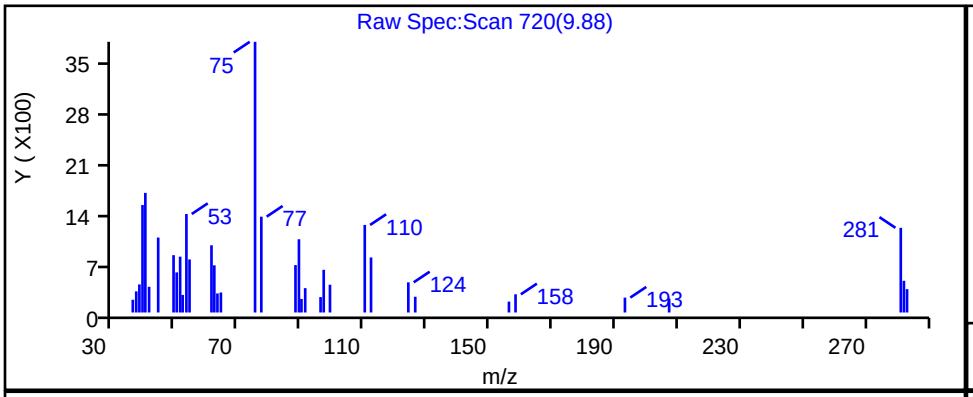
User Disabled Compound Report

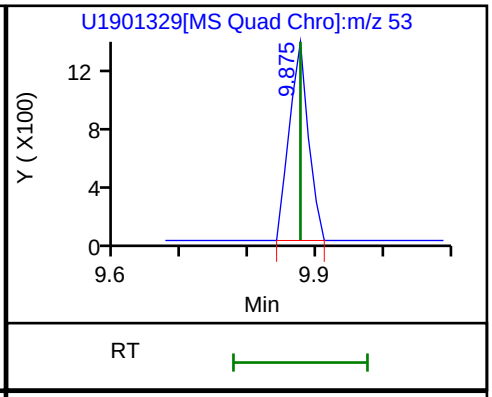
TestAmerica Canton

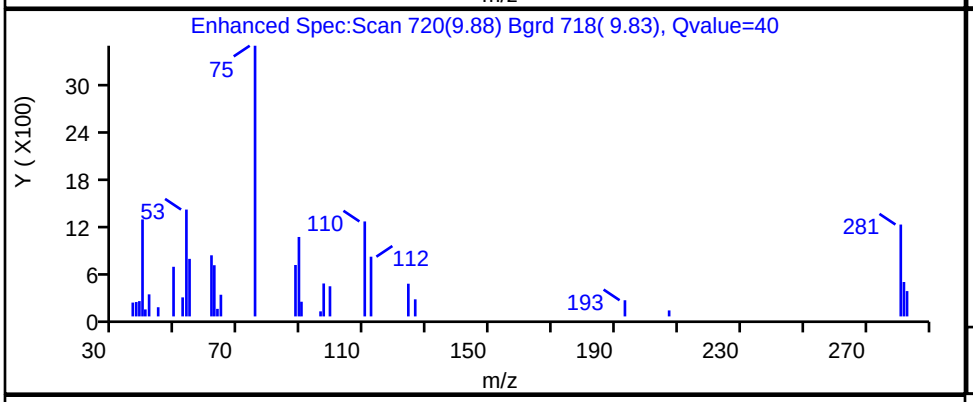
Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d				
Injection Date:	27-Aug-2018 19:23:28	Instrument ID:	A3UX19		
Lims ID:	std8260 L1				
Client ID:					
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

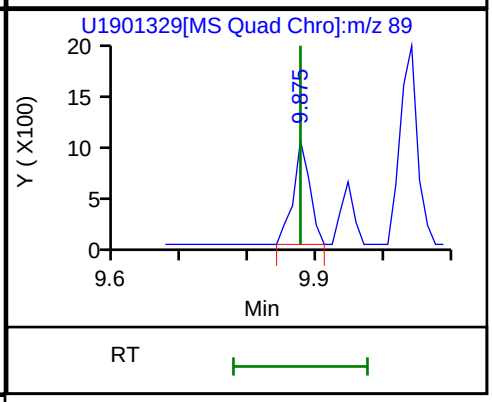
94 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

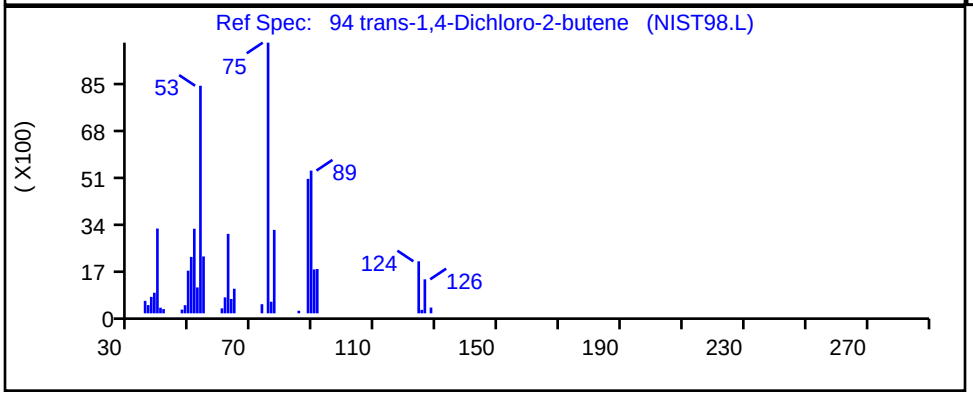
Processing Results











RT	Mass	Response	Amount
9.88	53.00	2712	0.490436
9.88	89.00	1752	

Reviewer: laveyt, 27-Aug-2018 19:50:09

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-337917/14 Calibration Date: 07/25/2018 15:37

Instrument ID: A3UX19 Calib Start Date: 07/24/2018 17:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2018 20:04

Lab File ID: U1900808.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2589	0.2757		0.0213	0.0200	6.5	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2744	0.2888		0.0211	0.0200	5.3	30.0
Toluene-d8 (Surr)	Ave	1.204	1.258		0.0209	0.0200	4.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4627	0.4749		0.0205	0.0200	2.6	30.0

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900808.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 25-Jul-2018 15:37:29 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-014
Operator ID: 001904 Instrument ID: A3UX19
Sublist:

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:30:24 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	882991	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	707956	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	83	413254	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	84	243481	20.0	21.3	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.357	-0.012	96	255028	20.0	21.1	
$ 6 Toluene-d8 (Surr)	98	7.100	7.100	0.000	93	890649	20.0	20.9	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	90	336222	20.0	20.5	
25 Acetonitrile	41	3.329	3.329	0.000	100	288916	200.0	164.3	
36 Isopropyl ether	87	4.171	4.171	0.000	94	210236	20.0	20.6	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	86	354575	20.0	20.2	
38 Tert-butyl ethyl ether	59	4.492	4.491	0.001	97	657887	20.0	20.5	
42 Ethyl acetate	43	4.681	4.681	0.000	96	486199	40.0	36.6	
43 Propionitrile	54	4.681	4.681	0.000	59	348995	200.0	193.9	
44 Methacrylonitrile	41	4.824	4.823	0.001	91	1700375	200.0	210.7	
55 Tert-amyl methyl ether	73	5.500	5.499	0.001	91	691178	20.0	20.3	
57 n-Butanol	56	5.891	5.891	0.000	85	188747	500.0	456.8	
59 Ethyl acrylate	55	6.057	6.057	0.000	99	329918	20.0	20.2	
62 Methyl methacrylate	41	6.270	6.270	0.000	91	440657	40.0	40.6	
66 2-Nitropropane	41	6.638	6.638	0.000	98	128315	40.0	40.0	
78 n-Butyl acetate	43	7.883	7.883	0.000	99	386791	20.0	20.4	
81 1-Chlorohexane	91	8.488	8.488	0.000	74	315130	20.0	19.3	
90 Cyclohexanone	55	9.615	9.614	0.000	91	97723	200.0	202.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Pentachloroethane	167	10.492	10.492	0.000	86	279031	40.0	39.0	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	86	994788	20.0	21.2	
107 Benzyl chloride	91	11.049	11.049	0.000	97	499238	20.0	18.8	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	97	414514	20.0	19.6	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	89	1147583	40.0	38.8	

Reagents:

VMFASA9W_00194	Amount Added: 16.00	Units: uL	
vm50ss_stk_00077	Amount Added: 2.00	Units: uL	Run Reagent
vmDist_H2o_00121	Amount Added: 0.00	Units:	Run Reagent
vm50is_stk_A_00001	Amount Added: 2.00	Units: uL	Run Reagent

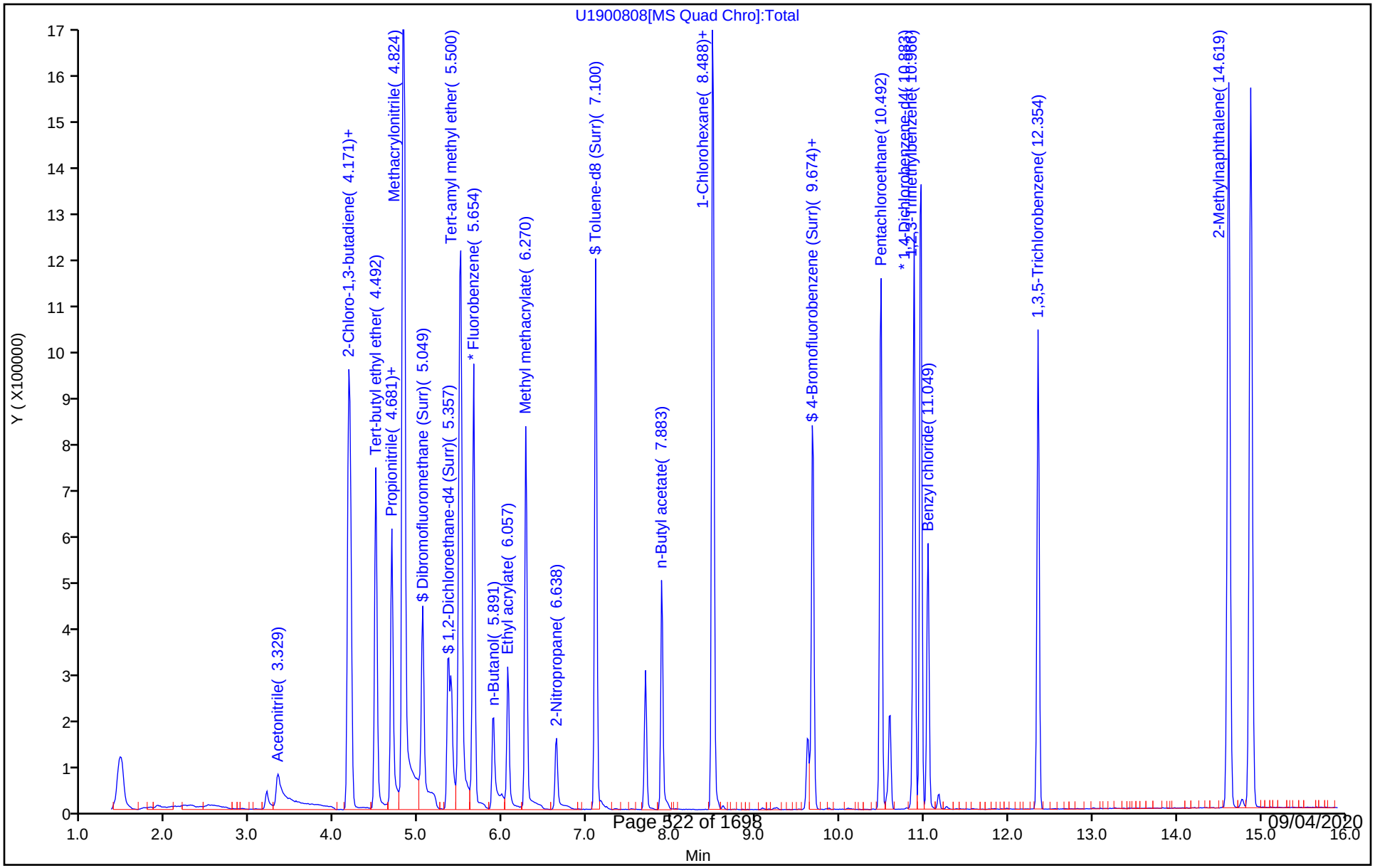
Report Date: 25-Jul-2018 16:30:33 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900808.d

Injection Date:	25-Jul-2018 15:37:29	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-337917/14 Calibration Date: 07/25/2018 15:37

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1900808.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0327		0.164	0.200	-17.8	30.0
Diisopropyl ether	Ave	0.2313	0.2381		0.0206	0.0200	3.0	30.0
2-Chloro-1,3-butadiene	Ave	0.3979	0.4016		0.0202	0.0200	0.9	30.0
Ethyl tert-butyl ether	Ave	0.7258	0.7451		0.0205	0.0200	2.7	30.0
Ethyl acetate	Ave	0.3007	0.2753		0.0366	0.0400	-8.5	30.0
Propionitrile	Ave	0.0408	0.0395		0.194	0.200	-3.0	30.0
Methacrylonitrile	Ave	0.1828	0.1926		0.211	0.200	5.3	30.0
Tert-amyl methyl ether	Ave	0.7700	0.7828		0.0203	0.0200	1.7	30.0
n-Butanol	Ave	0.0094	0.0086		0.457	0.500	-8.6	30.0
Ethyl acrylate	Ave	0.3703	0.3736		0.0202	0.0200	0.9	30.0
Methyl methacrylate	Ave	0.2459	0.2495		0.0406	0.0400	1.5	30.0
2-Nitropropane	Ave	0.0726	0.0727		0.0400	0.0400	0.1	30.0
n-Butyl acetate	Ave	0.5364	0.5463		0.0204	0.0200	1.9	30.0
1-Chlorohexane	Ave	0.4610	0.4451		0.0193	0.0200	-3.4	30.0
Cyclohexanone	Ave	0.0137	0.0138		0.202	0.200	1.0	30.0
Pentachloroethane	Ave	0.3462	0.3376		0.0390	0.0400	-2.5	30.0
1,2,3-Trimethylbenzene	Ave	2.276	2.407		0.0212	0.0200	5.8	30.0
Benzyl chloride	Ave	1.286	1.208		0.0188	0.0200	-6.1	30.0
1,3,5-Trichlorobenzene	Ave	1.021	1.003		0.0196	0.0200	-1.8	30.0
2-Methylnaphthalene	Ave	1.433	1.388		0.0388	0.0400	-3.1	30.0

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900808.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 25-Jul-2018 15:37:29 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0078311-014
Operator ID: 001904 Instrument ID: A3UX19
Sublist:

Method: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 25-Jul-2018 16:30:24 Calib Date: 25-Jul-2018 15:15:13
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	882991	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	82	707956	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	83	413254	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	84	243481	20.0	21.3	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.345	5.357	-0.012	96	255028	20.0	21.1	
$ 6 Toluene-d8 (Surr)	98	7.100	7.100	0.000	93	890649	20.0	20.9	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	90	336222	20.0	20.5	
25 Acetonitrile	41	3.329	3.329	0.000	100	288916	200.0	164.3	
36 Isopropyl ether	87	4.171	4.171	0.000	94	210236	20.0	20.6	
37 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	86	354575	20.0	20.2	
38 Tert-butyl ethyl ether	59	4.492	4.491	0.001	97	657887	20.0	20.5	
42 Ethyl acetate	43	4.681	4.681	0.000	96	486199	40.0	36.6	
43 Propionitrile	54	4.681	4.681	0.000	59	348995	200.0	193.9	
44 Methacrylonitrile	41	4.824	4.823	0.001	91	1700375	200.0	210.7	
55 Tert-amyl methyl ether	73	5.500	5.499	0.001	91	691178	20.0	20.3	
57 n-Butanol	56	5.891	5.891	0.000	85	188747	500.0	456.8	
59 Ethyl acrylate	55	6.057	6.057	0.000	99	329918	20.0	20.2	
62 Methyl methacrylate	41	6.270	6.270	0.000	91	440657	40.0	40.6	
66 2-Nitropropane	41	6.638	6.638	0.000	98	128315	40.0	40.0	
78 n-Butyl acetate	43	7.883	7.883	0.000	99	386791	20.0	20.4	
81 1-Chlorohexane	91	8.488	8.488	0.000	74	315130	20.0	19.3	
90 Cyclohexanone	55	9.615	9.614	0.000	91	97723	200.0	202.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Pentachloroethane	167	10.492	10.492	0.000	86	279031	40.0	39.0	
106 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	86	994788	20.0	21.2	
107 Benzyl chloride	91	11.049	11.049	0.000	97	499238	20.0	18.8	
111 1,3,5-Trichlorobenzene	180	12.354	12.354	0.000	97	414514	20.0	19.6	
116 2-Methylnaphthalene	142	14.619	14.619	0.000	89	1147583	40.0	38.8	

Reagents:

VMFASA9W_00194	Amount Added: 16.00	Units: uL	
vm50ss_stk_00077	Amount Added: 2.00	Units: uL	Run Reagent
vmDist_H2o_00121	Amount Added: 0.00	Units:	Run Reagent
vm50is_stk_A_00001	Amount Added: 2.00	Units: uL	Run Reagent

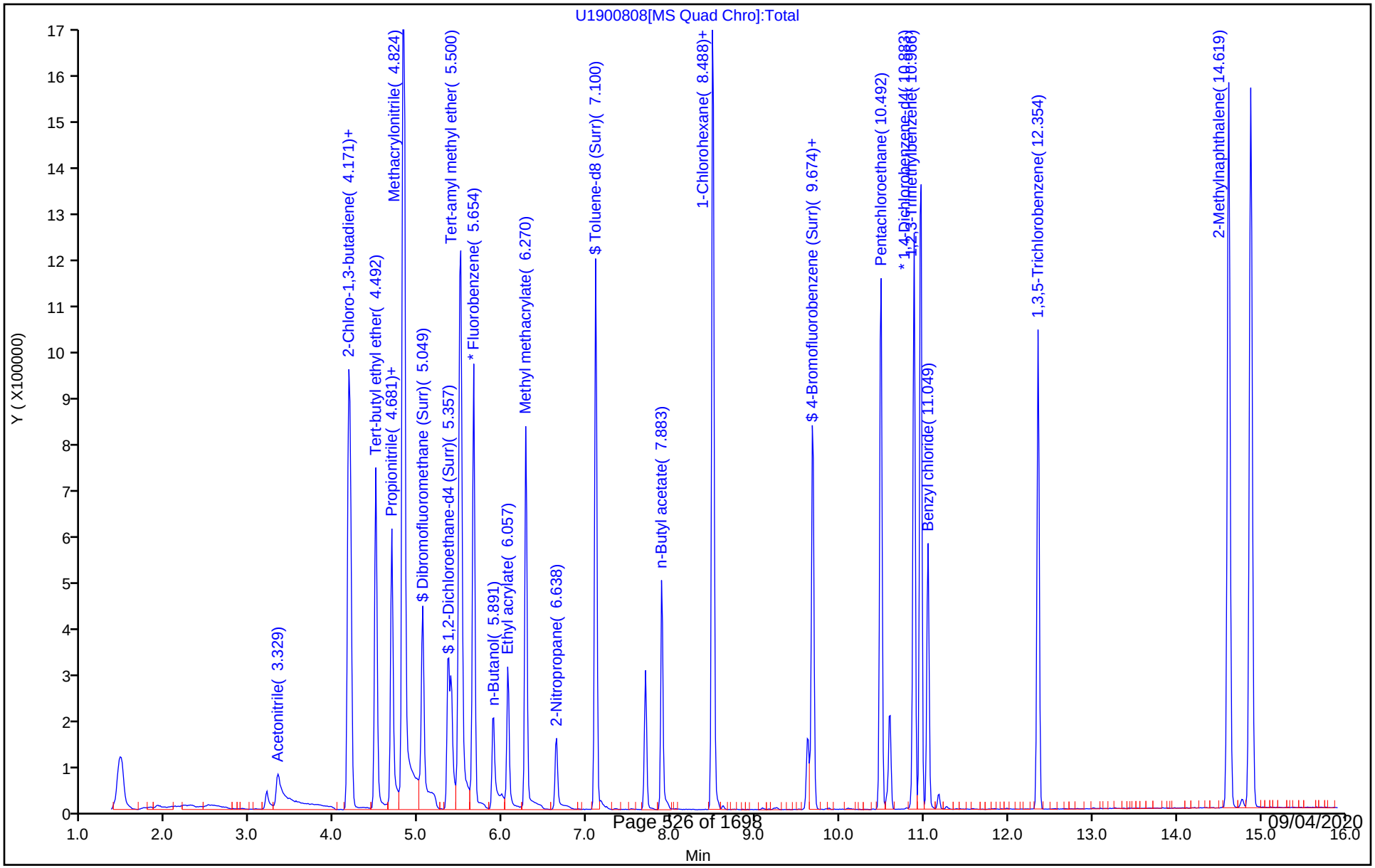
Report Date: 25-Jul-2018 16:30:33 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900808.d

Injection Date:	25-Jul-2018 15:37:29	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.2913	0.1000	0.0151	0.0200	-24.3	30.0
Chloromethane	Ave	0.2883	0.2492	0.1000	0.0173	0.0200	-13.6	30.0
Butadiene	Ave	0.2887	0.2477		0.0172	0.0200	-14.2	30.0
Vinyl chloride	Ave	0.2980	0.2874	0.1000	0.0193	0.0200	-3.5	30.0
Bromomethane	Ave	0.2335	0.2187	0.0500	0.0187	0.0200	-6.3	30.0
Chloroethane	Ave	0.1848	0.1799	0.0500	0.0195	0.0200	-2.7	30.0
Dichlorofluoromethane	Ave	0.4581	0.4761		0.0208	0.0200	3.9	30.0
Trichlorofluoromethane	Ave	0.4984	0.5062	0.1000	0.0203	0.0200	1.6	30.0
Ethyl ether	Ave	0.1800	0.1933		0.0215	0.0200	7.4	30.0
Acrolein	Ave	0.0445	0.0361		0.0812	0.100	-18.8	30.0
1,1-Dichloroethene	Ave	0.3589	0.3889	0.1000	0.0217	0.0200	8.3	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2567	0.2852	0.0500	0.0222	0.0200	11.1	30.0
Acetone	Ave	0.0784	0.0730	0.0100	0.0372	0.0400	-6.9	50.0
Iodomethane	Ave	0.4655	0.4827		0.0207	0.0200	3.7	30.0
Carbon disulfide	Ave	0.7515	0.7522	0.1000	0.0200	0.0200	0.0	30.0
3-Chloro-1-propene	Ave	0.3541	0.3610		0.0204	0.0200	2.0	30.0
Methyl acetate	Ave	0.2328	0.2202	0.1000	0.0378	0.0400	-5.4	50.0
Methylene Chloride	Ave	0.2846	0.2847	0.1000	0.0200	0.0200	0.0	50.0
tert-Butyl alcohol	Ave	0.0271	0.0283		0.209	0.200	4.3	30.0
Acrylonitrile	Ave	0.1006	0.1019		0.203	0.200	1.4	30.0
Methyl tert-butyl ether	Ave	0.6938	0.7063	0.1000	0.0204	0.0200	1.8	30.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3553	0.1000	0.0210	0.0200	4.9	30.0
Hexane	Ave	0.3524	0.3872		0.0220	0.0200	9.9	30.0
1,1-Dichloroethane	Ave	0.4048	0.4171	0.2000	0.0206	0.0200	3.0	30.0
Vinyl acetate	Ave	0.4639	0.5080		0.0219	0.0200	9.5	30.0
2,2-Dichloropropane	Ave	0.2438	0.2691		0.0221	0.0200	10.4	30.0
2-Butanone (MEK)	Ave	0.0472	0.0464	0.0100	0.0393	0.0400	-1.8	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.2867	0.1000	0.0198	0.0200	-0.8	30.0
Bromochloromethane	Ave	0.1945	0.1891		0.0194	0.0200	-2.8	30.0
Tetrahydrofuran	Lin1		0.1082		0.0418	0.0400	4.6	30.0
Chloroform	Ave	0.4433	0.4563	0.2000	0.0206	0.0200	2.9	30.0
1,1,1-Trichloroethane	Ave	0.4174	0.4498	0.1000	0.0216	0.0200	7.8	30.0
Cyclohexane	Ave	0.3819	0.4119	0.1000	0.0216	0.0200	7.8	30.0
1,1-Dichloropropene	Ave	0.3519	0.3667		0.0208	0.0200	4.2	30.0
Carbon tetrachloride	Ave	0.4023	0.4240	0.1000	0.0211	0.0200	5.4	30.0
Isobutyl alcohol	Ave	0.0110	0.0112		0.508	0.500	1.6	30.0
1,2-Dichloroethane	Ave	0.3600	0.3604	0.1000	0.0200	0.0200	0.1	30.0
Benzene	Ave	0.9518	0.9713	0.5000	0.0204	0.0200	2.1	30.0
n-Heptane	Lin1		0.2300		0.0213	0.0200	6.3	30.0
Trichloroethene	Ave	0.3160	0.3196	0.1500	0.0202	0.0200	1.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4590	0.4761	0.1000	0.0207	0.0200	3.7	30.0
1,2-Dichloropropane	Ave	0.2208	0.2306	0.1000	0.0209	0.0200	4.5	30.0
Dibromomethane	Ave	0.2271	0.2193		0.0193	0.0200	-3.4	30.0
1,4-Dioxane	Ave	0.0024	0.0028		0.474	0.400	18.4	50.0
Bromodichloromethane	Ave	0.3479	0.3494	0.1500	0.0201	0.0200	0.4	30.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1822		0.0206	0.0200	2.9	30.0
cis-1,3-Dichloropropene	Ave	0.3865	0.4060	0.1500	0.0210	0.0200	5.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3203	0.3230	0.0500	0.0403	0.0400	0.8	50.0
Toluene	Ave	1.352	1.362	0.4000	0.0201	0.0200	0.7	30.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4613	0.1000	0.0191	0.0200	-4.3	30.0
Ethyl methacrylate	Ave	0.4344	0.4432		0.0204	0.0200	2.0	30.0
1,1,2-Trichloroethane	Ave	0.2842	0.2905	0.1000	0.0204	0.0200	2.2	30.0
Tetrachloroethene	Ave	0.4313	0.4446	0.1500	0.0206	0.0200	3.1	30.0
1,3-Dichloropropane	Ave	0.4802	0.4738		0.0197	0.0200	-1.3	30.0
2-Hexanone	Ave	0.3149	0.3202	0.0500	0.0407	0.0400	1.7	50.0
Chlorodibromomethane	Ave	0.3583	0.3631		0.0203	0.0200	1.3	30.0
1,2-Dibromoethane	Ave	0.3346	0.3230		0.0193	0.0200	-3.5	30.0
Chlorobenzene	Ave	0.9253	0.9231	0.3000	0.0200	0.0200	-0.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3465		0.0208	0.0200	3.9	30.0
Ethylbenzene	Ave	0.4836	0.4958		0.0205	0.0200	2.5	30.0
m-Xylene & p-Xylene	Ave	0.5890	0.6110		0.0207	0.0200	3.7	30.0
o-Xylene	Ave	0.5597	0.5768		0.0206	0.0200	3.1	30.0
Styrene	Ave	0.9588	0.9701	0.3000	0.0202	0.0200	1.2	30.0
Bromoform	Ave	0.2933	0.2923	0.1000	0.0199	0.0200	-0.3	30.0
Isopropylbenzene	Ave	1.503	1.583	0.1000	0.0211	0.0200	5.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.7768	0.3000	0.0202	0.0200	0.8	30.0
Bromobenzene	Ave	0.7690	0.7545		0.0196	0.0200	-1.9	30.0
1,2,3-Trichloropropane	Ave	0.2921	0.3010		0.0206	0.0200	3.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2785		0.0203	0.0200	1.7	30.0
N-Propylbenzene	Ave	0.7729	0.7998		0.0207	0.0200	3.5	30.0
2-Chlorotoluene	Ave	0.6541	0.6592		0.0202	0.0200	0.8	30.0
1,3,5-Trimethylbenzene	Ave	2.225	2.303		0.0207	0.0200	3.5	30.0
4-Chlorotoluene	Ave	0.7072	0.7078		0.0200	0.0200	0.0	30.0
tert-Butylbenzene	Ave	2.113	2.203		0.0209	0.0200	4.3	30.0
1,2,4-Trimethylbenzene	Ave	2.256	2.278		0.0202	0.0200	1.0	30.0
sec-Butylbenzene	Ave	2.845	3.009		0.0212	0.0200	5.8	30.0
1,3-Dichlorobenzene	Ave	1.412	1.370	0.6000	0.0194	0.0200	-3.0	30.0
4-Isopropyltoluene	Ave	2.492	2.628		0.0211	0.0200	5.5	30.0
1,4-Dichlorobenzene	Ave	1.459	1.395	0.5000	0.0191	0.0200	-4.4	30.0
n-Butylbenzene	Ave	2.050	2.114		0.0206	0.0200	3.1	30.0
1,2-Dichlorobenzene	Ave	1.282	1.257	0.4000	0.0196	0.0200	-2.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2450	0.2411	0.0500	0.0197	0.0200	-1.6	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.8004	0.2000	0.0187	0.0200	-6.4	50.0
Hexachlorobutadiene	Ave	0.4392	0.4373		0.0199	0.0200	-0.4	50.0
Naphthalene	Ave	2.363	2.262		0.0191	0.0200	-4.3	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.7284		0.0190	0.0200	-5.1	30.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2769		0.0206	0.0200	2.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3266		0.0211	0.0200	5.6	30.0
Toluene-d8 (Surr)	Ave	1.199	1.238		0.0206	0.0200	3.2	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4759		0.0211	0.0200	5.5	30.0

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901330.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 27-Aug-2018 19:45:31 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info:
Operator ID: 001904 Instrument ID: A3UX19
Sublist:

Method: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 27-Aug-2018 21:12:05 Calib Date: 27-Aug-2018 19:23:28
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	96	955207	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	83	765531	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	87	424750	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	59	264542	20.0	20.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.345	0.012	100	311954	20.0	21.1	
$ 6 Toluene-d8 (Surr)	98	7.100	7.101	0.000	86	947747	20.0	20.6	
$ 7 4-Bromofluorobenzene (Surr	95	9.674	9.674	0.000	89	364329	20.0	21.1	
9 Dichlorodifluoromethane	85	1.610	1.610	0.000	88	278240	20.0	15.1	
10 Chloromethane	50	1.823	1.812	0.011	78	238040	20.0	17.3	
12 Butadiene	54	1.906	1.906	0.000	87	236605	20.0	17.2	
11 Vinyl chloride	62	1.930	1.918	0.012	82	274549	20.0	19.3	
13 Bromomethane	94	2.227	2.227	0.000	92	208903	20.0	18.7	
14 Chloroethane	64	2.298	2.298	0.000	95	171871	20.0	19.5	
15 Dichlorofluoromethane	67	2.511	2.499	0.012	83	454821	20.0	20.8	
16 Trichlorofluoromethane	101	2.582	2.582	0.000	88	483563	20.0	20.3	
17 Ethyl ether	59	2.808	2.808	0.000	90	184629	20.0	21.5	
18 Acrolein	56	2.926	2.926	0.000	94	172494	100.0	81.2	
21 1,1-Dichloroethene	61	3.045	3.045	0.000	89	371471	20.0	21.7	
20 1,1,2-Trichloro-1,2,2-trif	101	3.057	3.057	0.000	81	272453	20.0	22.2	
22 Acetone	43	3.068	3.069	-0.001	72	139402	40.0	37.2	
23 Iodomethane	142	3.199	3.199	0.000	99	461057	20.0	20.7	
24 Carbon disulfide	76	3.258	3.258	0.000	99	718482	20.0	20.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
26 3-Chloro-1-propene	41	3.365	3.365	0.000	74	344875	20.0	20.4	
27 Methyl acetate	43	3.377	3.377	0.000	96	420737	40.0	37.8	
28 Methylene Chloride	49	3.484	3.495	-0.011	55	271908	20.0	20.0	
29 2-Methyl-2-propanol	59	3.578	3.567	0.011	87	269854	200.0	208.6	
30 Acrylonitrile	53	3.697	3.685	0.012	98	973795	200.0	202.8	
32 trans-1,2-Dichloroethene	61	3.733	3.721	0.012	68	339431	20.0	21.0	
31 Methyl tert-butyl ether	73	3.733	3.733	0.000	89	674668	20.0	20.4	
33 Hexane	57	3.982	3.982	0.000	92	369879	20.0	22.0	
34 1,1-Dichloroethane	63	4.112	4.112	0.000	85	398379	20.0	20.6	
35 Vinyl acetate	43	4.148	4.148	0.000	97	485201	20.0	21.9	
40 cis-1,2-Dichloroethene	96	4.634	4.622	0.012	68	273831	20.0	19.8	
41 2-Butanone (MEK)	72	4.634	4.634	0.000	92	88581	40.0	39.3	
39 2,2-Dichloropropane	77	4.634	4.634	0.000	65	257071	20.0	22.1	
45 Chlorobromomethane	49	4.835	4.836	-0.001	70	180641	20.0	19.4	
46 Tetrahydrofuran	42	4.883	4.883	0.000	83	206721	40.0	41.8	
47 Chloroform	83	4.907	4.907	0.000	71	435869	20.0	20.6	
48 1,1,1-Trichloroethane	97	5.084	5.085	-0.001	90	429620	20.0	21.6	
49 Cyclohexane	84	5.144	5.144	0.000	86	393450	20.0	21.6	
50 1,1-Dichloropropene	75	5.227	5.227	0.000	90	350261	20.0	20.8	
51 Carbon tetrachloride	117	5.239	5.239	0.000	70	405050	20.0	21.1	
52 Isobutyl alcohol	41	5.298	5.298	0.000	83	266481	500.0	508.1	
54 1,2-Dichloroethane	62	5.416	5.417	-0.001	50	344294	20.0	20.0	
53 Benzene	78	5.416	5.417	-0.001	94	927804	20.0	20.4	
56 n-Heptane	57	5.642	5.642	0.000	82	219666	20.0	21.3	
58 Trichloroethene	130	5.986	5.986	0.000	92	305241	20.0	20.2	
60 Methylcyclohexane	83	6.175	6.176	-0.001	87	454812	20.0	20.7	
61 1,2-Dichloropropane	63	6.187	6.187	0.000	80	220275	20.0	20.9	
63 Dibromomethane	174	6.294	6.294	0.000	89	209471	20.0	19.3	
64 1,4-Dioxane	88	6.306	6.306	0.000	35	54068	400.0	473.8	
65 Dichlorobromomethane	83	6.436	6.436	0.000	93	333796	20.0	20.1	
67 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	93	174029	20.0	20.6	
68 cis-1,3-Dichloropropene	75	6.840	6.840	0.000	89	387819	20.0	21.0	
69 4-Methyl-2-pentanone (MIBK	43	6.982	6.982	0.000	83	617114	40.0	40.3	
70 Toluene	91	7.172	7.172	0.000	94	1042380	20.0	20.1	
71 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	85	353136	20.0	19.1	
72 Ethyl methacrylate	69	7.432	7.433	-0.001	89	339271	20.0	20.4	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	86	222400	20.0	20.4	
75 Tetrachloroethene	166	7.693	7.693	0.000	92	340390	20.0	20.6	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	90	362713	20.0	19.7	
77 2-Hexanone	43	7.765	7.765	-0.001	79	490171	40.0	40.7	
79 Chlorodibromomethane	129	7.931	7.919	0.012	88	278002	20.0	20.3	
80 Ethylene Dibromide	107	8.049	8.049	0.000	99	247260	20.0	19.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
82 Chlorobenzene	112	8.523	8.524	-0.001	92	706649	20.0	20.0	
83 1,1,1,2-Tetrachloroethane	131	8.606	8.607	-0.001	87	265224	20.0	20.8	
84 Ethylbenzene	106	8.630	8.630	0.000	98	379588	20.0	20.5	
85 m-Xylene & p-Xylene	106	8.749	8.749	0.000	100	467728	20.0	20.7	
86 o-Xylene	106	9.152	9.152	0.000	88	441586	20.0	20.6	
87 Styrene	104	9.164	9.164	0.000	93	742653	20.0	20.2	
88 Bromoform	173	9.354	9.354	0.000	98	223782	20.0	19.9	
89 Isopropylbenzene	105	9.520	9.520	0.000	96	1211475	20.0	21.1	
91 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	88	329964	20.0	20.2	
92 Bromobenzene	156	9.840	9.840	0.000	89	320488	20.0	19.6	
93 1,2,3-Trichloropropane	110	9.863	9.864	-0.001	69	127830	20.0	20.6	
94 trans-1,4-Dichloro-2-buten	53	9.875	9.875	0.000	61	118291	20.0	20.3	
95 N-Propylbenzene	120	9.946	9.947	-0.001	96	339730	20.0	20.7	
96 2-Chlorotoluene	126	10.041	10.041	0.000	97	279994	20.0	20.2	
97 1,3,5-Trimethylbenzene	105	10.124	10.124	0.000	95	978383	20.0	20.7	
98 4-Chlorotoluene	126	10.148	10.148	0.000	98	300639	20.0	20.0	
99 tert-Butylbenzene	119	10.468	10.468	0.000	78	935547	20.0	20.9	
101 1,2,4-Trimethylbenzene	105	10.516	10.516	0.000	71	967584	20.0	20.2	
102 sec-Butylbenzene	105	10.694	10.694	0.000	93	1277861	20.0	21.2	
103 1,3-Dichlorobenzene	146	10.812	10.812	0.000	84	581709	20.0	19.4	
104 4-Isopropyltoluene	119	10.848	10.848	0.000	91	1116328	20.0	21.1	
105 1,4-Dichlorobenzene	146	10.907	10.907	0.000	92	592339	20.0	19.1	
108 n-Butylbenzene	91	11.287	11.287	0.000	97	897771	20.0	20.6	
109 1,2-Dichlorobenzene	146	11.310	11.298	0.012	98	533790	20.0	19.6	
110 1,2-Dibromo-3-Chloropropan	157	12.128	12.129	-0.001	89	102428	20.0	19.7	
112 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	92	339973	20.0	18.7	
113 Hexachlorobutadiene	225	13.208	13.208	0.000	88	185743	20.0	19.9	
114 Naphthalene	128	13.279	13.279	0.000	96	960764	20.0	19.1	
115 1,2,3-Trichlorobenzene	180	13.540	13.540	0.000	93	309386	20.0	19.0	
S 164 Total BTEX	1				0		100.0	102.4	
S 127 Trihalomethanes, Total	1				0		80.0	80.9	
S 126 Xylenes, Total	106				0		40.0	41.4	

Reagents:

vmfasgw_00271	Amount Added:	16.00	Units: uL	
vmfasaw_00246	Amount Added:	16.00	Units: uL	
vmfaspw_00264	Amount Added:	16.00	Units: uL	
vm50ss_stk_00077	Amount Added:	2.00	Units: uL	Run Reagent
vmDist_H2o_00123	Amount Added:	0.00	Units:	Run Reagent
vm50is_stk_A_00001	Amount Added:	2.00	Units: uL	Run Reagent

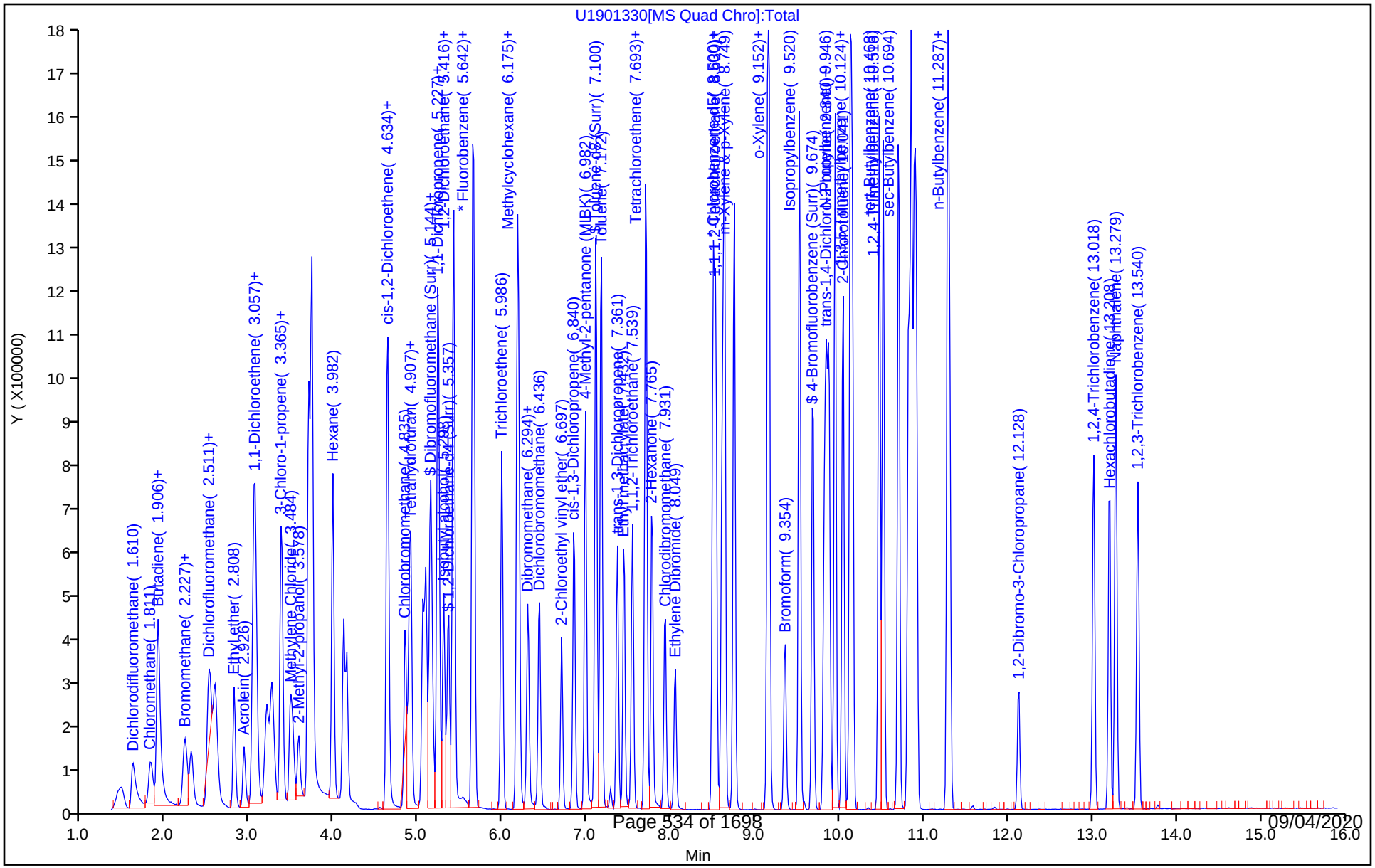
Report Date: 27-Aug-2018 21:12:28 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901330.d

Injection Date:	27-Aug-2018 19:45:31	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCV 240-447281/3 Calibration Date: 08/14/2020 17:44

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1916360.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0426		0.213	0.200	6.6	20.0
Diisopropyl ether	Ave	0.2313	0.2103		0.0182	0.0200	-9.1	20.0
2-Chloro-1,3-butadiene	Ave	0.3979	0.3946		0.0198	0.0200	-0.8	20.0
Ethyl tert-butyl ether	Ave	0.7258	0.6430		0.0177	0.0200	-11.4	20.0
Ethyl acetate	Ave	0.3007	0.3152		0.0419	0.0400	4.8	20.0
Propionitrile	Ave	0.0408	0.0560		0.275	0.200	37.4*	20.0
Methacrylonitrile	Ave	0.1828	0.1973		0.216	0.200	7.9	20.0
Tert-amyl methyl ether	Ave	0.7700	0.6807		0.0177	0.0200	-11.6	20.0
n-Butanol	Ave	0.0094	0.0141		0.754	0.500	50.7*	20.0
Ethyl acrylate	Ave	0.3703	0.3759		0.0203	0.0200	1.5	20.0
Methyl methacrylate	Ave	0.2459	0.2386		0.0388	0.0400	-3.0	20.0
2-Nitropropane	Ave	0.0726	0.0849		0.0468	0.0400	17.0	20.0
n-Butyl acetate	Ave	0.5364	0.5513		0.0206	0.0200	2.8	20.0
1-Chlorohexane	Ave	0.4610	0.4488		0.0195	0.0200	-2.6	20.0
Cyclohexanone	Ave	0.0137	0.0170		0.249	0.200	24.7*	20.0
Pentachloroethane	Ave	0.3462	0.4016		0.0464	0.0400	16.0	20.0
1,2,3-Trimethylbenzene	Ave	2.276	2.347		0.0206	0.0200	3.1	20.0
Benzyl chloride	Ave	1.286	1.676		0.0261	0.0200	30.3*	20.0
1,3,5-Trichlorobenzene	Ave	1.021	0.8644		0.0169	0.0200	-15.4	20.0
2-Methylnaphthalene	Ave	1.433	1.187		0.0331	0.0400	-17.1	20.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916360.d
Lims ID: CCV A9
Client ID:
Sample Type: CCV
Inject. Date: 14-Aug-2020 17:44:02 ALS Bottle#: 0 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-003
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub13

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2020 18:37:38 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: laveyt Date: 14-Aug-2020 18:37:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.654	5.654	0.000	99	995929	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	86	734440	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.895	10.895	0.000	94	374225	20.0	20.0	
26 Acetonitrile	41	3.329	3.329	0.000	99	424669	200.0	213.2	
37 Isopropyl ether	87	4.171	4.171	0.000	92	209398	20.0	18.2	
38 2-Chloro-1,3-butadiene	53	4.195	4.195	0.000	91	392946	20.0	19.8	
39 Tert-butyl ethyl ether	59	4.491	4.491	0.000	96	640370	20.0	17.7	
44 Ethyl acetate	43	4.681	4.681	0.000	99	627796	40.0	41.9	
43 Propionitrile	54	4.681	4.681	0.000	78	557897	200.0	274.9	
45 Methacrylonitrile	41	4.824	4.824	0.000	91	1965403	200.0	215.9	
56 Tert-amyl methyl ether	73	5.511	5.511	0.000	97	677955	20.0	17.7	
58 n-Butanol	56	5.891	5.891	0.000	87	351175	500.0	753.5	
60 Ethyl acrylate	55	6.069	6.069	0.000	99	374362	20.0	20.3	
63 Methyl methacrylate	41	6.282	6.282	0.000	88	475284	40.0	38.8	
67 2-Nitropropane	41	6.638	6.638	0.000	98	169175	40.0	46.8	
78 n-Butyl acetate	43	7.895	7.895	0.000	98	404864	20.0	20.6	
82 1-Chlorohexane	91	8.500	8.500	0.000	97	329612	20.0	19.5	
91 Cyclohexanone	55	9.626	9.626	0.000	92	125197	200.0	249.4	
104 Pentachloroethane	167	10.492	10.492	0.000	92	300571	40.0	46.4	
110 1,2,3-Trimethylbenzene	105	10.966	10.966	0.000	98	878269	20.0	20.6	
111 Benzyl chloride	91	11.049	11.049	0.000	99	627281	20.0	26.1	
115 1,3,5-Trichlorobenzene	180	12.366	12.366	0.000	98	323495	20.0	16.9	
120 2-Methylnaphthalene	142	14.631	14.631	0.000	92	888538	40.0	33.1	

Reagents:

vm50is_stk_A_00007 Amount Added: 2.00 Units: uL
vmra9w_00356 Amount Added: 16.00 Units: uL

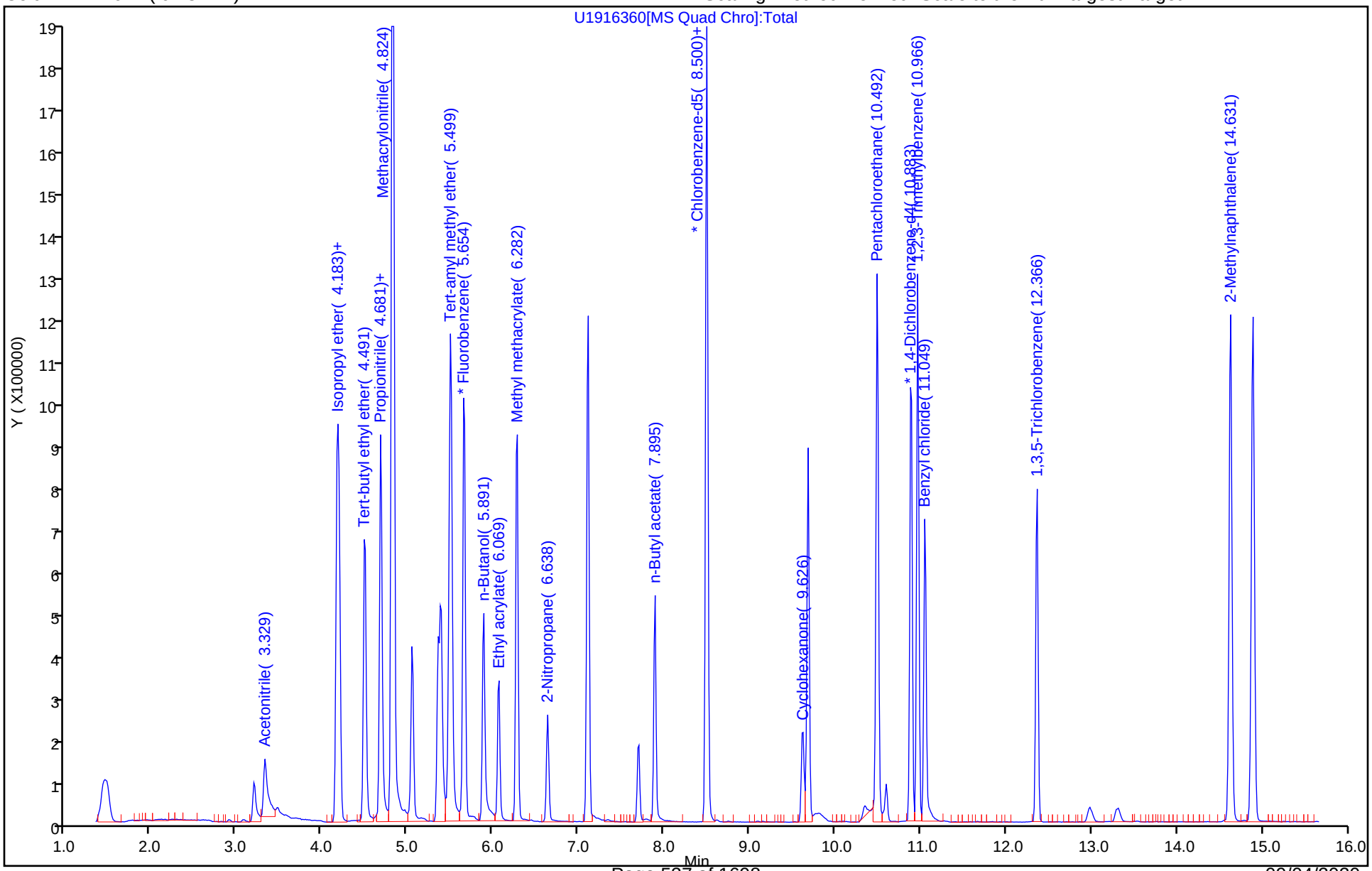
Report Date: 14-Aug-2020 18:37:39 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916360.d

Injection Date:	14-Aug-2020 17:44:02	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	CCV A9			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 240-447281/4 Calibration Date: 08/14/2020 18:06

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1916361.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.3135	0.1000	0.0163	0.0200	-18.6	20.0
Chloromethane	Ave	0.2883	0.2877	0.1000	0.0200	0.0200	-0.2	20.0
Vinyl chloride	Ave	0.2980	0.3024	0.1000	0.0203	0.0200	1.5	20.0
Butadiene	Ave	0.2887	0.2846		0.0197	0.0200	-1.4	20.0
Bromomethane	Ave	0.2335	0.2074	0.0500	0.0178	0.0200	-11.2	20.0
Chloroethane	Ave	0.1848	0.1906	0.0500	0.0206	0.0200	3.1	20.0
Dichlorofluoromethane	Ave	0.4581	0.4300		0.0188	0.0200	-6.1	20.0
Trichlorofluoromethane	Ave	0.4984	0.4033	0.1000	0.0162	0.0200	-19.1	20.0
Ethyl ether	Ave	0.1800	0.2018		0.0224	0.0200	12.1	20.0
Acrolein	Ave	0.0445	0.0244		0.0549	0.100	-45.1*	20.0
1,1-Dichloroethene	Ave	0.3589	0.3480	0.1000	0.0194	0.0200	-3.1	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2567	0.2616	0.0500	0.0204	0.0200	1.9	20.0
Acetone	Ave	0.0784	0.1004	0.0100	0.0512	0.0400	28.1	50.0
Iodomethane	Ave	0.4655	0.4055		0.0174	0.0200	-12.9	20.0
Carbon disulfide	Ave	0.7515	0.7289	0.1000	0.0194	0.0200	-3.0	20.0
3-Chloro-1-propene	Ave	0.3541	0.3358		0.0190	0.0200	-5.2	20.0
Methyl acetate	Ave	0.2328	0.2608	0.1000	0.0448	0.0400	12.0	50.0
Methylene Chloride	Ave	0.2846	0.2912	0.1000	0.0205	0.0200	2.3	50.0
tert-Butyl alcohol	Ave	0.0271	0.0355		0.263	0.200	31.3*	20.0
Acrylonitrile	Ave	0.1006	0.1264		0.251	0.200	25.7*	20.0
Methyl tert-butyl ether	Ave	0.6938	0.6837	0.1000	0.0197	0.0200	-1.5	20.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3392	0.1000	0.0200	0.0200	0.2	20.0
Hexane	Ave	0.3524	0.3673		0.0208	0.0200	4.2	20.0
1,1-Dichloroethane	Ave	0.4048	0.4222	0.2000	0.0209	0.0200	4.3	20.0
Vinyl acetate	Ave	0.4639	0.5017		0.0216	0.0200	8.2	20.0
2,2-Dichloropropane	Ave	0.2438	0.2689		0.0221	0.0200	10.3	20.0
2-Butanone (MEK)	Ave	0.0472	0.0507	0.0100	0.0429	0.0400	7.3	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.2797	0.1000	0.0194	0.0200	-3.2	20.0
Bromochloromethane	Ave	0.1945	0.1974		0.0203	0.0200	1.5	20.0
Tetrahydrofuran	Lin1		0.1160		0.0450	0.0400	12.6	20.0
Chloroform	Ave	0.4433	0.4440	0.2000	0.0200	0.0200	0.2	20.0
1,1,1-Trichloroethane	Ave	0.4174	0.3805	0.1000	0.0182	0.0200	-8.8	20.0
Cyclohexane	Ave	0.3819	0.3965	0.1000	0.0208	0.0200	3.8	20.0
1,1-Dichloropropene	Ave	0.3519	0.3613		0.0205	0.0200	2.7	20.0
Carbon tetrachloride	Ave	0.4023	0.3531	0.1000	0.0176	0.0200	-12.2	20.0
Isobutyl alcohol	Ave	0.0110	0.0134		0.610	0.500	22.0*	20.0
Benzene	Ave	0.9518	1.002	0.5000	0.0211	0.0200	5.3	20.0
1,2-Dichloroethane	Ave	0.3600	0.3277	0.1000	0.0182	0.0200	-9.0	20.0
n-Heptane	Lin1		0.1815		0.0160	0.0200	-19.8	20.0
Trichloroethene	Ave	0.3160	0.2860	0.1500	0.0181	0.0200	-9.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 240-447281/4 Calibration Date: 08/14/2020 18:06

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1916361.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4590	0.4301	0.1000	0.0187	0.0200	-6.3	20.0
1,2-Dichloropropane	Ave	0.2208	0.2347	0.1000	0.0213	0.0200	6.3	20.0
1,4-Dioxane	Ave	0.0024	0.0042		0.701	0.400	75.3*	50.0
Dibromomethane	Ave	0.2271	0.1806		0.0159	0.0200	-20.4*	20.0
Bromodichloromethane	Ave	0.3479	0.3163	0.1500	0.0182	0.0200	-9.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1745		0.0394	0.0400	-1.4	20.0
cis-1,3-Dichloropropene	Ave	0.3865	0.3784	0.1500	0.0196	0.0200	-2.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3203	0.3282	0.0500	0.0410	0.0400	2.5	50.0
Toluene	Ave	1.352	1.454	0.4000	0.0215	0.0200	7.6	20.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4716	0.1000	0.0196	0.0200	-2.1	20.0
Ethyl methacrylate	Ave	0.4344	0.4589		0.0211	0.0200	5.6	20.0
1,1,2-Trichloroethane	Ave	0.2842	0.3021	0.1000	0.0213	0.0200	6.3	20.0
1,3-Dichloropropane	Ave	0.4802	0.5227		0.0218	0.0200	8.8	20.0
Tetrachloroethene	Ave	0.4313	0.3951	0.1500	0.0183	0.0200	-8.4	20.0
2-Hexanone	Ave	0.3149	0.3426	0.0500	0.0435	0.0400	8.8	50.0
Chlorodibromomethane	Ave	0.3583	0.3432		0.0192	0.0200	-4.2	20.0
1,2-Dibromoethane	Ave	0.3346	0.3286		0.0196	0.0200	-1.8	20.0
Chlorobenzene	Ave	0.9253	0.9305	0.3000	0.0201	0.0200	0.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3360		0.0201	0.0200	0.7	20.0
Ethylbenzene	Ave	0.4836	0.4883		0.0202	0.0200	1.0	20.0
m-Xylene & p-Xylene	Ave	0.5890	0.6102		0.0207	0.0200	3.6	20.0
o-Xylene	Ave	0.5597	0.5945		0.0212	0.0200	6.2	20.0
Styrene	Ave	0.9588	0.9903	0.3000	0.0207	0.0200	3.3	20.0
Bromoform	Ave	0.2933	0.2561	0.1000	0.0175	0.0200	-12.7	20.0
Isopropylbenzene	Ave	1.503	1.537	0.1000	0.0205	0.0200	2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.9247	0.3000	0.0240	0.0200	20.0	20.0
Bromobenzene	Ave	0.7690	0.7327		0.0191	0.0200	-4.7	20.0
1,2,3-Trichloropropane	Ave	0.2921	0.3065		0.0210	0.0200	4.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2658		0.0194	0.0200	-2.9	20.0
N-Propylbenzene	Ave	0.7729	0.8074		0.0209	0.0200	4.5	20.0
2-Chlorotoluene	Ave	0.6541	0.6909		0.0211	0.0200	5.6	20.0
1,3,5-Trimethylbenzene	Ave	2.225	2.331		0.0210	0.0200	4.8	20.0
4-Chlorotoluene	Ave	0.7072	0.7190		0.0203	0.0200	1.7	20.0
tert-Butylbenzene	Ave	2.113	2.013		0.0191	0.0200	-4.7	20.0
1,2,4-Trimethylbenzene	Ave	2.256	2.355		0.0209	0.0200	4.4	20.0
sec-Butylbenzene	Ave	2.845	2.898		0.0204	0.0200	1.9	20.0
1,3-Dichlorobenzene	Ave	1.412	1.360	0.6000	0.0193	0.0200	-3.7	20.0
4-Isopropyltoluene	Ave	2.492	2.459		0.0197	0.0200	-1.3	20.0
1,4-Dichlorobenzene	Ave	1.459	1.367	0.5000	0.0187	0.0200	-6.3	20.0
n-Butylbenzene	Ave	2.050	2.039		0.0199	0.0200	-0.5	20.0
1,2-Dichlorobenzene	Ave	1.282	1.327	0.4000	0.0207	0.0200	3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 240-447281/4 Calibration Date: 08/14/2020 18:06

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1916361.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2450	0.2555	0.0500	0.0208	0.0200	4.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.6871	0.2000	0.0161	0.0200	-19.6	50.0
Hexachlorobutadiene	Ave	0.4392	0.2895		0.0132	0.0200	-34.1	50.0
Naphthalene	Ave	2.363	2.421		0.0205	0.0200	2.4	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.6832		0.0178	0.0200	-11.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2633		0.0196	0.0200	-2.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.2996		0.0194	0.0200	-3.1	20.0
Toluene-d8 (Surr)	Ave	1.199	1.298		0.0216	0.0200	8.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4698		0.0208	0.0200	4.1	20.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916361.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 14-Aug-2020 18:06:39 ALS Bottle#: 0 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-004
Operator ID: 001904 Instrument ID: A3UX19
Sublist: chrom-8260_19*sub1

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2020 18:40:09 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: laveyt Date: 14-Aug-2020 18:40:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.666	5.666	0.000	99	1022055	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	85	752909	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.895	10.895	0.000	93	402555	20.0	20.0	
$ 4 Dibromofluoromethane (Surr)	111	5.049	5.049	0.000	94	269125	20.0	19.6	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.357	5.357	0.000	98	306246	20.0	19.4	
$ 6 Toluene-d8 (Surr)	98	7.112	7.112	0.000	93	977159	20.0	21.6	
$ 7 4-Bromofluorobenzene (Surr)	95	9.686	9.686	0.000	92	353737	20.0	20.8	
9 Dichlorodifluoromethane	85	1.598	1.598	0.000	99	320404	20.0	16.3	
10 Chloromethane	50	1.812	1.812	0.000	99	294066	20.0	20.0	
11 Butadiene	54	1.918	1.918	0.000	88	290830	20.0	19.7	
12 Vinyl chloride	62	1.907	1.907	0.000	98	309074	20.0	20.3	
13 Bromomethane	94	2.250	2.250	0.000	90	211943	20.0	17.8	
15 Chloroethane	64	2.310	2.310	0.000	99	194787	20.0	20.6	
16 Dichlorofluoromethane	67	2.523	2.523	0.000	97	439518	20.0	18.8	
17 Trichlorofluoromethane	101	2.535	2.535	0.000	98	412182	20.0	16.2	
18 Ethyl ether	59	2.808	2.808	0.000	90	206283	20.0	22.4	
19 Acrolein	56	2.926	2.926	0.000	100	124715	100.0	54.9	
20 1,1-Dichloroethene	61	3.033	3.033	0.000	98	355671	20.0	19.4	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.069	3.069	0.000	93	267366	20.0	20.4	
22 Acetone	43	3.081	3.081	0.000	100	205259	40.0	51.2	
24 Iodomethane	142	3.175	3.175	0.000	99	414403	20.0	17.4	
25 Carbon disulfide	76	3.247	3.247	0.000	100	745006	20.0	19.4	
27 3-Chloro-1-propene	41	3.365	3.365	0.000	90	343156	20.0	19.0	
28 Methyl acetate	43	3.389	3.389	0.000	97	533087	40.0	44.8	
29 Methylene Chloride	49	3.472	3.472	0.000	88	297593	20.0	20.5	
30 2-Methyl-2-propanol	59	3.579	3.579	0.000	98	363290	200.0	262.5	
31 Acrylonitrile	53	3.697	3.697	0.000	98	1291943	200.0	251.4	
32 trans-1,2-Dichloroethene	61	3.733	3.733	0.000	72	346678	20.0	20.0	
33 Methyl tert-butyl ether	73	3.733	3.733	0.000	94	698739	20.0	19.7	
34 Hexane	57	3.982	3.982	0.000	90	375397	20.0	20.8	
35 1,1-Dichloroethane	63	4.112	4.112	0.000	96	431554	20.0	20.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	4.148	4.148	0.000	97	512759	20.0	21.6	
40 2-Butanone (MEK)	72	4.634	4.634	0.000	98	103604	40.0	42.9	
41 cis-1,2-Dichloroethene	96	4.634	4.634	0.000	80	285870	20.0	19.4	
42 2,2-Dichloropropane	77	4.634	4.634	0.000	73	274828	20.0	22.1	
46 Chlorobromomethane	49	4.847	4.847	0.000	90	201795	20.0	20.3	
47 Tetrahydrofuran	42	4.883	4.883	0.000	84	237070	40.0	45.0	
48 Chloroform	83	4.907	4.907	0.000	92	453815	20.0	20.0	
49 1,1,1-Trichloroethane	97	5.085	5.085	0.000	98	388875	20.0	18.2	
50 Cyclohexane	84	5.144	5.144	0.000	96	405274	20.0	20.8	
52 Carbon tetrachloride	117	5.239	5.239	0.000	97	360866	20.0	17.6	
51 1,1-Dichloropropene	75	5.227	5.227	0.000	98	369238	20.0	20.5	
53 Isobutyl alcohol	41	5.298	5.298	0.000	94	342362	500.0	610.0	
54 Benzene	78	5.417	5.417	0.000	95	1023909	20.0	21.1	
55 1,2-Dichloroethane	62	5.429	5.429	0.000	98	334887	20.0	18.2	
57 n-Heptane	57	5.642	5.642	0.000	89	185475	20.0	16.0	
59 Trichloroethene	130	5.998	5.998	0.000	97	292317	20.0	18.1	
61 Methylcyclohexane	83	6.176	6.176	0.000	90	439558	20.0	18.7	
62 1,2-Dichloropropane	63	6.199	6.199	0.000	96	239890	20.0	21.3	
64 Dibromomethane	174	6.306	6.306	0.000	93	184625	20.0	15.9	
65 1,4-Dioxane	88	6.306	6.306	0.000	91	85631	400.0	701.3	
66 Dichlorobromomethane	83	6.437	6.437	0.000	100	323311	20.0	18.2	
68 2-Chloroethyl vinyl ether	63	6.697	6.697	0.000	92	356736	40.0	39.4	
69 cis-1,3-Dichloropropene	75	6.852	6.852	0.000	96	386767	20.0	19.6	
70 4-Methyl-2-pentanone (MIBK)	43	6.982	6.982	0.000	96	670974	40.0	41.0	
71 Toluene	91	7.172	7.172	0.000	98	1094596	20.0	21.5	
72 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	92	355084	20.0	19.6	
73 Ethyl methacrylate	69	7.445	7.445	0.000	88	345512	20.0	21.1	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	91	227440	20.0	21.3	
75 Tetrachloroethene	166	7.705	7.705	0.000	97	297457	20.0	18.3	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	89	393524	20.0	21.8	
77 2-Hexanone	43	7.777	7.777	0.000	95	515830	40.0	43.5	
79 Chlorodibromomethane	129	7.931	7.931	0.000	90	258398	20.0	19.2	
81 Ethylene Dibromide	107	8.049	8.049	0.000	98	247421	20.0	19.6	
83 Chlorobenzene	112	8.536	8.536	0.000	97	700610	20.0	20.1	
84 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	95	252981	20.0	20.1	
85 Ethylbenzene	106	8.642	8.642	0.000	98	367669	20.0	20.2	
86 m-Xylene & p-Xylene	106	8.749	8.749	0.000	100	459407	20.0	20.7	
87 o-Xylene	106	9.152	9.152	0.000	94	447602	20.0	21.2	
88 Styrene	104	9.164	9.164	0.000	93	745638	20.0	20.7	
89 Bromoform	173	9.354	9.354	0.000	97	192798	20.0	17.5	
90 Isopropylbenzene	105	9.532	9.532	0.000	95	1157041	20.0	20.5	
93 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	94	372235	20.0	24.0	
95 Bromobenzene	156	9.852	9.852	0.000	91	294972	20.0	19.1	
97 trans-1,4-Dichloro-2-butene	53	9.876	9.876	0.000	76	106995	20.0	19.4	
96 1,2,3-Trichloropropane	110	9.876	9.876	0.000	83	123380	20.0	21.0	
98 N-Propylbenzene	120	9.947	9.947	0.000	99	325011	20.0	20.9	
100 2-Chlorotoluene	126	10.042	10.042	0.000	97	278119	20.0	21.1	
101 1,3,5-Trimethylbenzene	105	10.136	10.136	0.000	96	938446	20.0	21.0	
102 4-Chlorotoluene	126	10.160	10.160	0.000	99	289442	20.0	20.3	
103 tert-Butylbenzene	119	10.480	10.480	0.000	91	810375	20.0	19.1	
105 1,2,4-Trimethylbenzene	105	10.528	10.528	0.000	96	948083	20.0	20.9	
106 sec-Butylbenzene	105	10.706	10.706	0.000	94	1166601	20.0	20.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 1,3-Dichlorobenzene	146	10.824	10.824	0.000	98	547673	20.0	19.3	
108 4-Isopropyltoluene	119	10.860	10.860	0.000	97	989918	20.0	19.7	
109 1,4-Dichlorobenzene	146	10.919	10.919	0.000	95	550421	20.0	18.7	
112 n-Butylbenzene	91	11.287	11.287	0.000	98	820929	20.0	19.9	
113 1,2-Dichlorobenzene	146	11.310	11.310	0.000	98	534256	20.0	20.7	
114 1,2-Dibromo-3-Chloropropane	157	12.129	12.129	0.000	88	102834	20.0	20.8	
116 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	93	276610	20.0	16.1	
117 Hexachlorobutadiene	225	13.208	13.208	0.000	97	116542	20.0	13.2	
118 Naphthalene	128	13.279	13.279	0.000	97	974485	20.0	20.5	
119 1,2,3-Trichlorobenzene	180	13.552	13.552	0.000	95	275035	20.0	17.8	
S 125 Trihalomethanes, Total	1				0		80.0	74.8	
S 124 Total BTEX	1				0		100.0	104.7	
S 128 Xylenes, Total	106				0		40.0	42.0	

Reagents:

vmarolistdw_00356	Amount Added: 16.00	Units: uL		
vmrprimw_00399	Amount Added: 16.00	Units: uL		
vmrgas_00350	Amount Added: 16.00	Units: uL		
vm50ss_stk_00085	Amount Added: 2.00	Units: uL	Run Reagent	
vmDist_H2o_00178	Amount Added: 0.00	Units:	Run Reagent	
vm40ml_vials_00015	Amount Added: 0.00	Units:	Run Reagent	
vm50is_stk_A_00007	Amount Added: 2.00	Units: uL	Run Reagent	

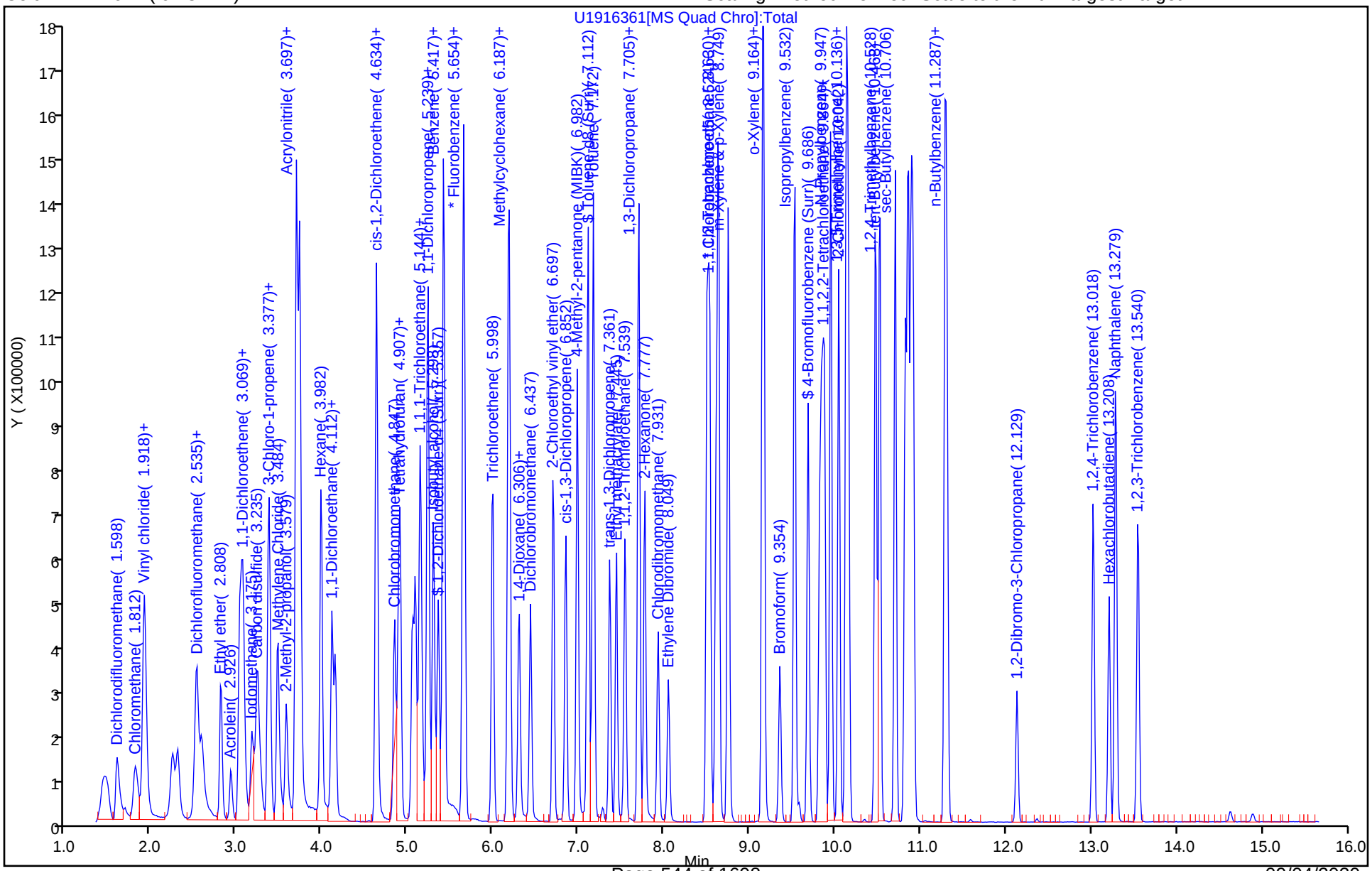
Report Date: 14-Aug-2020 18:40:11 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916361.d

Injection Date:	14-Aug-2020 18:06:39	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\bfb036.d				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	24-Jul-2018 17:22:19	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	240-0078277-001				
Operator ID:	001904	Instrument ID:	A3UX19		
Method:	\\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\8260_19.m				
Limit Group:	MSV 8260C ICAL				
Last Update:	24-Jul-2018 18:26:01	Calib Date:	01-Jan-0001 00:00:00		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK002				
First Level Reviewer: laveyt		Date:	24-Jul-2018 18:26:01		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	4.698	4.698	0.000	0	1090680	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

vmbfb_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\bfb036.d

Injection Date: 24-Jul-2018 17:22:19 Instrument ID: A3UX19

Lims ID: BFB

Client ID:

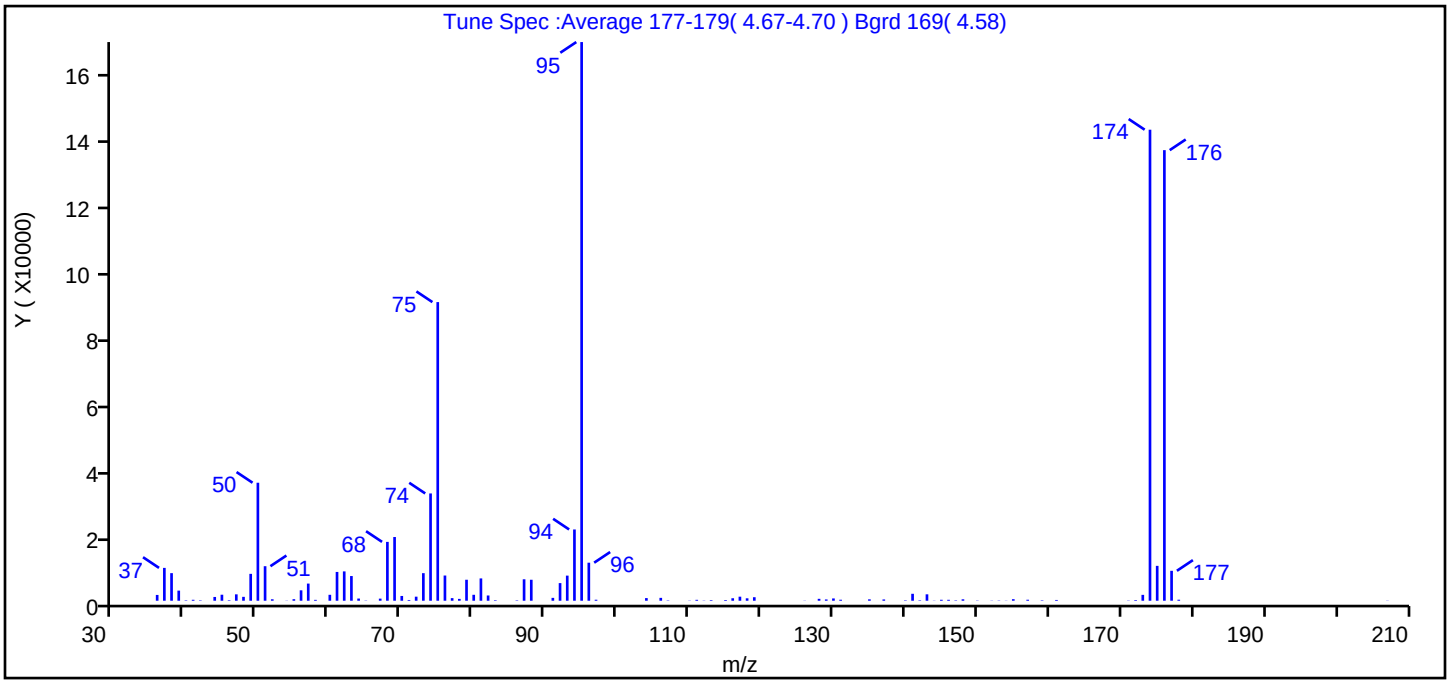
Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 1

Injection Vol: 5.0 mL Dil. Factor: 1.0000

Method: 8260_19 Limit Group: MSV 8260C ICAL

Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.1
75	30 to 60% of m/z 95	53.5
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	1.1 (1.2)
174	50 to 120% of m/z 95	84.3
175	5 to 9% of m/z 174	6.2 (7.4)
176	Greater than 95% but less than 101% of m/z 174	80.7 (95.7)
177	5 to 9% of m/z 176	5.4 (6.6)

Report Date: 24-Jul-2018 18:26:02 Chrom Revision: 2.3 19-Jul-2018 15:14:50

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\bfb036.d\8260_19.rslt\spectra.d

Injection Date: 24-Jul-2018 17:22:19

Spectrum: Tune Spec :Average 177-179(4.67-4.70) Bgrd 169(4.58)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1706	64.00	645	94.00	20976	142.00	135
37.00	9667	65.00	75	95.00	164416	143.00	1887
38.00	8121	67.00	620	96.00	11195	144.00	54
39.00	2976	68.00	17320	97.00	297	145.00	282
40.00	128	69.00	18752	104.00	777	146.00	275
41.00	280	70.00	1405	106.00	846	147.00	123
42.00	120	71.00	220	107.00	102	148.00	420
44.00	1112	72.00	1196	110.00	66	150.00	76
45.00	1770	73.00	8112	111.00	269	152.00	57
46.00	157	74.00	31576	112.00	68	153.00	83
47.00	1883	75.00	87888	113.00	186	154.00	50
48.00	1146	76.00	7419	115.00	214	155.00	454
49.00	7909	77.00	768	116.00	734	157.00	295
50.00	34728	78.00	542	117.00	1191	159.00	132
51.00	10164	79.00	6178	118.00	715	161.00	228
52.00	428	80.00	1749	119.00	1035	171.00	76
54.00	52	81.00	6569	126.00	50	172.00	196
55.00	455	82.00	1544	128.00	562	173.00	1730
56.00	3065	83.00	158	129.00	380	174.00	138624
57.00	5049	86.00	123	130.00	675	175.00	10263
58.00	260	87.00	6315	131.00	295	176.00	132608
60.00	1747	88.00	6174	135.00	411	177.00	8811
61.00	8473	91.00	844	137.00	377	178.00	300
62.00	8634	92.00	5187	140.00	129	207.00	54
63.00	7267	93.00	7390	141.00	2044		

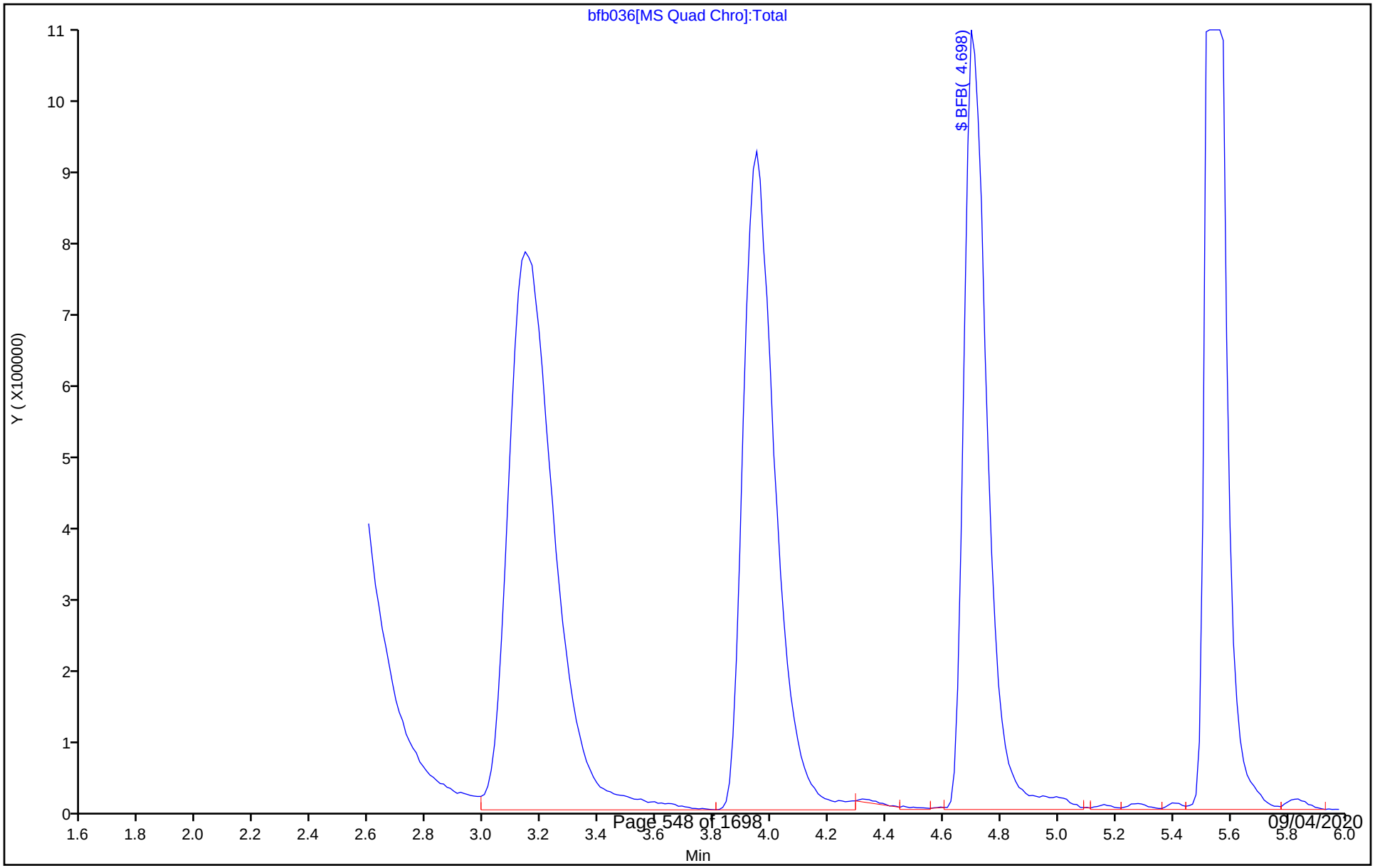
Report Date: 24-Jul-2018 18:26:02 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180724-78277.b\bfb036.d

Injection Date:	24-Jul-2018 17:22:19	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\bfb037.d				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	25-Jul-2018 11:28:13	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	240-0078311-001				
Operator ID:	001904	Instrument ID:	A3UX19		
Method:	\\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\8260_19.m				
Limit Group:	MSV 8260C ICAL				
Last Update:	25-Jul-2018 16:32:06	Calib Date:	25-Jul-2018 15:15:13		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\U1900807.d				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK026				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	4.686	4.686	0.000	0	1106546	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

vmbfb_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\bfb037.d

Injection Date: 25-Jul-2018 11:28:13 Instrument ID: A3UX19

Lims ID: BFB

Client ID:

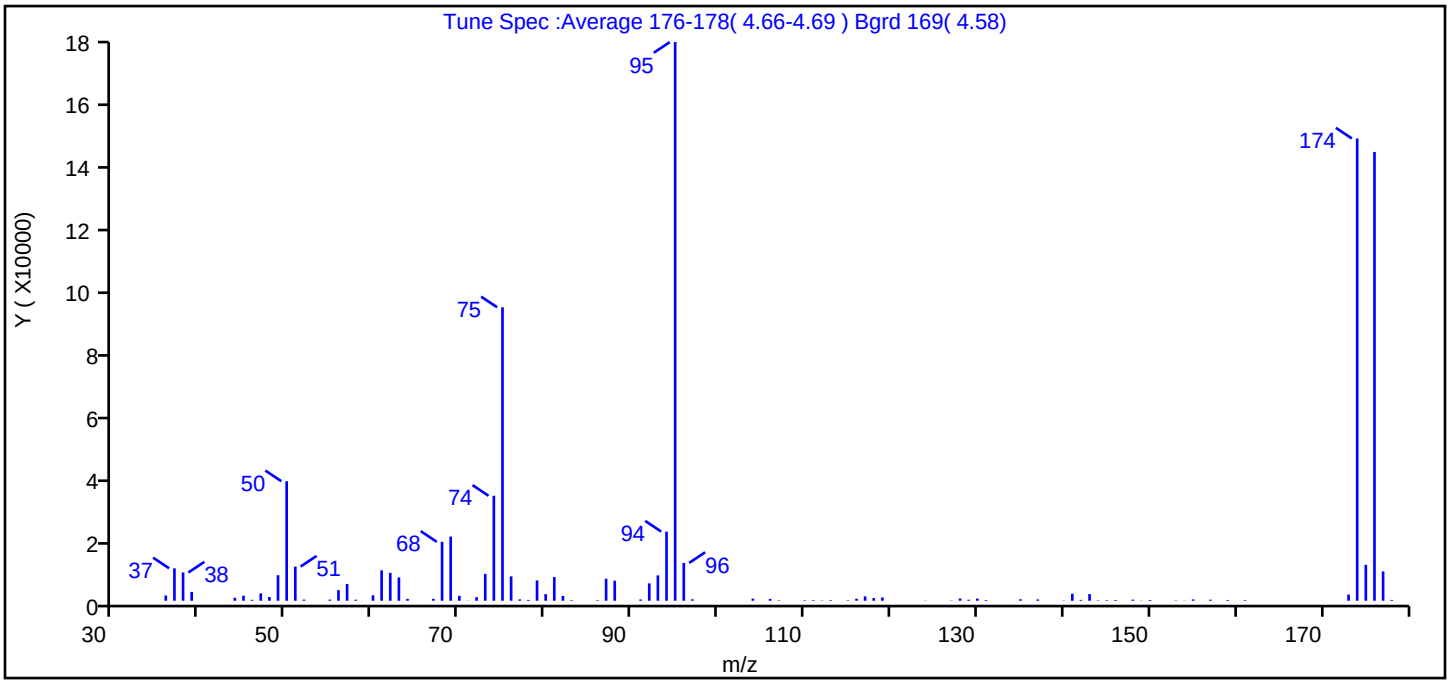
Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 1

Injection Vol: 5.0 mL Dil. Factor: 1.0000

Method: 8260_19 Limit Group: MSV 8260C ICAL

Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.4
75	30 to 60% of m/z 95	52.5
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	1.1 (1.3)
174	50 to 120% of m/z 95	82.7
175	5 to 9% of m/z 174	6.4 (7.8)
176	Greater than 95% but less than 101% of m/z 174	80.3 (97.1)
177	5 to 9% of m/z 176	5.2 (6.5)

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\bfb037.d\8260_19.rslt\spectra.d

Injection Date: 25-Jul-2018 11:28:13

Spectrum: Tune Spec :Average 176-178(4.66-4.69) Bgrd 169(4.58)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 92

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1628	67.00	581	94.00	21384	137.00	409
37.00	10027	68.00	18224	95.00	172800	140.00	80
38.00	8737	69.00	19856	96.00	11689	141.00	2163
39.00	2738	70.00	1521	97.00	441	142.00	263
43.00	20	71.00	65	104.00	670	143.00	2064
44.00	922	72.00	1099	106.00	557	144.00	132
45.00	1551	73.00	8295	107.00	144	145.00	176
46.00	292	74.00	32464	110.00	165	146.00	215
47.00	2293	75.00	90760	111.00	202	148.00	348
48.00	1156	76.00	7539	112.00	94	149.00	57
49.00	7894	77.00	416	113.00	196	150.00	232
50.00	36968	78.00	262	115.00	145	153.00	106
51.00	10570	79.00	6264	116.00	614	154.00	54
52.00	361	80.00	2025	117.00	1332	155.00	412
55.00	352	81.00	7320	118.00	827	157.00	327
56.00	3282	82.00	1495	119.00	1001	159.00	239
57.00	5195	83.00	170	124.00	70	161.00	201
58.00	322	86.00	159	127.00	96	173.00	1900
60.00	1660	87.00	6806	128.00	700	174.00	142976
61.00	9391	88.00	6205	129.00	329	175.00	11113
62.00	8617	91.00	385	130.00	667	176.00	138816
63.00	7197	92.00	5382	131.00	228	177.00	9062
64.00	572	93.00	7843	135.00	442	178.00	262

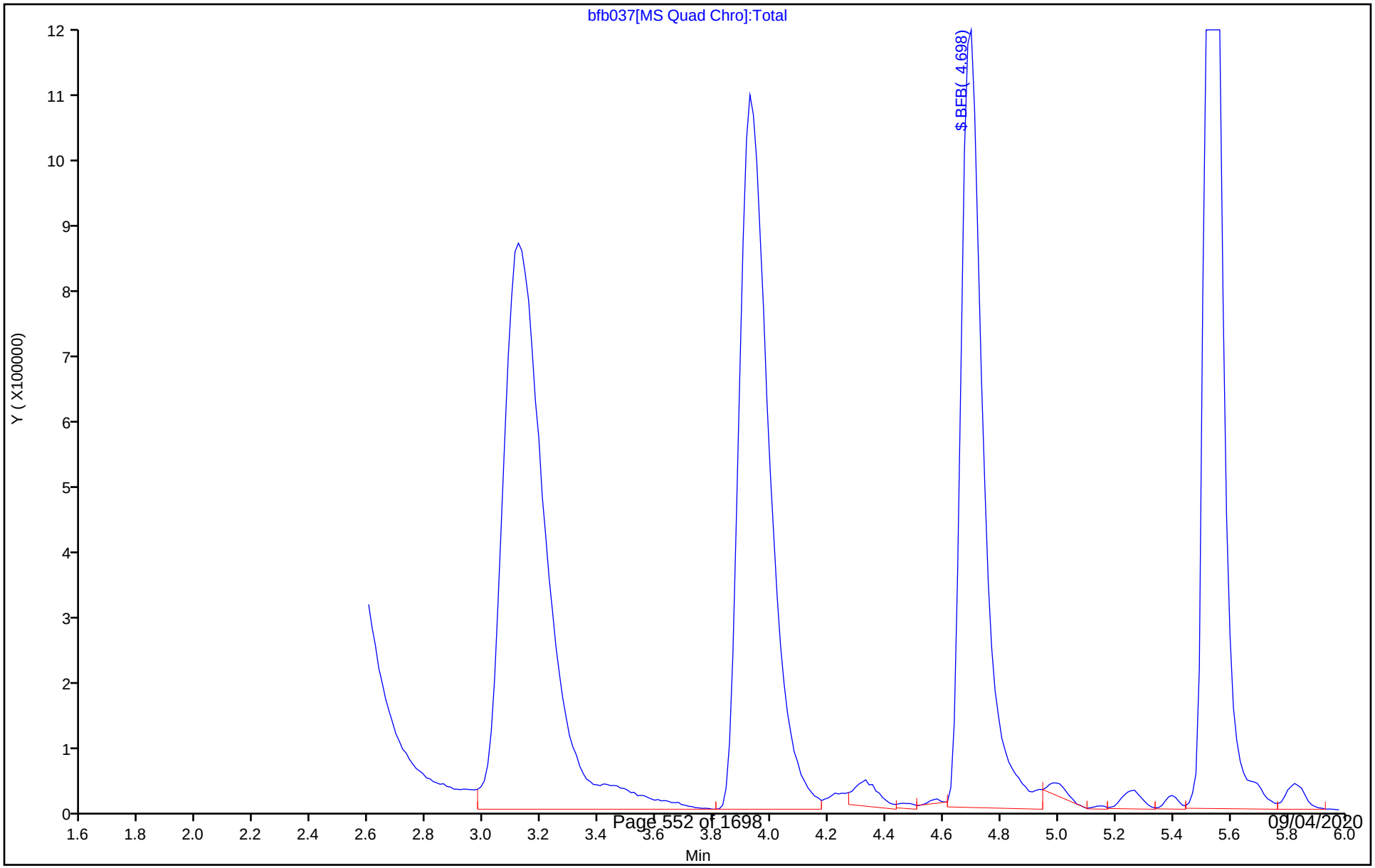
Report Date: 25-Jul-2018 16:32:07 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180725-78311.b\bfb037.d

Injection Date:	25-Jul-2018 11:28:13	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Canton

Target Compound Quantitation Report

Data File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\bfb058.d				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-Aug-2018 16:23:35	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	240-0079307-001				
Operator ID:	001904	Instrument ID:	A3UX19		
Method:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\8260_19.m				
Limit Group:	MSV 8260C ICAL				
Last Update:	27-Aug-2018 20:00:43	Calib Date:	27-Aug-2018 19:23:28		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\U1901329.d				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK010				
First Level Reviewer: laveyt		Date:	27-Aug-2018 19:59:46		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	4.698	4.698	0.000	0	1569511	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

vmbfb_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\bfb058.d

Injection Date: 27-Aug-2018 16:23:35 Instrument ID: A3UX19

Lims ID: BFB

Client ID:

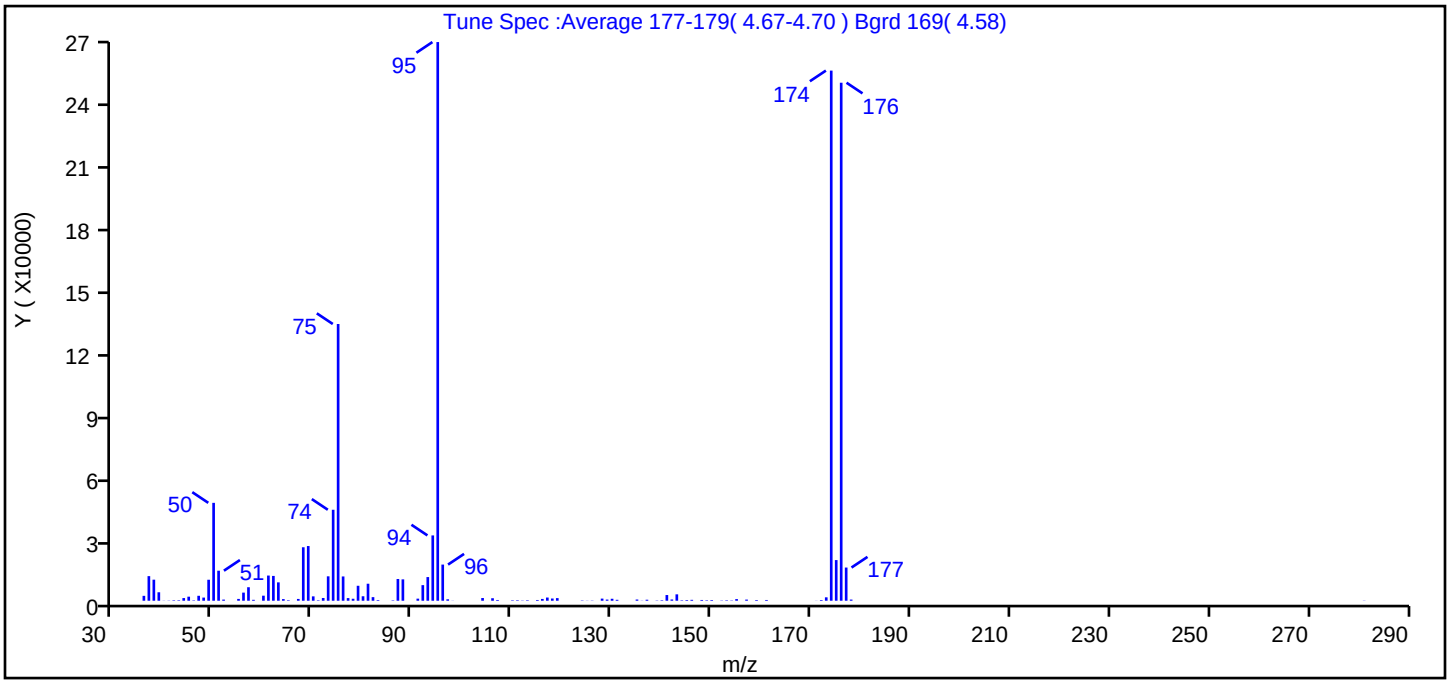
Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 1

Injection Vol: 5.0 mL Dil. Factor: 1.0000

Method: 8260_19 Limit Group: MSV 8260C ICAL

Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.5
75	30 to 60% of m/z 95	49.5
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.6 (0.6)
174	50 to 120% of m/z 95	94.9
175	5 to 9% of m/z 174	7.3 (7.7)
176	Greater than 95% but less than 101% of m/z 174	92.7 (97.7)
177	5 to 9% of m/z 176	5.9 (6.4)

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\bfb058.d\8260_19.rslt\spectra.d
Injection Date: 27-Aug-2018 16:23:35
Spectrum: Tune Spec :Average 177-179(4.67-4.70) Bgrd 169(4.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2349	65.00	256	96.00	17360	140.00	251
37.00	11809	67.00	862	97.00	688	141.00	2734
38.00	10107	68.00	25672	98.00	58	142.00	600
39.00	4064	69.00	26264	104.00	1300	143.00	3067
40.00	66	70.00	2099	106.00	1203	144.00	221
41.00	100	71.00	235	107.00	359	145.00	322
42.00	232	72.00	1321	110.00	224	146.00	434
43.00	243	73.00	11723	111.00	256	148.00	370
44.00	1279	74.00	43680	112.00	119	149.00	227
45.00	1945	75.00	132864	113.00	246	150.00	326
46.00	198	76.00	11659	115.00	360	152.00	127
47.00	2373	77.00	1269	116.00	866	153.00	224
48.00	1513	78.00	954	117.00	1530	154.00	142
49.00	10079	79.00	7185	118.00	1063	155.00	786
50.00	47000	80.00	2148	119.00	1259	157.00	556
51.00	14416	81.00	8168	124.00	158	159.00	325
52.00	549	82.00	1723	125.00	69	161.00	362
55.00	872	83.00	325	126.00	112	171.00	51
56.00	3900	86.00	204	128.00	1021	172.00	331
57.00	6486	87.00	10430	129.00	555	173.00	1639
58.00	440	88.00	10260	130.00	946	174.00	254528
60.00	2424	91.00	1000	131.00	447	175.00	19520
61.00	12091	92.00	7487	135.00	583	176.00	248704
62.00	11912	93.00	11359	136.00	73	177.00	15935
63.00	8822	94.00	31360	137.00	488	178.00	556
64.00	782	95.00	268224	139.00	133	281.00	85

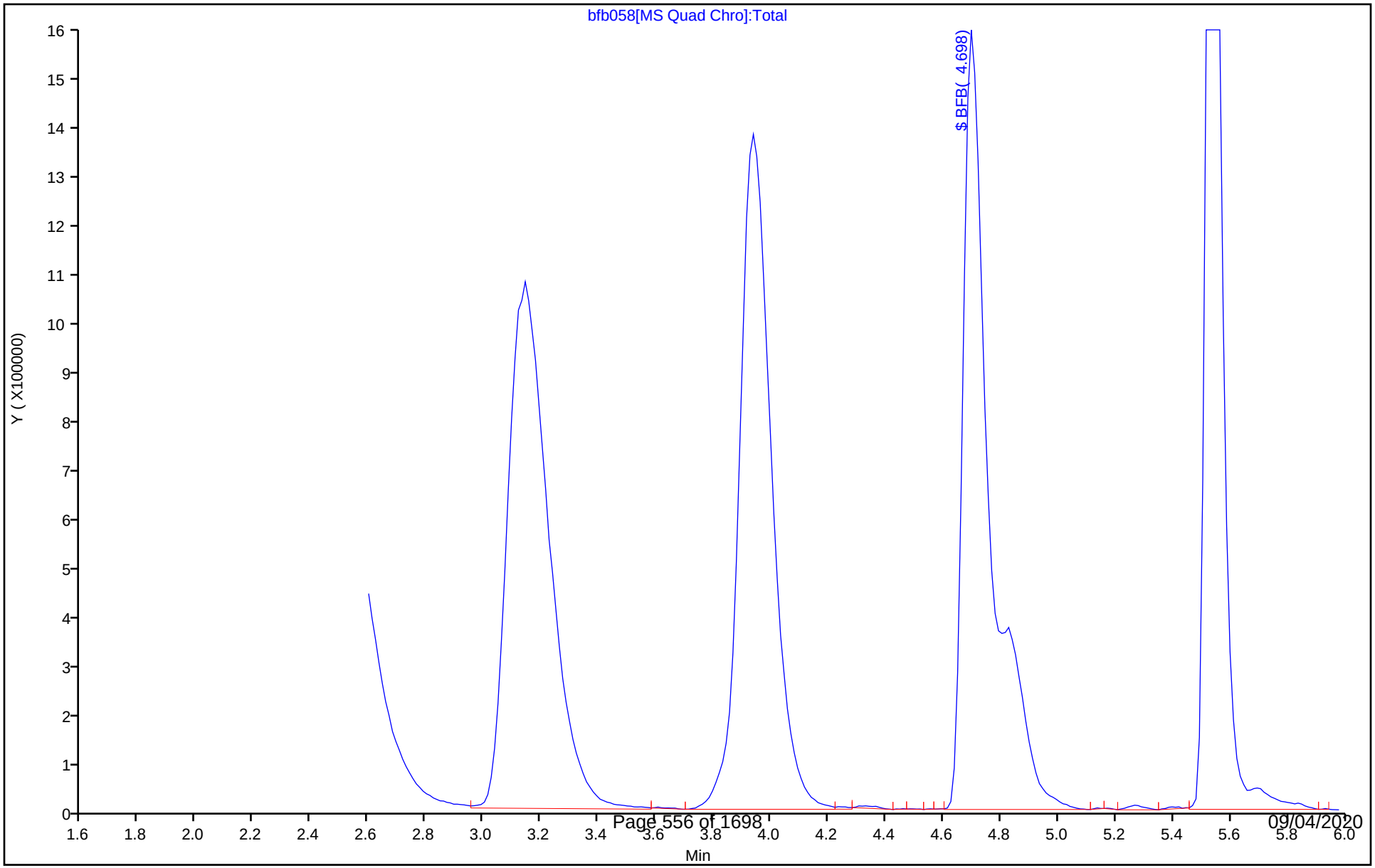
Report Date: 27-Aug-2018 20:00:44 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX19\20180827-79307.b\bfb058.d

Injection Date:	27-Aug-2018 16:23:35	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\bfb599.d
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 14-Aug-2020 17:20:36 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-001
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2020 18:37:04 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: laveyt Date: 14-Aug-2020 18:37:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	4.703	4.703	0.000	0	1564181	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

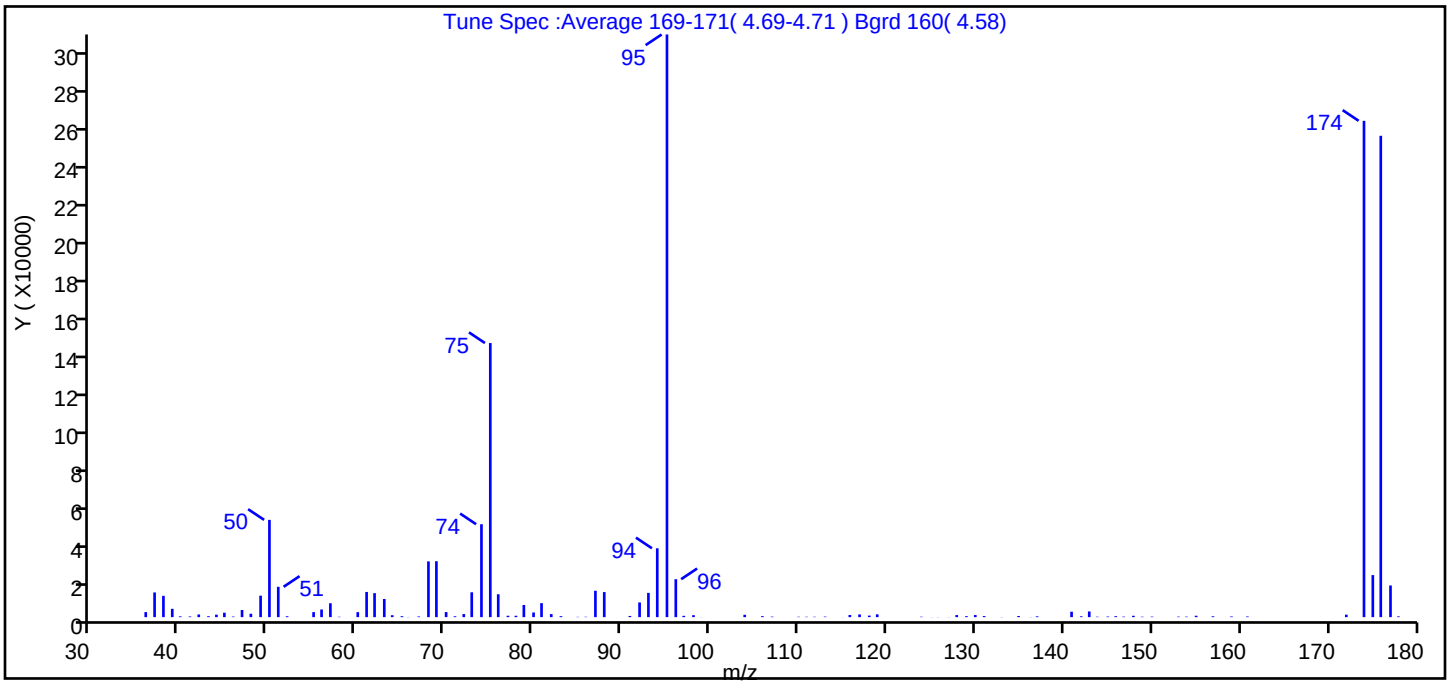
vmbfb_00025 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\bfb599.d
Injection Date: 14-Aug-2020 17:20:36 Instrument ID: A3UX19
Lims ID: BFB
Client ID:
Operator ID: 001904 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_19 Limit Group: MSV 8260C ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.7
75	30 to 60% of m/z 95	47.0
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	85.2
175	5 to 9% of m/z 174	7.2 (8.5)
176	Greater than 95% but less than 101% of m/z 174	82.6 (97.0)
177	5 to 9% of m/z 176	5.4 (6.6)

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\bfb599.d\8260_19.rslt\spectra.d
Injection Date: 14-Aug-2020 17:20:36
Spectrum: Tune Spec :Average 169-171(4.69-4.71) Bgrd 160(4.58)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2655	65.00	500	94.00	36192	133.00	75
37.00	12982	66.00	82	95.00	306240	135.00	587
38.00	11201	67.00	355	96.00	19952	136.00	73
39.00	4380	68.00	29312	97.00	689	137.00	427
40.00	405	69.00	29392	98.00	1023	141.00	2866
41.00	353	70.00	2674	99.00	51	142.00	436
42.00	1406	71.00	453	104.00	1234	143.00	2985
43.00	477	72.00	1609	106.00	511	144.00	234
44.00	1309	73.00	13061	107.00	278	145.00	315
45.00	2326	74.00	48840	110.00	211	146.00	499
46.00	307	75.00	144064	111.00	206	147.00	280
47.00	3757	76.00	12024	112.00	206	148.00	721
48.00	1798	77.00	734	113.00	285	149.00	227
49.00	11292	78.00	730	115.00	35	150.00	281
50.00	51128	79.00	6394	116.00	1134	153.00	276
51.00	15942	80.00	2451	117.00	1427	154.00	259
52.00	481	81.00	7353	118.00	827	155.00	745
55.00	2648	82.00	1603	119.00	1472	157.00	452
56.00	4024	83.00	514	124.00	225	159.00	349
57.00	7304	85.00	151	125.00	50	161.00	349
58.00	201	86.00	194	126.00	61	172.00	1296
60.00	2630	87.00	13877	127.00	56	174.00	260864
61.00	13244	88.00	13173	128.00	1086	175.00	22104
62.00	12619	91.00	626	129.00	518	176.00	252992
63.00	9535	92.00	7740	130.00	1098	177.00	16648
64.00	1011	93.00	12756	131.00	566	178.00	396

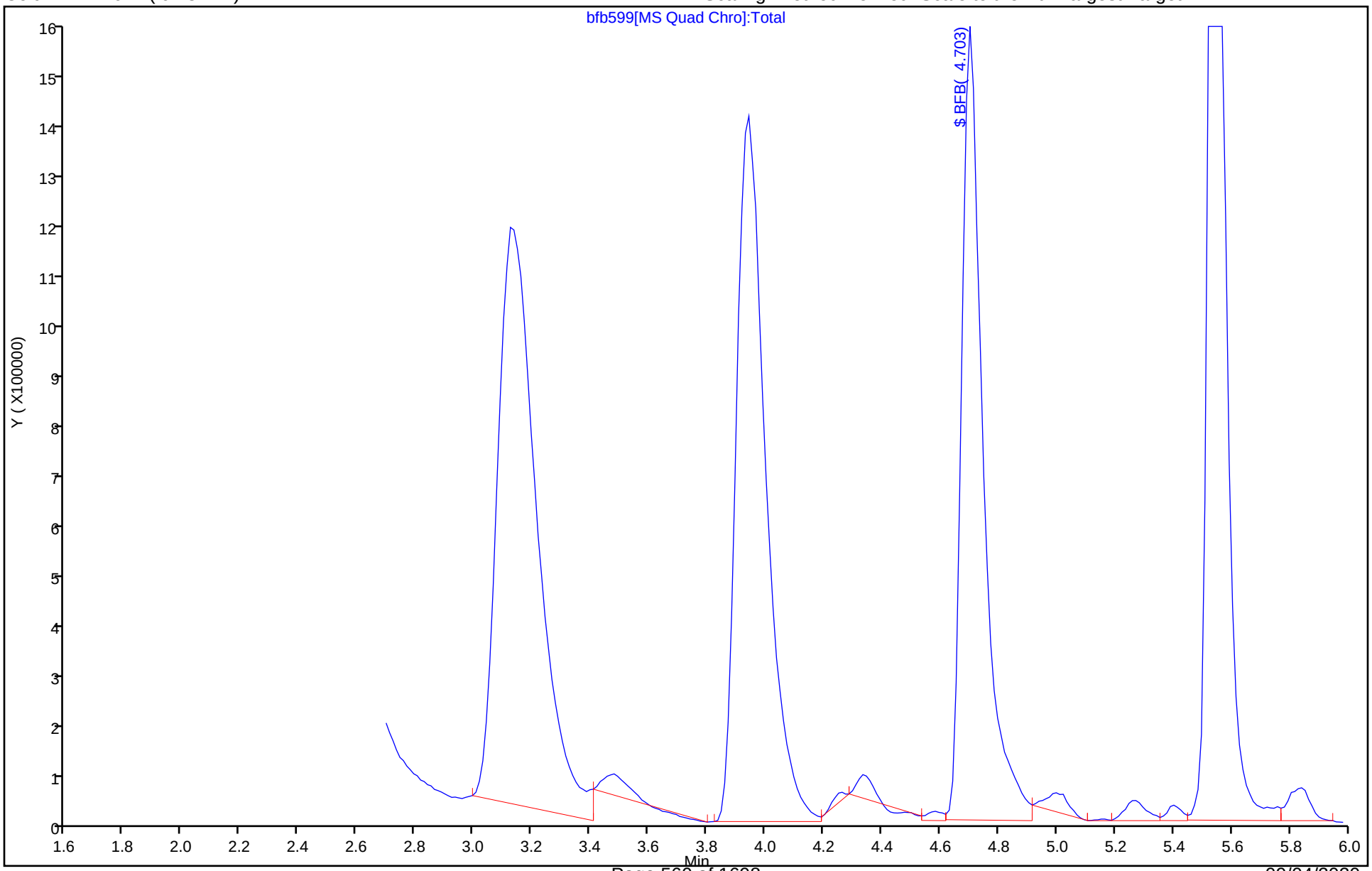
Report Date: 14-Aug-2020 18:37:05 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\bfb599.d

Injection Date:	14-Aug-2020 17:20:36	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-447281/8

Matrix: Water Lab File ID: U1916365.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
120-82-1	1,2,4-Trichlorobenzene	0.81	U	1.0	0.81
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
110-75-8	2-Chloroethyl vinyl ether	1.1	U	10	1.1
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
591-78-6	2-Hexanone	2.1	U	10	2.1
108-86-1	Bromobenzene	0.38	U	1.0	0.38
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
99-87-6	4-Isopropyltoluene	0.49	U	1.0	0.49
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.38	U	1.0	0.38
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.40	U	1.0	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-447281/8

Matrix: Water Lab File ID: U1916365.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	0.64	U	1.0	0.64
156-59-2	cis-1,2-Dichloroethene	0.38	U	1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
74-95-3	Dibromomethane	0.33	U	1.0	0.33
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
108-20-3	Diisopropyl ether	0.36	U	10	0.36
91-20-3	Naphthalene	0.82	U	1.0	0.82
104-51-8	n-Butylbenzene	0.59	U	1.0	0.59
98-82-8	Isopropylbenzene	0.45	U	1.0	0.45
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
135-98-8	sec-Butylbenzene	0.63	U	1.0	0.63
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
100-42-5	Styrene	0.40	U	1.0	0.40
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
127-18-4	Tetrachloroethene	0.33	U	1.0	0.33
108-88-3	Toluene	0.35	U	1.0	0.35
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.36	U	1.0	0.36
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-447281/8

Matrix: Water Lab File ID: U1916365.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		75-130
460-00-4	4-Bromofluorobenzene (Surr)	96		47-134
2037-26-5	Toluene-d8 (Surr)	106		69-122
1868-53-7	Dibromofluoromethane (Surr)	105		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916365.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 14-Aug-2020 19:36:21 ALS Bottle#: 0 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-008
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2020 18:15:44 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: laveyt Date: 14-Aug-2020 20:26:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.666	5.666	0.000	99	958064	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	86	707631	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.895	10.895	0.000	95	352282	20.0	20.0	
$ 4 Dibromofluoromethane (Surr)	111	5.061	5.049	0.012	93	269622	20.0	20.9	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.357	5.357	0.000	95	304807	20.0	20.6	
$ 6 Toluene-d8 (Surr)	98	7.112	7.112	0.000	93	902857	20.0	21.3	
$ 7 4-Bromofluorobenzene (Surr)	95	9.686	9.686	0.000	91	305887	20.0	19.2	
9 Dichlorodifluoromethane	85		1.598					ND	
10 Chloromethane	50		1.812					ND	
12 Vinyl chloride	62		1.907					ND	
11 Butadiene	54		1.918					ND	
14 1-Chloro-1-fluoroethane TIC	47		2.215					ND	
13 Bromomethane	94		2.250					ND	
15 Chloroethane	64		2.310					ND	
16 Dichlorofluoromethane	67		2.523					ND	
17 Trichlorofluoromethane	101		2.535					ND	
18 Ethyl ether	59		2.808					ND	
19 Acrolein	56		2.926					ND	
20 1,1-Dichloroethene	61		3.033					ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.069					ND	
22 Acetone	43	3.080	3.081	-0.001	99	8119		2.16	
23 Methylal	45	3.104	3.092	0.012	54	2482		0.1285	
24 Iodomethane	142		3.175					ND	
25 Carbon disulfide	76		3.247					ND	
26 Acetonitrile	41	3.341	3.329	0.012	52	2496		4.31	
27 3-Chloro-1-propene	41		3.365					ND	
28 Methyl acetate	43		3.389					ND	
29 Methylene Chloride	49	3.484	3.472	0.012	88	6883		0.5048	
30 2-Methyl-2-propanol	59		3.579					ND	
31 Acrylonitrile	53	3.709	3.697	0.012	81	1044		0.2167	
32 trans-1,2-Dichloroethene	61		3.733					ND	
33 Methyl tert-butyl ether	73		3.733					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Hexane	57		3.982					ND	
35 1,1-Dichloroethane	63		4.112					ND	
36 Vinyl acetate	43		4.148					ND	
37 Isopropyl ether	87		4.171					ND	
38 2-Chloro-1,3-butadiene	53		4.195					ND	
39 Tert-butyl ethyl ether	59		4.491					ND	
41 cis-1,2-Dichloroethene	96		4.634					ND	
40 2-Butanone (MEK)	72		4.634					ND	
42 2,2-Dichloropropane	77		4.634					ND	
44 Ethyl acetate	43		4.681					ND	
43 Propionitrile	54		4.681					ND	
45 Methacrylonitrile	41		4.824					ND	
46 Chlorobromomethane	49		4.847					ND	
47 Tetrahydrofuran	42		4.883					ND	
48 Chloroform	83		4.907					ND	
49 1,1,1-Trichloroethane	97		5.085					ND	
50 Cyclohexane	84		5.144					ND	
51 1,1-Dichloropropene	75		5.227					ND	
52 Carbon tetrachloride	117		5.239					ND	
53 Isobutyl alcohol	41		5.298					ND	
54 Benzene	78		5.417					ND	
55 1,2-Dichloroethane	62		5.429					ND	
56 Tert-amyl methyl ether	73		5.511					ND	
57 n-Heptane	57		5.642					ND	
58 n-Butanol	56		5.891					ND	
59 Trichloroethene	130		5.998					ND	
60 Ethyl acrylate	55		6.069					ND	
61 Methylcyclohexane	83		6.176					ND	
62 1,2-Dichloropropane	63		6.199					ND	
63 Methyl methacrylate	41		6.282					ND	
65 1,4-Dioxane	88		6.306					ND	
64 Dibromomethane	174		6.306					ND	
66 Dichlorobromomethane	83		6.437					ND	
67 2-Nitropropane	41		6.638					ND	
68 2-Chloroethyl vinyl ether	63		6.697					ND	
69 cis-1,3-Dichloropropene	75		6.852					ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.982					ND	
71 Toluene	91		7.172					ND	
72 trans-1,3-Dichloropropene	75		7.361					ND	
73 Ethyl methacrylate	69		7.445					ND	
74 1,1,2-Trichloroethane	97		7.539					ND	
75 Tetrachloroethene	166		7.705					ND	
76 1,3-Dichloropropane	76		7.705					ND	
77 2-Hexanone	43		7.777					ND	
78 n-Butyl acetate	43		7.895					ND	
80 Tetrahydrothiophene	60		7.931					ND	
79 Chlorodibromomethane	129		7.931					ND	
81 Ethylene Dibromide	107		8.049					ND	
82 1-Chlorohexane	91		8.500					ND	
83 Chlorobenzene	112		8.536					ND	
84 1,1,1,2-Tetrachloroethane	131		8.607					ND	
85 Ethylbenzene	106		8.642					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
86 m-Xylene & p-Xylene	106		8.749					ND	
87 o-Xylene	106		9.152					ND	
88 Styrene	104		9.164					ND	
89 Bromoform	173		9.354					ND	
90 Isopropylbenzene	105		9.532					ND	
91 Cyclohexanone	55		9.626					ND	
92 1,4-Dichlorobutane	55		9.626					ND	
93 1,1,2,2-Tetrachloroethane	83		9.816					ND	
95 Bromobenzene	156		9.852					ND	
96 1,2,3-Trichloropropane	110		9.876					ND	
97 trans-1,4-Dichloro-2-butene	53		9.876					ND	
98 N-Propylbenzene	120		9.947					ND	
94 3-Ethyltoluene	105		10.041					ND	
100 2-Chlorotoluene	126		10.042					ND	
101 1,3,5-Trimethylbenzene	105		10.136					ND	
102 4-Chlorotoluene	126		10.160					ND	
99 2-Ethyltoluene	105		10.350					ND	
103 tert-Butylbenzene	119		10.480					ND	
104 Pentachloroethane	167		10.492					ND	
105 1,2,4-Trimethylbenzene	105		10.528					ND	
106 sec-Butylbenzene	105		10.706					ND	
107 1,3-Dichlorobenzene	146		10.824					ND	
108 4-Isopropyltoluene	119		10.860					ND	
109 1,4-Dichlorobenzene	146		10.919					ND	
110 1,2,3-Trimethylbenzene	105		10.966					ND	
111 Benzyl chloride	91		11.049					ND	
112 n-Butylbenzene	91		11.287					ND	
113 1,2-Dichlorobenzene	146		11.310					ND	
114 1,2-Dibromo-3-Chloropropane	157		12.129					ND	
115 1,3,5-Trichlorobenzene	180		12.366					ND	
116 1,2,4-Trichlorobenzene	180		13.018					ND	
117 Hexachlorobutadiene	225		13.208					ND	
118 Naphthalene	128		13.279					ND	
119 1,2,3-Trichlorobenzene	180		13.552					ND	
120 2-Methylnaphthalene	142		14.631					ND	
122 Ethylene oxide	1		-0.010					ND	
123 Propene oxide	1		-0.010					ND	
121 Epichlorohydrin	1		-0.010					ND	
S 125 Trihalomethanes, Total	1		-0.010					ND	
S 124 Total BTEX	1		-0.010					ND	
S 126 1,2-Dichloroethene, Total	96		1.130					ND	
S 127 1,3-Dichloropropene, Total	75		6.750					ND	
S 128 Xylenes, Total	106		16.520					ND	

Reagents:

vm50ss_stk_00085	Amount Added:	2.00	Units: uL	Run Reagent
vmDist_H2o_00178	Amount Added:	0.00	Units:	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vm50is_stk_A_00007	Amount Added:	2.00	Units: uL	Run Reagent

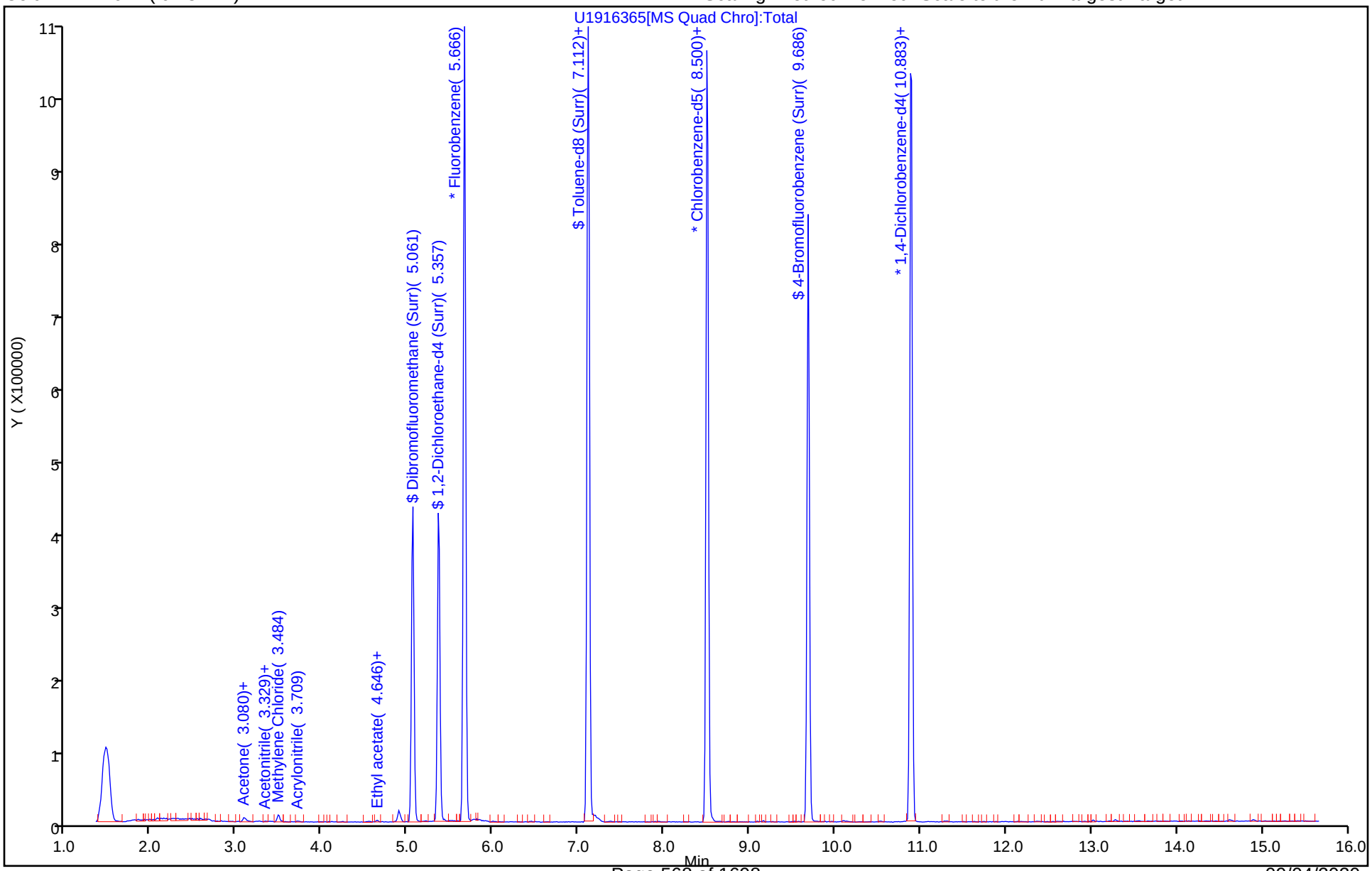
Report Date: 14-Aug-2020 20:26:01 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916365.d

Injection Date:	14-Aug-2020 19:36:21	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	MB			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916365.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 14-Aug-2020 19:36:21 ALS Bottle#: 0 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-008
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2020 18:15:44 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: laveyt Date: 14-Aug-2020 20:26:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	20.9	104.54
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	20.6	102.90
$ 6 Toluene-d8 (Surr)	20.0	21.3	106.39
$ 7 4-Bromofluorobenzene (Surr)	20.0	19.2	95.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-447281/5

Matrix: Water Lab File ID: U1916362.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 18:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	20.0		1.0	0.41
71-55-6	1,1,1-Trichloroethane	18.5		1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	23.6		1.0	0.56
76-13-1	1,1,2-Trichlorotrifluoroethane	20.4		1.0	0.41
75-34-3	1,1-Dichloroethane	21.1		1.0	0.41
75-35-4	1,1-Dichloroethene	19.4		1.0	0.46
563-58-6	1,1-Dichloropropene	20.4		1.0	0.37
87-61-6	1,2,3-Trichlorobenzene	18.5		1.0	0.54
96-18-4	1,2,3-Trichloropropane	21.3		1.0	0.51
120-82-1	1,2,4-Trichlorobenzene	16.7		1.0	0.81
95-63-6	1,2,4-Trimethylbenzene	21.2		1.0	0.45
96-12-8	1,2-Dibromo-3-Chloropropane	19.8		2.0	0.91
95-50-1	1,2-Dichlorobenzene	20.9		1.0	0.43
107-06-2	1,2-Dichloroethane	18.0		1.0	0.43
78-87-5	1,2-Dichloropropane	21.6		1.0	0.37
541-73-1	1,3-Dichlorobenzene	19.3		1.0	0.40
142-28-9	1,3-Dichloropropane	21.8		1.0	0.21
106-46-7	1,4-Dichlorobenzene	19.1		1.0	0.37
594-20-7	2,2-Dichloropropane	22.4		1.0	0.95
110-75-8	2-Chloroethyl vinyl ether	39.3		10	1.1
95-49-8	2-Chlorotoluene	21.3		1.0	0.42
591-78-6	2-Hexanone	42.9		10	2.1
108-86-1	Bromobenzene	19.3		1.0	0.38
74-97-5	Bromochloromethane	19.8		1.0	0.52
106-43-4	4-Chlorotoluene	20.5		1.0	0.44
99-87-6	4-Isopropyltoluene	20.2		1.0	0.49
67-64-1	Acetone	48.4		10	5.4
71-43-2	Benzene	21.4		1.0	0.38
75-25-2	Bromoform	17.3		1.0	0.76
74-83-9	Bromomethane	18.5		1.0	0.42
75-15-0	Carbon disulfide	19.5		1.0	0.28
56-23-5	Carbon tetrachloride	17.7		1.0	0.26
108-90-7	Chlorobenzene	20.3		1.0	0.32
75-00-3	Chloroethane	21.7		1.0	0.83
67-66-3	Chloroform	19.8		1.0	0.40
74-87-3	Chloromethane	20.8		1.0	0.64

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-447281/5

Matrix: Water Lab File ID: U1916362.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 18:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-59-2	cis-1,2-Dichloroethene	19.2		1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	19.3		1.0	0.61
87-68-3	Hexachlorobutadiene	14.1		1.0	0.83
74-95-3	Dibromomethane	16.2		1.0	0.33
75-27-4	Bromodichloromethane	18.6		1.0	0.35
75-71-8	Dichlorodifluoromethane	17.2		1.0	0.35
100-41-4	Ethylbenzene	20.5		1.0	0.39
106-93-4	1,2-Dibromoethane	19.6		1.0	0.37
91-20-3	Naphthalene	20.8		1.0	0.82
104-51-8	n-Butylbenzene	20.1		1.0	0.59
98-82-8	Isopropylbenzene	20.7		1.0	0.45
103-65-1	N-Propylbenzene	21.0		1.0	0.46
78-93-3	2-Butanone (MEK)	40.1		10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	41.4		10	2.1
135-98-8	sec-Butylbenzene	20.6		1.0	0.63
1634-04-4	Methyl tert-butyl ether	19.4		1.0	0.44
75-09-2	Methylene Chloride	20.6		5.0	1.3
100-42-5	Styrene	20.7		1.0	0.40
98-06-6	tert-Butylbenzene	19.6		1.0	0.51
127-18-4	Tetrachloroethene	18.1		1.0	0.33
108-88-3	Toluene	21.5		1.0	0.35
156-60-5	trans-1,2-Dichloroethene	20.4		1.0	0.43
10061-02-6	trans-1,3-Dichloropropene	19.6		1.0	0.67
79-01-6	Trichloroethene	18.2		1.0	0.36
75-69-4	Trichlorofluoromethane	16.9		1.0	0.45
108-05-4	Vinyl acetate	21.5		2.0	0.78
75-01-4	Vinyl chloride	21.4		1.0	0.50
75-65-0	tert-Butyl alcohol	225		40	1.7
1330-20-7	Xylenes, Total	41.9		2.0	0.42
124-48-1	Chlorodibromomethane	19.3		1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-447281/5

Matrix: Water Lab File ID: U1916362.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/14/2020 18:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 447281 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		75-130
460-00-4	4-Bromofluorobenzene (Surr)	102		47-134
2037-26-5	Toluene-d8 (Surr)	108		69-122
1868-53-7	Dibromofluoromethane (Surr)	96		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916362.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 14-Aug-2020 18:29:02 ALS Bottle#: 0 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-005
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2020 16:45:50 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: laveyt Date: 14-Aug-2020 19:04:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.666	5.666	0.000	99	1014792	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	84	743246	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.895	10.895	0.000	94	391665	20.0	20.0	
$ 4 Dibromofluoromethane (Surr)	111	5.061	5.049	0.012	94	261781	20.0	19.2	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.357	5.357	0.000	99	291090	20.0	18.6	
$ 6 Toluene-d8 (Surr)	98	7.112	7.112	0.000	93	958275	20.0	21.5	
$ 7 4-Bromofluorobenzene (Surr)	95	9.686	9.686	0.000	91	340854	20.0	20.3	
9 Dichlorodifluoromethane	85	1.610	1.598	0.012	99	336649	20.0	17.2	
10 Chloromethane	50	1.823	1.812	0.011	98	305002	20.0	20.8	
12 Vinyl chloride	62	1.918	1.907	0.011	97	323850	20.0	21.4	
11 Butadiene	54	1.930	1.918	0.012	88	309644	20.0	21.1	
13 Bromomethane	94	2.250	2.250	0.000	91	219107	20.0	18.5	
15 Chloroethane	64	2.310	2.310	0.000	100	203121	20.0	21.7	
16 Dichlorofluoromethane	67	2.523	2.523	0.000	97	459174	20.0	19.8	
17 Trichlorofluoromethane	101	2.535	2.535	0.000	98	426208	20.0	16.9	
18 Ethyl ether	59	2.820	2.808	0.012	89	201654	20.0	22.1	
19 Acrolein	56	2.938	2.926	0.012	99	76192	100.0	33.8	
20 1,1-Dichloroethene	61	3.033	3.033	0.000	98	353437	20.0	19.4	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.069	3.069	0.000	93	265638	20.0	20.4	
22 Acetone	43	3.081	3.081	-0.001	100	192503	40.0	48.4	
24 Iodomethane	142	3.187	3.175	0.012	99	411911	20.0	17.4	
25 Carbon disulfide	76	3.247	3.247	0.000	99	743521	20.0	19.5	
27 3-Chloro-1-propene	41	3.377	3.365	0.012	90	339656	20.0	18.9	
28 Methyl acetate	43	3.389	3.389	0.000	97	481256	40.0	40.7	
29 Methylene Chloride	49	3.484	3.472	0.012	88	296910	20.0	20.6	
30 2-Methyl-2-propanol	59	3.579	3.579	0.000	97	308712	200.0	224.7	
31 Acrylonitrile	53	3.697	3.697	0.000	99	1217001	200.0	238.5	
32 trans-1,2-Dichloroethene	61	3.733	3.733	0.000	74	349869	20.0	20.4	
33 Methyl tert-butyl ether	73	3.745	3.733	0.012	94	681531	20.0	19.4	
34 Hexane	57	3.994	3.982	0.012	90	364248	20.0	20.4	
35 1,1-Dichloroethane	63	4.112	4.112	0.000	97	433340	20.0	21.1	
36 Vinyl acetate	43	4.160	4.148	0.012	97	505365	20.0	21.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	4.634	4.634	0.000	81	281526	20.0	19.2	
40 2-Butanone (MEK)	72	4.634	4.634	0.000	91	96026	40.0	40.1	
42 2,2-Dichloropropane	77	4.646	4.634	0.012	90	277684	20.0	22.4	
46 Chlorobromomethane	49	4.847	4.847	0.000	88	195316	20.0	19.8	
47 Tetrahydrofuran	42	4.895	4.883	0.012	85	227027	40.0	43.3	
48 Chloroform	83	4.919	4.907	0.012	93	446011	20.0	19.8	
49 1,1,1-Trichloroethane	97	5.096	5.085	0.011	98	392547	20.0	18.5	
50 Cyclohexane	84	5.156	5.144	0.012	95	395694	20.0	20.4	
51 1,1-Dichloropropene	75	5.239	5.227	0.012	98	363752	20.0	20.4	
52 Carbon tetrachloride	117	5.239	5.239	0.000	97	360591	20.0	17.7	
53 Isobutyl alcohol	41	5.298	5.298	0.000	93	338794	500.0	608.0	
54 Benzene	78	5.417	5.417	0.000	95	1032907	20.0	21.4	
55 1,2-Dichloroethane	62	5.429	5.429	-0.001	98	328531	20.0	18.0	
57 n-Heptane	57	5.654	5.642	0.012	81	183355	20.0	16.0	
59 Trichloroethene	130	5.998	5.998	0.000	97	292602	20.0	18.2	
61 Methylcyclohexane	83	6.176	6.176	0.000	91	438278	20.0	18.8	
62 1,2-Dichloropropane	63	6.199	6.199	0.000	96	242126	20.0	21.6	
65 1,4-Dioxane	88	6.306	6.306	0.000	89	77849	400.0	642.1	
64 Dibromomethane	174	6.306	6.306	0.000	94	186308	20.0	16.2	
66 Dichlorobromomethane	83	6.436	6.437	-0.001	100	328211	20.0	18.6	
68 2-Chloroethyl vinyl ether	63	6.709	6.697	0.012	93	352847	20.0	39.3	
69 cis-1,3-Dichloropropene	75	6.852	6.852	0.000	96	379012	20.0	19.3	
70 4-Methyl-2-pentanone (MIBK)	43	6.982	6.982	0.000	96	672237	40.0	41.4	
71 Toluene	91	7.172	7.172	0.000	98	1082182	20.0	21.5	
72 trans-1,3-Dichloropropene	75	7.361	7.361	0.000	92	350191	20.0	19.6	
73 Ethyl methacrylate	69	7.444	7.445	0.000	88	340508	20.0	21.1	
74 1,1,2-Trichloroethane	97	7.539	7.539	0.000	91	225145	20.0	21.3	
75 Tetrachloroethene	166	7.705	7.705	0.000	96	290621	20.0	18.1	
76 1,3-Dichloropropane	76	7.705	7.705	0.000	89	389505	20.0	21.8	
77 2-Hexanone	43	7.777	7.777	0.000	95	501527	40.0	42.9	
79 Chlorodibromomethane	129	7.931	7.931	0.000	89	257661	20.0	19.3	
81 Ethylene Dibromide	107	8.049	8.049	0.000	98	244072	20.0	19.6	
83 Chlorobenzene	112	8.535	8.536	-0.001	95	698331	20.0	20.3	
84 1,1,1,2-Tetrachloroethane	131	8.607	8.607	0.000	96	247572	20.0	20.0	
85 Ethylbenzene	106	8.642	8.642	0.000	98	367795	20.0	20.5	
86 m-Xylene & p-Xylene	106	8.749	8.749	0.000	99	454951	20.0	20.8	
87 o-Xylene	106	9.152	9.152	0.000	96	438575	20.0	21.1	
88 Styrene	104	9.164	9.164	0.000	93	736587	20.0	20.7	
89 Bromoform	173	9.354	9.354	0.000	97	188429	20.0	17.3	
90 Isopropylbenzene	105	9.532	9.532	0.000	95	1155922	20.0	20.7	
93 1,1,2,2-Tetrachloroethane	83	9.816	9.816	0.000	95	356544	20.0	23.6	
95 Bromobenzene	156	9.852	9.852	0.000	91	290118	20.0	19.3	
96 1,2,3-Trichloropropane	110	9.876	9.876	0.000	85	122105	20.0	21.3	
97 trans-1,4-Dichloro-2-butene	53	9.876	9.876	0.000	79	100392	20.0	18.7	
98 N-Propylbenzene	120	9.947	9.947	0.000	99	317273	20.0	21.0	
100 2-Chlorotoluene	126	10.042	10.042	0.000	97	272650	20.0	21.3	
101 1,3,5-Trimethylbenzene	105	10.136	10.136	0.000	95	931776	20.0	21.4	
102 4-Chlorotoluene	126	10.160	10.160	0.000	99	283703	20.0	20.5	
103 tert-Butylbenzene	119	10.480	10.480	0.000	91	808862	20.0	19.6	
105 1,2,4-Trimethylbenzene	105	10.528	10.528	0.000	96	935512	20.0	21.2	
106 sec-Butylbenzene	105	10.706	10.706	0.000	94	1145753	20.0	20.6	
107 1,3-Dichlorobenzene	146	10.824	10.824	0.000	98	532446	20.0	19.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 4-Isopropyltoluene	119	10.860	10.860	0.000	97	985969	20.0	20.2	
109 1,4-Dichlorobenzene	146	10.919	10.919	0.000	95	544553	20.0	19.1	
112 n-Butylbenzene	91	11.287	11.287	0.000	98	806670	20.0	20.1	
113 1,2-Dichlorobenzene	146	11.310	11.310	0.000	98	523646	20.0	20.9	
114 1,2-Dibromo-3-Chloropropane	157	12.129	12.129	0.000	88	95207	20.0	19.8	
116 1,2,4-Trichlorobenzene	180	13.018	13.018	0.000	94	279392	20.0	16.7	
117 Hexachlorobutadiene	225	13.208	13.208	0.000	97	121579	20.0	14.1	
118 Naphthalene	128	13.279	13.279	0.000	97	961122	20.0	20.8	
119 1,2,3-Trichlorobenzene	180	13.540	13.552	-0.012	96	278387	20.0	18.5	
S 125 Trihalomethanes, Total	1				0		80.0	75.1	
S 124 Total BTEX	1				0		100.0	105.3	
S 128 Xylenes, Total	106				0		40.0	41.9	

Reagents:

vmfasgw_00371	Amount Added:	16.00	Units: uL	
vmfasaw_00339	Amount Added:	16.00	Units: uL	
vmfaspw_00362	Amount Added:	16.00	Units: uL	
vm50ss_stk_00085	Amount Added:	2.00	Units: uL	Run Reagent
vmDist_H2o_00178	Amount Added:	0.00	Units:	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vm50is_stk_A_00007	Amount Added:	2.00	Units: uL	Run Reagent

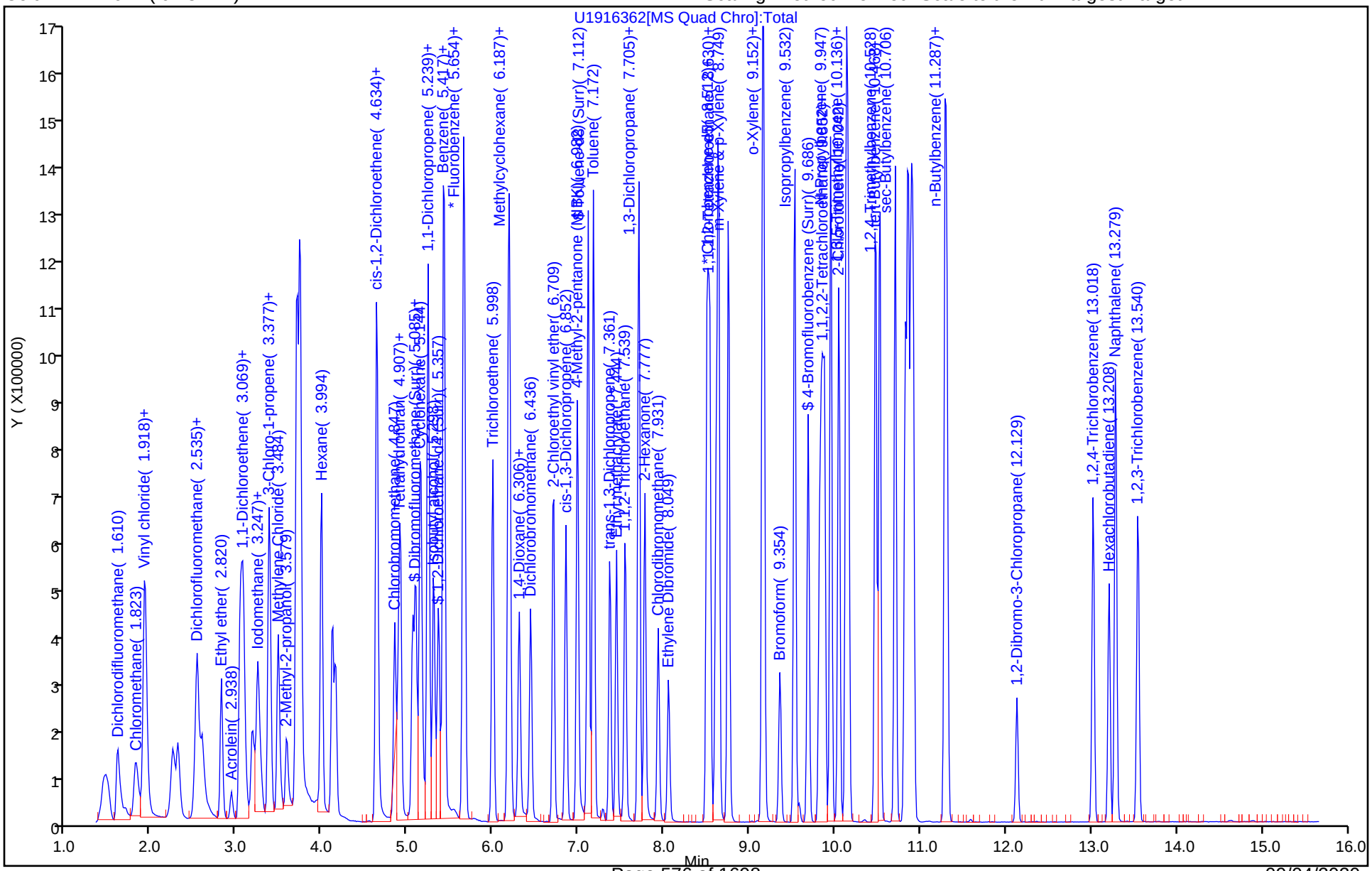
Report Date: 14-Aug-2020 19:04:41 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916362.d

Injection Date:	14-Aug-2020 18:29:02	Instrument ID:	A3UX19	Operator ID:	001904
Lims ID:	LCS			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8260_19	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\U1916362.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 14-Aug-2020 18:29:02 ALS Bottle#: 0 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0101017-005
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromfs\Canton\ChromData\A3UX19\20200814-101017.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2020 16:45:50 Calib Date: 09-Jun-2020 21:22:13
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX19\20200609-98977.b\U1914735.d

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: laveyt Date: 14-Aug-2020 19:04:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	19.2	95.83
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	18.6	92.77
$ 6 Toluene-d8 (Surr)	20.0	21.5	107.51
$ 7 4-Bromofluorobenzene (Surr)	20.0	20.3	101.62

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/24/2018 17:22

Analysis Batch Number: 337766 End Date: 07/24/2018 21:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-337766/1		07/24/2018 17:22	1	bfb036.d	DB-624 0.18(mm)
STD8260 240-337766/2 IC		07/24/2018 17:50	1	U1900783.d	DB-624 0.18(mm)
STD8260 240-337766/3 IC		07/24/2018 18:13	1	U1900784.d	DB-624 0.18(mm)
STD8260 240-337766/9 IC		07/24/2018 18:35	1	U1900790.d	DB-624 0.18(mm)
ICIS 240-337766/10		07/24/2018 18:57	1	U1900791.d	DB-624 0.18(mm)
STD8260 240-337766/11 IC		07/24/2018 19:20	1	U1900792.d	DB-624 0.18(mm)
STD8260 240-337766/12 IC		07/24/2018 19:42	1	U1900793.d	DB-624 0.18(mm)
STD8260 240-337766/13 IC		07/24/2018 20:04	1	U1900794.d	DB-624 0.18(mm)
ICV 240-337766/14		07/24/2018 20:26	1		DB-624 0.18(mm)
MRL 240-337766/15 MDLV		07/24/2018 20:48	1		DB-624 0.18(mm)
MDLV 240-337766/16		07/24/2018 21:10	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/25/2018 11:28

Analysis Batch Number: 337917 End Date: 07/25/2018 19:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-337917/1		07/25/2018 11:28	1	bfb037.d	DB-624 0.18(mm)
CCVIS 240-337917/3		07/25/2018 12:17	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 12:39	1		DB-624 0.18(mm)
STDA9 240-337917/8 IC		07/25/2018 13:24	1	U1900802.d	DB-624 0.18(mm)
STDA9 240-337917/9 IC		07/25/2018 13:46	1	U1900803.d	DB-624 0.18(mm)
STDA9 240-337917/10 IC		07/25/2018 14:08	1	U1900804.d	DB-624 0.18(mm)
STDA9 240-337917/11 IC		07/25/2018 14:30	1	U1900805.d	DB-624 0.18(mm)
STDA9 240-337917/12 IC		07/25/2018 14:52	1	U1900806.d	DB-624 0.18(mm)
STDA9 240-337917/13 IC		07/25/2018 15:15	1	U1900807.d	DB-624 0.18(mm)
ICV 240-337917/14		07/25/2018 15:37	1	U1900808.d	DB-624 0.18(mm)
MRL 240-337917/15 MDLV		07/25/2018 15:59	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 16:21	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 16:44	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 17:06	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 17:29	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 17:51	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 18:13	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 18:35	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 18:57	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 19:20	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 19:42	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: A3UX19 Start Date: 08/27/2018 16:23

Analysis Batch Number: 342719 End Date: 08/27/2018 20:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-342719/1		08/27/2018 16:23	1	bfb058.d	DB-624 0.18(mm)
CCV 240-342719/2		08/27/2018 16:46	1		DB-624 0.18(mm)
STD8260 240-342719/7 IC		08/27/2018 17:09	1	U1901323.d	DB-624 0.18(mm)
STD8260 240-342719/8 IC		08/27/2018 17:31	1	U1901324.d	DB-624 0.18(mm)
STD8260 240-342719/9 IC		08/27/2018 17:53	1	U1901325.d	DB-624 0.18(mm)
ICIS 240-342719/10		08/27/2018 18:16	1	U1901326.d	DB-624 0.18(mm)
STD8260 240-342719/11 IC		08/27/2018 18:38	1	U1901327.d	DB-624 0.18(mm)
STD8260 240-342719/12 IC		08/27/2018 19:01	1	U1901328.d	DB-624 0.18(mm)
STD8260 240-342719/13 IC		08/27/2018 19:23	1	U1901329.d	DB-624 0.18(mm)
ICV 240-342719/14		08/27/2018 19:45	1	U1901330.d	DB-624 0.18(mm)
MRL 240-342719/15 MDLV		08/27/2018 20:07	1		DB-624 0.18(mm)
MDLV 240-342719/16		08/27/2018 20:30	1		DB-624 0.18(mm)
ZZZZZ		08/27/2018 20:52	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: A3UX19 Start Date: 08/14/2020 17:20

Analysis Batch Number: 447281 End Date: 08/15/2020 03:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-447281/1		08/14/2020 17:20	1	bfb599.d	DB-624 0.18(mm)
CCV 240-447281/3		08/14/2020 17:44	1	U1916360.d	DB-624 0.18(mm)
CCVIS 240-447281/4		08/14/2020 18:06	1	U1916361.d	DB-624 0.18(mm)
LCS 240-447281/5		08/14/2020 18:29	1	U1916362.d	DB-624 0.18(mm)
MRL 240-447281/6 MDLV		08/14/2020 18:51	1		DB-624 0.18(mm)
MRL 240-447281/7 MDLV		08/14/2020 19:13	1		DB-624 0.18(mm)
MB 240-447281/8		08/14/2020 19:36	1	U1916365.d	DB-624 0.18(mm)
ZZZZZ		08/14/2020 19:58	20		DB-624 0.18(mm)
ZZZZZ		08/14/2020 20:21	1		DB-624 0.18(mm)
ZZZZZ		08/14/2020 20:43	1		DB-624 0.18(mm)
ZZZZZ		08/14/2020 21:05	1		DB-624 0.18(mm)
ZZZZZ		08/14/2020 21:27	1		DB-624 0.18(mm)
ZZZZZ		08/14/2020 21:50	1		DB-624 0.18(mm)
ZZZZZ		08/14/2020 22:12	1		DB-624 0.18(mm)
ZZZZZ		08/14/2020 22:35	1		DB-624 0.18(mm)
240-134814-1	MRC-MW-164B-081120	08/14/2020 22:57	1	U1916374.d	DB-624 0.18(mm)
ZZZZZ		08/14/2020 23:20	1		DB-624 0.18(mm)
ZZZZZ		08/14/2020 23:42	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 00:04	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 00:27	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 00:49	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 01:12	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 01:34	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 01:57	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 02:19	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 02:41	1		DB-624 0.18(mm)
ZZZZZ		08/15/2020 03:04	20		DB-624 0.18(mm)
ZZZZZ		08/15/2020 03:26	20		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 337917 Batch Start Date: 07/25/18 11:28 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss_stk 00077	vmbfb 00020	VMFASA9W 00194
BFB 240-337917/1		8260C		5 mL	5 mL			1 uL	
STDA9 240-337917/8 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/9 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/10 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/11 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/12 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/13 IC		8260C		5 mL	5 mL	2 uL			
ICV 240-337917/14		8260C		5 mL	5 mL	2 uL	2 uL		16 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmra9w 00259					
BFB 240-337917/1		8260C							
STDA9 240-337917/8 IC		8260C		64 uL					
STDA9 240-337917/9 IC		8260C		32 uL					
STDA9 240-337917/10 IC		8260C		16 uL					
STDA9 240-337917/11 IC		8260C		8 uL					
STDA9 240-337917/12 IC		8260C		0.8 uL					
STDA9 240-337917/13 IC		8260C		0.4 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 337917 Batch Start Date: 07/25/18 11:28 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmra9w 00259					
ICV 240-337917/14		8260C							

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 342719 Batch Start Date: 08/27/18 16:23 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00333	vm50ss_stk 00077	vmarolistdw 00260
BFB 240-342719/1		8260C		5 mL	5 mL				
STD8260 240-342719/7 IC		8260C		5 mL	5 mL	2 uL	64 uL		64 uL
STD8260 240-342719/8 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-342719/9 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
ICIS 240-342719/10		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-342719/11 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
STD8260 240-342719/12 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-342719/13 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
ICV 240-342719/14		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00246	vmfasgw 00271	vmfaspw 00264	vmrgas 00259	vmrprimw 00297
BFB 240-342719/1		8260C		1 uL					
STD8260 240-342719/7 IC		8260C						64 uL	64 uL
STD8260 240-342719/8 IC		8260C						48 uL	48 uL
STD8260 240-342719/9 IC		8260C						32 uL	32 uL
ICIS 240-342719/10		8260C						16 uL	16 uL
STD8260 240-342719/11 IC		8260C						8 uL	8 uL
STD8260 240-342719/12 IC		8260C						0.8 uL	0.8 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 342719 Batch Start Date: 08/27/18 16:23 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00246	vmfasgw 00271	vmfaspw 00264	vmrgas 00259	vmrprimw 00297
STD8260 240-342719/13 IC		8260C						0.4 uL	0.4 uL
ICV 240-342719/14		8260C			16 uL	16 uL	16 uL		

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447281 Batch Start Date: 08/14/20 17:20 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00007	vm50ss_stk 00085	vmarolistdw 00356
BFB 240-447281/1		8260C		5 mL	5 mL				
CCV 240-447281/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-447281/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-447281/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-447281/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-134814-B-1	MRC-MW-164B-081120	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00025	vmfasaw 00339	vmfasgw 00371	vmfaspw 00362	vmra9w 00356	vmrgas 00350
BFB 240-447281/1		8260C		1 uL					
CCV 240-447281/3		8260C						16 uL	
CCVIS 240-447281/4		8260C							16 uL
LCS 240-447281/5		8260C			16 uL	16 uL	16 uL		
MB 240-447281/8		8260C							
240-134814-B-1	MRC-MW-164B-081120	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00399
BFB 240-447281/1		8260C		
CCV 240-447281/3		8260C		
CCVIS 240-447281/4		8260C		16 uL
LCS 240-447281/5		8260C		
MB 240-447281/8		8260C		
240-134814-B-1	MRC-MW-164B-081120	8260C	T	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447281 Batch Start Date: 08/14/20 17:20 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Batch Notes	
pH Indicator ID	HC861525

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 680

Polychlorinated Biphenyls (PCBs) (GC/MS) by Method 680

FORM II
PCBS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): VF-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	PCB52L #	PCB138L #
MRC-MW-164B-081120	240-134814-1	91	81
	MB 410-34321/1-A	82	75
	LCS 410-34321/2-A	84	77
	LCSD 410-34321/3-A	76	73

	QC LIMITS
PCB52L = PCB-52L	42-105
PCB138L = PCB-138L	39-131

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2320_006.D

Lab ID: LCS 410-34321/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	6.28	8.69	139	52-119	*
Polychlorinated biphenyls, Total	25.0	28.8	115		
Total Dichlorobiphenyls	1.25	1.33	106	37-100	*
Total Heptachlorobiphenyls	3.76	3.98	106	47-115	
Total Hexachlorobiphenyls	2.51	2.50	100	48-115	
Total Monochlorobiphenyls	1.25	1.30	104	33-91	*
Total Octachlorobiphenyls	3.75	4.27	114	50-115	
Total Pentachlorobiphenyls	2.50	2.76	110	49-111	
Total Tetrachlorobiphenyls	2.50	2.50	100	41-96	*
Total Trichlorobiphenyls	1.26	1.42	113	37-96	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2320_007.D

Lab ID: LCSD 410-34321/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	6.28	8.13	130	7	30	52-119	*
Polychlorinated biphenyls, Total	25.0	26.8	107	7			
Total Dichlorobiphenyls	1.25	1.24	100	6	30	37-100	
Total Heptachlorobiphenyls	3.76	3.86	103	3	30	47-115	
Total Hexachlorobiphenyls	2.51	2.25	90	10	30	48-115	
Total Monochlorobiphenyls	1.25	1.23	98	5	30	33-91	*
Total Octachlorobiphenyls	3.75	3.97	106	7	30	50-115	
Total Pentachlorobiphenyls	2.50	2.46	99	11	30	49-111	
Total Tetrachlorobiphenyls	2.50	2.26	90	10	30	41-96	
Total Trichlorobiphenyls	1.26	1.35	107	5	30	37-96	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-134814-1

SDG No.:

Lab File ID: 2320_005.D Lab Sample ID: MB 410-34321/1-A

Matrix: Water Date Extracted: 08/18/2020 07:43

Instrument ID: 21949 Date Analyzed: 08/19/2020 13:04

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-34321/2-A	2320_006.D	08/19/2020 13:33
	LCSD 410-34321/3-A	2320_007.D	08/19/2020 14:01
MRC-MW-164B-081120	240-134814-1	2320_008.D	08/19/2020 14:29

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Lab File ID: 2240_201.D DFTPP Injection Date: 08/11/2020

Instrument ID: 21949 DFTPP Injection Time: 14:19

Analysis Batch No.: 32133

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.4
197	Less than 1 % of mass 198	0.4
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	25.9
365	Greater than 1% of mass 198	3.9
441	Present but less than mass 443	12.4 (80.7) 2
442	Greater than 40% of mass 198	79.6
443	17 - 23% of mass 442	15.3 (19.2) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-32133/4	2240_204.D	08/11/2020	15:35
	IC 410-32133/5	2240_205.D	08/11/2020	16:03
	IC 410-32133/6	2240_206.D	08/11/2020	16:32
	IC 410-32133/7	2240_207.D	08/11/2020	17:00
	IC 410-32133/8	2240_208.D	08/11/2020	17:28
	ICV 410-32133/9	2240_209.D	08/11/2020	17:57

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Lab File ID: 2320_001.D DFTPP Injection Date: 08/19/2020

Instrument ID: 21949 DFTPP Injection Time: 11:26

Analysis Batch No.: 34909

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.9
197	Less than 1 % of mass 198	0.4
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.9
275	10 - 30% of mass 198	25.5
365	Greater than 1% of mass 198	3.8
441	Present but less than mass 443	11.4 (79.6) 2
442	Greater than 40% of mass 198	73.1
443	17 - 23% of mass 442	14.3 (19.6) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-34909/3	2320_003.D	08/19/2020	12:08
	MB 410-34321/1-A	2320_005.D	08/19/2020	13:04
	LCS 410-34321/2-A	2320_006.D	08/19/2020	13:33
	LCSD 410-34321/3-A	2320_007.D	08/19/2020	14:01
MRC-MW-164B-081120	240-134814-1	2320_008.D	08/19/2020	14:29
	CCV 410-34909/9	2320_009.D	08/19/2020	14:57

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Sample No.: CCVIS 410-34909/3 Date Analyzed: 08/19/2020 12:08

Instrument ID: 21949 GC Column: VF-5MS ID: 0.25(mm)

Lab File ID (Standard): 2320_003.D Heated Purge: (Y/N) N

Calibration ID: 8518

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	#	RT #
12/24 HOUR STD		629194	13.38	563931	17.44		
UPPER LIMIT		817952	13.88	733110	17.94		
LOWER LIMIT		440436	12.88	394752	16.94		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 410-34321/1-A		539149	13.38	507119	17.44		
LCS 410-34321/2-A		512314	13.38	466789	17.44		
LCSD 410-34321/3-A		511612	13.38	475231	17.44		
240-134814-1	MRC-MW-164B-081120	451276	13.38	402605	17.44		
CCV 410-34909/9		492712	13.38	433122	17.44		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: 2320_008.D

Analysis Method: 680 Date Collected: 08/11/2020 14:20

Extract. Method: 680 Date Extracted: 08/18/2020 07:43

Sample wt/vol: 908(mL) Date Analyzed: 08/19/2020 14:29

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 34909 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.22	U *	0.55	0.22
1336-36-3	Polychlorinated biphenyls, Total	0.022	U	0.11	0.022
25512-42-9	Total Dichlorobiphenyls	0.022	U *	0.11	0.022
28655-71-2	Total Heptachlorobiphenyls	0.044	U	0.33	0.044
26601-64-9	Total Hexachlorobiphenyls	0.033	U	0.22	0.033
27323-18-8	Total Monochlorobiphenyls	0.022	U *	0.11	0.022
53742-07-7	Total Nonachlorobiphenyls	0.22	U	0.55	0.22
55722-26-4	Total Octachlorobiphenyls	0.055	U	0.33	0.055
25429-29-2	Total Pentachlorobiphenyls	0.033	U	0.22	0.033
26914-33-0	Total Tetrachlorobiphenyls	0.033	U *	0.22	0.033
25323-68-6	Total Trichlorobiphenyls	0.022	U *	0.11	0.022

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-66-5	PCB-138L	81		39-131
208263-80-3	PCB-52L	91		42-105

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_008.D
Lims ID: 240-134814-O-1-A
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 19-Aug-2020 14:29:40 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-134814-O-1-A;410-008447-008;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

First Level Reviewer: sneeringera Date: 20-Aug-2020 11:32:38

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	451276	0.7500	
* 2 Chrysene-d12	240	17.438	17.438	0.0	0	402605	0.7500	
$ 3 PCB-52L	232	14.231	14.231	0.0	0	165042	0.9099	
$ 4 PCB-138L	372	16.511	16.511	0.0	0	124058	0.8148	
5 PCB-1	188		11.007				ND	
6 PCB-5	222		12.665				ND	
7 PCB-29	256		13.647				ND	
8 PCB-50	292		13.793				ND	
9 PCB-104	326		14.433				ND	
10 PCB-87	326		15.566				ND	
11 PCB-154	360		15.627				ND	
12 PCB-77	292		15.719				ND	
13 PCB-188	394		16.087				ND	
14 PCB-200	430		17.208				ND	
15 PCB-208	464		18.495				ND	
16 DCB Decachlorobiphenyl	498		20.406				ND	
A 31 Total Monochlorobiphenyls	188		10.947	11.797			0	
A 33 Dichlorobiphenyl range	222		11.955	13.389			0	
A 32 Cl2 M+35	221		11.955	13.389			0	U
A 36 Trichlorobiphenyl range	256		12.871	14.661			0	
A 34 Cl3 M+70	254		12.871	14.661			0	U
A 35 Cl3 M+35	253		12.871	14.661			0	
A 39 Tetrachlorobiphenyl range	292		13.614	15.779			0	
A 38 Cl4 M+70	288		13.614	15.779			0	
A 37 Cl4 M+35	289		13.614	15.779			0	
A 41 Cl5 M+35	323		14.373	16.732			0	
A 42 Pentachlorobiphenyl range	326		14.373	16.732			0	
A 40 Cl5 M+70	322		14.373	16.732			0	
A 43 Hexachlorobiphenyl range	360		15.062	17.804			0	
A 45 Cl6 M+35	357		15.062	17.804			0	U
A 44 Cl6 M+70	356		15.062	17.804			0	

Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
A 46 Heptachlorobiphenyl range		394		16.027 18.386		0	
A 47 Cl7 M+70		390		16.027 18.386		0	
A 48 Cl7 M+35		391		16.027 18.386		0	
A 49 Cl8 M+35		425		17.040 19.085		0	
A 50 Octachlorobiphenyl range		430		17.040 19.085		0	
A 51 Total Nonachlorobiphenyls		464		18.435 19.741		0	
S 52 Total Pentachlorobiphenyls		326		0.0		0	
S 53 Total Hexachlorobiphenyls		360		0.0		0	
S 54 Polychlorinated biphenyls, Total		1		0.0		0	
S 55 Total Tetrachlorobiphenyls		292		0.0		0	
S 56 Total Trichlorobiphenyls		256		0.0		0	
S 57 Total Dichlorobiphenyls		222		0.0		0	
S 58 Total Octachlorobiphenyls		430		0.0		0	
S 59 Total Heptachlorobiphenyls		394		0.0		0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	451276	0.7500			
186	13.382	13.382	0.0		34097		15.0- 25.0	13.2	
* 2 Chrysene-d12									
240	17.438	17.438	0.0	0	402605	0.7500			
241	17.438	17.438	0.0		75237		10.0- 22.0	5.4	
$ 3 PCB-52L									
232	14.231	14.231	0.0	0	165042	0.9099			
304	14.244	14.231	0.013		150719		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.511	0.0	0	124058	0.8148			
302	16.511	16.511	0.0		112587		1.2- 1.2	1.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

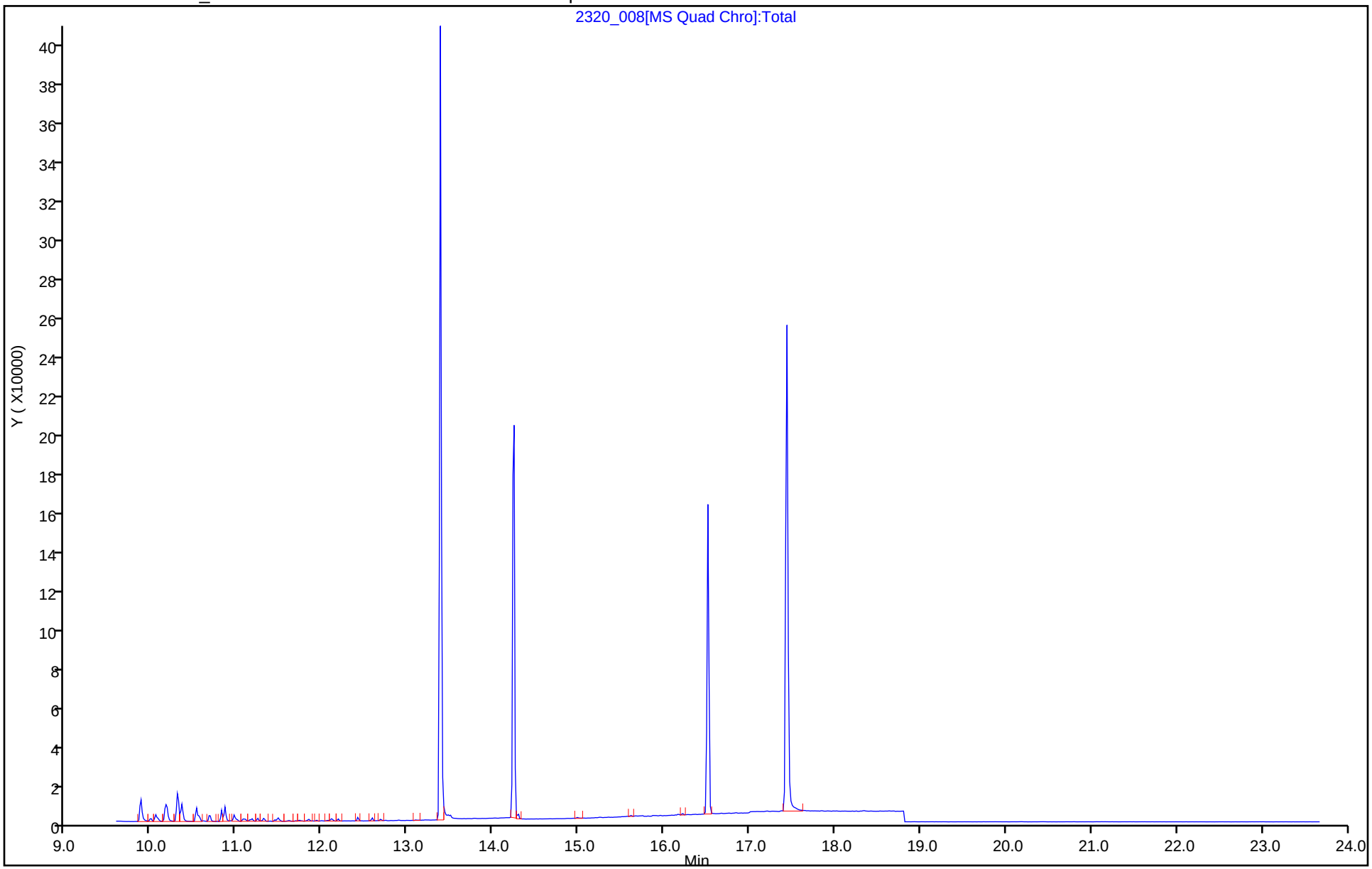
Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

Report Date: 20-Aug-2020 11:33:18 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_008.D				
Injection Date:	19-Aug-2020 14:29:40	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	240-134814-O-1-A	Lab Sample ID:	410-134814-1	Worklist Smp#:	8
Client ID:	MRC-MW-164B-081120				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_008.D
Lims ID: 240-134814-O-1-A
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 19-Aug-2020 14:29:40 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-134814-O-1-A;410-008447-008;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

First Level Reviewer: sneeringera Date: 20-Aug-2020 11:32:38

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 PCB-52L	1.00	0.9099	90.99
$ 4 PCB-138L	1.00	0.8148	81.48

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1 Analy Batch No.: 32133

SDG No.:

Instrument ID: 21949 GC Column: VF-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/11/2020 15:35 Calibration End Date: 08/11/2020 17:28 Calibration ID: 8518

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-32133/4	2240_204.D
Level 2	IC 410-32133/5	2240_205.D
Level 3	IC 410-32133/6	2240_206.D
Level 4	IC 410-32133/7	2240_207.D
Level 5	IC 410-32133/8	2240_208.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1	0.8758	0.8569	0.8460	0.8069	0.7362	Ave		0.8244				6.7		20.0			
PCB-5	0.6103	0.6164	0.5992	0.5995	0.5574	Ave		0.5966				3.9		20.0			
PCB-29	0.4199	0.4305	0.4114	0.4360	0.4053	Ave		0.4206				3.0		20.0			
PCB-50	0.2604	0.2636	0.2474	0.2653	0.2494	Ave		0.2572				3.2		20.0			
PCB-104	0.1713	0.1758	0.1673	0.1731	0.1680	Ave		0.1711				2.1		20.0			
PCB-87	0.2577	0.2746	0.2626	0.2720	0.2646	Ave		0.2663				2.6		20.0			
PCB-154	0.2770	0.2849	0.2562	0.2938	0.2815	Ave		0.2787				5.0		20.0			
PCB-77	0.2151	0.2235	0.2164	0.2241	0.2006	Ave		0.2159				4.4		20.0			
PCB-188	0.2388	0.2480	0.2379	0.2530	0.2557	Ave		0.2467				3.3		20.0			
PCB-200	0.2012	0.2020	0.1926	0.2068	0.2061	Ave		0.2017				2.8		20.0			
PCB-208	0.0547	0.0589	0.0592	0.0600	0.0571	Ave		0.0580				3.7		20.0			
DCB Decachlorobiphenyl	0.1285	0.1392	0.1330	0.1289	0.1097	Ave		0.1278				8.6		20.0			
PCB-52L	0.3116	0.3058	0.2930	0.3096	0.2873	Ave		0.3015				3.6		20.0			
PCB-138L	0.3093	0.3002	0.2494	0.2914	0.2679	Ave		0.2836				8.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1 Analy Batch No.: 32133

SDG No.:

Instrument ID: 21949 GC Column: VF-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/11/2020 15:35 Calibration End Date: 08/11/2020 17:28 Calibration ID: 8518

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-32133/4	2240_204.D
Level 2	IC 410-32133/5	2240_205.D
Level 3	IC 410-32133/6	2240_206.D
Level 4	IC 410-32133/7	2240_207.D
Level 5	IC 410-32133/8	2240_208.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1	PHN	Ave	83490	405903	815191	1620640	3845752	0.100	0.500	1.00	2.00	5.00
PCB-5	PHN	Ave	58186	291971	577378	1204094	2911809	0.100	0.500	1.00	2.00	5.00
PCB-29	PHN	Ave	40036	203927	396431	875628	2117025	0.100	0.500	1.00	2.00	5.00
PCB-50	PHN	Ave	49647	249743	476689	1065473	2605445	0.200	1.00	2.00	4.00	10.0
PCB-104	CRY	Ave	59989	299617	587501	1250931	2926146	0.400	2.00	4.00	8.00	20.0
PCB-87	CRY	Ave	45114	234093	461226	982816	2304204	0.200	1.00	2.00	4.00	10.0
PCB-154	CRY	Ave	48491	242806	449927	1061544	2451583	0.200	1.00	2.00	4.00	10.0
PCB-77	PHN	Ave	82033	423466	833905	1800101	4191663	0.400	2.00	4.00	8.00	20.0
PCB-188	CRY	Ave	62712	317126	626783	1371313	3340594	0.300	1.50	3.00	6.00	15.0
PCB-200	CRY	Ave	52832	258314	507284	1120615	2691621	0.300	1.50	3.00	6.00	15.0
PCB-208	CRY	Ave	43060	225872	467943	975028	2238783	0.900	4.50	9.00	18.0	45.0
DCB Decachlorobiphenyl	CRY	Ave	56244	296597	583747	1164591	2387607	0.500	2.50	5.00	10.0	25.0
PCB-52L	PHN	Ave	29703	144875	282282	621865	1500772	0.100	0.500	1.00	2.00	5.00
PCB-138L	CRY	Ave	27080	127920	218996	526507	1166443	0.100	0.500	1.00	2.00	5.00

Curve Type Legend:
Ave = Average ISTD

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_204.D
Lims ID: IC CAL68011937E STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Aug-2020 15:35:33 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CAL68012037A;STD_1;1;1;STD;
Misc. Info.: ;primary.sub;, 1
Operator ID: ads01731 Instrument ID: 21949
Sublist: chrom-680_21949*sub7

Method: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\680_21949.m
Limit Group: HR - 680
Last Update: 12-Aug-2020 00:13:30 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1040

First Level Reviewer: sneeringera Date: 12-Aug-2020 00:10:19

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	715014	0.7500	
* 2 Chrysene-d12	240	17.437	17.437	0.0	0	656570	0.7500	
$ 3 PCB-52L	232	14.244	14.244	0.0	0	29703	0.1034	
$ 4 PCB-138L	372	16.526	16.526	0.0	0	27080	0.1091	
5 PCB-1	188	11.007	11.007	0.0	0	83490	0.1062	
6 PCB-5	222	12.665	12.665	0.0	0	58186	0.1023	
7 PCB-29	256	13.647	13.647	0.0	0	40036	0.0998	
8 PCB-50	292	13.806	13.806	0.0	0	49647	0.2025	
9 PCB-104	326	14.448	14.448	0.0	0	59989	0.4005	
10 PCB-87	326	15.566	15.566	0.0	0	45114	0.1935	
11 PCB-154	360	15.627	15.627	0.0	0	48491	0.1988	
12 PCB-77	292	15.719	15.719	0.0	0	82033	0.3985	
13 PCB-188	394	16.087	16.087	0.0	0	62712	0.2904	
14 PCB-200	430	17.208	17.208	0.0	0	52832	0.2992	
15 PCB-208	464	18.510	18.510	0.0	0	43060	0.8485	
16 DCB Decachlorobiphenyl	498	20.420	20.420	0.0	0	56244	0.5025	
S 52 Total Pentachlorobiphenyls	326		0.0				0	
S 53 Total Hexachlorobiphenyls	360		0.0				0	
S 55 Total Tetrachlorobiphenyls	292		0.0				0	
S 56 Total Trichlorobiphenyls	256		0.0				0	
S 57 Total Dichlorobiphenyls	222		0.0				0	
S 58 Total Octachlorobiphenyls	430		0.0				0	
S 59 Total Heptachlorobiphenyls	394		0.0				0	

Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.00	Units: mL	
HRM_680_PS_00001	Amount Added:	0.00	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.00	Units: mL	
HRM_68013C138_00004	Amount Added:	0.00	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	715014	0.7500			
186	13.382	13.382	0.0		52009		15.0- 25.0	13.7	
* 2 Chrysene-d12									
240	17.437	17.437	0.0	0	656570	0.7500			
241	17.437	17.437	0.0		123188		10.0- 22.0	5.3	
$ 3 PCB-52L									
232	14.244	14.244	0.0	0	29703	0.1034			
304	14.244	14.244	0.0		27894		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.526	16.526	0.0	0	27080	0.1091			
302	16.511	16.526	-0.015		18107		1.2- 1.2	1.5	
5 PCB-1									
188	11.007	11.007	0.0	0	83490	0.1062			
190	11.007	11.007	0.0		27370		3.0- 3.0	3.1	
6 PCB-5									
222	12.665	12.665	0.0	0	58186	0.1023			
224	12.665	12.665	0.0		37110		1.5- 1.5	1.6	
7 PCB-29									
256	13.647	13.647	0.0	0	40036	0.0998			
258	13.647	13.647	0.0		38565		1.0- 1.0	1.0	
8 PCB-50									
292	13.806	13.806	0.0	0	49647	0.2025			
290	13.806	13.806	0.0		38886		1.3- 1.3	1.3	
9 PCB-104									
326	14.448	14.448	0.0	0	59989	0.4005			
324	14.433	14.448	-0.015		37178		1.6- 1.6	1.6	
10 PCB-87									
326	15.566	15.566	0.0	0	45114	0.1935			
324	15.566	15.566	0.0		28147		1.6- 1.6	1.6	
11 PCB-154									
360	15.627	15.627	0.0	0	48491	0.1988			
360	15.627	15.627	0.0		48491		1.0- 1.0	1.0	
12 PCB-77									
292	15.719	15.719	0.0	0	82033	0.3985			
290	15.719	15.719	0.0		64644		1.3- 1.3	1.3	
13 PCB-188									
394	16.087	16.087	0.0	0	62712	0.2904			
396	16.087	16.087	0.0		59898		1.0- 1.0	1.0	
14 PCB-200									
430	17.208	17.208	0.0	0	52832	0.2992			
428	17.208	17.208	0.0		43986		1.1- 1.1	1.2	
15 PCB-208									
464	18.510	18.510	0.0	0	43060	0.8485			
466	18.510	18.510	0.0		32474		1.3- 1.3	1.3	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
16 DCB Decachlorobiphenyl									
498	20.420	20.420	0.0	0	56244	0.5025			
496	20.420	20.420	0.0		34694		0.9- 1.3	1.6	
500	20.420	20.420	0.0		42020		0.0- 0.0	1.3	
424	20.406	20.420	-0.014		12618		0.0- 0.0	4.5	
426	20.406	20.420	-0.014		28521		0.0- 0.0	2.0	
428	20.406	20.420	-0.014		32484		0.0- 0.0	1.7	
430	20.420	20.420	0.0		24406		0.0- 0.0	2.3	

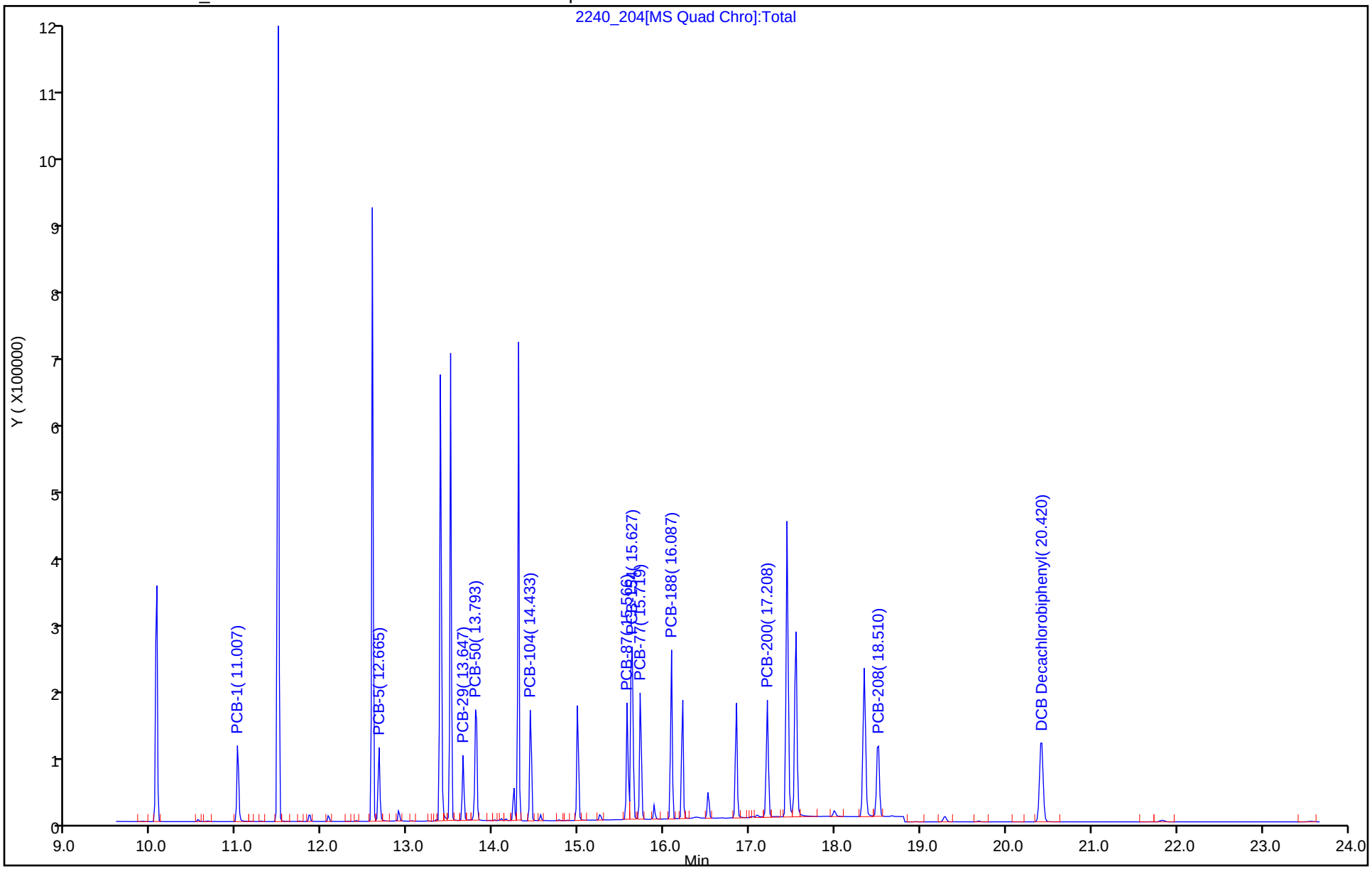
Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.00	Units: mL	
HRM_680_PS_00001	Amount Added:	0.00	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.00	Units: mL	
HRM_68013C138_00004	Amount Added:	0.00	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

Report Date: 12-Aug-2020 00:13:30 Chrom Revision: 2.3 10-Aug-2020 14:39:50

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_204.D				
Injection Date:	11-Aug-2020 15:35:33	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	IC CAL68011937E STD1			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_205.D
Lims ID: IC CAL68021937E STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Aug-2020 16:03:51 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CAL68022037A;STD_2;1;1;STD;
Misc. Info.: ;primary.sub;, 2
Operator ID: ads01731 Instrument ID: 21949
Sublist: chrom-680_21949*sub7

Method: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\680_21949.m
Limit Group: HR - 680
Last Update: 12-Aug-2020 00:13:31 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1040

First Level Reviewer: sneeringera Date: 12-Aug-2020 00:10:57

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	710526	0.7500	
* 2 Chrysene-d12	240	17.438	17.437	0.001	0	639266	0.7500	
$ 3 PCB-52L	232	14.244	14.244	0.0	0	144875	0.5073	
$ 4 PCB-138L	372	16.511	16.526	-0.015	0	127920	0.5291	
5 PCB-1	188	11.007	11.007	0.0	0	405903	0.5197	
6 PCB-5	222	12.665	12.665	0.0	0	291971	0.5166	
7 PCB-29	256	13.647	13.647	0.0	0	203927	0.5117	
8 PCB-50	292	13.806	13.806	0.0	0	249743	1.02	
9 PCB-104	326	14.433	14.448	-0.015	0	299617	2.05	
10 PCB-87	326	15.566	15.566	0.0	0	234093	1.03	
11 PCB-154	360	15.627	15.627	0.0	0	242806	1.02	
12 PCB-77	292	15.719	15.719	0.0	0	423466	2.07	
13 PCB-188	394	16.087	16.087	0.0	0	317126	1.51	
14 PCB-200	430	17.208	17.208	0.0	0	258314	1.50	
15 PCB-208	464	18.510	18.510	0.0	0	225872	4.57	
16 DCB Decachlorobiphenyl	498	20.420	20.420	0.0	0	296597	2.72	
S 52 Total Pentachlorobiphenyls	326		0.0				0	
S 53 Total Hexachlorobiphenyls	360		0.0				0	
S 55 Total Tetrachlorobiphenyls	292		0.0				0	
S 56 Total Trichlorobiphenyls	256		0.0				0	
S 57 Total Dichlorobiphenyls	222		0.0				0	
S 58 Total Octachlorobiphenyls	430		0.0				0	
S 59 Total Heptachlorobiphenyls	394		0.0				0	

Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.02	Units: mL	
HRM_680_PS_00001	Amount Added:	0.02	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.02	Units: mL	
HRM_68013C138_00004	Amount Added:	0.02	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	710526	0.7500			
186	13.382	13.382	0.0		51640		15.0- 25.0	13.8	
* 2 Chrysene-d12									
240	17.438	17.437	0.001	0	639266	0.7500			
241	17.438	17.437	0.001		120906		10.0- 22.0	5.3	
$ 3 PCB-52L									
232	14.244	14.244	0.0	0	144875	0.5073			
304	14.244	14.244	0.0		136018		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.526	-0.015	0	127920	0.5291			
302	16.511	16.526	-0.015		92923		1.2- 1.2	1.4	
5 PCB-1									
188	11.007	11.007	0.0	0	405903	0.5197			
190	11.007	11.007	0.0		133766		3.0- 3.0	3.0	
6 PCB-5									
222	12.665	12.665	0.0	0	291971	0.5166			
224	12.665	12.665	0.0		187132		1.5- 1.5	1.6	
7 PCB-29									
256	13.647	13.647	0.0	0	203927	0.5117			
258	13.647	13.647	0.0		197332		1.0- 1.0	1.0	
8 PCB-50									
292	13.806	13.806	0.0	0	249743	1.02			
290	13.806	13.806	0.0		195227		1.3- 1.3	1.3	
9 PCB-104									
326	14.433	14.448	-0.015	0	299617	2.05			
324	14.433	14.448	-0.015		187124		1.6- 1.6	1.6	
10 PCB-87									
326	15.566	15.566	0.0	0	234093	1.03			
324	15.566	15.566	0.0		147286		1.6- 1.6	1.6	
11 PCB-154									
360	15.627	15.627	0.0	0	242806	1.02			
360	15.627	15.627	0.0		242806		1.0- 1.0	1.0	
12 PCB-77									
292	15.719	15.719	0.0	0	423466	2.07			
290	15.719	15.719	0.0		333042		1.3- 1.3	1.3	
13 PCB-188									
394	16.087	16.087	0.0	0	317126	1.51			
396	16.087	16.087	0.0		304099		1.0- 1.0	1.0	
14 PCB-200									
430	17.208	17.208	0.0	0	258314	1.50			
428	17.208	17.208	0.0		229261		1.1- 1.1	1.1	
15 PCB-208									
464	18.510	18.510	0.0	0	225872	4.57			
466	18.510	18.510	0.0		168893		1.3- 1.3	1.3	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
16 DCB Decachlorobiphenyl									
498	20.420	20.420	0.0	0	296597	2.72			
496	20.420	20.420	0.0		183452		0.9- 1.3	1.6	
500	20.420	20.420	0.0		221860		0.0- 0.0	1.3	
424	20.406	20.420	-0.014		66808		0.0- 0.0	4.4	
426	20.406	20.420	-0.014		151865		0.0- 0.0	2.0	
428	20.406	20.420	-0.014		172079		0.0- 0.0	1.7	
430	20.406	20.420	-0.014		118988		0.0- 0.0	2.5	

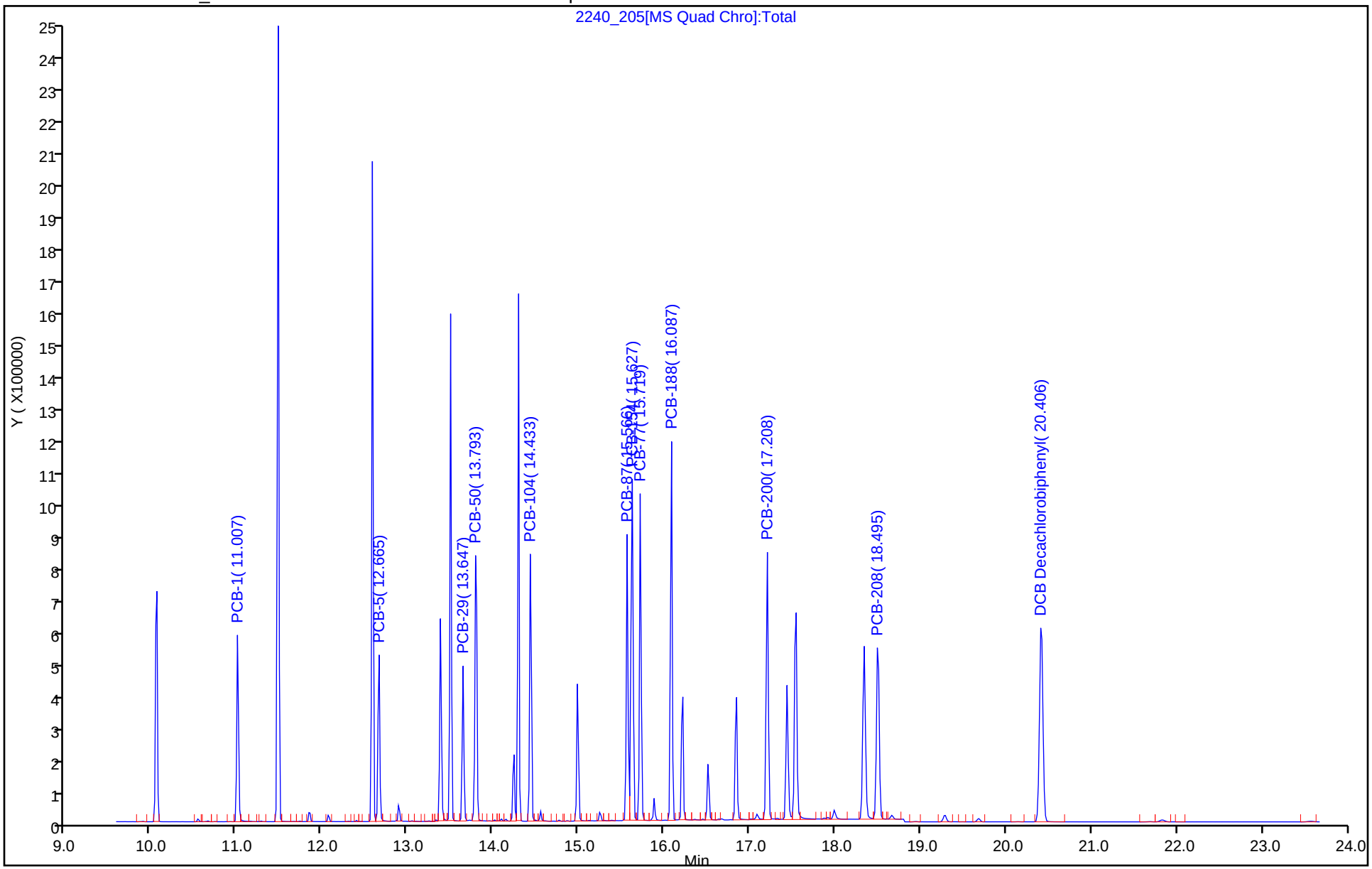
Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.02	Units: mL	
HRM_680_PS_00001	Amount Added:	0.02	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.02	Units: mL	
HRM_68013C138_00004	Amount Added:	0.02	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

Report Date: 12-Aug-2020 00:13:31 Chrom Revision: 2.3 10-Aug-2020 14:39:50

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_205.D				
Injection Date:	11-Aug-2020 16:03:51	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	IC CAL68021937E STD2			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_206.D
Lims ID: IC CAL68031937E STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 11-Aug-2020 16:32:09 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CAL68032037C;STD_3;1;1;STD;
Misc. Info.: ;primary.sub;, 3
Operator ID: ads01731 Instrument ID: 21949
Sublist: chrom-680_21949*sub7

Method: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\680_21949.m
Limit Group: HR - 680
Last Update: 12-Aug-2020 00:13:32 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1040

First Level Reviewer: sneeringera Date: 12-Aug-2020 00:11:19

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	722668	0.7500	
* 2 Chrysene-d12	240	17.438	17.438	0.0	0	658569	0.7500	
$ 3 PCB-52L	232	14.244	14.244	0.0	0	282282	0.9718	
$ 4 PCB-138L	372	16.526	16.526	0.0	0	218996	0.8793	
5 PCB-1	188	11.007	11.007	0.0	0	815191	1.03	
6 PCB-5	222	12.665	12.665	0.0	0	577378	1.00	
7 PCB-29	256	13.647	13.647	0.0	0	396431	0.9781	
8 PCB-50	292	13.806	13.806	0.0	0	476689	1.92	
9 PCB-104	326	14.433	14.433	0.0	0	587501	3.91	
10 PCB-87	326	15.566	15.566	0.0	0	461226	1.97	
11 PCB-154	360	15.627	15.627	0.0	0	449927	1.84	
12 PCB-77	292	15.719	15.719	0.0	0	833905	4.01	
13 PCB-188	394	16.087	16.087	0.0	0	626783	2.89	
14 PCB-200	430	17.208	17.208	0.0	0	507284	2.86	
15 PCB-208	464	18.510	18.510	0.0	0	467943	9.19	
16 DCB Decachlorobiphenyl	498	20.420	20.420	0.0	0	583747	5.20	
S 52 Total Pentachlorobiphenyls	326		0.0				0	
S 53 Total Hexachlorobiphenyls	360		0.0				0	
S 55 Total Tetrachlorobiphenyls	292		0.0				0	
S 56 Total Trichlorobiphenyls	256		0.0				0	
S 57 Total Dichlorobiphenyls	222		0.0				0	
S 58 Total Octachlorobiphenyls	430		0.0				0	
S 59 Total Heptachlorobiphenyls	394		0.0				0	

Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.04	Units: mL	
HRM_680_PS_00001	Amount Added:	0.04	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.04	Units: mL	
HRM_68013C138_00004	Amount Added:	0.04	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	722668	0.7500			
186	13.382	13.382	0.0		51977		15.0- 25.0	13.9	
* 2 Chrysene-d12									
240	17.438	17.438	0.0	0	658569	0.7500			
241	17.438	17.438	0.0		123716		10.0- 22.0	5.3	
$ 3 PCB-52L									
232	14.244	14.244	0.0	0	282282	0.9718			
304	14.244	14.244	0.0		270685		1.0- 1.0	1.0	
$ 4 PCB-138L									
372	16.526	16.526	0.0	0	218996	0.8793			
302	16.511	16.526	-0.015		189702		1.2- 1.2	1.2	
5 PCB-1									
188	11.007	11.007	0.0	0	815191	1.03			
190	11.007	11.007	0.0		269406		3.0- 3.0	3.0	
6 PCB-5									
222	12.665	12.665	0.0	0	577378	1.00			
224	12.665	12.665	0.0		373964		1.5- 1.5	1.5	
7 PCB-29									
256	13.647	13.647	0.0	0	396431	0.9781			
258	13.647	13.647	0.0		385461		1.0- 1.0	1.0	
8 PCB-50									
292	13.806	13.806	0.0	0	476689	1.92			
290	13.806	13.806	0.0		373421		1.3- 1.3	1.3	
9 PCB-104									
326	14.433	14.433	0.0	0	587501	3.91			
324	14.433	14.433	0.0		366008		1.6- 1.6	1.6	
10 PCB-87									
326	15.566	15.566	0.0	0	461226	1.97			
324	15.566	15.566	0.0		290696		1.6- 1.6	1.6	
11 PCB-154									
360	15.627	15.627	0.0	0	449927	1.84			
360	15.627	15.627	0.0		449927		1.0- 1.0	1.0	
12 PCB-77									
292	15.719	15.719	0.0	0	833905	4.01			
290	15.719	15.719	0.0		652759		1.3- 1.3	1.3	
13 PCB-188									
394	16.087	16.087	0.0	0	626783	2.89			
396	16.087	16.087	0.0		600765		1.0- 1.0	1.0	
14 PCB-200									
430	17.208	17.208	0.0	0	507284	2.86			
428	17.208	17.208	0.0		458909		1.1- 1.1	1.1	
15 PCB-208									
464	18.510	18.510	0.0	0	467943	9.19			
466	18.510	18.510	0.0		349969		1.3- 1.3	1.3	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
16 DCB Decachlorobiphenyl									
498	20.420	20.420	0.0	0	583747	5.20			
496	20.420	20.420	0.0		360375		0.9- 1.3	1.6	
500	20.420	20.420	0.0		436996		0.0- 0.0	1.3	
424	20.406	20.420	-0.014		131096		0.0- 0.0	4.5	
426	20.406	20.420	-0.014		298049		0.0- 0.0	2.0	
428	20.406	20.420	-0.014		335767		0.0- 0.0	1.7	
430	20.406	20.420	-0.014		215350		0.0- 0.0	2.7	

Reagents:

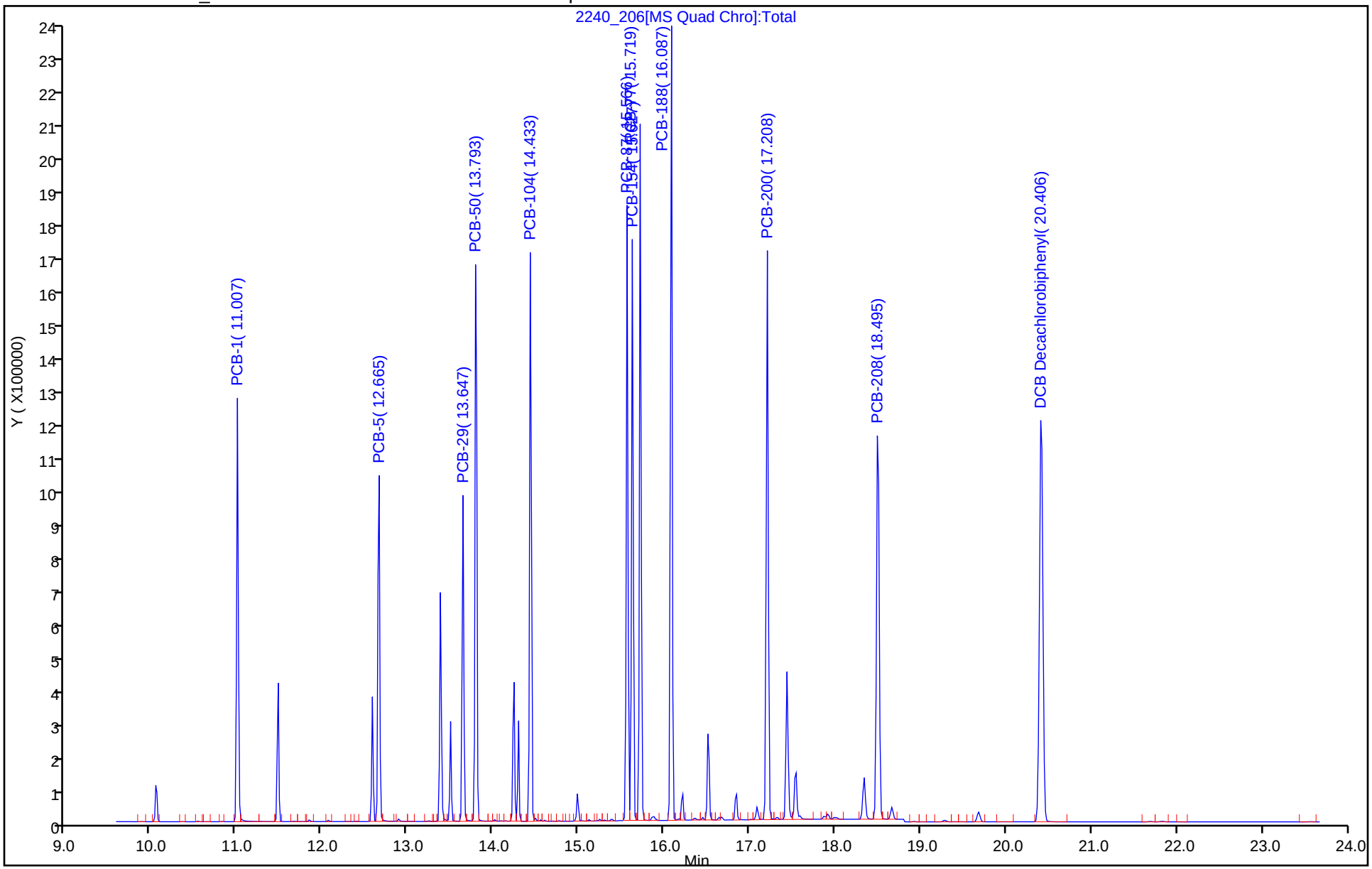
HRM_680_RT_ST_00001	Amount Added:	0.04	Units: mL	
HRM_680_PS_00001	Amount Added:	0.04	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.04	Units: mL	
HRM_68013C138_00004	Amount Added:	0.04	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

Report Date: 12-Aug-2020 00:13:32 Chrom Revision: 2.3 10-Aug-2020 14:39:50

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_206.D

Injection Date:	11-Aug-2020 16:32:09	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	IC CAL68031937E STD3			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_207.D
Lims ID: IC CAL68041937E STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Aug-2020 17:00:31 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CAL68042037A;STD_4;1;1;STD;
Misc. Info.: ;primary.sub;, 4
Operator ID: ads01731 Instrument ID: 21949
Sublist: chrom-680_21949*sub7

Method: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\680_21949.m
Limit Group: HR - 680
Last Update: 12-Aug-2020 00:13:32 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1040

First Level Reviewer: sneeringera Date: 12-Aug-2020 00:11:39

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	753152	0.7500	
* 2 Chrysene-d12	240	17.438	17.438	0.0	0	677469	0.7500	
$ 3 PCB-52L	232	14.245	14.244	0.001	0	621865	2.05	
$ 4 PCB-138L	372	16.512	16.526	-0.014	0	526507	2.05	
5 PCB-1	188	11.007	11.007	0.0	0	1620640	1.96	
6 PCB-5	222	12.666	12.665	0.001	0	1204094	2.01	
7 PCB-29	256	13.648	13.647	0.001	0	875628	2.07	
8 PCB-50	292	13.807	13.806	0.001	0	1065473	4.13	
9 PCB-104	326	14.433	14.433	0.0	0	1250931	8.09	
10 PCB-87	326	15.567	15.566	0.001	0	982816	4.09	
11 PCB-154	360	15.628	15.627	0.001	0	1061544	4.22	
12 PCB-77	292	15.720	15.719	0.001	0	1800101	8.30	
13 PCB-188	394	16.087	16.087	0.0	0	1371313	6.15	
14 PCB-200	430	17.208	17.208	0.0	0	1120615	6.15	
15 PCB-208	464	18.510	18.510	0.0	0	975028	18.6	
16 DCB Decachlorobiphenyl	498	20.421	20.420	0.001	0	1164591	10.1	
S 52 Total Pentachlorobiphenyls	326		0.0				0	
S 53 Total Hexachlorobiphenyls	360		0.0				0	
S 55 Total Tetrachlorobiphenyls	292		0.0				0	
S 56 Total Trichlorobiphenyls	256		0.0				0	
S 57 Total Dichlorobiphenyls	222		0.0				0	
S 58 Total Octachlorobiphenyls	430		0.0				0	
S 59 Total Heptachlorobiphenyls	394		0.0				0	

Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.08	Units: mL	
HRM_680_PS_00001	Amount Added:	0.08	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.08	Units: mL	
HRM_68013C138_00004	Amount Added:	0.08	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	753152	0.7500			
186	13.382	13.382	0.0		54302		15.0- 25.0	13.9	
* 2 Chrysene-d12									
240	17.438	17.438	0.0	0	677469	0.7500			
241	17.438	17.438	0.0		124824		10.0- 22.0	5.4	
$ 3 PCB-52L									
232	14.245	14.244	0.001	0	621865	2.05			
304	14.245	14.244	0.001		595532		1.0- 1.0	1.0	
$ 4 PCB-138L									
372	16.512	16.526	-0.014	0	526507	2.05			
302	16.512	16.526	-0.014		408168		1.2- 1.2	1.3	
5 PCB-1									
188	11.007	11.007	0.0	0	1620640	1.96			
190	11.007	11.007	0.0		542101		3.0- 3.0	3.0	
6 PCB-5									
222	12.666	12.665	0.001	0	1204094	2.01			
224	12.666	12.665	0.001		783563		1.5- 1.5	1.5	
7 PCB-29									
256	13.648	13.647	0.001	0	875628	2.07			
258	13.648	13.647	0.001		852771		1.0- 1.0	1.0	
8 PCB-50									
292	13.807	13.806	0.001	0	1065473	4.13			
290	13.794	13.806	-0.012		831903		1.3- 1.3	1.3	
9 PCB-104									
326	14.433	14.433	0.0	0	1250931	8.09			
324	14.433	14.433	0.0		779865		1.6- 1.6	1.6	
10 PCB-87									
326	15.567	15.566	0.001	0	982816	4.09			
324	15.567	15.566	0.001		613960		1.6- 1.6	1.6	
11 PCB-154									
360	15.628	15.627	0.001	0	1061544	4.22			
360	15.628	15.627	0.001		1061544		1.0- 1.0	1.0	
12 PCB-77									
292	15.720	15.719	0.001	0	1800101	8.30			
290	15.720	15.719	0.001		1395849		1.3- 1.3	1.3	
13 PCB-188									
394	16.087	16.087	0.0	0	1371313	6.15			
396	16.087	16.087	0.0		1320143		1.0- 1.0	1.0	
14 PCB-200									
430	17.208	17.208	0.0	0	1120615	6.15			
428	17.208	17.208	0.0		997629		1.1- 1.1	1.1	
15 PCB-208									
464	18.510	18.510	0.0	0	975028	18.6			
466	18.510	18.510	0.0		732513		1.3- 1.3	1.3	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
16 DCB Decachlorobiphenyl									
498	20.421	20.420	0.001	0	1164591	10.1			
496	20.421	20.420	0.001		718100		0.9- 1.3	1.6	
500	20.421	20.420	0.001		871082		0.0- 0.0	1.3	
424	20.407	20.420	-0.013		269701		0.0- 0.0	4.3	
426	20.407	20.420	-0.013		610746		0.0- 0.0	1.9	
428	20.407	20.420	-0.013		689589		0.0- 0.0	1.7	
430	20.407	20.420	-0.013		462664		0.0- 0.0	2.5	

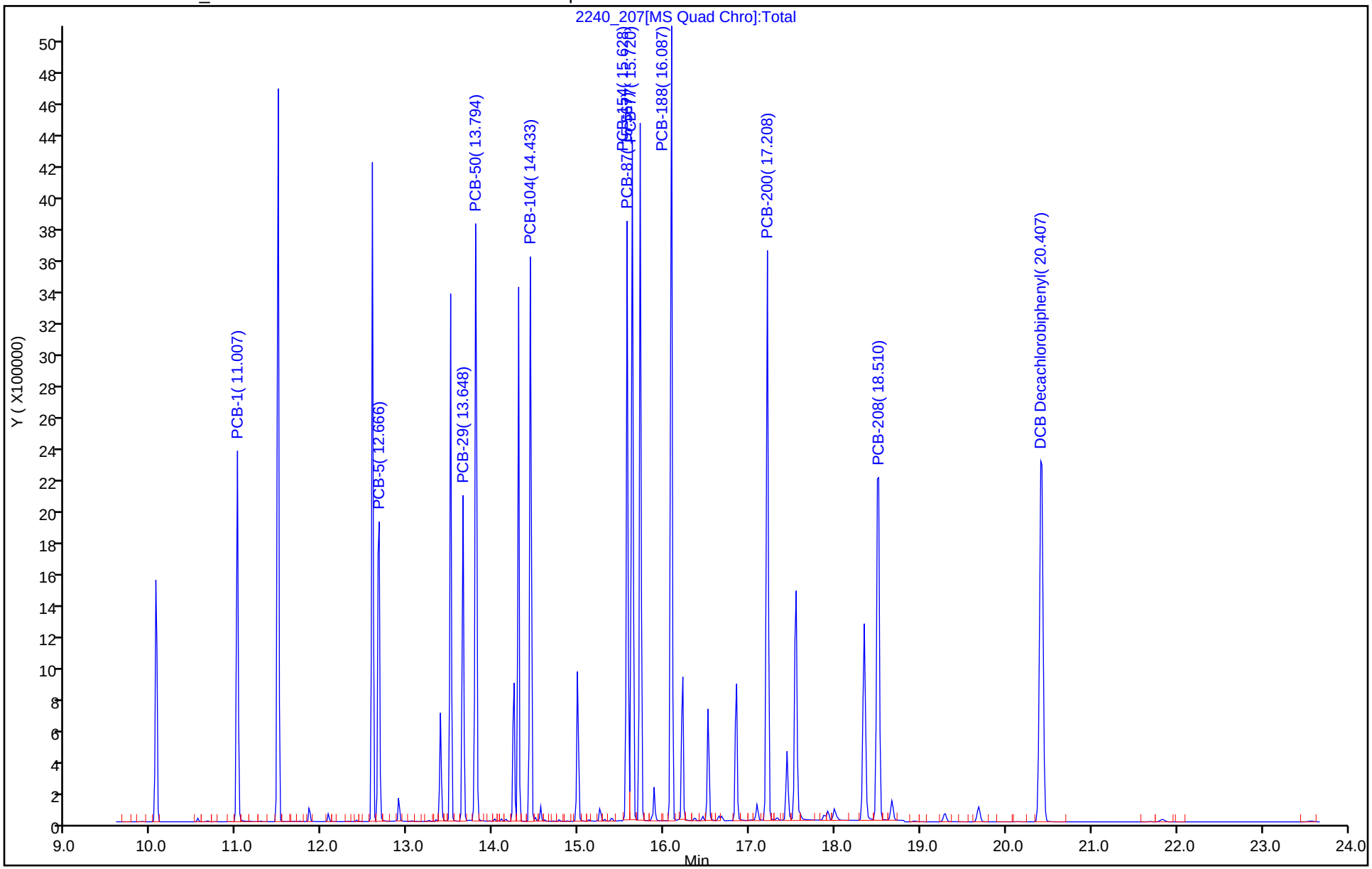
Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.08	Units: mL	
HRM_680_PS_00001	Amount Added:	0.08	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.08	Units: mL	
HRM_68013C138_00004	Amount Added:	0.08	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

Report Date: 12-Aug-2020 00:13:33 Chrom Revision: 2.3 10-Aug-2020 14:39:50

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_207.D				
Injection Date:	11-Aug-2020 17:00:31	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	IC CAL68041937E STD4			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D
Lims ID: IC CAL68051937E STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 11-Aug-2020 17:28:47 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CAL68052037A;STD_5;1;1;STD;
Misc. Info.: ;primary.sub;, 5
Operator ID: ads01731 Instrument ID: 21949
Sublist: chrom-680_21949*sub7

Method: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\680_21949.m
Limit Group: HR - 680
Last Update: 12-Aug-2020 00:13:33 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1040

First Level Reviewer: sneeringera Date: 12-Aug-2020 00:12:00

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	783525	0.7500	
* 2 Chrysene-d12	240	17.437	17.438	-0.001	0	653123	0.7500	
$ 3 PCB-52L	232	14.231	14.244	-0.013	0	1500772	4.77	
$ 4 PCB-138L	372	16.526	16.526	0.0	0	1166443	4.72	
5 PCB-1	188	11.007	11.007	0.0	0	3845752	4.47	
6 PCB-5	222	12.665	12.665	0.0	0	2911809	4.67	
7 PCB-29	256	13.647	13.647	0.0	0	2117025	4.82	
8 PCB-50	292	13.806	13.806	0.0	0	2605445	9.70	
9 PCB-104	326	14.433	14.433	0.0	0	2926146	19.6	
10 PCB-87	326	15.566	15.566	0.0	0	2304204	9.94	
11 PCB-154	360	15.627	15.627	0.0	0	2451583	10.1	
12 PCB-77	292	15.719	15.719	0.0	0	4191663	18.6	
13 PCB-188	394	16.087	16.087	0.0	0	3340594	15.5	
14 PCB-200	430	17.208	17.208	0.0	0	2691621	15.3	
15 PCB-208	464	18.510	18.510	0.0	0	2238783	44.3	
16 DCB Decachlorobiphenyl	498	20.420	20.420	0.0	0	2387607	21.4	
S 52 Total Pentachlorobiphenyls	326		0.0				0	
S 53 Total Hexachlorobiphenyls	360		0.0				0	
S 55 Total Tetrachlorobiphenyls	292		0.0				0	
S 56 Total Trichlorobiphenyls	256		0.0				0	
S 57 Total Dichlorobiphenyls	222		0.0				0	
S 58 Total Octachlorobiphenyls	430		0.0				0	
S 59 Total Heptachlorobiphenyls	394		0.0				0	

Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.20	Units: mL	
HRM_680_PS_00001	Amount Added:	0.20	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.20	Units: mL	
HRM_68013C138_00004	Amount Added:	0.20	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	783525	0.7500			
186	13.382	13.382	0.0		57049		15.0- 25.0	13.7	
* 2 Chrysene-d12									
240	17.437	17.438	-0.001	0	653123	0.7500			
241	17.437	17.438	-0.001		121751		10.0- 22.0	5.4	
$ 3 PCB-52L									
232	14.231	14.244	-0.013	0	1500772	4.77			
304	14.244	14.244	0.0		1423486		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.526	16.526	0.0	0	1166443	4.72			
302	16.511	16.526	-0.015		986679		1.2- 1.2	1.2	
5 PCB-1									
188	11.007	11.007	0.0	0	3845752	4.47			
190	11.007	11.007	0.0		1302838		3.0- 3.0	3.0	
6 PCB-5									
222	12.665	12.665	0.0	0	2911809	4.67			
224	12.665	12.665	0.0		1917781		1.5- 1.5	1.5	
7 PCB-29									
256	13.647	13.647	0.0	0	2117025	4.82			
258	13.647	13.647	0.0		2078562		1.0- 1.0	1.0	
8 PCB-50									
292	13.806	13.806	0.0	0	2605445	9.70			
290	13.793	13.806	-0.013		2024042		1.3- 1.3	1.3	
9 PCB-104									
326	14.433	14.433	0.0	0	2926146	19.6			
324	14.433	14.433	0.0		1811963		1.6- 1.6	1.6	
10 PCB-87									
326	15.566	15.566	0.0	0	2304204	9.94			
324	15.566	15.566	0.0		1428966		1.6- 1.6	1.6	
11 PCB-154									
360	15.627	15.627	0.0	0	2451583	10.1			
360	15.627	15.627	0.0		2451583		1.0- 1.0	1.0	
12 PCB-77									
292	15.719	15.719	0.0	0	4191663	18.6			
290	15.719	15.719	0.0		3236980		1.3- 1.3	1.3	
13 PCB-188									
394	16.087	16.087	0.0	0	3340594	15.5			
396	16.087	16.087	0.0		3188269		1.0- 1.0	1.0	
14 PCB-200									
430	17.208	17.208	0.0	0	2691621	15.3			
428	17.208	17.208	0.0		2412854		1.1- 1.1	1.1	
15 PCB-208									
464	18.510	18.510	0.0	0	2238783	44.3			
466	18.510	18.510	0.0		1682931		1.3- 1.3	1.3	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
16 DCB Decachlorobiphenyl									
498	20.420	20.420	0.0	0	2387607	21.4			
496	20.420	20.420	0.0		1473628		0.9- 1.3	1.6	
500	20.420	20.420	0.0		1786064		0.0- 0.0	1.3	
424	20.406	20.420	-0.014		576191		0.0- 0.0	4.1	
426	20.420	20.420	0.0		1302916		0.0- 0.0	1.8	
428	20.420	20.420	0.0		1463740		0.0- 0.0	1.6	
430	20.420	20.420	0.0		953172		0.0- 0.0	2.5	

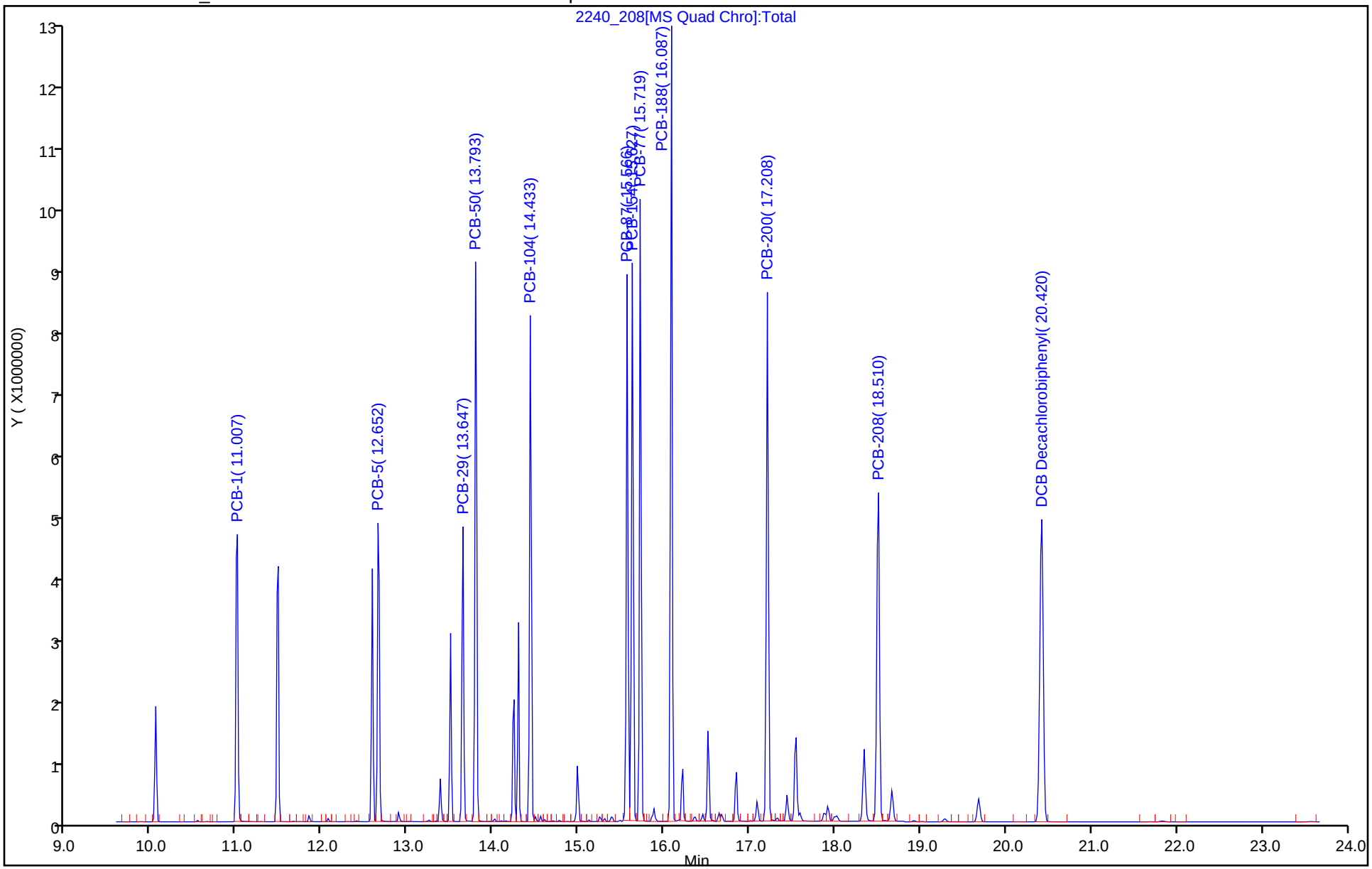
Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.20	Units: mL	
HRM_680_PS_00001	Amount Added:	0.20	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.20	Units: mL	
HRM_68013C138_00004	Amount Added:	0.20	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

Report Date: 12-Aug-2020 00:13:33 Chrom Revision: 2.3 10-Aug-2020 14:39:50

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D				
Injection Date:	11-Aug-2020 17:28:47	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	IC CAL68051937E STD5			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



09/04/2020

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 410-32133/9 Calibration Date: 08/11/2020 17:57

Instrument ID: 21949 Calib Start Date: 08/11/2020 15:35

GC Column: VF-5MS ID: 0.25(mm) Calib End Date: 08/11/2020 17:28

Lab File ID: 2240_209.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-104	Ave	0.1711	0.3573		5220	2500	108.8*	20.0
PCB-77	Ave	0.2159	0.4600		5330	2500	113.0*	20.0
PCB-208	Ave	0.0580	0.1340		11600	5000	131.1*	20.0
DCB Decachlorobiphenyl	Ave	0.1278	0.1228		6030	6280	-4.0	20.0
PCB-52L	Ave	0.3015	0.3045		1260	1250	1.0	
PCB-138L	Ave	0.2836	0.2723		1200	1250	-4.0	

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_209.D
Lims ID: ICV CAL6801937C
Client ID:
Sample Type: ICV
Inject. Date: 11-Aug-2020 17:57:03 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CAL68020337A;ICV;1;3;ICV;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949
Sublist:

Method: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\680_21949.m
Limit Group: HR - 680
Last Update: 12-Aug-2020 10:05:11 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1019

First Level Reviewer: sneeringera Date: 12-Aug-2020 00:13:29

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.329	0.053	0	729723	0.7500	
* 2 Chrysene-d12	240	17.438	17.744	-0.306	0	649657	0.7500	
$ 3 PCB-52L	232	14.231	14.244	-0.013	0	370389	1.26	
$ 4 PCB-138L	372	16.511	16.526	-0.015	0	294863	1.20	
9 PCB-104	326	14.433	14.448	-0.015	0	773751	5.22	
12 PCB-77	292	15.719	15.734	-0.015	0	1118981	5.33	
15 PCB-208	464	18.510	18.510	0.0	0	580334	11.6	
16 DCB Decachlorobiphenyl	498	20.406	20.434	-0.028	0	667461	6.03	
A 31 Total Monochlorobiphenyls	188	11.372	10.947	-11.796	0	1064277	1.33	
A 33 Dichlorobiphenyl range	222	12.678	11.968	-13.389	0	815430	1.40	
A 32 Cl2 M+35	221		11.968	13.389			0	U
A 36 Trichlorobiphenyl range	256	13.766	12.871	-14.661	0	539670	1.32	
A 34 Cl3 M+70	254		12.871	14.661			0	U
A 35 Cl3 M+35	253		12.871	14.661			0	
A 39 Tetrachlorobiphenyl range	292	14.704	13.614	-15.794	0	641318	2.56	
A 38 Cl4 M+70	288		13.614	15.794			0	U
A 37 Cl4 M+35	289		13.614	15.794			0	U
A 41 Cl5 M+35	323		14.388	16.747			0	U
A 42 Pentachlorobiphenyl range	326	15.567	14.388	-16.747	0	607652	2.63	
A 40 Cl5 M+70	322		14.388	16.747			0	U
A 43 Hexachlorobiphenyl range	360	16.448	15.077	-17.819	0	622035	2.58	
A 45 Cl6 M+35	357		15.077	17.819			0	U
A 44 Cl6 M+70	356		15.077	17.819			0	U
A 46 Heptachlorobiphenyl range	394	17.214	16.041	-18.386	0	823564	3.85	
A 47 Cl7 M+70	390		16.041	18.386			0	
A 48 Cl7 M+35	391		16.041	18.386			0	U
A 49 Cl8 M+35	425		17.040	19.099			0	U
A 50 Octachlorobiphenyl range	430	18.070	17.040	-19.099	0	681146	3.90	
S 52 Total Pentachlorobiphenyls	326				0		2.63	
S 53 Total Hexachlorobiphenyls	360				0		2.58	

Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
S 55 Total Tetrachlorobiphenyls			292		0	2.56	
S 56 Total Trichlorobiphenyls			256		0	1.32	
S 57 Total Dichlorobiphenyls			222		0	1.40	
S 58 Total Octachlorobiphenyls			430		0	3.90	
S 59 Total Heptachlorobiphenyls			394		0	3.85	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.05	Units: mL	
HRM_680_SS_ST_00001	Amount Added:	0.05	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.05	Units: mL	
HRM_68013C138_00004	Amount Added:	0.05	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.329	0.053	0	729723	0.7500			
186	13.382	13.329	0.053		53148		15.0- 25.0	13.7	
* 2 Chrysene-d12									
240	17.438	17.744	-0.306	0	649657	0.7500			
241	17.438	17.744	-0.306		119787		10.0- 22.0	5.4	
$ 3 PCB-52L									
232	14.231	14.244	-0.013	0	370389	1.26			
304	14.244	14.244	0.0		351160		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.526	-0.015	0	294863	1.20			
302	16.511	16.526	-0.015		237484		1.2- 1.2	1.2	
9 PCB-104									
326	14.433	14.448	-0.015	0	773751	5.22			
324	14.433	14.448	-0.015		484116		1.6- 1.6	1.6	
12 PCB-77									
292	15.719	15.734	-0.015	0	1118981	5.33			
290	15.719	15.734	-0.015		873724		1.3- 1.3	1.3	
15 PCB-208									
464	18.510	18.510	0.0	0	580334	11.6			
466	18.510	18.510	0.0		433714		1.3- 1.3	1.3	
16 DCB Decachlorobiphenyl									
498	20.406	20.434	-0.028	0	667461	6.03			
496	20.406	20.434	-0.028		414463		0.9- 1.3	1.6	
500	20.420	20.434	-0.014		496062		0.0- 0.0	1.3	
424	20.406	20.434	-0.028		153871		0.0- 0.0	4.3	
426	20.406	20.434	-0.028		346738		0.0- 0.0	1.9	
428	20.406	20.434	-0.028		388145		0.0- 0.0	1.7	
430	20.406	20.434	-0.028		265151		0.0- 0.0	2.5	
A 31 Total Monochlorobiphenyls									
188	11.007	10.947	-11.796	0	1064277	1.33			
190	11.007				351997		2.5- 3.5	3.0	
152	11.007				577586		0.0- 0.0	0.6	
153	11.007				245120		0.0- 0.0	1.4	
A 33 Dichlorobiphenyl range									
222	12.586	11.968	-13.389	0	815430	1.40			
224	12.586				77433		0.0- 0.0	10.5	
186	12.586				4736		0.0- 0.0	16.3	
188	12.586				1180		0.0- 0.0	65.6	
A 36 Trichlorobiphenyl range									
256	13.647	12.871	-14.661	0	539670	1.32			
258	13.647				525401		0.0- 0.0	1.0	
186	13.634				398837		0.0- 0.0	1.3	
188	13.647				130051		0.0- 0.0	4.0	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
A 39 Tetrachlorobiphenyl range									
292	13.806	13.614	-15.794	0	641318	2.56			
290	13.806				500397		0.0- 0.0	1.3	
294	13.806				308923		0.0- 0.0		
220	13.793				725554		0.0- 0.0	0.7	
222	13.793				482105		0.0- 0.0	1.0	
A 42 Pentachlorobiphenyl range									
326	15.566	14.388	-16.747	0	607652	2.63			
324	15.566				381056		0.0- 0.0	1.6	
328	15.566				390530		0.0- 0.0		
254	15.566				559308		0.0- 0.0	0.7	
256	15.566				543126		0.0- 0.0	0.7	
A 43 Hexachlorobiphenyl range									
360	15.627	15.077	-17.819	0	622035	2.58			
362	15.627				495420		0.0- 0.0	1.3	
358	15.627				437785		0.0- 0.0		
288	15.627				409673		0.0- 0.0	1.2	
290	15.627				530069		0.0- 0.0	0.9	
A 46 Heptachlorobiphenyl range									
394	16.087	16.041	-18.386	0	823564	3.85			
396	16.087				787398		0.0- 0.0	1.0	
398	16.087				417929		0.0- 0.0		
392	16.087				367741		0.0- 0.0		
322	16.072				371471		0.0- 0.0	2.1	
324	16.087				596632		0.0- 0.0	1.3	
A 50 Octachlorobiphenyl range									
430	17.208	17.040	-19.099	0	681146	3.90			
428	17.208				610307		0.0- 0.0	1.1	
432	17.208				427484		0.0- 0.0		
356	17.208				284430		0.0- 0.0	2.1	
358	17.208				478630		0.0- 0.0	1.3	
360	17.208				377439		0.0- 0.0	1.6	
S 52 Total Pentachlorobiphenyls									
326				0		2.63			
S 53 Total Hexachlorobiphenyls									
360				0		2.58			
S 55 Total Tetrachlorobiphenyls									
292				0		2.56			
S 56 Total Trichlorobiphenyls									
256				0		1.32			
S 57 Total Dichlorobiphenyls									
222				0		1.40			

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
S 58 Total Octachlorobiphenyls									
430				0		3.90			
S 59 Total Heptachlorobiphenyls									
394				0		3.85			

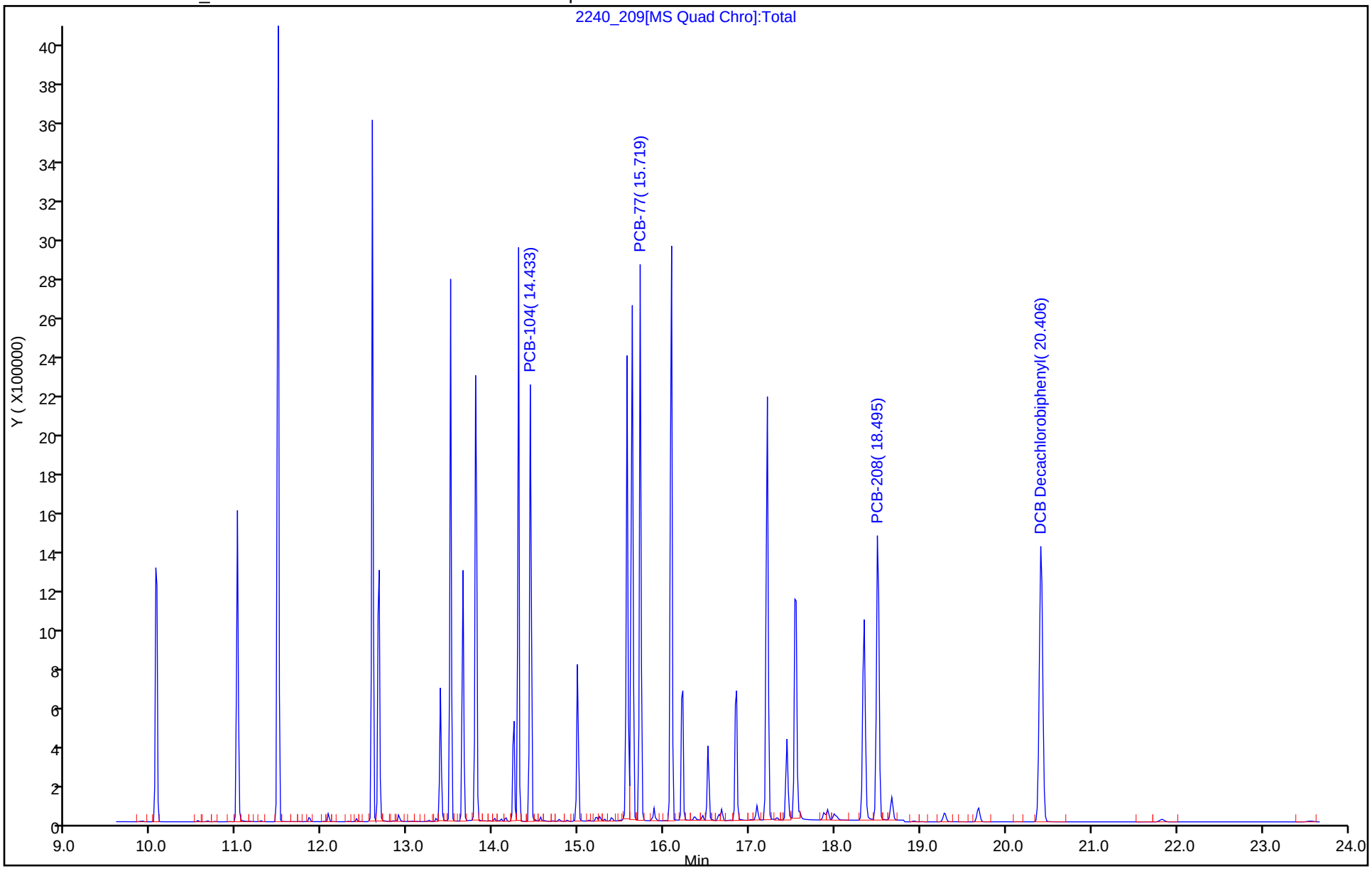
Reagents:

HRM_680_RT_ST_00001	Amount Added:	0.05	Units: mL	
HRM_680_SS_ST_00001	Amount Added:	0.05	Units: mL	
HRM_680_13C52_00004	Amount Added:	0.05	Units: mL	
HRM_68013C138_00004	Amount Added:	0.05	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

Report Date: 12-Aug-2020 10:05:14 Chrom Revision: 2.3 10-Aug-2020 14:39:50

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_209.D				
Injection Date:	11-Aug-2020 17:57:03	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	ICV CAL6801937C			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVIS 410-34909/3 Calibration Date: 08/19/2020 12:08

Instrument ID: 21949 Calib Start Date: 08/11/2020 15:35

GC Column: VF-5MS ID: 0.25(mm) Calib End Date: 08/11/2020 17:28

Lab File ID: 2320_003.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	Ave	0.8244	0.8415		1020	1000	2.1	20.0
PCB-5	Ave	0.5966	0.6099		1020	1000	2.2	20.0
PCB-29	Ave	0.4206	0.4135		983	1000	-1.7	20.0
PCB-50	Ave	0.2572	0.2465		1920	2000	-4.2	20.0
PCB-104	Ave	0.1711	0.1682		3930	4000	-1.7	20.0
PCB-87	Ave	0.2663	0.2618		1970	2000	-1.7	20.0
PCB-154	Ave	0.2787	0.2525		1810	2000	-9.4	20.0
PCB-77	Ave	0.2159	0.2141		3970	4000	-0.9	20.0
PCB-188	Ave	0.2467	0.2341		2850	3000	-5.1	20.0
PCB-200	Ave	0.2017	0.1899		2820	3000	-5.8	20.0
PCB-208	Ave	0.0580	0.0583		9060	9000	0.6	20.0
DCB Decachlorobiphenyl	Ave	0.1278	0.1331		5200	5000	4.1	20.0
PCB-52L	Ave	0.3015	0.2936		974	1000	-2.6	20.0
PCB-138L	Ave	0.2836	0.2441		860	1000	-14.0	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_003.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Aug-2020 12:08:18 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV;410-007668-016;1;2;CCV;
Misc. Info.: ;primary.sub;, 1
Operator ID: ads01731 Instrument ID: 21949
Sublist: chrom-680_21949*sub7

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

	Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
*	1 Phenanthrene-d10	188	13.382	13.382	0.0	0	629194	0.7500	
*	2 Chrysene-d12	240	17.438	17.438	0.0	0	563931	0.7500	
$	3 PCB-52L	232	14.231	14.231	0.0	0	246301	0.9739	
$	4 PCB-138L	372	16.511	16.511	0.0	0	183517	0.8605	
	5 PCB-1	188	11.007	11.007	0.0	0	705915	1.02	
	6 PCB-5	222	12.665	12.665	0.0	0	511657	1.02	
	7 PCB-29	256	13.647	13.647	0.0	0	346884	0.9830	
	8 PCB-50	292	13.793	13.793	0.0	0	413536	1.92	
	9 PCB-104	326	14.433	14.433	0.0	0	505756	3.93	
	10 PCB-87	326	15.566	15.566	0.0	0	393746	1.97	
	11 PCB-154	360	15.627	15.627	0.0	0	379702	1.81	
	12 PCB-77	292	15.719	15.719	0.0	0	718291	3.97	
	13 PCB-188	394	16.087	16.087	0.0	0	528019	2.85	
	14 PCB-200	430	17.208	17.208	0.0	0	428464	2.82	
	15 PCB-208	464	18.495	18.495	0.0	0	394835	9.06	
	16 DCB Decachlorobiphenyl	498	20.406	20.406	0.0	0	500349	5.20	
A	31 Total Monochlorobiphenyls	188	11.372	10.947	-11.797	0	719097	1.04	
S	52 Total Pentachlorobiphenyls	326		0.0				0	
S	53 Total Hexachlorobiphenyls	360		0.0				0	
S	55 Total Tetrachlorobiphenyls	292		0.0				0	
S	56 Total Trichlorobiphenyls	256		0.0				0	
S	57 Total Dichlorobiphenyls	222		0.0				0	
S	58 Total Octachlorobiphenyls	430		0.0				0	
S	59 Total Heptachlorobiphenyls	394		0.0				0	

Reagents:

HRM_680_PS_00001	Amount Added:	0.04	Units: mL
HRM_680_RT_ST_00001	Amount Added:	0.04	Units: mL
HRM_68013C138_00006	Amount Added:	0.04	Units: mL
HRM_680_13C52_00006	Amount Added:	0.04	Units: mL
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	629194	0.7500			
186	13.382	13.382	0.0		45635		15.0- 25.0	13.8	
* 2 Chrysene-d12									
240	17.438	17.438	0.0	0	563931	0.7500			
241	17.438	17.438	0.0		105868		10.0- 22.0	5.3	
$ 3 PCB-52L									
232	14.231	14.231	0.0	0	246301	0.9739			
304	14.244	14.231	0.013		230236		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.511	0.0	0	183517	0.8605			
302	16.511	16.511	0.0		160815		1.2- 1.2	1.1	
5 PCB-1									
188	11.007	11.007	0.0	0	705915	1.02			
190	11.007	11.007	0.0		233168		3.0- 3.0	3.0	
6 PCB-5									
222	12.665	12.665	0.0	0	511657	1.02			
224	12.665	12.665	0.0		331110		1.5- 1.5	1.5	
7 PCB-29									
256	13.647	13.647	0.0	0	346884	0.9830			
258	13.647	13.647	0.0		335396		1.0- 1.0	1.0	
8 PCB-50									
292	13.793	13.793	0.0	0	413536	1.92			
290	13.793	13.793	0.0		324344		1.3- 1.3	1.3	
9 PCB-104									
326	14.433	14.433	0.0	0	505756	3.93			
324	14.433	14.433	0.0		315610		1.6- 1.6	1.6	
10 PCB-87									
326	15.566	15.566	0.0	0	393746	1.97			
324	15.566	15.566	0.0		246447		1.6- 1.6	1.6	
11 PCB-154									
360	15.627	15.627	0.0	0	379702	1.81			
360	15.627	15.627	0.0		379702		1.0- 1.0	1.0	
12 PCB-77									
292	15.719	15.719	0.0	0	718291	3.97			
290	15.719	15.719	0.0		560128		1.3- 1.3	1.3	
13 PCB-188									
394	16.087	16.087	0.0	0	528019	2.85			
396	16.087	16.087	0.0		508330		1.0- 1.0	1.0	
14 PCB-200									
430	17.208	17.208	0.0	0	428464	2.82			
428	17.208	17.208	0.0		390324		1.1- 1.1	1.1	
15 PCB-208									
464	18.495	18.495	0.0	0	394835	9.06			
466	18.495	18.495	0.0		295673		1.3- 1.3	1.3	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
16 DCB Decachlorobiphenyl									
498	20.406	20.406	0.0	0	500349	5.20			
496	20.406	20.406	0.0		309245		0.9- 1.3	1.6	
500	20.406	20.406	0.0		374055		0.0- 0.0	1.3	
424	20.406	20.406	0.0		114325		0.0- 0.0	4.4	
426	20.406	20.406	0.0		259476		0.0- 0.0	1.9	
428	20.406	20.406	0.0		292158		0.0- 0.0	1.7	
430	20.406	20.406	0.0		185275		0.0- 0.0	2.7	
A 31 Total Monochlorobiphenyls									
188	11.007	10.947	-11.797	0	705915	1.02			
190	11.007				233168		2.5- 3.5	3.0	
152	11.007				381973		0.0- 0.0	0.6	
153	11.007				161953		0.0- 0.0	1.4	
188	11.047	10.947	-11.797	0	13182	0.0191			
190	11.047				4292		2.5- 3.5	3.1	
152	11.047				6739		0.0- 0.0	0.6	
153	11.047				2235		0.0- 0.0	1.9	

Reagents:

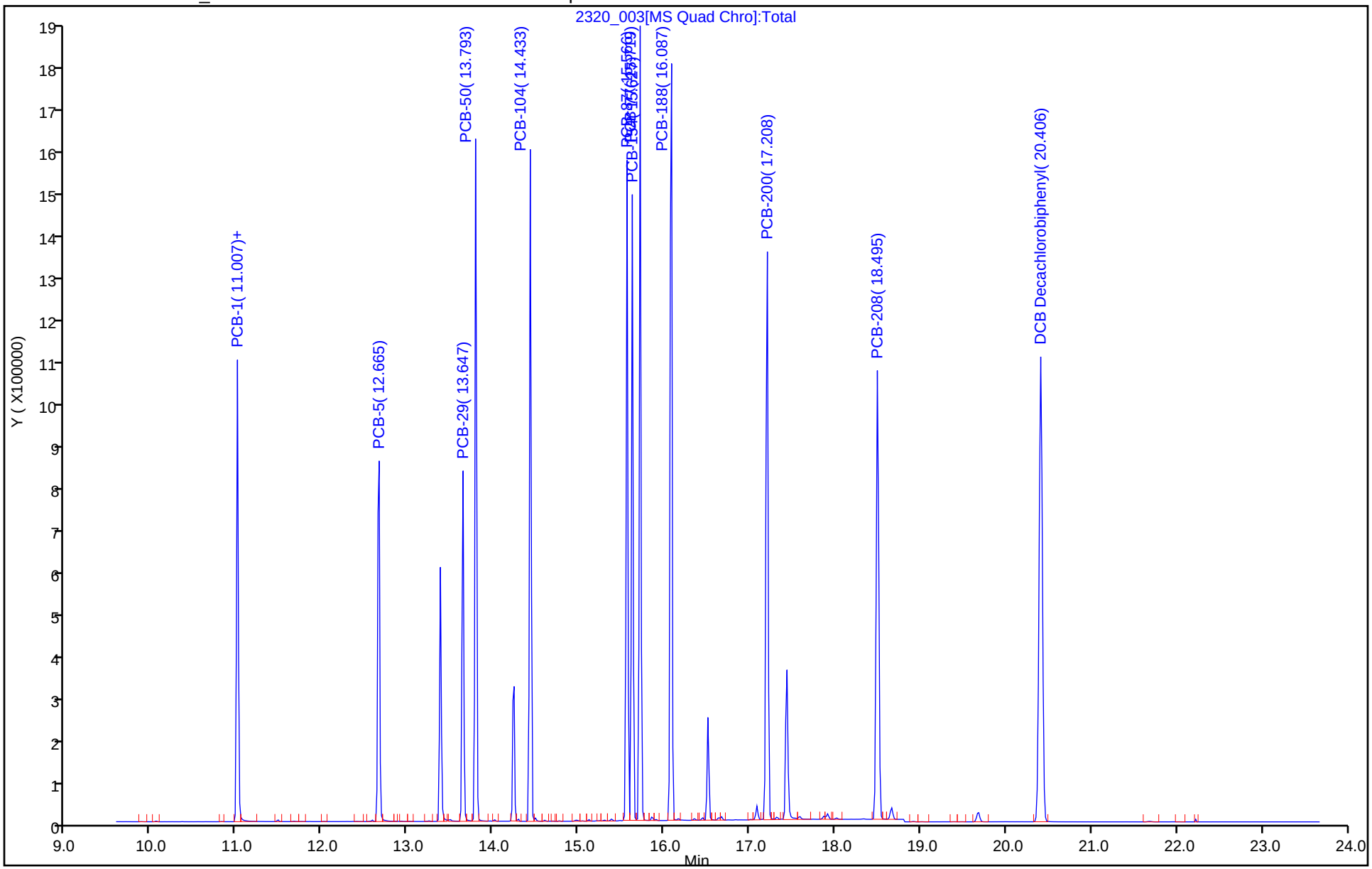
HRM_680_PS_00001	Amount Added:	0.04	Units: mL
HRM_680_RT_ST_00001	Amount Added:	0.04	Units: mL
HRM_68013C138_00006	Amount Added:	0.04	Units: mL
HRM_680_13C52_00006	Amount Added:	0.04	Units: mL
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL

Report Date: 20-Aug-2020 11:33:13 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_003.D

Injection Date:	19-Aug-2020 12:08:18	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



09/04/2020

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCV 410-34909/9 Calibration Date: 08/19/2020 14:57

Instrument ID: 21949 Calib Start Date: 08/11/2020 15:35

GC Column: VF-5MS ID: 0.25(mm) Calib End Date: 08/11/2020 17:28

Lab File ID: 2320_009.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	Ave	0.8244	0.8781		1070	1000	6.5	20.0
PCB-5	Ave	0.5966	0.6322		1060	1000	6.0	20.0
PCB-29	Ave	0.4206	0.4498		1070	1000	6.9	20.0
PCB-50	Ave	0.2572	0.2684		2090	2000	4.3	20.0
PCB-104	Ave	0.1711	0.1863		4360	4000	8.9	20.0
PCB-87	Ave	0.2663	0.2935		2200	2000	10.2	20.0
PCB-154	Ave	0.2787	0.2839		2040	2000	1.9	20.0
PCB-77	Ave	0.2159	0.2351		4350	4000	8.9	20.0
PCB-188	Ave	0.2467	0.2618		3180	3000	6.1	20.0
PCB-200	Ave	0.2017	0.2167		3220	3000	7.4	20.0
PCB-208	Ave	0.0580	0.0660		10200	9000	13.8	20.0
DCB Decachlorobiphenyl	Ave	0.1278	0.1451		5670	5000	13.5	20.0
PCB-52L	Ave	0.3015	0.3269		1080	1000	8.4	20.0
PCB-138L	Ave	0.2836	0.2795		985	1000	-1.5	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_009.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-Aug-2020 14:57:57 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV;410-008447-009;1;2;CCV;
Misc. Info.: ;primary.sub;, 1
Operator ID: ads01731 Instrument ID: 21949
Sublist: chrom-680_21949*sub7

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:19 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

First Level Reviewer: sneeringera Date: 20-Aug-2020 11:32:56

	Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
*	1 Phenanthrene-d10	188	13.382	13.382	0.0	0	492712	0.7500	
*	2 Chrysene-d12	240	17.437	17.438	-0.001	0	433122	0.7500	
$	3 PCB-52L	232	14.231	14.231	0.0	0	214780	1.08	
$	4 PCB-138L	372	16.511	16.511	0.0	0	161427	0.9855	
	5 PCB-1	188	11.007	11.007	0.0	0	576883	1.07	
	6 PCB-5	222	12.665	12.665	0.0	0	415332	1.06	
	7 PCB-29	256	13.647	13.647	0.0	0	295525	1.07	
	8 PCB-50	292	13.793	13.793	0.0	0	352614	2.09	
	9 PCB-104	326	14.433	14.433	0.0	0	430393	4.36	
	10 PCB-87	326	15.566	15.566	0.0	0	339036	2.20	
	11 PCB-154	360	15.627	15.627	0.0	0	327853	2.04	
	12 PCB-77	292	15.719	15.719	0.0	0	617709	4.35	
	13 PCB-188	394	16.087	16.087	0.0	0	453497	3.18	
	14 PCB-200	430	17.208	17.208	0.0	0	375401	3.22	
	15 PCB-208	464	18.510	18.495	0.015	0	343013	10.2	
	16 DCB Decachlorobiphenyl	498	20.406	20.406	0.0	0	418945	5.67	
A	31 Total Monochlorobiphenyls	188	11.372	10.947	-11.797	0	586493	1.08	
S	52 Total Pentachlorobiphenyls	326		0.0				0	
S	53 Total Hexachlorobiphenyls	360		0.0				0	
S	55 Total Tetrachlorobiphenyls	292		0.0				0	
S	56 Total Trichlorobiphenyls	256		0.0				0	
S	57 Total Dichlorobiphenyls	222		0.0				0	
S	58 Total Octachlorobiphenyls	430		0.0				0	
S	59 Total Heptachlorobiphenyls	394		0.0				0	

Reagents:

HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL
HRM_680_PS_00001	Amount Added:	0.04	Units: mL
HRM_680_RT_ST_00001	Amount Added:	0.04	Units: mL
HRM_68013C138_00006	Amount Added:	0.04	Units: mL
HRM_680_13C52_00006	Amount Added:	0.04	Units: mL

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	492712	0.7500			
186	13.382	13.382	0.0		37156		15.0- 25.0	13.3	
* 2 Chrysene-d12									
240	17.437	17.438	-0.001	0	433122	0.7500			
241	17.437	17.438	-0.001		80768		10.0- 22.0	5.4	
$ 3 PCB-52L									
232	14.231	14.231	0.0	0	214780	1.08			
304	14.244	14.231	0.013		198465		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.511	0.0	0	161427	0.9855			
302	16.511	16.511	0.0		141647		1.2- 1.2	1.1	
5 PCB-1									
188	11.007	11.007	0.0	0	576883	1.07			
190	11.007	11.007	0.0		190772		3.0- 3.0	3.0	
6 PCB-5									
222	12.665	12.665	0.0	0	415332	1.06			
224	12.665	12.665	0.0		268989		1.5- 1.5	1.5	
7 PCB-29									
256	13.647	13.647	0.0	0	295525	1.07			
258	13.647	13.647	0.0		285824		1.0- 1.0	1.0	
8 PCB-50									
292	13.793	13.793	0.0	0	352614	2.09			
290	13.793	13.793	0.0		275816		1.3- 1.3	1.3	
9 PCB-104									
326	14.433	14.433	0.0	0	430393	4.36			
324	14.433	14.433	0.0		268021		1.6- 1.6	1.6	
10 PCB-87									
326	15.566	15.566	0.0	0	339036	2.20			
324	15.566	15.566	0.0		212728		1.6- 1.6	1.6	
11 PCB-154									
360	15.627	15.627	0.0	0	327853	2.04			
360	15.627	15.627	0.0		327853		1.0- 1.0	1.0	
12 PCB-77									
292	15.719	15.719	0.0	0	617709	4.35			
290	15.719	15.719	0.0		480161		1.3- 1.3	1.3	
13 PCB-188									
394	16.087	16.087	0.0	0	453497	3.18			
396	16.087	16.087	0.0		435749		1.0- 1.0	1.0	
14 PCB-200									
430	17.208	17.208	0.0	0	375401	3.22			
428	17.208	17.208	0.0		339617		1.1- 1.1	1.1	
15 PCB-208									
464	18.510	18.495	0.015	0	343013	10.2			
466	18.510	18.495	0.015		256301		1.3- 1.3	1.3	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
16 DCB Decachlorobiphenyl									
498	20.406	20.406	0.0	0	418945	5.67			
496	20.406	20.406	0.0		258086		0.9- 1.3	1.6	
500	20.406	20.406	0.0		313682		0.0- 0.0	1.3	
424	20.406	20.406	0.0		93453		0.0- 0.0	4.5	
426	20.406	20.406	0.0		213272		0.0- 0.0	2.0	
428	20.406	20.406	0.0		240058		0.0- 0.0	1.7	
430	20.406	20.406	0.0		156010		0.0- 0.0	2.7	
A 31 Total Monochlorobiphenyls									
188	11.007	10.947	-11.797	0	576883	1.07			
190	11.007				190772		2.5- 3.5	3.0	
152	11.007				317653		0.0- 0.0	0.6	
153	11.007				136742		0.0- 0.0	1.4	
188	11.047	10.947	-11.797	0	9610	0.0177			
190	11.047				3611		2.5- 3.5	2.7	
152	11.047				5366		0.0- 0.0	0.7	
153	11.047				1938		0.0- 0.0	1.9	

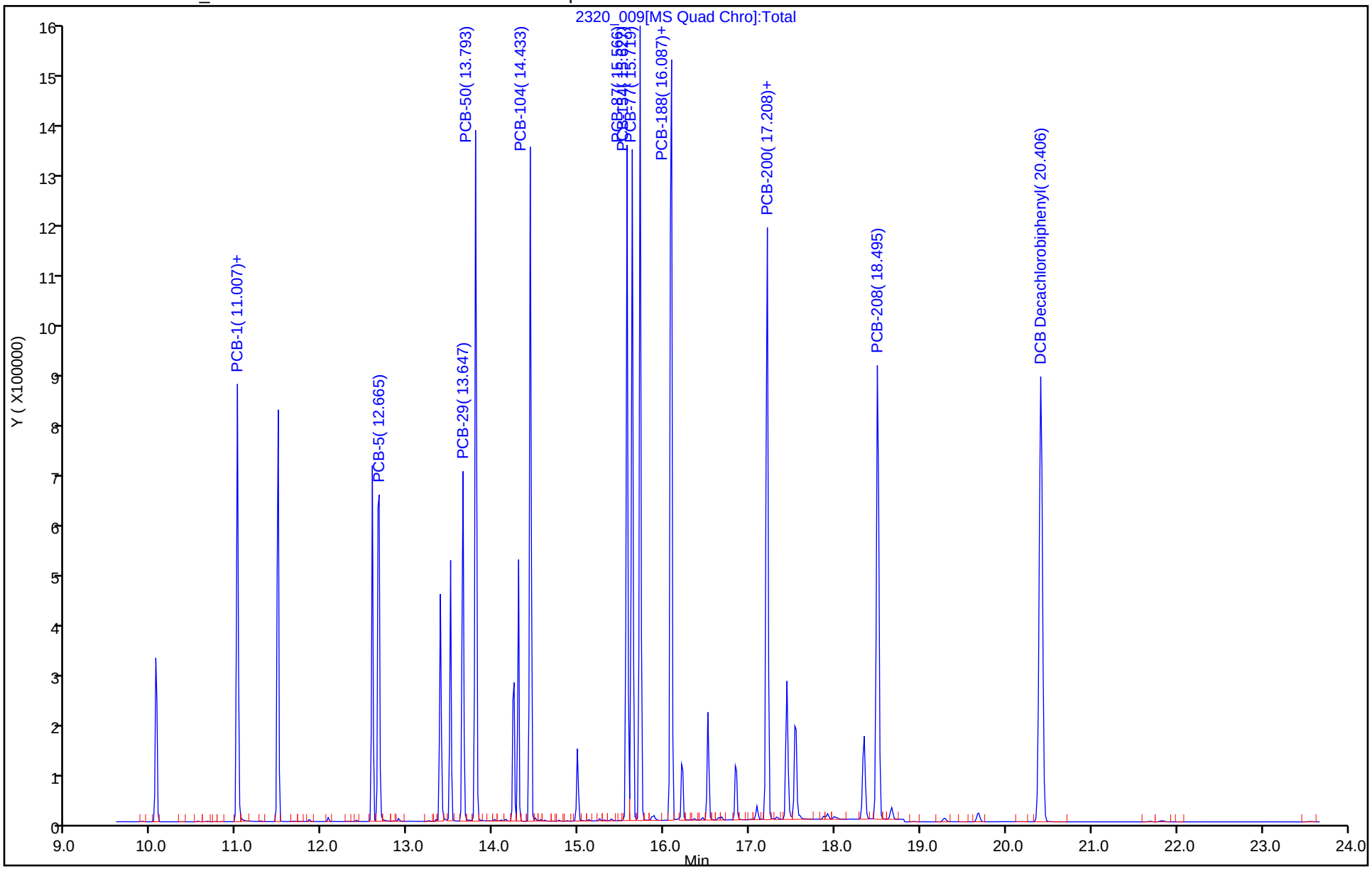
Reagents:

HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL
HRM_680_PS_00001	Amount Added:	0.04	Units: mL
HRM_680_RT_ST_00001	Amount Added:	0.04	Units: mL
HRM_68013C138_00006	Amount Added:	0.04	Units: mL
HRM_680_13C52_00006	Amount Added:	0.04	Units: mL

Report Date: 20-Aug-2020 11:33:19 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_009.D				
Injection Date:	19-Aug-2020 14:57:57	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	CCV			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



09/04/2020

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_201.D				
Lims ID:	DFTPP				
Client ID:	DFTPP1903137A				
Sample Type:	DFTPP				
Inject. Date:	11-Aug-2020 14:19:42	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	DFTPP2005634A;DFTPP2005634A;1;3;DFTPP;				
Misc. Info.:	;all;				
Operator ID:	ads01731	Instrument ID:	21949		
Method:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\680_21949.m				
Limit Group:	HR - 680				
Last Update:	12-Aug-2020 10:05:11	Calib Date:	11-Aug-2020 17:28:47		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D				
Column 1 :			Det: MS Quad		
Process Host:	CTX1019				

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188		13.329				0	
* 2 Chrysene-d12	240		17.744				0	
17 DFTPP								

Reagents:

D_00001	Amount Added:	1.00	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
17 DFTPP									
198	7.874	7.874	0.0	0	506248		-1.0- -1.0		

Reagents:

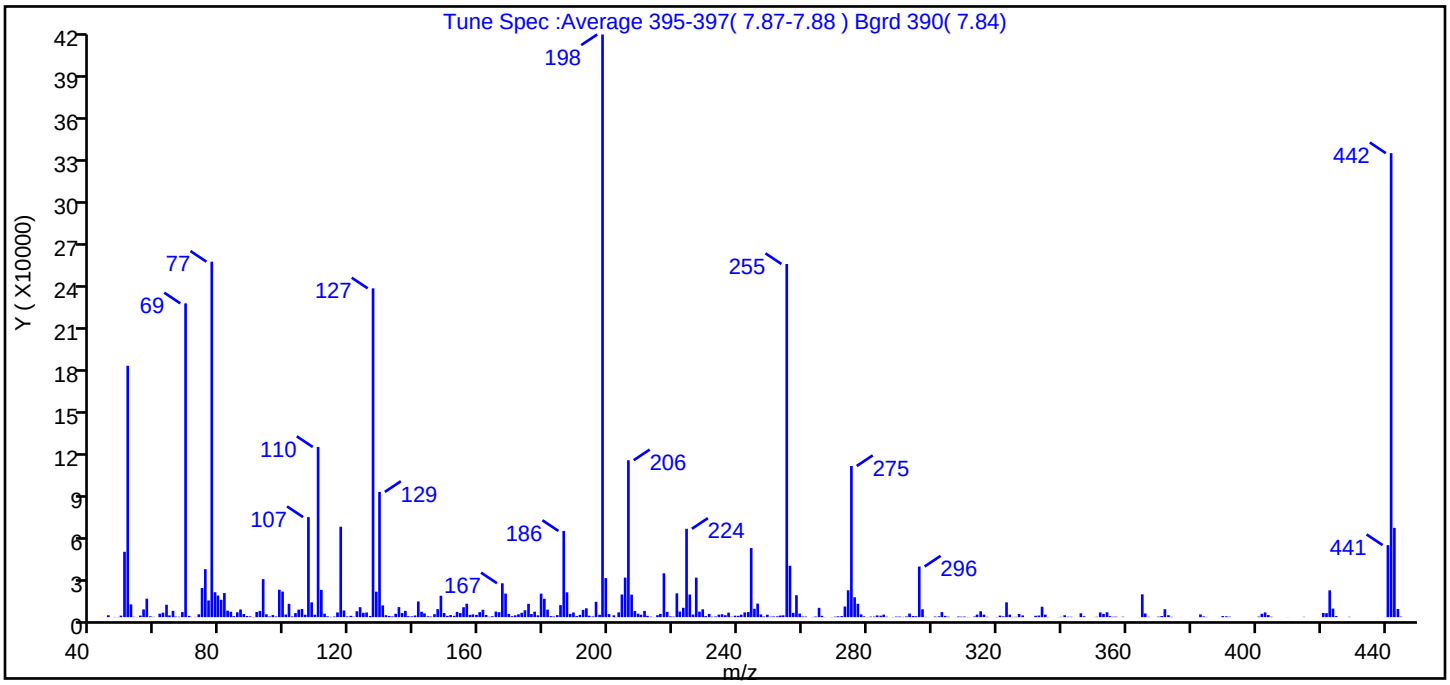
D_00001	Amount Added:	1.00	Units: mL	
HRM_680_IS_WS_00002	Amount Added:	0.02	Units: mL	Run Reagent

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_201.D				
Injection Date:	11-Aug-2020 14:19:42	Instrument ID:	21949		
Lims ID:	DFTPP				
Client ID:	DFTPP1903137A				
Operator ID:	ads01731	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	680_21949	Limit Group:	HR - 680		
Tune Method:	DFTPP Method 8270				

17 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	43.1
68	<2% of mass 69	0.9 (1.6)
69	Present	53.9
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	56.4
197	<1% of mass 198	0.4
199	5-9% of mass 198	6.7
275	10-30% of mass 198	25.9
365	>1% of mass 198	3.9
441	Present but less than mass 443	12.4 (80.7)
442	>40% of mass 198	79.6
443	17-23% of mass 442	15.3 (19.2)

Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_201.D\680_21949.rslt\spectra.d
Injection Date: 11-Aug-2020 14:19:42
Spectrum: Tune Spec :Average 395-397(7.87-7.88) Bgrd 390(7.84)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 332

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	1325	131.00	1351	214.00	51	299.00	58
47.00	145	132.00	847	215.00	1346	301.00	418
48.00	129	133.00	515	216.00	2319	302.00	579
49.00	1068	134.00	2355	217.00	30872	303.00	3575
50.00	45984	135.00	7073	218.00	3727	304.00	889
51.00	176896	136.00	2925	219.00	569	305.00	351
52.00	8968	137.00	4404	220.00	351	307.00	60
53.00	283	138.00	699	221.00	16768	308.00	452
54.00	124	139.00	577	222.00	3897	309.00	329
55.00	1100	140.00	1178	223.00	6575	310.00	424
56.00	5436	141.00	11049	224.00	62176	311.00	147
57.00	13003	142.00	3803	225.00	15923	312.00	70
58.00	571	143.00	2648	226.00	1840	313.00	456
59.00	218	144.00	632	227.00	27800	314.00	1792
61.00	2415	145.00	410	228.00	3890	315.00	4136
62.00	3168	146.00	2080	229.00	5514	316.00	1781
63.00	8725	147.00	5639	230.00	750	317.00	271
64.00	1210	148.00	15039	231.00	2285	320.00	141
65.00	4441	149.00	2899	232.00	287	321.00	1078
66.00	410	150.00	930	233.00	494	322.00	556
67.00	304	151.00	1462	234.00	1741	323.00	10418
68.00	3576	152.00	950	235.00	2038	324.00	1731
69.00	220864	153.00	3687	236.00	1333	325.00	153
70.00	871	154.00	2884	237.00	3190	326.00	262
72.00	188	155.00	7002	238.00	294	327.00	2217
73.00	1979	156.00	9469	239.00	1036	328.00	1185
74.00	20496	157.00	1583	240.00	921	329.00	12
75.00	33768	158.00	1956	241.00	1735	332.00	963
76.00	11739	159.00	1591	242.00	3319	333.00	1137
77.00	250176	160.00	3555	243.00	3583	334.00	7348
78.00	17544	161.00	5177	244.00	48632	335.00	1752
79.00	15239	162.00	1501	245.00	5903	336.00	101
80.00	12222	163.00	272	246.00	9530	339.00	93

Report Date: 12-Aug-2020 10:05:12 Chrom Revision: 2.3 10-Aug-2020 14:39:50
Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_201.D\680_21949.rslt\spectra.d
Injection Date: 11-Aug-2020 14:19:42
Spectrum: Tune Spec :Average 395-397(7.87-7.88) Bgrd 390(7.84)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 332

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	16968	164.00	652	247.00	1895	340.00	209
82.00	4579	165.00	3919	248.00	441	341.00	1322
83.00	3778	166.00	3490	249.00	1729	342.00	308
84.00	695	167.00	23856	250.00	341	343.00	260
85.00	3424	168.00	16592	251.00	508	346.00	2713
86.00	5398	169.00	2288	252.00	581	347.00	621
87.00	2166	170.00	700	253.00	1103	350.00	58
88.00	793	171.00	1282	254.00	1273	351.00	256
89.00	545	172.00	1999	255.00	248576	352.00	3338
90.00	136	173.00	3052	256.00	36152	353.00	2270
91.00	3598	174.00	4885	257.00	2998	354.00	3444
92.00	4384	175.00	9376	258.00	15440	355.00	705
93.00	26744	176.00	2183	259.00	2532	356.00	277
94.00	1998	177.00	3838	260.00	447	357.00	321
95.00	490	178.00	1295	261.00	415	359.00	315
96.00	1458	179.00	16552	263.00	154	364.00	67
97.00	467	180.00	12921	264.00	418	365.00	16057
98.00	19288	181.00	5281	265.00	6544	366.00	2572
99.00	17992	182.00	722	266.00	902	367.00	276
100.00	1834	183.00	467	267.00	97	370.00	345
101.00	9374	184.00	1414	268.00	5	371.00	772
102.00	513	185.00	8470	269.00	104	372.00	5601
103.00	2832	186.00	60680	270.00	344	373.00	1365
104.00	5281	187.00	17480	271.00	598	374.00	224
105.00	5740	188.00	2263	272.00	746	377.00	74
106.00	1696	189.00	3309	273.00	7498	383.00	1908
107.00	70424	190.00	764	274.00	18920	384.00	537
108.00	10411	191.00	1592	275.00	106376	385.00	162
109.00	1703	192.00	5130	276.00	13975	390.00	794
110.00	119760	193.00	6237	277.00	9439	391.00	607
111.00	19208	194.00	999	278.00	1929	392.00	345
112.00	2393	195.00	506	279.00	570	401.00	390
113.00	600	196.00	10809	280.00	67	402.00	2376
114.00	202	197.00	1674	281.00	375	403.00	3330

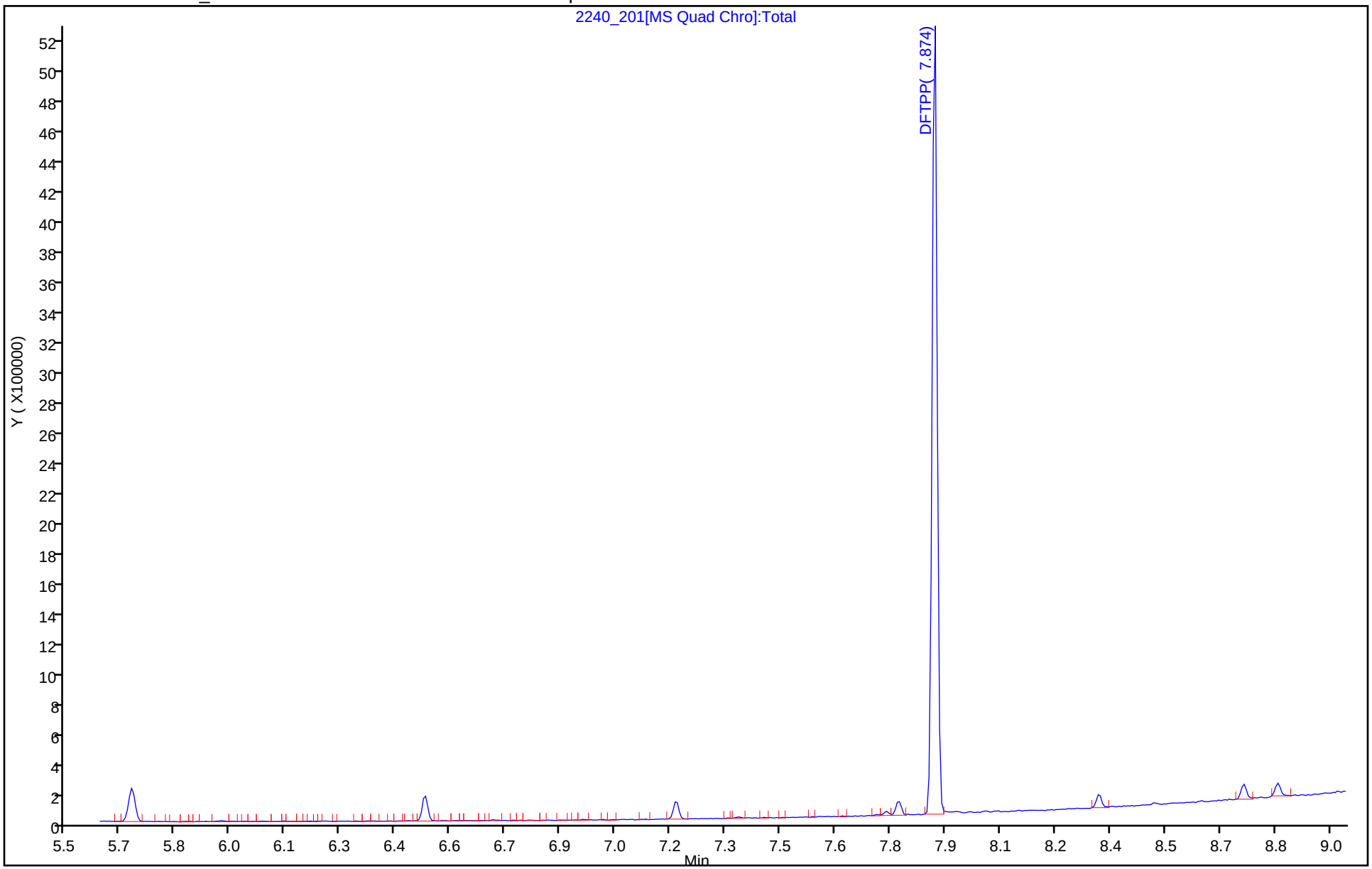
Report Date: 12-Aug-2020 10:05:12 Chrom Revision: 2.3 10-Aug-2020 14:39:50
Data File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_201.D\680_21949.rslt\spectra.d
Injection Date: 11-Aug-2020 14:19:42
Spectrum: Tune Spec :Average 395-397(7.87-7.88) Bgrd 390(7.84)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 332

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	423	198.00	410112	282.00	391	404.00	1434
116.00	3344	199.00	27488	283.00	1215	405.00	307
117.00	63632	200.00	2161	284.00	1022	410.00	72
118.00	4704	202.00	1276	285.00	1790	415.00	208
119.00	503	202.00	121	286.00	302	421.00	2931
120.00	928	203.00	3346	288.00	115	422.00	2815
121.00	287	204.00	15932	289.00	387	423.00	18856
122.00	4160	205.00	27816	290.00	401	424.00	6020
123.00	7011	206.00	110440	291.00	191	425.00	750
124.00	3055	207.00	15805	292.00	532	429.00	229
125.00	3296	208.00	4324	293.00	2517	440.00	67
126.00	815	209.00	2410	294.00	803	441.00	50712
127.00	231424	210.00	1703	295.00	635	442.00	326592
128.00	17928	211.00	4402	296.00	35632	443.00	62832
129.00	88144	212.00	939	297.00	5525	444.00	5722
130.00	8246	213.00	321	298.00	182	445.00	379

Report Date: 12-Aug-2020 10:05:12 Chrom Revision: 2.3 10-Aug-2020 14:39:50

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_201.D				
Injection Date:	11-Aug-2020 14:19:42	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:	DFTPP1903137A				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_001.D				
Lims ID:	DFTPP				
Client ID:	DFTPP1903137A				
Sample Type:	DFTPP				
Inject. Date:	19-Aug-2020 11:26:51	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	DFTPP2005634A;DFTPP2005634A;1;3;DFTPP;				
Misc. Info.:	;all;				
Operator ID:	ads01731	Instrument ID:	21949		
Method:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m				
Limit Group:	HR - 680				
Last Update:	20-Aug-2020 11:33:11	Calib Date:	11-Aug-2020 17:28:47		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D				
Column 1 :			Det: MS Quad		
Process Host:	CTX1057				

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags

17 DFTPP

Reagents:

D_00001 Amount Added: 1.00 Units: mL

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
17 DFTPP									
198	7.868	7.868	0.0	0	521171		-1.0- -1.0		

Reagents:

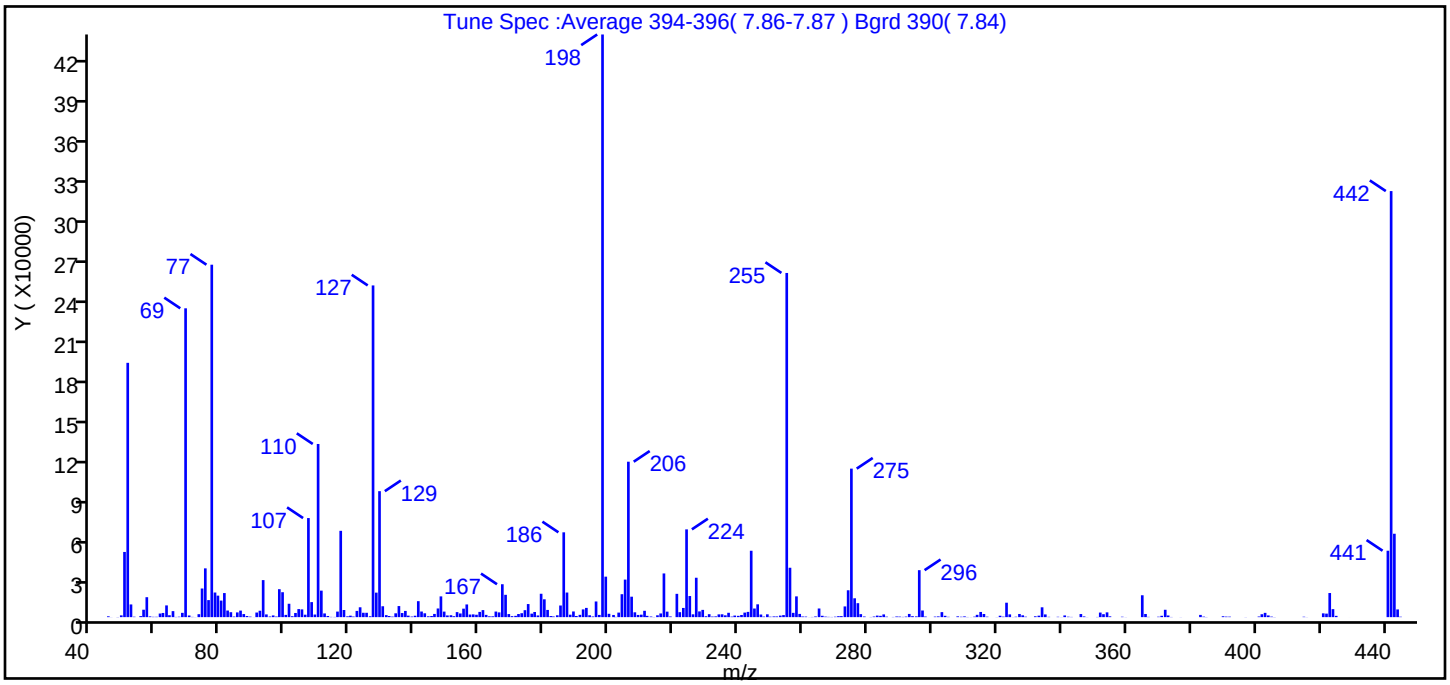
D_00001 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_001.D
Injection Date: 19-Aug-2020 11:26:51 Instrument ID: 21949
Lims ID: DFTPP
Client ID: DFTPP1903137A
Operator ID: ads01731 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 680_21949 Limit Group: HR - 680
Tune Method: DFTPP Method 8270

17 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	43.6
68	<2% of mass 69	0.7 (1.4)
69	Present	53.0
70	<2% of mass 69	0.3 (0.5)
127	40-60% of mass 198	56.9
197	<1% of mass 198	0.4
199	5-9% of mass 198	6.9
275	10-30% of mass 198	25.5
365	>1% of mass 198	3.8
441	Present but less than mass 443	11.4 (79.6)
442	>40% of mass 198	73.1
443	17-23% of mass 442	14.3 (19.6)

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_001.D\680_21949.rslt\spectra.d
Injection Date: 19-Aug-2020 11:26:51
Spectrum: Tune Spec :Average 394-396(7.86-7.87) Bgrd 390(7.84)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 329

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	618	130.00	8099	213.00	452	301.00	393
46.00	61	131.00	1485	214.00	116	302.00	540
48.00	109	132.00	850	215.00	1373	303.00	3731
49.00	1315	133.00	397	216.00	2752	304.00	997
50.00	48512	134.00	2856	217.00	32520	305.00	246
51.00	189248	135.00	8242	218.00	4088	308.00	581
52.00	9452	136.00	3065	219.00	507	309.00	292
53.00	325	137.00	4623	221.00	17344	310.00	552
55.00	772	138.00	1123	222.00	3694	311.00	131
56.00	5527	139.00	437	223.00	6848	312.00	64
57.00	14843	140.00	1047	224.00	65320	313.00	367
58.00	546	141.00	11885	225.00	15708	314.00	1723
59.00	242	142.00	4182	226.00	2109	315.00	3864
60.00	259	143.00	2861	227.00	29320	316.00	2340
61.00	2680	144.00	624	228.00	4268	317.00	348
62.00	3110	145.00	858	229.00	5403	320.00	70
63.00	8739	146.00	2386	230.00	661	321.00	1038
64.00	1425	147.00	6446	231.00	2194	322.00	358
65.00	4473	148.00	15450	232.00	445	323.00	10738
66.00	159	149.00	4124	233.00	568	324.00	2051
67.00	321	150.00	1262	234.00	2058	325.00	73
68.00	3201	151.00	1416	235.00	2117	326.00	311
69.00	229824	152.00	694	236.00	1344	327.00	2353
70.00	1229	153.00	3739	237.00	3240	328.00	1355
71.00	185	154.00	2742	238.00	399	329.00	343
72.00	66	155.00	6311	239.00	1173	332.00	641
73.00	2197	156.00	9451	240.00	979	333.00	1089
74.00	21312	157.00	1943	241.00	1590	334.00	7327
75.00	36304	158.00	2057	242.00	3388	335.00	2030
76.00	12680	159.00	1788	243.00	3906	336.00	234
77.00	262272	160.00	3897	244.00	49408	339.00	266
78.00	18320	161.00	5237	245.00	6419	340.00	65
79.00	16000	162.00	1679	246.00	9544	341.00	1262

Report Date: 20-Aug-2020 11:33:11 Chrom Revision: 2.3 17-Aug-2020 20:42:08
Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_001.D\680_21949.rslt\spectra.d
Injection Date: 19-Aug-2020 11:26:51
Spectrum: Tune Spec :Average 394-396(7.86-7.87) Bgrd 390(7.84)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 329

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	12322	163.00	631	247.00	1956	342.00	328
81.00	17920	164.00	620	248.00	417	343.00	165
82.00	4915	165.00	4155	249.00	2101	346.00	2307
83.00	3681	166.00	3523	250.00	340	347.00	516
84.00	431	167.00	24488	251.00	522	348.00	63
85.00	3525	168.00	16616	252.00	511	351.00	145
86.00	4869	169.00	2294	253.00	1152	352.00	3404
87.00	2292	170.00	754	254.00	1531	353.00	2199
88.00	820	171.00	970	255.00	256128	354.00	3552
89.00	396	172.00	2321	256.00	36760	355.00	590
90.00	52	173.00	2928	257.00	3194	359.00	301
91.00	3426	174.00	5181	258.00	15453	360.00	63
92.00	4766	175.00	9738	259.00	2399	365.00	16285
93.00	27560	176.00	2598	260.00	480	366.00	2347
94.00	2027	177.00	3834	261.00	411	367.00	201
95.00	480	178.00	1265	262.00	55	370.00	318
96.00	1271	179.00	17400	263.00	137	371.00	1007
97.00	436	180.00	13280	264.00	515	372.00	5484
98.00	20800	181.00	5370	265.00	6440	373.00	1232
99.00	18552	182.00	821	266.00	1003	374.00	135
100.00	1679	183.00	497	267.00	390	377.00	61
101.00	9960	184.00	1382	268.00	213	383.00	1662
102.00	694	185.00	8660	269.00	140	384.00	382
103.00	3097	186.00	63120	270.00	331	385.00	117
104.00	5990	187.00	18312	271.00	706	390.00	665
105.00	5767	188.00	1820	272.00	755	391.00	405
106.00	1817	189.00	4230	273.00	7978	392.00	380
107.00	73736	190.00	861	274.00	20000	397.00	73
108.00	11187	191.00	1711	275.00	110520	401.00	468
109.00	1945	192.00	5763	276.00	14032	402.00	2168
110.00	128864	193.00	6880	277.00	10395	403.00	3189
111.00	19728	194.00	1408	278.00	2233	404.00	1263
112.00	2755	195.00	496	279.00	466	405.00	390
113.00	862	196.00	11665	281.00	132	406.00	104

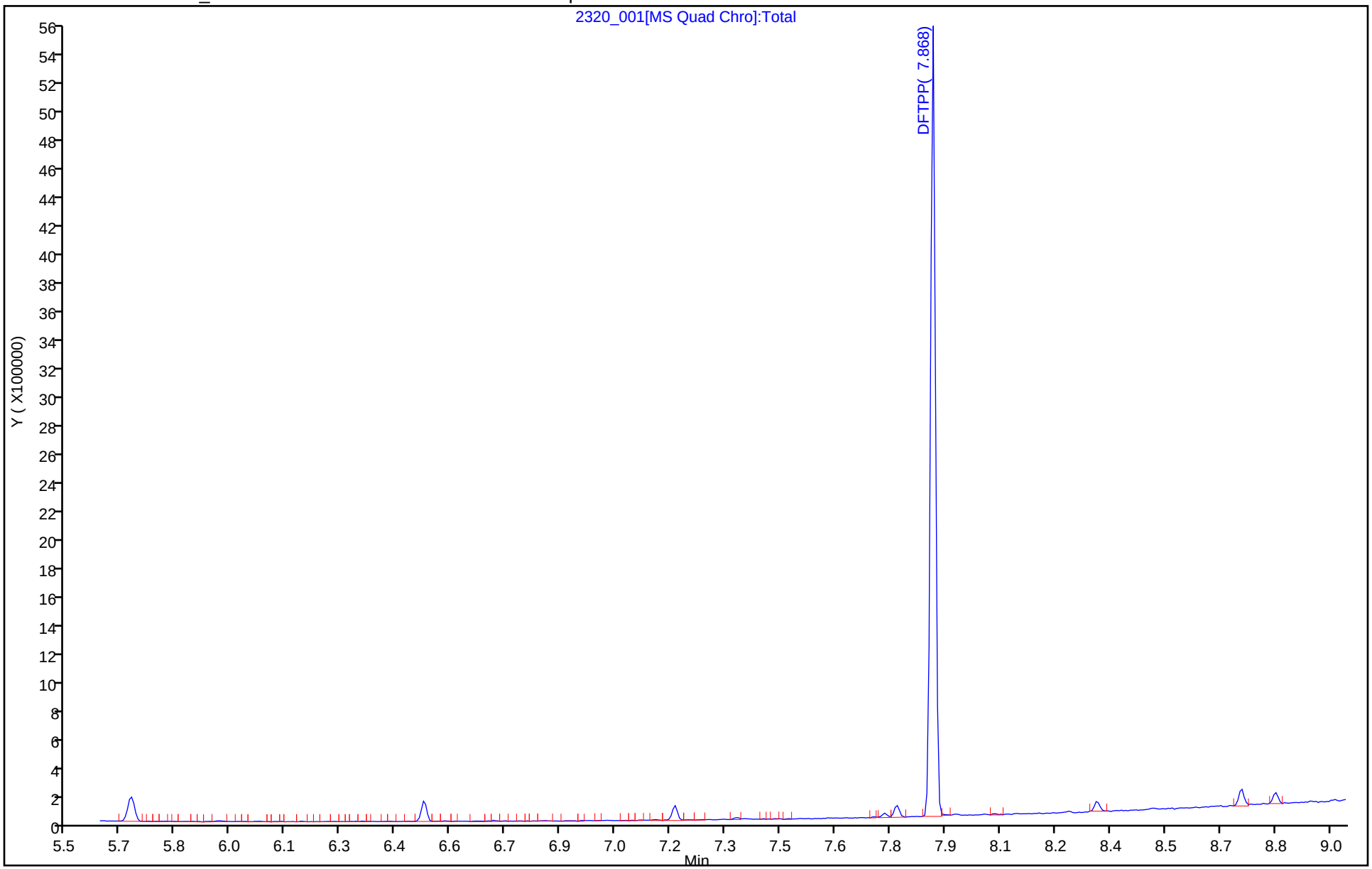
Report Date: 20-Aug-2020 11:33:11 Chrom Revision: 2.3 17-Aug-2020 20:42:08
Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_001.D\680_21949.rslt\spectra.d
Injection Date: 19-Aug-2020 11:26:51
Spectrum: Tune Spec :Average 394-396(7.86-7.87) Bgrd 390(7.84)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 329

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	190	197.00	1652	282.00	450	415.00	301
115.00	154	198.00	433600	283.00	1147	416.00	63
116.00	4135	199.00	30128	284.00	973	421.00	2821
117.00	64232	200.00	2481	285.00	2036	422.00	2616
118.00	5306	201.00	1626	286.00	368	423.00	17944
119.00	600	202.00	197	288.00	139	424.00	5953
120.00	1087	203.00	3378	289.00	481	425.00	962
121.00	435	204.00	17080	290.00	409	429.00	11
122.00	4638	205.00	27944	291.00	179	441.00	49424
123.00	7341	206.00	115672	292.00	408	442.00	317056
124.00	3252	207.00	15216	293.00	2388	443.00	62064
125.00	3241	208.00	3596	294.00	710	444.00	5743
126.00	638	209.00	1638	295.00	545	445.00	313
127.00	246848	210.00	1837	296.00	34952		
128.00	18240	211.00	4725	297.00	4942		
129.00	93744	212.00	963	298.00	431		

Report Date: 20-Aug-2020 11:33:12 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_001.D				
Injection Date:	19-Aug-2020 11:26:51	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:	DFTPP1903137A				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-34321/1-A

Matrix: Water Lab File ID: 2320_005.D

Analysis Method: 680 Date Collected:

Extract. Method: 680 Date Extracted: 08/18/2020 07:43

Sample wt/vol: 1000(mL) Date Analyzed: 08/19/2020 13:04

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 34909 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.20	U	0.50	0.20
1336-36-3	Polychlorinated biphenyls, Total	0.020	U	0.10	0.020
25512-42-9	Total Dichlorobiphenyls	0.020	U	0.10	0.020
28655-71-2	Total Heptachlorobiphenyls	0.040	U	0.30	0.040
26601-64-9	Total Hexachlorobiphenyls	0.030	U	0.20	0.030
27323-18-8	Total Monochlorobiphenyls	0.020	U	0.10	0.020
53742-07-7	Total Nonachlorobiphenyls	0.20	U	0.50	0.20
55722-26-4	Total Octachlorobiphenyls	0.050	U	0.30	0.050
25429-29-2	Total Pentachlorobiphenyls	0.030	U	0.20	0.030
26914-33-0	Total Tetrachlorobiphenyls	0.030	U	0.20	0.030
25323-68-6	Total Trichlorobiphenyls	0.020	U	0.10	0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-66-5	PCB-138L	75		39-131
208263-80-3	PCB-52L	82		42-105

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_005.D
Lims ID: MB 410-34321/1-A
Client ID:
Sample Type: MB
Inject. Date: 19-Aug-2020 13:04:54 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 410-34321/1-A;410-008447-005;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

First Level Reviewer: sneeringera Date: 19-Aug-2020 14:07:11

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	539149	0.7500	
* 2 Chrysene-d12	240	17.438	17.438	0.0	0	507119	0.7500	
$ 3 PCB-52L	232	14.231	14.231	0.0	0	177961	0.8212	
$ 4 PCB-138L	372	16.511	16.511	0.0	0	143050	0.7459	
5 PCB-1	188		11.007				ND	
18 PCB-3	188		11.737				ND	
19 PCB-10	222		12.015				ND	
6 PCB-5	222		12.665				ND	
20 PCB-19	256		12.931				ND	
21 PCB-15	222		13.329				ND	
7 PCB-29	256		13.647				ND	
22 PCB-54	292		13.674				ND	
8 PCB-50	292		13.793				ND	
9 PCB-104	326		14.433				ND	
23 PCB-37	256		14.601				ND	
24 PCB-155	360		15.122				ND	
10 PCB-87	326		15.566				ND	
11 PCB-154	360		15.627				ND	
12 PCB-77	292		15.719				ND	
13 PCB-188	394		16.087				ND	
25 PCB-126	326		16.672				ND	
26 PCB-202	430		17.100				ND	
14 PCB-200	430		17.208				ND	
27 PCB-169	360		17.744				ND	
28 PCB-189	394		18.326				ND	
15 PCB-208	464		18.495				ND	
29 PCB-205	430		19.025				ND	
30 PCB-206	464		19.681				ND	
16 DCB Decachlorobiphenyl	498		20.406				ND	
A 31 Total Monochlorobiphenyls	188		10.947	11.797			0	
A 33 Dichlorobiphenyl range	222		11.955	13.389			0	

Sig		RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
A	32 Cl2 M+35	221	11.955	13.389		0		U
A	36 Trichlorobiphenyl range	256	12.871	14.661		0		
A	34 Cl3 M+70	254	12.871	14.661		0		
A	35 Cl3 M+35	253	12.871	14.661		0		
A	39 Tetrachlorobiphenyl range	292	13.614	15.779		0		
A	38 Cl4 M+70	288	13.614	15.779		0		
A	37 Cl4 M+35	289	13.614	15.779		0		
A	41 Cl5 M+35	323	14.373	16.732		0		U
A	42 Pentachlorobiphenyl range	326	14.373	16.732		0		
A	40 Cl5 M+70	322	14.373	16.732		0		
A	43 Hexachlorobiphenyl range	360	15.062	17.804		0		
A	45 Cl6 M+35	357	15.062	17.804		0		U
A	44 Cl6 M+70	356	15.062	17.804		0		U
A	46 Heptachlorobiphenyl range	394	16.027	18.386		0		
A	47 Cl7 M+70	390	16.027	18.386		0		
A	48 Cl7 M+35	391	16.027	18.386		0		
A	49 Cl8 M+35	425	17.040	19.085		0		
A	50 Octachlorobiphenyl range	430	17.040	19.085		0		
A	51 Total Nonachlorobiphenyls	464	18.435	19.741		0		
S	52 Total Pentachlorobiphenyls	326	0.0			0		
S	53 Total Hexachlorobiphenyls	360	0.0			0		
S	54 Polychlorinated biphenyls, Total	1	0.0			0		
S	55 Total Tetrachlorobiphenyls	292	0.0			0		
S	56 Total Trichlorobiphenyls	256	0.0			0		
S	57 Total Dichlorobiphenyls	222	0.0			0		
S	58 Total Octachlorobiphenyls	430	0.0			0		
S	59 Total Heptachlorobiphenyls	394	0.0			0		

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	539149	0.7500			
186	13.382	13.382	0.0		40051		15.0- 25.0	13.5	
* 2 Chrysene-d12									
240	17.438	17.438	0.0	0	507119	0.7500			
241	17.438	17.438	0.0		94634		10.0- 22.0	5.4	
$ 3 PCB-52L									
232	14.231	14.231	0.0	0	177961	0.8212			
304	14.244	14.231	0.013		163982		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.511	0.0	0	143050	0.7459			
302	16.511	16.511	0.0		126540		1.2- 1.2	1.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

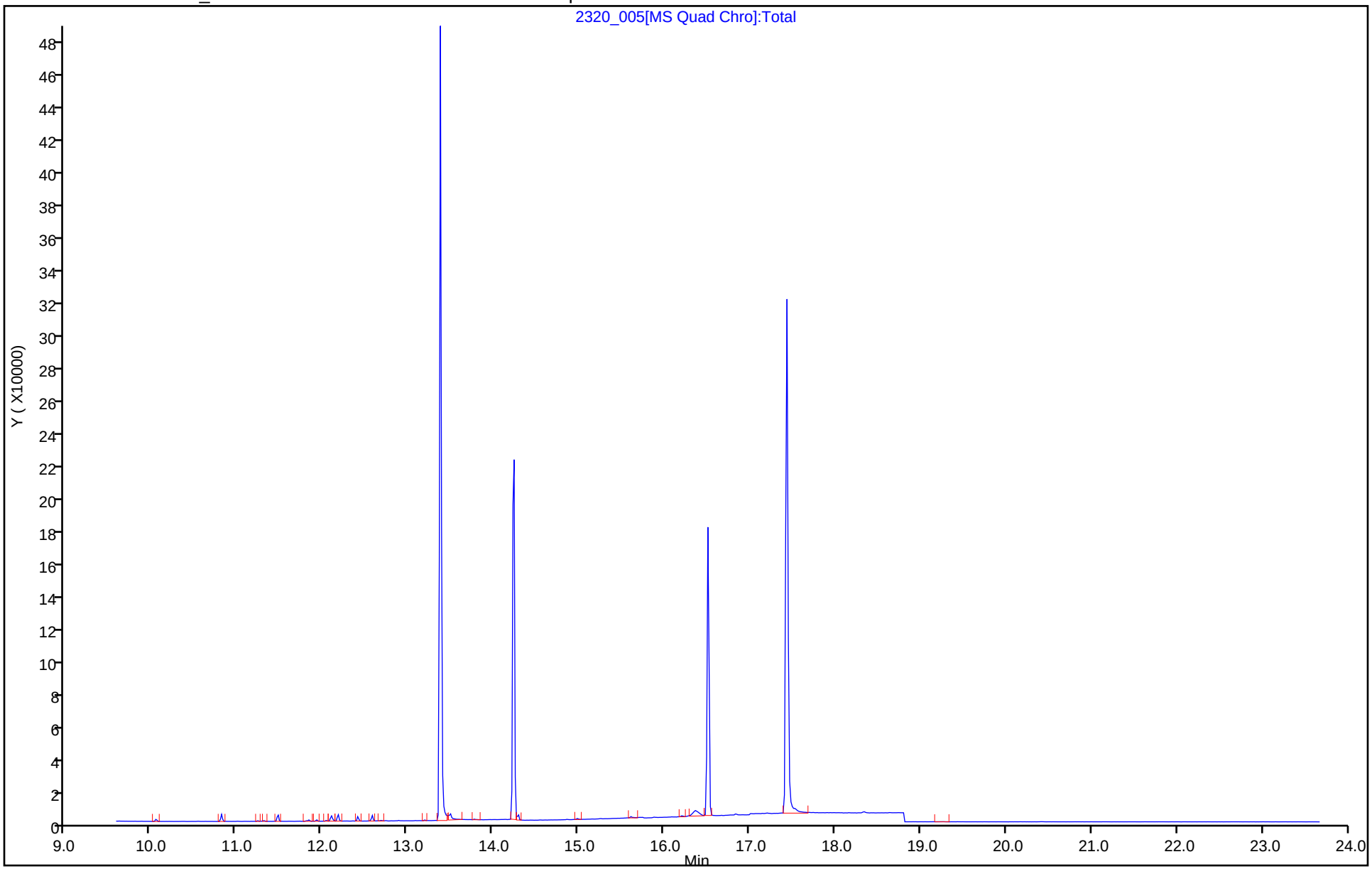
Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

Report Date: 20-Aug-2020 11:33:15 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_005.D				
Injection Date:	19-Aug-2020 13:04:54	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	MB 410-34321/1-A			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_005.D
Lims ID: MB 410-34321/1-A
Client ID:
Sample Type: MB
Inject. Date: 19-Aug-2020 13:04:54 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 410-34321/1-A;410-008447-005;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

First Level Reviewer: sneeringera Date: 19-Aug-2020 14:07:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 PCB-52L	1.00	0.8212	82.12
$ 4 PCB-138L	1.00	0.7459	74.59

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-34321/2-A

Matrix: Water Lab File ID: 2320_006.D

Analysis Method: 680 Date Collected:

Extract. Method: 680 Date Extracted: 08/18/2020 07:43

Sample wt/vol: 1000(mL) Date Analyzed: 08/19/2020 13:33

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 34909 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	8.69		0.50	0.20
1336-36-3	Polychlorinated biphenyls, Total	28.8		0.10	0.020
25512-42-9	Total Dichlorobiphenyls	1.33		0.10	0.020
28655-71-2	Total Heptachlorobiphenyls	3.98		0.30	0.040
26601-64-9	Total Hexachlorobiphenyls	2.50		0.20	0.030
27323-18-8	Total Monochlorobiphenyls	1.30		0.10	0.020
55722-26-4	Total Octachlorobiphenyls	4.27		0.30	0.050
25429-29-2	Total Pentachlorobiphenyls	2.76		0.20	0.030
26914-33-0	Total Tetrachlorobiphenyls	2.50		0.20	0.030
25323-68-6	Total Trichlorobiphenyls	1.42		0.10	0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-66-5	PCB-138L	77		39-131
208263-80-3	PCB-52L	84		42-105

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_006.D
Lims ID: LCS 410-34321/2-A
Client ID:
Sample Type: LCS
Inject. Date: 19-Aug-2020 13:33:07 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 410-34321/2-A;410-008447-006;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

First Level Reviewer: sneeringera Date: 19-Aug-2020 14:10:28

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 1 Phenanthrene-d10	188	13.382	13.382	0.0	0	512314	0.7500	
* 2 Chrysene-d12	240	17.438	17.438	0.0	0	466789	0.7500	
$ 3 PCB-52L	232	14.231	14.231	0.0	0	172503	0.8377	
$ 4 PCB-138L	372	16.511	16.511	0.0	0	135651	0.7684	
16 DCB Decachlorobiphenyl	498	20.406	20.406	0.0	0	691744	8.69	
A 31 Total Monochlorobiphenyls	188	11.372	10.947	-11.797	0	730408	1.30	
A 33 Dichlorobiphenyl range	222	12.672	11.955	-13.389	0	540612	1.33	
A 32 Cl2 M+35	221		11.955	13.389			0	U
A 36 Trichlorobiphenyl range	256	13.766	12.871	-14.661	0	408035	1.42	
A 34 Cl3 M+70	254		12.871	14.661			0	
A 35 Cl3 M+35	253		12.871	14.661			0	
A 39 Tetrachlorobiphenyl range	292	14.696	13.614	-15.779	0	438381	2.50	
A 38 Cl4 M+70	288		13.614	15.779			0	U
A 37 Cl4 M+35	289		13.614	15.779			0	U
A 41 Cl5 M+35	323		14.373	16.732			0	U
A 42 Pentachlorobiphenyl range	326	15.553	14.373	-16.732	0	457230	2.76	
A 40 Cl5 M+70	322		14.373	16.732			0	U
A 43 Hexachlorobiphenyl range	360	16.433	15.062	-17.804	0	433504	2.50	
A 45 Cl6 M+35	357		15.062	17.804			0	U
A 44 Cl6 M+70	356		15.062	17.804			0	U
A 46 Heptachlorobiphenyl range	394	17.207	16.027	-18.386	0	611322	3.98	
A 47 Cl7 M+70	390		16.027	18.386			0	
A 48 Cl7 M+35	391		16.027	18.386			0	U
A 49 Cl8 M+35	425		17.040	19.085			0	
A 50 Octachlorobiphenyl range	430	18.063	17.040	-19.085	0	535680	4.27	
S 52 Total Pentachlorobiphenyls	326				0		2.76	
S 53 Total Hexachlorobiphenyls	360				0		2.50	
S 55 Total Tetrachlorobiphenyls	292				0		2.50	
S 56 Total Trichlorobiphenyls	256				0		1.42	
S 57 Total Dichlorobiphenyls	222				0		1.33	
S 58 Total Octachlorobiphenyls	430				0		4.27	

Sig		RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
S	59	Total Heptachlorobiphenyls	394			0	3.98	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	512314	0.7500			
186	13.382	13.382	0.0		37794		15.0- 25.0	13.6	
* 2 Chrysene-d12									
240	17.438	17.438	0.0	0	466789	0.7500			
241	17.438	17.438	0.0		87568		10.0- 22.0	5.3	
$ 3 PCB-52L									
232	14.231	14.231	0.0	0	172503	0.8377			
304	14.244	14.231	0.013		160189		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.511	0.0	0	135651	0.7684			
302	16.511	16.511	0.0		119027		1.2- 1.2	1.1	
16 DCB Decachlorobiphenyl									
498	20.406	20.406	0.0	0	691744	8.69			
496	20.406	20.406	0.0		429724		0.9- 1.3	1.6	
500	20.406	20.406	0.0		512308		0.0- 0.0	1.4	
424	20.406	20.406	0.0		158033		0.0- 0.0	4.4	
426	20.406	20.406	0.0		356073		0.0- 0.0	1.9	
428	20.406	20.406	0.0		397977		0.0- 0.0	1.7	
430	20.406	20.406	0.0		251472		0.0- 0.0	2.8	
A 31 Total Monochlorobiphenyls									
188	11.007	10.947	-11.797	0	730408	1.30			
190	11.007				240527		2.5- 3.5	3.0	
152	11.007				396488		0.0- 0.0	0.6	
153	11.007				168483		0.0- 0.0	1.4	
A 33 Dichlorobiphenyl range									
222	12.666	11.955	-13.389	0	540612	1.33			
224	12.666				350269		0.0- 0.0	1.5	
152	12.652				422524		0.0- 0.0	0.8	
153	12.652				54950		0.0- 0.0	6.4	
186	12.652				53792		0.0- 0.0	6.5	
188	12.652				23050		0.0- 0.0	15.2	
A 36 Trichlorobiphenyl range									
256	13.647	12.871	-14.661	0	369038	1.28			
258	13.647				357061		0.0- 0.0	1.0	
186	13.634				277253		0.0- 0.0	1.3	
188	13.647				91571		0.0- 0.0	3.9	
256	13.793	12.871	-14.661	0	38323	0.1334			
258	13.793				29072		0.0- 0.0	1.3	
186	13.793				41984		0.0- 0.0	0.7	
188	13.793				5013		0.0- 0.0	5.8	
256	13.966	12.871	-14.661	0	674	0.002346			
258	13.966				656		0.0- 0.0	1.0	
186	13.966				602		0.0- 0.0	1.1	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
A 39 Tetrachlorobiphenyl range									
292	13.793	13.614	-15.779	0	438381	2.50			
290	13.793				342426		0.0- 0.0	1.3	
294	13.793				210115		0.0- 0.0		
220	13.793				509296		0.0- 0.0	0.7	
222	13.793				330115		0.0- 0.0	1.0	
A 42 Pentachlorobiphenyl range									
326	15.566	14.373	-16.732	0	457230	2.76			
324	15.566				284487		0.0- 0.0	1.6	
328	15.566				295805		0.0- 0.0		
254	15.566				422406		0.0- 0.0	0.7	
256	15.566				410671		0.0- 0.0	0.7	
A 43 Hexachlorobiphenyl range									
360	15.628	15.062	-17.804	0	433504	2.50			
362	15.628				347830		0.0- 0.0	1.2	
358	15.628				226475		0.0- 0.0		
288	15.628				279497		0.0- 0.0	1.2	
290	15.628				363564		0.0- 0.0	1.0	
A 46 Heptachlorobiphenyl range									
394	16.087	16.027	-18.386	0	611322	3.98			
396	16.087				586043		0.0- 0.0	1.0	
398	16.087				311165		0.0- 0.0		
392	16.087				274134		0.0- 0.0		
322	16.073				285477		0.0- 0.0	2.1	
324	16.073				457954		0.0- 0.0	1.3	
A 50 Octachlorobiphenyl range									
430	17.208	17.040	-19.085	0	535680	4.27			
428	17.208				487456		0.0- 0.0	1.1	
432	17.208				338217		0.0- 0.0		
356	17.193				197062		0.0- 0.0	2.5	
358	17.208				376946		0.0- 0.0	1.3	
360	17.208				301660		0.0- 0.0	1.6	
S 52 Total Pentachlorobiphenyls									
326				0		2.76			
S 53 Total Hexachlorobiphenyls									
360				0		2.50			
S 55 Total Tetrachlorobiphenyls									
292				0		2.50			
S 56 Total Trichlorobiphenyls									
256				0		1.42			
S 57 Total Dichlorobiphenyls									
222				0		1.33			

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
S 58 Total Octachlorobiphenyls									
430				0		4.27			
S 59 Total Heptachlorobiphenyls									
394				0		3.98			

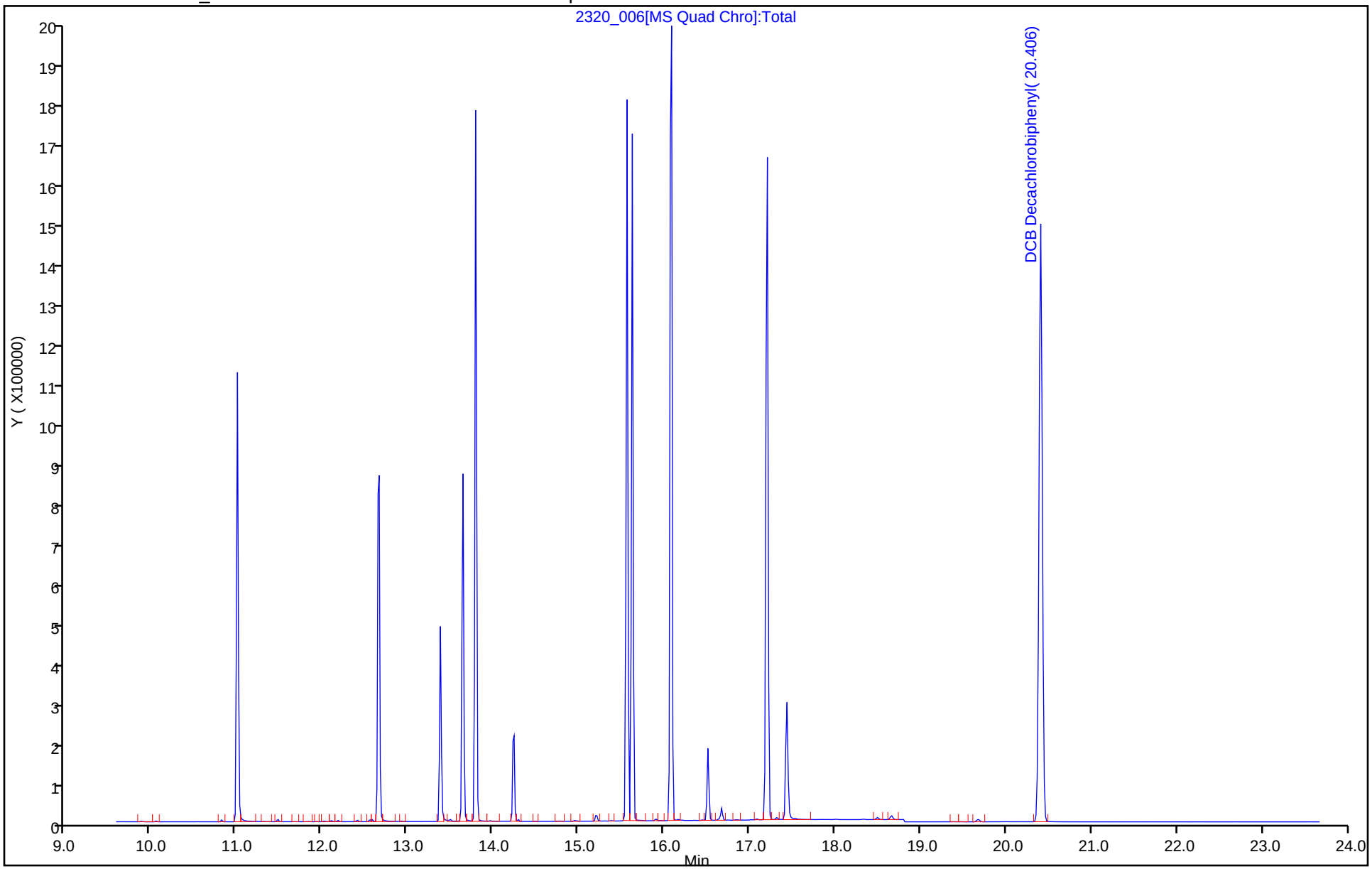
Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

Report Date: 20-Aug-2020 11:33:16 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_006.D				
Injection Date:	19-Aug-2020 13:33:07	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	LCS 410-34321/2-A			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_006.D
Lims ID: LCS 410-34321/2-A
Client ID:
Sample Type: LCS
Inject. Date: 19-Aug-2020 13:33:07 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 410-34321/2-A;410-008447-006;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

First Level Reviewer: sneeringera Date: 19-Aug-2020 14:10:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 PCB-52L	1.00	0.8377	83.77
$ 4 PCB-138L	1.00	0.7684	76.84

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-34321/3-A

Matrix: Water Lab File ID: 2320_007.D

Analysis Method: 680 Date Collected:

Extract. Method: 680 Date Extracted: 08/18/2020 07:43

Sample wt/vol: 1000(mL) Date Analyzed: 08/19/2020 14:01

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 34909 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	8.13		0.50	0.20
1336-36-3	Polychlorinated biphenyls, Total	26.8		0.10	0.020
25512-42-9	Total Dichlorobiphenyls	1.24		0.10	0.020
28655-71-2	Total Heptachlorobiphenyls	3.86		0.30	0.040
26601-64-9	Total Hexachlorobiphenyls	2.25		0.20	0.030
27323-18-8	Total Monochlorobiphenyls	1.23		0.10	0.020
55722-26-4	Total Octachlorobiphenyls	3.97		0.30	0.050
25429-29-2	Total Pentachlorobiphenyls	2.46		0.20	0.030
26914-33-0	Total Tetrachlorobiphenyls	2.26		0.20	0.030
25323-68-6	Total Trichlorobiphenyls	1.35		0.10	0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-66-5	PCB-138L	73		39-131
208263-80-3	PCB-52L	76		42-105

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_007.D
Lims ID: LCSD 410-34321/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 19-Aug-2020 14:01:23 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 410-34321/3-A;410-008447-007;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

	Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
*	1 Phenanthrene-d10	188	13.382	13.382	0.0	0	511612	0.7500	
*	2 Chrysene-d12	240	17.438	17.438	0.0	0	475231	0.7500	
$	3 PCB-52L	232	14.231	14.231	0.0	0	156882	0.7629	
$	4 PCB-138L	372	16.511	16.511	0.0	0	131272	0.7304	
	16 DCB Decachlorobiphenyl	498	20.406	20.406	0.0	0	658531	8.13	
A	31 Total Monochlorobiphenyls	188	11.372	10.947	-11.797	0	691289	1.23	
A	33 Dichlorobiphenyl range	222	12.672	11.955	-13.389	0	506872	1.25	
A	32 Cl2 M+35	221	12.672	11.955	-13.389	0	4394	0.0108	
A	36 Trichlorobiphenyl range	256	13.766	12.871	-14.661	0	387337	1.35	
A	34 Cl3 M+70	254	13.766	12.871	-14.661	0	555	0.001934	
A	35 Cl3 M+35	253		12.871	14.661			0	
A	39 Tetrachlorobiphenyl range	292	14.696	13.614	-15.779	0	595826	3.40	
A	38 Cl4 M+70	288	14.696	13.614	-15.779	0	267264	1.52	
A	37 Cl4 M+35	289	14.696	13.614	-15.779	0	145489	0.8292	
A	41 Cl5 M+35	323	15.553	14.373	-16.732	0	80348	0.4762	
A	42 Pentachlorobiphenyl range	326	15.553	14.373	-16.732	0	726746	4.31	
A	40 Cl5 M+70	322	15.553	14.373	-16.732	0	271610	1.61	
A	43 Hexachlorobiphenyl range	360	16.433	15.062	-17.804	0	717762	4.06	
A	45 Cl6 M+35	357	16.433	15.062	-17.804	0	37729	0.2137	
A	44 Cl6 M+70	356	16.433	15.062	-17.804	0	192531	1.09	
A	46 Heptachlorobiphenyl range	394	17.207	16.027	-18.386	0	604582	3.87	
A	47 Cl7 M+70	390		16.027	18.386			0	
A	48 Cl7 M+35	391	17.207	16.027	-18.386	0	5508	0.0352	
A	49 Cl8 M+35	425		17.040	19.085			0	
A	50 Octachlorobiphenyl range	430	18.063	17.040	-19.085	0	507863	3.97	
S	52 Total Pentachlorobiphenyls	326				0		2.46	
S	53 Total Hexachlorobiphenyls	360				0		2.25	
S	55 Total Tetrachlorobiphenyls	292				0		2.26	
S	56 Total Trichlorobiphenyls	256				0		1.35	
S	57 Total Dichlorobiphenyls	222				0		1.24	
S	58 Total Octachlorobiphenyls	430				0		3.97	
S	59 Total Heptachlorobiphenyls	394				0		3.86	

Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

WorkSheet Quantitation Report

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
* 1 Phenanthrene-d10									
188	13.382	13.382	0.0	0	511612	0.7500			
186	13.382	13.382	0.0		37627		15.0- 25.0	13.6	
* 2 Chrysene-d12									
240	17.438	17.438	0.0	0	475231	0.7500			
241	17.438	17.438	0.0		88505		10.0- 22.0	5.4	
$ 3 PCB-52L									
232	14.231	14.231	0.0	0	156882	0.7629			
304	14.244	14.231	0.013		149111		1.0- 1.0	1.1	
$ 4 PCB-138L									
372	16.511	16.511	0.0	0	131272	0.7304			
302	16.511	16.511	0.0		114760		1.2- 1.2	1.1	
16 DCB Decachlorobiphenyl									
498	20.406	20.406	0.0	0	658531	8.13			
496	20.406	20.406	0.0		408670		0.9- 1.3	1.6	
500	20.406	20.406	0.0		488309		0.0- 0.0	1.3	
424	20.406	20.406	0.0		151681		0.0- 0.0	4.3	
426	20.406	20.406	0.0		341688		0.0- 0.0	1.9	
428	20.406	20.406	0.0		381164		0.0- 0.0	1.7	
430	20.406	20.406	0.0		240387		0.0- 0.0	2.7	
A 31 Total Monochlorobiphenyls									
188	11.007	10.947	-11.797	0	677987	1.21			
190	11.007				223541		2.5- 3.5	3.0	
152	11.007				367906		0.0- 0.0	0.6	
153	11.007				156536		0.0- 0.0	1.4	
188	11.047	10.947	-11.797	0	13302	0.0237			
190	11.047				4432		2.5- 3.5	3.0	
152	11.047				6373		0.0- 0.0	0.7	
153	11.047				2410		0.0- 0.0	1.8	
A 33 Dichlorobiphenyl range									
222	12.400	11.955	-13.389	0	1263	0.003104			
224	12.400				802		0.0- 0.0	1.6	
152	12.400				905		0.0- 0.0	0.9	
222	12.559	11.955	-13.389	0	2746	0.006748			
224	12.559				1506		0.0- 0.0	1.8	
152	12.546				1923		0.0- 0.0	0.8	
222	12.665	11.955	-13.389	0	502863	1.24			
224	12.665				325090		0.0- 0.0	1.5	
152	12.652				391457		0.0- 0.0	0.8	
153	12.652				50894		0.0- 0.0	6.4	
186	12.652				49900		0.0- 0.0	6.5	
188	12.652				21217		0.0- 0.0	15.3	
A 32 Cl2 M+35									
221	12.586	11.955	-13.389	0	1173	0.002882			
221	12.665	11.955	-13.389	0	3221	0.007915			

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
A 36 Trichlorobiphenyl range									
256	13.647	12.871	-14.661	0	352657	1.23			
258	13.647				341242		0.0- 0.0	1.0	
186	13.634				254009		0.0- 0.0	1.3	
188	13.647				82831		0.0- 0.0	4.1	
256	13.793	12.871	-14.661	0	34015	0.1185			
258	13.793				25731		0.0- 0.0	1.3	
186	13.793				37203		0.0- 0.0	0.7	
188	13.793				4235		0.0- 0.0	6.1	
256	13.966	12.871	-14.661	0	665	0.002318			
258	13.966				523		0.0- 0.0	1.3	
186	13.966				517		0.0- 0.0	1.0	
A 34 Cl3 M+70									
254	14.341	12.871	-14.661	0	555	0.001934			
A 39 Tetrachlorobiphenyl range									
292	13.793	13.614	-15.779	0	389372	2.22			
290	13.793				302806		0.0- 0.0	1.3	
294	13.806				186754		0.0- 0.0		
220	13.793				450067		0.0- 0.0	0.7	
222	13.793				291579		0.0- 0.0	1.0	
292	13.833	13.614	-15.779	0	1474	0.008401			
290	13.833				1119		0.0- 0.0	1.3	
294	13.833				825		0.0- 0.0		
220	13.833				1203		0.0- 0.0	0.9	
292	15.214	13.614	-15.779	0	6888	0.0393			
290	15.214				5469		0.0- 0.0	1.3	
294	15.214				3342		0.0- 0.0		
220	15.199				4683		0.0- 0.0	1.2	
222	15.199				3090		0.0- 0.0	1.8	
292	15.566	13.614	-15.779	0	32264	0.1839			
290	15.566				30530		0.0- 0.0	1.1	
294	15.566				14134		0.0- 0.0		
220	15.551				54014		0.0- 0.0	0.6	
222	15.566				16207		0.0- 0.0	1.9	
292	15.627	13.614	-15.779	0	165828	0.9452			
290	15.627				338697		0.0- 0.0	0.5	
294	15.627				35788		0.0- 0.0		
220	15.612				104550		0.0- 0.0	3.2	
222	15.612				17607		0.0- 0.0	19.2	
A 38 Cl4 M+70									
288	15.566	13.614	-15.779	0	7189	0.0410			
288	15.627	13.614	-15.779	0	260075	1.48			
A 37 Cl4 M+35									
289	15.566	13.614	-15.779	0	108016	0.6157			
289	15.627	13.614	-15.779	0	37473	0.2136			
A 41 Cl5 M+35									
323	15.627	14.373	-16.732	0	40828	0.2420			

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
323	16.072	14.373	-16.732	0	38898	0.2305			
323	16.672	14.373	-16.732	0	622	0.003686			
A 42 Pentachlorobiphenyl range									
326	15.566	14.373	-16.732	0	428993	2.54			
324	15.566				268304		0.0- 0.0	1.6	
328	15.566				277782		0.0- 0.0		
254	15.566				400897		0.0- 0.0	0.7	
256	15.566				388031		0.0- 0.0	0.7	
326	15.627	14.373	-16.732	0	20237	0.1199			
324	15.627				14931		0.0- 0.0	1.4	
328	15.627				11057		0.0- 0.0		
254	15.627				40951		0.0- 0.0	0.4	
256	15.627				19603		0.0- 0.0	0.8	
326	16.072	14.373	-16.732	0	272941	1.62			
324	16.072				426067		0.0- 0.0	0.6	
328	16.072				88240		0.0- 0.0		
254	16.072				208423		0.0- 0.0	2.0	
256	16.072				67470		0.0- 0.0	6.3	
326	16.672	14.373	-16.732	0	4575	0.0271			
324	16.672				7028		0.0- 0.0	0.7	
328	16.672				1301		0.0- 0.0		
254	16.658				3522		0.0- 0.0	2.0	
256	16.672				1101		0.0- 0.0	6.4	
A 40 Cl5 M+70									
322	16.072	14.373	-16.732	0	267241	1.58			
322	16.672	14.373	-16.732	0	4369	0.0259			
A 43 Hexachlorobiphenyl range									
360	15.536	15.062	-17.804	0	1040	0.005890			
362	15.536				818		0.0- 0.0	1.3	
358	15.536				631		0.0- 0.0		
288	15.566				7189		0.0- 0.0	0.1	
290	15.566				30530		0.0- 0.0	0.0	
360	15.627	15.062	-17.804	0	410407	2.32			
362	15.627				328528		0.0- 0.0	1.2	
358	15.627				214966		0.0- 0.0		
288	15.627				260075		0.0- 0.0	1.3	
290	15.627				338697		0.0- 0.0	1.0	
360	15.912	15.062	-17.804	0	1275	0.007221			
362	15.912				1045		0.0- 0.0	1.2	
358	15.912				707		0.0- 0.0		
288	15.897				915		0.0- 0.0	1.1	
290	15.897				1134		0.0- 0.0	0.9	

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
360	16.087	15.062	-17.804	0	18857	0.1068			
362	16.087				14118		0.0- 0.0	1.3	
358	16.087				11664		0.0- 0.0		
288	16.072				43388		0.0- 0.0	0.3	
290	16.072				32022		0.0- 0.0	0.4	
360	17.208	15.062	-17.804	0	286183	1.62			
362	17.208				122508		0.0- 0.0	2.3	
358	17.208				356821		0.0- 0.0		
288	17.193				215307		0.0- 0.0	0.6	
290	17.193				104810		0.0- 0.0	1.2	
A 45 Cl6 M+35									
357	15.765	15.062	-17.804	0	1521	0.008614			
357	16.072	15.062	-17.804	0	8088	0.0458			
357	16.672	15.062	-17.804	0	1049	0.005941			
357	17.193	15.062	-17.804	0	27071	0.1533			
A 44 Cl6 M+70									
356	17.024	15.062	-17.804	0	4400	0.0249			
356	17.193	15.062	-17.804	0	186749	1.06			
356	17.315	15.062	-17.804	0	1382	0.007827			
A 46 Heptachlorobiphenyl range									
394	16.087	16.027	-18.386	0	581010	3.72			
396	16.087				558581		0.0- 0.0	1.0	
398	16.087				297330		0.0- 0.0		
392	16.087				258606		0.0- 0.0		
322	16.072				267241		0.0- 0.0	2.1	
324	16.072				426067		0.0- 0.0	1.3	
394	16.672	16.027	-18.386	0	7304	0.0467			
396	16.672				6981		0.0- 0.0	1.0	
398	16.672				3659		0.0- 0.0		
392	16.672				3360		0.0- 0.0		
322	16.672				4369		0.0- 0.0	1.6	
324	16.672				7028		0.0- 0.0	1.0	
394	17.208	16.027	-18.386	0	16268	0.1041			
396	17.208				14759		0.0- 0.0	1.1	
398	17.208				7613		0.0- 0.0		
392	17.208				8007		0.0- 0.0		
322	17.193				28516		0.0- 0.0	0.5	
324	17.193				28547		0.0- 0.0	0.5	
A 48 Cl7 M+35									
391	17.208	16.027	-18.386	0	5508	0.0352			

Sig	RT	Lower RT	Upper RT	Q	Response	On-Col Amt ug/ml	Ratio Range	Ratio	Flags
A 50 Octachlorobiphenyl range									
430	17.208	17.040	-19.085	0	505155	3.95			
428	17.208				457978		0.0- 0.0	1.1	
432	17.208				318140		0.0- 0.0		
356	17.193				186749		0.0- 0.0	2.5	
358	17.208				356821		0.0- 0.0	1.3	
360	17.208				286183		0.0- 0.0	1.6	
430	17.330	17.040	-19.085	0	2708	0.0212			
428	17.330				1666		0.0- 0.0	1.6	
432	17.330				1106		0.0- 0.0		
356	17.315				1382		0.0- 0.0	1.2	
358	17.315				1170		0.0- 0.0	1.4	
360	17.315				920		0.0- 0.0	1.8	
S 52 Total Pentachlorobiphenyls									
326				0		2.46			
S 53 Total Hexachlorobiphenyls									
360				0		2.25			
S 55 Total Tetrachlorobiphenyls									
292				0		2.26			
S 56 Total Trichlorobiphenyls									
256				0		1.35			
S 57 Total Dichlorobiphenyls									
222				0		1.24			
S 58 Total Octachlorobiphenyls									
430				0		3.97			
S 59 Total Heptachlorobiphenyls									
394				0		3.86			

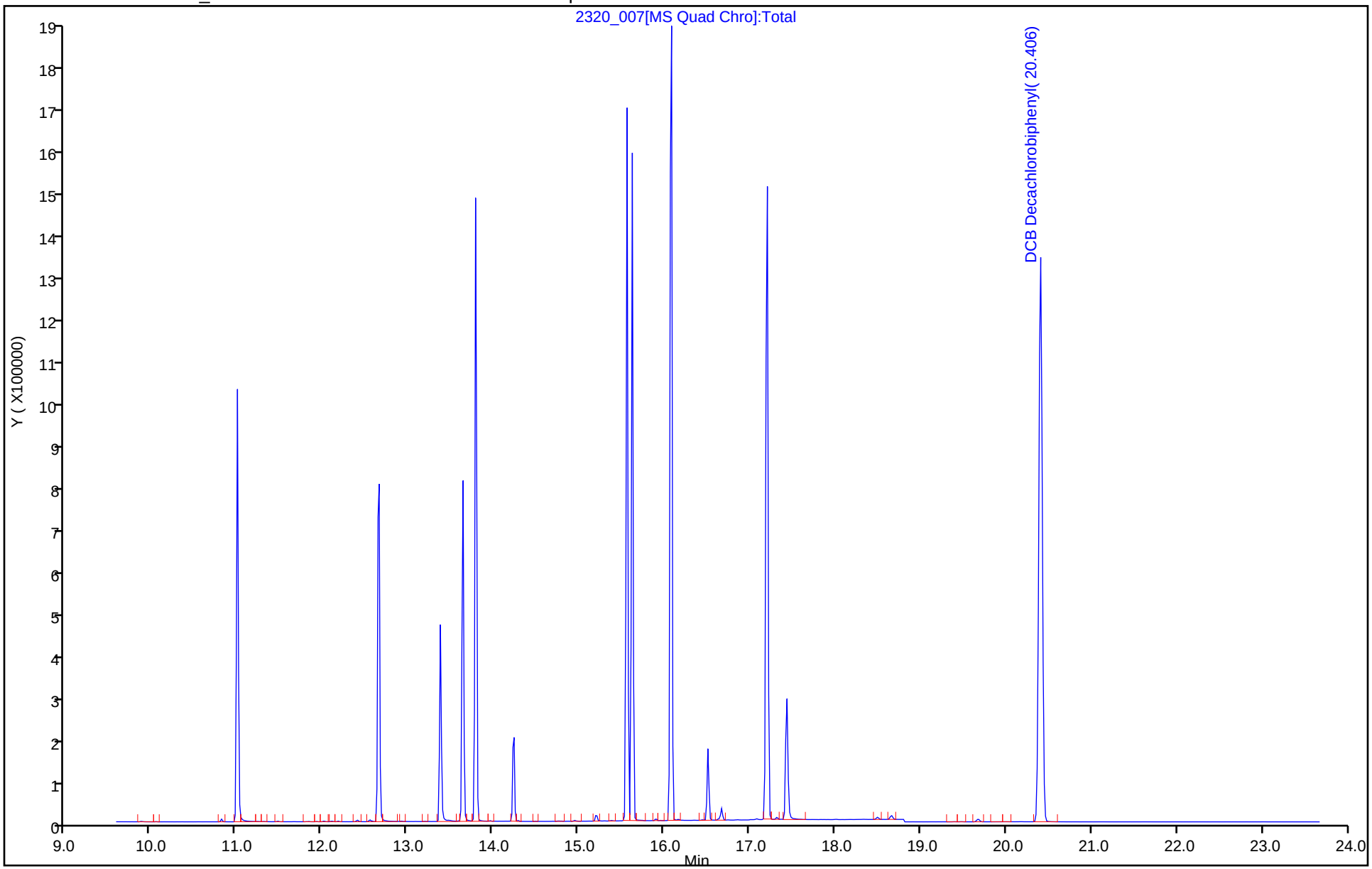
Reagents:

HRM_680_IS_WS_00002 Amount Added: 0.01 Units: mL Run Reagent

Report Date: 20-Aug-2020 11:33:17 Chrom Revision: 2.3 17-Aug-2020 20:42:08

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_007.D				
Injection Date:	19-Aug-2020 14:01:23	Instrument ID:	21949	Operator ID:	ads01731
Lims ID:	LCSD 410-34321/3-A			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	680_21949	Limit Group:	HR - 680		



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\2320_007.D
Lims ID: LCSD 410-34321/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 19-Aug-2020 14:01:23 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 410-34321/3-A;410-008447-007;1;0;
Misc. Info.: ;primary.sub;
Operator ID: ads01731 Instrument ID: 21949

Method: \\chromfs\Lancaster\ChromData\21949\20200819-8447.b\680_21949.m
Limit Group: HR - 680
Last Update: 20-Aug-2020 11:33:13 Calib Date: 11-Aug-2020 17:28:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\21949\20200812-7816.b\2240_208.D

Column 1 : Det: MS Quad
Process Host: CTX1057

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 PCB-52L	1.00	0.7629	76.29
$ 4 PCB-138L	1.00	0.7304	73.04

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Instrument ID: 21949 Start Date: 08/11/2020 14:19

Analysis Batch Number: 32133 End Date: 08/11/2020 18:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 410-32133/2		08/11/2020 14:19	1	2240_201.D	VF-5MS 0.25(mm)
WDM 410-32133/1		08/11/2020 14:39	1		VF-5MS 0.25(mm)
IC 410-32133/4		08/11/2020 15:35	1	2240_204.D	VF-5MS 0.25(mm)
IC 410-32133/5		08/11/2020 16:03	1	2240_205.D	VF-5MS 0.25(mm)
IC 410-32133/6		08/11/2020 16:32	1	2240_206.D	VF-5MS 0.25(mm)
IC 410-32133/7		08/11/2020 17:00	1	2240_207.D	VF-5MS 0.25(mm)
IC 410-32133/8		08/11/2020 17:28	1	2240_208.D	VF-5MS 0.25(mm)
ICV 410-32133/9		08/11/2020 17:57	1	2240_209.D	VF-5MS 0.25(mm)
ICB 410-32133/10		08/11/2020 18:25	1		VF-5MS 0.25(mm)
ZZZZZ		08/11/2020 18:53	1		VF-5MS 0.25(mm)

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-134814-1

SDG No.:

Instrument ID: 21949 Start Date: 08/19/2020 11:26

Analysis Batch Number: 34909 End Date: 08/19/2020 14:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 410-34909/1		08/19/2020 11:26	1	2320_001.D	VF-5MS 0.25(mm)
WDM 410-34909/2		08/19/2020 11:40	1		VF-5MS 0.25(mm)
CCVIS 410-34909/3		08/19/2020 12:08	1	2320_003.D	VF-5MS 0.25(mm)
ZZZZZ		08/19/2020 12:36	1		VF-5MS 0.25(mm)
MB 410-34321/1-A		08/19/2020 13:04	1	2320_005.D	VF-5MS 0.25(mm)
LCS 410-34321/2-A		08/19/2020 13:33	1	2320_006.D	VF-5MS 0.25(mm)
LCSD 410-34321/3-A		08/19/2020 14:01	1	2320_007.D	VF-5MS 0.25(mm)
240-134814-1	MRC-MW-164B-081120	08/19/2020 14:29	1	2320_008.D	VF-5MS 0.25(mm)
CCV 410-34909/9		08/19/2020 14:57	1	2320_009.D	VF-5MS 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 240-134814-1

SDG No.:

Batch Number: 34321 Batch Start Date: 08/18/20 07:43 Batch Analyst: Muniz Martinez, Elizabeth

Batch Method: 680 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	HRM_680_MS 00014	HRM_680_SURR 00013
MB 410-34321/1		680, 680		1.5 L	0.5 L	1000 mL	1 mL		1 mL
LCS 410-34321/2		680, 680		1.5 L	0.5 L	1000 mL	1 mL	1 mL	1 mL
LCSD 410-34321/3		680, 680		1.5 L	0.5 L	1000 mL	1 mL	1 mL	1 mL
240-134814-O-1	MRC-MW-164B-081120	680, 680	T	1.492 L	0.584 L	908 mL	1 mL		1 mL

Batch Notes	
Balance ID	17779
Batch Comment	Silica Gel: 29962081420D, Basic Silica Gel: 32964081120E, Acid Silica Gel: 31286081320F, Hexane:2034
Analyst ID - Concentration	EM16683 + cleanup
Equipment ID - Concentration 1	mvap dept 36
Analyst ID - Extraction	EM16683
Filter ID	00116723
Extraction 1 End Time	09:30
Extraction 1 Start Time	08:30
Na2SO4 ID	31286081320D
Prep Solvent ID	MeCl2:203170
Analyst ID - Spike Analyst	EM16683
Analyst ID - Spike Witness Analyst	NR32964
Water Bath ID	16986
Water Bath Temperature	94 Deg. C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW-164B-081120	240-134814-1	108
	MB 240-446979/3	110
	LCS 240-446979/4	113

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	60-140

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0813004.D

Lab ID: LCS 240-446979/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	475	443	93	80-120	
Ethane	438	463	106	80-120	
Ethylene	405	446	110	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: MB 240-446979/3

Matrix: Water Date Extracted:

Lab File ID:(1) Z0813003.D Lab File ID:(2)

Date Analyzed:(1) 08/13/2020 11:00 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-446979/4	08/13/2020 11:17	
MRC-MW-164B-081120	240-134814-1	08/13/2020 12:44	

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: STD 240-433969/6 Date Analyzed: 05/12/2020 09:44

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): Z0512006.D Heated Purge: (Y/N) N

Calibration ID: 57022

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
INITIAL CALIBRATION SURROGATE				3.58		
UPPER LIMIT				3.63		
LOWER LIMIT				3.53		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD 240-433969/6 ICRT		05/12/2020 09:44	Z0512006.D	3.58		
ICV 240-433969/11		05/12/2020 11:10	Z0512011.D	3.58		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Sample No.: CCVRT 240-446979/2 Date Analyzed: 08/13/2020 10:43

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): Z0813002.D Heated Purge: (Y/N) N

Calibration ID: 57022

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.60		
UPPER LIMIT				3.65		
LOWER LIMIT				3.55		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-446979/2		08/13/2020 10:43	Z0813002.D	3.60		
MB 240-446979/3		08/13/2020 11:00	Z0813003.D	3.59		
LCS 240-446979/4		08/13/2020 11:17	Z0813004.D	3.60		
240-134814-1	MRC-MW-164B-081120	08/13/2020 12:44	Z0813009.D	3.59		
CCV 240-446979/10		08/13/2020 13:01	Z0813010.D	3.59		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Matrix: Water Lab File ID: Z0813009.D

Analysis Method: RSK-175 Date Collected: 08/11/2020 14:20

Sample wt/vol: 23(mL) Date Analyzed: 08/13/2020 12:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 446979 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	11		1.0	0.17
74-84-0	Ethane	1.2		1.0	0.29
74-85-1	Ethylene	0.83	J	1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	108		60-140

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813009.D
Lims ID: 240-134814-D-1
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 13-Aug-2020 12:44:10 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-009
Operator ID: Instrument ID: ZPID

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:27 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:57:55

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1	Methane					
	1.347	1.350	-0.003	60991	11.3	
2	Ethylene					
	2.104	2.107	-0.003	3943	0.8293	
4	Ethane					
	2.439	2.442	-0.003	5652	1.15	
$	5 1,1,1-Trifluoroethane					
	3.592	3.597	-0.005	22937035	10479	

Reagents:

SARSKSURR_00014 Amount Added: 20.00 Units: mL Run Reagent

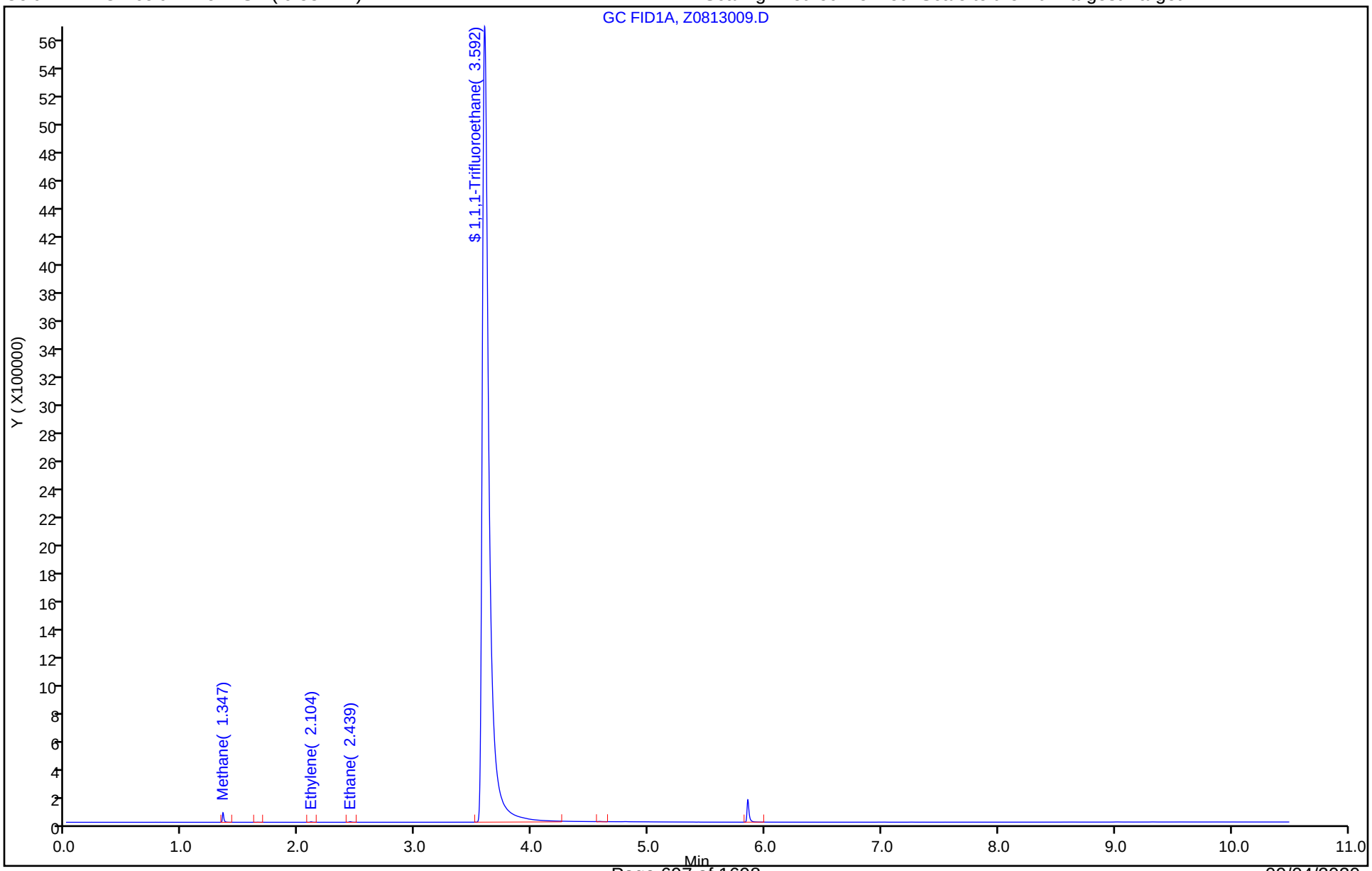
Report Date: 14-Aug-2020 04:58:28 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813009.D

Injection Date:	13-Aug-2020 12:44:10	Instrument ID:	ZPID	Operator ID:	
Lims ID:	240-134814-D-1	Lab Sample ID:	240-134814-1	Worklist Smp#:	9
Client ID:	MRC-MW-164B-081120				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813009.D
Lims ID: 240-134814-D-1
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 13-Aug-2020 12:44:10 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-009
Operator ID: Instrument ID: ZPID

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:27 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:57:55

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 1,1,1-Trifluoroethane	9730.4	10479	107.70

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 433969

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2020 08:36 Calibration End Date: 05/12/2020 10:18 Calibration ID: 57022

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-433969/2	Z0512002.D
Level 2	STD 240-433969/3	Z0512003.D
Level 3	STD 240-433969/4	Z0512004.D
Level 4	STD 240-433969/5	Z0512005.D
Level 5	STD 240-433969/6	Z0512006.D
Level 6	STD 240-433969/7	Z0512007.D
Level 7	STD 240-433969/8	Z0512008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Methane	1.343	1.342	1.342	1.340	1.340	1.340	1.339				1.290 - 1.390	1.341
Ethylene	2.098	2.096	2.095	2.094	2.093	2.093	2.088				2.043 - 2.143	2.094
Acetylene	+++++	2.214	2.212	2.212	2.210	2.211	2.208				2.160 - 2.260	2.211
Ethane	2.431	2.431	2.429	2.429	2.427	2.428	2.419				2.377 - 2.477	2.428
Propene	4.573	4.571	4.570	4.569	4.568	4.566	4.546				4.518 - 4.618	4.566
Propane	4.791	4.791	4.790	4.789	4.788	4.786	4.766				4.738 - 4.838	4.786
Isobutane	6.793	6.791	6.789	6.789	6.788	6.786	6.763				6.688 - 6.888	6.786
Butane	7.014	7.014	7.012	7.012	7.010	7.008	6.978				6.910 - 7.110	7.007
1-Butene	7.246	7.244	7.244	7.242	7.242	7.240	7.209				7.142 - 7.342	7.238
Pentane	9.318	9.317	9.317	9.315	9.315	9.311	9.278				9.215 - 9.415	9.310
1,1,1-Trifluoroethane	3.589	3.587	3.587	3.585	3.583	3.581					3.533 - 3.633	3.585

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 433969

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2020 08:36 Calibration End Date: 05/12/2020 10:18 Calibration ID: 57022

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-433969/2	Z0512002.D
Level 2	STD 240-433969/3	Z0512003.D
Level 3	STD 240-433969/4	Z0512004.D
Level 4	STD 240-433969/5	Z0512005.D
Level 5	STD 240-433969/6	Z0512006.D
Level 6	STD 240-433969/7	Z0512007.D
Level 7	STD 240-433969/8	Z0512008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Methane	8726.0 4937.8	7101.9 5392.2	4891.5 5350.4	5194.3	Lin1	729.999244	5344.31128							1.0000		0.9900
Ethylene	4888.2 4677.6	4540.2 4989.1	4397.5 4953.1	4838.4	Ave		4754.86335				4.7		20.0			
Acetylene	+++++ 2801.8	1827.6 3098.6	2012.1 3226.4	2464.0	Ave		2571.74095				22.3		30.0			
Ethane	4984.6 4804.3	4614.1 5262.3	4461.5 5281.8	4908.3	Ave		4902.41325				6.3		20.0			
Propene	4700.5 4536.3	4057.5 4916.5	4262.6 4877.9	4744.1	Ave		4585.05974				7.0		30.0			
Propane	4960.8 5012.1	4389.6 5435.6	4649.0 5417.5	5161.6	Ave		5003.73741				7.7		20.0			
Isobutane	4509.9 4845.5	4149.5 5287.6	4507.9 5263.3	4950.5	Ave		4787.75392				8.8		30.0			
Butane	4178.2 4499.6	4020.6 4885.7	4144.6 4855.9	4572.8	Ave		4451.07291				7.8		30.0			
1-Butene	5295.0 5257.4	4596.5 5781.5	4898.9 5620.1	5387.2	Ave		5262.38224				7.7		30.0			
Pentane	4549.5 4537.2	4155.6 5243.4	4264.6 5231.2	4646.5	Ave		4661.14691				9.2		30.0			
1,1,1-Trifluoroethane	2203.6 2186.1	2159.9 2201.3	2155.7	2226.0	Ave		2188.77108				1.2		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1 Analy Batch No.: 433969

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2020 08:36 Calibration End Date: 05/12/2020 10:18 Calibration ID: 57022

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-433969/2	Z0512002.D
Level 2	STD 240-433969/3	Z0512003.D
Level 3	STD 240-433969/4	Z0512004.D
Level 4	STD 240-433969/5	Z0512005.D
Level 5	STD 240-433969/6	Z0512006.D
Level 6	STD 240-433969/7	Z0512007.D
Level 7	STD 240-433969/8	Z0512008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methane	Lin1	2485 2301637	4045 22838100	13930	51774	492166	0.285 427	0.570 4268	2.85	9.97	99.7
Ethylene	Ave	2493 3815349	4631 37877978	22427	86366	834949	0.510 765	1.02 7647	5.10	17.9	179
Acetylene	Ave	+++++ 2317264	1710 24128450	9413	40345	458769	+++++ 748	0.936 7478	4.68	16.4	164
Ethane	Ave	2657 4208960	4919 42245173	23782	91571	896314	0.533 800	1.07 7998	5.33	18.7	187
Propene	Ave	3509 5505768	6058 54625347	31821	123955	1185268	0.747 1120	1.49 11198	7.47	26.1	261
Propane	Ave	3891 6395154	6886 63737669	36464	141697	1375918	0.784 1177	1.57 11765	7.84	27.5	275
Isobutane	Ave	4655 8188003	8566 81503838	46529	178843	1750504	1.03 1549	2.06 15485	10.3	36.1	361
Butane	Ave	4309 7557937	8293 75119269	42743	165060	1624175	1.03 1547	2.06 15470	10.3	36.1	361
1-Butene	Ave	5272 8635652	9153 83946674	48776	187733	1832095	0.996 1494	1.99 14937	9.96	34.8	348
Pentane	Ave	5851 10116285	10689 100927212	54847	209151	2042332	1.29 1929	2.57 19293	12.9	45.0	450
1,1,1-Trifluoroethane	Ave	659779 24715789	970026	1613576	5831653	11454120	299 11228	449	749	2620	5240

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512002.D
Lims ID: STD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-May-2020 08:36:26 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-002
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:46 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

First Level Reviewer: nestorj Date: 12-May-2020 09:13:57

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						
	1.343	1.340	0.003	2485	0.2848	0.3284	
	2 Ethylene						
	2.098	2.093	0.005	2493	0.5100	0.5243	
	3 Acetylene						
	2.214	2.210	0.004	1026	0.4678	0.3990	
	4 Ethane						
	2.431	2.427	0.004	2657	0.5330	0.5420	
$	5 1,1,1-Trifluoroethane						
	3.589	3.583	0.006	659779	299.4	301.4	
	6 Propene						
	4.573	4.568	0.005	3509	0.7465	0.7653	
	7 Propane						
	4.791	4.788	0.003	3891	0.7843	0.7776	
	8 Propane, 2-methyl						Ma
	6.793	6.788	0.005	4655	1.03	0.9723	Ma
	9 Butane						
	7.014	7.010	0.004	4309	1.03	0.9681	
	10 1-Butene						
	7.246	7.242	0.004	5272	1.00	1.00	
	11 Pentane						
	9.318	9.315	0.003	5851	1.29	1.26	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

SARSKLOWCAL2_00001	Amount Added:	10.00	Units: uL
SAICALSURR_00016	Amount Added:	40.00	Units: uL

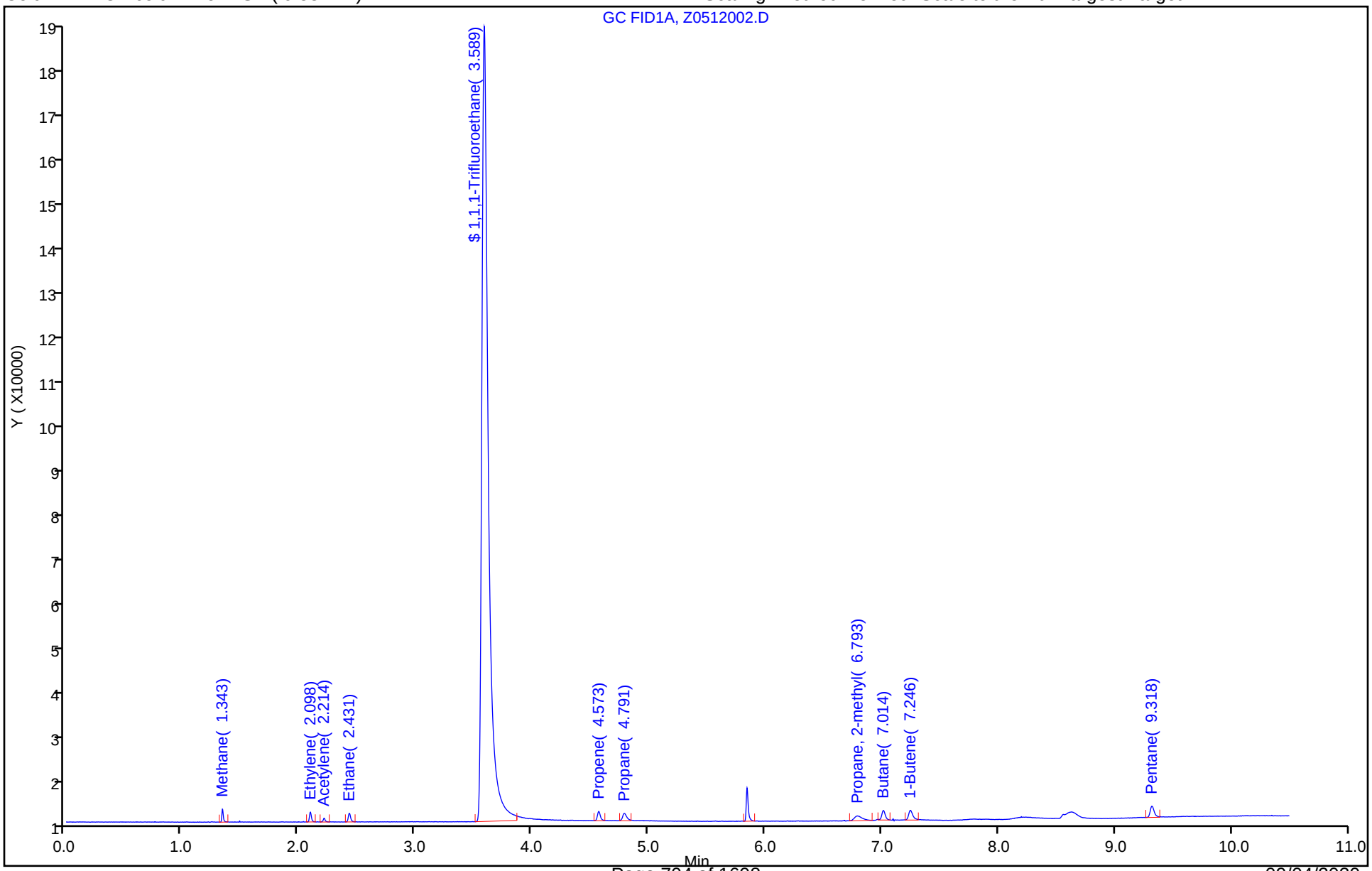
Report Date: 12-May-2020 11:29:47 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512002.D

Injection Date:	12-May-2020 08:36:26	Instrument ID:	ZPID	Operator ID:	
Lims ID:	STD 1			Worklist Smp#:	2
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

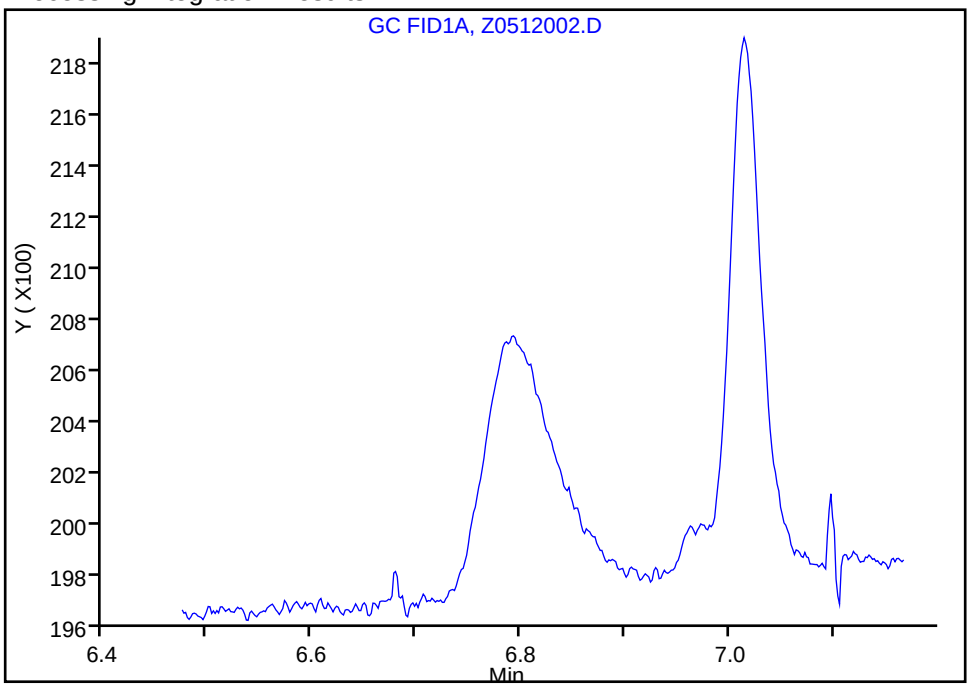
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512002.D
Injection Date: 12-May-2020 08:36:26 Instrument ID: ZPID
Lims ID: STD 1
Client ID:
Operator ID: ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

8 Propane, 2-methyl, CAS: 75-28-5

Signal: 1

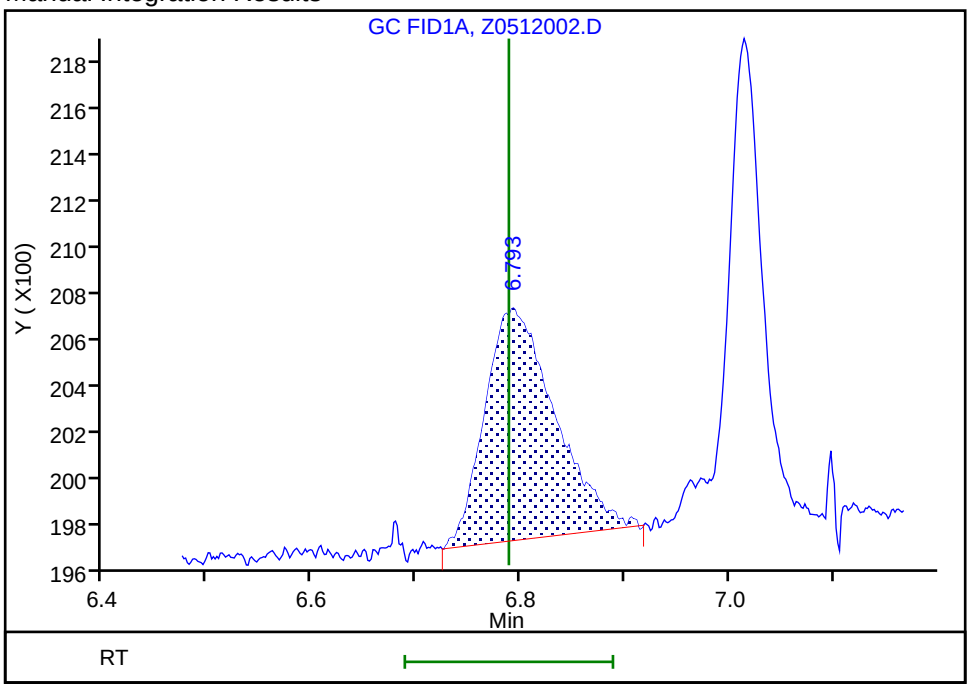
Not Detected
Expected RT: 6.79

Processing Integration Results



Manual Integration Results

RT: 6.79
Area: 4655
Amount: 0.972272
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:13:25
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Lims ID: STD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-May-2020 08:53:26 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-003
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:47 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

First Level Reviewer: nestorj Date: 12-May-2020 09:26:11

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						
	1.342	1.340	0.002	4045	0.5696	0.6203	
	2 Ethylene						M
	2.096	2.093	0.003	4631	1.02	0.9740	M
	3 Acetylene						M
	2.214	2.210	0.004	1710	0.9357	0.6649	M
	4 Ethane						M
	2.431	2.427	0.004	4919	1.07	1.00	M
$	5 1,1,1-Trifluoroethane						
	3.587	3.583	0.004	970026	449.1	443.2	
	6 Propene						M
	4.571	4.568	0.003	6058	1.49	1.32	M
	7 Propane						M
	4.791	4.788	0.003	6886	1.57	1.38	M
	8 Propane, 2-methyl						M
	6.791	6.788	0.003	8566	2.06	1.79	M
	9 Butane						
	7.014	7.010	0.004	8293	2.06	1.86	
	10 1-Butene						
	7.244	7.242	0.002	9153	1.99	1.74	
	11 Pentane						M
	9.317	9.315	0.002	10689	2.57	2.29	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SARSKLOWCAL2_00001	Amount Added:	20.00	Units: uL
SAICALSURR_00016	Amount Added:	60.00	Units: uL

Report Date: 12-May-2020 11:29:47 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D

Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID Operator ID:

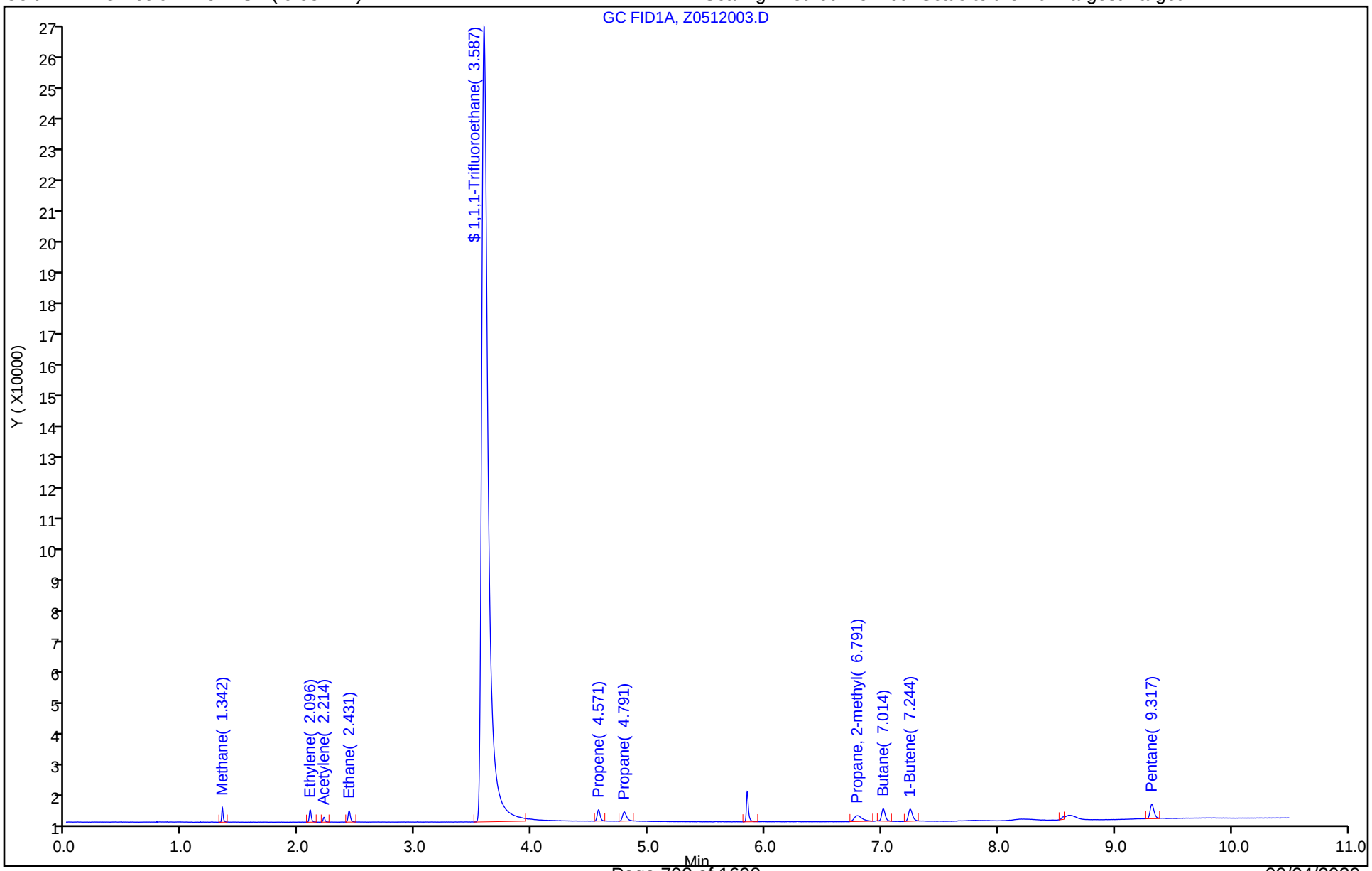
Lims ID: STD 2 Worklist Smp#: 3

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: RSK175 Limit Group: GCV RSK 175 ICAL

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

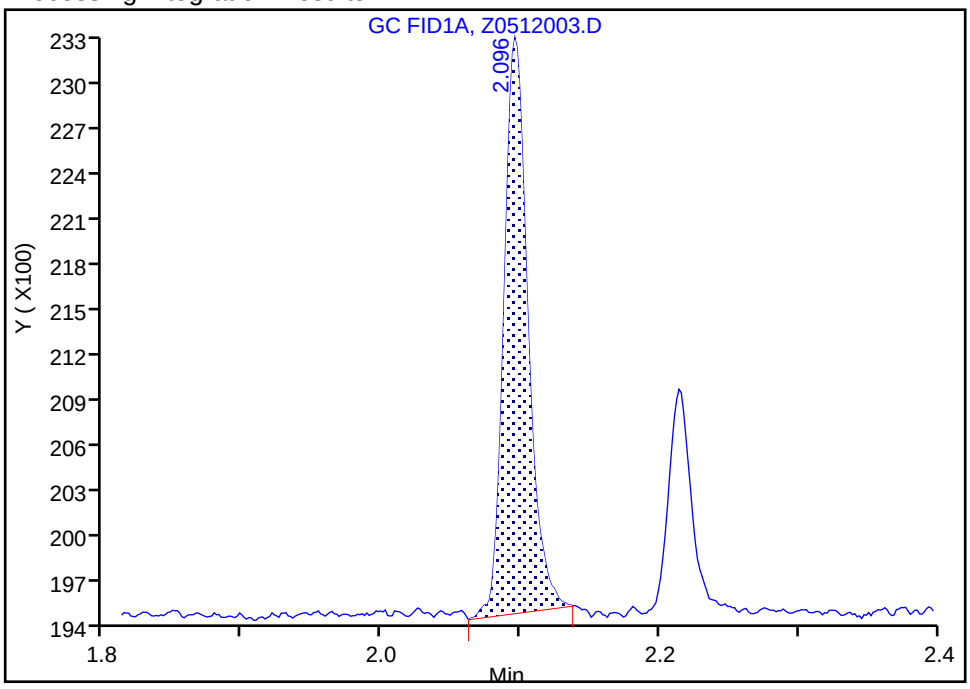
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID
Lims ID: STD 2
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

2 Ethylene, CAS: 74-85-1

Signal: 1

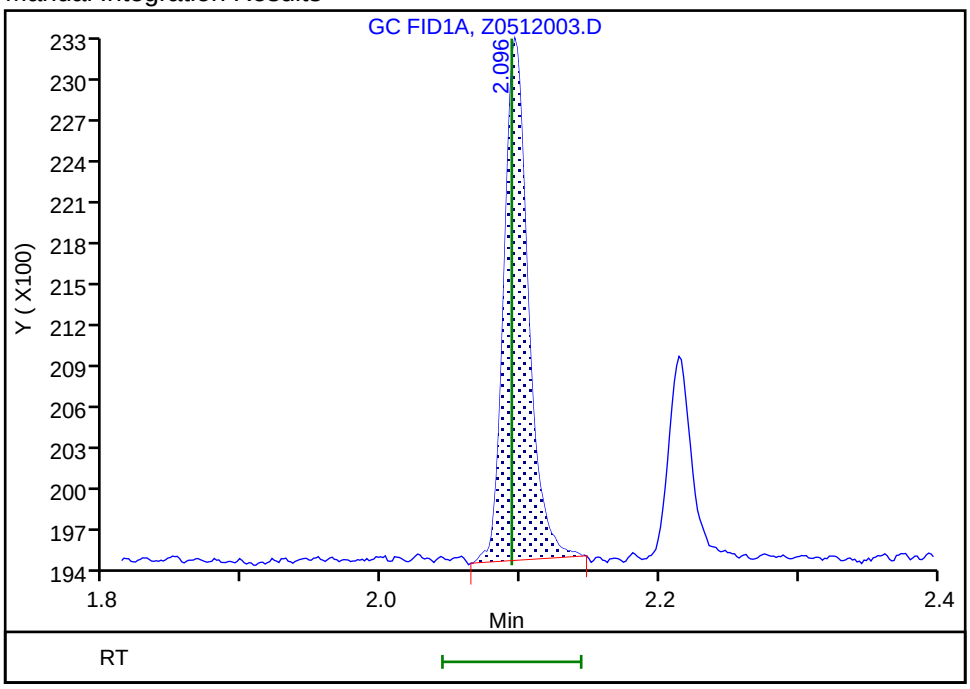
Processing Integration Results

RT: 2.10
Area: 4571
Amount: 0.975708
Amount Units: ug/l



Manual Integration Results

RT: 2.10
Area: 4631
Amount: 0.973950
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:22:42
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Canton

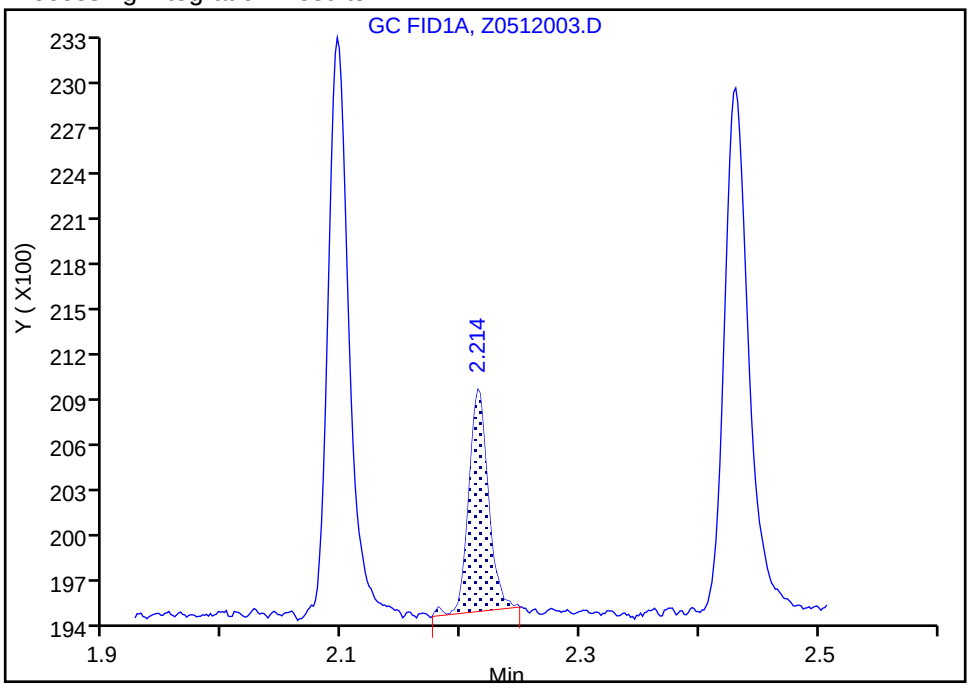
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID
Lims ID: STD 2
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

3 Acetylene, CAS: 74-86-2

Signal: 1

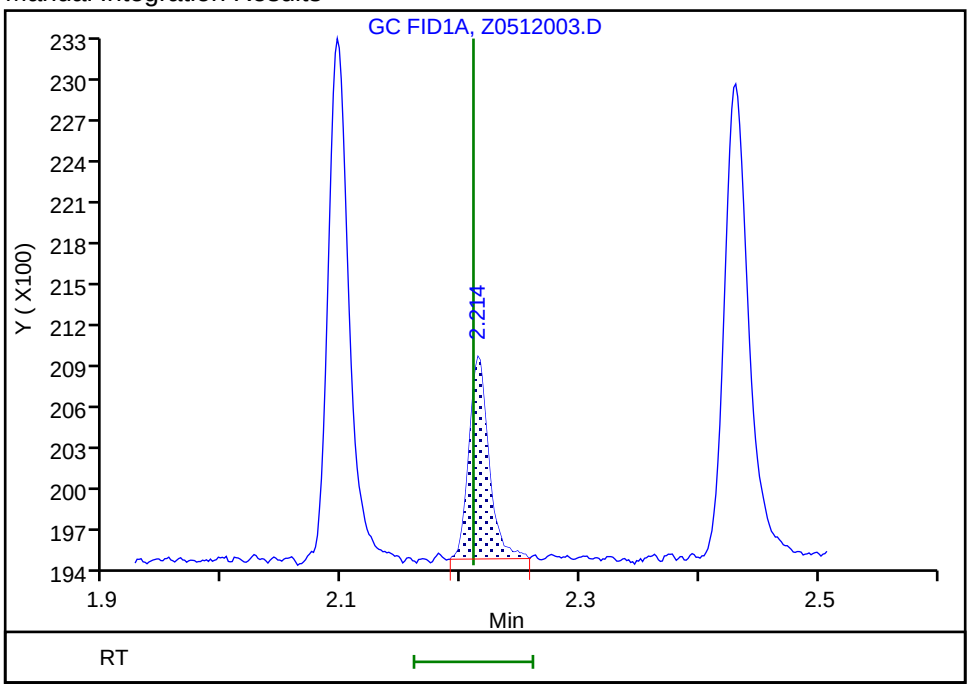
Processing Integration Results

RT: 2.21
Area: 1659
Amount: 0.836565
Amount Units: ug/l



Manual Integration Results

RT: 2.21
Area: 1710
Amount: 0.664919
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:23:04
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

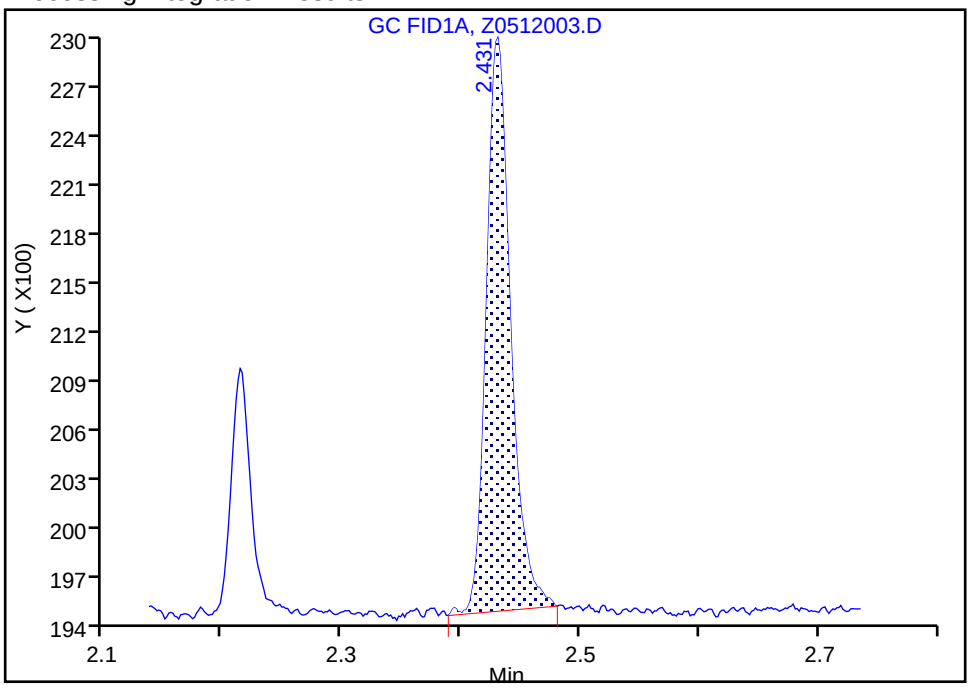
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID
Lims ID: STD 2
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

4 Ethane, CAS: 74-84-0

Signal: 1

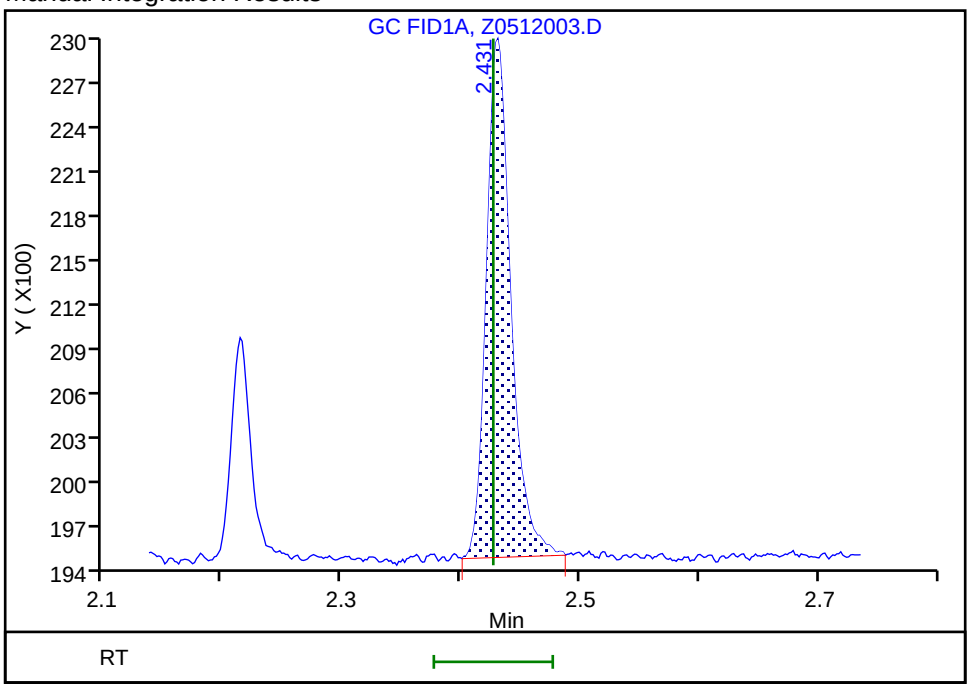
Processing Integration Results

RT: 2.43
Area: 4896
Amount: 1.022441
Amount Units: ug/l



Manual Integration Results

RT: 2.43
Area: 4919
Amount: 1.003383
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:23:51
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

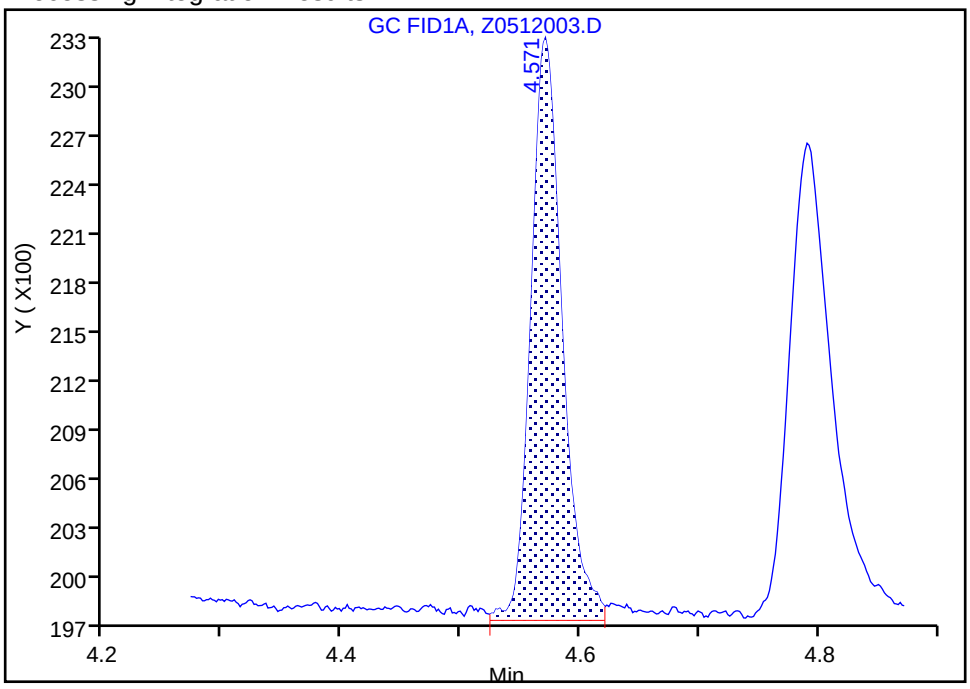
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID
Lims ID: STD 2
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

6 Propene, CAS: 115-07-1

Signal: 1

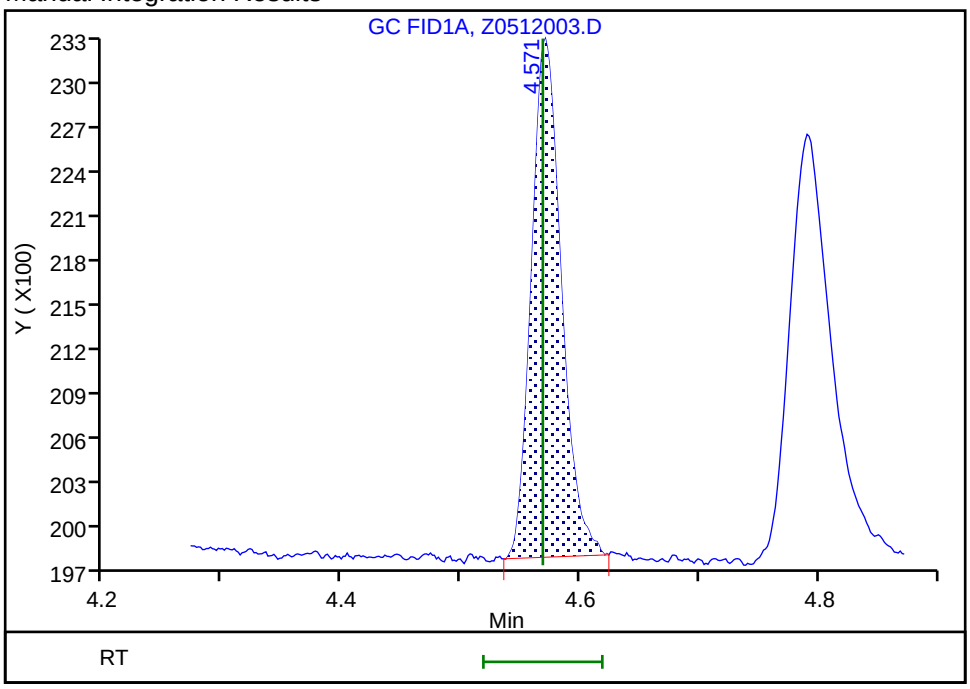
Processing Integration Results

RT: 4.57
Area: 6454
Amount: 1.430538
Amount Units: ug/l



Manual Integration Results

RT: 4.57
Area: 6058
Amount: 1.321248
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:24:28
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

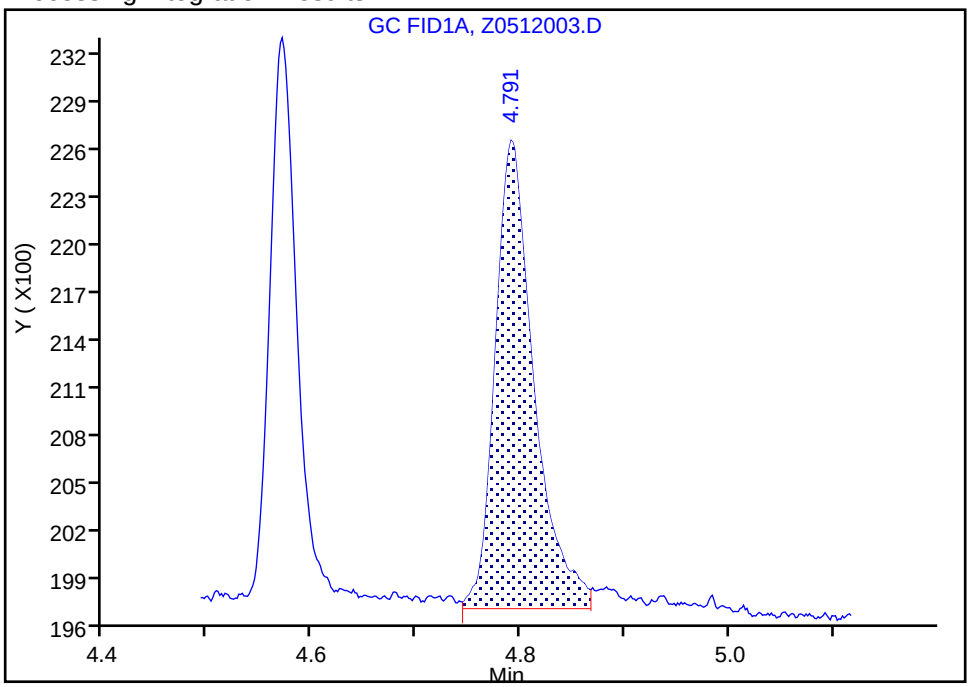
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID
Lims ID: STD 2
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

7 Propane, CAS: 74-98-6

Signal: 1

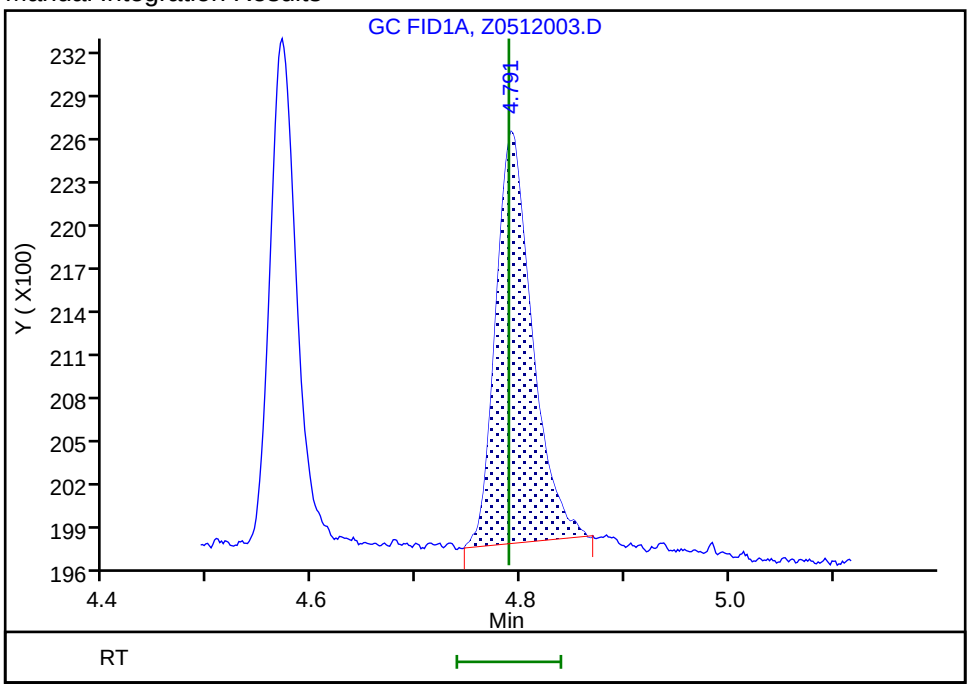
Processing Integration Results

RT: 4.79
Area: 7533
Amount: 1.543191
Amount Units: ug/l



Manual Integration Results

RT: 4.79
Area: 6886
Amount: 1.376171
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:24:43
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Canton

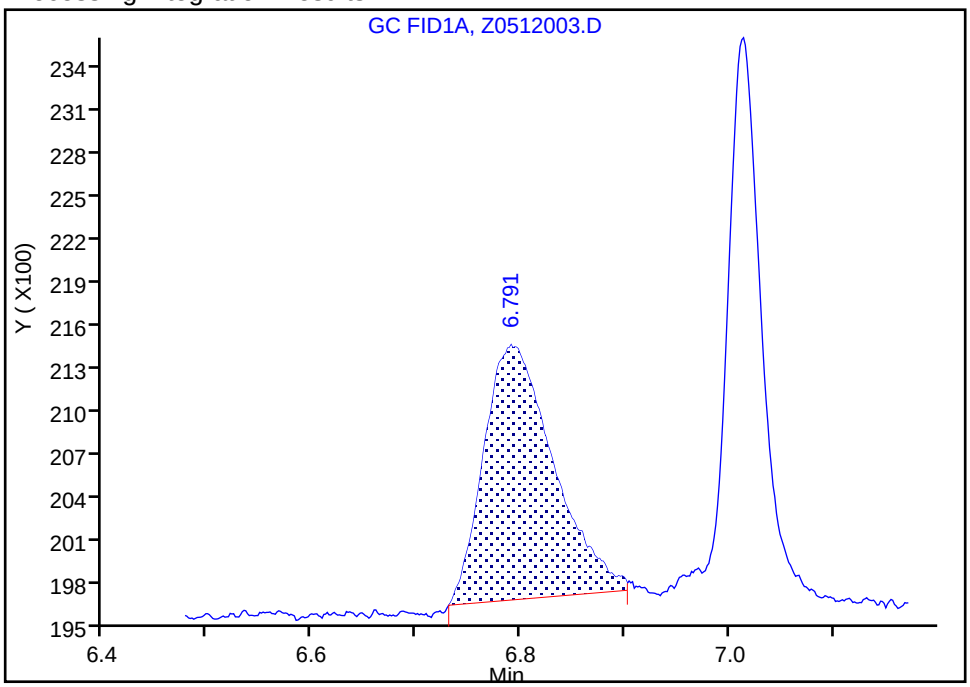
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID
Lims ID: STD 2
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

8 Propane, 2-methyl, CAS: 75-28-5

Signal: 1

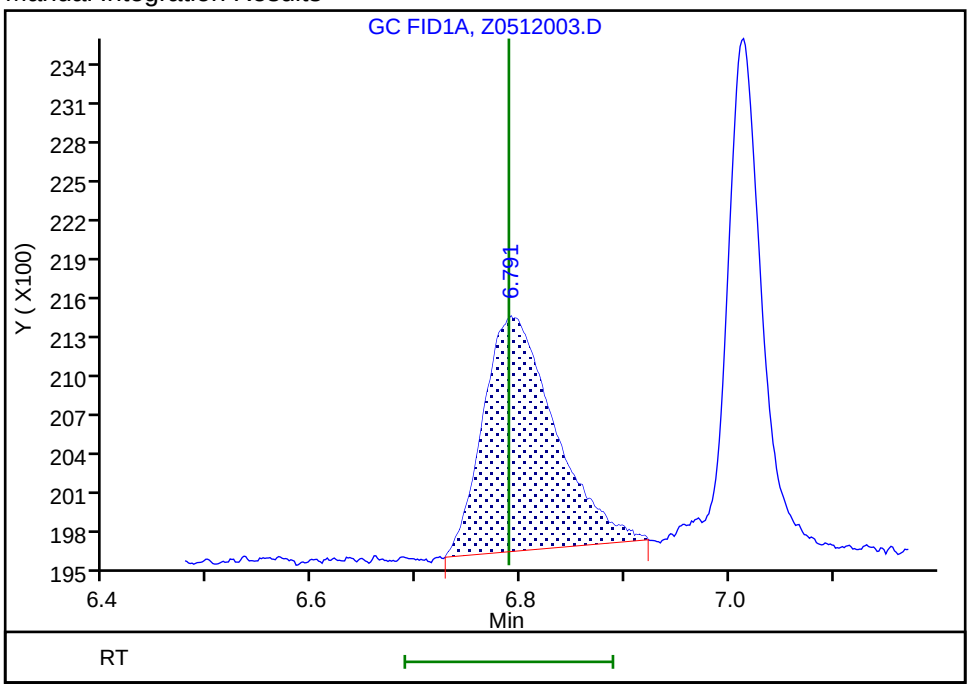
Processing Integration Results

RT: 6.79
Area: 8156
Amount: 1.927954
Amount Units: ug/l



Manual Integration Results

RT: 6.79
Area: 8566
Amount: 1.789148
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:25:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

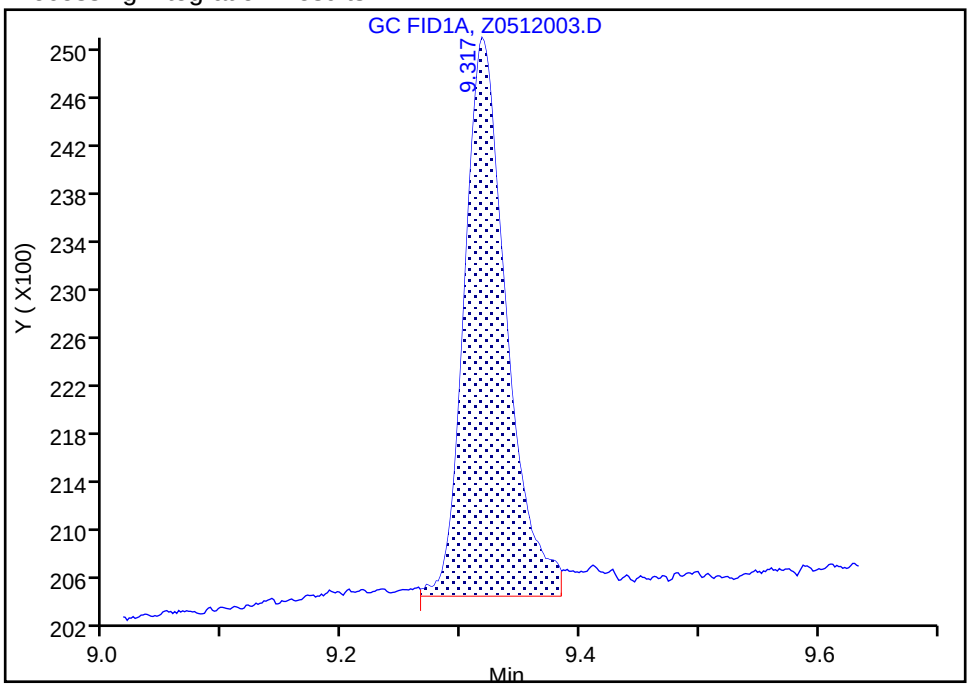
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512003.D
Injection Date: 12-May-2020 08:53:26 Instrument ID: ZPID
Lims ID: STD 2
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

11 Pentane, CAS: 109-66-0

Signal: 1

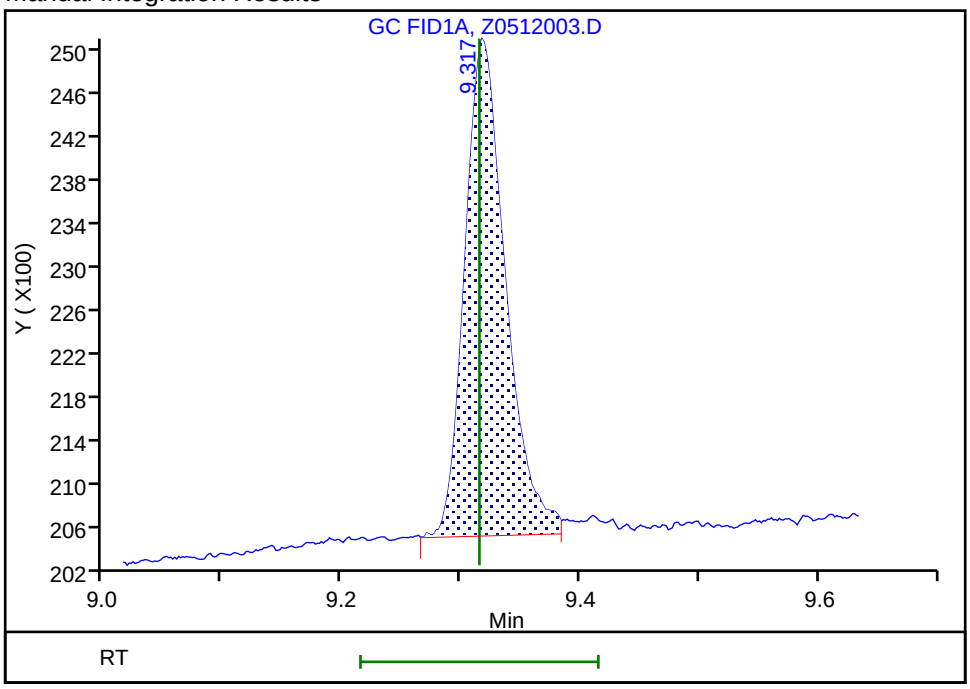
Processing Integration Results

RT: 9.32
Area: 11175
Amount: 2.512921
Amount Units: ug/l



Manual Integration Results

RT: 9.32
Area: 10689
Amount: 2.293212
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:25:53
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512004.D
Lims ID: STD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-May-2020 09:10:32 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-004
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:48 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

First Level Reviewer: nestorj Date: 12-May-2020 09:41:47

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						
	1.342	1.340	0.002	13930	2.85	2.47	
	2 Ethylene						M
	2.095	2.093	0.002	22427	5.10	4.72	M
	3 Acetylene						
	2.212	2.210	0.002	9413	4.68	3.66	
	4 Ethane						
	2.429	2.427	0.002	23782	5.33	4.85	
$	5 1,1,1-Trifluoroethane						
	3.587	3.583	0.004	1613576	748.5	737.2	
	6 Propene						
	4.570	4.568	0.002	31821	7.47	6.94	
	7 Propane						
	4.790	4.788	0.002	36464	7.84	7.29	
	8 Propane, 2-methyl						
	6.789	6.788	0.001	46529	10.3	9.72	
	9 Butane						M
	7.012	7.010	0.002	42743	10.3	9.60	M
	10 1-Butene						
	7.244	7.242	0.002	48776	9.96	9.27	
	11 Pentane						
	9.317	9.315	0.002	54847	12.9	11.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SARSKLOWCAL2_00001	Amount Added: 100.00	Units: uL
SAICALSURR_00016	Amount Added: 100.00	Units: uL

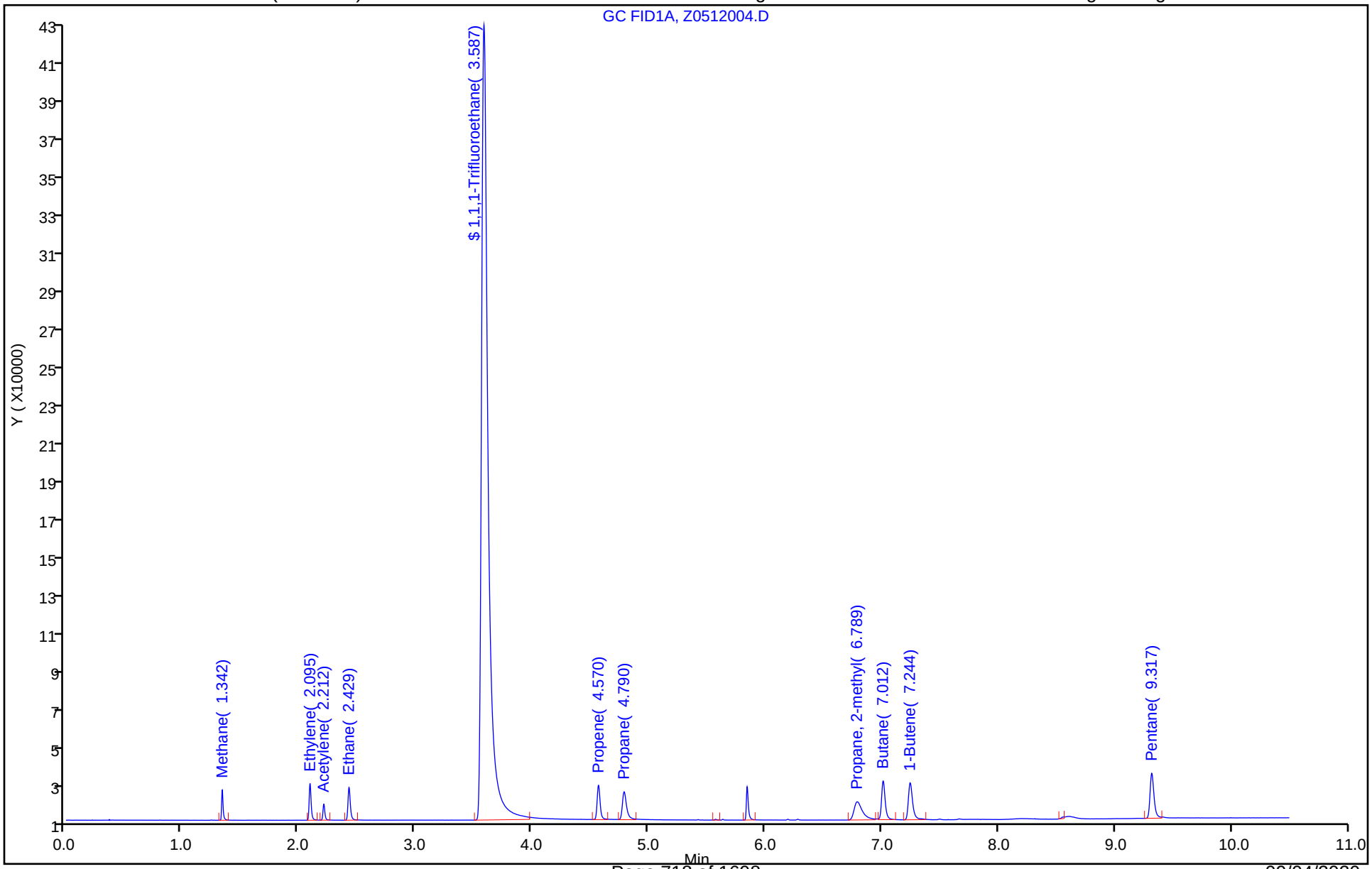
Report Date: 12-May-2020 11:29:48 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512004.D

Injection Date:	12-May-2020 09:10:32	Instrument ID:	ZPID	Operator ID:	
Lims ID:	STD 3			Worklist Smp#:	4
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Canton

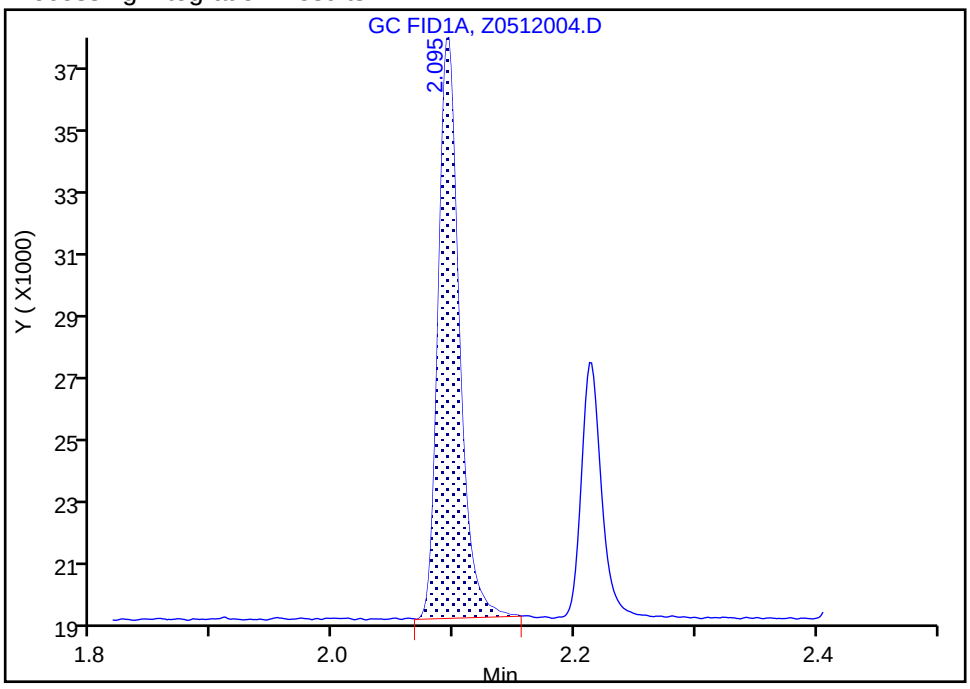
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512004.D
Injection Date: 12-May-2020 09:10:32 Instrument ID: ZPID
Lims ID: STD 3
Client ID:
Operator ID: ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

2 Ethylene, CAS: 74-85-1

Signal: 1

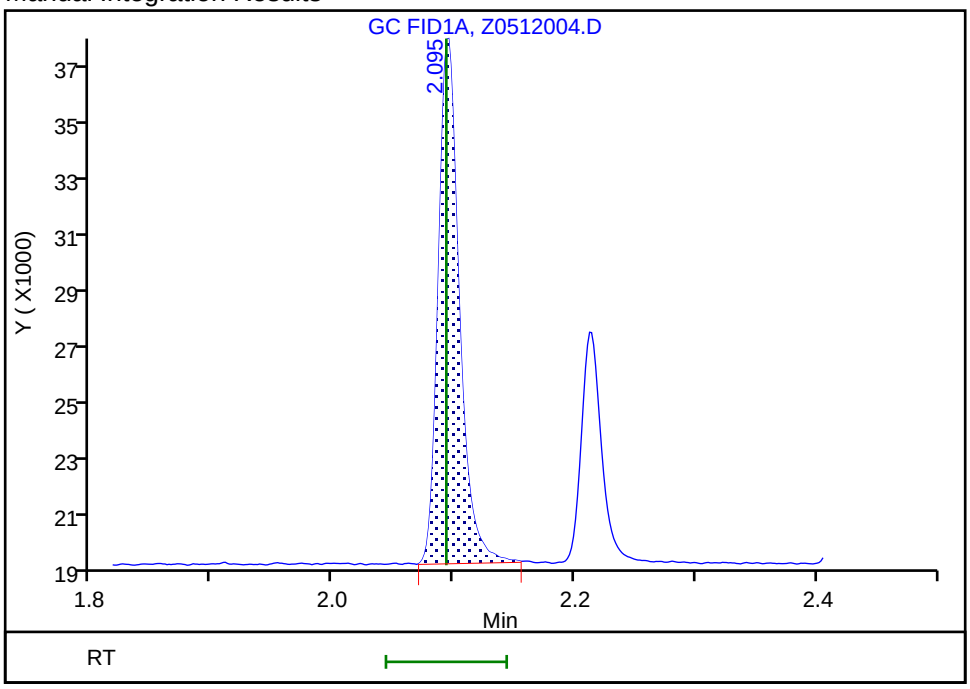
Processing Integration Results

RT: 2.10
Area: 22339
Amount: 4.853270
Amount Units: ug/l



Manual Integration Results

RT: 2.10
Area: 22427
Amount: 4.716644
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:34:37
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

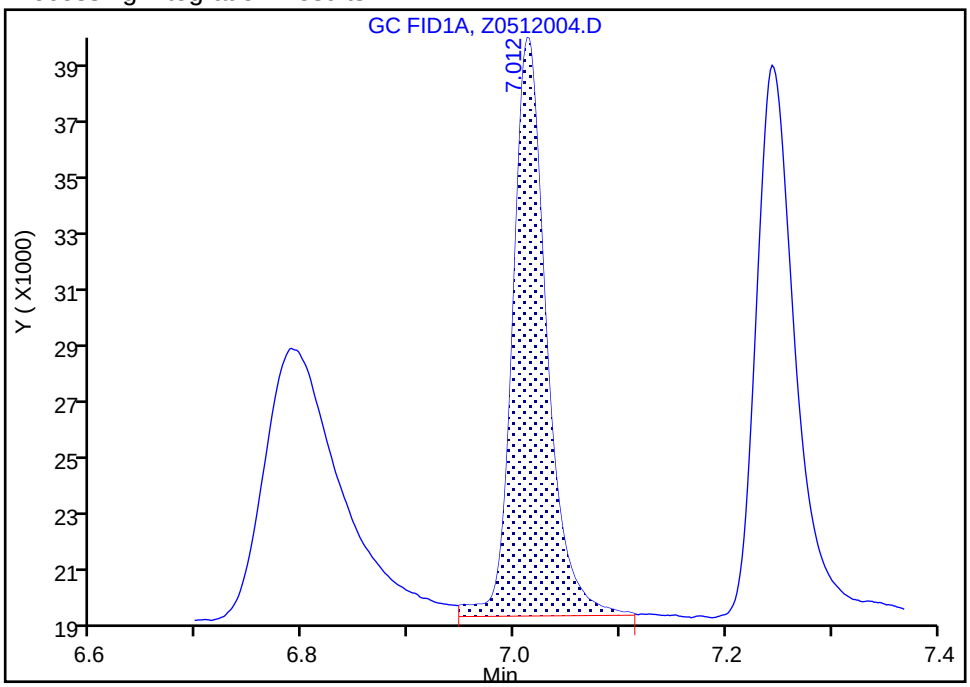
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512004.D
Injection Date: 12-May-2020 09:10:32 Instrument ID: ZPID
Lims ID: STD 3
Client ID:
Operator ID: ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

9 Butane, CAS: 106-97-8

Signal: 1

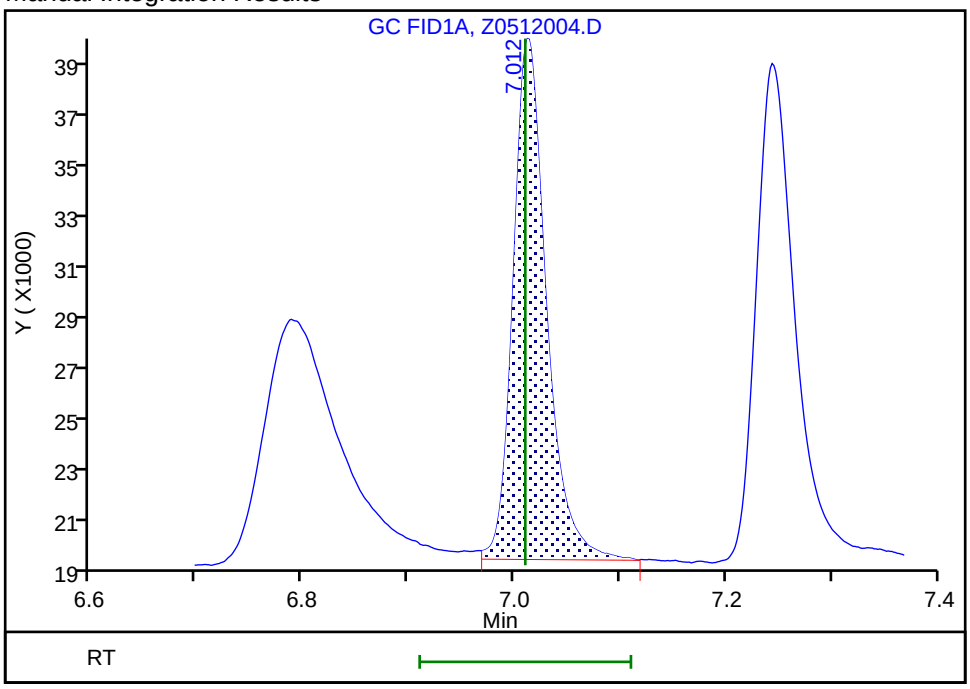
Processing Integration Results

RT: 7.01
Area: 43720
Amount: 10.544991
Amount Units: ug/l



Manual Integration Results

RT: 7.01
Area: 42743
Amount: 9.602853
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 09:35:56
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512005.D
Lims ID: STD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-May-2020 09:27:37 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-005
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:48 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

First Level Reviewer: nestorj Date: 12-May-2020 10:29:24

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						
	1.340	1.340	0.000	51774	9.97	9.55	
	2 Ethylene						
	2.094	2.093	0.001	86366	17.9	18.2	
	3 Acetylene						
	2.212	2.210	0.002	40345	16.4	15.7	
	4 Ethane						
	2.429	2.427	0.002	91571	18.7	18.7	
$	5 1,1,1-Trifluoroethane						
	3.585	3.583	0.002	5831653	2619.8	2664.4	
	6 Propene						
	4.569	4.568	0.001	123955	26.1	27.0	
	7 Propane						
	4.789	4.788	0.001	141697	27.5	28.3	
	8 Propane, 2-methyl						
	6.789	6.788	0.001	178843	36.1	37.4	
	9 Butane						M
	7.012	7.010	0.002	165060	36.1	37.1	M
	10 1-Butene						
	7.242	7.242	0.000	187733	34.8	35.7	
	11 Pentane						M
	9.315	9.315	0.000	209151	45.0	44.9	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SARSKLOWCAL2_00001	Amount Added: 350.00	Units: uL
SAICALSURR_00016	Amount Added: 350.00	Units: uL

Report Date: 12-May-2020 11:29:48 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512005.D

Injection Date: 12-May-2020 09:27:37 Instrument ID: ZPID Operator ID:

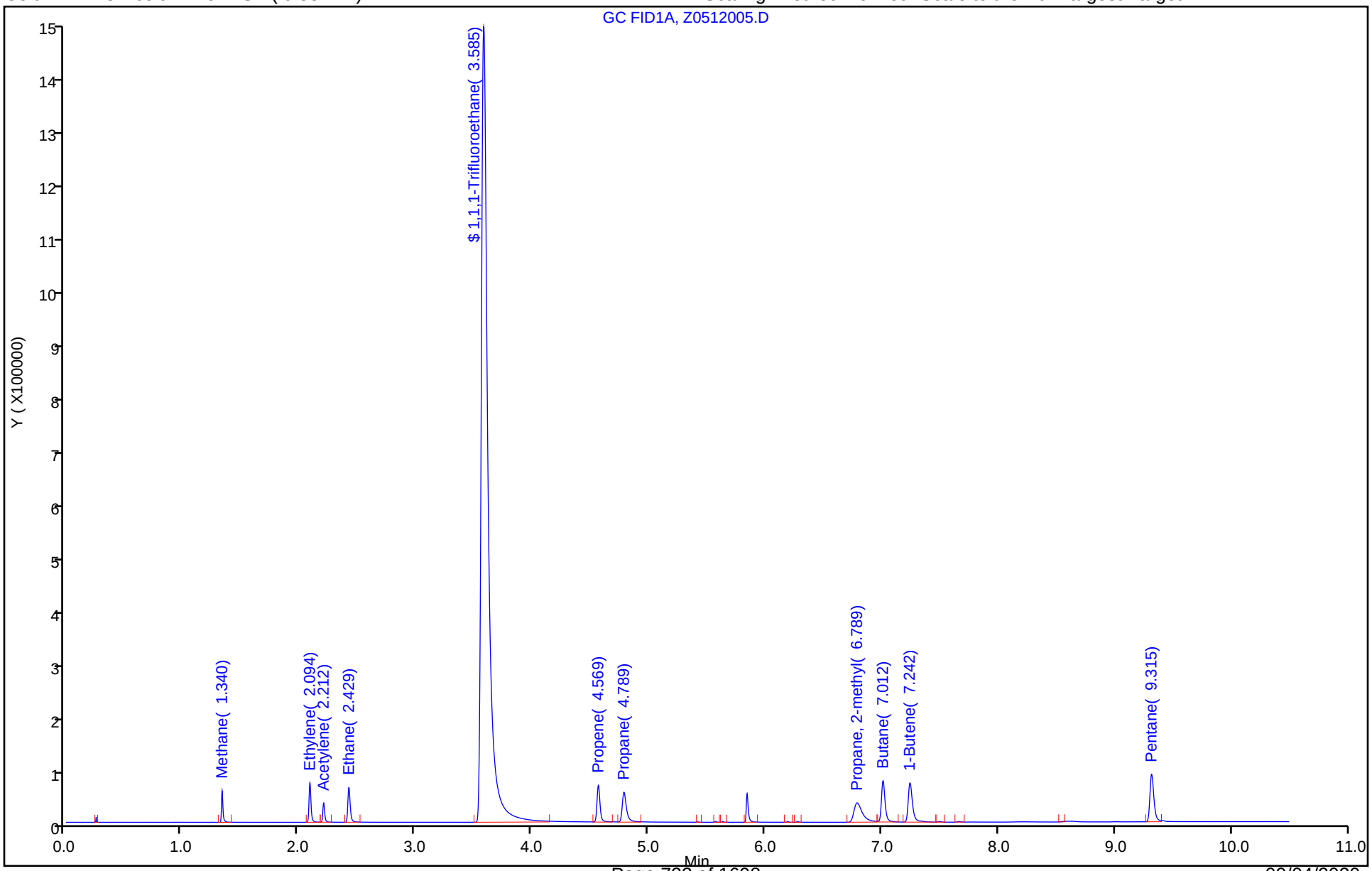
Lims ID: STD 4 Worklist Smp#: 5

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 5

Method: RSK175 Limit Group: GCV RSK 175 ICAL

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

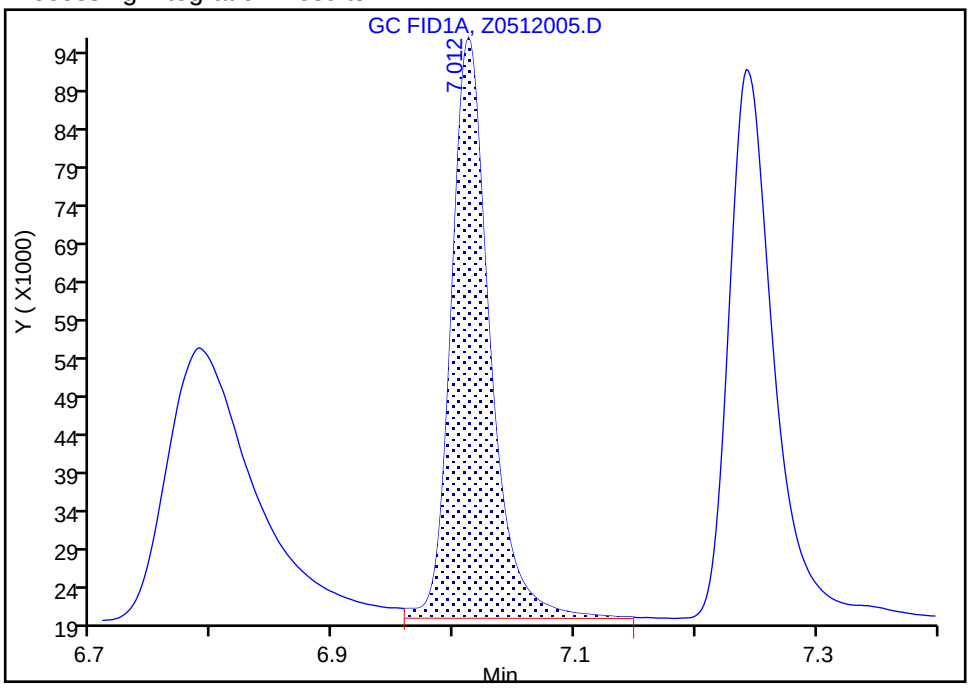
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512005.D
Injection Date: 12-May-2020 09:27:37 Instrument ID: ZPID
Lims ID: STD 4
Client ID:
Operator ID: ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

9 Butane, CAS: 106-97-8

Signal: 1

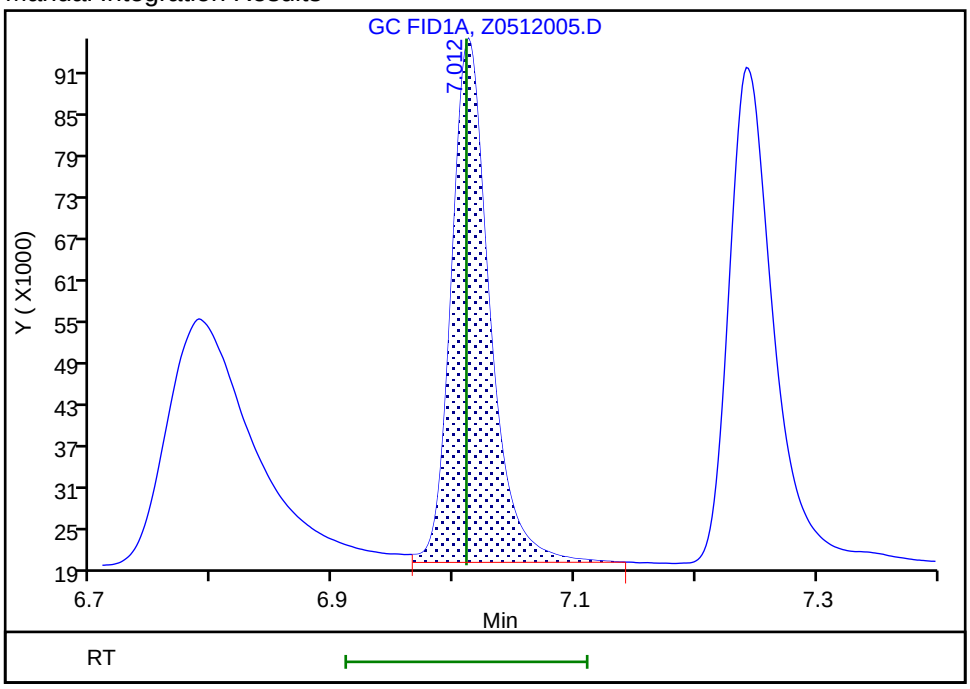
Processing Integration Results

RT: 7.01
Area: 167245
Amount: 37.501228
Amount Units: ug/l



Manual Integration Results

RT: 7.01
Area: 165060
Amount: 37.083194
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 11:06:27
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

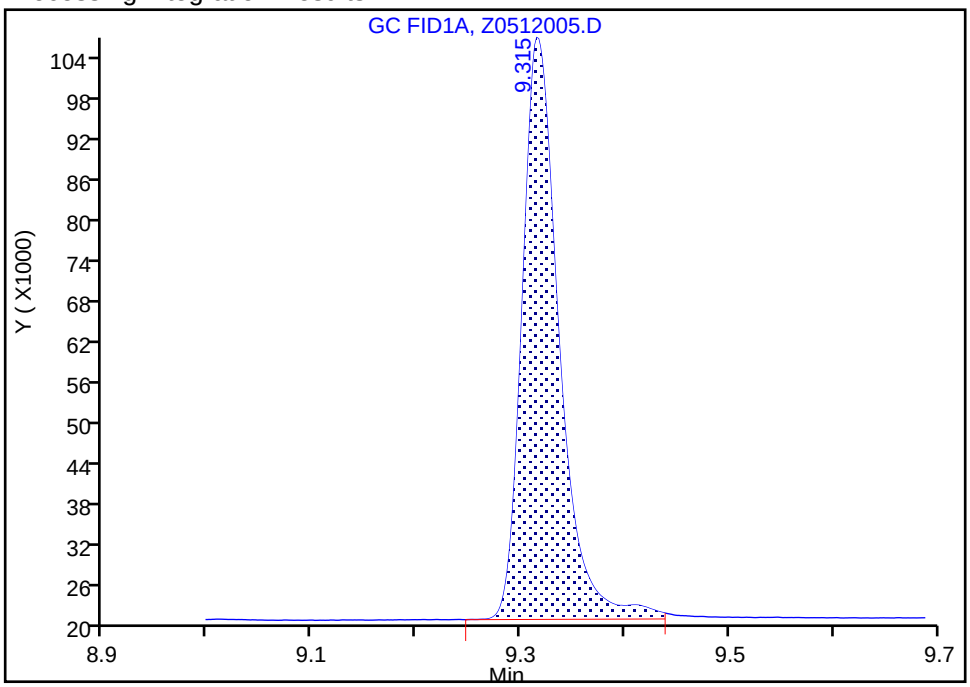
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512005.D
Injection Date: 12-May-2020 09:27:37 Instrument ID: ZPID
Lims ID: STD 4
Client ID:
Operator ID: ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

11 Pentane, CAS: 109-66-0

Signal: 1

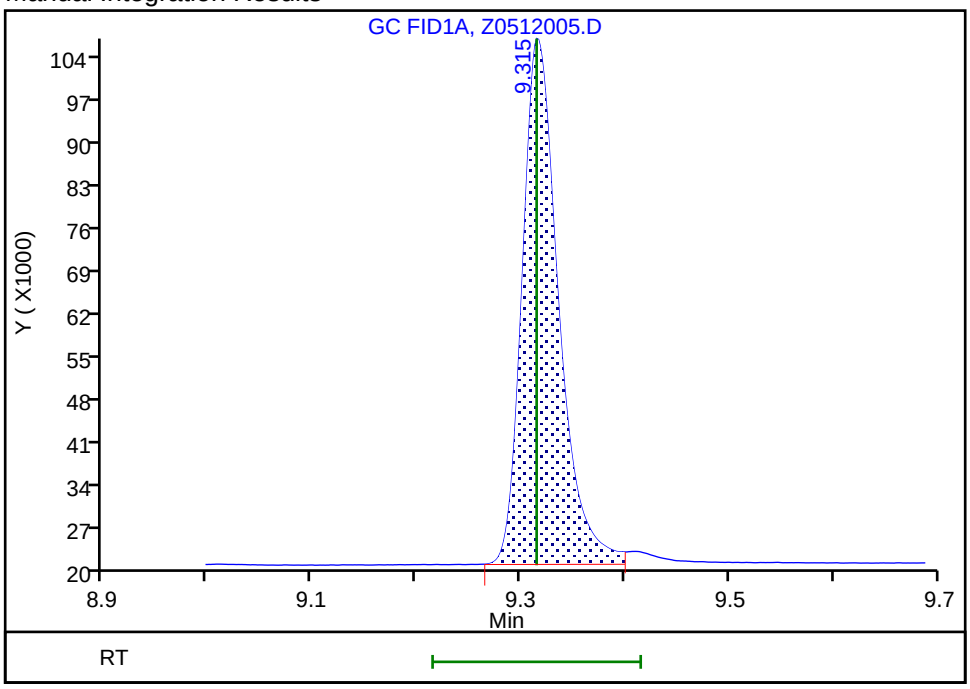
Processing Integration Results

RT: 9.32
Area: 212918
Amount: 46.487802
Amount Units: ug/l



Manual Integration Results

RT: 9.32
Area: 209151
Amount: 44.871145
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 10:29:16
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512006.D
Lims ID: STD 5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 12-May-2020 09:44:41 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-006
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:48 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

First Level Reviewer: nestorj Date: 12-May-2020 10:22:55

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Methane						
	1.340	1.340	0.000	492166	99.7	92.0	
2	Ethylene						
	2.093	2.093	0.000	834949	178.5	175.6	
3	Acetylene						
	2.210	2.210	0.000	458769	163.7	178.4	
4	Ethane						
	2.427	2.427	0.000	896314	186.6	182.8	
$ 5	1,1,1-Trifluoroethane						
	3.583	3.583	0.000	11454120	5239.6	5233.1	
6	Propene						
	4.568	4.568	0.000	1185268	261.3	258.5	
7	Propane						
	4.788	4.788	0.000	1375918	274.5	275.0	
8	Propane, 2-methyl						
	6.788	6.788	0.000	1750504	361.3	365.6	
9	Butane						
	7.010	7.010	0.000	1624175	361.0	364.9	
10	1-Butene						
	7.242	7.242	0.000	1832095	348.5	348.1	
11	Pentane						M
	9.315	9.315	0.000	2042332	450.1	438.2	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SARSKLOWCAL2_00001	Amount Added:	3.50	Units: mL
SAICALSURR_00016	Amount Added:	0.70	Units: mL

Report Date: 12-May-2020 11:29:49 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512006.D

Injection Date: 12-May-2020 09:44:41 Instrument ID: ZPID Operator ID:

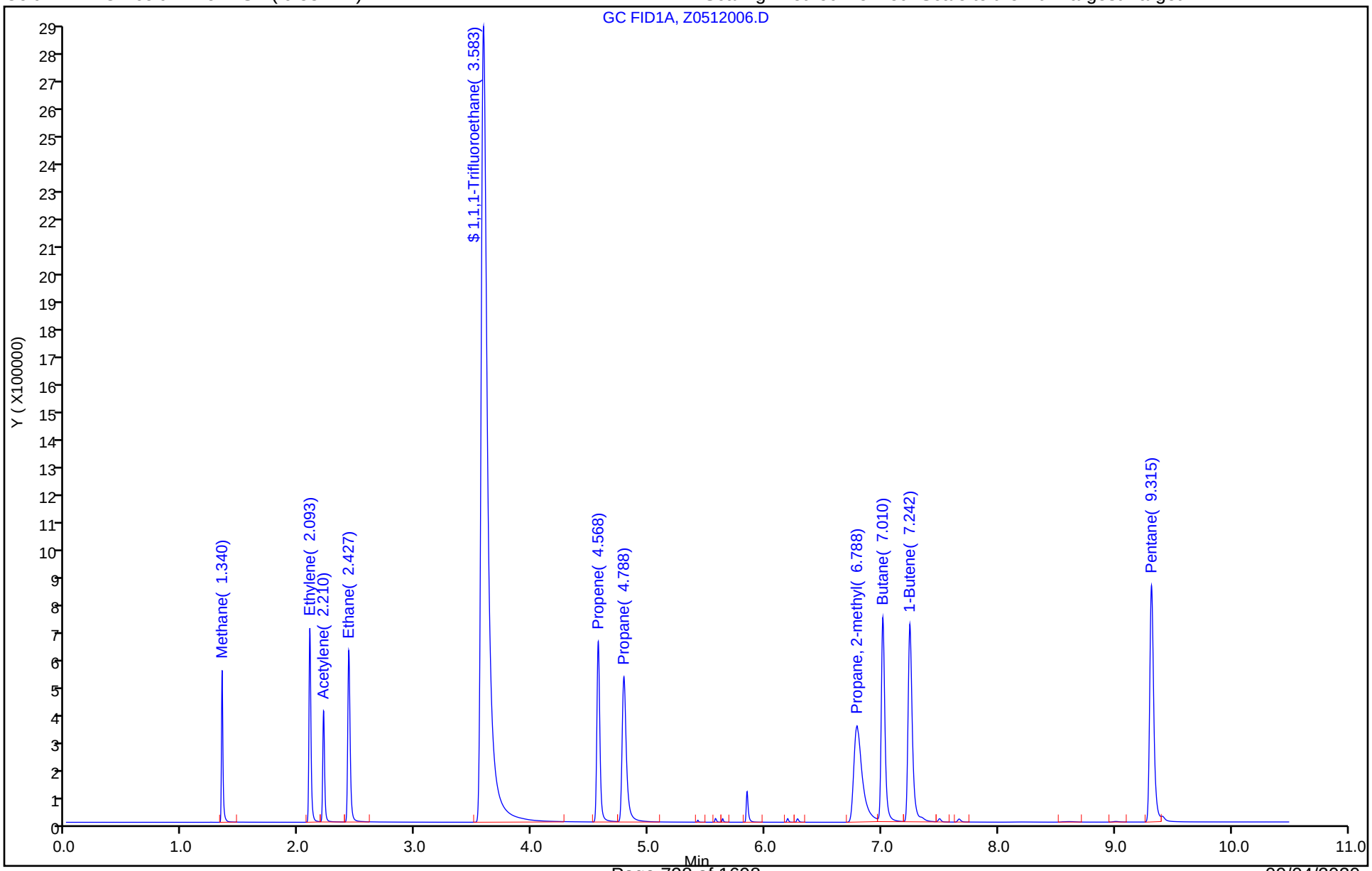
Lims ID: STD 5 Worklist Smp#: 6

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

Method: RSK175 Limit Group: GCV RSK 175 ICAL

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Canton

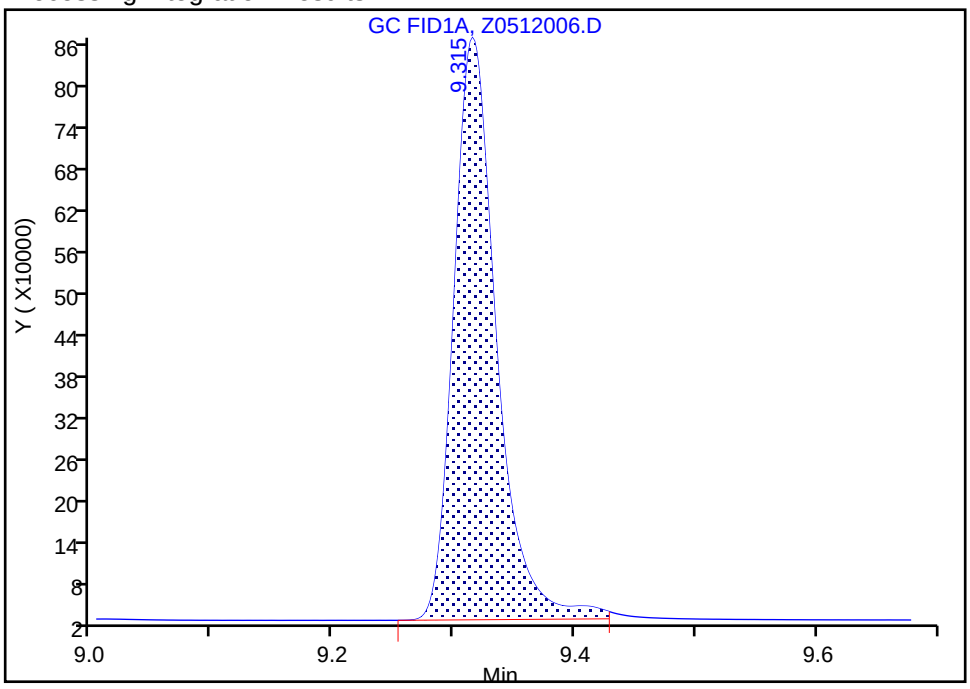
Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512006.D
Injection Date: 12-May-2020 09:44:41 Instrument ID: ZPID
Lims ID: STD 5
Client ID:
Operator ID: ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK175 Limit Group: GCV RSK 175 ICAL
Column: PLOT column for RSK (0.53 mm) Detector GC FID1A

11 Pentane, CAS: 109-66-0

Signal: 1

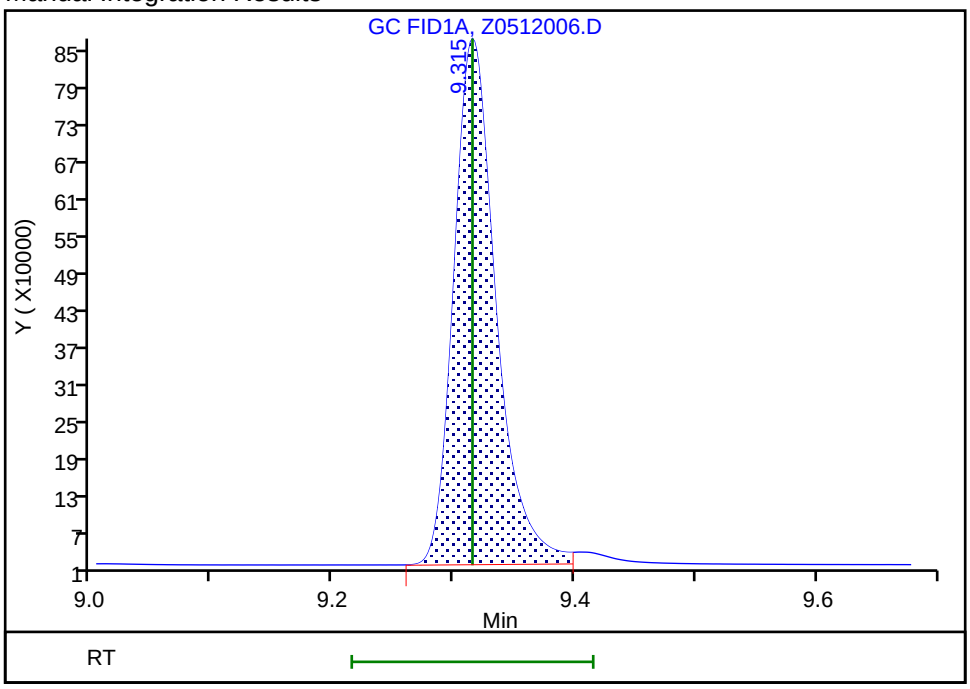
Processing Integration Results

RT: 9.32
Area: 2068904
Amount: 453.5202
Amount Units: ug/l



Manual Integration Results

RT: 9.32
Area: 2042332
Amount: 438.1608
Amount Units: ug/l



Reviewer: nestorj, 12-May-2020 10:28:33
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512007.D
Lims ID: STD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-May-2020 10:01:42 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-007
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:49 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

First Level Reviewer: nestorj Date: 12-May-2020 10:21:58

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Methane						
	1.340	1.340	0.000	2301637	426.8	430.5	
2	Ethylene						
	2.093	2.093	0.000	3815349	764.7	802.4	
3	Acetylene						
	2.211	2.210	0.001	2317264	747.8	901.0	
4	Ethane						
	2.428	2.427	0.001	4208960	799.8	858.5	
$ 5	1,1,1-Trifluoroethane						
	3.581	3.583	-0.002	24715789	11228	11292	
6	Propene						
	4.566	4.568	-0.002	5505768	1119.8	1200.8	
7	Propane						
	4.786	4.788	-0.002	6395154	1176.5	1278.1	
8	Propane, 2-methyl						
	6.786	6.788	-0.002	8188003	1548.5	1710.2	
9	Butane						
	7.008	7.010	-0.002	7557937	1547.0	1698.0	
10	1-Butene						
	7.240	7.242	-0.002	8635652	1493.7	1641.0	
11	Pentane						
	9.311	9.315	-0.004	10116285	1929.3	2170.3	

Reagents:

SARSKHighCal2_00001	Amount Added:	1.50	Units: mL
SAICALSURR_00016	Amount Added:	1.50	Units: mL

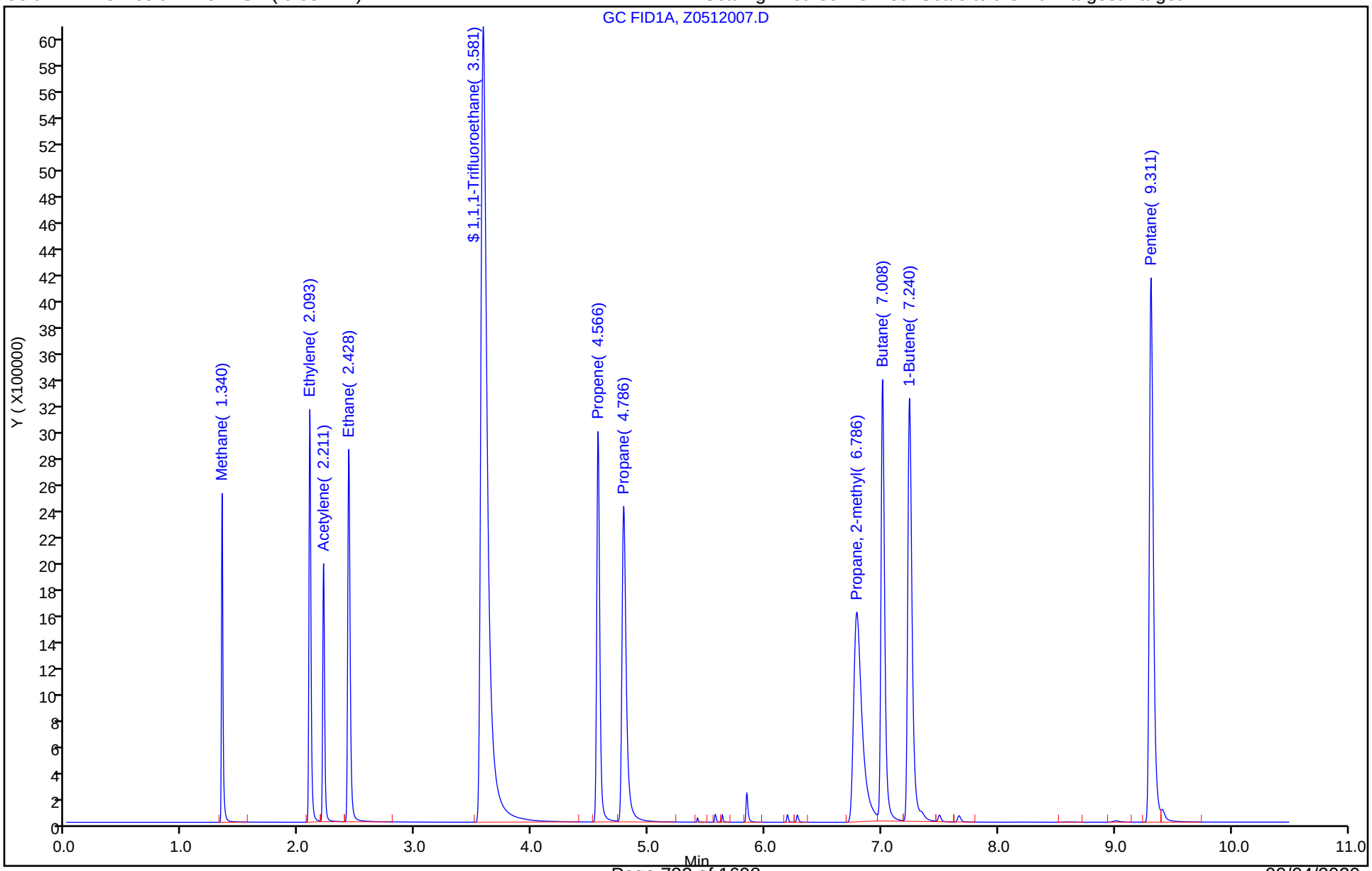
Report Date: 12-May-2020 11:29:49 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512007.D

Injection Date:	12-May-2020 10:01:42	Instrument ID:	ZPID	Operator ID:	
Lims ID:	STD 6			Worklist Smp#:	7
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D
Lims ID: STD 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-May-2020 10:18:42 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-008
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:49 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

First Level Reviewer: nestorj Date: 12-May-2020 10:40:32

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane						
1.339	1.340	-0.001	22838100	4268.5	4273.2	
2 Ethylene						
2.088	2.093	-0.005	37877978	7647.4	7966.2	
3 Acetylene						
2.208	2.210	-0.002	24128450	7478.5	9382.1	
4 Ethane						
2.419	2.427	-0.008	42245173	7998.3	8617.2	
6 Propene						
4.546	4.568	-0.022	54625347	11198	11914	
7 Propane						
4.766	4.788	-0.022	63737669	11765	12738	
8 Propane, 2-methyl						
6.763	6.788	-0.025	81503838	15485	17023	
9 Butane						
6.978	7.010	-0.032	75119269	15470	16877	
10 1-Butene						
7.209	7.242	-0.033	83946674	14937	15952	
11 Pentane						
9.278	9.315	-0.037	100927212	19293	21653	

Reagents:

SARSKHighCal2_00001 Amount Added: 15.00 Units: mL

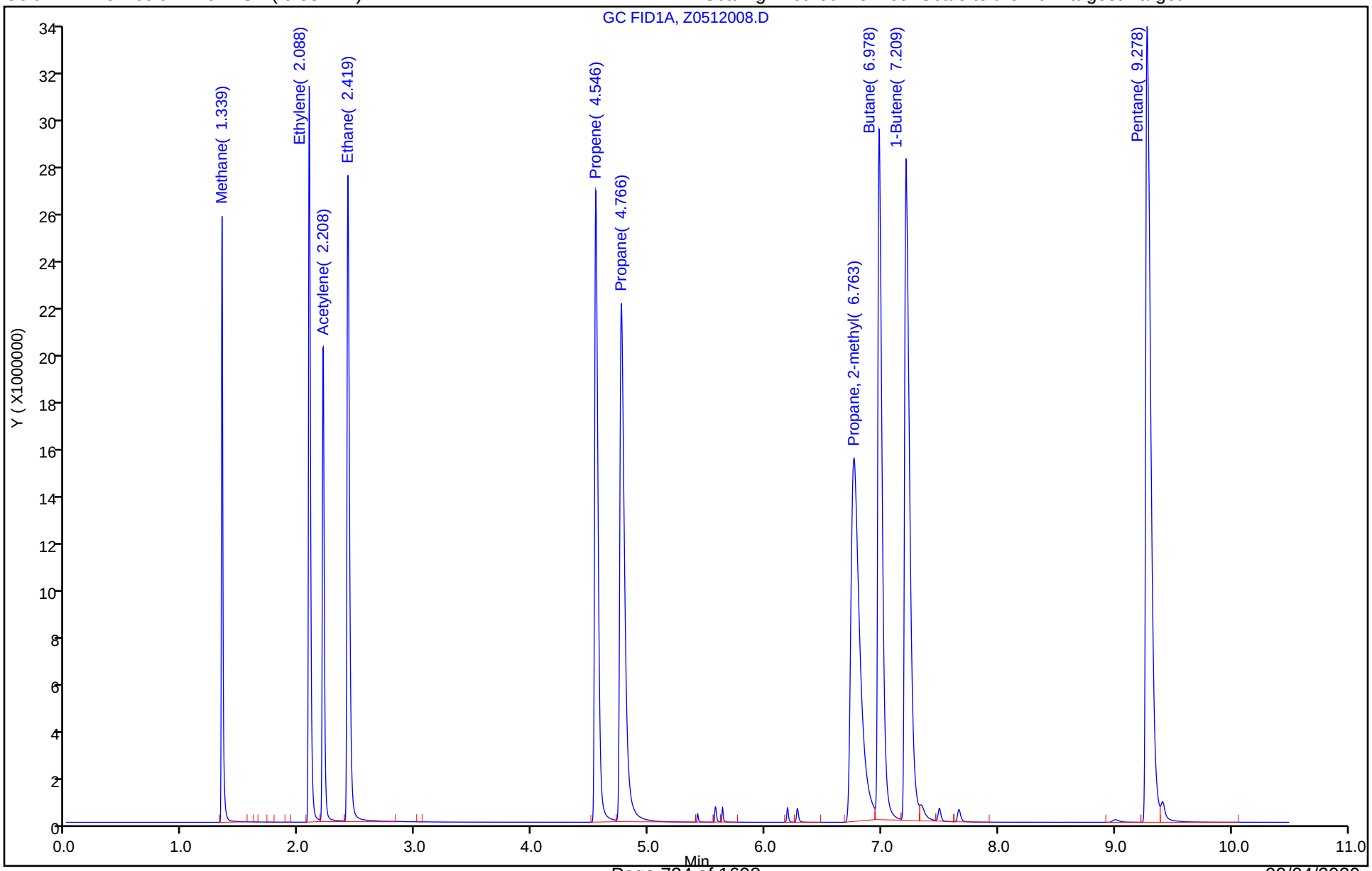
Report Date: 12-May-2020 11:29:49 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Injection Date:	12-May-2020 10:18:42	Instrument ID:	ZPID	Operator ID:	
Lims ID:	STD 7			Worklist Smp#:	8
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-433969/11 Calibration Date: 05/12/2020 11:10

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0512011.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin1		5127		272	284	-4.1	20.0
Ethylene	Ave	4755	4789		510	506	0.7	20.0
Acetylene	Ave	2572	3088		553	461	20.1	30.0
Ethane	Ave	4902	4988		546	537	1.7	20.0
Propene	Ave	4585	4639		758	750	1.2	30.0
Propane	Ave	5004	5146		809	787	2.8	20.0
Isobutane	Ave	4788	4942		1070	1040	3.2	30.0
Butane	Ave	4451	4418		1030	1030	-0.7	30.0
1-Butene	Ave	5262	5226		989	996	-0.7	30.0
Pentane	Ave	4661	4185		1170	1310	-10.2	30.0
1,1,1-Trifluoroethane	Ave	2189	2395		10100	9240	9.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICV 240-433969/11 Calibration Date: 05/12/2020 11:10

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0512011.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.34	1.29	1.39
Ethylene	2.09	2.04	2.14
Acetylene	2.21	2.16	2.26
Ethane	2.43	2.38	2.48
Propene	4.57	4.52	4.62
Propane	4.79	4.74	4.84
Isobutane	6.79	6.69	6.89
Butane	7.01	6.91	7.11
1-Butene	7.24	7.14	7.34
Pentane	9.31	9.22	9.42
1,1,1-Trifluoroethane	3.58	3.53	3.63

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512011.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 12-May-2020 11:10:11 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0098190-011
Operator ID: Instrument ID: ZPID
Sublist:

Method: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 12-May-2020 11:29:49 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX0310

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						
	1.339	1.340	-0.001	1455935	284.0	272.3	
	2 Ethylene						
	2.092	2.093	-0.001	2424670	506.3	509.9	
	3 Acetylene						
	2.211	2.210	0.001	1422343	460.6	553.1	
	4 Ethane						
	2.427	2.427	0.000	2678078	537.0	546.3	
$	5 1,1,1-Trifluoroethane						
	3.581	3.583	-0.002	22135017	9243.9	10113	
	6 Propene						
	4.566	4.568	-0.002	3477208	749.6	758.4	
	7 Propane						
	4.787	4.788	-0.001	4048337	786.7	809.1	
	8 Propane, 2-methyl						
	6.786	6.788	-0.002	5122591	1036.5	1069.9	
	9 Butane						
	7.009	7.010	-0.001	4569973	1034.4	1026.7	
	10 1-Butene						
	7.239	7.242	-0.003	5203972	995.8	988.9	
	11 Pentane						
	9.314	9.315	-0.001	5463206	1305.5	1172.1	

Reagents:

SARSKSURR_00014 Amount Added: 19.00 Units: mL
SARSK2NDSRCE2_00002 Amount Added: 1.00 Units: mL

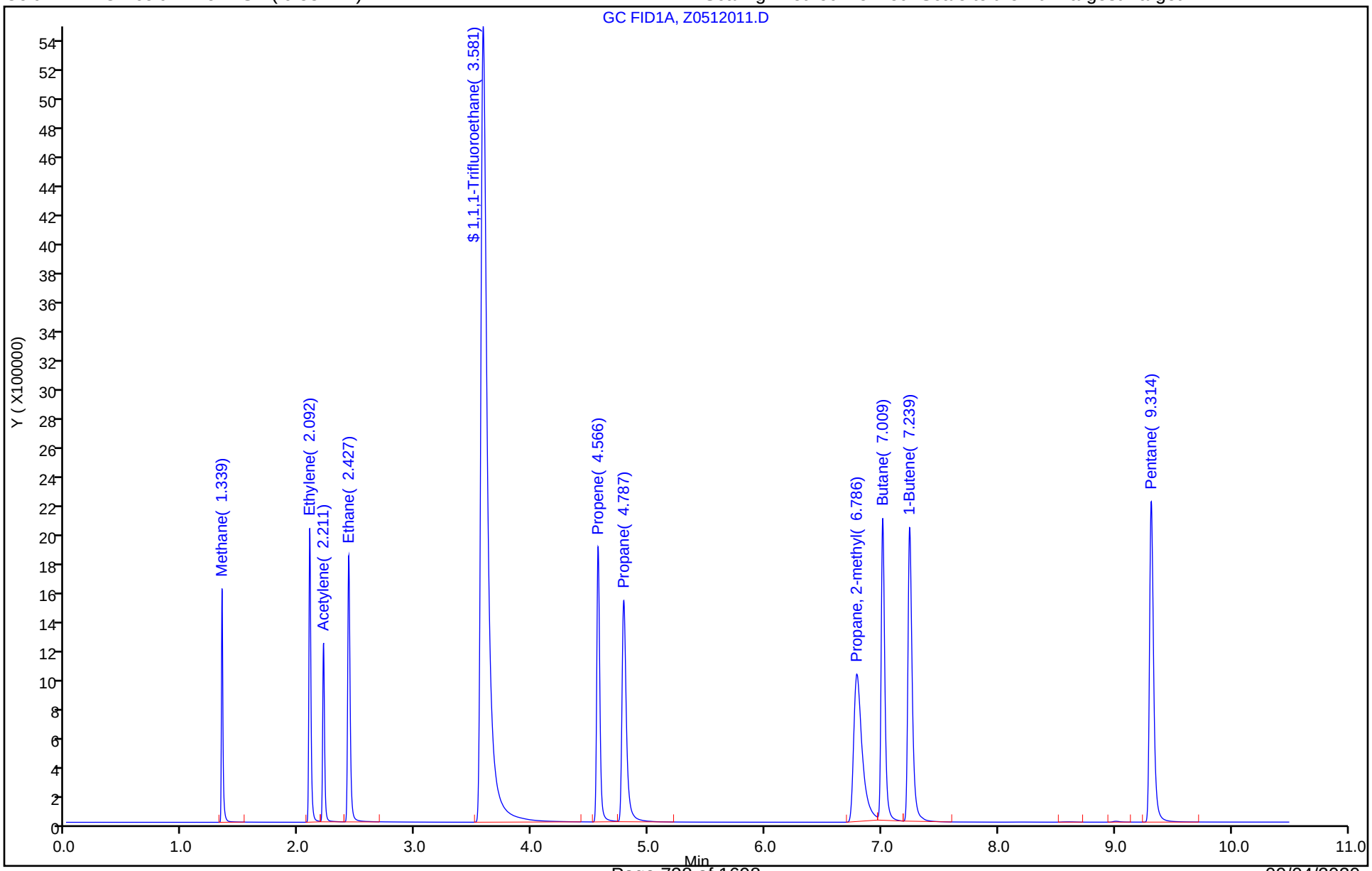
Report Date: 12-May-2020 11:29:50 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512011.D

Injection Date:	12-May-2020 11:10:11	Instrument ID:	ZPID	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	11
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVRT 240-446979/2 Calibration Date: 08/13/2020 10:43

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0813002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin1		5681		302	285	6.3	20.0
Ethylene	Ave	4755	5405		580	510	13.7	20.0
Acetylene	Ave	2572	3410		661	499	32.6*	30.0
Ethane	Ave	4902	5698		620	533	16.2	20.0
Propene	Ave	4585	5356		872	747	16.8	30.0
Propane	Ave	5004	5934		930	784	18.6	20.0
Isobutane	Ave	4788	5720		1230	1030	19.5	30.0
Butane	Ave	4451	5178		1200	1030	16.3	30.0
1-Butene	Ave	5262	6066		1150	996	15.3	30.0
Pentane	Ave	4661	5198		1430	1290	11.5	30.0
1,1,1-Trifluoroethane	Ave	2189	2472		10400	9240	12.9	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCVRT 240-446979/2 Calibration Date: 08/13/2020 10:43

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0813002.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.35	1.30	1.40
Ethylene	2.11	2.06	2.16
Acetylene	2.23	2.18	2.28
Ethane	2.44	2.39	2.49
Propene	4.58	4.53	4.63
Propane	4.80	4.75	4.85
Isobutane	6.80	6.70	6.90
Butane	7.02	6.92	7.12
1-Butene	7.25	7.15	7.35
Pentane	9.33	9.23	9.43
1,1,1-Trifluoroethane	3.60	3.55	3.65

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813002.D
Lims ID: CCVRT
Client ID:
Sample Type: CCVRT
Inject. Date: 13-Aug-2020 10:43:09 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-002
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:27 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:55:42

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						
	1.350	1.350	0.000	1616667	284.6	302.4	
	2 Ethylene						
	2.107	2.107	0.000	2755745	509.8	579.6	
	3 Acetylene						
	2.225	2.225	0.000	1700143	498.6	661.1	
	4 Ethane						
	2.442	2.442	0.000	3038536	533.2	619.8	
$	5 1,1,1-Trifluoroethane						
	3.597	3.597	0.000	22850634	9243.9	10440	
	6 Propene						
	4.582	4.582	0.000	3998305	746.6	872.0	
	7 Propane						
	4.802	4.802	0.000	4654441	784.3	930.2	
	8 Propane, 2-methyl						
	6.800	6.800	0.000	5904617	1032.3	1233.3	
	9 Butane						
	7.022	7.022	0.000	5340118	1031.3	1199.7	
	10 1-Butene						
	7.254	7.254	0.000	6040172	995.8	1147.8	
	11 Pentane						
	9.325	9.325	0.000	6686337	1286.2	1434.5	

Reagents:

SARSKSURR_00014	Amount Added:	19.00	Units: mL
SARSKHighCal2_00002	Amount Added:	1.00	Units: mL

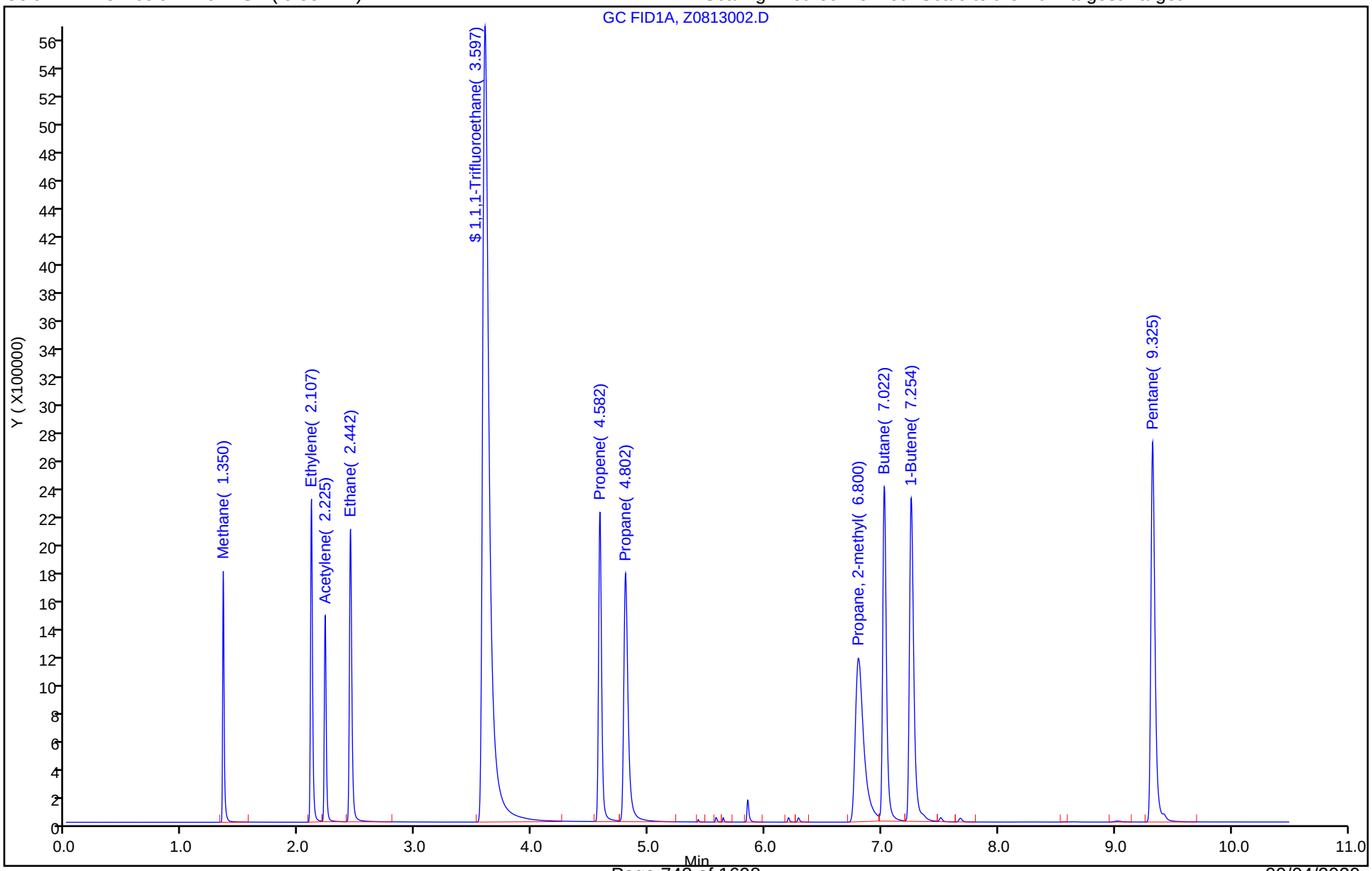
Report Date: 14-Aug-2020 04:58:27 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813002.D

Injection Date:	13-Aug-2020 10:43:09	Instrument ID:	ZPID	Operator ID:	
Lims ID:	CCVRT			Worklist Smp#:	2
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCV 240-446979/10 Calibration Date: 08/13/2020 13:01

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0813010.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin1		5821		310	285	8.9	20.0
Ethylene	Ave	4755	5559		596	510	16.9	20.0
Acetylene	Ave	2572	3674		712	499	42.8*	30.0
Ethane	Ave	4902	5865		638	533	19.6	20.0
Propene	Ave	4585	5492		894	747	19.8	30.0
Propane	Ave	5004	6075		952	784	21.4*	20.0
Isobutane	Ave	4788	5846		1260	1030	22.1	30.0
Butane	Ave	4451	5263		1220	1030	18.2	30.0
1-Butene	Ave	5262	6182		1170	996	17.5	30.0
Pentane	Ave	4661	5338		1470	1290	14.5	30.0
1,1,1-Trifluoroethane	Ave	2189	2524		10700	9240	15.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: CCV 240-446979/10 Calibration Date: 08/13/2020 13:01

Instrument ID: ZPID Calib Start Date: 05/12/2020 08:36

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 05/12/2020 10:18

Lab File ID: Z0813010.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.35	1.30	1.40
Ethylene	2.10	2.06	2.16
Acetylene	2.22	2.18	2.28
Ethane	2.44	2.39	2.49
Propene	4.58	4.53	4.63
Propane	4.80	4.75	4.85
Isobutane	6.80	6.70	6.90
Butane	7.02	6.92	7.12
1-Butene	7.25	7.15	7.35
Pentane	9.32	9.23	9.43
1,1,1-Trifluoroethane	3.59	3.55	3.65

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813010.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-Aug-2020 13:01:33 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-010
Operator ID: Instrument ID: ZPID
Sublist: chrom-RSK175*sub22

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:29 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:58:20

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Methane						
	1.348	1.350	-0.002	1656444	284.6	309.8	
2	Ethylene						
	2.103	2.107	-0.004	2834280	509.8	596.1	
3	Acetylene						
	2.222	2.225	-0.003	1831581	498.6	712.2	
4	Ethane						
	2.438	2.442	-0.004	3127443	533.2	637.9	
$ 5	1,1,1-Trifluoroethane						
	3.592	3.597	-0.005	23336053	9243.9	10662	
6	Propene						
	4.578	4.582	-0.004	4100448	746.6	894.3	
7	Propane						
	4.798	4.802	-0.004	4764674	784.3	952.2	
8	Propane, 2-methyl						
	6.798	6.800	-0.002	6034741	1032.3	1260.5	
9	Butane						
	7.020	7.022	-0.002	5428005	1031.3	1219.5	
10	1-Butene						
	7.250	7.254	-0.004	6156349	995.8	1169.9	
11	Pentane						
	9.323	9.325	-0.002	6865340	1286.2	1472.9	

Reagents:

SARSKSURR_00014	Amount Added: 19.00	Units: mL
SARSKHighCal2_00002	Amount Added: 1.00	Units: mL

Report Date: 14-Aug-2020 04:58:29 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813010.D

Injection Date: 13-Aug-2020 13:01:33 Instrument ID: ZPID Operator ID:

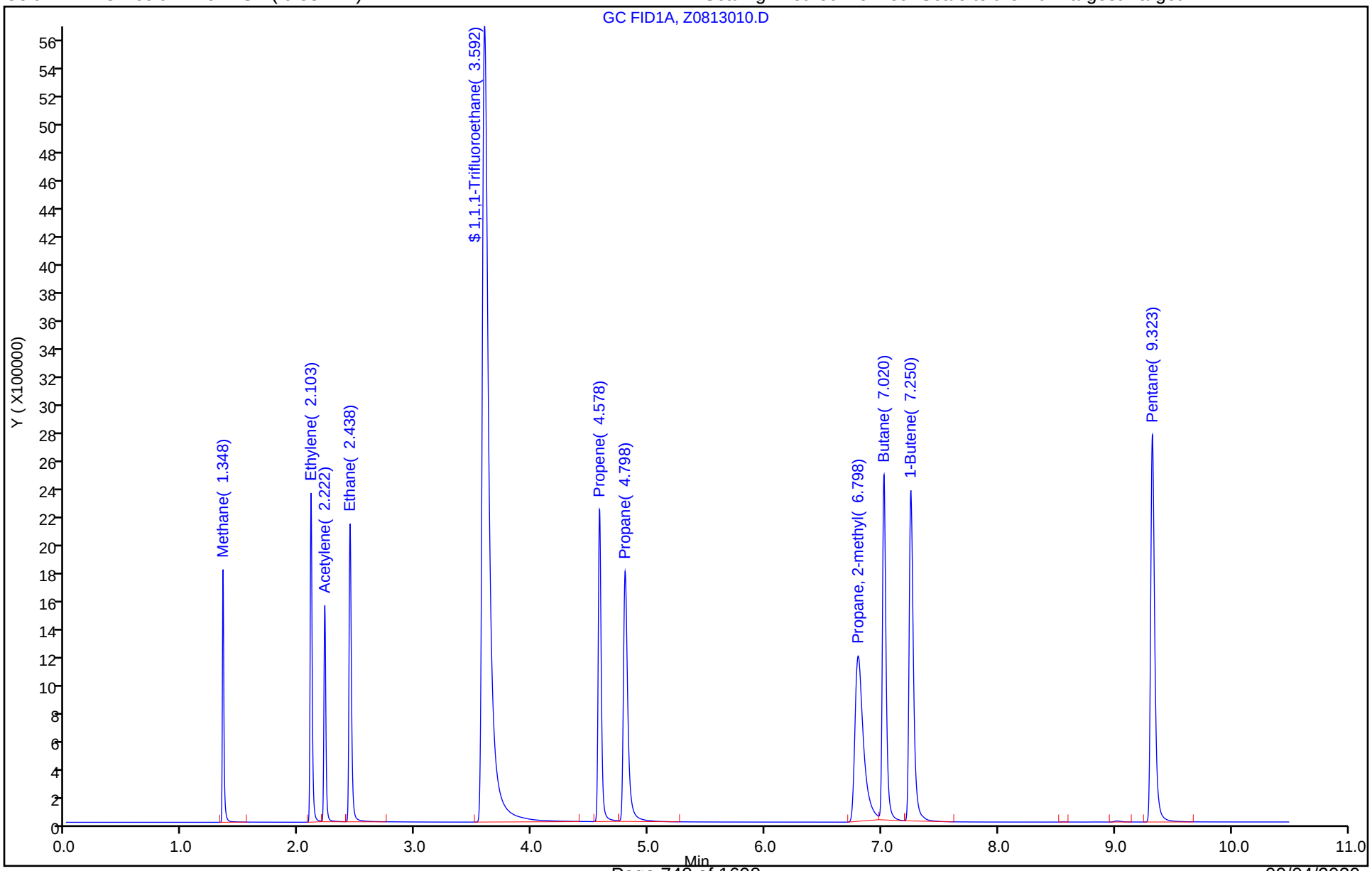
Lims ID: CCV Worklist Smp#: 10

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 10

Method: RSK175 Limit Group: GCV RSK 175 ICAL

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-446979/3

Matrix: Water Lab File ID: Z0813003.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 23(mL) Date Analyzed: 08/13/2020 11:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 446979 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.17	U	1.0	0.17
74-84-0	Ethane	0.29	U	1.0	0.29
74-85-1	Ethylene	0.27	U	1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	110		60-140

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813003.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 13-Aug-2020 11:00:22 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-003
Operator ID: Instrument ID: ZPID

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:27 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:55:56

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane	1.350					ND	
2 Ethylene	2.107					ND	
3 Acetylene	2.225					ND	
4 Ethane	2.442	2.442	0.000	1302		0.2656	
$ 5 1,1,1-Trifluoroethane	3.593	3.597	-0.004	23509870	9730.4	10741	
6 Propene	4.582					ND	
7 Propane	4.802					ND	
8 Propane, 2-methyl	6.800					ND	
9 Butane	7.022					ND	
10 1-Butene	7.254					ND	
11 Pentane	9.325					ND	

Reagents:

SARSKSURR_00014 Amount Added: 20.00 Units: mL Run Reagent

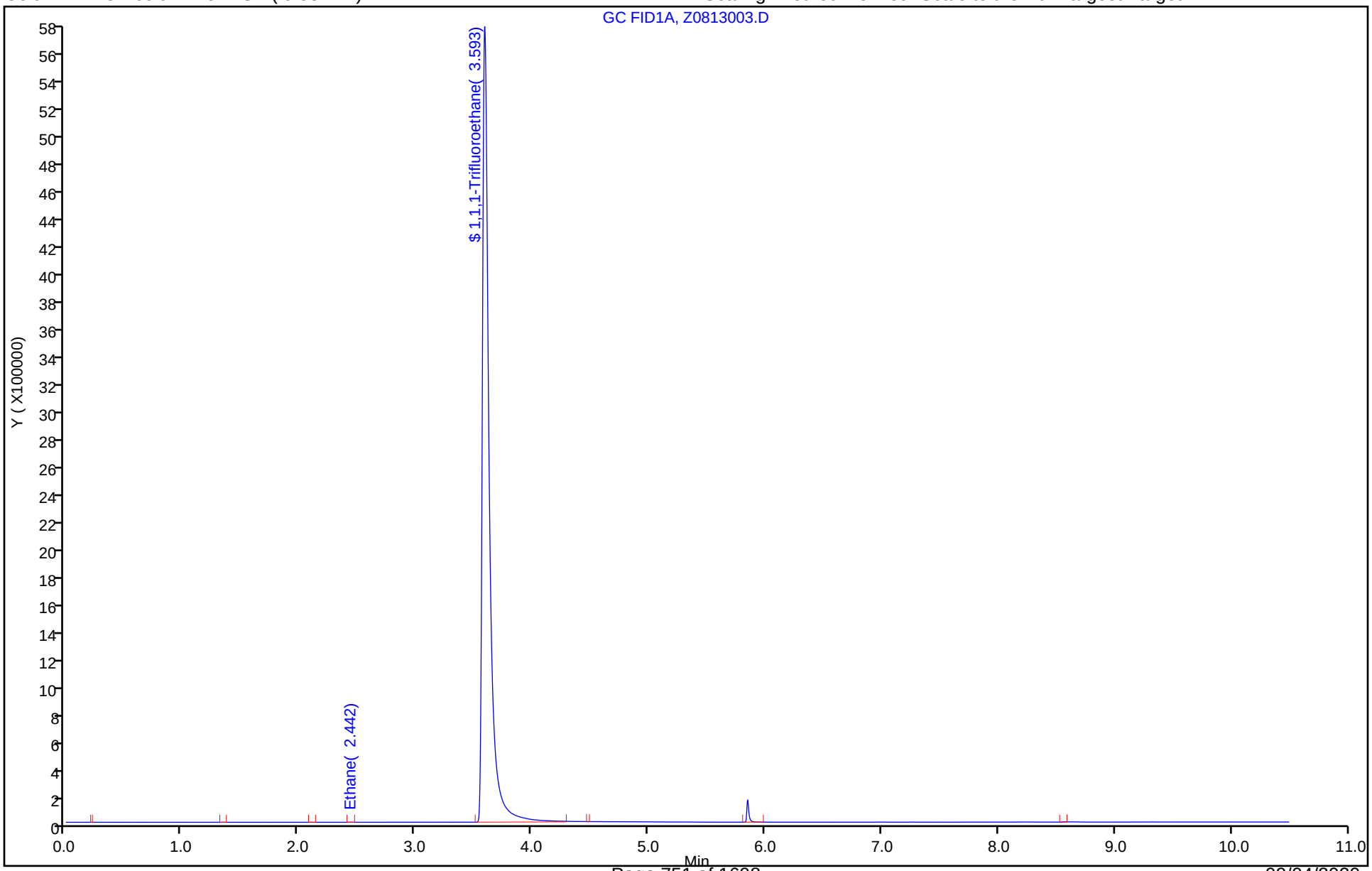
Report Date: 14-Aug-2020 04:58:27 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813003.D

Injection Date:	13-Aug-2020 11:00:22	Instrument ID:	ZPID	Operator ID:	
Lims ID:	MB			Worklist Smp#:	3
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813003.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 13-Aug-2020 11:00:22 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-003
Operator ID: Instrument ID: ZPID

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:27 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:55:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 1,1,1-Trifluoroethane	9730.4	10741	110.39

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-446979/4

Matrix: Water Lab File ID: Z0813004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 23(mL) Date Analyzed: 08/13/2020 11:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 446979 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	443		1.0	0.17
74-84-0	Ethane	463		1.0	0.29
74-85-1	Ethylene	446		1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	113		60-140

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813004.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Aug-2020 11:17:39 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-004
Operator ID: Instrument ID: ZPID

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:27 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:56:05

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Methane						
	1.348	1.350	-0.002	2367773	475.3	442.9	
2	Ethylene						
	2.105	2.107	-0.002	2120767	404.7	446.0	
4	Ethane						
	2.440	2.442	-0.002	2271143	438.1	463.3	
$	5 1,1,1-Trifluoroethane						
	3.595	3.597	-0.002	24013312	9730.4	10971	
7	Propane						
	4.801	4.802	-0.001	2362728	483.7	472.2	

Reagents:

MEEP LCS_00087 Amount Added: 23.00 Units: mL
SARSKSURR_00014 Amount Added: 20.00 Units: mL Run Reagent

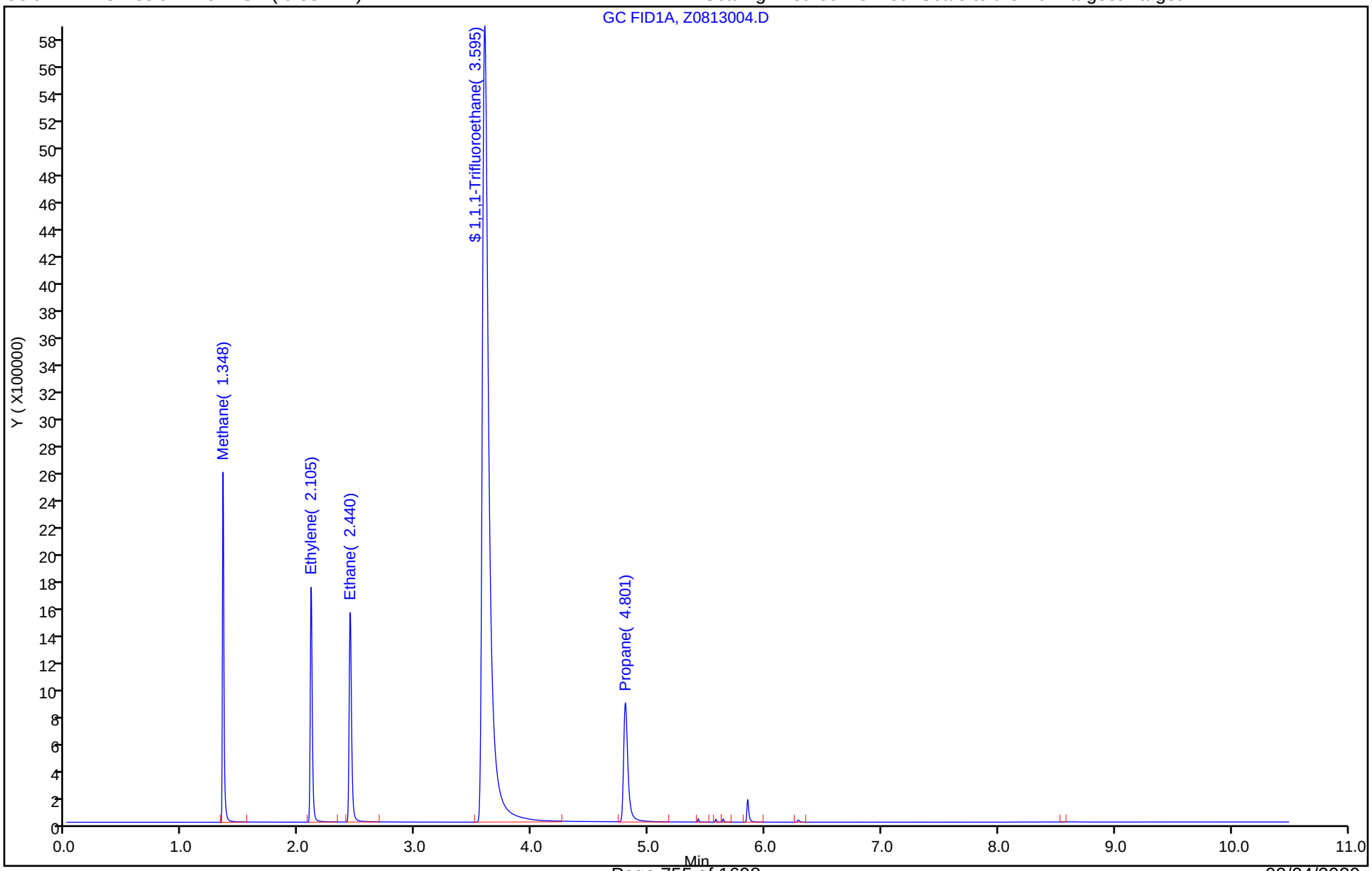
Report Date: 14-Aug-2020 04:58:27 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813004.D

Injection Date:	13-Aug-2020 11:17:39	Instrument ID:	ZPID	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK175	Limit Group:	GCV RSK 175 ICAL		

Column: PLOT column for RSK (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\Z0813004.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Aug-2020 11:17:39 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100951-004
Operator ID: Instrument ID: ZPID

Method: \\chromfs\Canton\ChromData\ZPID\20200813-100951.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 14-Aug-2020 04:58:27 Calib Date: 12-May-2020 10:18:42
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\ZPID\20200512-98190.b\Z0512008.D

Column 1 : PLOT column for RSK (0.53 mm) Det: GC FID1A
Process Host: CTX1069

First Level Reviewer: nestorj Date: 14-Aug-2020 04:56:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 1,1,1-Trifluoroethane	9730.4	10971	112.75

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: ZPID Start Date: 05/12/2020 08:36

Analysis Batch Number: 433969 End Date: 05/12/2020 11:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD 240-433969/2 IC		05/12/2020 08:36	1	Z0512002.D	HP-PLOT/Q 0.53(mm)
STD 240-433969/3 IC		05/12/2020 08:53	1	Z0512003.D	HP-PLOT/Q 0.53(mm)
STD 240-433969/4 IC		05/12/2020 09:10	1	Z0512004.D	HP-PLOT/Q 0.53(mm)
STD 240-433969/5 IC		05/12/2020 09:27	1	Z0512005.D	HP-PLOT/Q 0.53(mm)
STD 240-433969/6 ICRT		05/12/2020 09:44	1	Z0512006.D	HP-PLOT/Q 0.53(mm)
STD 240-433969/7 IC		05/12/2020 10:01	1	Z0512007.D	HP-PLOT/Q 0.53(mm)
STD 240-433969/8 IC		05/12/2020 10:18	1	Z0512008.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/12/2020 10:35	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/12/2020 10:52	1		HP-PLOT/Q 0.53(mm)
ICV 240-433969/11		05/12/2020 11:10	1	Z0512011.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: ZPID Start Date: 08/13/2020 10:43

Analysis Batch Number: 446979 End Date: 08/13/2020 13:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-446979/2		08/13/2020 10:43	1	Z0813002.D	HP-PLOT/Q 0.53(mm)
MB 240-446979/3		08/13/2020 11:00	1	Z0813003.D	HP-PLOT/Q 0.53(mm)
LCS 240-446979/4		08/13/2020 11:17	1	Z0813004.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		08/13/2020 11:34	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		08/13/2020 11:52	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		08/13/2020 12:09	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		08/13/2020 12:26	1		HP-PLOT/Q 0.53(mm)
240-134814-1	MRC-MW-164B-081120	08/13/2020 12:44	1	Z0813009.D	HP-PLOT/Q 0.53(mm)
CCV 240-446979/10		08/13/2020 13:01	1	Z0813010.D	HP-PLOT/Q 0.53(mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 446979 Batch Start Date: 08/13/20 10:43 Batch Analyst: Nestor, Jeffrey B

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	MEEP LCS 00087	SARSKHighCal2 00002	SARSKSURR 00014
CCVRT 240-446979/2		RSK-175		23 mL	23 mL	7 SU		1 mL	19 mL
MB 240-446979/3		RSK-175		23 mL	23 mL	7 SU			20 mL
LCS 240-446979/4		RSK-175		23 mL	23 mL	7 SU	23 mL		20 mL
240-134814-D-1	MRC-MW-164B-081120	RSK-175	T	23 mL	23 mL	<2 SU			20 mL
CCV 240-446979/10		RSK-175		23 mL	23 mL	7 SU		1 mL	19 mL

Batch Notes	
pH Paper ID	4818208

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG No.:

Project: MRC South of Building C

Client Sample ID	Lab Sample ID
MRC-MW-164B-081120	240-134814-1

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	24000	200	26	ug/L			1	6010C
7439-96-5	Manganese	2500	15	2.1	ug/L			1	6010C
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7429-90-5	Aluminum	950	50	34	ug/L		F1	1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	180	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.51	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-48-4	Cobalt	41	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.8	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Iron	24000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2700	5.0	2.1	ug/L			1	6020A
7440-02-0	Nickel	42	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.2	1.0	0.45	ug/L			1	6020A
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	5.3	5.0	0.82	ug/L			1	6020A
7440-66-6	Zinc	60	20	15	ug/L			1	6020A
7440-70-2	Calcium	14000	1000	580	ug/L			1	6020A
7440-09-7	Potassium	5700	1000	220	ug/L			1	6020A
7439-95-4	Magnesium	6400	1000	200	ug/L			1	6020A
7440-23-5	Sodium	16000	1000	330	ug/L			1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICPICV_00022 Concentration Units: ug/L

CCV Source: ICPCCV_00035

Analyte	ICV 240-447390/4 08/14/2020 09:33				CCV 240-447390/43 08/14/2020 12:24				CCV 240-447390/55 08/14/2020 13:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	25500		25000	102	25200		25000	101	24800		25000	99
Manganese	2000		2000	100	1960		2000	98	1950		2000	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICPICV_00022 Concentration Units: ug/L

CCV Source: ICPCCV_00035

Analyte	CCV 240-447390/67 08/14/2020 14:10											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	24800		25000	99								
Manganese	1940		2000	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: MTTRCRIC_00087 Concentration Units: ug/L

CCV Source: MTTRCRIC_00087

Analyte	ICVL 240-447390/6 08/14/2020 09:41				CCVL 240-447390/69 08/14/2020 14:18							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	211		200	106	224		200	112				
Manganese	15.4		15.0	103	15.8		15.0	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICPMS ICV_00010 Concentration Units: ug/L

CCV Source: ICPMSCAL2/CCV_00022

Analyte	ICV 240-447397/4 08/14/2020 12:15				CCV 240-447397/79 08/14/2020 15:41				CCV 240-447397/91 08/14/2020 16:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	24200		25000	97	26600		25000	107	26800		25000	107
Antimony	52.8		50.0	106	52.4		50.0	105	53.7		50.0	107
Arsenic	49.4		50.0	99	52.1		50.0	104	50.7		50.0	101
Barium	50.0		50.0	100	52.0		50.0	104	54.4		50.0	109
Beryllium	50.8		50.0	102	51.5		50.0	103	52.2		50.0	104
Cadmium	50.9		50.0	102	52.6		50.0	105	54.1		50.0	108
Calcium	23900		25000	96	26800		25000	107	27000		25000	108
Chromium	49.3		50.0	99	53.0		50.0	106	54.4		50.0	109
Cobalt	49.3		50.0	99	50.5		50.0	101	50.8		50.0	102
Copper	49.6		50.0	99	51.1		50.0	102	51.6		50.0	103
Iron	23600		25000	94	25500		25000	102	25700		25000	103
Lead	49.6		50.0	99	52.5		50.0	105	53.2		50.0	106
Magnesium	24600		25000	99	27000		25000	108	27100		25000	109
Manganese	50.5		50.0	101	53.9		50.0	108	54.6		50.0	109
Nickel	49.7		50.0	99	50.6		50.0	101	50.6		50.0	101
Potassium	24400		25000	97	27000		25000	108	27400		25000	110
Selenium	49.6		50.0	99	52.5		50.0	105	52.6		50.0	105
Silver	50.3		50.0	101	52.4		50.0	105	52.9		50.0	106
Sodium	24700		25000	99	27000		25000	108	26900		25000	108
Thallium	49.6		50.0	99	52.7		50.0	105	53.9		50.0	108
Vanadium	50.3		50.0	101	53.2		50.0	106	54.4		50.0	109
Zinc	48.2		50.0	96	50.1		50.0	100	50.4		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00012 Concentration Units: ug/L

CCV Source: ICVLCCVLICPMS_00012

Analyte	ICVL 240-447397/6 08/14/2020 12:20				CCVL 240-447397/95 08/14/2020 16:20							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	47.3	J	50.0	95	52.0		50.0	104				
Antimony	2.14		2.00	107	2.33		2.00	116				
Arsenic	4.71	J	5.00	94	4.89	J	5.00	98				
Barium	4.95	J	5.00	99	5.34		5.00	107				
Beryllium	0.952	J	1.00	95	1.15		1.00	115				
Cadmium	1.05		1.00	105	1.09		1.00	109				
Calcium	1020		1000	102	1100		1000	110				
Chromium	2.05		2.00	103	2.39		2.00	119				
Cobalt	0.977	J	1.00	98	1.02		1.00	102				
Copper	2.01		2.00	101	2.07		2.00	104				
Iron	99.5	J	100	99	111		100	111				
Lead	0.985	J	1.00	99	1.11		1.00	111				
Magnesium	987	J	1000	99	1050		1000	105				
Manganese	5.03		5.00	101	5.52		5.00	110				
Nickel	1.97	J	2.00	98	2.06		2.00	103				
Potassium	1010		1000	101	1130		1000	113				
Selenium	4.82	J	5.00	96	5.16		5.00	103				
Silver	1.04		1.00	104	1.08		1.00	108				
Sodium	969	J	1000	97	1050		1000	105				
Thallium	0.985	J	1.00	99	1.13		1.00	113				
Vanadium	4.95	J	5.00	99	5.77		5.00	115				
Zinc	15	U	20.0	74	15.8	J	20.0	79				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: MTHgICV_00001_00701 Concentration Units: ug/L

CCV Source: MTHGCALW_02460

Analyte	ICV 240-447004/7-A 08/13/2020 13:25				CCV 240-447004/10-A 08/13/2020 15:48				CCV 240-447004/10-A 08/13/2020 16:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.09		5.00	102	4.88		5.00	98	4.88		5.00	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICV Source: MTHgICV_00001_00701 Concentration Units: ug/L

CCV Source: MTHGCALW_02460

Analyte	CCV 240-447004/10-A 08/13/2020 16:42											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.02		5.00	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Method: 7470A Instrument ID: H2

Lab Sample ID: CRA 240-447004/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_02460

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.225		112	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-447390/5 08/14/2020 09:37		CCB 240-447390/44 08/14/2020 12:28		CCB 240-447390/56 08/14/2020 13:23		CCB 240-447390/68 08/14/2020 14:14	
		Found	C	Found	C	Found	C	Found	C
Iron	200	26	U	26	U	26	U	26	U
Manganese	15	2.1	U	2.1	U	2.1	U	2.1	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-447397/5 08/14/2020 12:17		CCB 240-447397/80 08/14/2020 15:44		CCB 240-447397/92 08/14/2020 16:13			
		Found	C	Found	C	Found	C	Found	C
Aluminum	50	34	U	34	U	34	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Cadmium	1.0	0.20	U	0.20	U	0.20	U		
Calcium	1000	580	U	580	U	580	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Iron	100	47	U	47	U	47	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Magnesium	1000	200	U	200	U	200	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Potassium	1000	220	U	220	U	220	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Sodium	1000	330	U	330	U	330	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-447004/8-A 08/13/2020 13:27		CCB 240-447004/11-A 08/13/2020 15:50		CCB 240-447004/11-A 08/13/2020 16:17		CCB 240-447004/11-A 08/13/2020 16:44	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-447010/1-A

Instrument Code: I12 Batch No.: 447390

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	26	U		6010C
7439-96-5	Manganese	2.1	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-447010/1-A

Instrument Code: I14 Batch No.: 447397

CAS No.	Analyte	Concentration	C	Q	Method
7440-22-4	Silver	0.053	U		6020A
7429-90-5	Aluminum	34	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.20	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Lead	0.45	U		6020A
7440-36-0	Antimony	0.57	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-70-2	Calcium	580	U		6020A
7440-09-7	Potassium	220	U		6020A
7439-95-4	Magnesium	200	U		6020A
7440-23-5	Sodium	330	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-447011/1-A

Instrument Code: H2 Batch No.: 447205

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSA 240-447390/8 Instrument ID: I12

Lab File ID: I12081420.asc ICS Source: MTTRICSAW_00052

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Iron	**200000**	**187090**	**94**
Manganese		**2.11**	
Aluminum	*500000*	*496350*	*99*
Antimony		*2.62*	
Arsenic		*-2.24*	
Barium		*6.83*	
Beryllium		*0.293*	
Boron		*5.07*	
Cadmium		*1.70*	
Calcium	*500000*	*473650*	*95*
Chromium		*2.71*	
Cobalt		*-3.62*	
Copper		*3.05*	
Lead		*2.96*	
Lithium		*-2.20*	
Magnesium	*500000*	*474100*	*95*
Molybdenum		*-0.304*	
Nickel		*3.09*	
Potassium		*-5.87*	
Selenium		*-3.15*	
Silicon		*9.21*	
Silver		*-1.97*	
Sodium		*131*	
Strontium		*20.4*	
Thallium		*-1.88*	
Tin		*-0.181*	
Titanium		*-1.23*	
Vanadium		*1.45*	
Zinc		*-1.19*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSAB 240-447390/9 Instrument ID: I12

Lab File ID: I12081420.asc ICS Source: ICPICSAB_00004

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Iron	**200000**	**187020**	**94**
Manganese	**1000**	**984**	**98**
Aluminum	*500000*	*496910*	*99*
Antimony	*1000*	*946*	*95*
Arsenic	*1000*	*1030*	*103*
Barium	*1000*	*995*	*99*
Beryllium	*500*	*498*	*100*
Boron	*10000*	*10143*	*101*
Cadmium	*1000*	*1029*	*103*
Calcium	*500000*	*473740*	*95*
Chromium	*1000*	*967*	*97*
Cobalt	*1000*	*1004*	*100*
Copper	*1000*	*1017*	*102*
Lead	*1000*	*891*	*89*
Lithium	*500*	*529*	*106*
Magnesium	*500000*	*473880*	*95*
Molybdenum	*1000*	*972*	*97*
Nickel	*1000*	*1014*	*101*
Potassium	*10000*	*10535*	*105*
Selenium	*1000*	*1006*	*101*
Silicon	*10000*	*10238*	*102*
Silver	*1000*	*1054*	*105*
Sodium	*10000*	*10511*	*105*
Strontium	*1000*	*985*	*99*
Thallium	*1000*	*981*	*98*
Tin	*1000*	*1036*	*104*
Titanium	*1000*	*1007*	*101*
Vanadium	*1000*	*981*	*98*
Zinc	*1000*	*1038*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSA 240-447397/7 Instrument ID: I14

Lab File ID: 007ICSA.d ICS Source: ICPMS ICSA_00005

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**50000**	**48129**	**96**
Antimony		**0.0860**	
Arsenic		**-0.134**	
Barium		**0.236**	
Beryllium		**0.0070**	
Cadmium		**0.171**	
Calcium	**50000**	**48972**	**98**
Chromium		**0.523**	
Cobalt		**0.150**	
Copper		**1.49**	
Iron	**50000**	**49670**	**99**
Lead		**0.199**	
Magnesium	**50000**	**49320**	**99**
Manganese		**0.225**	
Nickel		**0.214**	
Potassium	**50000**	**48551**	**97**
Selenium		**-0.0010**	
Silver		**0.0110**	
Sodium	**50000**	**49638**	**99**
Thallium		**0.0120**	
Vanadium		**0.120**	
Zinc		**-3.60**	
Boron		*1.37*	
Lithium		*-0.695*	
Molybdenum	*1000*	*1022*	*102*
Strontium		*1.56*	
Tin		*0.147*	
Titanium	*1000*	*967*	*97*
Tungsten		*0.198*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Lab Sample ID: ICSAB 240-447397/8 Instrument ID: I14

Lab File ID: 008ICAB.d ICS Source: MTMSICSABW_00095

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**50000**	**49430**	**99**
Antimony	**100**	**104**	**104**
Arsenic	**200**	**200**	**100**
Barium	**200**	**203**	**101**
Beryllium	**200**	**192**	**96**
Cadmium	**200**	**205**	**103**
Calcium	**50000**	**50636**	**101**
Chromium	**200**	**197**	**99**
Cobalt	**200**	**198**	**99**
Copper	**200**	**199**	**100**
Iron	**50000**	**51306**	**103**
Lead	**200**	**200**	**100**
Magnesium	**50000**	**50626**	**101**
Manganese	**200**	**200**	**100**
Nickel	**200**	**196**	**98**
Potassium	**50000**	**50194**	**100**
Selenium	**200**	**203**	**102**
Silver	**100**	**100**	**100**
Sodium	**50000**	**52175**	**104**
Thallium	**100**	**100**	**100**
Vanadium	**200**	**200**	**100**
Zinc	**100**	**102**	**102**
Boron	*100*	*99.9*	*100*
Lithium	*200*	*202*	*101*
Molybdenum	*1000*	*1049*	*105*
Strontium	*200*	*201*	*101*
Tin	*200*	*203*	*102*
Titanium	*1000*	*986*	*99*
Tungsten	*2000*	*2112*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MRC-MW-164B-081120 MS
Lab ID: 240-134814-1 MS
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.02		0.13	U	1.00	102	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW-164B-081120 MS
Lab ID: 240-134814-1 MS
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Silver	104		0.053	U	100	104	75-125		6020A
Aluminum	7620		950		5000	133	75-125	F1	6020A
Arsenic	1010		0.75	U	1000	101	75-125		6020A
Barium	1200		180		1000	102	75-125		6020A
Beryllium	487		0.51	J	500	97	75-125		6020A
Cadmium	510		0.20	U	500	102	75-125		6020A
Cobalt	564		41		500	105	75-125		6020A
Chromium	517		2.9		500	103	75-125		6020A
Copper	495		1.8	J	500	99	75-125		6020A
Iron	29400		24000		5000	110	75-125	4	6020A
Manganese	3300		2700		500	112	75-125	4	6020A
Nickel	532		42		500	98	75-125		6020A
Lead	510		1.2		500	102	75-125		6020A
Antimony	112		0.57	U	100	112	75-125		6020A
Selenium	999		0.89	U	1000	100	75-125		6020A
Thallium	1020		0.28	J	1000	102	75-125		6020A
Vanadium	526		5.3		500	104	75-125		6020A
Zinc	609		60		500	110	75-125		6020A
Calcium	41000		14000		25000	108	75-125		6020A
Potassium	32600		5700		25000	108	75-125		6020A
Magnesium	33600		6400		25000	109	75-125		6020A
Sodium	41600		16000		25000	103	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-134778-A-1-B MS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	12100		2200		10000	99	75-125		6010C
Manganese	1700		710		1000	100	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MRC-MW-164B-081120 MSD
Lab ID: 240-134814-1 MSD
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	80-120	2	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW-164B-081120 MSD
Lab ID: 240-134814-1 MSD
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-134814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Silver	103		100	103	75-125	1	20		6020A
Aluminum	7940		5000	140	75-125	4	20	F1	6020A
Arsenic	1020		1000	102	75-125	1	20		6020A
Barium	1230		1000	106	75-125	3	20		6020A
Beryllium	498		500	100	75-125	2	20		6020A
Cadmium	524		500	105	75-125	3	20		6020A
Cobalt	565		500	105	75-125	0	20		6020A
Chromium	525		500	104	75-125	2	20		6020A
Copper	504		500	101	75-125	2	20		6020A
Iron	29400		5000	109	75-125	0	20	4	6020A
Manganese	3340		500	119	75-125	1	20	4	6020A
Nickel	537		500	99	75-125	1	20		6020A
Lead	530		500	106	75-125	4	20		6020A
Antimony	113		100	113	75-125	1	20		6020A
Selenium	1020		1000	102	75-125	2	20		6020A
Thallium	1050		1000	105	75-125	3	20		6020A
Vanadium	531		500	105	75-125	1	20		6020A
Zinc	613		500	111	75-125	1	20		6020A
Calcium	41000		25000	108	75-125	0	20		6020A
Potassium	32700		25000	108	75-125	0	20		6020A
Magnesium	33500		25000	108	75-125	0	20		6020A
Sodium	41400		25000	103	75-125	0	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: Lab ID: 240-134778-A-1-C MSD

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	11500		10000	93	75-125	5	20		6010C
Manganese	1620		1000	91	75-125	5	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW-164B-081120 PDS Lab ID: 240-134814-1 PDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	6160		950		5000	104	80-120		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-447010/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

Sample Matrix: Water LCS Source: SPIKE2_00007

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	10000	10100		101	80	120		6010C
Manganese	1000	985		98	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-447010/3-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

Sample Matrix: Water LCS Source: ICPMSspike3_00007

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Silver	100	102		102	80	120		6020A
Aluminum	5000	4880		98	80	120		6020A
Arsenic	1000	1000		100	80	120		6020A
Barium	1000	1020		102	80	120		6020A
Beryllium	500	502		100	80	120		6020A
Cadmium	500	513		103	80	120		6020A
Cobalt	500	512		102	80	120		6020A
Chromium	500	507		101	80	120		6020A
Copper	500	489		98	80	120		6020A
Iron	5000	5000		100	80	120		6020A
Manganese	500	511		102	80	120		6020A
Nickel	500	486		97	80	120		6020A
Lead	500	516		103	80	120		6020A
Antimony	100	110		110	80	120		6020A
Selenium	1000	1020		102	80	120		6020A
Thallium	1000	1030		103	80	120		6020A
Vanadium	500	512		102	80	120		6020A
Zinc	500	539		108	80	120		6020A
Calcium	25000	26000		104	80	120		6020A
Potassium	25000	26400		106	80	120		6020A
Magnesium	25000	26300		105	80	120		6020A
Sodium	25000	26000		104	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-447011/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

Sample Matrix: Water LCS Source: MTHGCALW_02460

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.91		98	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-134778-A-1-A SD ^5

SDG No:

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	2200		2250		1.8		6010C
Manganese	710		731		3.1		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-134814-1

SDG No:

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Silver	0.053	U	0.27	U	NC		6020A
Aluminum	950		1180		NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Barium	180		174		NC		6020A
Beryllium	0.51	J	1.5	U	NC		6020A
Cadmium	0.20	U	0.99	U	NC		6020A
Cobalt	41		40.7		NC		6020A
Chromium	2.9		4.9	U	NC		6020A
Copper	1.8	J	8.5	U	NC		6020A
Iron	24000		23600		1.5		6020A
Manganese	2700		2670		2.7		6020A
Nickel	42		42.1		NC		6020A
Lead	1.2		2.3	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Selenium	0.89	U	4.5	U	NC		6020A
Thallium	0.28	J	1.0	U	NC		6020A
Vanadium	5.3		5.85	J	NC		6020A
Zinc	60		75	U	NC		6020A
Calcium	14000		13900		NC		6020A
Potassium	5700		5860		NC		6020A
Magnesium	6400		6440		NC		6020A
Sodium	16000		15200		NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 06/21/2019 08:58

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Iron	271.441	200	25.958
Manganese	257.610	15	2.119

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 06/21/2019 08:58

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron	271.441	200	25.958
Manganese	257.610	15	2.119

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I14

Method: 6020A MDL Date: 08/12/2019 14:16

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Aluminum	27.00	50	34
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.197
Calcium	43.00	1000	583
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Magnesium	25.00	1000	199
Manganese	55.00	5	2.06
Nickel	60.00	2	1.47
Potassium	39.00	1000	216
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Sodium	23.00	1000	329
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: I14

Method: 6020A XMDL Date: 08/12/2019 14:16

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum	27.00	50	34
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.197
Calcium	43.00	1000	583
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Magnesium	25.00	1000	199
Manganese	55.00	5	2.06
Nickel	60.00	2	1.47
Potassium	39.00	1000	216
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Sodium	23.00	1000	329
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 06/03/2020

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.027342				0.013726	
Antimony		-0.000073			-0.000663			-0.000065						0.003776	
Arsenic		0.000022			-0.000395	0.00931			-0.000625	0.001108					
Beryllium														0.000608	
Cadmium			0.008754					-0.000002							
Chromium									0.000415						
Cobalt													0.002089		
Copper				0.000018	0.000600			-0.000035					-0.002322		
Lead		-0.000147					0.00619	0.000021			0.000131	0.000025			
Lithium				0.000011											
Nickel					0.000518			0.000059							
Selenium		-0.000021							0.000613						
Thallium		-0.000001			0.005964			-0.00004	0.000941					0.002131	
Vanadium								0.000059							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

SDG No.:

Instrument ID: I12 Date: 06/04/2020 10:17

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Iron		500000	6010C
Manganese		15000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

SDG No.:

Instrument ID: I14 Date: 02/14/2020 14:57

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Silver		300	6020A
Aluminum		500000	6020A
Arsenic		20000	6020A
Barium		20000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		10000	6020A
Chromium		10000	6020A
Copper		20000	6020A
Iron		500000	6020A
Manganese		20000	6020A
Nickel		20000	6020A
Lead		4000	6020A
Antimony		200	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		20000	6020A
Zinc		20000	6020A
Calcium		3000000	6020A
Potassium		3000000	6020A
Magnesium		3000000	6020A
Sodium		3000000	6020A

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-134814-1

SDG No.:

Instrument ID: H2 Date: 05/15/2016 09:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-447010/1-A	08/13/2020 14:00	447010		50	50
LCS 240-447010/2-A	08/13/2020 14:00	447010		50	50
240-134778-A-1-B MS	08/13/2020 14:00	447010		50	50
240-134778-A-1-C MSD	08/13/2020 14:00	447010		50	50
240-134814-1	08/13/2020 14:00	447010		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-447010/1-A	08/13/2020 14:00	447010		50	50
LCS 240-447010/3-A	08/13/2020 14:00	447010		50	50
240-134814-1	08/13/2020 14:00	447010		50	50
240-134814-1 MS	08/13/2020 14:00	447010		50	50
240-134814-1 MSD	08/13/2020 14:00	447010		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-447011/1-A	08/13/2020 12:00	447011		50	50
LCS 240-447011/2-A	08/13/2020 12:00	447011		50	50
240-134814-1	08/13/2020 12:00	447011		50	50
240-134814-1 MS	08/13/2020 12:00	447011		50	50
240-134814-1 MSD	08/13/2020 12:00	447011		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
ICIS 240-447390/1	1		09:20	X	X																							
CALSTD 240-447390/2 IC			09:24	X	X																							
CALSTD 240-447390/3 IC			09:28	X	X																							
ICV 240-447390/4	1		09:33	X	X																							
ICB 240-447390/5	1		09:37	X	X																							
ICVL 240-447390/6	1		09:41	X	X																							
ZZZZZZ			09:45																									
ICSA 240-447390/8	1		09:50	X	X																							
ICSAB 240-447390/9	1		09:54	X	X																							
CCV 240-447390/10			09:58																									
CCB 240-447390/11			10:02																									
ZZZZZZ			10:06																									
ZZZZZZ			10:11																									
ZZZZZZ			10:15																									
ZZZZZZ			10:20																									
ZZZZZZ			10:24																									
ZZZZZZ			10:28																									
CCV 240-447390/18			10:33																									
CCB 240-447390/19			10:37																									
ZZZZZZ			10:44																									
ZZZZZZ			10:50																									
ZZZZZZ			10:55																									
ZZZZZZ			10:59																									
ZZZZZZ			11:03																									
ZZZZZZ			11:08																									
ZZZZZZ			11:12																									
ZZZZZZ			11:16																									
CCV 240-447390/28			11:21																									
CCB 240-447390/29			11:25																									
ZZZZZZ			11:29																									
CCV 240-447390/31			11:33																									
CCB 240-447390/32			11:37																									
ZZZZZZ			11:42																									
ZZZZZZ			11:46																									
ZZZZZZ			11:50																									
CCV 240-447390/36			11:55																									
CCB 240-447390/37			11:59																									
ZZZZZZ			12:03																									
ZZZZZZ			12:07																									
ZZZZZZ			12:11																									
ZZZZZZ			12:16																									
ZZZZZZ			12:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																									
				Fe	Mn																								
CCV 240-447390/43	1		12:24	X	X																								
CCB 240-447390/44	1		12:28	X	X																								
ZZZZZZ			12:32																										
ZZZZZZ			12:37																										
ZZZZZZ			12:41																										
MB 240-447010/1-A	1	R	12:45	X	X																								
LCS 240-447010/2-A	1	R	12:49	X	X																								
ZZZZZZ			12:53																										
240-134778-A-1-A SD ^5	5	R	13:00	X	X																								
ZZZZZZ			13:04																										
240-134778-A-1-B MS	1	R	13:08	X	X																								
240-134778-A-1-C MSD	1	R	13:12	X	X																								
CCV 240-447390/55	1		13:19	X	X																								
CCB 240-447390/56	1		13:23	X	X																								
240-134814-1	1	R	13:27	X	X																								
ZZZZZZ			13:31																										
ZZZZZZ			13:36																										
ZZZZZZ			13:40																										
ZZZZZZ			13:44																										
ZZZZZZ			13:48																										
ZZZZZZ			13:53																										
ZZZZZZ			13:57																										
ZZZZZZ			14:01																										
ZZZZZZ			14:05																										
CCV 240-447390/67	1		14:10	X	X																								
CCB 240-447390/68	1		14:14	X	X																								
CCVL 240-447390/69	1		14:18	X	X																								
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:31																										
ZZZZZZ			14:35																										
ZZZZZZ			14:39																										
ZZZZZZ			14:43																										
ZZZZZZ			14:47																										
ZZZZZZ			14:51																										
ZZZZZZ			14:55																										
CCV 240-447390/79			14:59																										
CCB 240-447390/80			15:03																										
ZZZZZZ			15:08																										
ZZZZZZ			15:12																										
ZZZZZZ			15:17																										
ZZZZZZ			15:21																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
ZZZZZZ			15:25																									
ZZZZZZ			15:29																									
ZZZZZZ			15:33																									
ZZZZZZ			15:37																									
ZZZZZZ			15:41																									
ZZZZZZ			15:46																									
CCV 240-447390/91			15:50																									
CCB 240-447390/92			15:54																									
ZZZZZZ			15:58																									
ZZZZZZ			16:02																									
ZZZZZZ			16:07																									
ZZZZZZ			16:11																									
ZZZZZZ			16:15																									
ZZZZZZ			16:19																									
ZZZZZZ			16:23																									
ZZZZZZ			16:27																									
ZZZZZZ			16:31																									
ZZZZZZ			16:36																									
CCV 240-447390/103			16:40																									
CCB 240-447390/104			16:44																									
ZZZZZZ			16:48																									
ZZZZZZ			16:53																									
ZZZZZZ			16:57																									
ZZZZZZ			17:01																									
ZZZZZZ			17:06																									
ZZZZZZ			17:10																									
ZZZZZZ			17:14																									
ZZZZZZ			17:19																									
ZZZZZZ			17:23																									
ZZZZZZ			17:27																									
CCV 240-447390/115			17:32																									
CCB 240-447390/116			17:36																									
ZZZZZZ			17:40																									
ZZZZZZ			17:45																									
ZZZZZZ			17:49																									
ZZZZZZ			17:54																									
ZZZZZZ			17:58																									
ZZZZZZ			18:03																									
ZZZZZZ			18:07																									
ZZZZZZ			18:12																									
CCVL 240-447390/125			18:16																									
ZZZZZZ			18:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
CCV 240-447390/127			18:24																									
CCB 240-447390/128			18:28																									
ZZZZZZ			18:32																									
ZZZZZZ			18:37																									
ZZZZZZ			18:41																									
ZZZZZZ			18:45																									
ZZZZZZ			18:49																									
ZZZZZZ			18:53																									
ZZZZZZ			18:57																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									
ZZZZZZ			19:10																									
CCV 240-447390/139			19:15																									
CCB 240-447390/140			19:18																									
ZZZZZZ			19:23																									
ZZZZZZ			19:27																									
ZZZZZZ			19:31																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:44																									
ZZZZZZ			19:48																									
ZZZZZZ			19:53																									
ZZZZZZ			19:57																									
ZZZZZZ			20:01																									
CCV 240-447390/151			20:06																									
CCB 240-447390/152			20:10																									
ZZZZZZ			20:14																									
ZZZZZZ			20:18																									
ZZZZZZ			20:22																									
ZZZZZZ			20:26																									
ZZZZZZ			20:31																									
ZZZZZZ			20:35																									
ZZZZZZ			20:39																									
ZZZZZZ			20:43																									
ZZZZZZ			20:47																									
ZZZZZZ			20:51																									
CCV 240-447390/163			20:55																									
CCB 240-447390/164			20:59																									
ZZZZZZ			21:04																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:17																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
ZZZZZZ			21:21																									
ZZZZZZ			21:25																									
ZZZZZZ			21:30																									
ZZZZZZ			21:34																									
ZZZZZZ			21:38																									
ZZZZZZ			21:42																									
CCV 240-447390/175			21:47																									
CCB 240-447390/176			21:51																									
ZZZZZZ			21:55																									
ZZZZZZ			21:59																									
ZZZZZZ			22:04																									
ZZZZZZ			22:08																									
ZZZZZZ			22:12																									
ZZZZZZ			22:16																									
ZZZZZZ			22:20																									
ZZZZZZ			22:25																									
ZZZZZZ			22:29																									
ZZZZZZ			22:33																									
CCV 240-447390/187			22:37																									
CCB 240-447390/188			22:41																									
ZZZZZZ			22:45																									
ZZZZZZ			22:50																									
ZZZZZZ			22:54																									
ZZZZZZ			22:58																									
ZZZZZZ			23:02																									
ZZZZZZ			23:07																									
ZZZZZZ			23:11																									
ZZZZZZ			23:16																									
ZZZZZZ			23:20																									
ZZZZZZ			23:24																									
CCV 240-447390/199			23:28																									
CCB 240-447390/200			23:32																									
ZZZZZZ			23:37																									
ZZZZZZ			23:41																									
ZZZZZZ			23:45																									
ZZZZZZ			23:50																									
ZZZZZZ			23:54																									
ZZZZZZ			23:58																									
ZZZZZZ			00:02																									
ZZZZZZ			00:07																									
ZZZZZZ			00:11																									
ZZZZZZ			00:15																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 08/14/2020 09:20 End Date: 08/15/2020 02:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe	Mn																							
CCV 240-447390/211			00:20																									
CCB 240-447390/212			00:24																									
ZZZZZZ			00:28																									
ZZZZZZ			00:32																									
ZZZZZZ			00:36																									
ZZZZZZ			00:40																									
ZZZZZZ			00:45																									
ZZZZZZ			00:49																									
ZZZZZZ			00:53																									
ZZZZZZ			00:57																									
ZZZZZZ			01:02																									
ZZZZZZ			01:06																									
CCV 240-447390/223			01:11																									
CCB 240-447390/224			01:15																									
ZZZZZZ			01:19																									
ZZZZZZ			01:23																									
ZZZZZZ			01:28																									
ZZZZZZ			01:32																									
ZZZZZZ			01:36																									
ZZZZZZ			01:41																									
ZZZZZZ			01:45																									
ZZZZZZ			01:49																									
ZZZZZZ			01:54																									
ZZZZZZ			01:58																									
CCV 240-447390/235			02:02																									
CCB 240-447390/236			02:06																									
ZZZZZZ			02:11																									
ZZZZZZ			02:15																									
ZZZZZZ			02:19																									
ZZZZZZ			02:23																									
CCV 240-447390/241			02:28																									
CCB 240-447390/242			02:32																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020A

Start Date: 08/14/2020 12:07 End Date: 08/14/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn				
ZZZZZZ			12:07																											
ICIS 240-447397/2			12:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
STD3 240-447397/3 IC	1		12:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICV 240-447397/4	1		12:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICB 240-447397/5	1		12:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICVL 240-447397/6	1		12:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICSA 240-447397/7	1		12:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICSAB 240-447397/8	1		12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 240-447397/9			12:27																											
CCB 240-447397/10			12:29																											
ZZZZZZ			12:53																											
ZZZZZZ			12:55																											
ZZZZZZ			12:58																											
ZZZZZZ			13:00																											
ZZZZZZ			13:03																											
ZZZZZZ			13:06																											
ZZZZZZ			13:08																											
ZZZZZZ			13:11																											
ZZZZZZ			13:13																											
ZZZZZZ			13:16																											
CCV 240-447397/21			13:18																											
CCB 240-447397/22			13:21																											
ZZZZZZ			13:23																											
ZZZZZZ			13:26																											
ZZZZZZ			13:28																											
ZZZZZZ			13:31																											
ZZZZZZ			13:33																											
ZZZZZZ			13:36																											
ZZZZZZ			13:38																											
ZZZZZZ			13:41																											
ZZZZZZ			13:43																											
ZZZZZZ			13:46																											
CCV 240-447397/33			13:48																											
CCB 240-447397/34			13:51																											
ZZZZZZ			13:53																											
ZZZZZZ			13:56																											
ZZZZZZ			13:58																											
ZZZZZZ			14:01																											
ZZZZZZ			14:03																											
ZZZZZZ			14:05																											
CCV 240-447397/41			14:08																											
CCB 240-447397/42			14:10																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020A

Start Date: 08/14/2020 12:07 End Date: 08/14/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn				
CCVL 240-447397/43			14:13																												
ZZZZZZ			14:15																												
ZZZZZZ			14:18																												
ZZZZZZ			14:20																												
ZZZZZZ			14:23																												
ZZZZZZ			14:25																												
ZZZZZZ			14:27																												
ZZZZZZ			14:30																												
ZZZZZZ			14:32																												
ZZZZZZ			14:35																												
CCV 240-447397/53			14:37																												
CCB 240-447397/54			14:39																												
CCV 240-447397/55			14:42																												
CCB 240-447397/56			14:45																												
CCVL 240-447397/57			14:47																												
ZZZZZZ			14:50																												
ZZZZZZ			14:52																												
ZZZZZZ			14:54																												
ZZZZZZ			14:57																												
ZZZZZZ			14:59																												
ZZZZZZ			15:02																												
ZZZZZZ			15:04																												
ZZZZZZ			15:07																												
ZZZZZZ			15:09																												
CCV 240-447397/67			15:12																												
CCB 240-447397/68			15:14																												
ZZZZZZ			15:17																												
ZZZZZZ			15:19																												
ZZZZZZ			15:22																												
ZZZZZZ			15:24																												
ZZZZZZ			15:27																												
ZZZZZZ			15:29																												
ZZZZZZ			15:31																												
ZZZZZZ			15:34																												
ZZZZZZ			15:36																												
ZZZZZZ			15:39																												
CCV 240-447397/79	1		15:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 240-447397/80	1		15:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			15:46																												
MB 240-447010/1-A	1	R	15:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCS 240-447010/3-A	1	R	15:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
240-134814-1	1	R	15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020A

Start Date: 08/14/2020 12:07 End Date: 08/14/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn							
240-134814-1 SD	5	R	15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			15:59																												
ZZZZZZ			16:01																												
240-134814-1 PDS	1	R	16:03		X																										
240-134814-1 MS	1	R	16:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-134814-1 MSD	1	R	16:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-447397/91	1		16:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-447397/92	1		16:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-447397/93			16:15																												
CCB 240-447397/94			16:18																												
CCVL 240-447397/95	1		16:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			16:23																												
ZZZZZZ			16:25																												
ZZZZZZ			16:28																												
ZZZZZZ			16:30																												
ZZZZZZ			16:33																												
ZZZZZZ			16:35																												
ZZZZZZ			16:38																												
ZZZZZZ			16:40																												
ZZZZZZ			16:43																												
CCV 240-447397/105			16:45																												
CCB 240-447397/106			16:48																												
ZZZZZZ			16:50																												
CCV 240-447397/108			16:53																												
CCB 240-447397/109			16:55																												

Prep Types:
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-447004/1-A			13:11	X																								
IC 240-447004/2-A			13:13	X																								
IC 240-447004/3-A			13:15	X																								
IC 240-447004/4-A			13:17	X																								
IC 240-447004/5-A			13:20	X																								
IC 240-447004/6-A			13:22	X																								
ICV 240-447004/7-A	1		13:25	X																								
ICB 240-447004/8-A	1		13:27	X																								
CRA 240-447004/9-A	1		13:30	X																								
CCV 240-447004/10-A			13:32																									
CCB 240-447004/11-A			13:34																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									
ZZZZZZ			13:43																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									
ZZZZZZ			13:57																									
CCV 240-447004/10-A			13:59																									
CCB 240-447004/11-A			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
ZZZZZZ			14:23																									
ZZZZZZ			14:25																									
CCV 240-447004/10-A			14:27																									
CCB 240-447004/11-A			14:29																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:37																									
ZZZZZZ			14:39																									
ZZZZZZ			14:41																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:48	
ZZZZZZ			14:50	
ZZZZZZ			14:52	
CCV 240-447004/10-A			14:54	
CCB 240-447004/11-A			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:04	
ZZZZZZ			15:06	
ZZZZZZ			15:08	
ZZZZZZ			15:10	
ZZZZZZ			15:12	
ZZZZZZ			15:15	
ZZZZZZ			15:17	
ZZZZZZ			15:19	
CCV 240-447004/10-A			15:21	
CCB 240-447004/11-A			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:28	
ZZZZZZ			15:31	
ZZZZZZ			15:33	
ZZZZZZ			15:35	
ZZZZZZ			15:37	
ZZZZZZ			15:39	
ZZZZZZ			15:41	
ZZZZZZ			15:44	
ZZZZZZ			15:46	
CCV 240-447004/10-A	1		15:48	X
CCB 240-447004/11-A	1		15:50	X
ZZZZZZ			15:53	
ZZZZZZ			15:55	
ZZZZZZ			15:57	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:04	
MB 240-447011/1-A	1	T	16:06	X
LCS 240-447011/2-A	1	T	16:08	X
ZZZZZZ			16:10	
ZZZZZZ			16:13	
CCV 240-447004/10-A	1		16:15	X
CCB 240-447004/11-A	1		16:17	X
ZZZZZZ			16:20	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-134814-1	1	T	16:22	X																								
240-134814-1 MS	1	T	16:24	X																								
240-134814-1 MSD	1	T	16:26	X																								
ZZZZZZ			16:29																									
ZZZZZZ			16:31																									
ZZZZZZ			16:33																									
ZZZZZZ			16:35																									
ZZZZZZ			16:37																									
ZZZZZZ			16:40																									
CCV 240-447004/10-A	1		16:42	X																								
CCB 240-447004/11-A	1		16:44	X																								
ZZZZZZ			16:46																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									
ZZZZZZ			16:53																									
ZZZZZZ			16:55																									
ZZZZZZ			16:57																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
ZZZZZZ			17:04																									
ZZZZZZ			17:06																									
CCV 240-447004/10-A			17:09																									
CCB 240-447004/11-A			17:11																									
ZZZZZZ			17:14																									
ZZZZZZ			17:16																									
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:22																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
ZZZZZZ			17:30																									
ZZZZZZ			17:32																									
ZZZZZZ			17:34																									
CCV 240-447004/10-A			17:37																									
CCB 240-447004/11-A			17:39																									
ZZZZZZ			17:41																									
ZZZZZZ			17:43																									
ZZZZZZ			17:46																									
ZZZZZZ			17:48																									
ZZZZZZ			17:50																									
ZZZZZZ			17:52																									
ZZZZZZ			17:54																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 08/13/2020 13:11 End Date: 08/13/2020 18:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:57																									
ZZZZZZ			17:59																									
ZZZZZZ			18:01																									
CCV 240-447004/10-A			18:04																									
CCB 240-447004/11-A			18:06																									
ZZZZZZ			18:08																									
ZZZZZZ			18:10																									
ZZZZZZ			18:13																									
ZZZZZZ			18:15																									
ZZZZZZ			18:17																									
ZZZZZZ			18:19																									
ZZZZZZ			18:22																									
ZZZZZZ			18:24																									
ZZZZZZ			18:26																									
ZZZZZZ			18:28																									
CCV 240-447004/10-A			18:30																									
CCB 240-447004/11-A			18:33																									
ZZZZZZ			18:35																									
ZZZZZZ			18:37																									
ZZZZZZ			18:39																									
CCV 240-447004/10-A			18:42																									
CCB 240-447004/11-A			18:44																									

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP Instrument ID: I12 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 371.030	Q	Element	Q
ICIS 240-447390/1	09:20										
ICV 240-447390/4	09:33	91		99		98		100			
ICB 240-447390/5	09:37	102		102		102		103			
ICVL 240-447390/6	09:41	98		101		100		103			
ICSA 240-447390/8	09:50	76		90		86		97			
ICSAB 240-447390/9	09:54	75		89		85		96			
CCV 240-447390/43	12:24	97		106		106		112			
CCB 240-447390/44	12:28	108		109		110		113			
MB 240-447010/1-A	12:45	110		111		111		114			
LCS 240-447010/2-A	12:49	95		105		104		112			
240-134778-A-1-A SD ^5	13:00	92		101		100		112			
240-134778-A-1-B MS	13:08	78		93		90		104			
240-134778-A-1-C MSD	13:12	79		93		91		105			
CCV 240-447390/55	13:19	93		102		101		103			
CCB 240-447390/56	13:23	104		105		105		105			
240-134814-1	13:27	101		106		104		108			
CCV 240-447390/67	14:10	95		103		103		106			
CCB 240-447390/68	14:14	106		107		107		109			
CCVL 240-447390/69	14:18	103		105		105		108			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Rh/2	Q
STD3 240-447397/3 IC	12:12	98		100		100		100		96	
ICV 240-447397/4	12:15	100		101		101		101		98	
ICB 240-447397/5	12:17	102		101		100		101		99	
ICVL 240-447397/6	12:20	100		101		101		101		99	
ICSA 240-447397/7	12:22	99		100		100		101		95	
ICSAB 240-447397/8	12:25	97		100		100		100		94	
CCV 240-447397/79	15:41	88		87		86		86		87	
CCB 240-447397/80	15:44	85		84		84		84		88	
MB 240-447010/1-A	15:49	92		89		88		90		92	
LCS 240-447010/3-A	15:51	86		86		87		90		89	
240-134814-1	15:54	87		86		87		88		88	
240-134814-1 SD	15:56	87		84		85		85		88	
240-134814-1 PDS	16:03	84		85		84		87		86	
240-134814-1 MS	16:05	84		86		85		87		87	
240-134814-1 MSD	16:08	83		85		85		86		86	
CCV 240-447397/91	16:10	85		84		84		85		85	
CCB 240-447397/92	16:13	85		84		83		84		87	
CCVL 240-447397/95	16:20	85		83		83		84		86	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh/3	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
STD3 240-447397/3 IC	12:12	96		99		98		100		100	
ICV 240-447397/4	12:15	98		100		99		100		101	
ICB 240-447397/5	12:17	100		101		101		100		101	
ICVL 240-447397/6	12:20	101		102		100		101		101	
ICSA 240-447397/7	12:22	96		98		98		101		101	
ICSAB 240-447397/8	12:25	96		98		97		101		100	
CCV 240-447397/79	15:41	88		88		90		91		92	
CCB 240-447397/80	15:44	90		89		90		90		91	
MB 240-447010/1-A	15:49	91		90		92		91		93	
LCS 240-447010/3-A	15:51	90		89		91		91		92	
240-134814-1	15:54	90		89		90		90		92	
240-134814-1 SD	15:56	90		89		90		90		92	
240-134814-1 PDS	16:03	87		88		89		90		91	
240-134814-1 MS	16:05	88		89		90		91		93	
240-134814-1 MSD	16:08	88		88		88		90		91	
CCV 240-447397/91	16:10	88		87		88		90		92	
CCB 240-447397/92	16:13	90		89		88		90		92	
CCVL 240-447397/95	16:20	89		88		89		90		92	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 08/14/2020 End Date: 08/14/2020

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD3 240-447397/3 IC	12:12	98									
ICV 240-447397/4	12:15	99									
ICB 240-447397/5	12:17	101									
ICVL 240-447397/6	12:20	100									
ICSA 240-447397/7	12:22	98									
ICSAB 240-447397/8	12:25	98									
CCV 240-447397/79	15:41	90									
CCB 240-447397/80	15:44	92									
MB 240-447010/1-A	15:49	92									
LCS 240-447010/3-A	15:51	90									
240-134814-1	15:54	92									
240-134814-1 SD	15:56	92									
240-134814-1 PDS	16:03	90									
240-134814-1 MS	16:05	89									
240-134814-1 MSD	16:08	90									
CCV 240-447397/91	16:10	89									
CCB 240-447397/92	16:13	91									
CCVL 240-447397/95	16:20	92									

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447010 Batch Start Date: 08/13/20 14:00 Batch Analyst: Loeb, Matthew R

Batch Method: 3005A Batch End Date: 08/13/20 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ICPspike3 00013	MTTMHCL 00300	MTTMHNO3 00230	SPIKE1 00008
MB 240-447010/1		3005A, 6010C		50 mL	50 mL		2.5 mL	1 mL	
LCS 240-447010/2		3005A, 6010C		50 mL	50 mL	0.5 mL	2.5 mL	1 mL	0.5 mL
240-134778-A-1 MS		3005A, 6010C	R	50 mL	50 mL	0.5 mL	2.5 mL	1 mL	0.5 mL
240-134778-A-1 MSD		3005A, 6010C	R	50 mL	50 mL	0.5 mL	2.5 mL	1 mL	0.5 mL
240-134814-M-1	MRC-MW-164B-081120	3005A, 6010C	R	50 mL	50 mL		2.5 mL	1 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00007					
MB 240-447010/1		3005A, 6010C							
LCS 240-447010/2		3005A, 6010C		0.5 mL					
240-134778-A-1 MS		3005A, 6010C	R	0.5 mL					
240-134778-A-1 MSD		3005A, 6010C	R	0.5 mL					
240-134814-M-1	MRC-MW-164B-081120	3005A, 6010C	R						

Batch Notes	
Batch Comment	filter paper 81206102
Temperature - Corrected - End	Timer Degrees C
Temperature - Corrected - Start	95 Degrees C
Digestion Unit ID	HB4
Pipette/Syringe/Dispenser ID	MP1 MP3
Thermometer ID	TempLog
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	Timer Degrees C
Temperature - Uncorrected - Start	95 Degrees C

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447010 Batch Start Date: 08/13/20 14:00 Batch Analyst: Loeb, Matthew R

Batch Method: 3005A Batch End Date: 08/13/20 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ICPMSspike3 00007	MTTMHCL 00300	MTTMHNO3 00230	SPIKE1 00008
MB 240-447010/1		3005A, 6020A		50 mL	50 mL		2.5 mL	1 mL	
LCS 240-447010/3		3005A, 6020A		50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-134814-M-1	MRC-MW-164B-081120	3005A, 6020A	R	50 mL	50 mL		2.5 mL	1 mL	
240-134814-M-1 MS	MRC-MW-164B-081120	3005A, 6020A	R	50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-134814-M-1 MSD	MRC-MW-164B-081120	3005A, 6020A	R	50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00007	TungstenSpike 00024				
MB 240-447010/1		3005A, 6020A							
LCS 240-447010/3		3005A, 6020A		0.25 mL	0.25 mL				
240-134814-M-1	MRC-MW-164B-081120	3005A, 6020A	R						
240-134814-M-1 MS	MRC-MW-164B-081120	3005A, 6020A	R	0.25 mL	0.25 mL				
240-134814-M-1 MSD	MRC-MW-164B-081120	3005A, 6020A	R	0.25 mL	0.25 mL				

Batch Notes	
Batch Comment	filter paper 81206102
Temperature - Corrected - End	Timer Degrees C
Temperature - Corrected - Start	95 Degrees C
Digestion Unit ID	HB4
Pipette/Syringe/Dispenser ID	MP1 MP3
Thermometer ID	TempLog
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	Timer Degrees C
Temperature - Uncorrected - Start	95 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447010 Batch Start Date: 08/13/20 14:00 Batch Analyst: Loeb, Matthew R

Batch Method: 3005A Batch End Date: 08/13/20 22:00

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447004 Batch Start Date: 08/13/20 09:50 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 08/13/20 11:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00119	MTH2S04 00090	MTHGCALW 02460	MTHgICV_00001 00701
ICV 240-447004/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-447004/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-447004/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-447004/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-447004/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00230	MTTMHNO3 00230				
ICV 240-447004/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-447004/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-447004/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-447004/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-447004/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Temperature - Corrected - End	95 Degrees C
Temperature - Corrected - Start	93 Degrees C
Digestion Unit ID	C1
Pipette/Syringe/Dispenser ID	MP1, MP2, A7
Thermometer ID	temp log
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	95 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447011 Batch Start Date: 08/13/20 12:00 Batch Analyst: Loeb, Matthew R

Batch Method: 7470A Batch End Date: 08/13/20 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00119	MTH2S04 00090	MTHGCALW 02460	MTKMN04W 00230
MB 240-447011/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-447011/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-134814-M-1	MRC-MW-164B-081120	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-134814-M-1 MS	MRC-MW-164B-081120	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-134814-M-1 MSD	MRC-MW-164B-081120	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00230
MB 240-447011/1		7470A, 7470A		1.25 mL
LCS 240-447011/2		7470A, 7470A		1.25 mL
240-134814-M-1	MRC-MW-164B-081120	7470A, 7470A	T	1.25 mL
240-134814-M-1 MS	MRC-MW-164B-081120	7470A, 7470A	T	1.25 mL
240-134814-M-1 MSD	MRC-MW-164B-081120	7470A, 7470A	T	1.25 mL

Batch Notes	
Temperature - Corrected - End	94 Degrees C
Temperature - Corrected - Start	93 Degrees C
Digestion Unit ID	D2
Pipette/Syringe/Dispenser ID	MP2 MP3
Thermometer ID	TempLog
Digestion Tube/Cup ID	2001329
Temperature - Uncorrected - End	95 Degrees C
Temperature - Uncorrected - Start	94 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Eurofins TestAmerica Canton ICP Data Review Checklist

MT6500BLKH20 357 Analytical Batch: 447390

Analysis Date: 8-14-20 Analyst: WKD Instrument: I 12

Review Items

A. Calibration/Instrument Run QC
1. Instrument calibrated and within acceptance criteria.
2. ICV/CCV analyzed at appropriate frequency and within acceptance criteria.
3. ICB/CCB analyzed at appropriate frequency and within acceptance criteria.
4. ICVL/CCVL analyzed at SOP or project-specific frequency and within acceptance criteria. (project specific limits may vary)
5. ICSA/ICSAB analyzed at required frequency and within acceptance criteria.
B. Sample Results
1. Samples with concentrations > the linear range for any parameter diluted and reanalyzed.
2. Internal standard(s) within acceptance criteria.
3. Sample analyses done within holding time.
4. Dilutions demonstrate agreement with initial analysis.
C. Preparation/Matrix QC
1. LCS performed per prep batch and within acceptance criteria.
2. Method blank performed per prep batch and within acceptance criteria.
3. MS performed at required frequency and evaluated.
4. MSD or DU performed at required frequency and evaluated.
5. Serial dilution performed per prep batch.
6. Post digest spike performed at required frequency and evaluated.
D. Other
1. All nonconformances documented appropriately in the LIMS.
2. Calculations checked for error.
3. All client/project specific requirements met.
4. Date/time of analysis verified as correct.

Level I Reviewer: [signature] Date: 8-17-20 Time: 09:20 - 02:32

Level I Reviewer: _____ Date: _____ Time: _____

Level I Reviewer: _____ Date: _____ Time: _____

Level II Reviewer: [signature] Date: 8-17-20 Time: jobs 134781 & 134819

Level II Reviewer: Kanlayance. S Date: 8/18/20 Time: 9.20 - 2.32

Level II Reviewer: _____ Date: _____ Time: _____

Comments: _____

WI-NC-0167

Sample Name: Blank Acquired: 8/14/2020 9:20:27 Type: Cal
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: IR Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00117	.00196	.00114	.00360	.01905	.00299	.01182
Stddev	.00029	.00034	.00008	.00011	.00292	.00087	.00043
%RSD	24.693	17.435	6.8391	3.1591	15.326	29.188	3.6707

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0008	-.00567	-.00047	.00124	.00167	-.00521	.00039
Stddev	.0001	.00025	.00030	.00016	.00050	.00145	.00248
%RSD	15.88	4.4307	63.027	12.615	29.942	27.800	634.35

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00054	.00044	.00136	-.02526	.00384	.00018	-.0002
Stddev	.00015	.00013	.00016	.00352	.00006	.00040	.0001
%RSD	28.664	28.852	11.978	13.924	1.5725	218.75	47.38

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00030	.00027	-.00040	-.00018	-.00010	.00476	.00048
Stddev	.00016	.00009	.00016	.00003	.00141	.00018	.00015
%RSD	54.100	32.117	39.953	17.962	1346.1	3.8292	30.494

Elem	Sr3464
IS Ref	(Y_3710)
Units	Cts/S
Avg	-.00444
Stddev	.00108
%RSD	24.339

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6346.5	4060.4	33591.	2968.0
Stddev	16.2	7.6	79.	24.0
%RSD	.25471	.18826	.23595	.80861

Sample Name: SCAL-4838016 Acquired: 8/14/2020 9:24:48 Type: Cal
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: IR Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	As1890	B_1826	Ba4554	Be3130	Cd2288	Co2286	Cr2677
IS Ref	(Y_3600)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.98757	.32828	1.5369	24.045	18.983	12.24	4.5901	1.4535
Stddev	.00100	.00074	.0117	.019	.026	.01	.0011	.0018
%RSD	.10117	.22402	.75823	.07777	.13661	.0549	.02350	.12678

Elem	Cu3273	Li6707	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
IS Ref	(Y_3600)	(Y_3710)	(Y_3600)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.2026	5.5244	10.235	2.7389	1.6440	1.4923	.4077	.28554
Stddev	.0012	.0035	.083	.0067	.0014	.0014	.0014	.00008
%RSD	.10016	.06403	.81347	.24338	.08676	.09075	.3524	.02888

Elem	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.91196	4.1417	.20662	.50537	4.7515	2.4779	.89506
Stddev	.00137	.0026	.00384	.00155	.0132	.0164	.00342
%RSD	.15028	.06265	1.8600	.30634	.27684	.65977	.38245

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5981.2	4020.4	32756.	2972.6
Stddev	61.9	44.0	138.	6.2
%RSD	1.0353	1.0933	.42052	.21024

Sample Name: SCAL2-4838731 Acquired: 8/14/2020 9:28:58 Type: Cal
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: IR Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.3070	11.242	8.1824	2.9873	1.1158	11.178
Stddev	.0023	.054	.0527	.0114	.0028	.072
%RSD	.17299	.48229	.64417	.38073	.25422	.64007

Int. Std.	Y_3710
Units	Cts/S
Avg	2949.8
Stddev	11.7
%RSD	.39611

Sample Name: ICV-4838733 Acquired: 8/14/2020 9:33:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	981.25	25464.	2028.2	5085.4	1993.9	2066.8	25492.	2020.
Stddev	2.39	55.	7.4	27.8	3.2	2.9	7.	2.
%RSD	.24376	.21784	.36529	.54755	.16117	.13987	.02705	.1128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1999.9	1974.5	1950.6	25528.	25387.	2025.2	25270.	2001.0
Stddev	1.7	6.4	5.1	44.	83.	1.7	59.	5.3
%RSD	.08742	.32566	.26075	.17377	.32723	.08612	.23336	.26320
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2029.7	25315.	2019.1	1928.3	2006.	2015.0	2033.9	2015.8
Stddev	3.5	32.	1.4	2.6	2.	7.3	.8	7.0
%RSD	.17095	.12581	.06955	.13315	.0915	.36417	.03891	.34556
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ICV-4838733 Acquired: 8/14/2020 9:33:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2025.6	2032.7	2095.6	20518.	2001.6
Stddev	18.3	3.2	3.7	74.	7.5
%RSD	.90423	.15541	.17801	.36131	.37334
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5743.8	4023.3	32761.	2972.5
Stddev	3.2	2.6	100.	12.0
%RSD	.05587	.06502	.30449	.40456

Sample Name: ICB Acquired: 8/14/2020 9:37:13 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.35693	-14.415	-4.4668	3.8603	-.21209	.49524	.56002	.0505
Stddev	.56452	41.692	2.9045	1.2126	.08851	.37300	3.9548	.0573
%RSD	158.16	289.22	65.025	31.412	41.735	75.317	706.18	113.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.56827	.49558	-.02951	.60876	28.738	-.33440	7.2434	.13050
Stddev	.14688	.19003	1.0640	.45086	38.477	2.4444	8.0701	.11053
%RSD	25.847	38.344	3605.0	74.061	133.89	730.98	111.41	84.695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3362	9.0979	-.31808	.12468	.4112	.95788	-.04438	.42963
Stddev	.3776	22.969	.08004	.81457	.4185	2.4518	.15196	.14574
%RSD	28.260	252.47	25.164	653.30	101.8	255.96	342.42	33.922
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICB Acquired: 8/14/2020 9:37:13 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.9097	1.3010	-.08490	12.941	6.6060
Stddev	2.1041	5.4084	.11306	6.295	7.9496
%RSD	110.18	415.71	133.17	48.646	120.34
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6458.3	4130.0	34236.	3055.0
Stddev	12.5	7.6	133.	27.6
%RSD	.19370	.18281	.38747	.90456

Sample Name: ICVL-4857858 Acquired: 8/14/2020 9:41:34 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.5696	224.22	W 10.905	100.21	194.27	5.1928	5166.1
Stddev	.7478	23.68	.515	1.14	.79	.0619	8.9
%RSD	7.8139	10.563	4.7255	1.1423	.40741	1.1919	.17235
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			15.000				
Range			-20.500%				

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.236	9.8331	10.345	26.082	211.48	4933.8	51.804
Stddev	.057	.0663	.150	.481	1.13	23.1	1.216
%RSD	1.096	.67398	1.4530	1.8447	.53490	.46785	2.3465
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5046.8	15.420	40.800	4873.1	38.239	9.7372	23.21
Stddev	18.1	.148	.391	14.4	.671	1.0323	2.36
%RSD	.35844	.96308	.95808	.29569	1.7559	10.602	10.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICVL-4857858 Acquired: 8/14/2020 9:41:34 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22.108	97.488	49.214	20.530	48.421	W 64.665	494.95
Stddev	1.628	.671	.205	1.543	2.143	1.041	15.88
%RSD	7.3652	.68845	.41659	7.5133	4.4248	1.6102	3.2087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
Value						50.000	
Range						20.500%	

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	57.240
Stddev	1.517
%RSD	2.6497
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6224.1	4082.7	33508.	3045.3
Stddev	4.9	3.4	76.	21.6
%RSD	.07895	.08260	.22792	.70922

Sample Name: CRILL-4873700 Acquired: 8/14/2020 9:45:51 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.1015	191.10	7.1767	198.22	195.38	5.0649	5058.9
Stddev	.3545	8.34	1.1269	.63	.69	.1516	10.7
%RSD	6.9486	4.3625	15.702	.31855	.35410	2.9935	.21072
Check ?	Chk Pass	None	Chk Pass	None	None	None	None
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.106	6.7825	5.2191	25.308	95.069	4939.3	48.199
Stddev	.134	.1493	.3155	1.203	1.382	23.1	2.432
%RSD	6.355	2.2010	6.0453	4.7532	1.4533	.46820	5.0450
Check ?	Chk Pass	None	Chk Pass	None	Chk Pass	None	None
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5030.0	14.976	9.7826	4889.9	38.835	3.9120	13.32
Stddev	14.5	.047	.1138	11.3	.731	1.1997	1.09
%RSD	.28891	.31593	1.1628	.23180	1.8827	30.668	8.168
Check ?	None	None	None	None	None	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CRILL-4873700 Acquired: 8/14/2020 9:45:51 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3.6719	98.258	50.212	10.868	10.985	15.813	504.05
Stddev	.6084	1.069	.268	3.321	2.751	.212	17.83
%RSD	16.568	1.0881	.53364	30.555	25.040	1.3393	3.5379
Check ?	Chk Fail	None	None	Chk Pass	None	None	None
Value	10.000						
Range	-50.500%						

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	59.960
Stddev	2.229
%RSD	3.7180
Check ?	None
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6219.8	4079.1	33561.	3020.9
Stddev	15.2	11.5	84.	12.3
%RSD	.24448	.28186	.24925	.40790

Sample Name: ICSA-4828753 Acquired: 8/14/2020 9:50:08 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.9650	496350.	-2.2428	5.0699	6.8261	.29321	473650.
Stddev	.1708	2377.	5.3367	.6727	.2473	.09506	4645.
%RSD	8.6909	.47884	237.95	13.269	3.6226	32.419	.98077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.696	-3.6216	2.7059	3.0498	187090.	-5.8659	-2.2024
Stddev	.122	.4782	.6588	.4327	782.	26.186	4.6023
%RSD	7.214	13.203	24.347	14.186	.41816	446.41	208.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	474100.	2.1079	-.30379	131.36	3.0921	2.9637	2.619
Stddev	2466.	.0287	.68248	2.43	.8954	1.8287	2.630
%RSD	.52012	1.3605	224.65	1.8490	28.957	61.704	100.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: ICSA-4828753 Acquired: 8/14/2020 9:50:08 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.1459	-.18060	-1.2340	-1.8762	1.4468	-1.1933	9.2066
Stddev	3.2251	.59743	.2580	3.5060	6.3303	.1125	2.0560
%RSD	102.52	330.80	20.907	186.87	437.55	9.4279	22.332
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	20.395
Stddev	5.449
%RSD	26.715
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4825.1	3645.6	29015.	2887.2
Stddev	8.8	8.9	35.	6.4
%RSD	.18160	.24320	.12181	.22276

Sample Name: ICSAB-4731086 Acquired: 8/14/2020 9:54:28 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1053.8	496910.	1030.1	10143.	994.81	497.86	473740.
Stddev	3.1	1081.	3.1	48.	2.33	1.64	3439.
%RSD	.29156	.21748	.29895	.47532	.23404	.32882	.72588
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1029.	1004.4	967.28	1017.2	187020.	10535.	529.01
Stddev	1.	.6	1.26	2.9	374.	42.	3.03
%RSD	.0724	.06402	.13063	.28245	.20021	.39653	.57277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	473880.	984.22	972.33	10511.	1014.0	890.71	946.4
Stddev	870.	2.67	1.96	24.	4.4	3.22	11.1
%RSD	.18358	.27169	.20160	.22463	.43655	.36110	1.177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB-4731086 Acquired: 8/14/2020 9:54:28 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1006.1	1035.9	1007.0	981.46	980.74	1038.3	10238.
Stddev	3.9	.8	2.8	4.94	12.35	.2	30.
%RSD	.38391	.07998	.28170	.50367	1.2591	.02380	.29222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	985.36
Stddev	8.21
%RSD	.83300
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4752.9	3616.3	28693.	2843.3
Stddev	11.3	10.8	70.	10.1
%RSD	.23697	.29833	.24303	.35599

Sample Name: CCV-4863699 Acquired: 8/14/2020 9:58:36 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1010.3	25512.	2045.5	5227.5	2010.8	2030.5	25679.	2031.
Stddev	1.8	17.	4.5	16.0	6.2	4.3	50.	2.
%RSD	.18090	.06782	.21893	.30557	.30600	.21149	.19404	.1156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2028.5	2015.6	1999.3	25633.	25321.	2015.3	25456.	2012.0
Stddev	3.3	6.8	5.3	25.	75.	8.0	53.	3.8
%RSD	.16280	.33660	.26404	.09920	.29782	.39484	.20632	.18989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2028.7	25302.	2034.0	1945.2	2019.	2040.8	2072.1	2049.9
Stddev	3.5	51.	1.5	3.4	4.	3.1	2.3	2.6
%RSD	.17115	.19973	.07333	.17566	.1783	.15132	.10900	.12682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 9:58:36 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2067.8	2045.8	2088.7	20665.	2017.9
Stddev	20.8	11.8	1.7	63.	8.0
%RSD	1.0047	.57590	.08177	.30316	.39622
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5685.5	3977.1	32243.	2921.2
Stddev	8.5	3.7	106.	9.2
%RSD	.14977	.09341	.32735	.31342

Sample Name: CCB Acquired: 8/14/2020 10:02:35 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.42589	9.9035	-3.0530	5.8830	-.05140	.07850	19.633	.0356
Stddev	.47092	22.605	2.1283	1.1712	.55956	.05224	4.640	.1161
%RSD	110.57	228.25	69.712	19.909	1088.6	66.546	23.635	326.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.25265	.16196	-.01768	7.3853	7.2404	-2.6748	17.143	.12949
Stddev	.13484	.50730	.39409	4.5195	38.475	2.6360	30.887	.04893
%RSD	53.370	313.22	2228.4	61.196	531.40	98.548	180.17	37.790
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2869	15.016	-.14463	-.43450	2.131	1.1154	-.15996	.07309
Stddev	.1724	5.943	.29459	.29164	1.647	2.6061	.12366	.12519
%RSD	13.399	39.575	203.69	67.121	77.30	233.64	77.307	171.30
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 10:02:35 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.24425	4.3203	3.3951	14.744	8.9869
Stddev	2.1908	5.8490	.0648	11.501	.9834
%RSD	896.94	135.39	1.9081	78.003	10.942
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6282.1	4027.6	33049.	2924.7
Stddev	5.3	7.9	67.	31.9
%RSD	.08365	.19600	.20234	1.0899

Sample Name: IEC Check As Acquired: 8/14/2020 10:06:57 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.30695	-.61558	5068.4	-1.1995	-.17026	-.02472	-10.641	-.0250
Stddev	.49569	10.246	8.2	.7274	.18000	.11779	.862	.2909
%RSD	161.49	1664.5	.16135	60.640	105.72	476.54	8.0981	1165.
Check ?	None	None	None	None	None	None	None	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.34716	.03475	.94701	-4.3545	34.959	-2.7968	16.308	-.13953
Stddev	.14236	.31214	.75172	2.8714	14.185	2.1233	5.819	.01646
%RSD	41.008	898.32	79.378	65.941	40.576	75.920	35.682	11.798
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.30057	-5.6559	-1.4269	-.25099	2.101	1.8006	-.37979	.26286
Stddev	.26317	11.519	.5434	.78095	6.295	1.8212	.03593	.32332
%RSD	87.558	203.67	38.082	311.15	299.7	101.14	9.4608	123.00
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Sample Name: IEC Check As Acquired: 8/14/2020 10:06:57 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.2712	-.44880	-3.8365	7.1819	1.1377
Stddev	.6231	5.6785	.0492	12.942	1.3896
%RSD	49.020	1265.2	1.2833	180.21	122.14
Check ?	None	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6673.5	4226.9	34401.	3110.3
Stddev	13.8	7.1	45.	34.8
%RSD	.20719	.16756	.12956	1.1185

Sample Name: IEC Check Ti Acquired: 8/14/2020 10:11:16 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.38123	-5.2186	-3.9709	37.807	-.24474	-.26985	-4.1342	.7750
Stddev	.33986	9.0423	2.2688	9.877	.42365	.11523	1.7235	.0491
%RSD	89.147	173.27	57.137	26.123	173.10	42.703	41.688	6.334
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08300	2.8607	-1.0859	-6.0806	-26.002	-.64029	-23.616	-.03418
Stddev	.74322	.3914	.7861	.7843	37.086	2.0050	12.115	.01155
%RSD	895.47	13.681	72.397	12.898	142.63	313.15	51.302	33.789
Check ?	Chk Pass	None	Chk Pass	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.53206	-36.722	-3.0852	-.48674	23.04	-.83852	2.4058	28986.
Stddev	.22509	9.448	.2260	.95134	1.77	1.5956	.4047	259.
%RSD	42.305	25.729	7.3264	195.45	7.694	190.29	16.820	.89515
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Sample Name: IEC Check Ti Acquired: 8/14/2020 10:11:16 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.6901	5.9192	-3.1673	26342.	6.3094
Stddev	.5703	2.9766	.1241	1815.	1.5588
%RSD	21.201	50.287	3.9176	6.8914	24.705
Check ?	None	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6633.9	4272.8	35046.	3062.7
Stddev	8.5	3.1	255.	15.5
%RSD	.12806	.07349	.72707	.50511

Sample Name: IEC Check Co Acquired: 8/14/2020 10:15:42 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.18038	-5.4537	-3.8672	19.359	-.41597	.16803	-8.2248	.3096
Stddev	.11375	25.122	2.3670	2.713	.04306	.07776	2.4494	.1210
%RSD	63.059	460.64	61.207	14.013	10.352	46.276	29.780	39.09
Check ?	None	None	Chk Pass	None	None	None	None	None
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9756.9	.53070	-1.0333	-5.1992	-13.487	-2.2498	-.92866	-.08367
Stddev	3.5	.32827	1.0874	.6452	58.607	1.3339	10.797	.04432
%RSD	.03605	61.856	105.24	12.409	434.56	59.289	1162.7	52.977
Check ?	None	None	Chk Pass	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.82199	-11.225	.64144	.25130	.0071	2.4569	-.36996	1.2613
Stddev	.45012	3.970	.36565	1.1068	3.206	1.9120	.35371	.1709
%RSD	54.760	35.364	57.005	440.44	44950.	77.822	95.608	13.552
Check ?	None	None	Chk Pass	None	Chk Pass	None	None	None
Value								
Range								

Sample Name: IEC Check Co Acquired: 8/14/2020 10:15:42 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.9425	-2.3270	-1.9215	805.02	4.1274
Stddev	2.1930	7.6559	.0951	206.71	1.4098
%RSD	112.90	329.00	4.9518	25.678	34.157
Check ?	Chk Pass	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6681.4	4257.2	35274.	3209.5
Stddev	5.4	3.0	179.	8.9
%RSD	.08029	.07071	.50680	.27658

Sample Name: IEC Check Al Acquired: 8/14/2020 10:20:03 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.59727	496740.	-4.7821	14.140	-.25653	.05525	.34299
Stddev	.39160	3311.	2.9993	.951	.41552	.08385	3.3338
%RSD	65.566	.66652	62.719	6.7266	161.98	151.78	971.97
Check ?	None	None	Chk Pass	None	None	None	None
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2532	-.01807	1.3181	.35415	2.1877	-62.463	2.2675
Stddev	.1599	.37461	.2401	.47764	4.5998	23.659	1.0448
%RSD	63.17	2072.9	18.219	134.87	210.25	37.876	46.077
Check ?	None	None	None	None	None	None	None
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	16.605	.56688	.14484	30.744	.07493	-1.6403	-.0004
Stddev	30.374	.07599	.29615	13.669	.54816	1.4707	3.554
%RSD	182.93	13.405	204.46	44.459	731.58	89.657	931100.
Check ?	None	None	None	None	None	Chk Pass	Chk Pass
Value							
Range							

Sample Name: IEC Check Al Acquired: 8/14/2020 10:20:03 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0376	-.07881	.43008	-2.6630	.15186	-6.1043	51.355
Stddev	2.0910	.08523	.13042	2.4640	5.7261	.1258	13.756
%RSD	68.838	108.15	30.324	92.530	3770.6	2.0607	26.786
Check ?	Chk Pass	None	None	Chk Pass	None	None	None
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	10.086
Stddev	.657
%RSD	6.5118
Check ?	None
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5934.3	4303.0	33151.	3187.1
Stddev	11.7	11.1	104.	19.2
%RSD	.19695	.25871	.31235	.60162

Sample Name: IEC Check Fe Acquired: 8/14/2020 10:24:19 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.46656	-11.406	-6.9569	6.1989	.06341	.12140	-2.8654
Stddev	.41404	17.094	.5401	.1892	.67160	.04059	4.3096
%RSD	88.742	149.86	7.7632	3.0513	1059.1	33.436	150.40
Check ?	None	None	None	None	None	None	None
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.6530	-3.4837	2.0254	3.0338	495800.	-149.76	-.93169
Stddev	.2242	.2498	.3718	1.3416	5348.	42.61	2.0386
%RSD	34.33	7.1701	18.358	44.221	1.0787	28.451	218.81
Check ?	Chk Pass	None	None	Chk Pass	None	None	None
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-77.976	.39036	-4.4149	-21.759	.29941	-.44440	3.761
Stddev	27.835	.01790	.1322	13.044	1.3788	.60021	5.212
%RSD	35.697	4.5845	2.9950	59.947	460.52	135.06	138.6
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: IEC Check Fe Acquired: 8/14/2020 10:24:19 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.8055	.91520	.70926	2.6538	-.00000	-2.2721	2.1817
Stddev	3.2582	.54651	.10840	2.6653	5.8986	.0739	9.8314
%RSD	67.801	59.715	15.283	100.43	285e15	3.2536	450.63
Check ?	None	None	None	Chk Pass	Chk Pass	None	None
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	16.658
Stddev	6.634
%RSD	39.826
Check ?	None
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6213.6	4120.5	33619.	3099.3
Stddev	1.3	3.0	149.	36.4
%RSD	.02034	.07227	.44404	1.1742

Sample Name: IEC Check V Acquired: 8/14/2020 10:28:44 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.92828	-115.08	-2.0766	-1.2825	-.25055	-.48588	-7.5502	.3378
Stddev	.35635	42.67	.9190	.8293	.44828	.03157	1.9152	.1167
%RSD	38.388	37.079	44.255	64.663	178.91	6.4984	25.366	34.56
Check ?	None	Chk Pass	None	None	None	Chk Pass	None	None
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.64500	.72067	.52173	61.660	.59526	-1.1719	3.5831	-.08892
Stddev	.37929	.41487	.38525	15.511	27.261	2.7757	18.097	.04490
%RSD	58.806	57.568	73.840	25.156	4579.6	236.85	505.08	50.498
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.0674	-29.381	-.49161	-1.2535	.4277	3.2726	-.37171	.46366
Stddev	.1274	11.863	.90491	.1036	3.957	1.7231	.64931	.31855
%RSD	4.1541	40.376	184.07	8.2666	925.2	52.653	174.68	68.704
Check ?	None	None	None	None	Chk Pass	None	None	None
Value								
Range								

Sample Name: IEC Check V Acquired: 8/14/2020 10:28:44 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	4.8036	5169.6	-3.2570	5.5492	2.3236
Stddev	1.2939	90.3	.0793	7.4243	3.7435
%RSD	26.936	1.7466	2.4332	133.79	161.11
Check ?	Chk Pass	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6693.1	4272.3	35048.	3144.9
Stddev	1.4	3.1	92.	42.6
%RSD	.02160	.07329	.26132	1.3536

Sample Name: CCV-4863699 Acquired: 8/14/2020 10:33:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1006.6	25510.	2062.7	5292.5	2050.3	2046.7	25615.	2042.
Stddev	.7	173.	1.3	13.0	4.3	3.5	45.	1.
%RSD	.07142	.67705	.06244	.24595	.20744	.16913	.17387	.0406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2036.7	1964.2	1996.2	25510.	25314.	2000.6	25271.	1978.4
Stddev	1.9	3.5	2.0	6.	76.	5.7	80.	1.7
%RSD	.09425	.17725	.09808	.02311	.30123	.28630	.31682	.08565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2050.4	25073.	2033.3	1952.0	2037.	2066.6	2076.8	2024.0
Stddev	4.0	60.	3.0	3.6	3.	5.1	1.4	3.4
%RSD	.19497	.23954	.14656	.18628	.1522	.24623	.06946	.16691
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 10:33:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2081.7	2045.0	2089.2	20661.	2022.4
Stddev	16.6	5.2	2.4	42.	10.3
%RSD	.79642	.25553	.11339	.20291	.50889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5794.6	4054.1	33406.	3054.3
Stddev	7.8	4.5	98.	11.7
%RSD	.13528	.10988	.29329	.38426

Sample Name: CCB Acquired: 8/14/2020 10:37:12 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.34778	-22.437	-2.7427	4.2221	-.31813	.12230	3.4746	.1033
Stddev	.19665	21.444	1.2552	1.3559	.36683	.18050	2.8706	.1485
%RSD	56.546	95.574	45.764	32.115	115.31	147.59	82.616	143.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.47295	.24930	.98098	5.3356	9.6398	.56010	2.5183	.16500
Stddev	.13613	.19769	.88872	2.7243	18.385	2.7356	29.823	.05097
%RSD	28.782	79.299	90.595	51.059	190.72	488.41	1184.2	30.889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0320	-16.571	-.40113	-.42187	.1417	1.5275	-.25650	.14784
Stddev	.3459	25.965	.22595	.19520	2.570	1.0854	.43074	.15121
%RSD	33.524	156.69	56.329	46.270	1813.	71.056	167.93	102.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 10:37:12 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.95196	-3.2026	3.3218	18.475	7.6443
Stddev	1.7022	7.0642	.0900	9.651	3.9264
%RSD	178.81	220.58	2.7103	52.238	51.363
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6489.0	4152.5	34404.	3092.5
Stddev	7.8	4.6	125.	25.1
%RSD	.11951	.10999	.36358	.81147

Sample Name: 240-134567-b-1-e@20 Acquired: 8/14/2020 10:50:53 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03742	475.04	-4.0687	65.938	.77927	-.01304	949.62	.0935
Stddev	.52021	34.64	1.4397	.678	.47035	.05980	1.95	.2484
%RSD	1390.2	7.2930	35.385	1.0289	60.358	458.50	.20497	265.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07497	.47213	1.5659	20.628	3679.9	-.92733	269.64	433.91
Stddev	.25678	.22472	1.6796	5.528	38.0	3.7304	22.57	.50
%RSD	342.50	47.598	107.26	26.800	1.0315	402.27	8.3719	.11455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.33087	74112.	78.853	-.23656	-2.610	3.4555	131.47	.22649
Stddev	.24734	84.	.558	.86213	3.885	4.7156	1.90	.24762
%RSD	74.756	.11286	.70735	364.44	148.8	136.47	1.4480	109.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134567-b-1-e@20 Acquired: 8/14/2020 10:50:53 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.9289	.00155	2094.6	171.72	9.8764
Stddev	.8216	1.8094	2.2	8.37	9.8915
%RSD	42.597	116460.	.10516	4.8755	100.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6028.0	4105.0	33650.	3092.2
Stddev	17.3	18.6	64.	6.2
%RSD	.28735	.45287	.19020	.20060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.983%	101.10%	100.17%	104.19%
Range				

Sample Name: 240-134722-d-1-a@50 Acquired: 8/14/2020 10:55:08 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36359	7.9805	-5.0164	.51787	-.36177	.11020	352.94	-.0660
Stddev	.39427	24.618	1.6414	.60120	.20552	.12884	2.50	.1892
%RSD	108.44	308.47	32.720	116.09	56.809	116.91	.70924	286.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.28097	.42572	.82138	-3.6425	189.52	-1.3911	122.67	.69974
Stddev	.18738	.51215	.96412	1.9320	37.88	1.3779	9.63	.03180
%RSD	66.690	120.30	117.38	53.040	19.987	99.046	7.8493	4.5450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.83442	46504.	.37274	-.66383	3.529	1.9602	.08718	.02117
Stddev	.42068	468.	.96113	.88382	6.154	.6151	.47459	.31299
%RSD	50.416	1.0058	257.86	133.14	174.4	31.380	544.39	1478.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134722-d-1-a@50 Acquired: 8/14/2020 10:55:08 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.1615	-3.4160	-.58808	11.941	36.386
Stddev	.6064	1.9450	.03862	13.087	3.806
%RSD	52.209	56.937	6.5670	109.60	10.461
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6205.5	4163.3	33667.	3079.3
Stddev	27.7	22.9	61.	32.0
%RSD	.44612	.54905	.17980	1.0383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.779%	102.53%	100.22%	103.75%
Range				

Sample Name: 240-134722-d-2-a@50 Acquired: 8/14/2020 10:59:30 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.03528	-22.111	-4.7960	-4.4823	-.57161	-.08454	652.94	-.0995
Stddev	.10245	38.493	2.2385	.3537	.42831	.09560	14.59	.0846
%RSD	290.35	174.09	46.674	7.8918	74.931	113.08	2.2349	85.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.29838	.32428	.12214	-4.1007	67.271	.06570	279.04	.16039
Stddev	.14038	.13825	.33162	2.7474	48.743	2.1423	15.39	.01521
%RSD	47.047	42.633	271.51	66.999	72.457	3261.0	5.5155	9.4848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1169	10619.	-.24782	-.75205	-.0144	-.98570	-.21358	-.43592
Stddev	.2209	125.	.07041	.40543	3.168	2.1966	.46649	.20651
%RSD	19.778	1.1782	28.413	53.910	21990.	222.84	218.42	47.373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134722-d-2-a@50 Acquired: 8/14/2020 10:59:30 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.73811	3.5901	-.83202	19.636	50.686
Stddev	1.9729	2.6993	.04632	2.825	2.724
%RSD	267.29	75.186	5.5676	14.387	5.3737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6436.3	4195.6	34453.	3147.6
Stddev	10.4	6.1	91.	55.7
%RSD	.16220	.14532	.26543	1.7684
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.42%	103.33%	102.57%	106.05%
Range				

Sample Name: lb 240-446635/1-b Acquired: 8/14/2020 11:03:52 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.21133	-21.866	-2.0778	F 885.16	4.1981	.03091
Stddev	.35048	29.172	.7654	10.62	.4592	.14585
%RSD	165.84	133.41	36.839	1.1997	10.939	471.92
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				200.00		
Low Limit				-1000.0		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3940.9	-.2348	-.24029	3.4575	.96995	-4.1802
Stddev	70.7	.0205	.27778	.2295	.28125	1.3789
%RSD	1.7935	8.740	115.60	6.6367	28.996	32.987
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1591.5	43.327	802.58	.44537	-.86366	1294700.
Stddev	126.4	4.435	24.72	.05587	.14778	24355.
%RSD	7.9414	10.237	3.0800	12.544	17.111	1.8812
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
High Limit						
Low Limit						

Sample Name: lb 240-446635/1-b Acquired: 8/14/2020 11:03:52 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.3046	-.08310	2.116	5.6866	-.21317	.14463
Stddev	.7225	1.4290	.904	4.9624	.23169	.28698
%RSD	31.351	1719.6	42.71	87.265	108.69	198.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.0807	4.6711	6.4898	F 597.33	8.4269
Stddev	2.7004	3.8407	.2831	12.99	9.2057
%RSD	53.150	82.222	4.3619	2.1748	109.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				500.00	
Low Limit				-1000.0	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5340.9	3944.7	31484.	3273.2
Stddev	6.5	5.8	154.	87.5
%RSD	.12252	.14780	.48754	2.6736

Sample Name: mb 240-446775/2-a Acquired: 8/14/2020 11:08:20 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.37489	-11.501	-4.6011	-5.5713	-.16024	.00535	61.886	.1275
Stddev	.13722	35.729	1.0332	.3494	.37594	.14964	3.659	.1327
%RSD	36.603	310.67	22.455	6.2707	234.60	2797.7	5.9125	104.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.96518	.91139	-.15412	-4.5838	69.495	3.7019	-6.4056	.02447
Stddev	.16892	.41259	.49560	1.2309	8.666	1.0770	13.271	.04096
%RSD	17.501	45.270	321.57	26.853	12.470	29.092	207.19	167.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0326	541.79	-1.3477	-.24082	1.711	.13083	-.66819	-.06903
Stddev	.1685	32.47	.2014	.20099	1.101	.37496	.28003	.19552
%RSD	16.321	5.9937	14.945	83.462	64.33	286.60	41.908	283.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-446775/2-a Acquired: 8/14/2020 11:08:20 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.74616	4.6996	-1.6683	17.775	9.1356
Stddev	.53399	1.0510	.0070	8.482	2.7724
%RSD	71.564	22.363	.42161	47.718	30.348
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6900.2	4461.9	37699.	3401.7
Stddev	2.2	7.2	38.	3.7
%RSD	.03192	.16204	.10007	.10803

Sample Name: lcs 240-446775/3-a Acquired: 8/14/2020 11:12:42 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	101.23	9505.0	2097.5	F 1845.2	1900.9	981.47
Stddev	.33	136.9	8.1	9.2	16.2	6.63
%RSD	.32794	1.4408	.38731	.49819	.84996	.67555
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value				1000.0		
Range				20.500%		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51197.	1002.	1005.5	940.47	947.63	9567.1
Stddev	346.	2.	3.0	6.00	2.59	67.2
%RSD	.67500	.1839	.30009	.63838	.27336	.70271
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53074.	1021.3	46444.	940.61	966.46	1289200.
Stddev	379.	9.3	235.	2.77	2.29	25834.
%RSD	.71410	.90747	.50704	.29487	.23745	2.0038
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
Value						
Range						

Sample Name: lcs 240-446775/3-a Acquired: 8/14/2020 11:12:42 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1011.1	874.54	946.1	2118.5	2041.4	974.30
Stddev	3.7	4.47	3.9	10.6	6.5	2.74
%RSD	.36931	.51167	.4168	.49808	.32071	.28071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1816.8	973.70	1075.0	F 2702.7	948.07
Stddev	13.8	9.55	3.6	30.3	8.54
%RSD	.76181	.98057	.33713	1.1199	.90058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value				2000.0	
Range				20.500%	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5219.7	3949.5	31660.	3308.1
Stddev	23.9	12.7	114.	15.2
%RSD	.45861	.32233	.35856	.45820

Sample Name: 240-134449-a-18-b Acquired: 8/14/2020 11:16:50 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3823.3	33.440	2029.8	3417.9	2728.7	3363.7
Stddev	4.3	5.875	5.3	5.0	7.4	4.8
%RSD	.11154	17.570	.26260	.14702	.26960	.14147
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	2000.0					
Low Limit	-500000.					

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	46.350	W 3689.	1751.1	4142.6	3483.7	-.81004
Stddev	2.404	5.	2.9	7.1	4.0	4.7757
%RSD	5.1855	.1388	.16366	.17092	.11415	589.56
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		3600.				
Low Limit		-500000.				

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1087.8	36.505	33.395	.22223	.01561	F 1185200.
Stddev	35.0	4.342	39.120	.03632	.51127	17642.
%RSD	3.2185	11.895	117.14	16.343	3275.6	1.4886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134449-a-18-b Acquired: 8/14/2020 11:16:50 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4482.4	2651.0	4128.	4166.5	.78866	.65301
Stddev	5.8	8.6	21.	7.1	.89413	.05781
%RSD	.12844	.32545	.5172	.17033	113.37	8.8524
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3947.8	-1.2273	3834.5	539.26	3.3553
Stddev	10.3	2.4545	7.5	11.53	3.5291
%RSD	.26028	199.98	.19685	2.1371	105.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5400.7	3978.0	31991.	3367.3
Stddev	20.1	15.9	76.	12.2
%RSD	.37235	.40059	.23706	.36353
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.098%	97.971%	95.235%	113.45%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 11:21:06 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	991.21	24941.	2026.5	5168.1	2013.9	1998.4	25119.	2008.
Stddev	1.09	162.	1.4	40.8	9.3	8.9	141.	3.
%RSD	.11032	.64956	.06757	.78867	.45949	.44465	.55977	.1519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2008.6	1938.3	1968.8	24948.	24800.	1953.6	24613.	1949.4
Stddev	1.9	2.5	4.5	105.	63.	6.2	82.	1.2
%RSD	.09461	.13003	.22720	.42223	.25215	.31510	.33265	.06076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2007.8	24580.	2000.0	1916.2	2010.	2032.7	2029.4	2009.4
Stddev	6.9	135.	2.0	1.4	7.	6.5	2.2	2.9
%RSD	.34267	.55026	.10172	.07511	.3319	.32140	.10863	.14676
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 11:21:06 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1985.4	2006.3	2029.6	20040.	1996.0
Stddev	21.3	11.5	2.2	109.	11.4
%RSD	1.0748	.57449	.10818	.54483	.57132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6118.6	4287.8	35168.	3295.7
Stddev	13.9	11.1	131.	25.5
%RSD	.22683	.25991	.37383	.77408

Sample Name: CCB Acquired: 8/14/2020 11:25:04 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.42944	-24.335	-4.8482	-2.1299	-.52053	.18154	19.090	.0798
Stddev	.59290	14.847	2.1930	1.3429	.23919	.29872	2.383	.0892
%RSD	138.06	61.010	45.233	63.049	45.950	164.55	12.483	111.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.92289	.68556	.03843	-.93154	50.764	1.7374	25.390	.14988
Stddev	.19561	.17935	.87215	1.2877	85.825	2.6444	9.197	.05290
%RSD	21.195	26.161	2269.4	138.24	169.07	152.20	36.224	35.299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.95120	273.26	-1.4477	.87703	3.457	-.05282	-.47603	.48022
Stddev	.14335	17.94	.3738	1.3336	2.146	3.3203	.40512	.20077
%RSD	15.070	6.5658	25.819	152.06	62.07	6286.5	85.103	41.807
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 11:25:04 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.0596	-.58043	5.8905	2.3192	5.6931
Stddev	2.7356	4.2198	.1838	8.7280	3.8364
%RSD	132.82	727.00	3.1196	376.34	67.387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6862.7	4394.3	36644.	3348.8
Stddev	2.4	5.0	140.	45.2
%RSD	.03562	.11285	.38108	1.3511

Sample Name: lb 240-446635/1-d Acquired: 8/14/2020 11:29:27 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12634	-8.1559	-3.4383	F 905.03	3.9781	.04835
Stddev	.63824	17.529	1.1700	2.00	.4074	.18176
%RSD	505.17	214.92	34.027	.22136	10.241	375.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				200.00		
Low Limit				-1000.0		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3974.6	-.0184	-.48561	3.1836	.17261	-2.5663
Stddev	3.6	.1789	.41971	.2176	.40581	.3003
%RSD	.09163	971.8	86.429	6.8345	235.10	11.700
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1590.9	35.812	812.03	.49426	-.40794	1291700.
Stddev	124.1	4.245	27.80	.01373	.09391	19094.
%RSD	7.7971	11.855	3.4231	2.7778	23.021	1.4782
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
High Limit						
Low Limit						

Sample Name: lb 240-446635/1-d Acquired: 8/14/2020 11:29:27 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.3077	-.36519	.5412	6.5207	.40898	.18078
Stddev	.4399	.67809	4.467	2.8139	.27743	.02850
%RSD	13.298	185.68	825.3	43.153	67.836	15.764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.0600	-1.2722	5.7783	F 624.17	3.0260
Stddev	2.7551	2.1934	.0402	8.36	2.7326
%RSD	54.448	172.41	.69540	1.3392	90.303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				500.00	
Low Limit				-1000.0	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5257.2	3891.3	30942.	3176.9
Stddev	9.5	10.2	151.	113.6
%RSD	.18135	.26125	.48737	3.5768

Sample Name: CCV-4863699 Acquired: 8/14/2020 11:33:57 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	992.93	24947.	2041.9	5202.7	2027.8	2013.5	25147.	2015.
Stddev	2.11	62.	3.7	24.2	6.4	5.8	59.	1.
%RSD	.21232	.24767	.18364	.46573	.31694	.28621	.23442	.0721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2015.1	1951.3	1971.7	25041.	24883.	1959.1	24465.	1958.6
Stddev	.7	6.1	3.6	44.	64.	8.1	52.	4.8
%RSD	.03251	.31301	.18478	.17584	.25857	.41180	.21089	.24370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2010.8	24528.	2010.6	1912.4	2030.	2043.7	2029.6	2023.2
Stddev	1.6	78.	1.4	3.9	7.	2.1	2.1	4.5
%RSD	.08059	.31856	.07015	.20547	.3548	.10471	.10149	.22424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 11:33:57 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1979.0	2015.8	2030.2	20121.	1987.9
Stddev	21.3	8.2	2.8	73.	5.1
%RSD	1.0742	.40726	.13963	.36456	.25611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6239.0	4371.8	36272.	3450.9
Stddev	10.6	6.7	88.	18.5
%RSD	.17030	.15419	.24343	.53557

Sample Name: CCB Acquired: 8/14/2020 11:37:54 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.29925	-21.484	-3.7626	-1.1778	-.57456	.08968	7.5559	.1498
Stddev	.33632	41.746	.3512	1.3188	.16639	.17369	2.4908	.1159
%RSD	112.39	194.31	9.3341	111.97	28.960	193.68	32.965	77.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.62290	.82040	.74794	-2.8309	53.940	.59762	22.052	.09965
Stddev	.40160	.37842	.88737	1.9553	26.549	.62104	26.626	.04100
%RSD	64.473	46.126	118.64	69.072	49.220	103.92	120.74	41.142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1122	277.36	-1.1069	-.40701	3.165	3.3676	-.23120	.36777
Stddev	.4185	20.24	.3049	.89669	.977	2.4454	.51749	.24768
%RSD	37.626	7.2994	27.543	220.31	30.88	72.614	223.83	67.347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 11:37:54 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.4044	6.1171	2.1902	14.484	4.7187
Stddev	.0321	6.1554	.1867	2.975	2.8166
%RSD	.94405	100.63	8.5230	20.537	59.690
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6835.4	4379.8	36561.	3317.7
Stddev	7.9	6.4	48.	53.3
%RSD	.11575	.14685	.13207	1.6073

Sample Name: mb 240-447061/2-a Acquired: 8/14/2020 11:42:18 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.35984	-33.377	-6.0070	-2.5909	-.67361	-.01790	5.8879	.0446
Stddev	.23929	27.003	2.7330	.6387	.18361	.18186	1.1831	.1221
%RSD	66.498	80.903	45.497	24.650	27.258	1016.0	20.094	274.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.67359	.48531	.19807	-5.9789	76.277	1.6236	29.934	-.06072
Stddev	.27573	.48032	.70580	1.4178	50.049	.8948	12.118	.03694
%RSD	40.934	98.972	356.35	23.713	65.615	55.111	40.481	60.838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.42238	210.32	-1.5998	-1.1434	1.944	.59379	-.52647	.23073
Stddev	.26826	7.15	.4298	.7961	2.045	1.0798	.15818	.24398
%RSD	63.511	3.3987	26.865	69.629	105.2	181.86	30.045	105.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-447061/2-a Acquired: 8/14/2020 11:42:18 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.11827	-.39250	.09710	13.207	8.0311
Stddev	1.1478	3.9863	.12647	8.087	9.5738
%RSD	970.45	1015.6	130.25	61.231	119.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6891.5	4463.5	37268.	3398.1
Stddev	9.9	3.6	135.	43.3
%RSD	.14317	.08086	.36142	1.2747

Sample Name: lcs 240-447061/3-a Acquired: 8/14/2020 11:46:40 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	107.73	10032.	2222.5	F 1953.8	2002.9	1025.9
Stddev	.10	89.	13.2	19.6	9.1	5.2
%RSD	.09400	.89047	.59352	1.0056	.45594	.50406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value				1000.0		
Range				20.500%		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53874.	1055.	1062.8	992.60	1001.9	10063.
Stddev	128.	6.	8.2	5.35	3.0	44.
%RSD	.23830	.5832	.77146	.53889	.30327	.44167
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	55923.	1064.0	48927.	992.04	1024.4	1336400.
Stddev	256.	9.6	83.	4.99	5.6	25173.
%RSD	.45846	.90171	.16957	.50293	.54903	1.8837
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
Value						
Range						

Sample Name: lcs 240-447061/3-a Acquired: 8/14/2020 11:46:40 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1069.0	923.44	1003.	2254.6	2152.0	1030.7
Stddev	8.2	7.92	5.	13.0	18.7	5.7
%RSD	.76974	.85809	.5376	.57764	.86925	.55756
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1932.2	1026.0	1153.5	F 2822.0	999.23
Stddev	25.2	6.2	11.6	25.6	7.24
%RSD	1.3058	.60361	1.0073	.90824	.72442
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value				2000.0	
Range				20.500%	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5183.6	3930.4	31688.	3261.6
Stddev	69.4	50.1	494.	17.9
%RSD	1.3393	1.2759	1.5598	.55028

Sample Name: 240-134449-a-18-d Acquired: 8/14/2020 11:50:47 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 373.16	-3.9626	196.37	355.64	274.96	344.31	7.3121
Stddev	.71	11.671	2.28	1.97	4.03	3.97	2.5517
%RSD	.19104	294.53	1.1597	.55491	1.4644	1.1519	34.898
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	382.2	176.96	417.85	358.10	27.517	168.35	4.2840
Stddev	.8	.72	.56	.73	.482	19.64	2.1696
%RSD	.2050	.40796	.13370	.20371	1.7520	11.667	50.643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.4804	.82819	.12901	132460.	455.43	289.18	424.8
Stddev	10.008	.05886	.37664	1517.	1.20	2.21	6.9
%RSD	287.54	7.1072	291.94	1.1449	.26274	.76490	1.635
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134449-a-18-d Acquired: 8/14/2020 11:50:47 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	402.36	.03788	-.13487	423.77	1.5105	366.88	67.386
Stddev	4.86	.55804	.37394	7.46	2.7617	1.40	4.078
%RSD	1.2075	1473.2	277.26	1.7613	182.84	.38055	6.0514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	8.6239
Stddev	4.4217
%RSD	51.273
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6153.9	4261.1	35031.	3355.8
Stddev	18.8	13.9	53.	32.2
%RSD	.30567	.32591	.15065	.95894
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.966%	104.94%	104.29%	113.06%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 11:55:03 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	984.90	24813.	2022.2	5163.9	2004.0	1991.0	25038.	1995.
Stddev	2.58	35.	5.3	59.4	7.1	10.2	113.	2.
%RSD	.26231	.13954	.26349	1.1510	.35495	.51207	.44975	.1153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2001.6	1941.8	1954.4	24878.	24741.	1944.0	24508.	1948.8
Stddev	1.5	3.3	5.3	92.	164.	8.3	55.	1.8
%RSD	.07531	.16856	.27057	.37065	.66444	.42873	.22292	.09225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1990.8	24475.	1997.1	1900.5	2012.	2021.4	2021.3	2008.6
Stddev	3.9	109.	4.1	2.3	5.	7.1	3.7	3.0
%RSD	.19375	.44514	.20578	.12124	.2257	.35039	.18237	.15088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 11:55:03 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1982.6	2001.2	2026.8	19986.	1984.2
Stddev	49.0	5.9	4.3	105.	7.8
%RSD	2.4709	.29595	.21274	.52376	.39337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6135.4	4302.4	35465.	3342.1
Stddev	6.5	11.1	56.	13.9
%RSD	.10602	.25685	.15714	.41453

Sample Name: CCB Acquired: 8/14/2020 11:59:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.40815	-12.354	-4.7832	-2.2448	-.70468	.00955	19.501	.0561
Stddev	.15403	16.293	.7143	.3778	.48496	.08229	3.196	.0308
%RSD	37.737	131.89	14.932	16.830	68.820	861.99	16.387	55.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.72069	.63746	.71892	-1.7605	107.67	1.3884	10.502	.06872
Stddev	.31518	.33080	.64318	2.0559	41.41	2.2401	23.031	.01660
%RSD	43.733	51.894	89.466	116.78	38.466	161.34	219.31	24.150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3669	241.30	-1.7089	-.97248	.2791	.04240	-.64330	.16092
Stddev	.1328	24.91	.4637	1.3378	2.978	1.1549	.29414	.16908
%RSD	9.7153	10.322	27.136	137.57	1067.	2723.7	45.724	105.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 11:59:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.5916	3.5698	5.6807	3.3610	9.5352
Stddev	.9493	5.6776	.1161	4.4651	7.1687
%RSD	36.630	159.05	2.0430	132.85	75.182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6835.3	4383.1	36660.	3322.9
Stddev	5.4	9.0	160.	15.3
%RSD	.07952	.20452	.43653	.46039

Sample Name: mb 240-446970/1-a Acquired: 8/14/2020 12:03:24 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.56306	-29.612	-4.1686	-4.7006	-.65832	-.03060	52.462	-.0491
Stddev	.15649	9.996	.6115	1.1470	.47165	.21287	2.425	.2157
%RSD	27.793	33.757	14.668	24.401	71.645	695.56	4.6222	439.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.99510	1.2661	.29880	13.090	62.687	2.4219	9.3257	1.0950
Stddev	.10597	.2867	.39482	2.366	30.271	1.1464	30.549	.0413
%RSD	10.649	22.645	132.13	18.079	48.288	47.334	327.58	3.7726
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.27285	252.33	-.87451	-1.0478	.8057	2.1056	31.731	.29809
Stddev	.14952	5.69	.35510	.5706	3.040	1.3519	.159	.22919
%RSD	54.800	2.2531	40.606	54.452	377.3	64.204	.49956	76.888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-446970/1-a Acquired: 8/14/2020 12:03:24 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.37754	.32417	-1.7837	6.2012	7.8922
Stddev	.82775	5.0252	.1993	3.0766	4.6244
%RSD	219.25	1550.2	11.175	49.613	58.595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6859.0	4448.6	37422.	3389.5
Stddev	19.3	9.7	157.	14.5
%RSD	.28065	.21738	.42075	.42736

Sample Name: lcs 240-446970/2-a Acquired: 8/14/2020 12:07:44 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	95.228	9645.2	1975.3	999.67	1933.8	988.34	48160.	977.4
Stddev	.433	53.6	5.1	7.40	18.1	6.12	294.	.9
%RSD	.45449	.55541	.25707	.74070	.93666	.61923	.61059	.0932
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	971.29	926.66	948.65	9633.7	47894.	950.79	46719.	938.71
Stddev	1.76	2.98	2.05	52.5	417.	5.99	291.	2.73
%RSD	.18125	.32179	.21635	.54479	.87087	.63034	.62247	.29055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	986.19	46834.	971.48	918.24	926.2	1953.2	1986.5	975.76
Stddev	.80	300.	1.73	.96	2.5	8.2	3.5	1.80
%RSD	.08127	.64106	.17775	.10417	.2691	.42128	.17463	.18409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-446970/2-a Acquired: 8/14/2020 12:07:44 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1858.3	974.63	980.10	1697.8	969.49
Stddev	25.4	15.12	1.62	3.0	9.07
%RSD	1.3662	1.5516	.16556	.17835	.93594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6000.7	4224.6	35317.	3376.8
Stddev	8.5	2.4	95.	26.3
%RSD	.14114	.05704	.26993	.77959

Sample Name: 240-134781-q-1-a Acquired: 8/14/2020 12:11:43 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.9163	35644.	6.5927	-2.2666	261.85	3.8338	12313.	.4983
Stddev	.2159	55.	.8330	.3983	.33	.1576	14.	.2222
%RSD	11.269	.15401	12.636	17.572	.12504	4.1119	.11284	44.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.298	36.545	64.215	78531.	3152.7	58.560	17843.	1344.2
Stddev	.362	.434	.663	146.	34.6	1.404	55.	2.4
%RSD	.73428	1.1868	1.0329	.18627	1.0979	2.3979	.31051	.17506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.5456	639.20	56.619	15.861	5.939	3.3473	34.407	2817.9
Stddev	.1759	6.52	.152	.510	1.980	1.2394	.683	10.1
%RSD	6.9086	1.0202	.26849	3.2178	33.34	37.027	1.9853	.35946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134781-q-1-a Acquired: 8/14/2020 12:11:43 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.6079	63.149	279.51	1206.0	48.810
Stddev	.4712	5.623	.38	11.7	2.237
%RSD	29.305	8.9035	.13488	.96681	4.5824
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6422.1	5824.6	48405.	W 4521.8
Stddev	3.6	3.7	21.	20.6
%RSD	.05543	.06359	.04335	.45557
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value	101.19%	143.45%	144.10%	152.35%
Range				50.500%

Sample Name: SD 240-134781-q-1a@5 Acquired: 8/14/2020 12:16:03 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.31364	9118.0	-.91385	-5.6819	66.389	.82247	3207.0	.0984
Stddev	.29131	10.1	1.5647	.7649	.108	.04026	12.3	.1596
%RSD	92.882	.11032	171.22	13.462	.16288	4.8953	.38376	162.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.279	10.068	17.044	20237.	809.60	15.236	4580.4	345.48
Stddev	.315	.201	.589	71.	41.90	1.479	32.0	.66
%RSD	3.0681	1.9931	3.4586	.35290	5.1750	9.7096	.69923	.19001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04203	246.73	10.202	2.4858	2.873	2.7851	6.2834	712.10
Stddev	.18370	12.14	.326	.7895	5.194	1.1594	.1255	1.28
%RSD	437.06	4.9212	3.2002	31.761	180.8	41.627	1.9969	.17967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134781-q-1a@5 Acquired: 8/14/2020 12:16:03 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.08633	12.346	57.222	298.45	18.652
Stddev	1.2975	.975	.359	12.40	3.174
%RSD	1502.9	7.8969	.62753	4.1538	17.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6761.1	4773.4	39798.	3649.3
Stddev	22.1	11.8	26.	3.2
%RSD	.32713	.24622	.06522	.08794
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	106.53%	117.56%	118.48%	122.95%
Range				

Sample Name: PDS 240-134781-q-1-a Acquired: 8/14/2020 12:20:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	72.673	42931.	1555.4	798.19	1788.7	778.74	51864.	761.4
Stddev	2.234	80.	6.4	3.66	4.3	2.68	80.	.8
%RSD	3.0737	.18624	.41277	.45871	.24213	.34478	.15475	.1002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1051.1	787.50	834.31	84743.	42977.	809.77	55790.	2086.4
Stddev	.3	27.26	23.95	144.	107.	3.48	75.	42.8
%RSD	.02898	3.4618	2.8707	.17024	.24841	.43019	.13467	2.0490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	763.03	39904.	1055.8	723.59	734.4	1496.2	2046.4	3626.6
Stddev	2.77	94.	1.4	1.14	5.7	9.9	.4	77.7
%RSD	.36320	.23534	.13017	.15809	.7823	.66214	.02053	2.1421
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: PDS 240-134781-q-1-a Acquired: 8/14/2020 12:20:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1944.2	840.42	1324.6	2752.8	813.38
Stddev	16.1	6.27	.7	23.9	6.80
%RSD	.82889	.74639	.04912	.86795	.83633
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5847.4	5526.6	44400.	4329.2
Stddev	5.3	4.6	1192.	9.7
%RSD	.09004	.08363	2.6854	.22414
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.136%	136.11%	132.18%	145.86%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 12:24:30 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	994.31	25182.	2044.1	5237.7	2045.0	2020.1	25378.	2022.
Stddev	1.44	94.	1.8	43.9	3.3	2.3	4.	4.
%RSD	.14466	.37242	.08730	.83869	.15958	.11311	.01578	.1781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2025.9	1943.0	1971.3	25212.	25099.	1966.5	24850.	1956.6
Stddev	1.5	2.9	8.3	52.	28.	6.3	49.	2.4
%RSD	.07523	.15101	.42072	.20800	.11322	.31868	.19741	.12274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2022.8	24737.	2018.1	1929.7	2022.	2047.4	2040.6	2020.2
Stddev	6.7	60.	1.4	4.1	6.	11.8	1.5	4.7
%RSD	.33222	.24169	.07023	.21483	.3212	.57468	.07177	.23089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 12:24:30 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2009.3	2020.7	2043.8	20243.	2011.3
Stddev	24.4	16.6	2.3	21.	13.8
%RSD	1.2153	.82263	.11283	.10352	.68373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6150.1	4312.5	35764.	3333.6
Stddev	6.9	5.8	84.	18.4
%RSD	.11143	.13378	.23596	.55220

Sample Name: CCB Acquired: 8/14/2020 12:28:29 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07778	-33.745	-4.7681	-3.6293	-.32753	.06884	3.9717	.0002
Stddev	.32952	11.152	1.9679	1.4485	.46951	.20514	1.3832	.1102
%RSD	423.66	33.047	41.272	39.912	143.35	297.99	34.827	69380.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.92493	.17879	.20319	-1.9570	65.754	-.17921	3.5438	.09777
Stddev	.13328	.12311	.64418	.7506	49.493	1.4333	12.985	.06786
%RSD	14.409	68.859	317.03	38.352	75.270	799.81	366.42	69.407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0674	125.42	-1.4640	-.60555	2.428	-.07113	-.16385	.19947
Stddev	.1627	8.42	.2848	1.0317	.983	1.7262	.62094	.23559
%RSD	15.239	6.7129	19.451	170.37	40.47	2426.8	378.97	118.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 12:28:29 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.4580	3.3190	2.3690	9.7240	-3.0982
Stddev	1.8000	6.6537	.0551	8.2617	4.3569
%RSD	123.46	200.47	2.3251	84.962	140.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6877.1	4409.8	36925.	3354.6
Stddev	8.5	10.3	79.	12.1
%RSD	.12340	.23302	.21273	.35973

Sample Name: 240-134781-q-1-b ms Acquired: 8/14/2020 12:32:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	69.332	47133.	1466.8	740.75	1699.0	736.74	50238.	722.5
Stddev	.082	64.	2.1	6.17	3.0	.84	97.	1.0
%RSD	.11811	.13515	.14599	.83276	.17475	.11468	.19366	.1422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1030.8	747.35	768.59	90169.	40383.	773.03	55877.	1991.2
Stddev	.6	1.39	.51	49.	100.	4.48	106.	2.8
%RSD	.06302	.18608	.06602	.05441	.24674	.57986	.18980	.13860
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	715.00	36385.	1076.2	679.11	519.2	1429.4	1983.2	3945.9
Stddev	.68	54.	.9	2.20	5.2	8.0	3.7	23.3
%RSD	.09554	.14855	.08512	.32459	1.007	.56103	.18671	.59140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134781-q-1-b ms Acquired: 8/14/2020 12:32:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1870.9	804.14	1303.3	3024.4	765.05
Stddev	38.5	5.06	2.2	20.8	6.12
%RSD	2.0596	.62975	.16791	.68840	.80049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5813.1	5663.1	46525.	W 4473.5
Stddev	9.2	8.6	100.	18.7
%RSD	.15843	.15238	.21552	.41859
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value	91.596%	139.47%	138.50%	150.72%
Range				50.500%

Sample Name: 240-134781-q-1-c msd Acquired: 8/14/2020 12:37:02 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	70.205	50754.	1476.6	748.20	1783.0	748.02	47608.	731.5
Stddev	.344	158.	2.0	3.85	2.1	1.58	76.	1.8
%RSD	.49019	.31170	.13739	.51509	.12028	.21134	.16000	.2471
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1032.2	768.20	774.69	95429.	41971.	790.21	58832.	2045.2
Stddev	1.1	4.33	1.58	118.	23.	2.11	83.	14.5
%RSD	.10983	.56390	.20450	.12397	.05479	.26646	.14185	.70781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	724.32	36414.	1051.3	689.17	515.8	1443.8	1960.2	4548.7
Stddev	.68	41.	1.8	.19	4.5	1.8	1.9	17.6
%RSD	.09456	.11193	.16787	.02750	.8747	.12737	.09821	.38672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134781-q-1-c msd Acquired: 8/14/2020 12:37:02 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1814.0	839.36	1293.7	3986.2	763.54
Stddev	17.8	6.47	2.2	34.4	5.69
%RSD	.98305	.77084	.17261	.86321	.74575
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5777.7	5543.5	45681.	4396.7
Stddev	3.8	5.6	140.	15.6
%RSD	.06563	.10034	.30579	.35515
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.037%	136.52%	135.99%	148.14%
Range				

Sample Name: 240-134781-f-2-a Acquired: 8/14/2020 12:41:15 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.4609	23817.	5.0024	-3.6229	178.48	3.3530	12132.	.5295
Stddev	.2988	18.	.8174	.4213	.36	.0346	22.	.0692
%RSD	20.451	.07490	16.340	11.629	.19913	1.0307	.18402	13.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	38.360	27.580	58.631	81405.	3196.5	47.312	12800.	1081.9
Stddev	.464	.231	.481	90.	41.2	2.052	28.	2.1
%RSD	1.2105	.83631	.82036	.11116	1.2877	4.3376	.21569	.19860
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.6582	500.69	41.426	14.869	5.069	2.7830	35.732	2044.4
Stddev	.1263	7.14	.118	1.841	3.570	3.6108	.280	4.3
%RSD	2.7103	1.4255	.28580	12.380	70.43	129.74	.78476	.20933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134781-f-2-a Acquired: 8/14/2020 12:41:15 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.0107	52.191	245.21	1687.8	27.176
Stddev	1.9778	1.313	.28	8.9	.714
%RSD	98.365	2.5153	.11231	.52780	2.6260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6402.5	5620.1	46508.	4327.1
Stddev	4.7	16.2	245.	4.6
%RSD	.07294	.28766	.52764	.10604
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.88%	138.41%	138.45%	145.79%
Range				

Sample Name: mb 240-447010/1-a Acquired: 8/14/2020 12:45:27 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.69928	1.2419	-5.3190	-5.7340	-.53386	.09589	59.312	-.0387
Stddev	.32657	22.046	1.3082	.5022	.08694	.06316	3.673	.0274
%RSD	46.702	1775.2	24.595	8.7581	16.286	65.867	6.1929	70.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.76906	.23050	.75285	3.4664	31.189	-.88195	26.835	.96752
Stddev	.16677	.39493	.97154	4.9116	17.570	1.7365	21.136	.02773
%RSD	21.685	171.33	129.05	141.69	56.334	196.89	78.763	2.8660
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.77045	117.11	-1.6737	-.51526	2.972	1.3850	-.05816	.47913
Stddev	.17418	8.26	.4731	.34704	1.731	2.2955	.25696	.23114
%RSD	22.608	7.0506	28.268	67.353	58.24	165.74	441.79	48.241
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-447010/1-a Acquired: 8/14/2020 12:45:27 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.4397	.66981	3.6250	6.8313	1.7238
Stddev	.3817	5.7898	.0100	11.431	2.9326
%RSD	26.516	864.40	.27567	167.33	170.13
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6994.8	4497.4	37220.	3389.6
Stddev	10.0	13.0	73.	3.7
%RSD	.14227	.28891	.19577	.10861

Sample Name: lcs 240-447010/2-a Acquired: 8/14/2020 12:49:49 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	102.48	10072.	2114.8	1088.0	2000.7	1030.5	50479.	1040.
Stddev	1.04	11.	3.3	3.3	3.4	.3	44.	1.
%RSD	1.0192	.10524	.15791	.30752	.16909	.03113	.08661	.1091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1015.0	976.82	993.04	10111.	50337.	991.60	49269.	984.94
Stddev	.2	3.35	1.79	13.	89.	.44	41.	2.16
%RSD	.02290	.34330	.18022	.13179	.17707	.04434	.08310	.21880
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1015.3	49839.	1017.1	964.21	992.0	2143.7	2074.2	1015.6
Stddev	.9	123.	1.1	3.22	1.2	4.3	1.4	2.3
%RSD	.09130	.24674	.10989	.33406	.1173	.20163	.06725	.22349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-447010/2-a Acquired: 8/14/2020 12:49:49 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2021.5	1026.9	1052.3	2057.7	1012.1
Stddev	24.1	7.0	.3	11.2	8.0
%RSD	1.1924	.67978	.02553	.54664	.78967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6043.7	4272.3	35068.	3320.4
Stddev	3.7	2.8	238.	10.6
%RSD	.06092	.06644	.67920	.31884

Sample Name: 240-134778-a-1a Acquired: 8/14/2020 12:53:48 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.74394	17.353	1.4360	188.52	354.35	.34105
Stddev	.46315	18.219	1.6298	1.04	5.60	.16559
%RSD	62.256	104.99	113.50	.55407	1.5795	48.552
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	201260.	.2611	-.37971	.89192	4.4355	2209.9
Stddev	3414.	.0125	.13373	.42251	.5548	37.8
%RSD	1.6961	4.779	35.219	47.370	12.509	1.7097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12812.	28.711	33953.	709.41	8.0082	F 1014100.
Stddev	253.	1.029	638.	1.06	.1951	9522.
%RSD	1.9715	3.5837	1.8801	.15003	2.4368	.93898
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134778-a-1a Acquired: 8/14/2020 12:53:48 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.4268	-.78419	2.249	3.6866	-.29761	.31453
Stddev	.3964	.22593	3.060	1.5759	1.1094	.40063
%RSD	16.334	28.811	136.1	42.747	372.77	127.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.89031	3.3415	150.36	5763.6	1423.3
Stddev	.62668	6.6468	.62	109.7	22.8
%RSD	70.389	198.92	.41172	1.9034	1.6010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5208.2	3879.9	31183.	3247.3
Stddev	10.6	9.6	100.	36.0
%RSD	.20281	.24870	.32184	1.1096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.065%	95.553%	92.830%	109.41%
Range				

Sample Name: SD 240-134778-a-1a@5 Acquired: 8/14/2020 13:00:27 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.20628	-13.739	-3.5568	30.891	72.347	-.02601	41595.
Stddev	.50329	20.385	1.8952	1.716	.468	.11864	100.
%RSD	243.99	148.37	53.282	5.5541	.64679	456.14	.24126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0980	-.17914	.34141	.67024	449.86	2475.3	3.3961
Stddev	.1606	.04586	.12172	.55549	1.88	30.9	1.1559
%RSD	163.9	25.598	35.651	82.879	.41789	1.2503	34.036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6985.8	146.27	.72070	219140.	-.00009	.36021	-.5407
Stddev	41.1	.21	.23775	854.	.63449	1.8363	4.066
%RSD	.58901	.14539	32.988	.38963	687570.	509.80	751.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SD 240-134778-a-1a@5 Acquired: 8/14/2020 13:00:27 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.3384	-.00311	-.29383	-.47460	2.0701	32.432	1161.8
Stddev	1.9795	1.0382	.17682	1.3264	5.1616	.203	11.0
%RSD	59.293	33355.	60.177	279.49	249.34	.62596	.94975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	295.00
Stddev	6.03
%RSD	2.0445
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5830.0	4118.6	33619.	3326.1
Stddev	10.4	8.1	67.	11.2
%RSD	.17916	.19611	.19914	.33546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.862%	101.43%	100.08%	112.06%
Range				

Sample Name: PDS 240-134778-a-1-a Acquired: 8/14/2020 13:04:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 101.05	10306.	2187.2	1259.1	2322.2	998.04
Stddev	.83	122.	15.0	7.9	21.0	8.57
%RSD	.82568	1.1879	.68555	.62634	.90352	.85871
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00					
Low Limit	-500000.					

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	243540.	1043.	1041.2	967.30	980.05	12269.
Stddev	1949.	5.	4.4	3.08	1.32	116.
%RSD	.80007	.5025	.41990	.31837	.13429	.94147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	67315.	1015.7	80542.	1656.0	1004.1	F 1015300.
Stddev	657.	6.9	606.	3.0	4.5	5992.
%RSD	.97557	.67549	.75223	.17955	.44322	.59023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: PDS 240-134778-a-1-a Acquired: 8/14/2020 13:04:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1043.5	910.86	998.1	2109.1	2121.5	1006.0
Stddev	2.6	2.34	5.3	16.3	9.2	1.5
%RSD	.25362	.25682	.5311	.77359	.43429	.15332
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1919.3	1003.4	1265.6	7609.0	2300.4
Stddev	27.9	7.3	3.0	31.6	12.2
%RSD	1.4558	.72875	.23795	.41508	.53236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5081.3	3844.5	31005.	3234.8
Stddev	28.9	20.7	80.	17.4
%RSD	.56855	.53723	.25865	.53829
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.065%	94.681%	92.299%	108.99%
Range				

Sample Name: 240-134778-a-1-b ms Acquired: 8/14/2020 13:08:52 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 105.41	10078.	2201.4	1277.1	2356.9	1015.8
Stddev	.56	90.	4.9	8.9	8.9	4.4
%RSD	.53450	.89051	.22262	.69547	.37948	.43511
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00					
Low Limit	-500000.					

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	255040.	1052.	1051.5	979.28	986.27	12143.
Stddev	777.	1.	.8	4.58	1.09	43.
%RSD	.30453	.0898	.07571	.46814	.11035	.35390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	66932.	1041.6	81630.	1704.9	1020.9	F 1066500.
Stddev	200.	5.2	212.	5.3	2.4	15555.
%RSD	.29913	.49586	.26028	.31245	.23960	1.4585
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134778-a-1-b ms Acquired: 8/14/2020 13:08:52 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1056.9	916.79	1005.	2166.2	2158.3	1012.0
Stddev	1.8	1.50	3.	8.8	10.0	3.5
%RSD	.16920	.16319	.3294	.40823	.46103	.34336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1938.2	1005.5	1274.7	7955.4	2387.6
Stddev	29.5	4.2	6.3	24.7	9.0
%RSD	1.5213	.41709	.49701	.31094	.37645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4972.3	3763.4	30136.	3093.2
Stddev	55.8	44.0	154.	22.3
%RSD	1.1227	1.1701	.51009	.71948
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.347%	92.685%	89.712%	104.22%
Range				

Sample Name: 240-134778-a-1-c msd Acquired: 8/14/2020 13:12:58 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 101.26	9552.2	2116.3	1218.8	2234.9	966.10
Stddev	1.11	138.6	9.9	3.0	10.1	7.81
%RSD	1.0944	1.4513	.46776	.24694	.45173	.80793
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00					
Low Limit	-500000.					

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	238380.	1008.	1009.5	940.49	948.27	11513.
Stddev	1168.	2.	4.7	2.84	1.60	58.
%RSD	.48989	.1838	.46425	.30227	.16879	.50445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	63211.	979.10	76996.	1617.9	979.39	F 988650.
Stddev	248.	5.63	434.	3.7	2.50	9623.
%RSD	.39154	.57498	.56324	.22580	.25485	.97337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134778-a-1-c msd Acquired: 8/14/2020 13:12:58 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1014.1	883.69	961.9	2079.6	2073.0	971.75
Stddev	5.5	7.11	2.3	2.4	16.0	1.26
%RSD	.54066	.80405	.2430	.11378	.77176	.12923
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1858.1	973.59	1218.2	7515.8	2263.3
Stddev	14.9	7.42	9.6	6.9	5.4
%RSD	.80407	.76244	.78628	.09229	.23818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5006.5	3787.0	30607.	3116.5
Stddev	70.3	48.6	95.	32.1
%RSD	1.4032	1.2846	.31044	1.0313
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.887%	93.265%	91.117%	105.00%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 13:19:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	981.86	24971.	2006.3	5186.1	2002.4	1985.2	25115.	1997.
Stddev	1.49	66.	7.8	10.5	6.5	5.9	34.	3.
%RSD	.15212	.26313	.38878	.20315	.32299	.29778	.13455	.1274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1998.0	1940.7	1940.2	24824.	24863.	1941.5	24765.	1948.3
Stddev	3.1	4.0	4.8	27.	128.	10.4	54.	3.7
%RSD	.15335	.20694	.24956	.10815	.51629	.53319	.21630	.19120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1992.4	24334.	1998.9	1912.8	1996.	2001.4	2023.8	1990.4
Stddev	2.7	48.	4.1	7.1	1.	1.6	4.4	2.8
%RSD	.13576	.19653	.20722	.37064	.0553	.08142	.21637	.13981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 13:19:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1996.9	1993.2	2040.1	20000.	1977.5
Stddev	12.0	5.7	3.0	119.	6.3
%RSD	.60145	.28814	.14465	.59446	.31802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5906.4	4134.7	33990.	3059.7
Stddev	10.1	9.5	54.	20.7
%RSD	.17017	.23002	.15983	.67574

Sample Name: CCB Acquired: 8/14/2020 13:23:00 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22362	7.6989	-4.8516	-3.0265	-.38771	.12959	5.0042	.1834
Stddev	.32115	33.934	.6413	.5131	.43246	.05726	3.0531	.1303
%RSD	143.62	440.76	13.218	16.955	111.54	44.190	61.011	71.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.53020	-.32892	.70952	-1.1618	92.861	1.3543	32.968	.07458
Stddev	.08699	.23957	.38295	1.9929	20.935	2.7730	23.814	.01986
%RSD	16.407	72.836	53.973	171.53	22.545	204.76	72.235	26.625
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4767	298.18	-.87194	-.24353	1.057	1.8837	-.11113	-.02357
Stddev	.2119	17.76	.81436	.96091	1.485	5.2635	.25970	.23301
%RSD	14.351	5.9557	93.396	394.57	140.4	279.43	233.69	988.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 13:23:00 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.36142	1.5941	2.1321	-2.5306	5.8048
Stddev	2.2215	4.2949	.0963	4.7727	6.0650
%RSD	614.65	269.42	4.5168	188.60	104.48
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6627.3	4258.5	35311.	3130.8
Stddev	12.2	5.7	59.	51.0
%RSD	.18376	.13434	.16739	1.6302

Sample Name: 240-134814-m-1-a Acquired: 8/14/2020 13:27:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14668	1077.7	-2.6941	7.7214	164.95	.48951	13277.	.0853
Stddev	.87619	44.5	1.0180	.4230	1.46	.20111	111.	.0481
%RSD	597.35	4.1254	37.786	5.4790	.88311	41.084	.83591	56.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	40.965	3.0173	2.1952	23510.	5344.7	50.015	6318.4	2510.4
Stddev	.236	.1645	.8113	274.	66.1	.176	74.6	7.8
%RSD	.57552	5.4515	36.956	1.1640	1.2360	.35092	1.1801	.31214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.69810	14381.	41.941	-.02537	-.2927	.48702	.64372	45.807
Stddev	.13374	150.	.592	1.1117	1.649	2.3563	.37037	2.527
%RSD	19.157	1.0464	1.4104	4382.7	563.3	483.83	57.536	5.5169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134814-m-1-a Acquired: 8/14/2020 13:27:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.2155	6.5743	57.243	7329.1	47.694
Stddev	1.5284	3.5100	.652	109.3	1.606
%RSD	47.533	53.389	1.1384	1.4913	3.3675
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6417.5	4294.6	34992.	3195.6
Stddev	15.8	7.1	112.	33.4
%RSD	.24582	.16613	.32103	1.0456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.12%	105.77%	104.17%	107.67%
Range				

Sample Name: 190-23799-c-1-a Acquired: 8/14/2020 13:31:36 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08720	-23.643	-1.7450	197.22	12.684	.15746
Stddev	.04972	21.195	4.1916	.55	.452	.07664
%RSD	57.015	89.642	240.21	.27723	3.5609	48.675
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	43859.	.2292	5.5114	32.052	5.5274	69.131
Stddev	243.	.1027	.1603	.215	.3173	2.703
%RSD	.55451	44.81	2.9094	.67222	5.7405	3.9098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	285020.	45.335	2134.3	1.2345	18.106	F 780390.
Stddev	1515.	2.341	19.9	.0348	.186	11324.
%RSD	.53167	5.1626	.93249	2.8218	1.0300	1.4510
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23799-c-1-a Acquired: 8/14/2020 13:31:36 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.99377	-.20313	1.227	3.5774	1.1438	.22216
Stddev	.35976	.06087	3.182	1.5489	.8951	.20584
%RSD	36.202	29.968	259.4	43.298	78.254	92.656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.32505	9.7315	411.96	42.076	610.98
Stddev	1.2454	6.1847	.50	9.490	4.24
%RSD	383.15	63.553	.12145	22.554	.69349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5210.0	3836.6	30033.	3062.9
Stddev	24.8	17.8	113.	11.6
%RSD	.47653	.46331	.37516	.37840
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.093%	94.488%	89.406%	103.20%
Range				

Sample Name: 190-23809-c-1-a Acquired: 8/14/2020 13:36:03 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.19054	142.46	-7.5987	48.417	18.414	.12335	27905.	.1313
Stddev	.52365	32.32	2.4452	.903	.359	.05637	288.	.1382
%RSD	274.83	22.687	32.179	1.8652	1.9477	45.697	1.0304	105.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.59875	1.3578	65.698	1129.2	5296.7	3.7552	9969.7	20.532
Stddev	.33292	.6268	.792	7.5	45.6	1.2588	95.1	.037
%RSD	55.602	46.166	1.2057	.66765	.86103	33.522	.95370	.17959
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.29123	14995.	1.4708	.44092	3.547	1.2253	1.1082	.81273
Stddev	.24432	156.	.2759	1.2077	3.549	2.5782	.5372	.27894
%RSD	83.895	1.0414	18.757	273.90	100.1	210.41	48.474	34.321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-23809-c-1-a Acquired: 8/14/2020 13:36:03 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.4082	1.3821	50.145	1401.0	119.28
Stddev	.6498	4.4585	.379	21.1	3.96
%RSD	46.140	322.58	.75519	1.5064	3.3201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6366.3	4253.2	34829.	3206.1
Stddev	16.7	13.7	99.	32.8
%RSD	.26210	.32119	.28567	1.0246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.31%	104.75%	103.68%	108.02%
Range				

Sample Name: 190-23810-c-1-a Acquired: 8/14/2020 13:40:21 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08239	109.25	-2.5098	12.523	47.822	.26984	24907.	.0943
Stddev	.15563	21.59	1.5361	.345	.184	.06566	154.	.0622
%RSD	188.90	19.761	61.204	2.7566	.38478	24.333	.61800	65.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.55021	.90173	66.306	571.47	4089.2	6.8500	7333.8	11.156
Stddev	.11830	.43928	.849	3.67	37.5	2.9563	50.1	.087
%RSD	21.501	48.715	1.2799	.64162	.91779	43.158	.68257	.78324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.14912	8604.1	.60654	-.69358	3.471	2.9847	.21522	.72224
Stddev	.19431	60.8	.57017	.80174	.614	2.7684	.41781	.40185
%RSD	130.30	.70656	94.004	115.59	17.67	92.752	194.13	55.639
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-23810-c-1-a Acquired: 8/14/2020 13:40:21 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.1316	.78201	66.518	923.66	95.455
Stddev	.8086	3.5028	.808	13.62	2.983
%RSD	71.456	447.92	1.2146	1.4748	3.1254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6477.6	4294.9	35060.	3223.9
Stddev	12.7	7.9	288.	22.9
%RSD	.19556	.18349	.82199	.70957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.07%	105.77%	104.37%	108.62%
Range				

Sample Name: 190-23807-c-1-a Acquired: 8/14/2020 13:44:37 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.39093	198.51	-2.8468	154.65	14.347	-.04964	21232.	.7226
Stddev	.33736	28.55	2.2160	1.19	.540	.17230	338.	.1209
%RSD	86.298	14.381	77.844	.77117	3.7650	347.12	1.5924	16.73
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.69166	8.0091	89.124	1211.2	7446.5	.58254	5934.7	32.913
Stddev	.14215	.3066	.721	28.4	88.3	1.8765	80.8	.095
%RSD	20.552	3.8276	.80898	2.3410	1.1862	322.13	1.3610	.28902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	181.76	13551.	6.5768	1.2526	6.051	1.3857	1.3791	2.2305
Stddev	.44	211.	.7438	.8236	6.248	2.9141	.3222	.1602
%RSD	.24326	1.5590	11.309	65.752	103.3	210.29	23.365	7.1813
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-23807-c-1-a Acquired: 8/14/2020 13:44:37 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.83858	-3.8417	203.93	1161.3	160.75
Stddev	.68029	4.4964	.10	7.9	7.59
%RSD	81.124	117.04	.04840	.68026	4.7223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6426.7	4280.4	35174.	3216.1
Stddev	9.3	2.7	109.	52.0
%RSD	.14439	.06264	.30978	1.6172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.26%	105.42%	104.71%	108.36%
Range				

Sample Name: 190-23807-c-2-a Acquired: 8/14/2020 13:48:52 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.44283	213.48	4.7516	1127.1	24.743	.02377	53838.	1.786
Stddev	.54497	43.93	2.5189	17.6	.261	.09682	393.	.138
%RSD	123.07	20.577	53.010	1.5601	1.0547	407.34	.72936	7.713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.32642	2.4271	39.878	654.63	6809.6	1.2127	16714.	20.910
Stddev	.15166	.4451	1.012	1.95	42.2	1.1211	97.	.055
%RSD	46.463	18.338	2.5370	.29845	.61930	92.449	.57835	.26066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2386.2	35065.	-2.4566	-.09938	3.905	.78845	18.025	1.4769
Stddev	11.6	248.	.4043	.65856	.984	2.2217	.490	.1182
%RSD	.48793	.70631	16.456	662.66	25.19	281.79	2.7163	8.0051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-23807-c-2-a Acquired: 8/14/2020 13:48:52 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.03140	.91027	155.92	2281.0	213.42
Stddev	2.7040	3.7777	2.13	13.4	2.36
%RSD	8610.6	415.01	1.3649	.58728	1.1057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6044.4	4155.0	33855.	3129.2
Stddev	5.5	3.4	42.	21.5
%RSD	.09034	.08128	.12372	.68760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.241%	102.33%	100.78%	105.43%
Range				

Sample Name: 190-23811-c-1-a Acquired: 8/14/2020 13:53:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.40453	183.27	-1.8912	28.670	29.083	.13066	47467.
Stddev	.60977	18.12	1.6775	1.062	.332	.03879	214.
%RSD	150.73	9.8872	88.702	3.7044	1.1409	29.691	.45088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2046	.04060	1.2742	63.148	1410.1	9808.8	3.5290
Stddev	.0971	.43589	.4712	1.108	5.8	86.1	1.1867
%RSD	47.47	1073.5	36.977	1.7541	.41442	.87801	33.626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13594.	19.218	51.950	113320.	2.0440	.32347	1.976
Stddev	13.	.016	.377	570.	.3583	1.1756	1.988
%RSD	.09848	.08087	.72475	.50296	17.531	363.44	100.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 190-23811-c-1-a Acquired: 8/14/2020 13:53:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.3734	.57794	.77943	.29422	1.8359	127.70	1170.4
Stddev	.8641	.74744	.33240	2.0912	3.0232	.63	12.6
%RSD	36.409	129.33	42.646	710.75	164.67	.49638	1.0764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	174.42
Stddev	8.16
%RSD	4.6793
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5707.5	3970.3	32349.	3038.3
Stddev	25.9	23.0	83.	18.8
%RSD	.45407	.58045	.25584	.61903
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.932%	97.779%	96.302%	102.37%
Range				

Sample Name: 240-134760-a-2-a Acquired: 8/14/2020 13:57:21 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8709	2891.5	4.4340	209.85	229.86	.08104	12012.
Stddev	.4034	49.6	2.7999	.93	.44	.13153	67.
%RSD	21.565	1.7157	63.146	.44443	.19107	162.30	.55559
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.906	4.8218	41.613	288.21	5745.9	8745.9	38.922
Stddev	.237	.2571	.615	1.06	30.2	71.3	1.759
%RSD	8.150	5.3313	1.4771	.36645	.52503	.81577	4.5201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4541.2	179.21	25.516	290840.	44.663	23.509	20.07
Stddev	11.5	.38	.356	1801.	.228	1.224	6.51
%RSD	.25342	.21396	1.3936	.61923	.50968	5.2074	32.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134760-a-2-a Acquired: 8/14/2020 13:57:21 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.9078	17.860	34.692	-.58370	5.5380	1701.8	9737.3
Stddev	2.9424	.866	.107	1.0276	5.3476	4.0	62.7
%RSD	59.954	4.8475	.30890	176.05	96.562	.23463	.64409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	87.952
Stddev	6.548
%RSD	7.4451
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5678.4	4065.1	32476.	3119.9
Stddev	1.4	4.7	89.	16.3
%RSD	.02452	.11558	.27413	.52267
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.473%	100.12%	96.679%	105.12%
Range				

Sample Name: 240-134867-e-1-a Acquired: 8/14/2020 14:01:36 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.31797	50.849	-2.5977	43.829	73.181	-.04629	83982.	.2367
Stddev	.40374	28.595	1.1157	.753	.559	.17649	810.	.0381
%RSD	126.97	56.234	42.947	1.7174	.76359	381.29	.96451	16.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.00822	4.8347	2.1841	307.10	3433.3	6.9111	24486.	19.178
Stddev	.46559	.3168	.5251	5.32	47.4	2.9229	372.	.053
%RSD	5662.7	6.5528	24.041	1.7314	1.3799	42.292	1.5203	.27595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.2673	33330.	1.5139	.46322	.6892	1.7577	-.89483	1.4099
Stddev	.3136	303.	.6280	.56119	2.232	.3700	.45350	.3451
%RSD	5.0043	.91010	41.483	121.15	323.8	21.049	50.680	24.475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134867-e-1-a Acquired: 8/14/2020 14:01:36 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.7993	6.5987	4.8946	5541.6	185.29
Stddev	1.9219	7.2182	.1892	82.7	7.16
%RSD	106.81	109.39	3.8650	1.4929	3.8642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6091.2	4152.7	33746.	3192.4
Stddev	16.2	10.5	85.	27.4
%RSD	.26631	.25256	.25296	.85799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.977%	102.27%	100.46%	107.56%
Range				

Sample Name: mb 240-447005/1-a Acquired: 8/14/2020 14:05:55 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02324	-23.097	-4.0614	-6.7079	-.31480	.12011	54.356	-.0689
Stddev	.25942	31.217	.4880	.8933	.47730	.09635	4.365	.1433
%RSD	1116.4	135.15	12.015	13.317	151.62	80.221	8.0307	207.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.55167	.47831	.22493	1.5745	50.956	-.04644	2.8808	.03822
Stddev	.23121	.46228	.22443	2.6634	21.629	2.6198	17.376	.04188
%RSD	41.911	96.649	99.776	169.16	42.446	5641.6	603.15	109.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0317	233.44	-2.0085	-.04575	.0527	2.4001	-.32327	-.16805
Stddev	.2390	6.70	.5269	.85853	4.659	2.7805	.10877	.10271
%RSD	23.164	2.8689	26.232	1876.7	8833.	115.85	33.646	61.117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-447005/1-a Acquired: 8/14/2020 14:05:55 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.02581	1.3152	3.4454	5.3806	8.4150
Stddev	3.4427	2.0873	.1729	6.7670	1.5204
%RSD	13339.	158.70	5.0177	125.77	18.068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6791.2	4359.7	36287.	3228.1
Stddev	14.4	9.0	158.	64.5
%RSD	.21250	.20715	.43489	1.9979

Sample Name: CCV-4863699 Acquired: 8/14/2020 14:10:16 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	980.77	24882.	2007.0	5185.5	1995.4	1980.0	24981.	1991.
Stddev	1.74	62.	7.8	21.1	9.8	6.2	50.	1.
%RSD	.17752	.24955	.38666	.40768	.49002	.31464	.20100	.0590
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1985.7	1931.8	1940.3	24817.	24700.	1931.3	24474.	1937.5
Stddev	3.3	5.7	2.2	56.	104.	3.6	32.	3.4
%RSD	.16685	.29695	.11219	.22503	.41923	.18614	.13068	.17605
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1978.2	24368.	1989.7	1897.6	2000.	1994.4	2015.0	1986.9
Stddev	2.1	41.	1.7	2.6	6.	13.4	3.4	2.5
%RSD	.10552	.16824	.08502	.13513	.2836	.67039	.16861	.12537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 14:10:16 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1982.8	1993.6	2019.3	19886.	1970.5
Stddev	16.9	9.8	4.0	77.	8.3
%RSD	.85345	.49111	.19622	.38911	.42076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6007.9	4201.7	34693.	3146.9
Stddev	17.1	8.4	128.	5.8
%RSD	.28513	.19993	.36985	.18289

Sample Name: CCB Acquired: 8/14/2020 14:14:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.16317	.91407	F -5.7275	-4.5137	-.41903	.18233	11.075
Stddev	.25455	3.6840	2.5108	.6879	.10365	.13979	4.434
%RSD	156.00	403.03	43.838	15.240	24.736	76.672	40.038
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000				
Low Limit			-5.0000				

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1977	.59071	.62088	-.01623	2.4905	60.406	1.8399
Stddev	.1474	.29994	.36251	1.2226	4.8259	47.300	.9173
%RSD	74.54	50.777	58.386	7533.8	193.77	78.303	49.853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.370	.15830	1.2474	154.18	-.70629	.32756	-.9169
Stddev	8.181	.05977	.2256	18.84	.60736	2.2367	2.821
%RSD	44.535	37.759	18.083	12.218	85.994	682.84	307.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: CCB Acquired: 8/14/2020 14:14:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.41744	-.36772	.17882	2.4193	1.8141	2.1873	-9.5524
Stddev	.95565	.32823	.14479	1.3596	2.7287	.1117	9.8795
%RSD	228.93	89.261	80.967	56.199	150.42	5.1082	103.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	7.6692
Stddev	4.4239
%RSD	57.684
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6742.9	4325.9	35950.	3220.3
Stddev	5.4	1.8	122.	36.1
%RSD	.08007	.04109	.34059	1.1220

Sample Name: CCVL-4857858 Acquired: 8/14/2020 14:18:34 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.9882	215.52	F 10.288	95.259	190.24	5.0828	5219.7
Stddev	.4354	2.73	2.847	.370	2.49	.0319	99.8
%RSD	4.3588	1.2664	27.676	.38807	1.3103	.62834	1.9119
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			15.000				
Range			-30.500%				

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.203	10.132	10.293	25.337	223.87	4924.7	48.892
Stddev	.151	.252	.167	.234	6.85	79.0	5.194
%RSD	2.902	2.4898	1.6246	.92351	3.0585	1.6040	10.623
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4955.2	15.805	40.485	4927.9	38.579	10.229	24.00
Stddev	114.0	.090	.467	48.6	.262	1.214	.82
%RSD	2.3010	.57103	1.1539	.98571	.67864	11.866	3.424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCVL-4857858 Acquired: 8/14/2020 14:18:34 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21.802	97.632	49.308	20.227	54.836	F 86.600	488.28
Stddev	.409	.350	.133	2.691	3.142	.713	13.31
%RSD	1.8771	.35878	.26917	13.305	5.7306	.82360	2.7261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						50.000	
Range						30.500%	

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	56.570
Stddev	2.801
%RSD	4.9507
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6510.5	4279.3	35335.	3196.3
Stddev	8.6	3.4	34.	47.3
%RSD	.13162	.07876	.09672	1.4795

Sample Name: lcs 240-447005/2-a Acquired: 8/14/2020 14:22:51 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	98.550	9749.4	2043.2	1055.3	1936.2	1000.1	48808.	1010.
Stddev	.507	131.1	7.5	3.1	14.4	9.4	392.	1.
%RSD	.51398	1.3448	.36483	.29376	.74222	.94250	.80317	.0507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	981.82	954.54	963.89	9768.9	49011.	955.20	47848.	960.51
Stddev	1.41	1.88	.89	97.9	338.	7.93	334.	.82
%RSD	.14338	.19646	.09208	1.0021	.69059	.83064	.69767	.08530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	983.27	48082.	987.49	940.64	960.4	2064.9	2013.3	983.55
Stddev	2.39	396.	2.44	1.05	2.2	5.8	4.0	.67
%RSD	.24312	.82296	.24670	.11195	.2305	.27959	.19708	.06840
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-447005/2-a Acquired: 8/14/2020 14:22:51 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1964.0	989.88	1021.0	2000.0	985.48
Stddev	19.3	10.21	.8	5.4	.75
%RSD	.98219	1.0310	.07724	.27031	.07567
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5958.2	4197.9	34355.	3197.3
Stddev	6.8	6.3	22.	20.0
%RSD	.11463	.15098	.06523	.62597

Sample Name: 240-134791-m-2-a Acquired: 8/14/2020 14:26:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.03478	2669.6	.19842	20.080	58.800	.55537	12796.	.2744
Stddev	.36967	55.0	1.1545	.275	1.007	.15629	207.	.1536
%RSD	1062.8	2.0611	581.82	1.3711	1.7129	28.141	1.6141	55.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0318	13.531	5.9772	8942.9	11635.	6.7170	2564.2	201.19
Stddev	.1543	.148	.6551	149.8	237.	1.1971	48.1	.12
%RSD	5.0897	1.0970	10.959	1.6751	2.0408	17.822	1.8746	.05851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28.269	27492.	2.8401	2.5547	.9909	2.8010	2.4955	59.447
Stddev	.240	427.	.4537	.8382	1.670	1.1052	.2181	.375
%RSD	.85055	1.5523	15.976	32.809	168.5	39.458	8.7391	.63114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134791-m-2-a Acquired: 8/14/2020 14:26:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.4779	24.416	43.253	10222.	89.496
Stddev	1.2179	7.456	.204	142.	6.472
%RSD	82.407	30.536	.47096	1.3861	7.2312
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6395.8	4329.6	35406.	3273.8
Stddev	12.2	9.2	17.	56.0
%RSD	.19060	.21192	.04827	1.7117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.78%	106.63%	105.40%	110.30%
Range				

Sample Name: SD 240-134791-m-2a@5 Acquired: 8/14/2020 14:31:07 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	62.888	7308.8	1359.2	705.73	1303.6	663.92	36549.	670.3
Stddev	.475	35.7	11.9	.59	5.3	2.54	129.	2.8
%RSD	.75544	.48835	.87832	.08406	.40646	.38186	.35296	.4113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	656.45	645.26	645.27	8579.1	36109.	633.30	33891.	691.41
Stddev	4.05	3.42	4.59	35.8	187.	4.38	126.	3.42
%RSD	.61709	.53001	.71105	.41773	.51846	.69224	.37174	.49509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	673.76	38747.	660.70	632.71	644.7	1326.8	1343.1	674.50
Stddev	2.87	107.	3.76	4.13	5.7	12.4	7.5	4.44
%RSD	.42547	.27506	.56966	.65286	.8898	.93748	.55916	.65754
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134791-m-2a@5 Acquired: 8/14/2020 14:31:07 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1335.5	669.27	696.94	3438.0	682.21
Stddev	8.3	5.92	3.95	27.3	9.30
%RSD	.61890	.88446	.56664	.79499	1.3638
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5924.7	4137.9	33832.	3158.4
Stddev	40.5	26.7	196.	15.3
%RSD	.68326	.64527	.57953	.48470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.354%	101.91%	100.72%	106.41%
Range				

Sample Name: PDS 240-134791-m-2-a Acquired: 8/14/2020 14:35:07 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	96.793	13082.	2077.4	1105.5	2042.1	1011.6	64167.	1017.
Stddev	.206	140.	7.2	1.9	11.7	3.3	288.	4.
%RSD	.21314	1.0682	.34556	.16854	.57147	.32492	.44922	.3963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1004.1	970.28	980.06	19073.	63595.	966.93	52995.	1169.4
Stddev	2.3	4.21	3.62	79.	356.	3.06	334.	5.5
%RSD	.22760	.43379	.36985	.41556	.55960	.31692	.62988	.47302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1015.6	77599.	1008.4	943.91	980.5	2038.3	2046.0	1054.6
Stddev	2.4	411.	.5	.85	7.2	1.9	.8	4.9
%RSD	.23690	.52993	.04917	.09031	.7328	.09526	.03807	.46843
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: PDS 240-134791-m-2-a Acquired: 8/14/2020 14:35:07 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1970.6	1016.0	1102.5	12226.	1074.2
Stddev	15.8	3.6	1.5	54.	11.1
%RSD	.80213	.34948	.13411	.44517	1.0292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5783.9	4151.0	33792.	3171.1
Stddev	3.1	7.4	158.	17.2
%RSD	.05289	.17803	.46815	.54172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.135%	102.23%	100.60%	106.84%
Range				

Sample Name: 240-134791-m-2-b ms Acquired: 8/14/2020 14:39:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 102.66	22931.	2142.2	1128.0	2149.1	1050.5	64552.
Stddev	.61	245.	3.2	5.1	18.4	10.7	706.
%RSD	.59547	1.0692	.15004	.45607	.85809	1.0208	1.0945
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1055.	1049.8	1003.5	1009.5	20055.	65046.	1010.3
Stddev	1.	.4	5.1	6.2	243.	613.	12.0
%RSD	.0568	.03867	.51144	.61309	1.2114	.94288	1.1866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53036.	1198.8	1048.9	78795.	1054.5	977.29	992.5
Stddev	703.	7.1	1.6	927.	1.0	.80	1.5
%RSD	1.3251	.58928	.15333	1.1767	.09951	.08226	.1514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134791-m-2-b ms Acquired: 8/14/2020 14:39:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2151.9	2143.6	1085.1	2016.0	1063.1	1121.5	24229.
Stddev	7.6	3.3	6.0	17.5	22.0	1.6	382.
%RSD	.35407	.15376	.55271	.86885	2.0683	.14391	1.5768
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1120.5
Stddev	20.8
%RSD	1.8530
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5759.9	4161.3	34131.	3203.2
Stddev	11.3	8.5	254.	34.2
%RSD	.19571	.20372	.74552	1.0664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.758%	102.48%	101.61%	107.92%
Range				

Sample Name: 240-134791-m-2-c msd Acquired: 8/14/2020 14:43:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	95.593	21184.	1995.3	1051.1	1953.0	955.98	59009.	980.0
Stddev	.228	205.	17.1	11.5	15.5	7.46	446.	9.3
%RSD	.23901	.96543	.85890	1.0903	.79232	.78049	.75609	.9502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	972.75	935.78	939.30	18382.	59449.	926.07	48578.	1116.9
Stddev	8.72	4.13	.25	147.	522.	4.60	459.	2.6
%RSD	.89594	.44103	.02665	.80151	.87825	.49674	.94446	.23512
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	975.83	72335.	976.01	906.95	926.2	2000.6	1986.4	1012.6
Stddev	6.61	498.	7.32	9.97	13.4	23.2	17.4	1.7
%RSD	.67717	.68829	.74953	1.0996	1.447	1.1599	.87427	.17087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134791-m-2-c msd Acquired: 8/14/2020 14:43:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1879.1	979.27	1037.7	18919.	1033.5
Stddev	21.0	6.80	9.0	91.	9.7
%RSD	1.1202	.69427	.86742	.47989	.94257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5870.2	4225.0	34614.	3285.9
Stddev	47.0	37.3	52.	31.0
%RSD	.80042	.88311	.14969	.94332
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.496%	104.05%	103.04%	110.71%
Range				

Sample Name: 240-134791-m-3-a Acquired: 8/14/2020 14:47:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04315	117.63	-4.4750	-.77863	24.426	.28371	4384.7	.0117
Stddev	.51406	47.60	1.8394	.96285	.300	.18883	31.9	.0774
%RSD	1191.3	40.469	41.104	123.66	1.2273	66.560	.72693	662.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.5279	.69884	2.9842	569.84	1298.6	2.0416	2277.6	134.56
Stddev	.1505	.33393	.2347	5.99	25.8	.4812	26.2	.14
%RSD	1.7650	47.783	7.8659	1.0504	1.9861	23.571	1.1512	.10051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.7127	10531.	9.1043	-.14512	1.434	1.6771	1.1979	1.1382
Stddev	.2627	40.	.0835	1.8794	2.604	2.2794	.4390	.2003
%RSD	15.337	.38129	.91681	1295.1	181.6	135.91	36.651	17.596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134791-m-3-a Acquired: 8/14/2020 14:47:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.5719	1.6870	23.667	5202.9	24.415
Stddev	.2531	3.1611	.406	49.0	5.150
%RSD	9.8420	187.39	1.7145	.94185	21.094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6748.4	4408.0	36395.	3286.0
Stddev	3.3	4.6	135.	13.4
%RSD	.04929	.10397	.37078	.40928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	106.33%	108.56%	108.35%	110.71%
Range				

Sample Name: 240-134791-q-4-a Acquired: 8/14/2020 14:51:21 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.06176	55.915	1.3568	1.7728	105.35	.29908	15573.	-.0231
Stddev	.23655	23.773	1.2956	.9974	.13	.11433	13.	.2158
%RSD	383.03	42.517	95.488	56.263	.12191	38.229	.08419	934.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14.579	.26863	.73396	41009.	3125.9	5.2797	11603.	541.59
Stddev	.173	.48173	.19759	98.	37.7	2.3985	69.	.64
%RSD	1.1887	179.33	26.922	.23834	1.2074	45.428	.59268	.11810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.21342	72285.	15.161	-.66990	-1.260	3.1535	.76163	2.0616
Stddev	.42598	120.	.428	2.1418	1.872	5.8604	.14599	.4131
%RSD	199.60	.16600	2.8218	319.72	148.6	185.84	19.168	20.038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134791-q-4-a Acquired: 8/14/2020 14:51:21 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.5016	1.5937	34.286	8912.0	111.98
Stddev	1.3314	5.4308	.264	62.1	5.32
%RSD	88.665	340.76	.77135	.69638	4.7480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6255.4	4304.3	35140.	3270.8
Stddev	6.4	9.5	67.	14.4
%RSD	.10180	.22091	.19179	.44010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.566%	106.01%	104.61%	110.20%
Range				

Sample Name: 240-134761-f-1-a Acquired: 8/14/2020 14:55:35 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14380	101.97	-2.1491	292.83	53.475	.26400	115440.
Stddev	.40763	2.90	3.0607	1.33	.715	.08320	1765.
%RSD	283.46	2.8479	142.42	.45522	1.3367	31.516	1.5289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2564	-.28593	1.0961	1.1320	230.94	5694.8	4.7537
Stddev	.0645	.08948	.5094	.6675	5.30	83.4	3.9761
%RSD	25.14	31.292	46.476	58.972	2.2963	1.4639	83.642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27411.	8.3562	.39253	17394.	-1.2289	-.43518	3.528
Stddev	470.	.0198	.19899	258.	.1790	.15832	2.205
%RSD	1.7149	.23661	50.695	1.4853	14.562	36.381	62.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134761-f-1-a Acquired: 8/14/2020 14:55:35 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.6773	-.53139	1.3232	1.5520	-3.5056	-.42054	7419.8
Stddev	.8038	.53444	.3025	1.2433	2.4238	.04797	112.6
%RSD	10.470	100.57	22.861	80.111	69.140	11.406	1.5172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	556.10
Stddev	9.76
%RSD	1.7543
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5939.5	4062.3	33630.	3170.4
Stddev	6.9	6.9	50.	54.2
%RSD	.11613	.17043	.14918	1.7108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.587%	100.05%	100.12%	106.82%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 14:59:54 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	976.83	24844.	1998.1	5172.6	2001.4	1990.6	24946.	1996.
Stddev	2.22	73.	4.7	23.8	11.7	9.2	71.	3.
%RSD	.22715	.29479	.23326	.45935	.58549	.46296	.28591	.1730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1982.1	1926.2	1935.6	24829.	24716.	1930.6	24482.	1936.3
Stddev	1.3	5.4	5.2	100.	166.	10.3	40.	4.6
%RSD	.06614	.27829	.27037	.40141	.67280	.53152	.16459	.23522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1971.0	24342.	1990.4	1890.4	2011.	1985.1	2003.1	1976.2
Stddev	2.8	110.	2.1	5.0	4.	5.9	2.3	8.0
%RSD	.14198	.45158	.10398	.26505	.1781	.29645	.11368	.40365
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 14:59:54 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1949.0	1987.3	2011.5	19937.	1979.2
Stddev	9.9	4.1	.8	91.	12.9
%RSD	.50677	.20564	.03838	.45747	.65038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6023.4	4207.9	34774.	3185.2
Stddev	9.0	11.4	36.	9.0
%RSD	.14907	.27041	.10444	.28203

Sample Name: CCB Acquired: 8/14/2020 15:03:55 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.02488	-18.278	-2.2801	-5.2539	-.13625	.23582	13.596	-.0107
Stddev	.39359	11.965	2.3541	.5777	.10532	.08105	3.805	.0711
%RSD	1581.9	65.465	103.25	10.997	77.296	34.371	27.988	666.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.81950	.91115	.36464	-2.8487	96.626	1.5743	26.260	.14920
Stddev	.19412	.41340	.81914	1.8380	54.965	2.5695	18.933	.07264
%RSD	23.687	45.371	224.64	64.521	56.885	163.22	72.099	48.685
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0634	127.71	-1.1855	-.20967	3.762	-.78625	-.59164	.23261
Stddev	.3488	18.60	.0502	1.2611	1.828	2.4323	.41578	.09379
%RSD	32.799	14.568	4.2330	601.48	48.58	309.36	70.275	40.322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 15:03:55 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.0354	-2.0549	2.1433	4.9547	2.7820
Stddev	2.2086	.7812	.1463	12.306	6.5507
%RSD	213.31	38.015	6.8250	248.38	235.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6767.3	4332.7	36122.	3207.7
Stddev	9.8	7.1	97.	42.0
%RSD	.14410	.16441	.26947	1.3104

Sample Name: 240-134761-f-2-a Acquired: 8/14/2020 15:08:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.7245	152.96	-.60727	172.04	30.234	.39391	479570.
Stddev	.1804	31.22	1.2615	1.59	.615	.12235	3725.
%RSD	10.461	20.411	207.73	.92576	2.0349	31.061	.77665
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4180	-.72748	.54413	3.0829	212.01	8486.8	17.107
Stddev	.0476	.44920	.39351	.7746	3.46	56.8	2.867
%RSD	11.38	61.747	72.319	25.126	1.6313	.66978	16.760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51944.	26.714	.34081	166670.	7.2427	.74293	4.284
Stddev	156.	.132	.22842	602.	.2915	1.1936	7.576
%RSD	.29987	.49226	67.023	.36111	4.0247	160.65	176.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134761-f-2-a Acquired: 8/14/2020 15:08:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.5217	-1.3542	.45911	.03813	.81932	1837.8	7264.4
Stddev	2.4300	.5931	.04322	1.4133	5.9036	3.2	28.4
%RSD	28.515	43.800	9.4144	3706.6	720.55	.17154	.39090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	704.84
Stddev	3.52
%RSD	.49877
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5339.9	3816.8	31433.	3180.5
Stddev	62.1	44.6	479.	6.5
%RSD	1.1625	1.1684	1.5234	.20401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.140%	94.000%	93.574%	107.16%
Range				

Sample Name: 240-134866-c-3-a Acquired: 8/14/2020 15:12:40 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.1133	133.83	7.4949	67.861	73.756	.14205	122020.
Stddev	.1153	37.15	.8220	2.124	.482	.13696	1767.
%RSD	2.8027	27.760	10.968	3.1303	.65287	96.416	1.4480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1705	.16627	10.321	114.76	2508.7	6404.4	13.827
Stddev	.0481	.13862	.761	.50	46.9	24.7	2.441
%RSD	28.19	83.371	7.3733	.43528	1.8699	.38588	17.656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	30165.	2875.4	13.878	63819.	42.539	4853.3	5.796
Stddev	508.	22.5	.562	868.	1.078	3.4	4.489
%RSD	1.6848	.78369	4.0505	1.3603	2.5340	.06972	77.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134866-c-3-a Acquired: 8/14/2020 15:12:40 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	58.926	8.3730	2.8131	22.717	6.0065	870.23	1136.2
Stddev	2.340	.2937	.1083	1.950	6.6661	3.05	15.5
%RSD	3.9717	3.5071	3.8492	8.5853	110.98	.35036	1.3628
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	239.93
Stddev	8.59
%RSD	3.5814
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5873.9	4069.4	33163.	3067.1
Stddev	52.6	34.1	44.	57.3
%RSD	.89474	.83684	.13348	1.8696
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.554%	100.22%	98.725%	103.34%
Range				

Sample Name: 240-134781-q-1a@2 Acquired: 8/14/2020 15:17:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.78876	13297.	1.5145	-6.3224	97.898	1.8404	6712.9	.2494
Stddev	.26486	179.	1.7942	.8759	1.911	.0382	99.1	.2135
%RSD	33.579	1.3424	118.47	13.855	1.9522	2.0739	1.4756	85.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.860	15.526	32.585	45419.	1759.5	25.891	7169.5	607.93
Stddev	.237	.345	.521	702.	33.9	1.768	125.8	1.30
%RSD	1.2561	2.2234	1.5977	1.5456	1.9254	6.8277	1.7550	.21367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1782	359.36	21.086	8.4697	-.1602	.51488	18.401	1119.9
Stddev	.2724	7.48	.276	1.6227	2.587	3.2655	.519	3.0
%RSD	12.504	2.0815	1.3089	19.159	1615.	634.23	2.8181	.27120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134781-q-1a@2 Acquired: 8/14/2020 15:17:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.7893	29.832	125.25	921.60	12.429
Stddev	1.8734	3.978	.75	18.76	2.399
%RSD	104.70	13.336	.59520	2.0356	19.303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6275.6	4795.6	39396.	3494.2
Stddev	1.6	8.7	165.	55.7
%RSD	.02513	.18045	.41955	1.5942
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.883%	118.11%	117.28%	117.73%
Range				

Sample Name: SD 240-134781-q1a@10 Acquired: 8/14/2020 15:21:13 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.52260	3176.9	-3.0044	-8.6712	23.112	.45330	1656.3	.0624
Stddev	.61730	19.5	1.5343	.4814	.740	.17123	31.8	.1641
%RSD	118.12	.61495	51.069	5.5513	3.2038	37.774	1.9224	262.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.3146	3.7863	7.5666	10951.	462.38	5.0453	1770.8	147.51
Stddev	.2057	.2876	.7253	180.	20.87	2.0733	43.6	.36
%RSD	4.7663	7.5952	9.5856	1.6471	4.5143	41.094	2.4622	.24533
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.23236	162.19	3.6713	2.3499	1.670	-1.2732	3.6710	266.75
Stddev	.26029	10.11	.1252	.9977	.439	1.7466	.3775	.51
%RSD	112.02	6.2359	3.4110	42.456	26.28	137.17	10.284	.18967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134781-q1a@10 Acquired: 8/14/2020 15:21:13 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.3247	6.1535	26.120	223.56	9.4011
Stddev	1.7896	2.5484	.597	15.71	.9146
%RSD	76.981	41.414	2.2864	7.0263	9.7292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6502.0	4383.0	36171.	3225.1
Stddev	11.2	13.4	88.	44.0
%RSD	.17267	.30577	.24238	1.3651
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.45%	107.94%	107.68%	108.66%
Range				

Sample Name: PDS 240-134781-q1a@2 Acquired: 8/14/2020 15:25:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	89.957	19967.	1780.2	1008.1	1925.9	936.71	40785.	877.9
Stddev	.505	257.	33.9	16.1	10.0	3.07	925.	13.8
%RSD	.56112	1.2859	1.9052	1.6001	.51669	.32784	2.2686	1.572
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1019.8	895.50	907.91	51484.	36150.	923.52	40410.	1476.8
Stddev	14.0	3.35	5.04	220.	860.	5.85	900.	2.4
%RSD	1.3749	.37395	.55519	.42717	2.3798	.63299	2.2282	.16159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	875.91	33888.	1030.0	832.91	935.3	1716.9	2047.4	2024.6
Stddev	15.26	842.	15.2	18.16	10.0	30.5	27.1	1.9
%RSD	1.7417	2.4860	1.4725	2.1809	1.064	1.7749	1.3219	.09437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: PDS 240-134781-q1a@2 Acquired: 8/14/2020 15:25:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1946.7	954.82	1281.1	2775.1	932.96
Stddev	39.2	8.68	12.8	8.7	10.11
%RSD	2.0113	.90940	.99796	.31486	1.0837
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5717.3	4642.6	38012.	3456.1
Stddev	11.2	14.7	153.	9.8
%RSD	.19601	.31592	.40130	.28440
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.086%	114.34%	113.16%	116.45%
Range				

Sample Name: 240-134781-q1b ms@2 Acquired: 8/14/2020 15:29:28 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	40.526	28022.	865.46	441.05	985.81	434.39	29905.	431.7
Stddev	.447	56.	1.13	1.85	2.80	1.07	43.	.7
%RSD	1.1022	.19806	.13060	.41934	.28370	.24617	.14349	.1644
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	534.07	453.86	454.33	53948.	23719.	445.90	33640.	1208.4
Stddev	2.64	2.00	3.07	53.	64.	4.79	59.	3.4
%RSD	.49401	.44131	.67604	.09901	.26908	1.0735	.17397	.28453
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	428.68	21317.	564.69	418.23	314.8	855.98	1043.5	2366.0
Stddev	1.91	32.	2.73	3.55	2.4	1.40	4.7	7.0
%RSD	.44499	.14857	.48323	.84952	.7541	.16306	.45395	.29703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134781-q1b ms@2 Acquired: 8/14/2020 15:29:28 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1003.3	473.51	683.55	1772.9	456.32
Stddev	5.3	4.54	3.36	4.7	6.22
%RSD	.53080	.95901	.49163	.26455	1.3631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5688.0	4728.9	38499.	3506.9
Stddev	2.8	11.7	74.	14.2
%RSD	.04868	.24770	.19183	.40440
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.625%	116.46%	114.61%	118.16%
Range				

Sample Name: 240-134781-q1c msd@2 Acquired: 8/14/2020 15:33:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	39.733	29184.	833.95	432.04	1001.1	426.69	27497.	417.0
Stddev	.585	93.	2.23	2.75	2.8	.31	52.	.6
%RSD	1.4720	.31732	.26720	.63625	.27969	.07352	.18895	.1363
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	509.08	447.29	438.68	55392.	23940.	445.45	34243.	1194.7
Stddev	.23	1.28	1.54	40.	32.	4.14	59.	3.0
%RSD	.04574	.28621	.35142	.07221	.13188	.92971	.17221	.25304
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	413.82	20780.	525.99	405.04	294.5	829.48	989.47	2616.2
Stddev	2.79	40.	3.91	2.47	3.3	7.32	5.36	6.1
%RSD	.67474	.19023	.74420	.60961	1.125	.88265	.54130	.23250
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134781-q1c msd@2 Acquired: 8/14/2020 15:33:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	964.68	481.21	647.64	2277.1	448.51
Stddev	20.31	4.54	.46	18.4	7.34
%RSD	2.1058	.94370	.07174	.80949	1.6369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5863.5	4797.4	39228.	3562.5
Stddev	18.4	22.0	119.	21.7
%RSD	.31360	.45895	.30300	.60974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.391%	118.15%	116.78%	120.03%
Range				

Sample Name: CHECKLL Acquired: 8/14/2020 15:37:31 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.5040	8.1885	6.7682	-9.3979	-.11476	-.06480	-2.7166	2.147
Stddev	.2683	8.5800	.2995	.8962	.10742	.15343	3.4754	.282
%RSD	4.8744	104.78	4.4258	9.5365	93.601	236.77	127.93	13.12
Check ?	Chk Pass	None	Chk Pass	None	None	None	None	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.33712	5.4171	.51795	109.72	51.810	.42388	18.768	-.00179
Stddev	.15101	.1599	.20892	2.27	21.047	2.5695	30.758	.04830
%RSD	44.795	2.9523	40.335	2.0660	40.623	606.19	163.89	2693.2
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.44781	97.141	-.94695	4.9334	10.43	11.200	.00866	.39419
Stddev	.17781	4.437	.26180	1.4298	4.47	2.782	.79575	.18162
%RSD	39.706	4.5679	27.647	28.982	42.83	24.841	9191.7	46.073
Check ?	None	None	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Sample Name: CHECKLL Acquired: 8/14/2020 15:37:31 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	10.600	3.2159	-3.2211	5.2634	2.1010
Stddev	1.311	3.2813	.0435	6.3843	3.4435
%RSD	12.364	102.03	1.3492	121.30	163.90
Check ?	Chk Pass	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6586.5	4223.9	34912.	3104.2
Stddev	12.3	10.2	87.	25.4
%RSD	.18696	.24113	.24949	.81974

Sample Name: mb 240-446760/1-a Acquired: 8/14/2020 15:41:53 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04547	4.2400	-3.7382	-8.0541	-.23100	.03234	60.439
Stddev	.19311	22.231	.5964	1.2833	.47087	.02078	1.952
%RSD	424.72	524.32	15.956	15.933	203.84	64.250	3.2291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0232	.30405	.22662	1.4515	.98950	28.104	.42411
Stddev	.1478	.22647	.40491	.6477	3.7938	18.885	2.5877
%RSD	637.3	74.483	178.67	44.620	383.41	67.196	610.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23.949	-.08175	-.83858	145.80	-1.3459	.27146	.4074
Stddev	22.776	.00744	.42402	6.46	.2079	.94163	4.928
%RSD	95.105	9.0999	50.564	4.4310	15.448	346.88	1210.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: mb 240-446760/1-a Acquired: 8/14/2020 15:41:53 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.6587	-.37492	.08377	2.5971	F 7.1342	-1.3624	5.2477
Stddev	1.7327	.45047	.35105	2.1491	3.1459	.0560	.8390
%RSD	37.193	120.15	419.07	82.750	44.095	4.1117	15.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					5.0000		
Low Limit					-1000.0		

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	5.3173
Stddev	8.9909
%RSD	169.09
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6691.9	4316.5	35631.	3147.6
Stddev	19.8	14.2	96.	79.2
%RSD	.29612	.32931	.26945	2.5173

Sample Name: lcs 240-446760/2-a Acquired: 8/14/2020 15:46:12 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	95.496	9532.8	1980.8	1029.5	1881.5	969.26	47519.	980.6
Stddev	.650	101.4	5.1	6.4	15.9	7.81	297.	1.4
%RSD	.68055	1.0639	.25713	.61970	.84741	.80555	.62512	.1474
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	960.73	931.12	934.78	9484.7	47519.	924.16	46584.	937.73
Stddev	1.37	.60	2.64	72.1	401.	3.73	331.	1.32
%RSD	.14231	.06439	.28257	.76006	.84360	.40333	.71144	.14073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	956.95	46636.	966.51	914.49	928.9	1995.6	1963.5	959.18
Stddev	1.64	254.	.82	3.59	4.8	3.2	6.3	2.57
%RSD	.17160	.54372	.08455	.39273	.5169	.16180	.32133	.26749
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-446760/2-a Acquired: 8/14/2020 15:46:12 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1929.7	958.70	989.50	1957.9	952.40
Stddev	13.3	1.43	2.01	9.8	2.37
%RSD	.69103	.14947	.20304	.50079	.24842
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5829.5	4120.2	33523.	3098.0
Stddev	5.0	10.1	13.	16.4
%RSD	.08649	.24537	.03817	.52964

Sample Name: CCV-4863699 Acquired: 8/14/2020 15:50:13 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	982.56	24872.	2006.0	5224.2	1979.7	1979.9	25058.	1991.
Stddev	1.55	148.	4.8	28.2	3.0	4.4	57.	4.
%RSD	.15803	.59604	.23699	.53943	.15339	.22362	.22897	.2190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1987.3	1963.7	1942.6	24931.	24774.	1931.2	24655.	1960.7
Stddev	.3	4.1	1.7	59.	39.	5.9	71.	1.2
%RSD	.01553	.20830	.08776	.23559	.15548	.30476	.28943	.05884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1970.4	24516.	1997.2	1900.9	2000.	1985.2	2021.2	2004.2
Stddev	3.7	62.	.4	2.0	2.	11.5	.6	1.0
%RSD	.18573	.25151	.01892	.10667	.1055	.57732	.02911	.05179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 15:50:13 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2013.7	1996.2	2032.6	19899.	1981.1
Stddev	26.5	8.8	1.7	54.	7.3
%RSD	1.3159	.44236	.08414	.27090	.36791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5906.8	4130.0	33844.	3059.8
Stddev	10.0	8.1	83.	8.5
%RSD	.16866	.19646	.24515	.27656

Sample Name: CCB Acquired: 8/14/2020 15:54:11 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04163	-18.123	-4.6555	-4.3321	-.24104	.11748	2.1537	.0664
Stddev	.13984	6.352	1.8366	.6434	.49281	.10501	5.2910	.0881
%RSD	335.92	35.049	39.450	14.853	204.45	89.393	245.67	132.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.21186	.24331	1.5525	.58248	30.092	2.5989	-3.7575	.05207
Stddev	.11017	.19320	.1472	1.7029	56.182	1.8113	22.167	.08439
%RSD	52.001	79.401	9.4792	292.35	186.70	69.693	589.93	162.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3606	91.532	-.48076	-.72851	5.497	-.20242	.21558	.11338
Stddev	.1191	16.603	.08077	.77200	4.335	1.8221	.52160	.29001
%RSD	8.7521	18.140	16.801	105.97	78.85	900.14	241.95	255.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 15:54:11 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.6401	3.4767	2.1481	14.474	8.0151
Stddev	.6300	5.5578	.1038	9.172	4.5090
%RSD	38.413	159.86	4.8326	63.371	56.256
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6573.3	4217.0	34771.	3094.6
Stddev	4.3	5.7	66.	9.5
%RSD	.06596	.13602	.18866	.30558

Sample Name: 240-134711-b-1-a Acquired: 8/14/2020 15:58:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.697	4485.8	.85014	68.408	79.896	.22495	24510.
Stddev	.384	50.4	.33919	.780	.650	.05701	210.
%RSD	3.5905	1.1232	39.898	1.1397	.81322	25.342	.85489
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0718	-.11004	3.4170	10.090	58.968	4966.9	7.2331
Stddev	.0414	.24785	.2396	.658	2.493	13.1	3.2653
%RSD	57.65	225.24	7.0121	6.5191	4.2271	.26303	45.144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8432.5	7.0559	.79817	181940.	5.1657	1.1041	-.0809
Stddev	29.4	.0702	.27232	1671.	.6076	1.0944	.5013
%RSD	.34853	.99478	34.118	.91845	11.762	99.122	619.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134711-b-1-a Acquired: 8/14/2020 15:58:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2227	3.8611	8.2341	1.9620	1.0314	88.403	2393.0
Stddev	1.6391	.9121	.2718	1.1422	3.6307	1.416	14.9
%RSD	134.05	23.624	3.3015	58.217	352.02	1.6019	.62460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	91.464
Stddev	7.921
%RSD	8.6601
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5796.2	4108.8	32859.	3109.8
Stddev	8.0	3.8	55.	18.5
%RSD	.13752	.09201	.16690	.59384
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.329%	101.19%	97.818%	104.78%
Range				

Sample Name: SD 240-134711-b-1a@5 Acquired: 8/14/2020 16:02:49 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1982	872.06	-3.3854	6.1258	15.891	.07647	5102.2	.0681
Stddev	.3917	23.61	1.2881	.2501	.459	.17357	91.0	.1833
%RSD	17.821	2.7075	38.049	4.0833	2.8866	226.96	1.7836	269.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.29207	.90627	2.0583	9.2135	992.31	1.9091	1733.4	1.4451
Stddev	.30339	.43651	.3594	4.4332	27.63	1.2261	19.0	.0474
%RSD	103.88	48.166	17.461	48.116	2.7848	64.224	1.0987	3.2820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.80426	37070.	.59250	-.61535	.2907	2.3906	.11622	1.6843
Stddev	.39602	409.	.47663	.50751	2.495	2.6739	.71197	.1248
%RSD	49.240	1.1021	80.444	82.474	858.3	111.85	612.62	7.4092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134711-b-1a@5 Acquired: 8/14/2020 16:02:49 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.38752	.77604	19.559	480.53	26.940
Stddev	.96299	5.3728	.254	13.65	5.120
%RSD	248.50	692.34	1.2995	2.8397	19.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6249.6	4190.0	34044.	3046.3
Stddev	17.0	9.6	101.	43.4
%RSD	.27217	.22910	.29601	1.4251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.473%	103.19%	101.35%	102.64%
Range				

Sample Name: PDS 240-134711-b-1-a Acquired: 8/14/2020 16:07:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 105.23	14350.	2034.0	1149.8	1966.6	970.92	73485.
Stddev	.35	62.	8.1	7.5	1.6	3.24	142.
%RSD	.33078	.43391	.39957	.65412	.08131	.33410	.19316
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	991.0	999.48	960.73	968.68	10068.	55296.	941.48
Stddev	.2	1.74	2.86	1.09	23.	14.	5.29
%RSD	.0187	.17390	.29718	.11226	.22678	.02569	.56217
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	57063.	974.59	960.65	224110.	1010.6	911.08	964.6
Stddev	82.	2.17	.69	486.	1.4	1.43	5.0
%RSD	.14387	.22315	.07212	.21698	.14066	.15710	.5223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-134711-b-1-a Acquired: 8/14/2020 16:07:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1971.2	2036.4	991.44	1959.7	973.73	1158.3	4267.9
Stddev	4.1	2.3	1.26	15.3	6.49	3.2	5.8
%RSD	.20995	.11188	.12669	.77916	.66624	.27785	.13547
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1041.3
Stddev	4.6
%RSD	.44128
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5436.7	3968.8	32018.	3034.8
Stddev	18.2	18.0	80.	6.0
%RSD	.33403	.45345	.24838	.19803
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.665%	97.743%	95.316%	102.25%
Range				

Sample Name: 240-134711-b-1-b ms Acquired: 8/14/2020 16:11:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 119.39	14559.	2029.0	1127.5	1991.2	986.70	74724.
Stddev	.23	159.	3.5	3.5	19.9	7.83	509.
%RSD	.19225	1.0905	.17443	.30625	.99777	.79369	.68153
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	993.7	1002.0	961.21	971.49	9791.5	54280.	959.59
Stddev	.7	.1	.81	1.12	74.3	487.	8.32
%RSD	.0742	.01139	.08382	.11487	.75915	.89640	.86752
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56440.	971.27	962.31	243090.	1013.3	906.04	948.7
Stddev	381.	.11	.44	1797.	1.6	.64	2.1
%RSD	.67431	.01138	.04524	.73916	.15762	.07081	.2207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134711-b-1-b ms Acquired: 8/14/2020 16:11:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2014.8	2044.4	991.22	1938.0	984.83	1131.8	4519.9
Stddev	4.5	5.9	.88	9.4	12.64	2.2	19.7
%RSD	.22582	.28634	.08921	.48316	1.2831	.19195	.43660
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1059.5
Stddev	8.4
%RSD	.78954
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5421.2	3957.1	31767.	3021.2
Stddev	4.2	2.7	76.	15.5
%RSD	.07672	.06848	.23807	.51269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.421%	97.455%	94.569%	101.79%
Range				

Sample Name: 240-134711-b-1-c msd Acquired: 8/14/2020 16:15:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 118.34	14605.	2014.5	1122.1	2003.3	988.11	74886.
Stddev	.51	688.	8.3	8.1	92.2	43.47	3370.
%RSD	.43340	4.7114	.40957	.72348	4.6044	4.3994	4.4996
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	985.1	993.86	952.56	960.25	9809.5	54488.	953.56
Stddev	3.5	3.33	1.87	1.78	435.5	2397.	36.87
%RSD	.3544	.33485	.19587	.18583	4.4394	4.3990	3.8670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56661.	959.66	952.96	242210.	1007.0	897.58	941.0
Stddev	2525.	2.39	4.00	10541.	3.0	1.71	8.8
%RSD	4.4562	.24881	.42022	4.3519	.29665	.18998	.9360
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134711-b-1-c msd Acquired: 8/14/2020 16:15:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1998.9	2029.5	980.24	1936.3	986.68	1127.1	4523.5
Stddev	5.8	7.7	2.20	28.4	48.01	3.1	241.8
%RSD	.29204	.37797	.22418	1.4692	4.8658	.27195	5.3461
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1060.5
Stddev	50.9
%RSD	4.8002
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5331.6	3894.6	31226.	2920.1
Stddev	13.6	12.0	142.	106.3
%RSD	.25543	.30694	.45537	3.6412
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.009%	95.915%	92.959%	98.387%
Range				

Sample Name: 240-134711-b-2-a Acquired: 8/14/2020 16:19:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.9782	2453.4	-4.4653	43.519	52.386	.30686	28783.	.0307
Stddev	.0741	35.3	2.0582	1.103	.788	.03962	185.	.1210
%RSD	.92842	1.4386	46.093	2.5350	1.5044	12.911	.64121	393.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05581	4.6074	12.902	374.65	2757.1	7.3097	6578.5	17.673
Stddev	.36074	.5605	1.013	4.81	38.4	2.4371	12.1	.013
%RSD	646.37	12.165	7.8481	1.2837	1.3916	33.340	.18417	.07275
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.73912	70678.	7.4850	-.47416	7.825	2.5843	2.3366	3.9707
Stddev	.33886	408.	.5336	.92917	2.371	2.8943	.5093	.4341
%RSD	45.847	.57748	7.1293	195.96	30.30	111.99	21.797	10.932
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134711-b-2-a Acquired: 8/14/2020 16:19:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.7390	.70470	109.98	1775.5	109.40
Stddev	.6894	1.7422	.75	21.5	12.87
%RSD	18.439	247.22	.68001	1.2103	11.761
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5978.4	4102.0	33007.	3053.8
Stddev	12.7	10.1	101.	6.7
%RSD	.21188	.24593	.30511	.22010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.201%	101.02%	98.260%	102.89%
Range				

Sample Name: 240-134711-f-3-a Acquired: 8/14/2020 16:23:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 987.20	124130.	24.377	70.942	2177.3	-1.5456
Stddev	1.43	1492.	.570	1.220	32.7	.1209
%RSD	.14474	1.2020	2.3382	1.7197	1.5029	7.8219
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00					
Low Limit	-500000.					

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28010.	-3.208	-.78784	41.886	221.53	1269.3
Stddev	299.	.237	.25043	.830	2.32	16.6
%RSD	1.0674	7.385	31.787	1.9819	1.0488	1.3040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4174.4	12.767	12219.	124.40	-8.2179	F 721260.
Stddev	80.3	4.348	98.	.49	.4554	19069.
%RSD	1.9239	34.053	.79886	.39571	5.5415	2.6438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134711-f-3-a Acquired: 8/14/2020 16:23:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14.817	-14.440	180.7	.92941	181.04	368.57
Stddev	.300	1.679	2.2	1.3525	.96	.95
%RSD	2.0278	11.625	1.240	145.53	.52901	.25739
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.20338	19.987	230.29	3352.5	159.40
Stddev	2.5377	2.371	1.39	79.7	6.55
%RSD	1247.8	11.862	.60486	2.3783	4.1070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5111.1	3854.7	24052.	3109.9
Stddev	8.2	9.3	59.	38.3
%RSD	.16068	.24118	.24582	1.2315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.534%	94.934%	71.601%	104.78%
Range				

Sample Name: 280-139176-f-2-a Acquired: 8/14/2020 16:27:40 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0071	11893.	.42415	202.03	142.02	.61572	237200.
Stddev	.5861	166.	.72658	3.46	2.14	.05702	2328.
%RSD	58.201	1.3959	171.30	1.7113	1.5081	9.2608	.98159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.6908	2.9825	17.833	7.9886	11054.	9084.2	48.702
Stddev	.0851	.2835	.466	.6720	91.	182.1	1.142
%RSD	12.33	9.5063	2.6154	8.4121	.82684	2.0043	2.3438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	85768.	140.51	.45439	51029.	9.0990	7.6430	2.780
Stddev	951.	.21	.03972	401.	.7013	.7291	3.241
%RSD	1.1091	.14783	8.7404	.78675	7.7078	9.5398	116.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 280-139176-f-2-a Acquired: 8/14/2020 16:27:40 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20.901	.53195	285.82	3.0332	23.816	35.555	26157.
Stddev	4.214	1.1499	1.15	1.8412	4.124	.137	472.
%RSD	20.163	216.17	.40224	60.702	17.317	.38628	1.8038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	2338.7
Stddev	32.8
%RSD	1.4021
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5577.6	4018.1	32710.	3026.9
Stddev	5.6	6.3	228.	34.8
%RSD	.10089	.15567	.69613	1.1505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.885%	98.958%	97.375%	101.98%
Range				

Sample Name: 280-139176-e-3-a Acquired: 8/14/2020 16:31:53 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15298	17.485	-3.5181	-6.8800	-.40182	.06269	57.043	-.1384
Stddev	.46703	10.660	1.1441	.7214	.29022	.00713	7.526	.1282
%RSD	305.28	60.969	32.521	10.486	72.227	11.377	13.193	92.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.67438	.45888	.95612	-.63559	48.448	1.7540	-2.2606	.05465
Stddev	.10128	.26312	.65573	3.5107	35.901	2.9981	4.3040	.02439
%RSD	15.019	57.339	68.583	552.36	74.102	170.93	190.39	44.626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.94506	256.75	-1.5837	.09552	1.207	1.8829	-.61787	.27582
Stddev	.11645	12.70	.1787	1.7856	1.994	2.5260	.87549	.13169
%RSD	12.322	4.9466	11.287	1869.2	165.3	134.15	141.70	47.744
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 280-139176-e-3-a Acquired: 8/14/2020 16:31:53 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.0656	1.6886	-2.3053	74.812	1.4684
Stddev	1.6995	.3261	.0306	2.081	8.3751
%RSD	159.49	19.314	1.3271	2.7809	570.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6655.2	4284.6	35355.	3113.6
Stddev	8.2	4.6	77.	43.0
%RSD	.12325	.10798	.21756	1.3798
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	104.87%	105.52%	105.25%	104.90%
Range				

Sample Name: 280-139176-e-4-a Acquired: 8/14/2020 16:36:14 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.34349	3451.2	-3.2402	311.99	44.516	.11521	92673.
Stddev	.15681	63.5	1.9144	2.96	.925	.22853	1439.
%RSD	45.651	1.8408	59.084	.94854	2.0776	198.37	1.5531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3734	1.2428	4.9134	2.2793	3111.8	8753.7	89.878
Stddev	.1984	.2633	.3193	1.0891	52.4	103.6	3.192
%RSD	53.13	21.184	6.4992	47.783	1.6838	1.1839	3.5510
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	43941.	217.92	.67962	121260.	2.4782	.36015	-1.218
Stddev	825.	.28	.42119	1900.	.3966	.57967	2.331
%RSD	1.8775	.12767	61.974	1.5667	16.004	160.95	191.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 280-139176-e-4-a Acquired: 8/14/2020 16:36:14 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.5312	-.19252	86.968	1.9923	7.9634	12.880	15082.
Stddev	1.4371	.57428	.191	2.3273	9.4744	.233	277.
%RSD	40.698	298.30	.21968	116.82	118.97	1.8066	1.8397
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1471.4
Stddev	31.8
%RSD	2.1622
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5838.1	4107.4	33229.	3107.5
Stddev	34.0	20.5	127.	47.8
%RSD	.58163	.49917	.38328	1.5384
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.990%	101.16%	98.922%	104.70%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 16:40:31 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	981.47	25118.	2000.3	5287.7	1992.7	2002.3	25148.	2002.
Stddev	.81	165.	9.8	17.4	12.8	7.8	86.	1.
%RSD	.08250	.65580	.48941	.32855	.64144	.38813	.34273	.0511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1990.5	1958.1	1944.4	25128.	24749.	1940.8	24636.	1957.0
Stddev	1.1	5.2	2.1	74.	174.	10.8	100.	2.1
%RSD	.05571	.26402	.10577	.29524	.70325	.55406	.40457	.10858
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1970.3	24561.	2004.3	1892.4	2021.	1992.1	2020.6	1994.4
Stddev	3.8	103.	1.8	1.8	8.	3.7	2.7	3.5
%RSD	.19271	.42126	.09228	.09705	.4001	.18743	.13402	.17497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 16:40:31 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2019.1	2003.0	2029.4	20138.	1978.5
Stddev	7.1	3.1	.7	103.	4.0
%RSD	.34993	.15243	.03427	.51380	.20340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5927.6	4145.7	34020.	3079.5
Stddev	5.6	6.4	75.	16.8
%RSD	.09508	.15429	.21935	.54465

Sample Name: CCB Acquired: 8/14/2020 16:44:29 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12467	-12.142	-4.6310	-4.9210	-.40936	.11581	9.2208	.0348
Stddev	.16447	7.667	3.3804	.4791	.33422	.10224	1.8221	.0739
%RSD	131.92	63.149	72.995	9.7360	81.644	88.282	19.761	212.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.28164	.59817	.74155	1.2569	92.080	-1.0579	14.283	.19455
Stddev	.10645	.27225	.69200	1.1863	21.727	3.3734	18.049	.06348
%RSD	37.795	45.514	93.318	94.387	23.596	318.89	126.37	32.630
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3369	140.49	-.51960	.16208	.0780	3.1380	-.00230	.36097
Stddev	.1684	18.24	.50250	.59704	2.533	.7606	.80958	.22296
%RSD	12.600	12.983	96.710	368.37	3247.	24.239	35209.	61.766
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 16:44:29 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.0906	2.9625	2.1911	24.500	2.7231
Stddev	1.0660	4.9671	.1549	4.644	2.6207
%RSD	97.744	167.66	7.0685	18.956	96.240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6533.9	4187.2	34967.	3080.0
Stddev	56.1	35.0	195.	39.6
%RSD	.85913	.83549	.55727	1.2844

Sample Name: 240-134743-a-3-a Acquired: 8/14/2020 16:48:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08201	24.311	-2.0879	483.92	37.614	.11336	31682.	1.654
Stddev	.20764	12.443	.6697	1.58	.711	.23479	149.	.135
%RSD	253.18	51.182	32.075	.32747	1.8908	207.11	.46941	8.144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.053	.93947	10.965	105.65	2130.4	20.809	8649.9	30.537
Stddev	.375	.14434	.135	2.43	37.8	3.774	51.0	.088
%RSD	3.7257	15.364	1.2274	2.2992	1.7748	18.134	.59015	.28913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.4983	16266.	38.743	7.1353	2.686	2.8543	-.07546	9.4552
Stddev	.2143	96.	1.974	.5578	2.110	2.9279	.25388	.1527
%RSD	3.8966	.59085	5.0944	7.8180	78.58	102.58	336.43	1.6144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134743-a-3-a Acquired: 8/14/2020 16:48:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.22797	2.2364	37.667	1195.7	158.76
Stddev	2.3531	10.327	.480	10.8	2.73
%RSD	1032.2	461.76	1.2738	.90515	1.7175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6054.3	4046.4	32958.	3029.8
Stddev	9.3	7.3	130.	25.8
%RSD	.15415	.18019	.39549	.85057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.397%	99.655%	98.113%	102.08%
Range				

Sample Name: 240-134743-a-4-a Acquired: 8/14/2020 16:53:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17779	14.559	-2.6946	106.62	41.081	.11691	30755.	-.0197
Stddev	.13847	29.177	2.3137	.55	.735	.17265	377.	.1708
%RSD	77.886	200.40	85.862	.51597	1.7899	147.69	1.2255	867.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.25866	.24066	3.0024	24.333	1515.1	6.1202	8049.2	3.7950
Stddev	.11944	.28395	1.1011	3.532	45.7	1.5783	115.0	.0715
%RSD	46.175	117.98	36.676	14.516	3.0171	25.788	1.4290	1.8846
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.34829	14068.	-.17588	-.86704	2.749	1.1485	-.53878	.01211
Stddev	.30985	149.	.56421	.74882	2.095	5.4354	.32902	.14973
%RSD	88.964	1.0558	320.79	86.366	76.22	473.27	61.068	1236.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134743-a-4-a Acquired: 8/14/2020 16:53:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.0183	7.7140	5.3573	903.31	148.14
Stddev	1.8947	5.8632	.0990	28.50	3.27
%RSD	186.06	76.007	1.8487	3.1549	2.2056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6247.0	4164.7	33964.	3048.5
Stddev	13.1	19.8	97.	19.2
%RSD	.20982	.47447	.28642	.62913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.433%	102.57%	101.11%	102.71%
Range				

Sample Name: lb 240-446829/1-b Acquired: 8/14/2020 16:57:26 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.45230	-3.0612	1.5732	29.123	.47607	-.07705
Stddev	.49256	30.848	1.2927	1.515	.48956	.14062
%RSD	108.90	1007.7	82.170	5.2016	102.83	182.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	112.87	-.1386	-.94996	.82198	3.9076	-3.9351
Stddev	3.52	.2498	.15422	.07248	.6867	1.8918
%RSD	3.1219	180.2	16.234	8.8176	17.573	48.075
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1204.3	19.782	31.656	.45399	-.41117	1269200.
Stddev	137.3	1.922	10.757	.04238	.31755	11406.
%RSD	11.403	9.7137	33.979	9.3360	77.229	.89868
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
High Limit						
Low Limit						

Sample Name: lb 240-446829/1-b Acquired: 8/14/2020 16:57:26 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.5901	-1.2501	1.986	5.8936	.38385	.33373
Stddev	.5340	.4236	1.046	1.7883	.96295	.45266
%RSD	20.617	33.882	52.65	30.342	250.86	135.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-2.2110	-.88935	-.38706	286.27	5.5315
Stddev	.9397	6.5490	.06017	7.00	1.3953
%RSD	42.502	736.37	15.546	2.4446	25.225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5088.8	3753.3	29644.	3009.9
Stddev	7.3	3.8	47.	17.1
%RSD	.14266	.10235	.16012	.56801

Sample Name: mb 240-447022/2-a Acquired: 8/14/2020 17:01:56 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.32026	11.171	-5.1849	-7.5597	-.18402	.09767	16.227	-.0892
Stddev	.47828	29.166	.5808	.1085	.45329	.08072	1.413	.1012
%RSD	149.34	261.08	11.202	1.4359	246.33	82.647	8.7049	113.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.26055	.62952	.40343	-5.0525	106.35	3.1786	-1.9458	-.02563
Stddev	.16796	.09927	.31331	1.7001	53.15	2.1986	24.971	.04037
%RSD	64.463	15.768	77.662	33.649	49.972	69.167	1283.4	157.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.97934	609.39	-1.0683	.04603	2.468	-2.0350	-.04840	.19668
Stddev	.17900	48.19	.2914	1.4651	2.221	3.0387	.46594	.07331
%RSD	18.278	7.9074	27.275	3182.9	90.01	149.32	962.65	37.277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-447022/2-a Acquired: 8/14/2020 17:01:56 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.85091	4.9925	.14478	16.484	3.0838
Stddev	.92965	2.7163	.03172	10.249	5.2199
%RSD	109.25	54.407	21.906	62.175	169.26
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6514.8	4209.6	34771.	3051.3
Stddev	3.2	3.9	101.	47.6
%RSD	.04980	.09224	.28935	1.5599

Sample Name: lcs 240-447022/3-a Acquired: 8/14/2020 17:06:17 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	103.66	9800.1	2139.8	1100.8	1919.0	998.21
Stddev	.53	68.9	11.7	4.8	7.1	5.19
%RSD	.50728	.70299	.54680	.43598	.37134	.51989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	48780.	1022.	1031.9	982.59	960.19	9786.1
Stddev	109.	3.	2.5	1.50	1.33	13.7
%RSD	.22416	.2507	.24598	.15284	.13903	.13972
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53754.	1002.6	47284.	974.95	986.10	1309400.
Stddev	187.	.8	86.	2.14	.89	19358.
%RSD	.34798	.07722	.18130	.21909	.09073	1.4784
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
Value						
Range						

Sample Name: lcs 240-447022/3-a Acquired: 8/14/2020 17:06:17 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1048.4	899.82	976.2	2147.8	2119.5	999.52
Stddev	1.4	1.10	3.2	9.1	4.1	2.03
%RSD	.13322	.12229	.3311	.42399	.19477	.20347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1942.6	998.99	1132.3	2370.4	969.22
Stddev	6.3	6.99	1.2	12.0	4.08
%RSD	.32585	.69994	.10347	.50534	.42129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4923.0	3726.6	29372.	2928.3
Stddev	23.2	17.8	237.	23.5
%RSD	.47152	.47677	.80711	.80287

Sample Name: 240-134726-g-1-e Acquired: 8/14/2020 17:10:26 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.16744	149.17	7.4315	484.95	296.94	.02019
Stddev	.45689	21.98	.5708	1.72	1.68	.04112
%RSD	272.87	14.737	7.6810	.35525	.56595	203.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	31186.	.1456	2.6951	44.016	307.20	637.01
Stddev	237.	.1653	.3448	.558	1.16	4.79
%RSD	.75907	113.5	12.792	1.2684	.37727	.75274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3726.8	21.839	5505.6	530.04	1.0123	F 1232400.
Stddev	69.4	2.626	20.7	.74	.3070	17238.
%RSD	1.8623	12.026	.37509	.13971	30.328	1.3988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134726-g-1-e Acquired: 8/14/2020 17:10:26 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	26.378	3.0320	14.01	6.0338	1.2722	1.0778
Stddev	.173	1.1881	4.31	2.9446	.5484	.2831
%RSD	.65690	39.186	30.75	48.802	43.105	26.265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.4075	-2.4761	195.62	1169.6	33.240
Stddev	3.0319	4.3648	1.02	15.2	1.150
%RSD	56.069	176.28	.51992	1.3028	3.4596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4939.1	3658.2	28958.	2890.1
Stddev	44.0	29.4	187.	23.7
%RSD	.89035	.80267	.64536	.82125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.824%	90.094%	86.205%	97.373%
Range				

Sample Name: SD 240-134726-g-1e@5 Acquired: 8/14/2020 17:14:52 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.31134	19.811	-2.3364	87.875	59.548	-.03915	6258.6
Stddev	.34829	29.777	4.0486	.797	.491	.10391	46.8
%RSD	111.87	150.30	173.29	.90741	.82482	265.41	.74700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0334	.29277	8.2891	60.651	123.60	688.80	5.2247
Stddev	.2756	.12335	.2754	.209	3.06	71.13	4.4973
%RSD	824.9	42.133	3.3226	.34511	2.4744	10.327	86.079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1101.9	103.35	-.45697	269770.	5.1901	.22251	2.634
Stddev	22.5	.18	.40827	1268.	.5021	.78668	1.598
%RSD	2.0419	.17577	89.344	.46990	9.6738	353.55	60.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SD 240-134726-g-1e@5 Acquired: 8/14/2020 17:14:52 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.0780	-.02491	.00505	.56406	1.3196	42.862	238.23
Stddev	2.0335	.22791	.18812	4.5621	3.8590	.312	2.07
%RSD	40.044	915.01	3728.7	808.80	292.43	.72793	.86820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	11.420
Stddev	3.842
%RSD	33.643
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5625.5	3971.9	32343.	3058.1
Stddev	19.0	11.3	106.	28.4
%RSD	.33747	.28517	.32875	.92847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.640%	97.819%	96.282%	103.04%
Range				

Sample Name: 240-134726-g-1f ms@5 Acquired: 8/14/2020 17:19:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 184.75	391.38	983.55	285.18	9220.9	9.8523	15274.
Stddev	.81	19.73	1.93	.82	46.2	.1916	80.
%RSD	.43613	5.0414	.19600	.28579	.50151	1.9452	.52489
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	193.0	99.463	943.61	104.44	307.31	10129.	188.28
Stddev	.8	.427	1.54	.04	2.34	30.	3.75
%RSD	.4271	.42908	.16298	.03364	.76308	.30088	1.9899
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10297.	191.47	192.37	266100.	104.42	898.47	100.1
Stddev	17.	.26	.30	1292.	.58	2.34	.7
%RSD	.16054	.13601	.15682	.48569	.55502	.26015	.6582
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134726-g-1f ms@5 Acquired: 8/14/2020 17:19:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	203.46	404.79	191.55	393.45	98.564	145.71	436.83
Stddev	4.17	1.12	.11	6.52	5.230	.12	7.85
%RSD	2.0515	.27686	.05632	1.6578	5.3062	.08309	1.7979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	197.90
Stddev	7.31
%RSD	3.6937
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5570.5	3966.7	31954.	3090.2
Stddev	18.9	13.7	151.	13.8
%RSD	.33985	.34592	.47193	.44815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.774%	97.692%	95.126%	104.12%
Range				

Sample Name: 240-134726-g1g msd@5 Acquired: 8/14/2020 17:23:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 184.82	360.69	991.83	287.45	9299.0	9.9850	15335.
Stddev	.59	10.82	.80	.42	178.2	.2312	290.
%RSD	.31673	3.0002	.08074	.14445	1.9160	2.3154	1.8888
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	194.7	100.30	952.60	103.29	380.43	10210.	189.97
Stddev	.5	.36	1.59	.39	7.90	325.	2.87
%RSD	.2359	.35709	.16650	.37743	2.0761	3.1851	1.5093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10521.	192.40	193.61	267320.	113.49	907.13	99.11
Stddev	189.	.28	1.02	4976.	.27	5.82	2.76
%RSD	1.7981	.14747	.52576	1.8615	.23493	.64136	2.781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134726-g1g msd@5 Acquired: 8/14/2020 17:23:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	199.36	399.25	191.37	386.43	98.850	139.08	441.17
Stddev	1.34	1.36	.11	1.45	10.927	.58	9.86
%RSD	.67276	.33982	.05642	.37635	11.054	.41978	2.2358
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	199.39
Stddev	7.19
%RSD	3.6044
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5610.3	3995.5	32410.	3059.3
Stddev	8.8	4.1	108.	63.3
%RSD	.15660	.10155	.33349	2.0682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.400%	98.401%	96.482%	103.08%
Range				

Sample Name: 240-134700-b-1-f Acquired: 8/14/2020 17:27:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.2229	25.447	.96199	354.23	752.10	.49974
Stddev	.5272	5.256	3.0028	1.25	19.88	.14969
%RSD	23.716	20.654	312.14	.35178	2.6436	29.952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	610150.	.8642	2.0751	1.5682	17.785	3.5953
Stddev	20641.	.1744	.2044	.2896	.959	3.1078
%RSD	3.3829	20.18	9.8522	18.469	5.3902	86.441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3726.8	21.717	58508.	1619.0	12.414	F 1308900.
Stddev	32.7	2.624	1110.	3.2	.344	58295.
%RSD	.87794	12.084	1.8969	.19735	2.7727	4.4537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134700-b-1-f Acquired: 8/14/2020 17:27:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	26.788	1.0369	6.464	1.2930	.23458	-1.3303
Stddev	.756	1.2169	2.503	4.5085	.48719	.2294
%RSD	2.8204	117.36	38.73	348.70	207.68	17.247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-6.4639	-1.6212	87.853	3579.9	649.46
Stddev	2.3246	11.618	.218	77.0	9.19
%RSD	35.963	716.64	.24782	2.1505	1.4153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4688.5	3529.4	28577.	2830.5
Stddev	7.1	8.1	164.	100.4
%RSD	.15096	.22811	.57348	3.5484
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.876%	86.922%	85.072%	95.366%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 17:32:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	997.28	25173.	2021.1	5312.3	2003.5	2009.4	25376.	2014.
Stddev	6.29	96.	8.6	31.4	6.8	4.9	56.	4.
%RSD	.63060	.38313	.42466	.59017	.33831	.24300	.22084	.1989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2002.1	1996.6	1974.4	25154.	24984.	1953.8	24843.	1989.8
Stddev	1.5	12.4	11.4	58.	51.	6.4	83.	8.1
%RSD	.07349	.62163	.57842	.22924	.20575	.32581	.33281	.40957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1982.3	24837.	2015.8	1911.2	2039.	1999.1	2036.6	2032.2
Stddev	2.6	78.	1.9	3.8	7.	8.5	3.8	11.9
%RSD	.13022	.31586	.09188	.20062	.3280	.42599	.18592	.58763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 17:32:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2029.9	2007.9	2041.6	20108.	1987.2
Stddev	15.3	7.9	1.1	21.	4.5
%RSD	.75214	.39483	.05616	.10297	.22627
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5839.7	4077.7	33352.	3010.7
Stddev	5.7	6.1	116.	8.1
%RSD	.09727	.14858	.34911	.26955

Sample Name: CCB Acquired: 8/14/2020 17:36:05 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08271	10.743	-3.0606	-6.0808	-.33293	.04263	6.4009	.0427
Stddev	.73460	6.622	1.5486	.3967	.26980	.04055	1.7458	.0621
%RSD	888.16	61.639	50.599	6.5247	81.038	95.130	27.274	145.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.18145	.26004	.15838	-3.6078	68.689	-1.2522	-4.6162	.08250
Stddev	.14266	.51098	.91912	2.3802	23.841	1.8641	9.5858	.03467
%RSD	78.623	196.50	580.33	65.972	34.709	148.86	207.66	42.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.93539	377.57	-.45048	.63372	2.832	-.09861	.56004	.20243
Stddev	.47953	14.96	.22331	1.8565	.526	.76383	.44938	.28874
%RSD	51.265	3.9613	49.572	292.95	18.58	774.62	80.240	142.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 17:36:05 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.3505	-.46020	-.73428	6.1740	6.3621
Stddev	1.3786	4.0580	.23605	16.788	2.7614
%RSD	58.650	881.79	32.147	271.91	43.404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6484.9	4154.2	34534.	3047.2
Stddev	8.4	7.1	101.	30.4
%RSD	.12997	.17136	.29298	.99894

Sample Name: 240-134726-d-2-d Acquired: 8/14/2020 17:40:27 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.5356	-2.2913	4.2255	612.51	8161.2	.22740
Stddev	.4998	19.264	2.4293	2.13	70.8	.20016
%RSD	32.550	840.76	57.492	.34725	.86717	88.020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	330820.	5.599	39.584	2.0440	5.9328	58.204
Stddev	5397.	.081	.253	.4219	.4040	2.221
%RSD	1.6315	1.454	.63973	20.643	6.8089	3.8164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6891.0	13.295	100170.	5011.1	.12391	F 1204800.
Stddev	105.9	.660	967.	26.3	.12668	11389.
%RSD	1.5368	4.9618	.96508	.52566	102.23	.94528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134726-d-2-d Acquired: 8/14/2020 17:40:27 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.024	7.0082	.3843	2.3667	.61698	-.65133
Stddev	.996	.8201	2.591	3.1669	.65979	.04886
%RSD	1.9151	11.702	674.3	133.81	106.94	7.5014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.6468	.77003	231.33	3179.3	519.24
Stddev	3.3488	8.7211	2.66	20.4	4.29
%RSD	59.304	1132.6	1.1499	.64322	.82704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4724.3	3572.0	28735.	2944.1
Stddev	31.8	21.6	134.	21.2
%RSD	.67354	.60370	.46768	.72106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.440%	87.971%	85.543%	99.195%
Range				

Sample Name: 240-134726-c-3-d Acquired: 8/14/2020 17:45:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.96530	9.9981	2.4034	435.49	1065.8	.27715
Stddev	.40453	25.121	.4696	4.89	28.5	.01490
%RSD	41.907	251.25	19.541	1.1232	2.6702	5.3765
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	275980.	2.089	6.8337	1.6468	4.1106	-2.5708
Stddev	7480.	.255	.2906	.7000	.5195	1.4065
%RSD	2.7102	12.21	4.2530	42.508	12.638	54.709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4976.8	9.2974	126070.	4072.0	-.59860	F 1194800.
Stddev	75.5	4.8001	3461.	29.3	.36247	53367.
%RSD	1.5176	51.629	2.7456	.71983	60.554	4.4666
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134726-c-3-d Acquired: 8/14/2020 17:45:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	30.655	2.5200	5.210	1.6780	-.15094	-.56817
Stddev	.427	.5952	3.841	6.1125	.52931	.28306
%RSD	1.3941	23.620	73.72	364.28	350.67	49.820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-4.6315	-.00359	54.285	2459.9	351.11
Stddev	1.9206	4.1680	.980	39.9	11.56
%RSD	41.467	116090.	1.8044	1.6220	3.2917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4716.3	3580.2	28712.	2904.8
Stddev	8.4	7.1	292.	77.7
%RSD	.17720	.19799	1.0155	2.6739
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.314%	88.172%	85.475%	97.870%
Range				

Sample Name: 240-134726-b-4-d Acquired: 8/14/2020 17:49:37 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.8133	-9.8755	2.8639	1161.8	1071.1	.27617
Stddev	.7649	21.999	4.4761	4.6	24.8	.08571
%RSD	42.185	222.76	156.29	.39870	2.3109	31.035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	353500.	1.532	278.66	2.2980	6.4244	6.1360
Stddev	6666.	.199	2.43	.2212	.9485	3.1333
%RSD	1.8856	13.01	.87325	9.6258	14.763	51.063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6322.7	8.4631	127360.	5231.7	-.11292	F 1200700.
Stddev	219.0	.9134	2852.	19.1	.52758	2863.
%RSD	3.4643	10.792	2.2394	.36477	467.21	.23847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134726-b-4-d Acquired: 8/14/2020 17:49:37 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20.023	-.51883	3.041	3.1730	-.24306	-.77451
Stddev	.488	1.8070	4.303	1.9892	.52407	.31572
%RSD	2.4387	348.28	141.5	62.692	215.62	40.764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.2450	1.9881	29.078	5299.6	431.98
Stddev	2.7679	5.8410	.641	160.9	11.97
%RSD	52.772	293.79	2.2032	3.0366	2.7715
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4613.8	3480.8	27932.	2899.3
Stddev	27.5	18.2	141.	56.9
%RSD	.59603	.52329	.50398	1.9621
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.699%	85.724%	83.152%	97.684%
Range				

Sample Name: 240-134726-d-5-d Acquired: 8/14/2020 17:54:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.56307	144.73	1.5975	185.83	559.32	.66805
Stddev	.37285	18.22	2.7756	.74	1.44	.17315
%RSD	66.218	12.588	173.74	.40074	.25808	25.918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	130610.	.2278	13.204	1.5643	2.4290	-3.0076
Stddev	330.	.0243	.433	.4501	.0260	1.8451
%RSD	.25267	10.66	3.2804	28.773	1.0693	61.347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5855.1	9.1178	6868.7	121.78	-.88941	F 1184100.
Stddev	7.1	1.0569	44.1	.35	.40173	13040.
%RSD	.12174	11.592	.64161	.28735	45.168	1.1013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134726-d-5-d Acquired: 8/14/2020 17:54:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.9938	-.47475	3.819	5.9758	.48482	-.12993
Stddev	.4492	1.7115	4.959	3.9829	.71839	.08848
%RSD	5.6190	360.52	129.8	66.650	148.17	68.097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-6.9806	4.0436	19.104	5749.9	416.40
Stddev	4.6121	4.7612	.433	16.7	5.64
%RSD	66.070	117.75	2.2665	.29113	1.3539
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4733.4	3548.1	27947.	2769.6
Stddev	29.1	27.0	90.	21.0
%RSD	.61406	.76014	.32201	.75800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.582%	87.382%	83.196%	93.316%
Range				

Sample Name: 240-134008-c-1-d Acquired: 8/14/2020 17:58:41 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.9859	8.3843	-1.1278	1033.6	355.69	.48278
Stddev	.6782	46.119	4.5050	9.6	3.47	.06806
%RSD	22.712	550.06	399.46	.93294	.97443	14.098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	606740.	3266.	5.6534	3.1129	3810.7	9.6099
Stddev	4502.	5.	.2936	.5484	4.7	2.5938
%RSD	.74204	.1433	5.1929	17.617	.12365	26.992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8020.1	13.969	20315.	2274.0	.21954	F 1200600.
Stddev	14.7	1.716	49.	3.7	1.0349	30017.
%RSD	.18380	12.284	.24338	.16481	471.41	2.5002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134008-c-1-d Acquired: 8/14/2020 17:58:41 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	55.040	1904.3	1.065	5.7307	.22148	-1.1071
Stddev	1.399	3.1	5.789	4.4516	.38456	.3852
%RSD	2.5423	.16176	543.4	77.681	173.63	34.796
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.3678	-.63054	13297.	4194.2	663.64
Stddev	1.8843	7.4342	11.	13.4	3.16
%RSD	35.103	1179.0	.08346	.32053	.47663
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4568.8	3394.8	27209.	2721.2
Stddev	15.9	9.8	52.	7.4
%RSD	.34871	.28825	.19237	.27270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	71.990%	83.606%	80.999%	91.685%
Range				

Sample Name: 240-134703-a-1-c Acquired: 8/14/2020 18:03:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.4473	12.001	3.7224	756.55	328.06	.28994
Stddev	.3352	28.420	1.4040	1.91	1.27	.05398
%RSD	9.7244	236.82	37.718	.25267	.38654	18.617
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 792800.	1.634	4.4341	4.9156	7.1971	-.90379
Stddev	15357.	.037	.3471	.2377	1.0208	.91007
%RSD	1.9370	2.238	7.8286	4.8358	14.184	100.69
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6106.6	17.503	14966.	1092.5	7.9964	F 1186600.
Stddev	121.5	3.101	56.	4.0	.2003	9597.
%RSD	1.9902	17.718	.37700	.36886	2.5044	.80883
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134703-a-1-c Acquired: 8/14/2020 18:03:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	15.464	.95128	4.261	-.04734	.79186	-.87368
Stddev	.725	1.1634	5.106	5.2743	.97866	.07228
%RSD	4.6882	122.30	119.8	11140.	123.59	8.2733
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-3.2834	1.4068	146.85	5479.5	943.75
Stddev	5.3550	7.1121	1.14	29.5	12.93
%RSD	163.10	505.56	.77412	.53828	1.3701
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4488.0	3380.0	26883.	2725.2
Stddev	3.7	5.9	192.	22.6
%RSD	.08170	.17466	.71288	.82997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.716%	83.243%	80.028%	91.819%
Range				

Sample Name: mb 240-447015/1-a Acquired: 8/14/2020 18:07:40 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.00362	-37.053	-3.5811	-6.5836	.25922	-.03746	106.22
Stddev	.74558	15.879	2.4636	1.2348	.42816	.13406	18.09
%RSD	20571.	42.856	68.795	18.755	165.17	357.90	17.033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.1722	.35469	-.03827	.36031	-2.8722	119.53	-.27286
Stddev	.1179	.22031	.61690	.47190	.4035	16.74	3.6705
%RSD	68.45	62.113	1612.1	130.97	14.048	14.008	1345.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	16.552	.04772	-.64174	F 1102.5	-.57280	-.34873	1.206
Stddev	18.175	.05507	.44472	78.7	.03112	1.0150	1.022
%RSD	109.81	115.41	69.300	7.1380	5.4333	291.06	84.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				1000.0			
Low Limit				-1000.0			

Sample Name: mb 240-447015/1-a Acquired: 8/14/2020 18:07:40 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.5440	-1.2137	.01666	1.8424	-1.1325	-2.0444	5.7725
Stddev	1.6900	.2671	.14797	2.4376	5.0631	.1034	6.0651
%RSD	109.46	22.010	888.06	132.31	447.06	5.0566	105.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	.36754
Stddev	7.3341
%RSD	1995.5
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6456.2	4139.1	34120.	2881.0
Stddev	14.6	9.6	127.	26.7
%RSD	.22546	.23099	.37192	.92530

Sample Name: lcs 240-447015/2-a Acquired: 8/14/2020 18:12:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	98.554	9642.9	2027.0	1049.8	1892.0	983.70	48277.	1006.
Stddev	.532	56.2	7.8	7.7	5.7	2.57	77.	1.
%RSD	.54010	.58239	.38657	.73740	.30336	.26137	.15994	.0978
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	978.68	968.08	952.53	9609.9	48672.	944.67	47325.	966.49
Stddev	1.85	3.00	.52	25.2	57.	2.02	70.	1.88
%RSD	.18913	.30963	.05438	.26258	.11612	.21364	.14813	.19468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	967.28	47334.	993.30	932.63	965.4	2034.7	2017.0	981.59
Stddev	.55	187.	4.26	1.38	7.2	3.4	3.5	1.93
%RSD	.05646	.39596	.42866	.14816	.7478	.16718	.17217	.19643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-447015/2-a Acquired: 8/14/2020 18:12:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1926.5	980.44	1027.5	1978.8	983.68
Stddev	39.3	7.30	1.6	21.7	5.96
%RSD	2.0409	.74437	.15862	1.0979	.60602
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5619.2	3953.3	32185.	2913.5
Stddev	13.5	5.4	209.	8.6
%RSD	.23989	.13656	.64878	.29457

Sample Name: CCVL-4857858 Acquired: 8/14/2020 18:16:02 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.245	202.36	15.253	97.105	191.83	5.2393	5268.6
Stddev	.387	38.24	1.081	.853	2.97	.0974	10.3
%RSD	3.7786	18.896	7.0852	.87831	1.5486	1.8584	.19594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.133	10.032	10.911	26.328	223.88	5016.4	47.859
Stddev	.076	.194	.637	.322	.46	54.7	2.260
%RSD	1.480	1.9381	5.8409	1.2217	.20410	1.0896	4.7224
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5039.9	16.413	41.750	5275.5	39.773	9.6044	23.96
Stddev	34.0	.062	.603	48.8	.417	.8912	2.54
%RSD	.67517	.37786	1.4450	.92471	1.0473	9.2787	10.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCVL-4857858 Acquired: 8/14/2020 18:16:02 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21.481	99.928	50.555	23.729	53.162	F 88.469	495.70
Stddev	1.933	1.285	.612	.088	4.528	1.379	11.36
%RSD	8.9991	1.2861	1.2098	.37085	8.5174	1.5584	2.2915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						50.000	
Range						30.500%	

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	51.590
Stddev	5.339
%RSD	10.348
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6070.1	3982.7	32578.	2847.6
Stddev	11.8	6.9	124.	30.8
%RSD	.19442	.17429	.38029	1.0826

Sample Name: 240-134810-m-3-a Acquired: 8/14/2020 18:20:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.30962	20.209	-2.3738	55.407	41.138	.17114	5178.0	.0548
Stddev	.65954	6.206	2.6355	.407	.477	.04798	5.3	.3015
%RSD	213.02	30.707	111.03	.73533	1.1587	28.036	.10250	550.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2556	.01530	1.0489	1173.8	2049.4	5.0553	2241.8	75.091
Stddev	.1696	.21772	1.0411	4.6	57.3	.6995	19.2	.149
%RSD	13.508	1423.0	99.250	.39418	2.7963	13.836	.85845	.19888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.42946	31002.	-.06184	-.91178	.2086	4.0663	-.33286	.07111
Stddev	.30204	175.	.30469	1.5671	4.493	6.2342	.42173	.36525
%RSD	70.330	.56344	492.67	171.87	2153.	153.32	126.70	513.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134810-m-3-a Acquired: 8/14/2020 18:20:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.4535	-.34603	33.814	11952.	98.250
Stddev	.6614	1.6278	.605	20.	1.565
%RSD	45.503	470.41	1.7895	.16505	1.5934
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6033.9	3991.6	32538.	2853.4
Stddev	22.2	12.5	68.	20.4
%RSD	.36826	.31290	.20926	.71393
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.074%	98.304%	96.864%	96.139%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 18:24:35 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	990.62	25408.	2016.1	5335.9	2019.5	2015.8	25375.	2027.
Stddev	1.32	141.	1.7	51.5	.5	2.7	31.	.
%RSD	.13292	.55595	.08215	.96498	.02620	.13165	.12236	.0193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2007.8	1996.9	1956.1	25079.	25392.	1975.2	24911.	1991.4
Stddev	.6	.3	1.9	18.	57.	4.3	21.	.3
%RSD	.02940	.01600	.09874	.07078	.22590	.21749	.08618	.01432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1992.1	24943.	2030.0	1922.7	2040.	1999.0	2051.9	2015.8
Stddev	3.7	39.	1.2	.6	6.	11.7	2.3	1.7
%RSD	.18405	.15650	.06101	.03163	.2900	.58355	.11293	.08582
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 18:24:35 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2033.0	1998.5	2064.7	20141.	1992.7
Stddev	43.4	3.3	2.6	46.	4.6
%RSD	2.1365	.16388	.12540	.22748	.23015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5584.1	3887.1	31836.	2787.0
Stddev	8.8	6.4	72.	12.1
%RSD	.15812	.16552	.22635	.43281

Sample Name: CCB Acquired: 8/14/2020 18:28:33 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.58573	-7.3633	-1.1114	-4.5074	-.26502	.00416	-.28946	-.0606
Stddev	.15520	38.132	1.7703	.3983	.44934	.07927	1.1235	.2720
%RSD	26.497	517.88	159.28	8.8358	169.55	1904.4	388.14	449.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04628	.06751	1.0785	-4.5694	15.510	.85917	42.377	-.00288
Stddev	.15022	.11392	.9572	2.1951	56.087	1.1673	2.834	.01291
%RSD	324.61	168.76	88.752	48.040	361.63	135.86	6.6873	449.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0367	333.92	-.13489	.73888	2.338	1.2363	.07788	.21260
Stddev	.2774	8.67	.35210	.79640	3.630	2.7930	.67318	.25450
%RSD	26.755	2.5965	261.03	107.78	155.3	225.91	864.42	119.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 18:28:33 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.5524	.55085	-.72051	4.2012	3.4121
Stddev	.5562	6.0834	.04595	1.3619	3.6108
%RSD	21.791	1104.4	6.3771	32.418	105.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6307.7	4030.0	33199.	2850.4
Stddev	7.4	7.3	62.	13.3
%RSD	.11785	.18062	.18592	.46536

Sample Name: SD 240-134810-m-3a@5 Acquired: 8/14/2020 18:32:54 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.52118	3.6886	-4.4324	6.0081	8.4185	-.02809	1072.1	.0022
Stddev	.55814	43.280	2.8967	.2414	.0345	.16342	2.8	.2093
%RSD	107.09	1173.4	65.353	4.0182	.41039	581.68	.25886	9305.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.20507	.03317	.52730	238.50	455.81	2.3091	452.19	15.732
Stddev	.16101	.38917	.60214	3.16	24.23	2.4289	18.47	.133
%RSD	78.512	1173.4	114.19	1.3255	5.3160	105.19	4.0847	.84653
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.45363	6671.2	-.07490	.78649	1.921	1.6641	-.55581	-.16616
Stddev	.20876	60.1	.16997	.50330	.625	1.7721	.18732	.32501
%RSD	46.019	.90161	226.94	63.993	32.52	106.49	33.702	195.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134810-m-3a@5 Acquired: 8/14/2020 18:32:54 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.3072	-1.5055	8.1250	2453.5	21.065
Stddev	1.3623	1.8594	.2180	4.9	5.185
%RSD	104.22	123.51	2.6836	.19874	24.616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6319.0	4090.2	33469.	2892.2
Stddev	11.4	6.4	79.	16.6
%RSD	.18070	.15748	.23746	.57337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.568%	100.73%	99.636%	97.446%
Range				

Sample Name: 240-134810-m-3-b ms Acquired: 8/14/2020 18:37:12 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 102.31	10137.	2097.7	1158.4	2019.4	1022.7	55951.
Stddev	.63	46.	5.5	4.0	7.8	2.8	170.
%RSD	.61384	.44951	.26375	.34612	.38846	.26941	.30440
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1033.	1013.3	1010.4	984.13	11312.	53353.	1001.0
Stddev	1.	1.4	3.1	3.04	58.	229.	3.1
%RSD	.1291	.13761	.30235	.30891	.51082	.42926	.31319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51932.	1085.4	1003.8	83371.	1028.4	961.57	994.2
Stddev	177.	1.0	.8	161.	2.8	.75	6.7
%RSD	.34158	.09183	.08332	.19325	.26758	.07751	.6744
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134810-m-3-b ms Acquired: 8/14/2020 18:37:12 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2098.8	2100.9	1024.1	2015.2	1007.1	1105.1	13074.
Stddev	15.1	7.0	1.2	8.2	5.0	2.5	76.
%RSD	.71772	.33521	.11635	.40526	.49680	.22767	.58486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1096.0
Stddev	13.2
%RSD	1.2068
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5445.4	3867.6	31377.	2807.4
Stddev	28.7	16.7	132.	19.2
%RSD	.52767	.43143	.41942	.68269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.803%	95.252%	93.408%	94.587%
Range				

Sample Name: 240-134810-m-3-c msd Acquired: 8/14/2020 18:41:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 101.11	10041.	2085.8	1147.1	2002.8	1006.1	54871.
Stddev	.94	60.	1.5	2.9	12.2	2.3	118.
%RSD	.93422	.59334	.07116	.24932	.60900	.23141	.21548
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1032.	1010.1	993.31	972.74	11024.	52756.	983.11
Stddev	1.	2.6	2.88	3.24	46.	193.	3.11
%RSD	.1101	.25385	.28990	.33301	.41858	.36667	.31598
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50926.	1071.9	1005.8	81528.	1022.2	957.76	991.2
Stddev	278.	3.4	2.5	59.	1.3	1.60	4.7
%RSD	.54634	.31484	.24580	.07276	.13013	.16655	.4727
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134810-m-3-c msd Acquired: 8/14/2020 18:41:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2087.7	2087.6	1008.5	1997.7	999.99	1104.2	12795.
Stddev	5.6	4.2	2.3	12.3	4.20	2.0	71.
%RSD	.26817	.20311	.22577	.61634	.41970	.18350	.55646
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1090.6
Stddev	5.0
%RSD	.46236
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5414.9	3835.1	30988.	2796.3
Stddev	20.2	11.7	143.	10.3
%RSD	.37260	.30552	.46188	.36842
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.322%	94.451%	92.250%	94.216%
Range				

Sample Name: 240-134810-d-1-a Acquired: 8/14/2020 18:45:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.40252	18.801	1.4825	634.28	597.49	.26474	18091.	.1054
Stddev	.36958	18.827	1.4790	2.36	3.23	.10035	62.	.1994
%RSD	91.818	100.14	99.762	.37281	.54125	37.906	.34415	189.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.33255	.46572	2.5162	9116.4	2263.8	8.6132	7048.8	176.40
Stddev	.43916	.66809	.6367	141.3	38.5	1.2773	21.2	.74
%RSD	132.06	143.45	25.303	1.5498	1.7021	14.830	.30019	.42167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3449	22810.	.45165	1.3103	-.2362	1.8610	.10304	-.31418
Stddev	.3015	63.	.09961	.5011	2.868	1.4354	.36840	.09898
%RSD	22.415	.27554	22.055	38.243	1214.	77.130	357.52	31.505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134810-d-1-a Acquired: 8/14/2020 18:45:10 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.0005	3.6295	3.3491	14493.	196.25
Stddev	.8905	1.1549	.0638	46.	5.34
%RSD	44.512	31.820	1.9047	.31912	2.7218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5909.8	3933.5	31959.	2800.3
Stddev	9.0	9.4	50.	13.2
%RSD	.15274	.23987	.15559	.46994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.119%	96.873%	95.140%	94.348%
Range				

Sample Name: 240-134810-e-2-a Acquired: 8/14/2020 18:49:26 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.41526	-27.342	12.096	76.870	62.459	.10050	9389.1
Stddev	.31098	11.470	1.268	1.784	.558	.17062	51.9
%RSD	74.886	41.948	10.483	2.3204	.89329	169.78	.55253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0751	-.74711	3.7904	2.8498	3740.8	559.11	4.6165
Stddev	.1358	.09491	.2051	.3114	16.2	25.93	2.9263
%RSD	180.8	12.704	5.4102	10.928	.43355	4.6373	63.389
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6856.2	1981.0	17.221	155750.	1.6001	.29231	-1.717
Stddev	30.0	3.8	.445	677.	.6370	.53784	3.937
%RSD	.43701	.19345	2.5835	.43469	39.808	184.00	229.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134810-e-2-a Acquired: 8/14/2020 18:49:26 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8897	-.28828	.50881	-1.4600	4.1362	3.0846	18533.
Stddev	4.1651	.57671	.27467	1.4457	4.1351	.2464	30.
%RSD	144.14	200.05	53.983	99.020	99.973	7.9874	.16096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	125.38
Stddev	5.26
%RSD	4.1928
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5554.8	3855.9	31125.	2783.5
Stddev	8.4	3.4	87.	11.5
%RSD	.15138	.08867	.28007	.41315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.525%	94.963%	92.658%	93.784%
Range				

Sample Name: 240-134810-d-4-a Acquired: 8/14/2020 18:53:41 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08932	18.950	.18228	644.44	613.39	.14872	18352.	-.0046
Stddev	.40635	17.555	.33411	8.00	9.36	.04500	238.	.1110
%RSD	454.92	92.639	183.30	1.2407	1.5259	30.257	1.2952	2419.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.57736	.04944	2.1705	9330.1	2268.5	9.5953	7177.4	185.06
Stddev	.10296	.09109	.5957	233.9	40.4	2.4702	65.5	.21
%RSD	17.832	184.25	27.445	2.5072	1.7805	25.743	.91201	.11120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.29421	23466.	-.02366	1.1769	-2.367	1.7635	-.25673	.22668
Stddev	.47784	326.	.79579	1.7365	1.406	3.3672	.55237	.11727
%RSD	162.42	1.3873	3363.3	147.54	59.41	190.93	215.16	51.734
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134810-d-4-a Acquired: 8/14/2020 18:53:41 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.1714	-6.1827	2.3681	15236.	206.19
Stddev	1.5009	7.3156	.0611	151.	4.20
%RSD	47.325	118.32	2.5805	.98928	2.0387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5921.2	3940.4	31868.	2779.9
Stddev	13.3	11.2	95.	29.0
%RSD	.22429	.28456	.29725	1.0446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.300%	97.045%	94.870%	93.663%
Range				

Sample Name: 240-134823-a-2-a Acquired: 8/14/2020 18:57:57 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.82368	20.794	14.009	351.04	43.835	.15425	67010.	.1351
Stddev	.26904	18.827	.981	1.09	.826	.07801	1240.	.0753
%RSD	32.664	90.542	7.0037	.31108	1.8854	50.575	1.8509	55.73
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0018	1.1922	2.0437	1200.0	5758.0	34.838	14902.	85.166
Stddev	.5072	.2313	.5545	21.0	80.4	3.503	193.	.203
%RSD	50.633	19.402	27.132	1.7530	1.3956	10.055	1.2925	.23892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.044	81876.	.48820	.88566	2.723	3.2906	.41683	.33970
Stddev	.558	1526.	.31806	1.3647	2.297	3.7132	.83215	.19833
%RSD	3.0898	1.8643	65.150	154.08	84.35	112.84	199.64	58.383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134823-a-2-a Acquired: 8/14/2020 18:57:57 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.8808	-.62781	6.9978	17566.	288.15
Stddev	1.7280	5.2298	.0766	266.	8.61
%RSD	91.876	833.03	1.0946	1.5128	2.9888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5517.4	3796.4	30400.	2707.7
Stddev	13.7	10.7	72.	37.6
%RSD	.24806	.28204	.23820	1.3884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.936%	93.498%	90.501%	91.229%
Range				

Sample Name: 240-134823-a-4-a Acquired: 8/14/2020 19:02:12 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.91483	.99650	3.4147	427.91	27.833	.10478	79362.	.0323
Stddev	.64091	31.459	2.5335	4.18	.200	.14522	222.	.0991
%RSD	70.058	3157.0	74.195	.97766	.71729	138.60	.27987	306.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.94631	6.9675	1.5388	2.7274	9273.8	41.274	9709.6	1.7840
Stddev	.27638	.3832	.4749	4.0069	32.9	1.421	11.4	.0825
%RSD	29.206	5.4998	30.863	146.91	.35485	3.4418	.11691	4.6274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	33.161	83261.	-.82585	.16477	3.332	12.238	-.59455	-.43795
Stddev	.142	304.	.45219	1.7445	2.695	1.532	.44065	.13265
%RSD	.42893	.36468	54.754	1058.7	80.87	12.514	74.115	30.290
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134823-a-4-a Acquired: 8/14/2020 19:02:12 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.4066	19.841	1.3522	15490.	258.87
Stddev	1.7642	5.575	.0788	214.	3.63
%RSD	73.304	28.099	5.8242	1.3798	1.4026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5531.2	3808.6	30502.	2744.4
Stddev	20.4	13.5	92.	6.7
%RSD	.36939	.35410	.30089	.24388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.155%	93.798%	90.803%	92.465%
Range				

Sample Name: 240-134823-a-6-a Acquired: 8/14/2020 19:06:28 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1694	16.011	-.36834	407.62	31.124	.11737	88635.	.2914
Stddev	.2865	54.966	1.8926	1.29	.190	.22642	829.	.0849
%RSD	24.502	343.31	513.83	.31554	.61173	192.91	.93548	29.12
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1232	1.1230	2.3489	54.961	5620.6	34.457	16144.	42.273
Stddev	.3550	.7701	.7062	1.274	62.4	1.365	96.	.095
%RSD	31.606	68.570	30.065	2.3174	1.1109	3.9615	.59544	.22439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	32.523	64684.	.16816	.32709	8.041	6.7615	-.10614	-.28196
Stddev	.444	712.	.56710	1.5922	3.809	2.3005	.43926	.15338
%RSD	1.3661	1.1012	337.23	486.77	47.37	34.023	413.87	54.399
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134823-a-6-a Acquired: 8/14/2020 19:06:28 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.0673	3.0489	.06663	16957.	265.17
Stddev	2.7205	5.1791	.10462	90.	4.06
%RSD	254.90	169.87	157.01	.53104	1.5313
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5584.2	3835.7	30835.	2734.3
Stddev	13.3	4.5	145.	21.1
%RSD	.23818	.11707	.46885	.77147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.989%	94.464%	91.794%	92.125%
Range				

Sample Name: 240-134861-a-2-a Acquired: 8/14/2020 19:10:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.89131	94.970	-.82047	1422.4	46.797	.13467	37520.
Stddev	.42123	46.202	2.1035	10.1	.596	.24905	295.
%RSD	47.260	48.650	256.38	.70932	1.2735	184.93	.78525
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.1324	-.69061	2.5756	5.4383	479.91	116140.	5.0944
Stddev	.1254	.29785	.1245	.9685	3.78	972.	2.0998
%RSD	94.76	43.129	4.8352	17.810	.78716	.83691	41.218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7970.6	57.329	20.681	168350.	9.4208	-.51340	4.981
Stddev	29.1	.153	.315	1170.	1.7354	.90314	1.796
%RSD	.36503	.26605	1.5224	.69510	18.421	175.91	36.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134861-a-2-a Acquired: 8/14/2020 19:10:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.5821	127.52	.06033	.32147	2.0868	20.363	3078.5
Stddev	4.3863	1.76	.06943	.49578	6.2796	.306	43.9
%RSD	277.24	1.3801	115.08	154.22	300.92	1.5042	1.4258
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	99.896
Stddev	9.804
%RSD	9.8140
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5294.5	3751.8	30067.	2774.8
Stddev	6.6	2.1	47.	19.8
%RSD	.12509	.05499	.15715	.71244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.425%	92.398%	89.508%	93.490%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 19:15:00 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1001.7	25377.	2026.0	5324.4	2009.7	2010.7	25620.	2026.
Stddev	2.1	85.	4.1	84.9	6.7	9.4	88.	1.
%RSD	.21038	.33492	.20430	1.5951	.33488	.46614	.34503	.0262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2021.3	2036.5	1970.8	25185.	25576.	1992.1	25148.	2020.5
Stddev	2.5	2.9	2.6	109.	59.	1.6	90.	.4
%RSD	.12561	.14264	.13200	.43095	.23201	.07888	.35672	.01976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1992.5	25370.	2046.0	1937.0	2040.	2005.7	2072.4	2042.7
Stddev	4.3	101.	1.1	1.5	6.	11.7	6.9	1.3
%RSD	.21583	.39901	.05183	.07559	.2986	.58358	.33482	.06549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 19:15:00 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2040.1	2007.3	2089.8	20215.	2011.3
Stddev	59.8	6.9	2.9	91.	12.9
%RSD	2.9297	.34141	.14020	.44865	.63979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5507.0	3848.0	30982.	2673.1
Stddev	13.0	6.7	38.	10.2
%RSD	.23636	.17329	.12110	.38247

Sample Name: CCB Acquired: 8/14/2020 19:18:58 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.39068	4.6177	-3.9142	-2.8469	-.07316	.20329	-.34858	.0006
Stddev	.91331	26.910	1.7681	1.6735	.44386	.22859	1.9273	.1215
%RSD	233.77	582.75	45.170	58.782	606.72	112.45	552.91	19610.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.31138	.01692	1.6035	-3.7164	75.062	1.8119	6.3380	.02147
Stddev	.06538	.14018	.8155	2.5041	16.580	.4726	14.054	.05149
%RSD	20.997	828.31	50.855	67.379	22.089	26.086	221.74	239.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0792	228.76	.67747	-.53608	3.157	.51041	-.16684	.30615
Stddev	.3822	9.66	.40799	.51243	3.124	4.2572	.60553	.02771
%RSD	35.413	4.2243	60.223	95.588	98.96	834.09	362.94	9.0503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 19:18:58 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.9427	-1.9936	-.63701	18.987	1.9891
Stddev	2.4748	3.1830	.06627	6.677	1.9378
%RSD	127.39	159.66	10.403	35.167	97.421
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6093.0	3894.4	31950.	2711.4
Stddev	7.7	4.2	57.	18.5
%RSD	.12578	.10847	.17705	.68223

Sample Name: 240-134862-c-2-a Acquired: 8/14/2020 19:23:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.98796	19.566	-.40203	51.603	56.858	.20908	110470.
Stddev	.26879	20.562	1.7369	.468	.579	.21189	657.
%RSD	27.207	105.09	432.04	.90701	1.0176	101.35	.59504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1804	-.58435	1.9764	4.4601	179.37	4219.0	11.944
Stddev	.1953	.11724	.2660	.6437	3.27	38.2	.958
%RSD	108.2	20.064	13.459	14.431	1.8230	.90476	8.0184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25877.	76.367	21.424	51179.	44.663	65.106	5.231
Stddev	19.	.304	.176	317.	.554	1.872	5.865
%RSD	.07192	.39767	.82082	.61948	1.2410	2.8748	112.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134862-c-2-a Acquired: 8/14/2020 19:23:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.1859	.34420	.14013	4.0245	.65174	25.778	5151.2
Stddev	2.9322	.19821	.20250	2.6090	9.2216	.159	30.9
%RSD	31.921	57.586	144.51	64.830	1414.9	.61523	.60063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	203.80
Stddev	2.47
%RSD	1.2112
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5528.8	3800.2	30812.	2762.8
Stddev	10.1	2.6	147.	5.2
%RSD	.18340	.06938	.47857	.18987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.116%	93.590%	91.727%	93.084%
Range				

Sample Name: 240-134862-b-4-a Acquired: 8/14/2020 19:27:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.2907	43.010	-2.1963	52.970	65.212	.27501	115470.
Stddev	.2637	23.301	3.1569	1.555	1.363	.13511	1095.
%RSD	20.431	54.176	143.74	2.9360	2.0899	49.130	.94804
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3760	-.85785	.63253	5.2511	103.89	4374.2	12.833
Stddev	.1075	.04857	.44818	.7438	.73	104.3	1.432
%RSD	28.58	5.6624	70.855	14.165	.70329	2.3835	11.161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	26628.	76.472	23.839	52482.	46.939	112.21	1.007
Stddev	118.	.076	.452	489.	.862	.40	.797
%RSD	.44489	.09932	1.8948	.93266	1.8369	.35879	79.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134862-b-4-a Acquired: 8/14/2020 19:27:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.7718	-.13445	-.36458	2.1620	-2.7118	37.237	5238.3
Stddev	2.6084	.77602	.08476	1.1848	5.3378	.539	26.2
%RSD	38.518	577.18	23.249	54.802	196.83	1.4476	.49933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	209.33
Stddev	4.64
%RSD	2.2160
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5457.9	3738.0	30288.	2742.5
Stddev	1.5	1.1	172.	20.5
%RSD	.02793	.03007	.56798	.74718
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.999%	92.060%	90.165%	92.401%
Range				

Sample Name: 190-23798-a-1-a Acquired: 8/14/2020 19:31:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04891	28.951	-2.2405	11.161	12.267	.02830	25919.	.0090
Stddev	.25527	28.140	1.5976	1.299	.311	.19729	141.	.1629
%RSD	521.97	97.196	71.302	11.635	2.5386	697.21	.54480	1804.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.46581	-.38647	2.0917	8.0878	1061.4	2.0281	7574.8	8.7852
Stddev	.11946	.12032	.7645	4.7859	34.3	1.3437	40.3	.0374
%RSD	25.647	31.133	36.552	59.174	3.2305	66.253	.53264	.42596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.22529	4970.7	22.824	-.83320	2.295	3.4267	-.50236	-.10026
Stddev	.09784	36.7	.517	1.2891	4.253	1.6831	.08429	.10532
%RSD	43.428	.73734	2.2633	154.71	185.3	49.118	16.779	105.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-23798-a-1-a Acquired: 8/14/2020 19:31:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.16767	.63632	42.184	945.93	103.75
Stddev	.89512	7.7969	.224	3.03	3.02
%RSD	533.85	1225.3	.53137	.32060	2.9147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5987.5	3932.0	32079.	2760.9
Stddev	4.0	3.5	93.	14.1
%RSD	.06636	.08777	.29030	.50994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.343%	96.837%	95.498%	93.021%
Range				

Sample Name: 190-23800-a-1-a Acquired: 8/14/2020 19:35:56 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.7438	423.63	-.43203	125.17	29.944	.40434
Stddev	.6443	16.21	4.4985	.84	.412	.03632
%RSD	36.947	3.8262	1041.2	.66788	1.3744	8.9815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	37263.	.2088	-1.1990	10053.	128.65	3677.5
Stddev	561.	.2167	.2766	26.	.57	26.4
%RSD	1.5064	103.8	23.070	.25555	.44293	.71814
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	151360.	9.7628	12037.	100.39	1.3624	F 1632500.
Stddev	2339.	2.6221	72.	.37	.2058	27521.
%RSD	1.5455	26.859	.59703	.37331	15.107	1.6858
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23800-a-1-a Acquired: 8/14/2020 19:35:56 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	15.598	1.6093	-.8578	6.2931	22.350	5.4750
Stddev	.432	2.5023	4.764	2.3696	.566	.5066
%RSD	2.7701	155.49	555.3	37.654	2.5321	9.2530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.38400	4.5326	309.57	861.44	173.70
Stddev	3.3535	4.6302	.47	21.80	2.05
%RSD	873.31	102.15	.15158	2.5307	1.1797
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4452.3	3368.6	26093.	2589.0
Stddev	22.5	17.3	123.	45.1
%RSD	.50457	.51440	.47011	1.7436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.155%	82.962%	77.677%	87.230%
Range				

Sample Name: 190-23802-c-1-a Acquired: 8/14/2020 19:40:18 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.61665	3.8287	-.49812	34.924	17.515	.04432	22567.	.0014
Stddev	.47256	21.165	2.3369	1.105	.859	.10770	34.	.0494
%RSD	76.634	552.81	469.15	3.1633	4.9043	242.98	.15091	3467.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.74540	1.3809	5.2794	27.461	3187.2	3.5446	8986.8	1.5505
Stddev	.18408	.2019	.7130	3.564	28.2	1.7486	17.7	.0264
%RSD	24.696	14.619	13.506	12.979	.88382	49.331	.19723	1.7026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.6034	85834.	.90146	.37962	1.343	1.7134	-.41380	-.05719
Stddev	.3861	370.	.83725	2.0400	1.617	2.2370	.45992	.13526
%RSD	10.714	.43077	92.877	537.39	120.4	130.56	111.14	236.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-23802-c-1-a Acquired: 8/14/2020 19:40:18 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.8533	2.9478	3.3483	3349.6	139.76
Stddev	.9312	7.6297	.1654	12.1	5.05
%RSD	50.245	258.82	4.9394	.36269	3.6158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5675.8	3868.3	30778.	2752.8
Stddev	10.2	9.2	31.	21.2
%RSD	.17888	.23682	.10142	.76977
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.433%	95.267%	91.625%	92.748%
Range				

Sample Name: 240-134758-a-1-a Acquired: 8/14/2020 19:44:36 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.7557	623.89	-.31686	52.951	69.124	.20601	18953.	.1838
Stddev	.1709	41.77	2.0078	.687	3.670	.26863	887.	.1253
%RSD	2.2032	6.6954	633.65	1.2972	5.3101	130.39	4.6796	68.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.32011	2.5202	8.6700	1407.9	22882.	3.8815	18159.	20.498
Stddev	.24741	.0649	.3645	63.6	1096.	3.3490	987.	.073
%RSD	77.290	2.5752	4.2037	4.5164	4.7908	86.283	5.4361	.35841
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.5041	27312.	5.9377	.15819	4.533	1.7186	1.8825	79.402
Stddev	.3789	1231.	.7588	.94595	7.330	1.8801	.2126	.233
%RSD	8.4130	4.5075	12.779	597.97	161.7	109.40	11.292	.29383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134758-a-1-a Acquired: 8/14/2020 19:44:36 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.5295	4.3328	17.054	3353.7	406.37
Stddev	2.4038	1.2210	.156	190.4	27.84
%RSD	157.16	28.180	.91651	5.6778	6.8518
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5780.6	3895.4	31547.	2685.8
Stddev	12.1	6.2	47.	110.4
%RSD	.20951	.15818	.14961	4.1118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.083%	95.936%	93.914%	90.490%
Range				

Sample Name: 240-134795-a-33-a Acquired: 8/14/2020 19:48:49 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.30339	30.168	-4.5065	-7.3670	.44016	.10308	47.409	-.0701
Stddev	.44454	30.547	1.2991	.3970	.12624	.20670	1.939	.0891
%RSD	146.53	101.26	28.827	5.3892	28.680	200.51	4.0894	127.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10139	.16544	1.2946	22.925	43.095	-1.8923	13.603	1.0374
Stddev	.09410	.32138	.4729	2.667	41.160	2.5728	14.515	.0522
%RSD	92.809	194.26	36.529	11.633	95.508	135.96	106.71	5.0273
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.92005	357.63	.21910	-1.1006	.4583	.21095	-.39411	.31725
Stddev	.05344	8.83	.50591	1.7982	5.218	1.1310	.66188	.24396
%RSD	5.8088	2.4697	230.90	163.38	1139.	536.13	167.94	76.900
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-a-33-a Acquired: 8/14/2020 19:48:49 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.0074	5.3107	-1.3531	23.217	8.0420
Stddev	2.2117	2.4562	.1584	10.962	4.9520
%RSD	110.17	46.251	11.709	47.218	61.577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6286.3	4021.2	32924.	2811.5
Stddev	4.1	1.3	59.	9.9
%RSD	.06443	.03334	.17815	.35113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.052%	99.033%	98.013%	94.727%
Range				

Sample Name: 240-134819-h-1-a Acquired: 8/14/2020 19:53:08 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.0102	87425.	10.718	W 19526.	143.18	1.4096
Stddev	.1546	878.	2.829	111.	2.33	.1353
%RSD	7.6902	1.0042	26.391	.57085	1.6289	9.5981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit				18000.		
Low Limit				-500000.		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	134970.	.3359	1.1859	98.420	11.699	2129.1
Stddev	1310.	.3004	.2270	.541	1.560	16.5
%RSD	.97065	89.44	19.137	.54963	13.335	.77722
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6048.3	53.527	28393.	30.180	3.1476	F 2034600.
Stddev	224.1	1.768	245.	.023	.7013	69012.
%RSD	3.7060	3.3029	.86112	.07635	22.281	3.3919
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134819-h-1-a Acquired: 8/14/2020 19:53:08 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24.127	18.759	-.5933	-.42350	3.0970	1813.0
Stddev	.942	1.874	4.562	1.9460	1.2311	.5
%RSD	3.9028	9.9909	769.0	459.50	39.751	.02840
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.0331	97.813	50.303	12054.	1489.7
Stddev	1.1586	9.174	.226	54.	16.9
%RSD	112.15	9.3791	.44895	.44818	1.1342
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4351.6	3480.9	26648.	2700.9
Stddev	20.6	16.7	106.	70.4
%RSD	.47413	.47976	.39778	2.6066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.567%	85.727%	79.329%	91.001%
Range				

Sample Name: 240-134819-h-2-a Acquired: 8/14/2020 19:57:26 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.6521	W 462820.	53.051	F 126650.	850.48	6.7942
Stddev	.7537	1964.	2.175	537.	3.97	.2535
%RSD	16.202	.42436	4.1006	.42425	.46675	3.7314
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		450000.		20000.		
Low Limit		-500000.		-500000.		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	673140.	.9958	16.340	474.05	41.487	10663.
Stddev	16850.	.1011	.384	2.35	1.698	22.
%RSD	2.5032	10.16	2.3517	.49653	4.0932	.20719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22760.	368.28	135740.	146.80	13.941	F 3079800.
Stddev	205.	6.10	288.	.51	.371	31385.
%RSD	.90071	1.6576	.21239	.34441	2.6598	1.0190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134819-h-2-a Acquired: 8/14/2020 19:57:26 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	106.29	82.646	-5.103	-7.3416	11.080	9444.3
Stddev	.31	2.119	6.582	5.8361	.554	206.3
%RSD	.29440	2.5639	129.0	79.493	5.0020	2.1847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-2.2315	490.57	141.84	39173.	8635.2
Stddev	4.2920	1.81	.67	338.	3.9
%RSD	192.33	.36959	.47539	.86358	.04562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3448.0	3171.7	25528.	2825.5
Stddev	66.4	70.1	206.	27.4
%RSD	1.9268	2.2102	.80743	.97126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	54.329%	78.113%	75.995%	95.199%
Range				

Sample Name: 240-134819-h-5-a Acquired: 8/14/2020 20:01:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.2413	277.51	-.12935	165.09	18.994	.24014	35630.	.0082
Stddev	.6498	23.89	4.4228	11.97	.538	.10625	349.	.1329
%RSD	10.411	8.6070	3419.2	7.2525	2.8320	44.244	.98033	1615.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.38051	284.38	87.368	514.69	1806.8	.08297	8599.5	15.700
Stddev	.19706	.96	.684	3.24	42.2	3.8928	14.5	.072
%RSD	51.788	.33909	.78274	.62991	2.3367	4692.0	.16879	.46077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	45.842	15541.	993.50	10.372	1.346	-1.2562	9.8249	27.137
Stddev	.232	181.	.76	.452	1.074	3.2835	.3188	1.383
%RSD	.50662	1.1618	.07689	4.3578	79.77	261.38	3.2448	5.0951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134819-h-5-a Acquired: 8/14/2020 20:01:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.5283	-2.4701	46.942	1311.9	166.85
Stddev	1.8874	8.2646	.261	30.5	2.60
%RSD	74.652	334.59	.55514	2.3222	1.5597
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5678.7	3773.7	30608.	2629.7
Stddev	11.6	11.7	73.	27.0
%RSD	.20395	.31027	.24005	1.0250
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.479%	92.938%	91.119%	88.601%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 20:06:15 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	985.07	25373.	1995.3	5411.5	2008.7	1997.8	25325.	2011.
Stddev	1.08	153.	7.0	29.9	9.6	9.2	113.	2.
%RSD	.11009	.60260	.34983	.55343	.48000	.46128	.44616	.0857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1988.6	2004.1	1935.8	24804.	25614.	1992.8	24898.	1992.4
Stddev	2.1	2.9	4.6	145.	148.	7.5	183.	3.2
%RSD	.10642	.14242	.23545	.58607	.57912	.37444	.73562	.16199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1974.9	25157.	2017.0	1914.1	2010.	1969.3	2042.7	2001.5
Stddev	2.8	193.	4.4	1.8	1.	2.8	2.2	3.4
%RSD	.14227	.76820	.21706	.09619	.0661	.14408	.11007	.16762
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 20:06:15 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2043.1	1990.2	2065.0	19992.	1977.8
Stddev	11.7	13.8	1.1	171.	7.5
%RSD	.57335	.69576	.05285	.85329	.37926
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5272.3	3664.6	29721.	2491.2
Stddev	9.1	1.5	93.	14.1
%RSD	.17287	.04157	.31241	.56716

Sample Name: CCB Acquired: 8/14/2020 20:10:13 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.41912	-34.689	-3.5756	62.950	.39377	.17785	2.3722
Stddev	.59277	24.783	2.3760	4.609	.20674	.20380	2.0931
%RSD	141.43	71.442	66.451	7.3217	52.505	114.59	88.232
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1221	-.44232	.17287	1.1446	-2.7293	127.23	.40047
Stddev	.1488	.32277	.31833	1.2574	3.3087	78.67	2.9321
%RSD	121.9	72.973	184.14	109.85	121.23	61.835	732.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.6286	.01532	1.3449	F 1003.2	.81826	.38529	-.0753
Stddev	18.610	.04646	.2529	9.5	1.0819	1.4606	3.660
%RSD	708.01	303.30	18.807	.95062	132.22	379.09	4862.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				1000.0			
Low Limit				-1000.0			

Sample Name: CCB Acquired: 8/14/2020 20:10:13 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1735	.18899	-.01726	.54578	2.3179	-.65437	15.111
Stddev	2.9054	.67951	.10809	1.6133	12.869	.02111	9.468
%RSD	247.58	359.55	626.36	295.60	555.20	3.2255	62.656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1.6612
Stddev	6.8790
%RSD	414.09
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5880.5	3757.4	30754.	2565.9
Stddev	7.9	8.8	146.	30.1
%RSD	.13454	.23472	.47334	1.1726

Sample Name: 240-134830-b-2-a Acquired: 8/14/2020 20:14:31 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.75132	-12.968	.46272	338.12	8.8057	.22430	55403.	.1759
Stddev	.37083	49.695	1.9920	2.75	.4585	.16615	324.	.0811
%RSD	49.357	383.20	430.50	.81232	5.2063	74.076	.58415	46.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.89681	.38316	5.0492	100.44	12984.	51.691	3382.9	19.567
Stddev	.38644	.65670	.9183	2.82	19.	3.982	20.2	.131
%RSD	43.091	171.39	18.187	2.8052	.14987	7.7039	.59741	.66709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	122.67	55602.	2.6443	1.6161	3.378	3.3224	-.08215	-.03361
Stddev	.14	328.	.3220	.7675	2.638	3.8435	.83195	.21467
%RSD	.11065	.58994	12.177	47.492	78.09	115.69	1012.7	638.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134830-b-2-a Acquired: 8/14/2020 20:14:31 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.11494	-4.4580	3.2072	2361.3	209.77
Stddev	2.0068	4.8431	.2471	11.2	6.88
%RSD	1745.9	108.64	7.7032	.47440	3.2811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5572.6	3778.1	30112.	2601.0
Stddev	40.3	26.6	76.	20.0
%RSD	.72388	.70463	.25103	.77025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.806%	93.046%	89.643%	87.633%
Range				

Sample Name: 240-134830-b-2-b ms Acquired: 8/14/2020 20:18:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	95.879	9576.4	1999.8	1383.6	1853.2	952.22	103340.
Stddev	.488	63.1	5.7	5.4	19.0	11.22	1089.
%RSD	.50881	.65927	.28450	.38867	1.0231	1.1785	1.0540
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	985.2	958.47	961.27	928.24	9476.4	61902.	994.13
Stddev	2.8	1.26	1.18	2.67	81.0	616.	7.55
%RSD	.2833	.13193	.12264	.28736	.85482	.99492	.75902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49546.	974.52	1074.8	103550.	980.27	902.94	960.6
Stddev	470.	1.62	2.3	955.	2.33	1.24	10.5
%RSD	.94957	.16597	.21376	.92269	.23803	.13766	1.095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134830-b-2-b ms Acquired: 8/14/2020 20:18:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1983.3	2000.0	961.50	1897.0	940.86	1028.5	4307.1
Stddev	8.2	1.0	1.71	16.1	10.14	1.2	18.3
%RSD	.41558	.05186	.17779	.84847	1.0781	.11969	.42441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1150.8
Stddev	5.4
%RSD	.47072
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5134.7	3645.5	29557.	2588.1
Stddev	9.0	2.1	51.	22.4
%RSD	.17541	.05689	.17322	.86513
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.906%	89.782%	87.990%	87.199%
Range				

Sample Name: 240-134830-b-2-c msd Acquired: 8/14/2020 20:22:44 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	99.166	9955.2	2079.8	1436.8	1966.6	1000.4	107690.
Stddev	.361	109.3	5.6	5.1	16.9	9.9	1117.
%RSD	.36417	1.0975	.27152	.35292	.85833	.98953	1.0368
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1024.	996.56	987.48	965.62	9803.2	65037.	1037.5
Stddev	1.	1.38	1.53	.68	92.0	593.	10.0
%RSD	.0556	.13882	.15456	.07008	.93860	.91186	.96162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51408.	1006.0	1120.7	107380.	1017.3	941.59	992.1
Stddev	545.	.8	1.4	1106.	1.2	1.57	4.6
%RSD	1.0601	.08131	.12128	1.0298	.11703	.16672	.4603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134830-b-2-c msd Acquired: 8/14/2020 20:22:44 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2061.1	2078.4	992.14	1995.4	992.68	1065.3	4455.9
Stddev	7.0	1.1	.87	7.5	6.26	1.7	26.6
%RSD	.33974	.05498	.08757	.37376	.63034	.15718	.59719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1201.2
Stddev	23.4
%RSD	1.9450
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5085.6	3614.0	29341.	2532.9
Stddev	10.8	4.2	41.	25.4
%RSD	.21286	.11545	.14117	1.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.133%	89.006%	87.346%	85.341%
Range				

Sample Name: mb 240-447057/1-a Acquired: 8/14/2020 20:26:43 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.69469	-.20173	1.1875	25.373	.32861	.06270	70.043	-.0866
Stddev	.28174	29.170	1.5389	.511	.13620	.35449	5.308	.2278
%RSD	40.557	14460.	129.59	2.0149	41.447	565.36	7.5787	263.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.26032	.33712	2.0301	-2.6334	72.272	1.5171	-4.9900	.00790
Stddev	.07828	.60692	.4533	1.8114	42.011	1.8290	18.057	.08749
%RSD	30.072	180.03	22.328	68.787	58.130	120.56	361.86	1107.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.5306	651.26	.21980	-.49974	1.084	-.96646	-.12482	.17378
Stddev	.1136	21.52	.64256	.42776	3.958	2.5765	.52613	.21333
%RSD	7.4227	3.3041	292.34	85.596	365.1	266.59	421.52	122.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-447057/1-a Acquired: 8/14/2020 20:26:43 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.4576	-.72877	-2.4978	14.316	-.77336
Stddev	1.9932	8.2643	.0793	17.514	4.2709
%RSD	81.103	1134.0	3.1739	122.34	552.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6047.8	3864.5	30456.	2636.1
Stddev	16.7	10.0	1344.	44.0
%RSD	.27618	.25953	4.4115	1.6686

Sample Name: lcs 240-447057/2-a Acquired: 8/14/2020 20:31:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	94.904	9458.4	1958.0	1058.0	1843.1	954.04	46918.	981.0
Stddev	.811	35.2	3.6	3.5	4.5	2.31	56.	1.9
%RSD	.85425	.37202	.18389	.33465	.24255	.24240	.11856	.1915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	946.36	954.93	926.01	9260.0	48088.	931.18	45993.	948.28
Stddev	1.84	2.19	2.31	16.4	67.	5.81	148.	1.23
%RSD	.19468	.22943	.24998	.17722	.13982	.62411	.32255	.12961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	937.40	46961.	967.18	908.81	936.3	1961.3	1965.1	955.41
Stddev	3.71	80.	3.27	4.63	1.4	3.1	4.9	1.76
%RSD	.39537	.16982	.33791	.50982	.1501	.15871	.24933	.18385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-447057/2-a Acquired: 8/14/2020 20:31:01 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1878.8	937.50	1004.3	1906.2	947.16
Stddev	12.3	1.76	2.8	16.2	9.02
%RSD	.65211	.18737	.28145	.85211	.95282
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5316.3	3721.7	29995.	2591.7
Stddev	18.8	8.6	69.	5.0
%RSD	.35340	.23067	.23040	.19190

Sample Name: 240-134881-c-3-a Acquired: 8/14/2020 20:35:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.34030	240.98	3.4393	109.65	34.138	.32800	39300.
Stddev	.53215	27.82	2.1226	1.52	.469	.11540	335.
%RSD	156.37	11.547	61.717	1.3833	1.3747	35.184	.85163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4793	-.68466	6.2812	14.082	797.90	21477.	8.1485
Stddev	.0590	.15167	.5494	.699	5.69	36.	.7106
%RSD	12.30	22.152	8.7475	4.9629	.71279	.16814	8.7204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9609.3	141.29	45.462	314400.	140.05	4.5813	.6444
Stddev	3.4	.23	.195	2148.	1.65	2.1742	4.120
%RSD	.03571	.16388	.42844	.68311	1.1773	47.458	639.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134881-c-3-a Acquired: 8/14/2020 20:35:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.49251	8.7217	2.1450	2.2006	-.85369	151.23	2414.5
Stddev	3.0757	.3878	.2388	2.0648	5.0430	1.53	5.5
%RSD	624.50	4.4465	11.132	93.832	590.73	1.0113	.22683
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	333.96
Stddev	7.47
%RSD	2.2371
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5078.0	3606.2	28687.	2577.1
Stddev	10.9	12.1	107.	24.3
%RSD	.21381	.33573	.37254	.94322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.013%	88.813%	85.401%	86.827%
Range				

Sample Name: SD 240-134881-c-3a@5 Acquired: 8/14/2020 20:39:13 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.26251	15.649	-1.4127	33.009	6.7019	.13421	7714.0	-.0274
Stddev	.54432	31.420	.9763	1.337	.2578	.15171	41.1	.1133
%RSD	207.35	200.78	69.108	4.0513	3.8464	113.03	.53336	414.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.56256	.92610	4.1721	159.22	4280.1	.96436	1905.2	27.854
Stddev	.27197	.16953	1.5220	2.93	81.4	2.1873	19.2	.112
%RSD	48.344	18.306	36.482	1.8396	1.9009	226.81	1.0060	.40238
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.6027	62157.	27.835	.85140	1.664	.60517	1.3561	.40356
Stddev	.0609	359.	.823	.40477	1.886	4.0765	.3140	.02741
%RSD	.70853	.57701	2.9569	47.542	113.4	673.61	23.157	6.7922
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134881-c-3a@5 Acquired: 8/14/2020 20:39:13 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.05298	-.49642	30.886	478.40	60.821
Stddev	.93443	2.8688	.419	9.70	7.447
%RSD	1763.8	577.90	1.3557	2.0280	12.243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5709.7	3858.0	31288.	2713.3
Stddev	11.8	15.0	88.	20.9
%RSD	.20736	.38983	.28214	.77113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.966%	95.015%	93.142%	91.417%
Range				

Sample Name: 240-134881-c-3-b ms Acquired: 8/14/2020 20:43:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	96.229	9804.8	2028.1	1142.3	1920.9	975.53	86736.
Stddev	.501	137.3	5.5	4.3	14.4	9.74	780.
%RSD	.52034	1.3999	.27225	.37357	.75206	.99797	.89910
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	990.0	985.71	966.27	946.56	10147.	72032.	957.68
Stddev	.9	1.61	3.09	2.58	122.	534.	12.45
%RSD	.0931	.16283	.31973	.27290	1.2037	.74064	1.3002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	55274.	1090.9	988.22	358570.	1143.6	893.86	966.6
Stddev	478.	3.4	.95	2005.	2.8	1.31	6.0
%RSD	.86544	.31135	.09588	.55917	.24834	.14633	.6246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134881-c-3-b ms Acquired: 8/14/2020 20:43:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2003.2	2038.9	958.97	1852.3	946.56	1200.9	4427.8
Stddev	2.8	4.5	2.97	20.9	10.22	3.7	25.8
%RSD	.14060	.21980	.30930	1.1301	1.0801	.30544	.58235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1269.2
Stddev	22.7
%RSD	1.7889
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5070.2	3704.1	29627.	2665.2
Stddev	19.3	8.8	86.	12.7
%RSD	.38005	.23888	.28949	.47706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.890%	91.225%	88.198%	89.796%
Range				

Sample Name: 240-134881-c-3-c msd Acquired: 8/14/2020 20:47:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	99.243	9969.7	2084.2	1165.9	1936.6	987.82	88173.
Stddev	.263	61.3	10.3	10.6	4.1	2.99	142.
%RSD	.26522	.61483	.49335	.90754	.21153	.30318	.16075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1016.	1014.9	1000.1	969.74	10314.	72936.	976.25
Stddev	5.	4.3	3.7	.14	12.	153.	6.20
%RSD	.4740	.42743	.36558	.01427	.11868	.20987	.63531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56310.	1123.8	1016.1	363540.	1177.2	921.02	984.5
Stddev	131.	2.2	5.2	5710.	4.2	6.01	1.7
%RSD	.23340	.19611	.50979	1.5707	.36091	.65284	.1686
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134881-c-3-c msd Acquired: 8/14/2020 20:47:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2047.8	2100.1	988.06	1894.0	969.91	1235.9	4517.3
Stddev	7.7	13.2	2.37	20.2	8.76	7.4	4.9
%RSD	.37689	.62647	.23969	1.0669	.90339	.60202	.10916
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1291.4
Stddev	3.9
%RSD	.30151
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4926.3	3604.5	28997.	2624.2
Stddev	38.7	34.7	13.	12.1
%RSD	.78602	.96401	.04400	.46220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.623%	88.770%	86.324%	88.415%
Range				

Sample Name: 240-134895-g-1-a Acquired: 8/14/2020 20:51:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.1603	1309.3	7.9831	761.47	278.50	.76784
Stddev	.7111	24.2	2.0783	9.33	3.13	.05783
%RSD	32.919	1.8508	26.034	1.2254	1.1247	7.5313
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	355520.	.8882	-.73050	8.5293	11.587	5359.8
Stddev	4081.	.1877	.39320	.4812	.693	45.4
%RSD	1.1480	21.14	53.827	5.6416	5.9783	.84783
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	32463.	69.351	67828.	3560.2	24.013	F 3220900.
Stddev	92.	.880	524.	21.8	.362	162540.
%RSD	.28272	1.2689	.77193	.61095	1.5060	5.0465
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134895-g-1-a Acquired: 8/14/2020 20:51:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.173	19.943	1.340	.78933	1.0358	66.533
Stddev	.350	1.314	7.906	3.2093	1.0979	.296
%RSD	3.4438	6.5888	589.8	406.59	106.00	.44530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.8414	14.049	46.412	13555.	5604.5
Stddev	4.1316	5.952	.775	47.	7.1
%RSD	224.37	42.368	1.6688	.34801	.12591
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3849.5	2999.5	23199.	2404.3
Stddev	26.7	20.9	248.	26.0
%RSD	.69245	.69744	1.0708	1.0802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	60.655%	73.871%	69.063%	81.006%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 20:55:58 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1000.3	25788.	2032.9	5403.2	2022.8	2025.8	25655.	2056.
Stddev	2.4	56.	4.8	23.6	4.2	2.7	6.	6.
%RSD	.23849	.21631	.23376	.43674	.20524	.13497	.02204	.3097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2033.1	2069.8	1966.1	25082.	26168.	2043.2	25255.	2044.9
Stddev	5.8	3.0	2.1	55.	57.	6.8	60.	2.4
%RSD	.28634	.14417	.10750	.21886	.21716	.33281	.23678	.11882
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2000.6	26151.	2071.8	1942.4	2081.	1996.0	2086.0	2043.5
Stddev	5.0	57.	5.8	3.1	10.	6.2	4.1	4.2
%RSD	.25060	.21872	.27830	.15726	.4637	.31183	.19767	.20546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 20:55:58 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2028.3	1999.0	2108.3	19996.	2003.5
Stddev	12.0	19.6	3.4	76.	12.9
%RSD	.59258	.97907	.16060	.38200	.64420
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5196.3	3616.5	28909.	2376.2
Stddev	29.5	23.3	59.	4.7
%RSD	.56814	.64434	.20240	.19823

Sample Name: CCB Acquired: 8/14/2020 20:59:56 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05932	-32.659	-1.5734	13.460	.11633	.41877	3.5839
Stddev	1.4050	26.991	.8628	1.720	.38160	.11600	4.9169
%RSD	2368.3	82.645	54.836	12.778	328.04	27.699	137.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.1512	-.40236	.32492	1.0337	-3.3039	131.06	1.5268
Stddev	.1828	.19369	.05481	.8437	2.4725	35.17	4.4887
%RSD	120.9	48.138	16.868	81.621	74.837	26.837	293.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20.844	.10050	1.4802	F 1155.4	.83968	-.48378	1.866
Stddev	32.137	.05422	.3890	42.7	.39301	.71020	2.593
%RSD	154.18	53.953	26.279	3.6941	46.805	146.80	138.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				1000.0			
Low Limit				-1000.0			

Sample Name: CCB Acquired: 8/14/2020 20:59:56 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.6542	-.09517	.21671	.59180	1.5863	-.67794	4.4502
Stddev	1.4695	.91510	.42831	1.3993	2.2981	.04919	10.667
%RSD	40.214	961.52	197.64	236.45	144.88	7.2559	239.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	5.1375
Stddev	3.8664
%RSD	75.259
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5908.8	3779.8	31041.	2541.0
Stddev	10.9	6.9	66.	27.0
%RSD	.18495	.18285	.21303	1.0628

Sample Name: 190-23812-b-1-a Acquired: 8/14/2020 21:04:14 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.3686	1048.9	2.3694	F 103220.	143.42	-.01069
Stddev	.1207	55.2	5.3036	357.	5.39	.07463
%RSD	8.8177	5.2616	223.84	.34540	3.7612	698.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				20000.		
Low Limit				-500000.		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24724.	-.2923	1.0592	4.1697	414.56	3175.7
Stddev	830.	.1200	.3218	.4774	2.20	127.2
%RSD	3.3553	41.05	30.383	11.449	.53136	4.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2048900.	12.524	5920.3	965.11	79.505	W 462460.
Stddev	71189.	5.300	269.2	1.29	.930	16251.
%RSD	3.4745	42.315	4.5474	.13388	1.1702	3.5141
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
High Limit	500000.					450000.
Low Limit	-500000.					-500000.

Sample Name: 190-23812-b-1-a Acquired: 8/14/2020 21:04:14 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	162.33	11.129	19.58	3.9703	88.220	38.336
Stddev	1.18	1.171	5.09	2.0751	2.733	.253
%RSD	.72867	10.519	26.00	52.266	3.0980	.65869
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-7.2105	80.283	1645.9	4893.9	215.23
Stddev	3.7169	11.794	2.9	204.2	5.97
%RSD	51.549	14.690	.17491	4.1723	2.7735
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4550.9	3463.7	26623.	2478.1
Stddev	5.4	3.8	118.	74.6
%RSD	.11759	.11114	.44204	3.0119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	71.708%	85.303%	79.257%	83.493%
Range				

Sample Name: 190-23824-c-4-a Acquired: 8/14/2020 21:08:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.57757	-12.873	1.8308	184.28	11.397	.18355	11697.
Stddev	.40225	29.865	.6669	12.56	.090	.18077	38.
%RSD	69.646	232.00	36.428	6.8133	.79007	98.485	.32261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0601	-1.0503	.38597	31.629	67.247	5182.0	8.1719
Stddev	.0310	.3239	.31787	.877	3.492	220.0	2.5782
%RSD	51.68	30.840	82.355	2.7716	5.1930	4.2444	31.549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2831.3	9.1861	58.972	231580.	1.0598	.43634	1.067
Stddev	1.8	.0362	.650	1603.	.4491	1.7867	2.881
%RSD	.06333	.39369	1.1029	.69218	42.377	409.48	270.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 190-23824-c-4-a Acquired: 8/14/2020 21:08:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.0116	-.53075	-.15107	1.0736	-4.5913	17.583	7788.4
Stddev	2.0744	1.0846	.33529	2.5679	6.8605	.408	22.2
%RSD	51.710	204.36	221.93	239.18	149.42	2.3228	.28471
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	79.970
Stddev	4.809
%RSD	6.0128
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5288.7	3700.7	30048.	2752.9
Stddev	13.2	10.8	177.	23.9
%RSD	.24924	.29080	.58924	.86849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.334%	91.140%	89.450%	92.753%
Range				

Sample Name: 240-134868-b-1-a Acquired: 8/14/2020 21:12:55 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.69598	189.14	139.30	9091.5	137.30	.13348
Stddev	.45942	34.11	1.67	90.6	.23	.17899
%RSD	66.011	18.035	1.1963	.99605	.16588	134.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	46280.	.5158	36.930	197.09	16.095	1521.3
Stddev	104.	.0916	.341	.50	.920	7.9
%RSD	.22481	17.77	.92469	.25496	5.7161	.51763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	423040.	122.41	69319.	73.065	11.081	F 1226100.
Stddev	970.	.94	205.	.091	.687	16725.
%RSD	.22924	.76381	.29614	.12450	6.2031	1.3641
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-134868-b-1-a Acquired: 8/14/2020 21:12:55 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	192.26	1.9719	22.22	5.8527	32.621	48.420
Stddev	1.08	1.0019	2.45	1.1624	.163	.866
%RSD	.56294	50.808	11.03	19.862	.49919	1.7888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.7039	17.439	58.140	12935.	488.81
Stddev	2.0346	7.558	.270	61.	7.56
%RSD	119.41	43.342	.46495	.46865	1.5466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4402.8	3326.7	25889.	2515.9
Stddev	5.5	4.0	50.	13.7
%RSD	.12410	.11902	.19243	.54320
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.374%	81.930%	77.070%	84.768%
Range				

Sample Name: 190-23814-a-1-a Acquired: 8/14/2020 21:17:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.45485	9355.8	7.3504	558.21	1.2053	.15553	8672.7
Stddev	.15241	102.6	2.0504	3.50	.8788	.12762	11.4
%RSD	33.508	1.0966	27.895	.62660	72.908	82.059	.13196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.1437	.66301	2.5936	88.068	4071.4	138720.	-.16895
Stddev	.0581	.13490	.4617	.891	6.2	309.	3.3487
%RSD	40.43	20.347	17.802	1.0122	.15147	.22240	1982.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3103.0	191.31	2.1521	134960.	44.189	-.28412	3.921
Stddev	11.4	.35	.4237	394.	.252	1.0451	4.724
%RSD	.36709	.18275	19.689	.29158	.56954	367.85	120.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 190-23814-a-1-a Acquired: 8/14/2020 21:17:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.70744	.10648	.82601	1.0576	5.7509	342.05	730.91
Stddev	2.9308	.43733	.51498	3.5306	6.3445	.94	29.46
%RSD	414.28	410.73	62.345	333.82	110.32	.27576	4.0309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	28.378
Stddev	3.025
%RSD	10.660
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5218.3	3711.3	29389.	2562.8
Stddev	8.1	8.3	72.	9.9
%RSD	.15480	.22405	.24350	.38806
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.223%	91.400%	87.490%	86.348%
Range				

Sample Name: 190-23815-a-1-a Acquired: 8/14/2020 21:21:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.59637	9026.5	9.2641	585.94	2.2508	.13928	11297.
Stddev	.64665	118.7	.2685	7.37	.2442	.14892	113.
%RSD	108.43	1.3145	2.8979	1.2573	10.848	106.92	.99729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0850	1.2405	3.1622	130.25	4506.6	150110.	1.3483
Stddev	.0481	.2869	.1412	1.26	38.5	1637.	.9584
%RSD	56.59	23.130	4.4638	.96597	.85482	1.0907	71.078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3782.4	200.40	2.3366	145770.	36.158	.27301	2.488
Stddev	43.1	.55	.3451	1524.	.672	.99215	3.924
%RSD	1.1390	.27330	14.770	1.0451	1.8590	363.41	157.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 190-23815-a-1-a Acquired: 8/14/2020 21:21:29 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.49631	.11007	1.0069	.87070	-2.1160	420.66	632.19
Stddev	2.7350	.44538	.2540	1.5608	3.0671	.86	3.58
%RSD	551.07	404.65	25.221	179.25	144.95	.20427	.56682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	41.218
Stddev	6.543
%RSD	15.874
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5202.0	3710.3	29369.	2554.2
Stddev	9.3	4.0	154.	19.1
%RSD	.17820	.10718	.52414	.74648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.967%	91.378%	87.430%	86.057%
Range				

Sample Name: 190-23819-a-1-a Acquired: 8/14/2020 21:25:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.61126	456.01	1.0824	172.30	26.506	.21362
Stddev	.06242	23.91	.7359	.43	.316	.08414
%RSD	10.212	5.2435	67.985	.25039	1.1903	39.387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	37994.	.0538	123.55	9102.8	135.80	5030.3
Stddev	251.	.0662	.52	10.2	.31	6.0
%RSD	.65974	123.1	.41936	.11209	.22952	.11993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	152950.	6.2085	13251.	218.26	.92368	F 1307100.
Stddev	1160.	1.2934	50.	.23	.43089	27385.
%RSD	.75860	20.832	.38041	.10604	46.649	2.0950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23819-a-1-a Acquired: 8/14/2020 21:25:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	46.786	2.5202	.8302	3.0815	14.525	6.2110
Stddev	.633	2.0080	2.559	4.0994	1.083	.2110
%RSD	1.3520	79.676	308.2	133.03	7.4550	3.3974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.46422	9.6424	306.99	3465.0	153.08
Stddev	1.1972	3.8885	4.35	21.0	.72
%RSD	257.89	40.328	1.4157	.60596	.46979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4418.0	3307.3	25749.	2470.0
Stddev	15.3	13.5	74.	14.7
%RSD	.34600	.40804	.28828	.59645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.613%	81.453%	76.652%	83.222%
Range				

Sample Name: 190-23822-a-1-a Acquired: 8/14/2020 21:30:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0461	63.783	.41156	3518.3	50.527	.21601	12618.
Stddev	.4283	12.542	1.7006	36.2	.937	.05582	93.
%RSD	40.945	19.664	413.20	1.0283	1.8548	25.841	.73904
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.2828	-.96958	1.4153	3.6723	538.23	26624.	3.4305
Stddev	.1584	.05543	.1866	.1164	2.92	115.	3.5415
%RSD	55.99	5.7167	13.186	3.1695	.54225	.43065	103.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2899.6	28.682	3.7470	186620.	5.8572	-.05023	-5.630
Stddev	11.6	.123	.4504	1511.	.4371	2.1886	3.305
%RSD	.40014	.42734	12.020	.80944	7.4626	4356.9	58.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 190-23822-a-1-a Acquired: 8/14/2020 21:30:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1479	-.27526	.23561	2.0286	-1.5906	75.871	679.77
Stddev	3.2221	.26032	.18882	2.8494	1.7615	.878	20.22
%RSD	280.70	94.574	80.140	140.46	110.75	1.1575	2.9749
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	68.311
Stddev	10.321
%RSD	15.108
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5311.5	3687.2	29685.	2598.0
Stddev	19.4	16.6	79.	20.4
%RSD	.36540	.45152	.26696	.78657
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.693%	90.807%	88.372%	87.532%
Range				

Sample Name: 190-23827-c-1-a Acquired: 8/14/2020 21:34:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.92565	125.27	-2.2780	8810.8	29.480	.10186
Stddev	.36097	45.84	1.5807	45.1	.673	.21227
%RSD	38.996	36.594	69.387	.51144	2.2830	208.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	66933.	.4252	-2.1024	30.747	11.294	25.499
Stddev	215.	.2363	.4208	.966	.909	3.365
%RSD	.32075	55.57	20.017	3.1424	8.0447	13.196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9853.8	83.358	57592.	17.915	6.0294	F 1715000.
Stddev	174.7	2.020	75.	.087	.1088	45871.
%RSD	1.7726	2.4236	.12974	.48452	1.8040	2.6747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23827-c-1-a Acquired: 8/14/2020 21:34:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	42.299	-.05956	6.427	4.7945	-.14273	-.09206
Stddev	.647	.95301	4.258	1.1670	.21653	.09444
%RSD	1.5296	1600.1	66.26	24.340	151.71	102.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.2791	1.6795	35.942	2479.0	1203.0
Stddev	4.3767	4.2711	.385	3.1	4.4
%RSD	342.16	254.30	1.0705	.12574	.36579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4492.2	3400.2	25784.	2437.3
Stddev	28.4	22.5	282.	26.9
%RSD	.63121	.66149	1.0953	1.1048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.783%	83.739%	76.759%	82.118%
Range				

Sample Name: 240-134875-f-1-a Acquired: 8/14/2020 21:38:38 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.84837	-17.968	2.1570	299.69	70.144	.11676	130660.
Stddev	.48259	19.670	1.3474	3.17	.664	.27236	1069.
%RSD	56.884	109.47	62.468	1.0575	.94644	233.28	.81835
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2316	-.37457	.43092	1.8209	354.40	7474.4	12.404
Stddev	.0923	.18595	.15209	.6449	4.86	165.7	2.219
%RSD	39.84	49.644	35.295	35.415	1.3721	2.2165	17.889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	38723.	338.85	1.4531	183110.	2.7372	-.00464	2.568
Stddev	112.	.39	.5130	1047.	1.4851	1.1432	2.361
%RSD	.29045	.11400	35.306	.57156	54.256	24636.	91.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134875-f-1-a Acquired: 8/14/2020 21:38:38 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.9784	-.82193	-.42954	.70338	-3.6332	38.309	6119.3
Stddev	2.4418	1.0348	.14342	3.3525	5.0286	.496	8.6
%RSD	123.42	125.90	33.388	476.63	138.40	1.2950	.14070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	597.10
Stddev	3.68
%RSD	.61595
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5221.0	3661.1	29578.	2618.1
Stddev	22.1	11.8	130.	17.8
%RSD	.42303	.32144	.44061	.68140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.266%	90.166%	88.052%	88.211%
Range				

Sample Name: 190-23795-a-1-a Acquired: 8/14/2020 21:42:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.21142	449.31	-1.4422	172.18	33.858	.26008
Stddev	.20771	11.54	2.0799	2.97	.199	.12829
%RSD	98.247	2.5691	144.22	1.7260	.58682	49.328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	40038.	.3330	-1.5440	9361.4	96.856	4552.7
Stddev	232.	.2627	.5169	13.0	.316	4.5
%RSD	.57834	78.88	33.477	.13846	.32651	.09810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	167900.	8.9373	12614.	106.71	1.0851	F 1842900.
Stddev	1050.	1.8557	27.	.42	.1625	19565.
%RSD	.62530	20.764	.21292	.39507	14.971	1.0616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23795-a-1-a Acquired: 8/14/2020 21:42:51 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17.172	2.8326	1.598	4.5530	27.189	4.5153
Stddev	.962	2.9837	3.794	1.2593	1.006	.2303
%RSD	5.5992	105.33	237.4	27.659	3.7011	5.0993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-2.2070	6.2868	297.12	4228.6	187.91
Stddev	2.5450	6.4641	3.95	17.3	2.30
%RSD	115.32	102.82	1.3278	.40904	1.2228
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4298.2	3268.0	25497.	2455.6
Stddev	18.8	9.1	168.	14.3
%RSD	.43655	.27857	.65735	.58229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.726%	80.484%	75.903%	82.735%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 21:47:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1007.0	25479.	2033.1	5355.5	2029.1	2008.3	25466.	2044.
Stddev	1.3	47.	9.0	42.5	9.6	1.3	36.	3.
%RSD	.13211	.18494	.44253	.79367	.47309	.06262	.14001	.1352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2024.4	2067.6	1983.4	24661.	26615.	2050.9	24725.	2045.2
Stddev	2.1	4.4	4.9	40.	86.	6.9	64.	4.9
%RSD	.10341	.21295	.24867	.16168	.32217	.33857	.25885	.24195
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1990.8	26048.	2057.6	1941.1	2071.	1994.3	2077.7	2057.0
Stddev	1.1	81.	4.0	3.5	8.	15.3	3.2	1.8
%RSD	.05295	.30920	.19483	.18199	.3702	.76684	.15458	.08878
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 21:47:14 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1998.3	1980.2	2093.2	19519.	2013.1
Stddev	29.0	8.2	2.5	72.	2.2
%RSD	1.4496	.41359	.11774	.36950	.10803
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5318.5	3700.3	29789.	2477.4
Stddev	4.9	5.8	54.	11.0
%RSD	.09150	.15584	.18230	.44277

Sample Name: CCB Acquired: 8/14/2020 21:51:15 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.17595	23.415	-2.9629	24.256	.21234	.29324	-.41043	-.1772
Stddev	.37733	9.470	4.9953	.867	.37402	.06207	2.7695	.1246
%RSD	214.46	40.443	168.59	3.5734	176.14	21.166	674.79	70.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.32703	.45390	.53393	-1.7462	298.00	-3.2757	-.17506	-.04152
Stddev	.24992	.65164	.96239	5.2474	61.31	2.2362	27.984	.03364
%RSD	76.421	143.57	180.25	300.50	20.574	68.266	15985.	81.040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4030	974.08	.41424	-1.2249	1.431	1.5081	-.40630	-.15485
Stddev	.4469	32.88	.46529	.7018	3.119	5.0808	.07509	.10146
%RSD	31.851	3.3756	112.32	57.299	218.0	336.90	18.482	65.520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 21:51:15 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.14674	-.01085	-.76434	12.406	2.2222
Stddev	.65162	5.9027	.06061	11.084	6.4335
%RSD	444.05	54414.	7.9292	89.344	289.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5991.3	3838.8	31359.	2572.4
Stddev	6.5	4.3	106.	19.3
%RSD	.10771	.11100	.33896	.74931

Sample Name: 190-23813-a-1-a Acquired: 8/14/2020 21:55:33 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.78915	-8.2878	.37339	212.49	8.9477	.15022
Stddev	.18228	36.659	2.0537	1.61	.3966	.11261
%RSD	23.099	442.32	550.01	.75571	4.4328	74.966
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	35015.	.0803	4.1815	28.166	5.4025	56.171
Stddev	355.	.1917	.2030	.493	1.3860	5.159
%RSD	1.0151	238.7	4.8558	1.7517	25.655	9.1850
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	295040.	32.736	1611.3	1.2838	19.885	F 706940.
Stddev	2627.	2.189	32.4	.0586	.149	5760.
%RSD	.89044	6.6854	2.0116	4.5657	.75098	.81485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23813-a-1-a Acquired: 8/14/2020 21:55:33 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7462	.44878	-.0051	.33572	2.0960	.08172
Stddev	.5131	.23181	3.027	2.6083	1.0668	.45374
%RSD	18.685	51.654	59350.	776.92	50.894	555.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.7356	-5.1629	358.20	58.167	527.27
Stddev	.5041	3.1320	.40	10.742	7.16
%RSD	13.496	60.664	.11167	18.467	1.3580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4795.4	3506.5	27728.	2546.9
Stddev	43.6	32.4	30.	23.3
%RSD	.91016	.92346	.10976	.91546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.560%	86.356%	82.545%	85.810%
Range				

Sample Name: 190-23813-a-1-b ms Acquired: 8/14/2020 21:59:57 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	96.655	9356.4	2033.9	1207.6	1864.5	948.15
Stddev	.962	82.4	4.6	6.0	17.6	7.77
%RSD	.99520	.88097	.22480	.49866	.94482	.81903
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	80576.	984.4	993.18	976.29	922.64	9211.8
Stddev	748.	1.7	1.65	3.58	1.98	76.2
%RSD	.92782	.1756	.16654	.36659	.21432	.82710
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	341190.	992.76	46505.	949.00	947.63	F 738520.
Stddev	3189.	11.53	256.	2.98	1.67	6429.
%RSD	.93472	1.1610	.54982	.31442	.17645	.87052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23813-a-1-b ms Acquired: 8/14/2020 21:59:57 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1014.1	865.32	954.4	2005.0	2043.6	952.73
Stddev	1.8	2.39	4.1	3.1	.7	1.16
%RSD	.17746	.27631	.4266	.15401	.03414	.12194
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1790.9	924.93	1423.9	1857.4	1443.9
Stddev	22.1	5.29	3.2	5.6	7.2
%RSD	1.2356	.57173	.22304	.30288	.49578
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4817.8	3590.2	27678.	2439.6
Stddev	15.3	11.3	273.	11.3
%RSD	.31701	.31605	.98730	.46197
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.912%	88.418%	82.397%	82.197%
Range				

Sample Name: 190-23813-a-1-c msd Acquired: 8/14/2020 22:04:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 102.96	9745.3	2146.0	1280.0	1948.6	987.58
Stddev	.12	15.2	5.2	8.8	4.5	2.82
%RSD	.11509	.15562	.24356	.68448	.23308	.28572
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00					
Low Limit	-500000.					

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	83553.	1037.	1047.7	1025.9	975.13	9573.5
Stddev	276.	4.	3.4	4.2	2.92	28.0
%RSD	.33027	.3875	.32413	.41361	.29901	.29270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	351620.	1033.7	48089.	995.95	999.47	F 756520.
Stddev	659.	1.5	143.	3.26	4.74	2947.
%RSD	.18741	.14729	.29786	.32718	.47459	.38956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-23813-a-1-c msd Acquired: 8/14/2020 22:04:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1068.6	910.78	1013.	2117.7	2155.2	1002.6
Stddev	3.3	5.44	2.	10.7	8.9	3.6
%RSD	.31272	.59731	.2421	.50353	.41399	.35515
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1890.9	971.80	1514.3	1942.7	1502.0
Stddev	21.8	2.82	5.3	2.6	11.4
%RSD	1.1542	.29046	.34831	.13552	.75760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4838.1	3615.6	28483.	2615.5
Stddev	11.9	4.2	30.	29.0
%RSD	.24529	.11512	.10396	1.1073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.233%	89.044%	84.792%	88.122%
Range				

Sample Name: mb 240-446966/1-a Acquired: 8/14/2020 22:08:15 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.40462	-11.218	-1.9037	14.989	.43113	.48168	72.229
Stddev	.32197	18.462	1.2051	.441	.19038	.10366	2.119
%RSD	79.571	164.57	63.305	2.9447	44.159	21.521	2.9335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1239	-.06176	.49622	.76250	6.1714	724.92	3.6055
Stddev	.1373	.15629	.12359	.58836	4.4199	66.73	2.0616
%RSD	110.8	253.06	24.907	77.162	71.619	9.2053	57.179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	16.339	.20096	1.6891	F 1082.3	.91441	-1.8538	-1.114
Stddev	13.908	.04838	.4584	50.0	.19986	2.8326	2.797
%RSD	85.120	24.074	27.140	4.6232	21.857	152.80	251.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				1000.0			
Low Limit				-1000.0			

Sample Name: mb 240-446966/1-a Acquired: 8/14/2020 22:08:15 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.9948	32.605	.53801	3.1879	-1.3206	-1.3187	14.219
Stddev	2.3511	.140	.21714	2.9999	4.7164	.0240	3.881
%RSD	58.854	.42890	40.360	94.103	357.13	1.8237	27.293
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1.9307
Stddev	6.9014
%RSD	357.46
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6072.9	3932.0	32541.	2724.7
Stddev	5.1	2.0	67.	14.8
%RSD	.08358	.05135	.20736	.54382

Sample Name: lcs 240-446966/2-a Acquired: 8/14/2020 22:12:34 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 93.778	F 9478.5	F 1922.1	F 1019.2	F 1887.2	F 959.51	F 47155.
Stddev	.511	29.0	6.0	2.6	4.5	2.45	37.
%RSD	.54525	.30636	.31467	.25772	.23596	.25484	.07866
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	5.0000	200.00	10.000	100.00	5.0000	2.0000	1000.0
Low Limit	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 968.5	F 955.01	F 959.75	F 931.41	F 9151.0	F 49391.	F 970.20
Stddev	1.2	1.85	2.88	3.43	10.8	230.	4.76
%RSD	.1209	.19368	.29979	.36822	.11840	.46551	.49030
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	1.000	5.0000	5.0000	5.0000	100.00	1000.0	50.000
Low Limit	-1000.	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 45391.	F 953.44	F 955.78	F 47253.	F 973.66	F 905.00	F 928.0
Stddev	111.	2.15	1.74	75.	.67	3.99	3.7
%RSD	.24560	.22577	.18169	.15961	.06894	.44076	.4032
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	1000.0	10.000	10.000	1000.0	10.000	5.0000	10.00
Low Limit	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0	-1000.

Sample Name: lcs 240-446966/2-a Acquired: 8/14/2020 22:12:34 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1873.1	F 1983.1	F 968.36	F 1833.3	F 938.53	F 983.39	F 1645.3
Stddev	6.4	2.0	2.63	15.8	3.28	.77	9.0
%RSD	.34061	.10168	.27197	.86060	.34969	.07873	.54932
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	5.0000	100.00	20.000	10.000	5.0000	20.000	500.00
Low Limit	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0	-1000.0

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	F 951.28
Stddev	16.99
%RSD	1.7860
Check ?	Chk Fail
High Limit	50.000
Low Limit	-1000.0

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5312.2	3720.9	30360.	2589.3
Stddev	8.9	7.9	113.	16.5
%RSD	.16804	.21205	.37177	.63846

Sample Name: 240-134795-e-4-a Acquired: 8/14/2020 22:16:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1509	71762.	224.40	36.123	474.30	3.5351	27452.
Stddev	.2830	1199.	3.87	1.082	7.62	.0413	470.
%RSD	24.587	1.6702	1.7240	2.9965	1.6065	1.1697	1.7106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.576	48.159	113.32	123.13	114870.	9639.0	95.894
Stddev	.065	.593	.51	.24	2041.	115.7	4.057
%RSD	4.134	1.2309	.44904	.19565	1.7764	1.1998	4.2303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23972.	2335.6	2.4415	1564.6	133.40	77.242	2.875
Stddev	379.	3.4	.3328	4.3	1.77	1.330	1.961
%RSD	1.5820	.14366	13.632	.27277	1.3305	1.7223	68.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-e-4-a Acquired: 8/14/2020 22:16:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.89667	36.976	2036.2	1.1823	162.61	755.37	1765.9
Stddev	4.7487	1.452	2.5	2.0333	1.56	.65	53.1
%RSD	529.59	3.9272	.12034	171.97	.95685	.08601	3.0071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	140.15
Stddev	7.36
%RSD	5.2545
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5541.1	4731.5	38346.	3246.8
Stddev	.2	1.1	26.	60.1
%RSD	.00323	.02343	.06693	1.8509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.310%	116.53%	114.15%	109.39%
Range				

Sample Name: SD 240-134795-e-4a@5 Acquired: 8/14/2020 22:20:48 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.56708	16624.	48.566	13.580	109.11	.91216	6404.6	.4716
Stddev	.48755	42.	1.144	.963	.11	.06806	12.5	.1559
%RSD	85.976	.25135	2.3545	7.0940	.10190	7.4618	.19588	33.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.4227	26.033	29.752	27038.	2433.7	22.435	5667.8	550.36
Stddev	.1547	.541	.384	57.	39.9	3.487	44.4	1.21
%RSD	1.6420	2.0767	1.2890	.21230	1.6398	15.544	.78310	.21908
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.16083	592.65	25.296	18.645	2.436	3.5259	6.6344	466.99
Stddev	.33380	12.23	.565	1.218	3.927	3.0356	.3974	1.79
%RSD	207.54	2.0640	2.2341	6.5325	161.2	86.093	5.9898	.38410
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134795-e-4a@5 Acquired: 8/14/2020 22:20:48 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.7175	38.552	150.08	409.20	30.711
Stddev	.9920	10.106	2.26	7.58	6.296
%RSD	57.755	26.213	1.5040	1.8535	20.501
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5991.8	4158.8	33804.	2814.9
Stddev	17.1	9.2	18.	8.1
%RSD	.28579	.22023	.05302	.28799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.412%	102.42%	100.63%	94.839%
Range				

Sample Name: PDS 240-134795-e-4-a Acquired: 8/14/2020 22:25:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	78.711	79639.	1917.3	926.70	2164.8	852.48	70181.
Stddev	.103	174.	4.6	2.42	6.6	2.30	181.
%RSD	.13083	.21867	.23950	.26086	.30632	.27028	.25724
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	853.3	1084.9	950.50	942.13	120690.	55526.	956.86
Stddev	1.3	.2	1.04	.37	340.	153.	1.97
%RSD	.1477	.02019	.10931	.03958	.28174	.27508	.20548
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64560.	3091.1	827.31	45472.	1184.8	853.68	829.4
Stddev	227.	18.3	1.58	108.	1.2	2.72	2.7
%RSD	.35163	.59284	.19149	.23726	.09929	.31915	.3285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-134795-e-4-a Acquired: 8/14/2020 22:25:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1613.1	2143.3	2846.2	1954.5	978.19	1851.1	3367.7
Stddev	2.0	6.1	1.8	10.5	5.37	1.5	29.9
%RSD	.12289	.28543	.06274	.53499	.54860	.07964	.88690
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	967.94
Stddev	4.27
%RSD	.44069
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5154.5	4544.5	36743.	3135.1
Stddev	11.1	11.0	92.	6.3
%RSD	.21527	.24135	.24923	.20171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.218%	111.92%	109.38%	105.63%
Range				

Sample Name: 240-134795-e-4-b ms Acquired: 8/14/2020 22:29:09 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17.218	23281.	414.41	200.28	485.35	181.50	16140.	181.6
Stddev	.471	270.	1.11	1.07	4.15	1.26	134.	.1
%RSD	2.7342	1.1604	.26759	.53295	.85417	.69250	.83216	.0633
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	193.62	212.05	203.56	28599.	13007.	204.86	15138.	1029.9
Stddev	.34	.89	1.45	267.	84.	3.48	136.	1.1
%RSD	.17487	.42188	.71450	.93497	.64432	1.6982	.89808	.10336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	173.95	9571.9	214.77	186.02	97.27	348.84	367.69	766.95
Stddev	.47	86.9	.45	1.47	.84	3.70	.60	2.02
%RSD	.26938	.90776	.21121	.78857	.8668	1.0595	.16364	.26316
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-e-4-b ms Acquired: 8/14/2020 22:29:09 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	358.92	203.30	326.84	726.49	218.25
Stddev	1.58	7.79	.34	3.55	6.79
%RSD	.43981	3.8299	.10313	.48907	3.1104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5741.7	4079.8	33160.	2742.2
Stddev	7.5	3.9	75.	32.6
%RSD	.13094	.09526	.22662	1.1886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.471%	100.48%	98.715%	92.392%
Range				

Sample Name: 240-134795-e-4-c msd Acquired: 8/14/2020 22:33:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	16.025	20768.	383.87	191.44	439.55	171.25	14882.	172.6
Stddev	.241	48.	2.46	3.24	1.75	.21	37.	.4
%RSD	1.5064	.23223	.64069	1.6916	.39901	.12422	.25098	.2401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	185.82	198.91	195.64	27380.	12278.	195.29	14118.	699.11
Stddev	2.52	.68	.24	65.	39.	2.71	34.	.25
%RSD	1.3586	.34154	.12245	.23888	.31502	1.3865	.24358	.03576
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	166.89	9035.7	205.79	180.60	96.96	336.48	352.66	704.00
Stddev	2.52	31.4	2.61	.88	1.78	6.05	4.70	1.56
%RSD	1.5077	.34733	1.2670	.48577	1.841	1.7987	1.3318	.22128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-e-4-c msd Acquired: 8/14/2020 22:33:17 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	343.55	199.70	311.84	683.00	204.76
Stddev	8.89	6.34	.10	6.46	7.17
%RSD	2.5871	3.1735	.03218	.94626	3.5002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5769.1	4081.9	33256.	2761.6
Stddev	12.8	11.3	31.	8.2
%RSD	.22152	.27600	.09466	.29863
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.903%	100.53%	99.000%	93.044%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 22:37:25 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	996.44	25179.	2019.7	5307.4	2030.5	2001.3	25252.	2034.
Stddev	2.94	56.	3.0	17.1	1.0	2.4	47.	2.
%RSD	.29510	.22391	.14665	.32248	.04995	.12103	.18502	.0968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2013.8	2048.1	1967.9	24311.	26388.	2048.8	24426.	2024.1
Stddev	2.9	7.6	4.1	50.	43.	4.5	77.	6.1
%RSD	.14532	.37016	.21056	.20771	.16415	.22022	.31383	.30372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1971.9	25754.	2050.9	1919.8	2061.	1991.7	2056.3	2039.1
Stddev	2.3	50.	1.0	5.2	6.	7.6	5.5	5.2
%RSD	.11543	.19268	.05020	.26917	.3074	.38402	.26649	.25726
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 22:37:25 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1983.7	1971.9	2075.2	19188.	2000.4
Stddev	18.2	15.0	2.3	55.	17.7
%RSD	.91585	.76112	.10866	.28565	.88486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5550.0	3871.4	31487.	2608.1
Stddev	7.2	4.2	127.	19.7
%RSD	.12929	.10928	.40486	.75439

Sample Name: CCB Acquired: 8/14/2020 22:41:24 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.79680	-13.422	-3.1256	6.0592	-.66643	.18057	-2.6787	-.1016
Stddev	.38800	10.982	1.6935	1.1226	.24009	.13919	4.8345	.1590
%RSD	48.696	81.823	54.181	18.528	36.026	77.081	180.48	156.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13523	-.08488	2.1463	-3.9541	178.46	-.04573	33.858	-.01591
Stddev	.09964	.11505	.2932	1.3673	35.82	1.6411	8.631	.05250
%RSD	73.682	135.54	13.659	34.578	20.073	3588.9	25.491	329.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2279	232.79	-.04560	-1.6187	-.3293	2.7342	-.67031	.28625
Stddev	.4155	14.69	.14647	.9858	3.639	.8746	.64352	.28383
%RSD	33.835	6.3102	321.20	60.902	1105.	31.986	96.004	99.153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 22:41:24 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.90405	-2.2125	-.73044	6.8132	1.5488
Stddev	.95401	6.2011	.03344	11.382	2.9155
%RSD	105.53	280.28	4.5778	167.06	188.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6168.3	3940.7	32414.	2634.0
Stddev	5.9	3.5	73.	4.0
%RSD	.09582	.08868	.22577	.15240

Sample Name: 240-134795-b-1-a Acquired: 8/14/2020 22:45:46 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04544	71012.	180.01	26.824	1136.3	3.1125	24832.
Stddev	.11673	234.	.73	.556	4.2	.1193	83.
%RSD	256.92	.32967	.40501	2.0718	.37000	3.8325	.33336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.316	69.431	129.23	137.46	156530.	9830.6	118.55
Stddev	.086	.690	.61	.57	478.	52.9	3.37
%RSD	6.518	.99422	.46845	.41631	.30511	.53825	2.8445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25869.	5398.4	4.6156	783.66	178.93	38.151	3.049
Stddev	260.	32.8	.3530	13.59	2.13	1.546	2.666
%RSD	1.0048	.60809	7.6484	1.7347	1.1883	4.0515	87.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-1-a Acquired: 8/14/2020 22:45:46 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1189	33.875	950.45	-1.3324	183.06	611.01	1688.8
Stddev	1.4197	.875	1.59	1.7404	7.45	1.30	17.8
%RSD	126.88	2.5818	.16749	130.62	4.0674	.21227	1.0526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	131.44
Stddev	8.68
%RSD	6.6041
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5466.6	5461.4	44267.	3677.5
Stddev	10.5	9.8	126.	12.7
%RSD	.19145	.17929	.28530	.34577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.137%	134.50%	131.78%	123.90%
Range				

Sample Name: 240-134795-b-2-a Acquired: 8/14/2020 22:50:07 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.80387	48213.	26.338	27.016	463.50	2.4393	19412.	1.131
Stddev	.39773	316.	2.053	.432	3.06	.1073	127.	.177
%RSD	49.477	.65553	7.7944	1.5976	.65941	4.3984	.65444	15.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	41.725	76.254	62.518	95302.	7016.5	88.374	18983.	2373.5
Stddev	.322	2.404	1.588	658.	65.5	1.010	73.	53.3
%RSD	.77082	3.1521	2.5396	.69067	.93421	1.1433	.38398	2.2457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.63612	810.33	97.046	29.472	1.709	1.8173	31.337	896.08
Stddev	.40826	18.89	.609	.334	4.875	1.9584	.651	20.82
%RSD	64.180	2.3316	.62723	1.1324	285.2	107.77	2.0767	2.3237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-b-2-a Acquired: 8/14/2020 22:50:07 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.4957	106.69	330.57	2124.9	89.517
Stddev	2.1094	3.37	.84	9.7	10.881
%RSD	141.03	3.1556	.25514	.45507	12.155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5657.7	4566.2	36083.	3097.7
Stddev	21.2	11.2	809.	16.4
%RSD	.37459	.24428	2.2430	.52891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.147%	112.45%	107.42%	104.37%
Range				

Sample Name: 240-134795-b-3-a Acquired: 8/14/2020 22:54:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.66475	59987.	30.179	33.709	435.21	2.9517	19162.
Stddev	.55964	77.	2.115	.804	1.77	.0607	76.
%RSD	84.187	.12818	7.0074	2.3841	.40757	2.0554	.39799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.068	56.549	94.957	118.87	121610.	9228.7	98.218
Stddev	.026	.882	.034	.31	425.	37.7	2.549
%RSD	2.396	1.5597	.03574	.26315	.34933	.40837	2.5954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25269.	3046.3	1.2202	1064.6	134.27	34.138	1.293
Stddev	61.	16.9	.1699	2.4	2.03	.887	1.836
%RSD	.24227	.55320	13.925	.22906	1.5121	2.5995	142.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-3-a Acquired: 8/14/2020 22:54:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.7047	35.073	1556.1	.09760	153.30	325.01	2298.0
Stddev	2.1958	.329	1.2	.73364	10.15	.79	1.2
%RSD	59.271	.93822	.07988	751.71	6.6238	.24337	.05067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	101.09
Stddev	2.70
%RSD	2.6672
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5539.1	4481.5	36448.	3107.5
Stddev	7.6	5.5	78.	7.8
%RSD	.13805	.12308	.21431	.24944
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.278%	110.37%	108.50%	104.70%
Range				

Sample Name: 240-134795-b-5-a Acquired: 8/14/2020 22:58:39 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.6764	44924.	28.098	27.584	280.52	2.1104	264230.
Stddev	.4133	274.	1.709	.786	1.00	.1679	1513.
%RSD	24.655	.60931	6.0842	2.8505	.35492	7.9578	.57274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.871	53.713	71.423	124.54	93163.	7407.7	88.885
Stddev	.026	.346	.238	.40	536.	79.1	2.873
%RSD	1.406	.64372	.33335	.32477	.57581	1.0679	3.2329
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54235.	5640.7	1.6045	1265.9	124.10	24.741	1.504
Stddev	441.	30.6	.3191	13.9	.84	.654	3.395
%RSD	.81236	.54269	19.890	1.0989	.67373	2.6428	225.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-5-a Acquired: 8/14/2020 22:58:39 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1700	33.871	1274.9	.13631	111.18	283.32	1682.7
Stddev	2.1651	1.079	4.0	1.9194	7.68	5.50	1.5
%RSD	99.772	3.1868	.31496	1408.1	6.9101	1.9407	.09084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	448.08
Stddev	4.53
%RSD	1.0106
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5123.5	4395.9	35830.	3102.6
Stddev	6.7	7.7	80.	20.3
%RSD	.13107	.17496	.22405	.65289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.731%	108.26%	106.66%	104.54%
Range				

Sample Name: 240-134795-b-6-a Acquired: 8/14/2020 23:02:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.9596	33424.	19.662	21.675	210.00	1.7152	220750.
Stddev	.4993	181.	2.213	1.120	.53	.1891	670.
%RSD	25.481	.54125	11.253	5.1661	.25363	11.024	.30351
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.465	37.892	55.020	83.515	77159.	5761.8	59.308
Stddev	.161	.183	.742	.835	286.	70.6	4.146
%RSD	10.97	.48319	1.3488	.99962	.37102	1.2246	6.9900
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	44458.	4631.7	.63619	1213.4	84.049	20.743	2.544
Stddev	142.	41.9	.25289	19.5	1.475	1.983	.725
%RSD	.31920	.90469	39.751	1.6053	1.7548	9.5615	28.49
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-6-a Acquired: 8/14/2020 23:02:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0432	32.573	1161.9	2.0592	103.40	208.33	1529.7
Stddev	1.0266	.799	2.0	1.0548	2.20	1.77	5.1
%RSD	98.411	2.4539	.17579	51.226	2.1284	.84773	.33268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	377.26
Stddev	1.73
%RSD	.45914
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5248.3	4352.8	35270.	3040.9
Stddev	14.8	11.7	151.	8.2
%RSD	.28279	.26931	.42871	.26932
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.696%	107.20%	105.00%	102.46%
Range				

Sample Name: 240-134795-b-7-a Acquired: 8/14/2020 23:07:20 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.5592	27514.	13.796	18.342	201.69	1.5800	202650.
Stddev	.5087	339.	2.152	.906	2.15	.1926	1631.
%RSD	32.627	1.2324	15.598	4.9401	1.0683	12.190	.80482
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.075	31.402	45.832	70.465	64715.	4964.9	49.732
Stddev	.028	.194	.188	.302	493.	100.1	3.169
%RSD	2.631	.61834	.40944	.42834	.76256	2.0168	6.3723
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	39552.	4211.9	.51460	1055.7	68.834	17.644	3.815
Stddev	266.	18.4	.25833	5.5	.431	2.461	.492
%RSD	.67235	.43652	50.199	.52337	.62671	13.948	12.90
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-7-a Acquired: 8/14/2020 23:07:20 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.37082	34.281	1011.7	2.4668	86.056	162.91	1744.7
Stddev	3.6299	.678	2.7	1.3163	6.117	1.42	1.4
%RSD	978.88	1.9782	.27007	53.361	7.1078	.87432	.07778
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	336.05
Stddev	6.57
%RSD	1.9551
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5314.5	4282.2	34593.	2975.2
Stddev	11.4	11.2	73.	28.9
%RSD	.21543	.26257	.21034	.97164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.739%	105.46%	102.98%	100.24%
Range				

Sample Name: 240-134795-b-8-a Acquired: 8/14/2020 23:11:41 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.86536	69056.	473.82	23.660	490.80	3.3904	20019.	1.354
Stddev	.51662	478.	.92	.889	3.80	.1178	69.	.094
%RSD	59.700	.69180	.19512	3.7585	.77461	3.4733	.34626	6.951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.076	98.033	121.77	96458.	8008.1	150.14	19958.	3610.6
Stddev	.473	.345	.58	347.	53.0	4.15	77.	33.2
%RSD	.92537	.35215	.47257	.35996	.66148	2.7655	.38399	.91900
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.88540	899.39	130.80	133.03	4.740	2.3666	37.839	917.37
Stddev	.09055	19.96	1.54	2.59	2.851	2.7609	.562	1.45
%RSD	10.227	2.2191	1.1742	1.9495	60.15	116.66	1.4844	.15829
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-b-8-a Acquired: 8/14/2020 23:11:41 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.0479	112.10	846.76	1544.0	106.72
Stddev	1.8439	2.41	2.52	5.2	2.50
%RSD	90.037	2.1522	.29756	.33757	2.3440
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5580.1	4848.8	39133.	3294.5
Stddev	8.6	6.5	48.	17.1
%RSD	.15354	.13441	.12364	.51820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.924%	119.42%	116.50%	111.00%
Range				

Sample Name: 240-134795-b-9-a Acquired: 8/14/2020 23:16:00 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.91129	69073.	334.21	21.615	2188.4	4.2791	20025.
Stddev	.19996	258.	2.49	1.337	9.3	.1511	63.
%RSD	21.943	.37351	.74507	6.1843	.42308	3.5311	.31681
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.331	88.728	118.25	111.68	227380.	8081.6	144.97
Stddev	.101	1.060	3.21	2.03	827.	27.5	3.42
%RSD	4.322	1.1949	2.7168	1.8183	.36370	.34067	2.3616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21510.	8462.4	3.6627	798.27	167.86	48.404	2.371
Stddev	148.	196.3	.1109	15.46	2.21	.765	2.684
%RSD	.68929	2.3197	3.0287	1.9362	1.3142	1.5813	113.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-9-a Acquired: 8/14/2020 23:16:00 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.4081	31.635	1122.4	-1.8610	214.29	575.15	1639.3
Stddev	2.0878	.693	26.2	4.6091	4.83	1.20	20.2
%RSD	86.700	2.1910	2.3370	247.66	2.2526	.20893	1.2350
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	152.16
Stddev	5.94
%RSD	3.9060
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5459.6	4695.0	37610.	3234.2
Stddev	23.0	11.3	786.	13.3
%RSD	.42211	.24171	2.0901	.41186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.026%	115.63%	111.96%	108.97%
Range				

Sample Name: 240-134795-b-10-a Acquired: 8/14/2020 23:20:20 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.61919	57257.	156.81	21.574	409.09	3.2262	17587.	1.472
Stddev	.46840	955.	2.15	1.010	6.85	.0619	262.	.165
%RSD	75.647	1.6670	1.3722	4.6793	1.6739	1.9196	1.4883	11.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	44.833	82.743	88.601	81983.	7166.4	119.01	16794.	1988.2
Stddev	.390	.539	.322	1290.	116.8	5.19	219.	4.0
%RSD	.86900	.65193	.36382	1.5734	1.6297	4.3593	1.3013	.20357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.58574	737.94	120.84	50.438	.1221	-.01535	36.271	890.20
Stddev	.25251	3.07	1.86	1.790	3.962	1.6340	.411	2.17
%RSD	43.110	.41625	1.5391	3.5486	3245.	10648.	1.1331	.24429
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-b-10-a Acquired: 8/14/2020 23:20:20 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.74027	111.41	484.93	2737.5	94.844
Stddev	.70778	4.64	1.18	43.2	2.338
%RSD	95.611	4.1652	.24435	1.5763	2.4645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5532.6	4879.0	39756.	3294.6
Stddev	3.7	5.5	53.	47.1
%RSD	.06775	.11256	.13237	1.4301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.175%	120.16%	118.35%	111.00%
Range				

Sample Name: 240-134795-b-11-a Acquired: 8/14/2020 23:24:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.77613	72723.	65.011	33.505	614.64	3.0592	21631.
Stddev	.36754	553.	1.885	1.616	5.27	.0173	170.
%RSD	47.355	.76002	2.8993	4.8245	.85684	.56630	.78671
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.148	58.587	111.84	76.371	120970.	10726.	134.62
Stddev	.044	.642	.27	.568	996.	96.	.53
%RSD	3.859	1.0951	.24091	.74328	.82370	.89263	.39290
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25309.	2026.3	.03916	1072.6	149.74	36.665	3.919
Stddev	144.	1.9	.50133	5.3	1.04	1.031	1.619
%RSD	.56793	.09170	1280.2	.49110	.69225	2.8109	41.32
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-11-a Acquired: 8/14/2020 23:24:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1416	35.084	1421.5	7.3950	135.37	456.76	2216.0
Stddev	2.5385	.767	1.4	2.3186	6.92	.21	13.2
%RSD	222.36	2.1870	.09721	31.353	5.1089	.04676	.59553
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	122.60
Stddev	3.14
%RSD	2.5622
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5506.7	4672.3	37538.	3165.9
Stddev	3.6	7.9	21.	24.0
%RSD	.06601	.16910	.05497	.75763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.768%	115.07%	111.75%	106.67%
Range				

Sample Name: CCV-4863699 Acquired: 8/14/2020 23:28:44 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	996.45	24807.	2004.8	5316.0	1998.4	1974.1	25088.	2027.
Stddev	2.61	44.	2.9	2.3	9.0	8.0	81.	1.
%RSD	.26149	.17728	.14477	.04361	.45014	.40517	.32377	.0504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2005.6	2056.5	1963.0	24065.	26127.	2046.2	24281.	2028.4
Stddev	1.2	3.0	2.3	52.	113.	5.9	119.	2.6
%RSD	.05864	.14587	.11487	.21717	.43348	.28874	.48984	.13043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1966.1	25841.	2042.1	1916.0	2047.	1971.0	2049.5	2042.1
Stddev	2.5	93.	1.4	4.2	1.	5.3	1.7	4.9
%RSD	.12533	.35804	.07058	.21946	.0731	.26826	.08370	.23981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/14/2020 23:28:44 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1991.3	1963.5	2070.4	18888.	1986.4
Stddev	6.3	13.5	.9	142.	7.7
%RSD	.31647	.68743	.04154	.75242	.38788
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5480.0	3815.7	30898.	2547.3
Stddev	13.6	10.1	46.	8.3
%RSD	.24864	.26362	.14926	.32410

Sample Name: CCB Acquired: 8/14/2020 23:32:42 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04507	-36.296	-4.6399	.32732	-.07107	.04280	2.7364	.1179
Stddev	.53380	38.107	1.4612	.96439	.31287	.09182	4.9605	.1356
%RSD	1184.4	104.99	31.493	294.63	440.24	214.53	181.28	115.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13243	.58135	.91463	.15416	73.795	-2.1167	8.0524	.12864
Stddev	.14746	.06814	.59185	4.8958	10.277	1.2323	32.624	.06466
%RSD	111.35	11.721	64.710	3175.8	13.927	58.220	405.15	50.269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3505	134.21	.32672	1.1706	1.295	.76428	.06572	.12909
Stddev	.1381	13.22	.50303	1.0418	4.464	1.9903	.88093	.23685
%RSD	10.225	9.8503	153.97	88.996	344.8	260.41	1340.4	183.48
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/14/2020 23:32:42 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	5.1110	2.3381	1.0525	1.4877	6.6775
Stddev	1.1936	10.127	.0765	13.294	2.6190
%RSD	23.353	433.12	7.2662	893.59	39.222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6114.8	3908.5	32047.	2577.7
Stddev	2.2	3.7	123.	13.4
%RSD	.03676	.09418	.38248	.51829

Sample Name: 240-134795-b-12-a Acquired: 8/14/2020 23:37:02 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.46280	61289.	48.129	29.526	544.21	3.1368	18544.
Stddev	.62327	204.	1.124	1.023	2.09	.0986	98.
%RSD	134.67	.33318	2.3350	3.4660	.38488	3.1428	.53105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.604	67.867	95.443	142.59	131600.	9401.0	106.45
Stddev	.140	.054	.331	.67	568.	11.5	1.49
%RSD	8.741	.08003	.34696	.47168	.43176	.12183	1.4000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24509.	4778.7	2.0929	879.76	150.89	37.448	3.834
Stddev	49.	15.8	.8815	4.44	1.47	1.691	1.378
%RSD	.20083	.33051	42.118	.50489	.97579	4.5148	35.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-12-a Acquired: 8/14/2020 23:37:02 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1595	36.823	1328.0	-.40334	146.60	356.69	1729.9
Stddev	3.0670	.352	.5	2.5630	6.14	.45	5.8
%RSD	264.50	.95478	.03707	635.46	4.1878	.12661	.33780
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	106.38
Stddev	8.81
%RSD	8.2844
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5553.5	4577.0	37110.	3113.9
Stddev	5.9	5.4	68.	13.3
%RSD	.10625	.11707	.18314	.42830
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.506%	112.72%	110.47%	104.91%
Range				

Sample Name: 240-134795-b-13-a Acquired: 8/14/2020 23:41:23 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.35506	36578.	258.13	45.590	475.95	2.2753	93463.	3.861
Stddev	.43596	322.	3.15	.857	3.57	.0784	758.	.134
%RSD	122.79	.87947	1.2221	1.8804	.74921	3.4474	.81130	3.478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	32.803	70.142	179.83	71802.	4912.0	66.810	42997.	5068.3
Stddev	.178	.191	.69	630.	46.6	2.246	123.	7.9
%RSD	.54400	.27196	.38631	.87716	.94772	3.3616	.28581	.15577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4307	895.15	84.890	637.19	3.339	6.0412	46.046	614.08
Stddev	.2513	9.02	.256	2.52	2.884	3.2629	1.098	.25
%RSD	17.563	1.0076	.30117	.39474	86.40	54.010	2.3841	.04012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-b-13-a Acquired: 8/14/2020 23:41:23 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.84182	81.642	1870.6	2118.2	163.15
Stddev	1.7656	1.869	1.5	15.1	5.64
%RSD	209.74	2.2888	.08194	.71391	3.4585
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5495.7	4178.2	33739.	2867.3
Stddev	13.8	13.1	119.	28.4
%RSD	.25175	.31411	.35134	.98926
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.594%	102.90%	100.44%	96.607%
Range				

Sample Name: 240-134795-b-14-a Acquired: 8/14/2020 23:45:43 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0842	78534.	164.14	33.427	649.30	4.2170	27880.
Stddev	.2348	799.	1.93	1.693	6.94	.0800	355.
%RSD	21.654	1.0175	1.1739	5.0634	1.0693	1.8983	1.2733
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.131	69.666	128.24	126.75	182510.	11675.	148.67
Stddev	.233	.452	.43	.59	2178.	101.	5.35
%RSD	10.95	.64938	.33912	.46185	1.1931	.86790	3.5971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	30974.	4005.4	1.8560	972.69	175.92	174.50	.9266
Stddev	431.	9.5	.3080	18.20	2.06	2.48	3.090
%RSD	1.3919	.23615	16.597	1.8708	1.1720	1.4225	333.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-14-a Acquired: 8/14/2020 23:45:43 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.57826	39.949	1454.7	-1.7404	213.18	768.07	1923.7
Stddev	2.2048	1.535	3.9	.1622	9.92	.61	33.1
%RSD	381.28	3.8435	.26935	9.3197	4.6555	.07903	1.7204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	134.15
Stddev	2.02
%RSD	1.5023
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5422.2	4580.2	37132.	3103.3
Stddev	16.8	17.8	22.	28.8
%RSD	.30959	.38894	.05851	.92707
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.436%	112.80%	110.54%	104.56%
Range				

Sample Name: 240-134795-b-15-a Acquired: 8/14/2020 23:50:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.57426	79921.	58.657	25.790	492.91	3.2135	23692.
Stddev	.64650	970.	2.175	.497	5.50	.2646	295.
%RSD	112.58	1.2136	3.7079	1.9252	1.1167	8.2334	1.2436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.414	61.367	125.26	67.253	126460.	10777.	143.87
Stddev	.090	.822	.67	.337	1558.	172.	1.44
%RSD	6.354	1.3393	.53301	.50069	1.2322	1.5928	.99916
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	31987.	2000.0	-.38629	1011.5	155.39	43.380	.8306
Stddev	396.	7.9	.20634	12.7	2.05	1.211	1.965
%RSD	1.2390	.39616	53.415	1.2535	1.3201	2.7904	236.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-15-a Acquired: 8/14/2020 23:50:04 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.6525	35.862	1858.8	-.16638	140.40	548.24	1856.4
Stddev	3.2661	.495	5.1	1.9669	2.23	.33	34.9
%RSD	123.13	1.3792	.27286	1182.2	1.5902	.06103	1.8816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	120.14
Stddev	2.53
%RSD	2.1086
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5467.7	4608.5	37284.	3121.1
Stddev	2.8	3.7	11.	27.4
%RSD	.05144	.08049	.02930	.87763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.153%	113.50%	110.99%	105.16%
Range				

Sample Name: 240-134795-b-16-a Acquired: 8/14/2020 23:54:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.72308	76017.	101.06	29.665	676.90	3.3817	26290.
Stddev	.23678	783.	.47	1.282	6.48	.1071	231.
%RSD	32.746	1.0296	.46801	4.3228	.95750	3.1680	.87950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.097	64.808	121.58	77.639	129380.	10774.	128.27
Stddev	.088	.869	.28	.973	1087.	82.	1.11
%RSD	7.988	1.3403	.22995	1.2532	.84025	.76186	.86603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	31405.	1933.3	.25577	1002.2	165.02	55.401	.7758
Stddev	269.	6.3	.45366	17.1	3.05	.996	2.124
%RSD	.85552	.32625	177.37	1.7070	1.8476	1.7971	273.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-16-a Acquired: 8/14/2020 23:54:19 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05363	36.898	1388.5	3.7617	133.26	509.29	1853.0
Stddev	1.3436	.675	3.8	2.0338	2.38	.89	10.3
%RSD	2505.4	1.8305	.27302	54.066	1.7835	.17400	.55350
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	137.49
Stddev	6.70
%RSD	4.8764
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5473.0	4649.9	37589.	3190.3
Stddev	9.6	11.2	72.	28.0
%RSD	.17552	.24180	.19181	.87746
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.237%	114.52%	111.90%	107.49%
Range				

Sample Name: 240-134795-b-17-a Acquired: 8/14/2020 23:58:30 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0278	51311.	154.77	23.188	407.03	2.6223	26261.
Stddev	.1662	405.	1.38	1.915	1.85	.1636	157.
%RSD	16.166	.78895	.89428	8.2589	.45527	6.2378	.59627
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.091	57.161	83.393	126.96	112350.	7783.1	88.485
Stddev	.159	.107	.357	.46	787.	49.5	1.040
%RSD	14.53	.18720	.42837	.36393	.70048	.63587	1.1751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23080.	2319.3	.91855	893.57	122.60	102.85	5.743
Stddev	117.	10.2	.64398	22.02	1.95	1.49	5.337
%RSD	.50536	.43869	70.108	2.4639	1.5899	1.4507	92.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-17-a Acquired: 8/14/2020 23:58:30 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.52607	35.990	1105.6	2.0972	133.59	561.25	1930.1
Stddev	2.6604	.308	1.3	3.3394	.87	.89	18.3
%RSD	505.72	.85443	.11678	159.23	.65241	.15876	.94835
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	111.52
Stddev	1.81
%RSD	1.6246
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5538.3	4514.5	36633.	3088.8
Stddev	13.1	14.5	43.	17.5
%RSD	.23573	.32102	.11745	.56776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.267%	111.18%	109.05%	104.07%
Range				

Sample Name: 240-134795-b-19-a Acquired: 8/15/2020 0:02:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.25250	58369.	468.36	18.344	906.15	2.8549	21429.
Stddev	.18082	513.	1.88	.931	7.25	.2321	146.
%RSD	71.612	.87840	.40205	5.0745	.80046	8.1295	.67986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.000	56.633	90.356	66.982	110390.	7651.5	118.75
Stddev	.141	.302	.267	.771	613.	87.5	4.08
%RSD	7.051	.53397	.29512	1.1510	.55564	1.1440	3.4328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19637.	11723.	1.8466	766.57	121.99	76.641	2.223
Stddev	66.	24.	.3376	8.42	1.70	3.097	3.234
%RSD	.33606	.20691	18.282	1.0989	1.3925	4.0407	145.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-19-a Acquired: 8/15/2020 0:02:45 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.9804	34.252	1034.0	-.81055	127.31	592.80	2342.8
Stddev	1.8974	1.452	3.0	4.1009	4.60	.69	7.6
%RSD	95.811	4.2397	.29071	505.94	3.6125	.11613	.32611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	111.78
Stddev	8.79
%RSD	7.8644
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5532.0	4420.4	36059.	3003.4
Stddev	3.2	1.9	119.	25.8
%RSD	.05826	.04296	.32950	.85777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.167%	108.87%	107.35%	101.19%
Range				

Sample Name: 240-134795-b-20-a Acquired: 8/15/2020 0:07:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.96753	60020.	80.086	21.599	498.57	3.1581	22359.
Stddev	.31498	516.	1.537	.877	3.94	.0716	189.
%RSD	32.556	.85894	1.9195	4.0611	.79007	2.2685	.84748
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.772	50.750	96.230	75.512	120460.	8310.8	118.42
Stddev	.254	.639	.544	.231	1049.	53.1	2.23
%RSD	14.35	1.2592	.56563	.30581	.87076	.63924	1.8822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21265.	6891.6	.33463	939.55	135.62	40.754	2.448
Stddev	62.	59.9	.05419	13.35	1.69	.865	3.395
%RSD	.29063	.86989	16.195	1.4214	1.2494	2.1221	138.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-20-a Acquired: 8/15/2020 0:07:05 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8543	34.427	1211.8	1.1140	145.89	549.20	2107.8
Stddev	2.6466	.512	1.4	3.3668	3.66	1.05	3.8
%RSD	142.72	1.4879	.11915	302.21	2.5065	.19034	.17873
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	116.29
Stddev	1.22
%RSD	1.0473
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5529.3	4615.3	37253.	3128.6
Stddev	16.5	12.2	108.	30.6
%RSD	.29875	.26459	.29089	.97834
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.124%	113.66%	110.90%	105.41%
Range				

Sample Name: 240-134795-b-21-a Acquired: 8/15/2020 0:11:25 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.70688	72958.	91.453	20.472	803.88	3.9076	22674.
Stddev	.62488	377.	1.238	.657	3.96	.0535	125.
%RSD	88.399	.51634	1.3535	3.2099	.49248	1.3699	.55010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.400	75.691	114.49	89.476	156270.	9053.3	138.53
Stddev	.109	.286	.03	.819	914.	104.6	.92
%RSD	4.533	.37758	.02253	.91565	.58500	1.1557	.66633
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	26436.	10564.	1.2883	849.17	175.00	52.240	.8428
Stddev	57.	27.	.3716	7.78	1.10	1.946	4.866
%RSD	.21713	.25436	28.841	.91576	.62768	3.7256	577.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-21-a Acquired: 8/15/2020 0:11:25 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.9091	34.107	1297.7	1.5664	170.76	629.83	1939.7
Stddev	3.9043	.844	1.6	4.4864	2.71	1.82	8.3
%RSD	99.877	2.4734	.12055	286.42	1.5843	.28885	.42777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	129.97
Stddev	5.28
%RSD	4.0645
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5449.5	4590.3	37355.	3141.9
Stddev	10.8	18.0	36.	12.8
%RSD	.19893	.39304	.09736	.40802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.867%	113.05%	111.21%	105.86%
Range				

Sample Name: mb 240-446969/1-a Acquired: 8/15/2020 0:15:45 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.46299	17.418	-4.6783	-5.4945	.15298	.13933	64.341	.0297
Stddev	.45610	26.990	3.7582	.3823	.55796	.25408	1.762	.1824
%RSD	98.512	154.96	80.333	6.9572	364.73	182.37	2.7384	614.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.48919	.65243	1.8356	16.469	98.923	-1.0785	8.0021	.37106
Stddev	.19365	.40810	.1506	6.238	32.352	2.0035	17.597	.08444
%RSD	39.586	62.551	8.2021	37.875	32.704	185.77	219.90	22.756
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.61973	187.89	.85137	-.42359	.8806	.43038	30.810	.51934
Stddev	.39884	18.37	1.1249	1.0799	2.525	5.1977	.782	.21294
%RSD	64.356	9.7759	132.13	254.93	286.7	1207.7	2.5367	41.001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-446969/1-a Acquired: 8/15/2020 0:15:45 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.1020	-1.9443	-2.5990	3.7862	6.9930
Stddev	1.7144	10.123	.0512	2.0827	5.1921
%RSD	155.58	520.66	1.9682	55.007	74.247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6061.7	3913.8	32221.	2603.5
Stddev	15.8	8.4	84.	18.3
%RSD	.26069	.21551	.25918	.70262

Sample Name: CCV-4863699 Acquired: 8/15/2020 0:20:04 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	998.99	24991.	2020.2	5301.8	2026.7	1990.5	25234.	2039.
Stddev	.83	135.	2.0	12.6	8.4	5.5	29.	3.
%RSD	.08322	.53879	.09966	.23850	.41248	.27396	.11326	.1472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2022.9	2062.2	1970.7	24203.	26199.	2049.6	24409.	2032.2
Stddev	1.1	2.0	2.3	29.	70.	6.1	83.	1.5
%RSD	.05290	.09628	.11652	.11948	.26835	.29864	.33853	.07606
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1971.1	25952.	2059.6	1925.2	2059.	1986.0	2065.1	2047.6
Stddev	2.7	34.	1.9	4.8	6.	3.3	2.5	1.3
%RSD	.13536	.13226	.09177	.24803	.2869	.16585	.11994	.06173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/15/2020 0:20:04 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1965.9	1958.5	2085.3	19011.	1993.2
Stddev	11.7	14.6	1.1	77.	6.4
%RSD	.59617	.74358	.05492	.40270	.31944
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5495.9	3836.4	31035.	2537.9
Stddev	2.8	8.4	39.	14.0
%RSD	.05034	.21930	.12709	.55357

Sample Name: CCB Acquired: 8/15/2020 0:24:02 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.39222	-25.495	-3.3828	-2.7855	.25808	.16544	-.82916	-.0810
Stddev	.35139	27.928	.8658	.9215	.18172	.19919	1.8003	.1685
%RSD	89.591	109.54	25.596	33.084	70.412	120.40	217.12	208.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.28741	.08516	1.0407	-2.7306	31.360	.70197	4.1310	.00629
Stddev	.11512	.19578	.8117	2.8956	46.260	1.3242	32.784	.03613
%RSD	40.055	229.89	77.999	106.04	147.51	188.65	793.62	574.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.96221	97.362	-.12894	-.69538	-1.981	.94189	-.35852	.03907
Stddev	.40667	19.072	.42133	1.2167	4.324	3.8629	.67427	.04511
%RSD	42.264	19.589	326.76	174.97	218.3	410.13	188.07	115.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/15/2020 0:24:02 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.78619	-2.0645	.99402	-4.7713	4.1781
Stddev	.89921	4.0370	.02235	5.1541	1.9736
%RSD	114.38	195.55	2.2484	108.02	47.236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6195.0	3957.8	32537.	2670.0
Stddev	9.8	6.8	80.	8.1
%RSD	.15775	.17231	.24586	.30376

Sample Name: lcs 240-446969/2-a Acquired: 8/15/2020 0:28:23 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	93.609	9383.5	1911.9	992.67	1878.4	950.10	46946.
Stddev	.641	64.7	2.5	1.90	9.6	3.88	200.
%RSD	.68505	.68932	.13177	.19161	.51251	.40853	.42706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	962.4	950.84	966.61	929.85	9038.6	49236.	966.94
Stddev	1.9	1.12	5.92	3.87	41.0	282.	4.43
%RSD	.1957	.11802	.61260	.41579	.45350	.57208	.45845
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	44973.	957.62	946.28	48432.	972.20	897.62	923.4
Stddev	262.	4.06	2.43	217.	.38	1.08	5.6
%RSD	.58167	.42400	.25698	.44776	.03916	.11999	.6054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: lcs 240-446969/2-a Acquired: 8/15/2020 0:28:23 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1856.2	1972.8	973.62	1826.8	937.19	982.08	F 1638.6
Stddev	5.4	2.2	5.10	7.7	4.52	.68	16.4
%RSD	.29358	.11084	.52351	.42006	.48186	.06939	1.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							2000.0
Range							-15.500%

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	948.22
Stddev	13.94
%RSD	1.4696
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5311.1	3726.4	30247.	2540.0
Stddev	22.5	16.1	62.	16.8
%RSD	.42337	.43071	.20413	.66190

Sample Name: 240-134795-d-18-a Acquired: 8/15/2020 0:32:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.86631	62158.	k 265.03	19.858	674.26	3.2895	21831.
Stddev	.78732	251.	2.04	1.160	4.07	.2087	138.
%RSD	90.881	.40388	.77002	5.8431	.60401	6.3434	.63177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 2.981	61.002	k 99.963	71.349	128100.	7785.6	117.81
Stddev	1.570	.216	1.968	1.108	658.	81.8	1.29
%RSD	52.66	.35360	1.9687	1.5528	.51365	1.0505	1.0982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20957.	^ *****	2.2905	770.37	135.94	66.446	1.457
Stddev	32.	-----	.1315	13.00	1.05	2.778	4.029
%RSD	.15090	-----	5.7419	1.6871	.77580	4.1806	276.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-d-18-a Acquired: 8/15/2020 0:32:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 1.6283	35.117	1048.0	k 6.5331	137.42	k 605.29	1650.8
Stddev	6.7763	.871	2.5	4.1007	4.94	.27	9.5
%RSD	416.15	2.4811	.24182	62.768	3.5945	.04429	.57444
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	121.29
Stddev	2.46
%RSD	2.0269
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5536.8	4572.6	36930.	3083.1
Stddev	24.0	20.8	96.	14.2
%RSD	.43340	.45473	.26083	.46151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.242%	112.61%	109.94%	103.88%
Range				

Sample Name: SD 240-134795-d18a@5 Acquired: 8/15/2020 0:36:40 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04584	14122.	59.205	-.00293	152.96	.84186	5119.0	.5699
Stddev	.33965	105.	1.448	.44508	.57	.05753	20.3	.0552
%RSD	741.02	.74676	2.4463	15181.	.37175	6.8337	.39594	9.682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	11.730	22.764	17.572	29726.	1815.5	27.278	4928.4	2414.0
Stddev	.084	.711	.506	186.	45.3	2.357	38.0	6.7
%RSD	.71667	3.1243	2.8806	.62507	2.4935	8.6411	.77113	.27645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.26677	254.66	26.204	16.579	5.184	3.3636	6.4798	238.32
Stddev	.45018	26.96	.704	2.132	2.282	3.1819	.7031	.27
%RSD	168.75	10.587	2.6882	12.859	44.02	94.598	10.851	.11338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-134795-d18a@5 Acquired: 8/15/2020 0:36:40 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.16676	32.090	120.96	371.42	35.437
Stddev	2.2479	4.974	.86	10.77	5.709
%RSD	1348.0	15.501	.70959	2.8988	16.111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5953.3	4095.6	33291.	2753.8
Stddev	8.1	8.7	33.	16.2
%RSD	.13665	.21229	.09955	.58750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.805%	100.86%	99.104%	92.783%
Range				

Sample Name: PDS 240-134795-d18a Acquired: 8/15/2020 0:40:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	78.731	69136.	k 1945.9	913.49	2333.0	832.39	63769.
Stddev	.207	94.	1.7	.63	2.5	1.31	138.
%RSD	.26268	.13582	.08746	.06924	.10858	.15683	.21695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 856.8	1068.4	k 934.44	888.02	132750.	52873.	958.15
Stddev	12.1	1.7	1.29	1.61	287.	192.	1.92
%RSD	1.412	.15744	.13815	.18147	.21609	.36346	.20008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	60740.	^ *****	825.02	44840.	1155.7	843.92	819.5
Stddev	131.	-----	1.81	112.	1.3	1.41	4.7
%RSD	.21509	-----	.21966	.25047	.11166	.16752	.5708
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-134795-d18a Acquired: 8/15/2020 0:40:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 1606.4	2088.0	1869.0	k 1940.9	941.38	k 1669.2	3256.2
Stddev	4.0	1.7	2.9	16.4	6.34	1.3	12.5
%RSD	.25097	.08140	.15678	.84389	.67319	.08073	.38298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	950.87
Stddev	2.13
%RSD	.22403
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5129.0	4396.9	35606.	3018.9
Stddev	7.8	4.3	84.	7.8
%RSD	.15285	.09888	.23579	.25875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.816%	108.29%	106.00%	101.71%
Range				

Sample Name: 240-134795-d18b ms@5 Acquired: 8/15/2020 0:45:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17.863	20687.	416.02	195.62	618.08	185.88	14478.	189.0
Stddev	.306	17.	.82	1.00	2.90	.67	40.	.7
%RSD	1.7137	.08410	.19813	.51292	.46902	.35909	.27290	.3509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	210.60	216.44	205.04	39726.	12489.	219.55	14619.	4112.7
Stddev	3.03	.02	.76	120.	76.	2.22	55.	10.2
%RSD	1.4387	.00899	.37275	.30142	.61112	1.0094	.37888	.24888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	183.82	9653.1	233.86	196.40	99.52	365.23	392.36	465.25
Stddev	.88	16.8	.56	2.52	2.08	3.80	2.08	.08
%RSD	.48054	.17382	.23862	1.2831	2.089	1.0396	.53055	.01764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-d18b ms@5 Acquired: 8/15/2020 0:45:06 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	375.09	221.10	319.74	772.20	220.72
Stddev	1.03	8.76	.38	11.74	5.12
%RSD	.27581	3.9630	.11754	1.5209	2.3186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5674.1	4032.0	32715.	2664.8
Stddev	11.0	3.6	43.	8.0
%RSD	.19458	.08869	.13251	.30129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.405%	99.300%	97.391%	89.782%
Range				

Sample Name: 240-134795d18c msd@5 Acquired: 8/15/2020 0:49:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.218	21750.	416.89	197.61	740.51	187.28	14794.	191.1
Stddev	.554	24.	2.33	1.54	1.72	.65	11.	.3
%RSD	3.0430	.11175	.55829	.77727	.23215	.34531	.07460	.1577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	212.74	218.69	207.81	39713.	12666.	223.16	14678.	5870.8
Stddev	3.28	.35	1.46	78.	23.	4.11	28.	39.1
%RSD	1.5425	.15942	.70454	.19525	.18532	1.8402	.18878	.66644
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	186.57	9663.7	240.06	198.39	100.1	376.16	400.07	475.58
Stddev	.52	26.8	.82	2.43	5.9	2.06	2.09	.28
%RSD	.27858	.27784	.34035	1.2264	5.909	.54848	.52315	.05799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795d18c msd@5 Acquired: 8/15/2020 0:49:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	389.62	221.40	334.28	731.97	226.13
Stddev	4.11	2.19	.64	11.05	1.12
%RSD	1.0546	.98933	.19102	1.5098	.49383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5693.8	4059.9	33040.	2723.4
Stddev	6.5	6.8	13.	10.8
%RSD	.11391	.16753	.03887	.39783
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.716%	99.987%	98.358%	91.758%
Range				

Sample Name: 240-134795-b-22-a Acquired: 8/15/2020 0:53:38 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.87271	47169.	64.750	15.206	315.91	2.5908	16957.	1.156
Stddev	.31194	198.	1.325	.321	1.87	.0552	67.	.059
%RSD	35.744	.42007	2.0466	2.1081	.59170	2.1301	.39731	5.130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	42.633	77.370	54.547	87327.	6478.6	89.715	16853.	1705.7
Stddev	.490	.763	1.371	400.	62.3	1.673	46.	3.7
%RSD	1.1504	.98658	2.5135	.45764	.96096	1.8652	.27496	.21503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.55283	772.44	98.192	25.793	.7228	-.08959	34.096	958.75
Stddev	.44860	10.81	1.634	1.536	4.673	1.0616	.391	1.43
%RSD	81.146	1.3995	1.6644	5.9546	646.4	1185.0	1.1458	.14910
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134795-b-22-a Acquired: 8/15/2020 0:53:38 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.6216	108.20	522.76	1501.1	84.216
Stddev	3.2766	3.02	.57	7.7	.713
%RSD	124.99	2.7953	.10871	.51060	.84693
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5644.4	4463.6	36247.	3051.9
Stddev	12.9	16.3	22.	20.3
%RSD	.22820	.36420	.06198	.66612
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.938%	109.93%	107.91%	102.83%
Range				

Sample Name: 240-134795-b-23-a Acquired: 8/15/2020 0:57:50 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.0621	54211.	1151.8	21.881	550.50	3.5781	256010.
Stddev	.6112	365.	3.4	1.744	3.87	.1535	1896.
%RSD	29.643	.67393	.29156	7.9727	.70261	4.2901	.74066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.986	81.041	81.558	155.94	150710.	6771.4	99.424
Stddev	.201	.288	.665	1.37	1110.	49.3	2.401
%RSD	10.13	.35531	.81479	.88144	.73668	.72791	2.4150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51289.	7886.9	2.2974	1047.3	135.21	172.20	4.568
Stddev	355.	12.1	.3863	12.2	.61	2.67	.769
%RSD	.69141	.15373	16.813	1.1669	.45268	1.5496	16.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-23-a Acquired: 8/15/2020 0:57:50 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.9540	36.138	937.92	-2.1882	156.42	826.45	1484.6
Stddev	3.8690	.589	1.73	2.4483	4.60	1.45	9.8
%RSD	198.00	1.6295	.18403	111.89	2.9410	.17591	.65741
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	449.80
Stddev	3.58
%RSD	.79633
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5168.0	4200.4	34041.	2943.2
Stddev	8.5	8.2	100.	24.0
%RSD	.16492	.19516	.29501	.81703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.432%	103.45%	101.34%	99.163%
Range				

Sample Name: 240-134795-b-24-a Acquired: 8/15/2020 1:02:09 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.2323	60577.	96.297	42.001	618.10	3.2784	357880.
Stddev	.1745	391.	2.352	1.168	5.01	.1900	2958.
%RSD	7.8187	.64507	2.4422	2.7820	.81009	5.7965	.82660
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.351	68.201	98.407	113.49	126480.	12082.	104.97
Stddev	.087	1.127	1.962	8.32	967.	26.	1.84
%RSD	6.428	1.6527	1.9934	7.3346	.76418	.21343	1.7518
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	63266.	6717.7	1.3103	1396.2	152.71	43.285	2.167
Stddev	511.	893.0	.5252	15.5	2.49	.712	5.838
%RSD	.80700	13.293	40.083	1.1105	1.6294	1.6449	269.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-24-a Acquired: 8/15/2020 1:02:09 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14780	36.234	1578.0	.47202	153.97	396.56	2104.4
Stddev	2.4556	1.275	3.8	4.1157	3.60	.48	3.4
%RSD	1661.4	3.5178	.24300	871.94	2.3366	.12152	.16086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	613.77
Stddev	5.37
%RSD	.87555
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5013.2	4332.6	34476.	3049.7
Stddev	4.1	1.7	606.	17.0
%RSD	.08150	.03936	1.7587	.55587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.992%	106.70%	102.63%	102.75%
Range				

Sample Name: 240-134795-b-25-a Acquired: 8/15/2020 1:06:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.8407	53547.	85.302	37.533	594.41	2.9138	364970.
Stddev	.1881	256.	2.042	.167	2.00	.0943	3499.
%RSD	10.218	.47841	2.3936	.44483	.33691	3.2347	.95871
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.405	58.651	85.379	126.20	110880.	10844.	94.644
Stddev	.038	.577	.524	.91	542.	96.	1.984
%RSD	2.710	.98353	.61429	.72020	.48853	.88473	2.0961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	60561.	5613.8	1.5318	1342.2	135.20	38.253	5.914
Stddev	267.	27.1	.1949	9.7	3.41	1.386	3.527
%RSD	.44151	.48311	12.725	.72231	2.5205	3.6241	59.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-25-a Acquired: 8/15/2020 1:06:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8741	34.618	1404.2	1.0367	141.33	375.05	1876.3
Stddev	5.3616	1.403	1.4	2.3155	2.53	.29	9.8
%RSD	286.09	4.0523	.10269	223.36	1.7873	.07622	.52348
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	619.47
Stddev	8.43
%RSD	1.3608
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5031.1	4322.0	34895.	3072.2
Stddev	4.6	3.6	43.	19.5
%RSD	.09234	.08406	.12355	.63350
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.273%	106.44%	103.88%	103.51%
Range				

Sample Name: CCV-4863699 Acquired: 8/15/2020 1:11:04 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	997.37	24980.	2006.9	5291.7	2025.8	1986.2	25249.	2036.
Stddev	1.52	105.	5.0	33.9	9.8	8.4	134.	.
%RSD	.15249	.42091	.24683	.64126	.48322	.42460	.53207	.0102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2011.8	2056.4	1967.3	24093.	26200.	2053.4	24325.	2027.6
Stddev	2.3	4.2	2.1	124.	142.	11.1	130.	4.2
%RSD	.11530	.20238	.10657	.51358	.54122	.54058	.53642	.20704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1969.0	26031.	2047.8	1918.1	2062.	1968.0	2052.4	2043.2
Stddev	3.1	150.	2.9	3.9	5.	9.5	.5	5.3
%RSD	.15792	.57436	.14163	.20512	.2260	.48499	.02594	.26182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/15/2020 1:11:04 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1976.5	1960.0	2069.1	18984.	1994.9
Stddev	23.7	17.3	.7	66.	16.8
%RSD	1.1998	.88023	.03588	.34751	.84373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5491.1	3823.0	31013.	2525.6
Stddev	17.5	7.7	54.	23.1
%RSD	.31795	.20126	.17550	.91325

Sample Name: CCB Acquired: 8/15/2020 1:15:03 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.59383	-42.018	-3.4690	-3.6154	.15427	.13495	12.307	.0745
Stddev	.31751	9.354	2.4085	1.1467	.33485	.15240	5.682	.2299
%RSD	53.468	22.261	69.429	31.717	217.06	112.93	46.173	308.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06021	.05787	1.7175	-2.6474	26.492	-.04877	-15.132	.14637
Stddev	.12159	.61571	1.1412	2.3534	39.177	1.3738	32.766	.00633
%RSD	201.94	1064.0	66.444	88.894	147.88	2816.8	216.54	4.3236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0101	101.32	-.07341	.53804	1.136	2.1581	-.45689	.12356
Stddev	.0537	18.05	.33431	.59378	3.348	2.5939	.23133	.20162
%RSD	5.3183	17.818	455.44	110.36	294.6	120.19	50.631	163.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/15/2020 1:15:03 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.2897	4.3192	1.1926	10.431	3.6131
Stddev	.5800	2.6874	.1250	3.283	4.4768
%RSD	44.972	62.220	10.482	31.475	123.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6178.1	3946.4	32270.	2615.2
Stddev	19.2	14.4	65.	24.8
%RSD	.31043	.36448	.20241	.94659

Sample Name: 240-134795-b-26-a Acquired: 8/15/2020 1:19:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.9761	52976.	57.723	31.028	485.50	2.5916	280130.
Stddev	.4986	569.	2.102	.711	4.77	.1588	2984.
%RSD	25.231	1.0734	3.6415	2.2918	.98176	6.1294	1.0652
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.231	54.507	84.384	128.21	107820.	9343.7	98.030
Stddev	.021	.228	.339	.13	1215.	142.1	2.775
%RSD	1.718	.41884	.40205	.10448	1.1268	1.5209	2.8305
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	48515.	4359.0	1.0029	1219.9	127.27	44.780	-.7129
Stddev	400.	23.7	.4507	11.0	.56	.223	.6333
%RSD	.82520	.54451	44.946	.90156	.44011	.49902	88.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-26-a Acquired: 8/15/2020 1:19:22 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0319	35.093	1276.8	2.5208	124.76	334.71	1990.8
Stddev	3.0383	1.332	4.0	.9741	10.58	.69	17.7
%RSD	294.44	3.7966	.31462	38.643	8.4818	.20665	.89110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	456.50
Stddev	9.32
%RSD	2.0416
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5175.0	4260.2	34364.	2980.8
Stddev	10.5	4.5	88.	40.2
%RSD	.20256	.10541	.25713	1.3484
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.542%	104.92%	102.30%	100.43%
Range				

Sample Name: 240-134795-b-27-a Acquired: 8/15/2020 1:23:43 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.8294	50809.	1018.2	30.055	723.24	3.3011	245080.
Stddev	.1331	128.	7.9	.695	.19	.1126	446.
%RSD	7.2752	.25250	.77581	2.3112	.02630	3.4101	.18213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.8241	68.842	86.084	167.97	152560.	9013.0	98.600
Stddev	.1564	.323	.480	.14	420.	18.3	2.022
%RSD	18.97	.46942	.55804	.08371	.27558	.20252	2.0511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52508.	5515.7	1.7883	1017.3	147.70	100.62	3.501
Stddev	94.	15.2	.1480	13.9	.50	1.97	4.447
%RSD	.17834	.27601	8.2772	1.3614	.33926	1.9593	127.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-27-a Acquired: 8/15/2020 1:23:43 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.4422	34.262	1022.5	1.0298	143.47	1376.8	1458.0
Stddev	3.8168	.657	1.4	4.4128	.72	1.8	6.0
%RSD	156.29	1.9172	.14021	428.53	.50319	.13009	.41388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	431.44
Stddev	6.47
%RSD	1.4986
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5210.5	4332.3	35125.	3064.6
Stddev	11.5	9.1	33.	16.4
%RSD	.22159	.21056	.09525	.53511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.101%	106.69%	104.56%	103.25%
Range				

Sample Name: 240-134795-b-28-a Acquired: 8/15/2020 1:28:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.79165	48540.	k 2705.4	6.9820	909.50	4.2060	131270.
Stddev	.68039	320.	5.0	1.5572	6.96	.0968	895.
%RSD	85.945	.65963	.18529	22.304	.76572	2.3021	.68142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 12.68	78.124	k 79.067	144.14	228360.	3533.7	80.084
Stddev	16.42	.103	3.843	.35	1378.	18.5	1.699
%RSD	129.5	.13191	4.8609	.24408	.60346	.52448	2.1214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	74175.	^ *****	2.5304	876.80	135.15	1017.8	4.164
Stddev	528.	-----	.2936	16.59	2.02	6.9	1.741
%RSD	.71174	-----	11.604	1.8922	1.4972	.67543	41.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-28-a Acquired: 8/15/2020 1:28:01 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 6.6435	39.271	450.52	k 6.5164	187.03	k 4690.6	1618.7
Stddev	7.4398	.369	1.60	10.230	5.62	3.7	18.0
%RSD	111.99	.93850	.35513	156.98	3.0048	.07982	1.1110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	215.24
Stddev	5.44
%RSD	2.5288
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5267.1	4255.4	34539.	2953.0
Stddev	11.5	11.9	124.	24.5
%RSD	.21875	.28019	.35889	.83128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.993%	104.80%	102.82%	99.494%
Range				

Sample Name: 240-134795-b-29-a Acquired: 8/15/2020 1:32:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.4779	48013.	648.89	20.903	470.04	2.4031	262960.
Stddev	.0992	45.	2.93	.802	.73	.1523	688.
%RSD	6.7149	.09475	.45086	3.8379	.15482	6.3355	.26181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.569	56.720	75.966	143.18	114200.	6765.6	83.635
Stddev	.265	.329	1.317	11.04	352.	99.1	1.669
%RSD	16.88	.58045	1.7331	7.7128	.30839	1.4645	1.9962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	59279.	6269.6	1.2231	1262.7	128.60	227.08	4.987
Stddev	761.	868.4	.4419	18.5	1.32	1.58	5.460
%RSD	1.2839	13.851	36.133	1.4614	1.0236	.69420	109.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-29-a Acquired: 8/15/2020 1:32:16 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.68315	92.912	934.20	2.7966	117.37	2480.4	1485.2
Stddev	3.0299	1.030	2.57	2.6959	7.26	2.7	14.4
%RSD	443.51	1.1085	.27482	96.398	6.1832	.10706	.97218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	346.50
Stddev	7.43
%RSD	2.1431
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5215.6	4306.8	34283.	2999.9
Stddev	.5	3.6	616.	7.1
%RSD	.01031	.08444	1.7960	.23566
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.180%	106.07%	102.06%	101.07%
Range				

Sample Name: 240-134795-b-30-a Acquired: 8/15/2020 1:36:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.9572	41649.	66.078	30.660	567.02	2.1740	400640.
Stddev	.3621	181.	3.044	1.325	.52	.0947	1914.
%RSD	12.246	.43393	4.6061	4.3230	.09118	4.3549	.47776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.9141	46.958	71.749	96.382	82293.	9363.2	73.497
Stddev	.2981	.519	.384	.852	75.	24.8	2.751
%RSD	32.61	1.1059	.53529	.88371	.09149	.26519	3.7427
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56349.	4706.7	.63914	991.74	104.32	25.002	5.140
Stddev	75.	20.3	.23645	10.40	2.35	1.087	2.049
%RSD	.13306	.43023	36.996	1.0491	2.2510	4.3473	39.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-30-a Acquired: 8/15/2020 1:36:32 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.78354	35.759	1216.3	3.1050	103.22	277.58	2709.9
Stddev	2.3836	.380	1.7	3.1419	6.36	3.47	7.6
%RSD	304.21	1.0613	.14083	101.19	6.1659	1.2484	.28215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	574.52
Stddev	3.98
%RSD	.69356
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5034.0	4465.0	35986.	3150.7
Stddev	11.0	3.8	64.	11.7
%RSD	.21773	.08498	.17726	.37139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.320%	109.96%	107.13%	106.16%
Range				

Sample Name: 240-134795-b-31-a Acquired: 8/15/2020 1:41:00 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.1861	37189.	137.88	22.789	393.42	2.2845
Stddev	.4930	108.	.97	1.610	.57	.1569
%RSD	15.473	.29039	.70297	7.0669	.14404	6.8688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 758380.	1.315	37.040	58.645	110.36	84319.
Stddev	3447.	.230	.328	.536	1.00	36.
%RSD	.45453	17.47	.88616	.91419	.90911	.04265
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6666.5	71.871	69961.	5471.2	1.2558	1081.4
Stddev	27.6	2.324	184.	7.8	.2317	11.6
%RSD	.41408	3.2328	.26255	.14268	18.454	1.0686
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-134795-b-31-a Acquired: 8/15/2020 1:41:00 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	89.994	80.333	4.827	-4.2962	35.505	774.61
Stddev	1.442	2.365	4.469	5.4243	.585	.84
%RSD	1.6028	2.9434	92.58	126.26	1.6482	.10787
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.1988	92.610	536.63	2427.7	1130.1
Stddev	1.8429	.748	1.34	23.6	9.5
%RSD	153.72	.80720	.25038	.97257	.83799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4810.3	3995.9	32168.	2837.9
Stddev	7.9	3.5	56.	8.1
%RSD	.16470	.08844	.17274	.28606
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.794%	98.411%	95.763%	95.616%
Range				

Sample Name: 240-134795-b-32-a Acquired: 8/15/2020 1:45:30 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.8021	48865.	112.73	30.837	331.89	2.4202	323910.
Stddev	.6260	514.	2.87	.825	3.31	.0769	2674.
%RSD	34.739	1.0514	2.5454	2.6764	.99671	3.1763	.82542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.321	55.698	85.506	164.02	105110.	8986.4	92.025
Stddev	.177	.900	.569	.15	993.	80.5	1.055
%RSD	13.40	1.6161	.66584	.08955	.94500	.89541	1.1460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	68837.	6510.2	1.2270	1200.0	132.17	71.390	4.120
Stddev	685.	17.9	.1762	17.9	3.13	2.302	2.076
%RSD	.99518	.27471	14.365	1.4924	2.3669	3.2248	50.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-134795-b-32-a Acquired: 8/15/2020 1:45:30 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.5861	36.166	1077.1	1.1950	122.58	489.95	2519.5
Stddev	.6132	.888	2.1	3.1583	4.13	.65	12.3
%RSD	17.100	2.4563	.19327	264.30	3.3724	.13332	.48962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	472.45
Stddev	4.31
%RSD	.91168
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5066.2	4352.6	35297.	3071.4
Stddev	11.6	12.6	85.	34.5
%RSD	.22815	.28991	.24021	1.1229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.828%	107.20%	105.08%	103.48%
Range				

Sample Name: 240-134771-a-1-a@5 Acquired: 8/15/2020 1:49:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.53646	8576.7	-2.6981	52.884	22169.	.16669	1828.2	-.2171
Stddev	.44249	49.7	3.5292	1.032	310.	.09700	6.8	.0713
%RSD	82.483	.57993	130.80	1.9521	1.3998	58.192	.37060	32.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.4369	77.401	53.356	41880.	266.65	16.091	19922.	131.58
Stddev	.2200	.259	1.092	185.	31.42	1.233	35.	.31
%RSD	4.9581	.33505	2.0467	.44105	11.785	7.6611	.17773	.23433
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.47973	660.95	8.7793	286.57	1.292	-.11415	39.714	825.54
Stddev	.25511	4.95	.4675	1.63	4.024	5.6970	.577	1.45
%RSD	53.179	.74890	5.3250	.57038	311.5	4990.7	1.4530	.17509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134771-a-1-a@5 Acquired: 8/15/2020 1:49:59 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.3895	4.7613	31.220	252.66	416.08
Stddev	3.3145	8.6286	.441	5.83	2.03
%RSD	97.787	181.22	1.4115	2.3058	.48685
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5929.3	3953.4	32285.	2682.4
Stddev	6.1	2.4	44.	15.1
%RSD	.10248	.06085	.13658	.56263
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.426%	97.363%	96.111%	90.375%
Range				

Sample Name: 240-134771-a-2-a@5 Acquired: 8/15/2020 1:54:20 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.30312	12624.	16.211	-.89828	114.09	.73925	18137.	.8012
Stddev	.24069	43.	1.408	1.2610	1.07	.11792	166.	.1323
%RSD	79.405	.33840	8.6868	140.38	.93409	15.951	.91716	16.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17.082	29.667	47.592	37251.	4546.5	16.337	7454.7	809.90
Stddev	.145	.456	.340	314.	82.0	1.739	71.1	.25
%RSD	.84711	1.5355	.71514	.84245	1.8046	10.645	.95352	.03077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	15.479	160.52	39.575	25.163	3.822	3.1590	6.9680	142.53
Stddev	.367	7.99	.857	.561	2.782	2.8615	.1552	.45
%RSD	2.3740	4.9749	2.1652	2.2295	72.77	90.581	2.2272	.31692
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134771-a-2-a@5 Acquired: 8/15/2020 1:54:20 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.90338	32.892	140.46	657.15	23.679
Stddev	.43188	6.154	1.48	6.20	5.995
%RSD	47.806	18.709	1.0571	.94359	25.319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5932.8	4030.7	32770.	2678.9
Stddev	5.9	5.9	67.	15.8
%RSD	.09979	.14595	.20408	.58852
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.482%	99.267%	97.553%	90.260%
Range				

Sample Name: 240-134771-a-3-a@5 Acquired: 8/15/2020 1:58:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.63255	27171.	32.379	2.3334	174.43	1.4981	15705.	.5682
Stddev	.30456	239.	1.531	1.0198	1.64	.1472	169.	.2589
%RSD	48.148	.87821	4.7267	43.705	.94170	9.8278	1.0737	45.56
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	26.232	38.926	59.101	57955.	3242.3	25.339	9179.0	923.11
Stddev	.148	.290	1.199	637.	70.9	1.541	57.5	1.00
%RSD	.56353	.74552	2.0293	1.0987	2.1881	6.0830	.62666	.10825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21.596	223.60	66.320	42.130	4.373	2.0508	8.5573	189.38
Stddev	.170	15.94	1.077	.545	2.458	1.5941	.3328	.51
%RSD	.78762	7.1303	1.6247	1.2936	56.21	77.729	3.8896	.26949
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134771-a-3-a@5 Acquired: 8/15/2020 1:58:34 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	4.1011	59.519	206.15	576.96	24.556
Stddev	1.7898	4.552	1.68	8.11	5.972
%RSD	43.642	7.6480	.81659	1.4063	24.319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5882.5	4064.7	32982.	2754.6
Stddev	19.5	15.2	99.	22.7
%RSD	.33191	.37370	.29872	.82490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.689%	100.10%	98.186%	92.810%
Range				

Sample Name: CCV-4863699 Acquired: 8/15/2020 2:02:48 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	990.74	24990.	2008.0	5312.7	2040.9	1986.3	25017.	2036.
Stddev	.47	27.	8.4	40.8	5.1	1.7	23.	4.
%RSD	.04790	.10801	.41744	.76890	.25111	.08707	.09340	.2006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2009.5	2030.9	1959.1	23884.	26053.	2026.6	24036.	2005.4
Stddev	1.0	3.1	2.9	9.	65.	1.4	53.	7.5
%RSD	.05205	.15196	.14754	.03703	.24771	.07113	.22008	.37296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1968.9	25659.	2047.7	1915.1	2066.	1981.8	2049.0	2027.6
Stddev	6.7	4.	1.6	4.9	8.	10.5	.4	.9
%RSD	.34149	.01560	.07694	.25501	.3681	.53116	.01800	.04232
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/15/2020 2:02:48 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1976.5	1939.0	2067.3	18873.	1980.1
Stddev	30.8	5.2	1.8	45.	10.5
%RSD	1.5600	.26941	.08877	.23763	.53074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5571.4	3878.6	31739.	2599.7
Stddev	6.6	11.4	66.	1.1
%RSD	.11768	.29307	.20721	.04315

Sample Name: CCB Acquired: 8/15/2020 2:06:49 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.02188	5.3925	-4.3681	-4.0293	.61889	.27145	5.4711	.0879
Stddev	.77570	46.678	1.7112	.3636	.14749	.13580	1.5231	.0368
%RSD	3545.2	865.62	39.174	9.0237	23.832	50.027	27.839	41.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.01465	.39847	.90585	1.7313	-8.9705	-.13248	2.4551	.16690
Stddev	.11638	.53601	.28905	2.0703	8.7752	3.9647	13.628	.03285
%RSD	794.66	134.52	31.910	119.58	97.822	2992.6	555.10	19.680
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.91489	78.108	-.19265	-.23663	3.756	-3.4820	.28751	.46149
Stddev	.37480	18.736	.38453	.55462	1.847	.8627	.49309	.19399
%RSD	40.966	23.988	199.61	234.38	49.18	24.776	171.51	42.036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/15/2020 2:06:49 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.8170	1.4181	1.1730	2.6633	4.6506
Stddev	.5587	5.5880	.0837	6.6240	5.8101
%RSD	14.637	394.05	7.1323	248.71	124.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6198.9	3957.3	32825.	2645.7
Stddev	4.4	5.3	126.	27.0
%RSD	.07031	.13380	.38261	1.0205

Sample Name: CCVL-4857858 Acquired: 8/15/2020 2:11:11 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 95.404	F -53.193	F -3.5289	F 968.54	F .56033	F .33964	F -6.4837
Stddev	1.014	12.187	.2803	5.27	.31345	.16528	5.3783
%RSD	1.0627	22.910	7.9418	.54416	55.941	48.664	82.952
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	10.000	200.00	15.000	100.00	200.00	5.0000	5000.0
Range	30.500%	-30.500%	-30.500%	30.500%	-30.500%	-30.500%	-30.500%

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -.1240	F .47350	F 45.359	F 3.1721	164.84	F -2.0519	F 2.4315
Stddev	.0507	.16151	.557	.6016	2.84	54.123	1.9174
%RSD	40.88	34.110	1.2279	18.965	1.7259	2637.7	78.857
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail
Value	5.000	10.000	10.000	25.000		5000.0	50.000
Range	-30.50%	-30.500%	30.500%	-30.500%		-30.500%	-30.500%

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -13.241	F 4.2266	F .48259	F 55.517	F 19.087	F -.63836	F 918.1
Stddev	7.429	.1262	.44888	13.233	.662	1.8890	16.1
%RSD	56.111	2.9868	93.015	23.835	3.4696	295.92	1.758
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	5000.0	15.000	40.000	5000.0	40.000	10.000	20.00
Range	-30.500%	-30.500%	-30.500%	-30.500%	-30.500%	-30.500%	30.50%

Sample Name: CCVL-4857858 Acquired: 8/15/2020 2:11:11 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3.3654	F -.07595	F .10932	F .88142	F 2.4739	F 875.65	F 3.2872
Stddev	3.9597	.81225	.15562	1.8698	4.1260	.44	6.5979
%RSD	117.66	1069.5	142.36	212.13	166.78	.05039	200.71
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	20.000	100.00	50.000	20.000	50.000	50.000	500.00
Range	-30.500%	-30.500%	-30.500%	-30.500%	-30.500%	30.500%	-30.500%

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	F 7.2016
Stddev	3.4115
%RSD	47.371
Check ?	Chk Fail
Value	50.000
Range	-30.500%

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6326.2	4047.5	32965.	2657.9
Stddev	10.9	7.8	93.	21.2
%RSD	.17285	.19370	.28178	.79828

Sample Name: CHECK3 Acquired: 8/15/2020 2:15:25 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.72981	-44.178	-6.9773	-13.025	-.53023	-.04141	-17.037	-.1356
Stddev	.26977	14.057	.0719	.212	.26643	.06906	5.348	.0366
%RSD	36.964	31.820	1.0310	1.6261	50.249	166.78	31.390	27.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4918	.31676	.31982	-3.6027	27.871	-2.6138	3.5042	-.09945
Stddev	.1723	.07725	.14176	.4431	42.702	2.1394	24.693	.02902
%RSD	11.548	24.387	44.325	12.299	153.22	81.853	704.67	29.178
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0616	65.235	-3.7158	.26736	2.014	3.3230	-.99043	.16967
Stddev	.1393	9.749	.3368	.71212	3.839	1.6356	.12722	.23461
%RSD	13.124	14.944	9.0632	266.35	190.6	49.221	12.844	138.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CHECK3 Acquired: 8/15/2020 2:15:25 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.0240	.90848	-4.3521	7.8585	8.5288
Stddev	.5451	4.1579	.0638	7.3132	2.5504
%RSD	18.024	457.67	1.4655	93.061	29.904
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	W 10556.	W 6518.8	W 52801.	3637.5
Stddev	67.	39.7	745.	72.7
%RSD	.63432	.60894	1.4118	1.9996
Check ?	Chk Warn	Chk Warn	Chk Warn	Chk Pass
Value	166.33%	160.54%	157.19%	122.56%
Range	50.500%	50.500%	50.500%	

Sample Name: 240-134771-a-4-a@5 Acquired: 8/15/2020 2:19:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.47919	23701.	37.136	3.3997	170.09	1.4232	33203.	.5939
Stddev	.36295	191.	.619	.7925	1.43	.1874	135.	.1394
%RSD	75.741	.80667	1.6663	23.311	.83956	13.164	.40667	23.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27.281	33.618	75.904	58041.	2684.8	24.941	11810.	949.28
Stddev	.223	.497	.201	272.	32.4	1.084	57.	1.47
%RSD	.81794	1.4797	.26512	.46851	1.2066	4.3466	.48401	.15441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25.235	218.61	60.793	39.589	2.893	3.4194	7.9062	184.23
Stddev	.251	7.06	1.681	.959	1.136	2.5855	.9824	.15
%RSD	.99457	3.2311	2.7652	2.4227	39.28	75.613	12.426	.08211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134771-a-4-a@5 Acquired: 8/15/2020 2:19:42 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.4254	46.708	183.68	639.27	48.845
Stddev	1.1083	.981	1.59	10.24	5.511
%RSD	77.757	2.0996	.86757	1.6020	11.283
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5828.3	4025.3	33020.	2712.3
Stddev	12.8	8.2	98.	21.8
%RSD	.21903	.20400	.29616	.80463
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.836%	99.135%	98.300%	91.384%
Range				

Sample Name: 240-134771-a-5-a@5 Acquired: 8/15/2020 2:23:56 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.42101	16343.	24.967	2.7683	181.35	.96324	35943.	.7953
Stddev	.22691	77.	2.083	.6745	.39	.13973	60.	.1071
%RSD	53.897	.47263	8.3441	24.363	.21563	14.506	.16787	13.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19.840	43.804	53.790	44191.	2832.2	17.233	10801.	827.06
Stddev	.118	.244	.468	56.	4.1	.810	78.	.55
%RSD	.59268	.55773	.87090	.12598	.14457	4.7019	.72581	.06655
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19.367	166.71	60.416	31.727	2.475	1.3613	8.2052	163.53
Stddev	.286	11.05	.844	1.336	1.520	2.1484	.4983	.07
%RSD	1.4769	6.6265	1.3976	4.2103	61.40	157.82	6.0728	.04290
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-134771-a-5-a@5 Acquired: 8/15/2020 2:23:56 Type: Unk
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.8987	39.104	173.36	647.33	31.356
Stddev	2.2132	6.898	1.02	7.39	2.315
%RSD	76.352	17.639	.59036	1.1415	7.3816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5852.0	4016.1	32809.	2732.6
Stddev	8.7	7.8	31.	7.5
%RSD	.14869	.19385	.09591	.27510
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.209%	98.909%	97.670%	92.067%
Range				

Sample Name: CCV-4863699 Acquired: 8/15/2020 2:28:10 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1000.6	24910.	2020.0	5326.0	2027.1	1986.8	25176.	2036.
Stddev	1.2	99.	6.0	17.0	7.0	10.7	93.	3.
%RSD	.11687	.39617	.29924	.31847	.34344	.53815	.37022	.1251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2012.9	2069.9	1972.9	24038.	26088.	2042.4	24207.	2036.2
Stddev	1.0	6.6	5.9	77.	143.	4.8	25.	3.5
%RSD	.04749	.31694	.29909	.32186	.54664	.23271	.10308	.16947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1966.3	26091.	2054.9	1911.4	2084.	1986.9	2057.0	2056.4
Stddev	2.3	90.	.7	1.0	4.	5.3	4.4	2.4
%RSD	.11610	.34537	.03522	.05074	.1838	.26530	.21296	.11539
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4863699 Acquired: 8/15/2020 2:28:10 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1987.0	1957.2	2072.4	18851.	1999.6
Stddev	18.6	10.4	2.1	51.	10.6
%RSD	.93623	.52982	.10314	.27264	.53210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5583.3	3892.3	31472.	2597.7
Stddev	21.2	15.8	93.	8.7
%RSD	.38052	.40655	.29536	.33523

Sample Name: CCB Acquired: 8/15/2020 2:32:08 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.69262	4.5198	-2.2974	-4.5321	.33462	.22242	5.1203	-.0072
Stddev	.48719	17.708	2.8971	1.8194	.34539	.14417	2.0482	.2466
%RSD	70.340	391.79	126.10	40.145	103.22	64.819	40.001	3423.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05473	.13897	1.2952	-.68721	28.625	.07183	19.548	.20701
Stddev	.17766	.62435	.8076	.91429	3.954	1.2427	6.739	.02939
%RSD	324.61	449.26	62.354	133.04	13.813	1730.1	34.473	14.196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.98611	63.303	.04548	.03934	2.702	1.5164	-.04895	.38633
Stddev	.16714	14.552	.65913	.77003	1.846	3.6606	.52202	.04857
%RSD	16.949	22.988	1449.4	1957.3	68.31	241.40	1066.5	12.573
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 8/15/2020 2:32:08 Type: QC
Method: 2020 ICP I12 6010 200.7 Methods(v127) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	4.2403	-.82279	1.0945	6.2716	3.1253
Stddev	1.6026	2.9012	.1540	3.8335	4.0179
%RSD	37.795	352.61	14.067	61.125	128.56
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6203.5	3959.9	32839.	2641.9
Stddev	7.4	6.9	65.	37.5
%RSD	.11949	.17435	.19698	1.4179

US EPA Tune Check Report

Acq/Data Batch D:\Agilent\ICPMH\1\DATA\I14081420A.b

Acq. Date-Time 2020-08-14 10:27:58

Instrument Name G8421A JP18131103

[No Gas]

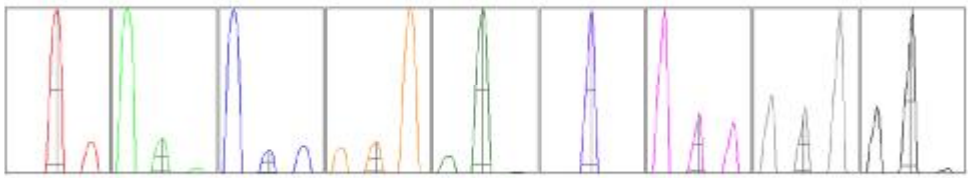
Sensitivity

Mass	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
9	356	3559.17	0.924	5.000	
24	1340	13399.64	1.743	5.000	
25	181	1808.94	1.545	5.000	
26	224	2237.48	1.189	5.000	
59	2087	20869.34	0.479	5.000	
115	2502	25024.19	1.019	5.000	
206	302	3015.63	1.154	5.000	
207	254	2537.31	0.572	5.000	
208	638	6375.26	1.232	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	353	356	357	361	353
24	1307	1368	1338	1331	1356
25	182	178	181	178	185
26	219	223	226	224	226
59	2072	2092	2099	2087	2085
115	2468	2508	2506	2538	2492
206	302	307	299	303	298
207	255	251	253	254	254
208	628	640	637	649	633

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	992.92	9.00	8.90 - 9.10	
24	3652.39	23.95	23.90 - 24.10	
25	488.80	24.95	24.90 - 25.10	
26	587.89	25.95	25.90 - 26.10	
59	5926.65	58.95	58.90 - 59.10	
115	8835.45	115.00	114.90 - 115.10	

US EPA Tune Check Report

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
206	1050.02	206.00	205.90 - 206.10	
207	797.79	206.95	206.90 - 207.10	
208	2008.64	207.95	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.36	0.488	0.850	
24	0.38	0.519	0.850	
25	0.37	0.500	0.850	
26	0.38	0.531	0.850	
59	0.36	0.529	0.850	
115	0.28	0.478	0.850	
206	0.28	0.448	0.850	
207	0.31	0.444	0.850	
208	0.31	0.476	0.850	

Integration Time [sec]	0.1
Acquisition Time [sec]	235
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.62 L/min	Dilution Gas	0.39 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.70 V	Nebulizer Pump	0.11 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	3 °C		

Lens Parameters

Extract 1	-0.1 V	Omega Lens	10.4 V	Deflect	13.4 V
Extract 2	-180.0 V	Cell Entrance	-30 V	Plate Bias	-32 V
Omega Bias	-65 V	Cell Exit	-51 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	127	Axis Gain	0.9995	QP Bias	-3.0 V
Mass Offset	133	Axis Offset	-0.08		

Hardware Settings

Torch

Torch H	-0.1 mm	Torch V	-0.9 mm

EM

Discriminator	4.2 mV	Analog HV	2305 V	Pulse HV	1540 V

Continuing Calibration Blank (CCB) Report

Sample Name	6020/200.8 Rinse
File Name	001_Blk.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:07:32
Sample Type	Blank
Total Dilution	1.0000
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Calibration Blank Report

Sample Name	ICIS
File Name	002CALB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:10:04
Sample Type	CalBlk
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Li	7	45	No Gas	85737.57	0.2
Be	9	45	No Gas	44.44	17.3
B	11	45	No Gas	9478.70	2.4
Na	23	45	He	21997.84	0.8
Mg	24	45	He	521.13	14.0
Al	27	45	He	220.00	18.4
K	39	45	He	72418.12	3.8
[Ca]	40	45	H2	65150.84	0.5
Ca	44	45	He	593.88	3.1
Ti	47	45	He	6.67	50.0
V	51	45	He	291.71	88.6
Cr	52	45	He	2774.75	0.5
Mn	55	45	He	426.68	10.7
Fe	56	103	H2	19907.46	1.3
Co	59	103	He	77.78	12.4
Ni	60	103	He	213.34	11.3
Cu	63	103	He	668.92	10.1
Zn	66	103	He	2373.57	5.1
As	75	103	He	95.72	93.3
Se	78	115	H2	9.00	19.2
Sr	88	103	He	118.89	8.6
Mo	95	103	He	50.00	17.6
Ag	107	103	He	56.66	36.7
Cd	111	115	He	11.11	45.8
Sn	118	115	He	351.12	15.1
Sb	123	115	He	44.45	30.3
Ba	137	115	He	17.78	65.8
W	182	159	He	8214.90	7.5
Tl	205	165	He	237.78	4.5
Pb	208	165	He	802.24	5.2

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li6	6	No Gas	1444414.16	1.7
Sc	45	No Gas	9012307.42	0.8
Sc	45	H2	6064886.67	0.7
Sc	45	He	842862.48	0.2

Calibration Blank Report

Name	Mass	Tune Mode	CPS	CPS RSD
Rh	103	H2	2508597.67	0.5
Rh	103	He	4686316.76	0.3
In	115	H2	7115626.50	0.7
In	115	He	2641648.07	0.5
Tb	159	He	6439806.69	0.4
Ho	165	He	6662050.43	0.8
Bi	209	He	4322541.50	0.9

Calibration Standard Report

Sample Name	STD3-4813844
File Name	003CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:12:35
Sample Type	CalStd
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Li	7	45	No Gas	338178.62	0.7
Be	9	45	No Gas	94824.48	0.3
B	11	45	No Gas	117542.04	1.0
Na	23	45	He	10427479.31	0.7
Mg	24	45	He	5896021.16	1.5
Al	27	45	He	2934550.30	1.1
K	39	45	He	6399155.86	1.5
[Ca]	40	45	H2	92482661.96	1.1
Ca	44	45	He	162245.15	1.3
Ti	47	45	He	4300.69	4.0
V	51	45	He	127696.77	1.1
Cr	52	45	He	155706.75	1.4
Mn	55	45	He	99500.32	0.3
Fe	56	103	H2	188840737.19	1.4
Co	59	103	He	245133.10	0.2
Ni	60	103	He	65306.83	1.2
Cu	63	103	He	175704.50	0.8
Zn	66	103	He	33501.00	0.7
As	75	103	He	26351.76	1.1
Se	78	115	H2	14054.72	1.4
Sr	88	103	He	165668.98	0.5
Mo	95	103	He	101532.89	1.3
Ag	107	103	He	343823.23	1.3
Cd	111	115	He	56438.70	1.3
Sn	118	115	He	132486.26	1.4
Sb	123	115	He	140496.37	0.8
Ba	137	115	He	67883.59	1.6
W	182	159	He	300365.26	1.6
Tl	205	165	He	687171.99	1.2
Pb	208	165	He	933747.54	1.2

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1418106.89	1.5	1444414.16	98.18	59.5	120.4	
Sc	45	No Gas	9025045.19	0.9	9012307.42	100.14	59.5	120.4	
Sc	45	H2	6088215.50	0.8	6064886.67	100.38	59.5	120.4	

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	843135.42	0.5	842862.48	100.03	59.5	120.4	
Rh	103	H2	2410907.17	0.8	2508597.67	96.11	59.5	120.4	
Rh	103	He	4510860.24	1.7	4686316.76	96.26	59.5	120.4	
In	115	H2	7074085.00	0.8	7115626.5	99.42	59.5	120.4	
In	115	He	2583053.21	1.6	2641648.07	97.78	59.5	120.4	
Tb	159	He	6407517.52	0.8	6439806.69	99.5	59.5	120.4	
Ho	165	He	6636868.21	1.1	6662050.43	99.62	59.5	120.4	
Bi	209	He	4245404.83	0.2	4322541.5	98.22	59.5	120.4	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4776298
File Name	004_ICV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:15:05
Sample Type	ICV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	50.513	ug/l	1.9	215499.45	50	101.03	89.5	110.5	
Be	9	45	No Gas	50.752	ug/l	1.5	48640.66	50	101.5	89.5	110.5	
B	11	45	No Gas	102.508	ug/l	1.4	65537.00	100	102.51	89.5	110.5	
Na	23	45	He	24690.899	ug/l	0.9	5214149.93	25000	98.76	89.5	110.5	
Mg	24	45	He	24626.993	ug/l	0.5	2934545.92	25000	98.51	89.5	110.5	
Al	27	45	He	24247.738	ug/l	0.6	1438077.38	25000	96.99	89.5	110.5	
K	39	45	He	24372.655	ug/l	0.3	3189374.88	25000	97.49	89.5	110.5	
Ca	44	45	He	23949.234	ug/l	0.6	78839.43	25000	95.8	89.5	110.5	
Ti	47	45	He	49.863	ug/l	2.7	2170.19	50	99.73	89.5	110.5	
V	51	45	He	50.318	ug/l	1.5	65076.82	50	100.64	89.5	110.5	
Cr	52	45	He	49.340	ug/l	1.8	79050.34	50	98.68	89.5	110.5	
Mn	55	45	He	50.488	ug/l	0.2	50973.44	50	100.98	89.5	110.5	
Fe	56	103	H2	23624.914	ug/l	0.3	91261045.31	25000	94.5	89.5	110.5	
Co	59	103	He	49.281	ug/l	2.0	122351.53	50	98.56	89.5	110.5	
Ni	60	103	He	49.731	ug/l	0.9	32985.13	50	99.46	89.5	110.5	
Cu	63	103	He	49.584	ug/l	0.8	88534.30	50	99.17	89.5	110.5	
Zn	66	103	He	48.203	ug/l	2.4	17548.82	50	96.41	89.5	110.5	
As	75	103	He	49.431	ug/l	2.2	13234.39	50	98.86	89.5	110.5	
Se	78	115	H2	49.564	ug/l	1.6	6991.43	50	99.13	89.5	110.5	
Sr	88	103	He	49.861	ug/l	1.8	83690.32	50	99.72	89.5	110.5	
Mo	95	103	He	50.022	ug/l	1.8	51440.82	50	100.04	89.5	110.5	
Ag	107	103	He	50.329	ug/l	0.8	175220.10	50	100.66	89.5	110.5	
Cd	111	115	He	50.912	ug/l	0.3	28952.66	50	101.82	89.5	110.5	
Sn	118	115	He	49.886	ug/l	0.9	66757.48	50	99.77	89.5	110.5	
Sb	123	115	He	52.786	ug/l	0.8	74736.48	50	105.57	89.5	110.5	
Ba	137	115	He	49.975	ug/l	1.5	34182.39	50	99.95	89.5	110.5	
W	182	159	He	49.594	ug/l	0.7	153699.59	50	99.19	89.5	110.5	
Tl	205	165	He	49.606	ug/l	0.5	345117.33	50	99.21	89.5	110.5	
Pb	208	165	He	49.558	ug/l	1.5	468718.87	50	99.12	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1446084.77	1.0	1444414.16	100.12	59.5	120.4	
Sc	45	No Gas	9118261.03	1.3	9012307.42	101.18	59.5	120.4	
Sc	45	H2	6097748.17	0.6	6064886.67	100.54	59.5	120.4	
Sc	45	He	851915.85	0.8	842862.48	101.07	59.5	120.4	

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2465701.00	0.5	2508597.67	98.29	59.5	120.4	
Rh	103	He	4566837.60	0.9	4686316.76	97.45	59.5	120.4	
In	115	H2	7095917.00	0.9	7115626.5	99.72	59.5	120.4	
In	115	He	2602108.68	0.4	2641648.07	98.5	59.5	120.4	
Tb	159	He	6433306.97	0.5	6439806.69	99.9	59.5	120.4	
Ho	165	He	6717298.20	1.2	6662050.43	100.83	59.5	120.4	
Bi	209	He	4279001.92	0.9	4322541.5	98.99	59.5	120.4	

Initial Calibration Blank (ICB) Report

Sample Name	ICB
File Name	005_ICB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:17:31
Sample Type	ICB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.335	ug/l	47.9	87215.91	8	
Be	9	45	No Gas	0.018	ug/l	68.8	62.22	1	
B	11	45	No Gas	2.814	ug/l	5.2	11076.50	20	
Na	23	45	He	4.804	ug/l	8.4	23138.53	1000	
Mg	24	45	He	1.981	ug/l	46.6	758.92	1000	
Al	27	45	He	1.409	ug/l	4.0	304.45	50	
K	39	45	He	1.265	ug/l	1123.5	73034.38	1000	
Ca	44	45	He	14.721	ug/l	110.8	645.58	1000	
Ti	47	45	He	-0.104	ug/l	N/A	2.22	20	
V	51	45	He	0.125	ug/l	221.0	452.40	2	
Cr	52	45	He	0.056	ug/l	89.4	2878.11	2	
Mn	55	45	He	-0.049	ug/l	N/A	380.01	5	
Fe	56	103	H2	1.243	ug/l	14.6	24533.16	50	
Co	59	103	He	0.008	ug/l	81.2	98.89	1	
Ni	60	103	He	0.013	ug/l	514.0	222.23	2	
Cu	63	103	He	-0.034	ug/l	N/A	608.91	2	
Zn	66	103	He	0.074	ug/l	600.2	2403.56	20	
As	75	103	He	0.312	ug/l	104.7	181.94	2	
Se	78	115	H2	-0.012	ug/l	N/A	7.33	2	
Sr	88	103	He	-0.003	ug/l	N/A	113.34	10	
Mo	95	103	He	0.010	ug/l	45.7	61.11	10	
Ag	107	103	He	0.006	ug/l	105.4	76.66	0.2	
Cd	111	115	He	0.007	ug/l	191.7	15.56	1	
Sn	118	115	He	0.048	ug/l	76.6	418.90	100	
Sb	123	115	He	0.164	ug/l	16.2	282.23	1	
Ba	137	115	He	-0.003	ug/l	N/A	15.56	5	
W	182	159	He	0.174	ug/l	110.7	8744.12	10	
Tl	205	165	He	0.024	ug/l	51.2	405.57	0.5	
Pb	208	165	He	0.003	ug/l	185.5	838.92	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1473855.79	0.3	1444414.16	102.04	59.5	120.4	
Sc	45	No Gas	9078190.47	0.6	9012307.42	100.73	59.5	120.4	
Sc	45	H2	6066705.00	0.3	6064886.67	100.03	59.5	120.4	
Sc	45	He	848029.46	0.8	842862.48	100.61	59.5	120.4	

Initial Calibration Blank (ICB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2482588.42	0.8	2508597.67	98.96	59.5	120.4	
Rh	103	He	4698261.06	1.3	4686316.76	100.25	59.5	120.4	
In	115	H2	7207216.83	0.1	7115626.5	101.29	59.5	120.4	
In	115	He	2662109.84	0.4	2641648.07	100.77	59.5	120.4	
Tb	159	He	6452420.85	0.8	6439806.69	100.2	59.5	120.4	
Ho	165	He	6744944.18	0.9	6662050.43	101.24	59.5	120.4	
Bi	209	He	4346929.69	1.0	4322541.5	100.56	59.5	120.4	

Low Level Continuing Calibration Verification (ICVL) Report

Sample Name	ICVL-4781477
File Name	006ICVL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:20:02
Sample Type	ICVL
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	upload

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	%Rec	%Low	%High	QC Flag
Li	7	45	No Gas	7.782	ug/l	3.6	106826.71	8	97.28	69.5	130.5	
Be	9	45	No Gas	0.952	ug/l	2.3	958.93	1	95.2	69.5	130.5	
B	11	45	No Gas	19.644	ug/l	4.0	20357.59	20	98.22	69.5	130.5	
Na	23	45	He	969.022	ug/l	1.0	226163.74	1000	96.9	69.5	130.5	
Mg	24	45	He	987.011	ug/l	0.3	118204.40	1000	98.7	69.5	130.5	
Al	27	45	He	47.312	ug/l	2.6	3030.35	50	94.62	69.5	130.5	
K	39	45	He	1013.805	ug/l	1.3	202973.38	1000	101.38	69.5	130.5	
Ca	44	45	He	1018.611	ug/l	0.8	3930.54	1000	101.86	69.5	130.5	
Ti	47	45	He	9.597	ug/l	9.7	423.34	10	95.97	69.5	130.5	
V	51	45	He	4.949	ug/l	4.9	6670.54	5	98.98	69.5	130.5	
Cr	52	45	He	2.050	ug/l	2.6	5976.87	2	102.5	69.5	130.5	
Mn	55	45	He	5.025	ug/l	1.2	5465.55	5	100.5	69.5	130.5	
Fe	56	103	H2	99.461	ug/l	1.0	405841.08	100	99.46	69.5	130.5	
Co	59	103	He	0.977	ug/l	2.2	2589.16	1	97.7	69.5	130.5	
Ni	60	103	He	1.969	ug/l	6.2	1558.99	2	98.45	69.5	130.5	
Cu	63	103	He	2.010	ug/l	3.7	4362.95	2	100.5	69.5	130.5	
Zn	66	103	He	14.738	ug/l	2.7	7216.35	20	73.69	69.5	130.5	
As	75	103	He	4.714	ug/l	7.3	1393.65	5	94.28	69.5	130.5	
Se	78	115	H2	4.823	ug/l	5.7	703.35	5	96.46	69.5	130.5	
Sr	88	103	He	9.609	ug/l	1.1	16792.52	10	96.09	69.5	130.5	
Mo	95	103	He	4.844	ug/l	1.1	5202.15	5	96.88	69.5	130.5	
Ag	107	103	He	1.041	ug/l	2.5	3808.35	1	104.1	69.5	130.5	
Cd	111	115	He	1.048	ug/l	12.0	618.55	1	104.8	69.5	130.5	
Sn	118	115	He	10.225	ug/l	2.5	14227.56	10	102.25	69.5	130.5	
Sb	123	115	He	2.143	ug/l	3.2	3135.96	2	107.15	69.5	130.5	
Ba	137	115	He	4.950	ug/l	4.3	3467.16	5	99	69.5	130.5	
W	182	159	He	9.806	ug/l	1.0	37250.69	10	98.06	69.5	130.5	
Tl	205	165	He	0.985	ug/l	1.8	7103.14	1	98.5	69.5	130.5	
Pb	208	165	He	0.985	ug/l	1.4	10129.47	1	98.5	69.5	130.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1437334.76	0.8	1444414.16	99.51	59.5	120.4	
Sc	45	No Gas	9138825.75	0.3	9012307.42	101.4	59.5	120.4	

Low Level Continuing Calibration Verification (ICVL) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	6092483.17	0.5	6064886.67	100.46	59.5	120.4	
Sc	45	He	852521.55	0.7	842862.48	101.15	59.5	120.4	
Rh	103	H2	2478975.25	1.3	2508597.67	98.82	59.5	120.4	
Rh	103	He	4727003.70	0.6	4686316.76	100.87	59.5	120.4	
In	115	H2	7250842.50	0.6	7115626.5	101.9	59.5	120.4	
In	115	He	2652632.35	0.9	2641648.07	100.42	59.5	120.4	
Tb	159	He	6481154.88	0.9	6439806.69	100.64	59.5	120.4	
Ho	165	He	6731930.29	0.0	6662050.43	101.05	59.5	120.4	
Bi	209	He	4332247.05	0.8	4322541.5	100.22	59.5	120.4	

ICSA Report

Sample Name	ICSA-4812499
File Name	007ICSA.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:22:32
Sample Type	ICSA
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-0.695	ug/l	N/A	84023.26	8	
Be	9	45	No Gas	0.007	ug/l	285.7	51.11	2	
B	11	45	No Gas	1.365	ug/l	25.1	10218.10	20	
Na	23	45	He	49638.110	ug/l	0.9	10496322.64	75200	
Mg	24	45	He	49320.026	ug/l	1.0	5896647.13	75200	
Al	27	45	He	48128.834	ug/l	0.4	2864066.83	75200	
K	39	45	He	48550.757	ug/l	1.0	6302192.67	75200	
Ca	44	45	He	48972.417	ug/l	0.7	161129.31	75200	
Ti	47	45	He	967.485	ug/l	0.9	42134.25	1505	
V	51	45	He	0.120	ug/l	55.6	450.75	4	
Cr	52	45	He	0.523	ug/l	12.1	3623.84	4	
Mn	55	45	He	0.225	ug/l	19.9	658.91	4	
Fe	56	103	H2	49670.189	ug/l	1.4	186204590.56	75200	
Co	59	103	He	0.150	ug/l	9.0	442.23	2	
Ni	60	103	He	0.214	ug/l	16.8	343.34	4	
Cu	63	103	He	1.488	ug/l	1.1	3240.40	4	
Zn	66	103	He	-3.602	ug/l	N/A	1156.73	20	
As	75	103	He	-0.134	ug/l	N/A	56.97	4	
Se	78	115	H2	-0.001	ug/l	N/A	8.67	10	
Sr	88	103	He	1.560	ug/l	0.4	2690.30	20	
Mo	95	103	He	1021.806	ug/l	3.7	1033941.73	1505	
Ag	107	103	He	0.011	ug/l	43.7	91.11	2	
Cd	111	115	He	0.171	ug/l	7.3	107.63	2	
Sn	118	115	He	0.147	ug/l	11.4	537.79	20	
Sb	123	115	He	0.086	ug/l	14.6	164.45	4	
Ba	137	115	He	0.236	ug/l	29.9	177.78	2	
W	182	159	He	0.198	ug/l	59.0	8884.22	20	
Tl	205	165	He	0.012	ug/l	29.8	325.56	2	
Pb	208	165	He	0.199	ug/l	2.4	2692.36	2	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1427475.00	1.6	1444414.16	98.83	59.5	120.4	
Sc	45	No Gas	9016069.36	0.5	9012307.42	100.04	59.5	120.4	
Sc	45	H2	6075883.67	0.3	6064886.67	100.18	59.5	120.4	
Sc	45	He	854868.82	1.4	842862.48	101.42	59.5	120.4	

ICSA Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2393281.42	0.8	2508597.67	95.4	59.5	120.4	
Rh	103	He	4498010.10	0.7	4686316.76	95.98	59.5	120.4	
In	115	H2	6970500.50	1.0	7115626.5	97.96	59.5	120.4	
In	115	He	2584342.86	1.3	2641648.07	97.83	59.5	120.4	
Tb	159	He	6503614.88	0.4	6439806.69	100.99	59.5	120.4	
Ho	165	He	6729344.32	1.0	6662050.43	101.01	59.5	120.4	
Bi	209	He	4234493.31	0.8	4322541.5	97.96	59.5	120.4	

ICSAB Report

Sample Name	ICSAB-4646729
File Name	008ICAB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:25:01
Sample Type	ICSAB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	201.626	ug/l	0.8	593786.17	200	100.81	49.5	150.5	
Be	9	45	No Gas	191.580	ug/l	0.8	181381.28	200	95.79	49.5	150.5	
B	11	45	No Gas	99.908	ug/l	0.6	63382.12	100	99.91	49.5	150.5	
Na	23	45	He	52175.422	ug/l	1.3	10829320.68	50000	104.35	49.5	150.5	
Mg	24	45	He	50626.135	ug/l	0.8	5942021.01	50000	101.25	49.5	150.5	
Al	27	45	He	49430.494	ug/l	1.8	2887511.48	50000	98.86	49.5	150.5	
K	39	45	He	50193.790	ug/l	1.5	6393602.25	50000	100.39	49.5	150.5	
Ca	44	45	He	50636.283	ug/l	1.5	163531.23	50000	101.27	49.5	150.5	
Ti	47	45	He	986.458	ug/l	0.7	42173.36	1000	98.65	49.5	150.5	
V	51	45	He	200.466	ug/l	0.6	254511.43	200	100.23	49.5	150.5	
Cr	52	45	He	197.273	ug/l	1.0	303051.45	200	98.64	49.5	150.5	
Mn	55	45	He	199.680	ug/l	1.3	197326.68	200	99.84	49.5	150.5	
Fe	56	103	H2	51305.557	ug/l	1.1	189162363.85	50000	102.61	49.5	150.5	
Co	59	103	He	197.786	ug/l	0.9	483102.62	200	98.89	49.5	150.5	
Ni	60	103	He	195.821	ug/l	0.8	127235.41	200	97.91	49.5	150.5	
Cu	63	103	He	199.000	ug/l	0.9	347787.24	200	99.5	49.5	150.5	
Zn	66	103	He	101.751	ug/l	1.2	33932.04	100	101.75	49.5	150.5	
As	75	103	He	199.966	ug/l	0.7	52420.83	200	99.98	49.5	150.5	
Se	78	115	H2	203.045	ug/l	1.8	28066.30	200	101.52	49.5	150.5	
Sr	88	103	He	201.161	ug/l	0.7	331993.15	200	100.58	49.5	150.5	
Mo	95	103	He	1049.200	ug/l	1.3	1061013.26	1000	104.92	49.5	150.5	
Ag	107	103	He	100.237	ug/l	0.8	343418.78	100	100.24	49.5	150.5	
Cd	111	115	He	205.210	ug/l	0.6	114845.43	200	102.61	49.5	150.5	
Sn	118	115	He	203.170	ug/l	1.4	266589.73	200	101.58	49.5	150.5	
Sb	123	115	He	104.116	ug/l	1.2	145065.37	100	104.12	49.5	150.5	
Ba	137	115	He	202.617	ug/l	0.7	136376.52	200	101.31	49.5	150.5	
W	182	159	He	2112.165	ug/l	2.4	6263754.47	2000	105.61	49.5	150.5	
Tl	205	165	He	100.125	ug/l	0.2	692015.41	100	100.12	49.5	150.5	
Pb	208	165	He	200.415	ug/l	1.0	1881299.58	200	100.21	49.5	150.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1398121.65	0.3	1444414.16	96.8	59.5	120.4	
Sc	45	No Gas	9012804.08	0.6	9012307.42	100.01	59.5	120.4	
Sc	45	H2	6052844.33	3.1	6064886.67	99.8	59.5	120.4	
Sc	45	He	839213.42	0.7	842862.48	99.57	59.5	120.4	

ICSAB Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2353694.17	0.4	2508597.67	93.83	59.5	120.4	
Rh	103	He	4494810.79	0.8	4686316.76	95.91	59.5	120.4	
In	115	H2	6960712.00	1.3	7115626.5	97.82	59.5	120.4	
In	115	He	2561565.63	1.0	2641648.07	96.97	59.5	120.4	
Tb	159	He	6495089.88	1.4	6439806.69	100.86	59.5	120.4	
Ho	165	He	6675392.51	1.3	6662050.43	100.2	59.5	120.4	
Bi	209	He	4244719.13	0.2	4322541.5	98.2	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	009_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:27:30
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	51.047	ug/l	1.7	213565.82	50	102.09	89.5	110.5	
Be	9	45	No Gas	51.378	ug/l	0.5	48492.34	50	102.76	89.5	110.5	
B	11	45	No Gas	101.143	ug/l	0.7	63807.45	100	101.14	89.5	110.5	
Na	23	45	He	25613.029	ug/l	0.4	5316435.35	25000	102.45	89.5	110.5	
Mg	24	45	He	26068.470	ug/l	0.4	3053606.48	25000	104.27	89.5	110.5	
Al	27	45	He	25381.436	ug/l	1.4	1479821.85	25000	101.53	89.5	110.5	
K	39	45	He	25551.818	ug/l	0.1	3283490.56	25000	102.21	89.5	110.5	
Ca	44	45	He	25415.283	ug/l	1.2	82207.82	25000	101.66	89.5	110.5	
Ti	47	45	He	50.380	ug/l	2.9	2155.74	50	100.76	89.5	110.5	
V	51	45	He	51.172	ug/l	1.8	65050.36	50	102.34	89.5	110.5	
Cr	52	45	He	51.149	ug/l	0.9	80456.89	50	102.3	89.5	110.5	
Mn	55	45	He	50.819	ug/l	0.8	50434.90	50	101.64	89.5	110.5	
Fe	56	103	H2	25250.201	ug/l	1.7	95786888.57	25000	101	89.5	110.5	
Co	59	103	He	50.014	ug/l	1.4	124556.97	50	100.03	89.5	110.5	
Ni	60	103	He	49.739	ug/l	0.6	33096.63	50	99.48	89.5	110.5	
Cu	63	103	He	50.372	ug/l	0.4	90214.87	50	100.74	89.5	110.5	
Zn	66	103	He	47.749	ug/l	1.9	17460.96	50	95.5	89.5	110.5	
As	75	103	He	49.794	ug/l	1.1	13373.43	50	99.59	89.5	110.5	
Se	78	115	H2	50.410	ug/l	0.7	7127.16	50	100.82	89.5	110.5	
Sr	88	103	He	50.478	ug/l	0.3	84997.98	50	100.96	89.5	110.5	
Mo	95	103	He	50.209	ug/l	0.5	51797.68	50	100.42	89.5	110.5	
Ag	107	103	He	50.250	ug/l	0.4	175495.50	50	100.5	89.5	110.5	
Cd	111	115	He	51.304	ug/l	1.2	29037.22	50	102.61	89.5	110.5	
Sn	118	115	He	51.647	ug/l	1.7	68776.00	50	103.29	89.5	110.5	
Sb	123	115	He	50.896	ug/l	1.3	71723.76	50	101.79	89.5	110.5	
Ba	137	115	He	50.898	ug/l	2.0	34649.04	50	101.8	89.5	110.5	
W	182	159	He	52.019	ug/l	0.7	160993.41	50	104.04	89.5	110.5	
Tl	205	165	He	51.176	ug/l	2.0	353955.52	50	102.35	89.5	110.5	
Pb	208	165	He	50.987	ug/l	1.7	479441.96	50	101.97	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1423542.08	1.9	1444414.16	98.55	59.5	120.4	
Sc	45	No Gas	8979004.92	1.2	9012307.42	99.63	59.5	120.4	
Sc	45	H2	5975372.17	0.4	6064886.67	98.52	59.5	120.4	
Sc	45	He	837454.41	0.2	842862.48	99.36	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2421678.50	1.4	2508597.67	96.54	59.5	120.4	
Rh	103	He	4581091.07	1.0	4686316.76	97.75	59.5	120.4	
In	115	H2	7111975.00	0.8	7115626.5	99.95	59.5	120.4	
In	115	He	2589782.22	0.4	2641648.07	98.04	59.5	120.4	
Tb	159	He	6440356.97	0.3	6439806.69	100.01	59.5	120.4	
Ho	165	He	6678640.43	0.9	6662050.43	100.25	59.5	120.4	
Bi	209	He	4298283.30	0.9	4322541.5	99.44	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	010_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:29:56
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-0.480	ug/l	N/A	84634.43	8	
Be	9	45	No Gas	0.026	ug/l	32.9	68.89	1	
B	11	45	No Gas	1.604	ug/l	31.3	10354.85	20	
Na	23	45	He	8.998	ug/l	15.6	23706.08	1000	
Mg	24	45	He	2.651	ug/l	9.3	827.81	1000	
Al	27	45	He	2.147	ug/l	28.5	343.34	50	
K	39	45	He	4.896	ug/l	328.7	72540.87	1000	
Ca	44	45	He	7.640	ug/l	85.7	614.44	1000	
Ti	47	45	He	0.080	ug/l	100.5	10.00	20	
V	51	45	He	0.017	ug/l	771.3	309.75	2	
Cr	52	45	He	0.024	ug/l	577.4	2791.42	2	
Mn	55	45	He	0.024	ug/l	131.0	446.68	5	
Fe	56	103	H2	1.853	ug/l	19.0	26995.94	50	
Co	59	103	He	0.015	ug/l	81.9	116.67	1	
Ni	60	103	He	0.035	ug/l	44.4	240.00	2	
Cu	63	103	He	-0.003	ug/l	N/A	672.25	2	
Zn	66	103	He	-0.269	ug/l	N/A	2317.99	20	
As	75	103	He	0.343	ug/l	25.1	192.03	2	
Se	78	115	H2	-0.010	ug/l	N/A	7.67	2	
Sr	88	103	He	-0.001	ug/l	N/A	117.78	10	
Mo	95	103	He	0.064	ug/l	37.5	118.89	10	
Ag	107	103	He	0.003	ug/l	182.8	66.67	0.2	
Cd	111	115	He	0.017	ug/l	94.9	21.10	1	
Sn	118	115	He	0.060	ug/l	66.9	430.01	100	
Sb	123	115	He	0.108	ug/l	21.1	198.89	1	
Ba	137	115	He	-0.005	ug/l	N/A	14.44	5	
W	182	159	He	0.327	ug/l	35.9	9183.32	10	
Tl	205	165	He	0.022	ug/l	15.5	392.24	0.5	
Pb	208	165	He	0.008	ug/l	65.5	873.35	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1439756.01	0.6	1444414.16	99.68	59.5	120.4	
Sc	45	No Gas	9023291.59	0.6	9012307.42	100.12	59.5	120.4	
Sc	45	H2	5990917.50	0.2	6064886.67	98.78	59.5	120.4	
Sc	45	He	837147.09	1.2	842862.48	99.32	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2491945.92	1.4	2508597.67	99.34	59.5	120.4	
Rh	103	He	4750201.06	1.0	4686316.76	101.36	59.5	120.4	
In	115	H2	7211583.33	2.3	7115626.5	101.35	59.5	120.4	
In	115	He	2626325.92	1.0	2641648.07	99.42	59.5	120.4	
Tb	159	He	6444974.47	0.8	6439806.69	100.08	59.5	120.4	
Ho	165	He	6648897.65	1.3	6662050.43	99.8	59.5	120.4	
Bi	209	He	4362191.49	0.3	4322541.5	100.92	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	mb 240-446726/1-a@2
File Name	011_Blk.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:53:05
Sample Type	Blank
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-0.194	ug/l	N/A	83677.87	8	
Be	9	45	No Gas	-0.002	ug/l	N/A	42.22	1	
B	11	45	No Gas	2.412	ug/l	26.1	10579.47	20	
Na	23	45	He	21.843	ug/l	1.0	26219.31	1000	
Mg	24	45	He	11.392	ug/l	10.6	1841.25	1000	
Al	27	45	He	12.953	ug/l	7.0	967.82	50	
K	39	45	He	45.845	ug/l	43.5	77274.27	1000	
Ca	44	45	He	28.583	ug/l	26.0	677.79	1000	
Ti	47	45	He	0.211	ug/l	76.0	15.55	20	
V	51	45	He	0.147	ug/l	122.2	472.01	2	
Cr	52	45	He	0.575	ug/l	14.5	3608.27	2	
Mn	55	45	He	0.141	ug/l	20.7	560.02	5	
Fe	56	103	H2	12.637	ug/l	11.3	68023.83	50	
Co	59	103	He	0.036	ug/l	14.0	165.56	1	
Ni	60	103	He	0.159	ug/l	8.6	311.12	2	
Cu	63	103	He	0.242	ug/l	11.2	1076.72	2	
Zn	66	103	He	-4.385	ug/l	N/A	923.37	20	
As	75	103	He	-0.266	ug/l	N/A	22.75	2	
Se	78	115	H2	-0.002	ug/l	N/A	8.33	2	
Sr	88	103	He	0.067	ug/l	43.7	227.78	10	
Mo	95	103	He	0.128	ug/l	14.6	180.00	10	
Ag	107	103	He	0.006	ug/l	54.9	76.66	0.2	
Cd	111	115	He	0.017	ug/l	35.5	19.99	1	
Sn	118	115	He	16.522	ug/l	0.8	21925.53	100	
Sb	123	115	He	0.035	ug/l	43.9	91.11	1	
Ba	137	115	He	0.102	ug/l	16.1	85.56	5	
W	182	159	He	0.328	ug/l	16.3	8737.45	10	
Tl	205	165	He	0.020	ug/l	12.8	365.56	0.5	
Pb	208	165	He	0.024	ug/l	30.5	992.25	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1420014.36	1.5	1444414.16	98.31	59.5	120.4	
Sc	45	No Gas	8846137.15	0.7	9012307.42	98.16	59.5	120.4	
Sc	45	H2	5849687.50	0.3	6064886.67	96.45	59.5	120.4	
Sc	45	He	832603.46	0.9	842862.48	98.78	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2451149.00	1.5	2508597.67	97.71	59.5	120.4	
Rh	103	He	4546666.76	0.6	4686316.76	97.02	59.5	120.4	
In	115	H2	6797312.00	0.8	7115626.5	95.53	59.5	120.4	
In	115	He	2553723.14	1.0	2641648.07	96.67	59.5	120.4	
Tb	159	He	6128393.78	0.7	6439806.69	95.16	59.5	120.4	
Ho	165	He	6450458.77	0.2	6662050.43	96.82	59.5	120.4	
Bi	209	He	4176401.22	0.5	4322541.5	96.62	59.5	120.4	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 240-446726/2-a@2
File Name	012LCSS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:55:37
Sample Type	LCSS
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	252.459	ug/l	1.4	701456.81	250	100.98	79.5	120.5	
Be	9	45	No Gas	242.348	ug/l	0.7	222947.49	250	96.94	79.5	120.5	
B	11	45	No Gas	50.085	ug/l	2.2	35468.55	50	100.17	79.5	120.5	
Na	23	45	He	12470.901	ug/l	1.4	2566163.37	12500	99.77	79.5	120.5	
Mg	24	45	He	12586.784	ug/l	1.0	1455712.20	12500	100.69	79.5	120.5	
Al	27	45	He	2315.427	ug/l	0.5	133458.07	2500	92.62	79.5	120.5	
K	39	45	He	12544.246	ug/l	2.0	1627360.42	12500	100.35	79.5	120.5	
Ca	44	45	He	12064.963	ug/l	0.5	38828.93	12500	96.52	79.5	120.5	
Ti	47	45	He	233.312	ug/l	1.5	9830.14	250	93.32	79.5	120.5	
V	51	45	He	238.690	ug/l	1.5	298468.92	250	95.48	79.5	120.5	
Cr	52	45	He	239.401	ug/l	0.8	361701.81	250	95.76	79.5	120.5	
Mn	55	45	He	235.619	ug/l	1.3	229290.06	250	94.25	79.5	120.5	
Fe	56	103	H2	2406.067	ug/l	1.7	9024642.99	2500	96.24	79.5	120.5	
Co	59	103	He	237.794	ug/l	0.4	579868.40	250	95.12	79.5	120.5	
Ni	60	103	He	238.021	ug/l	1.1	154360.94	250	95.21	79.5	120.5	
Cu	63	103	He	237.340	ug/l	1.5	414008.83	250	94.94	79.5	120.5	
Zn	66	103	He	247.819	ug/l	1.8	79231.08	250	99.13	79.5	120.5	
As	75	103	He	471.457	ug/l	0.2	123261.79	500	94.29	79.5	120.5	
Se	78	115	H2	469.943	ug/l	1.7	63990.35	500	93.99	79.5	120.5	
Sr	88	103	He	235.736	ug/l	0.3	388399.41	250	94.29	79.5	120.5	
Mo	95	103	He	234.931	ug/l	0.2	237235.86	250	93.97	79.5	120.5	
Ag	107	103	He	47.585	ug/l	1.6	162781.39	50	95.17	79.5	120.5	
Cd	111	115	He	239.678	ug/l	1.0	132534.02	250	95.87	79.5	120.5	
Sn	118	115	He	498.304	ug/l	0.6	645592.25	500	99.66	79.5	120.5	
Sb	123	115	He	50.596	ug/l	0.9	69680.81	50	101.19	79.5	120.5	
Ba	137	115	He	474.107	ug/l	1.2	315276.96	500	94.82	79.5	120.5	
W	182	159	He	46.953	ug/l	0.2	141156.67	50	93.91	79.5	120.5	
Tl	205	165	He	494.650	ug/l	2.0	3300239.45	500	98.93	79.5	120.5	
Pb	208	165	He	241.506	ug/l	1.3	2188995.46	250	96.6	79.5	120.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1382398.93	0.8	1444414.16	95.71	59.5	120.4	
Sc	45	No Gas	8758052.71	0.5	9012307.42	97.18	59.5	120.4	
Sc	45	H2	5865276.17	0.4	6064886.67	96.71	59.5	120.4	
Sc	45	He	826683.63	0.8	842862.48	98.08	59.5	120.4	

Laboratory Control Sample (LCS) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2389877.83	1.4	2508597.67	95.27	59.5	120.4	
Rh	103	He	4487385.38	0.8	4686316.76	95.76	59.5	120.4	
In	115	H2	6857545.50	0.6	7115626.5	96.37	59.5	120.4	
In	115	He	2531061.83	0.9	2641648.07	95.81	59.5	120.4	
Tb	159	He	6221910.03	0.2	6439806.69	96.62	59.5	120.4	
Ho	165	He	6445881.83	0.9	6662050.43	96.76	59.5	120.4	
Bi	209	He	4143814.70	0.6	4322541.5	95.87	59.5	120.4	

Sample Report

Sample Name	240-134698-a-25-c@2
File Name	013SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 12:58:03
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	20.804	ug/l	3.2	129926.89	10000	
Be	9	45	No Gas	1.581	ug/l	4.1	1448.98	2000	
B	11	45	No Gas	41.650	ug/l	2.0	30044.14	500	
Na	23	45	He	5306.042	ug/l	2.0	1043765.27	3000000	
Mg	24	45	He	5294.609	ug/l	0.4	579015.72	3000000	
Al	27	45	He	23819.323	ug/l	0.8	1295700.50	500000	
K	39	45	He	2582.478	ug/l	0.6	369966.38	3000000	
Ca	44	45	He	481373.501	ug/l	0.8	1442763.33	3000000	
Ti	47	45	He	1469.982	ug/l	0.2	58508.28	10000	
V	51	45	He	90.516	ug/l	2.1	107139.81	20000	
Cr	52	45	He	69.148	ug/l	1.4	100570.35	10000	
Mn	55	45	He	504.548	ug/l	0.6	463619.70	20000	
Fe	56	103	H2	44306.529	ug/l	1.2	154755737.70	500000	
Co	59	103	He	10.764	ug/l	1.3	25311.57	20000	
Ni	60	103	He	20.486	ug/l	1.7	12956.00	20000	
Cu	63	103	He	28.612	ug/l	0.3	48537.60	20000	
Zn	66	103	He	108.965	ug/l	1.9	34729.43	20000	
As	75	103	He	40.225	ug/l	4.1	10194.37	20000	
Se	78	115	H2	0.411	ug/l	18.2	63.33	10000	
Sr	88	103	He	1779.849	ug/l	1.4	2819329.40	20000	
Mo	95	103	He	1.950	ug/l	5.6	1939.05	10000	
Ag	107	103	He	0.098	ug/l	7.8	374.45	100	
Cd	111	115	He	1.100	ug/l	3.9	605.44	5000	
Sn	118	115	He	19.660	ug/l	1.1	25225.65	10000	
Sb	123	115	He	0.454	ug/l	5.5	652.24	200	
Ba	137	115	He	244.094	ug/l	0.5	158763.41	20000	
W	182	159	He	0.411	ug/l	16.8	9016.52	10000	
Tl	205	165	He	0.183	ug/l	6.9	1451.21	2000	
Pb	208	165	He	37.295	ug/l	0.6	338908.86	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1359874.77	1.2	1444414.16	94.15	59.5	120.4	
Sc	45	No Gas	8476054.66	1.3	9012307.42	94.05	59.5	120.4	
Sc	45	H2	5406379.00	0.8	6064886.67	89.14	59.5	120.4	
Sc	45	He	781319.08	0.8	842862.48	92.7	59.5	120.4	
Rh	103	H2	2229800.67	0.8	2508597.67	88.89	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4315332.61	0.2	4686316.76	92.08	59.5	120.4	
In	115	H2	6727845.17	1.1	7115626.5	94.55	59.5	120.4	
In	115	He	2475270.78	0.2	2641648.07	93.7	59.5	120.4	
Tb	159	He	6163621.84	1.6	6439806.69	95.71	59.5	120.4	
Ho	165	He	6449530.02	0.6	6662050.43	96.81	59.5	120.4	
Bi	209	He	4143832.61	1.3	4322541.5	95.87	59.5	120.4	

Sample Report

Sample Name	SD 240-134698-a-25-c@10
File Name	014SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:00:39
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	4.823	ug/l	6.4	91148.63	10000	
Be	9	45	No Gas	0.296	ug/l	17.9	302.23	2000	
B	11	45	No Gas	9.522	ug/l	3.1	13608.66	500	
Na	23	45	He	955.827	ug/l	0.5	207323.75	3000000	
Mg	24	45	He	1062.264	ug/l	0.7	118026.01	3000000	
Al	27	45	He	4416.222	ug/l	0.8	243428.11	500000	
K	39	45	He	508.463	ug/l	2.3	128367.55	3000000	
Ca	44	45	He	98344.803	ug/l	0.2	298935.47	3000000	
Ti	47	45	He	287.380	ug/l	2.3	11589.24	10000	
V	51	45	He	17.557	ug/l	2.1	21267.22	20000	
Cr	52	45	He	13.646	ug/l	1.1	22188.52	10000	
Mn	55	45	He	100.968	ug/l	0.6	94272.47	20000	
Fe	56	103	H2	8711.729	ug/l	0.9	31675857.86	500000	
Co	59	103	He	2.189	ug/l	1.9	5339.94	20000	
Ni	60	103	He	4.197	ug/l	3.0	2883.66	20000	
Cu	63	103	He	5.792	ug/l	3.5	10586.27	20000	
Zn	66	103	He	19.033	ug/l	4.0	8075.73	20000	
As	75	103	He	7.798	ug/l	2.4	2101.32	20000	
Se	78	115	H2	0.089	ug/l	5.7	20.67	10000	
Sr	88	103	He	329.823	ug/l	1.9	536214.49	20000	
Mo	95	103	He	0.391	ug/l	12.6	436.68	10000	
Ag	107	103	He	0.016	ug/l	7.7	106.67	100	
Cd	111	115	He	0.242	ug/l	25.1	144.42	5000	
Sn	118	115	He	3.351	ug/l	3.8	4679.74	10000	
Sb	123	115	He	0.075	ug/l	15.6	145.56	200	
Ba	137	115	He	47.797	ug/l	2.3	31833.20	20000	
W	182	159	He	0.097	ug/l	21.3	8283.81	10000	
Tl	205	165	He	0.049	ug/l	6.5	551.13	2000	
Pb	208	165	He	7.738	ug/l	1.0	70503.54	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1357071.58	0.3	1444414.16	93.95	59.5	120.4	
Sc	45	No Gas	8391637.17	0.4	9012307.42	93.11	59.5	120.4	
Sc	45	H2	5447559.67	1.0	6064886.67	89.82	59.5	120.4	
Sc	45	He	791204.99	0.7	842862.48	93.87	59.5	120.4	
Rh	103	H2	2320170.58	1.4	2508597.67	92.49	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4428496.77	0.7	4686316.76	94.5	59.5	120.4	
In	115	H2	6803366.67	0.8	7115626.5	95.61	59.5	120.4	
In	115	He	2534006.77	1.4	2641648.07	95.93	59.5	120.4	
Tb	159	He	6275288.92	0.9	6439806.69	97.45	59.5	120.4	
Ho	165	He	6410789.05	0.7	6662050.43	96.23	59.5	120.4	
Bi	209	He	4295008.72	1.6	4322541.5	99.36	59.5	120.4	

Sample Report

Sample Name	PDS 240-134698-a-25-c@2
File Name	015SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:03:14
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	558.554	ug/l	2.1	1368887.83	10000	
Be	9	45	No Gas	506.772	ug/l	0.8	439824.53	2000	
B	11	45	No Gas	141.452	ug/l	1.3	78658.95	500	
Na	23	45	He	30259.687	ug/l	0.2	5796553.10	3000000	
Mg	24	45	He	31011.552	ug/l	0.4	3354537.44	3000000	
Al	27	45	He	28279.324	ug/l	0.6	1522509.59	500000	
K	39	45	He	28280.022	ug/l	1.5	3348682.78	3000000	
Ca	44	45	He	502723.055	ug/l	0.4	1491408.65	3000000	
Ti	47	45	He	1955.742	ug/l	0.5	77045.43	10000	
V	51	45	He	588.670	ug/l	0.7	688240.07	20000	
Cr	52	45	He	561.322	ug/l	0.5	789988.20	10000	
Mn	55	45	He	990.958	ug/l	0.7	900955.45	20000	
Fe	56	103	H2	48879.913	ug/l	0.4	167124980.84	500000	
Co	59	103	He	514.383	ug/l	1.5	1177207.63	20000	
Ni	60	103	He	503.826	ug/l	1.0	306445.78	20000	
Cu	63	103	He	512.140	ug/l	0.7	837736.72	20000	
Zn	66	103	He	627.552	ug/l	1.4	185042.75	20000	
As	75	103	He	1018.825	ug/l	0.7	249890.88	20000	
Se	78	115	H2	965.425	ug/l	0.6	127029.78	10000	
Sr	88	103	He	2289.930	ug/l	2.4	3539917.22	20000	
Mo	95	103	He	507.773	ug/l	1.4	481188.23	10000	
Ag	107	103	He	101.170	ug/l	1.0	324771.84	100	LDR Warning
Cd	111	115	He	499.500	ug/l	1.6	263962.55	5000	
Sn	118	115	He	1083.951	ug/l	1.5	1341792.24	10000	
Sb	123	115	He	107.873	ug/l	0.2	141937.68	200	
Ba	137	115	He	1238.385	ug/l	0.7	787038.20	20000	
W	182	159	He	0.460	ug/l	11.8	9023.19	10000	
Tl	205	165	He	1008.067	ug/l	0.2	6649225.99	2000	
Pb	208	165	He	540.806	ug/l	0.5	4845333.67	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1313929.02	1.5	1444414.16	90.97	59.5	120.4	
Sc	45	No Gas	8263499.12	0.9	9012307.42	91.69	59.5	120.4	
Sc	45	H2	5288041.67	0.7	6064886.67	87.19	59.5	120.4	
Sc	45	He	773356.53	0.5	842862.48	91.75	59.5	120.4	
Rh	103	H2	2182620.58	0.1	2508597.67	87.01	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4211567.89	0.6	4686316.76	89.87	59.5	120.4	
In	115	H2	6626768.50	0.8	7115626.5	93.13	59.5	120.4	
In	115	He	2418885.88	0.5	2641648.07	91.57	59.5	120.4	
Tb	159	He	6072367.54	1.1	6439806.69	94.29	59.5	120.4	
Ho	165	He	6372542.52	0.2	6662050.43	95.65	59.5	120.4	
Bi	209	He	4067156.78	0.4	4322541.5	94.09	59.5	120.4	

Sample Report

Sample Name	240-134698-a-25-d ms@2
File Name	016SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:06:07
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	267.294	ug/l	0.7	681946.73	10000	
Be	9	45	No Gas	240.327	ug/l	1.7	204345.26	2000	
B	11	45	No Gas	88.615	ug/l	1.9	51453.45	500	
Na	23	45	He	16799.623	ug/l	0.9	3169683.14	3000000	
Mg	24	45	He	17580.687	ug/l	1.0	1868084.23	3000000	
Al	27	45	He	25885.687	ug/l	0.7	1368732.34	500000	
K	39	45	He	14141.193	ug/l	0.7	1677226.22	3000000	
Ca	44	45	He	491053.633	ug/l	0.8	1430861.20	3000000	
Ti	47	45	He	1692.476	ug/l	0.5	65488.30	10000	
V	51	45	He	321.354	ug/l	1.0	369102.62	20000	
Cr	52	45	He	295.224	ug/l	0.1	409255.73	10000	
Mn	55	45	He	682.941	ug/l	0.6	609944.91	20000	
Fe	56	103	H2	44942.637	ug/l	3.0	153348551.05	500000	
Co	59	103	He	236.155	ug/l	1.4	538787.32	20000	
Ni	60	103	He	241.118	ug/l	1.2	146297.97	20000	
Cu	63	103	He	238.548	ug/l	1.0	389310.95	20000	
Zn	66	103	He	323.468	ug/l	1.5	96119.25	20000	
As	75	103	He	487.248	ug/l	1.0	119181.44	20000	
Se	78	115	H2	444.920	ug/l	0.9	58190.67	10000	
Sr	88	103	He	2006.794	ug/l	1.7	3092603.21	20000	
Mo	95	103	He	234.891	ug/l	1.5	221919.41	10000	
Ag	107	103	He	47.005	ug/l	0.8	150454.65	100	
Cd	111	115	He	240.726	ug/l	0.7	126421.41	5000	
Sn	118	115	He	465.967	ug/l	1.1	573372.89	10000	
Sb	123	115	He	24.482	ug/l	1.2	32043.34	200	
Ba	137	115	He	642.233	ug/l	1.0	405596.44	20000	
W	182	159	He	35.473	ug/l	1.9	106603.22	10000	
Tl	205	165	He	481.546	ug/l	0.2	3174675.15	2000	
Pb	208	165	He	259.650	ug/l	0.8	2325310.13	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1319269.24	1.0	1444414.16	91.34	59.5	120.4	
Sc	45	No Gas	8095109.40	0.6	9012307.42	89.82	59.5	120.4	
Sc	45	H2	5226128.00	0.4	6064886.67	86.17	59.5	120.4	
Sc	45	He	759550.21	1.1	842862.48	90.12	59.5	120.4	
Rh	103	H2	2178949.75	1.9	2508597.67	86.86	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4198408.72	0.4	4686316.76	89.59	59.5	120.4	
In	115	H2	6586524.67	0.6	7115626.5	92.56	59.5	120.4	
In	115	He	2403647.35	0.7	2641648.07	90.99	59.5	120.4	
Tb	159	He	6109230.31	1.2	6439806.69	94.87	59.5	120.4	
Ho	165	He	6368988.92	1.4	6662050.43	95.6	59.5	120.4	
Bi	209	He	4085953.31	0.3	4322541.5	94.53	59.5	120.4	

Sample Report

Sample Name	240-134698-a-25-e msd@2
File Name	017SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:08:37
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	263.329	ug/l	1.3	672092.37	10000	
Be	9	45	No Gas	236.599	ug/l	1.2	200920.24	2000	
B	11	45	No Gas	86.541	ug/l	1.1	50385.39	500	
Na	23	45	He	16905.288	ug/l	1.8	3162404.87	3000000	
Mg	24	45	He	17297.677	ug/l	1.1	1822347.50	3000000	
Al	27	45	He	24869.276	ug/l	1.3	1303934.67	500000	
K	39	45	He	14276.670	ug/l	1.2	1678386.01	3000000	
Ca	44	45	He	468755.943	ug/l	1.7	1354261.32	3000000	
Ti	47	45	He	1646.332	ug/l	0.4	63161.10	10000	
V	51	45	He	316.912	ug/l	0.6	360931.55	20000	
Cr	52	45	He	294.713	ug/l	0.7	405090.65	10000	
Mn	55	45	He	640.091	ug/l	0.9	566855.88	20000	
Fe	56	103	H2	41464.864	ug/l	1.3	140655861.24	500000	
Co	59	103	He	233.366	ug/l	1.4	531243.71	20000	
Ni	60	103	He	239.636	ug/l	1.1	145077.29	20000	
Cu	63	103	He	234.544	ug/l	1.0	381936.21	20000	
Zn	66	103	He	360.099	ug/l	0.8	106523.52	20000	
As	75	103	He	479.068	ug/l	0.8	116922.34	20000	
Se	78	115	H2	437.376	ug/l	0.9	57017.09	10000	
Sr	88	103	He	1842.077	ug/l	1.0	2832551.42	20000	
Mo	95	103	He	229.846	ug/l	1.2	216671.61	10000	
Ag	107	103	He	46.938	ug/l	0.6	149906.58	100	
Cd	111	115	He	230.022	ug/l	1.1	121400.38	5000	
Sn	118	115	He	456.991	ug/l	0.7	565096.82	10000	
Sb	123	115	He	22.153	ug/l	0.6	29141.36	200	
Ba	137	115	He	632.588	ug/l	0.8	401498.41	20000	
W	182	159	He	33.628	ug/l	1.0	101219.08	10000	
Tl	205	165	He	473.335	ug/l	1.5	3135217.65	2000	
Pb	208	165	He	279.546	ug/l	2.3	2515201.86	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1312156.30	1.2	1444414.16	90.84	59.5	120.4	
Sc	45	No Gas	8084850.79	0.8	9012307.42	89.71	59.5	120.4	
Sc	45	H2	5187556.00	0.5	6064886.67	85.53	59.5	120.4	
Sc	45	He	753114.78	0.3	842862.48	89.35	59.5	120.4	
Rh	103	H2	2165654.50	1.4	2508597.67	86.33	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4189192.61	0.6	4686316.76	89.39	59.5	120.4	
In	115	H2	6565149.17	1.0	7115626.5	92.26	59.5	120.4	
In	115	He	2415621.56	0.5	2641648.07	91.44	59.5	120.4	
Tb	159	He	6093776.29	0.4	6439806.69	94.63	59.5	120.4	
Ho	165	He	6399599.19	1.1	6662050.43	96.06	59.5	120.4	
Bi	209	He	4112575.81	0.8	4322541.5	95.14	59.5	120.4	

Sample Report

Sample Name	240-134698-a-26-c@2
File Name	018SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:11:04
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	33.450	ug/l	3.0	150581.60	10000	
Be	9	45	No Gas	2.160	ug/l	9.6	1852.37	2000	
B	11	45	No Gas	124.245	ug/l	2.1	67757.06	500	
Na	23	45	He	10683.582	ug/l	0.6	1986939.85	3000000	
Mg	24	45	He	9401.767	ug/l	2.4	981383.43	3000000	
Al	27	45	He	33332.811	ug/l	1.9	1731276.53	500000	
K	39	45	He	3658.548	ug/l	0.8	473774.37	3000000	
Ca	44	45	He	672060.572	ug/l	1.0	1923275.07	3000000	
Ti	47	45	He	2089.295	ug/l	0.5	79403.74	10000	
V	51	45	He	186.996	ug/l	0.6	211085.79	20000	
Cr	52	45	He	170.858	ug/l	0.3	233683.73	10000	
Mn	55	45	He	1309.737	ug/l	0.5	1148627.17	20000	
Fe	56	103	H2	114741.064	ug/l	1.7	379896767.67	500000	
Co	59	103	He	19.444	ug/l	1.1	43941.40	20000	
Ni	60	103	He	123.136	ug/l	1.9	73982.25	20000	
Cu	63	103	He	296.094	ug/l	0.9	477769.37	20000	
Zn	66	103	He	12526.116	ug/l	1.1	3601682.08	20000	
As	75	103	He	71.298	ug/l	1.9	17320.23	20000	
Se	78	115	H2	2.699	ug/l	5.1	354.34	10000	
Sr	88	103	He	3876.943	ug/l	1.3	5909164.21	20000	
Mo	95	103	He	16.124	ug/l	1.5	15107.25	10000	
Ag	107	103	He	0.708	ug/l	4.7	2290.21	100	
Cd	111	115	He	8.898	ug/l	2.5	4629.77	5000	
Sn	118	115	He	27.594	ug/l	1.8	33862.08	10000	
Sb	123	115	He	1.245	ug/l	3.5	1649.01	200	
Ba	137	115	He	305.401	ug/l	1.3	190695.19	20000	
W	182	159	He	1.488	ug/l	7.5	11915.52	10000	
Tl	205	165	He	0.447	ug/l	3.4	3127.08	2000	
Pb	208	165	He	56.117	ug/l	0.7	495874.32	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1311051.83	1.3	1444414.16	90.77	59.5	120.4	
Sc	45	No Gas	7982797.46	1.5	9012307.42	88.58	59.5	120.4	
Sc	45	H2	5134976.67	1.3	6064886.67	84.67	59.5	120.4	
Sc	45	He	746075.70	0.5	842862.48	88.52	59.5	120.4	
Rh	103	H2	2113824.58	0.9	2508597.67	84.26	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4152333.59	0.8	4686316.76	88.61	59.5	120.4	
In	115	H2	6459337.50	0.3	7115626.5	90.78	59.5	120.4	
In	115	He	2376644.67	1.7	2641648.07	89.97	59.5	120.4	
Tb	159	He	6097474.76	1.4	6439806.69	94.68	59.5	120.4	
Ho	165	He	6276629.61	0.8	6662050.43	94.21	59.5	120.4	
Bi	209	He	4034824.29	1.6	4322541.5	93.34	59.5	120.4	

Sample Report

Sample Name	240-134698-a-27-c@2
File Name	019SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:13:35
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	26.856	ug/l	2.7	137184.33	10000	
Be	9	45	No Gas	2.007	ug/l	4.3	1739.01	2000	
B	11	45	No Gas	59.333	ug/l	2.5	37098.11	500	
Na	23	45	He	7711.661	ug/l	0.8	1447106.68	3000000	
Mg	24	45	He	8569.139	ug/l	2.3	899193.30	3000000	
Al	27	45	He	28705.749	ug/l	1.2	1498686.96	500000	
K	39	45	He	3871.430	ug/l	0.4	500177.05	3000000	
Ca	44	45	He	554090.248	ug/l	0.6	1593952.28	3000000	
Ti	47	45	He	1839.931	ug/l	0.2	70289.68	10000	
V	51	45	He	144.144	ug/l	1.2	163615.24	20000	
Cr	52	45	He	147.558	ug/l	0.5	203198.10	10000	
Mn	55	45	He	1513.646	ug/l	1.5	1334274.18	20000	
Fe	56	103	H2	79401.718	ug/l	0.9	267910409.34	500000	
Co	59	103	He	20.031	ug/l	0.7	45500.72	20000	
Ni	60	103	He	112.447	ug/l	0.9	67931.14	20000	
Cu	63	103	He	401.726	ug/l	0.7	651384.25	20000	
Zn	66	103	He	548.538	ug/l	1.6	160575.27	20000	
As	75	103	He	56.468	ug/l	1.3	13806.71	20000	
Se	78	115	H2	1.275	ug/l	4.3	176.00	10000	
Sr	88	103	He	3280.364	ug/l	0.5	5025863.83	20000	
Mo	95	103	He	15.178	ug/l	2.3	14297.52	10000	
Ag	107	103	He	1.715	ug/l	4.3	5504.50	100	
Cd	111	115	He	2.999	ug/l	6.8	1597.99	5000	
Sn	118	115	He	36.328	ug/l	0.4	45374.16	10000	
Sb	123	115	He	0.939	ug/l	3.4	1277.85	200	
Ba	137	115	He	348.107	ug/l	0.4	221711.63	20000	
W	182	159	He	1.079	ug/l	5.3	10807.88	10000	
Tl	205	165	He	0.404	ug/l	2.0	2878.13	2000	
Pb	208	165	He	208.230	ug/l	1.0	1859060.61	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1326654.04	0.7	1444414.16	91.85	59.5	120.4	
Sc	45	No Gas	8059254.40	0.6	9012307.42	89.42	59.5	120.4	
Sc	45	H2	5193279.33	0.9	6064886.67	85.63	59.5	120.4	
Sc	45	He	749938.10	0.1	842862.48	88.98	59.5	120.4	
Rh	103	H2	2154045.50	1.1	2508597.67	85.87	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4174017.61	0.8	4686316.76	89.07	59.5	120.4	
In	115	H2	6623782.33	1.0	7115626.5	93.09	59.5	120.4	
In	115	He	2423981.40	0.7	2641648.07	91.76	59.5	120.4	
Tb	159	He	6112884.62	0.6	6439806.69	94.92	59.5	120.4	
Ho	165	He	6348817.39	1.0	6662050.43	95.3	59.5	120.4	
Bi	209	He	4072908.03	0.5	4322541.5	94.22	59.5	120.4	

Sample Report

Sample Name	240-134698-a-28-c@2
File Name	020SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:16:08
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	27.513	ug/l	1.9	137799.53	10000	
Be	9	45	No Gas	1.334	ug/l	6.1	1161.17	2000	
B	11	45	No Gas	71.394	ug/l	0.8	42655.44	500	
Na	23	45	He	1954.399	ug/l	0.4	377194.63	3000000	
Mg	24	45	He	5711.646	ug/l	0.9	592950.15	3000000	
Al	27	45	He	29071.027	ug/l	0.7	1501166.85	500000	
K	39	45	He	4358.230	ug/l	1.1	548898.59	3000000	
Ca	44	45	He	484400.975	ug/l	1.5	1378381.37	3000000	
Ti	47	45	He	1441.581	ug/l	1.5	54469.07	10000	
V	51	45	He	109.987	ug/l	0.7	123544.25	20000	
Cr	52	45	He	136.035	ug/l	1.4	185472.51	10000	
Mn	55	45	He	668.723	ug/l	0.8	583242.30	20000	
Fe	56	103	H2	50463.737	ug/l	0.5	167993070.83	500000	
Co	59	103	He	21.772	ug/l	0.7	49782.76	20000	
Ni	60	103	He	94.930	ug/l	0.9	57771.86	20000	
Cu	63	103	He	223.075	ug/l	0.4	364447.83	20000	
Zn	66	103	He	580.554	ug/l	0.4	170981.77	20000	
As	75	103	He	31.748	ug/l	0.9	7853.13	20000	
Se	78	115	H2	2.050	ug/l	7.3	273.00	10000	
Sr	88	103	He	550.406	ug/l	0.3	849139.95	20000	
Mo	95	103	He	19.739	ug/l	2.4	18709.46	10000	
Ag	107	103	He	1.521	ug/l	1.1	4922.05	100	
Cd	111	115	He	3.178	ug/l	4.9	1683.26	5000	
Sn	118	115	He	22.321	ug/l	1.4	27829.61	10000	
Sb	123	115	He	1.226	ug/l	4.1	1647.90	200	
Ba	137	115	He	281.754	ug/l	0.5	178358.49	20000	
W	182	159	He	3.296	ug/l	0.9	16885.48	10000	
Tl	205	165	He	0.235	ug/l	14.8	1764.59	2000	
Pb	208	165	He	79.423	ug/l	1.5	709398.96	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1296581.01	1.2	1444414.16	89.77	59.5	120.4	
Sc	45	No Gas	8009305.24	0.8	9012307.42	88.87	59.5	120.4	
Sc	45	H2	5174965.00	1.2	6064886.67	85.33	59.5	120.4	
Sc	45	He	741760.18	0.8	842862.48	88	59.5	120.4	
Rh	103	H2	2125098.50	0.3	2508597.67	84.71	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4202529.83	1.1	4686316.76	89.68	59.5	120.4	
In	115	H2	6507527.67	0.4	7115626.5	91.45	59.5	120.4	
In	115	He	2409224.27	1.2	2641648.07	91.2	59.5	120.4	
Tb	159	He	6076049.34	0.5	6439806.69	94.35	59.5	120.4	
Ho	165	He	6348250.30	1.9	6662050.43	95.29	59.5	120.4	
Bi	209	He	4116790.39	1.2	4322541.5	95.24	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	021_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:18:43
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	53.905	ug/l	1.0	198518.50	50	107.81	89.5	110.5	
Be	9	45	No Gas	51.525	ug/l	0.2	43736.18	50	103.05	89.5	110.5	
B	11	45	No Gas	101.904	ug/l	1.4	57752.34	100	101.9	89.5	110.5	
Na	23	45	He	26258.582	ug/l	0.9	4885685.22	25000	105.03	89.5	110.5	
Mg	24	45	He	26589.666	ug/l	1.0	2792228.22	25000	106.36	89.5	110.5	
Al	27	45	He	25916.565	ug/l	0.5	1354575.57	25000	103.67	89.5	110.5	
K	39	45	He	26292.025	ug/l	1.5	3026911.89	25000	105.17	89.5	110.5	
Ca	44	45	He	25762.738	ug/l	0.1	74696.81	25000	103.05	89.5	110.5	
Ti	47	45	He	49.474	ug/l	6.4	1897.93	50	98.95	89.5	110.5	
V	51	45	He	51.760	ug/l	1.2	58982.95	50	103.52	89.5	110.5	
Cr	52	45	He	52.048	ug/l	0.7	73352.38	50	104.1	89.5	110.5	
Mn	55	45	He	51.773	ug/l	0.5	46054.47	50	103.55	89.5	110.5	
Fe	56	103	H2	24888.799	ug/l	0.2	86288175.38	25000	99.56	89.5	110.5	
Co	59	103	He	48.998	ug/l	0.3	115402.28	50	98	89.5	110.5	
Ni	60	103	He	48.348	ug/l	1.8	30425.04	50	96.7	89.5	110.5	
Cu	63	103	He	48.839	ug/l	1.0	82732.72	50	97.68	89.5	110.5	
Zn	66	103	He	47.161	ug/l	2.6	16334.02	50	94.32	89.5	110.5	
As	75	103	He	49.299	ug/l	1.3	12522.03	50	98.6	89.5	110.5	
Se	78	115	H2	49.566	ug/l	2.0	6437.49	50	99.13	89.5	110.5	
Sr	88	103	He	49.859	ug/l	0.7	79388.70	50	99.72	89.5	110.5	
Mo	95	103	He	49.427	ug/l	1.2	48220.53	50	98.85	89.5	110.5	
Ag	107	103	He	50.820	ug/l	0.9	167838.40	50	101.64	89.5	110.5	
Cd	111	115	He	52.189	ug/l	1.2	27750.35	50	104.38	89.5	110.5	
Sn	118	115	He	51.953	ug/l	0.9	64995.14	50	103.91	89.5	110.5	
Sb	123	115	He	51.340	ug/l	1.2	67967.05	50	102.68	89.5	110.5	
Ba	137	115	He	51.102	ug/l	1.2	32687.55	50	102.2	89.5	110.5	
W	182	159	He	51.689	ug/l	1.5	152649.33	50	103.38	89.5	110.5	
Tl	205	165	He	51.893	ug/l	1.0	344893.54	50	103.79	89.5	110.5	
Pb	208	165	He	51.704	ug/l	0.8	467183.94	50	103.41	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1314727.72	1.4	1444414.16	91.02	59.5	120.4	
Sc	45	No Gas	8074989.68	0.1	9012307.42	89.6	59.5	120.4	
Sc	45	H2	5361690.83	1.4	6064886.67	88.41	59.5	120.4	
Sc	45	He	750756.83	0.2	842862.48	89.07	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2212944.67	0.7	2508597.67	88.21	59.5	120.4	
Rh	103	He	4331905.94	0.3	4686316.76	92.44	59.5	120.4	
In	115	H2	6533099.33	0.9	7115626.5	91.81	59.5	120.4	
In	115	He	2433307.31	1.7	2641648.07	92.11	59.5	120.4	
Tb	159	He	6143781.70	0.4	6439806.69	95.4	59.5	120.4	
Ho	165	He	6417329.33	0.7	6662050.43	96.33	59.5	120.4	
Bi	209	He	4127672.06	0.5	4322541.5	95.49	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	022_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:21:09
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.858	ug/l	45.0	79084.91	8	
Be	9	45	No Gas	0.038	ug/l	4.3	72.22	1	
B	11	45	No Gas	2.236	ug/l	25.2	9612.13	20	
Na	23	45	He	-0.462	ug/l	N/A	19450.89	1000	
Mg	24	45	He	1.045	ug/l	80.7	572.24	1000	
Al	27	45	He	1.052	ug/l	161.6	250.00	50	
K	39	45	He	-8.343	ug/l	N/A	63385.63	1000	
Ca	44	45	He	47.934	ug/l	47.2	665.01	1000	
Ti	47	45	He	0.136	ug/l	133.5	11.11	20	
V	51	45	He	0.228	ug/l	53.3	516.74	2	
Cr	52	45	He	0.075	ug/l	110.3	2565.81	2	
Mn	55	45	He	0.004	ug/l	560.0	382.23	5	
Fe	56	103	H2	1.979	ug/l	14.1	24770.16	50	
Co	59	103	He	0.022	ug/l	56.3	126.67	1	
Ni	60	103	He	-0.069	ug/l	N/A	156.67	2	
Cu	63	103	He	0.002	ug/l	1554.4	633.36	2	
Zn	66	103	He	0.215	ug/l	132.2	2300.21	20	
As	75	103	He	0.295	ug/l	52.9	165.99	2	
Se	78	115	H2	0.059	ug/l	30.4	16.33	2	
Sr	88	103	He	0.141	ug/l	19.2	340.01	10	
Mo	95	103	He	0.019	ug/l	164.2	65.55	10	
Ag	107	103	He	0.005	ug/l	49.1	70.00	0.2	
Cd	111	115	He	0.031	ug/l	61.0	26.67	1	
Sn	118	115	He	0.104	ug/l	27.3	456.68	100	
Sb	123	115	He	0.102	ug/l	30.2	176.67	1	
Ba	137	115	He	0.045	ug/l	29.0	45.56	5	
W	182	159	He	0.106	ug/l	128.0	8093.72	10	
Tl	205	165	He	0.062	ug/l	27.0	636.69	0.5	
Pb	208	165	He	0.071	ug/l	15.8	1412.27	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1325853.57	2.0	1444414.16	91.79	59.5	120.4	
Sc	45	No Gas	8108646.07	0.9	9012307.42	89.97	59.5	120.4	
Sc	45	H2	5342206.33	1.1	6064886.67	88.08	59.5	120.4	
Sc	45	He	748589.47	0.6	842862.48	88.82	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2245258.50	1.4	2508597.67	89.5	59.5	120.4	
Rh	103	He	4410541.07	0.9	4686316.76	94.12	59.5	120.4	
In	115	H2	6702295.50	1.1	7115626.5	94.19	59.5	120.4	
In	115	He	2451817.06	0.1	2641648.07	92.81	59.5	120.4	
Tb	159	He	6111717.95	0.8	6439806.69	94.91	59.5	120.4	
Ho	165	He	6399988.49	0.6	6662050.43	96.07	59.5	120.4	
Bi	209	He	4148815.39	0.3	4322541.5	95.98	59.5	120.4	

Sample Report

Sample Name	240-134698-a-29-c@2
File Name	023SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:23:41
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	21.472	ug/l	1.6	122711.02	10000	
Be	9	45	No Gas	1.476	ug/l	5.0	1264.52	2000	
B	11	45	No Gas	44.643	ug/l	1.7	29451.91	500	
Na	23	45	He	4768.735	ug/l	2.3	872563.56	3000000	
Mg	24	45	He	7532.374	ug/l	1.1	764375.59	3000000	
Al	27	45	He	23747.895	ug/l	1.5	1198977.97	500000	
K	39	45	He	2079.133	ug/l	1.4	288611.27	3000000	
Ca	44	45	He	430130.143	ug/l	0.1	1196668.08	3000000	
Ti	47	45	He	1591.813	ug/l	0.9	58806.19	10000	
V	51	45	He	96.495	ug/l	1.3	105997.29	20000	
Cr	52	45	He	96.351	ug/l	2.7	129126.54	10000	
Mn	55	45	He	474.187	ug/l	1.1	404456.54	20000	
Fe	56	103	H2	43944.590	ug/l	0.6	145816614.50	500000	
Co	59	103	He	15.102	ug/l	0.8	33976.34	20000	
Ni	60	103	He	19.187	ug/l	1.1	11631.53	20000	
Cu	63	103	He	16.418	ug/l	2.0	26920.18	20000	
Zn	66	103	He	797.298	ug/l	1.4	230110.81	20000	
As	75	103	He	35.252	ug/l	2.1	8564.89	20000	
Se	78	115	H2	0.329	ug/l	18.2	50.33	10000	
Sr	88	103	He	2488.139	ug/l	1.4	3773971.93	20000	
Mo	95	103	He	1.698	ug/l	8.6	1622.34	10000	
Ag	107	103	He	0.138	ug/l	10.3	484.46	100	
Cd	111	115	He	0.777	ug/l	7.4	416.57	5000	
Sn	118	115	He	16.559	ug/l	0.4	20599.03	10000	
Sb	123	115	He	0.339	ug/l	13.5	481.13	200	
Ba	137	115	He	174.980	ug/l	0.8	110063.43	20000	
W	182	159	He	0.297	ug/l	12.0	8517.30	10000	
Tl	205	165	He	0.121	ug/l	9.7	1008.94	2000	
Pb	208	165	He	8.686	ug/l	0.4	77202.12	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1310170.90	0.6	1444414.16	90.71	59.5	120.4	
Sc	45	No Gas	7908301.63	0.7	9012307.42	87.75	59.5	120.4	
Sc	45	H2	5034292.50	0.5	6064886.67	83.01	59.5	120.4	
Sc	45	He	725208.29	0.4	842862.48	86.04	59.5	120.4	
Rh	103	H2	2118296.42	1.4	2508597.67	84.44	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4132257.20	0.3	4686316.76	88.18	59.5	120.4	
In	115	H2	6457962.83	0.9	7115626.5	90.76	59.5	120.4	
In	115	He	2393889.92	1.6	2641648.07	90.62	59.5	120.4	
Tb	159	He	6033870.18	0.7	6439806.69	93.7	59.5	120.4	
Ho	165	He	6261313.36	0.3	6662050.43	93.98	59.5	120.4	
Bi	209	He	4013350.12	0.6	4322541.5	92.85	59.5	120.4	

Sample Report

Sample Name	240-134698-a-30-c@2
File Name	024SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:26:11
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	30.457	ug/l	1.9	138606.54	10000	
Be	9	45	No Gas	1.956	ug/l	2.0	1617.88	2000	
B	11	45	No Gas	68.741	ug/l	1.3	39722.67	500	
Na	23	45	He	10333.592	ug/l	0.3	1861719.16	3000000	
Mg	24	45	He	8729.511	ug/l	1.4	882501.56	3000000	
Al	27	45	He	29245.493	ug/l	1.6	1471027.10	500000	
K	39	45	He	4638.312	ug/l	0.4	565026.37	3000000	
Ca	44	45	He	563920.172	ug/l	0.7	1562834.49	3000000	
Ti	47	45	He	1744.850	ug/l	0.3	64217.99	10000	
V	51	45	He	130.976	ug/l	1.4	143248.67	20000	
Cr	52	45	He	100.439	ug/l	0.7	134009.71	10000	
Mn	55	45	He	735.384	ug/l	0.7	624704.53	20000	
Fe	56	103	H2	61762.713	ug/l	0.1	200129197.02	500000	
Co	59	103	He	14.944	ug/l	1.3	33203.38	20000	
Ni	60	103	He	44.936	ug/l	0.5	26652.96	20000	
Cu	63	103	He	115.655	ug/l	1.0	183755.71	20000	
Zn	66	103	He	1796.098	ug/l	0.7	509336.49	20000	
As	75	103	He	57.486	ug/l	1.5	13740.29	20000	
Se	78	115	H2	3.087	ug/l	6.0	399.01	10000	
Sr	88	103	He	3101.692	ug/l	0.7	4645909.54	20000	
Mo	95	103	He	7.009	ug/l	1.7	6478.25	10000	
Ag	107	103	He	0.300	ug/l	4.7	983.38	100	
Cd	111	115	He	20.982	ug/l	1.1	10816.13	5000	
Sn	118	115	He	18.943	ug/l	1.2	23160.86	10000	
Sb	123	115	He	0.697	ug/l	3.2	933.38	200	
Ba	137	115	He	257.845	ug/l	0.7	159714.39	20000	
W	182	159	He	0.578	ug/l	18.5	9224.45	10000	
Tl	205	165	He	0.175	ug/l	4.2	1355.64	2000	
Pb	208	165	He	42.961	ug/l	0.7	378690.31	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1276939.61	1.3	1444414.16	88.41	59.5	120.4	
Sc	45	No Gas	7688739.97	1.6	9012307.42	85.31	59.5	120.4	
Sc	45	H2	4964686.00	0.7	6064886.67	81.86	59.5	120.4	
Sc	45	He	722486.71	0.3	842862.48	85.72	59.5	120.4	
Rh	103	H2	2068534.79	0.4	2508597.67	82.46	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4080762.34	0.9	4686316.76	87.08	59.5	120.4	
In	115	H2	6379020.83	1.5	7115626.5	89.65	59.5	120.4	
In	115	He	2357380.71	0.6	2641648.07	89.24	59.5	120.4	
Tb	159	He	5991613.93	0.4	6439806.69	93.04	59.5	120.4	
Ho	165	He	6258121.00	0.5	6662050.43	93.94	59.5	120.4	
Bi	209	He	4032915.26	0.7	4322541.5	93.3	59.5	120.4	

Sample Report

Sample Name	240-134698-a-31-c@2
File Name	025SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:28:44
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	40.258	ug/l	0.4	161937.07	10000	
Be	9	45	No Gas	2.441	ug/l	2.6	2036.83	2000	
B	11	45	No Gas	81.367	ug/l	1.1	46178.23	500	
Na	23	45	He	6160.235	ug/l	1.0	1116931.03	3000000	
Mg	24	45	He	12548.125	ug/l	0.4	1267658.84	3000000	
Al	27	45	He	40200.253	ug/l	1.4	2020703.88	500000	
K	39	45	He	2610.400	ug/l	0.3	344946.71	3000000	
Ca	44	45	He	711820.984	ug/l	0.3	1971593.92	3000000	
Ti	47	45	He	2564.629	ug/l	0.4	94335.87	10000	
V	51	45	He	184.460	ug/l	0.3	201538.06	20000	
Cr	52	45	He	192.710	ug/l	0.9	254787.46	10000	
Mn	55	45	He	892.129	ug/l	0.3	757376.55	20000	
Fe	56	103	H2	73473.891	ug/l	0.7	237040389.80	500000	
Co	59	103	He	17.563	ug/l	1.2	38666.11	20000	
Ni	60	103	He	56.545	ug/l	1.8	33193.42	20000	
Cu	63	103	He	75.624	ug/l	1.1	119296.52	20000	
Zn	66	103	He	683.279	ug/l	0.6	193326.06	20000	
As	75	103	He	71.084	ug/l	0.4	16822.07	20000	
Se	78	115	H2	0.759	ug/l	5.3	104.33	10000	
Sr	88	103	He	4471.497	ug/l	0.5	6638880.02	20000	
Mo	95	103	He	10.217	ug/l	1.5	9341.03	10000	
Ag	107	103	He	157.411	ug/l	0.6	485295.69	100	LDR Warning
Cd	111	115	He	7.868	ug/l	4.5	4033.32	5000	
Sn	118	115	He	22.297	ug/l	1.6	27017.97	10000	
Sb	123	115	He	0.824	ug/l	2.4	1088.95	200	
Ba	137	115	He	349.360	ug/l	0.9	214908.47	20000	
W	182	159	He	1.465	ug/l	12.6	11663.09	10000	
Tl	205	165	He	0.155	ug/l	8.7	1221.18	2000	
Pb	208	165	He	46.283	ug/l	1.4	404837.47	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1274987.62	0.9	1444414.16	88.27	59.5	120.4	
Sc	45	No Gas	7796982.75	0.6	9012307.42	86.51	59.5	120.4	
Sc	45	H2	4984922.17	1.0	6064886.67	82.19	59.5	120.4	
Sc	45	He	722110.23	0.8	842862.48	85.67	59.5	120.4	
Rh	103	H2	2059669.58	1.5	2508597.67	82.1	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4044851.09	0.3	4686316.76	86.31	59.5	120.4	
In	115	H2	6386065.33	0.3	7115626.5	89.75	59.5	120.4	
In	115	He	2341056.36	0.6	2641648.07	88.62	59.5	120.4	
Tb	159	He	5999852.68	0.2	6439806.69	93.17	59.5	120.4	
Ho	165	He	6211193.36	0.5	6662050.43	93.23	59.5	120.4	
Bi	209	He	4025272.48	1.2	4322541.5	93.12	59.5	120.4	

Sample Report

Sample Name	240-134698-a-39-b@2
File Name	026SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:31:17
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	243.322	ug/l	1.2	606968.86	10000	
Be	9	45	No Gas	1.714	ug/l	2.6	1447.87	2000	
B	11	45	No Gas	133.448	ug/l	1.1	70765.61	500	
Na	23	45	He	77755.110	ug/l	1.5	14153535.83	3000000	
Mg	24	45	He	1294.583	ug/l	0.8	133781.81	3000000	
Al	27	45	He	73409.918	ug/l	1.6	3763324.71	500000	
K	39	45	He	2583.222	ug/l	0.7	348786.44	3000000	
Ca	44	45	He	26988.788	ug/l	1.3	76735.55	3000000	
Ti	47	45	He	1018.270	ug/l	1.5	38203.35	10000	
V	51	45	He	98.718	ug/l	0.6	110112.40	20000	
Cr	52	45	He	102.387	ug/l	1.2	139193.67	10000	
Mn	55	45	He	365.421	ug/l	0.4	316595.91	20000	
Fe	56	103	H2	31403.837	ug/l	2.1	105754441.76	500000	
Co	59	103	He	8.271	ug/l	1.8	19002.87	20000	
Ni	60	103	He	103.742	ug/l	0.6	63275.16	20000	
Cu	63	103	He	239.771	ug/l	0.6	392665.65	20000	
Zn	66	103	He	312.903	ug/l	1.0	93370.07	20000	
As	75	103	He	312.663	ug/l	0.8	76775.47	20000	
Se	78	115	H2	7.457	ug/l	4.2	961.70	10000	
Sr	88	103	He	245.322	ug/l	1.1	379472.79	20000	
Mo	95	103	He	24.419	ug/l	0.4	23191.81	10000	
Ag	107	103	He	0.188	ug/l	4.5	655.58	100	
Cd	111	115	He	1.348	ug/l	3.7	715.07	5000	
Sn	118	115	He	16.285	ug/l	0.6	20261.83	10000	
Sb	123	115	He	0.534	ug/l	2.5	735.58	200	
Ba	137	115	He	201.485	ug/l	1.1	126734.51	20000	
W	182	159	He	0.782	ug/l	19.4	9896.07	10000	
Tl	205	165	He	4.883	ug/l	2.4	32342.79	2000	
Pb	208	165	He	51.297	ug/l	1.4	458938.46	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1253936.88	1.0	1444414.16	86.81	59.5	120.4	
Sc	45	No Gas	7827965.52	0.5	9012307.42	86.86	59.5	120.4	
Sc	45	H2	5273355.83	0.7	6064886.67	86.95	59.5	120.4	
Sc	45	He	736421.98	0.4	842862.48	87.37	59.5	120.4	
Rh	103	H2	2149777.75	0.7	2508597.67	85.7	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4213065.53	0.5	4686316.76	89.9	59.5	120.4	
In	115	H2	6440502.67	0.9	7115626.5	90.51	59.5	120.4	
In	115	He	2393691.55	0.5	2641648.07	90.61	59.5	120.4	
Tb	159	He	6061492.54	0.7	6439806.69	94.13	59.5	120.4	
Ho	165	He	6354645.86	1.4	6662050.43	95.39	59.5	120.4	
Bi	209	He	4124373.86	1.0	4322541.5	95.42	59.5	120.4	

Sample Report

Sample Name	240-134698-a-40-b@2
File Name	027SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:33:44
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	583.305	ug/l	1.3	1347275.74	10000	
Be	9	45	No Gas	8.431	ug/l	2.1	6950.60	2000	
B	11	45	No Gas	223.895	ug/l	1.6	112831.97	500	
Na	23	45	He	11627.557	ug/l	0.5	2066766.65	3000000	
Mg	24	45	He	22464.879	ug/l	0.4	2242319.08	3000000	
Al	27	45	He	242864.539	ug/l	0.6	12064236.74	500000	
K	39	45	He	14989.767	ug/l	0.6	1666705.21	3000000	
Ca	44	45	He	378658.038	ug/l	0.5	1036684.46	3000000	
Ti	47	45	He	15453.883	ug/l	0.2	561716.63	10000	LDR Warning
V	51	45	He	4101.431	ug/l	0.3	4423112.86	20000	
Cr	52	45	He	800.487	ug/l	1.7	1038578.67	10000	
Mn	55	45	He	4083.625	ug/l	1.2	3424387.50	20000	
Fe	56	103	H2	206923.330	ug/l	0.4	654788870.24	500000	
Co	59	103	He	61.398	ug/l	0.7	134164.79	20000	
Ni	60	103	He	1961.590	ug/l	1.4	1138153.19	20000	
Cu	63	103	He	299.574	ug/l	1.1	467926.14	20000	
Zn	66	103	He	1517.766	ug/l	1.4	424255.76	20000	
As	75	103	He	537.728	ug/l	0.9	125916.09	20000	
Se	78	115	H2	32.498	ug/l	1.0	4117.28	10000	
Sr	88	103	He	726.335	ug/l	3.3	1071953.19	20000	
Mo	95	103	He	60.602	ug/l	2.6	54843.89	10000	
Ag	107	103	He	2.566	ug/l	1.3	7909.02	100	
Cd	111	115	He	11.861	ug/l	1.8	5946.42	5000	
Sn	118	115	He	30.672	ug/l	0.8	36253.75	10000	
Sb	123	115	He	5.266	ug/l	0.5	6599.47	200	
Ba	137	115	He	151.342	ug/l	1.2	91105.69	20000	
W	182	159	He	8.240	ug/l	0.9	30210.48	10000	
Tl	205	165	He	16.203	ug/l	1.7	106207.93	2000	
Pb	208	165	He	843.638	ug/l	2.5	7497010.89	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1163791.57	0.6	1444414.16	80.57	59.5	120.4	
Sc	45	No Gas	7806653.86	1.1	9012307.42	86.62	59.5	120.4	
Sc	45	H2	4974555.67	1.2	6064886.67	82.02	59.5	120.4	
Sc	45	He	713594.66	0.9	842862.48	84.66	59.5	120.4	
Rh	103	H2	2020202.71	0.7	2508597.67	80.53	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4019632.34	0.8	4686316.76	85.77	59.5	120.4	
In	115	H2	6368649.00	0.6	7115626.5	89.5	59.5	120.4	
In	115	He	2290902.78	0.5	2641648.07	86.72	59.5	120.4	
Tb	159	He	6002263.24	0.5	6439806.69	93.21	59.5	120.4	
Ho	165	He	6320609.61	1.5	6662050.43	94.87	59.5	120.4	
Bi	209	He	4143879.83	0.3	4322541.5	95.87	59.5	120.4	

Sample Report

Sample Name	240-134698-a-42-b@2
File Name	028SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:36:10
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	7.667	ug/l	2.8	86279.45	10000	
Be	9	45	No Gas	0.273	ug/l	15.0	248.89	2000	
B	11	45	No Gas	12.936	ug/l	3.6	13515.23	500	
Na	23	45	He	326.469	ug/l	1.5	75130.80	3000000	
Mg	24	45	He	4354.110	ug/l	0.3	429276.42	3000000	
Al	27	45	He	5368.507	ug/l	0.9	263360.10	500000	
K	39	45	He	1491.801	ug/l	1.3	218184.21	3000000	
Ca	44	45	He	71901.744	ug/l	1.2	194672.14	3000000	
Ti	47	45	He	451.264	ug/l	0.8	16193.75	10000	
V	51	45	He	20.705	ug/l	3.2	22281.06	20000	
Cr	52	45	He	19.154	ug/l	2.1	26788.65	10000	
Mn	55	45	He	163.464	ug/l	1.3	135628.17	20000	
Fe	56	103	H2	15196.243	ug/l	0.7	49651392.59	500000	
Co	59	103	He	2.839	ug/l	1.8	6567.15	20000	
Ni	60	103	He	13.550	ug/l	2.2	8428.13	20000	
Cu	63	103	He	19.131	ug/l	1.5	31872.67	20000	
Zn	66	103	He	67.802	ug/l	0.8	21898.19	20000	
As	75	103	He	2.361	ug/l	23.1	665.05	20000	
Se	78	115	H2	0.166	ug/l	46.7	29.00	10000	
Sr	88	103	He	324.880	ug/l	1.3	502348.68	20000	
Mo	95	103	He	1.435	ug/l	3.9	1404.54	10000	
Ag	107	103	He	0.051	ug/l	15.6	213.34	100	
Cd	111	115	He	0.162	ug/l	9.9	94.34	5000	
Sn	118	115	He	17.214	ug/l	2.1	21349.07	10000	
Sb	123	115	He	0.220	ug/l	5.9	325.56	200	
Ba	137	115	He	58.678	ug/l	0.6	36833.82	20000	
W	182	159	He	0.254	ug/l	39.0	8446.14	10000	
Tl	205	165	He	0.093	ug/l	2.8	837.82	2000	
Pb	208	165	He	5.091	ug/l	2.1	46265.14	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1191993.66	1.1	1444414.16	82.52	59.5	120.4	
Sc	45	No Gas	7401735.82	1.6	9012307.42	82.13	59.5	120.4	
Sc	45	H2	4933059.50	1.5	6064886.67	81.34	59.5	120.4	
Sc	45	He	704273.43	0.8	842862.48	83.56	59.5	120.4	
Rh	103	H2	2085296.54	0.8	2508597.67	83.13	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4212013.03	1.0	4686316.76	89.88	59.5	120.4	
In	115	H2	6367807.67	0.6	7115626.5	89.49	59.5	120.4	
In	115	He	2388137.57	0.4	2641648.07	90.4	59.5	120.4	
Tb	159	He	6068135.31	0.8	6439806.69	94.23	59.5	120.4	
Ho	165	He	6358433.22	0.6	6662050.43	95.44	59.5	120.4	
Bi	209	He	4187088.17	0.5	4322541.5	96.87	59.5	120.4	

Sample Report

Sample Name	240-134698-a-43-b@2
File Name	029SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:38:39
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	16.303	ug/l	5.4	109792.32	10000	
Be	9	45	No Gas	0.873	ug/l	8.2	753.36	2000	
B	11	45	No Gas	22.633	ug/l	4.0	18776.62	500	
Na	23	45	He	2660.652	ug/l	0.1	494116.80	3000000	
Mg	24	45	He	16652.900	ug/l	0.7	1685699.55	3000000	
Al	27	45	He	26225.328	ug/l	1.0	1321128.35	500000	
K	39	45	He	5346.433	ug/l	0.2	642807.67	3000000	
Ca	44	45	He	272908.140	ug/l	0.3	757769.37	3000000	
Ti	47	45	He	916.451	ug/l	0.8	33784.91	10000	
V	51	45	He	46.756	ug/l	1.1	51375.77	20000	
Cr	52	45	He	34.574	ug/l	0.6	47762.11	10000	
Mn	55	45	He	269.454	ug/l	0.7	229488.59	20000	
Fe	56	103	H2	13532.642	ug/l	1.2	44832672.66	500000	
Co	59	103	He	12.331	ug/l	2.2	28075.69	20000	
Ni	60	103	He	21.516	ug/l	1.1	13170.67	20000	
Cu	63	103	He	21.287	ug/l	2.0	35129.18	20000	
Zn	66	103	He	4867.118	ug/l	1.3	1410157.90	20000	
As	75	103	He	3.995	ug/l	12.4	1056.83	20000	
Se	78	115	H2	0.209	ug/l	13.7	35.33	10000	
Sr	88	103	He	822.496	ug/l	1.3	1262096.30	20000	
Mo	95	103	He	1.534	ug/l	5.7	1487.88	10000	
Ag	107	103	He	0.092	ug/l	8.5	342.23	100	
Cd	111	115	He	1.414	ug/l	8.1	746.59	5000	
Sn	118	115	He	19.008	ug/l	0.8	23510.34	10000	
Sb	123	115	He	0.134	ug/l	14.3	214.45	200	
Ba	137	115	He	215.588	ug/l	0.6	135108.29	20000	
W	182	159	He	0.236	ug/l	57.1	8363.88	10000	
Tl	205	165	He	0.149	ug/l	7.0	1197.85	2000	
Pb	208	165	He	16.780	ug/l	1.3	149567.01	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1242494.70	0.8	1444414.16	86.02	59.5	120.4	
Sc	45	No Gas	7803634.69	1.3	9012307.42	86.59	59.5	120.4	
Sc	45	H2	5038408.67	1.4	6064886.67	83.08	59.5	120.4	
Sc	45	He	723611.86	0.5	842862.48	85.85	59.5	120.4	
Rh	103	H2	2114274.83	0.3	2508597.67	84.28	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4180353.58	1.3	4686316.76	89.2	59.5	120.4	
In	115	H2	6522469.33	0.3	7115626.5	91.66	59.5	120.4	
In	115	He	2384987.38	0.1	2641648.07	90.28	59.5	120.4	
Tb	159	He	6046754.07	1.1	6439806.69	93.9	59.5	120.4	
Ho	165	He	6308886.00	0.9	6662050.43	94.7	59.5	120.4	
Bi	209	He	4133364.28	0.1	4322541.5	95.62	59.5	120.4	

Sample Report

Sample Name	240-134698-a-44-b@2
File Name	030SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:41:08
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	156.077	ug/l	1.0	409867.34	10000	
Be	9	45	No Gas	2.070	ug/l	3.9	1714.57	2000	
B	11	45	No Gas	149.084	ug/l	0.3	76936.62	500	
Na	23	45	He	1844.581	ug/l	0.6	346589.03	3000000	
Mg	24	45	He	13886.199	ug/l	1.3	1398546.96	3000000	
Al	27	45	He	36349.612	ug/l	1.8	1821765.13	500000	
K	39	45	He	15117.954	ug/l	0.2	1695362.68	3000000	
Ca	44	45	He	178831.644	ug/l	1.4	494197.57	3000000	
Ti	47	45	He	1684.585	ug/l	3.9	61780.26	10000	
V	51	45	He	82.777	ug/l	2.1	90300.71	20000	
Cr	52	45	He	68.525	ug/l	1.2	91857.79	10000	
Mn	55	45	He	594.751	ug/l	0.5	503521.04	20000	
Fe	56	103	H2	29294.053	ug/l	0.5	96208525.23	500000	
Co	59	103	He	20.360	ug/l	0.8	46032.29	20000	
Ni	60	103	He	64.119	ug/l	2.5	38630.44	20000	
Cu	63	103	He	107.417	ug/l	0.5	173800.42	20000	
Zn	66	103	He	3145.797	ug/l	0.6	906616.87	20000	
As	75	103	He	2.404	ug/l	14.0	666.22	20000	
Se	78	115	H2	0.207	ug/l	14.7	34.67	10000	
Sr	88	103	He	301.159	ug/l	0.7	459350.94	20000	
Mo	95	103	He	1.461	ug/l	3.3	1410.09	10000	
Ag	107	103	He	0.113	ug/l	27.2	406.68	100	
Cd	111	115	He	1.275	ug/l	14.2	674.37	5000	
Sn	118	115	He	28.484	ug/l	1.9	35063.01	10000	
Sb	123	115	He	0.215	ug/l	7.4	318.90	200	
Ba	137	115	He	216.714	ug/l	0.3	135772.06	20000	
W	182	159	He	0.286	ug/l	57.4	8592.92	10000	
Tl	205	165	He	0.304	ug/l	7.1	2222.44	2000	
Pb	208	165	He	29.729	ug/l	0.9	265476.81	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1233358.54	1.6	1444414.16	85.39	59.5	120.4	
Sc	45	No Gas	7711994.97	0.9	9012307.42	85.57	59.5	120.4	
Sc	45	H2	5002566.67	1.5	6064886.67	82.48	59.5	120.4	
Sc	45	He	719943.93	0.5	842862.48	85.42	59.5	120.4	
Rh	103	H2	2096429.17	1.1	2508597.67	83.57	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4154648.03	1.2	4686316.76	88.65	59.5	120.4	
In	115	H2	6451396.67	0.3	7115626.5	90.67	59.5	120.4	
In	115	He	2384237.75	0.2	2641648.07	90.26	59.5	120.4	
Tb	159	He	6111690.31	0.8	6439806.69	94.9	59.5	120.4	
Ho	165	He	6334201.83	0.2	6662050.43	95.08	59.5	120.4	
Bi	209	He	4111009.42	1.0	4322541.5	95.11	59.5	120.4	

Sample Report

Sample Name	240-134698-a-45-b@2
File Name	031SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:43:38
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	59.285	ug/l	1.0	199276.51	10000	
Be	9	45	No Gas	2.383	ug/l	4.3	1949.04	2000	
B	11	45	No Gas	76.379	ug/l	1.5	42958.43	500	
Na	23	45	He	3816.662	ug/l	0.5	692210.93	3000000	
Mg	24	45	He	14861.552	ug/l	1.4	1486397.34	3000000	
Al	27	45	He	46245.032	ug/l	0.6	2301628.17	500000	
K	39	45	He	17535.408	ug/l	0.3	1942995.69	3000000	
Ca	44	45	He	249525.518	ug/l	0.7	684598.45	3000000	
Ti	47	45	He	1875.158	ug/l	0.9	68291.32	10000	
V	51	45	He	102.737	ug/l	0.5	111242.49	20000	
Cr	52	45	He	55.304	ug/l	0.8	74073.77	10000	
Mn	55	45	He	1074.123	ug/l	1.8	902711.94	20000	
Fe	56	103	H2	47512.207	ug/l	1.0	154684547.70	500000	
Co	59	103	He	25.904	ug/l	1.0	58308.39	20000	
Ni	60	103	He	52.042	ug/l	0.7	31270.17	20000	
Cu	63	103	He	103.984	ug/l	0.3	167596.65	20000	
Zn	66	103	He	153.326	ug/l	1.3	46007.04	20000	
As	75	103	He	17.985	ug/l	2.8	4417.10	20000	
Se	78	115	H2	0.578	ug/l	10.7	82.67	10000	
Sr	88	103	He	282.517	ug/l	0.3	429221.45	20000	
Mo	95	103	He	3.073	ug/l	3.6	2904.78	10000	
Ag	107	103	He	0.247	ug/l	2.5	828.93	100	
Cd	111	115	He	2.342	ug/l	8.2	1222.09	5000	
Sn	118	115	He	17.594	ug/l	0.9	21642.87	10000	
Sb	123	115	He	1.020	ug/l	6.5	1354.53	200	
Ba	137	115	He	395.533	ug/l	0.3	246252.13	20000	
W	182	159	He	0.622	ug/l	22.1	9473.53	10000	
Tl	205	165	He	0.487	ug/l	5.7	3451.62	2000	
Pb	208	165	He	46.685	ug/l	1.1	420168.02	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1220615.75	0.6	1444414.16	84.51	59.5	120.4	
Sc	45	No Gas	7638760.53	1.0	9012307.42	84.76	59.5	120.4	
Sc	45	H2	4977043.50	0.6	6064886.67	82.06	59.5	120.4	
Sc	45	He	714943.79	0.4	842862.48	84.82	59.5	120.4	
Rh	103	H2	2078332.13	0.4	2508597.67	82.85	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4138022.47	0.6	4686316.76	88.3	59.5	120.4	
In	115	H2	6488890.67	0.6	7115626.5	91.19	59.5	120.4	
In	115	He	2369435.69	0.4	2641648.07	89.7	59.5	120.4	
Tb	159	He	6075405.45	0.7	6439806.69	94.34	59.5	120.4	
Ho	165	He	6390828.78	0.3	6662050.43	95.93	59.5	120.4	
Bi	209	He	4134375.11	0.9	4322541.5	95.65	59.5	120.4	

Sample Report

Sample Name	240-134698-a-46-b@2
File Name	032SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:46:12
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	106.329	ug/l	1.0	305994.15	10000	
Be	9	45	No Gas	2.521	ug/l	3.1	2102.40	2000	
B	11	45	No Gas	200.855	ug/l	1.2	101958.67	500	
Na	23	45	He	4499.442	ug/l	0.7	818903.96	3000000	
Mg	24	45	He	20358.082	ug/l	0.3	2051457.77	3000000	
Al	27	45	He	44771.097	ug/l	1.5	2245376.09	500000	
K	39	45	He	19449.159	ug/l	0.8	2164598.38	3000000	
Ca	44	45	He	385773.739	ug/l	1.0	1066162.07	3000000	
Ti	47	45	He	1685.665	ug/l	0.8	61856.64	10000	
V	51	45	He	111.622	ug/l	0.8	121764.01	20000	
Cr	52	45	He	109.381	ug/l	0.3	145301.55	10000	
Mn	55	45	He	623.982	ug/l	0.3	528567.58	20000	
Fe	56	103	H2	36410.489	ug/l	1.4	118782491.56	500000	
Co	59	103	He	40.441	ug/l	0.4	90824.62	20000	
Ni	60	103	He	81.108	ug/l	0.8	48537.44	20000	
Cu	63	103	He	180.464	ug/l	0.3	289874.91	20000	
Zn	66	103	He	395.233	ug/l	0.9	115069.43	20000	
As	75	103	He	12.827	ug/l	1.3	3168.62	20000	
Se	78	115	H2	0.360	ug/l	4.7	54.67	10000	
Sr	88	103	He	619.697	ug/l	0.8	939583.85	20000	
Mo	95	103	He	3.875	ug/l	4.6	3644.97	10000	
Ag	107	103	He	0.188	ug/l	3.4	641.14	100	
Cd	111	115	He	0.675	ug/l	9.2	360.86	5000	
Sn	118	115	He	41.971	ug/l	1.3	51393.20	10000	
Sb	123	115	He	0.327	ug/l	8.9	463.35	200	
Ba	137	115	He	275.751	ug/l	1.8	172347.49	20000	
W	182	159	He	5.782	ug/l	0.4	23801.69	10000	
Tl	205	165	He	0.294	ug/l	5.1	2152.43	2000	
Pb	208	165	He	29.053	ug/l	0.7	259316.02	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1235938.49	0.7	1444414.16	85.57	59.5	120.4	
Sc	45	No Gas	7798179.13	0.9	9012307.42	86.53	59.5	120.4	
Sc	45	H2	5000186.67	0.8	6064886.67	82.44	59.5	120.4	
Sc	45	He	720383.04	0.7	842862.48	85.47	59.5	120.4	
Rh	103	H2	2082557.92	0.6	2508597.67	83.02	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4130152.20	0.2	4686316.76	88.13	59.5	120.4	
In	115	H2	6498723.33	0.6	7115626.5	91.33	59.5	120.4	
In	115	He	2378874.63	1.2	2641648.07	90.05	59.5	120.4	
Tb	159	He	6083110.45	0.8	6439806.69	94.46	59.5	120.4	
Ho	165	He	6330976.28	0.7	6662050.43	95.03	59.5	120.4	
Bi	209	He	4116796.22	1.0	4322541.5	95.24	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	033_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:48:41
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	53.901	ug/l	0.9	191877.68	50	107.8	89.5	110.5	
Be	9	45	No Gas	51.497	ug/l	1.5	42251.92	50	102.99	89.5	110.5	
B	11	45	No Gas	105.236	ug/l	2.4	57380.79	100	105.24	89.5	110.5	
Na	23	45	He	26430.344	ug/l	0.7	4743748.98	25000	105.72	89.5	110.5	
Mg	24	45	He	26544.394	ug/l	1.2	2688980.73	25000	106.18	89.5	110.5	
Al	27	45	He	26355.300	ug/l	1.2	1328800.61	25000	105.42	89.5	110.5	
K	39	45	He	26193.586	ug/l	0.5	2909268.35	25000	104.77	89.5	110.5	
Ca	44	45	He	26001.629	ug/l	0.5	72718.43	25000	104.01	89.5	110.5	
Ti	47	45	He	51.536	ug/l	1.2	1906.81	50	103.07	89.5	110.5	
V	51	45	He	52.211	ug/l	1.2	57386.82	50	104.42	89.5	110.5	
Cr	52	45	He	52.151	ug/l	0.6	70891.13	50	104.3	89.5	110.5	
Mn	55	45	He	52.346	ug/l	1.5	44909.75	50	104.69	89.5	110.5	
Fe	56	103	H2	25616.945	ug/l	0.7	85790862.05	25000	102.47	89.5	110.5	
Co	59	103	He	48.257	ug/l	1.5	111179.26	50	96.51	89.5	110.5	
Ni	60	103	He	47.947	ug/l	1.7	29516.40	50	95.89	89.5	110.5	
Cu	63	103	He	48.972	ug/l	1.1	81149.05	50	97.94	89.5	110.5	
Zn	66	103	He	47.555	ug/l	2.2	16092.64	50	95.11	89.5	110.5	
As	75	103	He	48.154	ug/l	0.8	11967.71	50	96.31	89.5	110.5	
Se	78	115	H2	49.818	ug/l	1.4	6421.82	50	99.64	89.5	110.5	
Sr	88	103	He	49.681	ug/l	1.7	77380.52	50	99.36	89.5	110.5	
Mo	95	103	He	49.476	ug/l	1.4	47215.96	50	98.95	89.5	110.5	
Ag	107	103	He	50.846	ug/l	2.0	164255.30	50	101.69	89.5	110.5	
Cd	111	115	He	52.634	ug/l	0.7	27302.92	50	105.27	89.5	110.5	
Sn	118	115	He	52.185	ug/l	1.4	63686.70	50	104.37	89.5	110.5	
Sb	123	115	He	52.587	ug/l	0.8	67921.15	50	105.17	89.5	110.5	
Ba	137	115	He	51.960	ug/l	1.2	32420.18	50	103.92	89.5	110.5	
W	182	159	He	52.527	ug/l	1.0	154020.57	50	105.05	89.5	110.5	
Tl	205	165	He	52.071	ug/l	1.9	349145.83	50	104.14	89.5	110.5	
Pb	208	165	He	51.628	ug/l	1.3	470635.11	50	103.26	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1267490.64	1.7	1444414.16	87.75	59.5	120.4	
Sc	45	No Gas	7805258.86	0.2	9012307.42	86.61	59.5	120.4	
Sc	45	H2	5179595.67	0.2	6064886.67	85.4	59.5	120.4	
Sc	45	He	724204.00	0.7	842862.48	85.92	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2137644.92	0.9	2508597.67	85.21	59.5	120.4	
Rh	103	He	4237797.05	0.8	4686316.76	90.43	59.5	120.4	
In	115	H2	6484210.67	0.4	7115626.5	91.13	59.5	120.4	
In	115	He	2373632.09	0.7	2641648.07	89.85	59.5	120.4	
Tb	159	He	6104910.04	0.2	6439806.69	94.8	59.5	120.4	
Ho	165	He	6474673.49	1.1	6662050.43	97.19	59.5	120.4	
Bi	209	He	4142384.14	0.8	4322541.5	95.83	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	034_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:51:07
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.432	ug/l	129.3	75167.77	8	
Be	9	45	No Gas	0.006	ug/l	312.4	43.34	1	
B	11	45	No Gas	3.589	ug/l	20.9	9880.10	20	
Na	23	45	He	0.383	ug/l	218.8	19040.35	1000	
Mg	24	45	He	0.049	ug/l	1426.9	454.45	1000	
Al	27	45	He	3.058	ug/l	39.2	344.45	50	
K	39	45	He	-1.142	ug/l	N/A	62332.30	1000	
Ca	44	45	He	20.419	ug/l	61.9	569.15	1000	
Ti	47	45	He	0.234	ug/l	145.2	14.44	20	
V	51	45	He	0.229	ug/l	127.7	503.09	2	
Cr	52	45	He	0.005	ug/l	2196.4	2399.12	2	
Mn	55	45	He	0.061	ug/l	30.7	420.01	5	
Fe	56	103	H2	1.654	ug/l	27.9	23010.64	50	
Co	59	103	He	0.012	ug/l	83.5	101.11	1	
Ni	60	103	He	-0.048	ug/l	N/A	167.78	2	
Cu	63	103	He	0.012	ug/l	257.3	641.14	2	
Zn	66	103	He	0.127	ug/l	309.8	2242.43	20	
As	75	103	He	0.116	ug/l	49.7	118.29	2	
Se	78	115	H2	0.014	ug/l	207.3	10.00	2	
Sr	88	103	He	0.111	ug/l	23.3	287.78	10	
Mo	95	103	He	0.000	ug/l	7163.0	46.67	10	
Ag	107	103	He	-0.002	ug/l	N/A	44.45	0.2	
Cd	111	115	He	0.012	ug/l	102.7	16.67	1	
Sn	118	115	He	0.028	ug/l	145.5	355.57	100	
Sb	123	115	He	0.088	ug/l	36.5	155.56	1	
Ba	137	115	He	0.018	ug/l	44.9	27.78	5	
W	182	159	He	0.018	ug/l	964.6	7883.59	10	
Tl	205	165	He	0.027	ug/l	13.2	404.45	0.5	
Pb	208	165	He	0.045	ug/l	15.6	1162.26	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1273955.76	0.4	1444414.16	88.2	59.5	120.4	
Sc	45	No Gas	7802589.41	1.0	9012307.42	86.58	59.5	120.4	
Sc	45	H2	5164011.33	0.8	6064886.67	85.15	59.5	120.4	
Sc	45	He	726910.70	0.2	842862.48	86.24	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2185605.25	1.2	2508597.67	87.12	59.5	120.4	
Rh	103	He	4352395.94	0.9	4686316.76	92.87	59.5	120.4	
In	115	H2	6527187.50	0.4	7115626.5	91.73	59.5	120.4	
In	115	He	2419796.27	1.3	2641648.07	91.6	59.5	120.4	
Tb	159	He	6139951.14	0.5	6439806.69	95.34	59.5	120.4	
Ho	165	He	6343517.39	0.3	6662050.43	95.22	59.5	120.4	
Bi	209	He	4184168.31	0.4	4322541.5	96.8	59.5	120.4	

Sample Report

Sample Name	240-134698-a-47-c@2
File Name	035SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:53:37
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	29.493	ug/l	1.7	136359.06	10000	
Be	9	45	No Gas	2.335	ug/l	9.3	1921.26	2000	
B	11	45	No Gas	63.223	ug/l	0.8	37135.95	500	
Na	23	45	He	8857.936	ug/l	0.7	1579862.09	3000000	
Mg	24	45	He	8695.519	ug/l	2.3	868740.02	3000000	
Al	27	45	He	30628.523	ug/l	1.3	1522501.29	500000	
K	39	45	He	3261.878	ug/l	1.3	410908.59	3000000	
Ca	44	45	He	583935.577	ug/l	0.7	1599365.95	3000000	
Ti	47	45	He	1964.831	ug/l	0.5	71467.74	10000	
V	51	45	He	144.458	ug/l	0.7	156120.76	20000	
Cr	52	45	He	126.428	ug/l	0.5	166104.66	10000	
Mn	55	45	He	812.650	ug/l	0.2	682227.39	20000	
Fe	56	103	H2	80699.023	ug/l	1.4	260105556.13	500000	
Co	59	103	He	15.730	ug/l	1.8	34833.94	20000	
Ni	60	103	He	205.968	ug/l	1.0	121113.00	20000	
Cu	63	103	He	272.049	ug/l	1.5	430081.89	20000	
Zn	66	103	He	3219.831	ug/l	1.1	908545.38	20000	
As	75	103	He	57.546	ug/l	0.7	13711.66	20000	
Se	78	115	H2	2.952	ug/l	2.4	383.34	10000	
Sr	88	103	He	3106.647	ug/l	1.0	4638722.04	20000	
Mo	95	103	He	21.700	ug/l	0.3	19904.43	10000	
Ag	107	103	He	0.216	ug/l	4.1	717.81	100	
Cd	111	115	He	3.181	ug/l	2.3	1623.17	5000	
Sn	118	115	He	20.181	ug/l	2.1	24277.32	10000	
Sb	123	115	He	1.243	ug/l	1.3	1609.00	200	
Ba	137	115	He	266.851	ug/l	2.1	162773.77	20000	
W	182	159	He	6.072	ug/l	3.2	24437.31	10000	
Tl	205	165	He	0.161	ug/l	3.2	1280.08	2000	
Pb	208	165	He	22.985	ug/l	0.9	204822.70	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1242072.26	0.9	1444414.16	85.99	59.5	120.4	
Sc	45	No Gas	7678356.36	0.5	9012307.42	85.2	59.5	120.4	
Sc	45	H2	4924576.33	1.2	6064886.67	81.2	59.5	120.4	
Sc	45	He	714045.08	0.3	842862.48	84.72	59.5	120.4	
Rh	103	H2	2057873.46	1.3	2508597.67	82.03	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4068022.06	0.8	4686316.76	86.81	59.5	120.4	
In	115	H2	6401336.67	0.8	7115626.5	89.96	59.5	120.4	
In	115	He	2321816.72	1.3	2641648.07	87.89	59.5	120.4	
Tb	159	He	6042472.26	1.1	6439806.69	93.83	59.5	120.4	
Ho	165	He	6315621.14	0.2	6662050.43	94.8	59.5	120.4	
Bi	209	He	4057823.45	0.8	4322541.5	93.88	59.5	120.4	

Sample Report

Sample Name	240-134698-a-48-e@2
File Name	036SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:56:11
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	41.784	ug/l	1.3	162642.30	10000	
Be	9	45	No Gas	2.254	ug/l	7.7	1854.58	2000	
B	11	45	No Gas	37.182	ug/l	2.2	25150.58	500	
Na	23	45	He	1951.703	ug/l	0.8	362601.10	3000000	
Mg	24	45	He	20719.647	ug/l	1.6	2069300.19	3000000	
Al	27	45	He	35631.591	ug/l	0.5	1771075.00	500000	
K	39	45	He	6110.424	ug/l	0.9	716128.10	3000000	
Ca	44	45	He	469050.921	ug/l	0.7	1284712.76	3000000	
Ti	47	45	He	2348.669	ug/l	1.2	85421.49	10000	
V	51	45	He	64.426	ug/l	1.0	69759.43	20000	
Cr	52	45	He	51.913	ug/l	1.7	69583.65	10000	
Mn	55	45	He	1491.925	ug/l	1.5	1252073.87	20000	
Fe	56	103	H2	40272.969	ug/l	1.5	129202851.41	500000	
Co	59	103	He	20.481	ug/l	2.6	45803.84	20000	
Ni	60	103	He	28.906	ug/l	2.6	17334.07	20000	
Cu	63	103	He	226.008	ug/l	1.9	361129.24	20000	
Zn	66	103	He	438.262	ug/l	1.2	126756.98	20000	
As	75	103	He	28.115	ug/l	2.7	6811.05	20000	
Se	78	115	H2	2.021	ug/l	8.4	263.00	10000	
Sr	88	103	He	388.385	ug/l	1.9	586034.26	20000	
Mo	95	103	He	49.032	ug/l	0.6	45389.78	10000	
Ag	107	103	He	0.266	ug/l	6.4	883.38	100	
Cd	111	115	He	0.661	ug/l	12.7	347.95	5000	
Sn	118	115	He	23.426	ug/l	1.5	28375.24	10000	
Sb	123	115	He	1.414	ug/l	6.5	1840.15	200	
Ba	137	115	He	248.834	ug/l	0.6	153096.47	20000	
W	182	159	He	1.091	ug/l	18.6	10675.57	10000	
Tl	205	165	He	0.885	ug/l	2.1	6017.02	2000	
Pb	208	165	He	58.826	ug/l	0.4	523719.73	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1245147.17	0.2	1444414.16	86.2	59.5	120.4	
Sc	45	No Gas	7673669.70	0.9	9012307.42	85.15	59.5	120.4	
Sc	45	H2	4942821.50	0.9	6064886.67	81.5	59.5	120.4	
Sc	45	He	713998.91	0.3	842862.48	84.71	59.5	120.4	
Rh	103	H2	2048212.29	1.3	2508597.67	81.65	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4110636.09	1.1	4686316.76	87.72	59.5	120.4	
In	115	H2	6354345.50	1.0	7115626.5	89.3	59.5	120.4	
In	115	He	2341547.53	0.9	2641648.07	88.64	59.5	120.4	
Tb	159	He	6020782.82	0.5	6439806.69	93.49	59.5	120.4	
Ho	165	He	6324080.03	0.6	6662050.43	94.93	59.5	120.4	
Bi	209	He	4043205.95	0.8	4322541.5	93.54	59.5	120.4	

Sample Report

Sample Name	240-134698-a-51-d@2
File Name	037SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 13:58:43
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	125.048	ug/l	0.9	354921.67	10000	
Be	9	45	No Gas	22.081	ug/l	1.1	18546.30	2000	
B	11	45	No Gas	213.993	ug/l	0.2	110628.93	500	
Na	23	45	He	7246.720	ug/l	0.7	1369410.57	3000000	
Mg	24	45	He	7164.467	ug/l	1.0	756462.59	3000000	
Al	27	45	He	59271.173	ug/l	0.9	3113404.94	500000	
K	39	45	He	12929.531	ug/l	2.1	1528938.24	3000000	
Ca	44	45	He	39144.173	ug/l	0.5	113791.34	3000000	
Ti	47	45	He	2538.228	ug/l	0.8	97558.29	10000	
V	51	45	He	779.354	ug/l	2.0	888838.71	20000	
Cr	52	45	He	453.910	ug/l	1.2	623725.44	10000	
Mn	55	45	He	1342.206	ug/l	0.9	1190425.58	20000	
Fe	56	103	H2	206865.151	ug/l	0.7	703723136.18	500000	
Co	59	103	He	76.807	ug/l	1.1	181703.79	20000	
Ni	60	103	He	554.060	ug/l	0.6	348234.48	20000	
Cu	63	103	He	1312.530	ug/l	0.5	2217831.02	20000	
Zn	66	103	He	12801.701	ug/l	0.9	3858259.15	20000	
As	75	103	He	318.680	ug/l	0.8	80836.79	20000	
Se	78	115	H2	205.889	ug/l	1.3	26900.73	10000	
Sr	88	103	He	2277.410	ug/l	1.9	3638317.91	20000	
Mo	95	103	He	150.095	ug/l	1.0	147024.84	10000	
Ag	107	103	He	2.979	ug/l	0.8	9932.58	100	
Cd	111	115	He	31.571	ug/l	1.3	16823.49	5000	
Sn	118	115	He	48.273	ug/l	0.4	60529.15	10000	
Sb	123	115	He	15.304	ug/l	0.7	20328.67	200	
Ba	137	115	He	2381.553	ug/l	0.7	1525322.96	20000	
W	182	159	He	24.710	ug/l	0.5	77542.52	10000	
Tl	205	165	He	4.375	ug/l	1.1	29951.48	2000	
Pb	208	165	He	1268.725	ug/l	0.6	11705522.66	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1261527.94	1.7	1444414.16	87.34	59.5	120.4	
Sc	45	No Gas	7980654.96	0.8	9012307.42	88.55	59.5	120.4	
Sc	45	H2	5385654.67	0.3	6064886.67	88.8	59.5	120.4	
Sc	45	He	754560.19	0.8	842862.48	89.52	59.5	120.4	
Rh	103	H2	2171859.75	0.8	2508597.67	86.58	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4352327.88	0.5	4686316.76	92.87	59.5	120.4	
In	115	H2	6578721.50	0.6	7115626.5	92.45	59.5	120.4	
In	115	He	2437712.67	0.7	2641648.07	92.28	59.5	120.4	
Tb	159	He	6181541.56	0.4	6439806.69	95.99	59.5	120.4	
Ho	165	He	6562767.24	0.3	6662050.43	98.51	59.5	120.4	
Bi	209	He	4254891.77	0.4	4322541.5	98.43	59.5	120.4	

Sample Report

Sample Name	240-134698-a-52-b@2
File Name	038SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:01:06
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	35.806	ug/l	1.2	158100.41	10000	
Be	9	45	No Gas	9.369	ug/l	2.1	8006.72	2000	
B	11	45	No Gas	648.138	ug/l	1.4	322682.70	500	LDR Warning
Na	23	45	He	4587.963	ug/l	2.0	880156.79	3000000	
Mg	24	45	He	30343.335	ug/l	1.5	3224181.19	3000000	
Al	27	45	He	52530.110	ug/l	1.3	2778101.76	500000	
K	39	45	He	4928.617	ug/l	1.0	627225.13	3000000	
Ca	44	45	He	119958.802	ug/l	0.2	350002.78	3000000	
Ti	47	45	He	2174.799	ug/l	1.8	84160.49	10000	
V	51	45	He	978.760	ug/l	0.9	1123961.06	20000	
Cr	52	45	He	4217.571	ug/l	0.6	5814563.38	10000	
Mn	55	45	He	5861.309	ug/l	1.2	5232776.18	20000	
Fe	56	103	H2	735207.750	ug/l	0.5	2504299216.02	500000	LDR Warning
Co	59	103	He	178.173	ug/l	0.9	416151.64	20000	
Ni	60	103	He	3391.395	ug/l	1.6	2103800.19	20000	
Cu	63	103	He	14664.107	ug/l	0.4	24463052.36	20000	
Zn	66	103	He	23822.521	ug/l	1.4	7087999.16	20000	LDR Warning
As	75	103	He	214.014	ug/l	1.3	53636.22	20000	
Se	78	115	H2	33.914	ug/l	1.8	4474.06	10000	
Sr	88	103	He	1341.451	ug/l	2.3	2116144.01	20000	
Mo	95	103	He	1279.960	ug/l	3.1	1237653.53	10000	
Ag	107	103	He	16.273	ug/l	1.3	53354.49	100	
Cd	111	115	He	164.002	ug/l	1.7	87287.79	5000	
Sn	118	115	He	592.711	ug/l	0.8	739049.88	10000	
Sb	123	115	He	39.341	ug/l	1.2	52157.41	200	
Ba	137	115	He	3276.133	ug/l	2.5	2096771.72	20000	
W	182	159	He	212.946	ug/l	1.1	609629.25	10000	
Tl	205	165	He	2.435	ug/l	1.8	16610.83	2000	
Pb	208	165	He	3358.915	ug/l	1.2	30691367.95	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1264225.62	1.1	1444414.16	87.53	59.5	120.4	
Sc	45	No Gas	8097808.56	0.9	9012307.42	89.85	59.5	120.4	
Sc	45	H2	5252109.00	0.1	6064886.67	86.6	59.5	120.4	
Sc	45	He	759720.09	0.5	842862.48	90.14	59.5	120.4	
Rh	103	H2	2174650.75	0.3	2508597.67	86.69	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4298110.11	1.1	4686316.76	91.72	59.5	120.4	
In	115	H2	6632427.33	0.9	7115626.5	93.21	59.5	120.4	
In	115	He	2436192.64	0.8	2641648.07	92.22	59.5	120.4	
Tb	159	He	6196935.03	1.0	6439806.69	96.23	59.5	120.4	
Ho	165	He	6500028.35	0.4	6662050.43	97.57	59.5	120.4	
Bi	209	He	4234930.67	0.9	4322541.5	97.97	59.5	120.4	

Sample Report

Sample Name	240-134698-a-53-b@2
File Name	039SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:03:28
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	28.322	ug/l	1.3	140721.35	10000	
Be	9	45	No Gas	3.746	ug/l	0.7	3215.95	2000	
B	11	45	No Gas	192.400	ug/l	1.1	101466.33	500	
Na	23	45	He	5187.260	ug/l	1.4	969029.61	3000000	
Mg	24	45	He	18470.776	ug/l	2.1	1916245.13	3000000	
Al	27	45	He	30821.073	ug/l	0.8	1591377.16	500000	
K	39	45	He	5546.680	ug/l	1.1	681138.25	3000000	
Ca	44	45	He	57643.526	ug/l	1.1	164462.23	3000000	
Ti	47	45	He	844.491	ug/l	1.4	31909.05	10000	
V	51	45	He	1788.793	ug/l	1.1	2005019.95	20000	
Cr	52	45	He	848.548	ug/l	0.3	1144007.00	10000	
Mn	55	45	He	2173.302	ug/l	1.1	1894507.70	20000	
Fe	56	103	H2	242125.463	ug/l	1.4	831656947.61	500000	
Co	59	103	He	62.527	ug/l	1.4	146894.26	20000	
Ni	60	103	He	811.038	ug/l	0.9	506079.67	20000	
Cu	63	103	He	2770.424	ug/l	0.6	4647551.76	20000	
Zn	66	103	He	24417.653	ug/l	0.9	7305421.38	20000	LDR Warning
As	75	103	He	49.666	ug/l	2.8	12583.36	20000	
Se	78	115	H2	7.403	ug/l	4.5	989.37	10000	
Sr	88	103	He	431.241	ug/l	0.5	684182.09	20000	
Mo	95	103	He	183.942	ug/l	0.6	178899.54	10000	
Ag	107	103	He	5.222	ug/l	0.3	17253.17	100	
Cd	111	115	He	51.047	ug/l	0.5	27233.59	5000	
Sn	118	115	He	60.478	ug/l	0.6	75856.27	10000	
Sb	123	115	He	20.939	ug/l	0.6	27837.49	200	
Ba	137	115	He	660.382	ug/l	1.4	423541.66	20000	
W	182	159	He	14.622	ug/l	0.6	49094.02	10000	
Tl	205	165	He	0.666	ug/l	4.1	4713.14	2000	
Pb	208	165	He	1232.685	ug/l	1.2	11264844.21	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1280011.87	0.2	1444414.16	88.62	59.5	120.4	
Sc	45	No Gas	8072786.62	0.6	9012307.42	89.58	59.5	120.4	
Sc	45	H2	5375171.83	0.9	6064886.67	88.63	59.5	120.4	
Sc	45	He	741663.13	0.4	842862.48	87.99	59.5	120.4	
Rh	103	H2	2193051.50	1.0	2508597.67	87.42	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4321710.52	0.7	4686316.76	92.22	59.5	120.4	
In	115	H2	6673473.83	0.3	7115626.5	93.79	59.5	120.4	
In	115	He	2441119.30	0.8	2641648.07	92.41	59.5	120.4	
Tb	159	He	6180017.11	0.8	6439806.69	95.97	59.5	120.4	
Ho	165	He	6500845.85	0.9	6662050.43	97.58	59.5	120.4	
Bi	209	He	4223776.78	0.4	4322541.5	97.72	59.5	120.4	

Sample Report

Sample Name	240-134698-a-54-b@2
File Name	040SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:05:49
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	11.583	ug/l	3.6	104618.40	10000	
Be	9	45	No Gas	5.879	ug/l	2.8	5105.38	2000	
B	11	45	No Gas	32.722	ug/l	2.4	24696.50	500	
Na	23	45	He	950.979	ug/l	0.8	198442.73	3000000	
Mg	24	45	He	12594.183	ug/l	0.1	1340470.12	3000000	
Al	27	45	He	14223.728	ug/l	0.5	753464.50	500000	
K	39	45	He	2942.975	ug/l	0.3	401406.17	3000000	
Ca	44	45	He	11942.241	ug/l	0.7	35376.34	3000000	
Ti	47	45	He	172.996	ug/l	2.9	6710.54	10000	
V	51	45	He	795.381	ug/l	2.2	914768.37	20000	
Cr	52	45	He	131.233	ug/l	0.9	183607.24	10000	
Mn	55	45	He	574.868	ug/l	0.1	514320.90	20000	
Fe	56	103	H2	65870.420	ug/l	0.5	233308543.19	500000	
Co	59	103	He	41.333	ug/l	1.1	100455.39	20000	
Ni	60	103	He	297.099	ug/l	0.7	191863.69	20000	
Cu	63	103	He	141.345	ug/l	0.8	245839.68	20000	
Zn	66	103	He	3431.890	ug/l	1.9	1063910.82	20000	
As	75	103	He	15.622	ug/l	2.7	4156.54	20000	
Se	78	115	H2	3.201	ug/l	4.4	439.01	10000	
Sr	88	103	He	112.245	ug/l	0.6	184271.45	20000	
Mo	95	103	He	13.355	ug/l	0.9	13478.91	10000	
Ag	107	103	He	0.184	ug/l	6.1	682.25	100	
Cd	111	115	He	97.542	ug/l	1.4	52711.30	5000	
Sn	118	115	He	23.469	ug/l	1.6	30023.08	10000	
Sb	123	115	He	7.220	ug/l	2.2	9753.60	200	
Ba	137	115	He	174.084	ug/l	2.2	113123.85	20000	
W	182	159	He	1.916	ug/l	9.5	13336.91	10000	
Tl	205	165	He	0.478	ug/l	4.5	3500.51	2000	
Pb	208	165	He	127.259	ug/l	0.4	1181758.51	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1300012.56	1.1	1444414.16	90	59.5	120.4	
Sc	45	No Gas	8204445.23	1.3	9012307.42	91.04	59.5	120.4	
Sc	45	H2	5464349.17	0.3	6064886.67	90.1	59.5	120.4	
Sc	45	He	760802.80	0.5	842862.48	90.26	59.5	120.4	
Rh	103	H2	2261151.00	0.6	2508597.67	90.14	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4469780.66	0.6	4686316.76	95.38	59.5	120.4	
In	115	H2	6773632.17	0.2	7115626.5	95.19	59.5	120.4	
In	115	He	2473307.63	1.1	2641648.07	93.63	59.5	120.4	
Tb	159	He	6203363.09	1.2	6439806.69	96.33	59.5	120.4	
Ho	165	He	6601525.02	0.5	6662050.43	99.09	59.5	120.4	
Bi	209	He	4302734.27	0.2	4322541.5	99.54	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	041_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:08:21
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	52.010	ug/l	0.9	200313.83	50	104.02	89.5	110.5	
Be	9	45	No Gas	51.767	ug/l	1.2	45316.62	50	103.53	89.5	110.5	
B	11	45	No Gas	102.437	ug/l	0.5	59825.04	100	102.44	89.5	110.5	
Na	23	45	He	26358.319	ug/l	0.2	4991025.63	25000	105.43	89.5	110.5	
Mg	24	45	He	26429.267	ug/l	0.6	2824572.11	25000	105.72	89.5	110.5	
Al	27	45	He	26009.625	ug/l	0.3	1383515.85	25000	104.04	89.5	110.5	
K	39	45	He	26395.775	ug/l	0.6	3092440.85	25000	105.58	89.5	110.5	
Ca	44	45	He	26310.595	ug/l	0.6	77625.83	25000	105.24	89.5	110.5	
Ti	47	45	He	51.987	ug/l	3.1	2029.06	50	103.97	89.5	110.5	
V	51	45	He	53.319	ug/l	0.2	61827.34	50	106.64	89.5	110.5	
Cr	52	45	He	52.827	ug/l	1.1	75732.55	50	105.65	89.5	110.5	
Mn	55	45	He	52.999	ug/l	0.6	47970.76	50	106	89.5	110.5	
Fe	56	103	H2	26326.127	ug/l	0.8	91483661.97	25000	105.3	89.5	110.5	
Co	59	103	He	50.224	ug/l	0.8	119563.30	50	100.45	89.5	110.5	
Ni	60	103	He	49.383	ug/l	0.9	31407.13	50	98.77	89.5	110.5	
Cu	63	103	He	51.161	ug/l	1.0	87566.05	50	102.32	89.5	110.5	
Zn	66	103	He	52.170	ug/l	2.2	18027.17	50	104.34	89.5	110.5	
As	75	103	He	49.487	ug/l	1.1	12704.63	50	98.97	89.5	110.5	
Se	78	115	H2	50.899	ug/l	0.8	6830.68	50	101.8	89.5	110.5	
Sr	88	103	He	51.194	ug/l	1.2	82391.50	50	102.39	89.5	110.5	
Mo	95	103	He	51.575	ug/l	1.9	50853.30	50	103.15	89.5	110.5	
Ag	107	103	He	52.306	ug/l	1.0	174594.09	50	104.61	89.5	110.5	
Cd	111	115	He	53.876	ug/l	1.8	28845.82	50	107.75	89.5	110.5	
Sn	118	115	He	53.339	ug/l	1.6	67182.61	50	106.68	89.5	110.5	
Sb	123	115	He	53.354	ug/l	0.7	71127.34	50	106.71	89.5	110.5	
Ba	137	115	He	53.531	ug/l	1.6	34475.25	50	107.06	89.5	110.5	
W	182	159	He	52.995	ug/l	2.0	158938.65	50	105.99	89.5	110.5	
Tl	205	165	He	52.893	ug/l	0.3	358525.66	50	105.79	89.5	110.5	
Pb	208	165	He	52.991	ug/l	0.4	488298.14	50	105.98	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1296363.39	1.5	1444414.16	89.75	59.5	120.4	
Sc	45	No Gas	8327477.72	0.5	9012307.42	92.4	59.5	120.4	
Sc	45	H2	5497409.50	0.9	6064886.67	90.64	59.5	120.4	
Sc	45	He	764054.03	0.5	842862.48	90.65	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2218144.33	0.5	2508597.67	88.42	59.5	120.4	
Rh	103	He	4378488.99	0.4	4686316.76	93.43	59.5	120.4	
In	115	H2	6750480.17	1.1	7115626.5	94.87	59.5	120.4	
In	115	He	2450135.48	1.0	2641648.07	92.75	59.5	120.4	
Tb	159	He	6247782.25	1.0	6439806.69	97.02	59.5	120.4	
Ho	165	He	6544692.52	0.7	6662050.43	98.24	59.5	120.4	
Bi	209	He	4164650.53	0.8	4322541.5	96.35	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	042_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:10:47
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-0.425	ug/l	N/A	77437.11	8	
Be	9	45	No Gas	0.019	ug/l	55.9	56.67	1	
B	11	45	No Gas	2.925	ug/l	4.8	10112.46	20	
Na	23	45	He	-1.480	ug/l	N/A	19439.80	1000	
Mg	24	45	He	2.395	ug/l	25.3	720.03	1000	
Al	27	45	He	5.021	ug/l	7.6	461.12	50	
K	39	45	He	-0.867	ug/l	N/A	64809.91	1000	
Ca	44	45	He	26.334	ug/l	18.9	608.52	1000	
Ti	47	45	He	0.163	ug/l	111.2	12.22	20	
V	51	45	He	0.177	ug/l	56.6	462.65	2	
Cr	52	45	He	0.074	ug/l	114.9	2588.04	2	
Mn	55	45	He	0.135	ug/l	87.5	502.24	5	
Fe	56	103	H2	13.419	ug/l	2.3	65599.40	50	
Co	59	103	He	-0.001	ug/l	N/A	72.22	1	
Ni	60	103	He	0.031	ug/l	88.8	223.34	2	
Cu	63	103	He	0.290	ug/l	6.7	1138.95	2	
Zn	66	103	He	1.959	ug/l	21.6	2864.77	20	
As	75	103	He	0.313	ug/l	43.3	172.52	2	
Se	78	115	H2	-0.019	ug/l	N/A	6.00	2	
Sr	88	103	He	0.115	ug/l	22.0	302.23	10	
Mo	95	103	He	-0.005	ug/l	N/A	42.22	10	
Ag	107	103	He	0.002	ug/l	116.1	61.11	0.2	
Cd	111	115	He	0.038	ug/l	64.2	31.11	1	
Sn	118	115	He	0.052	ug/l	46.7	394.46	100	
Sb	123	115	He	0.084	ug/l	21.4	155.56	1	
Ba	137	115	He	0.071	ug/l	46.3	63.33	5	
W	182	159	He	0.157	ug/l	73.9	8318.29	10	
Tl	205	165	He	0.011	ug/l	57.7	307.79	0.5	
Pb	208	165	He	0.153	ug/l	13.1	2192.33	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1323785.73	1.3	1444414.16	91.65	59.5	120.4	
Sc	45	No Gas	8242865.78	1.0	9012307.42	91.46	59.5	120.4	
Sc	45	H2	5458993.17	1.6	6064886.67	90.01	59.5	120.4	
Sc	45	He	755387.89	0.2	842862.48	89.62	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2266052.25	1.5	2508597.67	90.33	59.5	120.4	
Rh	103	He	4462098.85	0.4	4686316.76	95.22	59.5	120.4	
In	115	H2	6775463.33	1.0	7115626.5	95.22	59.5	120.4	
In	115	He	2478137.50	0.9	2641648.07	93.81	59.5	120.4	
Tb	159	He	6174430.86	1.2	6439806.69	95.88	59.5	120.4	
Ho	165	He	6540810.57	0.4	6662050.43	98.18	59.5	120.4	
Bi	209	He	4219816.64	0.5	4322541.5	97.62	59.5	120.4	

Continuing Calibration Verification (CCVL) Report

Sample Name	CCVL-4781477
File Name	043CCVL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:13:18
Sample Type	CCVL
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	7.859	ug/l	4.4	96613.25	8	98.24	69.5	130.5	
Be	9	45	No Gas	0.998	ug/l	4.9	905.59	1	99.8	69.5	130.5	
B	11	45	No Gas	20.947	ug/l	3.3	19020.26	20	104.74	69.5	130.5	
Na	23	45	He	1004.243	ug/l	0.4	205704.09	1000	100.42	69.5	130.5	
Mg	24	45	He	1029.620	ug/l	0.9	108573.71	1000	102.96	69.5	130.5	
Al	27	45	He	54.008	ug/l	6.0	3018.27	50	108.02	69.5	130.5	
K	39	45	He	1060.807	ug/l	1.0	184047.67	1000	106.08	69.5	130.5	
Ca	44	45	He	1071.649	ug/l	2.0	3613.88	1000	107.16	69.5	130.5	
Ti	47	45	He	10.070	ug/l	9.8	391.12	10	100.7	69.5	130.5	
V	51	45	He	5.252	ug/l	2.7	6218.42	5	105.04	69.5	130.5	
Cr	52	45	He	2.166	ug/l	2.6	5421.09	2	108.3	69.5	130.5	
Mn	55	45	He	5.336	ug/l	4.5	5086.52	5	106.72	69.5	130.5	
Fe	56	103	H2	106.567	ug/l	0.6	398688.80	100	106.57	69.5	130.5	
Co	59	103	He	0.994	ug/l	5.7	2486.92	1	99.4	69.5	130.5	
Ni	60	103	He	1.942	ug/l	5.5	1455.65	2	97.1	69.5	130.5	
Cu	63	103	He	2.274	ug/l	5.5	4581.92	2	113.7	69.5	130.5	
Zn	66	103	He	16.672	ug/l	1.0	7419.81	20	83.36	69.5	130.5	
As	75	103	He	4.701	ug/l	7.3	1314.32	5	94.02	69.5	130.5	
Se	78	115	H2	4.630	ug/l	4.1	637.35	5	92.6	69.5	130.5	
Sr	88	103	He	9.875	ug/l	0.5	16310.80	10	98.75	69.5	130.5	
Mo	95	103	He	4.945	ug/l	4.4	5018.74	5	98.9	69.5	130.5	
Ag	107	103	He	1.050	ug/l	4.1	3629.41	1	105	69.5	130.5	
Cd	111	115	He	1.096	ug/l	11.1	601.89	1	109.6	69.5	130.5	
Sn	118	115	He	10.671	ug/l	0.5	13807.10	10	106.71	69.5	130.5	
Sb	123	115	He	2.221	ug/l	2.0	3023.71	2	111.05	69.5	130.5	
Ba	137	115	He	5.331	ug/l	1.6	3474.93	5	106.62	69.5	130.5	
W	182	159	He	10.565	ug/l	2.8	37346.54	10	105.65	69.5	130.5	
Tl	205	165	He	1.033	ug/l	2.3	7210.99	1	103.3	69.5	130.5	
Pb	208	165	He	1.159	ug/l	2.0	11421.00	1	115.9	69.5	130.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1312159.52	0.7	1444414.16	90.84	59.5	120.4	
Sc	45	No Gas	8250130.78	0.9	9012307.42	91.54	59.5	120.4	
Sc	45	H2	5452423.33	0.8	6064886.67	89.9	59.5	120.4	
Sc	45	He	750797.59	1.1	842862.48	89.08	59.5	120.4	

Continuing Calibration Verification (CCVL) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2280096.42	0.3	2508597.67	90.89	59.5	120.4	
Rh	103	He	4468790.93	0.8	4686316.76	95.36	59.5	120.4	
In	115	H2	6840503.17	0.7	7115626.5	96.13	59.5	120.4	
In	115	He	2469006.81	1.1	2641648.07	93.46	59.5	120.4	
Tb	159	He	6128244.90	0.6	6439806.69	95.16	59.5	120.4	
Ho	165	He	6527824.46	0.6	6662050.43	97.99	59.5	120.4	
Bi	209	He	4235498.03	1.2	4322541.5	97.99	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	mb 240-446731/1-a@2
File Name	044_Blk.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:15:48
Sample Type	Blank
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-0.404	ug/l	N/A	75869.44	8	
Be	9	45	No Gas	0.000	ug/l	4510.8	40.00	1	
B	11	45	No Gas	1.654	ug/l	25.8	9285.24	20	
Na	23	45	He	15.655	ug/l	9.6	22293.85	1000	
Mg	24	45	He	8.734	ug/l	17.1	1368.97	1000	
Al	27	45	He	13.156	ug/l	13.6	875.59	50	
K	39	45	He	19.911	ug/l	74.3	66153.74	1000	
Ca	44	45	He	63.646	ug/l	12.6	705.89	1000	
Ti	47	45	He	0.519	ug/l	42.7	25.56	20	
V	51	45	He	0.516	ug/l	26.9	837.74	2	
Cr	52	45	He	0.914	ug/l	9.6	3682.74	2	
Mn	55	45	He	0.582	ug/l	12.9	885.59	5	
Fe	56	103	H2	24.691	ug/l	17.7	103951.30	50	
Co	59	103	He	0.023	ug/l	20.1	126.67	1	
Ni	60	103	He	0.312	ug/l	15.8	396.68	2	
Cu	63	103	He	1.056	ug/l	10.6	2419.13	2	
Zn	66	103	He	-0.177	ug/l	N/A	2164.64	20	
As	75	103	He	0.025	ug/l	1984.1	96.05	2	
Se	78	115	H2	-0.006	ug/l	N/A	7.67	2	
Sr	88	103	He	0.310	ug/l	23.8	608.91	10	
Mo	95	103	He	0.093	ug/l	35.2	137.78	10	
Ag	107	103	He	-0.003	ug/l	N/A	44.45	0.2	
Cd	111	115	He	0.031	ug/l	108.2	26.66	1	
Sn	118	115	He	17.610	ug/l	2.0	22432.99	100	
Sb	123	115	He	0.020	ug/l	66.4	67.78	1	
Ba	137	115	He	0.433	ug/l	6.9	295.56	5	
W	182	159	He	0.030	ug/l	494.5	8052.57	10	
Tl	205	165	He	0.013	ug/l	48.7	318.90	0.5	
Pb	208	165	He	0.295	ug/l	12.6	3475.79	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1272060.58	1.3	1444414.16	88.07	59.5	120.4	
Sc	45	No Gas	8070739.12	1.5	9012307.42	89.55	59.5	120.4	
Sc	45	H2	5345247.17	1.7	6064886.67	88.13	59.5	120.4	
Sc	45	He	744045.72	0.2	842862.48	88.28	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2228968.00	1.5	2508597.67	88.85	59.5	120.4	
Rh	103	He	4381719.83	1.5	4686316.76	93.5	59.5	120.4	
In	115	H2	6734900.83	0.6	7115626.5	94.65	59.5	120.4	
In	115	He	2453925.79	0.8	2641648.07	92.89	59.5	120.4	
Tb	159	He	6246521.98	1.4	6439806.69	97	59.5	120.4	
Ho	165	He	6494666.97	1.2	6662050.43	97.49	59.5	120.4	
Bi	209	He	4219621.50	0.6	4322541.5	97.62	59.5	120.4	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 240-446731/3-a@2
File Name	045_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:18:18
Sample Type	LCSS
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	254.564	ug/l	0.4	649969.33	250	101.83	79.5	120.5	
Be	9	45	No Gas	243.997	ug/l	0.5	206458.02	250	97.6	79.5	120.5	
B	11	45	No Gas	48.810	ug/l	1.6	32009.50	50	97.62	79.5	120.5	
Na	23	45	He	12991.539	ug/l	1.4	2397310.74	12500	103.93	79.5	120.5	
Mg	24	45	He	13243.472	ug/l	0.7	1373875.99	12500	105.95	79.5	120.5	
Al	27	45	He	2353.216	ug/l	0.4	121663.02	2500	94.13	79.5	120.5	
K	39	45	He	12921.253	ug/l	1.1	1501785.53	12500	103.37	79.5	120.5	
Ca	44	45	He	12598.146	ug/l	0.7	36345.77	12500	100.79	79.5	120.5	
Ti	47	45	He	241.370	ug/l	0.4	9123.01	250	96.55	79.5	120.5	
V	51	45	He	249.635	ug/l	0.2	279997.88	250	99.85	79.5	120.5	
Cr	52	45	He	251.840	ug/l	0.6	341196.23	250	100.74	79.5	120.5	
Mn	55	45	He	249.992	ug/l	0.2	218216.24	250	100	79.5	120.5	
Fe	56	103	H2	2512.180	ug/l	1.2	8637047.79	2500	100.49	79.5	120.5	
Co	59	103	He	234.644	ug/l	0.9	553899.51	250	93.86	79.5	120.5	
Ni	60	103	He	232.764	ug/l	1.2	146128.04	250	93.11	79.5	120.5	
Cu	63	103	He	236.655	ug/l	1.0	399602.80	250	94.66	79.5	120.5	
Zn	66	103	He	254.855	ug/l	2.0	78813.29	250	101.94	79.5	120.5	
As	75	103	He	460.961	ug/l	1.3	116662.02	500	92.19	79.5	120.5	
Se	78	115	H2	468.261	ug/l	0.3	62368.43	500	93.65	79.5	120.5	
Sr	88	103	He	235.220	ug/l	1.0	375152.37	250	94.09	79.5	120.5	
Mo	95	103	He	239.499	ug/l	0.8	234121.62	250	95.8	79.5	120.5	
Ag	107	103	He	49.647	ug/l	0.8	164421.07	50	99.29	79.5	120.5	
Cd	111	115	He	247.857	ug/l	0.7	132470.93	250	99.14	79.5	120.5	
Sn	118	115	He	514.340	ug/l	0.3	644073.90	500	102.87	79.5	120.5	
Sb	123	115	He	52.236	ug/l	0.8	69530.13	50	104.47	79.5	120.5	
Ba	137	115	He	487.821	ug/l	0.6	313552.51	500	97.56	79.5	120.5	
W	182	159	He	50.048	ug/l	1.3	147266.98	50	100.1	79.5	120.5	
Tl	205	165	He	514.462	ug/l	0.6	3431175.35	500	102.89	79.5	120.5	
Pb	208	165	He	251.985	ug/l	0.6	2283027.55	250	100.79	79.5	120.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1283373.34	0.7	1444414.16	88.85	59.5	120.4	
Sc	45	No Gas	8055552.73	1.1	9012307.42	89.38	59.5	120.4	
Sc	45	H2	5356322.00	0.3	6064886.67	88.32	59.5	120.4	
Sc	45	He	741553.56	0.4	842862.48	87.98	59.5	120.4	

Laboratory Control Sample (LCS) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2190747.42	1.5	2508597.67	87.33	59.5	120.4	
Rh	103	He	4344164.41	1.2	4686316.76	92.7	59.5	120.4	
In	115	H2	6707305.33	0.3	7115626.5	94.26	59.5	120.4	
In	115	He	2446368.06	0.9	2641648.07	92.61	59.5	120.4	
Tb	159	He	6111327.12	1.2	6439806.69	94.9	59.5	120.4	
Ho	165	He	6443190.02	0.9	6662050.43	96.71	59.5	120.4	
Bi	209	He	4156824.56	1.1	4322541.5	96.17	59.5	120.4	

Sample Report

Sample Name	240-134698-a-55-d@2
File Name	046SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:20:43
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	14.942	ug/l	4.6	110235.73	10000	
Be	9	45	No Gas	1.225	ug/l	4.5	1075.61	2000	
B	11	45	No Gas	120.321	ug/l	0.4	66464.50	500	
Na	23	45	He	9283.882	ug/l	0.8	1717707.29	3000000	
Mg	24	45	He	4981.737	ug/l	0.9	516793.11	3000000	
Al	27	45	He	28868.841	ug/l	1.6	1489453.93	500000	
K	39	45	He	6834.394	ug/l	0.1	823880.30	3000000	
Ca	44	45	He	63487.061	ug/l	1.1	180946.85	3000000	
Ti	47	45	He	874.128	ug/l	3.1	33002.92	10000	
V	51	45	He	1287.023	ug/l	1.2	1441657.90	20000	
Cr	52	45	He	4042.688	ug/l	0.8	5437203.95	10000	
Mn	55	45	He	14084.319	ug/l	0.3	12266352.01	20000	
Co	59	103	He	178.435	ug/l	0.6	405049.39	20000	
Ni	60	103	He	2016.589	ug/l	1.2	1215916.86	20000	
Cu	63	103	He	3465.941	ug/l	0.2	5619598.39	20000	
Zn	66	103	He	4335.552	ug/l	0.4	1255498.67	20000	
As	75	103	He	302.157	ug/l	0.2	73564.99	20000	
Se	78	115	H2	11.426	ug/l	3.5	1462.08	10000	
Sr	88	103	He	259.935	ug/l	0.1	398645.39	20000	
Mo	95	103	He	509.857	ug/l	0.9	479208.12	10000	
Ag	107	103	He	1.563	ug/l	4.4	5026.53	100	
Cd	111	115	He	20.164	ug/l	2.0	10327.16	5000	
Sn	118	115	He	117.092	ug/l	1.5	140616.50	10000	
Sb	123	115	He	40.496	ug/l	1.4	51616.56	200	
Ba	137	115	He	2370.551	ug/l	1.3	1458744.60	20000	
W	182	159	He	68.995	ug/l	0.8	195536.85	10000	
Tl	205	165	He	1.476	ug/l	2.0	9901.66	2000	
Pb	208	165	He	592.935	ug/l	2.4	5277880.07	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1282149.38	1.8	1444414.16	88.77	59.5	120.4	
Sc	45	No Gas	8052053.85	0.9	9012307.42	89.35	59.5	120.4	
Sc	45	H2	5274785.50	0.8	6064886.67	86.97	59.5	120.4	
Sc	45	He	741136.85	0.4	842862.48	87.93	59.5	120.4	
Rh	103	H2	2096324.42	1.0	2508597.67	83.57	59.5	120.4	
Rh	103	He	4177054.69	0.3	4686316.76	89.13	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
In	115	H2	6409728.67	0.4	7115626.5	90.08	59.5	120.4	
In	115	He	2342294.79	1.0	2641648.07	88.67	59.5	120.4	
Tb	159	He	5972874.35	0.7	6439806.69	92.75	59.5	120.4	
Ho	165	He	6332327.67	1.1	6662050.43	95.05	59.5	120.4	
Bi	209	He	4002444.84	0.4	4322541.5	92.59	59.5	120.4	

Sample Report

Sample Name	SD 240-134698-a-55-d@10
File Name	047SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:23:06
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	2.786	ug/l	12.6	87758.31	10000	
Be	9	45	No Gas	0.251	ug/l	12.7	266.67	2000	
B	11	45	No Gas	25.198	ug/l	1.9	21829.73	500	
Na	23	45	He	1702.343	ug/l	0.5	358703.72	3000000	
Mg	24	45	He	1000.828	ug/l	0.3	112990.52	3000000	
Al	27	45	He	5425.953	ug/l	0.4	303769.21	500000	
K	39	45	He	1403.886	ug/l	1.7	238400.36	3000000	
Ca	44	45	He	12789.390	ug/l	1.0	39982.90	3000000	
Ti	47	45	He	182.638	ug/l	0.6	7483.30	10000	
V	51	45	He	254.129	ug/l	1.3	308929.79	20000	
Cr	52	45	He	832.146	ug/l	0.8	1215829.78	10000	
Mn	55	45	He	2895.320	ug/l	1.2	2734863.22	20000	
Fe	56	103	H2	440359.529	ug/l	1.2	1592409682.94	500000	
Co	59	103	He	37.038	ug/l	0.9	89836.04	20000	
Ni	60	103	He	405.112	ug/l	0.7	261002.86	20000	
Cu	63	103	He	734.890	ug/l	1.1	1272906.13	20000	
Zn	66	103	He	854.625	ug/l	1.2	266079.19	20000	
As	75	103	He	60.917	ug/l	0.8	15909.91	20000	
Se	78	115	H2	2.374	ug/l	3.0	328.67	10000	
Sr	88	103	He	52.308	ug/l	1.8	85750.44	20000	
Mo	95	103	He	100.618	ug/l	1.5	101023.34	10000	
Ag	107	103	He	0.338	ug/l	3.4	1204.51	100	
Cd	111	115	He	4.159	ug/l	6.3	2276.48	5000	
Sn	118	115	He	23.455	ug/l	0.9	30252.54	10000	
Sb	123	115	He	8.223	ug/l	0.6	11192.48	200	
Ba	137	115	He	452.217	ug/l	1.0	296272.52	20000	
W	182	159	He	13.545	ug/l	0.4	46325.03	10000	
Tl	205	165	He	0.283	ug/l	2.9	2152.43	2000	
Pb	208	165	He	115.681	ug/l	0.4	1067398.24	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1358957.94	1.5	1444414.16	94.08	59.5	120.4	
Sc	45	No Gas	8526444.38	0.9	9012307.42	94.61	59.5	120.4	
Sc	45	H2	5721109.17	0.3	6064886.67	94.33	59.5	120.4	
Sc	45	He	803723.14	0.1	842862.48	95.36	59.5	120.4	
Rh	103	H2	2308739.50	0.8	2508597.67	92.03	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4460433.57	0.5	4686316.76	95.18	59.5	120.4	
In	115	H2	6790140.83	0.3	7115626.5	95.43	59.5	120.4	
In	115	He	2493596.50	0.9	2641648.07	94.4	59.5	120.4	
Tb	159	He	6216004.61	0.8	6439806.69	96.52	59.5	120.4	
Ho	165	He	6559068.91	0.6	6662050.43	98.45	59.5	120.4	
Bi	209	He	4194872.75	0.6	4322541.5	97.05	59.5	120.4	

Sample Report

Sample Name	PDS 240-134698-a-55-d@2
File Name	048SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:25:37
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	539.104	ug/l	1.5	1362291.82	10000	
Be	9	45	No Gas	498.121	ug/l	1.8	444805.89	2000	
B	11	45	No Gas	215.141	ug/l	2.2	118427.97	500	
Na	23	45	He	34876.922	ug/l	0.8	6615514.18	3000000	
Mg	24	45	He	31480.342	ug/l	0.6	3373408.62	3000000	
Al	27	45	He	33008.987	ug/l	1.5	1760449.31	500000	
K	39	45	He	33230.008	ug/l	0.5	3886930.82	3000000	
Ca	44	45	He	88797.096	ug/l	0.4	261424.39	3000000	
Ti	47	45	He	1384.798	ug/l	1.4	54051.94	10000	
V	51	45	He	1850.486	ug/l	1.4	2142700.31	20000	
Cr	52	45	He	4499.358	ug/l	1.5	6255551.83	10000	
Mn	55	45	He	14433.063	ug/l	1.9	12994638.37	20000	
Co	59	103	He	718.368	ug/l	2.2	1634449.34	20000	
Ni	60	103	He	2590.011	ug/l	1.4	1565422.12	20000	
Cu	63	103	He	4015.762	ug/l	0.4	6526763.21	20000	
Zn	66	103	He	4959.054	ug/l	1.5	1439238.48	20000	
As	75	103	He	1328.635	ug/l	0.8	323970.27	20000	
Se	78	115	H2	1047.088	ug/l	0.1	133787.38	10000	
Sr	88	103	He	816.221	ug/l	1.7	1254557.21	20000	
Mo	95	103	He	1027.241	ug/l	0.6	967759.41	10000	
Ag	107	103	He	90.049	ug/l	1.2	287396.08	100	LDR Warning
Cd	111	115	He	534.470	ug/l	0.7	275472.21	5000	
Sn	118	115	He	1207.816	ug/l	1.2	1458163.62	10000	
Sb	123	115	He	151.417	ug/l	1.1	194296.09	200	
Ba	137	115	He	3439.982	ug/l	1.0	2132181.72	20000	
W	182	159	He	67.571	ug/l	0.5	190124.67	10000	
Tl	205	165	He	1049.888	ug/l	1.2	6726143.48	2000	
Pb	208	165	He	1120.585	ug/l	0.7	9750756.21	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1297812.18	1.1	1444414.16	89.85	59.5	120.4	
Sc	45	No Gas	8503020.50	1.7	9012307.42	94.35	59.5	120.4	
Sc	45	H2	5390276.50	0.6	6064886.67	88.88	59.5	120.4	
Sc	45	He	766181.64	1.6	842862.48	90.9	59.5	120.4	
Rh	103	H2	2137184.17	0.4	2508597.67	85.19	59.5	120.4	
Rh	103	He	4187113.72	0.8	4686316.76	89.35	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
In	115	H2	6434849.33	1.1	7115626.5	90.43	59.5	120.4	
In	115	He	2359387.57	2.2	2641648.07	89.31	59.5	120.4	
Tb	159	He	5925015.32	0.7	6439806.69	92.01	59.5	120.4	
Ho	165	He	6189681.70	0.5	6662050.43	92.91	59.5	120.4	
Bi	209	He	3910684.43	0.7	4322541.5	90.47	59.5	120.4	

Sample Report

Sample Name	240-134698-a-55-e ms@2
File Name	049SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:27:56
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	267.135	ug/l	0.8	668445.44	10000	
Be	9	45	No Gas	245.135	ug/l	1.6	204409.88	2000	
B	11	45	No Gas	166.963	ug/l	1.0	87694.94	500	
Na	23	45	He	23741.505	ug/l	0.8	4328304.27	3000000	
Mg	24	45	He	17866.256	ug/l	0.1	1837662.15	3000000	
Al	27	45	He	9596.556	ug/l	0.8	491389.63	500000	
K	39	45	He	20743.862	ug/l	1.2	2352497.27	3000000	
Ca	44	45	He	39494.896	ug/l	0.7	111881.76	3000000	
Ti	47	45	He	1286.895	ug/l	1.6	48208.01	10000	
V	51	45	He	1573.717	ug/l	2.3	1749064.97	20000	
Cr	52	45	He	5556.038	ug/l	1.3	7413406.65	10000	
Mn	55	45	He	18739.642	ug/l	2.1	16193738.24	20000	LDR Warning
Co	59	103	He	516.093	ug/l	1.6	1151031.34	20000	
Ni	60	103	He	2820.995	ug/l	1.5	1671319.83	20000	
Cu	63	103	He	4513.533	ug/l	0.7	7190716.10	20000	
Zn	66	103	He	3431.763	ug/l	1.4	976916.66	20000	
As	75	103	He	795.005	ug/l	1.2	190053.94	20000	
Se	78	115	H2	488.730	ug/l	0.3	60900.63	10000	
Sr	88	103	He	424.794	ug/l	1.4	640077.53	20000	
Mo	95	103	He	925.064	ug/l	1.6	854287.64	10000	
Ag	107	103	He	51.116	ug/l	0.4	159945.99	100	
Cd	111	115	He	268.790	ug/l	0.4	133407.38	5000	
Sn	118	115	He	633.856	ug/l	0.3	737011.72	10000	
Sb	123	115	He	67.498	ug/l	1.1	83426.29	200	
Ba	137	115	He	3970.081	ug/l	0.8	2369756.23	20000	
W	182	159	He	138.234	ug/l	0.3	376421.40	10000	
Tl	205	165	He	517.372	ug/l	2.0	3255162.02	2000	
Pb	208	165	He	449.674	ug/l	1.4	3842921.75	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1239504.57	1.7	1444414.16	85.81	59.5	120.4	
Sc	45	No Gas	7938908.30	0.7	9012307.42	88.09	59.5	120.4	
Sc	45	H2	5294421.33	0.7	6064886.67	87.3	59.5	120.4	
Sc	45	He	735296.91	0.7	842862.48	87.24	59.5	120.4	
Rh	103	H2	2059177.34	0.6	2508597.67	82.08	59.5	120.4	
Rh	103	He	4104446.64	0.2	4686316.76	87.58	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
In	115	H2	6275232.83	0.3	7115626.5	88.19	59.5	120.4	
In	115	He	2271805.66	1.4	2641648.07	86	59.5	120.4	
Tb	159	He	5853166.44	1.6	6439806.69	90.89	59.5	120.4	
Ho	165	He	6078719.20	1.0	6662050.43	91.24	59.5	120.4	
Bi	209	He	3906044.43	1.1	4322541.5	90.36	59.5	120.4	

Sample Report

Sample Name	240-134698-a-55-f msd@2
File Name	050SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:30:16
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	265.460	ug/l	0.8	646768.69	10000	
Be	9	45	No Gas	244.418	ug/l	1.2	198317.16	2000	
B	11	45	No Gas	146.157	ug/l	0.6	75711.13	500	
Na	23	45	He	22108.551	ug/l	1.2	3917751.79	3000000	
Mg	24	45	He	16121.060	ug/l	2.1	1611223.38	3000000	
Al	27	45	He	7140.931	ug/l	1.6	355327.17	500000	
K	39	45	He	19948.901	ug/l	1.6	2200493.04	3000000	
Ca	44	45	He	38308.223	ug/l	0.6	105460.23	3000000	
Ti	47	45	He	1066.152	ug/l	0.6	38806.75	10000	
V	51	45	He	1386.550	ug/l	2.2	1497271.06	20000	
Cr	52	45	He	5291.186	ug/l	2.1	6859666.53	10000	
Mn	55	45	He	18565.810	ug/l	1.7	15587514.38	20000	LDR Warning
Co	59	103	He	446.158	ug/l	0.9	967715.31	20000	
Ni	60	103	He	2550.602	ug/l	2.0	1469626.29	20000	
Cu	63	103	He	4742.241	ug/l	0.4	7347439.99	20000	
Zn	66	103	He	2321.478	ug/l	1.1	643355.69	20000	
As	75	103	He	843.508	ug/l	0.9	196103.28	20000	
Se	78	115	H2	485.089	ug/l	2.0	59109.05	10000	
Sr	88	103	He	375.820	ug/l	2.0	550713.95	20000	
Mo	95	103	He	900.203	ug/l	1.3	808491.86	10000	
Ag	107	103	He	51.172	ug/l	0.3	155722.79	100	
Cd	111	115	He	258.902	ug/l	1.5	127749.28	5000	
Sn	118	115	He	621.299	ug/l	0.6	718245.44	10000	
Sb	123	115	He	63.287	ug/l	0.8	77767.64	200	
Ba	137	115	He	2344.772	ug/l	1.1	1391370.36	20000	
W	182	159	He	146.327	ug/l	1.6	388634.04	10000	
Tl	205	165	He	517.629	ug/l	1.5	3207927.72	2000	
Pb	208	165	He	431.322	ug/l	1.1	3630879.18	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1213146.93	0.4	1444414.16	83.99	59.5	120.4	
Sc	45	No Gas	7724655.25	1.0	9012307.42	85.71	59.5	120.4	
Sc	45	H2	5094322.83	0.9	6064886.67	84	59.5	120.4	
Sc	45	He	714494.31	0.3	842862.48	84.77	59.5	120.4	
Rh	103	H2	1989423.08	0.4	2508597.67	79.3	59.5	120.4	
Rh	103	He	3991685.67	0.5	4686316.76	85.18	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
In	115	H2	6137294.50	1.3	7115626.5	86.25	59.5	120.4	
In	115	He	2258711.04	1.4	2641648.07	85.5	59.5	120.4	
Tb	159	He	5715296.99	0.7	6439806.69	88.75	59.5	120.4	
Ho	165	He	5987727.96	1.4	6662050.43	89.88	59.5	120.4	
Bi	209	He	3783577.35	0.7	4322541.5	87.53	59.5	120.4	

Sample Report

Sample Name	240-134698-a-56-b@2
File Name	051SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:32:38
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	14.883	ug/l	1.2	105110.72	10000	
Be	9	45	No Gas	2.716	ug/l	2.4	2230.19	2000	
B	11	45	No Gas	46.567	ug/l	1.6	29509.83	500	
Na	23	45	He	6727.776	ug/l	1.6	1166386.65	3000000	
Mg	24	45	He	17790.223	ug/l	1.2	1720838.41	3000000	
Al	27	45	He	19252.748	ug/l	1.5	926879.27	500000	
K	39	45	He	2034.652	ug/l	2.0	270571.48	3000000	
Ca	44	45	He	7420.033	ug/l	0.2	20162.93	3000000	
Ti	47	45	He	869.628	ug/l	0.5	30636.21	10000	
V	51	45	He	42970.368	ug/l	0.8	44903242.72	20000	LDR Warning
Cr	52	45	He	2996.390	ug/l	1.2	3760726.66	10000	
Mn	55	45	He	5827.204	ug/l	0.4	4735426.06	20000	
Fe	56	103	H2	1278656.397	ug/l	0.3	4024825540.02	500000	LDR Warning
Co	59	103	He	353.041	ug/l	0.9	776122.54	20000	
Ni	60	103	He	10503.653	ug/l	1.8	6133125.45	20000	
Cu	63	103	He	2551.532	ug/l	2.2	4006890.12	20000	
Zn	66	103	He	4418.311	ug/l	2.7	1239073.56	20000	
As	75	103	He	115.946	ug/l	0.6	27391.67	20000	
Se	78	115	H2	57.818	ug/l	1.2	6999.43	10000	
Sr	88	103	He	228.944	ug/l	0.7	340080.96	20000	
Mo	95	103	He	450.601	ug/l	0.9	410191.32	10000	
Ag	107	103	He	1.226	ug/l	6.0	3828.36	100	
Cd	111	115	He	18.851	ug/l	1.7	9320.14	5000	
Sn	118	115	He	72.922	ug/l	1.2	84642.02	10000	
Sb	123	115	He	173.900	ug/l	1.2	213824.90	200	
Ba	137	115	He	1206.532	ug/l	1.3	716645.25	20000	
W	182	159	He	11.812	ug/l	1.0	38639.14	10000	
Tl	205	165	He	1.137	ug/l	1.3	7382.20	2000	
Pb	208	165	He	461.453	ug/l	1.2	3949657.31	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1205555.77	1.2	1444414.16	83.46	59.5	120.4	
Sc	45	No Gas	7686662.20	1.1	9012307.42	85.29	59.5	120.4	
Sc	45	H2	5015429.67	1.1	6064886.67	82.7	59.5	120.4	
Sc	45	He	691512.32	0.4	842862.48	82.04	59.5	120.4	
Rh	103	H2	2009546.63	0.9	2508597.67	80.11	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4045694.14	0.5	4686316.76	86.33	59.5	120.4	
In	115	H2	6090352.83	0.7	7115626.5	85.59	59.5	120.4	
In	115	He	2260826.73	0.9	2641648.07	85.58	59.5	120.4	
Tb	159	He	5799517.82	0.4	6439806.69	90.06	59.5	120.4	
Ho	165	He	6087806.56	0.7	6662050.43	91.38	59.5	120.4	
Bi	209	He	3874580.95	0.8	4322541.5	89.64	59.5	120.4	

Sample Report

Sample Name	240-134698-a-57-a@2
File Name	052SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:35:02
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	41.711	ug/l	0.4	162078.62	10000	
Be	9	45	No Gas	10.562	ug/l	1.4	8527.01	2000	
B	11	45	No Gas	128.605	ug/l	1.0	66982.61	500	
Na	23	45	He	1968.113	ug/l	1.2	367158.31	3000000	
Mg	24	45	He	3680.423	ug/l	1.0	369618.32	3000000	
Al	27	45	He	61828.516	ug/l	0.3	3087185.50	500000	
K	39	45	He	5038.803	ug/l	0.9	604045.67	3000000	
Ca	44	45	He	19421.570	ug/l	0.9	53922.50	3000000	
Ti	47	45	He	1546.702	ug/l	2.6	56510.68	10000	
V	51	45	He	577.912	ug/l	0.7	626661.30	20000	
Cr	52	45	He	377.063	ug/l	0.7	492944.49	10000	
Mn	55	45	He	1685.699	ug/l	0.5	1421164.18	20000	
Fe	56	103	H2	329998.593	ug/l	0.9	1070316890.72	500000	
Co	59	103	He	45.477	ug/l	1.5	103448.70	20000	
Ni	60	103	He	472.419	ug/l	1.4	285451.28	20000	
Cu	63	103	He	1580.900	ug/l	0.8	2567788.86	20000	
Zn	66	103	He	8653.942	ug/l	1.9	2507789.48	20000	
As	75	103	He	184.264	ug/l	1.9	44964.51	20000	
Se	78	115	H2	48.999	ug/l	0.8	6054.66	10000	
Sr	88	103	He	995.514	ug/l	0.9	1528949.42	20000	
Mo	95	103	He	77.578	ug/l	1.7	73068.55	10000	
Ag	107	103	He	0.756	ug/l	0.9	2460.25	100	
Cd	111	115	He	24.614	ug/l	1.3	12638.63	5000	
Sn	118	115	He	66.348	ug/l	0.6	80034.43	10000	
Sb	123	115	He	24.556	ug/l	1.0	31403.07	200	
Ba	137	115	He	1225.815	ug/l	1.2	756392.68	20000	
W	182	159	He	13.444	ug/l	0.8	43837.58	10000	
Tl	205	165	He	2.876	ug/l	1.5	18700.33	2000	
Pb	208	165	He	777.206	ug/l	0.7	6784003.86	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1191275.50	2.7	1444414.16	82.47	59.5	120.4	
Sc	45	No Gas	7654254.14	1.2	9012307.42	84.93	59.5	120.4	
Sc	45	H2	5133482.17	0.6	6064886.67	84.64	59.5	120.4	
Sc	45	He	717269.60	0.5	842862.48	85.1	59.5	120.4	
Rh	103	H2	2070556.08	0.8	2508597.67	82.54	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4184144.97	1.2	4686316.76	89.28	59.5	120.4	
In	115	H2	6215461.17	0.8	7115626.5	87.35	59.5	120.4	
In	115	He	2348570.31	0.4	2641648.07	88.91	59.5	120.4	
Tb	159	He	5918724.76	0.4	6439806.69	91.91	59.5	120.4	
Ho	165	He	6208796.42	0.5	6662050.43	93.2	59.5	120.4	
Bi	209	He	3999075.54	1.3	4322541.5	92.52	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	053_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:37:28
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	51.238	ug/l	1.9	186122.63	50	102.48	89.5	110.5	
Be	9	45	No Gas	51.255	ug/l	0.9	42066.99	50	102.51	89.5	110.5	
B	11	45	No Gas	102.676	ug/l	1.0	56207.62	100	102.68	89.5	110.5	
Na	23	45	He	26503.807	ug/l	0.8	4795476.06	25000	106.02	89.5	110.5	
Mg	24	45	He	26922.001	ug/l	0.3	2749326.42	25000	107.69	89.5	110.5	
Al	27	45	He	26393.842	ug/l	1.4	1341541.16	25000	105.58	89.5	110.5	
K	39	45	He	27090.066	ug/l	1.0	3031201.82	25000	108.36	89.5	110.5	
Ca	44	45	He	26627.308	ug/l	1.0	75061.82	25000	106.51	89.5	110.5	
Ti	47	45	He	51.182	ug/l	5.5	1909.04	50	102.36	89.5	110.5	
V	51	45	He	55.215	ug/l	1.8	61172.83	50	110.43	89.5	110.5	
Cr	52	45	He	53.786	ug/l	0.9	73635.90	50	107.57	89.5	110.5	
Mn	55	45	He	55.962	ug/l	0.6	48382.15	50	111.92	89.5	110.5	CCV Failed
Fe	56	103	H2	25739.076	ug/l	0.8	87018028.70	25000	102.96	89.5	110.5	
Co	59	103	He	49.642	ug/l	2.2	114558.98	50	99.28	89.5	110.5	
Ni	60	103	He	50.680	ug/l	0.1	31244.59	50	101.36	89.5	110.5	
Cu	63	103	He	51.065	ug/l	1.2	84734.64	50	102.13	89.5	110.5	
Zn	66	103	He	50.841	ug/l	1.5	17087.17	50	101.68	89.5	110.5	
As	75	103	He	51.047	ug/l	1.5	12701.28	50	102.09	89.5	110.5	
Se	78	115	H2	52.536	ug/l	1.3	6643.25	50	105.07	89.5	110.5	
Sr	88	103	He	50.833	ug/l	1.8	79307.92	50	101.67	89.5	110.5	
Mo	95	103	He	50.751	ug/l	0.7	48515.93	50	101.5	89.5	110.5	
Ag	107	103	He	50.999	ug/l	1.0	165039.27	50	102	89.5	110.5	
Cd	111	115	He	53.374	ug/l	1.2	27720.32	50	106.75	89.5	110.5	
Sn	118	115	He	52.309	ug/l	0.8	63910.38	50	104.62	89.5	110.5	
Sb	123	115	He	53.015	ug/l	1.1	68547.54	50	106.03	89.5	110.5	
Ba	137	115	He	53.289	ug/l	1.5	33284.48	50	106.58	89.5	110.5	
W	182	159	He	52.762	ug/l	1.3	149815.21	50	105.52	89.5	110.5	
Tl	205	165	He	52.678	ug/l	1.5	341170.82	50	105.36	89.5	110.5	
Pb	208	165	He	52.688	ug/l	1.0	463908.15	50	105.38	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1221620.19	0.3	1444414.16	84.58	59.5	120.4	
Sc	45	No Gas	7808092.19	0.9	9012307.42	86.64	59.5	120.4	
Sc	45	H2	5170537.83	0.8	6064886.67	85.25	59.5	120.4	
Sc	45	He	730108.22	0.3	842862.48	86.62	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2158061.75	1.0	2508597.67	86.03	59.5	120.4	
Rh	103	He	4245128.02	1.2	4686316.76	90.59	59.5	120.4	
In	115	H2	6361170.00	1.0	7115626.5	89.4	59.5	120.4	
In	115	He	2376334.38	0.8	2641648.07	89.96	59.5	120.4	
Tb	159	He	5913232.27	0.3	6439806.69	91.82	59.5	120.4	
Ho	165	He	6253911.00	1.3	6662050.43	93.87	59.5	120.4	
Bi	209	He	3972405.67	0.5	4322541.5	91.9	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	054_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:39:54
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-0.554	ug/l	N/A	73586.50	8	
Be	9	45	No Gas	0.042	ug/l	25.6	73.33	1	
B	11	45	No Gas	2.685	ug/l	13.8	9533.18	20	
Na	23	45	He	-5.058	ug/l	N/A	18004.62	1000	
Mg	24	45	He	2.506	ug/l	76.1	701.14	1000	
Al	27	45	He	6.461	ug/l	40.0	514.46	50	
K	39	45	He	23.260	ug/l	100.4	64789.94	1000	
Ca	44	45	He	18.887	ug/l	106.7	562.83	1000	
Ti	47	45	He	0.358	ug/l	114.4	18.89	20	
V	51	45	He	1.470	ug/l	31.3	1858.68	2	
Cr	52	45	He	0.695	ug/l	38.2	3297.09	2	
Mn	55	45	He	2.282	ug/l	32.6	2306.90	5	
Fe	56	103	H2	80.126	ug/l	6.2	294058.97	50	CCB Failed
Co	59	103	He	0.072	ug/l	42.8	237.79	1	
Ni	60	103	He	0.478	ug/l	37.3	490.02	2	
Cu	63	103	He	0.878	ug/l	25.9	2067.96	2	
Zn	66	103	He	1.986	ug/l	17.5	2751.41	20	
As	75	103	He	0.012	ug/l	747.3	90.37	2	
Se	78	115	H2	0.025	ug/l	129.6	11.33	2	
Sr	88	103	He	0.140	ug/l	39.0	328.90	10	
Mo	95	103	He	0.108	ug/l	54.7	150.00	10	
Ag	107	103	He	0.000	ug/l	1369.8	52.22	0.2	
Cd	111	115	He	0.056	ug/l	44.8	38.88	1	
Sn	118	115	He	0.153	ug/l	60.0	498.91	100	
Sb	123	115	He	0.192	ug/l	10.9	286.67	1	
Ba	137	115	He	0.354	ug/l	51.4	235.56	5	
W	182	159	He	0.129	ug/l	119.7	7871.34	10	
Tl	205	165	He	0.136	ug/l	16.7	1081.17	0.5	
Pb	208	165	He	0.186	ug/l	16.7	2345.67	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1252011.15	0.7	1444414.16	86.68	59.5	120.4	
Sc	45	No Gas	7862861.63	0.4	9012307.42	87.25	59.5	120.4	
Sc	45	H2	5201555.17	0.2	6064886.67	85.77	59.5	120.4	
Sc	45	He	724501.64	0.5	842862.48	85.96	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2202827.83	1.2	2508597.67	87.81	59.5	120.4	
Rh	103	He	4272619.28	1.0	4686316.76	91.17	59.5	120.4	
In	115	H2	6420617.17	0.1	7115626.5	90.23	59.5	120.4	
In	115	He	2368309.98	1.2	2641648.07	89.65	59.5	120.4	
Tb	159	He	5897888.24	0.3	6439806.69	91.58	59.5	120.4	
Ho	165	He	6140078.79	0.4	6662050.43	92.17	59.5	120.4	
Bi	209	He	3979280.12	0.7	4322541.5	92.06	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	055_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:42:34
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	51.975	ug/l	0.9	185977.42	50	103.95	89.5	110.5	
Be	9	45	No Gas	51.252	ug/l	1.7	41666.86	50	102.5	89.5	110.5	
B	11	45	No Gas	100.891	ug/l	0.5	54850.20	100	100.89	89.5	110.5	
Na	23	45	He	26910.712	ug/l	1.2	4806954.95	25000	107.64	89.5	110.5	
Mg	24	45	He	26790.848	ug/l	0.5	2701237.25	25000	107.16	89.5	110.5	
Al	27	45	He	26566.270	ug/l	1.1	1333176.30	25000	106.27	89.5	110.5	
K	39	45	He	26738.792	ug/l	0.7	2954707.11	25000	106.96	89.5	110.5	
Ca	44	45	He	26739.040	ug/l	0.6	74418.66	25000	106.96	89.5	110.5	
Ti	47	45	He	50.776	ug/l	5.7	1870.14	50	101.55	89.5	110.5	
V	51	45	He	53.576	ug/l	0.9	58610.36	50	107.15	89.5	110.5	
Cr	52	45	He	53.392	ug/l	0.4	72186.59	50	106.78	89.5	110.5	
Mn	55	45	He	54.119	ug/l	0.3	46205.97	50	108.24	89.5	110.5	
Fe	56	103	H2	25892.498	ug/l	0.6	86507212.04	25000	103.57	89.5	110.5	
Co	59	103	He	50.321	ug/l	0.8	112694.15	50	100.64	89.5	110.5	
Ni	60	103	He	50.225	ug/l	1.3	30050.83	50	100.45	89.5	110.5	
Cu	63	103	He	51.289	ug/l	0.6	82586.50	50	102.58	89.5	110.5	
Zn	66	103	He	49.206	ug/l	1.4	16113.76	50	98.41	89.5	110.5	
As	75	103	He	50.026	ug/l	1.4	12080.42	50	100.05	89.5	110.5	
Se	78	115	H2	51.084	ug/l	2.1	6400.48	50	102.17	89.5	110.5	
Sr	88	103	He	51.879	ug/l	1.0	78541.48	50	103.76	89.5	110.5	
Mo	95	103	He	51.459	ug/l	1.6	47734.35	50	102.92	89.5	110.5	
Ag	107	103	He	52.064	ug/l	0.8	163492.17	50	104.13	89.5	110.5	
Cd	111	115	He	52.523	ug/l	2.0	26955.56	50	105.05	89.5	110.5	
Sn	118	115	He	52.374	ug/l	1.5	63239.17	50	104.75	89.5	110.5	
Sb	123	115	He	52.466	ug/l	1.0	67052.42	50	104.93	89.5	110.5	
Ba	137	115	He	52.504	ug/l	1.3	32410.15	50	105.01	89.5	110.5	
W	182	159	He	52.669	ug/l	1.3	147912.41	50	105.34	89.5	110.5	
Tl	205	165	He	52.579	ug/l	1.2	334901.86	50	105.16	89.5	110.5	
Pb	208	165	He	52.290	ug/l	0.7	452787.58	50	104.58	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1210671.72	1.3	1444414.16	83.82	59.5	120.4	
Sc	45	No Gas	7734961.08	1.2	9012307.42	85.83	59.5	120.4	
Sc	45	H2	5175254.67	0.9	6064886.67	85.33	59.5	120.4	
Sc	45	He	720839.61	0.3	842862.48	85.52	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2132581.42	0.4	2508597.67	85.01	59.5	120.4	
Rh	103	He	4119291.78	1.1	4686316.76	87.9	59.5	120.4	
In	115	H2	6303697.17	1.4	7115626.5	88.59	59.5	120.4	
In	115	He	2348628.06	1.7	2641648.07	88.91	59.5	120.4	
Tb	159	He	5847817.13	0.6	6439806.69	90.81	59.5	120.4	
Ho	165	He	6149972.67	0.6	6662050.43	92.31	59.5	120.4	
Bi	209	He	3933009.85	1.2	4322541.5	90.99	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	056_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:45:00
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.077	ug/l	411.1	73158.80	8	
Be	9	45	No Gas	0.029	ug/l	87.9	61.11	1	
B	11	45	No Gas	2.338	ug/l	8.4	9142.92	20	
Na	23	45	He	3.129	ug/l	33.0	19269.55	1000	
Mg	24	45	He	0.433	ug/l	52.7	486.68	1000	
Al	27	45	He	2.377	ug/l	55.0	305.56	50	
K	39	45	He	17.008	ug/l	98.7	63458.32	1000	
Ca	44	45	He	13.276	ug/l	119.1	541.75	1000	
Ti	47	45	He	-0.003	ug/l	N/A	5.55	20	
V	51	45	He	0.449	ug/l	26.0	733.86	2	
Cr	52	45	He	0.168	ug/l	70.1	2579.15	2	
Mn	55	45	He	0.924	ug/l	10.6	1141.17	5	
Fe	56	103	H2	35.891	ug/l	5.5	139503.31	50	
Co	59	103	He	0.019	ug/l	54.4	114.45	1	
Ni	60	103	He	0.090	ug/l	90.2	248.90	2	
Cu	63	103	He	0.329	ug/l	27.7	1148.95	2	
Zn	66	103	He	3.067	ug/l	15.6	3055.93	20	
As	75	103	He	0.037	ug/l	416.4	95.81	2	
Se	78	115	H2	0.025	ug/l	76.7	11.33	2	
Sr	88	103	He	0.067	ug/l	25.0	212.23	10	
Mo	95	103	He	0.041	ug/l	66.2	84.44	10	
Ag	107	103	He	0.003	ug/l	154.8	62.22	0.2	
Cd	111	115	He	0.032	ug/l	58.9	26.66	1	
Sn	118	115	He	0.043	ug/l	107.7	365.56	100	
Sb	123	115	He	0.127	ug/l	30.4	203.34	1	
Ba	137	115	He	0.175	ug/l	26.0	124.44	5	
W	182	159	He	0.129	ug/l	121.7	7780.16	10	
Tl	205	165	He	0.076	ug/l	26.7	697.81	0.5	
Pb	208	165	He	0.084	ug/l	21.1	1454.50	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1233947.73	1.1	1444414.16	85.43	59.5	120.4	
Sc	45	No Gas	7672680.25	0.8	9012307.42	85.14	59.5	120.4	
Sc	45	H2	5141373.50	0.6	6064886.67	84.77	59.5	120.4	
Sc	45	He	717132.85	0.8	842862.48	85.08	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2175053.92	0.9	2508597.67	86.7	59.5	120.4	
Rh	103	He	4252333.30	1.2	4686316.76	90.74	59.5	120.4	
In	115	H2	6435773.17	0.6	7115626.5	90.45	59.5	120.4	
In	115	He	2364088.42	0.6	2641648.07	89.49	59.5	120.4	
Tb	159	He	5830728.52	1.1	6439806.69	90.54	59.5	120.4	
Ho	165	He	6090598.51	1.2	6662050.43	91.42	59.5	120.4	
Bi	209	He	3954046.51	1.4	4322541.5	91.48	59.5	120.4	

Continuing Calibration Verification (CCVL) Report

Sample Name	CCVL-4781477
File Name	057CCVL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:47:31
Sample Type	CCVL
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	8.323	ug/l	6.4	89956.57	8	104.04	69.5	130.5	
Be	9	45	No Gas	1.091	ug/l	5.3	907.82	1	109.1	69.5	130.5	
B	11	45	No Gas	20.486	ug/l	1.9	17307.01	20	102.43	69.5	130.5	
Na	23	45	He	999.102	ug/l	0.8	194057.91	1000	99.91	69.5	130.5	
Mg	24	45	He	1035.908	ug/l	0.4	103524.39	1000	103.59	69.5	130.5	
Al	27	45	He	50.756	ug/l	4.7	2699.17	50	101.51	69.5	130.5	
K	39	45	He	1093.298	ug/l	1.7	177901.85	1000	109.33	69.5	130.5	
Ca	44	45	He	1038.066	ug/l	2.2	3333.53	1000	103.81	69.5	130.5	
Ti	47	45	He	10.814	ug/l	13.1	397.79	10	108.14	69.5	130.5	
V	51	45	He	5.762	ug/l	3.3	6441.81	5	115.24	69.5	130.5	
Cr	52	45	He	2.466	ug/l	4.9	5525.57	2	123.3	69.5	130.5	
Mn	55	45	He	5.831	ug/l	1.4	5235.47	5	116.62	69.5	130.5	
Fe	56	103	H2	122.871	ug/l	1.7	431942.01	100	122.87	69.5	130.5	
Co	59	103	He	0.985	ug/l	6.9	2286.88	1	98.5	69.5	130.5	
Ni	60	103	He	2.129	ug/l	7.9	1462.32	2	106.45	69.5	130.5	
Cu	63	103	He	2.381	ug/l	4.0	4424.08	2	119.05	69.5	130.5	
Zn	66	103	He	16.343	ug/l	4.4	6790.59	20	81.72	69.5	130.5	
As	75	103	He	4.855	ug/l	1.3	1257.08	5	97.1	69.5	130.5	
Se	78	115	H2	4.961	ug/l	4.8	631.68	5	99.22	69.5	130.5	
Sr	88	103	He	10.017	ug/l	2.2	15353.03	10	100.17	69.5	130.5	
Mo	95	103	He	5.054	ug/l	2.0	4759.76	5	101.08	69.5	130.5	
Ag	107	103	He	1.072	ug/l	6.9	3438.25	1	107.2	69.5	130.5	
Cd	111	115	He	1.113	ug/l	7.0	580.79	1	111.3	69.5	130.5	
Sn	118	115	He	10.458	ug/l	1.2	12879.56	10	104.58	69.5	130.5	
Sb	123	115	He	2.180	ug/l	5.0	2823.66	2	109	69.5	130.5	
Ba	137	115	He	5.330	ug/l	1.4	3304.90	5	106.6	69.5	130.5	
W	182	159	He	10.275	ug/l	1.0	34782.87	10	102.75	69.5	130.5	
Tl	205	165	He	1.075	ug/l	1.3	6996.42	1	107.5	69.5	130.5	
Pb	208	165	He	1.121	ug/l	2.6	10332.85	1	112.1	69.5	130.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1223138.81	1.8	1444414.16	84.68	59.5	120.4	
Sc	45	No Gas	7597851.92	1.1	9012307.42	84.31	59.5	120.4	
Sc	45	H2	5068795.33	0.5	6064886.67	83.58	59.5	120.4	
Sc	45	He	711550.94	0.7	842862.48	84.42	59.5	120.4	

Continuing Calibration Verification (CCVL) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2155265.50	1.4	2508597.67	85.92	59.5	120.4	
Rh	103	He	4147788.31	1.5	4686316.76	88.51	59.5	120.4	
In	115	H2	6329648.17	1.7	7115626.5	88.95	59.5	120.4	
In	115	He	2348823.00	1.0	2641648.07	88.92	59.5	120.4	
Tb	159	He	5834564.35	0.6	6439806.69	90.6	59.5	120.4	
Ho	165	He	6094630.59	1.4	6662050.43	91.48	59.5	120.4	
Bi	209	He	3944725.12	0.5	4322541.5	91.26	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	mb 240-446760/1-a
File Name	058_Blk.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:50:01
Sample Type	Blank
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.219	ug/l	198.1	72079.26	8	
Be	9	45	No Gas	0.019	ug/l	82.8	52.22	1	
B	11	45	No Gas	3.458	ug/l	9.0	9476.50	20	
Na	23	45	He	57.291	ug/l	2.3	28230.87	1000	
Mg	24	45	He	5.861	ug/l	11.8	1008.93	1000	
Al	27	45	He	9.930	ug/l	15.1	667.80	50	
K	39	45	He	19.552	ug/l	100.3	62333.40	1000	
Ca	44	45	He	72.301	ug/l	9.9	688.88	1000	
Ti	47	45	He	-0.093	ug/l	N/A	2.22	20	
V	51	45	He	0.346	ug/l	54.5	609.25	2	
Cr	52	45	He	0.337	ug/l	27.6	2739.19	2	
Mn	55	45	He	0.673	ug/l	21.5	910.04	5	
Fe	56	103	H2	33.263	ug/l	2.2	128392.68	50	
Co	59	103	He	0.017	ug/l	82.4	106.67	1	
Ni	60	103	He	0.093	ug/l	33.2	245.56	2	
Cu	63	103	He	0.407	ug/l	10.4	1253.40	2	
Zn	66	103	He	-2.992	ug/l	N/A	1247.85	20	
As	75	103	He	0.252	ug/l	82.9	146.33	2	
Se	78	115	H2	0.005	ug/l	436.1	8.67	2	
Sr	88	103	He	0.156	ug/l	16.7	344.45	10	
Mo	95	103	He	0.024	ug/l	152.4	66.67	10	
Ag	107	103	He	-0.001	ug/l	N/A	47.78	0.2	
Cd	111	115	He	0.014	ug/l	192.9	16.66	1	
Sn	118	115	He	0.134	ug/l	34.1	466.68	100	
Sb	123	115	He	0.032	ug/l	50.7	78.89	1	
Ba	137	115	He	0.177	ug/l	10.6	123.34	5	
W	182	159	He	0.092	ug/l	90.4	7604.50	10	
Tl	205	165	He	0.034	ug/l	16.4	437.79	0.5	
Pb	208	165	He	0.069	ug/l	19.3	1341.15	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1233460.63	0.9	1444414.16	85.4	59.5	120.4	
Sc	45	No Gas	7528297.48	0.6	9012307.42	83.53	59.5	120.4	
Sc	45	H2	5043514.33	0.7	6064886.67	83.16	59.5	120.4	
Sc	45	He	701545.44	0.4	842862.48	83.23	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2138498.58	0.2	2508597.67	85.25	59.5	120.4	
Rh	103	He	4166529.42	0.4	4686316.76	88.91	59.5	120.4	
In	115	H2	6302685.33	1.0	7115626.5	88.58	59.5	120.4	
In	115	He	2319042.40	0.3	2641648.07	87.79	59.5	120.4	
Tb	159	He	5771686.43	1.7	6439806.69	89.63	59.5	120.4	
Ho	165	He	6158003.36	1.5	6662050.43	92.43	59.5	120.4	
Bi	209	He	3943259.29	0.9	4322541.5	91.23	59.5	120.4	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 240-446760/3-a
File Name	059_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:52:33
Sample Type	LCSW
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	547.150	ug/l	2.0	1218903.63	500	109.43	84.5	115.4	
Be	9	45	No Gas	516.984	ug/l	0.9	407365.08	500	103.4	84.5	115.4	
B	11	45	No Gas	102.852	ug/l	1.8	54079.62	100	102.85	84.5	115.4	
Na	23	45	He	26612.185	ug/l	0.3	4692850.23	25000	106.45	84.5	115.4	
Mg	24	45	He	26813.745	ug/l	1.1	2668849.55	25000	107.25	84.5	115.4	
Al	27	45	He	4955.255	ug/l	0.4	245626.18	5000	99.11	84.5	115.4	
K	39	45	He	26855.689	ug/l	0.8	2929196.34	25000	107.42	84.5	115.4	
Ca	44	45	He	26533.846	ug/l	1.4	72901.99	25000	106.14	84.5	115.4	
Ti	47	45	He	516.665	ug/l	1.2	18732.47	500	103.33	84.5	115.4	
V	51	45	He	523.296	ug/l	0.4	562947.86	500	104.66	84.5	115.4	
Cr	52	45	He	522.778	ug/l	0.5	677113.36	500	104.56	84.5	115.4	
Mn	55	45	He	521.159	ug/l	0.4	436131.49	500	104.23	84.5	115.4	
Fe	56	103	H2	5072.239	ug/l	0.9	16896334.33	5000	101.44	84.5	115.4	
Co	59	103	He	510.648	ug/l	0.4	1154898.60	500	102.13	84.5	115.4	
Ni	60	103	He	479.586	ug/l	0.6	288282.64	500	95.92	84.5	115.4	
Cu	63	103	He	487.128	ug/l	0.4	787491.48	500	97.43	84.5	115.4	
Zn	66	103	He	523.081	ug/l	0.7	152789.62	500	104.62	84.5	115.4	
As	75	103	He	967.853	ug/l	0.7	234602.94	1000	96.79	84.5	115.4	
Se	78	115	H2	996.717	ug/l	1.1	123860.05	1000	99.67	84.5	115.4	
Sr	88	103	He	491.549	ug/l	0.1	751069.05	500	98.31	84.5	115.4	
Mo	95	103	He	498.038	ug/l	0.3	466428.23	500	99.61	84.5	115.4	
Ag	107	103	He	101.081	ug/l	0.4	320687.03	100	101.08	84.5	115.4	
Cd	111	115	He	527.686	ug/l	2.1	264205.62	500	105.54	84.5	115.4	
Sn	118	115	He	1113.893	ug/l	2.2	1306388.39	1000	111.39	84.5	115.4	
Sb	123	115	He	112.154	ug/l	1.0	139821.69	100	112.15	84.5	115.4	
Ba	137	115	He	1043.631	ug/l	0.8	628464.98	1000	104.36	84.5	115.4	
W	182	159	He	101.258	ug/l	0.2	276754.21	100	101.26	84.5	115.4	
Tl	205	165	He	1053.351	ug/l	1.6	6599515.71	1000	105.34	84.5	115.4	
Pb	208	165	He	528.442	ug/l	1.2	4497230.49	500	105.69	84.5	115.4	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1195612.91	0.7	1444414.16	82.77	59.5	120.4	
Sc	45	No Gas	7502148.03	0.5	9012307.42	83.24	59.5	120.4	
Sc	45	H2	5048606.67	1.4	6064886.67	83.24	59.5	120.4	
Sc	45	He	711574.80	0.4	842862.48	84.42	59.5	120.4	

Laboratory Control Sample (LCS) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2124721.50	1.3	2508597.67	84.7	59.5	120.4	
Rh	103	He	4162115.25	0.6	4686316.76	88.81	59.5	120.4	
In	115	H2	6259136.50	1.6	7115626.5	87.96	59.5	120.4	
In	115	He	2292044.65	1.0	2641648.07	86.77	59.5	120.4	
Tb	159	He	5832434.49	0.2	6439806.69	90.57	59.5	120.4	
Ho	165	He	6053297.68	0.5	6662050.43	90.86	59.5	120.4	
Bi	209	He	3889080.26	0.5	4322541.5	89.97	59.5	120.4	

Sample Report

Sample Name	280-139176-f-2-a
File Name	060SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:54:55
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	48.192	ug/l	0.5	172958.47	10000	
Be	9	45	No Gas	0.622	ug/l	3.9	528.90	2000	
B	11	45	No Gas	170.381	ug/l	0.9	84655.45	500	
Na	23	45	He	56067.718	ug/l	0.5	9595092.40	3000000	
Mg	24	45	He	94524.285	ug/l	0.9	9148152.14	3000000	
Al	27	45	He	11964.179	ug/l	0.6	576497.15	500000	
K	39	45	He	9844.602	ug/l	1.6	1081920.23	3000000	
Ca	44	45	He	257230.165	ug/l	1.0	683084.15	3000000	
Ti	47	45	He	306.797	ug/l	1.9	10819.03	10000	
V	51	45	He	26.229	ug/l	2.9	27667.40	20000	
Cr	52	45	He	19.187	ug/l	0.9	26362.25	10000	
Mn	55	45	He	153.269	ug/l	0.7	124982.59	20000	
Fe	56	103	H2	11746.521	ug/l	1.0	37586611.11	500000	
Co	59	103	He	3.907	ug/l	3.2	8589.35	20000	
Ni	60	103	He	9.769	ug/l	3.2	5842.38	20000	
Cu	63	103	He	6.740	ug/l	3.3	11074.43	20000	
Zn	66	103	He	35.388	ug/l	2.3	11866.21	20000	
As	75	103	He	3.286	ug/l	2.8	849.95	20000	
Se	78	115	H2	17.043	ug/l	2.6	2078.83	10000	
Sr	88	103	He	2572.698	ug/l	2.5	3791054.43	20000	
Mo	95	103	He	1.291	ug/l	10.2	1208.96	10000	
Ag	107	103	He	0.027	ug/l	5.2	130.01	100	
Cd	111	115	He	0.141	ug/l	7.1	79.92	5000	
Sn	118	115	He	1.157	ug/l	2.4	1651.23	10000	
Sb	123	115	He	0.387	ug/l	4.4	517.79	200	
Ba	137	115	He	154.780	ug/l	2.6	92630.21	20000	
W	182	159	He	0.319	ug/l	44.9	8209.33	10000	
Tl	205	165	He	0.416	ug/l	2.5	2837.01	2000	
Pb	208	165	He	7.602	ug/l	0.6	65816.22	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1177392.04	0.5	1444414.16	81.51	59.5	120.4	
Sc	45	No Gas	7524098.87	0.1	9012307.42	83.49	59.5	120.4	
Sc	45	H2	4810934.00	1.3	6064886.67	79.32	59.5	120.4	
Sc	45	He	692001.27	0.6	842862.48	82.1	59.5	120.4	
Rh	103	H2	2042101.38	1.0	2508597.67	81.4	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4015317.62	1.4	4686316.76	85.68	59.5	120.4	
In	115	H2	6120615.33	0.4	7115626.5	86.02	59.5	120.4	
In	115	He	2277736.21	1.1	2641648.07	86.22	59.5	120.4	
Tb	159	He	5776105.60	0.5	6439806.69	89.69	59.5	120.4	
Ho	165	He	6090520.45	0.7	6662050.43	91.42	59.5	120.4	
Bi	209	He	3855896.79	1.4	4322541.5	89.2	59.5	120.4	

Sample Report

Sample Name	280-139176-e-3-a
File Name	061SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:57:24
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	0.041	ug/l	673.0	70863.26	10000	
Be	9	45	No Gas	0.041	ug/l	22.5	68.89	2000	
B	11	45	No Gas	4.962	ug/l	7.3	10033.53	500	
Na	23	45	He	13.173	ug/l	13.7	20519.06	3000000	
Mg	24	45	He	5.791	ug/l	15.2	997.82	3000000	
Al	27	45	He	3.563	ug/l	30.0	355.56	500000	
K	39	45	He	9.366	ug/l	192.7	61058.08	3000000	
Ca	44	45	He	31.727	ug/l	19.7	577.64	3000000	
Ti	47	45	He	0.093	ug/l	230.6	8.89	10000	
V	51	45	He	0.383	ug/l	59.4	647.40	20000	
Cr	52	45	He	0.252	ug/l	39.3	2620.27	10000	
Mn	55	45	He	0.422	ug/l	40.2	700.03	20000	
Fe	56	103	H2	31.591	ug/l	2.2	123076.78	500000	
Co	59	103	He	0.014	ug/l	62.0	101.11	20000	
Ni	60	103	He	0.041	ug/l	63.2	215.56	20000	
Cu	63	103	He	0.236	ug/l	14.0	982.27	20000	
Zn	66	103	He	-3.809	ug/l	N/A	1017.83	20000	
As	75	103	He	-0.422	ug/l	N/A	-17.29	20000	
Se	78	115	H2	0.126	ug/l	44.1	23.67	10000	
Sr	88	103	He	0.242	ug/l	7.5	478.90	20000	
Mo	95	103	He	0.016	ug/l	98.3	60.00	10000	
Ag	107	103	He	0.000	ug/l	5894.5	51.11	100	
Cd	111	115	He	0.011	ug/l	133.1	15.55	5000	
Sn	118	115	He	0.296	ug/l	11.5	662.25	10000	
Sb	123	115	He	0.045	ug/l	16.1	96.67	200	
Ba	137	115	He	0.152	ug/l	26.2	108.89	20000	
W	182	159	He	0.096	ug/l	194.3	7661.21	10000	
Tl	205	165	He	0.098	ug/l	5.8	842.26	2000	
Pb	208	165	He	0.060	ug/l	20.5	1261.15	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1175293.18	1.4	1444414.16	81.37	59.5	120.4	
Sc	45	No Gas	7439737.76	0.7	9012307.42	82.55	59.5	120.4	
Sc	45	H2	4993409.50	0.5	6064886.67	82.33	59.5	120.4	
Sc	45	He	699049.47	0.8	842862.48	82.94	59.5	120.4	
Rh	103	H2	2143399.83	0.6	2508597.67	85.44	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4189857.75	0.5	4686316.76	89.41	59.5	120.4	
In	115	H2	6263266.50	0.4	7115626.5	88.02	59.5	120.4	
In	115	He	2327618.37	0.5	2641648.07	88.11	59.5	120.4	
Tb	159	He	5805962.55	0.9	6439806.69	90.16	59.5	120.4	
Ho	165	He	6139494.90	0.8	6662050.43	92.16	59.5	120.4	
Bi	209	He	3977329.56	0.7	4322541.5	92.01	59.5	120.4	

Sample Report

Sample Name	280-139176-e-4-a
File Name	062SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 14:59:54
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	90.834	ug/l	1.0	260498.75	10000	
Be	9	45	No Gas	0.176	ug/l	16.6	174.45	2000	
B	11	45	No Gas	271.226	ug/l	0.7	129006.45	500	
Na	23	45	He	132318.078	ug/l	0.4	22975839.09	3000000	
Mg	24	45	He	46571.328	ug/l	0.8	4578503.85	3000000	
Al	27	45	He	3440.189	ug/l	0.6	168506.31	500000	
K	39	45	He	9542.821	ug/l	0.7	1067093.95	3000000	
Ca	44	45	He	99628.524	ug/l	0.9	269036.29	3000000	
Ti	47	45	He	92.356	ug/l	4.7	3312.64	10000	
V	51	45	He	7.707	ug/l	5.3	8430.19	20000	
Cr	52	45	He	4.787	ug/l	3.4	8417.03	10000	
Mn	55	45	He	232.521	ug/l	0.2	192410.81	20000	
Fe	56	103	H2	3237.149	ug/l	1.4	10427713.80	500000	
Co	59	103	He	1.835	ug/l	2.4	4057.29	20000	
Ni	60	103	He	4.285	ug/l	6.4	2655.84	20000	
Cu	63	103	He	2.328	ug/l	5.8	4185.12	20000	
Zn	66	103	He	12.430	ug/l	4.0	5470.00	20000	
As	75	103	He	1.495	ug/l	17.8	429.74	20000	
Se	78	115	H2	0.876	ug/l	3.9	115.33	10000	
Sr	88	103	He	1627.643	ug/l	1.0	2390565.88	20000	
Mo	95	103	He	1.583	ug/l	2.7	1467.88	10000	
Ag	107	103	He	0.009	ug/l	57.3	76.67	100	
Cd	111	115	He	0.082	ug/l	30.9	51.01	5000	
Sn	118	115	He	0.318	ug/l	13.0	684.47	10000	
Sb	123	115	He	0.139	ug/l	15.1	213.34	200	
Ba	137	115	He	47.745	ug/l	1.1	29045.82	20000	
W	182	159	He	0.166	ug/l	35.7	7861.35	10000	
Tl	205	165	He	0.110	ug/l	8.2	920.05	2000	
Pb	208	165	He	2.015	ug/l	1.4	18118.48	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1157040.74	0.6	1444414.16	80.1	59.5	120.4	
Sc	45	No Gas	7462241.37	0.4	9012307.42	82.8	59.5	120.4	
Sc	45	H2	4847795.50	1.3	6064886.67	79.93	59.5	120.4	
Sc	45	He	702897.23	0.5	842862.48	83.39	59.5	120.4	
Rh	103	H2	2053412.04	0.4	2508597.67	81.85	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4001357.34	1.0	4686316.76	85.38	59.5	120.4	
In	115	H2	6184340.67	0.1	7115626.5	86.91	59.5	120.4	
In	115	He	2314447.28	1.6	2641648.07	87.61	59.5	120.4	
Tb	159	He	5817327.27	0.9	6439806.69	90.33	59.5	120.4	
Ho	165	He	6135885.45	0.4	6662050.43	92.1	59.5	120.4	
Bi	209	He	3849985.96	1.0	4322541.5	89.07	59.5	120.4	

Sample Report

Sample Name	240-134742-d-1-a@5
File Name	063SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:02:24
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	0.569	ug/l	67.0	72163.89	10000	
Be	9	45	No Gas	0.021	ug/l	39.1	53.33	2000	
B	11	45	No Gas	27.183	ug/l	3.9	19984.89	500	
Na	23	45	He	10428.003	ug/l	1.8	1802059.86	3000000	
Mg	24	45	He	6370.074	ug/l	1.1	617862.28	3000000	
Al	27	45	He	1.272	ug/l	28.3	242.23	500000	
K	39	45	He	433.976	ug/l	4.1	104694.64	3000000	
Ca	44	45	He	33335.509	ug/l	0.8	89084.96	3000000	
Ti	47	45	He	0.191	ug/l	75.7	12.22	10000	
V	51	45	He	0.344	ug/l	52.8	599.31	20000	
Cr	52	45	He	0.501	ug/l	20.9	2910.33	10000	
Mn	55	45	He	250.744	ug/l	1.6	204560.32	20000	
Fe	56	103	H2	993.764	ug/l	0.9	3291534.33	500000	
Co	59	103	He	0.058	ug/l	4.5	198.89	20000	
Ni	60	103	He	0.227	ug/l	44.8	322.23	20000	
Cu	63	103	He	0.161	ug/l	25.0	845.59	20000	
Zn	66	103	He	3.177	ug/l	9.9	2994.80	20000	
As	75	103	He	1.314	ug/l	17.3	399.71	20000	
Se	78	115	H2	0.033	ug/l	41.3	12.00	10000	
Sr	88	103	He	38.830	ug/l	0.8	58856.25	20000	
Mo	95	103	He	0.300	ug/l	9.6	322.23	10000	
Ag	107	103	He	-0.005	ug/l	N/A	35.56	100	
Cd	111	115	He	-0.002	ug/l	N/A	8.87	5000	
Sn	118	115	He	0.118	ug/l	12.0	450.01	10000	
Sb	123	115	He	0.016	ug/l	100.2	60.00	200	
Ba	137	115	He	68.279	ug/l	1.2	41762.39	20000	
W	182	159	He	0.087	ug/l	179.7	7643.43	10000	
Tl	205	165	He	0.035	ug/l	21.9	443.34	2000	
Pb	208	165	He	0.039	ug/l	7.3	1087.81	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1190420.70	1.6	1444414.16	82.42	59.5	120.4	
Sc	45	No Gas	7460893.59	0.8	9012307.42	82.79	59.5	120.4	
Sc	45	H2	5007421.67	0.6	6064886.67	82.56	59.5	120.4	
Sc	45	He	693087.34	0.7	842862.48	82.23	59.5	120.4	
Rh	103	H2	2104001.00	1.3	2508597.67	83.87	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4121925.81	0.8	4686316.76	87.96	59.5	120.4	
In	115	H2	6260170.33	0.5	7115626.5	87.98	59.5	120.4	
In	115	He	2327170.57	0.4	2641648.07	88.1	59.5	120.4	
Tb	159	He	5809055.46	0.0	6439806.69	90.21	59.5	120.4	
Ho	165	He	6183063.37	0.6	6662050.43	92.81	59.5	120.4	
Bi	209	He	3927305.81	0.2	4322541.5	90.86	59.5	120.4	

Sample Report

Sample Name	240-134742-d-2-a@5
File Name	064SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:04:54
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	0.455	ug/l	44.0	71351.19	10000	
Be	9	45	No Gas	0.015	ug/l	76.6	47.78	2000	
B	11	45	No Gas	22.989	ug/l	2.4	17967.79	500	
Na	23	45	He	10495.067	ug/l	0.9	1806041.18	3000000	
Mg	24	45	He	6414.616	ug/l	0.4	619587.27	3000000	
Al	27	45	He	0.668	ug/l	105.2	212.23	500000	
K	39	45	He	437.049	ug/l	2.8	104576.14	3000000	
Ca	44	45	He	33404.442	ug/l	0.7	88893.24	3000000	
Ti	47	45	He	-0.092	ug/l	N/A	2.22	10000	
V	51	45	He	0.277	ug/l	64.0	527.07	20000	
Cr	52	45	He	0.159	ug/l	43.6	2471.35	10000	
Mn	55	45	He	254.390	ug/l	0.9	206667.15	20000	
Fe	56	103	H2	983.189	ug/l	1.2	3271004.12	500000	
Co	59	103	He	0.051	ug/l	9.9	180.01	20000	
Ni	60	103	He	0.119	ug/l	21.8	255.56	20000	
Cu	63	103	He	0.099	ug/l	52.2	737.81	20000	
Zn	66	103	He	-2.132	ug/l	N/A	1463.42	20000	
As	75	103	He	1.309	ug/l	16.6	394.00	20000	
Se	78	115	H2	-0.005	ug/l	N/A	7.33	10000	
Sr	88	103	He	39.134	ug/l	1.3	58666.75	20000	
Mo	95	103	He	0.312	ug/l	7.1	330.01	10000	
Ag	107	103	He	-0.006	ug/l	N/A	31.11	100	
Cd	111	115	He	0.003	ug/l	392.9	11.09	5000	
Sn	118	115	He	0.061	ug/l	58.0	382.23	10000	
Sb	123	115	He	0.015	ug/l	95.2	57.78	200	
Ba	137	115	He	69.137	ug/l	0.3	42355.42	20000	
W	182	159	He	-0.011	ug/l	N/A	7408.83	10000	
Tl	205	165	He	0.022	ug/l	7.8	352.23	2000	
Pb	208	165	He	0.025	ug/l	8.2	943.36	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1173295.29	1.1	1444414.16	81.23	59.5	120.4	
Sc	45	No Gas	7400858.87	0.6	9012307.42	82.12	59.5	120.4	
Sc	45	H2	4901247.50	0.3	6064886.67	80.81	59.5	120.4	
Sc	45	He	690185.51	0.4	842862.48	81.89	59.5	120.4	
Rh	103	H2	2113211.83	0.5	2508597.67	84.24	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4077039.14	0.3	4686316.76	87	59.5	120.4	
In	115	H2	6242473.67	0.5	7115626.5	87.73	59.5	120.4	
In	115	He	2330889.14	1.0	2641648.07	88.24	59.5	120.4	
Tb	159	He	5829027.82	1.1	6439806.69	90.52	59.5	120.4	
Ho	165	He	6064999.07	1.0	6662050.43	91.04	59.5	120.4	
Bi	209	He	3953183.73	0.7	4322541.5	91.46	59.5	120.4	

Sample Report

Sample Name	240-134742-d-3-a@5
File Name	065SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:07:23
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	0.753	ug/l	27.4	72329.27	10000	
Be	9	45	No Gas	0.020	ug/l	63.6	52.22	2000	
B	11	45	No Gas	23.164	ug/l	0.2	18136.90	500	
Na	23	45	He	12925.183	ug/l	1.3	2233294.01	3000000	
Mg	24	45	He	5632.776	ug/l	0.3	547389.98	3000000	
Al	27	45	He	4.178	ug/l	39.5	383.34	500000	
K	39	45	He	502.557	ug/l	4.6	112026.91	3000000	
Ca	44	45	He	38493.430	ug/l	1.4	102976.74	3000000	
Ti	47	45	He	-0.061	ug/l	N/A	3.33	10000	
V	51	45	He	0.375	ug/l	25.1	633.36	20000	
Cr	52	45	He	0.170	ug/l	25.4	2500.25	10000	
Mn	55	45	He	386.734	ug/l	0.2	315891.69	20000	
Fe	56	103	H2	436.184	ug/l	0.4	1448113.73	500000	
Co	59	103	He	0.594	ug/l	2.6	1401.20	20000	
Ni	60	103	He	0.438	ug/l	6.4	448.90	20000	
Cu	63	103	He	0.146	ug/l	20.5	823.37	20000	
Zn	66	103	He	-1.495	ug/l	N/A	1664.56	20000	
As	75	103	He	0.423	ug/l	72.4	185.91	20000	
Se	78	115	H2	0.067	ug/l	32.1	16.33	10000	
Sr	88	103	He	34.206	ug/l	1.3	51957.85	20000	
Mo	95	103	He	0.215	ug/l	12.7	243.34	10000	
Ag	107	103	He	-0.005	ug/l	N/A	33.33	100	
Cd	111	115	He	0.007	ug/l	280.8	13.31	5000	
Sn	118	115	He	0.067	ug/l	65.4	387.79	10000	
Sb	123	115	He	0.002	ug/l	156.6	42.22	200	
Ba	137	115	He	22.674	ug/l	0.3	13848.35	20000	
W	182	159	He	-0.033	ug/l	N/A	7368.82	10000	
Tl	205	165	He	0.017	ug/l	73.5	330.01	2000	
Pb	208	165	He	0.028	ug/l	14.2	980.02	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1188767.92	1.1	1444414.16	82.3	59.5	120.4	
Sc	45	No Gas	7438182.76	1.0	9012307.42	82.53	59.5	120.4	
Sc	45	H2	4983475.17	0.5	6064886.67	82.17	59.5	120.4	
Sc	45	He	694343.69	0.4	842862.48	82.38	59.5	120.4	
Rh	103	H2	2095219.58	0.6	2508597.67	83.52	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4130120.67	0.8	4686316.76	88.13	59.5	120.4	
In	115	H2	6285466.83	1.4	7115626.5	88.33	59.5	120.4	
In	115	He	2321919.68	0.5	2641648.07	87.9	59.5	120.4	
Tb	159	He	5846914.49	0.6	6439806.69	90.79	59.5	120.4	
Ho	165	He	6149538.92	0.5	6662050.43	92.31	59.5	120.4	
Bi	209	He	3993170.68	0.5	4322541.5	92.38	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	mb 240-447057/1-a
File Name	066_Blk.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:09:52
Sample Type	Blank
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-1.066	ug/l	N/A	69834.06	8	
Be	9	45	No Gas	0.025	ug/l	112.8	57.78	1	
B	11	45	No Gas	0.311	ug/l	157.8	8108.98	20	
Na	23	45	He	55.005	ug/l	1.3	28249.73	1000	
Mg	24	45	He	8.661	ug/l	9.8	1302.29	1000	
Al	27	45	He	2.982	ug/l	51.0	333.34	50	
K	39	45	He	2.416	ug/l	469.4	61439.70	1000	
Ca	44	45	He	94.433	ug/l	16.8	759.38	1000	
Ti	47	45	He	0.121	ug/l	77.0	10.00	20	
V	51	45	He	0.356	ug/l	72.5	628.01	2	
Cr	52	45	He	0.377	ug/l	54.1	2830.32	2	
Mn	55	45	He	0.982	ug/l	17.2	1181.18	5	
Fe	56	103	H2	56.190	ug/l	14.3	210285.67	50	Blank High
Co	59	103	He	0.029	ug/l	30.4	137.78	1	
Ni	60	103	He	0.230	ug/l	36.5	334.45	2	
Cu	63	103	He	0.450	ug/l	6.1	1348.97	2	
Zn	66	103	He	-3.274	ug/l	N/A	1190.06	20	
As	75	103	He	0.071	ug/l	477.5	104.41	2	
Se	78	115	H2	-0.001	ug/l	N/A	8.00	2	
Sr	88	103	He	0.159	ug/l	24.0	355.56	10	
Mo	95	103	He	0.019	ug/l	17.8	63.33	10	
Ag	107	103	He	-0.005	ug/l	N/A	34.44	0.2	
Cd	111	115	He	0.015	ug/l	49.5	17.78	1	
Sn	118	115	He	-0.010	ug/l	N/A	305.56	100	
Sb	123	115	He	-0.006	ug/l	N/A	32.22	1	
Ba	137	115	He	0.301	ug/l	17.3	205.56	5	
W	182	159	He	0.076	ug/l	135.7	7727.92	10	
Tl	205	165	He	0.028	ug/l	18.3	401.12	0.5	
Pb	208	165	He	0.051	ug/l	42.5	1194.48	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1218526.16	3.0	1444414.16	84.36	59.5	120.4	
Sc	45	No Gas	7577265.81	1.3	9012307.42	84.08	59.5	120.4	
Sc	45	H2	5091688.00	0.7	6064886.67	83.95	59.5	120.4	
Sc	45	He	711998.90	0.5	842862.48	84.47	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2191800.00	0.2	2508597.67	87.37	59.5	120.4	
Rh	103	He	4252029.69	0.5	4686316.76	90.73	59.5	120.4	
In	115	H2	6380857.33	0.6	7115626.5	89.67	59.5	120.4	
In	115	He	2397382.02	0.8	2641648.07	90.75	59.5	120.4	
Tb	159	He	5895940.04	0.5	6439806.69	91.55	59.5	120.4	
Ho	165	He	6221515.45	1.1	6662050.43	93.39	59.5	120.4	
Bi	209	He	3995741.78	1.0	4322541.5	92.44	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	067_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:12:23
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	51.260	ug/l	1.0	179945.15	50	102.52	89.5	110.5	
Be	9	45	No Gas	50.263	ug/l	0.3	39875.28	50	100.53	89.5	110.5	
B	11	45	No Gas	98.244	ug/l	0.3	52320.94	100	98.24	89.5	110.5	
Na	23	45	He	26617.699	ug/l	1.1	4667888.42	25000	106.47	89.5	110.5	
Mg	24	45	He	26865.051	ug/l	0.3	2659140.80	25000	107.46	89.5	110.5	
Al	27	45	He	26719.920	ug/l	2.1	1316331.55	25000	106.88	89.5	110.5	
K	39	45	He	26888.120	ug/l	1.8	2916555.30	25000	107.55	89.5	110.5	
Ca	44	45	He	26634.888	ug/l	0.2	72774.87	25000	106.54	89.5	110.5	
Ti	47	45	He	51.943	ug/l	1.4	1877.93	50	103.89	89.5	110.5	
V	51	45	He	53.461	ug/l	0.6	57415.09	50	106.92	89.5	110.5	
Cr	52	45	He	53.147	ug/l	0.8	70550.85	50	106.29	89.5	110.5	
Mn	55	45	He	53.808	ug/l	1.4	45103.65	50	107.62	89.5	110.5	
Fe	56	103	H2	25291.526	ug/l	0.7	84720088.74	25000	101.17	89.5	110.5	
Co	59	103	He	48.985	ug/l	2.1	110247.46	50	97.97	89.5	110.5	
Ni	60	103	He	48.943	ug/l	2.8	29430.64	50	97.89	89.5	110.5	
Cu	63	103	He	49.856	ug/l	1.3	80693.35	50	99.71	89.5	110.5	
Zn	66	103	He	47.864	ug/l	1.1	15810.11	50	95.73	89.5	110.5	
As	75	103	He	50.036	ug/l	2.2	12143.62	50	100.07	89.5	110.5	
Se	78	115	H2	51.086	ug/l	2.7	6346.45	50	102.17	89.5	110.5	
Sr	88	103	He	51.367	ug/l	0.9	78155.96	50	102.73	89.5	110.5	
Mo	95	103	He	50.668	ug/l	1.6	47234.83	50	101.34	89.5	110.5	
Ag	107	103	He	51.920	ug/l	0.9	163854.00	50	103.84	89.5	110.5	
Cd	111	115	He	53.630	ug/l	3.1	27129.23	50	107.26	89.5	110.5	
Sn	118	115	He	53.625	ug/l	2.4	63815.24	50	107.25	89.5	110.5	
Sb	123	115	He	53.430	ug/l	0.8	67299.06	50	106.86	89.5	110.5	
Ba	137	115	He	53.615	ug/l	2.2	32622.91	50	107.23	89.5	110.5	
W	182	159	He	52.683	ug/l	1.3	149199.53	50	105.37	89.5	110.5	
Tl	205	165	He	53.020	ug/l	1.0	337644.66	50	106.04	89.5	110.5	
Pb	208	165	He	52.712	ug/l	0.9	456339.02	50	105.42	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1204722.39	1.3	1444414.16	83.41	59.5	120.4	
Sc	45	No Gas	7546771.09	0.8	9012307.42	83.74	59.5	120.4	
Sc	45	H2	5036897.00	1.8	6064886.67	83.05	59.5	120.4	
Sc	45	He	707654.30	0.3	842862.48	83.96	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2138221.00	1.0	2508597.67	85.24	59.5	120.4	
Rh	103	He	4139666.64	0.3	4686316.76	88.34	59.5	120.4	
In	115	H2	6249386.33	0.7	7115626.5	87.83	59.5	120.4	
In	115	He	2314897.95	0.5	2641648.07	87.63	59.5	120.4	
Tb	159	He	5897338.10	0.4	6439806.69	91.58	59.5	120.4	
Ho	165	He	6148765.87	0.8	6662050.43	92.3	59.5	120.4	
Bi	209	He	3957569.57	0.6	4322541.5	91.56	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	068_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:14:49
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	-1.040	ug/l	N/A	70798.44	8	
Be	9	45	No Gas	0.029	ug/l	44.1	61.11	1	
B	11	45	No Gas	-0.100	ug/l	N/A	8028.95	20	
Na	23	45	He	7.829	ug/l	30.8	19380.82	1000	
Mg	24	45	He	0.469	ug/l	254.3	472.24	1000	
Al	27	45	He	1.049	ug/l	80.7	231.12	50	
K	39	45	He	26.240	ug/l	65.1	62143.78	1000	
Ca	44	45	He	12.821	ug/l	98.8	521.08	1000	
Ti	47	45	He	0.097	ug/l	57.1	8.89	20	
V	51	45	He	0.214	ug/l	12.0	462.53	2	
Cr	52	45	He	0.003	ug/l	235.4	2280.21	2	
Mn	55	45	He	0.242	ug/l	21.7	546.68	5	
Fe	56	103	H2	16.830	ug/l	3.4	72028.68	50	
Co	59	103	He	0.002	ug/l	367.4	73.34	1	
Ni	60	103	He	-0.019	ug/l	N/A	176.67	2	
Cu	63	103	He	0.061	ug/l	22.7	687.80	2	
Zn	66	103	He	1.926	ug/l	32.2	2644.72	20	
As	75	103	He	-0.002	ug/l	N/A	84.18	2	
Se	78	115	H2	-0.015	ug/l	N/A	6.00	2	
Sr	88	103	He	0.011	ug/l	171.6	122.22	10	
Mo	95	103	He	0.014	ug/l	77.4	56.67	10	
Ag	107	103	He	0.002	ug/l	302.6	55.56	0.2	
Cd	111	115	He	0.018	ug/l	55.0	18.89	1	
Sn	118	115	He	0.074	ug/l	23.2	394.46	100	
Sb	123	115	He	0.087	ug/l	18.3	147.78	1	
Ba	137	115	He	0.066	ug/l	23.8	55.56	5	
W	182	159	He	0.094	ug/l	133.1	7600.06	10	
Tl	205	165	He	0.033	ug/l	6.1	418.90	0.5	
Pb	208	165	He	0.025	ug/l	46.4	932.24	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1207321.88	0.7	1444414.16	83.59	59.5	120.4	
Sc	45	No Gas	7677056.08	1.2	9012307.42	85.18	59.5	120.4	
Sc	45	H2	4928023.17	0.2	6064886.67	81.25	59.5	120.4	
Sc	45	He	691463.25	0.8	842862.48	82.04	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2100241.29	0.3	2508597.67	83.72	59.5	120.4	
Rh	103	He	4136435.81	1.6	4686316.76	88.27	59.5	120.4	
In	115	H2	6170185.83	0.4	7115626.5	86.71	59.5	120.4	
In	115	He	2311014.52	1.0	2641648.07	87.48	59.5	120.4	
Tb	159	He	5764212.41	0.8	6439806.69	89.51	59.5	120.4	
Ho	165	He	6021436.01	0.8	6662050.43	90.38	59.5	120.4	
Bi	209	He	3914863.60	0.7	4322541.5	90.57	59.5	120.4	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 240-447057/3-a
File Name	069_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:17:20
Sample Type	LCSW
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	518.776	ug/l	0.7	1151815.30	500	103.76	84.5	115.4	
Be	9	45	No Gas	488.885	ug/l	0.5	382683.56	500	97.78	84.5	115.4	
B	11	45	No Gas	96.348	ug/l	1.6	50823.49	100	96.35	84.5	115.4	
Na	23	45	He	25520.218	ug/l	0.8	4431655.80	25000	102.08	84.5	115.4	
Mg	24	45	He	25732.400	ug/l	0.3	2521659.55	25000	102.93	84.5	115.4	
Al	27	45	He	4802.164	ug/l	0.6	234373.90	5000	96.04	84.5	115.4	
K	39	45	He	25810.666	ug/l	0.4	2774149.33	25000	103.24	84.5	115.4	
Ca	44	45	He	25597.387	ug/l	0.6	69263.47	25000	102.39	84.5	115.4	
Ti	47	45	He	497.651	ug/l	1.5	17765.61	500	99.53	84.5	115.4	
V	51	45	He	511.820	ug/l	0.5	542122.64	500	102.36	84.5	115.4	
Cr	52	45	He	507.101	ug/l	0.4	646745.29	500	101.42	84.5	115.4	
Mn	55	45	He	506.781	ug/l	0.7	417572.06	500	101.36	84.5	115.4	
Fe	56	103	H2	4997.479	ug/l	1.4	16334528.09	5000	99.95	84.5	115.4	
Co	59	103	He	491.695	ug/l	0.4	1079886.35	500	98.34	84.5	115.4	
Ni	60	103	He	469.132	ug/l	0.4	273853.38	500	93.83	84.5	115.4	
Cu	63	103	He	476.886	ug/l	1.5	748573.55	500	95.38	84.5	115.4	
Zn	66	103	He	520.375	ug/l	1.3	147595.91	500	104.08	84.5	115.4	
As	75	103	He	965.681	ug/l	0.8	227305.35	1000	96.57	84.5	115.4	
Se	78	115	H2	983.571	ug/l	1.2	120209.08	1000	98.36	84.5	115.4	
Sr	88	103	He	486.599	ug/l	0.8	721967.64	500	97.32	84.5	115.4	
Mo	95	103	He	488.391	ug/l	0.5	444180.62	500	97.68	84.5	115.4	
Ag	107	103	He	99.445	ug/l	0.3	306382.28	100	99.44	84.5	115.4	
Cd	111	115	He	510.779	ug/l	0.1	250960.85	500	102.16	84.5	115.4	
Sn	118	115	He	1072.040	ug/l	0.9	1233725.40	1000	107.2	84.5	115.4	
Sb	123	115	He	110.423	ug/l	0.4	135083.66	100	110.42	84.5	115.4	
Ba	137	115	He	1016.798	ug/l	0.9	600800.77	1000	101.68	84.5	115.4	
W	182	159	He	97.376	ug/l	1.1	258635.84	100	97.38	84.5	115.4	
Tl	205	165	He	1016.978	ug/l	0.6	6222149.20	1000	101.7	84.5	115.4	
Pb	208	165	He	514.115	ug/l	0.8	4272292.75	500	102.82	84.5	115.4	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1167634.35	1.1	1444414.16	80.84	59.5	120.4	
Sc	45	No Gas	7452699.70	0.4	9012307.42	82.69	59.5	120.4	
Sc	45	H2	4987837.83	0.7	6064886.67	82.24	59.5	120.4	
Sc	45	He	700597.89	0.5	842862.48	83.12	59.5	120.4	

Laboratory Control Sample (LCS) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2084809.54	1.4	2508597.67	83.11	59.5	120.4	
Rh	103	He	4041918.59	1.6	4686316.76	86.25	59.5	120.4	
In	115	H2	6155150.67	0.5	7115626.5	86.5	59.5	120.4	
In	115	He	2248929.69	0.9	2641648.07	85.13	59.5	120.4	
Tb	159	He	5661862.97	1.3	6439806.69	87.92	59.5	120.4	
Ho	165	He	5911146.57	2.0	6662050.43	88.73	59.5	120.4	
Bi	209	He	3779090.96	0.7	4322541.5	87.43	59.5	120.4	

Sample Report

Sample Name	240-134877-c-1-a
File Name	070SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:19:41
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	0.294	ug/l	161.2	70346.20	10000	
Be	9	45	No Gas	0.092	ug/l	26.5	106.67	2000	
B	11	45	No Gas	475.818	ug/l	1.1	216530.43	500	LDR Warning
Na	23	45	He	202199.214	ug/l	0.2	35058484.16	3000000	
Mg	24	45	He	20211.468	ug/l	1.5	1984868.19	3000000	
Al	27	45	He	30.153	ug/l	0.8	1656.78	500000	
K	39	45	He	655.801	ug/l	2.2	129424.39	3000000	
Ca	44	45	He	1764.316	ug/l	2.6	5244.61	3000000	
Ti	47	45	He	0.560	ug/l	34.9	25.55	10000	
V	51	45	He	1.336	ug/l	50.9	1659.89	20000	
Cr	52	45	He	81.112	ug/l	0.4	105606.24	10000	
Mn	55	45	He	0.690	ug/l	13.7	924.48	20000	
Fe	56	103	H2	43.438	ug/l	1.8	154864.06	500000	
Co	59	103	He	0.038	ug/l	13.9	148.89	20000	
Ni	60	103	He	0.832	ug/l	2.5	658.91	20000	
Cu	63	103	He	4.498	ug/l	2.1	7510.95	20000	
Zn	66	103	He	14.820	ug/l	2.0	6094.72	20000	
As	75	103	He	0.456	ug/l	52.6	187.16	20000	
Se	78	115	H2	0.093	ug/l	33.8	18.67	10000	
Sr	88	103	He	2.310	ug/l	0.9	3472.69	20000	
Mo	95	103	He	2.158	ug/l	3.8	1973.50	10000	
Ag	107	103	He	0.005	ug/l	138.2	63.34	100	
Cd	111	115	He	0.073	ug/l	22.9	45.42	5000	
Sn	118	115	He	1.027	ug/l	10.5	1481.21	10000	
Sb	123	115	He	0.174	ug/l	16.4	251.12	200	
Ba	137	115	He	0.151	ug/l	27.8	104.45	20000	
W	182	159	He	0.251	ug/l	43.3	7717.92	10000	
Tl	205	165	He	0.248	ug/l	12.0	1715.69	2000	
Pb	208	165	He	0.054	ug/l	13.6	1150.04	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1159145.84	2.1	1444414.16	80.25	59.5	120.4	
Sc	45	No Gas	7331524.71	1.1	9012307.42	81.35	59.5	120.4	
Sc	45	H2	4911441.17	0.7	6064886.67	80.98	59.5	120.4	
Sc	45	He	702060.25	0.2	842862.48	83.29	59.5	120.4	
Rh	103	H2	2038294.50	0.5	2508597.67	81.25	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3977531.65	0.6	4686316.76	84.88	59.5	120.4	
In	115	H2	5999576.17	0.7	7115626.5	84.32	59.5	120.4	
In	115	He	2250154.30	0.7	2641648.07	85.18	59.5	120.4	
Tb	159	He	5551115.06	0.7	6439806.69	86.2	59.5	120.4	
Ho	165	He	5867811.43	1.4	6662050.43	88.08	59.5	120.4	
Bi	209	He	3728618.04	0.8	4322541.5	86.26	59.5	120.4	

Sample Report

Sample Name	SD 240-134877-c-1-a@5
File Name	071SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:22:10
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	-0.112	ug/l	N/A	69956.79	10000	
Be	9	45	No Gas	0.066	ug/l	69.2	87.78	2000	
B	11	45	No Gas	103.223	ug/l	1.1	53347.86	500	
Na	23	45	He	41256.517	ug/l	0.9	7075899.16	3000000	
Mg	24	45	He	3912.571	ug/l	1.2	379646.35	3000000	
Al	27	45	He	6.869	ug/l	10.1	512.23	500000	
K	39	45	He	168.908	ug/l	13.1	77116.89	3000000	
Ca	44	45	He	351.193	ug/l	2.2	1421.65	3000000	
Ti	47	45	He	0.065	ug/l	221.6	7.78	10000	
V	51	45	He	0.262	ug/l	14.0	513.46	20000	
Cr	52	45	He	16.614	ug/l	0.9	23167.87	10000	
Mn	55	45	He	0.220	ug/l	20.7	530.02	20000	
Fe	56	103	H2	27.330	ug/l	5.5	105879.16	500000	
Co	59	103	He	0.010	ug/l	148.1	87.78	20000	
Ni	60	103	He	0.190	ug/l	21.2	293.34	20000	
Cu	63	103	He	0.895	ug/l	4.5	1969.05	20000	
Zn	66	103	He	3.098	ug/l	26.8	2895.89	20000	
As	75	103	He	0.156	ug/l	61.7	118.54	20000	
Se	78	115	H2	0.050	ug/l	51.3	13.67	10000	
Sr	88	103	He	0.482	ug/l	7.0	813.37	20000	
Mo	95	103	He	0.406	ug/l	16.4	410.01	10000	
Ag	107	103	He	-0.002	ug/l	N/A	43.34	100	
Cd	111	115	He	0.016	ug/l	64.4	17.75	5000	
Sn	118	115	He	0.376	ug/l	8.0	741.14	10000	
Sb	123	115	He	0.040	ug/l	4.7	87.78	200	
Ba	137	115	He	0.067	ug/l	26.3	55.56	20000	
W	182	159	He	0.062	ug/l	293.6	7301.00	10000	
Tl	205	165	He	0.076	ug/l	4.8	673.36	2000	
Pb	208	165	He	0.037	ug/l	16.4	1007.81	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1187789.27	2.5	1444414.16	82.23	59.5	120.4	
Sc	45	No Gas	7377866.93	0.7	9012307.42	81.86	59.5	120.4	
Sc	45	H2	4904072.33	0.3	6064886.67	80.86	59.5	120.4	
Sc	45	He	693051.81	0.1	842862.48	82.23	59.5	120.4	
Rh	103	H2	2086935.58	1.8	2508597.67	83.19	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4016919.98	0.4	4686316.76	85.72	59.5	120.4	
In	115	H2	6071737.83	1.0	7115626.5	85.33	59.5	120.4	
In	115	He	2279866.99	1.1	2641648.07	86.3	59.5	120.4	
Tb	159	He	5598786.86	0.6	6439806.69	86.94	59.5	120.4	
Ho	165	He	5866676.99	0.5	6662050.43	88.06	59.5	120.4	
Bi	209	He	3852521.52	1.1	4322541.5	89.13	59.5	120.4	

Sample Report

Sample Name	240-134877-c-1-b ms
File Name	072SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:24:40
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	509.400	ug/l	1.3	1139721.31	10000	
Be	9	45	No Gas	485.263	ug/l	0.8	382360.96	2000	
B	11	45	No Gas	569.341	ug/l	1.5	263579.96	500	LDR Warning
Na	23	45	He	222645.936	ug/l	0.6	39193581.78	3000000	
Mg	24	45	He	45312.269	ug/l	2.6	4517209.26	3000000	
Al	27	45	He	4824.334	ug/l	1.2	239556.50	500000	
K	39	45	He	26743.010	ug/l	1.5	2922196.21	3000000	
Ca	44	45	He	27555.325	ug/l	1.3	75820.43	3000000	
Ti	47	45	He	505.580	ug/l	2.4	18361.97	10000	
V	51	45	He	517.884	ug/l	1.2	558100.48	20000	
Cr	52	45	He	570.045	ug/l	1.2	739408.11	10000	
Mn	55	45	He	502.189	ug/l	0.8	421006.24	20000	
Fe	56	103	H2	4981.338	ug/l	1.0	16213394.34	500000	
Co	59	103	He	509.352	ug/l	2.8	1098817.97	20000	
Ni	60	103	He	482.111	ug/l	1.5	276458.18	20000	
Cu	63	103	He	495.545	ug/l	1.4	764218.91	20000	
Zn	66	103	He	556.458	ug/l	1.6	154920.12	20000	
As	75	103	He	1011.558	ug/l	0.9	233916.64	20000	
Se	78	115	H2	982.917	ug/l	0.8	119214.02	10000	
Sr	88	103	He	500.476	ug/l	1.1	729505.49	20000	
Mo	95	103	He	505.302	ug/l	1.2	451446.29	10000	
Ag	107	103	He	99.684	ug/l	1.0	301707.19	100	LDR Warning
Cd	111	115	He	507.098	ug/l	1.6	250413.14	5000	
Sn	118	115	He	1092.165	ug/l	0.9	1263369.08	10000	
Sb	123	115	He	111.019	ug/l	1.4	136501.70	200	
Ba	137	115	He	1016.626	ug/l	1.4	603763.10	20000	
W	182	159	He	100.288	ug/l	0.7	265912.71	10000	
Tl	205	165	He	995.658	ug/l	0.6	6101489.76	2000	
Pb	208	165	He	502.792	ug/l	1.0	4185225.49	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1154497.55	0.7	1444414.16	79.93	59.5	120.4	
Sc	45	No Gas	7501741.92	0.4	9012307.42	83.24	59.5	120.4	
Sc	45	H2	5023347.00	0.4	6064886.67	82.83	59.5	120.4	
Sc	45	He	712837.07	0.5	842862.48	84.57	59.5	120.4	
Rh	103	H2	2075928.62	0.5	2508597.67	82.75	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3970865.81	1.1	4686316.76	84.73	59.5	120.4	
In	115	H2	6108351.83	0.4	7115626.5	85.84	59.5	120.4	
In	115	He	2260520.36	0.9	2641648.07	85.57	59.5	120.4	
Tb	159	He	5656909.78	1.2	6439806.69	87.84	59.5	120.4	
Ho	165	He	5920689.90	1.0	6662050.43	88.87	59.5	120.4	
Bi	209	He	3731343.05	1.8	4322541.5	86.32	59.5	120.4	

Sample Report

Sample Name	240-134877-c-1-c msd
File Name	073SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:27:01
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	497.157	ug/l	1.6	1129871.21	10000	
Be	9	45	No Gas	470.761	ug/l	1.2	376194.18	2000	
B	11	45	No Gas	561.127	ug/l	1.1	263573.90	500	LDR Warning
Na	23	45	He	216119.720	ug/l	0.5	38427745.14	3000000	
Mg	24	45	He	43141.043	ug/l	0.5	4344142.60	3000000	
Al	27	45	He	4694.810	ug/l	0.1	235473.36	500000	
K	39	45	He	25686.490	ug/l	0.7	2837446.00	3000000	
Ca	44	45	He	26467.566	ug/l	0.9	73577.39	3000000	
Ti	47	45	He	487.930	ug/l	1.8	17900.28	10000	
V	51	45	He	491.506	ug/l	1.2	534974.48	20000	
Cr	52	45	He	541.939	ug/l	1.1	710098.39	10000	
Mn	55	45	He	482.146	ug/l	0.8	408269.84	20000	
Fe	56	103	H2	4851.020	ug/l	0.9	15862019.34	500000	
Co	59	103	He	492.846	ug/l	1.7	1059551.76	20000	
Ni	60	103	He	468.512	ug/l	1.6	267698.02	20000	
Cu	63	103	He	480.671	ug/l	1.4	738654.28	20000	
Zn	66	103	He	540.812	ug/l	1.2	150086.69	20000	
As	75	103	He	986.794	ug/l	1.8	227357.14	20000	
Se	78	115	H2	968.256	ug/l	0.6	116402.81	10000	
Sr	88	103	He	487.384	ug/l	1.5	707860.53	20000	
Mo	95	103	He	489.817	ug/l	1.0	436058.59	10000	
Ag	107	103	He	97.160	ug/l	1.5	292997.99	100	LDR Warning
Cd	111	115	He	492.191	ug/l	0.7	243490.59	5000	
Sn	118	115	He	1042.997	ug/l	0.5	1208689.95	10000	
Sb	123	115	He	107.126	ug/l	0.1	131954.65	200	
Ba	137	115	He	973.423	ug/l	0.5	579144.84	20000	
W	182	159	He	96.296	ug/l	0.9	253978.23	10000	
Tl	205	165	He	954.898	ug/l	1.2	5875742.40	2000	
Pb	208	165	He	484.502	ug/l	0.8	4049572.61	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1178702.95	0.5	1444414.16	81.6	59.5	120.4	
Sc	45	No Gas	7608892.48	1.0	9012307.42	84.43	59.5	120.4	
Sc	45	H2	5077753.83	0.2	6064886.67	83.72	59.5	120.4	
Sc	45	He	719972.75	0.7	842862.48	85.42	59.5	120.4	
Rh	103	H2	2085406.54	0.2	2508597.67	83.13	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3956795.54	1.6	4686316.76	84.43	59.5	120.4	
In	115	H2	6054591.00	0.6	7115626.5	85.09	59.5	120.4	
In	115	He	2264442.24	0.9	2641648.07	85.72	59.5	120.4	
Tb	159	He	5620377.14	0.4	6439806.69	87.28	59.5	120.4	
Ho	165	He	5944871.29	0.6	6662050.43	89.23	59.5	120.4	
Bi	209	He	3731248.46	0.8	4322541.5	86.32	59.5	120.4	

Sample Report

Sample Name	240-134877-b-3-a
File Name	074SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:29:23
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	0.956	ug/l	30.4	75069.39	10000	
Be	9	45	No Gas	0.163	ug/l	12.6	168.89	2000	
B	11	45	No Gas	40.866	ug/l	0.2	26848.00	500	
Na	23	45	He	4627.042	ug/l	1.0	840671.65	3000000	
Mg	24	45	He	751.430	ug/l	0.3	76067.13	3000000	
Al	27	45	He	500.784	ug/l	0.8	25272.19	500000	
K	39	45	He	1327.636	ug/l	1.2	205226.82	3000000	
Ca	44	45	He	1197.304	ug/l	3.0	3810.66	3000000	
Ti	47	45	He	8.964	ug/l	13.1	334.46	10000	
V	51	45	He	4.599	ug/l	4.3	5250.10	20000	
Cr	52	45	He	3.779	ug/l	3.9	7300.84	10000	
Mn	55	45	He	44.767	ug/l	1.4	38222.48	20000	
Fe	56	103	H2	563.101	ug/l	0.9	1939896.53	500000	
Co	59	103	He	1.423	ug/l	2.9	3299.31	20000	
Ni	60	103	He	3.256	ug/l	12.8	2154.74	20000	
Cu	63	103	He	12.944	ug/l	0.4	21585.47	20000	
Zn	66	103	He	11.297	ug/l	3.5	5382.20	20000	
As	75	103	He	0.482	ug/l	53.4	202.98	20000	
Se	78	115	H2	0.089	ug/l	23.2	19.00	10000	
Sr	88	103	He	4.779	ug/l	3.7	7434.29	20000	
Mo	95	103	He	0.442	ug/l	21.0	460.01	10000	
Ag	107	103	He	0.000	ug/l	2676.5	51.11	100	
Cd	111	115	He	0.149	ug/l	16.0	85.52	5000	
Sn	118	115	He	1.249	ug/l	8.2	1790.14	10000	
Sb	123	115	He	0.210	ug/l	20.1	303.34	200	
Ba	137	115	He	1.377	ug/l	7.2	854.48	20000	
W	182	159	He	0.872	ug/l	21.1	9632.52	10000	
Tl	205	165	He	0.315	ug/l	4.9	2169.10	2000	
Pb	208	165	He	0.157	ug/l	13.5	2051.20	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1237539.94	1.0	1444414.16	85.68	59.5	120.4	
Sc	45	No Gas	7675073.31	0.2	9012307.42	85.16	59.5	120.4	
Sc	45	H2	5074263.67	1.3	6064886.67	83.67	59.5	120.4	
Sc	45	He	719622.47	0.6	842862.48	85.38	59.5	120.4	
Rh	103	H2	2179949.92	1.2	2508597.67	86.9	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4177850.67	0.7	4686316.76	89.15	59.5	120.4	
In	115	H2	6260461.83	0.4	7115626.5	87.98	59.5	120.4	
In	115	He	2319424.21	0.6	2641648.07	87.8	59.5	120.4	
Tb	159	He	5757206.58	0.7	6439806.69	89.4	59.5	120.4	
Ho	165	He	6002732.82	0.7	6662050.43	90.1	59.5	120.4	
Bi	209	He	3948307.07	1.5	4322541.5	91.34	59.5	120.4	

Sample Report

Sample Name	240-134898-d-1-a
File Name	075SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:31:51
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	1.224	ug/l	31.6	75374.47	10000	
Be	9	45	No Gas	0.087	ug/l	7.4	107.78	2000	
B	11	45	No Gas	499.944	ug/l	1.4	236916.11	500	LDR Warning
Na	23	45	He	203686.972	ug/l	0.9	36821722.98	3000000	
Mg	24	45	He	8179.909	ug/l	2.6	837877.92	3000000	
Al	27	45	He	869.166	ug/l	0.2	44477.17	500000	
K	39	45	He	71428.970	ug/l	0.3	7909974.13	3000000	
Ca	44	45	He	79572.924	ug/l	0.6	223871.41	3000000	
Ti	47	45	He	1.184	ug/l	49.1	50.00	10000	
V	51	45	He	1.695	ug/l	2.9	2127.52	20000	
Cr	52	45	He	2.442	ug/l	5.2	5651.18	10000	
Mn	55	45	He	29.087	ug/l	2.3	25390.55	20000	
Fe	56	103	H2	451.656	ug/l	1.2	1508395.50	500000	
Co	59	103	He	0.539	ug/l	6.3	1258.96	20000	
Ni	60	103	He	12.018	ug/l	2.0	7240.80	20000	
Cu	63	103	He	154.214	ug/l	1.1	244052.32	20000	
Zn	66	103	He	295.169	ug/l	0.8	85157.76	20000	
As	75	103	He	2.328	ug/l	8.8	634.37	20000	
Se	78	115	H2	0.209	ug/l	16.4	33.33	10000	
Sr	88	103	He	231.950	ug/l	0.3	346428.04	20000	
Mo	95	103	He	4.038	ug/l	7.1	3739.43	10000	
Ag	107	103	He	0.039	ug/l	3.2	168.89	100	
Cd	111	115	He	0.119	ug/l	29.8	69.74	5000	
Sn	118	115	He	25.101	ug/l	0.1	29903.98	10000	
Sb	123	115	He	0.674	ug/l	5.0	883.37	200	
Ba	137	115	He	32.696	ug/l	1.9	19812.48	20000	
W	182	159	He	0.497	ug/l	24.7	8671.87	10000	
Tl	205	165	He	0.126	ug/l	2.2	1006.72	2000	
Pb	208	165	He	0.231	ug/l	2.7	2702.37	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1196794.96	1.5	1444414.16	82.86	59.5	120.4	
Sc	45	No Gas	7647865.53	0.7	9012307.42	84.86	59.5	120.4	
Sc	45	H2	5119297.33	1.1	6064886.67	84.41	59.5	120.4	
Sc	45	He	731989.26	0.4	842862.48	86.85	59.5	120.4	
Rh	103	H2	2108713.83	1.2	2508597.67	84.06	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4067734.00	0.1	4686316.76	86.8	59.5	120.4	
In	115	H2	6163872.67	0.5	7115626.5	86.62	59.5	120.4	
In	115	He	2304729.13	1.1	2641648.07	87.25	59.5	120.4	
Tb	159	He	5772258.80	1.4	6439806.69	89.63	59.5	120.4	
Ho	165	He	6063808.93	0.9	6662050.43	91.02	59.5	120.4	
Bi	209	He	3805122.49	1.1	4322541.5	88.03	59.5	120.4	

Sample Report

Sample Name	240-134902-d-2-a
File Name	076SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:34:18
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	91.724	ug/l	0.9	273077.80	10000	
Be	9	45	No Gas	0.825	ug/l	6.2	711.14	2000	
B	11	45	No Gas	549.193	ug/l	0.6	263525.40	500	LDR Warning
Na	23	45	He	291039.582	ug/l	2.0	52802224.57	3000000	
Mg	24	45	He	19139.935	ug/l	1.9	1967145.20	3000000	
Al	27	45	He	10808.846	ug/l	1.1	553022.16	500000	
K	39	45	He	30087.320	ug/l	1.1	3380981.67	3000000	
Ca	44	45	He	105979.567	ug/l	0.5	299127.32	3000000	
Ti	47	45	He	364.095	ug/l	0.9	13633.31	10000	
V	51	45	He	98.640	ug/l	1.4	109778.55	20000	
Cr	52	45	He	90.627	ug/l	1.7	123206.19	10000	
Mn	55	45	He	2319.818	ug/l	1.2	2003368.53	20000	
Fe	56	103	H2	33437.155	ug/l	0.5	110688168.35	500000	
Co	59	103	He	8.051	ug/l	2.0	17879.19	20000	
Ni	60	103	He	54.169	ug/l	0.6	32024.07	20000	
Cu	63	103	He	155.520	ug/l	0.7	246365.30	20000	
Zn	66	103	He	1523.358	ug/l	0.7	431370.11	20000	
As	75	103	He	11.191	ug/l	6.2	2735.26	20000	
Se	78	115	H2	2.334	ug/l	6.2	296.00	10000	
Sr	88	103	He	1504.382	ug/l	1.6	2248587.83	20000	
Mo	95	103	He	71.760	ug/l	1.4	65783.49	10000	
Ag	107	103	He	0.386	ug/l	4.7	1247.85	100	
Cd	111	115	He	3.078	ug/l	7.3	1578.84	5000	
Sn	118	115	He	47.122	ug/l	1.7	56576.88	10000	
Sb	123	115	He	6.066	ug/l	1.1	7738.96	200	
Ba	137	115	He	598.105	ug/l	0.3	366784.83	20000	
W	182	159	He	17.243	ug/l	0.5	53100.40	10000	
Tl	205	165	He	0.218	ug/l	6.1	1594.56	2000	
Pb	208	165	He	371.094	ug/l	0.2	3180767.17	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1189970.53	0.6	1444414.16	82.38	59.5	120.4	
Sc	45	No Gas	7767239.69	0.6	9012307.42	86.18	59.5	120.4	
Sc	45	H2	5018725.33	1.1	6064886.67	82.75	59.5	120.4	
Sc	45	He	734794.45	0.7	842862.48	87.18	59.5	120.4	
Rh	103	H2	2113128.17	1.1	2508597.67	84.24	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4072137.89	1.2	4686316.76	86.89	59.5	120.4	
In	115	H2	6216566.50	0.3	7115626.5	87.36	59.5	120.4	
In	115	He	2333989.27	0.5	2641648.07	88.35	59.5	120.4	
Tb	159	He	5810282.69	0.3	6439806.69	90.22	59.5	120.4	
Ho	165	He	6096004.06	0.6	6662050.43	91.5	59.5	120.4	
Bi	209	He	3918628.73	0.7	4322541.5	90.66	59.5	120.4	

Sample Report

Sample Name	190-23821-a-2-a
File Name	077SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:36:46
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	10.699	ug/l	1.7	96078.55	10000	
Be	9	45	No Gas	0.059	ug/l	42.4	85.55	2000	
B	11	45	No Gas	101.643	ug/l	0.9	54828.94	500	
Na	23	45	He	91403.300	ug/l	0.7	16539104.34	3000000	
Mg	24	45	He	12257.897	ug/l	0.5	1255682.90	3000000	
Al	27	45	He	413.470	ug/l	1.3	21264.62	500000	
K	39	45	He	31662.823	ug/l	0.7	3542417.78	3000000	
Ca	44	45	He	64303.786	ug/l	1.0	181066.24	3000000	
Ti	47	45	He	3.002	ug/l	16.7	117.78	10000	
V	51	45	He	2.217	ug/l	15.3	2706.99	20000	
Cr	52	45	He	2.644	ug/l	3.9	5922.40	10000	
Mn	55	45	He	89.615	ug/l	0.8	77476.61	20000	
Fe	56	103	H2	577.823	ug/l	1.4	1962469.40	500000	
Co	59	103	He	0.253	ug/l	6.7	637.80	20000	
Ni	60	103	He	121.684	ug/l	1.6	72841.78	20000	
Cu	63	103	He	20.866	ug/l	2.1	34094.49	20000	
Zn	66	103	He	348.392	ug/l	1.0	101845.81	20000	
As	75	103	He	1.284	ug/l	5.5	393.65	20000	
Se	78	115	H2	0.972	ug/l	3.3	129.67	10000	
Sr	88	103	He	3763.788	ug/l	1.0	5715430.89	20000	
Mo	95	103	He	16.067	ug/l	2.6	14999.34	10000	
Ag	107	103	He	0.193	ug/l	12.3	658.91	100	
Cd	111	115	He	0.090	ug/l	10.1	56.73	5000	
Sn	118	115	He	9.997	ug/l	1.0	12513.63	10000	
Sb	123	115	He	1.415	ug/l	3.6	1875.71	200	
Ba	137	115	He	71.485	ug/l	1.8	44803.32	20000	
W	182	159	He	0.284	ug/l	23.8	8297.15	10000	
Tl	205	165	He	0.047	ug/l	17.9	522.24	2000	
Pb	208	165	He	0.378	ug/l	3.0	4020.29	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1224852.20	0.7	1444414.16	84.8	59.5	120.4	
Sc	45	No Gas	7683184.97	0.5	9012307.42	85.25	59.5	120.4	
Sc	45	H2	5174701.67	0.6	6064886.67	85.32	59.5	120.4	
Sc	45	He	732221.01	0.3	842862.48	86.87	59.5	120.4	
Rh	103	H2	2149599.75	1.1	2508597.67	85.69	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4137137.47	0.7	4686316.76	88.28	59.5	120.4	
In	115	H2	6306771.17	1.2	7115626.5	88.63	59.5	120.4	
In	115	He	2384683.73	1.0	2641648.07	90.27	59.5	120.4	
Tb	159	He	5902126.01	0.9	6439806.69	91.65	59.5	120.4	
Ho	165	He	6169409.89	0.6	6662050.43	92.61	59.5	120.4	
Bi	209	He	4137543.31	0.6	4322541.5	95.72	59.5	120.4	

Sample Report

Sample Name	240-134885-b-3-a
File Name	078SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:39:12
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	172.713	ug/l	1.8	450479.01	10000	
Be	9	45	No Gas	0.035	ug/l	65.3	66.67	2000	
B	11	45	No Gas	9948.326	ug/l	1.3	4649706.90	500	LDR Warning
Na	23	45	He	763509.537	ug/l	1.2	147254909.70	3000000	
Mg	24	45	He	108790.040	ug/l	0.9	11886824.81	3000000	
Al	27	45	He	90.067	ug/l	0.6	5102.06	500000	
K	39	45	He	290346.416	ug/l	0.7	34111880.87	3000000	
Ca	44	45	He	54065.808	ug/l	0.3	162526.30	3000000	
Ti	47	45	He	27.854	ug/l	7.3	1114.50	10000	
V	51	45	He	16.310	ug/l	0.0	19526.22	20000	
Cr	52	45	He	20.653	ug/l	0.6	31841.18	10000	
Mn	55	45	He	65.195	ug/l	0.9	60247.19	20000	
Fe	56	103	H2	20492.853	ug/l	1.4	68387992.32	500000	
Co	59	103	He	23.598	ug/l	0.7	52402.15	20000	
Ni	60	103	He	140.629	ug/l	0.7	83029.44	20000	
Cu	63	103	He	32.785	ug/l	0.2	52519.48	20000	
Zn	66	103	He	125.169	ug/l	0.3	37426.36	20000	
As	75	103	He	162.599	ug/l	1.3	38719.04	20000	
Se	78	115	H2	0.542	ug/l	5.2	74.33	10000	
Sr	88	103	He	570.266	ug/l	0.6	854453.28	20000	
Mo	95	103	He	4.383	ug/l	1.5	4068.43	10000	
Ag	107	103	He	0.060	ug/l	15.4	236.67	100	
Cd	111	115	He	0.111	ug/l	14.5	67.49	5000	
Sn	118	115	He	3.558	ug/l	7.0	4637.07	10000	
Sb	123	115	He	2.181	ug/l	3.3	2853.67	200	
Ba	137	115	He	346.493	ug/l	1.9	215952.73	20000	
W	182	159	He	1.385	ug/l	11.9	11128.19	10000	
Tl	205	165	He	0.032	ug/l	36.0	418.90	2000	
Pb	208	165	He	3.607	ug/l	1.6	31510.98	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1194315.00	0.6	1444414.16	82.69	59.5	120.4	
Sc	45	No Gas	7794546.91	1.2	9012307.42	86.49	59.5	120.4	
Sc	45	H2	5359626.50	0.7	6064886.67	88.37	59.5	120.4	
Sc	45	He	781266.08	0.5	842862.48	92.69	59.5	120.4	
Rh	103	H2	2130204.00	0.9	2508597.67	84.92	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4081615.95	0.7	4686316.76	87.1	59.5	120.4	
In	115	H2	6185083.33	0.4	7115626.5	86.92	59.5	120.4	
In	115	He	2372438.73	1.5	2641648.07	89.81	59.5	120.4	
Tb	159	He	5835654.08	1.5	6439806.69	90.62	59.5	120.4	
Ho	165	He	6069576.01	0.6	6662050.43	91.11	59.5	120.4	
Bi	209	He	3740049.71	0.6	4322541.5	86.52	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	079_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:41:42
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	54.421	ug/l	2.8	193254.96	50	108.84	89.5	110.5	
Be	9	45	No Gas	51.467	ug/l	2.8	42275.38	50	102.93	89.5	110.5	
B	11	45	No Gas	259.630	ug/l	3.5	129667.25	100	259.63	89.5	110.5	CCV Failed
Na	23	45	He	26989.173	ug/l	1.3	4864897.59	25000	107.96	89.5	110.5	
Mg	24	45	He	27012.408	ug/l	1.0	2748349.54	25000	108.05	89.5	110.5	
Al	27	45	He	26642.240	ug/l	0.2	1349165.23	25000	106.57	89.5	110.5	
K	39	45	He	26992.766	ug/l	0.4	3009282.59	25000	107.97	89.5	110.5	
Ca	44	45	He	26758.459	ug/l	0.4	75149.92	25000	107.03	89.5	110.5	
Ti	47	45	He	50.265	ug/l	2.9	1867.92	50	100.53	89.5	110.5	
V	51	45	He	53.151	ug/l	0.7	58675.13	50	106.3	89.5	110.5	
Cr	52	45	He	52.952	ug/l	0.5	72262.31	50	105.9	89.5	110.5	
Mn	55	45	He	53.869	ug/l	0.5	46413.43	50	107.74	89.5	110.5	
Fe	56	103	H2	25456.056	ug/l	1.9	86990918.70	25000	101.82	89.5	110.5	
Co	59	103	He	50.543	ug/l	1.6	113165.36	50	101.09	89.5	110.5	
Ni	60	103	He	50.590	ug/l	0.8	30256.87	50	101.18	89.5	110.5	
Cu	63	103	He	51.126	ug/l	0.7	82307.02	50	102.25	89.5	110.5	
Zn	66	103	He	50.130	ug/l	1.7	16374.11	50	100.26	89.5	110.5	
As	75	103	He	52.147	ug/l	2.7	12586.67	50	104.29	89.5	110.5	
Se	78	115	H2	52.469	ug/l	0.3	6525.54	50	104.94	89.5	110.5	
Sr	88	103	He	52.659	ug/l	0.6	79704.79	50	105.32	89.5	110.5	
Mo	95	103	He	51.935	ug/l	0.5	48164.60	50	103.87	89.5	110.5	
Ag	107	103	He	52.368	ug/l	1.0	164411.32	50	104.74	89.5	110.5	
Cd	111	115	He	52.628	ug/l	1.1	27241.60	50	105.26	89.5	110.5	
Sn	118	115	He	53.043	ug/l	0.6	64592.28	50	106.09	89.5	110.5	
Sb	123	115	He	52.421	ug/l	1.5	67562.50	50	104.84	89.5	110.5	
Ba	137	115	He	52.043	ug/l	0.4	32404.54	50	104.09	89.5	110.5	
W	182	159	He	52.757	ug/l	1.0	147713.51	50	105.51	89.5	110.5	
Tl	205	165	He	52.704	ug/l	1.2	334226.09	50	105.41	89.5	110.5	
Pb	208	165	He	52.457	ug/l	0.8	452247.54	50	104.91	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1276653.46	0.9	1444414.16	88.39	59.5	120.4	
Sc	45	No Gas	7816605.80	1.8	9012307.42	86.73	59.5	120.4	
Sc	45	H2	5216755.00	0.6	6064886.67	86.02	59.5	120.4	
Sc	45	He	727403.22	0.8	842862.48	86.3	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2181746.08	1.7	2508597.67	86.97	59.5	120.4	
Rh	103	He	4118208.03	0.2	4686316.76	87.88	59.5	120.4	
In	115	H2	6256387.00	1.0	7115626.5	87.92	59.5	120.4	
In	115	He	2368614.22	1.0	2641648.07	89.66	59.5	120.4	
Tb	159	He	5830486.43	0.6	6439806.69	90.54	59.5	120.4	
Ho	165	He	6122966.15	0.1	6662050.43	91.91	59.5	120.4	
Bi	209	He	3881762.62	0.7	4322541.5	89.8	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	080_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:44:08
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.883	ug/l	44.8	73749.49	8	
Be	9	45	No Gas	0.031	ug/l	28.4	62.22	1	
B	11	45	No Gas	56.335	ug/l	1.1	33428.18	20	CCB Failed
Na	23	45	He	98.080	ug/l	3.8	35674.90	1000	
Mg	24	45	He	2.697	ug/l	47.0	705.58	1000	
Al	27	45	He	1.450	ug/l	21.2	256.67	50	
K	39	45	He	41.827	ug/l	45.4	65396.92	1000	
Ca	44	45	He	2.652	ug/l	636.4	506.70	1000	
Ti	47	45	He	0.060	ug/l	89.9	7.78	20	
V	51	45	He	0.230	ug/l	91.4	490.05	2	
Cr	52	45	He	0.034	ug/l	433.9	2376.89	2	
Mn	55	45	He	0.184	ug/l	29.0	512.24	5	
Fe	56	103	H2	13.474	ug/l	7.3	63904.32	50	
Co	59	103	He	0.009	ug/l	31.8	91.11	1	
Ni	60	103	He	-0.026	ug/l	N/A	175.56	2	
Cu	63	103	He	0.100	ug/l	45.2	762.25	2	
Zn	66	103	He	2.817	ug/l	17.3	2949.23	20	
As	75	103	He	0.156	ug/l	91.0	123.83	2	
Se	78	115	H2	0.008	ug/l	383.8	9.00	2	
Sr	88	103	He	0.074	ug/l	38.0	221.11	10	
Mo	95	103	He	0.012	ug/l	222.4	55.56	10	
Ag	107	103	He	0.005	ug/l	54.3	67.78	0.2	
Cd	111	115	He	0.024	ug/l	69.1	22.22	1	
Sn	118	115	He	0.145	ug/l	44.5	490.01	100	
Sb	123	115	He	0.109	ug/l	19.5	180.00	1	
Ba	137	115	He	0.051	ug/l	69.9	47.78	5	
W	182	159	He	0.144	ug/l	26.9	7796.84	10	
Tl	205	165	He	0.042	ug/l	25.0	480.02	0.5	
Pb	208	165	He	0.032	ug/l	9.1	1003.36	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1223218.70	0.4	1444414.16	84.69	59.5	120.4	
Sc	45	No Gas	7555993.03	0.3	9012307.42	83.84	59.5	120.4	
Sc	45	H2	5091903.83	2.0	6064886.67	83.96	59.5	120.4	
Sc	45	He	709183.36	0.8	842862.48	84.14	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2201246.50	1.3	2508597.67	87.75	59.5	120.4	
Rh	103	He	4205860.25	1.5	4686316.76	89.75	59.5	120.4	
In	115	H2	6294463.83	0.6	7115626.5	88.46	59.5	120.4	
In	115	He	2364405.59	0.9	2641648.07	89.5	59.5	120.4	
Tb	159	He	5810486.43	0.5	6439806.69	90.23	59.5	120.4	
Ho	165	He	6085131.56	1.6	6662050.43	91.34	59.5	120.4	
Bi	209	He	3964922.62	0.6	4322541.5	91.73	59.5	120.4	

Sample Report

Sample Name	240-134885-f-4-a
File Name	081SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:46:39
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	180.240	ug/l	0.7	468059.96	10000	
Be	9	45	No Gas	0.045	ug/l	23.2	75.56	2000	
B	11	45	No Gas	10469.950	ug/l	0.5	4905348.69	500	LDR Warning
Na	23	45	He	792482.191	ug/l	0.4	152005225.07	3000000	
Mg	24	45	He	111800.284	ug/l	0.8	12148247.29	3000000	
Al	27	45	He	57.755	ug/l	7.4	3326.01	500000	
K	39	45	He	298647.335	ug/l	0.5	34891889.72	3000000	
Ca	44	45	He	36646.706	ug/l	0.1	109732.40	3000000	
Ti	47	45	He	19.300	ug/l	10.1	770.03	10000	
V	51	45	He	12.849	ug/l	3.0	15353.43	20000	
Cr	52	45	He	17.959	ug/l	1.6	27866.27	10000	
Mn	55	45	He	13.133	ug/l	1.8	12384.42	20000	
Fe	56	103	H2	11449.707	ug/l	1.0	38205341.93	500000	
Co	59	103	He	22.563	ug/l	0.6	50029.28	20000	
Ni	60	103	He	137.879	ug/l	2.1	81274.02	20000	
Cu	63	103	He	609.037	ug/l	1.3	963835.97	20000	
Zn	66	103	He	381.210	ug/l	1.5	109576.76	20000	
As	75	103	He	102.590	ug/l	0.6	24423.03	20000	
Se	78	115	H2	0.570	ug/l	3.3	77.33	10000	
Sr	88	103	He	566.650	ug/l	1.5	847672.83	20000	
Mo	95	103	He	4.072	ug/l	5.3	3776.12	10000	
Ag	107	103	He	0.057	ug/l	18.4	226.67	100	
Cd	111	115	He	0.134	ug/l	21.8	78.62	5000	
Sn	118	115	He	5.007	ug/l	2.3	6353.79	10000	
Sb	123	115	He	2.145	ug/l	5.1	2791.42	200	
Ba	137	115	He	230.240	ug/l	1.5	142628.99	20000	
W	182	159	He	1.400	ug/l	5.5	11260.91	10000	
Tl	205	165	He	0.012	ug/l	19.6	296.67	2000	
Pb	208	165	He	4.975	ug/l	0.2	44205.69	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1221463.55	2.1	1444414.16	84.56	59.5	120.4	
Sc	45	No Gas	7813266.91	0.3	9012307.42	86.7	59.5	120.4	
Sc	45	H2	5346491.00	0.6	6064886.67	88.15	59.5	120.4	
Sc	45	He	776964.22	0.7	842862.48	92.18	59.5	120.4	
Rh	103	H2	2129491.92	0.9	2508597.67	84.89	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4075337.48	0.9	4686316.76	86.96	59.5	120.4	
In	115	H2	6141380.50	0.3	7115626.5	86.31	59.5	120.4	
In	115	He	2357900.51	1.6	2641648.07	89.26	59.5	120.4	
Tb	159	He	5881520.74	0.3	6439806.69	91.33	59.5	120.4	
Ho	165	He	6214051.98	0.1	6662050.43	93.28	59.5	120.4	
Bi	209	He	3725231.38	1.5	4322541.5	86.18	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	mb 240-447010/1-a
File Name	082_Blk.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:49:10
Sample Type	Blank
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.856	ug/l	8.6	78190.19	8	
Be	9	45	No Gas	0.020	ug/l	99.1	56.67	1	
B	11	45	No Gas	172.951	ug/l	3.1	91423.04	20	Blank High
Na	23	45	He	216.399	ug/l	1.6	60127.15	1000	
Mg	24	45	He	12.365	ug/l	7.6	1774.57	1000	
Al	27	45	He	1.825	ug/l	14.6	293.34	50	
K	39	45	He	80.333	ug/l	16.1	74093.21	1000	
Ca	44	45	He	60.859	ug/l	22.0	709.39	1000	
Ti	47	45	He	0.018	ug/l	831.8	6.67	20	
V	51	45	He	0.048	ug/l	265.9	316.64	2	
Cr	52	45	He	-0.246	ug/l	N/A	2152.41	2	
Mn	55	45	He	0.225	ug/l	24.1	582.24	5	
Fe	56	103	H2	16.582	ug/l	3.2	77913.65	50	
Co	59	103	He	0.013	ug/l	20.2	101.11	1	
Ni	60	103	He	0.066	ug/l	51.0	234.45	2	
Cu	63	103	He	0.301	ug/l	21.8	1105.61	2	
Zn	66	103	He	2.838	ug/l	13.2	2994.79	20	
As	75	103	He	0.219	ug/l	146.9	141.24	2	
Se	78	115	H2	-0.001	ug/l	N/A	8.00	2	
Sr	88	103	He	0.157	ug/l	18.2	353.34	10	
Mo	95	103	He	0.005	ug/l	455.8	50.00	10	
Ag	107	103	He	0.003	ug/l	74.6	60.00	0.2	
Cd	111	115	He	0.014	ug/l	67.8	17.77	1	
Sn	118	115	He	0.130	ug/l	20.6	484.46	100	
Sb	123	115	He	0.006	ug/l	131.4	48.89	1	
Ba	137	115	He	0.122	ug/l	11.8	94.45	5	
W	182	159	He	0.138	ug/l	151.0	7814.64	10	
Tl	205	165	He	0.015	ug/l	47.3	318.90	0.5	
Pb	208	165	He	0.025	ug/l	46.2	962.25	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1323620.55	1.1	1444414.16	91.64	59.5	120.4	
Sc	45	No Gas	8016972.18	0.7	9012307.42	88.96	59.5	120.4	
Sc	45	H2	5347497.50	0.5	6064886.67	88.17	59.5	120.4	
Sc	45	He	756137.04	0.7	842862.48	89.71	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2297586.00	0.5	2508597.67	91.59	59.5	120.4	
Rh	103	He	4259402.47	0.8	4686316.76	90.89	59.5	120.4	
In	115	H2	6419814.17	0.2	7115626.5	90.22	59.5	120.4	
In	115	He	2429291.64	1.0	2641648.07	91.96	59.5	120.4	
Tb	159	He	5840849.49	1.8	6439806.69	90.7	59.5	120.4	
Ho	165	He	6215186.56	0.8	6662050.43	93.29	59.5	120.4	
Bi	209	He	3977246.65	0.3	4322541.5	92.01	59.5	120.4	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 240-447010/3-a
File Name	083_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:51:40
Sample Type	LCSW
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	539.386	ug/l	1.2	1245680.37	500	107.88	84.5	115.4	
Be	9	45	No Gas	502.373	ug/l	0.2	410020.88	500	100.47	84.5	115.4	
B	11	45	No Gas	173.864	ug/l	0.8	89047.62	100	173.86	84.5	115.4	LCS Warning
Na	23	45	He	26038.156	ug/l	1.1	4869476.33	25000	104.15	84.5	115.4	
Mg	24	45	He	26259.171	ug/l	0.2	2771554.82	25000	105.04	84.5	115.4	
Al	27	45	He	4883.027	ug/l	0.3	256680.94	5000	97.66	84.5	115.4	
K	39	45	He	26391.334	ug/l	1.2	3053553.35	25000	105.57	84.5	115.4	
Ca	44	45	He	25993.041	ug/l	0.3	75743.56	25000	103.97	84.5	115.4	
Ti	47	45	He	502.570	ug/l	1.7	19323.21	500	100.51	84.5	115.4	
V	51	45	He	512.329	ug/l	1.0	584473.20	500	102.47	84.5	115.4	
Cr	52	45	He	506.869	ug/l	0.6	696275.04	500	101.37	84.5	115.4	
Mn	55	45	He	510.760	ug/l	0.7	453274.96	500	102.15	84.5	115.4	
Fe	56	103	H2	5004.747	ug/l	1.4	17446840.57	5000	100.09	84.5	115.4	
Co	59	103	He	512.032	ug/l	0.6	1166520.86	500	102.41	84.5	115.4	
Ni	60	103	He	486.460	ug/l	1.3	294545.63	500	97.29	84.5	115.4	
Cu	63	103	He	489.149	ug/l	1.3	796531.43	500	97.83	84.5	115.4	
Zn	66	103	He	538.658	ug/l	0.4	158431.12	500	107.73	84.5	115.4	
As	75	103	He	999.595	ug/l	0.5	244078.19	1000	99.96	84.5	115.4	
Se	78	115	H2	1021.801	ug/l	1.2	128003.36	1000	102.18	84.5	115.4	
Sr	88	103	He	505.721	ug/l	0.4	778399.05	500	101.14	84.5	115.4	
Mo	95	103	He	498.424	ug/l	1.1	470187.79	500	99.68	84.5	115.4	
Ag	107	103	He	102.092	ug/l	1.1	326254.28	100	102.09	84.5	115.4	
Cd	111	115	He	512.908	ug/l	1.0	268716.69	500	102.58	84.5	115.4	
Sn	118	115	He	1071.709	ug/l	1.1	1315183.04	1000	107.17	84.5	115.4	
Sb	123	115	He	110.210	ug/l	1.4	143763.04	100	110.21	84.5	115.4	
Ba	137	115	He	1018.775	ug/l	1.0	641902.68	1000	101.88	84.5	115.4	
W	182	159	He	99.625	ug/l	1.9	272972.88	100	99.62	84.5	115.4	
Tl	205	165	He	1029.644	ug/l	1.1	6514041.13	1000	102.96	84.5	115.4	
Pb	208	165	He	516.052	ug/l	0.6	4434654.65	500	103.21	84.5	115.4	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1246162.11	0.6	1444414.16	86.27	59.5	120.4	
Sc	45	No Gas	7770665.24	0.8	9012307.42	86.22	59.5	120.4	
Sc	45	H2	5275886.83	1.1	6064886.67	86.99	59.5	120.4	
Sc	45	He	754583.04	0.4	842862.48	89.53	59.5	120.4	

Laboratory Control Sample (LCS) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2223496.00	0.7	2508597.67	88.64	59.5	120.4	
Rh	103	He	4192847.75	1.4	4686316.76	89.47	59.5	120.4	
In	115	H2	6309212.83	0.6	7115626.5	88.67	59.5	120.4	
In	115	He	2398126.59	0.6	2641648.07	90.78	59.5	120.4	
Tb	159	He	5845907.41	2.0	6439806.69	90.78	59.5	120.4	
Ho	165	He	6112277.12	0.7	6662050.43	91.75	59.5	120.4	
Bi	209	He	3887779.98	1.0	4322541.5	89.94	59.5	120.4	

Sample Report

Sample Name	240-134814-m-1-a
File Name	084SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:54:02
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	53.655	ug/l	1.8	189644.80	10000	
Be	9	45	No Gas	0.505	ug/l	9.1	448.90	2000	
B	11	45	No Gas	62.638	ug/l	2.1	37146.00	500	
Na	23	45	He	15794.744	ug/l	1.7	2903566.07	3000000	
Mg	24	45	He	6417.593	ug/l	0.5	664407.28	3000000	
Al	27	45	He	950.011	ug/l	3.3	49109.12	500000	
K	39	45	He	5734.857	ug/l	1.2	700293.01	3000000	
Ca	44	45	He	14091.489	ug/l	0.3	40495.31	3000000	
Ti	47	45	He	57.197	ug/l	58.4	2163.33	10000	
V	51	45	He	5.254	ug/l	7.0	6128.54	20000	
Cr	52	45	He	2.856	ug/l	1.2	6267.07	10000	
Mn	55	45	He	2745.786	ug/l	1.1	2387323.45	20000	
Fe	56	103	H2	23948.374	ug/l	1.8	83188682.10	500000	
Co	59	103	He	40.768	ug/l	2.2	93544.30	20000	
Ni	60	103	He	42.350	ug/l	3.1	25980.61	20000	
Cu	63	103	He	1.778	ug/l	7.9	3512.69	20000	
Zn	66	103	He	60.113	ug/l	2.5	19692.76	20000	
As	75	103	He	0.523	ug/l	8.8	214.75	20000	
Se	78	115	H2	0.246	ug/l	7.7	39.00	10000	
Sr	88	103	He	46.351	ug/l	3.2	71887.17	20000	
Mo	95	103	He	1.237	ug/l	3.0	1218.96	10000	
Ag	107	103	He	0.011	ug/l	2.0	85.56	100	
Cd	111	115	He	0.072	ug/l	28.2	47.69	5000	
Sn	118	115	He	2.020	ug/l	6.7	2781.43	10000	
Sb	123	115	He	0.207	ug/l	7.9	307.78	200	
Ba	137	115	He	175.088	ug/l	2.4	109680.00	20000	
W	182	159	He	0.235	ug/l	46.6	8030.32	10000	
Tl	205	165	He	0.278	ug/l	4.6	1991.29	2000	
Pb	208	165	He	1.179	ug/l	2.2	10938.68	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1258329.15	1.2	1444414.16	87.12	59.5	120.4	
Sc	45	No Gas	7736542.19	0.9	9012307.42	85.84	59.5	120.4	
Sc	45	H2	5283596.83	1.2	6064886.67	87.12	59.5	120.4	
Sc	45	He	739766.26	0.4	842862.48	87.77	59.5	120.4	
Rh	103	H2	2217458.42	1.2	2508597.67	88.39	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4220825.94	2.0	4686316.76	90.07	59.5	120.4	
In	115	H2	6347828.83	1.0	7115626.5	89.21	59.5	120.4	
In	115	He	2384300.82	1.2	2641648.07	90.26	59.5	120.4	
Tb	159	He	5806865.05	1.2	6439806.69	90.17	59.5	120.4	
Ho	165	He	6153292.95	0.6	6662050.43	92.36	59.5	120.4	
Bi	209	He	3965377.62	0.6	4322541.5	91.74	59.5	120.4	

Sample Report

Sample Name	SD 240-134814-m-1-a@5
File Name	085SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:56:30
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	11.576	ug/l	1.6	97027.88	10000	
Be	9	45	No Gas	0.149	ug/l	26.5	156.67	2000	
B	11	45	No Gas	37.504	ug/l	0.6	25088.25	500	
Na	23	45	He	3041.079	ug/l	0.7	558669.94	3000000	
Mg	24	45	He	1288.947	ug/l	0.8	130093.31	3000000	
Al	27	45	He	236.947	ug/l	22.6	12055.18	500000	
K	39	45	He	1171.236	ug/l	0.5	188233.08	3000000	
Ca	44	45	He	2774.088	ug/l	1.7	8158.39	3000000	
Ti	47	45	He	12.170	ug/l	70.1	450.29	10000	
V	51	45	He	1.169	ug/l	22.0	1520.42	20000	
Cr	52	45	He	0.741	ug/l	10.0	3333.77	10000	
Mn	55	45	He	534.067	ug/l	0.7	451741.27	20000	
Fe	56	103	H2	4719.028	ug/l	1.7	16347501.01	500000	
Co	59	103	He	8.133	ug/l	0.6	18662.41	20000	
Ni	60	103	He	8.427	ug/l	2.9	5308.83	20000	
Cu	63	103	He	0.377	ug/l	3.7	1216.73	20000	
Zn	66	103	He	11.577	ug/l	3.0	5502.24	20000	
As	75	103	He	0.032	ug/l	532.5	93.89	20000	
Se	78	115	H2	0.080	ug/l	43.9	18.00	10000	
Sr	88	103	He	9.106	ug/l	1.9	14169.59	20000	
Mo	95	103	He	0.228	ug/l	7.9	261.12	10000	
Ag	107	103	He	0.005	ug/l	30.6	67.78	100	
Cd	111	115	He	0.017	ug/l	142.3	18.87	5000	
Sn	118	115	He	0.609	ug/l	8.3	1057.83	10000	
Sb	123	115	He	0.061	ug/l	46.5	118.89	200	
Ba	137	115	He	34.731	ug/l	0.5	21745.45	20000	
W	182	159	He	0.135	ug/l	115.6	7737.91	10000	
Tl	205	165	He	0.081	ug/l	9.8	735.58	2000	
Pb	208	165	He	0.251	ug/l	0.8	2916.84	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1251498.67	0.3	1444414.16	86.64	59.5	120.4	
Sc	45	No Gas	7609924.42	0.2	9012307.42	84.44	59.5	120.4	
Sc	45	H2	5141805.50	0.1	6064886.67	84.78	59.5	120.4	
Sc	45	He	719247.23	0.6	842862.48	85.33	59.5	120.4	
Rh	103	H2	2209499.08	1.0	2508597.67	88.08	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4207404.97	0.1	4686316.76	89.78	59.5	120.4	
In	115	H2	6329197.33	0.2	7115626.5	88.95	59.5	120.4	
In	115	He	2381290.88	0.7	2641648.07	90.14	59.5	120.4	
Tb	159	He	5785825.05	0.4	6439806.69	89.84	59.5	120.4	
Ho	165	He	6154605.45	1.3	6662050.43	92.38	59.5	120.4	
Bi	209	He	3953975.54	0.6	4322541.5	91.47	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	6020BHIGHSTD
File Name	086LCS2.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 15:59:00
Sample Type	2xLCS
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	1078.978	ug/l	1.6	2331532.13	1000	107.9	89.5	110.5	
Be	9	45	No Gas	1062.694	ug/l	1.1	836272.10	1000	106.27	89.5	110.5	
B	11	45	No Gas	236.753	ug/l	0.8	114076.02	200	118.38	89.5	110.5	Warning
Na	23	45	He	54062.006	ug/l	0.5	9602582.12	50000	108.12	89.5	110.5	
Mg	24	45	He	53854.567	ug/l	0.9	5409436.17	50000	107.71	89.5	110.5	
Al	27	45	He	10225.925	ug/l	0.8	511389.48	10000	102.26	89.5	110.5	
K	39	45	He	54099.568	ug/l	1.1	5893169.21	50000	108.2	89.5	110.5	
Ca	44	45	He	54154.405	ug/l	0.7	149647.34	50000	108.31	89.5	110.5	
Ti	47	45	He	1059.022	ug/l	0.8	38748.09	1000	105.9	89.5	110.5	
V	51	45	He	1161.561	ug/l	1.6	1260879.61	1000	116.16	89.5	110.5	Warning
Cr	52	45	He	1107.126	ug/l	0.8	1444635.71	1000	110.71	89.5	110.5	Warning
Mn	55	45	He	1071.689	ug/l	0.9	904790.76	1000	107.17	89.5	110.5	
Fe	56	103	H2	10524.754	ug/l	0.6	34846768.65	10000	105.25	89.5	110.5	
Co	59	103	He	1044.029	ug/l	2.1	2327001.99	1000	104.4	89.5	110.5	
Ni	60	103	He	987.983	ug/l	1.6	585123.71	1000	98.8	89.5	110.5	
Cu	63	103	He	1017.566	ug/l	2.0	1620705.35	1000	101.76	89.5	110.5	
Zn	66	103	He	1090.735	ug/l	0.6	311763.00	1000	109.07	89.5	110.5	
As	75	103	He	2051.896	ug/l	0.9	490127.65	2000	102.59	89.5	110.5	
Se	78	115	H2	2016.599	ug/l	0.4	249993.15	2000	100.83	89.5	110.5	
Sr	88	103	He	1103.005	ug/l	1.2	1660969.72	1000	110.3	89.5	110.5	
Mo	95	103	He	1044.422	ug/l	1.0	963984.37	1000	104.44	89.5	110.5	
Ag	107	103	He	209.945	ug/l	1.0	656417.09	200	104.97	89.5	110.5	
Cd	111	115	He	1086.652	ug/l	1.4	548015.85	1000	108.67	89.5	110.5	
Sn	118	115	He	2257.642	ug/l	0.3	2666850.73	2000	112.88	89.5	110.5	Warning
Sb	123	115	He	233.583	ug/l	1.2	293269.83	200	116.79	89.5	110.5	Warning
Ba	137	115	He	2219.005	ug/l	1.2	1345868.38	2000	110.95	89.5	110.5	Warning
W	182	159	He	214.364	ug/l	0.2	571396.66	200	107.18	89.5	110.5	
Tl	205	165	He	2149.951	ug/l	0.9	13471463.08	2000	107.5	89.5	110.5	
Pb	208	165	He	1093.515	ug/l	0.7	9306585.12	1000	109.35	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1172768.81	2.4	1444414.16	81.19	59.5	120.4	
Sc	45	No Gas	7493163.59	1.1	9012307.42	83.14	59.5	120.4	
Sc	45	H2	5024405.50	0.9	6064886.67	82.84	59.5	120.4	
Sc	45	He	718198.86	0.7	842862.48	85.21	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2112798.25	0.7	2508597.67	84.22	59.5	120.4	
Rh	103	He	4102331.09	0.8	4686316.76	87.54	59.5	120.4	
In	115	H2	6243430.67	0.5	7115626.5	87.74	59.5	120.4	
In	115	He	2308580.50	0.8	2641648.07	87.39	59.5	120.4	
Tb	159	He	5769980.33	0.7	6439806.69	89.6	59.5	120.4	
Ho	165	He	6053942.81	0.7	6662050.43	90.87	59.5	120.4	
Bi	209	He	3837242.07	0.7	4322541.5	88.77	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	6020BHIGHSTD
File Name	087High.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:01:17
Sample Type	HighSTD
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Al	27	45	He	207639.168	ug/l	1.9	10710159.85	200000	103.82	89.5	110.5	
V	51	45	He	5325.803	ug/l	1.0	5963794.92	5000	106.52	89.5	110.5	
Cr	52	45	He	5234.107	ug/l	0.9	7037543.61	5000	104.68	89.5	110.5	
Mn	55	45	He	5352.593	ug/l	0.5	4660918.98	5000	107.05	89.5	110.5	
Co	59	103	He	5091.930	ug/l	0.7	11466335.93	5000	101.84	89.5	110.5	
Ni	60	103	He	5123.510	ug/l	1.1	3064784.81	5000	102.47	89.5	110.5	
Cu	63	103	He	5013.150	ug/l	0.8	8064326.35	5000	100.26	89.5	110.5	
Zn	66	103	He	5693.688	ug/l	0.6	1635329.69	5000	113.87	89.5	110.5	Warning
As	75	103	He	5273.143	ug/l	1.3	1272357.99	5000	105.46	89.5	110.5	
Sr	88	103	He	5273.720	ug/l	0.9	8022590.51	5000	105.47	89.5	110.5	
Ba	137	115	He	5488.853	ug/l	2.0	3376468.41	5000	109.78	89.5	110.5	
Pb	208	165	He	4205.185	ug/l	0.5	35766498.58	4000	105.13	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1252864.91	0.2	1444414.16	86.74	59.5	120.4	
Sc	45	No Gas	7719303.58	0.6	9012307.42	85.65	59.5	120.4	
Sc	45	H2	5268639.00	0.6	6064886.67	86.87	59.5	120.4	
Sc	45	He	740964.29	0.5	842862.48	87.91	59.5	120.4	
Rh	103	H2	2213133.17	1.2	2508597.67	88.22	59.5	120.4	
Rh	103	He	4144562.75	1.4	4686316.76	88.44	59.5	120.4	
In	115	H2	6168986.83	0.2	7115626.5	86.7	59.5	120.4	
In	115	He	2341510.48	0.7	2641648.07	88.64	59.5	120.4	
Tb	159	He	5815648.80	1.2	6439806.69	90.31	59.5	120.4	
Ho	165	He	6050416.98	1.0	6662050.43	90.82	59.5	120.4	
Bi	209	He	3890563.88	0.4	4322541.5	90.01	59.5	120.4	

Sample Report

Sample Name	PDS 240-134814-m-1-a
File Name	088SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:03:35
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	592.133	ug/l	1.2	1336835.23	10000	
Be	9	45	No Gas	509.615	ug/l	0.7	408751.82	2000	
B	11	45	No Gas	137.113	ug/l	0.4	70713.24	500	
Na	23	45	He	42034.178	ug/l	1.3	7633318.03	3000000	
Mg	24	45	He	33773.189	ug/l	0.3	3466564.65	3000000	
Al	27	45	He	6160.675	ug/l	2.3	314893.96	500000	
K	39	45	He	33012.062	ug/l	2.2	3698936.38	3000000	
Ca	44	45	He	41367.245	ug/l	0.3	116926.79	3000000	
Ti	47	45	He	566.005	ug/l	1.5	21162.92	10000	
V	51	45	He	537.517	ug/l	0.7	596341.44	20000	
Cr	52	45	He	532.394	ug/l	0.7	711114.30	10000	
Mn	55	45	He	3245.143	ug/l	0.1	2798783.92	20000	
Fe	56	103	H2	28501.690	ug/l	0.4	96351295.23	500000	
Co	59	103	He	571.220	ug/l	0.7	1271007.62	20000	
Ni	60	103	He	547.130	ug/l	0.5	323521.44	20000	
Cu	63	103	He	513.016	ug/l	1.1	815832.08	20000	
Zn	66	103	He	623.771	ug/l	1.3	178836.41	20000	
As	75	103	He	1034.912	ug/l	0.9	246783.80	20000	
Se	78	115	H2	1028.784	ug/l	1.0	127355.46	10000	
Sr	88	103	He	570.611	ug/l	1.6	857652.69	20000	
Mo	95	103	He	526.070	ug/l	1.1	484668.83	10000	
Ag	107	103	He	106.093	ug/l	0.9	331114.19	100	LDR Warning
Cd	111	115	He	525.842	ug/l	1.0	270943.76	5000	
Sn	118	115	He	1123.277	ug/l	0.8	1355794.11	10000	
Sb	123	115	He	103.112	ug/l	0.7	132301.70	200	
Ba	137	115	He	1224.351	ug/l	0.7	758727.07	20000	
W	182	159	He	0.142	ug/l	93.5	7731.26	10000	
Tl	205	165	He	1076.353	ug/l	0.5	6776503.76	2000	
Pb	208	165	He	534.277	ug/l	0.6	4569069.61	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1212488.82	1.4	1444414.16	83.94	59.5	120.4	
Sc	45	No Gas	7636687.47	0.7	9012307.42	84.74	59.5	120.4	
Sc	45	H2	5101419.50	0.2	6064886.67	84.11	59.5	120.4	
Sc	45	He	733850.93	0.1	842862.48	87.07	59.5	120.4	
Rh	103	H2	2157888.92	0.7	2508597.67	86.02	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4094680.67	1.0	4686316.76	87.38	59.5	120.4	
In	115	H2	6234730.83	0.7	7115626.5	87.62	59.5	120.4	
In	115	He	2358658.16	1.4	2641648.07	89.29	59.5	120.4	
Tb	159	He	5766870.74	0.8	6439806.69	89.55	59.5	120.4	
Ho	165	He	6082512.12	0.4	6662050.43	91.3	59.5	120.4	
Bi	209	He	3870520.13	0.7	4322541.5	89.54	59.5	120.4	

Sample Report

Sample Name	240-134814-m-1-b ms
File Name	089SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:05:57
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	570.983	ug/l	0.7	1308840.85	10000	
Be	9	45	No Gas	487.449	ug/l	0.5	396157.06	2000	
B	11	45	No Gas	131.543	ug/l	1.2	69068.65	500	
Na	23	45	He	41576.656	ug/l	1.0	7521504.98	3000000	
Mg	24	45	He	33566.875	ug/l	1.4	3432139.52	3000000	
Al	27	45	He	7620.366	ug/l	0.5	387956.57	500000	
K	39	45	He	32646.489	ug/l	1.9	3644655.97	3000000	
Ca	44	45	He	40977.042	ug/l	1.2	115385.32	3000000	
Ti	47	45	He	539.560	ug/l	0.6	20096.80	10000	
V	51	45	He	525.613	ug/l	0.8	580899.42	20000	
Cr	52	45	He	516.595	ug/l	0.3	687429.62	10000	
Mn	55	45	He	3304.107	ug/l	0.5	2838688.63	20000	
Fe	56	103	H2	29439.208	ug/l	0.1	100200481.84	500000	
Co	59	103	He	563.603	ug/l	0.7	1260775.92	20000	
Ni	60	103	He	531.926	ug/l	0.1	316236.34	20000	
Cu	63	103	He	495.477	ug/l	0.5	792255.66	20000	
Zn	66	103	He	608.581	ug/l	0.7	175478.47	20000	
As	75	103	He	1006.545	ug/l	0.6	241322.80	20000	
Se	78	115	H2	998.630	ug/l	0.7	124821.97	10000	
Sr	88	103	He	557.338	ug/l	0.3	842284.83	20000	
Mo	95	103	He	506.906	ug/l	0.8	469552.10	10000	
Ag	107	103	He	103.580	ug/l	0.4	325024.16	100	LDR Warning
Cd	111	115	He	509.904	ug/l	1.8	263735.42	5000	
Sn	118	115	He	1087.469	ug/l	1.3	1317590.64	10000	
Sb	123	115	He	111.741	ug/l	0.8	143919.95	200	
Ba	137	115	He	1196.855	ug/l	1.1	744551.53	20000	
W	182	159	He	98.654	ug/l	0.8	269733.93	10000	
Tl	205	165	He	1024.233	ug/l	1.5	6531456.13	2000	
Pb	208	165	He	510.189	ug/l	0.9	4419273.19	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1205366.53	0.8	1444414.16	83.45	59.5	120.4	
Sc	45	No Gas	7737876.64	0.6	9012307.42	85.86	59.5	120.4	
Sc	45	H2	5156465.50	0.3	6064886.67	85.02	59.5	120.4	
Sc	45	He	731025.77	0.3	842862.48	86.73	59.5	120.4	
Rh	103	H2	2172624.17	1.0	2508597.67	86.61	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4116684.00	0.4	4686316.76	87.84	59.5	120.4	
In	115	H2	6295002.67	0.4	7115626.5	88.47	59.5	120.4	
In	115	He	2368042.73	2.1	2641648.07	89.64	59.5	120.4	
Tb	159	He	5830530.32	0.6	6439806.69	90.54	59.5	120.4	
Ho	165	He	6160912.12	0.3	6662050.43	92.48	59.5	120.4	
Bi	209	He	3863793.60	1.0	4322541.5	89.39	59.5	120.4	

Sample Report

Sample Name	240-134814-m-1-c msd
File Name	090SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:08:19
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	585.907	ug/l	0.9	1327429.04	10000	
Be	9	45	No Gas	498.467	ug/l	0.3	400975.33	2000	
B	11	45	No Gas	130.129	ug/l	0.5	67717.01	500	
Na	23	45	He	41444.274	ug/l	0.6	7472556.93	3000000	
Mg	24	45	He	33512.865	ug/l	0.3	3415186.11	3000000	
Al	27	45	He	7941.614	ug/l	0.7	402956.37	500000	
K	39	45	He	32713.236	ug/l	0.7	3639767.49	3000000	
Ca	44	45	He	40989.989	ug/l	1.2	115034.17	3000000	
Ti	47	45	He	546.102	ug/l	3.0	20273.71	10000	
V	51	45	He	530.787	ug/l	0.7	584668.62	20000	
Cr	52	45	He	525.113	ug/l	1.1	696384.64	10000	
Mn	55	45	He	3341.511	ug/l	0.5	2861233.71	20000	
Fe	56	103	H2	29391.456	ug/l	0.7	99756071.85	500000	
Co	59	103	He	564.663	ug/l	0.5	1261191.83	20000	
Ni	60	103	He	536.563	ug/l	0.4	318505.28	20000	
Cu	63	103	He	504.381	ug/l	0.7	805247.12	20000	
Zn	66	103	He	613.365	ug/l	1.6	176573.72	20000	
As	75	103	He	1018.117	ug/l	0.8	243722.72	20000	
Se	78	115	H2	1021.767	ug/l	0.5	126413.41	10000	
Sr	88	103	He	562.007	ug/l	0.9	848041.20	20000	
Mo	95	103	He	511.588	ug/l	0.5	473162.17	10000	
Ag	107	103	He	102.583	ug/l	1.0	321411.09	100	LDR Warning
Cd	111	115	He	523.774	ug/l	1.4	266686.81	5000	
Sn	118	115	He	1111.828	ug/l	1.5	1325990.61	10000	
Sb	123	115	He	112.503	ug/l	2.0	142615.74	200	
Ba	137	115	He	1231.571	ug/l	1.8	754112.84	20000	
W	182	159	He	99.614	ug/l	1.7	270981.72	10000	
Tl	205	165	He	1054.125	ug/l	2.3	6611807.23	2000	
Pb	208	165	He	529.570	ug/l	2.1	4512230.90	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1203907.26	0.4	1444414.16	83.35	59.5	120.4	
Sc	45	No Gas	7658772.19	0.4	9012307.42	84.98	59.5	120.4	
Sc	45	H2	5143114.17	1.5	6064886.67	84.8	59.5	120.4	
Sc	45	He	728594.85	0.4	842862.48	86.44	59.5	120.4	
Rh	103	H2	2166565.67	0.8	2508597.67	86.37	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4110405.67	0.1	4686316.76	87.71	59.5	120.4	
In	115	H2	6230936.33	0.6	7115626.5	87.57	59.5	120.4	
In	115	He	2330868.90	1.5	2641648.07	88.24	59.5	120.4	
Tb	159	He	5802511.71	0.7	6439806.69	90.1	59.5	120.4	
Ho	165	He	6061895.73	2.3	6662050.43	90.99	59.5	120.4	
Bi	209	He	3895777.21	0.3	4322541.5	90.13	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	091_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:10:40
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	55.421	ug/l	1.1	189517.22	50	110.84	89.5	110.5	CCV Failed
Be	9	45	No Gas	52.157	ug/l	1.0	41551.06	50	104.31	89.5	110.5	
B	11	45	No Gas	117.149	ug/l	0.8	61115.87	100	117.15	89.5	110.5	CCV Failed
Na	23	45	He	26943.967	ug/l	1.2	4783172.72	25000	107.78	89.5	110.5	
Mg	24	45	He	27134.999	ug/l	1.4	2718876.42	25000	108.54	89.5	110.5	
Al	27	45	He	26825.469	ug/l	1.2	1337863.46	25000	107.3	89.5	110.5	
K	39	45	He	27394.995	ug/l	0.2	3006867.45	25000	109.58	89.5	110.5	
Ca	44	45	He	26980.345	ug/l	0.7	74620.37	25000	107.92	89.5	110.5	
Ti	47	45	He	55.273	ug/l	4.4	2022.39	50	110.55	89.5	110.5	CCV Failed
V	51	45	He	54.445	ug/l	0.9	59186.21	50	108.89	89.5	110.5	
Cr	52	45	He	54.438	ug/l	0.8	73095.35	50	108.88	89.5	110.5	
Mn	55	45	He	54.647	ug/l	0.3	46363.25	50	109.29	89.5	110.5	
Fe	56	103	H2	25735.579	ug/l	1.1	86404328.71	25000	102.94	89.5	110.5	
Co	59	103	He	50.835	ug/l	0.3	113604.90	50	101.67	89.5	110.5	
Ni	60	103	He	50.633	ug/l	0.6	30225.70	50	101.27	89.5	110.5	
Cu	63	103	He	51.551	ug/l	2.4	82825.51	50	103.1	89.5	110.5	
Zn	66	103	He	50.359	ug/l	1.3	16408.55	50	100.72	89.5	110.5	
As	75	103	He	50.668	ug/l	0.3	12209.12	50	101.34	89.5	110.5	
Se	78	115	H2	52.559	ug/l	0.3	6493.85	50	105.12	89.5	110.5	
Sr	88	103	He	52.713	ug/l	0.7	79636.42	50	105.43	89.5	110.5	
Mo	95	103	He	52.605	ug/l	1.2	48691.15	50	105.21	89.5	110.5	
Ag	107	103	He	52.896	ug/l	0.6	165754.92	50	105.79	89.5	110.5	
Cd	111	115	He	54.135	ug/l	1.1	27448.65	50	108.27	89.5	110.5	
Sn	118	115	He	56.217	ug/l	0.7	67040.75	50	112.43	89.5	110.5	CCV Failed
Sb	123	115	He	53.708	ug/l	1.9	67802.62	50	107.42	89.5	110.5	
Ba	137	115	He	54.363	ug/l	0.4	33155.36	50	108.73	89.5	110.5	
W	182	159	He	53.795	ug/l	1.4	149957.39	50	107.59	89.5	110.5	
Tl	205	165	He	53.864	ug/l	1.2	341092.24	50	107.73	89.5	110.5	
Pb	208	165	He	53.218	ug/l	0.8	458149.87	50	106.44	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1221318.21	0.7	1444414.16	84.55	59.5	120.4	
Sc	45	No Gas	7578505.53	0.9	9012307.42	84.09	59.5	120.4	
Sc	45	H2	5073533.67	0.9	6064886.67	83.65	59.5	120.4	
Sc	45	He	716361.03	0.3	842862.48	84.99	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2143111.75	0.6	2508597.67	85.43	59.5	120.4	
Rh	103	He	4110384.70	0.4	4686316.76	87.71	59.5	120.4	
In	115	H2	6215351.33	0.6	7115626.5	87.35	59.5	120.4	
In	115	He	2320255.72	0.8	2641648.07	87.83	59.5	120.4	
Tb	159	He	5810684.49	0.2	6439806.69	90.23	59.5	120.4	
Ho	165	He	6114462.68	0.7	6662050.43	91.78	59.5	120.4	
Bi	209	He	3858757.48	0.6	4322541.5	89.27	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	092_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:13:06
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	1.368	ug/l	20.8	74706.73	8	
Be	9	45	No Gas	0.176	ug/l	16.2	176.67	1	
B	11	45	No Gas	12.688	ug/l	5.4	13672.06	20	
Na	23	45	He	48.096	ug/l	6.6	26968.45	1000	
Mg	24	45	He	2.659	ug/l	55.2	703.36	1000	
Al	27	45	He	1.849	ug/l	63.8	276.67	50	
K	39	45	He	37.722	ug/l	49.5	65053.32	1000	
Ca	44	45	He	10.573	ug/l	176.6	529.43	1000	
Ti	47	45	He	0.029	ug/l	546.2	6.67	20	
V	51	45	He	0.202	ug/l	76.9	462.96	2	
Cr	52	45	He	0.129	ug/l	76.6	2504.69	2	
Mn	55	45	He	0.321	ug/l	9.1	627.80	5	
Fe	56	103	H2	13.576	ug/l	1.7	63426.52	50	
Co	59	103	He	0.076	ug/l	37.4	245.56	1	
Ni	60	103	He	0.010	ug/l	348.9	198.89	2	
Cu	63	103	He	0.106	ug/l	37.0	777.81	2	
Zn	66	103	He	2.652	ug/l	13.4	2918.11	20	
As	75	103	He	0.022	ug/l	1900.8	92.05	2	
Se	78	115	H2	0.106	ug/l	30.4	21.33	2	
Sr	88	103	He	0.080	ug/l	43.2	231.12	10	
Mo	95	103	He	0.067	ug/l	7.9	108.89	10	
Ag	107	103	He	0.010	ug/l	43.7	83.33	0.2	
Cd	111	115	He	0.083	ug/l	24.7	52.21	1	
Sn	118	115	He	0.612	ug/l	6.3	1037.83	100	
Sb	123	115	He	0.208	ug/l	23.8	303.34	1	
Ba	137	115	He	0.125	ug/l	50.6	92.22	5	
W	182	159	He	0.165	ug/l	144.4	7816.87	10	
Tl	205	165	He	0.187	ug/l	11.4	1401.21	0.5	
Pb	208	165	He	0.145	ug/l	15.4	1980.08	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1229736.19	1.0	1444414.16	85.14	59.5	120.4	
Sc	45	No Gas	7549475.25	1.1	9012307.42	83.77	59.5	120.4	
Sc	45	H2	5055008.00	0.5	6064886.67	83.35	59.5	120.4	
Sc	45	He	710295.20	0.6	842862.48	84.27	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2172299.58	0.9	2508597.67	86.59	59.5	120.4	
Rh	103	He	4228491.91	0.5	4686316.76	90.23	59.5	120.4	
In	115	H2	6336808.17	0.5	7115626.5	89.05	59.5	120.4	
In	115	He	2327337.85	0.8	2641648.07	88.1	59.5	120.4	
Tb	159	He	5784740.88	0.2	6439806.69	89.83	59.5	120.4	
Ho	165	He	6109691.01	0.9	6662050.43	91.71	59.5	120.4	
Bi	209	He	3921814.71	0.9	4322541.5	90.73	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	093_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:15:37
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	54.324	ug/l	0.5	185858.29	50	108.65	89.5	110.5	
Be	9	45	No Gas	53.025	ug/l	0.5	41936.51	50	106.05	89.5	110.5	
B	11	45	No Gas	113.930	ug/l	0.7	59228.28	100	113.93	89.5	110.5	CCV Failed
Na	23	45	He	27565.815	ug/l	2.2	4840469.25	25000	110.26	89.5	110.5	
Mg	24	45	He	27511.508	ug/l	2.3	2727030.17	25000	110.05	89.5	110.5	
Al	27	45	He	27203.212	ug/l	1.5	1342088.25	25000	108.81	89.5	110.5	
K	39	45	He	27667.972	ug/l	1.4	3003650.16	25000	110.67	89.5	110.5	CCV Failed
Ca	44	45	He	27437.809	ug/l	1.1	75061.00	25000	109.75	89.5	110.5	
Ti	47	45	He	53.133	ug/l	6.6	1923.49	50	106.27	89.5	110.5	
V	51	45	He	54.765	ug/l	0.5	58894.14	50	109.53	89.5	110.5	
Cr	52	45	He	54.700	ug/l	0.7	72648.72	50	109.4	89.5	110.5	
Mn	55	45	He	54.815	ug/l	1.2	46005.44	50	109.63	89.5	110.5	
Fe	56	103	H2	25791.888	ug/l	0.4	86052792.05	25000	103.17	89.5	110.5	
Co	59	103	He	50.510	ug/l	1.6	112601.45	50	101.02	89.5	110.5	
Ni	60	103	He	50.300	ug/l	0.9	29952.92	50	100.6	89.5	110.5	
Cu	63	103	He	51.306	ug/l	1.4	82230.95	50	102.61	89.5	110.5	
Zn	66	103	He	49.886	ug/l	2.4	16232.85	50	99.77	89.5	110.5	
As	75	103	He	51.036	ug/l	2.4	12266.37	50	102.07	89.5	110.5	
Se	78	115	H2	53.327	ug/l	1.3	6531.87	50	106.65	89.5	110.5	
Sr	88	103	He	52.728	ug/l	1.0	79460.04	50	105.46	89.5	110.5	
Mo	95	103	He	52.271	ug/l	1.0	48262.85	50	104.54	89.5	110.5	
Ag	107	103	He	52.496	ug/l	0.8	164098.99	50	104.99	89.5	110.5	
Cd	111	115	He	54.136	ug/l	1.6	27041.26	50	108.27	89.5	110.5	
Sn	118	115	He	54.643	ug/l	1.5	64205.91	50	109.29	89.5	110.5	
Sb	123	115	He	54.289	ug/l	0.9	67522.45	50	108.58	89.5	110.5	
Ba	137	115	He	53.581	ug/l	0.2	32196.30	50	107.16	89.5	110.5	
W	182	159	He	53.791	ug/l	1.5	149339.52	50	107.58	89.5	110.5	
Tl	205	165	He	53.676	ug/l	0.7	337056.18	50	107.35	89.5	110.5	
Pb	208	165	He	53.741	ug/l	0.6	458772.33	50	107.48	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1214195.16	0.8	1444414.16	84.06	59.5	120.4	
Sc	45	No Gas	7524068.87	1.0	9012307.42	83.49	59.5	120.4	
Sc	45	H2	5018431.67	1.0	6064886.67	82.75	59.5	120.4	
Sc	45	He	708670.39	0.1	842862.48	84.08	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2129669.92	0.2	2508597.67	84.89	59.5	120.4	
Rh	103	He	4100299.28	0.6	4686316.76	87.5	59.5	120.4	
In	115	H2	6161936.67	1.0	7115626.5	86.6	59.5	120.4	
In	115	He	2286004.42	1.7	2641648.07	86.54	59.5	120.4	
Tb	159	He	5787305.46	0.6	6439806.69	89.87	59.5	120.4	
Ho	165	He	6063041.43	0.3	6662050.43	91.01	59.5	120.4	
Bi	209	He	3890232.90	0.4	4322541.5	90	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	094_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:18:03
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.970	ug/l	28.7	73913.75	8	
Be	9	45	No Gas	0.100	ug/l	36.3	116.67	1	
B	11	45	No Gas	10.772	ug/l	6.1	12814.60	20	
Na	23	45	He	41.358	ug/l	8.0	25721.72	1000	
Mg	24	45	He	2.734	ug/l	11.1	708.92	1000	
Al	27	45	He	2.159	ug/l	46.1	291.12	50	
K	39	45	He	33.572	ug/l	47.0	64446.02	1000	
Ca	44	45	He	15.919	ug/l	69.0	542.32	1000	
Ti	47	45	He	-0.002	ug/l	N/A	5.56	20	
V	51	45	He	0.271	ug/l	69.0	535.15	2	
Cr	52	45	He	0.162	ug/l	19.5	2540.26	2	
Mn	55	45	He	0.222	ug/l	46.8	543.35	5	
Fe	56	103	H2	11.631	ug/l	0.5	57022.63	50	
Co	59	103	He	0.048	ug/l	25.4	178.89	1	
Ni	60	103	He	0.049	ug/l	140.1	220.01	2	
Cu	63	103	He	0.077	ug/l	14.3	723.36	2	
Zn	66	103	He	2.726	ug/l	2.8	2911.44	20	
As	75	103	He	0.278	ug/l	39.1	153.34	2	
Se	78	115	H2	0.043	ug/l	73.4	13.33	2	
Sr	88	103	He	0.066	ug/l	50.1	207.78	10	
Mo	95	103	He	0.033	ug/l	104.4	75.56	10	
Ag	107	103	He	0.016	ug/l	82.4	101.11	0.2	
Cd	111	115	He	0.048	ug/l	40.8	34.44	1	
Sn	118	115	He	0.231	ug/l	17.5	586.69	100	
Sb	123	115	He	0.170	ug/l	25.3	255.56	1	
Ba	137	115	He	0.115	ug/l	19.4	86.67	5	
W	182	159	He	0.106	ug/l	77.8	7726.83	10	
Tl	205	165	He	0.110	ug/l	11.8	912.27	0.5	
Pb	208	165	He	0.105	ug/l	9.4	1636.73	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1218669.02	0.4	1444414.16	84.37	59.5	120.4	
Sc	45	No Gas	7553656.37	0.5	9012307.42	83.81	59.5	120.4	
Sc	45	H2	5044175.00	1.2	6064886.67	83.17	59.5	120.4	
Sc	45	He	708499.50	0.8	842862.48	84.06	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2180258.92	0.9	2508597.67	86.91	59.5	120.4	
Rh	103	He	4187752.75	0.5	4686316.76	89.36	59.5	120.4	
In	115	H2	6273170.67	0.7	7115626.5	88.16	59.5	120.4	
In	115	He	2340273.25	0.9	2641648.07	88.59	59.5	120.4	
Tb	159	He	5836116.44	0.7	6439806.69	90.63	59.5	120.4	
Ho	165	He	6107599.90	0.5	6662050.43	91.68	59.5	120.4	
Bi	209	He	3942207.07	1.3	4322541.5	91.2	59.5	120.4	

Continuing Calibration Verification (CCVL) Report

Sample Name	CCVL-4781477
File Name	095CCVL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:20:34
Sample Type	CCVL
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	9.424	ug/l	3.6	90821.03	8	117.8	69.5	130.5	
Be	9	45	No Gas	1.153	ug/l	2.1	942.26	1	115.3	69.5	130.5	
B	11	45	No Gas	28.633	ug/l	0.3	20676.89	20	143.16	69.5	130.5	CCVL Warning
Na	23	45	He	1047.182	ug/l	1.0	200385.95	1000	104.72	69.5	130.5	
Mg	24	45	He	1049.208	ug/l	0.5	103760.33	1000	104.92	69.5	130.5	
Al	27	45	He	52.027	ug/l	4.5	2733.62	50	104.05	69.5	130.5	
K	39	45	He	1128.820	ug/l	1.5	179798.50	1000	112.88	69.5	130.5	
Ca	44	45	He	1096.019	ug/l	1.2	3455.79	1000	109.6	69.5	130.5	
Ti	47	45	He	10.221	ug/l	6.3	372.23	10	102.21	69.5	130.5	
V	51	45	He	5.769	ug/l	4.8	6380.31	5	115.38	69.5	130.5	
Cr	52	45	He	2.389	ug/l	2.8	5368.84	2	119.45	69.5	130.5	
Mn	55	45	He	5.522	ug/l	3.4	4925.36	5	110.44	69.5	130.5	
Fe	56	103	H2	110.640	ug/l	0.6	392019.46	100	110.64	69.5	130.5	
Co	59	103	He	1.022	ug/l	3.7	2386.90	1	102.2	69.5	130.5	
Ni	60	103	He	2.057	ug/l	12.8	1427.87	2	102.85	69.5	130.5	
Cu	63	103	He	2.072	ug/l	3.2	3950.60	2	103.6	69.5	130.5	
Zn	66	103	He	15.834	ug/l	3.1	6686.10	20	79.17	69.5	130.5	
As	75	103	He	4.887	ug/l	6.2	1272.11	5	97.74	69.5	130.5	
Se	78	115	H2	5.156	ug/l	2.7	649.35	5	103.12	69.5	130.5	
Sr	88	103	He	10.107	ug/l	2.0	15582.20	10	101.07	69.5	130.5	
Mo	95	103	He	5.053	ug/l	2.9	4787.54	5	101.06	69.5	130.5	
Ag	107	103	He	1.078	ug/l	1.3	3478.26	1	107.8	69.5	130.5	
Cd	111	115	He	1.094	ug/l	8.0	570.80	1	109.4	69.5	130.5	
Sn	118	115	He	10.823	ug/l	1.7	13308.82	10	108.23	69.5	130.5	
Sb	123	115	He	2.327	ug/l	4.8	3010.37	2	116.35	69.5	130.5	
Ba	137	115	He	5.344	ug/l	2.1	3311.55	5	106.88	69.5	130.5	
W	182	159	He	10.694	ug/l	2.4	35512.56	10	106.94	69.5	130.5	
Tl	205	165	He	1.128	ug/l	1.0	7356.62	1	112.8	69.5	130.5	
Pb	208	165	He	1.112	ug/l	3.0	10288.42	1	111.2	69.5	130.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1228903.81	0.6	1444414.16	85.08	59.5	120.4	
Sc	45	No Gas	7476119.70	0.6	9012307.42	82.95	59.5	120.4	
Sc	45	H2	5009404.17	1.3	6064886.67	82.6	59.5	120.4	
Sc	45	He	704165.37	0.8	842862.48	83.54	59.5	120.4	

Continuing Calibration Verification (CCVL) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2163041.58	0.5	2508597.67	86.23	59.5	120.4	
Rh	103	He	4172205.81	0.7	4686316.76	89.03	59.5	120.4	
In	115	H2	6264762.33	0.7	7115626.5	88.04	59.5	120.4	
In	115	He	2347199.80	0.2	2641648.07	88.85	59.5	120.4	
Tb	159	He	5772539.49	0.8	6439806.69	89.64	59.5	120.4	
Ho	165	He	6112938.78	0.5	6662050.43	91.76	59.5	120.4	
Bi	209	He	3958804.84	1.1	4322541.5	91.59	59.5	120.4	

Sample Report

Sample Name	190-23801-d-1-a
File Name	096SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:23:05
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	33.914	ug/l	2.2	142251.84	10000	
Be	9	45	No Gas	0.077	ug/l	46.2	97.78	2000	
B	11	45	No Gas	518.246	ug/l	0.1	240216.39	500	LDR Warning
Na	23	45	He	125648.136	ug/l	0.5	21870273.02	3000000	
Mg	24	45	He	44507.103	ug/l	0.5	4386107.60	3000000	
Al	27	45	He	12.824	ug/l	14.4	812.25	500000	
K	39	45	He	15552.250	ug/l	1.3	1705181.18	3000000	
Ca	44	45	He	158550.935	ug/l	1.0	428898.30	3000000	
Ti	47	45	He	0.403	ug/l	24.3	20.00	10000	
V	51	45	He	0.279	ug/l	71.2	541.50	20000	
Cr	52	45	He	1.472	ug/l	11.0	4201.78	10000	
Mn	55	45	He	634.915	ug/l	0.7	526010.24	20000	
Fe	56	103	H2	4266.674	ug/l	0.5	13750446.46	500000	
Co	59	103	He	2.210	ug/l	2.8	4899.79	20000	
Ni	60	103	He	17.294	ug/l	1.3	10232.67	20000	
Cu	63	103	He	0.778	ug/l	10.8	1790.13	20000	
Zn	66	103	He	399.450	ug/l	0.9	113340.16	20000	
As	75	103	He	0.636	ug/l	32.4	231.30	20000	
Se	78	115	H2	0.216	ug/l	11.8	34.00	10000	
Sr	88	103	He	906.648	ug/l	0.9	1339900.50	20000	
Mo	95	103	He	2.356	ug/l	4.7	2176.87	10000	
Ag	107	103	He	0.007	ug/l	64.0	68.89	100	
Cd	111	115	He	0.294	ug/l	6.3	156.52	5000	
Sn	118	115	He	0.125	ug/l	12.2	451.12	10000	
Sb	123	115	He	0.116	ug/l	10.6	183.34	200	
Ba	137	115	He	132.073	ug/l	1.1	79490.86	20000	
W	182	159	He	0.134	ug/l	107.4	7650.09	10000	
Tl	205	165	He	0.063	ug/l	16.5	612.25	2000	
Pb	208	165	He	0.128	ug/l	1.0	1823.41	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1173974.05	1.0	1444414.16	81.28	59.5	120.4	
Sc	45	No Gas	7489081.93	1.3	9012307.42	83.1	59.5	120.4	
Sc	45	H2	4839169.67	1.3	6064886.67	79.79	59.5	120.4	
Sc	45	He	704583.69	0.9	842862.48	83.59	59.5	120.4	
Rh	103	H2	2055077.25	0.4	2508597.67	81.92	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4025942.34	0.5	4686316.76	85.91	59.5	120.4	
In	115	H2	6128979.67	0.3	7115626.5	86.13	59.5	120.4	
In	115	He	2290446.38	0.8	2641648.07	86.71	59.5	120.4	
Tb	159	He	5721746.99	0.7	6439806.69	88.85	59.5	120.4	
Ho	165	He	6064587.40	0.9	6662050.43	91.03	59.5	120.4	
Bi	209	He	3801345.40	2.1	4322541.5	87.94	59.5	120.4	

Sample Report

Sample Name	190-23801-d-2-a
File Name	097SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:25:36
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	23.065	ug/l	1.9	116884.08	10000	
Be	9	45	No Gas	0.060	ug/l	28.1	82.22	2000	
B	11	45	No Gas	272.454	ug/l	1.1	127131.67	500	
Na	23	45	He	58967.815	ug/l	1.3	10112369.04	3000000	
Mg	24	45	He	50950.347	ug/l	0.9	4941786.06	3000000	
Al	27	45	He	7.876	ug/l	1.6	561.14	500000	
K	39	45	He	14246.058	ug/l	0.9	1542211.12	3000000	
Ca	44	45	He	178207.327	ug/l	0.6	474351.53	3000000	
Ti	47	45	He	0.504	ug/l	36.0	23.33	10000	
V	51	45	He	0.239	ug/l	85.1	488.84	20000	
Cr	52	45	He	-0.207	ug/l	N/A	2021.28	10000	
Mn	55	45	He	472.597	ug/l	1.2	385433.08	20000	
Fe	56	103	H2	5793.220	ug/l	2.0	18682624.72	500000	
Co	59	103	He	0.959	ug/l	4.4	2146.86	20000	
Ni	60	103	He	13.552	ug/l	2.6	7994.58	20000	
Cu	63	103	He	0.206	ug/l	3.9	888.93	20000	
Zn	66	103	He	38.101	ug/l	6.0	12555.69	20000	
As	75	103	He	4.162	ug/l	9.4	1049.68	20000	
Se	78	115	H2	0.369	ug/l	22.3	52.33	10000	
Sr	88	103	He	972.159	ug/l	2.0	1425423.10	20000	
Mo	95	103	He	2.919	ug/l	2.7	2665.84	10000	
Ag	107	103	He	0.004	ug/l	123.9	60.00	100	
Cd	111	115	He	0.021	ug/l	86.9	19.81	5000	
Sn	118	115	He	0.027	ug/l	39.9	334.45	10000	
Sb	123	115	He	0.060	ug/l	9.6	112.23	200	
Ba	137	115	He	194.945	ug/l	1.0	116778.13	20000	
W	182	159	He	-0.010	ug/l	N/A	7252.07	10000	
Tl	205	165	He	0.043	ug/l	26.2	477.80	2000	
Pb	208	165	He	0.110	ug/l	15.2	1644.51	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1180677.10	0.3	1444414.16	81.74	59.5	120.4	
Sc	45	No Gas	7322794.99	0.5	9012307.42	81.25	59.5	120.4	
Sc	45	H2	4796062.67	0.6	6064886.67	79.08	59.5	120.4	
Sc	45	He	693458.48	1.1	842862.48	82.27	59.5	120.4	
Rh	103	H2	2057470.25	1.8	2508597.67	82.02	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3994382.48	0.2	4686316.76	85.24	59.5	120.4	
In	115	H2	6096479.00	1.1	7115626.5	85.68	59.5	120.4	
In	115	He	2279955.48	1.8	2641648.07	86.31	59.5	120.4	
Tb	159	He	5703794.49	0.4	6439806.69	88.57	59.5	120.4	
Ho	165	He	5998851.01	1.8	6662050.43	90.05	59.5	120.4	
Bi	209	He	3782897.63	1.1	4322541.5	87.52	59.5	120.4	

Sample Report

Sample Name	190-23801-d-3-a
File Name	098SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:28:05
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	3.233	ug/l	6.6	77337.83	10000	
Be	9	45	No Gas	0.068	ug/l	12.7	90.00	2000	
B	11	45	No Gas	124.842	ug/l	1.6	63289.50	500	
Na	23	45	He	16644.629	ug/l	1.6	2877999.47	3000000	
Mg	24	45	He	33548.612	ug/l	0.7	3266453.14	3000000	
Al	27	45	He	14.160	ug/l	4.4	867.82	500000	
K	39	45	He	2805.187	ug/l	1.2	352881.39	3000000	
Ca	44	45	He	122349.859	ug/l	0.6	327089.59	3000000	
Ti	47	45	He	0.472	ug/l	12.1	22.22	10000	
V	51	45	He	0.051	ug/l	255.7	294.26	20000	
Cr	52	45	He	-0.109	ug/l	N/A	2153.52	10000	
Mn	55	45	He	181.788	ug/l	1.2	149047.16	20000	
Fe	56	103	H2	4162.067	ug/l	1.4	13652255.63	500000	
Co	59	103	He	0.729	ug/l	2.1	1664.56	20000	
Ni	60	103	He	1.797	ug/l	10.4	1230.07	20000	
Cu	63	103	He	0.707	ug/l	10.8	1682.35	20000	
Zn	66	103	He	4.883	ug/l	3.8	3406.01	20000	
As	75	103	He	4.158	ug/l	6.9	1058.44	20000	
Se	78	115	H2	0.054	ug/l	78.1	14.33	10000	
Sr	88	103	He	330.802	ug/l	0.9	489808.59	20000	
Mo	95	103	He	1.398	ug/l	7.3	1311.20	10000	
Ag	107	103	He	0.000	ug/l	8233.3	48.89	100	
Cd	111	115	He	0.021	ug/l	56.9	19.90	5000	
Sn	118	115	He	0.059	ug/l	80.1	372.23	10000	
Sb	123	115	He	0.047	ug/l	23.0	96.67	200	
Ba	137	115	He	70.408	ug/l	1.5	42318.61	20000	
W	182	159	He	0.079	ug/l	200.6	7405.51	10000	
Tl	205	165	He	0.040	ug/l	12.2	461.13	2000	
Pb	208	165	He	0.151	ug/l	5.7	2000.08	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1186756.52	2.8	1444414.16	82.16	59.5	120.4	
Sc	45	No Gas	7423747.20	0.2	9012307.42	82.37	59.5	120.4	
Sc	45	H2	4751296.67	0.7	6064886.67	78.34	59.5	120.4	
Sc	45	He	696110.82	0.5	842862.48	82.59	59.5	120.4	
Rh	103	H2	2091894.37	1.5	2508597.67	83.39	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4033021.92	0.6	4686316.76	86.06	59.5	120.4	
In	115	H2	6118261.67	1.1	7115626.5	85.98	59.5	120.4	
In	115	He	2286790.61	0.5	2641648.07	86.57	59.5	120.4	
Tb	159	He	5647190.47	1.3	6439806.69	87.69	59.5	120.4	
Ho	165	He	6012343.09	0.5	6662050.43	90.25	59.5	120.4	
Bi	209	He	3857427.62	0.9	4322541.5	89.24	59.5	120.4	

Sample Report

Sample Name	190-23801-d-4-a
File Name	099SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:30:38
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	1.919	ug/l	16.9	73133.30	10000	
Be	9	45	No Gas	0.062	ug/l	55.2	83.33	2000	
B	11	45	No Gas	262.333	ug/l	0.7	121931.85	500	
Na	23	45	He	17916.939	ug/l	0.9	3077560.78	3000000	
Mg	24	45	He	27647.482	ug/l	1.2	2675236.98	3000000	
Al	27	45	He	19.171	ug/l	11.5	1103.39	500000	
K	39	45	He	5016.482	ug/l	0.6	580266.47	3000000	
Ca	44	45	He	194629.221	ug/l	3.3	516779.26	3000000	
Ti	47	45	He	0.664	ug/l	65.4	28.89	10000	
V	51	45	He	0.390	ug/l	41.4	646.99	20000	
Cr	52	45	He	3.158	ug/l	3.4	6240.32	10000	
Mn	55	45	He	2311.727	ug/l	1.7	1879551.04	20000	
Fe	56	103	H2	7863.001	ug/l	1.3	25294454.62	500000	
Co	59	103	He	3.624	ug/l	0.6	7898.95	20000	
Ni	60	103	He	23.911	ug/l	1.5	13909.16	20000	
Cu	63	103	He	1.444	ug/l	2.9	2798.08	20000	
Zn	66	103	He	34.735	ug/l	3.8	11577.06	20000	
As	75	103	He	2.657	ug/l	9.5	696.87	20000	
Se	78	115	H2	0.256	ug/l	38.0	38.67	10000	
Sr	88	103	He	11680.198	ug/l	0.5	17055739.88	20000	
Mo	95	103	He	6.279	ug/l	1.6	5662.32	10000	
Ag	107	103	He	0.013	ug/l	46.0	88.89	100	
Cd	111	115	He	0.218	ug/l	13.8	118.50	5000	
Sn	118	115	He	0.102	ug/l	25.4	423.35	10000	
Sb	123	115	He	0.090	ug/l	14.3	150.00	200	
Ba	137	115	He	133.049	ug/l	1.0	79965.88	20000	
W	182	159	He	0.033	ug/l	247.6	7349.90	10000	
Tl	205	165	He	0.102	ug/l	5.2	846.71	2000	
Pb	208	165	He	0.166	ug/l	4.3	2113.43	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1187975.15	0.2	1444414.16	82.25	59.5	120.4	
Sc	45	No Gas	7277355.54	1.3	9012307.42	80.75	59.5	120.4	
Sc	45	H2	4763727.83	0.5	6064886.67	78.55	59.5	120.4	
Sc	45	He	691776.67	0.5	842862.48	82.07	59.5	120.4	
Rh	103	H2	2052689.42	1.4	2508597.67	81.83	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3978123.31	0.7	4686316.76	84.89	59.5	120.4	
In	115	H2	6099124.17	1.4	7115626.5	85.71	59.5	120.4	
In	115	He	2287075.75	0.6	2641648.07	86.58	59.5	120.4	
Tb	159	He	5694939.36	0.7	6439806.69	88.43	59.5	120.4	
Ho	165	He	5981337.82	1.0	6662050.43	89.78	59.5	120.4	
Bi	209	He	3849311.93	0.5	4322541.5	89.05	59.5	120.4	

Sample Report

Sample Name	190-23801-d-5-a
File Name	100SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:33:07
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	3.701	ug/l	12.6	76710.10	10000	
Be	9	45	No Gas	0.037	ug/l	45.5	64.44	2000	
B	11	45	No Gas	89.225	ug/l	2.1	46491.49	500	
Na	23	45	He	19150.281	ug/l	1.0	3281731.05	3000000	
Mg	24	45	He	30747.017	ug/l	1.2	2969210.30	3000000	
Al	27	45	He	75.084	ug/l	8.4	3788.46	500000	
K	39	45	He	2751.542	ug/l	1.2	344452.47	3000000	
Ca	44	45	He	111424.632	ug/l	1.2	295492.75	3000000	
Ti	47	45	He	3.287	ug/l	18.8	121.11	10000	
V	51	45	He	0.183	ug/l	113.7	429.82	20000	
Cr	52	45	He	-0.203	ug/l	N/A	2017.95	10000	
Mn	55	45	He	516.937	ug/l	0.6	419755.28	20000	
Fe	56	103	H2	1090.071	ug/l	0.8	3622341.09	500000	
Co	59	103	He	0.347	ug/l	3.9	815.59	20000	
Ni	60	103	He	10.662	ug/l	2.4	6297.03	20000	
Cu	63	103	He	0.890	ug/l	7.5	1939.05	20000	
Zn	66	103	He	1.157	ug/l	21.2	2331.33	20000	
As	75	103	He	1.879	ug/l	13.5	516.15	20000	
Se	78	115	H2	0.054	ug/l	39.0	14.33	10000	
Sr	88	103	He	142.707	ug/l	1.2	208283.26	20000	
Mo	95	103	He	2.392	ug/l	4.3	2181.31	10000	
Ag	107	103	He	0.002	ug/l	161.3	53.33	100	
Cd	111	115	He	0.020	ug/l	89.4	19.85	5000	
Sn	118	115	He	0.043	ug/l	60.7	357.79	10000	
Sb	123	115	He	0.024	ug/l	54.5	68.89	200	
Ba	137	115	He	33.307	ug/l	2.5	20278.74	20000	
W	182	159	He	0.023	ug/l	382.5	7305.43	10000	
Tl	205	165	He	0.108	ug/l	4.2	888.93	2000	
Pb	208	165	He	0.133	ug/l	5.1	1850.08	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1194354.70	1.7	1444414.16	82.69	59.5	120.4	
Sc	45	No Gas	7272979.99	1.4	9012307.42	80.7	59.5	120.4	
Sc	45	H2	4775960.33	0.7	6064886.67	78.75	59.5	120.4	
Sc	45	He	690447.65	0.6	842862.48	81.92	59.5	120.4	
Rh	103	H2	2111684.58	0.4	2508597.67	84.18	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3974300.95	0.7	4686316.76	84.81	59.5	120.4	
In	115	H2	6128671.67	0.6	7115626.5	86.13	59.5	120.4	
In	115	He	2316140.48	1.8	2641648.07	87.68	59.5	120.4	
Tb	159	He	5679947.55	0.2	6439806.69	88.2	59.5	120.4	
Ho	165	He	6028354.34	1.2	6662050.43	90.49	59.5	120.4	
Bi	209	He	3843531.10	0.4	4322541.5	88.92	59.5	120.4	

Sample Report

Sample Name	190-23801-d-6-a
File Name	101SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:35:39
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	3.875	ug/l	13.1	76414.07	10000	
Be	9	45	No Gas	0.038	ug/l	35.1	64.44	2000	
B	11	45	No Gas	87.359	ug/l	1.4	45293.36	500	
Na	23	45	He	19076.155	ug/l	0.3	3288744.73	3000000	
Mg	24	45	He	30762.086	ug/l	0.5	2988663.63	3000000	
Al	27	45	He	93.476	ug/l	0.8	4700.81	500000	
K	39	45	He	2717.527	ug/l	1.3	342970.95	3000000	
Ca	44	45	He	111073.686	ug/l	0.6	296335.40	3000000	
Ti	47	45	He	3.899	ug/l	31.7	143.33	10000	
V	51	45	He	0.286	ug/l	87.0	542.63	20000	
Cr	52	45	He	-0.067	ug/l	N/A	2201.31	10000	
Mn	55	45	He	519.799	ug/l	0.6	424608.87	20000	
Fe	56	103	H2	1159.283	ug/l	0.9	3779105.15	500000	
Co	59	103	He	0.365	ug/l	8.0	855.59	20000	
Ni	60	103	He	10.766	ug/l	1.4	6359.28	20000	
Cu	63	103	He	1.064	ug/l	1.6	2209.09	20000	
Zn	66	103	He	2.859	ug/l	15.7	2800.31	20000	
As	75	103	He	2.062	ug/l	9.6	558.36	20000	
Se	78	115	H2	0.031	ug/l	64.6	11.33	10000	
Sr	88	103	He	142.302	ug/l	1.3	207789.48	20000	
Mo	95	103	He	2.409	ug/l	3.3	2197.98	10000	
Ag	107	103	He	0.001	ug/l	273.6	51.11	100	
Cd	111	115	He	0.040	ug/l	87.2	29.84	5000	
Sn	118	115	He	0.047	ug/l	78.6	360.01	10000	
Sb	123	115	He	0.022	ug/l	78.1	66.67	200	
Ba	137	115	He	33.156	ug/l	2.0	20019.45	20000	
W	182	159	He	0.039	ug/l	194.1	7254.30	10000	
Tl	205	165	He	0.111	ug/l	6.0	896.71	2000	
Pb	208	165	He	0.201	ug/l	1.8	2404.56	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1178530.26	0.9	1444414.16	81.59	59.5	120.4	
Sc	45	No Gas	7211234.72	0.7	9012307.42	80.02	59.5	120.4	
Sc	45	H2	4722957.50	0.2	6064886.67	77.87	59.5	120.4	
Sc	45	He	694601.38	1.2	842862.48	82.41	59.5	120.4	
Rh	103	H2	2072210.79	1.0	2508597.67	82.6	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3976175.40	0.9	4686316.76	84.85	59.5	120.4	
In	115	H2	6021985.83	1.2	7115626.5	84.63	59.5	120.4	
In	115	He	2296321.00	1.0	2641648.07	86.93	59.5	120.4	
Tb	159	He	5609397.42	1.3	6439806.69	87.11	59.5	120.4	
Ho	165	He	5958457.96	1.0	6662050.43	89.44	59.5	120.4	
Bi	209	He	3823451.93	0.7	4322541.5	88.45	59.5	120.4	

Sample Report

Sample Name	240-134847-d-3-a
File Name	102SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:38:12
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	-0.355	ug/l	N/A	68046.88	10000	
Be	9	45	No Gas	0.058	ug/l	8.1	80.00	2000	
B	11	45	No Gas	34.031	ug/l	1.0	22326.02	500	
Na	23	45	He	968.420	ug/l	0.4	183556.38	3000000	
Mg	24	45	He	23.250	ug/l	2.5	2679.16	3000000	
Al	27	45	He	3.677	ug/l	40.2	357.79	500000	
K	39	45	He	145.702	ug/l	11.0	74632.50	3000000	
Ca	44	45	He	98.007	ug/l	10.7	748.01	3000000	
Ti	47	45	He	-0.060	ug/l	N/A	3.33	10000	
V	51	45	He	0.162	ug/l	118.9	408.74	20000	
Cr	52	45	He	-0.251	ug/l	N/A	1963.49	10000	
Mn	55	45	He	0.966	ug/l	6.2	1136.73	20000	
Fe	56	103	H2	27.575	ug/l	3.3	108778.40	500000	
Co	59	103	He	0.028	ug/l	30.1	131.11	20000	
Ni	60	103	He	0.016	ug/l	78.9	196.67	20000	
Cu	63	103	He	0.103	ug/l	9.4	751.14	20000	
Zn	66	103	He	1.031	ug/l	13.1	2375.78	20000	
As	75	103	He	-0.081	ug/l	N/A	64.78	20000	
Se	78	115	H2	-0.003	ug/l	N/A	7.33	10000	
Sr	88	103	He	0.423	ug/l	4.6	742.25	20000	
Mo	95	103	He	-0.010	ug/l	N/A	34.45	10000	
Ag	107	103	He	0.002	ug/l	168.9	55.56	100	
Cd	111	115	He	0.016	ug/l	119.2	17.78	5000	
Sn	118	115	He	0.110	ug/l	20.7	435.57	10000	
Sb	123	115	He	0.004	ug/l	592.1	43.33	200	
Ba	137	115	He	0.161	ug/l	13.9	113.34	20000	
W	182	159	He	0.071	ug/l	167.8	7404.38	10000	
Tl	205	165	He	0.018	ug/l	20.7	323.34	2000	
Pb	208	165	He	0.117	ug/l	1.7	1702.29	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1200257.78	0.5	1444414.16	83.1	59.5	120.4	
Sc	45	No Gas	7227730.55	0.3	9012307.42	80.2	59.5	120.4	
Sc	45	H2	4885024.00	0.7	6064886.67	80.55	59.5	120.4	
Sc	45	He	692307.53	0.7	842862.48	82.14	59.5	120.4	
Rh	103	H2	2127968.08	1.1	2508597.67	84.83	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4111405.81	1.1	4686316.76	87.73	59.5	120.4	
In	115	H2	6122996.50	0.4	7115626.5	86.05	59.5	120.4	
In	115	He	2304084.81	1.0	2641648.07	87.22	59.5	120.4	
Tb	159	He	5658478.25	0.7	6439806.69	87.87	59.5	120.4	
Ho	165	He	5984813.65	0.4	6662050.43	89.83	59.5	120.4	
Bi	209	He	3885592.90	0.8	4322541.5	89.89	59.5	120.4	

Sample Report

Sample Name	240-134754-a-1-a@5
File Name	103SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:40:43
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	4.362	ug/l	5.7	76273.51	10000	
Be	9	45	No Gas	0.176	ug/l	21.9	166.67	2000	
B	11	45	No Gas	158.000	ug/l	0.5	74687.42	500	
Na	23	45	He	26396.266	ug/l	0.7	4411068.71	3000000	
Mg	24	45	He	28596.896	ug/l	0.7	2697106.56	3000000	
Al	27	45	He	7756.454	ug/l	0.8	364236.22	500000	
K	39	45	He	26017.300	ug/l	2.3	2690754.20	3000000	
Ca	44	45	He	109229.796	ug/l	0.6	282912.59	3000000	
Ti	47	45	He	55.754	ug/l	2.6	1920.15	10000	
V	51	45	He	21.568	ug/l	6.5	22206.47	20000	
Cr	52	45	He	242.821	ug/l	1.6	299211.65	10000	
Mn	55	45	He	572.338	ug/l	1.2	453830.40	20000	
Fe	56	103	H2	153045.560	ug/l	1.1	478969392.86	500000	
Co	59	103	He	17.780	ug/l	1.1	38747.48	20000	
Ni	60	103	He	102.928	ug/l	1.3	59660.72	20000	
Cu	63	103	He	650.572	ug/l	0.3	1011568.29	20000	
Zn	66	103	He	1431.579	ug/l	0.3	398735.59	20000	
As	75	103	He	17.487	ug/l	2.5	4158.38	20000	
Se	78	115	H2	9.994	ug/l	2.6	1193.05	10000	
Sr	88	103	He	1357.447	ug/l	2.9	1994905.75	20000	
Mo	95	103	He	28.039	ug/l	1.5	25302.12	10000	
Ag	107	103	He	5.931	ug/l	0.8	18146.57	100	
Cd	111	115	He	2.023	ug/l	9.0	1014.94	5000	
Sn	118	115	He	64.764	ug/l	1.2	75712.38	10000	
Sb	123	115	He	11.484	ug/l	1.5	14252.03	200	
Ba	137	115	He	1162.678	ug/l	1.5	695222.47	20000	
W	182	159	He	7.059	ug/l	4.1	25794.46	10000	
Tl	205	165	He	0.122	ug/l	18.2	984.49	2000	
Pb	208	165	He	50.830	ug/l	0.5	435169.45	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1148249.96	0.2	1444414.16	79.5	59.5	120.4	
Sc	45	No Gas	7106335.00	0.7	9012307.42	78.85	59.5	120.4	
Sc	45	H2	4586224.00	0.7	6064886.67	75.62	59.5	120.4	
Sc	45	He	674308.74	0.5	842862.48	80	59.5	120.4	
Rh	103	H2	1998073.67	1.0	2508597.67	79.65	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4003970.40	0.6	4686316.76	85.44	59.5	120.4	
In	115	H2	5973894.67	0.6	7115626.5	83.95	59.5	120.4	
In	115	He	2276159.78	1.6	2641648.07	86.16	59.5	120.4	
Tb	159	He	5737883.38	0.7	6439806.69	89.1	59.5	120.4	
Ho	165	He	6080104.06	0.6	6662050.43	91.26	59.5	120.4	
Bi	209	He	4251120.53	1.5	4322541.5	98.35	59.5	120.4	

Sample Report

Sample Name	240-134754-a-2-a@5
File Name	104SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:43:18
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	3.324	ug/l	4.7	74406.29	10000	
Be	9	45	No Gas	0.137	ug/l	15.9	137.78	2000	
B	11	45	No Gas	134.409	ug/l	1.2	64820.76	500	
Na	23	45	He	25647.988	ug/l	1.6	4260969.55	3000000	
Mg	24	45	He	22517.551	ug/l	1.5	2111245.19	3000000	
Al	27	45	He	6584.346	ug/l	0.8	307393.87	500000	
K	39	45	He	19985.152	ug/l	0.6	2068250.54	3000000	
Ca	44	45	He	94297.964	ug/l	1.1	242862.49	3000000	
Ti	47	45	He	35.400	ug/l	7.8	1214.51	10000	
V	51	45	He	18.326	ug/l	3.4	18798.31	20000	
Cr	52	45	He	234.633	ug/l	0.3	287500.30	10000	
Mn	55	45	He	459.362	ug/l	1.1	362165.15	20000	
Fe	56	103	H2	116517.141	ug/l	0.7	372705101.11	500000	
Co	59	103	He	15.090	ug/l	1.4	33158.92	20000	
Ni	60	103	He	109.591	ug/l	1.8	64018.59	20000	
Cu	63	103	He	581.520	ug/l	1.1	911475.87	20000	
Zn	66	103	He	1309.086	ug/l	1.0	367700.39	20000	
As	75	103	He	14.161	ug/l	5.0	3409.55	20000	
Se	78	115	H2	8.929	ug/l	5.7	1088.71	10000	
Sr	88	103	He	1073.361	ug/l	2.0	1590261.78	20000	
Mo	95	103	He	27.716	ug/l	1.6	25209.74	10000	
Ag	107	103	He	5.895	ug/l	0.9	18183.29	100	
Cd	111	115	He	1.836	ug/l	11.5	919.39	5000	
Sn	118	115	He	58.735	ug/l	1.7	68549.29	10000	
Sb	123	115	He	9.806	ug/l	2.4	12148.87	200	
Ba	137	115	He	1024.125	ug/l	2.2	611089.54	20000	
W	182	159	He	5.844	ug/l	1.1	22704.28	10000	
Tl	205	165	He	0.123	ug/l	12.0	996.72	2000	
Pb	208	165	He	43.353	ug/l	0.9	372461.66	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1167344.33	1.4	1444414.16	80.82	59.5	120.4	
Sc	45	No Gas	7125063.89	0.8	9012307.42	79.06	59.5	120.4	
Sc	45	H2	4624839.00	0.7	6064886.67	76.26	59.5	120.4	
Sc	45	He	670332.47	0.8	842862.48	79.53	59.5	120.4	
Rh	103	H2	2042129.88	0.7	2508597.67	81.41	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	4036006.65	0.5	4686316.76	86.12	59.5	120.4	
In	115	H2	6098178.17	0.7	7115626.5	85.7	59.5	120.4	
In	115	He	2271597.62	1.8	2641648.07	85.99	59.5	120.4	
Tb	159	He	5761119.49	0.9	6439806.69	89.46	59.5	120.4	
Ho	165	He	6099691.42	0.4	6662050.43	91.56	59.5	120.4	
Bi	209	He	4241515.25	0.4	4322541.5	98.13	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	105_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:45:52
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	53.318	ug/l	1.4	175733.97	50	106.64	89.5	110.5	
Be	9	45	No Gas	51.309	ug/l	1.0	38813.61	50	102.62	89.5	110.5	
B	11	45	No Gas	107.431	ug/l	0.3	53850.88	100	107.43	89.5	110.5	
Na	23	45	He	27611.447	ug/l	0.9	4573282.18	25000	110.45	89.5	110.5	
Mg	24	45	He	28134.369	ug/l	0.7	2630580.73	25000	112.54	89.5	110.5	CCV Failed
Al	27	45	He	27546.430	ug/l	1.2	1281963.25	25000	110.19	89.5	110.5	
K	39	45	He	27805.003	ug/l	0.7	2846985.93	25000	111.22	89.5	110.5	CCV Failed
Ca	44	45	He	27648.599	ug/l	1.7	71344.20	25000	110.59	89.5	110.5	CCV Failed
Ti	47	45	He	54.312	ug/l	1.3	1854.59	50	108.62	89.5	110.5	
V	51	45	He	56.001	ug/l	1.0	56801.03	50	112	89.5	110.5	CCV Failed
Cr	52	45	He	55.927	ug/l	1.8	70012.37	50	111.85	89.5	110.5	CCV Failed
Mn	55	45	He	55.533	ug/l	1.8	43957.99	50	111.07	89.5	110.5	CCV Failed
Fe	56	103	H2	26250.602	ug/l	0.6	82840060.43	25000	105	89.5	110.5	
Co	59	103	He	50.662	ug/l	0.0	109569.02	50	101.32	89.5	110.5	
Ni	60	103	He	50.148	ug/l	0.5	28973.10	50	100.3	89.5	110.5	
Cu	63	103	He	50.982	ug/l	1.3	79278.54	50	101.96	89.5	110.5	
Zn	66	103	He	49.860	ug/l	0.5	15742.26	50	99.72	89.5	110.5	
As	75	103	He	50.648	ug/l	1.9	11810.34	50	101.3	89.5	110.5	
Se	78	115	H2	52.082	ug/l	2.1	6283.09	50	104.16	89.5	110.5	
Sr	88	103	He	52.596	ug/l	0.8	76900.39	50	105.19	89.5	110.5	
Mo	95	103	He	52.451	ug/l	1.4	46987.45	50	104.9	89.5	110.5	
Ag	107	103	He	53.122	ug/l	0.3	161099.28	50	106.24	89.5	110.5	
Cd	111	115	He	54.882	ug/l	1.4	26800.80	50	109.76	89.5	110.5	
Sn	118	115	He	55.202	ug/l	1.0	63404.43	50	110.4	89.5	110.5	
Sb	123	115	He	55.346	ug/l	1.2	67294.80	50	110.69	89.5	110.5	CCV Failed
Ba	137	115	He	54.606	ug/l	2.3	32071.55	50	109.21	89.5	110.5	
W	182	159	He	55.468	ug/l	0.9	151606.45	50	110.94	89.5	110.5	CCV Failed
Tl	205	165	He	54.783	ug/l	0.8	340068.56	50	109.57	89.5	110.5	
Pb	208	165	He	55.095	ug/l	0.7	464923.31	50	110.19	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1125958.13	0.9	1444414.16	77.95	59.5	120.4	
Sc	45	No Gas	7196475.83	0.6	9012307.42	79.85	59.5	120.4	
Sc	45	H2	4747206.33	1.1	6064886.67	78.27	59.5	120.4	
Sc	45	He	668462.86	0.4	842862.48	79.31	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2014406.04	0.9	2508597.67	80.3	59.5	120.4	
Rh	103	He	3977945.26	0.5	4686316.76	84.88	59.5	120.4	
In	115	H2	6070071.50	1.8	7115626.5	85.31	59.5	120.4	
In	115	He	2234609.14	1.2	2641648.07	84.59	59.5	120.4	
Tb	159	He	5705858.25	0.1	6439806.69	88.6	59.5	120.4	
Ho	165	He	5993673.10	0.1	6662050.43	89.97	59.5	120.4	
Bi	209	He	3877258.60	0.7	4322541.5	89.7	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	106_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:48:18
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.377	ug/l	165.0	68773.43	8	
Be	9	45	No Gas	0.043	ug/l	32.0	67.78	1	
B	11	45	No Gas	6.647	ug/l	9.9	10364.86	20	
Na	23	45	He	36.656	ug/l	2.4	23548.08	1000	
Mg	24	45	He	2.150	ug/l	18.9	615.57	1000	
Al	27	45	He	0.921	ug/l	100.2	217.78	50	
K	39	45	He	68.239	ug/l	22.3	64425.88	1000	
Ca	44	45	He	21.925	ug/l	40.3	528.38	1000	
Ti	47	45	He	0.008	ug/l	1942.5	5.56	20	
V	51	45	He	0.276	ug/l	30.0	510.98	2	
Cr	52	45	He	0.133	ug/l	44.2	2368.00	2	
Mn	55	45	He	0.149	ug/l	45.4	456.68	5	
Fe	56	103	H2	10.571	ug/l	4.7	50424.59	50	
Co	59	103	He	0.016	ug/l	38.8	102.22	1	
Ni	60	103	He	-0.047	ug/l	N/A	156.67	2	
Cu	63	103	He	0.019	ug/l	38.5	606.69	2	
Zn	66	103	He	2.581	ug/l	7.3	2771.42	20	
As	75	103	He	0.062	ug/l	490.8	97.54	2	
Se	78	115	H2	0.027	ug/l	56.8	11.00	2	
Sr	88	103	He	0.078	ug/l	19.8	218.89	10	
Mo	95	103	He	-0.011	ug/l	N/A	33.33	10	
Ag	107	103	He	-0.001	ug/l	N/A	46.67	0.2	
Cd	111	115	He	0.012	ug/l	35.3	15.56	1	
Sn	118	115	He	0.151	ug/l	65.3	475.59	100	
Sb	123	115	He	0.100	ug/l	25.2	162.22	1	
Ba	137	115	He	0.057	ug/l	50.3	48.89	5	
W	182	159	He	0.137	ug/l	135.5	7587.84	10	
Tl	205	165	He	0.032	ug/l	33.6	407.79	0.5	
Pb	208	165	He	0.034	ug/l	31.0	998.92	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1177445.86	2.4	1444414.16	81.52	59.5	120.4	
Sc	45	No Gas	7150906.66	1.5	9012307.42	79.35	59.5	120.4	
Sc	45	H2	4793298.17	1.0	6064886.67	79.03	59.5	120.4	
Sc	45	He	669986.59	0.3	842862.48	79.49	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2058768.92	1.0	2508597.67	82.07	59.5	120.4	
Rh	103	He	4045212.34	0.6	4686316.76	86.32	59.5	120.4	
In	115	H2	6078611.67	1.2	7115626.5	85.43	59.5	120.4	
In	115	He	2267635.05	1.5	2641648.07	85.84	59.5	120.4	
Tb	159	He	5671725.33	1.3	6439806.69	88.07	59.5	120.4	
Ho	165	He	5919371.99	1.5	6662050.43	88.85	59.5	120.4	
Bi	209	He	3852953.04	0.9	4322541.5	89.14	59.5	120.4	

Sample Report

Sample Name	240-134867-e-1-a
File Name	107SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:50:50
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	6.763	ug/l	5.0	83102.30	10000	
Be	9	45	No Gas	0.036	ug/l	42.7	63.33	2000	
B	11	45	No Gas	49.784	ug/l	2.5	29380.71	500	
Na	23	45	He	36193.605	ug/l	0.3	6120484.48	3000000	
Mg	24	45	He	26991.297	ug/l	0.5	2578863.37	3000000	
Al	27	45	He	68.563	ug/l	5.7	3438.25	500000	
K	39	45	He	3620.628	ug/l	0.8	429878.28	3000000	
Ca	44	45	He	90368.884	ug/l	1.1	237196.01	3000000	
Ti	47	45	He	1.729	ug/l	30.6	65.56	10000	
V	51	45	He	2.255	ug/l	9.7	2564.14	20000	
Cr	52	45	He	4.320	ug/l	2.0	7600.99	10000	
Mn	55	45	He	20.743	ug/l	0.5	16995.82	20000	
Fe	56	103	H2	345.875	ug/l	1.2	1113996.18	500000	
Co	59	103	He	0.101	ug/l	12.3	282.23	20000	
Ni	60	103	He	1.948	ug/l	5.4	1288.96	20000	
Cu	63	103	He	1.114	ug/l	6.7	2270.21	20000	
Zn	66	103	He	3.520	ug/l	12.1	2960.34	20000	
As	75	103	He	0.351	ug/l	33.2	161.31	20000	
Se	78	115	H2	0.407	ug/l	6.1	56.67	10000	
Sr	88	103	He	184.560	ug/l	0.7	267499.63	20000	
Mo	95	103	He	6.170	ug/l	2.6	5521.15	10000	
Ag	107	103	He	0.003	ug/l	182.0	56.67	100	
Cd	111	115	He	0.002	ug/l	337.9	10.72	5000	
Sn	118	115	He	0.065	ug/l	56.1	378.90	10000	
Sb	123	115	He	0.343	ug/l	17.3	464.46	200	
Ba	137	115	He	75.900	ug/l	3.4	45479.98	20000	
W	182	159	He	0.330	ug/l	46.8	8144.83	10000	
Tl	205	165	He	0.023	ug/l	2.7	357.79	2000	
Pb	208	165	He	1.694	ug/l	1.2	14915.74	5000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1161853.77	0.6	1444414.16	80.44	59.5	120.4	
Sc	45	No Gas	7286754.43	0.3	9012307.42	80.85	59.5	120.4	
Sc	45	H2	4795859.50	1.3	6064886.67	79.08	59.5	120.4	
Sc	45	He	683084.24	0.3	842862.48	81.04	59.5	120.4	
Rh	103	H2	2026674.96	1.0	2508597.67	80.79	59.5	120.4	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	He	3947354.29	1.2	4686316.76	84.23	59.5	120.4	
In	115	H2	6061564.00	0.9	7115626.5	85.19	59.5	120.4	
In	115	He	2280856.77	2.0	2641648.07	86.34	59.5	120.4	
Tb	159	He	5711136.30	0.7	6439806.69	88.68	59.5	120.4	
Ho	165	He	5963841.43	1.3	6662050.43	89.52	59.5	120.4	
Bi	209	He	3814101.10	0.9	4322541.5	88.24	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4777986
File Name	108_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:53:19
Sample Type	CCV
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Li	7	45	No Gas	54.170	ug/l	1.6	175358.45	50	108.34	89.5	110.5	
Be	9	45	No Gas	51.909	ug/l	1.4	38802.39	50	103.82	89.5	110.5	
B	11	45	No Gas	108.012	ug/l	2.2	53458.30	100	108.01	89.5	110.5	
Na	23	45	He	26979.216	ug/l	0.9	4464451.77	25000	107.92	89.5	110.5	
Mg	24	45	He	27394.875	ug/l	0.7	2558875.66	25000	109.58	89.5	110.5	
Al	27	45	He	27307.108	ug/l	1.4	1269424.85	25000	109.23	89.5	110.5	
K	39	45	He	27257.380	ug/l	0.6	2789159.75	25000	109.03	89.5	110.5	
Ca	44	45	He	26894.152	ug/l	0.9	69336.59	25000	107.58	89.5	110.5	
Ti	47	45	He	50.613	ug/l	0.7	1726.79	50	101.23	89.5	110.5	
V	51	45	He	54.126	ug/l	1.7	54847.25	50	108.25	89.5	110.5	
Cr	52	45	He	54.677	ug/l	0.7	68427.05	50	109.35	89.5	110.5	
Mn	55	45	He	54.143	ug/l	0.6	42823.31	50	108.29	89.5	110.5	
Fe	56	103	H2	25739.024	ug/l	2.3	81631573.78	25000	102.96	89.5	110.5	
Co	59	103	He	49.414	ug/l	0.8	106081.38	50	98.83	89.5	110.5	
Ni	60	103	He	49.019	ug/l	1.4	28114.72	50	98.04	89.5	110.5	
Cu	63	103	He	50.616	ug/l	1.6	78132.48	50	101.23	89.5	110.5	
Zn	66	103	He	48.272	ug/l	2.1	15191.63	50	96.54	89.5	110.5	
As	75	103	He	50.471	ug/l	1.7	11682.42	50	100.94	89.5	110.5	
Se	78	115	H2	52.024	ug/l	1.3	6193.39	50	104.05	89.5	110.5	
Sr	88	103	He	51.400	ug/l	1.3	74599.30	50	102.8	89.5	110.5	
Mo	95	103	He	51.588	ug/l	1.5	45871.37	50	103.18	89.5	110.5	
Ag	107	103	He	52.298	ug/l	0.3	157433.61	50	104.6	89.5	110.5	
Cd	111	115	He	55.207	ug/l	1.2	26650.61	50	110.41	89.5	110.5	
Sn	118	115	He	54.011	ug/l	0.4	61334.05	50	108.02	89.5	110.5	
Sb	123	115	He	53.885	ug/l	1.5	64764.62	50	107.77	89.5	110.5	
Ba	137	115	He	53.902	ug/l	1.8	31297.50	50	107.8	89.5	110.5	
W	182	159	He	54.654	ug/l	1.2	146998.91	50	109.31	89.5	110.5	
Tl	205	165	He	53.562	ug/l	0.8	330466.78	50	107.12	89.5	110.5	
Pb	208	165	He	53.606	ug/l	0.9	449611.02	50	107.21	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1159946.36	0.3	1444414.16	80.31	59.5	120.4	
Sc	45	No Gas	7112062.49	1.4	9012307.42	78.92	59.5	120.4	
Sc	45	H2	4799721.17	0.8	6064886.67	79.14	59.5	120.4	
Sc	45	He	667782.84	0.6	842862.48	79.23	59.5	120.4	

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2025109.25	2.4	2508597.67	80.73	59.5	120.4	
Rh	103	He	3948642.48	0.6	4686316.76	84.26	59.5	120.4	
In	115	H2	5988957.17	0.8	7115626.5	84.17	59.5	120.4	
In	115	He	2208969.37	0.3	2641648.07	83.62	59.5	120.4	
Tb	159	He	5611186.30	0.8	6439806.69	87.13	59.5	120.4	
Ho	165	He	5957262.13	0.7	6662050.43	89.42	59.5	120.4	
Bi	209	He	3837697.07	0.7	4322541.5	88.78	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB
File Name	109_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14081420D.b
Acq Time	2020-08-14 16:55:45
Sample Type	CCB
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Li	7	45	No Gas	0.144	ug/l	275.9	68831.70	8	
Be	9	45	No Gas	0.029	ug/l	38.1	57.78	1	
B	11	45	No Gas	6.358	ug/l	3.1	10319.27	20	
Na	23	45	He	33.908	ug/l	3.6	23045.04	1000	
Mg	24	45	He	3.375	ug/l	32.6	728.92	1000	
Al	27	45	He	0.883	ug/l	33.6	215.56	50	
K	39	45	He	46.925	ug/l	40.2	62153.76	1000	
Ca	44	45	He	2.562	ug/l	210.6	477.65	1000	
Ti	47	45	He	-0.025	ug/l	N/A	4.44	20	
V	51	45	He	0.273	ug/l	81.3	506.58	2	
Cr	52	45	He	0.101	ug/l	76.5	2323.55	2	
Mn	55	45	He	0.085	ug/l	25.3	405.57	5	
Fe	56	103	H2	8.523	ug/l	13.5	43619.39	50	
Co	59	103	He	0.011	ug/l	33.2	92.22	1	
Ni	60	103	He	-0.084	ug/l	N/A	137.78	2	
Cu	63	103	He	0.029	ug/l	112.8	635.58	2	
Zn	66	103	He	1.728	ug/l	15.0	2583.60	20	
As	75	103	He	0.026	ug/l	327.3	90.48	2	
Se	78	115	H2	0.022	ug/l	137.6	10.33	2	
Sr	88	103	He	0.097	ug/l	8.5	252.23	10	
Mo	95	103	He	-0.003	ug/l	N/A	41.11	10	
Ag	107	103	He	0.006	ug/l	57.4	70.00	0.2	
Cd	111	115	He	0.005	ug/l	298.2	12.22	1	
Sn	118	115	He	0.081	ug/l	53.4	398.90	100	
Sb	123	115	He	0.118	ug/l	26.3	185.56	1	
Ba	137	115	He	0.063	ug/l	58.8	53.33	5	
W	182	159	He	0.144	ug/l	148.8	7714.57	10	
Tl	205	165	He	0.040	ug/l	28.9	464.46	0.5	
Pb	208	165	He	0.033	ug/l	39.4	1010.03	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	1162546.37	1.1	1444414.16	80.49	59.5	120.4	
Sc	45	No Gas	7204639.16	0.4	9012307.42	79.94	59.5	120.4	
Sc	45	H2	4774690.33	1.3	6064886.67	78.73	59.5	120.4	
Sc	45	He	668569.40	0.1	842862.48	79.32	59.5	120.4	

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Rh	103	H2	2049992.67	0.7	2508597.67	81.72	59.5	120.4	
Rh	103	He	4126738.03	0.6	4686316.76	88.06	59.5	120.4	
In	115	H2	6103969.00	1.1	7115626.5	85.78	59.5	120.4	
In	115	He	2288962.37	1.4	2641648.07	86.65	59.5	120.4	
Tb	159	He	5749386.02	0.5	6439806.69	89.28	59.5	120.4	
Ho	165	He	6054543.51	1.3	6662050.43	90.88	59.5	120.4	
Bi	209	He	3909602.76	1.3	4322541.5	90.45	59.5	120.4	

MTMSCCBDILH20- 00481 Tune Solution 00043 Analytical Batch: 447397

Analysis Date: 8-14-20 Analyst: RKT Instrument: I14

Review Items

A. Tune/Daily performance
1. Resolution ≤ 0.9 AMU full width at 5% peak height, and within ± 0.1 AMU of true mass.
B. Calibration/Instrument Run QC
1. Instrument calibrated and within acceptance criteria.
2. ICV/CCV analyzed at appropriate frequency and within acceptance criteria.
3. ICB/CCB analyzed at appropriate frequency and within acceptance criteria.
4. ICVL/CCVL analyzed at SOP or project-specific frequency and within acceptance criteria. (project specific limits may vary)
5. ICSA/ICSAB analyzed at required frequency and within acceptance criteria.
C. Sample Results
1. Samples with concentrations > the linear range for any parameter diluted and reanalyzed.
2. Internal standards within acceptance criteria.
3. Sample analyses done within holding time.
4. Dilutions demonstrate agreement with initial analysis.
D. Preparation/Matrix QC
1. LCS performed per prep batch and within acceptance criteria.
2. Method blank performed per prep batch and within acceptance criteria.
3. MS performed at required frequency and evaluated.
4. MSD or DU performed at required frequency and evaluated.
5. Serial dilution performed per prep batch.
6. Post digest spike performed at required frequency and evaluated.
E. Other
1. All nonconformances documented appropriately in the LIMS.
2. Calculations checked for error.
3. All client/project specific requirements met.
4. Date/time of analysis verified as correct.

Level I Reviewer: Roger K. Todd Date: 8-17-20 Time: 12:07-16:55

Level I Reviewer: _____ Date: _____ Time: _____

Level I Reviewer: _____ Date: _____ Time: _____

Level II Reviewer: Diem Nguyen Date: 8-17-20 Time: 12:07-16:55

Level II Reviewer: _____ Date: _____ Time: _____

Level II Reviewer: _____ Date: _____ Time: _____

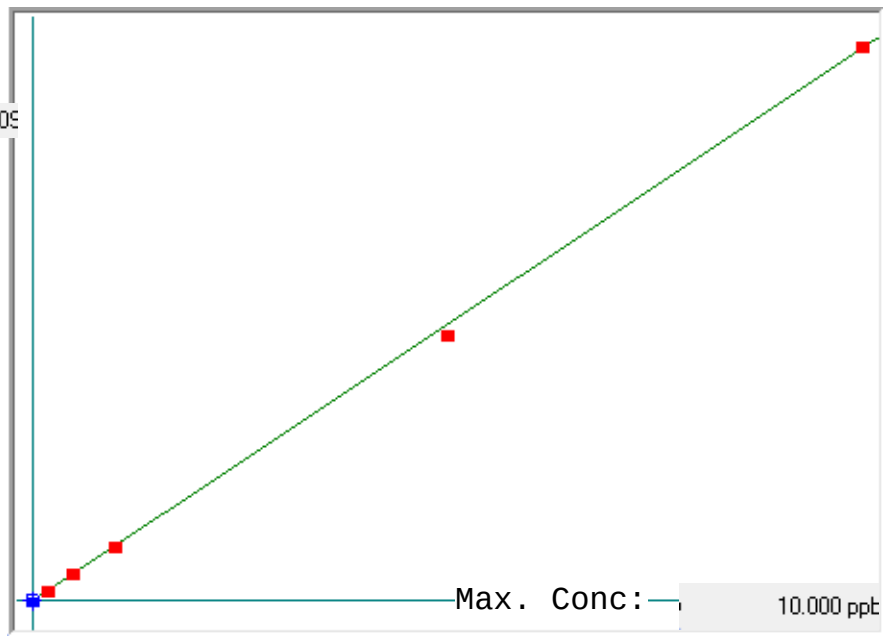
Comments: _____

Initial Method

Linear

μ Abs.:

58009



A= 0.0000e+000

B= 1.7323e-004

C= 1.8852e-002

Rho= 0.9998207

Accept= Accepted

Accepted Date=

08/13/20 13:25

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0 ppb	0.000	0.006	0.006	-77	0.000	-77				
0.2 ppb	0.200	0.227	0.027	1199	0.0 %	1199				
0.5 ppb	0.500	0.531	0.031	2956	0.0 %	2956				
1.0 ppb	1.000	1.018	0.018	5768	0.0 %	5768				
5.0 ppb	5.000	4.852	-0.148	27898	0.0 %	27898				
10.0 ppb	10.000	10.068	0.068	58009	0.0 %	58009				

0813A20H2w

Method: Initial Method Operator: Admin Date of Analysis: 13 Aug 2020 10:13:46

Sample ID	Conc.	µ Abs.	Seq ID	Units	Date
0.0 ppb - 1	-	-77	495	ppb	13 Aug 2020 13:11:13
0.2 ppb - 1	-	1199	496	ppb	13 Aug 2020 13:13:25
0.5 ppb - 1	-	2956	497	ppb	13 Aug 2020 13:15:37
1.0 ppb - 1	-	5768	498	ppb	13 Aug 2020 13:17:50
5.0 ppb - 1	-	27898	499	ppb	13 Aug 2020 13:20:04
10.0 ppb - 1	-	58009	500	ppb	13 Aug 2020 13:22:18
ICV - 1	101.8% 5.0923	29288	501	ppb	13 Aug 2020 13:25:32
ICB - 1	-0.0347	-309	502	ppb	13 Aug 2020 13:27:44
CRA - 1	112.2% 0.2245	1187	503	ppb	13 Aug 2020 13:30:15
CCV - 1	102.4% 5.1198	29447	504	ppb	13 Aug 2020 13:32:24
CCB - 1	-0.0404	-342	505	ppb	13 Aug 2020 13:34:36
lb 240-446636/1-c - 1	0.0379	110	506	ppb	13 Aug 2020 13:37:06
mb 240-446770/2-a - 1	0.0337	86	507	ppb	13 Aug 2020 13:39:17
lcs 240-446770/3-a - 1	4.7302	27198	508	ppb	13 Aug 2020 13:41:27
240-134719-a-1-g - 1	-0.0281	-271	509	ppb	13 Aug 2020 13:43:37
240-134719-a-1-h ms - 1	5.1990	29904	510	ppb	13 Aug 2020 13:46:08
240-134719-a-1-i msd - 1	5.3189	30596	511	ppb	13 Aug 2020 13:48:19
240-134697-a-1-d - 1	-0.0347	-309	512	ppb	13 Aug 2020 13:50:48
240-134679-c-1-i - 1	0.0273	49	513	ppb	13 Aug 2020 13:53:15
240-134696-b-2-d - 1	0.0286	56	514	ppb	13 Aug 2020 13:55:26
240-134719-a-2-e - 1	0.0282	54	515	ppb	13 Aug 2020 13:57:37
CCV - 1	100.3% 5.0162	28849	516	ppb	13 Aug 2020 13:59:49
CCB - 1	-0.0383	-330	517	ppb	13 Aug 2020 14:02:00
240-134449-a-18-c@50 - 1	30.4780	175835	518	ppb	13 Aug 2020 14:04:31
240-134719-a-3-e - 1	-0.0444	-365	519	ppb	13 Aug 2020 14:06:43
240-134719-a-4-e - 1	0.0251	36	520	ppb	13 Aug 2020 14:09:36
240-134449-a-18-c@250 - 1	6.4072	36879	521	ppb	13 Aug 2020 14:11:48
240-134719-a-5-e - 1	-0.0283	-272	522	ppb	13 Aug 2020 14:13:59
240-134719-a-6-e - 1	0.0277	51	523	ppb	13 Aug 2020 14:16:31
lb 240-446635/1-c - 1	0.0266	45	524	ppb	13 Aug 2020 14:18:41
mb 240-446780/2-a - 1	0.0251	36	525	ppb	13 Aug 2020 14:20:52
lcs 240-446780/3-a - 1	4.9840	28663	526	ppb	13 Aug 2020 14:23:02
240-134695-a-1-f - 1	-0.0200	-224	527	ppb	13 Aug 2020 14:25:12
CCV - 1	96.5% 4.8238	27738	528	ppb	13 Aug 2020 14:27:42
CCB - 1	-0.0336	-303	529	ppb	13 Aug 2020 14:29:53
240-134695-a-1-g ms - 1	5.0350	28957	530	ppb	13 Aug 2020 14:32:25
240-134695-a-1-h msd - 1	4.9788	28633	531	ppb	13 Aug 2020 14:34:36
240-134695-b-2-c - 1	-0.0319	-293	532	ppb	13 Aug 2020 14:37:06
240-134695-a-3-d - 1	0.0417	132	533	ppb	13 Aug 2020 14:39:37
240-134695-a-4-d - 1	0.0313	72	534	ppb	13 Aug 2020 14:41:49
240-134503-a-2-g - 1	0.9200	5202	535	ppb	13 Aug 2020 14:44:01
240-134539-c-1-e - 1	-0.0068	-148	536	ppb	13 Aug 2020 14:46:14
240-134539-d-2-e - 1	0.0296	62	537	ppb	13 Aug 2020 14:48:27
240-134565-a-1-i - 1	0.0703	297	538	ppb	13 Aug 2020 14:50:37
240-134567-b-1-f - 1	0.0071	-68	539	ppb	13 Aug 2020 14:52:47
CCV - 1	97.2% 4.8612	27954	540	ppb	13 Aug 2020 14:54:57
CCB - 1	-0.0407	-344	541	ppb	13 Aug 2020 14:57:08
240-134572-b-1-h - 1	0.0301	65	542	ppb	13 Aug 2020 14:59:40
240-134616-a-1-d - 1	0.0374	107	543	ppb	13 Aug 2020 15:01:50
240-134616-a-2-d - 1	0.0622	250	544	ppb	13 Aug 2020 15:04:01
240-134673-h-1-e - 1	0.0303	66	545	ppb	13 Aug 2020 15:06:11
mb 240-446762/1-a - 1	0.0268	46	546	ppb	13 Aug 2020 15:08:23
lcs 240-446762/2-a - 1	4.8950	28149	547	ppb	13 Aug 2020 15:10:34
240-134742-d-1-b - 1	-0.0447	-367	548	ppb	13 Aug 2020 15:12:46
240-134742-d-1-c ms - 1	1.0447	5922	549	ppb	13 Aug 2020 15:15:16
240-134742-d-1-d msd - 1	1.0019	5675	550	ppb	13 Aug 2020 15:17:27
240-134742-d-2-b - 1	-0.0258	-258	551	ppb	13 Aug 2020 15:19:41
CCV - 1	98.5% 4.9237	28315	552	ppb	13 Aug 2020 15:21:54
CCB - 1	-0.0400	-340	553	ppb	13 Aug 2020 15:24:06
240-134742-d-2-c ms - 1	0.0254	38	554	ppb	13 Aug 2020 15:26:38
240-134742-d-2-d msd - 1	0.0277	51	555	ppb	13 Aug 2020 15:28:49
240-134742-d-3-b - 1	0.0246	33	556	ppb	13 Aug 2020 15:31:00
240-134742-d-4-b - 1	0.0246	33	557	ppb	13 Aug 2020 15:33:10
240-134712-b-1-b - 1	0.0279	52	558	ppb	13 Aug 2020 15:35:21
240-134712-b-3-b - 1	0.0296	62	559	ppb	13 Aug 2020 15:37:32
240-134743-a-3-b - 1	0.0325	79	560	ppb	13 Aug 2020 15:39:43
240-134743-a-4-b - 1	0.0289	58	561	ppb	13 Aug 2020 15:41:55
240-134751-a-1-a - 1	0.0573	222	562	ppb	13 Aug 2020 15:44:07
240-134751-a-2-a - 1	0.0497	178	563	ppb	13 Aug 2020 15:46:20
CCV - 1	97.7% 4.8848	28090	564	ppb	13 Aug 2020 15:48:31
CCB - 1	-0.0454	-371	565	ppb	13 Aug 2020 15:50:42
240-134751-a-3-a - 1	0.0779	341	566	ppb	13 Aug 2020 15:53:14
240-134751-a-4-a - 1	0.0508	193	567	ppb	13 Aug 2020 15:55:24

0813A20H2w

Method: Initial Method Operator: Admin Date of Analysis: 13 Aug 2020 10:13:46

Sample ID	Conc.	µ Abs.	Seq ID	Units	Date
240-134751-a-5-a - 1	0.2456	1309	568	ppb	13 Aug 2020 15:57:35
240-134751-a-6-a - 1	0.0318	75	569	ppb	13 Aug 2020 15:59:46
240-134751-a-7-a - 1	0.0438	144	570	ppb	13 Aug 2020 16:01:58
240-134751-a-8-a - 1	0.0369	104	571	ppb	13 Aug 2020 16:04:09
mb 240-447011/1-a - 1	0.0833	372	572	ppb	13 Aug 2020 16:06:19
lcs 240-447011/2-a - 1	4.9057	28211	573	ppb	13 Aug 2020 16:08:31
240-134778-a-1-d - 1	0.0731	313	574	ppb	13 Aug 2020 16:10:43
240-134778-a-1-e ms - 1	1.2669	7205	575	ppb	13 Aug 2020 16:13:16
CCV - 1	97.6% 4.8803	28064	576	ppb	13 Aug 2020 16:15:29
CCB - 1	-0.0445	-366	577	ppb	13 Aug 2020 16:17:43
240-134778-a-1-f msd - 1	1.2591	7160	578	ppb	13 Aug 2020 16:20:15
240-134814-m-1-d - 1	0.0833	372	579	ppb	13 Aug 2020 16:22:27
240-134814-m-1-e ms - 1	1.0172	5763	580	ppb	13 Aug 2020 16:24:41
240-134814-m-1-f msd - 1	1.0374	5880	581	ppb	13 Aug 2020 16:26:52
190-23799-c-1-b - 1	0.1036	489	582	ppb	13 Aug 2020 16:29:05
190-23801-d-1-b - 1	0.1282	631	583	ppb	13 Aug 2020 16:31:19
190-23801-d-2-b - 1	0.1290	636	584	ppb	13 Aug 2020 16:33:30
190-23801-d-3-b - 1	0.1242	608	585	ppb	13 Aug 2020 16:35:41
190-23801-d-4-b - 1	0.1143	551	586	ppb	13 Aug 2020 16:37:52
190-23801-d-5-b - 1	0.0944	436	587	ppb	13 Aug 2020 16:40:04
CCV - 1	100.3% 5.0150	28842	588	ppb	13 Aug 2020 16:42:15
CCB - 1	-0.0466	-378	589	ppb	13 Aug 2020 16:44:26
190-23801-d-6-b - 1	0.0980	457	590	ppb	13 Aug 2020 16:46:59
190-23809-c-1-b - 1	0.1555	789	591	ppb	13 Aug 2020 16:49:11
190-23810-c-1-b - 1	0.1652	845	592	ppb	13 Aug 2020 16:51:23
190-23807-c-1-b - 1	0.1223	597	593	ppb	13 Aug 2020 16:53:34
190-23807-c-2-b - 1	0.1063	505	594	ppb	13 Aug 2020 16:55:45
190-23811-c-1-b - 1	0.0812	360	595	ppb	13 Aug 2020 16:57:56
240-134760-a-2-b - 1	0.1498	756	596	ppb	13 Aug 2020 17:00:07
240-134847-d-3-b - 1	0.0530	197	597	ppb	13 Aug 2020 17:02:18
240-134754-a-1-b - 1	2.9249	16776	598	ppb	13 Aug 2020 17:04:30
240-134754-a-2-b - 1	2.1135	12092	599	ppb	13 Aug 2020 17:06:41
CCV - 1	100.9% 5.0448	29014	600	ppb	13 Aug 2020 17:09:06
CCB - 1	-0.0272	-266	601	ppb	13 Aug 2020 17:11:30
240-134763-a-1-a - 1	0.1477	744	602	ppb	13 Aug 2020 17:14:05
lb 240-446829/1-c - 1	0.2560	1369	603	ppb	13 Aug 2020 17:16:16
mb 240-447023/2-a - 1	0.1829	947	604	ppb	13 Aug 2020 17:18:28
lcs 240-447023/3-a - 1	5.1325	29520	605	ppb	13 Aug 2020 17:20:42
240-134726-g-1-h - 1	0.0819	364	606	ppb	13 Aug 2020 17:22:55
240-134726-g-1-i ms - 1	5.2186	30017	607	ppb	13 Aug 2020 17:25:28
240-134726-g-1-j msd - 1	5.2856	30404	608	ppb	13 Aug 2020 17:27:40
240-134700-b-1-g - 1	0.0842	377	609	ppb	13 Aug 2020 17:30:10
240-134726-d-2-e - 1	0.1252	614	610	ppb	13 Aug 2020 17:32:40
240-134726-c-3-e - 1	0.1205	587	611	ppb	13 Aug 2020 17:34:52
CCV - 1	98.6% 4.9295	28348	612	ppb	13 Aug 2020 17:37:03
CCB - 1	-0.0600	-455	613	ppb	13 Aug 2020 17:39:15
240-134726-b-4-e - 1	0.1314	650	614	ppb	13 Aug 2020 17:41:46
240-134726-d-5-e - 1	0.1271	625	615	ppb	13 Aug 2020 17:43:57
240-134008-c-1-e - 1	0.1391	694	616	ppb	13 Aug 2020 17:46:08
240-134703-a-1-d - 1	0.1396	697	617	ppb	13 Aug 2020 17:48:20
mb 240-447060/1-a - 1	0.0783	343	618	ppb	13 Aug 2020 17:50:32
lcs 240-447060/2-a - 1	4.7548	27340	619	ppb	13 Aug 2020 17:52:44
240-134881-c-3-d - 1	-0.0319	-293	620	ppb	13 Aug 2020 17:54:56
240-134881-c-3-e ms - 1	1.0949	6212	621	ppb	13 Aug 2020 17:57:23
240-134881-c-3-f msd - 1	1.0875	6169	622	ppb	13 Aug 2020 17:59:35
240-134877-c-1-d - 1	-0.0210	-230	623	ppb	13 Aug 2020 18:01:49
CCV - 1	97.8% 4.8896	28118	624	ppb	13 Aug 2020 18:04:03
CCB - 1	-0.0574	-440	625	ppb	13 Aug 2020 18:06:14
240-134877-c-1-e ms - 1	1.0584	6001	626	ppb	13 Aug 2020 18:08:46
240-134877-c-1-f msd - 1	1.0419	5906	627	ppb	13 Aug 2020 18:10:57
240-134877-b-3-b - 1	-0.0163	-203	628	ppb	13 Aug 2020 18:13:11
240-134895-g-1-b - 1	0.0670	278	629	ppb	13 Aug 2020 18:15:26
240-134898-d-1-b - 1	0.0247	34	630	ppb	13 Aug 2020 18:17:37
240-134902-d-2-b - 1	0.2023	1059	631	ppb	13 Aug 2020 18:19:48
190-23812-b-1-b - 1	0.1268	623	632	ppb	13 Aug 2020 18:22:00
190-23821-a-2-b - 1	-0.1008	-691	633	ppb	13 Aug 2020 18:24:12
190-23824-c-4-b - 1	0.0064	-72	634	ppb	13 Aug 2020 18:26:27
240-134868-b-1-b - 1	0.0329	81	635	ppb	13 Aug 2020 18:28:38
CCV - 1	99.4% 4.9712	28589	636	ppb	13 Aug 2020 18:30:50
CCB - 1	-0.0445	-366	637	ppb	13 Aug 2020 18:33:01
240-134900-b-1-a - 1	0.0298	63	638	ppb	13 Aug 2020 18:35:34
240-134900-b-2-a - 1	0.0298	63	639	ppb	13 Aug 2020 18:37:46
240-134870-a-1-a - 1	0.1871	971	640	ppb	13 Aug 2020 18:40:58

0813A20H2w

Method: Initial Method Operator: Admin Date of Analysis: 13 Aug 2020 10:13:46

Sample ID	Conc.	µ Abs.	Seq ID	Units	Date
CCV - 1	99.7% 4.9864	28677	641	ppb	13 Aug 2020 18:42:09
CCB - 1	-0.0416	-349	642	ppb	13 Aug 2020 18:44:20

Eurofins TestAmerica Canton Hg Data Review Checklist

Dilution H2O: 00018

Analysis Date: 8/13/20 Analyst: SLD Instrument: H2

Curve Date: 8/13/20 Curve Time: 9:50 - 11:50 Curve Prep Batch: 447004

Circle Methods used: 7470A / 245.1 7471 Analytical Batch: 447205

Review Items

A. Calibration/Instrument Run QC
1. Instrument calibrated per manufacturer's instructions and at SOP specified levels.
2. ICV/CCV analyzed at appropriate frequency and within acceptance criteria.
3. ICV/ICB analyzed at appropriate frequency and within acceptance criteria.
4. CRA analyzed at SOP or project specific frequency and within acceptance criteria. (project specific limits may vary)
B. Sample Results
1. Samples with concentrations > high calibration standard diluted and reanalyzed.
2. Sample analyses done within holding time.
3. Dilutions demonstrate agreement with initial analysis.
C. Preparation/ Matrix QC
1. LCS performed per prep batch and within acceptance criteria.
2. Method blank performed per prep batch and within acceptance criteria.
3. MS performed at required frequency and evaluated.
4. MSD or DU performed at required frequency and evaluated.
D. Other
1. All nonconformances documented appropriately in lims system.
2. All client/project specific requirements met.
3. Date of analysis verified as correct.

Level I Reviewer: Amy Dillow Date: 8/14/20 Time: 13:11 - 18:44

Level I Reviewer: _____ Date: _____ Time: _____

Level I Reviewer: _____ Date: _____ Time: _____

Level II Reviewer: Diem Nguyen Date: 08/14/20 Time: 13:11 - 18:44

Level II Reviewer: _____ Date: _____ Time: _____

Level II Reviewer: _____ Date: _____ Time: _____

Comments: _____

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG No.:

Project: MRC South of Building C

Client Sample ID	Lab Sample ID
MRC-MW-164B-081120	240-134814-1

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job Number: 240-134814-1

SDG No.:

Project: MRC South of Building C

Client Sample ID	Lab Sample ID
MRC-MW-164B-081120	240-134814-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Hardness as calcium carbonate	96	5.0	2.4	mg/L			1	2340C-2011
	Alkalinity	98	5.0	2.6	mg/L			1	2320B-2011
	Total Dissolved Solids	120	10	7.8	mg/L			1	2540 C-2011
24959-67-9	Bromide	0.21	0.50	0.044	mg/L	J		1	9056A
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U		1	9056A
14797-55-8	Nitrate as N	0.014	0.10	0.014	mg/L	U		1	9056A
14808-79-8	Sulfate	9.0	1.0	0.35	mg/L			1	9056A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW-164B-081120 Lab Sample ID: 240-134814-1

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG ID.:

Matrix: Water Date Sampled: 08/11/2020 14:20

Reporting Basis: WET Date Received: 08/12/2020 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Specific Conductance	250	1.0	1.0	umhos/cm			1	SM 2510B
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 07/24/2020

Reporting Units: mg/L Analytical Batch No.: 444170

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	22:49	Bromide	10.2	10.0	102	90-110		WCICLCS_00775
			Sulfate	52.1	50.0	104	90-110		WCICLCS_00775
11	ICB	23:09	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 07/24/2020

Reporting Units: mg/L Analytical Batch No.: 444171

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	22:49	Nitrite as N	2.67	2.50	107	90-110		WCICLCS_00775
			Nitrate as N	2.68	2.50	107	90-110		WCICLCS_00775
11	ICB	23:09	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 08/12/2020

Reporting Units: mg/L Analytical Batch No.: 446838

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:29	Bromide	10.6	10.0	106	90-110		WCICCCV_00946
			Sulfate	51.9	50.0	104	90-110		WCICCCV_00946
2	CCB	15:49	Bromide	0.044				U	
			Sulfate	0.35				U	
13	CCV	19:30	Bromide	10.7	10.0	107	90-110		WCICCCV_00946
			Sulfate	52.1	50.0	104	90-110		WCICCCV_00946
14	CCB	19:51	Bromide	0.044				U	
			Sulfate	0.35				U	
18	CCV	21:11	Bromide	10.6	10.0	106	90-110		WCICCCV_00946
			Sulfate	52.2	50.0	104	90-110		WCICCCV_00946
19	CCB	21:31	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Analyst: JWW Batch Start Date: 08/12/2020

Reporting Units: mg/L Analytical Batch No.: 446839

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:29	Nitrite as N	2.64	2.50	106	90-110		WCICCCV_00946
			Nitrate as N	2.64	2.50	106	90-110		WCICCCV_00946
2	CCB	15:49	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
13	CCV	19:30	Nitrite as N	2.66	2.50	107	90-110		WCICCCV_00946
			Nitrate as N	2.66	2.50	106	90-110		WCICCCV_00946
14	CCB	19:51	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
18	CCV	21:11	Nitrite as N	2.65	2.50	106	90-110		WCICCCV_00946
			Nitrate as N	2.65	2.50	106	90-110		WCICCCV_00946
19	CCB	21:31	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Analyst: AGP Batch Start Date: 08/19/2020

Reporting Units: umhos/cm Analytical Batch No.: 326269

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	20:04	Specific Conductance	510	500	102	90-110		Cond. CCV_00023
14	CCB	20:04	Specific Conductance	1.0				U	
25	CCV	20:04	Specific Conductance	499	500	100	90-110		Cond. CCV_00023
26	CCB	20:04	Specific Conductance	1.0				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 447305	Date: 08/13/2020 22:18						
2320B-2011	MB 240-447305/30	Alkalinity	2.6	U	mg/L	5.0	1
Batch ID: 447678	Date: 08/18/2020 15:48						
2340C-2011	MB 240-447678/1	Hardness as calcium carbonate	2.4	U	mg/L	5.0	1
Batch ID: 447201	Date: 08/14/2020 09:02						
2540 C-2011	MB 240-447201/1	Total Dissolved Solids	7.8	U	mg/L	10	1
Batch ID: 446838	Date: 08/12/2020 16:09						
9056A	MB 240-446838/3	Bromide	0.044	U	mg/L	0.50	1
9056A	MB 240-446838/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 446839	Date: 08/12/2020 16:09						
9056A	MB 240-446839/3	Nitrite as N	0.014	U	mg/L	0.10	1
9056A	MB 240-446839/3	Nitrate as N	0.014	U	mg/L	0.10	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 326269	Date: 08/19/2020 20:04						
SM 2510B	MB 180-326269/2	Specific Conductance	1.0	U	umhos/cm	1.0	1
Batch ID: 327204	Date: 08/26/2020 12:16						
SM 2520B	MB 180-327204/2	Salinity	2.0	U	No Unit	2.0	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 447678 Date: 08/18/2020 15:48											
2340C-2011	240-134554-B-7	Hardness as calcium carbonate	480		mg/L						
2340C-2011	240-134554-B-7 MS	Hardness as calcium carbonate	1490		mg/L	1000	101	80-120			
Batch ID: 446838 Date: 08/12/2020 20:31											
9056A	240-134791-K-3	Bromide	0.22	J	mg/L						
9056A	240-134791-K-3 MS	Bromide	11.7		mg/L	10.0	115	80-120			
9056A	240-134791-K-3	Sulfate	5.4		mg/L						
9056A	240-134791-K-3 MS	Sulfate	60.3		mg/L	50.0	110	80-120			
Batch ID: 446839 Date: 08/12/2020 20:31											
9056A	240-134791-K-3	Nitrite as N	0.078	J	mg/L						
9056A	240-134791-K-3 MS	Nitrite as N	2.91		mg/L	2.50	113	80-120			
9056A	240-134791-K-3	Nitrate as N	0.68		mg/L						
9056A	240-134791-K-3 MS	Nitrate as N	3.55		mg/L	2.50	115	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 447678 Date: 08/18/2020 15:48											
2340C-2011	240-134554-B-7 MSD	Hardness as calcium carbonate	1490		mg/L	1000	101	80-120	0	10	
Batch ID: 446838 Date: 08/12/2020 20:51											
9056A	240-134791-K-3 MSD	Bromide	11.9		mg/L	10.0	117	80-120	2	15	
9056A	240-134791-K-3 MSD	Sulfate	61.4		mg/L	50.0	112	80-120	2	15	
Batch ID: 446839 Date: 08/12/2020 20:51											
9056A	240-134791-K-3 MSD	Nitrite as N	2.94		mg/L	2.50	114	80-120	1	15	
9056A	240-134791-K-3 MSD	Nitrate as N	3.60		mg/L	2.50	117	80-120	1	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 447305 Date: 08/13/2020 23:34								
2320B-2011	MRC-MW-164B-081120	240-134814-1	Alkalinity	98	mg/L			
2320B-2011	MRC-MW-164B-081120	240-134814-1 DU	Alkalinity	96.4	mg/L	2	20	
Batch ID: 447678 Date: 08/18/2020 15:48								
2340C-2011		240-134554-B-7	Hardness as calcium carbonate	480	mg/L			
2340C-2011		240-134554-B-7 DU	Hardness as calcium carbonate	490	mg/L	2	20	
Batch ID: 447201 Date: 08/14/2020 09:02								
2540 C-2011		190-23825-D-2	Total Dissolved Solids	1100	mg/L			
2540 C-2011		190-23825-D-2 DU	Total Dissolved Solids	1130	mg/L	4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 326269 Date: 08/19/2020 20:04								
SM 2510B	MRC-MW-164B-081120	240-134814-1	Specific Conductance	250	umhos/cm			
SM 2510B	MRC-MW-164B-081120	240-134814-1 DU	Specific Conductance	249	umhos/cm	0.2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 447305	Date: 08/13/2020 22:14										
						LCS Source: WCPHENOMINER_00029					
2320B-2011	LCS 240-447305/29	Alkalinity	163		mg/L	166	98	86-123			
Batch ID: 447678	Date: 08/18/2020 15:48										
						LCS Source: WCHARDNESS_00037					
2340C-2011	LCS 240-447678/2	Hardness as calcium carbonate	126		mg/L	134	94	90-110			
Batch ID: 447201	Date: 08/14/2020 09:02										
						LCS Source: WCPHENOVSOLID_00051					
2540 C-2011	LCS 240-447201/2	Total Dissolved Solids	547		mg/L	567	96	80-120			
Batch ID: 446838	Date: 08/12/2020 16:29										
						LCS Source: WCICLCS_00778					
9056A	LCS 240-446838/4	Bromide	10.2		mg/L	10.0	102	90-110			
9056A	LCS 240-446838/4	Sulfate	52.1		mg/L	50.0	104	90-110			
Batch ID: 446839	Date: 08/12/2020 16:29										
						LCS Source: WCICLCS_00778					
9056A	LCS 240-446839/4	Nitrite as N	2.59		mg/L	2.50	104	90-110			
9056A	LCS 240-446839/4	Nitrate as N	2.68		mg/L	2.50	107	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 326269	Date: 08/19/2020 20:04										
						LCS Source: WCond84SP_00046					
SM 2510B	LCS 180-326269/1	Specific Conductance	86.2		umhos/cm	84.0	103	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340C-2011 MDL Date: 04/25/2017 11:12

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Hardness as calcium carbonate		5	2.389

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340C-2011 XMDL Date: 04/25/2017 11:12

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness as calcium carbonate		5	2.389

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: Severus

Method: 2320B-2011 MDL Date: 08/21/2018 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: Severus

Method: 2320B-2011 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2540 C-2011 MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2540 C-2011 XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2510B MDL Date: 01/01/2011 18:59

Analyte	Wavelength/ Mass	RL (umhos/cm)	MDL (umhos/cm)
Specific Conductance		1	1

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2510B XMDL Date: 01/01/2011 18:59

Analyte	Wavelength/ Mass	XRL (umhos/cm)	XMDL (umhos/cm)
Specific Conductance		1	1

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B RL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	RL (No Unit)	
Salinity		2	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburg Job Number: 240-134814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B XRL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	XRL (No Unit)	
Salinity		2	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340C-2011

Start Date: 08/18/2020 15:48 End Date: 08/18/2020 15:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
MB 240-447678/1	1	T	15:48	X																								
LCS 240-447678/2	1	T	15:48	X																								
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
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ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
ZZZZZZ			15:48																									
240-134554-B-7 MS	1	T	15:48	X																								
240-134554-B-7 MSD	1	T	15:48	X																								
240-134554-B-7 DU	1	T	15:48	X																								
ZZZZZZ			15:48																									
ZZZZZZ			15:49																									
ZZZZZZ			15:49																									
240-134814-1	1	T	15:49	X																								
ZZZZZZ			15:49																									
ZZZZZZ			15:49																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: Severus Analysis Method: 2320B-2011

Start Date: 08/13/2020 20:11 End Date: 08/14/2020 00:49

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			20:11	
ZZZZZZ			20:19	
ZZZZZZ			20:25	
ZZZZZZ			20:28	
ZZZZZZ			20:33	
ZZZZZZ			20:37	
ZZZZZZ			20:42	
ZZZZZZ			20:46	
ZZZZZZ			20:50	
ZZZZZZ			20:54	
ZZZZZZ			20:58	
ZZZZZZ			21:02	
ZZZZZZ			21:04	
ZZZZZZ			21:08	
ZZZZZZ			21:12	
ZZZZZZ			21:17	
ZZZZZZ			21:21	
ZZZZZZ			21:25	
ZZZZZZ			21:30	
ZZZZZZ			21:35	
ZZZZZZ			21:40	
ZZZZZZ			21:44	
ZZZZZZ			21:49	
ZZZZZZ			21:51	
ZZZZZZ			21:55	
ZZZZZZ			22:00	
ZZZZZZ			22:05	
ZZZZZZ			22:10	
LCS 240-447305/29	1	T	22:14	X
MB 240-447305/30	1	T	22:18	X
ZZZZZZ			22:25	
ZZZZZZ			22:30	
ZZZZZZ			22:33	
ZZZZZZ			22:37	
ZZZZZZ			22:39	
ZZZZZZ			22:43	
ZZZZZZ			22:47	
ZZZZZZ			22:56	
ZZZZZZ			23:05	
ZZZZZZ			23:15	
ZZZZZZ			23:25	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: Severus Analysis Method: 2320B-2011

Start Date: 08/13/2020 20:11 End Date: 08/14/2020 00:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
240-134814-1	1	T	23:30	X																								
240-134814-1 DU	1	T	23:34	X																								
ZZZZZZ			23:38																									
ZZZZZZ			23:42																									
ZZZZZZ			23:44																									
ZZZZZZ			23:48																									
ZZZZZZ			23:53																									
ZZZZZZ			23:58																									
ZZZZZZ			00:03																									
ZZZZZZ			00:08																									
ZZZZZZ			00:13																									
ZZZZZZ			00:17																									
ZZZZZZ			00:21																									
ZZZZZZ			00:25																									
ZZZZZZ			00:29																									
ZZZZZZ			00:31																									
ZZZZZZ			00:36																									
ZZZZZZ			00:41																									
ZZZZZZ			00:45																									
ZZZZZZ			00:47																									
ZZZZZZ			00:49																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540 C-2011

Start Date: 08/14/2020 09:02 End Date: 08/14/2020 09:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-447201/1	1	T	09:02	X																								
LCS 240-447201/2	1	T	09:02	X																								
ZZZZZZ			09:02																									
190-23825-D-2 DU	1	T	09:02	X																								
240-134814-1	1	T	09:02	X																								
ZZZZZZ			09:02																									
ZZZZZZ			09:02																									
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Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/24/2020 19:48 End Date: 07/24/2020 23:09

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	SO4																								
STD1 240-444170/1 IC	1		19:48	X	X																								
STD2 240-444170/2 IC	1		20:08	X	X																								
STD3 240-444170/3 IC	1		20:28	X	X																								
STD4 240-444170/4 IC	1		20:48	X	X																								
STD5 240-444170/5 ICRT	1		21:08	X	X																								
STD6 240-444170/6 IC	1		21:29	X	X																								
STD7 240-444170/7 IC	1		21:49	X	X																								
STD8 240-444170/8 IC	1		22:09	X	X																								
STD9 240-444170/9 IC	1		22:29	X	X																								
ICV 240-444170/10	1		22:49	X	X																								
ICB 240-444170/11	1		23:09	X	X																								

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/24/2020 19:48 End Date: 07/24/2020 23:09

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
STD1 240-444171/1 IC	1		19:48	X	X																								
STD2 240-444171/2 IC	1		20:08	X	X																								
STD3 240-444171/3 IC	1		20:28	X	X																								
STD4 240-444171/4 IC	1		20:48	X	X																								
STD5 240-444171/5 ICRT	1		21:08	X	X																								
STD6 240-444171/6 IC	1		21:29	X	X																								
STD7 240-444171/7 IC	1		21:49	X	X																								
STD8 240-444171/8 IC	1		22:09	X	X																								
STD9 240-444171/9 IC	1		22:29	X	X																								
ICV 240-444171/10	1		22:49	X	X																								
ICB 240-444171/11	1		23:09	X	X																								

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 08/12/2020 15:29 End Date: 08/12/2020 21:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	SO4																								
CCV 240-446838/1	1		15:29	X	X																								
CCB 240-446838/2	1		15:49	X	X																								
MB 240-446838/3	1	T	16:09	X	X																								
LCS 240-446838/4	1	T	16:29	X	X																								
ZZZZZZ			16:49																										
ZZZZZZ			17:09																										
ZZZZZZ			17:29																										
ZZZZZZ			17:49																										
240-134814-1	1	T	18:10	X	X																								
ZZZZZZ			18:30																										
ZZZZZZ			18:50																										
ZZZZZZ			19:10																										
CCV 240-446838/13	1		19:30	X	X																								
CCB 240-446838/14	1		19:51	X	X																								
ZZZZZZ			20:11																										
240-134791-K-3 MS	1	T	20:31	X	X																								
240-134791-K-3 MSD	1	T	20:51	X	X																								
CCV 240-446838/18	1		21:11	X	X																								
CCB 240-446838/19	1		21:31	X	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 08/12/2020 15:29 End Date: 08/12/2020 21:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
CCV 240-446839/1	1		15:29	X	X																								
CCB 240-446839/2	1		15:49	X	X																								
MB 240-446839/3	1	T	16:09	X	X																								
LCS 240-446839/4	1	T	16:29	X	X																								
ZZZZZZ			16:49																										
ZZZZZZ			17:09																										
ZZZZZZ			17:29																										
ZZZZZZ			17:49																										
240-134814-1	1	T	18:10	X	X																								
ZZZZZZ			18:30																										
ZZZZZZ			18:50																										
ZZZZZZ			19:10																										
CCV 240-446839/13	1		19:30	X	X																								
CCB 240-446839/14	1		19:51	X	X																								
ZZZZZZ			20:11																										
240-134791-K-3 MS	1	T	20:31	X	X																								
240-134791-K-3 MSD	1	T	20:51	X	X																								
CCV 240-446839/18	1		21:11	X	X																								
CCB 240-446839/19	1		21:31	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2510B

Start Date: 08/19/2020 20:04 End Date: 08/19/2020 20:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				SC																								
LCS 180-326269/1	1	T	20:04	X																								
MB 180-326269/2	1	T	20:04	X																								
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
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ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
CCV 180-326269/13	1		20:04	X																								
CCB 180-326269/14	1		20:04	X																								
240-134814-1	1	T	20:04	X																								
240-134814-1 DU	1	T	20:04	X																								
ZZZZZZ			20:04																									
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ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
CCV 180-326269/25	1		20:04	X																								
CCB 180-326269/26	1		20:04	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Pittsburgh Job No.: 240-134814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2520B

Start Date: 08/26/2020 12:08 End Date: 08/26/2020 12:16

Lab Sample Id	D/F	Type	Time	Analytes																								
				Salin																								
240-134814-1	1	T	12:08	X																								
MB 180-327204/2	1	T	12:16	X																								
ZZZZZZ			12:16																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447678 Batch Start Date: 08/18/20 15:48 Batch Analyst: Rodgers, Jacob M

Batch Method: 2340C-2011 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
MB 240-447678/1		2340C-2011		25 mL	25 mL	- SU	- SU	0 mL	0 mL
LCS 240-447678/2		2340C-2011		25 mL	25 mL	- SU	- SU	0 mL	3.15 mL
240-134554-B-7 MS		2340C-2011	T	5 mL	25 mL	- SU	- SU	0 mL	7.45 mL
240-134554-B-7 MSD		2340C-2011	T	5 mL	25 mL	- SU	- SU	0 mL	7.45 mL
240-134554-B-7 DU		2340C-2011	T	5 mL	25 mL	- SU	- SU	0 mL	2.45 mL
240-134814-N-1	MRC-MW-164B-081120	2340C-2011	T	25 mL	25 mL	- SU	- SU	0 mL	2.40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	WCCALCIUMCARB 00024	WCHARDNESS 00037			
MB 240-447678/1		2340C-2011		0 mL					
LCS 240-447678/2		2340C-2011		3.15 mL		25 mL			
240-134554-B-7 MS		2340C-2011	T	7.45 mL	5 mL				
240-134554-B-7 MSD		2340C-2011	T	7.45 mL	5 mL				
240-134554-B-7 DU		2340C-2011	T	2.45 mL					
240-134814-N-1	MRC-MW-164B-081120	2340C-2011	T	2.4 mL					

Batch Notes	
Buffer Reagent ID	3944945
Indicator Reagent ID	4134599
Nominal Amount Used	25 mL
Pipette/Syringe/Dispenser ID	C6
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447305 Batch Start Date: 08/13/20 20:11 Batch Analyst: Weimer, Joshua W

Batch Method: 2320B-2011 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	WCPHENOMINER 00029				
LCS 240-447305/29		2320B-2011		InitialAmount is blank	10 mL				
MB 240-447305/30		2320B-2011		InitialAmount is blank					
240-134814-K-1	MRC-MW-164B-081120	2320B-2011	T	InitialAmount is blank					
240-134814-K-1 DU	MRC-MW-164B-081120	2320B-2011	T	InitialAmount is blank					

Batch Notes	
Acid ID	4617138
pH Buffer 1 ID	4-4772832
pH Buffer 2 ID	7-4596436
pH Buffer 3 ID	10-4853006
pH Buffer 4 ID	12-4526574
Nominal Amount Used	10 mL
pH Meter ID	Severus
Probe ID	WCP-149
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447201 Batch Start Date: 08/14/20 09:01 Batch Analyst: Reidenbach, Kendall L

Batch Method: 2540 C-2011 Batch End Date: 08/17/20 12:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	TareWeight	InitialAmount	Weight1	Weight2	WeightOne%Diff
MB 240-447201/1		2540 C-2011			3.9281 g	100 mL	3.9288 g	3.9286 g	Pass No Unit
LCS 240-447201/2		2540 C-2011			3.8397 g	100 mL	3.8945 g	3.8944 g	Pass No Unit
190-23825-D-2 DU		2540 C-2011	T	1985 umhos/cm	3.8500 g	50 mL	3.9068 g	3.9067 g	Pass No Unit
240-134814-J-1	MRC-MW-164B-081120	2540 C-2011	T	373 umhos/cm	3.8645 g	100 mL	3.8765 g	3.8768 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-447201/1		2540 C-2011		N/A No Unit	N/A	0.0007 g	0.0005 g	N/A g	N/A g
LCS 240-447201/2		2540 C-2011		N/A No Unit	N/A	0.0548 g	0.0547 g	N/A g	N/A g
190-23825-D-2 DU		2540 C-2011	T	N/A No Unit	N/A	0.0568 g	0.0567 g	N/A g	N/A g
240-134814-J-1	MRC-MW-164B-081120	2540 C-2011	T	N/A No Unit	N/A	0.012 g	0.0123 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00051			
MB 240-447201/1		2540 C-2011		100 mL	OK				
LCS 240-447201/2		2540 C-2011		100 mL	OK	100 mL			
190-23825-D-2 DU		2540 C-2011	T	100 mL	OK				
240-134814-J-1	MRC-MW-164B-081120	2540 C-2011	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 447201 Batch Start Date: 08/14/20 09:01 Batch Analyst: Reidenbach, Kendall L

Batch Method: 2540 C-2011 Batch End Date: 08/17/20 12:25

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Date/Time - In - CW (WT2)	08/17/2020 10:10
Date/Time - Out - CW (WT2)	08/17/2020 11:10
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	179.1 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180.4 Celsius
Temperature - End-CW(WT2) -Uncorrected	179.5 Celsius
Temperature - Start - Corrected	103.8 Celsius
Temperature - End - Corrected	105 Celsius
Date/Time - In	08/14/2020 09:50
Date/Time - Out	08/14/2020 14:30
Filter ID	17055937
Nominal Amount Used	100 mL
Oven ID	001
Oven ID - Low Temperature	O06
Thermometer ID - Low Temperature	FELICIA
Thermometer ID	FELICIA
Temperature - Start - Uncorrected	104.2 Celsius
Temperature - End - Uncorrected	105.4 Celsius
Vessel Lot ID	RW0004801-0093-LR
Weight(WT1) Start Date/Time	08/14/2020 14:30 No Unit
Weight(WT1) Date/Time Out	08/17/2020 08:30
Weight(WT1) Start Temp	181.5 Celsius
Weight(WT1) Temp Out	181 Celsius
Uncorrected Weight(WT1) Start Temp	181.9 Celsius
Uncorrected Weight(WT1) Temp Out	181.4 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 444170 Batch Start Date: 07/24/20 19:48 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00331	WCICLCS 00775			
STD1 240-444170/1 IC		9056A		5 mL	0.025 mL				
STD2 240-444170/2 IC		9056A		5 mL	0.125 mL				
STD3 240-444170/3 IC		9056A		5 mL	0.25 mL				
STD4 240-444170/4 IC		9056A		5 mL	0.5 mL				
STD5 240-444170/5 ICRT		9056A		5 mL	1.25 mL				
STD6 240-444170/6 IC		9056A		5 mL	2 mL				
STD7 240-444170/7 IC		9056A		5 mL	2.5 mL				
STD8 240-444170/8 IC		9056A		5 mL	3.75 mL				
STD9 240-444170/9 IC		9056A		5 mL	5 mL				
ICV 240-444170/10		9056A		5 mL		5 mL			
ICB 240-444170/11		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 444171 Batch Start Date: 07/24/20 19:48 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00331	WCICLCS 00775			
STD1 240-444171/1 IC		9056A		5 mL	0.025 mL				
STD2 240-444171/2 IC		9056A		5 mL	0.125 mL				
STD3 240-444171/3 IC		9056A		5 mL	0.25 mL				
STD4 240-444171/4 IC		9056A		5 mL	0.5 mL				
STD5 240-444171/5 ICRT		9056A		5 mL	1.25 mL				
STD6 240-444171/6 IC		9056A		5 mL	2 mL				
STD7 240-444171/7 IC		9056A		5 mL	2.5 mL				
STD8 240-444171/8 IC		9056A		5 mL	3.75 mL				
STD9 240-444171/9 IC		9056A		5 mL	5 mL				
ICV 240-444171/10		9056A		5 mL		5 mL			
ICB 240-444171/11		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 446838 Batch Start Date: 08/12/20 15:29 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCICCCV 00946	WCICLCS 00778	WCICSOLNA1 00023	WCICSOLNB1 00023
CCV 240-446838/1		9056A		5 mL		5 mL			
CCB 240-446838/2		9056A		5 mL					
MB 240-446838/3		9056A		5 mL					
LCS 240-446838/4		9056A		5 mL			5 mL		
240-134814-J-1	MRC-MW-164B-081120	9056A	T	5 mL	1.0 mL				
CCV 240-446838/13		9056A		5 mL		5 mL			
CCB 240-446838/14		9056A		5 mL					
240-134791-K-3 MS		9056A	T	5 mL				0.1 mL	0.1 mL
240-134791-K-3 MSD		9056A	T	5 mL				0.1 mL	0.1 mL
CCV 240-446838/18		9056A		5 mL		5 mL			
CCB 240-446838/19		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-134814-1

SDG No.:

Batch Number: 446839 Batch Start Date: 08/12/20 15:29 Batch Analyst: Weimer, Joshua W

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00946	WCICLCS 00778	WCICSOLNA1 00023	WCICSOLNB1 00023	
CCV 240-446839/1		9056A		5 mL	5 mL				
CCB 240-446839/2		9056A		5 mL					
MB 240-446839/3		9056A		5 mL					
LCS 240-446839/4		9056A		5 mL		5 mL			
240-134814-J-1	MRC-MW-164B-081120	9056A	T	5 mL					
CCV 240-446839/13		9056A		5 mL	5 mL				
CCB 240-446839/14		9056A		5 mL					
240-134791-K-3 MS		9056A	T	5 mL			0.1 mL	0.1 mL	
240-134791-K-3 MSD		9056A	T	5 mL			0.1 mL	0.1 mL	
CCV 240-446839/18		9056A		5 mL	5 mL				
CCB 240-446839/19		9056A		5 mL					

Batch Notes	
Eluent 1 ID	Water

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Pittsbur Job No.: 240-134814-1

SDG No.:

Batch Number: 326269 Batch Start Date: 08/19/20 20:04 Batch Analyst: Partridge, Angela G

Batch Method: SM 2510B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	UnCorSampTemp	Cond. CCV 00023	WCond84SP 00046		
LCS 180-326269/1		SM 2510B		2 mL	21.1 Degrees C		2 mL		
MB 180-326269/2		SM 2510B		2 mL	24.7 Degrees C				
CCV 180-326269/13		SM 2510B		2 mL	21.1 Degrees C	2 mL			
CCB 180-326269/14		SM 2510B		2 mL	24.7 Degrees C				
240-134814-G-1	MRC-MW-164B-081120	SM 2510B	T	2 mL	19.1 Degrees C				
240-134814-G-1 DU	MRC-MW-164B-081120	SM 2510B	T	2 mL	19.1 Degrees C				
CCV 180-326269/25		SM 2510B		2 mL	21.1 Degrees C	2 mL			
CCB 180-326269/26		SM 2510B		2 mL	24.7 Degrees C				

Batch Notes	
Conductivity Standard ID	3825077
Instrument ID	Ultrameter II Psi SN 6205309

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

General Chemistry Raw Data Report

Job ID: 240-134814-1

Batch: 447678 **Analyst Initials: JMR**

Method: 2340C-2011 **Instrument: No Equipment**

Lab Sample ID: MB 240-447678/1

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	0	mg/L	25 mL	25 mL

Lab Sample ID: LCS 240-447678/2

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	126	mg/L	25 mL	25 mL

Lab Sample ID: 240-134554-B-7 MS

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	298	mg/L	5 mL	25 mL

Lab Sample ID: 240-134554-B-7 MSD

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	298	mg/L	5 mL	25 mL

Lab Sample ID: 240-134554-B-7 DU

Analysis Date: Aug 18, 2020 15:48

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	98	mg/L	5 mL	25 mL

Lab Sample ID: 240-134814-N-1

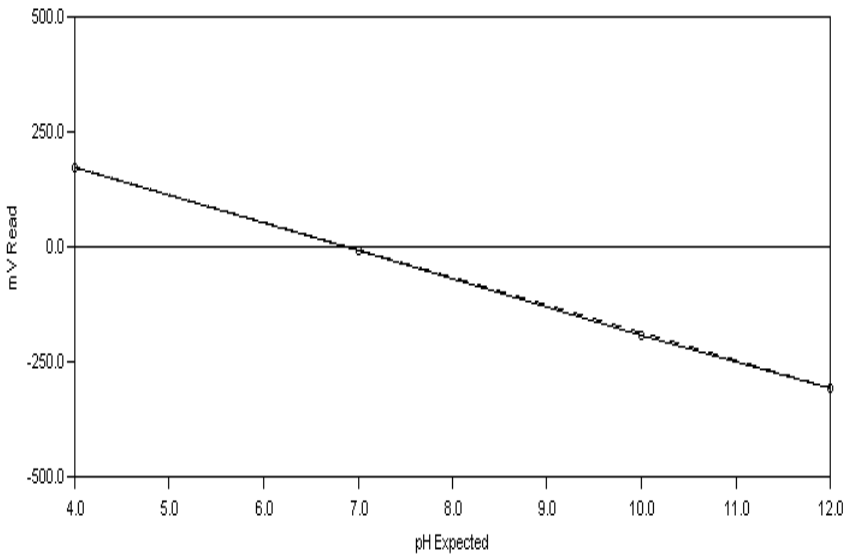
Analysis Date: Aug 18, 2020 15:49

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Hardness as calcium carbonate	None	1	96	mg/L	25 mL	25 mL

Test America-Canton

Calibration Report

Calibration Record # 387



Calibration Settings

Calibration ID	PH	Date	8/13/2020
Channel	1	Time	8:17 PM
Probe Type	pH	Temperature	302.43 K 29.28 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.871	CorrCoeff	0.9999
Intercept	-8.896	Equation:	Y = (-59.871) X + (-8.896)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.871	-65.00	-54.00
Intercept	-8.896	-100.00	100.00
Correlation Coefficient	0.9999	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	171.63
	7.00	-9.15
	10.00	-191.52
	12.00	-305.90

Severus

EurofinsTestAmerica Canton
Alkalinity 2320B

Run Number 727 **Order Number** 20200813-3

SampleID	Schedule Name	RunDate	RunTime	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm
Tap Water	PH-ALK	8/13/2020	8:11 PM	29.92	7.67	.00	23.65	23.65	.00	.00
pH 7	PH	8/13/2020	8:19 PM	29.15	6.97	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	PH-ALK	8/13/2020	8:25 PM	29.24	8.54	5.70	161.39	149.99	11.40	.00
MB	PH-ALK	8/13/2020	8:28 PM	29.37	6.03	.00	1.07	1.07	.00	.00
240-134604-G-4	PH-ALK	8/13/2020	8:33 PM	29.07	7.25	.00	193.13	193.13	.00	.00
240-134604-G-6	PH-ALK	8/13/2020	8:37 PM	29.35	7.32	.00	196.51	196.51	.00	.00
Du	PH-ALK	8/13/2020	8:42 PM	29.33	7.32	.00	197.05	197.05	.00	.00
240-134604-G-11	PH-ALK	8/13/2020	8:46 PM	29.03	6.37	.00	87.22	87.22	.00	.00
240-134604-G-12	PH-ALK	8/13/2020	8:50 PM	29.01	7.22	.00	214.45	214.45	.00	.00
240-134604-G-13	PH-ALK	8/13/2020	8:54 PM	28.76	5.64	.00	33.46	33.46	.00	.00
240-134604-G-16	PH-ALK	8/13/2020	8:58 PM	28.92	6.58	.00	104.15	104.15	.00	.00
240-134604-G-17	PH-ALK	8/13/2020	9:02 PM	28.84	6.90	.00	118.94	118.94	.00	.00
pH 7-2	PH	8/13/2020	9:04 PM	28.74	7.01	-1.00	-1.00	-1.00	-1.00	-1.00
240-134604-G-18	PH-ALK	8/13/2020	9:08 PM	28.88	6.53	.00	75.85	75.85	.00	.00
240-134604-G-19	PH-ALK	8/13/2020	9:12 PM	28.82	7.03	.00	171.66	171.66	.00	.00
Du	PH-ALK	8/13/2020	9:17 PM	29.24	7.06	.00	172.80	172.80	.00	.00
240-134604-H-23	PH-ALK	8/13/2020	9:21 PM	29.33	6.44	.00	60.48	60.48	.00	.00
240-134604-H-24	PH-ALK	8/13/2020	9:25 PM	29.15	7.04	.00	172.59	172.59	.00	.00
240-134604-F-25	PH-ALK	8/13/2020	9:30 PM	29.05	7.36	.00	200.22	200.22	.00	.00
240-134623-F-1	PH-ALK	8/13/2020	9:35 PM	28.82	8.03	.00	484.81	484.81	.00	.00
240-134623-F-2	PH-ALK	8/13/2020	9:40 PM	28.80	8.17	.00	419.26	419.26	.00	.00
240-134554-D-5	PH-ALK	8/13/2020	9:44 PM	28.78	6.37	.00	8.12	8.12	.00	.00
240-134554-D-6	PH-ALK	8/13/2020	9:49 PM	28.72	7.02	.00	24.74	24.74	.00	.00
pH 7-3	PH	8/13/2020	9:51 PM	28.78	7.00	-1.00	-1.00	-1.00	-1.00	-1.00
240-134554-C-7	PH-ALK	8/13/2020	9:55 PM	28.99	7.65	.00	50.10	50.10	.00	.00
240-134626-F-1	PH-ALK	8/13/2020	10:00 PM	29.09	7.98	.00	222.08	222.08	.00	.00
240-134626-F-2	PH-ALK	8/13/2020	10:05 PM	29.09	8.29	.00	206.37	206.37	.00	.00

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Run Number 727 **Order Number** 20200813-3

SampleID	Schedule Name	RunDate	RunTime	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm
240-134626-E-3	PH-ALK	8/13/2020	10:10 PM	28.92	7.70	.00	299.17	299.17	.00	.00
LCS	PH-ALK	8/13/2020	10:14 PM	28.74	8.64	8.02	163.35	147.31	16.04	.00
MB	PH-ALK	8/13/2020	10:18 PM	28.84	6.44	.00	1.22	1.22	.00	.00
240-134626-E-4	PH-ALK	8/13/2020	10:25 PM	28.96	7.58	.00	1,122.14	1,122.14	.00	.00
240-134626-E-5	PH-ALK	8/13/2020	10:30 PM	29.01	7.60	.00	448.80	448.80	.00	.00
240-134819-F-1	PH-ALK	8/13/2020	10:33 PM	28.44	8.18	.00	55.45	55.45	.00	.00
Du	PH-ALK	8/13/2020	10:37 PM	28.64	8.17	.00	55.82	55.82	.00	.00
pH 7-4	PH	8/13/2020	10:39 PM	28.78	6.99	-1.00	-1.00	-1.00	-1.00	-1.00
240-134819-F-2	PH-ALK	8/13/2020	10:43 PM	28.72	7.61	.00	56.65	56.65	.00	.00
240-134819-F-5	PH-ALK	8/13/2020	10:47 PM	28.80	8.22	.00	95.61	95.61	.00	.00
240-134885-C-3	PH-ALK	8/13/2020	10:56 PM	28.84	8.75	267.81	2,303.78	1,768.15	535.62	.00
240-134885-G-4	PH-ALK	8/13/2020	11:05 PM	28.90	8.65	202.24	2,288.58	1,884.09	404.49	.00
240-134712-C-1	PH-ALK	8/13/2020	11:15 PM	28.96	7.80	.00	.00	.00	.00	.00
240-134712-C-3	PH-ALK	8/13/2020	11:25 PM	28.99	7.78	.00	.00	.00	.00	.00
240-134814-K-1	PH-ALK	8/13/2020	11:30 PM	28.96	6.79	.00	98.48	98.48	.00	.00
Du	PH-ALK	8/13/2020	11:34 PM	28.76	6.81	.00	96.42	96.42	.00	.00
240-134791-K-2	PH-ALK	8/13/2020	11:38 PM	28.86	7.73	.00	58.10	58.10	.00	.00
240-134791-K-3	PH-ALK	8/13/2020	11:42 PM	28.76	5.81	.00	3.17	3.17	.00	.00
pH 7-5	PH	8/13/2020	11:44 PM	28.58	7.01	-1.00	-1.00	-1.00	-1.00	-1.00
240-134791-O-4	PH-ALK	8/13/2020	11:48 PM	28.72	6.46	.00	35.55	35.55	.00	.00
240-134871-C-1	PH-ALK	8/13/2020	11:53 PM	28.90	7.88	.00	120.43	120.43	.00	.00
240-134871-C-2	PH-ALK	8/13/2020	11:58 PM	29.01	7.86	.00	135.61	135.61	.00	.00
240-134859-E-1	PH-ALK	8/14/2020	12:03 AM	29.05	7.75	.00	467.22	467.22	.00	.00
240-134859-E-2	PH-ALK	8/14/2020	12:08 AM	29.05	7.76	.00	464.43	464.43	.00	.00
Du	PH-ALK	8/14/2020	12:13 AM	28.92	7.77	.00	461.75	461.75	.00	.00
240-134655-N-2	PH-ALK	8/14/2020	12:17 AM	28.94	5.81	.00	8.55	8.55	.00	.00
240-134655-N-3	PH-ALK	8/14/2020	12:21 AM	28.88	7.22	.00	67.62	67.62	.00	.00
LCS	PH-ALK	8/14/2020	12:25 AM	28.74	8.54	5.63	161.64	150.37	11.27	.00
MB	PH-ALK	8/14/2020	12:29 AM	28.88	5.89	.00	.92	.92	.00	.00
pH 7-6	PH	8/14/2020	12:31 AM	28.84	7.01	-1.00	-1.00	-1.00	-1.00	-1.00
240-134761-E-1	PH-ALK	8/14/2020	12:36 AM	28.82	7.72	.00	375.68	375.68	.00	.00

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Run Number 727 **Order Number** 20200813-3

SampleID	Schedule Name	RunDate	RunTime	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm
240-134761-E-2	PH-ALK	8/14/2020	12:41 AM	29.24	7.60	.00	309.34	309.34	.00	.00
Du	PH-ALK	8/14/2020	12:45 AM	29.18	7.59	.00	308.84	308.84	.00	.00
pH 7-7	PH	8/14/2020	12:47 AM	29.20	7.00	-1.00	-1.00	-1.00	-1.00	-1.00
pH 7-8	PH	8/14/2020	12:49 AM	29.01	6.98	-1.00	-1.00	-1.00	-1.00	-1.00

General Chemistry Raw Data Report

Job ID: 240-134814-1

Batch: 447201 **Analyst Initials: KLR**

Method: 2540 C-2011 **Instrument: No Equipment**

Lab Sample ID: MB 240-447201/1

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	5	mg/L	100 mL	100 mL

Lab Sample ID: LCS 240-447201/2

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	547	mg/L	100 mL	100 mL

Lab Sample ID: 190-23825-D-2 DU

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	567	mg/L	50 mL	100 mL

Lab Sample ID: 240-134814-J-1

Analysis Date: Aug 14, 2020 09:02

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Total Dissolved Solids	None	1	123	mg/L	100 mL	100 mL

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jul-2020 19:48:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-001
Misc. Info.: STD1
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:13 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:34:00

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.253	4.263	-0.010	875219	0.0500	0.0358	M
2	Chloride	6.717	6.710	0.007	15364557	1.00	0.9568	M
3	Nitrite as N	8.350	8.337	0.013	1351577	0.0500	0.0399	M
4	Bromide	10.553	10.510	0.043	929390	0.2000	0.1437	M
5	Nitrate as N	12.173	12.103	0.070	1331045	0.0500	0.0361	M
6	Sulfate	15.340	15.033	0.307	9294325	1.00	0.8133	M
S 7	Nitrate Nitrite as N						0.0760	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

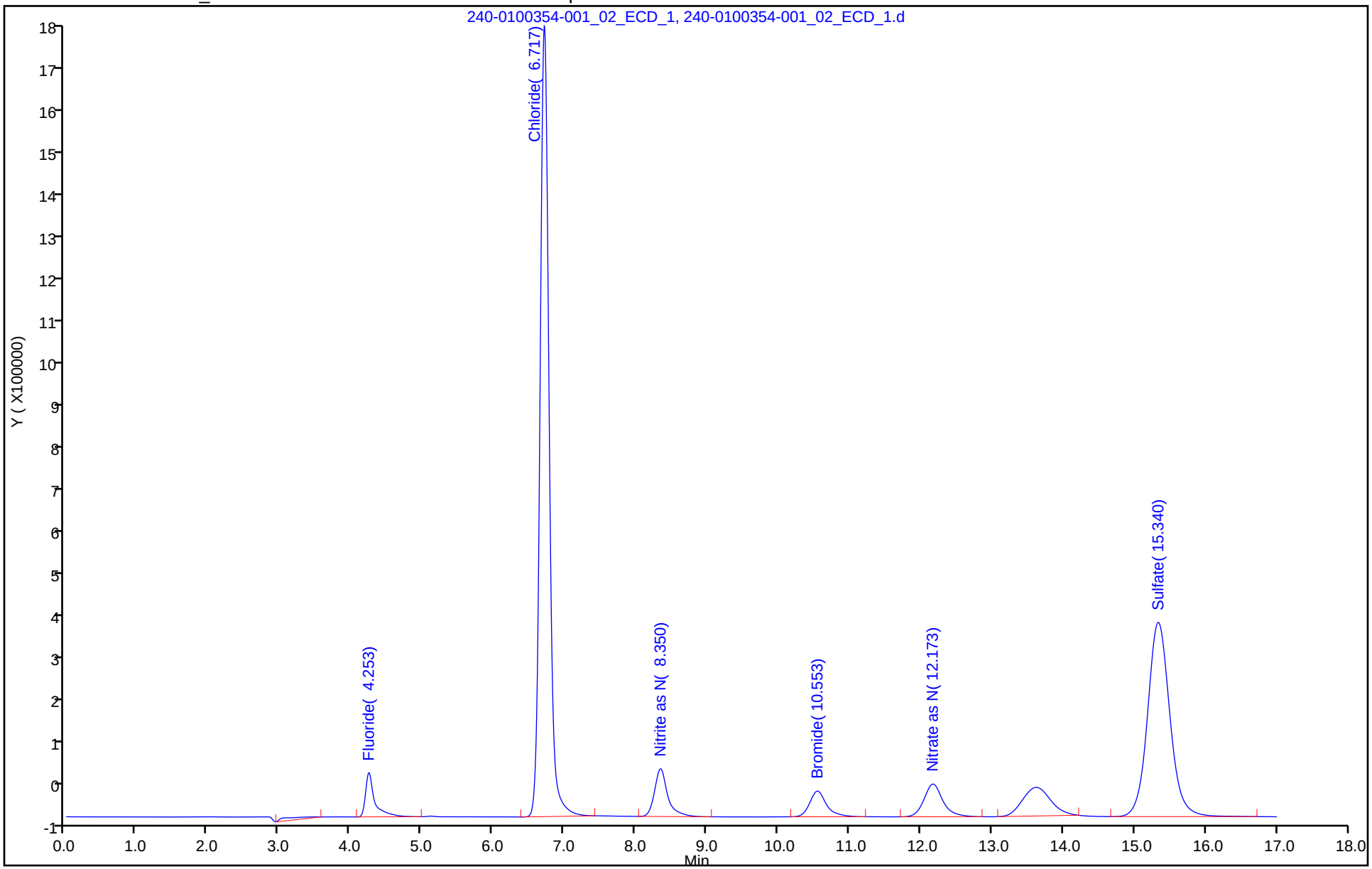
WCICCALSOLN_00331 Amount Added: 0.03 Units: mL

Report Date: 27-Jul-2020 15:43:13 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d

Injection Date:	24-Jul-2020 19:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD1			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

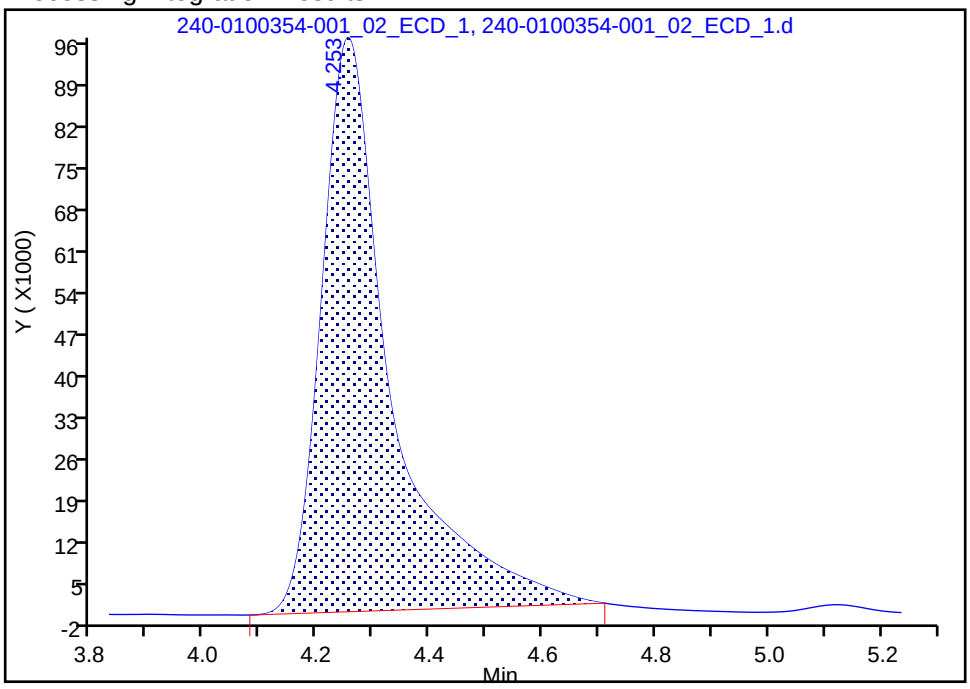
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Injection Date: 24-Jul-2020 19:48:00 Instrument ID: VERONICA
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

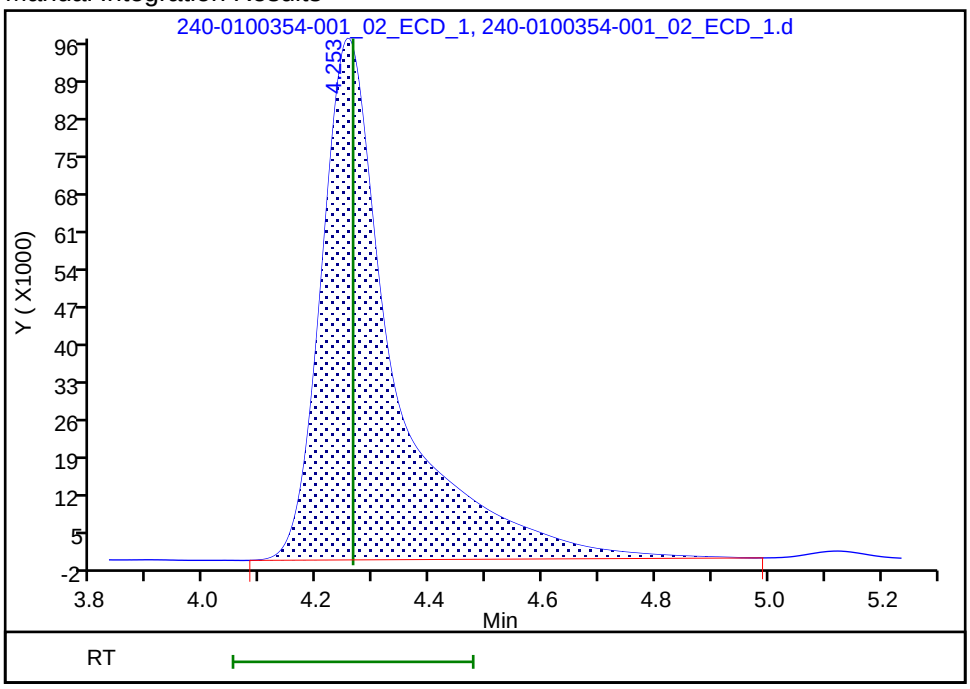
Processing Integration Results

RT: 4.25
Area: 834706
Amount: 0.034283
Amount Units: ug/ml



Manual Integration Results

RT: 4.25
Area: 875219
Amount: 0.035803
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:33:26
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

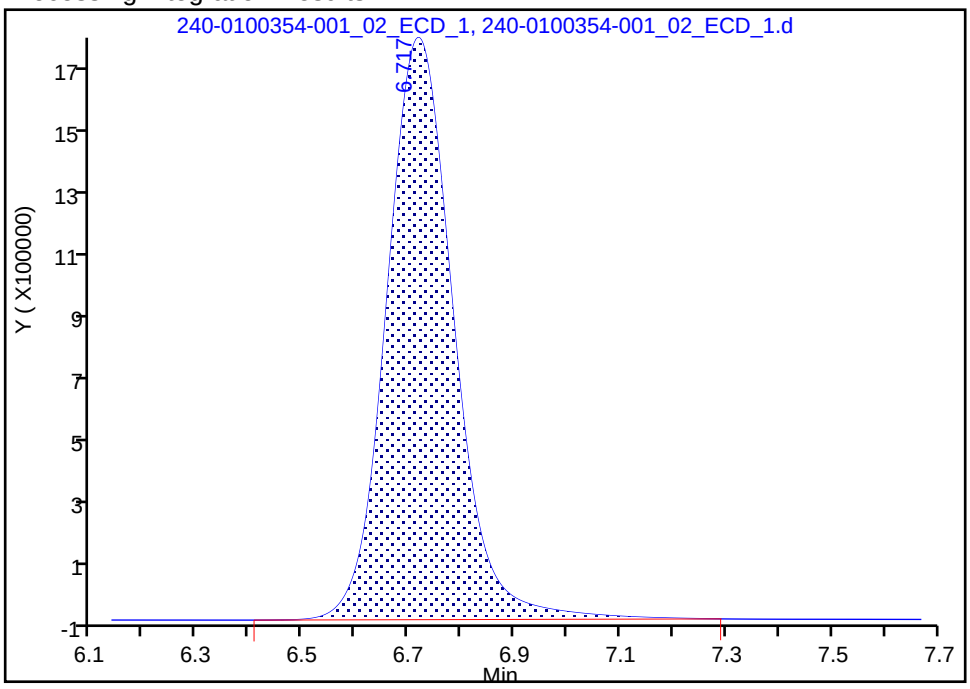
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Injection Date: 24-Jul-2020 19:48:00 Instrument ID: VERONICA
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

2 Chloride, CAS: 16887-00-6

Signal: 1

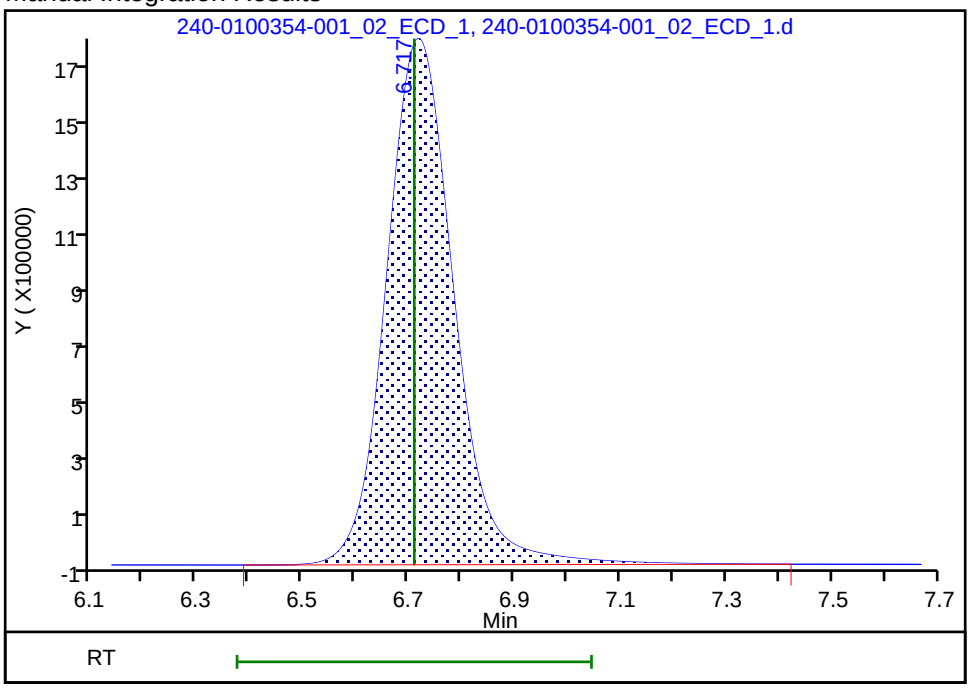
Processing Integration Results

RT: 6.72
Area: 15324282
Amount: 0.954513
Amount Units: ug/ml



Manual Integration Results

RT: 6.72
Area: 15364557
Amount: 0.956755
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:33:36
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

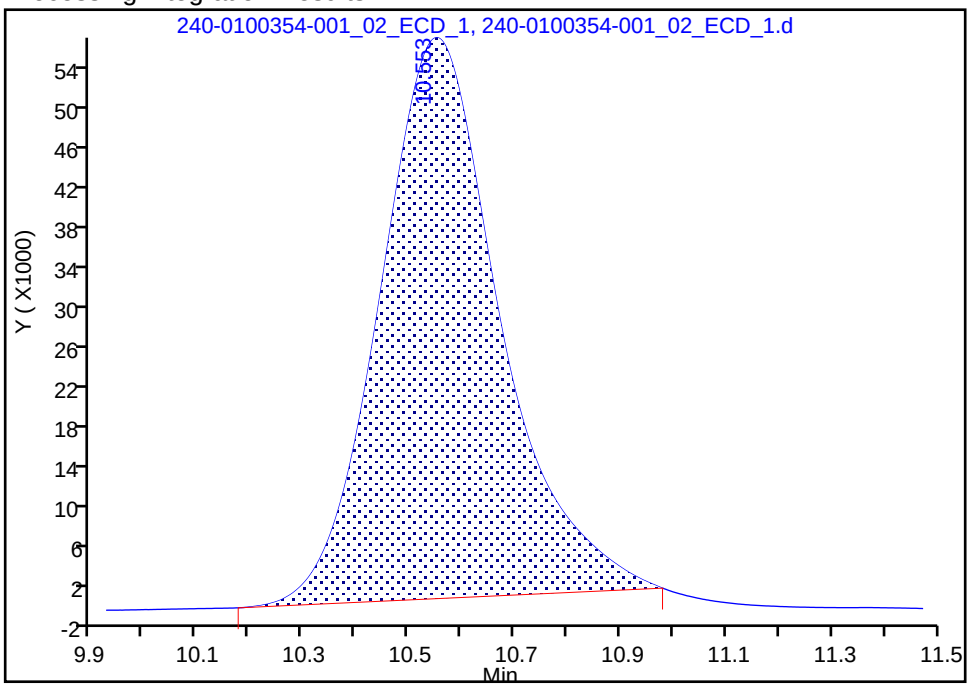
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Injection Date: 24-Jul-2020 19:48:00 Instrument ID: VERONICA
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

4 Bromide, CAS: 24959-67-9

Signal: 1

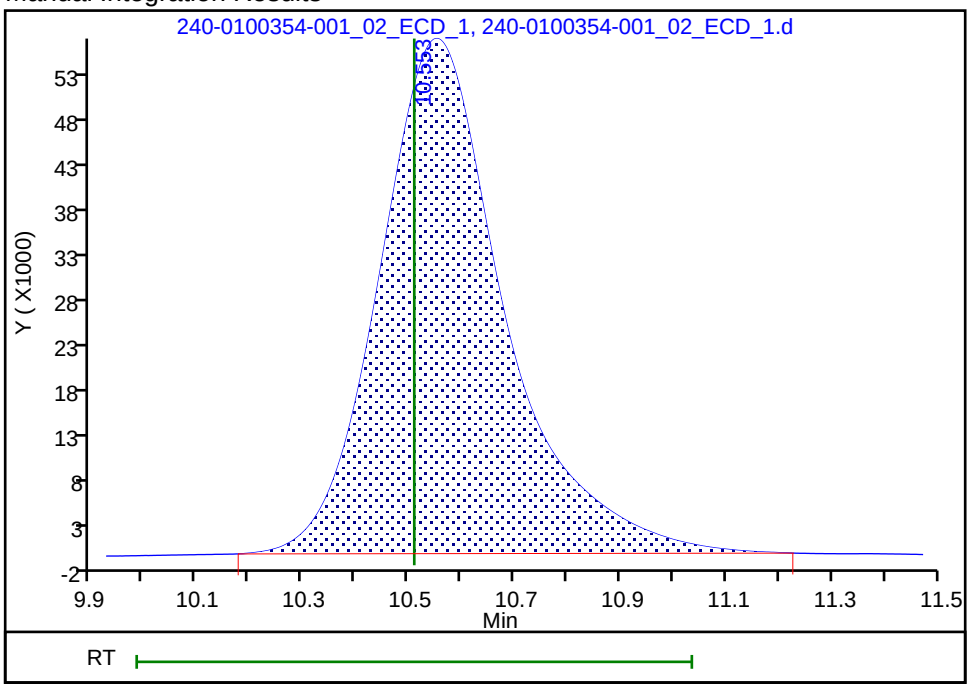
Processing Integration Results

RT: 10.55
Area: 875340
Amount: 0.135936
Amount Units: ug/ml



Manual Integration Results

RT: 10.55
Area: 929390
Amount: 0.143660
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:33:47
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

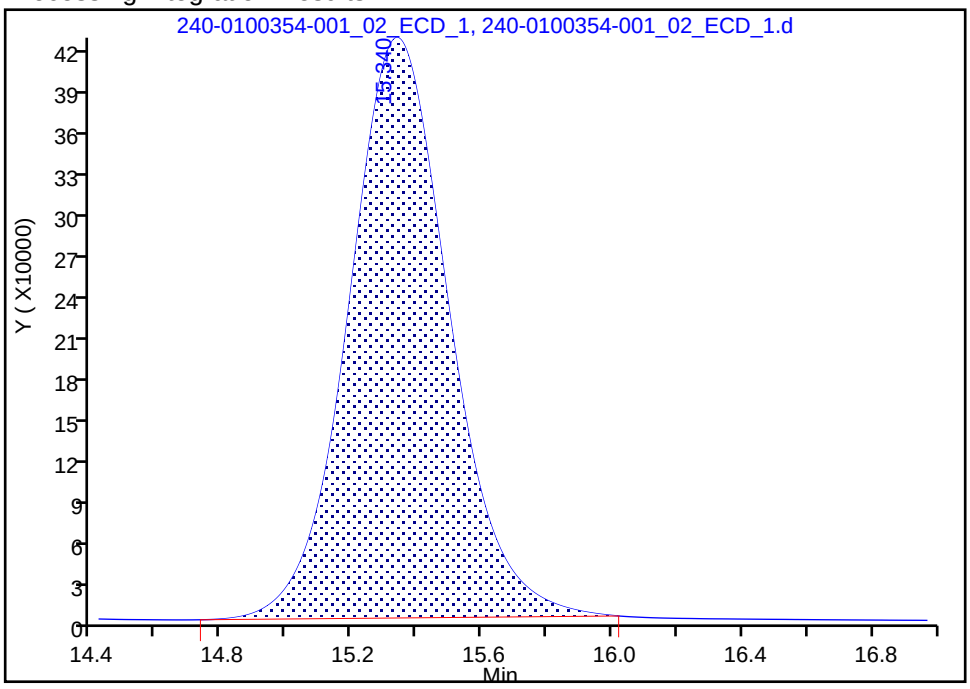
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Injection Date: 24-Jul-2020 19:48:00 Instrument ID: VERONICA
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

6 Sulfate, CAS: 14808-79-8

Signal: 1

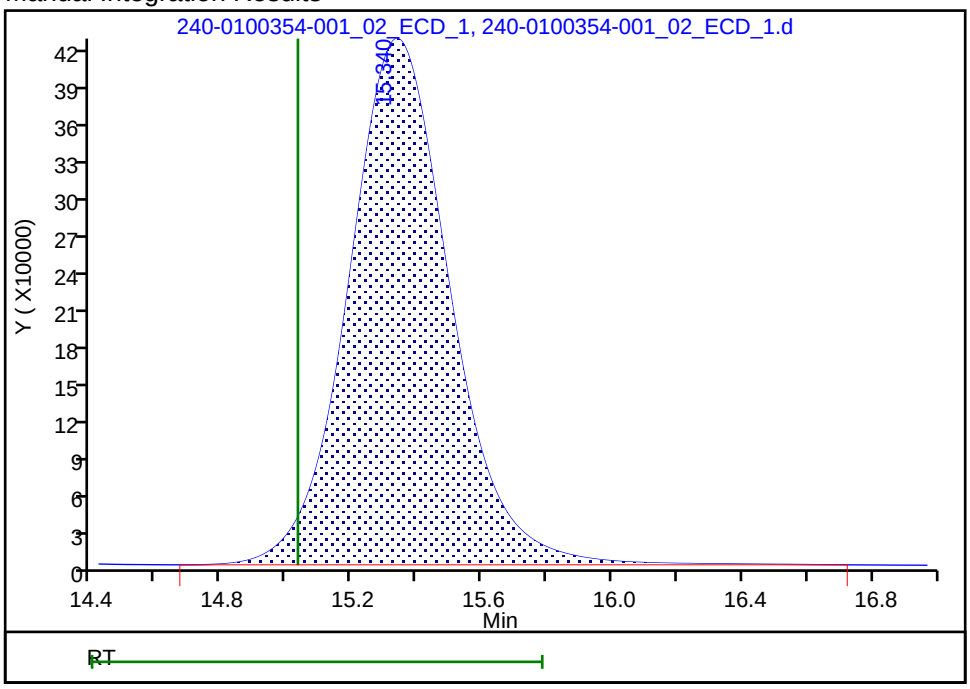
Processing Integration Results

RT: 15.34
Area: 9143644
Amount: 0.801293
Amount Units: ug/ml



Manual Integration Results

RT: 15.34
Area: 9294325
Amount: 0.813305
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:33:56
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-002_03_ECD_1.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Jul-2020 20:08:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-002
Misc. Info.: STD2
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:14 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:34:23

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.257	4.263	-0.006	5698895	0.2500	0.2331	M
2	Chloride	6.713	6.710	0.003	79275152	5.00	4.94	
3	Nitrite as N	8.343	8.337	0.006	8248693	0.2500	0.2435	
4	Bromide	10.547	10.510	0.037	5636609	1.00	0.8713	
5	Nitrate as N	12.160	12.103	0.057	8181079	0.2500	0.2219	
6	Sulfate	15.307	15.033	0.274	54046055	5.00	4.73	
S 7	Nitrate Nitrite as N						0.4655	

QC Flag Legend

Review Flags
M - Manually Integrated

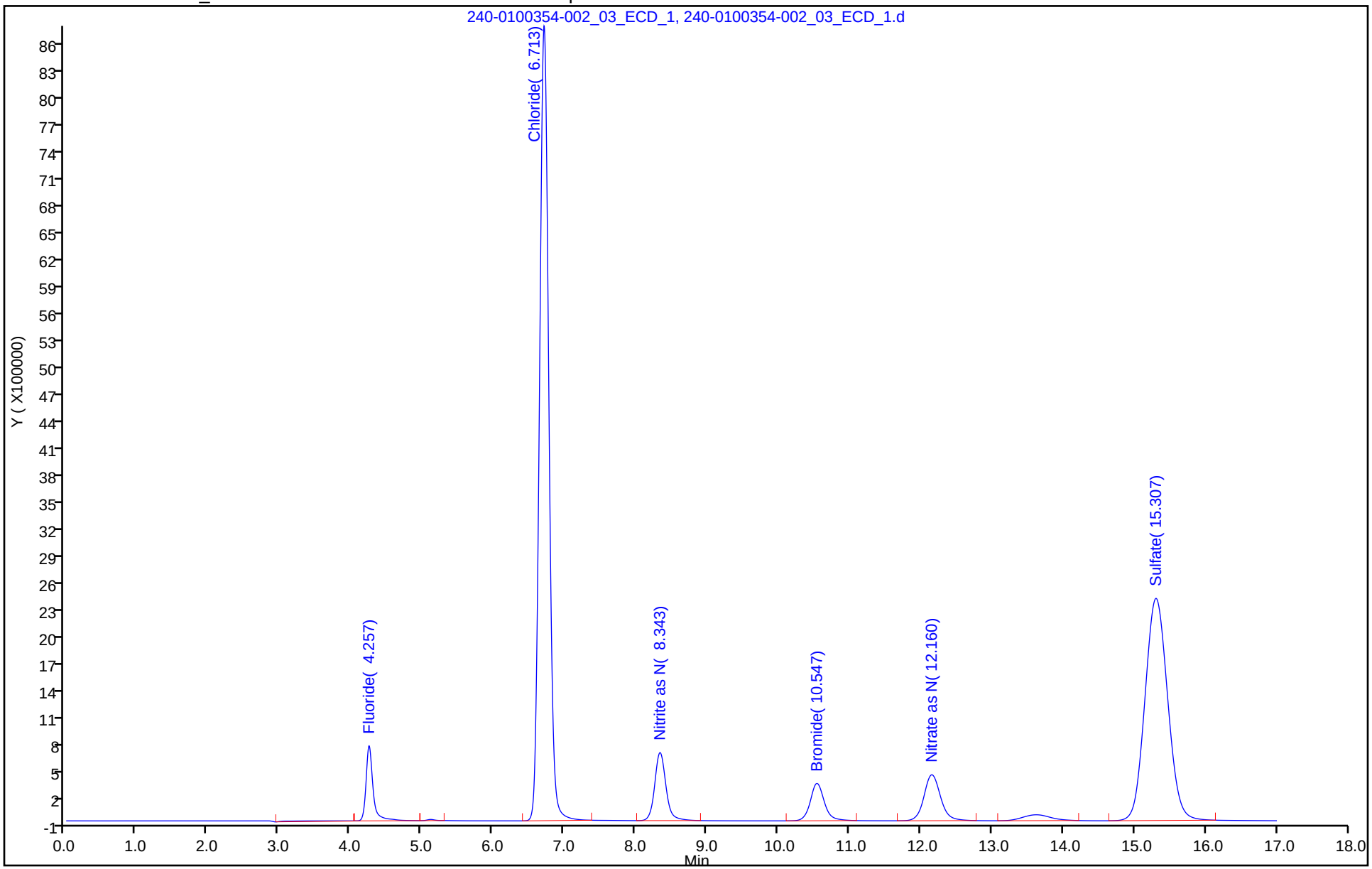
Reagents:

WCICCALSOLN_00331 Amount Added: 0.13 Units: mL

Report Date: 27-Jul-2020 15:43:14 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-002_03_ECD_1.d				
Injection Date:	24-Jul-2020 20:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD2			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

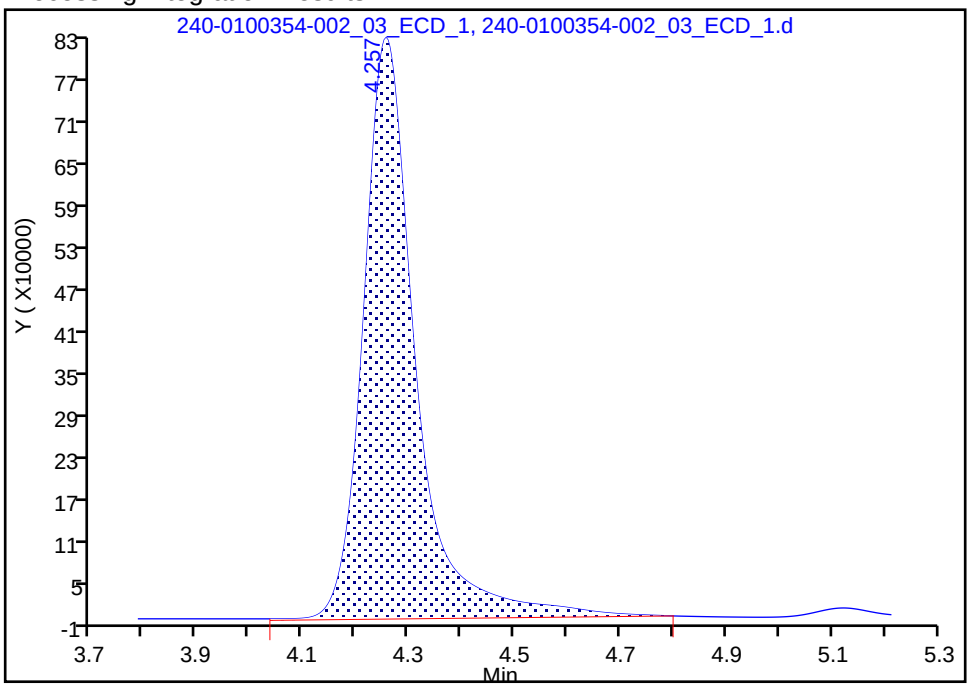
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-002_03_ECD_1.d
Injection Date: 24-Jul-2020 20:08:00 Instrument ID: VERONICA
Lims ID: STD2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

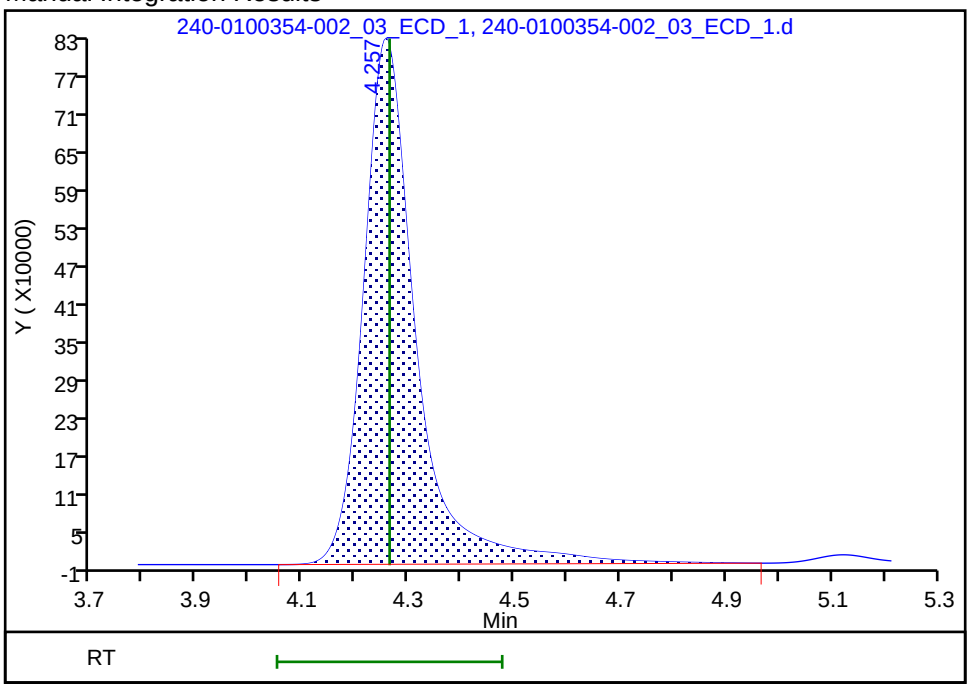
Processing Integration Results

RT: 4.26
Area: 5687352
Amount: 0.232732
Amount Units: ug/ml



Manual Integration Results

RT: 4.26
Area: 5698895
Amount: 0.233126
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:34:16
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-003_04_ECD_1.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Jul-2020 20:28:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-003
Misc. Info.: STD3
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:14 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.260	4.263	-0.003	12340431	0.5000	0.5048	
2 Chloride	6.720	6.710	0.010	160051865	10.0	9.97	
3 Nitrite as N	8.343	8.337	0.006	17559169	0.5000	0.5184	
4 Bromide	10.540	10.510	0.030	12326212	2.00	1.91	
5 Nitrate as N	12.153	12.103	0.050	17716736	0.5000	0.4806	
6 Sulfate	15.277	15.033	0.244	113743994	10.0	9.95	
S 7 Nitrate Nitrite as N						1.00	

Reagents:

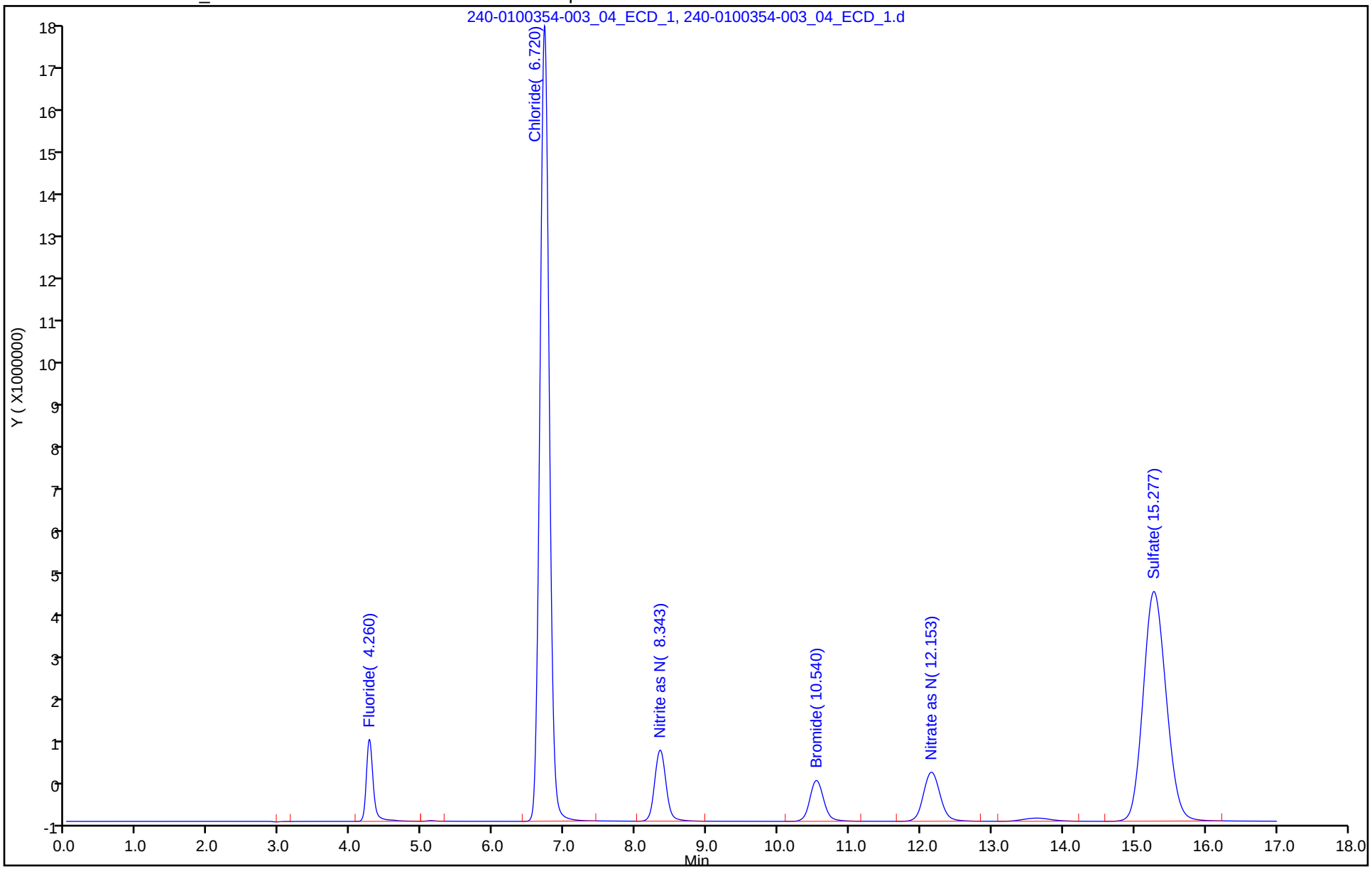
WCICCALSOLN_00331 Amount Added: 0.25 Units: mL

Report Date: 27-Jul-2020 15:43:15 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-003_04_ECD_1.d

Injection Date:	24-Jul-2020 20:28:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD3			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-004_05_ECD_1.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Jul-2020 20:48:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-004
Misc. Info.: STD4
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:15 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.250	4.263	-0.013	25740620	1.00	1.05	
2	Chloride	6.700	6.710	-0.010	321526339	20.0	20.0	
3	Nitrite as N	8.327	8.337	-0.010	35990460	1.00	1.06	
4	Bromide	10.517	10.510	0.007	26184098	4.00	4.05	
5	Nitrate as N	12.130	12.103	0.027	37438840	1.00	1.02	
6	Sulfate	15.193	15.033	0.160	232777062	20.0	20.4	
S 7	Nitrate Nitrite as N						2.08	

Reagents:

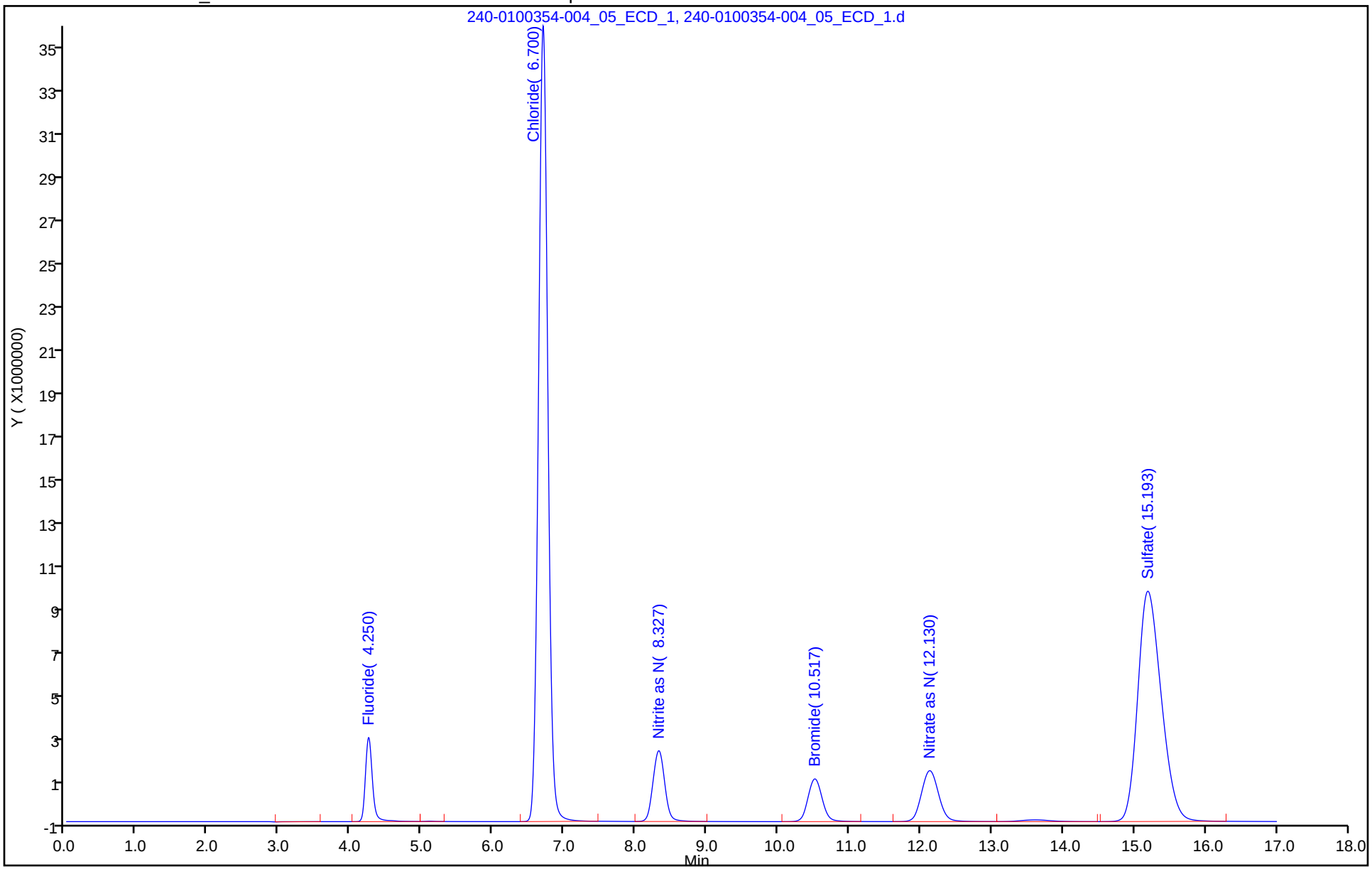
WCICCALSOLN_00331 Amount Added: 0.50 Units: mL

Report Date: 27-Jul-2020 15:43:15 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-004_05_ECD_1.d

Injection Date:	24-Jul-2020 20:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD4			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-005_06_ECD_1.d
Lims ID: STD5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 24-Jul-2020 21:08:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-005
Misc. Info.: STD5
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:15 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.263	4.263	0.000	65594370	2.50	2.68	
2 Chloride	6.710	6.710	0.000	813149041	50.0	50.6	
3 Nitrite as N	8.337	8.337	0.000	91026602	2.50	2.69	
4 Bromide	10.510	10.510	0.000	68940897	10.0	10.7	
5 Nitrate as N	12.103	12.103	0.000	97866727	2.50	2.65	
6 Sulfate	15.033	15.033	0.000	593806334	50.0	52.0	

Reagents:

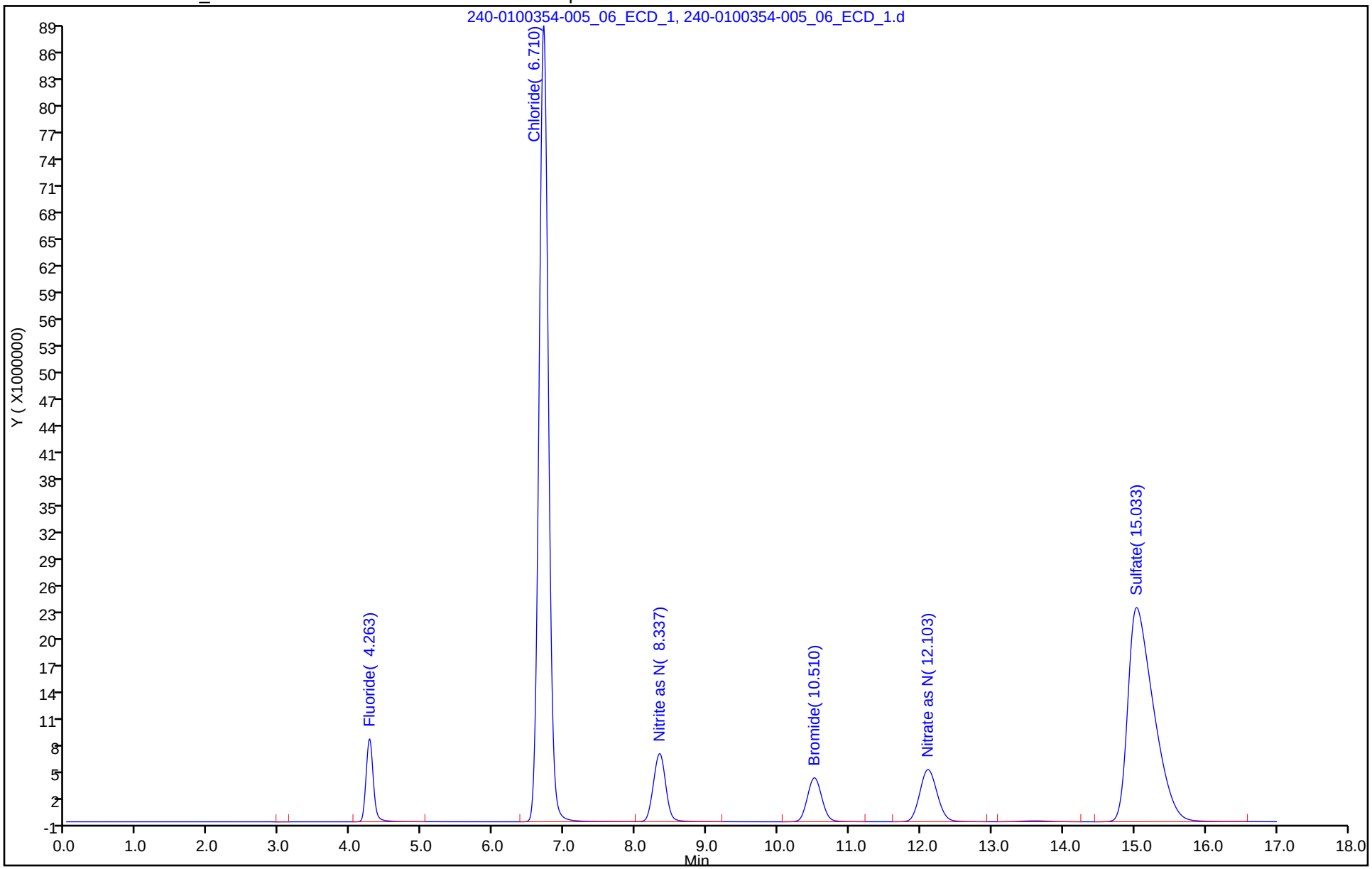
WCICCALSOLN_00331 Amount Added: 1.25 Units: mL

Report Date: 27-Jul-2020 15:43:15 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-005_06_ECD_1.d

Injection Date:	24-Jul-2020 21:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD5			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-006_07_ECD_1.d
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Jul-2020 21:29:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-006
Misc. Info.: STD6
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:16 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.263	4.263	0.000	104738519	4.00	4.28	
2	Chloride	6.707	6.710	-0.003	1300307886	80.0	81.0	
3	Nitrite as N	8.340	8.337	0.003	141796003	4.00	4.19	
4	Bromide	10.500	10.510	-0.010	112089962	16.0	17.3	
5	Nitrate as N	12.080	12.103	-0.023	158644988	4.00	4.30	
6	Sulfate	14.890	15.033	-0.143	954055598	80.0	83.5	
S 7	Nitrate Nitrite as N						8.49	

Reagents:

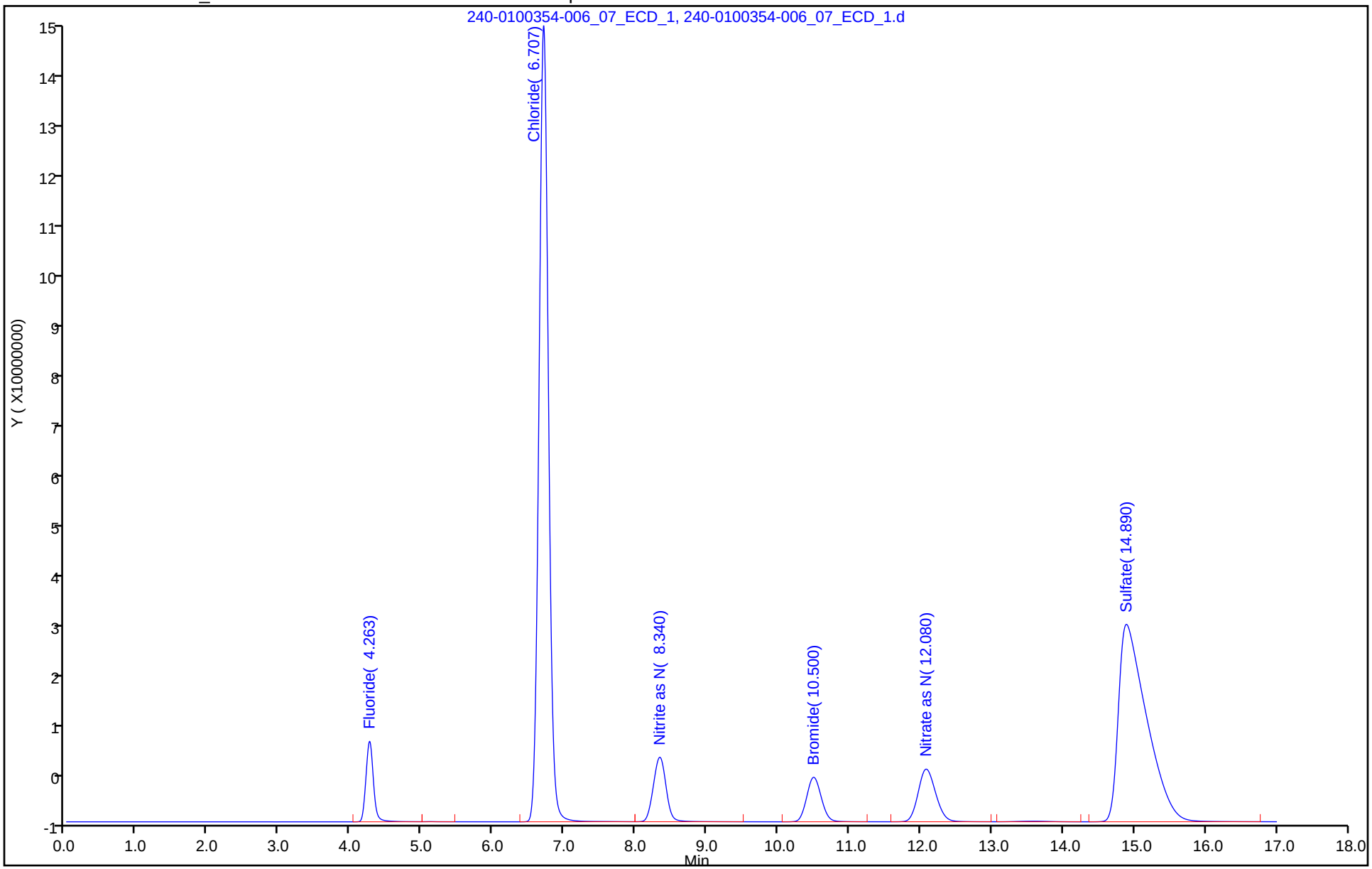
WCICCALSOLN_00331 Amount Added: 2.00 Units: mL

Report Date: 27-Jul-2020 15:43:16 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-006_07_ECD_1.d

Injection Date:	24-Jul-2020 21:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD6			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-007_08_ECD_1.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Jul-2020 21:49:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-007
Misc. Info.: STD7
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:16 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:35:01

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.260	4.263	-0.003	130390659	5.00	5.33	M
2	Chloride	6.697	6.710	-0.013	1621751373	100.0	101.0	
3	Nitrite as N	8.323	8.337	-0.014	174741356	5.00	5.16	
4	Bromide	10.470	10.510	-0.040	140848459	20.0	21.8	
5	Nitrate as N	12.043	12.103	-0.060	199277496	5.00	5.41	
6	Sulfate	14.807	15.033	-0.226	1194884455	100.0	104.6	
S 7	Nitrate Nitrite as N						10.6	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

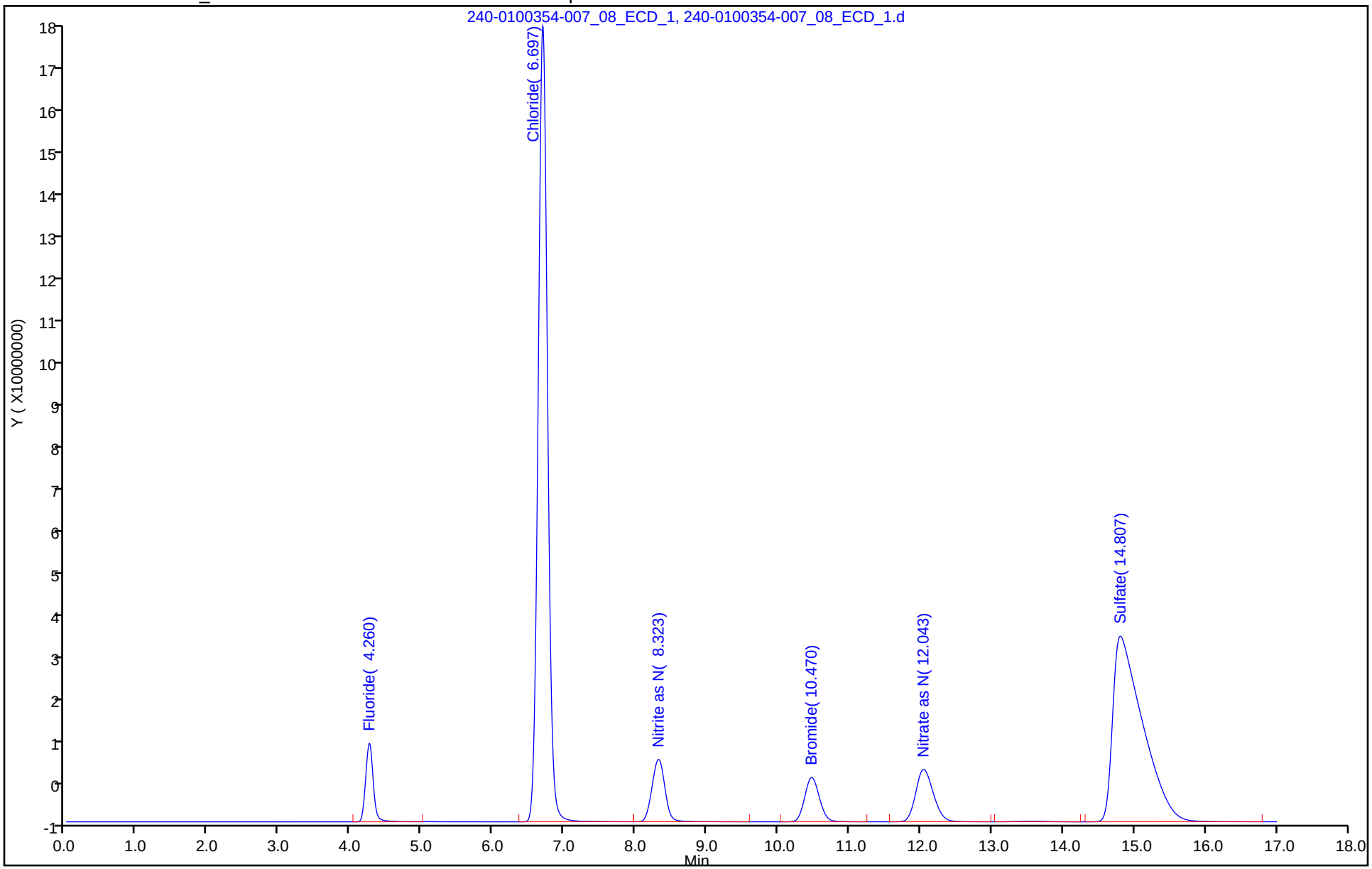
WCICCALSOLN_00331 Amount Added: 2.50 Units: mL

Report Date: 27-Jul-2020 15:43:16 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-007_08_ECD_1.d

Injection Date:	24-Jul-2020 21:49:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD7			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

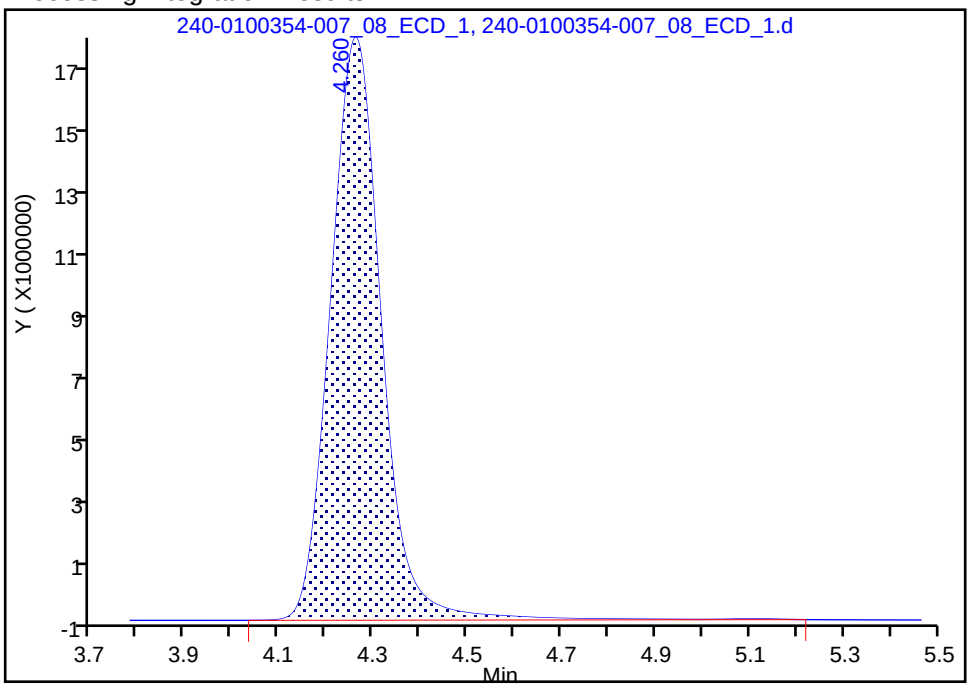
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-007_08_ECD_1.d
Injection Date: 24-Jul-2020 21:49:00 Instrument ID: VERONICA
Lims ID: STD7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

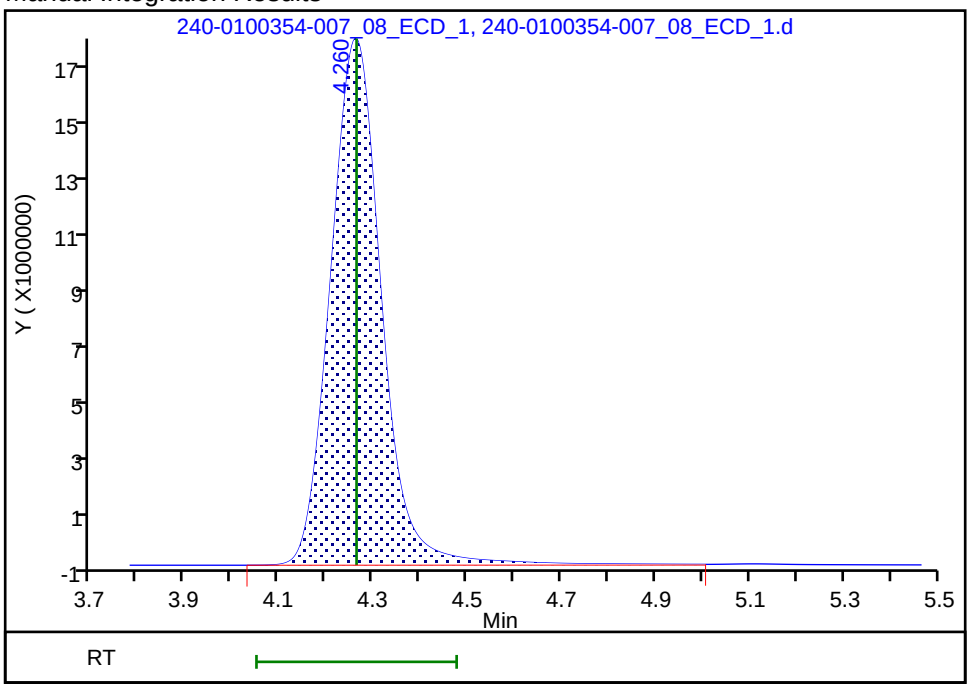
Processing Integration Results

RT: 4.26
Area: 130197812
Amount: 5.326700
Amount Units: ug/ml



Manual Integration Results

RT: 4.26
Area: 130390659
Amount: 5.333929
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:34:59
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-008_09_ECD_1.d
Lims ID: STD8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Jul-2020 22:09:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-008
Misc. Info.: STD8
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.270	4.263	0.007	192052277	7.50	7.86	
2	Chloride	6.703	6.710	-0.007	2437127948	150.0	151.8	
3	Nitrite as N	8.333	8.337	-0.004	254569224	7.50	7.52	
4	Bromide	10.470	10.510	-0.040	213823828	30.0	33.1	
5	Nitrate as N	12.020	12.103	-0.083	302606554	7.50	8.21	
6	Sulfate	14.653	15.033	-0.380	1800137768	150.0	157.5	
S 7	Nitrate Nitrite as N						15.7	

Reagents:

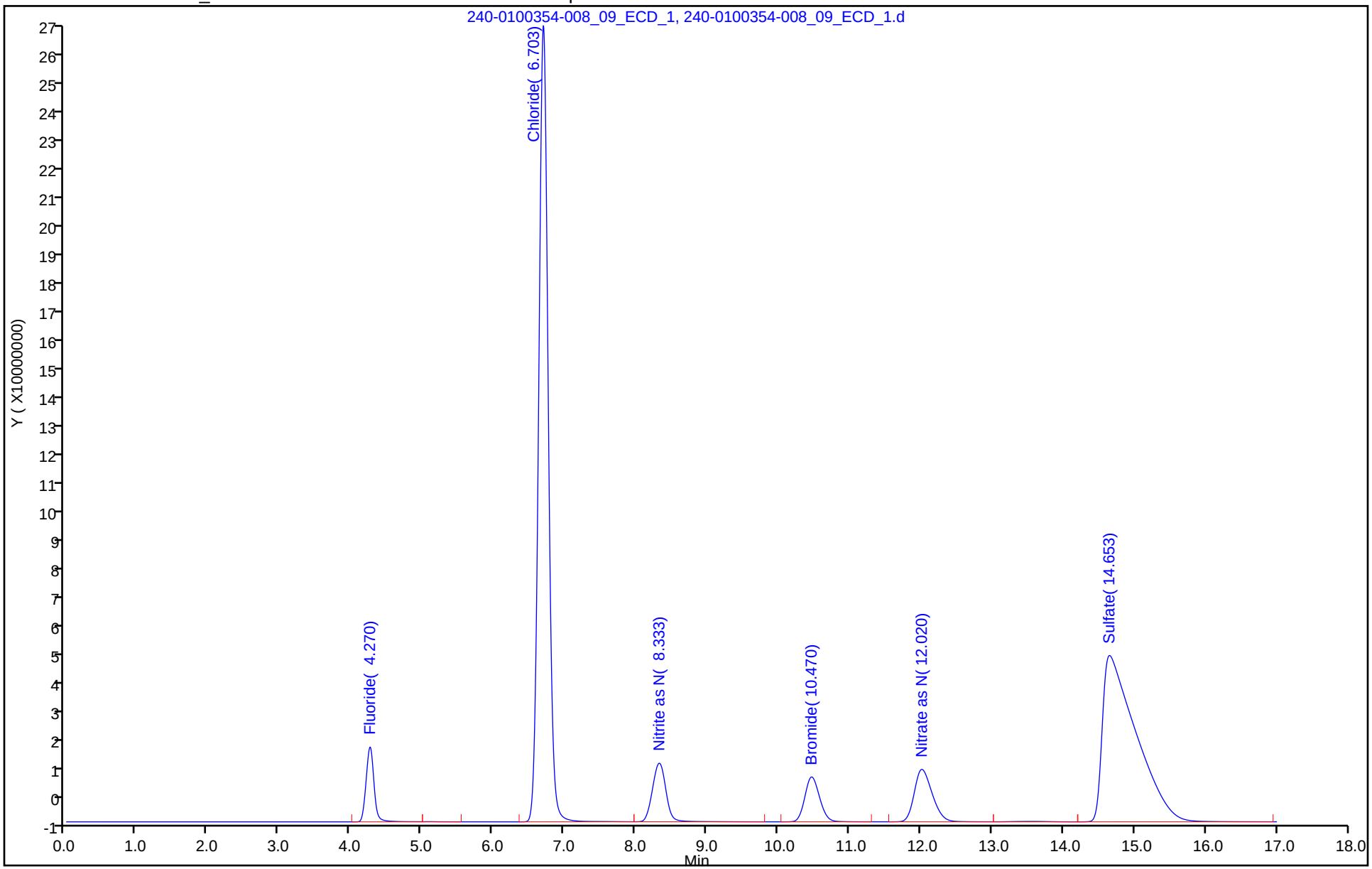
WCICCALSOLN_00331 Amount Added: 3.75 Units: mL

Report Date: 27-Jul-2020 15:43:17 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-008_09_ECD_1.d

Injection Date:	24-Jul-2020 22:09:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD8			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d
Lims ID: STD9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 24-Jul-2020 22:29:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-009
Misc. Info.: STD9
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:35:20

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.270	4.263	0.007	251807223	10.0	10.3	M
2	Chloride	6.703	6.710	-0.007	3249657360	200.0	202.4	
3	Nitrite as N	8.323	8.337	-0.014	329445398	10.0	9.73	
4	Bromide	10.437	10.510	-0.073	286482845	40.0	44.3	
5	Nitrate as N	11.970	12.103	-0.133	405293042	10.0	11.0	
6	Sulfate	14.530	15.033	-0.503	2396453233	200.0	209.7	
S 7	Nitrate Nitrite as N						20.7	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

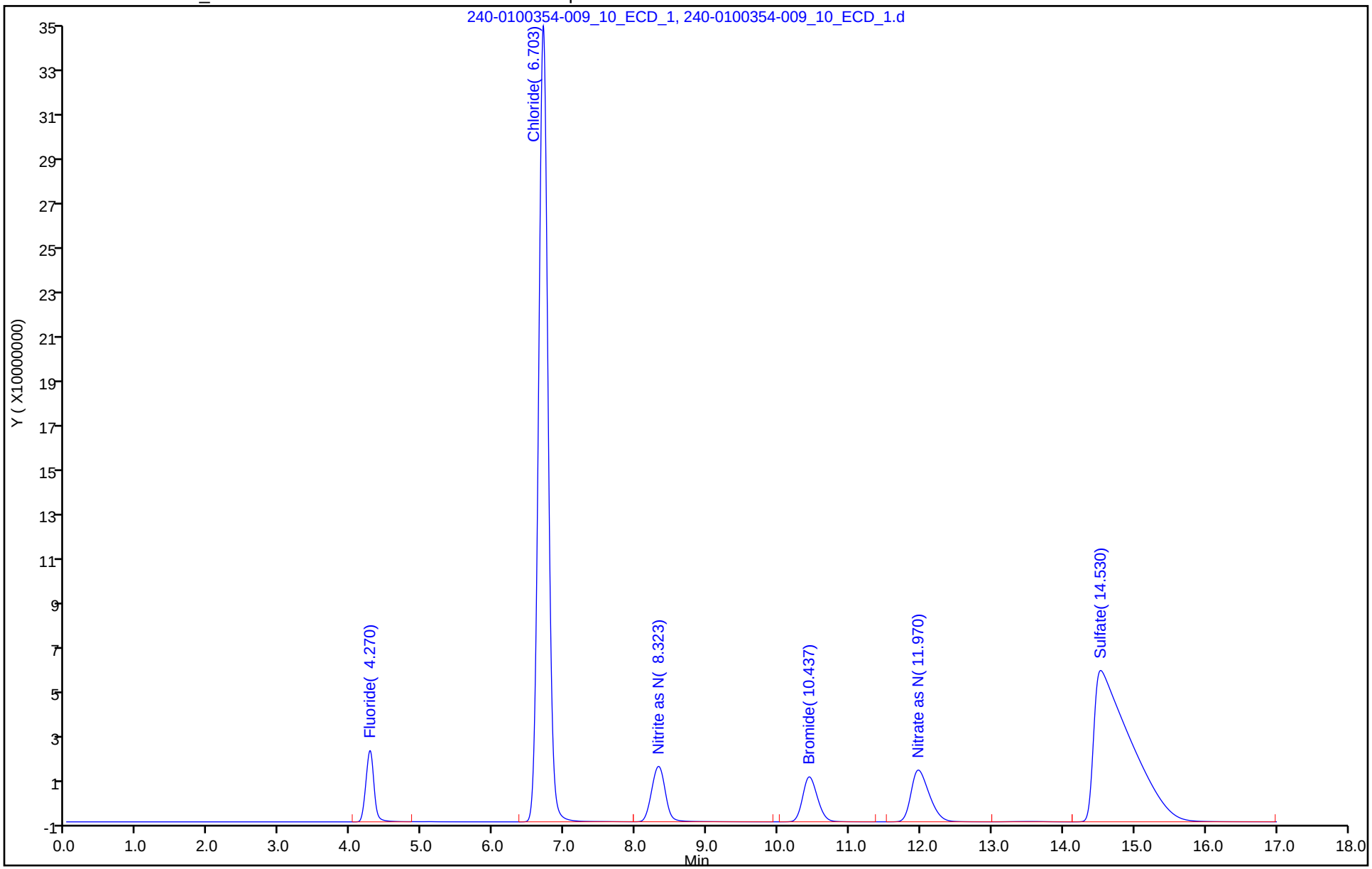
WCICCALSOLN_00331 Amount Added: 5.00 Units: mL

Report Date: 27-Jul-2020 15:43:17 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Injection Date:	24-Jul-2020 22:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD9			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

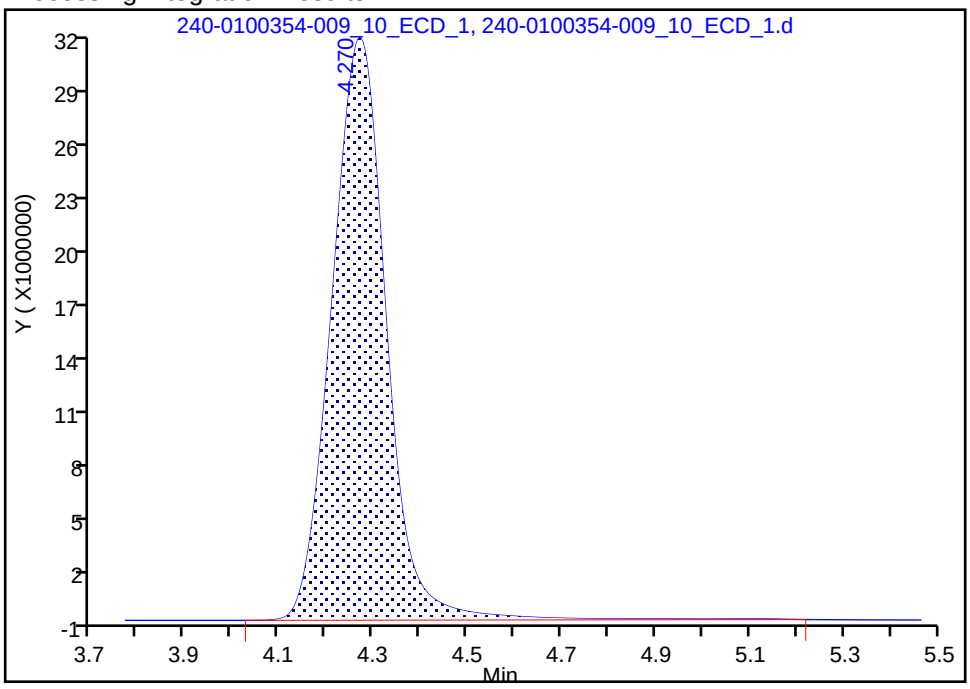
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d
Injection Date: 24-Jul-2020 22:29:00 Instrument ID: VERONICA
Lims ID: STD9
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

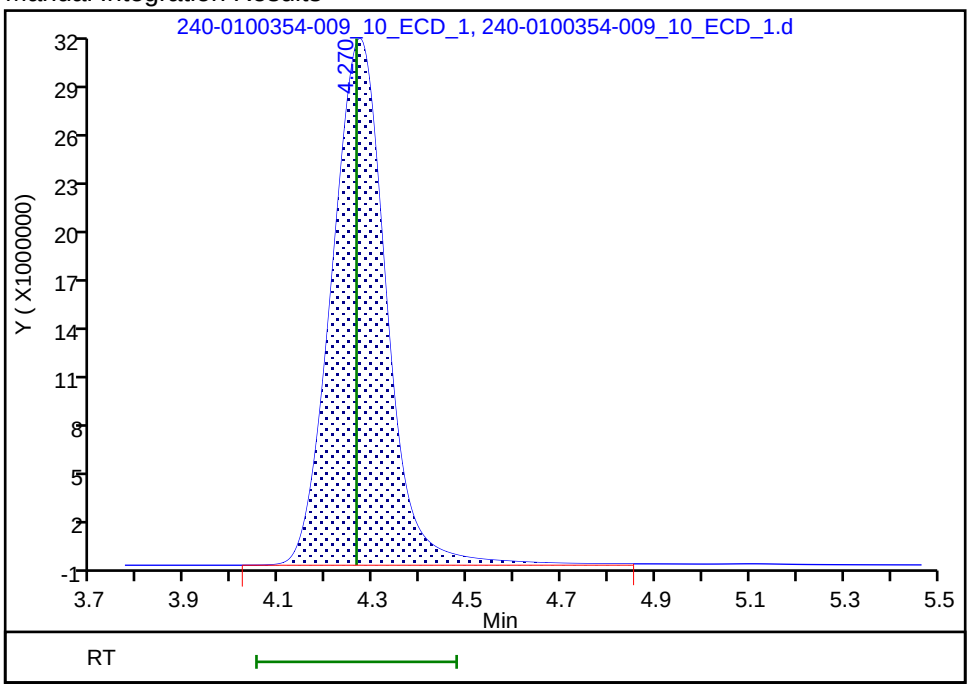
Processing Integration Results

RT: 4.27
Area: 251920480
Amount: 10.304856
Amount Units: ug/ml



Manual Integration Results

RT: 4.27
Area: 251807223
Amount: 10.300753
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:35:17
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-010_11_ECD_1.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Jul-2020 22:49:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-010
Misc. Info.: ICV
Operator ID: Instrument ID: VERONICA
Sublist:

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:35:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.253	4.263	-0.010	66590392	2.50	2.72	
2 Chloride	6.700	6.710	-0.010	809423206	50.0	50.4	
3 Nitrite as N	8.323	8.337	-0.014	90297153	2.50	2.67	
4 Bromide	10.500	10.510	-0.010	66030757	10.0	10.2	
5 Nitrate as N	12.093	12.103	-0.010	98969585	2.50	2.68	
6 Sulfate	15.020	15.033	-0.013	594940999	50.0	52.1	

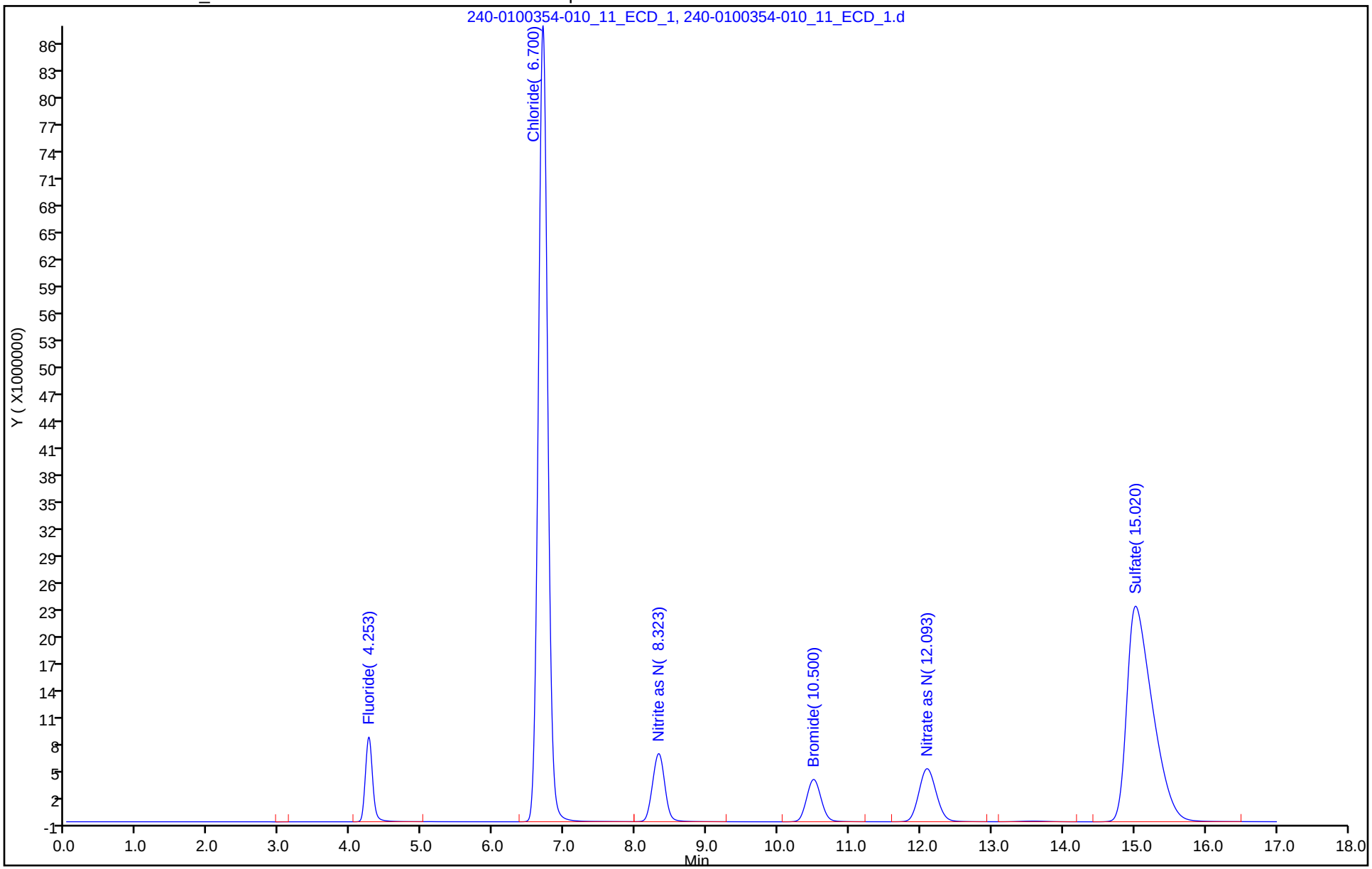
Reagents:

WCICLCS_00775 Amount Added: 5.00 Units: mL

Report Date: 27-Jul-2020 15:43:18 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-010_11_ECD_1.d				
Injection Date:	24-Jul-2020 22:49:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-011_12_ECD_1.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 24-Jul-2020 23:09:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-011
Misc. Info.: ICB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:39:27

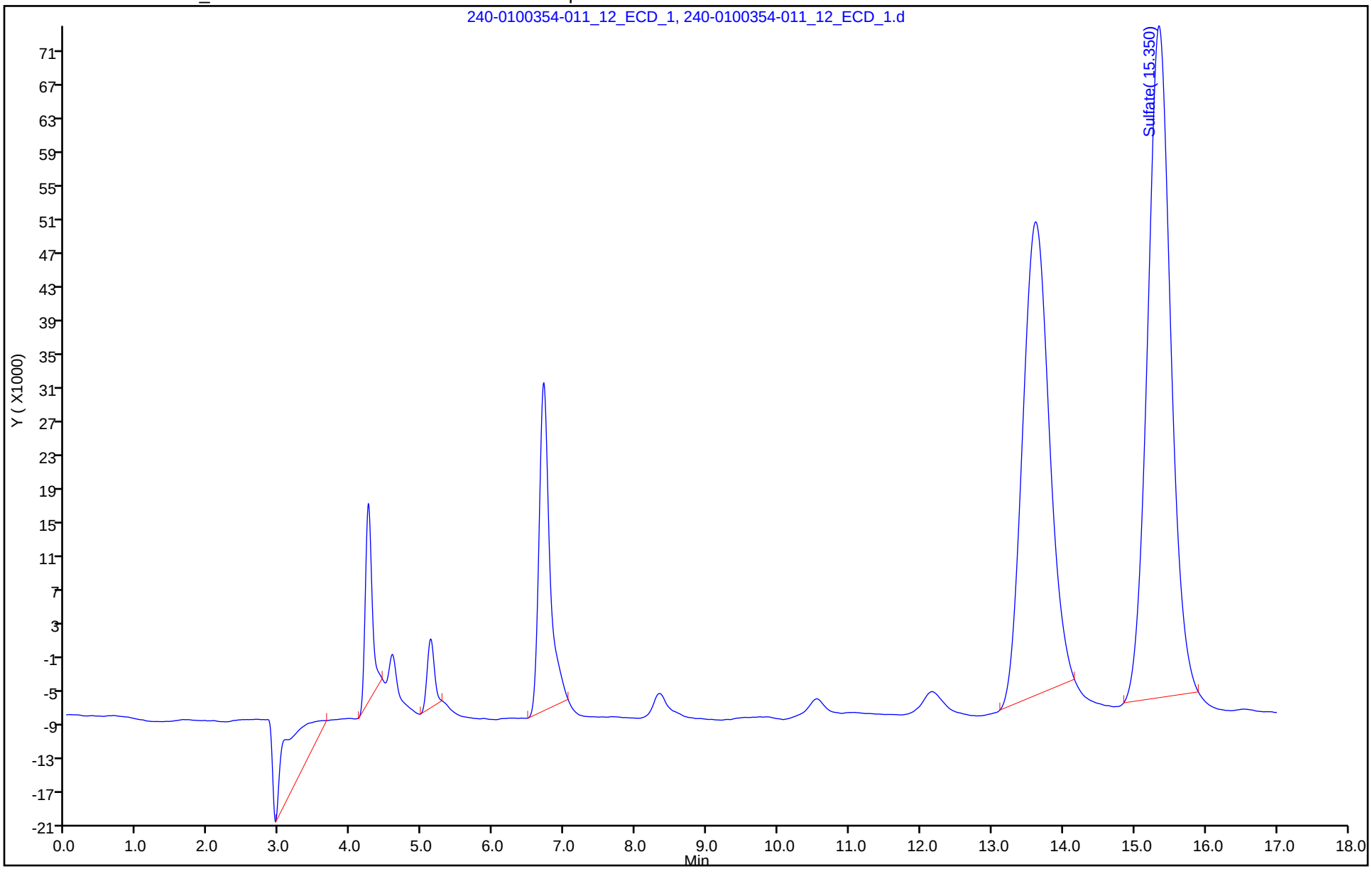
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		4.263				ND	
	2 Chloride		6.710				ND	
	3 Nitrite as N		8.337				ND	
	4 Bromide		10.510				ND	
	5 Nitrate as N		12.103				ND	
	6 Sulfate	15.350	15.033	0.317	1803512		0.1578	
	11 Nitrate as NO3		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
S	7 Nitrate Nitrite as N		0.000				ND	

Report Date: 27-Jul-2020 15:43:18 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-011_12_ECD_1.d

Injection Date:	24-Jul-2020 23:09:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	11
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jul-2020 19:48:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-001
Misc. Info.: STD1
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:13 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:34:00

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.253	4.263	-0.010	875219	NC	NC	M
2	Chloride	6.717	6.710	0.007	15364557	NC	NC	M
3	Nitrite as N	8.350	8.337	0.013	1351577	0.0500	0.0399	M
4	Bromide	10.553	10.510	0.043	929390	NC	NC	M
5	Nitrate as N	12.173	12.103	0.070	1331045	0.0500	0.0361	M
6	Sulfate	15.340	15.033	0.307	9294325	NC	NC	M
S 7	Nitrate Nitrite as N						0.0760	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

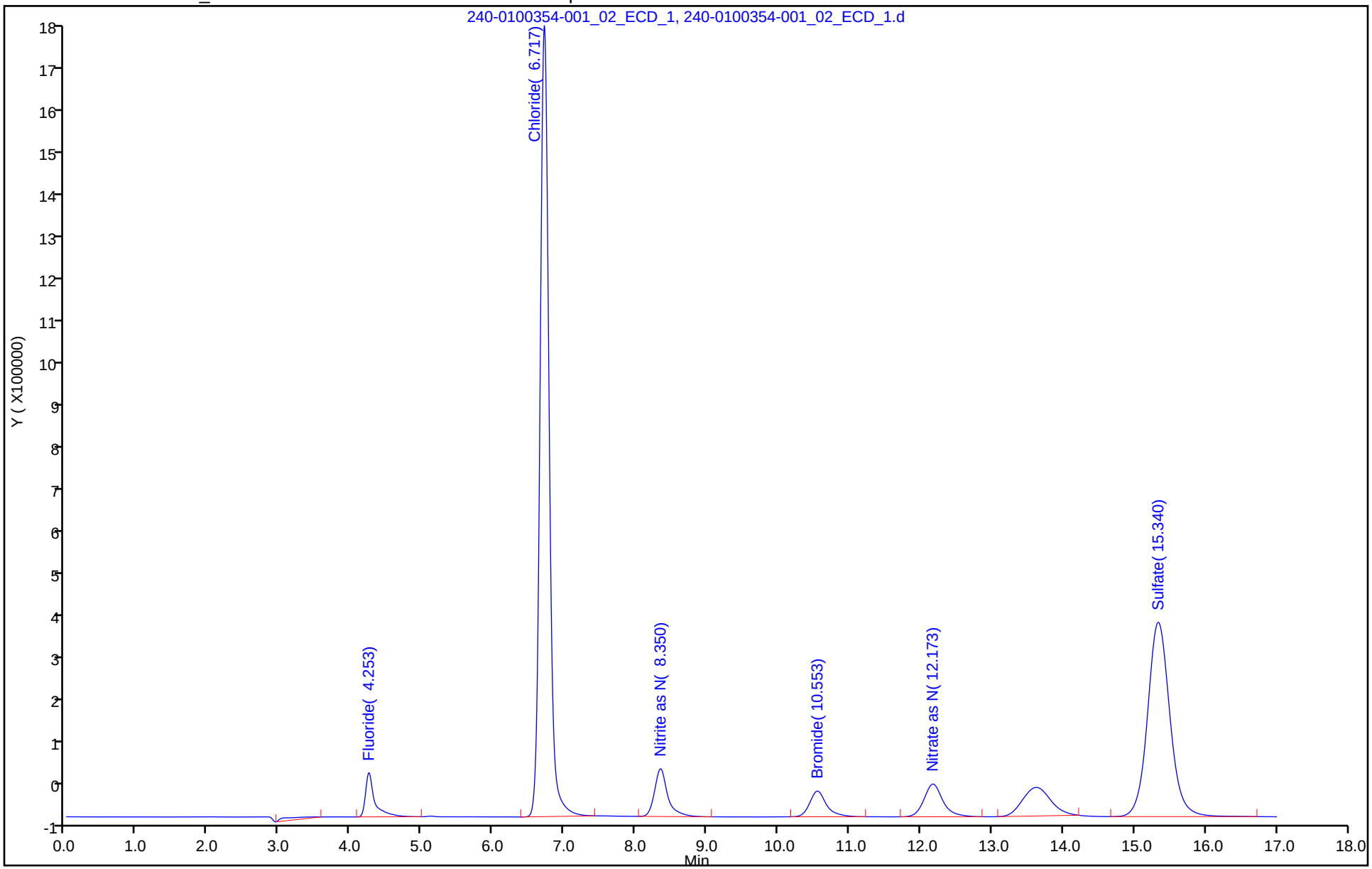
Reagents:

WCICCALSOLN_00331 Amount Added: 0.03 Units: mL

Report Date: 27-Jul-2020 15:43:14 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d				
Injection Date:	24-Jul-2020 19:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD1			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

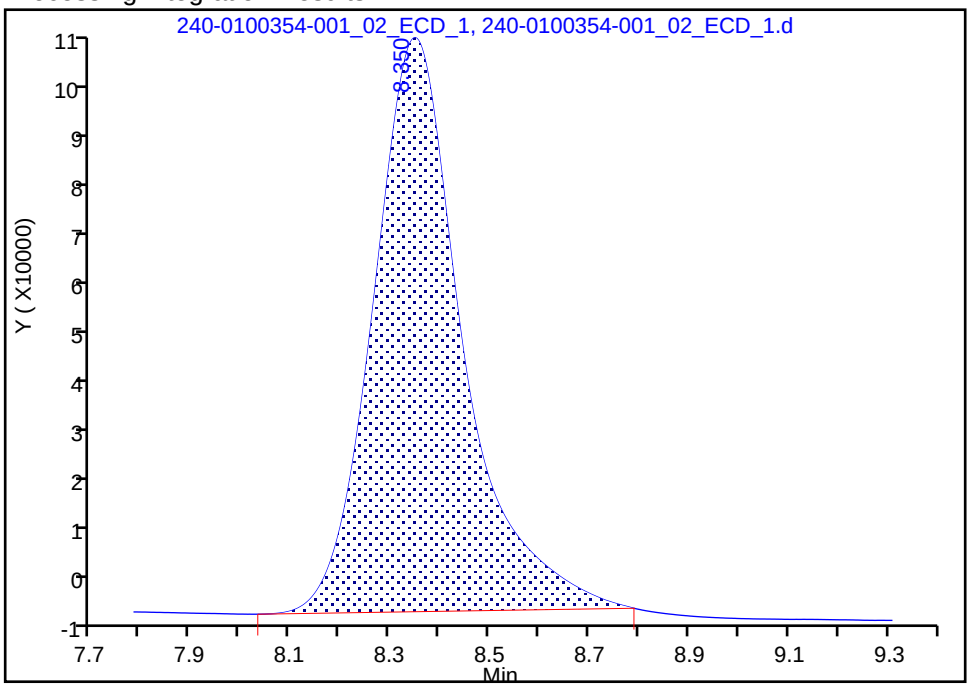
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Injection Date: 24-Jul-2020 19:48:00 Instrument ID: VERONICA
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC SH ICAL
Column: Detector IC 0001

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

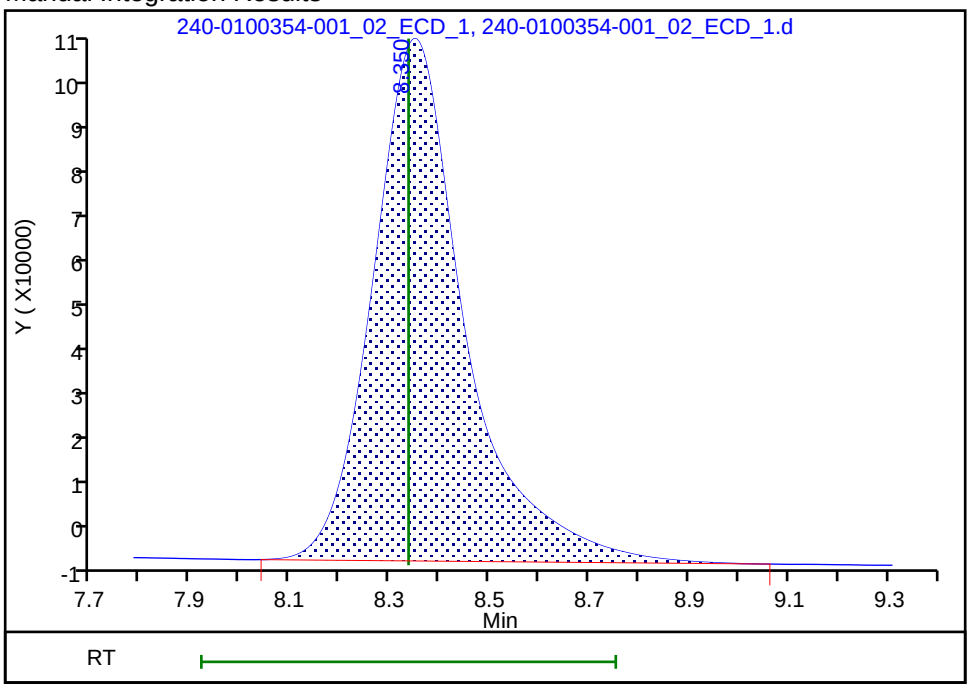
Processing Integration Results

RT: 8.35
Area: 1305321
Amount: 0.038656
Amount Units: ug/ml



Manual Integration Results

RT: 8.35
Area: 1351577
Amount: 0.039905
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:33:42
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

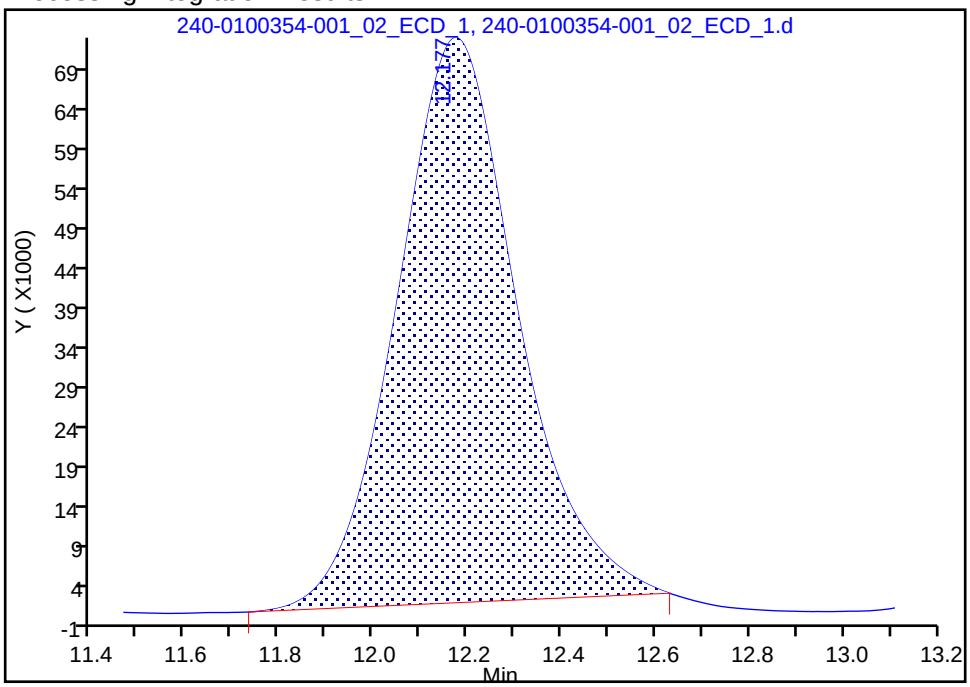
Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-001_02_ECD_1.d
Injection Date: 24-Jul-2020 19:48:00 Instrument ID: VERONICA
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC SH ICAL
Column: Detector IC 0001

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

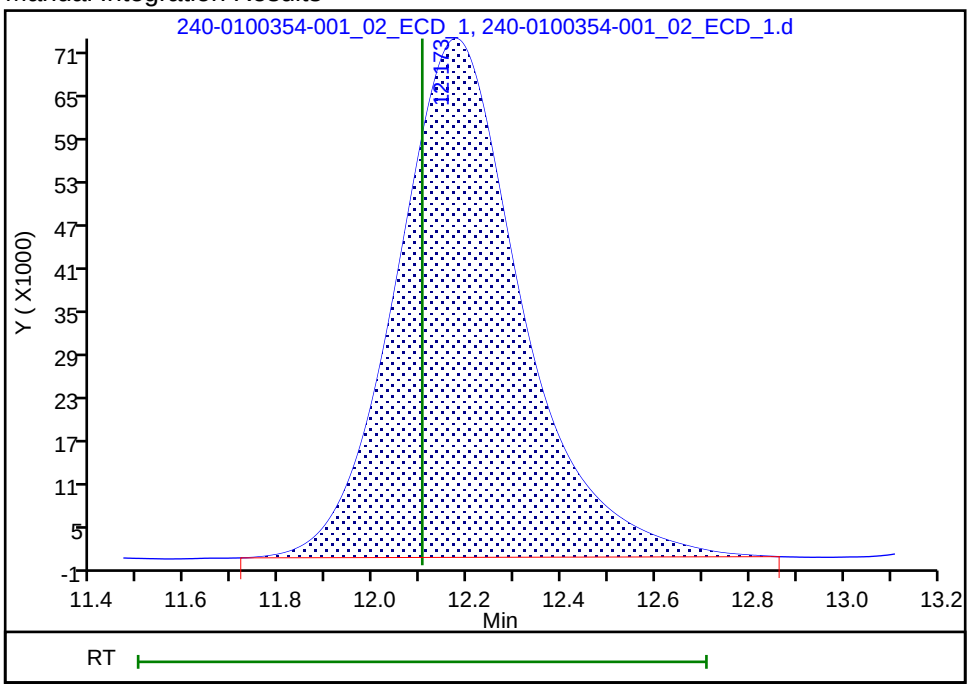
Processing Integration Results

RT: 12.18
Area: 1259511
Amount: 0.034316
Amount Units: ug/ml



Manual Integration Results

RT: 12.17
Area: 1331045
Amount: 0.036109
Amount Units: ug/ml



Reviewer: weimerj, 27-Jul-2020 15:33:53
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-002_03_ECD_1.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Jul-2020 20:08:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-002
Misc. Info.: STD2
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:14 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:34:23

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.257	4.263	-0.006	5698895	NC	NC	M
2	Chloride	6.713	6.710	0.003	79275152	NC	NC	
3	Nitrite as N	8.343	8.337	0.006	8248693	0.2500	0.2435	
4	Bromide	10.547	10.510	0.037	5636609	NC	NC	
5	Nitrate as N	12.160	12.103	0.057	8181079	0.2500	0.2219	
6	Sulfate	15.307	15.033	0.274	54046055	NC	NC	
S 7	Nitrate Nitrite as N						0.4655	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

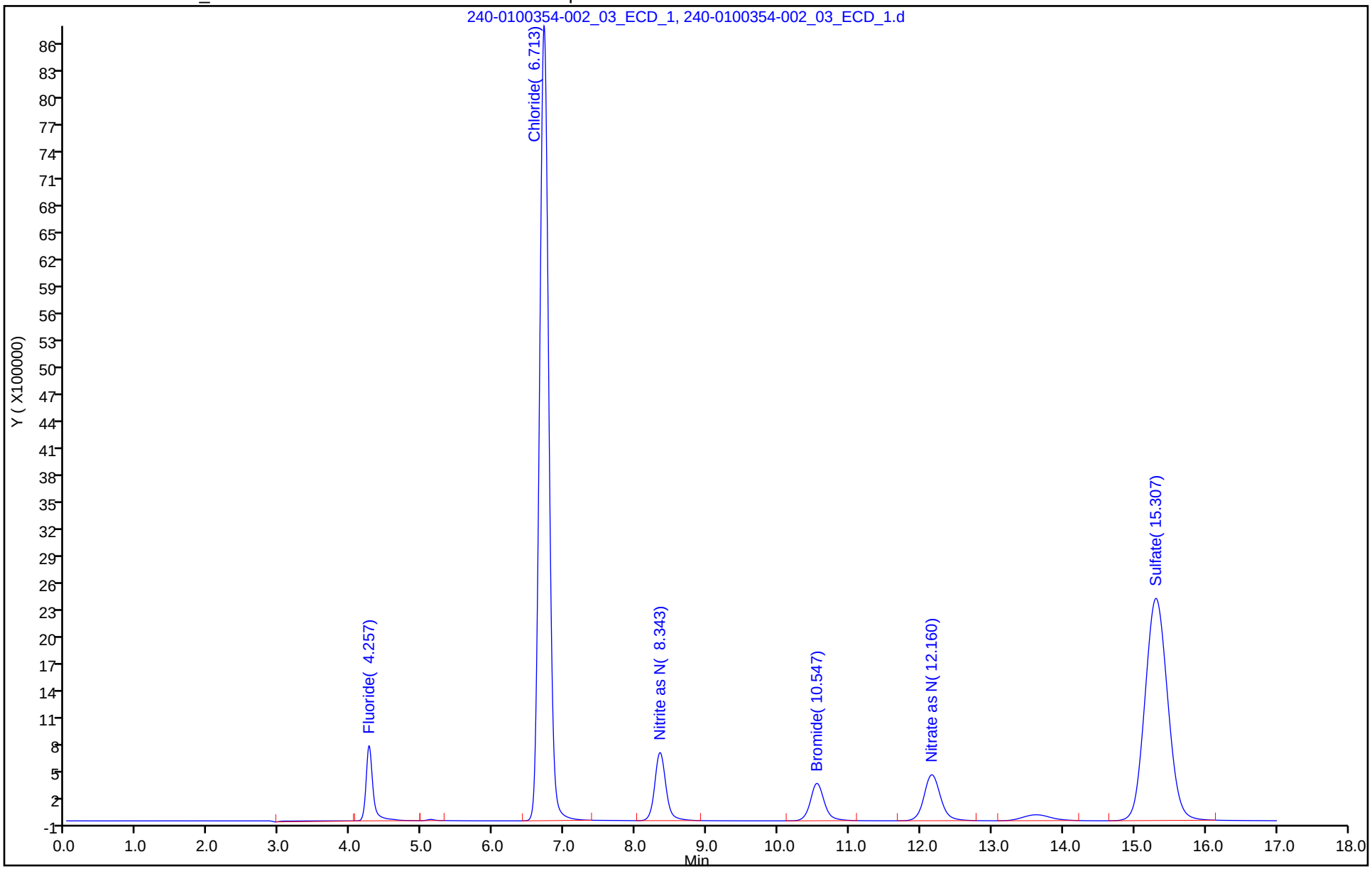
Reagents:

WCICCALSOLN_00331 Amount Added: 0.13 Units: mL

Report Date: 27-Jul-2020 15:43:14 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-002_03_ECD_1.d				
Injection Date:	24-Jul-2020 20:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD2			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-003_04_ECD_1.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Jul-2020 20:28:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-003
Misc. Info.: STD3
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:14 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	4.260	4.263	-0.003	12340431	NC	NC	
	2 Chloride	6.720	6.710	0.010	160051865	NC	NC	
	3 Nitrite as N	8.343	8.337	0.006	17559169	0.5000	0.5184	
	4 Bromide	10.540	10.510	0.030	12326212	NC	NC	
	5 Nitrate as N	12.153	12.103	0.050	17716736	0.5000	0.4806	
	6 Sulfate	15.277	15.033	0.244	113743994	NC	NC	
S	7 Nitrate Nitrite as N						1.00	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

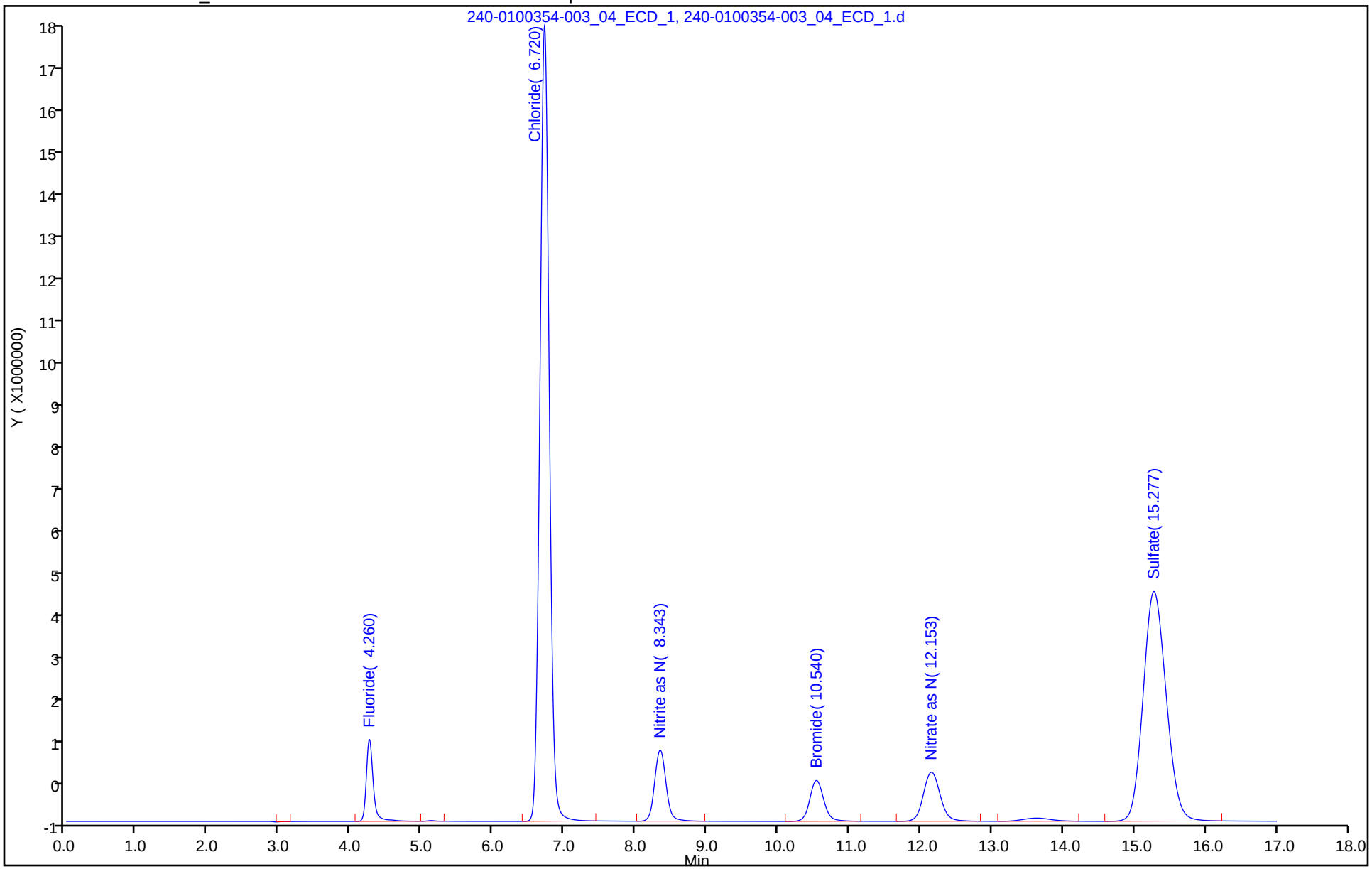
WCICCALSOLN_00331 Amount Added: 0.25 Units: mL

Report Date: 27-Jul-2020 15:43:15 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-003_04_ECD_1.d

Injection Date:	24-Jul-2020 20:28:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD3			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-004_05_ECD_1.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Jul-2020 20:48:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-004
Misc. Info.: STD4
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:15 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.250	4.263	-0.013	25740620	NC	NC	
2	Chloride	6.700	6.710	-0.010	321526339	NC	NC	
3	Nitrite as N	8.327	8.337	-0.010	35990460	1.00	1.06	
4	Bromide	10.517	10.510	0.007	26184098	NC	NC	
5	Nitrate as N	12.130	12.103	0.027	37438840	1.00	1.02	
6	Sulfate	15.193	15.033	0.160	232777062	NC	NC	
S 7	Nitrate Nitrite as N						2.08	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

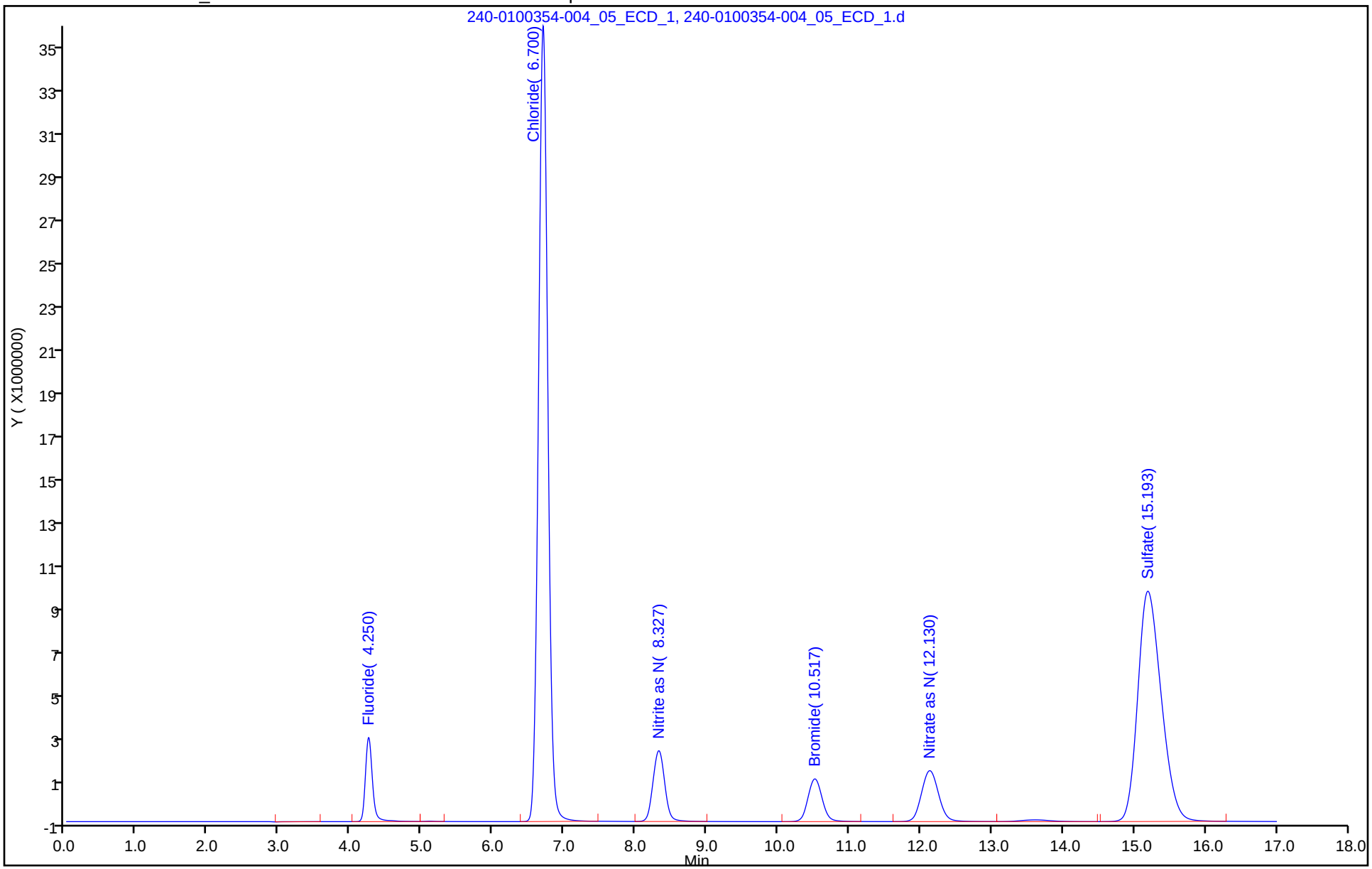
WCICCALSOLN_00331 Amount Added: 0.50 Units: mL

Report Date: 27-Jul-2020 15:43:15 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-004_05_ECD_1.d

Injection Date:	24-Jul-2020 20:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD4			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-005_06_ECD_1.d
Lims ID: STD5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 24-Jul-2020 21:08:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-005
Misc. Info.: STD5
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:15 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.263	4.263	0.000	65594370	NC	NC	
2 Chloride	6.710	6.710	0.000	813149041	NC	NC	
3 Nitrite as N	8.337	8.337	0.000	91026602	2.50	2.69	
4 Bromide	10.510	10.510	0.000	68940897	NC	NC	
5 Nitrate as N	12.103	12.103	0.000	97866727	2.50	2.65	
6 Sulfate	15.033	15.033	0.000	593806334	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

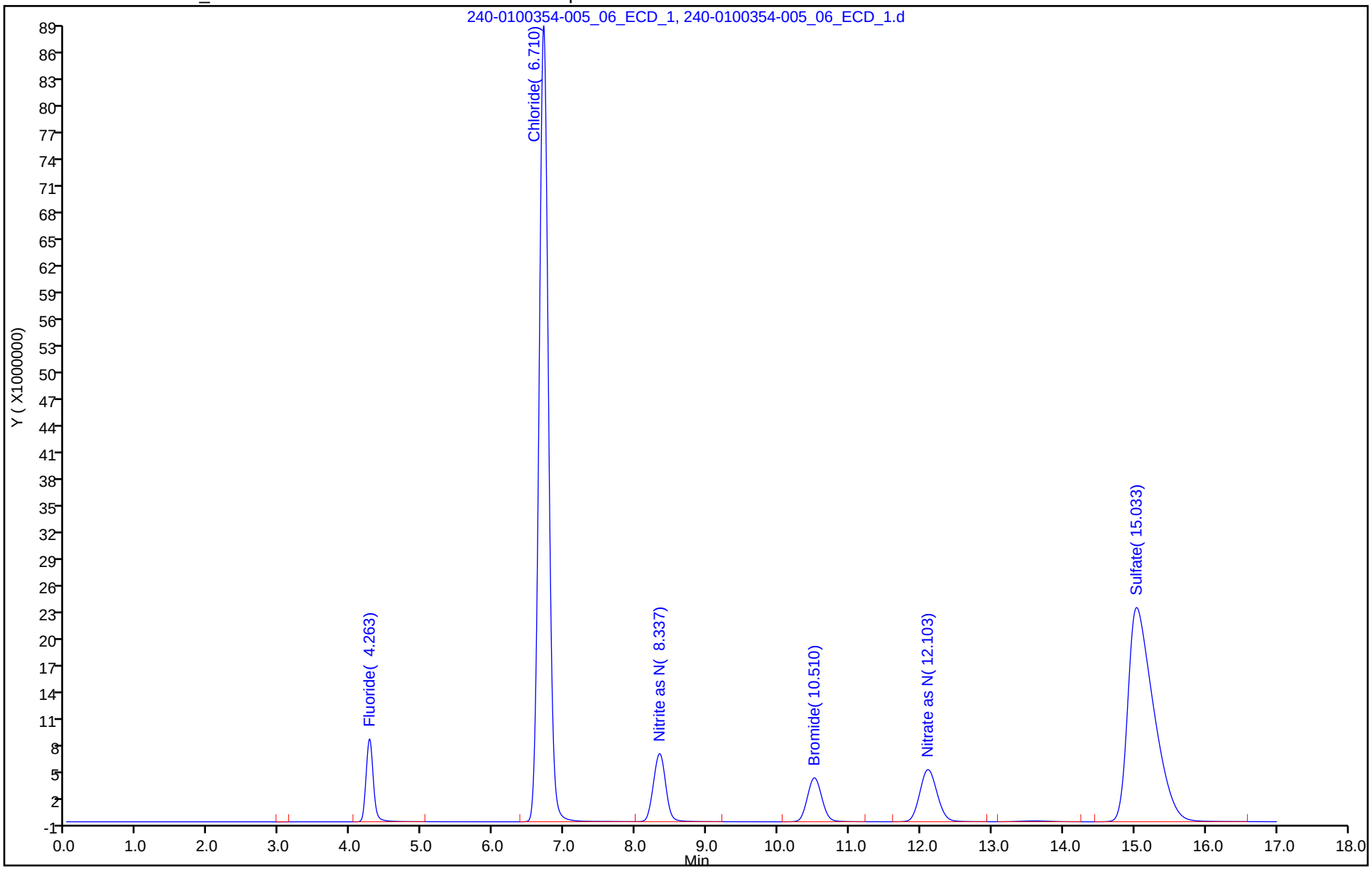
WCICCALSOLN_00331 Amount Added: 1.25 Units: mL

Report Date: 27-Jul-2020 15:43:16 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-005_06_ECD_1.d

Injection Date:	24-Jul-2020 21:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD5			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-006_07_ECD_1.d
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Jul-2020 21:29:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-006
Misc. Info.: STD6
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:16 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.263	4.263	0.000	104738519	NC	NC	
2	Chloride	6.707	6.710	-0.003	1300307886	NC	NC	
3	Nitrite as N	8.340	8.337	0.003	141796003	4.00	4.19	
4	Bromide	10.500	10.510	-0.010	112089962	NC	NC	
5	Nitrate as N	12.080	12.103	-0.023	158644988	4.00	4.30	
6	Sulfate	14.890	15.033	-0.143	954055598	NC	NC	
S 7	Nitrate Nitrite as N						8.49	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

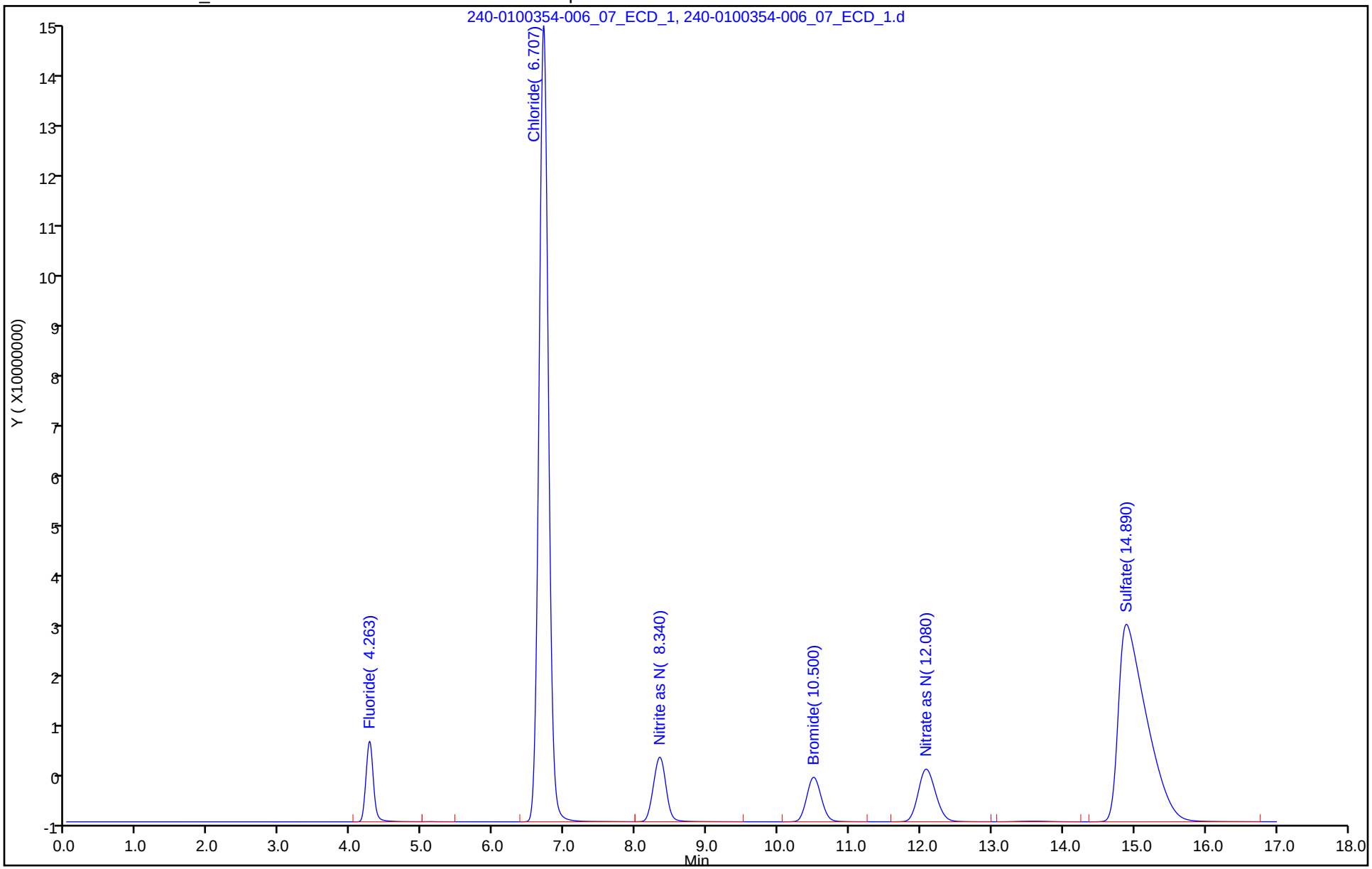
WCICCALSOLN_00331 Amount Added: 2.00 Units: mL

Report Date: 27-Jul-2020 15:43:16 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-006_07_ECD_1.d

Injection Date:	24-Jul-2020 21:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD6			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-007_08_ECD_1.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Jul-2020 21:49:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-007
Misc. Info.: STD7
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:16 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:35:01

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.260	4.263	-0.003	130390659	NC	NC	M
2	Chloride	6.697	6.710	-0.013	1621751373	NC	NC	
3	Nitrite as N	8.323	8.337	-0.014	174741356	5.00	5.16	
4	Bromide	10.470	10.510	-0.040	140848459	NC	NC	
5	Nitrate as N	12.043	12.103	-0.060	199277496	5.00	5.41	
6	Sulfate	14.807	15.033	-0.226	1194884455	NC	NC	
S 7	Nitrate Nitrite as N						10.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

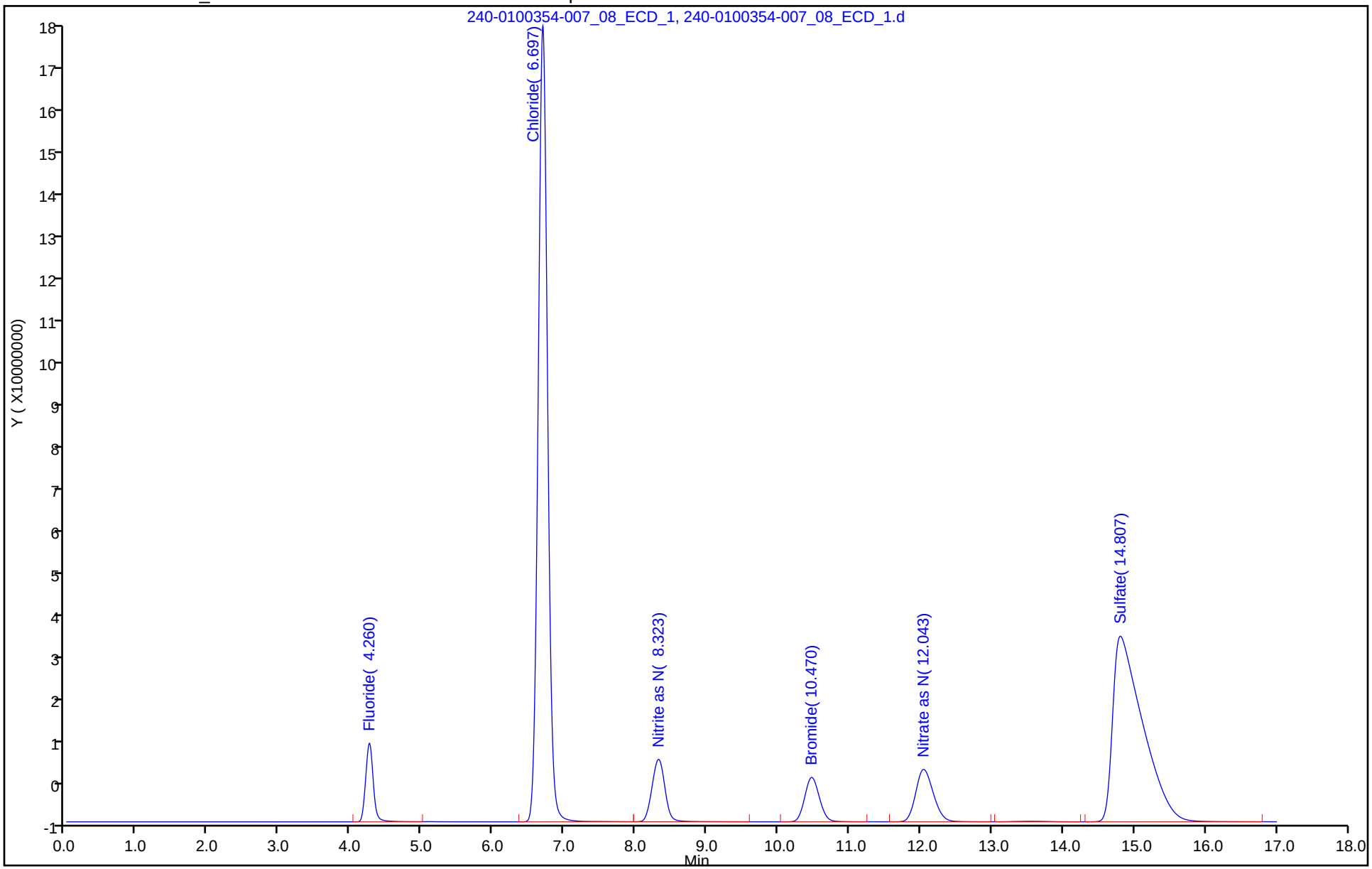
WCICCALSOLN_00331 Amount Added: 2.50 Units: mL

Report Date: 27-Jul-2020 15:43:16 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-007_08_ECD_1.d

Injection Date:	24-Jul-2020 21:49:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD7			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-008_09_ECD_1.d
Lims ID: STD8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Jul-2020 22:09:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-008
Misc. Info.: STD8
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	4.270	4.263	0.007	192052277	NC	NC	
	2 Chloride	6.703	6.710	-0.007	2437127948	NC	NC	
	3 Nitrite as N	8.333	8.337	-0.004	254569224	7.50	7.52	
	4 Bromide	10.470	10.510	-0.040	213823828	NC	NC	
	5 Nitrate as N	12.020	12.103	-0.083	302606554	7.50	8.21	
	6 Sulfate	14.653	15.033	-0.380	1800137768	NC	NC	
S	7 Nitrate Nitrite as N						15.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

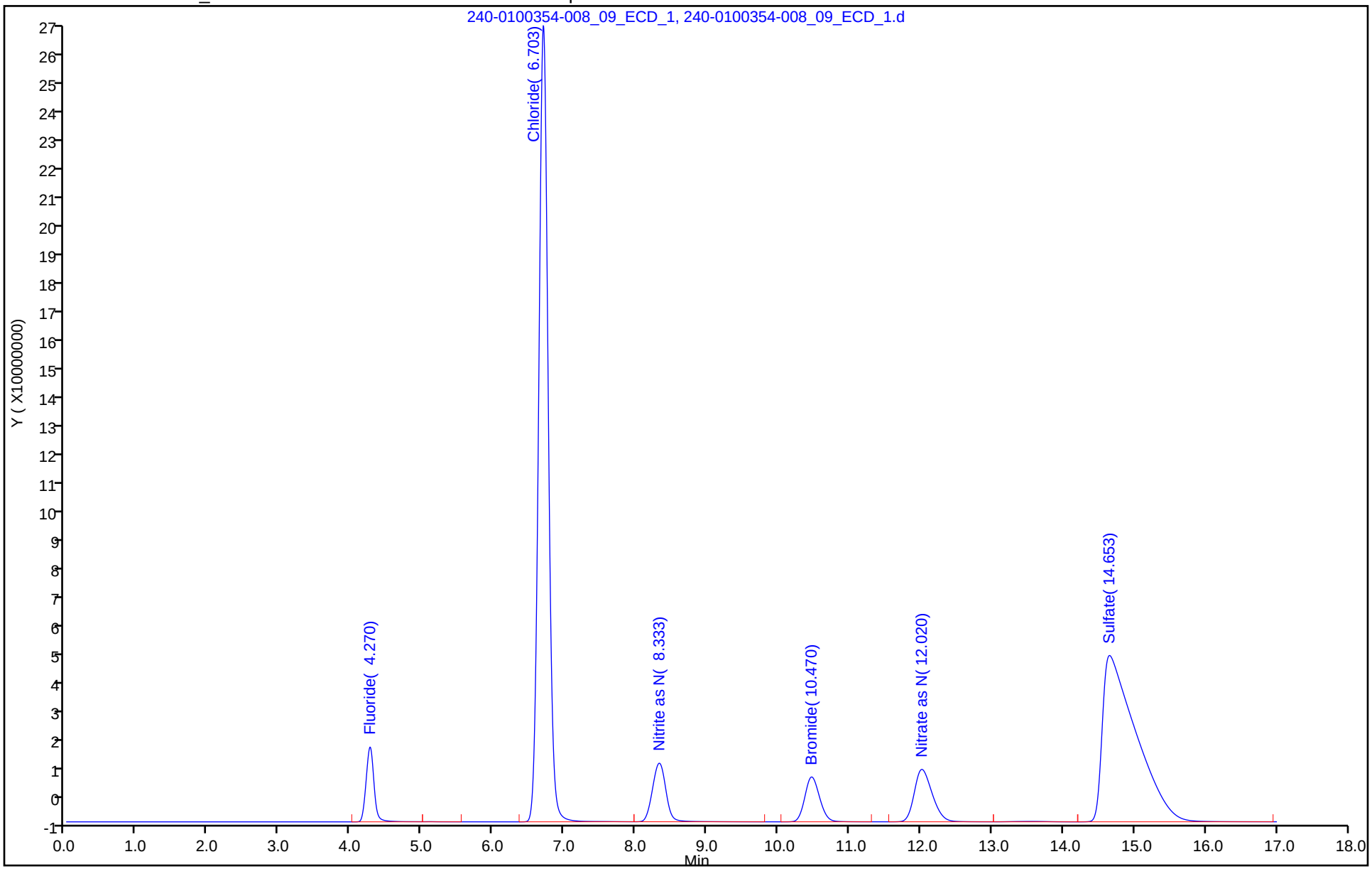
WCICCALSOLN_00331 Amount Added: 3.75 Units: mL

Report Date: 27-Jul-2020 15:43:17 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-008_09_ECD_1.d

Injection Date:	24-Jul-2020 22:09:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD8			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d
Lims ID: STD9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 24-Jul-2020 22:29:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-009
Misc. Info.: STD9
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:35:20

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.270	4.263	0.007	251807223	NC	NC	M
2	Chloride	6.703	6.710	-0.007	3249657360	NC	NC	
3	Nitrite as N	8.323	8.337	-0.014	329445398	10.0	9.73	
4	Bromide	10.437	10.510	-0.073	286482845	NC	NC	
5	Nitrate as N	11.970	12.103	-0.133	405293042	10.0	11.0	
6	Sulfate	14.530	15.033	-0.503	2396453233	NC	NC	
S 7	Nitrate Nitrite as N						20.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

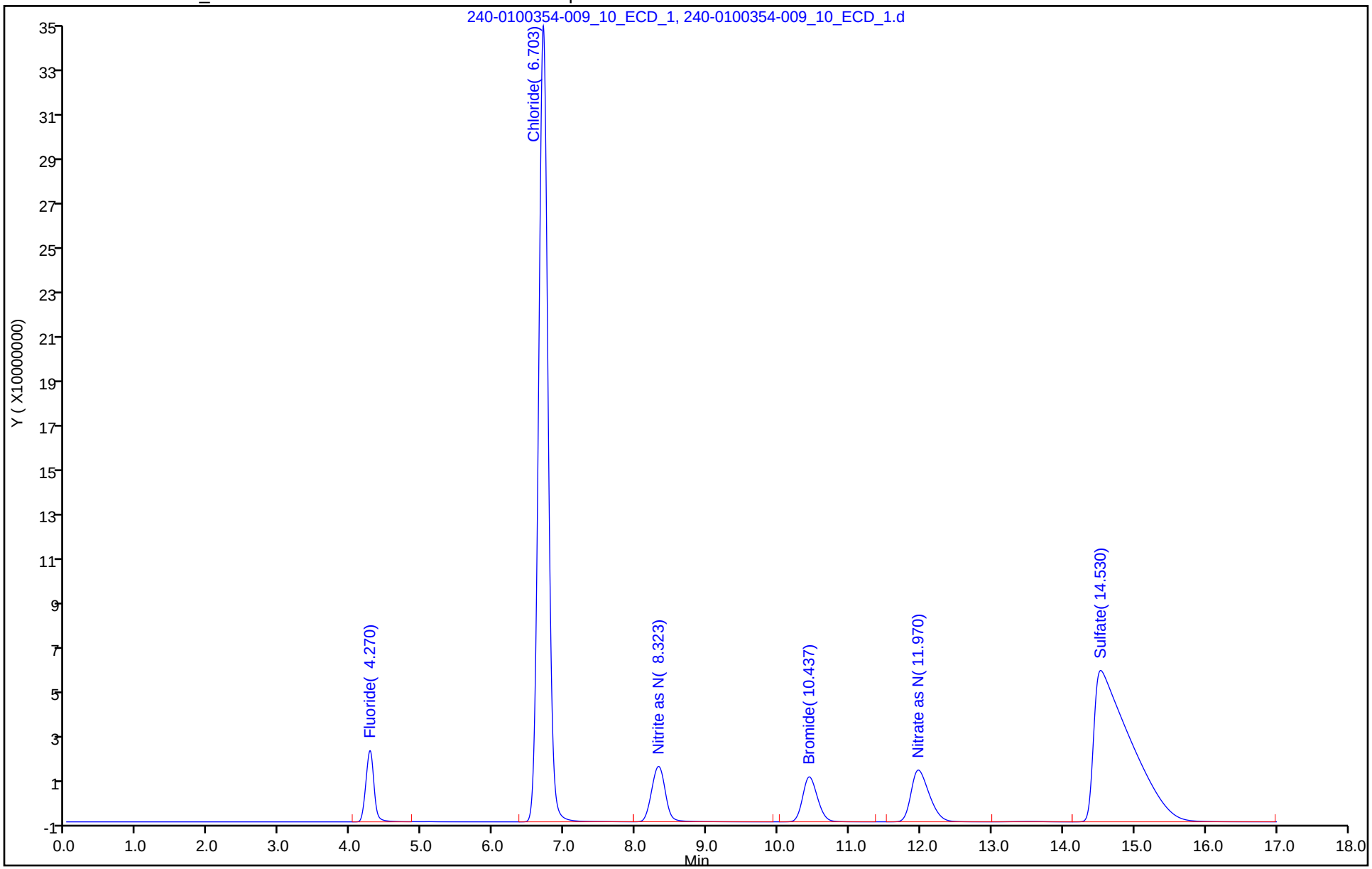
WCICCALSOLN_00331 Amount Added: 5.00 Units: mL

Report Date: 27-Jul-2020 15:43:17 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Injection Date:	24-Jul-2020 22:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD9			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-010_11_ECD_1.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Jul-2020 22:49:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-010
Misc. Info.: ICV
Operator ID: Instrument ID: VERONICA
Sublist:

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:35:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.253	4.263	-0.010	66590392	NC	NC	
2 Chloride	6.700	6.710	-0.010	809423206	NC	NC	
3 Nitrite as N	8.323	8.337	-0.014	90297153	2.50	2.67	
4 Bromide	10.500	10.510	-0.010	66030757	NC	NC	
5 Nitrate as N	12.093	12.103	-0.010	98969585	2.50	2.68	
6 Sulfate	15.020	15.033	-0.013	594940999	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

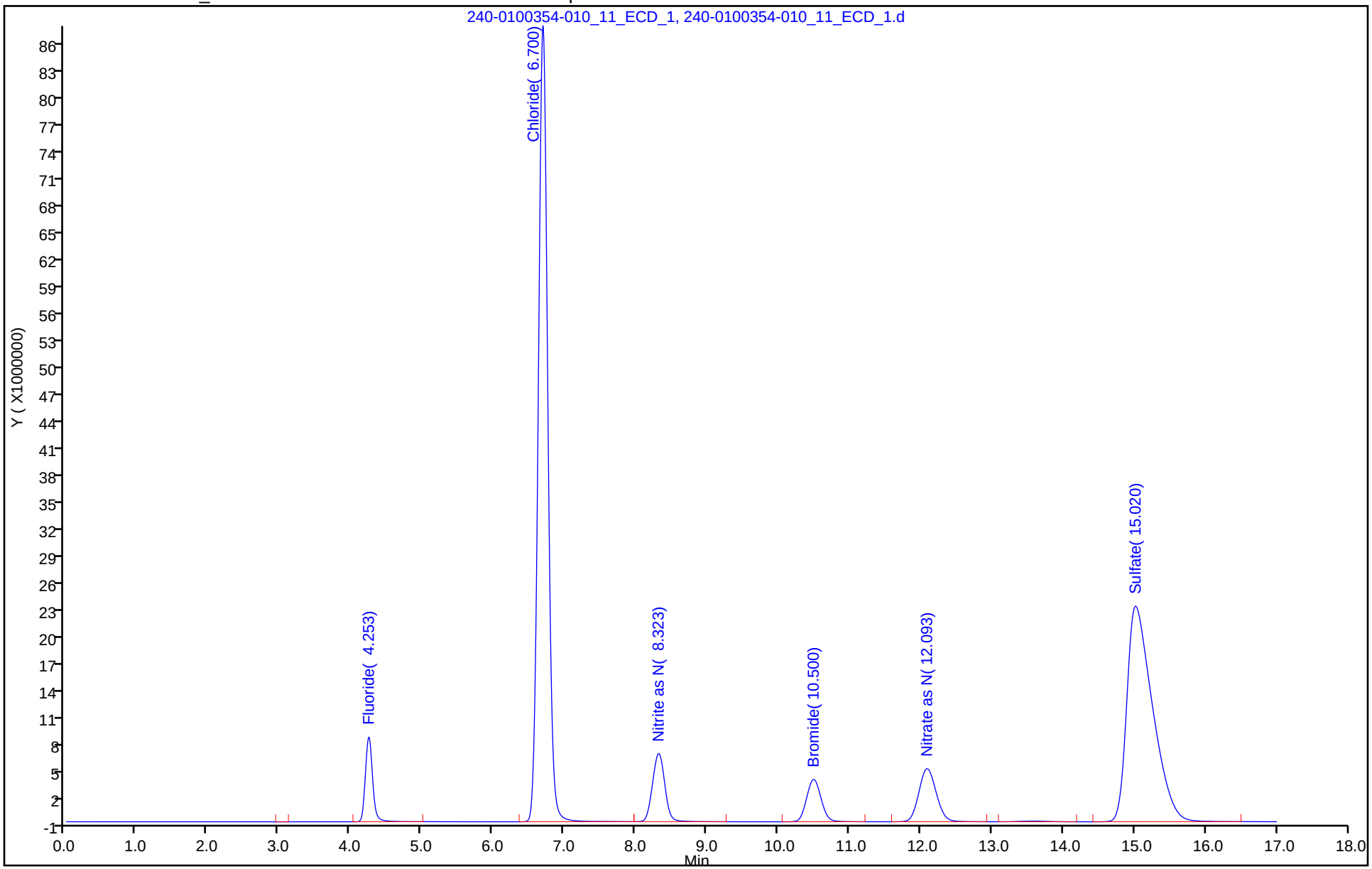
Reagents:

WCICLCS_00775 Amount Added: 5.00 Units: mL

Report Date: 27-Jul-2020 15:43:18 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-010_11_ECD_1.d				
Injection Date:	24-Jul-2020 22:49:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-011_12_ECD_1.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 24-Jul-2020 23:09:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100354-011
Misc. Info.: ICB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 27-Jul-2020 15:43:17 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1057

First Level Reviewer: weimerj Date: 27-Jul-2020 15:39:27

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	4.247	4.263	-0.016	155232		NC	
	2 Chloride	6.710	6.710	0.000	406557		NC	
	3 Nitrite as N		8.337				ND	
	4 Bromide		10.510				ND	
	5 Nitrate as N		12.103				ND	
	6 Sulfate	15.350	15.033	0.317	1803512		NC	
	11 Nitrate as NO3		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
S	7 Nitrate Nitrite as N		0.000				ND	

QC Flag Legend

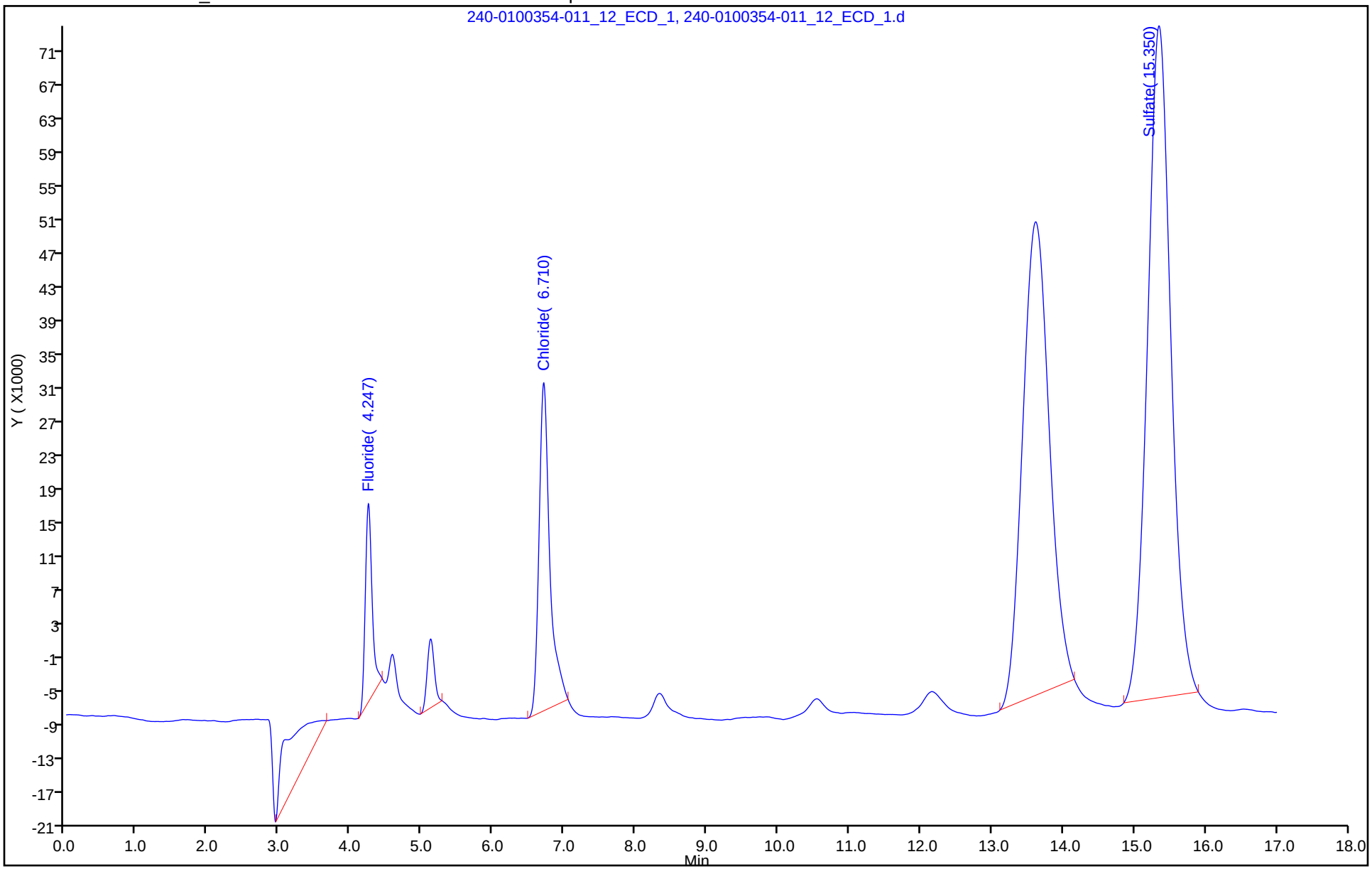
Processing Flags
NC - Not Calibrated

Report Date: 27-Jul-2020 15:43:18 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-011_12_ECD_1.d

Injection Date:	24-Jul-2020 23:09:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	11
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-001_02_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 12-Aug-2020 15:29:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-001
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.237	4.237	0.000	64157940	2.50	2.62	
2 Chloride	6.570	6.570	0.000	808603199	50.0	50.4	
3 Nitrite as N	8.117	8.117	0.000	89427718	2.50	2.64	
4 Bromide	10.163	10.163	0.000	68606743	10.0	10.6	
5 Nitrate as N	11.660	11.660	0.000	97376875	2.50	2.64	
6 Sulfate	14.307	14.307	0.000	592684122	50.0	51.9	

Reagents:

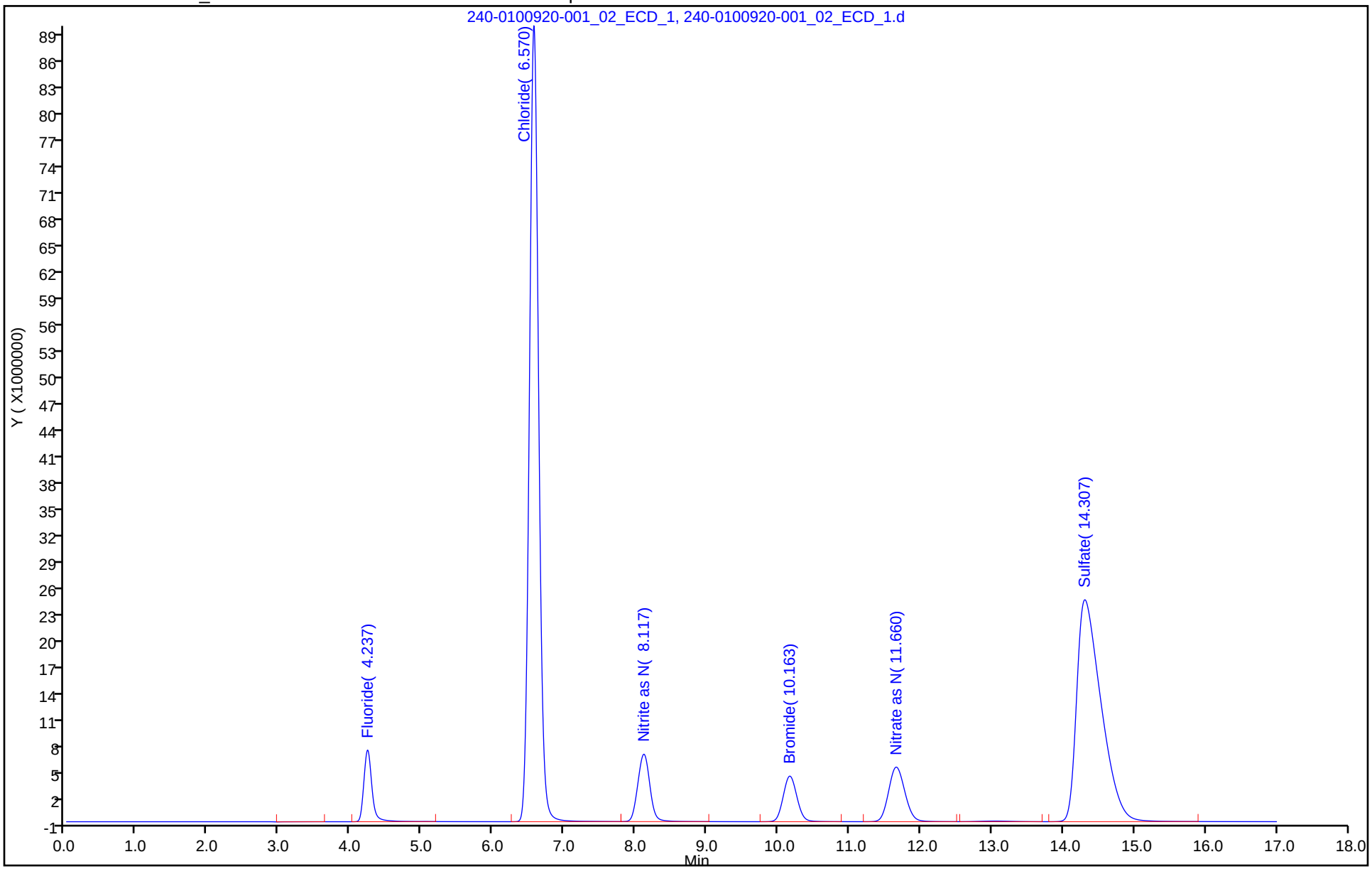
WCICCCV_00946 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:52:58 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-001_02_ECD_1.d

Injection Date:	12-Aug-2020 15:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-002_03_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 12-Aug-2020 15:49:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-002
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

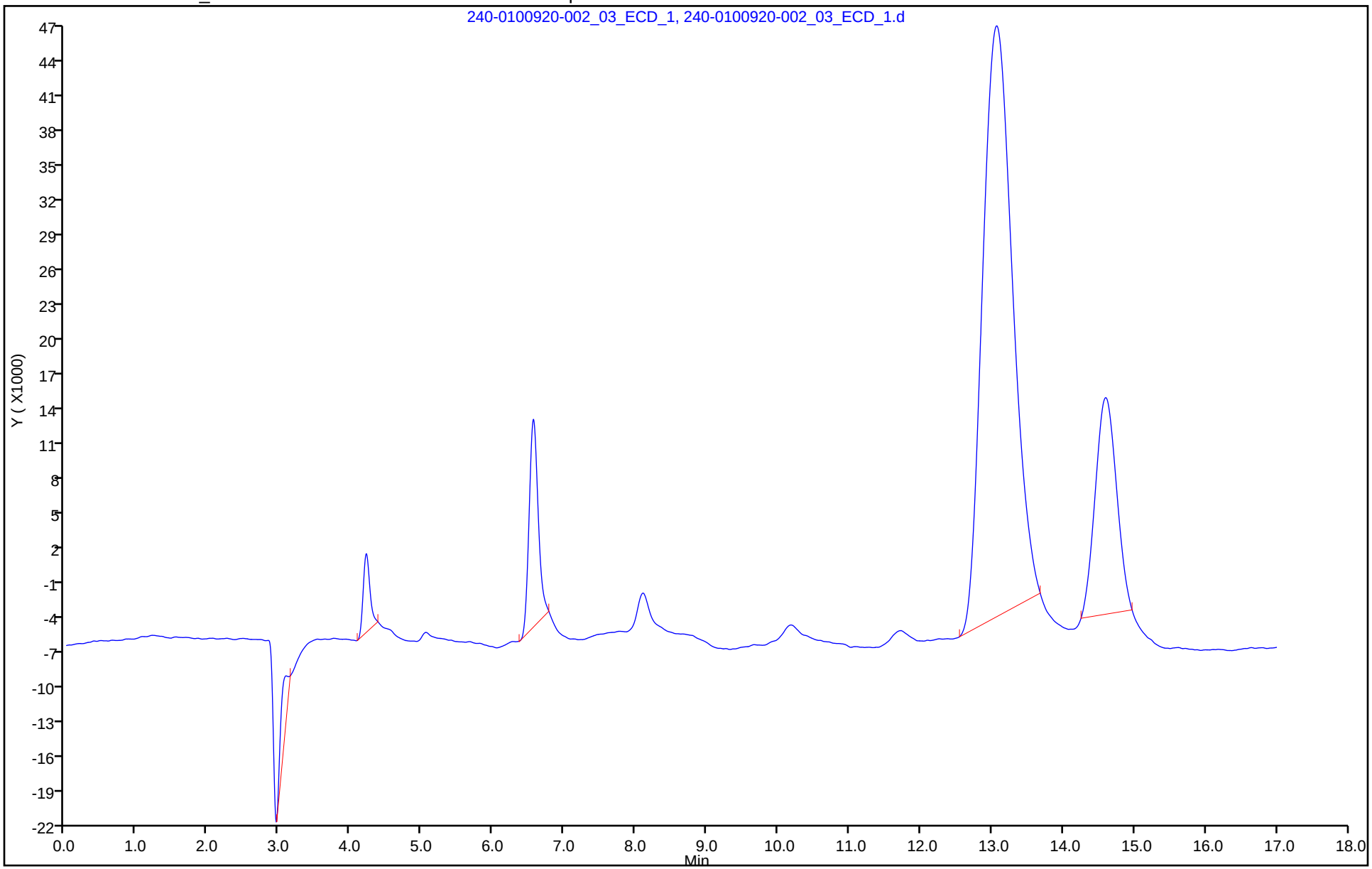
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		4.237				ND	
	2 Chloride		6.570				ND	
	3 Nitrite as N		8.117				ND	
	4 Bromide		10.163				ND	
	5 Nitrate as N		11.660				ND	
	6 Sulfate		14.307				ND	
	11 Nitrate as NO3		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
S	7 Nitrate Nitrite as N		0.000				ND	

Report Date: 13-Aug-2020 15:52:59 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-002_03_ECD_1.d

Injection Date:	12-Aug-2020 15:49:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-003_04_ECD_1.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 12-Aug-2020 16:09:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-003
Misc. Info.: MB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

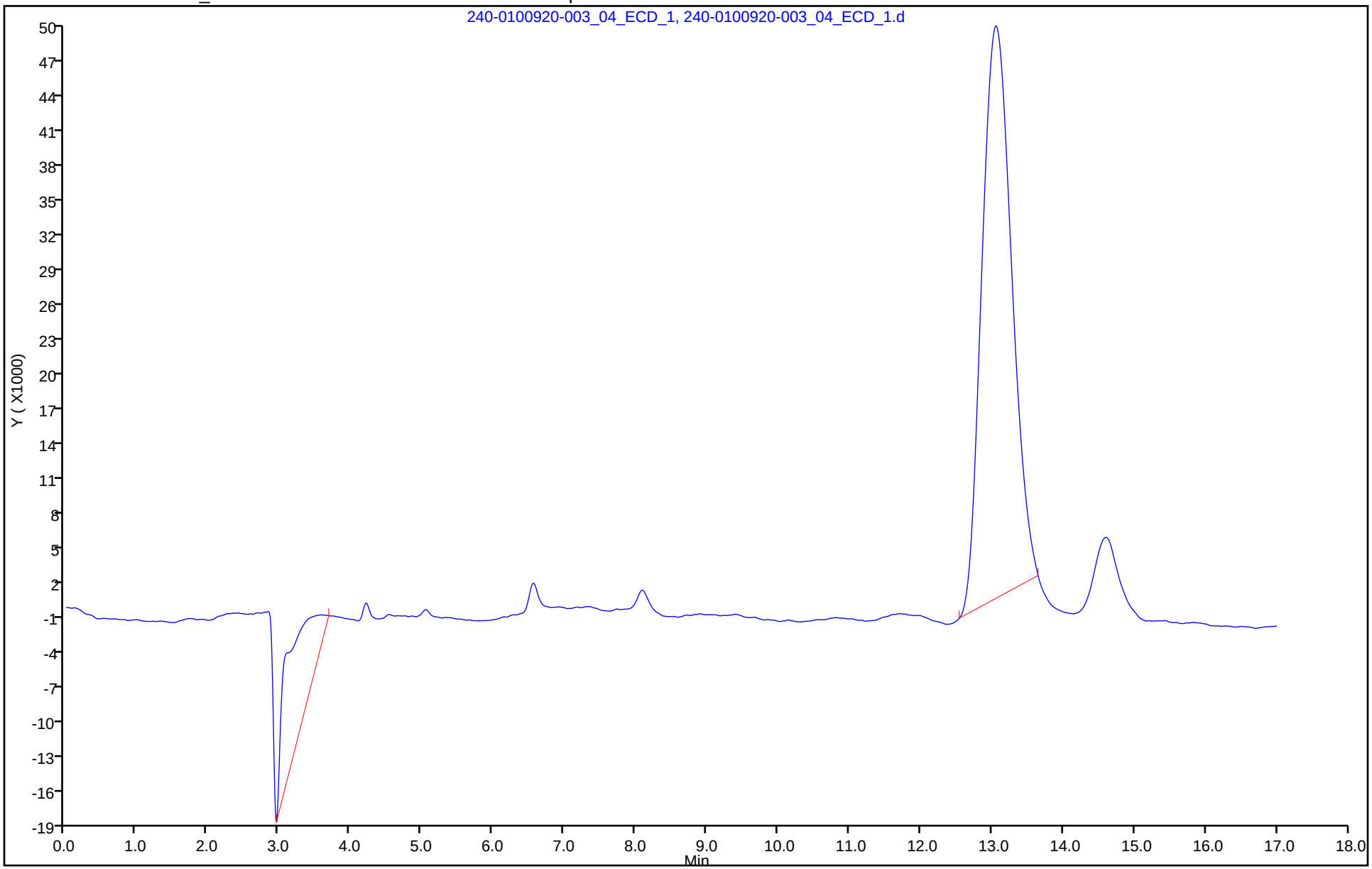
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		4.237				ND	
	2 Chloride		6.570				ND	
	3 Nitrite as N		8.117				ND	
	4 Bromide		10.163				ND	
	5 Nitrate as N		11.660				ND	
	6 Sulfate		14.307				ND	
	11 Nitrate as NO3		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
S	7 Nitrate Nitrite as N		0.000				ND	

Report Date: 13-Aug-2020 15:53:00 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-003_04_ECD_1.d

Injection Date:	12-Aug-2020 16:09:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	MB			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-004_05_ECD_1.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Aug-2020 16:29:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-004
Misc. Info.: LCS
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.227	4.237	-0.010	64602474	2.50	2.64	
2 Chloride	6.553	6.570	-0.017	807767616	50.0	50.3	
3 Nitrite as N	8.100	8.117	-0.017	87782073	2.50	2.59	
4 Bromide	10.150	10.163	-0.013	65861400	10.0	10.2	
5 Nitrate as N	11.643	11.660	-0.017	98641822	2.50	2.68	
6 Sulfate	14.277	14.307	-0.030	595267455	50.0	52.1	

Reagents:

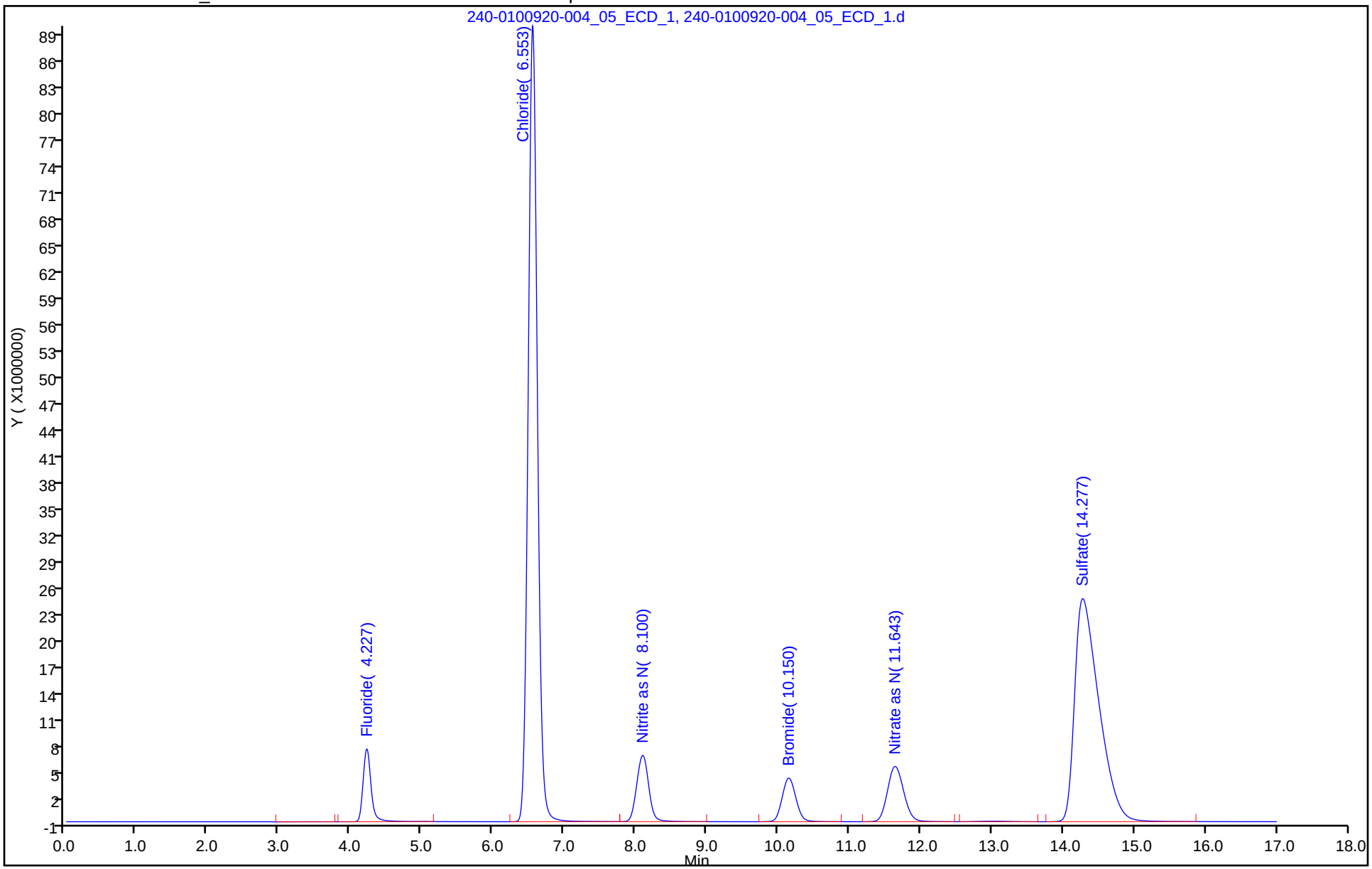
WCICLCS_00778 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:53:00 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-004_05_ECD_1.d

Injection Date:	12-Aug-2020 16:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-009_10_ECD_1.d
Lims ID: 240-134814-J-1
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 12-Aug-2020 18:10:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-009
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:53:08 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

First Level Reviewer: weimerj Date: 13-Aug-2020 19:46:26

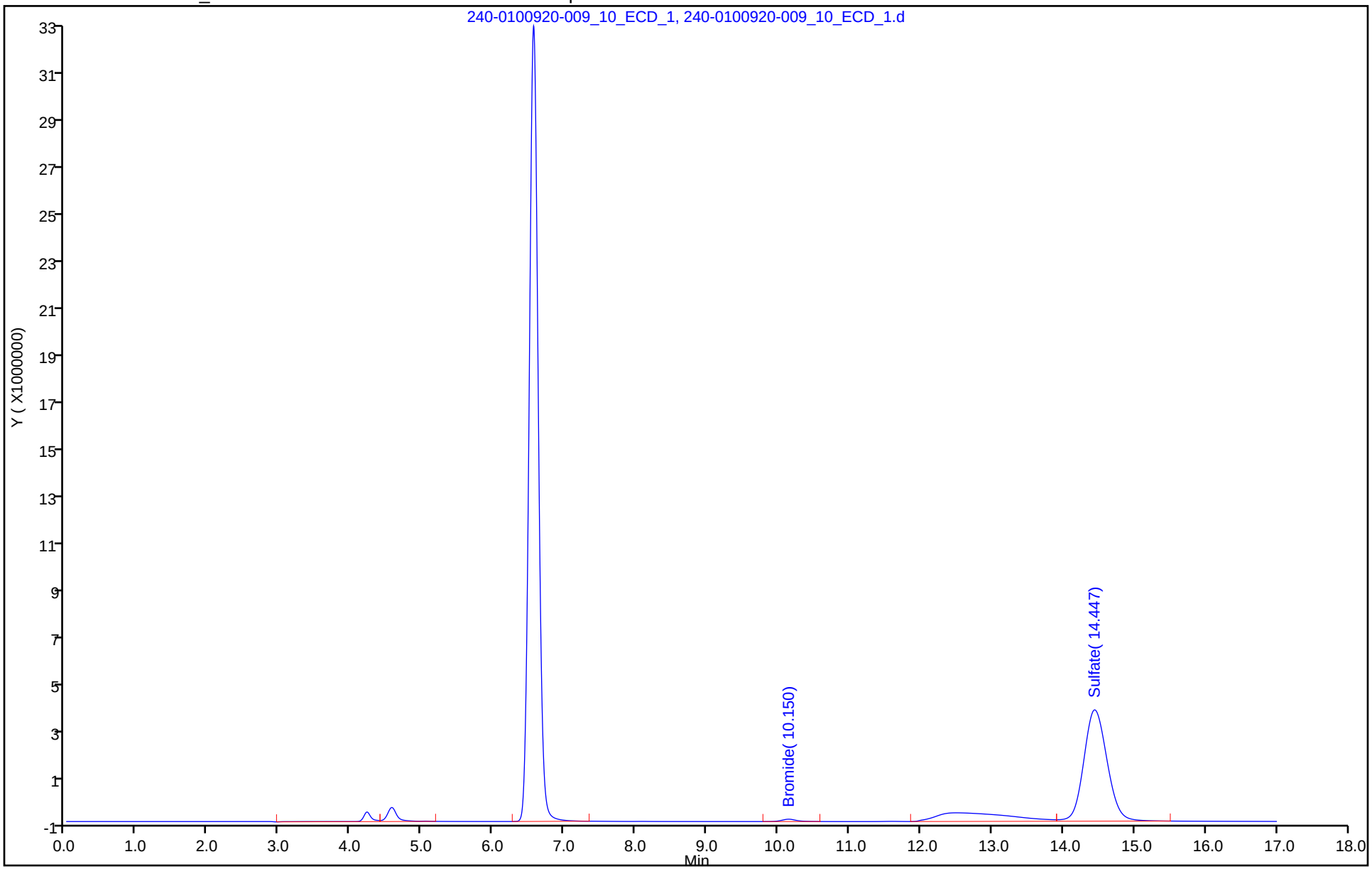
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
3 Nitrite as N		8.117			ND	
4 Bromide	10.150	10.163	-0.013	1341275	0.2073	
5 Nitrate as N		11.660			ND	
6 Sulfate	14.447	14.307	0.140	102535404	8.97	

Report Date: 13-Aug-2020 19:46:36 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-009_10_ECD_1.d

Injection Date:	12-Aug-2020 18:10:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-134814-J-1	Lab Sample ID:	240-134814-1	Worklist Smp#:	9
Client ID:	MRC-MW-164B-081120				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-013_14_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 12-Aug-2020 19:30:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-013
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.237	4.237	0.000	65014181	2.50	2.66	
2	Chloride	6.570	6.570	0.000	813347918	50.0	50.6	
3	Nitrite as N	8.113	8.117	-0.004	90196936	2.50	2.66	
4	Bromide	10.160	10.163	-0.003	69181981	10.0	10.7	
5	Nitrate as N	11.653	11.660	-0.007	98034464	2.50	2.66	
6	Sulfate	14.273	14.307	-0.034	595117729	50.0	52.1	
S 7	Nitrate Nitrite as N						5.32	

Reagents:

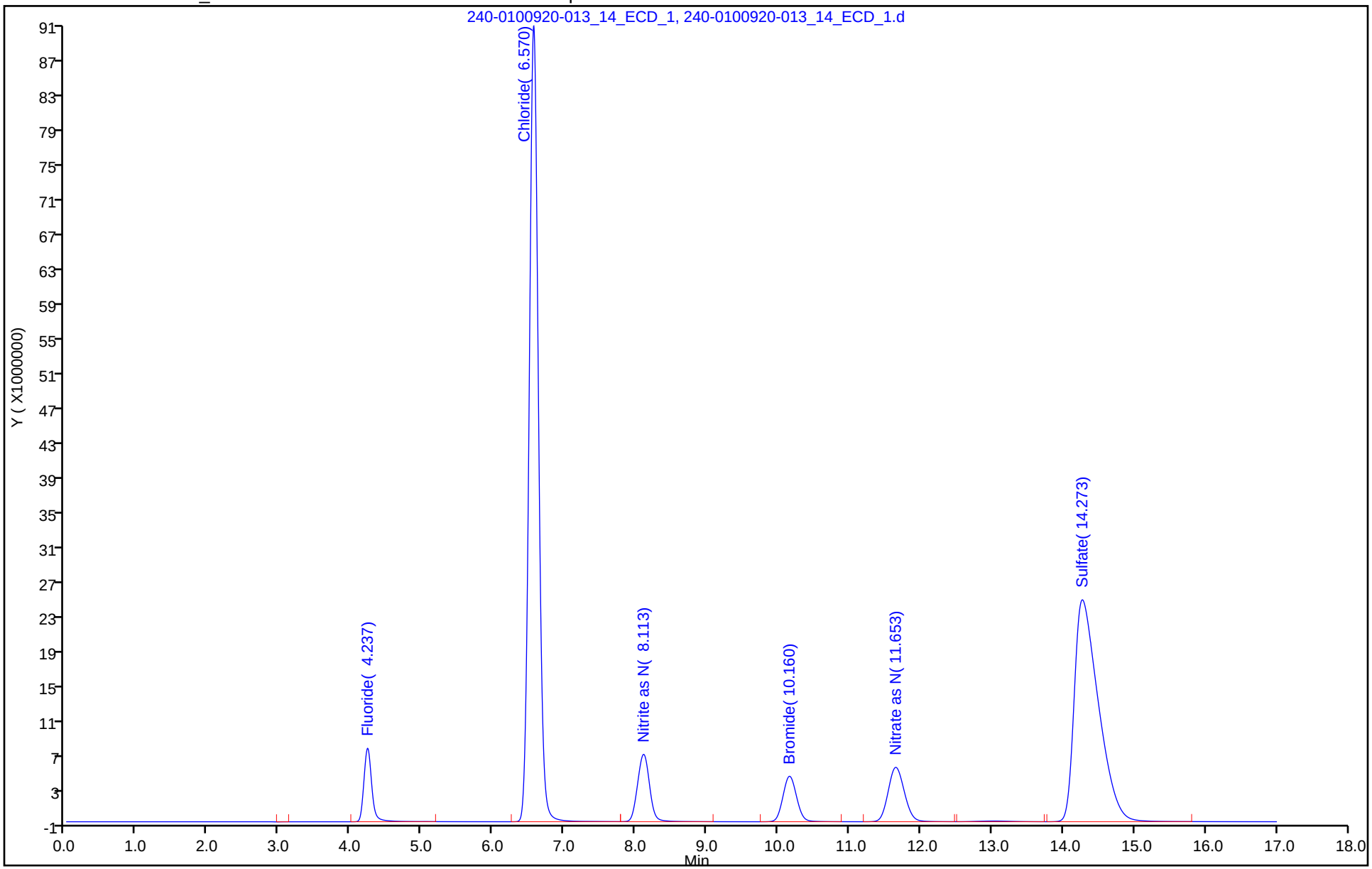
WCICCCV_00946 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:53:06 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-013_14_ECD_1.d

Injection Date:	12-Aug-2020 19:30:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	13
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-014_15_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 12-Aug-2020 19:51:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-014
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

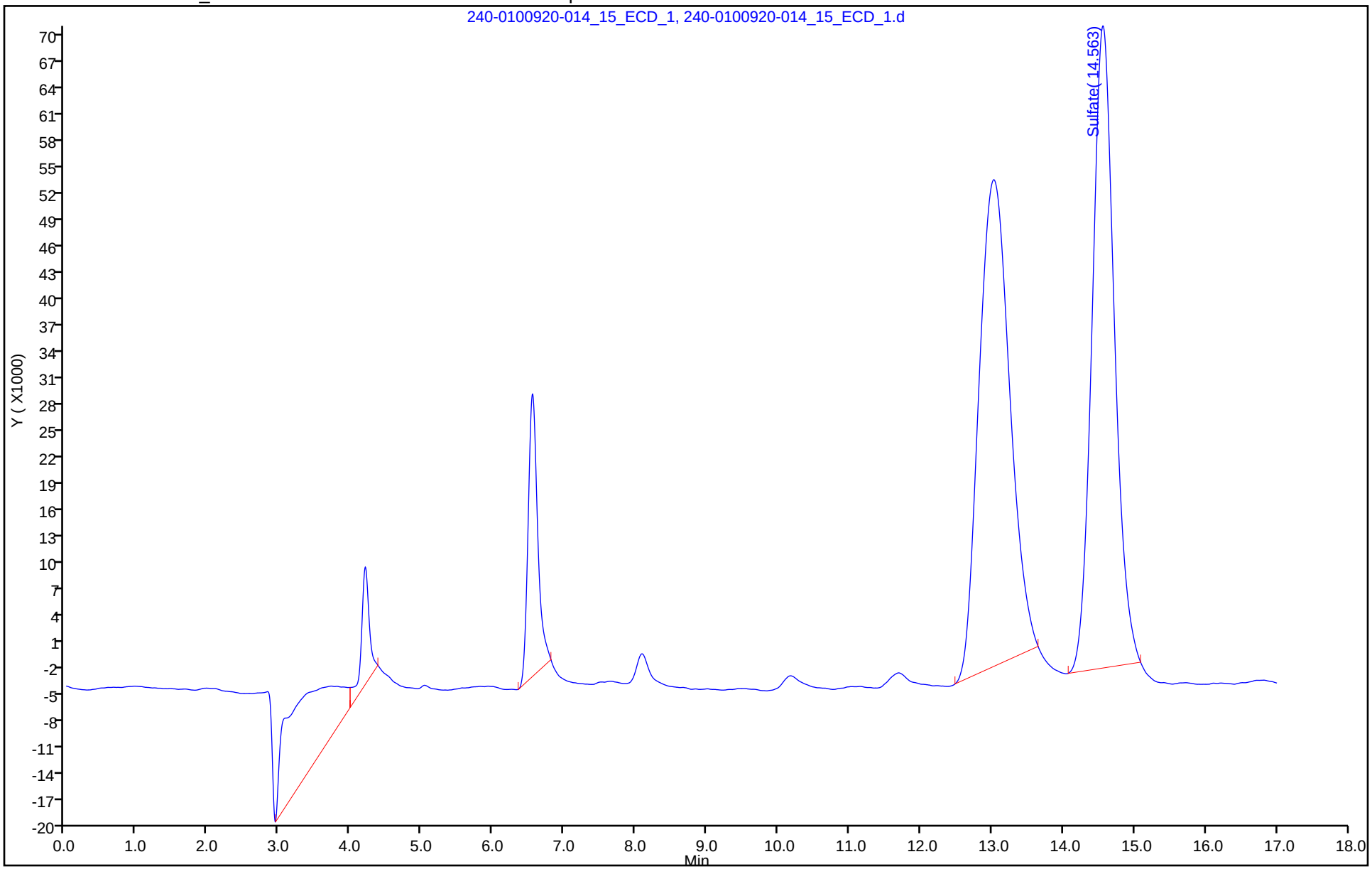
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		4.237				ND	
	2 Chloride		6.570				ND	
	3 Nitrite as N		8.117				ND	
	4 Bromide		10.163				ND	
	5 Nitrate as N		11.660				ND	
	6 Sulfate	14.563	14.307	0.256	1575655		0.1379	
	11 Nitrate as NO3		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
S	7 Nitrate Nitrite as N		0.000				ND	

Report Date: 13-Aug-2020 15:53:07 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-014_15_ECD_1.d

Injection Date:	12-Aug-2020 19:51:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	14
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-016_17_ECD_1.d
Lims ID: 240-134791-K-3 MS
Client ID:
Sample Type: MS
Inject. Date: 12-Aug-2020 20:31:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-016
Misc. Info.: 240-134791-K-3 MS
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.237	4.237	0.000	67459894	2.50	2.76	
2	Chloride	6.567	6.570	-0.003	1268338127	50.0	79.0	
3	Nitrite as N	8.107	8.117	-0.010	98489960	2.50	2.91	
4	Bromide	10.143	10.163	-0.020	75761063	10.0	11.7	
5	Nitrate as N	11.607	11.660	-0.053	130750378	2.50	3.55	
6	Sulfate	14.210	14.307	-0.097	688762314	50.0	60.3	
11	Nitrate as NO3		0.000			ND		
10	Nitrite as NO2		0.000			ND		
S 7	Nitrate Nitrite as N						6.45	

Reagents:

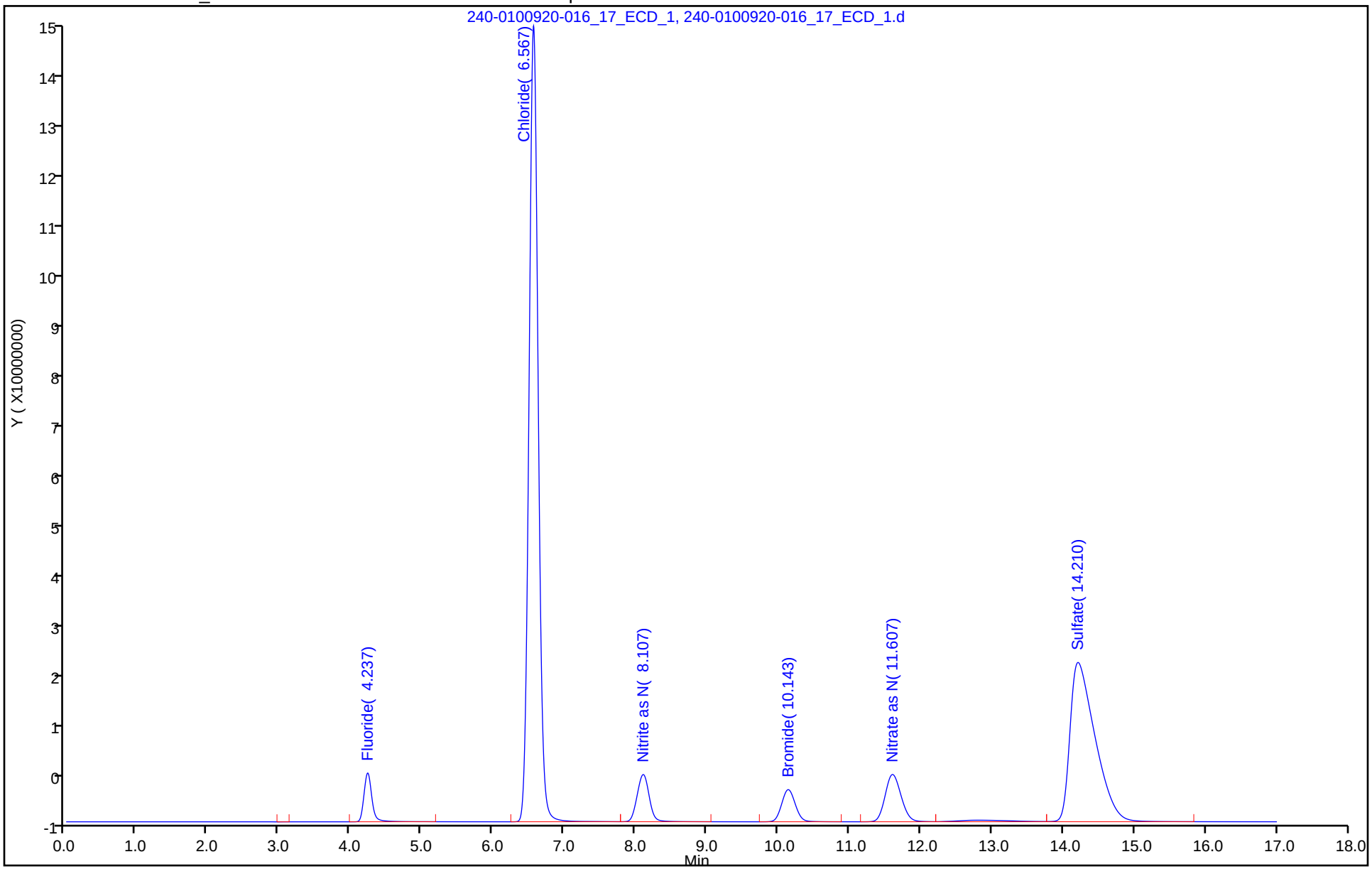
WCICSOLNB1_00023 Amount Added: 0.10 Units: mL
WCICSOLNA1_00023 Amount Added: 0.10 Units: mL

Report Date: 13-Aug-2020 15:53:07 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-016_17_ECD_1.d

Injection Date:	12-Aug-2020 20:31:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-134791-K-3 MS			Worklist Smp#:	16
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-017_18_ECD_1.d
Lims ID: 240-134791-K-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 12-Aug-2020 20:51:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-017
Misc. Info.: 240-134791-K-3 MSD
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.237	4.237	0.000	69089892	2.50	2.83	
2 Chloride	6.560	6.570	-0.010	1277822466	50.0	79.6	
3 Nitrite as N	8.097	8.117	-0.020	99491331	2.50	2.94	
4 Bromide	10.143	10.163	-0.020	77196331	10.0	11.9	
5 Nitrate as N	11.613	11.660	-0.047	132654120	2.50	3.60	
6 Sulfate	14.223	14.307	-0.084	701876456	50.0	61.4	
11 Nitrate as NO3		0.000				ND	
10 Nitrite as NO2		0.000				ND	
S 7 Nitrate Nitrite as N						6.54	

Reagents:

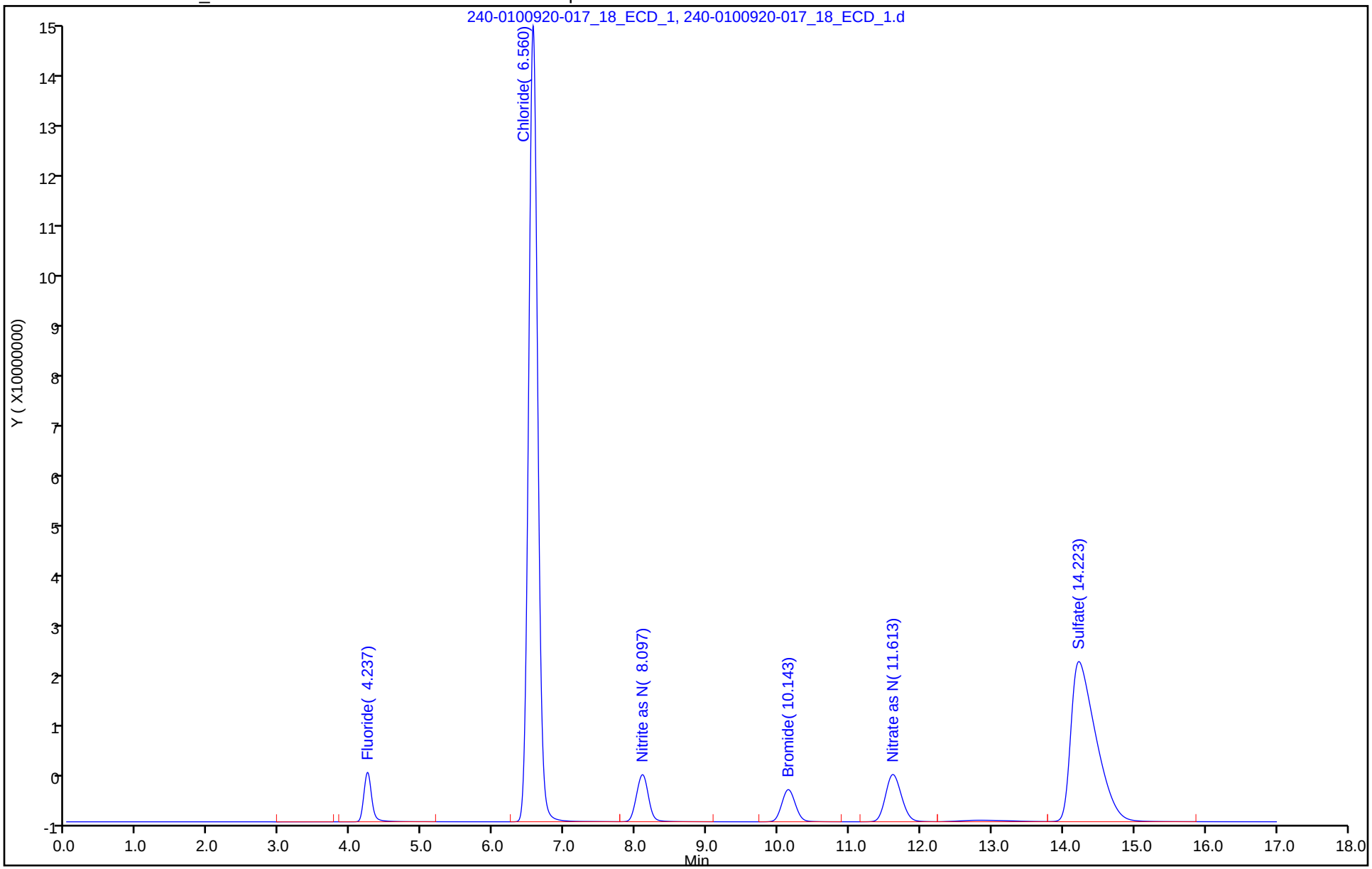
WCICSOLNB1_00023 Amount Added: 0.10 Units: mL
WCICSOLNA1_00023 Amount Added: 0.10 Units: mL

Report Date: 13-Aug-2020 15:53:08 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-017_18_ECD_1.d

Injection Date:	12-Aug-2020 20:51:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-134791-K-3 MSD			Worklist Smp#:	17
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-018_19_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 12-Aug-2020 21:11:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-018
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:53:08 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.233	4.237	-0.004	65277984	2.50	2.67	
2	Chloride	6.567	6.570	-0.003	811828277	50.0	50.6	
3	Nitrite as N	8.110	8.117	-0.007	89854621	2.50	2.65	
4	Bromide	10.157	10.163	-0.006	68676332	10.0	10.6	
5	Nitrate as N	11.647	11.660	-0.013	97647760	2.50	2.65	
6	Sulfate	14.260	14.307	-0.047	596790651	50.0	52.2	
S 7	Nitrate Nitrite as N						5.30	

Reagents:

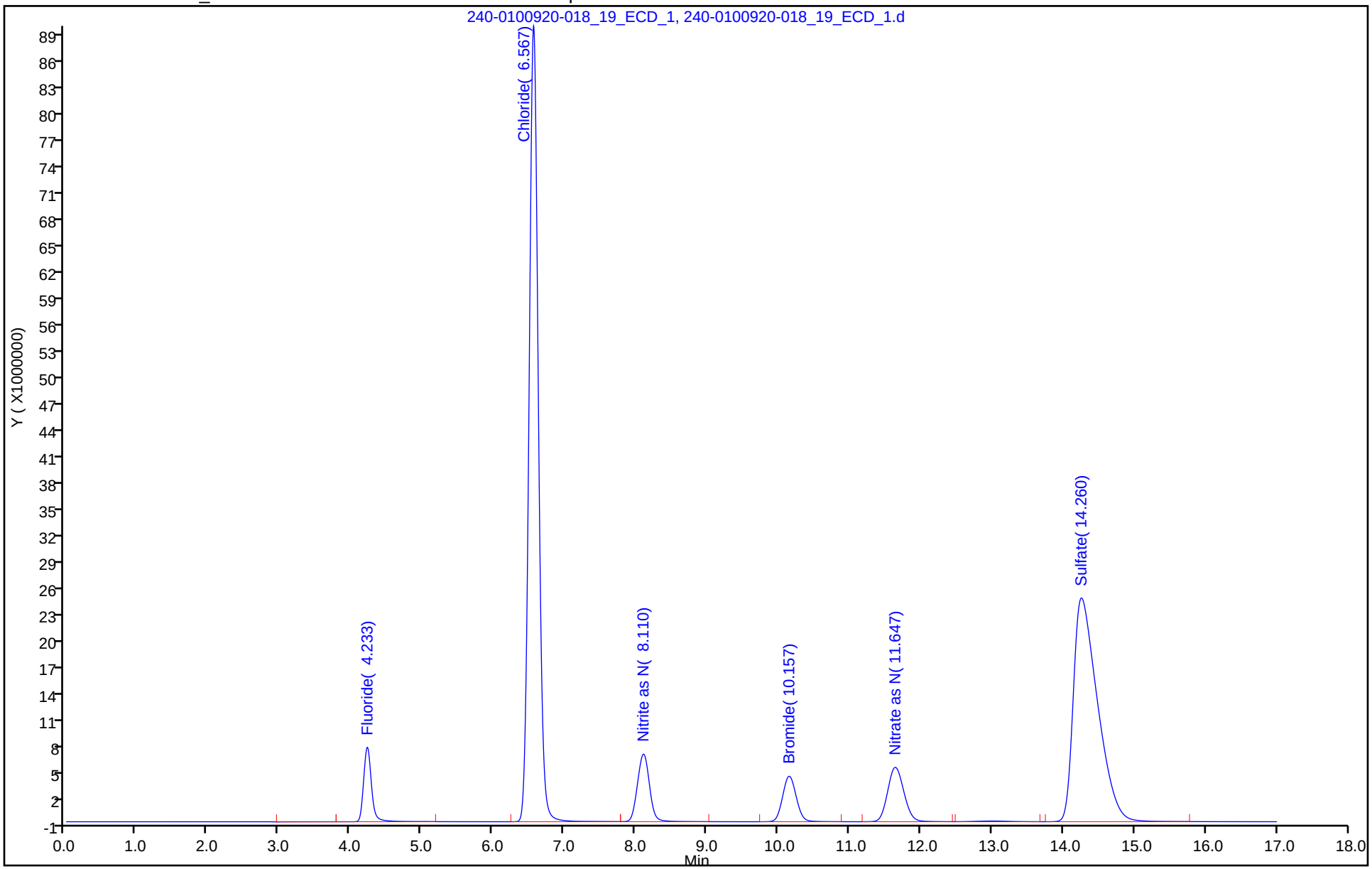
WCICCCV_00946 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:53:08 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-018_19_ECD_1.d

Injection Date:	12-Aug-2020 21:11:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	18
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-019_20_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 12-Aug-2020 21:31:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-019
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Aug-2020 15:53:08 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

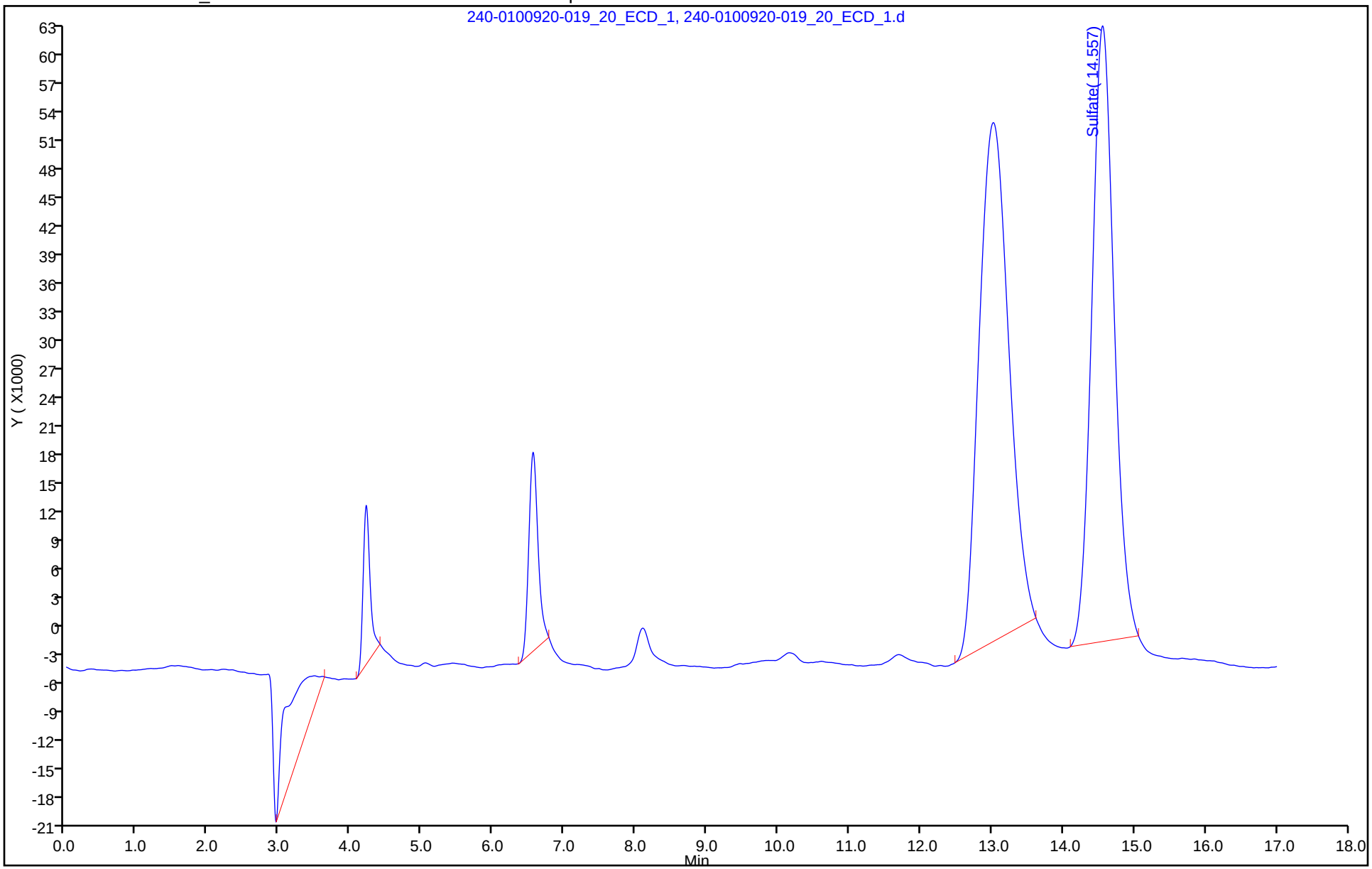
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride		4.237				ND	
2	Chloride		6.570				ND	
3	Nitrite as N		8.117				ND	
4	Bromide		10.163				ND	
5	Nitrate as N		11.660				ND	
6	Sulfate	14.557	14.307	0.250	1387876		0.1214	
11	Nitrate as NO3		0.000				ND	
10	Nitrite as NO2		0.000				ND	
S 7	Nitrate Nitrite as N		0.000				ND	

Report Date: 13-Aug-2020 15:53:09 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-019_20_ECD_1.d

Injection Date:	12-Aug-2020 21:31:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	19
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-001_02_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 12-Aug-2020 15:29:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-001
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.237	4.237	0.000	64157940	NC	NC	
2 Chloride	6.570	6.570	0.000	808603199	NC	NC	
3 Nitrite as N	8.117	8.117	0.000	89427718	2.50	2.64	
4 Bromide	10.163	10.163	0.000	68606743	NC	NC	
5 Nitrate as N	11.660	11.660	0.000	97376875	2.50	2.64	
6 Sulfate	14.307	14.307	0.000	592684122	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

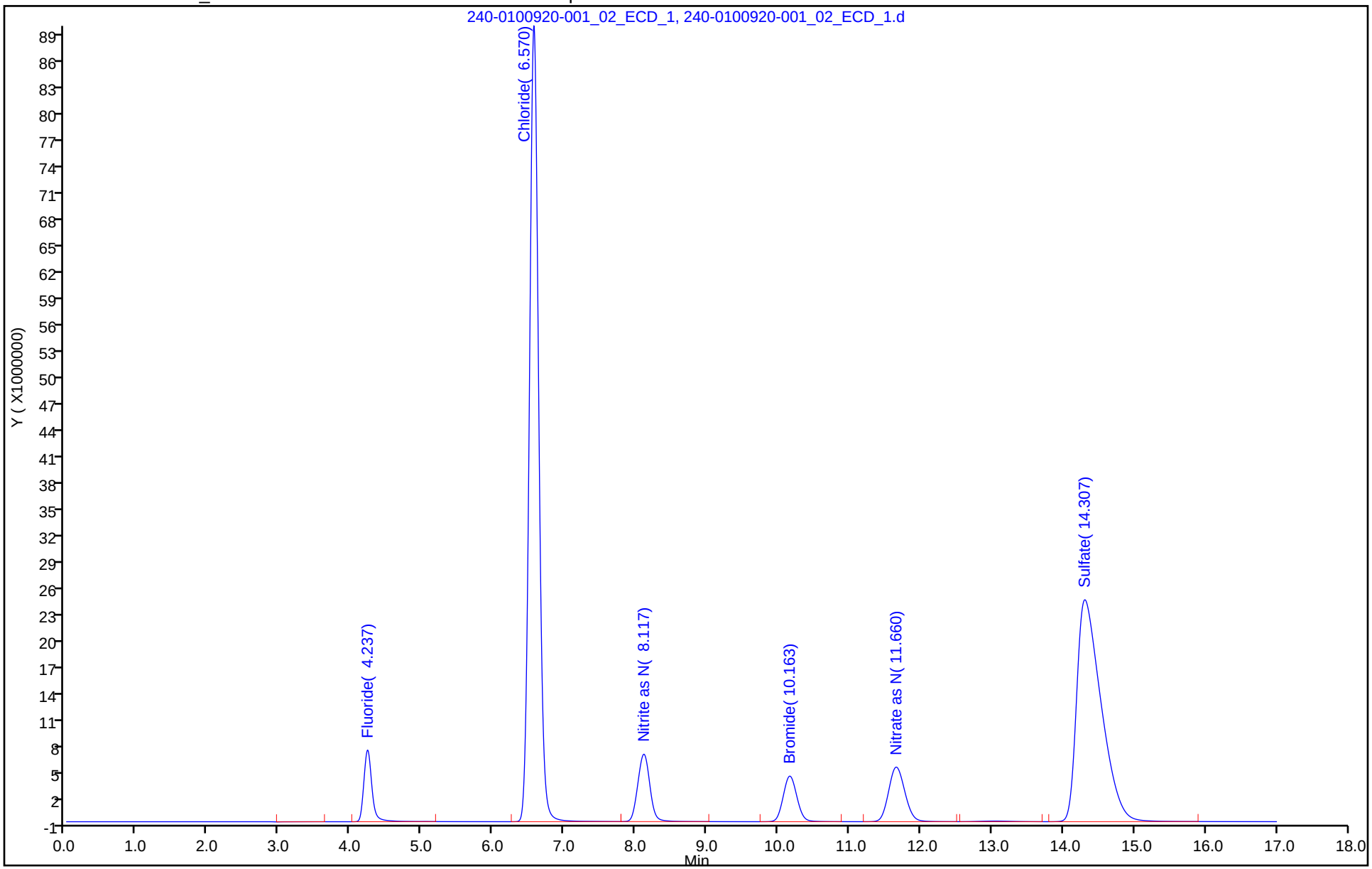
WCICCCV_00946 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:52:59 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-001_02_ECD_1.d

Injection Date:	12-Aug-2020 15:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-002_03_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 12-Aug-2020 15:49:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-002
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	4.220	4.237	-0.017	44353		NC	
	2 Chloride	6.567	6.570	-0.003	158408		NC	
	3 Nitrite as N		8.117			ND		
	4 Bromide		10.163			ND		
	5 Nitrate as N		11.660			ND		
	6 Sulfate	14.603	14.307	0.296	385784		NC	
	11 Nitrate as NO3		0.000			ND		
	10 Nitrite as NO2		0.000			ND		
S	7 Nitrate Nitrite as N		0.000			ND		

QC Flag Legend

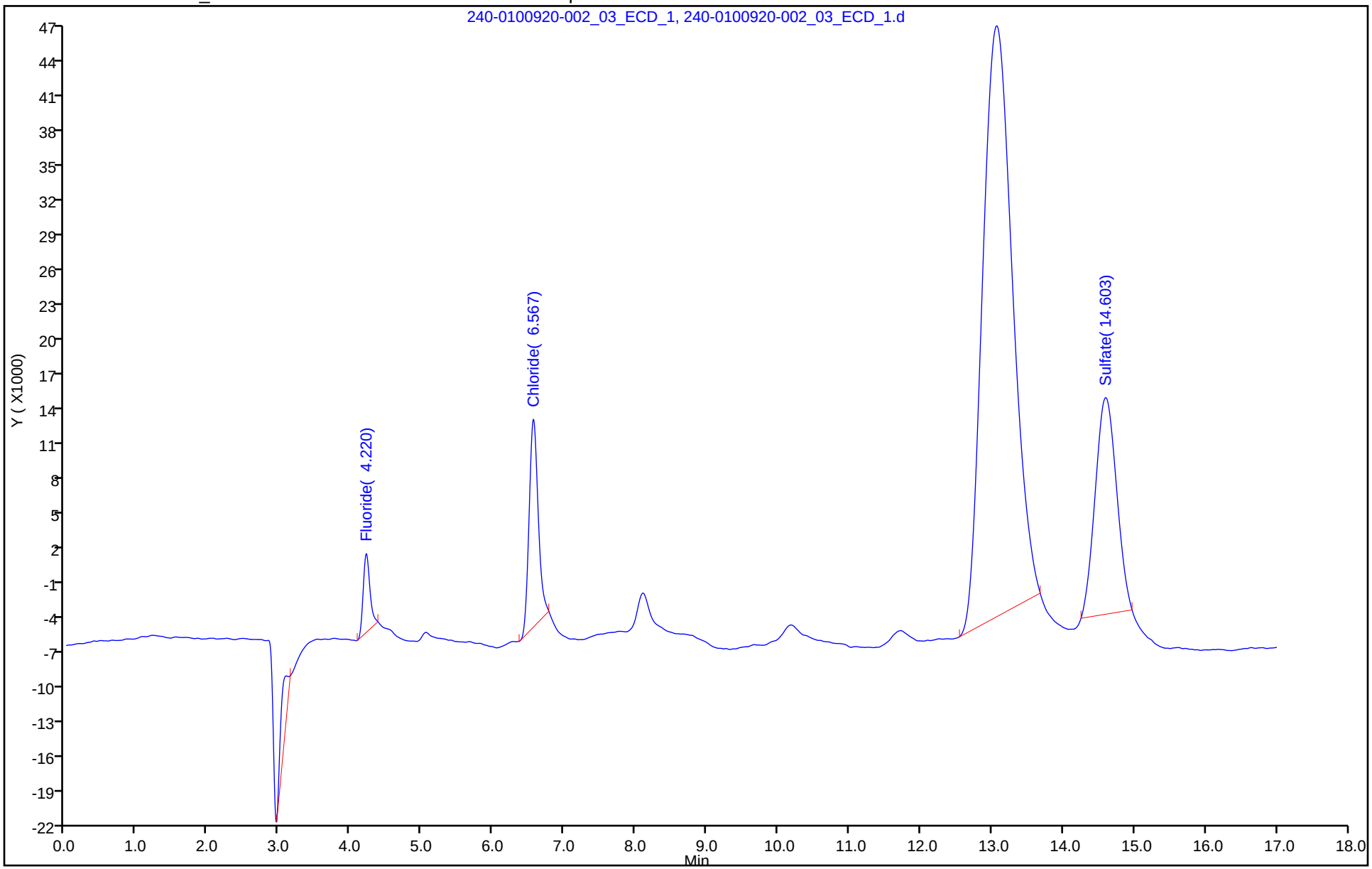
Processing Flags
NC - Not Calibrated

Report Date: 13-Aug-2020 15:52:59 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-002_03_ECD_1.d

Injection Date:	12-Aug-2020 15:49:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-003_04_ECD_1.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 12-Aug-2020 16:09:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-003
Misc. Info.: MB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

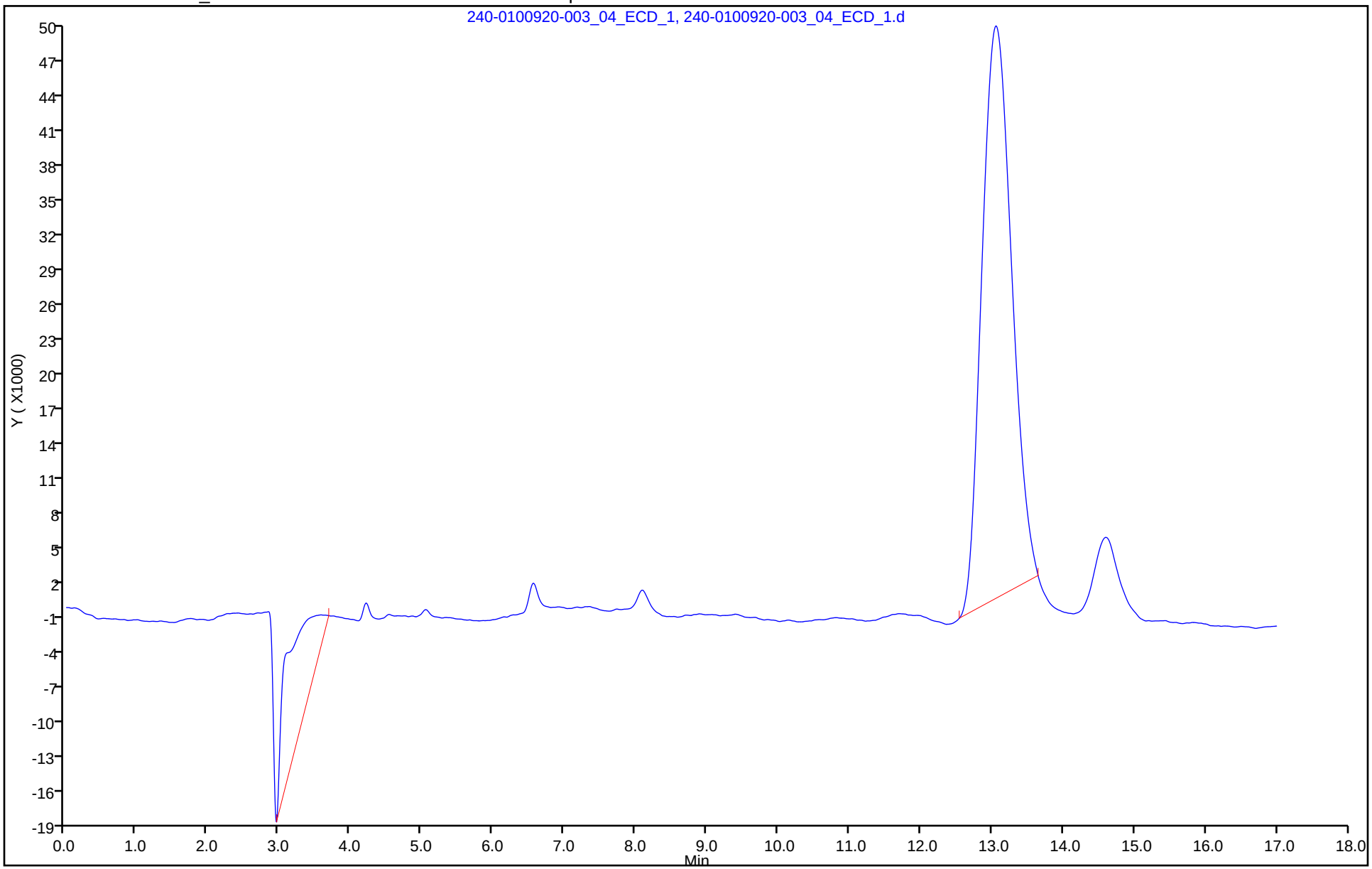
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		4.237				ND	
	2 Chloride		6.570				ND	
	3 Nitrite as N		8.117				ND	
	4 Bromide		10.163				ND	
	5 Nitrate as N		11.660				ND	
	6 Sulfate		14.307				ND	
	11 Nitrate as NO3		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
S	7 Nitrate Nitrite as N		0.000				ND	

Report Date: 13-Aug-2020 15:53:00 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-003_04_ECD_1.d

Injection Date:	12-Aug-2020 16:09:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	MB			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-004_05_ECD_1.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Aug-2020 16:29:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-004
Misc. Info.: LCS
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:52:58 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	4.227	4.237	-0.010	64602474	NC	NC	
2 Chloride	6.553	6.570	-0.017	807767616	NC	NC	
3 Nitrite as N	8.100	8.117	-0.017	87782073	2.50	2.59	
4 Bromide	10.150	10.163	-0.013	65861400	NC	NC	
5 Nitrate as N	11.643	11.660	-0.017	98641822	2.50	2.68	
6 Sulfate	14.277	14.307	-0.030	595267455	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

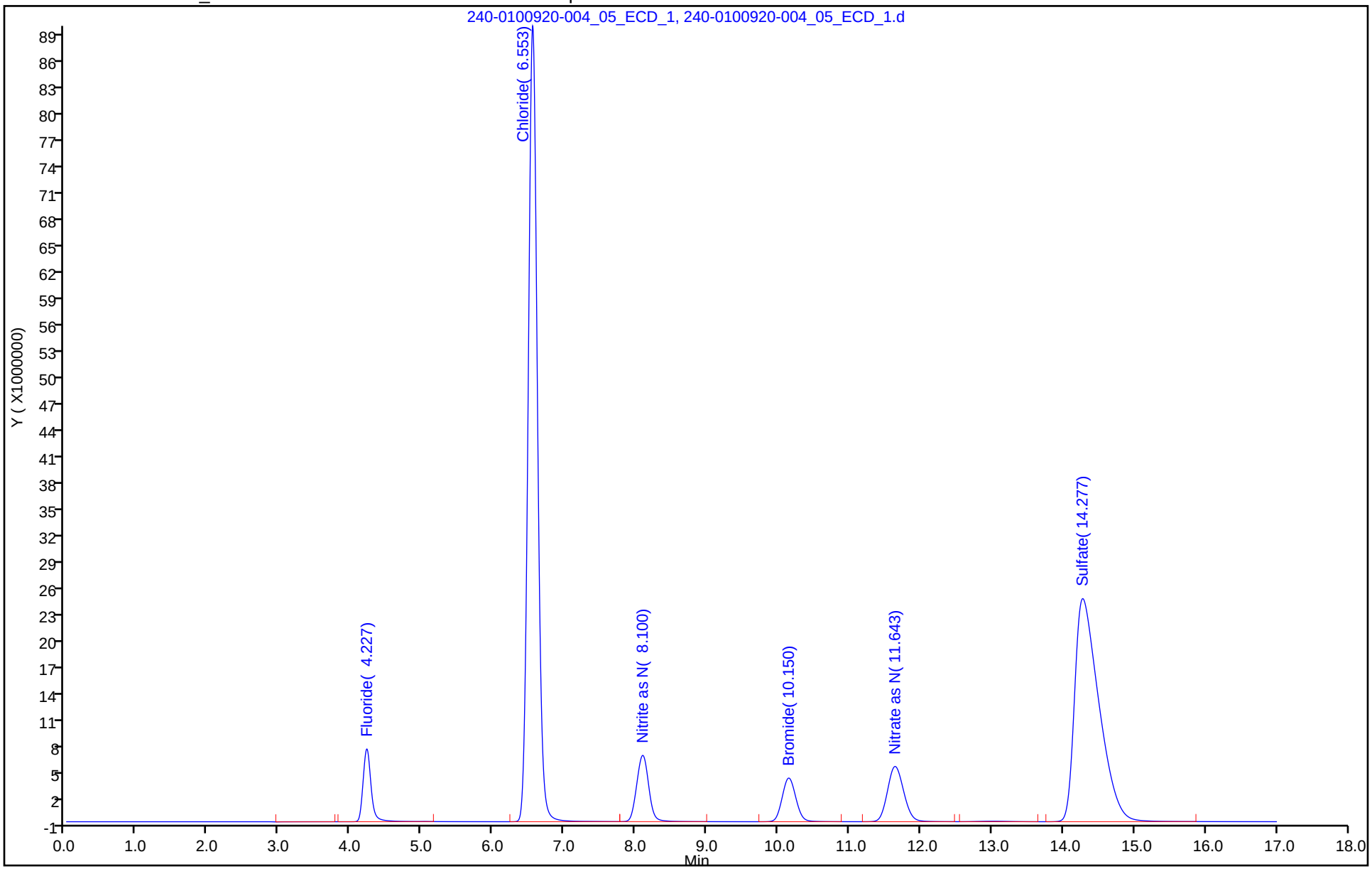
WCICLCS_00778 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:53:00 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-004_05_ECD_1.d

Injection Date:	12-Aug-2020 16:29:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-009_10_ECD_1.d
Lims ID: 240-134814-J-1
Client ID: MRC-MW-164B-081120
Sample Type: Client
Inject. Date: 12-Aug-2020 18:10:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-009
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:53:08 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

First Level Reviewer: weimerj Date: 13-Aug-2020 19:46:26

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
3 Nitrite as N		8.117			ND	
4 Bromide	10.150	10.163	-0.013	1341275		NC
5 Nitrate as N		11.660			ND	
6 Sulfate	14.447	14.307	0.140	102535404		NC

QC Flag Legend

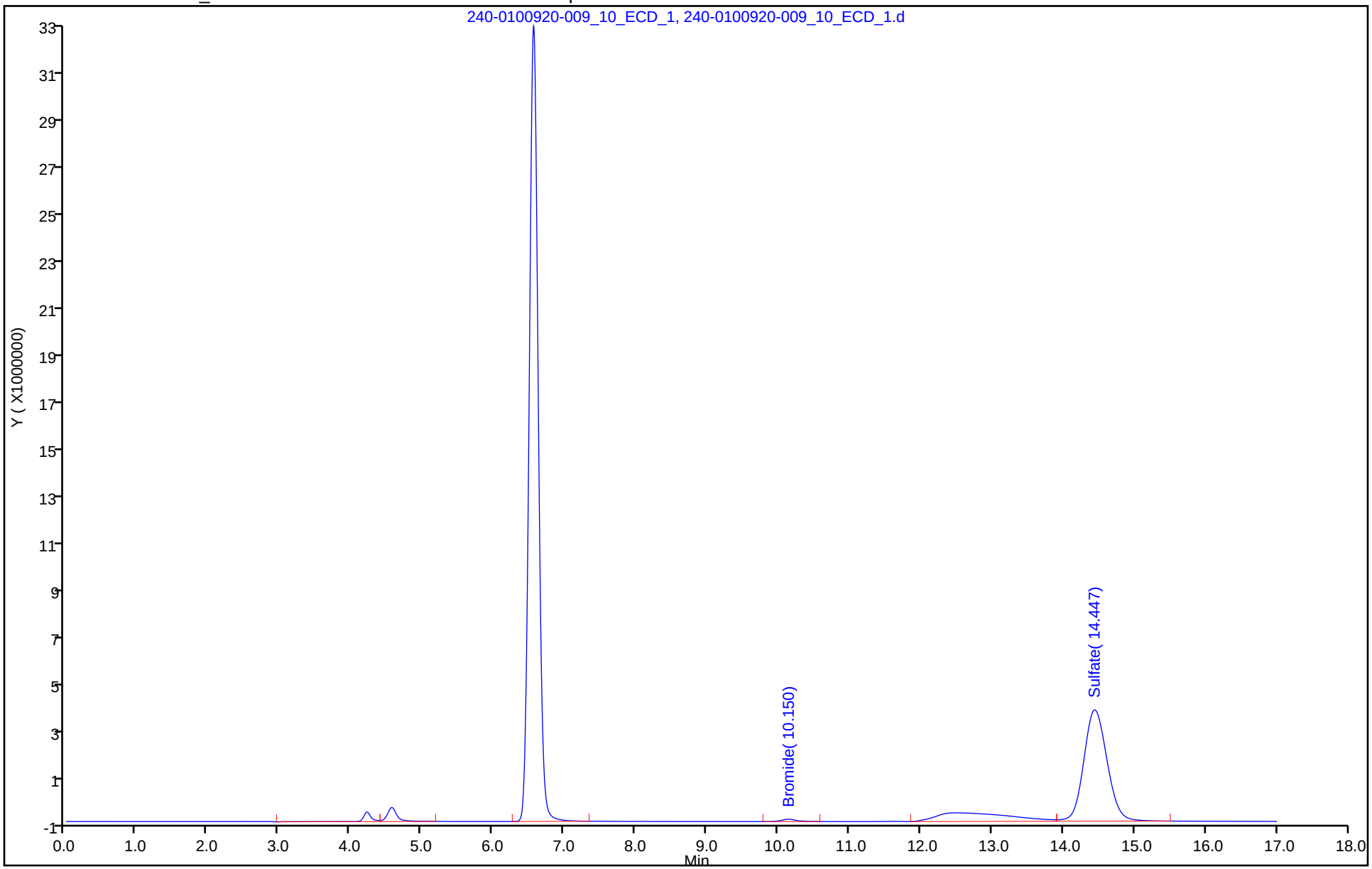
Processing Flags
NC - Not Calibrated

Report Date: 13-Aug-2020 19:46:36 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-009_10_ECD_1.d

Injection Date:	12-Aug-2020 18:10:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-134814-J-1	Lab Sample ID:	240-134814-1	Worklist Smp#:	9
Client ID:	MRC-MW-164B-081120				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-013_14_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 12-Aug-2020 19:30:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-013
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.237	4.237	0.000	65014181	NC	NC	
2	Chloride	6.570	6.570	0.000	813347918	NC	NC	
3	Nitrite as N	8.113	8.117	-0.004	90196936	2.50	2.66	
4	Bromide	10.160	10.163	-0.003	69181981	NC	NC	
5	Nitrate as N	11.653	11.660	-0.007	98034464	2.50	2.66	
6	Sulfate	14.273	14.307	-0.034	595117729	NC	NC	
S 7	Nitrate Nitrite as N						5.32	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

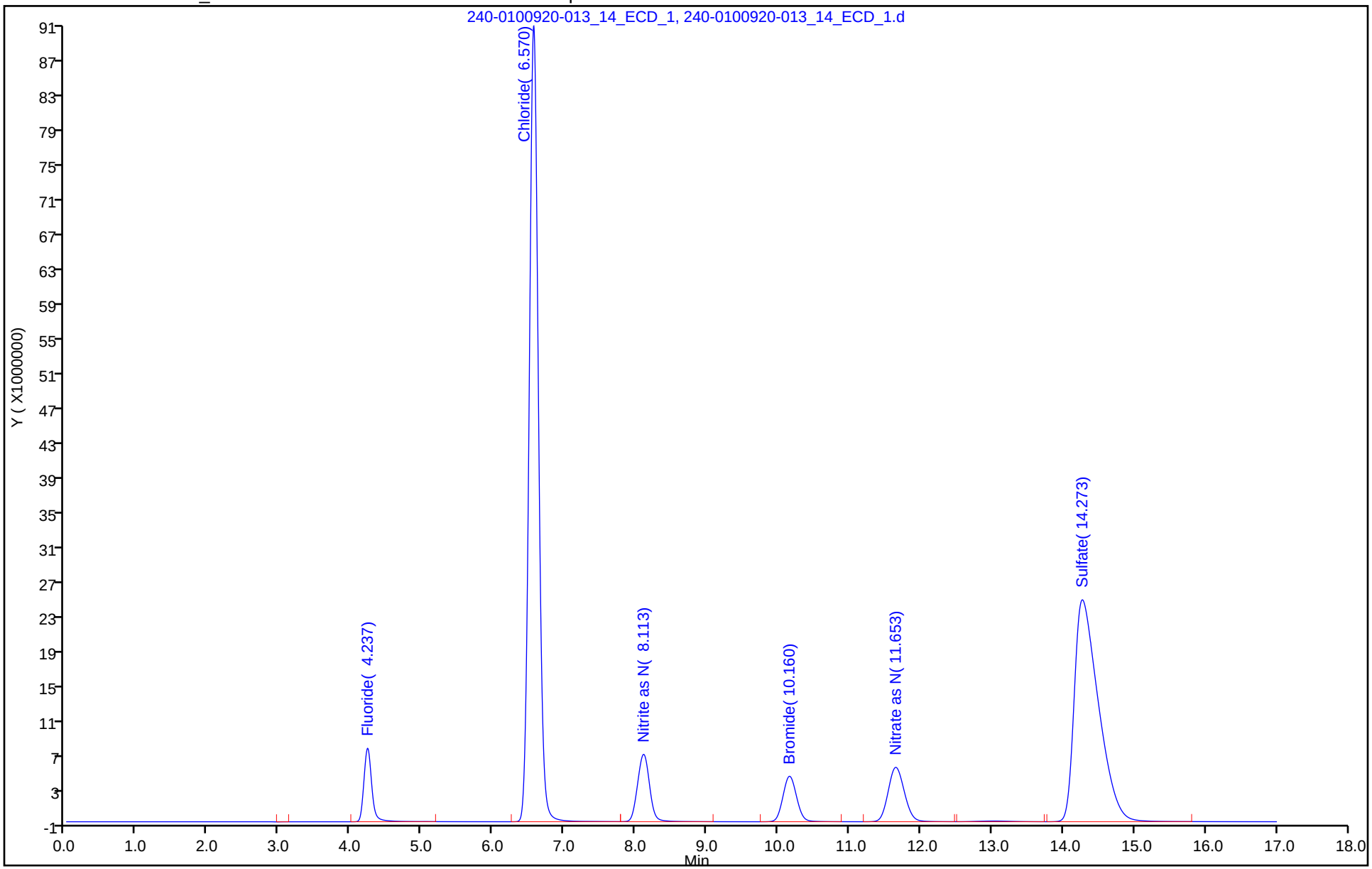
WCICCCV_00946 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:53:06 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-013_14_ECD_1.d

Injection Date:	12-Aug-2020 19:30:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	13
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-014_15_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 12-Aug-2020 19:51:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-014
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	4.203	4.237	-0.034	104265		NC	
	2 Chloride	6.553	6.570	-0.017	297785		NC	
	3 Nitrite as N		8.117			ND		
	4 Bromide		10.163			ND		
	5 Nitrate as N		11.660			ND		
	6 Sulfate	14.563	14.307	0.256	1575655		NC	
	11 Nitrate as NO3		0.000			ND		
	10 Nitrite as NO2		0.000			ND		
S	7 Nitrate Nitrite as N		0.000			ND		

QC Flag Legend

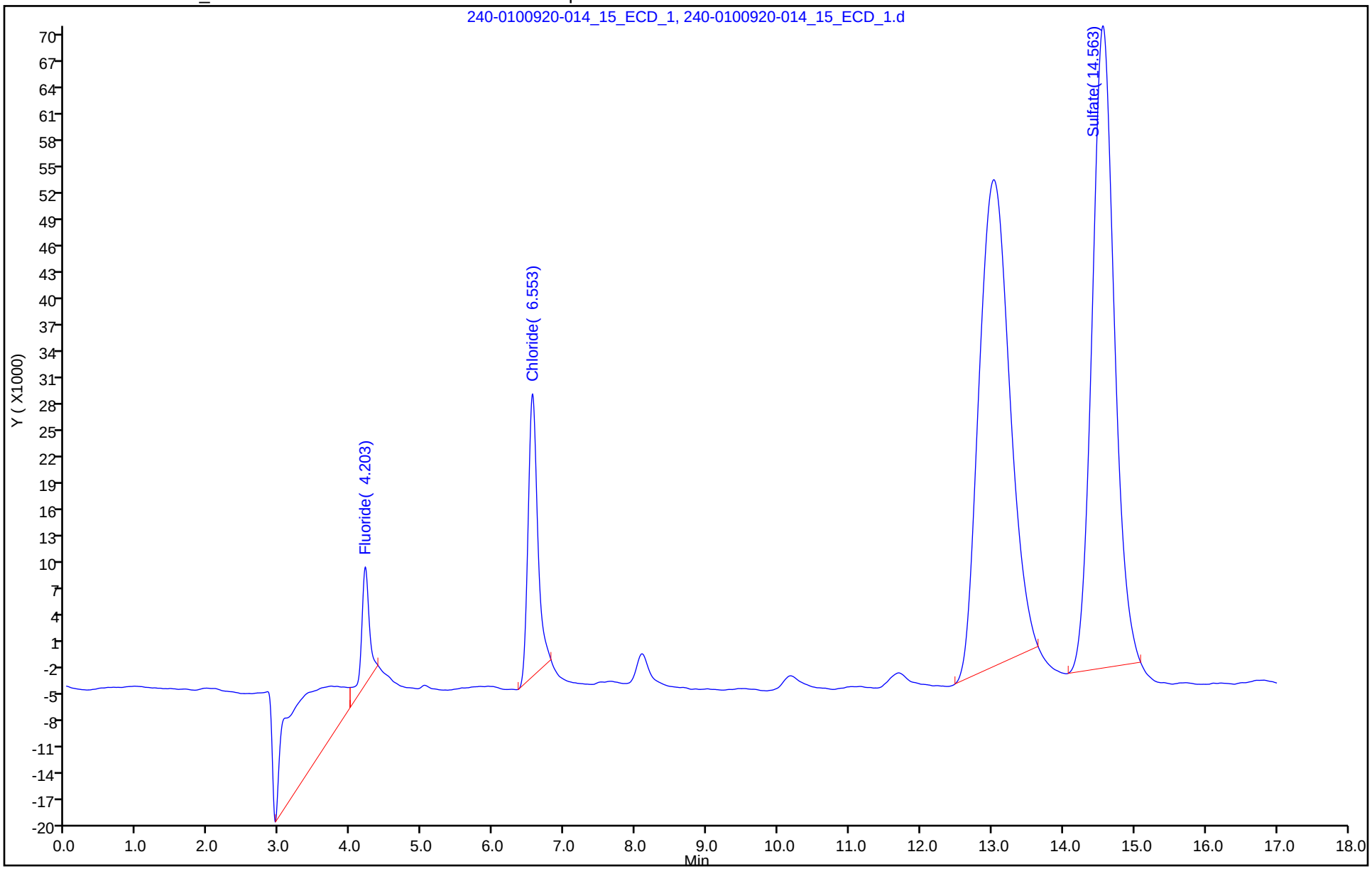
Processing Flags
NC - Not Calibrated

Report Date: 13-Aug-2020 15:53:07 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-014_15_ECD_1.d

Injection Date:	12-Aug-2020 19:51:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	14
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



09/04/2020

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-016_17_ECD_1.d
Lims ID: 240-134791-K-3 MS
Client ID:
Sample Type: MS
Inject. Date: 12-Aug-2020 20:31:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-016
Misc. Info.: 240-134791-K-3 MS
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.237	4.237	0.000	67459894	NC	NC	
2	Chloride	6.567	6.570	-0.003	1268338127	NC	NC	
3	Nitrite as N	8.107	8.117	-0.010	98489960	2.50	2.91	
4	Bromide	10.143	10.163	-0.020	75761063	NC	NC	
5	Nitrate as N	11.607	11.660	-0.053	130750378	2.50	3.55	
6	Sulfate	14.210	14.307	-0.097	688762314	NC	NC	
11	Nitrate as NO3		0.000				ND	
10	Nitrite as NO2		0.000				ND	
S 7	Nitrate Nitrite as N						6.45	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

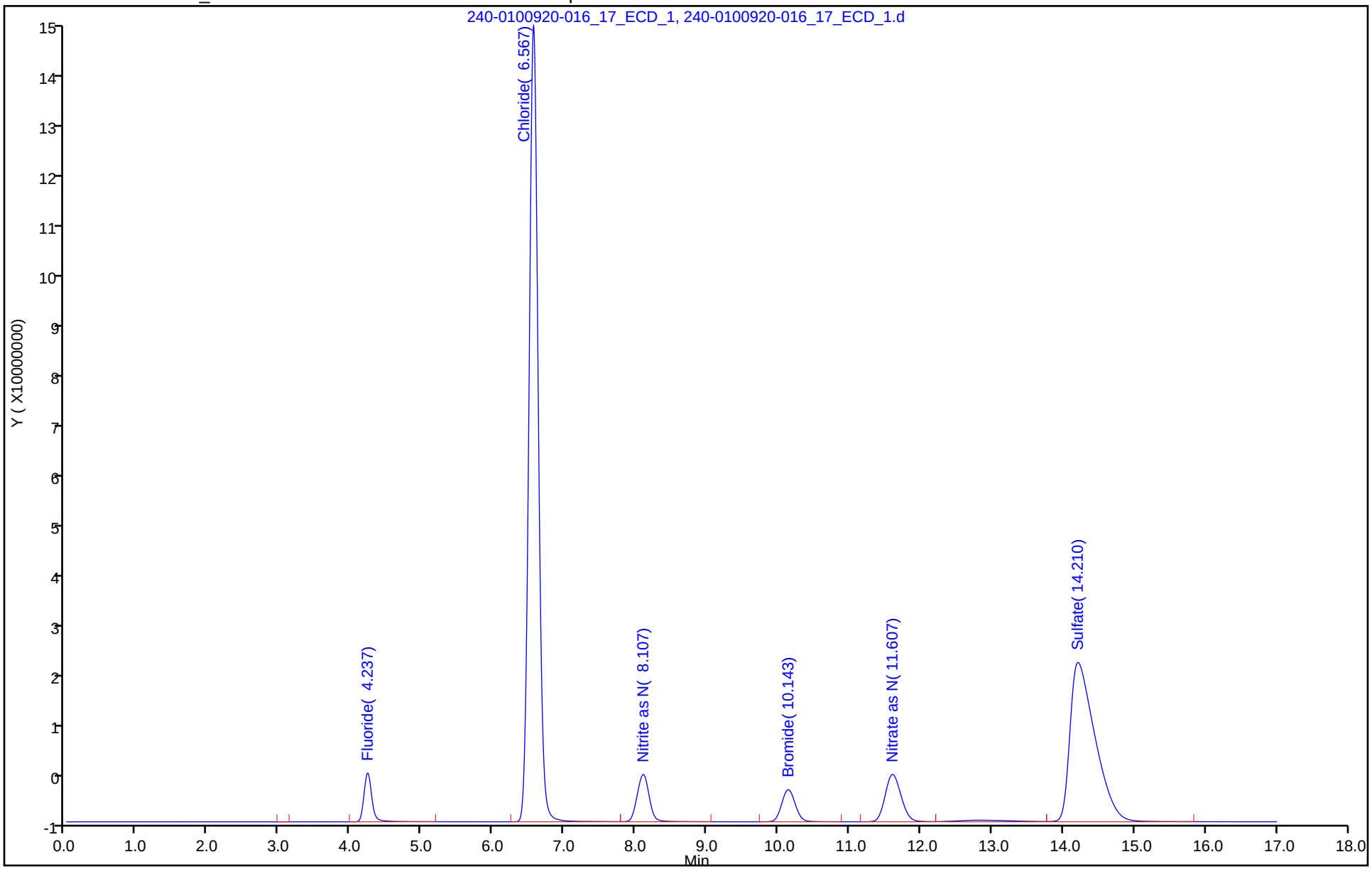
WCICSOLNB1_00023 Amount Added: 0.10 Units: mL
WCICSOLNA1_00023 Amount Added: 0.10 Units: mL

Report Date: 13-Aug-2020 15:53:08 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-016_17_ECD_1.d

Injection Date:	12-Aug-2020 20:31:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-134791-K-3 MS			Worklist Smp#:	16
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-017_18_ECD_1.d
Lims ID: 240-134791-K-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 12-Aug-2020 20:51:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-017
Misc. Info.: 240-134791-K-3 MSD
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:53:06 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.237	4.237	0.000	69089892	NC	NC	
2	Chloride	6.560	6.570	-0.010	1277822466	NC	NC	
3	Nitrite as N	8.097	8.117	-0.020	99491331	2.50	2.94	
4	Bromide	10.143	10.163	-0.020	77196331	NC	NC	
5	Nitrate as N	11.613	11.660	-0.047	132654120	2.50	3.60	
6	Sulfate	14.223	14.307	-0.084	701876456	NC	NC	
11	Nitrate as NO3		0.000				ND	
10	Nitrite as NO2		0.000				ND	
S 7	Nitrate Nitrite as N						6.54	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

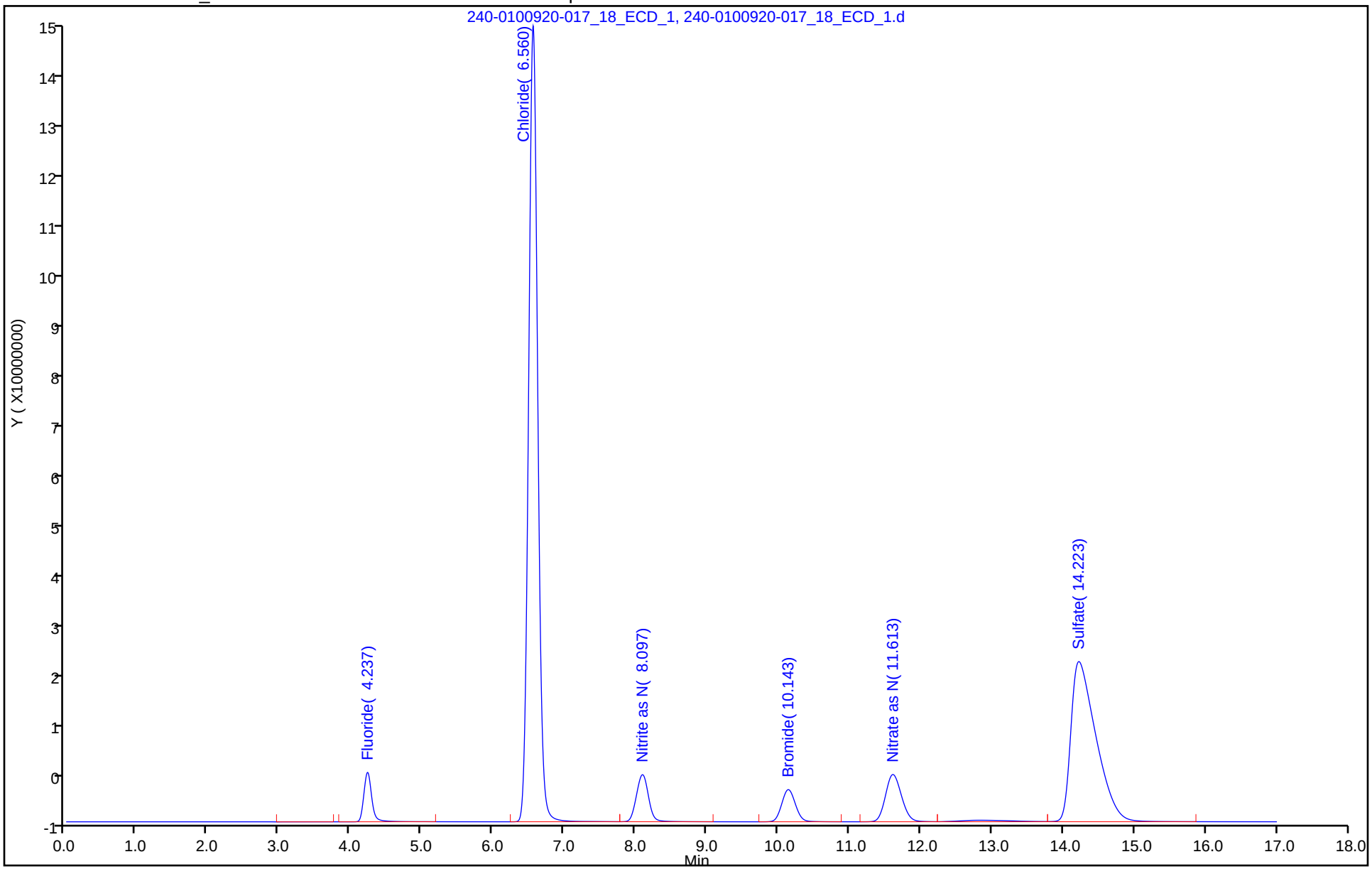
WCICSOLNB1_00023 Amount Added: 0.10 Units: mL
WCICSOLNA1_00023 Amount Added: 0.10 Units: mL

Report Date: 13-Aug-2020 15:53:08 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-017_18_ECD_1.d

Injection Date:	12-Aug-2020 20:51:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-134791-K-3 MSD			Worklist Smp#:	17
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-018_19_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 12-Aug-2020 21:11:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-018
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub4

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:53:08 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	4.233	4.237	-0.004	65277984	NC	NC	
	2 Chloride	6.567	6.570	-0.003	811828277	NC	NC	
	3 Nitrite as N	8.110	8.117	-0.007	89854621	2.50	2.65	
	4 Bromide	10.157	10.163	-0.006	68676332	NC	NC	
	5 Nitrate as N	11.647	11.660	-0.013	97647760	2.50	2.65	
	6 Sulfate	14.260	14.307	-0.047	596790651	NC	NC	
S	7 Nitrate Nitrite as N						5.30	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

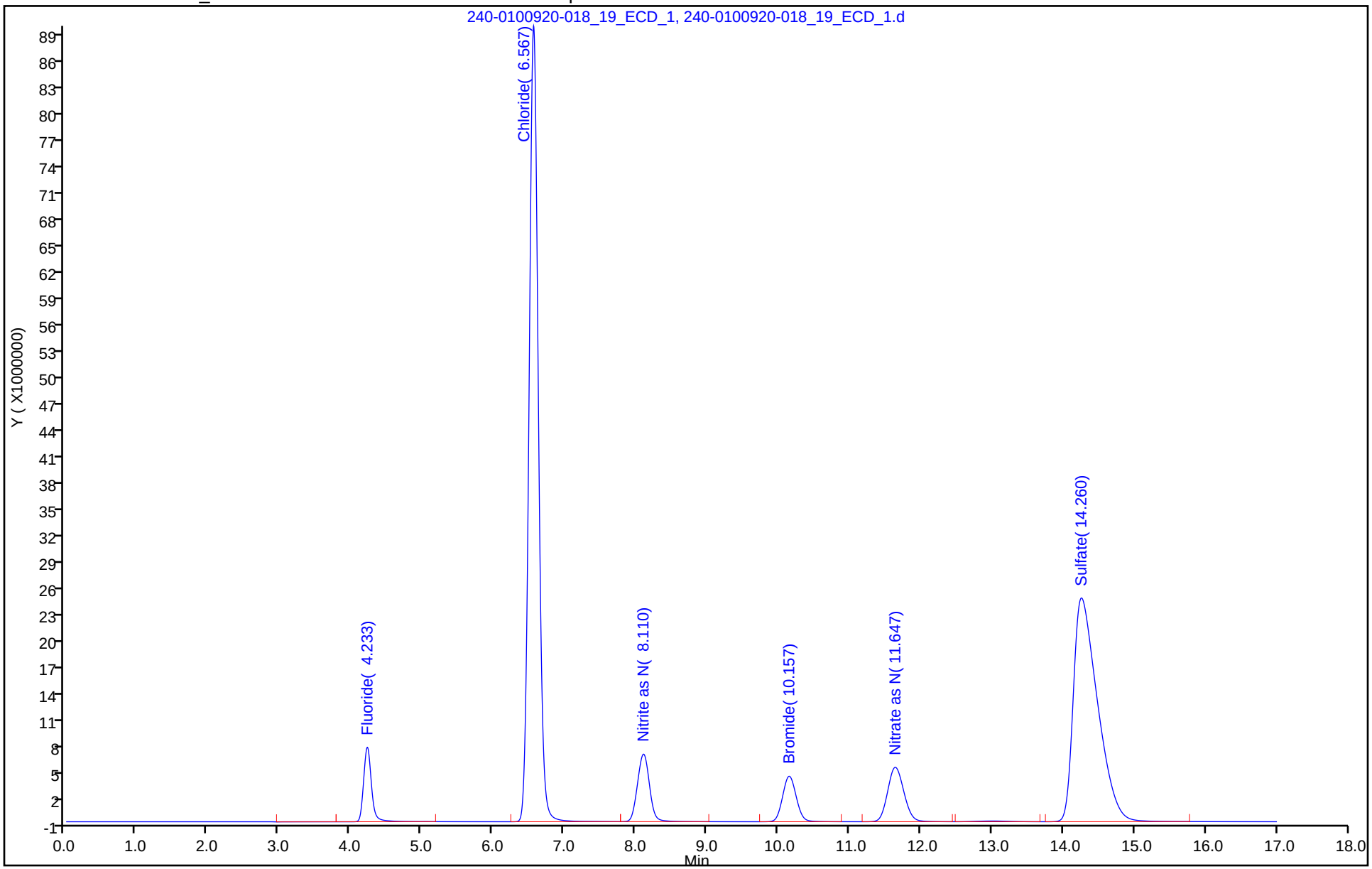
WCICCCV_00946 Amount Added: 5.00 Units: mL

Report Date: 13-Aug-2020 15:53:08 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-018_19_ECD_1.d

Injection Date:	12-Aug-2020 21:11:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	18
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-019_20_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 12-Aug-2020 21:31:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0100920-019
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 13-Aug-2020 15:53:08 Calib Date: 24-Jul-2020 22:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\VERONICA\20200724-100354.b\240-0100354-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: CTX1059

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	4.217	4.237	-0.020	111979		NC	
2	Chloride	6.560	6.570	-0.010	186876		NC	
3	Nitrite as N		8.117			ND		
4	Bromide		10.163			ND		
5	Nitrate as N		11.660			ND		
6	Sulfate	14.557	14.307	0.250	1387876		NC	
11	Nitrate as NO3		0.000			ND		
10	Nitrite as NO2		0.000			ND		
S 7	Nitrate Nitrite as N		0.000			ND		

QC Flag Legend

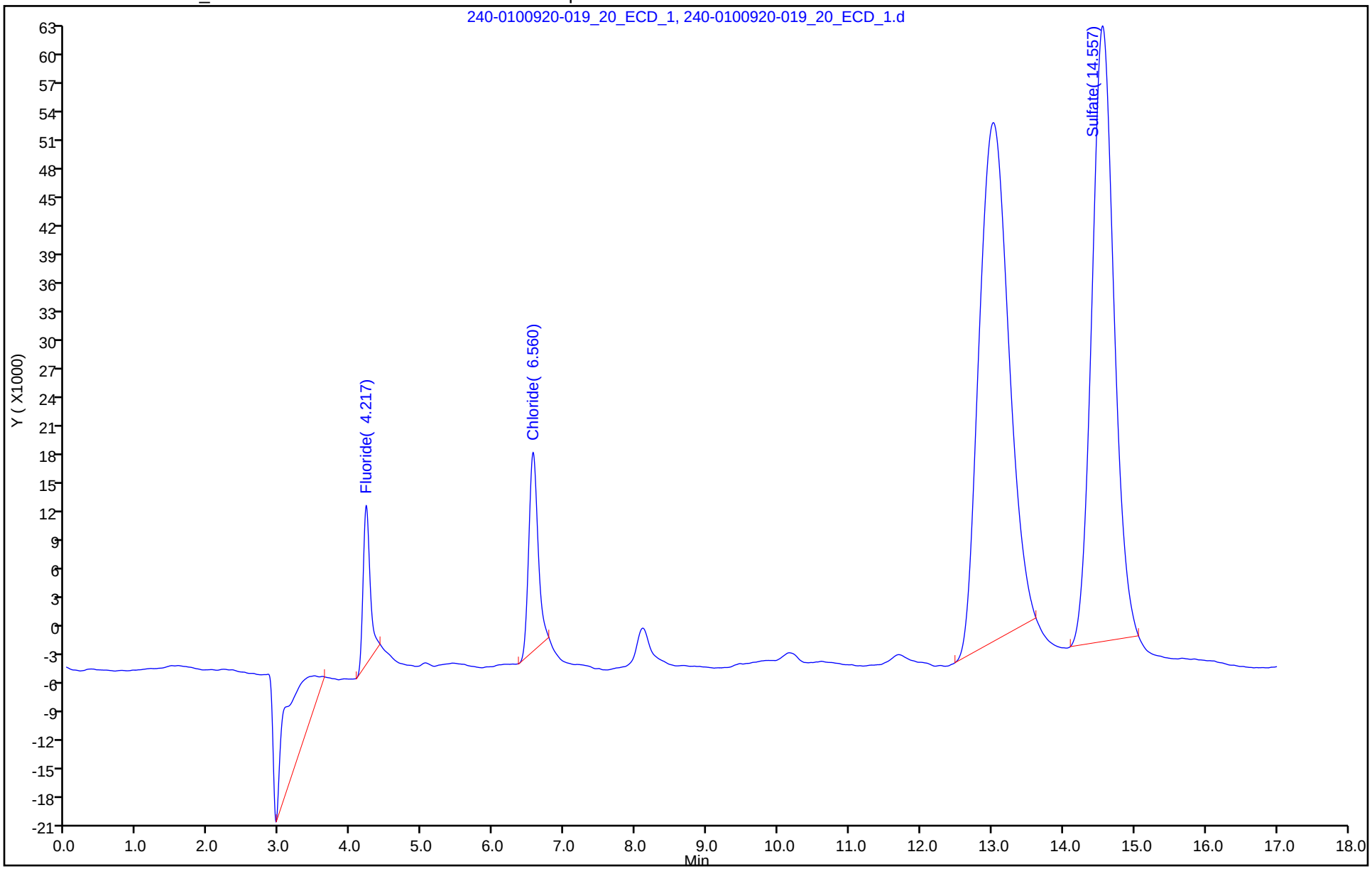
Processing Flags
NC - Not Calibrated

Report Date: 13-Aug-2020 15:53:09 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\VERONICA\20200812-100920.b\240-0100920-019_20_ECD_1.d

Injection Date:	12-Aug-2020 21:31:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	19
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



09/04/2020

General Chemistry Raw Data Report

Job ID: 240-134814-1

Batch: 326269 **Analyst Initials: AGP**

Method: SM 2510B **Instrument: No Equipment**

Lab Sample ID: LCS 180-326269/1

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	86.15	umhos/cm	2 mL

Lab Sample ID: MB 180-326269/2

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	0.12	umhos/cm	2 mL

Lab Sample ID: CCV 180-326269/13

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	509.8	umhos/cm	2 mL

Lab Sample ID: CCB 180-326269/14

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	0.18	umhos/cm	2 mL

Lab Sample ID: 240-134814-G-1

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	248.4	umhos/cm	2 mL

Lab Sample ID: 240-134814-G-1 DU

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	248.8	umhos/cm	2 mL

Lab Sample ID: CCV 180-326269/25

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	499.4	umhos/cm	2 mL

Lab Sample ID: CCB 180-326269/26

Analysis Date: Aug 19, 2020 20:04

Analyte	Detector	Dilution	Raw Result	Unit	Final Amount
Specific Conductance	None	1	0.16	umhos/cm	2 mL

eurofins | Environment Testing TestAmerica

Pittsburgh
SPECIFIC CONDUCTANCE LOGSHEET
Methods 120.1/9050A/SM2510B
NB-2020-028

2510B batch 3262609

LCS True Value: 84 | 100 mS Standard | Meter ID: Ultrameter II Psi SN 6205309
LCS TALS Reagent ID: 38i5752 | TALS Reagent ID: 3825077 | Reporting Limit Acceptance: < 1 µmho/cm
CCV True Value: 500 | 100 mS STD Reading: 99.98ms | Analyst: Angela Partridge
CCV TALS Reagent ID: 38i5751 | Analysis Date: 8/19/2020

CALCULATIONS:

Cell Correction Factor:

100 mS / 100 mS Reading

SPECIFIC CONDUCTANCE:

Sample Reading x Cell Correction Factor (meter does calculation)

Conductivity Meter performs automatic temperature compensation.

Sample ID	Conductivity Reading (µmhos/cm)	Temperature °C
LCS	86.15	21.1
MB	0.12	24.7
180-109438-C-1	372.0	18.1
C-1 DU	372.2	18.1
180-109440-C-1	377.4	18.1
180-109443-C-1	629.0	18.1
180-109444-C-1	542.5	18.1
180-109446-C-1	314.0	18.1
180-109447-C-1	307.4	18.1
180-109464-C-1	188.4	18.1
180-109467-C-1	135.8	18.1
180-109468-C-1	265.2	19.1
CCV	509.8	21.1
CCB	0.18	24.7
~~180~~ A6P 8/19/20 240-134814-G-1	248.4	19.1
G-1 DU	248.8	19.1
180-109532-C-1	304.4	19.1
180-109533-C-1	410.0	19.1
180-109536-C-1	412.4	18.7
180-109537-C-1	294.0	18.1
180-109539-C-1	358.4	18.1
180-109540-C-1	229.0	18.7
180-109596-N-1	197.2 ms	19.1
180-109695-B-1	4640	19.1
CCV	499.4	21.1
CCB	0.16	24.7
		A6P 8/20/20

Reviewed By: _____ Date: _____

General Chemistry Raw Data Report

Job ID: 240-134814-1

Batch: 327204 **Analyst Initials: EMB**

Method: SM 2520B **Instrument: No Equipment**

Lab Sample ID: 240-134814-G-1 **Analysis Date: Aug 26, 2020 12:08**

Analyte	Detector	Dilution	Raw Result	Unit
Salinity	None	1	<2	No Unit

Lab Sample ID: MB 180-327204/2 **Analysis Date: Aug 26, 2020 12:16**

Analyte	Detector	Dilution	Raw Result	Unit
Salinity	None	1	<2	No Unit

Analysis Date: 8/26/2020 **Analyst:** EMB
Analysis Start Time: NA

R_t = [C(S,T,P)/C(35,15,0 where $r_t = c_0 + c_1T + c_2T^2 + c_3T^3 + c_4T^4$

Salinity = $a_o + a_1R_t^{1/2} + a_2R_t + a_3R_t^{3/2} + a_4R_t^2 + a_5R_t^{5/2}$ + temperature correction

Temperature correction = $[((t-15)/(1+(0.0162*(t-15))))] * [b_o + b_1R_t^{1/2} + b_2R_t + b_3R_t^{3/2} + b_4R_t^2 + b_5R_t^{5/2}]$

a_o =	0.0080	b_o =	0.0005	c_o =	6.766097E-01
a_1 =	-0.1692	b_1 =	-0.0056	c_1 =	2.005640E-02
a_2 =	25.3851	b_2 =	-0.0066	c_2 =	1.104258E-04
a_3 =	14.0941	b_3 =	-0.0375	c_3 =	-6.969800E-07
a_4 =	-7.0261	b_4 =	0.0636	c_4 =	1.003100E-09
a_5 =	2.7081	b_5 =	-0.0144	at T=25°C, r_t =	1.23654

Constants: Temp. = 25.0^0 C C(35,15,0) = 42.914 mS/cm

Laboratory ID	Dilution Factor	Conductivity (umhos/cm)	Rt	$Rt^{1/2}$	Rt^2	$Rt^{3/2}$	$Rt^{5/2}$	Temp. Corr.	Salinity
MB	1	0.12	2.261E-06	1.504E-03	5.114E-12	3.401E-09	7.690E-15	4.230E-03	<2
240-134814-1	1	248.4	4.681E-03	6.842E-02	2.191E-05	3.203E-04	1.499E-06	6.482E-04	<2
240-134814-1DU	1	248.8	4.689E-03	6.847E-02	2.198E-05	3.210E-04	1.505E-06	6.449E-04	<2
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This calculation only valid for Salinities of 2 to 42

Subcontract Data

Shipping and Receiving Documents

Baltimore
#201

4.3/5-2

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Samantha Brenner	Site Contact: Josh Mullis	Date: 8/11/2020	COC No:
Tetra Tech	Tel: (301) 528-3056	Lab Contact: Delmonico/Johnson	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC South of Building C	☐ 1 week			Sampler: Mullis
Site: Middle River Complex	☐ 2 days			
Project # 112IC09011	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs 8260C	Sulfate 9056A	BROMIDE 300.0	NITRATES 4500-NO3E	IRON/MANGANESE 6010C	ALKALINITY 2320B	TDS 2540C	SALINITY 2520B	Total Metals/Hardness 6020A/2340C	MEE RSK-175	PCBs 680
TB-081120	8/11/2020	0000	BLANK	Water	2		X										
MRC-MW-164B-081120	8/11/2020	1420	G	AQ	16		X	X	X	X	X	X	X	X	X	X	X
							2	1	1	1	4	1	1	1	4	2	1

240-134814 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Ammonium Chloride

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: South of Building C Groundwater. 48 hour hold time on some parameters. Josh.mullis@tetratech.com

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech Inc	8/11/20 1530		BTA Balt	8/11/20 1538
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	BTA Balt	8/11/20 1720		TA	8-12-20 1100
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

09/04/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 134814

Client Tetra Tech Site Name

Cooler Received on 6-12-20 Opened on 6-12-20

Cooler unpacked by: Matt Smith

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-10 (CF **+0.7** °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
   IR GUN #IR-11 (CF **+0.9**°C) Observed Cooler Temp. 4.3 °C Corrected Cooler Temp. 5.2 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC911298
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
16. Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

No trip blanks rec'd in cooler

18. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

Part # 159470-434 RIT2 EXP 05/21

eurofins | Environment Testing TestAmerica

ORIGIN ID:PHDA (330) 312-0176
EUROFINS TESTAMERICA CANTON
4101 SHUFFEL STREET NW
NORTH CANTON, OH 447206900
UNITED STATES US

SHIP DATE: 12AUG20
ACTWGT: 15.65 LB
CAD: 0562057/CAFE3313
BILL RECIPIENT

TO ENVIRONMENTAL SAMPLE RECEIPT
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
DEPT: AL HAIDET

FedEx Express

TRK# 0201 9148 7501 0116

THU - 13 AUG 10:30A
PRIORITY OVERNIGHT

65 AGCA

15238
PA-US PIT

Uncorrected temp 4.4 °C
Thermometer ID 14
CF 0 Initials B

PT-WI-SR-001 effective 11/8/18

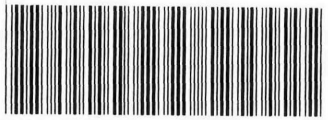
240-134814 Waybill

09/04/2020

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

1809

Chain of Custody Record


240-134814 Chain of Custody

Eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	o: 23996.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin: Maryland
			Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):	Job #: 240-134814-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 8/24/2020		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: MRC Block E	Project #: 24015851		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM2520_B/ Salinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MRC-MW-164B-081120 (240-134814-1)	8/11/20	14:20 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 3	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 8-12-20 1500	Company 240	Received by:	Date/Time: 8/13/20 900	Company LCDAPitt
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

09/04/2020

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 460-59139.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin: Maryland	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env LLC		Accreditations Required (See note):		Job #: 240-134814-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/26/2020			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: MRC South of Building C	Project #: 24025527			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680/680_P_Liquid EPA 680- PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
MRC-MW-164B-081120 (240-134814-1)	8/11/20	14:20 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 3	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/13/20	EA	Brad Boyd	8/13/20 18:20	Eurofins
2	Brad Boyd	8/13/20 21:02	Eurofins			
3					8-13-20 8-21-20	ECL

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		1.5°C

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-123995.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin: Maryland	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-134814-1
Address: 777 New Durham Road, ,	Due Date Requested: 8/24/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: MRC Block E	Project #: 24015851			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_NO3_F/ Nitrogen, Nitrate	680/680_P_Liquid Total 680	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MRC-MW-164B-081120 (240-134814-1)	8/11/20	14:20 Eastern		Water			X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 3	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	C. Gantt	8-12-20 1504	240		8/13 11:00	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR1 5.9°C

Ver: 01/16/2019

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09/04/2020

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-134814-1

Login Number: 134814
List Number: 4
Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env
List Creation: 08/13/20 11:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-134814-1

Login Number: 134814
List Number: 2
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh
List Creation: 08/13/20 02:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Job Number: 240-133597-1

Job Description: MRC Block E

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

Attention: Mike Martin

Roxanne Cisneros

Approved for release.
Roxanne Cisneros
Senior Project Manager
7/29/2020 8:59 AM

Roxanne Cisneros, Senior Project Manager
4101 Shuffel Street NW, North Canton, OH, 44720
(615)301-5761
roxanne.cisneros@Eurofinset.com
07/29/2020

cc: Tony Apanavage
Samantha Brenner
Kelly Carper

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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

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

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block E

Report Number: 240-133597-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 7/17/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample MRC-MW-164B-15-20 (240-133597-2) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The sample was prepared on 07/22/2020 and analyzed on 07/23/2020.

Carbon disulfide was detected in method blank MB 240-443733/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Method 8260B: The continuing calibration verification (CCV) associated with batch 240-443733 recovered above the upper calibration limit for Carbon Disulfide. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MRC-MW-164B-15-20 (240-133597-2), (CCV 240-443733/4), (CCVIS 240-443733/3), (LCS 240-443733/5), (LCS 240-443733/6), (MB 240-443733/7), (240-133595-C-3-A), (240-133595-C-3-B MS) and (240-133595-C-3-C MSD).

Method 8260B: The laboratory control sample (LCS) for preparation batch 240-443751 and 240-443751 and analytical batch 240-443733 recovered above the upper calibration limits for the following analytes: Carbon Disulfide. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samplesMRC-MW-164B-15-20 (240-133597-2), (LCS 240-443733/5), (LCS 240-443733/6), (MB 240-443733/7), (240-133595-C-3-A), (240-133595-C-3-B MS) and (240-133595-C-3-C MSD) ; therefore, the data have been reported.

Method 8260B: The laboratory control sample (LCS) for preparation batch 240-443751 and 240-443751 and analytical batch 240-443733 recovered outside control limits for the following analytes: tert-Amyl Methyl Ether. These analytes were biased high in the LCS and were not detected in the associated samplesMRC-MW-164B-15-20 (240-133597-2), (LCS 240-443733/6), (MB 240-443733/7), (240-133595-C-3-A), (240-133595-C-3-B MS) and (240-133595-C-3-C MSD) ; therefore, the data have been reported.

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

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample TB-071620 (240-133597-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 07/23/2020.

Several analytes failed the recovery criteria high for LCS 240-443947/4. Refer to the QC report for details.

Several analytes failed the recovery criteria high for the MS and the MSD of sample 240-133570-1 in batch 240-443947.

Refer to the QC report for details.

Method 8260B: The preservative used in the sample containers received is not compatible with the analytes requested. 2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample. TB-071620 (240-133597-1)

Method 8260B: The laboratory control sample (LCS) for analytical batch 240-443947 recovered outside control limits for multiple analytes: These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. TB-071620 (240-133597-1) and (LCS 240-443947/4)

Method 8260B: The reporting limit (RL) provided for the following analyte (Hexachlorobutadiene) falls below the laboratory's verified standard quantitation limit: Results reported below the verified standard quantitation limit have less certainty (i.e., are estimated) and must be used at the clients discretion. The continuing calibration blanks and method blanks may not support the lower RL. TB-071620 (240-133597-1)

Method 8260B: LCS was above calibration limit but passed percent recovery limits for 1,2,3-Trichlorobenzene. Sample was ND and a low level standard (MRL) was analyzed and the affected compound was detected.
TB-071620 (240-133597-1)

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

PERCENT SOLIDS

Sample MRC-MW-164B-15-20 (240-133597-2) was analyzed for percent solids in accordance with ASTM Method D2216-80. The sample was analyzed on 07/22/2020.

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Client Sample ID: TB-071620 — Lab Sample ID: 240-133597-1

No Detections.

Client Sample ID: MRC-MW-164B-15-20 — Lab Sample ID: 240-133597-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.5	J B	5.7	1.3	ug/Kg	1	☼	8260B	Total/NA
Trichloroethene	50		5.7	0.72	ug/Kg	1	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-071620

Date Collected: 07/16/20 00:00
Date Received: 07/17/20 10:00

Lab Sample ID: 240-133597-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.4	U	10	5.4	ug/L			07/23/20 23:33	1
1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41	ug/L			07/23/20 23:33	1
Benzene	0.38	U	1.0	0.38	ug/L			07/23/20 23:33	1
Bromodichloromethane	0.35	U	1.0	0.35	ug/L			07/23/20 23:33	1
Bromoform	0.76	U	1.0	0.76	ug/L			07/23/20 23:33	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/23/20 23:33	1
2-Butanone (MEK)	2.4	U	10	2.4	ug/L			07/23/20 23:33	1
Carbon disulfide	0.28	U	1.0	0.28	ug/L			07/23/20 23:33	1
Carbon tetrachloride	0.26	U *	1.0	0.26	ug/L			07/23/20 23:33	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/23/20 23:33	1
Chloroethane	0.83	U	1.0	0.83	ug/L			07/23/20 23:33	1
Chloroform	0.40	U	1.0	0.40	ug/L			07/23/20 23:33	1
1,1-Dichloropropene	0.37	U	1.0	0.37	ug/L			07/23/20 23:33	1
Chloromethane	0.64	U	1.0	0.64	ug/L			07/23/20 23:33	1
1,1-Dichloroethane	0.41	U	1.0	0.41	ug/L			07/23/20 23:33	1
1,2,3-Trichlorobenzene	0.54	U	1.0	0.54	ug/L			07/23/20 23:33	1
1,2,3-Trichloropropane	0.51	U	1.0	0.51	ug/L			07/23/20 23:33	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			07/23/20 23:33	1
1,1-Dichloroethene	0.46	U	1.0	0.46	ug/L			07/23/20 23:33	1
1,2,3-Trimethylbenzene	0.36	U	5.0	0.36	ug/L			07/23/20 23:33	1
1,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			07/23/20 23:33	1
1,2,4-Trimethylbenzene	0.45	U	1.0	0.45	ug/L			07/23/20 23:33	1
cis-1,3-Dichloropropene	0.61	U	1.0	0.61	ug/L			07/23/20 23:33	1
trans-1,3-Dichloropropene	0.67	U	1.0	0.67	ug/L			07/23/20 23:33	1
Ethylbenzene	0.39	U	1.0	0.39	ug/L			07/23/20 23:33	1
2-Hexanone	2.1	U	10	2.1	ug/L			07/23/20 23:33	1
Methylene Chloride	1.3	U	5.0	1.3	ug/L			07/23/20 23:33	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			07/23/20 23:33	1
Styrene	0.40	U	1.0	0.40	ug/L			07/23/20 23:33	1
1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56	ug/L			07/23/20 23:33	1
Tetrachloroethene	0.33	U *	1.0	0.33	ug/L			07/23/20 23:33	1
Toluene	0.35	U	1.0	0.35	ug/L			07/23/20 23:33	1
Trichloroethene	0.36	U	1.0	0.36	ug/L			07/23/20 23:33	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			07/23/20 23:33	1
Xylenes, Total	0.42	U	2.0	0.42	ug/L			07/23/20 23:33	1
1,1,1-Trichloroethane	0.24	U *	1.0	0.24	ug/L			07/23/20 23:33	1
1,3-Dichloropropane	0.21	U	1.0	0.21	ug/L			07/23/20 23:33	1
1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91	ug/L			07/23/20 23:33	1
1,2-Dibromoethane	0.37	U	1.0	0.37	ug/L			07/23/20 23:33	1
Dichlorodifluoromethane	0.35	U	1.0	0.35	ug/L			07/23/20 23:33	1
cis-1,2-Dichloroethene	0.38	U	1.0	0.38	ug/L			07/23/20 23:33	1
trans-1,2-Dichloroethene	0.43	U	1.0	0.43	ug/L			07/23/20 23:33	1
Isopropylbenzene	0.45	U	1.0	0.45	ug/L			07/23/20 23:33	1
Methyl tert-butyl ether	0.44	U	1.0	0.44	ug/L			07/23/20 23:33	1
1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41	ug/L			07/23/20 23:33	1
1,2,4-Trichlorobenzene	0.81	U *	1.0	0.81	ug/L			07/23/20 23:33	1
2,2-Dichloropropane	0.95	U	1.0	0.95	ug/L			07/23/20 23:33	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			07/23/20 23:33	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	ug/L			07/23/20 23:33	1

Client Sample ID: TB-071620

Lab Sample ID: 240-133597-1

Date Collected: 07/16/20 00:00

Matrix: Water

Date Received: 07/17/20 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			07/23/20 23:33	1
2-Chloroethyl vinyl ether	1.1	U	10	1.1	ug/L			07/23/20 23:33	1
Trichlorofluoromethane	0.45	U *	1.0	0.45	ug/L			07/23/20 23:33	1
2-Chlorotoluene	0.42	U	1.0	0.42	ug/L			07/23/20 23:33	1
Chlorodibromomethane	0.39	U	1.0	0.39	ug/L			07/23/20 23:33	1
Bromobenzene	0.38	U	1.0	0.38	ug/L			07/23/20 23:33	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			07/23/20 23:33	1
4-Chlorotoluene	0.44	U	1.0	0.44	ug/L			07/23/20 23:33	1
4-Isopropyltoluene	0.49	U *	1.0	0.49	ug/L			07/23/20 23:33	1
Hexachlorobutadiene	0.83	U *	1.0	0.83	ug/L			07/23/20 23:33	1
Dibromomethane	0.33	U	1.0	0.33	ug/L			07/23/20 23:33	1
Diisopropyl ether	0.36	U	10	0.36	ug/L			07/23/20 23:33	1
Naphthalene	0.82	U	1.0	0.82	ug/L			07/23/20 23:33	1
n-Butylbenzene	0.59	U *	1.0	0.59	ug/L			07/23/20 23:33	1
N-Propylbenzene	0.46	U	1.0	0.46	ug/L			07/23/20 23:33	1
sec-Butylbenzene	0.63	U *	1.0	0.63	ug/L			07/23/20 23:33	1
Tert-amyl methyl ether	0.39	U	5.0	0.39	ug/L			07/23/20 23:33	1
Ethyl tert-butyl ether	0.43	U	5.0	0.43	ug/L			07/23/20 23:33	1
tert-Butylbenzene	0.51	U	1.0	0.51	ug/L			07/23/20 23:33	1
Vinyl acetate	0.78	U	2.0	0.78	ug/L			07/23/20 23:33	1
tert-Butyl alcohol	1.7	U	40	1.7	ug/L			07/23/20 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 130*		*07/23/20 23:33*	*1*
4-Bromofluorobenzene (Surr)	*98*		*47 - 134*		*07/23/20 23:33*	*1*
Toluene-d8 (Surr)	*94*		*69 - 122*		*07/23/20 23:33*	*1*
Dibromofluoromethane (Surr)	*98*		*78 - 129*		*07/23/20 23:33*	*1*

Client Sample ID: MRC-MW-164B-15-20

Lab Sample ID: 240-133597-2

Date Collected: 07/16/20 13:00

Matrix: Solid

Date Received: 07/17/20 10:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**84.6**		0.1	0.1	%			07/22/20 10:49	1
Percent Moisture	**15.4**		0.1	0.1	%			07/22/20 10:49	1

Client Sample ID: MRC-MW-164B-15-20

Lab Sample ID: 240-133597-2

Date Collected: 07/16/20 13:00

Matrix: Solid

Date Received: 07/17/20 10:00

Percent Solids: 84.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	3.4	U	5.7	3.4	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,1,1-Trichloroethane	0.93	U	5.7	0.93	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,1,2,2-Tetrachloroethane	1.6	U	5.7	1.6	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,1,2-Trichlorotrifluoroethane	1.4	U	5.7	1.4	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,1-Dichloroethane	0.78	U	5.7	0.78	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,1-Dichloroethene	1.0	U	5.7	1.0	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,1-Dichloropropene	1.1	U	5.7	1.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2,3-Trichlorobenzene	0.65	U	5.7	0.65	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1

Client Sample ID: MRC-MW-164B-15-20

Date Collected: 07/16/20 13:00
Date Received: 07/17/20 10:00

Lab Sample ID: 240-133597-2

Matrix: Solid
Percent Solids: 84.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	1.8	U	5.7	1.8	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2,3-Trimethylbenzene	2.1	U	5.7	2.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2,4-Trichlorobenzene	0.65	U	5.7	0.65	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2,4-Trimethylbenzene	1.1	U	5.7	1.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2-Dibromo-3-Chloropropane	4.1	U	11	4.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2-Dichlorobenzene	1.3	U	5.7	1.3	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2-Dichloroethane	0.87	U	5.7	0.87	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2-Dichloropropane	0.96	U	5.7	0.96	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,3-Dichlorobenzene	0.92	U	5.7	0.92	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,3-Dichloropropane	1.1	U	5.7	1.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,4-Dichlorobenzene	1.0	U	5.7	1.0	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
2,2-Dichloropropane	1.3	U	5.7	1.3	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
2-Chloroethyl vinyl ether	10	U	57	10	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
2-Chlorotoluene	1.1	U	5.7	1.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
2-Hexanone	4.6	U	23	4.6	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Bromobenzene	1.3	U	5.7	1.3	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Bromochloromethane	0.67	U	5.7	0.67	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
4-Chlorotoluene	0.97	U	5.7	0.97	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
4-Isopropyltoluene	3.3	U	5.7	3.3	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Acetone	24	U	28	24	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Benzene	0.79	U	5.7	0.79	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Bromoform	2.7	U	5.7	2.7	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Bromomethane	1.1	U	5.7	1.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Carbon disulfide	**1.5**	**J B**	5.7	1.3	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Carbon tetrachloride	3.7	U	5.7	3.7	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Chlorobenzene	1.0	U	5.7	1.0	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Chloroethane	1.4	U	5.7	1.4	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Chloroform	0.89	U	5.7	0.89	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Chloromethane	1.2	U	5.7	1.2	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
cis-1,2-Dichloroethene	0.74	U	5.7	0.74	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
cis-1,3-Dichloropropene	1.6	U	5.7	1.6	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Hexachlorobutadiene	4.2	U	5.7	4.2	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Dibromomethane	0.76	U	5.7	0.76	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Bromodichloromethane	0.77	U	5.7	0.77	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Dichlorodifluoromethane	1.1	U	5.7	1.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Ethylbenzene	1.2	U	5.7	1.2	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
1,2-Dibromoethane	0.87	U	5.7	0.87	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Diisopropyl ether	0.86	U	11	0.86	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Naphthalene	3.1	U	5.7	3.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
n-Butylbenzene	3.9	U	5.7	3.9	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Isopropylbenzene	0.94	U	5.7	0.94	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
N-Propylbenzene	0.83	U	5.7	0.83	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
2-Butanone (MEK)	4.0	U	23	4.0	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
4-Methyl-2-pentanone (MIBK)	4.2	U	23	4.2	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
sec-Butylbenzene	0.98	U	5.7	0.98	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Methyl tert-butyl ether	0.93	U	5.7	0.93	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Tert-amyl methyl ether	2.5	U *	5.7	2.5	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Methylene Chloride	14	U	28	14	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Styrene	1.3	U	5.7	1.3	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1

Client Sample ID: MRC-MW-164B-15-20
Lab Sample ID: 240-133597-2

Date Collected: 07/16/20 13:00
Matrix: Solid
Date Received: 07/17/20 10:00
Percent Solids: 84.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl tert-butyl ether	2.5	U	5.7	2.5	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
tert-Butylbenzene	1.0	U	5.7	1.0	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Tetrachloroethene	0.83	U	5.7	0.83	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Toluene	0.87	U	5.7	0.87	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
trans-1,2-Dichloroethene	0.53	U	5.7	0.53	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
trans-1,3-Dichloropropene	1.2	U	5.7	1.2	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Trichloroethene	**50**		5.7	0.72	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Trichlorofluoromethane	1.2	U	5.7	1.2	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Vinyl acetate	2.4	U	11	2.4	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Vinyl chloride	0.95	U	5.7	0.95	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
tert-Butyl alcohol	19	U	230	19	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Xylenes, Total	1.8	U	11	1.8	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1
Chlorodibromomethane	3.1	U	5.7	3.1	ug/Kg	☼	07/22/20 13:52	07/23/20 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*75*		*59 - 120*	*07/22/20 13:52*	*07/23/20 00:10*	*1*
4-Bromofluorobenzene (Surr)	*95*		*51 - 127*	*07/22/20 13:52*	*07/23/20 00:10*	*1*
Toluene-d8 (Surr)	*87*		*64 - 124*	*07/22/20 13:52*	*07/23/20 00:10*	*1*
Dibromofluoromethane (Surr)	*77*		*56 - 122*	*07/22/20 13:52*	*07/23/20 00:10*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units
1,1,1,2-Tetrachloroethane	1.0	0.41	ug/L
1,1,1-Trichloroethane	1.0	0.24	ug/L
1,1,2,2-Tetrachloroethane	1.0	0.56	ug/L
1,1,2-Trichlorotrifluoroethane	1.0	0.41	ug/L
1,1-Dichloroethane	1.0	0.41	ug/L
1,1-Dichloroethene	1.0	0.46	ug/L
1,1-Dichloropropene	1.0	0.37	ug/L
1,2,3-Trichlorobenzene	1.0	0.54	ug/L
1,2,3-Trichloropropane	1.0	0.51	ug/L
1,2,3-Trimethylbenzene	5.0	0.36	ug/L
1,2,4-Trichlorobenzene	1.0	0.81	ug/L
1,2,4-Trimethylbenzene	1.0	0.45	ug/L
1,2-Dibromo-3-Chloropropane	2.0	0.91	ug/L
1,2-Dibromoethane	1.0	0.37	ug/L
1,2-Dichlorobenzene	1.0	0.43	ug/L
1,2-Dichloroethane	1.0	0.43	ug/L
1,2-Dichloropropane	1.0	0.37	ug/L
1,3-Dichlorobenzene	1.0	0.40	ug/L
1,3-Dichloropropane	1.0	0.21	ug/L
1,4-Dichlorobenzene	1.0	0.37	ug/L
2,2-Dichloropropane	1.0	0.95	ug/L
2-Butanone (MEK)	10	2.4	ug/L
2-Chloroethyl vinyl ether	10	1.1	ug/L
2-Chlorotoluene	1.0	0.42	ug/L
2-Hexanone	10	2.1	ug/L
4-Chlorotoluene	1.0	0.44	ug/L
4-Isopropyltoluene	1.0	0.49	ug/L
4-Methyl-2-pentanone (MIBK)	10	2.1	ug/L
Acetone	10	5.4	ug/L
Benzene	1.0	0.38	ug/L
Bromobenzene	1.0	0.38	ug/L
Bromochloromethane	1.0	0.52	ug/L
Bromodichloromethane	1.0	0.35	ug/L
Bromoform	1.0	0.76	ug/L
Bromomethane	1.0	0.42	ug/L
Carbon disulfide	1.0	0.28	ug/L
Carbon tetrachloride	1.0	0.26	ug/L
Chlorobenzene	1.0	0.32	ug/L
Chlorodibromomethane	1.0	0.39	ug/L
Chloroethane	1.0	0.83	ug/L
Chloroform	1.0	0.40	ug/L
Chloromethane	1.0	0.64	ug/L
cis-1,2-Dichloroethene	1.0	0.38	ug/L
cis-1,3-Dichloropropene	1.0	0.61	ug/L
Dibromomethane	1.0	0.33	ug/L
Dichlorodifluoromethane	1.0	0.35	ug/L
Diisopropyl ether	10	0.36	ug/L
Ethyl tert-butyl ether	5.0	0.43	ug/L
Ethylbenzene	1.0	0.39	ug/L
Hexachlorobutadiene	1.0	0.83	ug/L
Isopropylbenzene	1.0	0.45	ug/L
Methyl tert-butyl ether	1.0	0.44	ug/L
Methylene Chloride	5.0	1.3	ug/L

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	RL	MDL	Units
Naphthalene	1.0	0.82	ug/L
n-Butylbenzene	1.0	0.59	ug/L
N-Propylbenzene	1.0	0.46	ug/L
sec-Butylbenzene	1.0	0.63	ug/L
Styrene	1.0	0.40	ug/L
Tert-amyl methyl ether	5.0	0.39	ug/L
tert-Butyl alcohol	40	1.7	ug/L
tert-Butylbenzene	1.0	0.51	ug/L
Tetrachloroethene	1.0	0.33	ug/L
Toluene	1.0	0.35	ug/L
trans-1,2-Dichloroethene	1.0	0.43	ug/L
trans-1,3-Dichloropropene	1.0	0.67	ug/L
Trichloroethene	1.0	0.36	ug/L
Trichlorofluoromethane	1.0	0.45	ug/L
Vinyl acetate	2.0	0.78	ug/L
Vinyl chloride	1.0	0.50	ug/L
Xylenes, Total	2.0	0.42	ug/L

Method: 8260B - Volatile Organic Compounds (GC/MS)

Prep: 5030A

Analyte	RL	MDL	Units
1,1,1,2-Tetrachloroethane	5.0	3.0	ug/Kg
1,1,1-Trichloroethane	5.0	0.82	ug/Kg
1,1,2,2-Tetrachloroethane	5.0	1.4	ug/Kg
1,1,2-Trichlorotrifluoroethane	5.0	1.3	ug/Kg
1,1-Dichloroethane	5.0	0.69	ug/Kg
1,1-Dichloroethene	5.0	0.90	ug/Kg
1,1-Dichloropropene	5.0	0.99	ug/Kg
1,2,3-Trichlorobenzene	5.0	0.57	ug/Kg
1,2,3-Trichloropropane	5.0	1.6	ug/Kg
1,2,3-Trimethylbenzene	5.0	1.8	ug/Kg
1,2,4-Trichlorobenzene	5.0	0.57	ug/Kg
1,2,4-Trimethylbenzene	5.0	1.0	ug/Kg
1,2-Dibromo-3-Chloropropane	10	3.6	ug/Kg
1,2-Dibromoethane	5.0	0.77	ug/Kg
1,2-Dichlorobenzene	5.0	1.1	ug/Kg
1,2-Dichloroethane	5.0	0.77	ug/Kg
1,2-Dichloropropane	5.0	0.85	ug/Kg
1,3-Dichlorobenzene	5.0	0.82	ug/Kg
1,3-Dichloropropane	5.0	0.99	ug/Kg
1,4-Dichlorobenzene	5.0	0.88	ug/Kg
2,2-Dichloropropane	5.0	1.2	ug/Kg
2-Butanone (MEK)	20	3.6	ug/Kg
2-Chloroethyl vinyl ether	50	8.9	ug/Kg
2-Chlorotoluene	5.0	0.95	ug/Kg
2-Hexanone	20	4.1	ug/Kg
4-Chlorotoluene	5.0	0.86	ug/Kg
4-Isopropyltoluene	5.0	2.9	ug/Kg
4-Methyl-2-pentanone (MIBK)	20	3.7	ug/Kg
Acetone	25	21	ug/Kg
Benzene	5.0	0.70	ug/Kg
Bromobenzene	5.0	1.2	ug/Kg

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Prep: 5030A

Analyte	RL	MDL	Units
Bromochloromethane	5.0	0.59	ug/Kg
Bromodichloromethane	5.0	0.68	ug/Kg
Bromoform	5.0	2.4	ug/Kg
Bromomethane	5.0	0.99	ug/Kg
Carbon disulfide	5.0	1.2	ug/Kg
Carbon tetrachloride	5.0	3.3	ug/Kg
Chlorobenzene	5.0	0.92	ug/Kg
Chlorodibromomethane	5.0	2.8	ug/Kg
Chloroethane	5.0	1.2	ug/Kg
Chloroform	5.0	0.79	ug/Kg
Chloromethane	5.0	1.0	ug/Kg
cis-1,2-Dichloroethene	5.0	0.65	ug/Kg
cis-1,3-Dichloropropene	5.0	1.4	ug/Kg
Dibromomethane	5.0	0.67	ug/Kg
Dichlorodifluoromethane	5.0	0.94	ug/Kg
Diisopropyl ether	10	0.76	ug/Kg
Ethyl tert-butyl ether	5.0	2.3	ug/Kg
Ethylbenzene	5.0	1.0	ug/Kg
Hexachlorobutadiene	5.0	3.7	ug/Kg
Isopropylbenzene	5.0	0.83	ug/Kg
Methyl tert-butyl ether	5.0	0.82	ug/Kg
Methylene Chloride	25	12	ug/Kg
Naphthalene	5.0	2.7	ug/Kg
n-Butylbenzene	5.0	3.5	ug/Kg
N-Propylbenzene	5.0	0.73	ug/Kg
sec-Butylbenzene	5.0	0.86	ug/Kg
Styrene	5.0	1.2	ug/Kg
Tert-amyl methyl ether	5.0	2.2	ug/Kg
tert-Butyl alcohol	200	17	ug/Kg
tert-Butylbenzene	5.0	0.91	ug/Kg
Tetrachloroethene	5.0	0.73	ug/Kg
Toluene	5.0	0.77	ug/Kg
trans-1,2-Dichloroethene	5.0	0.47	ug/Kg
trans-1,3-Dichloropropene	5.0	1.0	ug/Kg
Trichloroethene	5.0	0.63	ug/Kg
Trichlorofluoromethane	5.0	1.1	ug/Kg
Vinyl acetate	10	2.1	ug/Kg
Vinyl chloride	5.0	0.84	ug/Kg
Xylenes, Total	10	1.6	ug/Kg

General Chemistry

Analyte	RL	MDL	Units
Percent Moisture	0.1	0.1	%
Percent Solids	0.1	0.1	%

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(59-120)	(51-127)	(64-124)	(56-122)
240-133595-C-3-B MS	Matrix Spike	69	98	91	77
240-133595-C-3-C MSD	Matrix Spike Duplicate	67	96	89	75
240-133597-2	MRC-MW-164B-15-20	75	95	87	77
LCS 240-443733/5	Lab Control Sample	68	85	84	73
LCS 240-443733/6	Lab Control Sample	70	96	86	73
MB 240-443733/7	Method Blank	71	94	86	73

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(75-130)	(47-134)	(69-122)	(78-129)
240-133570-E-1 MS	Matrix Spike	102	96	94	102
240-133570-F-1 MSD	Matrix Spike Duplicate	102	101	97	106
240-133597-1	TB-071620	95	98	94	98
LCS 240-443947/4	Lab Control Sample	97	97	92	102
MB 240-443947/7	Method Blank	93	94	97	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-443733/7
Matrix: Solid
Analysis Batch: 443733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	3.0	U	5.0	3.0	ug/Kg			07/22/20 14:32	1
1,1-Dichloropropene	0.99	U	5.0	0.99	ug/Kg			07/22/20 14:32	1
1,1-Dichloroethane	0.69	U	5.0	0.69	ug/Kg			07/22/20 14:32	1
1,2,3-Trichlorobenzene	0.57	U	5.0	0.57	ug/Kg			07/22/20 14:32	1
1,2,3-Trichloropropane	1.6	U	5.0	1.6	ug/Kg			07/22/20 14:32	1
1,2-Dichloroethane	0.77	U	5.0	0.77	ug/Kg			07/22/20 14:32	1
1,1-Dichloroethene	0.90	U	5.0	0.90	ug/Kg			07/22/20 14:32	1
1,2,3-Trimethylbenzene	1.8	U	5.0	1.8	ug/Kg			07/22/20 14:32	1
1,2-Dichloropropane	0.85	U	5.0	0.85	ug/Kg			07/22/20 14:32	1
1,2,4-Trimethylbenzene	1.0	U	5.0	1.0	ug/Kg			07/22/20 14:32	1
2-Hexanone	4.1	U	20	4.1	ug/Kg			07/22/20 14:32	1
1,1,2,2-Tetrachloroethane	1.4	U	5.0	1.4	ug/Kg			07/22/20 14:32	1
Acetone	21	U	25	21	ug/Kg			07/22/20 14:32	1
Benzene	0.70	U	5.0	0.70	ug/Kg			07/22/20 14:32	1
Bromoform	2.4	U	5.0	2.4	ug/Kg			07/22/20 14:32	1
Bromomethane	0.99	U	5.0	0.99	ug/Kg			07/22/20 14:32	1
Carbon disulfide	1.37	J	5.0	1.2	ug/Kg			07/22/20 14:32	1
Carbon tetrachloride	3.3	U	5.0	3.3	ug/Kg			07/22/20 14:32	1
1,1,1-Trichloroethane	0.82	U	5.0	0.82	ug/Kg			07/22/20 14:32	1
Chlorobenzene	0.92	U	5.0	0.92	ug/Kg			07/22/20 14:32	1
1,3-Dichloropropane	0.99	U	5.0	0.99	ug/Kg			07/22/20 14:32	1
Chloroethane	1.2	U	5.0	1.2	ug/Kg			07/22/20 14:32	1
1,2-Dibromo-3-Chloropropane	3.6	U	10	3.6	ug/Kg			07/22/20 14:32	1
Chloroform	0.79	U	5.0	0.79	ug/Kg			07/22/20 14:32	1
Chloromethane	1.0	U	5.0	1.0	ug/Kg			07/22/20 14:32	1
cis-1,2-Dichloroethene	0.65	U	5.0	0.65	ug/Kg			07/22/20 14:32	1
cis-1,3-Dichloropropene	1.4	U	5.0	1.4	ug/Kg			07/22/20 14:32	1
Bromodichloromethane	0.68	U	5.0	0.68	ug/Kg			07/22/20 14:32	1
1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/Kg			07/22/20 14:32	1
Dichlorodifluoromethane	0.94	U	5.0	0.94	ug/Kg			07/22/20 14:32	1
1,2,4-Trichlorobenzene	0.57	U	5.0	0.57	ug/Kg			07/22/20 14:32	1
Ethylbenzene	1.0	U	5.0	1.0	ug/Kg			07/22/20 14:32	1
1,2-Dibromoethane	0.77	U	5.0	0.77	ug/Kg			07/22/20 14:32	1
2,2-Dichloropropane	1.2	U	5.0	1.2	ug/Kg			07/22/20 14:32	1
1,2-Dichlorobenzene	1.1	U	5.0	1.1	ug/Kg			07/22/20 14:32	1
1,3-Dichlorobenzene	0.82	U	5.0	0.82	ug/Kg			07/22/20 14:32	1
1,4-Dichlorobenzene	0.88	U	5.0	0.88	ug/Kg			07/22/20 14:32	1
2-Chloroethyl vinyl ether	8.9	U	50	8.9	ug/Kg			07/22/20 14:32	1
Isopropylbenzene	0.83	U	5.0	0.83	ug/Kg			07/22/20 14:32	1
2-Chlorotoluene	0.95	U	5.0	0.95	ug/Kg			07/22/20 14:32	1
2-Butanone (MEK)	3.6	U	20	3.6	ug/Kg			07/22/20 14:32	1
4-Methyl-2-pentanone (MIBK)	3.7	U	20	3.7	ug/Kg			07/22/20 14:32	1
Bromobenzene	1.2	U	5.0	1.2	ug/Kg			07/22/20 14:32	1
Methyl tert-butyl ether	0.82	U	5.0	0.82	ug/Kg			07/22/20 14:32	1
Bromochloromethane	0.59	U	5.0	0.59	ug/Kg			07/22/20 14:32	1
Methylene Chloride	12	U	25	12	ug/Kg			07/22/20 14:32	1
4-Chlorotoluene	0.86	U	5.0	0.86	ug/Kg			07/22/20 14:32	1
Styrene	1.2	U	5.0	1.2	ug/Kg			07/22/20 14:32	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-443733/7
Matrix: Solid
Analysis Batch: 443733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	2.9	U	5.0	2.9	ug/Kg			07/22/20 14:32	1
Tetrachloroethene	0.73	U	5.0	0.73	ug/Kg			07/22/20 14:32	1
Hexachlorobutadiene	3.7	U	5.0	3.7	ug/Kg			07/22/20 14:32	1
Toluene	0.77	U	5.0	0.77	ug/Kg			07/22/20 14:32	1
Dibromomethane	0.67	U	5.0	0.67	ug/Kg			07/22/20 14:32	1
Diisopropyl ether	0.76	U	10	0.76	ug/Kg			07/22/20 14:32	1
trans-1,2-Dichloroethene	0.47	U	5.0	0.47	ug/Kg			07/22/20 14:32	1
Naphthalene	2.7	U	5.0	2.7	ug/Kg			07/22/20 14:32	1
trans-1,3-Dichloropropene	1.0	U	5.0	1.0	ug/Kg			07/22/20 14:32	1
n-Butylbenzene	3.5	U	5.0	3.5	ug/Kg			07/22/20 14:32	1
Trichloroethene	0.63	U	5.0	0.63	ug/Kg			07/22/20 14:32	1
N-Propylbenzene	0.73	U	5.0	0.73	ug/Kg			07/22/20 14:32	1
Trichlorofluoromethane	1.1	U	5.0	1.1	ug/Kg			07/22/20 14:32	1
sec-Butylbenzene	0.86	U	5.0	0.86	ug/Kg			07/22/20 14:32	1
Tert-amyl methyl ether	2.2	U	5.0	2.2	ug/Kg			07/22/20 14:32	1
Ethyl tert-butyl ether	2.3	U	5.0	2.3	ug/Kg			07/22/20 14:32	1
Vinyl chloride	0.84	U	5.0	0.84	ug/Kg			07/22/20 14:32	1
tert-Butylbenzene	0.91	U	5.0	0.91	ug/Kg			07/22/20 14:32	1
Vinyl acetate	2.1	U	10	2.1	ug/Kg			07/22/20 14:32	1
Xylenes, Total	1.6	U	10	1.6	ug/Kg			07/22/20 14:32	1
Chlorodibromomethane	2.8	U	5.0	2.8	ug/Kg			07/22/20 14:32	1
tert-Butyl alcohol	17	U	200	17	ug/Kg			07/22/20 14:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*71*		*59 - 120*		*07/22/20 14:32*	*1*
4-Bromofluorobenzene (Surr)	*94*		*51 - 127*		*07/22/20 14:32*	*1*
Toluene-d8 (Surr)	*86*		*64 - 124*		*07/22/20 14:32*	*1*
Dibromofluoromethane (Surr)	*73*		*56 - 122*		*07/22/20 14:32*	*1*

Lab Sample ID: LCS 240-443733/5
Matrix: Solid
Analysis Batch: 443733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	47.6		ug/Kg		95	72 - 120
1,1-Dichloropropene	50.0	47.2		ug/Kg		94	69 - 120
1,1-Dichloroethane	50.0	47.3		ug/Kg		95	69 - 120
1,2,3-Trichlorobenzene	50.0	41.8		ug/Kg		84	55 - 124
1,2,3-Trichloropropane	50.0	41.6		ug/Kg		83	68 - 130
1,2-Dichloroethane	50.0	43.7		ug/Kg		87	66 - 120
1,1-Dichloroethene	50.0	58.1		ug/Kg		116	48 - 140
1,2-Dichloropropane	50.0	45.6		ug/Kg		91	77 - 120
1,2,4-Trimethylbenzene	50.0	52.8		ug/Kg		106	69 - 122
2-Hexanone	100	98.7		ug/Kg		99	54 - 135
1,1,2,2-Tetrachloroethane	50.0	42.3		ug/Kg		85	61 - 134
Acetone	100	130		ug/Kg		130	47 - 157
Benzene	50.0	46.8		ug/Kg		94	75 - 120
Bromoform	50.0	40.4		ug/Kg		81	44 - 131

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-443733/5
Matrix: Solid
Analysis Batch: 443733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	26.1		ug/Kg		131	10 - 158
Carbon disulfide	50.0	57.9	E	ug/Kg		116	33 - 144
Carbon tetrachloride	50.0	49.9		ug/Kg		100	54 - 130
1,1,1-Trichloroethane	50.0	47.8		ug/Kg		96	60 - 126
Chlorobenzene	50.0	47.5		ug/Kg		95	79 - 120
1,3-Dichloropropane	50.0	44.6		ug/Kg		89	76 - 120
Chloroethane	20.0	24.1		ug/Kg		121	10 - 159
1,2-Dibromo-3-Chloropropane	50.0	45.0		ug/Kg		90	35 - 137
Chloroform	50.0	46.7		ug/Kg		93	74 - 120
Chloromethane	20.0	20.1		ug/Kg		101	40 - 127
cis-1,2-Dichloroethene	50.0	48.3		ug/Kg		97	76 - 120
cis-1,3-Dichloropropene	50.0	46.5		ug/Kg		93	62 - 124
Bromodichloromethane	50.0	47.7		ug/Kg		95	63 - 121
1,1,2-Trichlorotrifluoroethane	50.0	46.5		ug/Kg		93	58 - 144
Dichlorodifluoromethane	20.0	16.5		ug/Kg		83	18 - 137
1,2,4-Trichlorobenzene	50.0	43.4		ug/Kg		87	56 - 120
Ethylbenzene	50.0	47.1		ug/Kg		94	75 - 120
1,2-Dibromoethane	50.0	45.2		ug/Kg		90	73 - 126
2,2-Dichloropropane	50.0	57.3		ug/Kg		115	47 - 131
1,2-Dichlorobenzene	50.0	44.7		ug/Kg		89	74 - 120
1,3-Dichlorobenzene	50.0	46.1		ug/Kg		92	74 - 120
1,4-Dichlorobenzene	50.0	45.8		ug/Kg		92	74 - 120
2-Chloroethyl vinyl ether	50.0	41.2	J	ug/Kg		82	36 - 132
Isopropylbenzene	50.0	50.3		ug/Kg		101	74 - 120
2-Chlorotoluene	50.0	48.2		ug/Kg		96	72 - 121
2-Butanone (MEK)	100	88.6		ug/Kg		89	61 - 131
4-Methyl-2-pentanone (MIBK)	100	102		ug/Kg		102	56 - 124
Bromobenzene	50.0	47.0		ug/Kg		94	73 - 120
Methyl tert-butyl ether	50.0	49.5		ug/Kg		99	66 - 120
Bromochloromethane	50.0	44.5		ug/Kg		89	74 - 120
Methylene Chloride	50.0	51.5		ug/Kg		103	48 - 142
4-Chlorotoluene	50.0	48.5		ug/Kg		97	72 - 124
Styrene	50.0	52.0		ug/Kg		104	70 - 120
4-Isopropyltoluene	50.0	54.4		ug/Kg		109	70 - 121
m-Xylene & p-Xylene	50.0	47.9		ug/Kg		96	76 - 120
o-Xylene	50.0	49.9		ug/Kg		100	76 - 120
Tetrachloroethene	50.0	49.1		ug/Kg		98	75 - 124
Hexachlorobutadiene	50.0	48.9		ug/Kg		98	63 - 130
Toluene	50.0	50.5		ug/Kg		101	76 - 120
Dibromomethane	50.0	43.9		ug/Kg		88	74 - 120
trans-1,2-Dichloroethene	50.0	48.6		ug/Kg		97	74 - 125
Naphthalene	50.0	42.8		ug/Kg		86	43 - 127
trans-1,3-Dichloropropene	50.0	45.7		ug/Kg		91	58 - 120
n-Butylbenzene	50.0	55.4		ug/Kg		111	64 - 123
Trichloroethene	50.0	47.0		ug/Kg		94	75 - 123
N-Propylbenzene	50.0	53.1		ug/Kg		106	70 - 122
Trichlorofluoromethane	20.0	23.0		ug/Kg		115	33 - 152
sec-Butylbenzene	50.0	54.7		ug/Kg		109	69 - 122
Vinyl chloride	20.0	19.5		ug/Kg		98	39 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-443733/5
Matrix: Solid
Analysis Batch: 443733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
tert-Butylbenzene	50.0	53.1		ug/Kg		106	68 - 121
Vinyl acetate	50.0	37.6		ug/Kg		75	55 - 138
Xylenes, Total	100	97.8		ug/Kg		98	77 - 120
tert-Butyl alcohol	500	389		ug/Kg		78	40 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*68*		*59 - 120*
4-Bromofluorobenzene (Surr)	*85*		*51 - 127*
Toluene-d8 (Surr)	*84*		*64 - 124*
Dibromofluoromethane (Surr)	*73*		*56 - 122*

Lab Sample ID: LCS 240-443733/6
Matrix: Solid
Analysis Batch: 443733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*70*		*59 - 120*
4-Bromofluorobenzene (Surr)	*96*		*51 - 127*
Toluene-d8 (Surr)	*86*		*64 - 124*
Dibromofluoromethane (Surr)	*73*		*56 - 122*

Lab Sample ID: MB 240-443947/7
Matrix: Water
Analysis Batch: 443947

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41	ug/L			07/23/20 15:04	1
1,1-Dichloropropene	0.37	U	1.0	0.37	ug/L			07/23/20 15:04	1
1,1-Dichloroethane	0.41	U	1.0	0.41	ug/L			07/23/20 15:04	1
1,2,3-Trichlorobenzene	0.54	U	1.0	0.54	ug/L			07/23/20 15:04	1
1,2,3-Trichloropropane	0.51	U	1.0	0.51	ug/L			07/23/20 15:04	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			07/23/20 15:04	1
1,1-Dichloroethene	0.46	U	1.0	0.46	ug/L			07/23/20 15:04	1
1,2,3-Trimethylbenzene	0.36	U	5.0	0.36	ug/L			07/23/20 15:04	1
1,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			07/23/20 15:04	1
1,2,4-Trimethylbenzene	0.45	U	1.0	0.45	ug/L			07/23/20 15:04	1
2-Hexanone	2.1	U	10	2.1	ug/L			07/23/20 15:04	1
1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56	ug/L			07/23/20 15:04	1
Acetone	5.4	U	10	5.4	ug/L			07/23/20 15:04	1
Benzene	0.38	U	1.0	0.38	ug/L			07/23/20 15:04	1
Bromoform	0.76	U	1.0	0.76	ug/L			07/23/20 15:04	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/23/20 15:04	1
Carbon disulfide	0.28	U	1.0	0.28	ug/L			07/23/20 15:04	1
Carbon tetrachloride	0.26	U	1.0	0.26	ug/L			07/23/20 15:04	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			07/23/20 15:04	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/23/20 15:04	1
1,3-Dichloropropane	0.21	U	1.0	0.21	ug/L			07/23/20 15:04	1
Chloroethane	0.83	U	1.0	0.83	ug/L			07/23/20 15:04	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-443947/7
Matrix: Water
Analysis Batch: 443947

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91	ug/L			07/23/20 15:04	1
Chloroform	0.40	U	1.0	0.40	ug/L			07/23/20 15:04	1
Chloromethane	0.64	U	1.0	0.64	ug/L			07/23/20 15:04	1
cis-1,2-Dichloroethene	0.38	U	1.0	0.38	ug/L			07/23/20 15:04	1
cis-1,3-Dichloropropene	0.61	U	1.0	0.61	ug/L			07/23/20 15:04	1
Bromodichloromethane	0.35	U	1.0	0.35	ug/L			07/23/20 15:04	1
1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41	ug/L			07/23/20 15:04	1
Dichlorodifluoromethane	0.35	U	1.0	0.35	ug/L			07/23/20 15:04	1
1,2,4-Trichlorobenzene	0.81	U	1.0	0.81	ug/L			07/23/20 15:04	1
Ethylbenzene	0.39	U	1.0	0.39	ug/L			07/23/20 15:04	1
1,2-Dibromoethane	0.37	U	1.0	0.37	ug/L			07/23/20 15:04	1
2,2-Dichloropropane	0.95	U	1.0	0.95	ug/L			07/23/20 15:04	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			07/23/20 15:04	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	ug/L			07/23/20 15:04	1
1,4-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			07/23/20 15:04	1
2-Chloroethyl vinyl ether	1.1	U	10	1.1	ug/L			07/23/20 15:04	1
Isopropylbenzene	0.45	U	1.0	0.45	ug/L			07/23/20 15:04	1
2-Chlorotoluene	0.42	U	1.0	0.42	ug/L			07/23/20 15:04	1
2-Butanone (MEK)	2.4	U	10	2.4	ug/L			07/23/20 15:04	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			07/23/20 15:04	1
Bromobenzene	0.38	U	1.0	0.38	ug/L			07/23/20 15:04	1
Methyl tert-butyl ether	0.44	U	1.0	0.44	ug/L			07/23/20 15:04	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			07/23/20 15:04	1
Methylene Chloride	1.3	U	5.0	1.3	ug/L			07/23/20 15:04	1
4-Chlorotoluene	0.44	U	1.0	0.44	ug/L			07/23/20 15:04	1
Styrene	0.40	U	1.0	0.40	ug/L			07/23/20 15:04	1
4-Isopropyltoluene	0.49	U	1.0	0.49	ug/L			07/23/20 15:04	1
Tetrachloroethene	0.33	U	1.0	0.33	ug/L			07/23/20 15:04	1
Hexachlorobutadiene	0.83	U	1.0	0.83	ug/L			07/23/20 15:04	1
Toluene	0.35	U	1.0	0.35	ug/L			07/23/20 15:04	1
Dibromomethane	0.33	U	1.0	0.33	ug/L			07/23/20 15:04	1
Diisopropyl ether	0.36	U	10	0.36	ug/L			07/23/20 15:04	1
trans-1,2-Dichloroethene	0.43	U	1.0	0.43	ug/L			07/23/20 15:04	1
Naphthalene	0.82	U	1.0	0.82	ug/L			07/23/20 15:04	1
trans-1,3-Dichloropropene	0.67	U	1.0	0.67	ug/L			07/23/20 15:04	1
n-Butylbenzene	0.59	U	1.0	0.59	ug/L			07/23/20 15:04	1
Trichloroethene	0.36	U	1.0	0.36	ug/L			07/23/20 15:04	1
N-Propylbenzene	0.46	U	1.0	0.46	ug/L			07/23/20 15:04	1
Trichlorofluoromethane	0.45	U	1.0	0.45	ug/L			07/23/20 15:04	1
sec-Butylbenzene	0.63	U	1.0	0.63	ug/L			07/23/20 15:04	1
Tert-amyl methyl ether	0.39	U	5.0	0.39	ug/L			07/23/20 15:04	1
Ethyl tert-butyl ether	0.43	U	5.0	0.43	ug/L			07/23/20 15:04	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			07/23/20 15:04	1
tert-Butylbenzene	0.51	U	1.0	0.51	ug/L			07/23/20 15:04	1
Vinyl acetate	0.78	U	2.0	0.78	ug/L			07/23/20 15:04	1
Xylenes, Total	0.42	U	2.0	0.42	ug/L			07/23/20 15:04	1
Chlorodibromomethane	0.39	U	1.0	0.39	ug/L			07/23/20 15:04	1
tert-Butyl alcohol	1.7	U	40	1.7	ug/L			07/23/20 15:04	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-443947/7
Matrix: Water
Analysis Batch: 443947

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 130*		*07/23/20 15:04*	*1*
4-Bromofluorobenzene (Surr)	*94*		*47 - 134*		*07/23/20 15:04*	*1*
Toluene-d8 (Surr)	*97*		*69 - 122*		*07/23/20 15:04*	*1*
Dibromofluoromethane (Surr)	*99*		*78 - 129*		*07/23/20 15:04*	*1*

Lab Sample ID: LCS 240-443947/4
Matrix: Water
Analysis Batch: 443947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	11.2		ug/L		112	77 - 120
1,1-Dichloropropene	10.0	10.1		ug/L		101	78 - 120
1,1-Dichloroethane	10.0	10.0		ug/L		100	74 - 126
1,2,3-Trichlorobenzene	10.0	10.9	E	ug/L		109	42 - 126
1,2,3-Trichloropropane	10.0	6.99		ug/L		70	57 - 137
1,2-Dichloroethane	10.0	10.3		ug/L		103	66 - 129
1,1-Dichloroethene	10.0	10.9		ug/L		109	73 - 129
1,2-Dichloropropane	10.0	9.51		ug/L		95	79 - 127
1,2,4-Trimethylbenzene	10.0	10.7		ug/L		107	66 - 129
2-Hexanone	20.0	15.8		ug/L		79	43 - 142
1,1,2,2-Tetrachloroethane	10.0	6.85		ug/L		69	45 - 151
Acetone	20.0	17.1		ug/L		86	33 - 155
Benzene	10.0	8.82		ug/L		88	77 - 123
Bromoform	10.0	9.40		ug/L		94	47 - 133
Bromomethane	10.0	9.24		ug/L		92	48 - 144
Carbon disulfide	10.0	9.32		ug/L		93	67 - 127
Carbon tetrachloride	10.0	15.2	*	ug/L		152	61 - 142
1,1,1-Trichloroethane	10.0	14.3	*	ug/L		143	65 - 141
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
1,3-Dichloropropane	10.0	8.27		ug/L		83	74 - 122
Chloroethane	10.0	10.7		ug/L		107	41 - 147
1,2-Dibromo-3-Chloropropane	10.0	6.37		ug/L		64	34 - 136
Chloroform	10.0	10.3		ug/L		103	74 - 127
Chloromethane	10.0	14.3		ug/L		143	46 - 148
cis-1,2-Dichloroethene	10.0	9.99		ug/L		100	75 - 124
cis-1,3-Dichloropropene	10.0	8.67		ug/L		87	68 - 128
Bromodichloromethane	10.0	10.1		ug/L		101	73 - 122
1,1,2-Trichlorotrifluoroethane	10.0	14.9	*	ug/L		149	54 - 148
Dichlorodifluoromethane	10.0	13.1		ug/L		131	35 - 137
1,2,4-Trichlorobenzene	10.0	12.8	*	ug/L		128	47 - 120
Ethylbenzene	10.0	9.77		ug/L		98	80 - 120
1,2-Dibromoethane	10.0	8.94		ug/L		89	73 - 120
2,2-Dichloropropane	10.0	12.2		ug/L		122	67 - 137
1,2-Dichlorobenzene	10.0	10.8		ug/L		108	74 - 120
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	74 - 120
1,4-Dichlorobenzene	10.0	9.97		ug/L		100	75 - 120
2-Chloroethyl vinyl ether	10.0	7.34	J	ug/L		73	29 - 146
Isopropylbenzene	10.0	11.7		ug/L		117	73 - 123

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-443947/4
Matrix: Water
Analysis Batch: 443947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	10.0	9.95		ug/L		99	73 - 126
2-Butanone (MEK)	20.0	17.6		ug/L		88	41 - 151
4-Methyl-2-pentanone (MIBK)	20.0	17.5		ug/L		87	43 - 145
Bromobenzene	10.0	9.87		ug/L		99	77 - 120
Methyl tert-butyl ether	10.0	9.34		ug/L		93	57 - 127
Bromochloromethane	10.0	9.45		ug/L		94	70 - 128
Methylene Chloride	10.0	9.92		ug/L		99	63 - 134
4-Chlorotoluene	10.0	9.74		ug/L		97	73 - 126
Styrene	10.0	9.36		ug/L		94	75 - 121
4-Isopropyltoluene	10.0	13.6	*	ug/L		136	66 - 127
m-Xylene & p-Xylene	10.0	10.0		ug/L		100	79 - 121
o-Xylene	10.0	10.4		ug/L		104	75 - 123
Tetrachloroethene	10.0	12.6	*	ug/L		126	70 - 125
Hexachlorobutadiene	10.0	19.9	*	ug/L		199	40 - 120
Toluene	10.0	9.13		ug/L		91	79 - 122
Dibromomethane	10.0	10.0		ug/L		100	67 - 121
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	74 - 130
Naphthalene	10.0	6.94		ug/L		69	28 - 130
trans-1,3-Dichloropropene	10.0	7.63		ug/L		76	64 - 120
n-Butylbenzene	10.0	13.7	*	ug/L		137	54 - 129
Trichloroethene	10.0	10.6		ug/L		106	71 - 121
N-Propylbenzene	10.0	10.8		ug/L		108	67 - 130
Trichlorofluoromethane	10.0	15.4	*	ug/L		154	52 - 148
sec-Butylbenzene	10.0	13.4	*	ug/L		134	60 - 131
Vinyl chloride	10.0	11.5		ug/L		115	61 - 134
tert-Butylbenzene	10.0	12.4		ug/L		124	63 - 126
Vinyl acetate	10.0	10.4		ug/L		104	44 - 160
Xylenes, Total	20.0	20.4		ug/L		102	78 - 122
tert-Butyl alcohol	100	78.5		ug/L		79	15 - 169

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 130*
4-Bromofluorobenzene (Surr)	*97*		*47 - 134*
Toluene-d8 (Surr)	*92*		*69 - 122*
Dibromofluoromethane (Surr)	*102*		*78 - 129*

Method: Moisture - Percent Moisture

Lab Sample ID: 240-133597-2 DU
Matrix: Solid
Analysis Batch: 443716

Client Sample ID: MRC-MW-164B-15-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	84.6			84.5		%				0.1	20
Percent Moisture	15.4			15.5		%				0.5	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

GC/MS VOA

Analysis Batch: 443733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-133597-2	MRC-MW-164B-15-20	Total/NA	Solid	8260B	443751
MB 240-443733/7	Method Blank	Total/NA	Solid	8260B	
LCS 240-443733/5	Lab Control Sample	Total/NA	Solid	8260B	
LCS 240-443733/6	Lab Control Sample	Total/NA	Solid	8260B	

Prep Batch: 443751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-133597-2	MRC-MW-164B-15-20	Total/NA	Solid	5030A	

Analysis Batch: 443947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-133597-1	TB-071620	Total/NA	Water	8260B	
MB 240-443947/7	Method Blank	Total/NA	Water	8260B	
LCS 240-443947/4	Lab Control Sample	Total/NA	Water	8260B	

General Chemistry

Analysis Batch: 443716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-133597-2	MRC-MW-164B-15-20	Total/NA	Solid	Moisture	
240-133597-2 DU	MRC-MW-164B-15-20	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Client Sample ID: TB-071620
Date Collected: 07/16/20 00:00
Date Received: 07/17/20 10:00

Lab Sample ID: 240-133597-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	443947	07/23/20 23:33	LRW	TAL CAN

Client Sample ID: MRC-MW-164B-15-20
Date Collected: 07/16/20 13:00
Date Received: 07/17/20 10:00

Lab Sample ID: 240-133597-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	443716	07/22/20 10:49	BWL	TAL CAN

Client Sample ID: MRC-MW-164B-15-20
Date Collected: 07/16/20 13:00
Date Received: 07/17/20 10:00

Lab Sample ID: 240-133597-2
Matrix: Solid
Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			443751	07/22/20 13:52	SAM	TAL CAN
Total/NA	Analysis	8260B		1	443733	07/23/20 00:10	SAM	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
5030A	Purge and Trap	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

Job ID: 240-133597-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-133597-1	TB-071620	Water	07/16/20 00:00	07/17/20 10:00	
240-133597-2	MRC-MW-164B-15-20	Solid	07/16/20 13:00	07/17/20 10:00	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX10 Analysis Batch Number: 419116

Lab Sample ID: STD8260 240-419116/2 IC Client Sample ID:

Date Analyzed: 01/15/20 15:09 Lab File ID: UXX5174.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,3-Trichlorobenzene		Invalid Compound ID	williamsl a	01/20/20 15:37
1,2,4-Trichlorobenzene		Invalid Compound ID	williamsl a	01/20/20 16:44
Hexachlorobutadiene		Invalid Compound ID	williamsl a	01/20/20 15:51
Naphthalene		Invalid Compound ID	williamsl a	01/20/20 15:37
Vinyl acetate		Invalid Compound ID	williamsl a	01/20/20 15:50

Lab Sample ID: STD8260 240-419116/3 IC Client Sample ID:

Date Analyzed: 01/15/20 15:34 Lab File ID: UXX5175.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,3-Trichlorobenzene		Invalid Compound ID	williamsl a	01/20/20 15:37
Naphthalene		Invalid Compound ID	williamsl a	01/20/20 15:37

Lab Sample ID: STD8260 240-419116/8 IC Client Sample ID:

Date Analyzed: 01/15/20 17:40 Lab File ID: UXX5180.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane		Invalid Compound ID	williamsl a	01/20/20 16:43

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX10 Analysis Batch Number: 419116

Lab Sample ID: STDA9 240-419116/12 IC Client Sample ID:

Date Analyzed: 01/15/20 19:19 Lab File ID: UXX5184.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachloroethane	9.49	Peak assignment corrected	williamsla	01/17/20 14:43

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX10 Analysis Batch Number: 443947

Lab Sample ID: CCV 240-443947/3 Client Sample ID:

Date Analyzed: 07/23/20 13:23 Lab File ID: UXX8810.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl acetate	3.88	Peak assignment corrected	williamsla	07/23/20 14:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX14 Analysis Batch Number: 427647

Lab Sample ID: IC 240-427647/6 Client Sample ID:

Date Analyzed: 03/20/20 12:26 Lab File ID: 1424124.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methylnaphthalene	13.99	Peak assignment corrected	macenczaks	03/20/20 13:18

Lab Sample ID: IC 240-427647/7 Client Sample ID:

Date Analyzed: 03/20/20 12:48 Lab File ID: 1424125.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methylnaphthalene	13.99	Peak assignment corrected	macenczaks	03/20/20 13:18

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX14 Analysis Batch Number: 443733

Lab Sample ID: MB 240-443733/7 Client Sample ID:

Date Analyzed: 07/22/20 14:32 Lab File ID: 1425536.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2,2-Tetrachloroethane		Invalid Compound ID	macenczaks	07/22/20 15:34
1,4-Dichlorobenzene		Invalid Compound ID	macenczaks	07/22/20 15:35
2-Hexanone		Invalid Compound ID	macenczaks	07/22/20 15:34
4-Isopropyltoluene		Invalid Compound ID	macenczaks	07/22/20 15:35
Chloroform		Invalid Compound ID	macenczaks	07/22/20 15:34
tert-Butyl alcohol		Invalid Compound ID	macenczaks	07/22/20 15:34
tert-Butylbenzene		Invalid Compound ID	macenczaks	07/22/20 15:35

Lab Sample ID: 240-133597-2 Client Sample ID: MRC-MW-164B-15-20

Date Analyzed: 07/23/20 00:10 Lab File ID: 1425562.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,3-Trimethylbenzene		Invalid Compound ID	macenczaks	07/23/20 11:47
1,3-Dichlorobenzene		Invalid Compound ID	macenczaks	07/23/20 11:47
4-Isopropyltoluene		Invalid Compound ID	macenczaks	07/23/20 11:47
Naphthalene		Invalid Compound ID	macenczaks	07/23/20 11:47

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VM250SS_00057	05/24/20	02/24/20	MEOH, Lot +221000000230446J+	50 mL	VM567650_00032	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.VM567650_00032	07/30/23		Restek, Lot A0139582		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VM250SS_00058	09/03/20	06/03/20	MEOH, Lot +221000000230446J+	50 mL	VM567650_00033	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.VM567650_00033	11/30/23		Restek, Lot A0143613		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VM50IS_00080	06/16/20	12/16/19	MEOH, Lot 177891	50 mL	VM568718_00017	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00017	01/31/24		restek, Lot A0145169		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
VM50IS_00084	11/21/20	05/21/20	MEOH, Lot 177891	50 mL	VM568718_00017	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00017	01/31/24		restek, Lot A0145169		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
vm50ss_00387	01/21/20	01/14/20	MEOH, Lot na	5 mL	vm50ss_stk_00083	5 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00083	06/24/20	12/24/19	MEOH, Lot 0000230446	200 mL	VM567650_00032	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00032	07/30/23		Restek, Lot A0139582		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00394	03/24/20	03/17/20	MEOH, Lot na	5 mL	vm50ss_stk_00083	5 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.vm50ss_stk_00083	06/24/20	12/24/19	MEOH, Lot 0000230446	200 mL	VM567650_00032	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00032	07/30/23		Restek, Lot A0139582		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00398	04/27/20	04/20/20	MEOH, Lot na	5 mL	vm50ss_stk_00083	5 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00083	06/24/20	12/24/19	MEOH, Lot 0000230446	200 mL	VM567650_00032	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00032	07/30/23		Restek, Lot A0139582		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00085	11/21/20	05/21/20	MEOH, Lot 0000230446	200 mL	VM567650_00032	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00032	07/30/23		Restek, Lot A0139582		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VM568718_00017	01/31/24		restek, Lot A0145169		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
VM568718_00018	01/31/24		restek, Lot A0145169		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
VMAROLISTDW_00337	03/24/20	03/17/20	MEOH, Lot na	5 mL	VMACROLSTD_00081	5 mL	Acrolein	250 ug/mL
.VMACROLSTD_00081	03/28/20	02/28/20	MEOH, Lot 0000230446	20 mL	VM568720_00037	0.25 mL	Acrolein	250 ug/mL
..VM568720_00037	04/30/21		restek, Lot A0154578		(Purchased Reagent)		Acrolein	20000 ug/mL
VMAROLISTDW_00341	04/22/20	04/15/20	MEOH, Lot na	5 mL	VMACROLSTD_00082	5 mL	Acrolein	250 ug/mL
.VMACROLSTD_00082	04/30/20	03/30/20	MEOH, Lot 0000230446	20 mL	VM568720_00037	0.25 mL	Acrolein	250 ug/mL
..VM568720_00037	04/30/21		restek, Lot A0154578		(Purchased Reagent)		Acrolein	20000 ug/mL
vmbfb_00024							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Xylenes, Total	
					vm30026_00003	1.25 mL	BFB	50 ug/mL
.vm30026_00003	08/31/23		restek, Lot A0141187		(Purchased Reagent)		BFB	2000 ug/mL
VMBFB_00025							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					vm30026_00003	1.25 mL	BFB	50 ug/mL
.vm30026_00003	08/31/23		restek, Lot A0141187		(Purchased Reagent)		BFB	2000 ug/mL
VMFASA9W_00261	01/21/20	01/14/20	MEOH, Lot NA	5 mL	VMFASA9_00019	5 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMFASA9_00019	04/30/20	12/18/19	MEOH, Lot 0000230446	100 mL	VM570808S_00007	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993S_00005	2 mL	Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808S_00007	05/31/20		Restek, Lot A0143097		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993S_00005	06/30/20		restek, Lot A0139245		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMFASA9W_00285	07/29/20	07/22/20	MEOH, Lot NA	5 mL	VMFASA9_00022	5 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMFASA9_00022	11/30/20	05/30/20	MEOH, Lot 00000230446	100 mL	VM570808S_00008	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993S_00006	2 mL	Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808S_00008	04/30/21		Restek, Lot A0154206		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993S_00006	11/30/20		restek, Lot A0143318		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMFASAW_00312	01/21/20	01/14/20	MEOH, Lot NA	5 mL	VMFASA_00058	5 mL	Acrolein	250 ug/mL
.VMFASA_00058	01/31/20	11/01/19	MEOH, Lot 0000230446	100 mL	VM568720S_00035	1.25 mL	Acrolein	250 ug/mL
..VM568720S_00035	01/31/20		restek, Lot A0150981		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASGW_00343	01/22/20	01/15/20	MEOH, Lot NA	5 mL	VMFASG_00090	5 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00090	01/30/20	12/30/19	MEOH, Lot 0000230446	100 mL	vm569722S_00006	2 mL	Bromomethane	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00006	12/31/20		Restek, Lot A0133344		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00356	04/25/20	04/18/20	MEOH, Lot NA	5 mL	VMFASG_00093	5 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00093	05/03/20	04/03/20	MEOH, Lot 0000230446	100 mL	vm569722S_00006	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00006	12/31/20		Restek, Lot A0133344		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00368	07/24/20	07/17/20	MEOH, Lot NA	5 mL	VMFASG_00096	5 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00096	08/01/20	07/01/20	MEOH, Lot 0000230446	100 mL	vm569722S_00007	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00007	10/31/21		Restek, Lot A0142117		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VMFASPW_00334	01/21/20	01/14/20	MEOH, Lot n/a	5 mL	VMRFASP_00063	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00063	01/31/20	01/06/20	MEOH, Lot 0000230446	50 mL	VM569721S_00005	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00008	1 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00025	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992S_00005	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00005	12/31/20		Restek, Lot A0133078		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00008	11/30/21		Restek, Lot A0143264		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00025	01/31/20		Restek, Lot A0150978		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992S_00005	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMFASPW_00347	04/25/20	04/18/20	MEOH, Lot n/a	5 mL	VMRFASP_00065	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00065	04/30/20	03/21/20	MEOH, Lot 0000230446	100 mL	VM569721S_00005	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00008	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00028	1 mL	Vinyl acetate	50 ug/mL
					VM571992S_00006	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00005	12/31/20		Restek, Lot A0133078		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00008	11/30/21		Restek, Lot A0143264		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00028	04/30/20		Restek, Lot A0154580		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992S_00006	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMFASPW_00359	07/28/20	07/21/20	MEOH, Lot n/a	5 mL	VMRFASP_00067	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00067	09/18/20	06/18/20	MEOH, Lot 0000230446	100 mL	VM569721S_00005	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00008	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00029	1 mL	Vinyl acetate	50 ug/mL
					VM571992S_00006	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00005	12/31/20		Restek, Lot A0133078		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00008	11/30/21		Restek, Lot A0143264		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00029	09/30/21		Restek, Lot A0158728		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992S_00006	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMRA9W_00329	01/17/20	01/10/20	MEOH, Lot NA	5 mL	VMRA9_00029	5 mL	Cyclohexanone	500 ug/mL
							Pentachloroethane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00029	05/07/20	11/07/19	MEOH, Lot +2210000002304 46J+	50 mL	VM569727_00004	1 mL	Cyclohexanone	500 ug/mL
					vm570806_00004	2 mL	Pentachloroethane	100 ug/mL
					vm570807_00004	2 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
					VM570808_00005	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					VM570809_00006	1 mL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
					VM571993_00003	1 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM569727_00004	01/31/22		RESTEK, Lot A0145193		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
..vm570806_00004	04/30/22		Restek, Lot A0126447		(Purchased Reagent)		Pentachloroethane	2500 ug/mL
..vm570807_00004	02/28/22		Restek, Lot A0125050		(Purchased Reagent)		1-Methylnaphthalene	2500 ug/mL
							2-Methylnaphthalene	2500 ug/mL
..VM570808_00005	07/31/20		Restek, Lot A0145375		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
..VM570809_00006	05/31/20		Restek, Lot A0143198		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
..VM571993_00003	07/31/20		restek, Lot A0139911		(Purchased Reagent)		Acetonitrile	25000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMRA9W_00337	03/24/20	03/17/20	MEOH, Lot NA	5 mL	VMRA9_00029	5 mL	Cyclohexanone	500 ug/mL
							Pentachloroethane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00029	05/07/20	11/07/19	MEOH, Lot +221000000230446J+	50 mL	VM569727_00004	1 mL	Cyclohexanone	500 ug/mL
					vm570806_00004	2 mL	Pentachloroethane	100 ug/mL
					vm570807_00004	2 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
					VM570808_00005	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					VM570809_00006	1 mL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
					VM571993_00003	1 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tert-amyl methyl ether	50 ug/mL
..VM569727_00004	01/31/22		RESTEK, Lot A0145193		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
..vm570806_00004	04/30/22		Restek, Lot A0126447		(Purchased Reagent)		Pentachloroethane	2500 ug/mL
..vm570807_00004	02/28/22		Restek, Lot A0125050		(Purchased Reagent)		1-Methylnaphthalene	2500 ug/mL
							2-Methylnaphthalene	2500 ug/mL
..VM570808_00005	07/31/20		Restek, Lot A0145375		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
..VM570809_00006	05/31/20		Restek, Lot A0143198		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
..VM571993_00003	07/31/20		restek, Lot A0139911		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMRA9W_00353	07/27/20	07/20/20	MEOH, Lot NA	5 mL	VMRA9_00031	5 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00031	07/31/20	05/30/20	MEOH, Lot 0000230446	50 mL	VM570808_00005	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993_00003	1 mL	Diisopropyl ether	50 ug/mL
							Ethyl tert-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808_00005	07/31/20		Restek, Lot A0145375		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993_00003	07/31/20		restek, Lot A0139911		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl tert-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMRGAS_00323	01/21/20	01/14/20	MEOH, Lot 0000230446	10 mL	vm569722_00013	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00013	11/30/21		Restek, Lot A0143158		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00332	03/26/20	03/19/20	MEOH, Lot +221000000230446J+	10 mL	vm569722_00014	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00014	03/31/22		Restek, Lot A0146651		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00335	04/20/20	04/13/20	MEOH, Lot +221000000230446J+	10 mL	vm569722_00014	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00014	03/31/22		Restek, Lot A0146651		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00347	07/22/20	07/15/20	MEOH, Lot 0000230446	10 mL	vm569722_00015	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00015	11/30/22		Restek, Lot A0154679		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00348	07/30/20	07/23/20	MEOH, Lot 0000230446	10 mL	vm569722_00015	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00015	11/30/22		Restek, Lot A0154679		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRPRIMW_00369	01/21/20	01/14/20	MEOH, Lot NA	5 mL	VMRPRIM_00042	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00042	01/31/20	12/12/19	MEOH, Lot 0000230446	50 mL	VM569721_00006	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	100 ug/mL
					VM569723_00008	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00021	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00006	04/30/21		Restek, Lot A0137509		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00008	02/28/22		restek, Lot A0146250		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00021	01/31/20		Restek, Lot A0150515		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00003	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VMRPRIMW_00369	01/21/20	01/14/20	MEOH, Lot NA	5 mL	VMRPRIM_00042	5 mL	Xylenes, Total	100 ug/mL
.VMRPRIM_00042	01/31/20	12/12/19	MEOH, Lot 0000230446	50 mL	VM571992_00003	1 mL	Xylenes, Total	100 ug/mL
..VM571992_00003	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		Xylenes, Total	5000 ug/mL
VMRPRIMW_00378	03/25/20	03/18/20	MEOH, Lot NA	5 mL	VMRPRIM_00044	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00044	04/30/20	03/02/20	MEOH, Lot 0000230446	50 mL	VM569721_00006	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00008	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00023	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00006	04/30/21		Restek, Lot A0137509		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00008	02/28/22		restek, Lot A0146250		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00023	04/30/20		Restek, Lot A0154581		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00003	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VMRPRIMW_00382	04/25/20	04/18/20	MEOH, Lot NA	5 mL	VMRPRIM_00044	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00044	04/30/20	03/02/20	MEOH, Lot 0000230446	50 mL	VM569721_00006	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00008	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00023	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00006	04/30/21		Restek, Lot A0137509		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00008	02/28/22		restek, Lot A0146250		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00023	04/30/20		Restek, Lot A0154581		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00003	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VMRPRIMW_00382	04/25/20	04/18/20	MEOH, Lot NA	5 mL	VMRPRIM_00044	5 mL	Xylenes, Total	100 ug/mL
.VMRPRIM_00044	04/30/20	03/02/20	MEOH, Lot 0000230446	50 mL	VM571992_00003	1 mL	Xylenes, Total	100 ug/mL
..VM571992_00003	06/30/21	Restek, Lot A0143774			(Purchased Reagent)		Xylenes, Total	5000 ug/mL
VMRPRIMW_00394	07/23/20	07/16/20	MEOH, Lot NA	5 mL	VMRPRIM_00045	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRPRIM_00045	08/01/20	05/01/20	MEOH, Lot 0000230446	50 mL	VM569721_00006	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00008	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00024	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichlorotrifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00006	04/30/21		Restek, Lot A0137509		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00008	02/28/22		restek, Lot A0146250		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00024	07/31/21		Restek, Lot A0156559		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00003	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichlorotrifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL

Reagent

vm30026_00003

Rec: 11/28/18
VM30026-00063

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30026 **Lot No.:** A0141187

Description : 4-Bromofluorobenzene Mixture

4-Bromofluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,004.7 µg/mL	+/- 11.7645	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 112.4110	µg/mL	Unstressed
	Purity 99%		+/- 115.0408	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00033

VM567650_00033 Rec: 4/9/19

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0143613

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012017) **Purity** 99%	2,506.4 µg/mL	+/- 14.5724 µg/mL +/- 140.5314 µg/mL +/- 143.8196 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	2,503.8 µg/mL	+/- 14.5570 µg/mL +/- 140.3828 µg/mL +/- 143.6676 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-27311) **Purity** 99%	2,512.2 µg/mL	+/- 14.6059 µg/mL +/- 140.8538 µg/mL +/- 144.1496 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,501.8 µg/mL	+/- 14.5457 µg/mL +/- 140.2734 µg/mL +/- 143.5557 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM568718_00017

VM568718-00017 Rec: 7/12/19

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 **Lot No.:** A0145169

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000µg/mL, P&T Methanol/Water (90:10), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2024 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 (Lot CD-107) **Purity** 98%	5,044.0 µg/mL	+/- 29.3246 +/- 107.9918 +/- 111.1314	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone-d5 **CAS #** 24313-50-6 (Lot M-276) **Purity** 99%	1,254.2 µg/mL	+/- 7.2922 +/- 26.8533 +/- 27.6340	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Fluorobenzene **CAS #** 462-06-6 (Lot BCBK8171V) **Purity** 99%	252.1 µg/mL	+/- 1.4689 +/- 5.3977 +/- 5.5545	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,4-Dioxane-d8 **CAS #** 17647-74-4 (Lot I-19942) **Purity** 99%	5,027.8 µg/mL	+/- 29.2304 +/- 107.6448 +/- 110.7743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-23926) **Purity** 99%	250.6 µg/mL	+/- 1.4603 +/- 5.3661 +/- 5.5220	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	251.6 µg/mL	+/- 1.4660 +/- 5.3871 +/- 5.5436	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Reagent

VM568718_00018

Rec: 12/4/19
VM568718_00018

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 **Lot No.:** A0145169

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000µg/mL, P&T Methanol/Water (90:10), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2024 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 (Lot CD-107) **Purity** 98%	5,044.0 µg/mL	+/- 29.3246 µg/mL +/- 107.9918 µg/mL +/- 111.1314 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone-d5 **CAS #** 24313-50-6 (Lot M-276) **Purity** 99%	1,254.2 µg/mL	+/- 7.2922 µg/mL +/- 26.8533 µg/mL +/- 27.6340 µg/mL	Gravimetric Unstressed Stressed
3	Fluorobenzene **CAS #** 462-06-6 (Lot BCBK8171V) **Purity** 99%	252.1 µg/mL	+/- 1.4689 µg/mL +/- 5.3977 µg/mL +/- 5.5545 µg/mL	Gravimetric Unstressed Stressed
4	1,4-Dioxane-d8 **CAS #** 17647-74-4 (Lot I-19942) **Purity** 99%	5,027.8 µg/mL	+/- 29.2304 µg/mL +/- 107.6448 µg/mL +/- 110.7743 µg/mL	Gravimetric Unstressed Stressed
5	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-23926) **Purity** 99%	250.6 µg/mL	+/- 1.4603 µg/mL +/- 5.3661 µg/mL +/- 5.5220 µg/mL	Gravimetric Unstressed Stressed
6	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	251.6 µg/mL	+/- 1.4660 µg/mL +/- 5.3871 µg/mL +/- 5.5436 µg/mL	Gravimetric Unstressed Stressed

Reagent

VM568720_00037

Rec: 1/16/20 VM568720_00037

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0154578

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound			Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acrolein			19,810.7	µg/mL	+/-	115.9958	µg/mL	Gravimetric
	CAS #	107-02-8	(Lot D0012019410)			+/-	395.7642	µg/mL	Unstressed
	Purity	99%				+/-	887.8866	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VM568720S_00035

Rec: 10/17/19

VM568720S-00035

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720.SEC **Lot No.:** A0150981

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,750.5 µg/mL	+/- 115.6435	µg/mL	Gravimetric
	CAS # 107-02-8.SEC (Lot CSBLJM)		+/- 633.2629	µg/mL	Unstressed
	Purity 97%		+/- 736.0988	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VM569721_00006

RCL: 12/4/18

VM569721_00006

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0137509

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot SHBH6933) **Purity** 99%	12,619.0 µg/mL	+/- 73.8870 µg/mL +/- 761.4104 µg/mL +/- 763.2179 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBF2461V) **Purity** 99%	12,602.0 µg/mL	+/- 73.7875 µg/mL +/- 760.3846 µg/mL +/- 762.1897 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBH7006) **Purity** 99%	12,531.0 µg/mL	+/- 73.3718 µg/mL +/- 756.1006 µg/mL +/- 757.8955 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBW0198V) **Purity** 99%	12,606.0 µg/mL	+/- 73.8109 µg/mL +/- 760.6260 µg/mL +/- 762.4316 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721S_00005

Rec: 6/15/18 20 vials

VM569721S-00005

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721.SEC **Lot No.:** A0133078

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,504.8 µg/mL	+/- 73.2184 µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot P14A572)		+/- 754.5197 µg/mL	Unstressed
	Purity 99%		+/- 756.3109 µg/mL	Stressed
2	2-Butanone (MEK)	12,504.0 µg/mL	+/- 73.2137 µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RA58J)		+/- 754.4715 µg/mL	Unstressed
	Purity 99%		+/- 756.2625 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,500.8 µg/mL	+/- 73.1949 µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 754.2784 µg/mL	Unstressed
	Purity 99%		+/- 756.0689 µg/mL	Stressed
4	2-Hexanone	12,503.6 µg/mL	+/- 73.2113 µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot V3NRA)		+/- 754.4473 µg/mL	Unstressed
	Purity 99%		+/- 756.2383 µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

vm569722_00013

Rec: 7/23/19

VM569722-00013

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0143158

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,500.9 µg/mL	+/- 17.2023 µg/mL +/- 140.5234 µg/mL +/- 143.7976 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBJ6334) **Purity** 99%	2,500.4 µg/mL	+/- 17.0791 µg/mL +/- 140.4796 µg/mL +/- 143.7534 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00012557) **Purity** 99%	2,500.4 µg/mL	+/- 16.5693 µg/mL +/- 140.4224 µg/mL +/- 143.6977 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBK2299) **Purity** 99%	2,500.1 µg/mL	+/- 17.0785 µg/mL +/- 140.4623 µg/mL +/- 143.7357 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,500.9 µg/mL	+/- 16.5511 µg/mL +/- 140.4457 µg/mL +/- 143.7217 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,502.0 µg/mL	+/- 16.0409 µg/mL +/- 140.4480 µg/mL +/- 143.7268 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot 7766400) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 **Purity** 99%	(Lot SHBH4155V)	2,500.8 µg/mL	+/- 17.8012 +/- 140.5946 +/- 143.8670	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

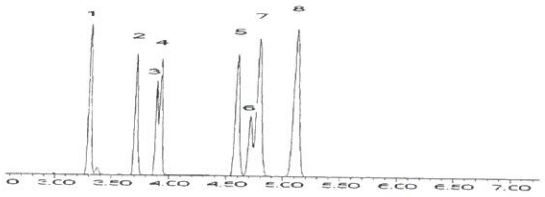
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician **Date Mixed:** 12-Nov-2018 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 11-Dec-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

vm569722_00014

Rcc: 9/9/19

VM569722-000X14

SAM 9/17/19

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Catalog No. : 569722 **Lot No.:** A0146651

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)		2,500.2 µg/mL	+/-	19.5056	µg/mL	Gravimetric
	CAS # 75-71-8	(Lot 00012554)		+/-	140.7858	µg/mL	Unstressed
	Purity 99%			+/-	144.0522	µg/mL	Stressed
2	Chloromethane (methyl chloride)		2,501.5 µg/mL	+/-	20.4136	µg/mL	Gravimetric
	CAS # 74-87-3	(Lot SHBJ6334)		+/-	140.9867	µg/mL	Unstressed
	Purity 99%			+/-	144.2520	µg/mL	Stressed
3	Vinyl chloride		2,502.6 µg/mL	+/-	19.3699	µg/mL	Gravimetric
	CAS # 75-01-4	(Lot 00012557)		+/-	140.9018	µg/mL	Unstressed
	Purity 99%			+/-	144.1719	µg/mL	Stressed
4	1,3-Butadiene		2,502.4 µg/mL	+/-	21.0409	µg/mL	Gravimetric
	CAS # 106-99-0	(Lot SHBK2299)		+/-	141.1253	µg/mL	Unstressed
	Purity 99%			+/-	144.3895	µg/mL	Stressed
5	Bromomethane (methyl bromide)		2,501.9 µg/mL	+/-	18.1039	µg/mL	Gravimetric
	CAS # 74-83-9	(Lot 101604)		+/-	140.6930	µg/mL	Unstressed
	Purity 99%			+/-	143.9660	µg/mL	Stressed
6	Chloroethane (ethyl chloride)		2,498.4 µg/mL	+/-	18.1959	µg/mL	Gravimetric
	CAS # 75-00-3	(Lot 107-401039114-1)		+/-	140.5102	µg/mL	Unstressed
	Purity 99%			+/-	143.7782	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)		2,500.0 µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 75-43-4	(Lot 7978700)		+/-	140.1725	µg/mL	Unstressed
	Purity 99%			+/-	143.4524	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,505.7	µg/mL	+/-	19.3191	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBH4155V)			+/-	141.0656	µg/mL	Unstressed
	Purity 99%				+/-	144.3399	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

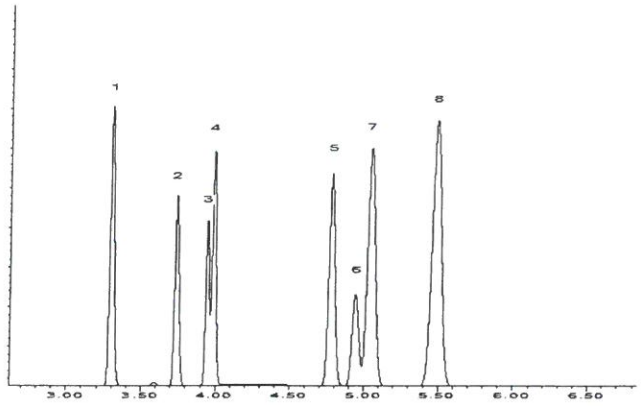
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 05-Mar-2019 **Balance:** B707717271

John Lidgett - AD Chemist

Date Passed: 12-Mar-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722_00015

Rec: 4/14/20
VM569722_0005

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0154679

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,502.7 µg/mL	+/- 18.2705 µg/mL +/- 140.7566 µg/mL +/- 144.0300 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,500.3 µg/mL	+/- 18.7547 µg/mL +/- 140.6865 µg/mL +/- 143.9553 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,501.1 µg/mL	+/- 18.5858 µg/mL +/- 140.7083 µg/mL +/- 143.9787 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBK2299) **Purity** 99%	2,497.1 µg/mL	+/- 17.5808 µg/mL +/- 140.3628 µg/mL +/- 143.6309 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,500.8 µg/mL	+/- 23.3138 µg/mL +/- 141.3956 µg/mL +/- 144.6498 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,499.0 µg/mL	+/- 21.4252 µg/mL +/- 140.9973 µg/mL +/- 144.2558 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,499.6	µg/mL	+/-	21.2368	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot 25931)			+/-	141.0019	µg/mL	Unstressed
	Purity 99%				+/-	144.2618	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

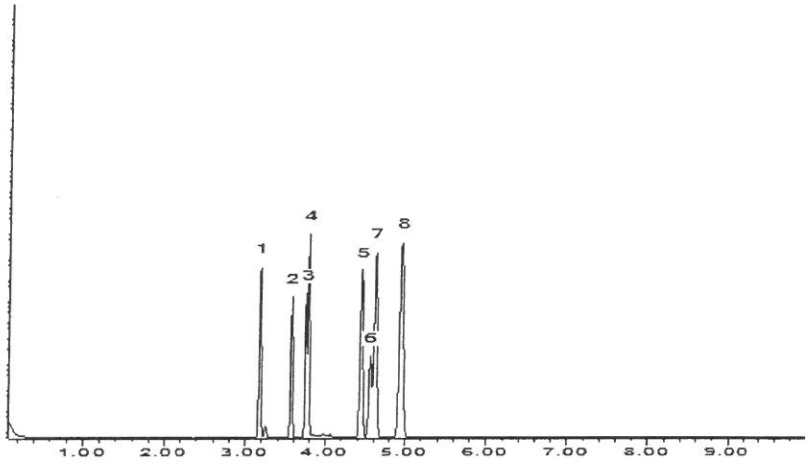
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 04-Nov-2019 **Balance:** B707717271

Feng-Yun Lo - QC Analyst

Date Passed: 10-Nov-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722S_00006

Rec: 6/15/18 20 vials

VM569722S-00006

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Catalog No. : 569722.SEC **Lot No.:** A0133344

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 * **Purity** 99%	(Lot 4938100)	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL		Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC **Purity** 99%	(Lot 18343)	2,521.6 µg/mL	+/- 17.0984 µg/mL +/- 141.6588 µg/mL +/- 144.9608 µg/mL		Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC **Purity** 99%	(Lot MKBK6872V)	2,502.2 µg/mL	+/- 18.3289 µg/mL +/- 140.7354 µg/mL +/- 144.0080 µg/mL		Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC **Purity** 99%	(Lot 24033)	2,513.3 µg/mL	+/- 16.7862 µg/mL +/- 141.1580 µg/mL +/- 144.4497 µg/mL		Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC **Purity** 99%	(Lot Q119-46)	2,524.8 µg/mL	+/- 22.7878 µg/mL +/- 142.6298 µg/mL +/- 145.9179 µg/mL		Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC **Purity** 99%	(Lot 00004202)	2,515.6 µg/mL	+/- 20.9811 µg/mL +/- 141.8493 µg/mL +/- 145.1315 µg/mL		Gravimetric Unstressed Stressed
7	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC **Purity** 99%	(Lot 24186)	2,509.0 µg/mL	+/- 17.4430 µg/mL +/- 141.0029 µg/mL +/- 144.2872 µg/mL		Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,497.4	µg/mL	+/-	22.1815	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)			+/-	141.0261	µg/mL	Unstressed
	Purity 99%				+/-	144.2798	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

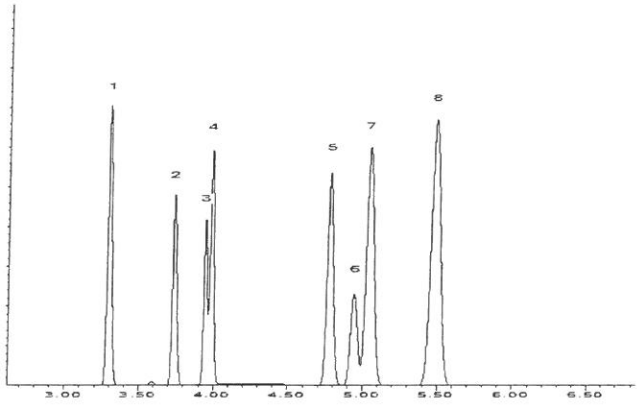
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 14-Dec-2017 **Balance:** 1128342314

Justine Albertson - Operations Tech-ARM QC

Date Passed: 20-Dec-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

vm569722S_00007

VM569722S-00007

Rec: 1-23-19

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Catalog No. : 569722.SEC **Lot No.:** A0142117

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,503.0 µg/mL	+/- 23.3708 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 24847)		+/- 141.5277 µg/mL	Unstressed
	Purity 99%		+/- 144.7846 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,497.4 µg/mL	+/- 25.3963 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 141.5662 µg/mL	Unstressed
	Purity 99%		+/- 144.8078 µg/mL	Stressed
3	Vinyl chloride	2,501.8 µg/mL	+/- 19.5755 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 140.8855 µg/mL	Unstressed
	Purity 99%		+/- 144.1539 µg/mL	Stressed
4	1,3-Butadiene	2,505.3 µg/mL	+/- 20.9927 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 22331)		+/- 141.2797 µg/mL	Unstressed
	Purity 99%		+/- 144.5480 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,498.6 µg/mL	+/- 25.6449 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 141.6796 µg/mL	Unstressed
	Purity 99%		+/- 144.9218 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,498.9 µg/mL	+/- 24.9623 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 141.5741 µg/mL	Unstressed
	Purity 99%		+/- 144.8194 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/- 14.6714 µg/mL	Gravimetric
	CAS # 75-43-4 * (Lot 7766400)		+/- 140.1867 µg/mL	Unstressed
	Purity 99%		+/- 143.4662 µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,501.7 µg/mL	+/-	23.1926	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)		+/-	141.4285	µg/mL	Unstressed
	Purity 99%			+/-	144.6844	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

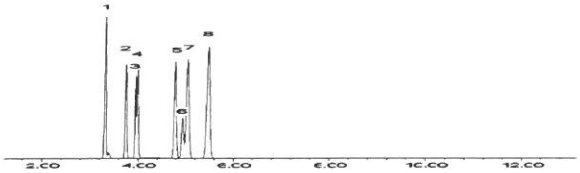
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 04-Oct-2018 **Balance:** 1127510105

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 08-Oct-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM569723_00008

Rec: 9/9/19
VM569723-00008

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Catalog No. : 569723 **Lot No.:** A0146250

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBS6526V)		+/- 53.5253	µg/mL	Unstressed
	Purity 99%		+/- 55.0814	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569723S_00008

Rec: 9/9/19
VM569723s-00008

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Catalog No. : 569723.SEC **Lot No.:** A0143264

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,502.8 µg/mL	+/- 14.6878	µg/mL	Gravimetric
	CAS # 110-75-8.SEC (Lot BQZ2K-QD)		+/- 53.6224	µg/mL	Unstressed
	Purity 99%		+/- 55.1792	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569724_00021

Rec: 9/6/19
VM569724_00021

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Catalog No. : 569724 **Lot No.:** A0150515

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,024.0 µg/mL	+/- 29.4836	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 303.1467	µg/mL	Unstressed
	Purity 99%		+/- 303.8663	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution , and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724_00023

Rec 2/13/20 VMS69724_00023

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Catalog No. : 569724 **Lot No.:** A0154581

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2020 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate **CAS #** 108-05-4 **Purity** 99% (Lot 192709KJ)	5,046.0 µg/mL	+/- 29.6128 µg/mL +/- 304.4742 µg/mL +/- 305.1969 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724_00024

Rcd 4-20-20 VM569724_00024

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Catalog No. : 569724 **Lot No.:** A0156559

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,040.0 µg/mL	+/- 29.5103	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot 192709KJ)		+/- 304.1056	µg/mL	Unstressed
	Purity 99%		+/- 304.8275	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:
08 April 2020
Expiration date extended from July 31, 2020 to July 31, 2021.

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724S_00025

Acc! 9/6/19
VM569724S-00025

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Catalog No. : 569724.SEC **Lot No.:** A0150978

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,011.3 µg/mL	+/- 29.4093	µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot 190320CGKJ)		+/- 302.3824	µg/mL	Unstressed
	Purity 99%		+/- 303.1002	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724S_00028

VM569724.SEC_00028 Rec. 3/29/20

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Catalog No. : 569724.SEC **Lot No.:** A0154580

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2020 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,011.3 µg/mL	+/- 29.4093	µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot 190320CGKJ)		+/- 302.3824	µg/mL	Unstressed
	Purity 99%		+/- 303.1002	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569724S_00029

Rec'd: 4/20/20 VM5697245_00029

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724.SEC **Lot No.:** A0158728

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,034.0 µg/mL	+/- 29.5423	µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot 190320CGKJ)		+/- 303.7501	µg/mL	Unstressed
	Purity 99%		+/- 304.4711	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:
08 April 2020
Expiration date extended from September 30, 2020 to September 30, 2021.

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM569727_00004

Rec: 9/9/19
VMS69727_00004
(10)

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569727 **Lot No.:** A0145193

Description : 8260 List 2/ Std #3 Cyclohexanone (2015)

8260 List 2/ Std #3 Cyclohexanone (2015) 25,000µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Cyclohexanone	25,008.5 µg/mL	+/- 146.4305 µg/mL	Gravimetric
	CAS # 108-94-1 (Lot MKCD4357)		+/- 1,508.9751 µg/mL	Unstressed
	Purity 99%		+/- 1,512.5572 µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

vm570806_00004

VM570806_00004 Rec: 6/15/19 10 Vials

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570806 **Lot No.:** A0126447

Description : 8260 List 2 / Std #4 Pentachloroethane

8260 List 2 / Std #4 Pentachloroethane 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentachloroethane	2,519.0 µg/mL	+/- 14.7829	µg/mL	Gravimetric
	CAS # 76-01-7 (Lot 160830B-BL2)		+/- 141.2521	µg/mL	Unstressed
	Purity 99%		+/- 144.5566	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

vm570807_00004

Rec: 6/15/18 10 Vials

VM570807_00004

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570807 **Lot No.:** A0125050

Description : 8260 List 2 / Std #5 Methylnaphthalenes

8260 List 2 / Std #5 Methylnaphthalenes 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Methylnaphthalene **CAS #** 91-57-6 (Lot STBF0201V) **Purity** 95%	2,511.8 µg/mL	+/- 14.7406 µg/mL +/- 140.8484 µg/mL +/- 144.1434 µg/mL		Gravimetric Unstressed Stressed
2	1-Methylnaphthalene **CAS #** 90-12-0 (Lot 523400-9) **Purity** 98%	2,514.2 µg/mL	+/- 14.7547 µg/mL +/- 140.9824 µg/mL +/- 144.2806 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM570808_00005

Rec: 4-9-19
VMS70808_00005

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570808 **Lot No.:** A0145375

Description : 8260 List 2 / Std #6

8260 List 2 / Std #6 2,500-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Propanol (isopropanol)		25,151.3 µg/mL	+/- 147.2666 µg/mL		Gravimetric
	CAS # 67-63-0	(Lot SHBH7211)		+/- 1,244.3044 µg/mL		Unstressed
	Purity 99%			+/- 1,275.2391 µg/mL		Stressed
2	Chloroprene (2-chloro-1,3-butadiene)		2,508.0 µg/mL	+/- 14.7183 µg/mL		Gravimetric
	CAS # 126-99-8	(Lot 180921JLM)		+/- 124.0815 µg/mL		Unstressed
	Purity 99%			+/- 127.1661 µg/mL		Stressed
3	Methacrylonitrile		25,161.0 µg/mL	+/- 147.3232 µg/mL		Gravimetric
	CAS # 126-98-7	(Lot 1012014)		+/- 1,244.7826 µg/mL		Unstressed
	Purity 99%			+/- 1,275.7292 µg/mL		Stressed
4	2,2,4-Trimethylpentane (isooctane)		2,510.3 µg/mL	+/- 14.7320 µg/mL		Gravimetric
	CAS # 540-84-1	(Lot SHBF8066V)		+/- 124.1969 µg/mL		Unstressed
	Purity 99%			+/- 127.2844 µg/mL		Stressed
5	1-Butanol		62,638.0 µg/mL	+/- 366.7403 µg/mL		Gravimetric
	CAS # 71-36-3	(Lot SHBK1866)		+/- 3,098.8687 µg/mL		Unstressed
	Purity 99%			+/- 3,175.9100 µg/mL		Stressed
6	2-Nitropropane		5,032.0 µg/mL	+/- 29.4633 µg/mL		Gravimetric
	CAS # 79-46-9	(Lot BCBL0537V)		+/- 248.9453 µg/mL		Unstressed
	Purity 98%			+/- 255.1343 µg/mL		Stressed
7	1-Chlorohexane		2,510.4 µg/mL	+/- 14.7326 µg/mL		Gravimetric
	CAS # 544-10-5	(Lot 05107LK)		+/- 124.2019 µg/mL		Unstressed
	Purity 98%			+/- 127.2895 µg/mL		Stressed

8	1,2,3-Trimethylbenzene		2,514.7	µg/mL	+/-	14.7576	µg/mL	Gravimetric
	CAS # 526-73-8	(Lot 877605-12)			+/-	124.4120	µg/mL	Unstressed
	Purity 98%				+/-	127.5048	µg/mL	Stressed
9	Benzyl chloride		2,516.7	µg/mL	+/-	14.7692	µg/mL	Gravimetric
	CAS # 100-44-7	(Lot SHBB7346V)			+/-	124.5103	µg/mL	Unstressed
	Purity 99%				+/-	127.6055	µg/mL	Stressed
10	1,3,5-Trichlorobenzene		2,513.3	µg/mL	+/-	14.7496	µg/mL	Gravimetric
	CAS # 108-70-3	(Lot 11319AS)			+/-	124.3454	µg/mL	Unstressed
	Purity 99%				+/-	127.4365	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

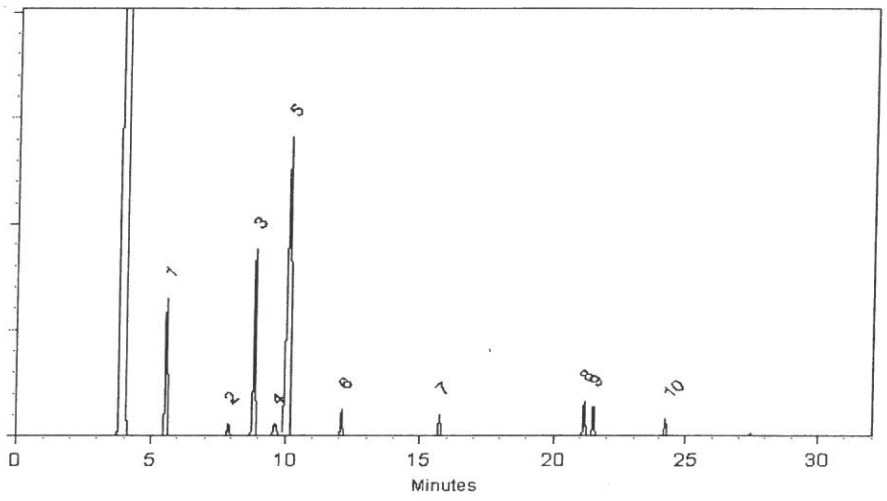
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 27-Jan-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 29-Jan-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM570808S_00007

Rec: 6/19/19
VM5708085-00007

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570808.SEC **Lot No.:** A0143097

Description : 8260 List 2 / Std #6

8260 List 2 / Std #6 2,500-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Propanol (isopropanol) **CAS #** 67-63-0.SEC (Lot NWVYK) **Purity** 99%	25,047.5 µg/mL	+/- 146.6586 µg/mL +/- 1,239.1674 µg/mL +/- 1,269.9744 µg/mL	Gravimetric Unstressed Stressed
2	Chloroprene (2-chloro-1,3-butadiene) **CAS #** 126-99-8 * (Lot 180921JLM) **Purity** 99%	2,509.0 µg/mL	+/- 14.7242 µg/mL +/- 124.1310 µg/mL +/- 127.2168 µg/mL	Gravimetric Unstressed Stressed
3	Methacrylonitrile **CAS #** 126-98-7 * (Lot 1012014) **Purity** 99%	25,031.0 µg/mL	+/- 146.5620 µg/mL +/- 1,238.3511 µg/mL +/- 1,269.1379 µg/mL	Gravimetric Unstressed Stressed
4	2,2,4-Trimethylpentane (Isooctane) **CAS #** 540-84-1.SEC (Lot 4597900) **Purity** 99%	2,513.5 µg/mL	+/- 14.7506 µg/mL +/- 124.3536 µg/mL +/- 127.4450 µg/mL	Gravimetric Unstressed Stressed
5	1-Butanol **CAS #** 71-36-3.SEC (Lot TOY3I) **Purity** 99%	62,799.0 µg/mL	+/- 367.6830 µg/mL +/- 3,106.8338 µg/mL +/- 3,184.0731 µg/mL	Gravimetric Unstressed Stressed
6	2-Nitropropane **CAS #** 79-46-9.SEC (Lot 6M3NJ) **Purity** 98%	5,003.9 µg/mL	+/- 29.2988 µg/mL +/- 247.5555 µg/mL +/- 253.7099 µg/mL	Gravimetric Unstressed Stressed
7	1-Chlorohexane **CAS #** 544-10-5.SEC (Lot 3890000) **Purity** 98%	2,501.9 µg/mL	+/- 14.6828 µg/mL +/- 123.7817 µg/mL +/- 126.8588 µg/mL	Gravimetric Unstressed Stressed

8	1,2,3-Trimethylbenzene **CAS #** 526-73-8.SEC **Purity** 97%	(Lot 7754800)	2,512.3 µg/mL	+/- 14.7436 +/- 124.2942 +/- 127.3841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Benzyl chloride **CAS #** 100-44-7.SEC **Purity** 99%	(Lot H29N03)	2,501.0 µg/mL	+/- 14.6773 +/- 123.7352 +/- 126.8112	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,3,5-Trichlorobenzene **CAS #** 108-70-3.SEC **Purity** 99%	(Lot I28U021)	2,506.5 µg/mL	+/- 14.7095 +/- 124.0073 +/- 127.0900	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

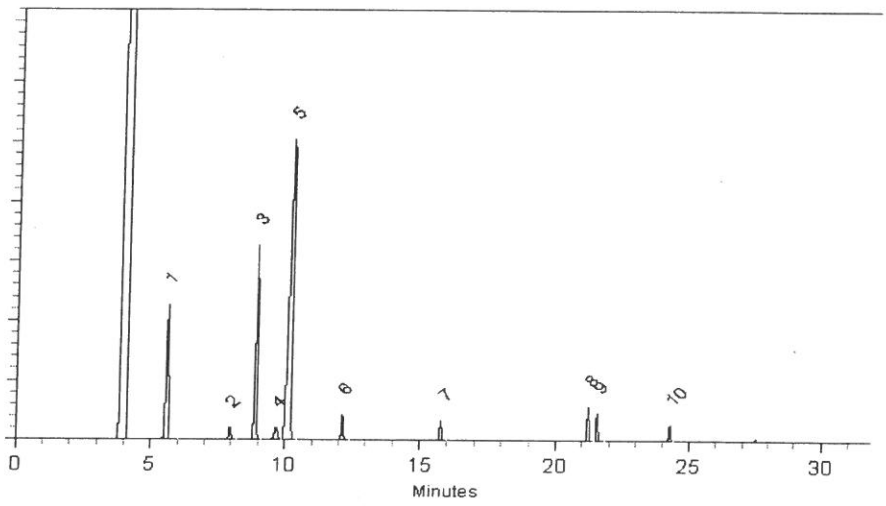
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 08-Nov-2018 **Balance:** 1128342314

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 13-Nov-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM570808S_00008

Rec: 5-4-20
VM570808S_00008

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570808.SEC **Lot No.:** A0154206

Description : 8260 List 2 / Std #6

8260 List 2 / Std #6 2,500-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Propanol (isopropanol) **CAS #** 67-63-0.SEC (Lot NWVYK) **Purity** 99%	25,035.5 µg/mL	+/- 146.5884 µg/mL +/- 1,238.5738 µg/mL +/- 1,269.3660 µg/mL	Gravimetric Unstressed Stressed
2	Chloroprene (2-chloro-1,3-butadiene) **CAS #** 126-99-8 * (Lot 190814JLM) **Purity** 99%	2,506.0 µg/mL	+/- 14.7066 µg/mL +/- 123.9825 µg/mL +/- 127.0647 µg/mL	Gravimetric Unstressed Stressed
3	Methacrylonitrile **CAS #** 126-98-7 * (Lot 1012019) **Purity** 99%	25,025.5 µg/mL	+/- 146.5298 µg/mL +/- 1,238.0790 µg/mL +/- 1,268.8590 µg/mL	Gravimetric Unstressed Stressed
4	2,2,4-Trimethylpentane (Isooctane) **CAS #** 540-84-1.SEC (Lot 4597900) **Purity** 99%	2,525.0 µg/mL	+/- 14.8181 µg/mL +/- 124.9226 µg/mL +/- 128.0281 µg/mL	Gravimetric Unstressed Stressed
5	1-Butanol **CAS #** 71-36-3.SEC (Lot ELBOC) **Purity** 99%	62,526.5 µg/mL	+/- 366.0875 µg/mL +/- 3,093.3525 µg/mL +/- 3,170.2566 µg/mL	Gravimetric Unstressed Stressed
6	2-Nitropropane **CAS #** 79-46-9.SEC (Lot Y4YWD) **Purity** 98%	5,006.8 µg/mL	+/- 29.3160 µg/mL +/- 247.7009 µg/mL +/- 253.8590 µg/mL	Gravimetric Unstressed Stressed
7	1-Chlorohexane **CAS #** 544-10-5.SEC (Lot 8171700) **Purity** 99%	2,501.0 µg/mL	+/- 14.6773 µg/mL +/- 123.7352 µg/mL +/- 126.8112 µg/mL	Gravimetric Unstressed Stressed

8	1,2,3-Trimethylbenzene		2,502.6	µg/mL	+/-	14.6867	µg/mL	Gravimetric
	CAS # 526-73-8.SEC	(Lot 8658900)			+/-	123.8143	µg/mL	Unstressed
	Purity 97%				+/-	126.8923	µg/mL	Stressed
9	Benzyl chloride		2,506.0	µg/mL	+/-	14.7066	µg/mL	Gravimetric
	CAS # 100-44-7.SEC	(Lot H29N03)			+/-	123.9825	µg/mL	Unstressed
	Purity 99%				+/-	127.0647	µg/mL	Stressed
10	1,3,5-Trichlorobenzene		2,518.5	µg/mL	+/-	14.7800	µg/mL	Gravimetric
	CAS # 108-70-3.SEC	(Lot I28U021)			+/-	124.6010	µg/mL	Unstressed
	Purity 99%				+/-	127.6985	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

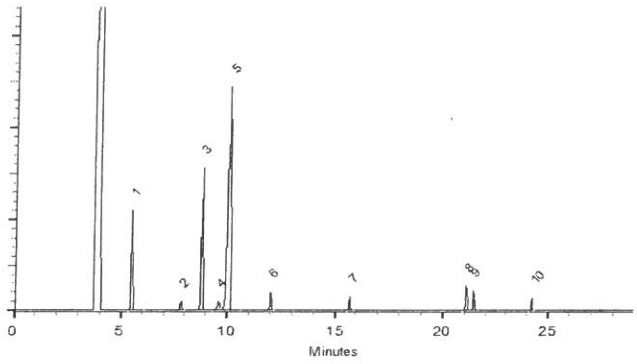
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 22-Oct-2019 **Balance:** 1128342314

Justine Albertson - Operations Tech-ARM QC

Date Passed: 25-Oct-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM570809_00006

Rec: 4/9/19
VM570809_00006

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570809 **Lot No.:** A0143198

Description : 8260 List 2 / Std #7

8260 List 2 / Std #7 2,500-5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Ethyl acetate **CAS #** 141-78-6 **Purity** 99%	(Lot SHBJ7347)	5,022.5 µg/mL	+/- 29.4078 µg/mL +/- 303.0497 µg/mL +/- 303.7691 µg/mL		Gravimetric Unstressed Stressed
2	Ethyl acrylate **CAS #** 140-88-5 **Purity** 99%	(Lot 10129902)	2,514.0 µg/mL	+/- 14.7536 µg/mL +/- 151.6940 µg/mL +/- 152.0541 µg/mL		Gravimetric Unstressed Stressed
3	Methyl methacrylate **CAS #** 80-62-6 **Purity** 99%	(Lot MKBH4379V)	5,019.5 µg/mL	+/- 29.3903 µg/mL +/- 302.8686 µg/mL +/- 303.5876 µg/mL		Gravimetric Unstressed Stressed
4	Butyl acetate **CAS #** 123-86-4 **Purity** 99%	(Lot SHBJ2076)	2,507.0 µg/mL	+/- 14.7125 µg/mL +/- 151.2716 µg/mL +/- 151.6307 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM571992_00003

Rec: 5/31/19
VM571992_00003

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
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Certificate #3222.01

ilac-MRA

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0143774

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBJ5713) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00009482) **Purity** 99%	2,501.6 µg/mL	+/- 14.5447 µg/mL +/- 150.9341 µg/mL +/- 151.2925 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBG8609V) **Purity** 99%	2,501.9 µg/mL	+/- 14.5461 µg/mL +/- 150.9492 µg/mL +/- 151.3076 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBJ9404) **Purity** 99%	25,008.1 µg/mL	+/- 145.3918 µg/mL +/- 1,508.8503 µg/mL +/- 1,512.4325 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBG4345V) **Purity** 99%	5,000.8 µg/mL	+/- 29.0748 µg/mL +/- 301.7174 µg/mL +/- 302.4337 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBH4362V) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot WXBB7852V) **Purity** 99%	2,502.0 µg/mL	+/- 14.5468 µg/mL +/- 150.9567 µg/mL +/- 151.3151 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	(Lot SHBK5095)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0 **Purity** 99%	(Lot U22D706)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1 **Purity** 99%	(Lot R15D047)	25,010.4	µg/mL	+/- 145.4049 +/- 1,508.9860 +/- 1,512.5686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	(Lot SHBH9526)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 99%	(Lot MKBX5945V)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	(Lot SHBH8106)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3 **Purity** 99%	(Lot 462600)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7 **Purity** 99%	(Lot BCBT5124)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5 **Purity** 99%	(Lot MKBH9850V)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1 **Purity** 99%	(Lot SHBK0551)	62,500.9	µg/mL	+/- 363.3665 +/- 3,770.9529 +/- 3,779.9058	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform **CAS #** 67-66-3 **Purity** 99%	(Lot SHBJ9076)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5 **Purity** 98%	(Lot 00008541)	2,500.6	µg/mL	+/- 14.5387 +/- 150.8718 +/- 151.2300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9 **Purity** 99%	(Lot SHBJ6179)	5,000.6	µg/mL	+/- 29.0741 +/- 301.7099 +/- 302.4262	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane **CAS #** 71-55-6 **Purity** 99%	(Lot B15W12061)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7 **Purity** 99%	(Lot MKCC9660)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6 **Purity** 99%	(Lot 180531JLM)	2,500.6	µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBJ2110)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBJ2424)	2,501.6	µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBJ0707)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBJ5344)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBH1955V)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2 **Purity** 99%	(Lot SHBJ0457)	2,501.6	µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot BCBR0882V)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBJ7415)	50,001.1	µg/mL	+/- 290.6957 +/- 3,016.7880 +/- 3,023.9503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 99%	(Lot 10201030)	2,502.0	µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 25076)	2,501.4	µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBJ5659)	2,500.1	µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot 69796APV)	2,502.8	µg/mL	+/- 14.5512 +/- 151.0020 +/- 151.3605	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 98%	(Lot C797620)	2,500.6	µg/mL	+/- 14.5387 +/- 150.8718 +/- 151.2300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBH9691)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane **CAS #** 124-48-1 **Purity** 98%	(Lot MKCC0877)	2,502.4	µg/mL	+/- 14.5493 +/- 150.9827 +/- 151.3411	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 **Purity** 99%	(Lot BCBH3877V)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7 **Purity** 99%	(Lot SHBH4459V)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene **CAS #** 108-38-3 **Purity** 99%	(Lot SHBJ2338)	1,251.5	µg/mL	+/- 7.2763 +/- 75.5085 +/- 75.6878	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene **CAS #** 106-42-3 **Purity** 99%	(Lot SHBJ0052)	1,250.1	µg/mL	+/- 7.2683 +/- 75.4256 +/- 75.6047	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene **CAS #** 100-41-4 **Purity** 99%	(Lot SHBJ3183)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6 **Purity** 99%	(Lot MKBS3769V)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6 **Purity** 99%	(Lot SHBH7231)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5 **Purity** 99%	(Lot MKCC9766)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8 **Purity** 99%	(Lot 10185056)	2,500.1	µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform **CAS #** 75-25-2 **Purity** 99%	(Lot SHBG3138V)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane **CAS #** 75-27-4 **Purity** 99%	(Lot MKCF8470)	2,501.6	µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5 **Purity** 99%	(Lot CFA4D)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4 **Purity** 99%	(Lot BCBH8722V)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene **CAS #** 110-57-6 **Purity** 94%	(Lot MKBX7788V)	2,500.0	µg/mL	+/- 14.5355 +/- 150.8389 +/- 151.1971	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1 **Purity** 99%	(Lot WXBC3346V)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot WXBC5147V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBS7648V)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBW5554V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBL7753V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot STBD6954V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 97%	(Lot MKBH5027V)	2,499.9 µg/mL	+/- 14.5348 +/- 150.8320 +/- 151.1901	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBR9260V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBV3556V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBQ7100V)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBS4401V)	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09804AE)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot SHBG3111V)	2,502.9 µg/mL	+/- 14.5519 +/- 151.0095 +/- 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot SHBJ9215)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 99%	(Lot J31X013)	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBZ8680V)	2,502.8 µg/mL	+/- 14.5512 +/- 151.0020 +/- 151.3605	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

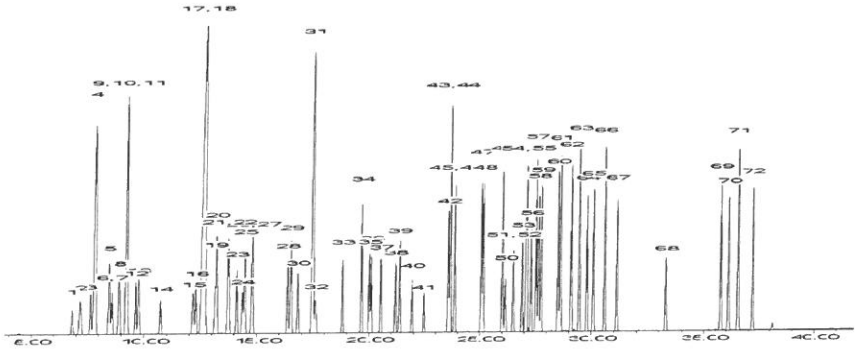
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 05-Dec-2018 **Balance:** B251644995

Diane Shaffer - Operations Tech-ARM QC **Date Passed:** 21-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM571992S_00005

Rec: 5/31/19
VM571992S-00005

RESTEK® CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.SEC **Lot No.:** A0144202

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,517.0 µg/mL	+/- 14.6339 µg/mL +/- 151.8598 µg/mL +/- 152.2203 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 µg/mL +/- 151.2383 µg/mL +/- 151.5974 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 7692300) **Purity** 99%	2,503.3 µg/mL	+/- 14.5546 µg/mL +/- 151.0372 µg/mL +/- 151.3958 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,000.8 µg/mL	+/- 145.3491 µg/mL +/- 1,508.4071 µg/mL +/- 1,511.9883 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot UCNEL) **Purity** 99%	5,002.3 µg/mL	+/- 29.0840 µg/mL +/- 301.8129 µg/mL +/- 302.5295 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,503.5 µg/mL	+/- 14.5556 µg/mL +/- 151.0472 µg/mL +/- 151.4059 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot H3HGC) **Purity** 99%	2,511.7 µg/mL	+/- 14.6030 µg/mL +/- 151.5400 µg/mL +/- 151.8998 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,506.7 µg/mL	+/-	14.5740	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)		+/-	151.2383	µg/mL	Unstressed
	Purity 99%			+/-	151.5974	µg/mL	Stressed
9	Carbon disulfide		2,500.7 µg/mL	+/-	14.5391	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)		+/-	150.8763	µg/mL	Unstressed
	Purity 99%			+/-	151.2345	µg/mL	Stressed
10	Acrylonitrile		25,001.2 µg/mL	+/-	145.3513	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot UERIL)		+/-	1,508.4304	µg/mL	Unstressed
	Purity 99%			+/-	1,512.0117	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)		2,501.5 µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZHKYA)		+/-	150.9266	µg/mL	Unstressed
	Purity 99%			+/-	151.2849	µg/mL	Stressed
12	cis-1,2-Dichloroethene		2,501.3 µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)		+/-	150.9137	µg/mL	Unstressed
	Purity 98%			+/-	151.2720	µg/mL	Stressed
13	n-Hexane (C6)		2,503.2 µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot K24W001)		+/-	151.0320	µg/mL	Unstressed
	Purity 97%			+/-	151.3905	µg/mL	Stressed
14	1,1-Dichloroethane		2,502.0 µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 5379000)		+/-	150.9567	µg/mL	Unstressed
	Purity 99%			+/-	151.3151	µg/mL	Stressed
15	2,2-Dichloropropane		2,503.2 µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot I7E8E)		+/-	151.0320	µg/mL	Unstressed
	Purity 98%			+/-	151.3905	µg/mL	Stressed
16	trans-1,2-Dichloroethene		2,501.0 µg/mL	+/-	14.5409	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)		+/-	150.8954	µg/mL	Unstressed
	Purity 97%			+/-	151.2537	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,508.3 µg/mL	+/-	363.4098	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot PH2XK)		+/-	3,771.4029	µg/mL	Unstressed
	Purity 99%			+/-	3,780.3569	µg/mL	Stressed
18	Chloroform		2,500.5 µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 67-66-3.SEC	(Lot 1297547)		+/-	150.8662	µg/mL	Unstressed
	Purity 99%			+/-	151.2244	µg/mL	Stressed
19	Bromochloromethane		2,507.0 µg/mL	+/-	14.5759	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 5670200)		+/-	151.2584	µg/mL	Unstressed
	Purity 99%			+/-	151.6175	µg/mL	Stressed
20	Tetrahydrofuran		5,006.7 µg/mL	+/-	29.1092	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot 8DAOJ)		+/-	302.0744	µg/mL	Unstressed
	Purity 99%			+/-	302.7916	µg/mL	Stressed
21	1,1,1-Trichloroethane		2,507.7 µg/mL	+/-	14.5798	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot 7998000)		+/-	151.2986	µg/mL	Unstressed
	Purity 99%			+/-	151.6579	µg/mL	Stressed
22	Cyclohexane		2,508.0 µg/mL	+/-	14.5817	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)		+/-	151.3188	µg/mL	Unstressed
	Purity 99%			+/-	151.6780	µg/mL	Stressed
23	1,1-Dichloropropene		2,502.4 µg/mL	+/-	14.5492	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 5221100)		+/-	150.9809	µg/mL	Unstressed
	Purity 96%			+/-	151.3393	µg/mL	Stressed

24	Carbon tetrachloride		2,510.3	µg/mL	+/-	14.5953	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	151.4595	µg/mL	Unstressed
	Purity 99%				+/-	151.8191	µg/mL	Stressed
25	n-Heptane (C7)		2,511.8	µg/mL	+/-	14.6040	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)			+/-	151.5500	µg/mL	Unstressed
	Purity 99%				+/-	151.9098	µg/mL	Stressed
26	1,2-Dichloroethane		2,501.3	µg/mL	+/-	14.5430	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	150.9165	µg/mL	Unstressed
	Purity 99%				+/-	151.2748	µg/mL	Stressed
27	Benzene		2,504.8	µg/mL	+/-	14.5633	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	151.1277	µg/mL	Unstressed
	Purity 99%				+/-	151.4865	µg/mL	Stressed
28	Trichloroethene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
29	Methylcyclohexane		2,504.5	µg/mL	+/-	14.5614	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot Q02QG)			+/-	151.1076	µg/mL	Unstressed
	Purity 99%				+/-	151.4663	µg/mL	Stressed
30	1,2-Dichloropropane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	151.0774	µg/mL	Unstressed
	Purity 99%				+/-	151.4361	µg/mL	Stressed
31	1,4-Dioxane		50,008.0	µg/mL	+/-	290.7356	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot YVP2C)			+/-	3,017.2028	µg/mL	Unstressed
	Purity 99%				+/-	3,024.3661	µg/mL	Stressed
32	Dibromomethane		2,509.5	µg/mL	+/-	14.5904	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)			+/-	151.4093	µg/mL	Unstressed
	Purity 99%				+/-	151.7687	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
34	Toluene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
35	Ethyl methacrylate		2,508.8	µg/mL	+/-	14.5866	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	151.3690	µg/mL	Unstressed
	Purity 99%				+/-	151.7284	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,502.9	µg/mL	+/-	14.5520	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	151.0098	µg/mL	Unstressed
	Purity 96%				+/-	151.3684	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
38	1,3-Dichloropropane		2,502.7	µg/mL	+/-	14.5507	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	150.9970	µg/mL	Unstressed
	Purity 99%				+/-	151.3555	µg/mL	Stressed
39	Tetrachloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	151.1378	µg/mL	Unstressed
	Purity 99%				+/-	151.4966	µg/mL	Stressed

40	Dibromochloromethane		2,502.4 µg/mL	+/-	14.5494	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot 10206360)		+/-	150.9832	µg/mL	Unstressed
	Purity 97%			+/-	151.3417	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,503.3 µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)		+/-	151.0372	µg/mL	Unstressed
	Purity 99%			+/-	151.3958	µg/mL	Stressed
42	Chlorobenzene		2,504.8 µg/mL	+/-	14.5633	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)		+/-	151.1277	µg/mL	Unstressed
	Purity 99%			+/-	151.4865	µg/mL	Stressed
43	m-Xylene		1,251.7 µg/mL	+/-	7.2941	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)		+/-	75.5202	µg/mL	Unstressed
	Purity 99%			+/-	75.6995	µg/mL	Stressed
44	p-Xylene		1,253.7 µg/mL	+/-	7.3058	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)		+/-	75.6409	µg/mL	Unstressed
	Purity 99%			+/-	75.8205	µg/mL	Stressed
45	Ethylbenzene		2,503.5 µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)		+/-	151.0472	µg/mL	Unstressed
	Purity 99%			+/-	151.4059	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,506.7 µg/mL	+/-	14.5740	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)		+/-	151.2383	µg/mL	Unstressed
	Purity 99%			+/-	151.5974	µg/mL	Stressed
47	o-Xylene		2,504.2 µg/mL	+/-	14.5594	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01)		+/-	151.0875	µg/mL	Unstressed
	Purity 99%			+/-	151.4462	µg/mL	Stressed
48	Styrene		2,507.2 µg/mL	+/-	14.5769	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)		+/-	151.2685	µg/mL	Unstressed
	Purity 99%			+/-	151.6276	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,505.2 µg/mL	+/-	14.5653	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)		+/-	151.1478	µg/mL	Unstressed
	Purity 99%			+/-	151.5067	µg/mL	Stressed
50	Bromoform		2,500.5 µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5461400)		+/-	150.8661	µg/mL	Unstressed
	Purity 97%			+/-	151.2243	µg/mL	Stressed
51	Bromodichloromethane		2,501.3 µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)		+/-	150.9137	µg/mL	Unstressed
	Purity 98%			+/-	151.2720	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,502.0 µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)		+/-	150.9567	µg/mL	Unstressed
	Purity 99%			+/-	151.3151	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,505.7 µg/mL	+/-	14.5682	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot GUHZN)		+/-	151.1780	µg/mL	Unstressed
	Purity 99%			+/-	151.5369	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,514.2 µg/mL	+/-	14.6177	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-3)		+/-	151.6922	µg/mL	Unstressed
	Purity 98%			+/-	152.0524	µg/mL	Stressed
55	n-Propylbenzene		2,503.7 µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC)		+/-	151.0573	µg/mL	Unstressed
	Purity 99%			+/-	151.4159	µg/mL	Stressed

56	Bromobenzene		2,506.2	µg/mL	+/-	14.5711	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	151.2081	µg/mL	Unstressed
	Purity 99%				+/-	151.5671	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot FGH02-CMLN)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
58	2-Chlorotoluene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
59	4-Chlorotoluene		2,509.2	µg/mL	+/-	14.5885	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	151.3891	µg/mL	Unstressed
	Purity 99%				+/-	151.7486	µg/mL	Stressed
60	tert-Butylbenzene		2,505.8	µg/mL	+/-	14.5691	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot D6OHC)			+/-	151.1880	µg/mL	Unstressed
	Purity 99%				+/-	151.5470	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot JMIYD)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
62	sec-Butylbenzene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,500.3	µg/mL	+/-	14.5372	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 6628200)			+/-	150.8562	µg/mL	Unstressed
	Purity 99%				+/-	151.2143	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,506.3	µg/mL	+/-	14.5720	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	151.2182	µg/mL	Unstressed
	Purity 99%				+/-	151.5772	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,509.8	µg/mL	+/-	14.5924	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	151.4294	µg/mL	Unstressed
	Purity 99%				+/-	151.7889	µg/mL	Stressed
66	n-Butylbenzene		2,513.7	µg/mL	+/-	14.6147	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot MMPGA)			+/-	151.6607	µg/mL	Unstressed
	Purity 99%				+/-	152.0207	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.8	µg/mL	+/-	14.5459	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.9467	µg/mL	Unstressed
	Purity 99%				+/-	151.3051	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,508.5	µg/mL	+/-	14.5845	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	151.3473	µg/mL	Unstressed
	Purity 98%				+/-	151.7066	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed
70	Hexachlorobutadiene		2,504.4	µg/mL	+/-	14.5607	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	151.1002	µg/mL	Unstressed
	Purity 97%				+/-	151.4590	µg/mL	Stressed
71	Naphthalene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot 4KW3H-OO)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,512.2 µg/mL	+/-	14.6063	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	151.5740	µg/mL	Unstressed
	Purity 98%			+/-	151.9338	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

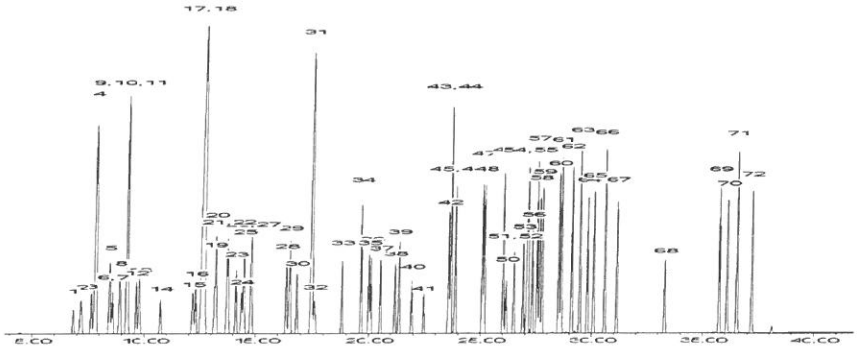
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 17-Dec-2018 **Balance:** 1127510105

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 21-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM571992S_00006

Rec: 9/9/19
VM571992S-00006

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.SEC **Lot No.:** A0144202

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,517.0 µg/mL	+/- 14.6339 µg/mL +/- 151.8598 µg/mL +/- 152.2203 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 µg/mL +/- 151.2383 µg/mL +/- 151.5974 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 7692300) **Purity** 99%	2,503.3 µg/mL	+/- 14.5546 µg/mL +/- 151.0372 µg/mL +/- 151.3958 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,000.8 µg/mL	+/- 145.3491 µg/mL +/- 1,508.4071 µg/mL +/- 1,511.9883 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot UCNEL) **Purity** 99%	5,002.3 µg/mL	+/- 29.0840 µg/mL +/- 301.8129 µg/mL +/- 302.5295 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,503.5 µg/mL	+/- 14.5556 µg/mL +/- 151.0472 µg/mL +/- 151.4059 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot H3HGC) **Purity** 99%	2,511.7 µg/mL	+/- 14.6030 µg/mL +/- 151.5400 µg/mL +/- 151.8998 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC (Lot FGM02) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 +/- 151.2383 +/- 151.5974	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0.SEC (Lot MKBL1376V) **Purity** 99%	2,500.7 µg/mL	+/- 14.5391 +/- 150.8763 +/- 151.2345	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1.SEC (Lot UERIL) **Purity** 99%	25,001.2 µg/mL	+/- 145.3513 +/- 1,508.4304 +/- 1,512.0117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4.SEC (Lot ZHKYA) **Purity** 99%	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2.SEC (Lot HGC01-BLKT) **Purity** 98%	2,501.3 µg/mL	+/- 14.5427 +/- 150.9137 +/- 151.2720	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3.SEC (Lot K24W001) **Purity** 97%	2,503.2 µg/mL	+/- 14.5541 +/- 151.0320 +/- 151.3905	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3.SEC (Lot 5379000) **Purity** 99%	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7.SEC (Lot I7E8E) **Purity** 98%	2,503.2 µg/mL	+/- 14.5541 +/- 151.0320 +/- 151.3905	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5.SEC (Lot TS5UB) **Purity** 97%	2,501.0 µg/mL	+/- 14.5409 +/- 150.8954 +/- 151.2537	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1.SEC (Lot PH2XK) **Purity** 99%	62,508.3 µg/mL	+/- 363.4098 +/- 3,771.4029 +/- 3,780.3569	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Chloroform **CAS #** 67-66-3.SEC (Lot 1297547) **Purity** 99%	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5.SEC (Lot 5670200) **Purity** 99%	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9.SEC (Lot 8DAOJ) **Purity** 99%	5,006.7 µg/mL	+/- 29.1092 +/- 302.0744 +/- 302.7916	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-Trichloroethane **CAS #** 71-55-6.SEC (Lot 7998000) **Purity** 99%	2,507.7 µg/mL	+/- 14.5798 +/- 151.2986 +/- 151.6579	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7.SEC (Lot YADRA) **Purity** 99%	2,508.0 µg/mL	+/- 14.5817 +/- 151.3188 +/- 151.6780	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6.SEC (Lot 5221100) **Purity** 96%	2,502.4 µg/mL	+/- 14.5492 +/- 150.9809 +/- 151.3393	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Carbon tetrachloride		2,510.3 µg/mL	+/- 14.5953	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)		+/- 151.4595	µg/mL	Unstressed
	Purity 99%			+/- 151.8191	µg/mL	Stressed
25	n-Heptane (C7)		2,511.8 µg/mL	+/- 14.6040	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)		+/- 151.5500	µg/mL	Unstressed
	Purity 99%			+/- 151.9098	µg/mL	Stressed
26	1,2-Dichloroethane		2,501.3 µg/mL	+/- 14.5430	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)		+/- 150.9165	µg/mL	Unstressed
	Purity 99%			+/- 151.2748	µg/mL	Stressed
27	Benzene		2,504.8 µg/mL	+/- 14.5633	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)		+/- 151.1277	µg/mL	Unstressed
	Purity 99%			+/- 151.4865	µg/mL	Stressed
28	Trichloroethene		2,508.7 µg/mL	+/- 14.5856	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)		+/- 151.3590	µg/mL	Unstressed
	Purity 99%			+/- 151.7183	µg/mL	Stressed
29	Methylcyclohexane		2,504.5 µg/mL	+/- 14.5614	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot Q02QG)		+/- 151.1076	µg/mL	Unstressed
	Purity 99%			+/- 151.4663	µg/mL	Stressed
30	1,2-Dichloropropane		2,504.0 µg/mL	+/- 14.5585	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)		+/- 151.0774	µg/mL	Unstressed
	Purity 99%			+/- 151.4361	µg/mL	Stressed
31	1,4-Dioxane		50,008.0 µg/mL	+/- 290.7356	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot YVP2C)		+/- 3,017.2028	µg/mL	Unstressed
	Purity 99%			+/- 3,024.3661	µg/mL	Stressed
32	Dibromomethane		2,509.5 µg/mL	+/- 14.5904	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)		+/- 151.4093	µg/mL	Unstressed
	Purity 99%			+/- 151.7687	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,502.0 µg/mL	+/- 14.5468	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)		+/- 150.9567	µg/mL	Unstressed
	Purity 99%			+/- 151.3151	µg/mL	Stressed
34	Toluene		2,501.5 µg/mL	+/- 14.5439	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)		+/- 150.9266	µg/mL	Unstressed
	Purity 99%			+/- 151.2849	µg/mL	Stressed
35	Ethyl methacrylate		2,508.8 µg/mL	+/- 14.5866	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)		+/- 151.3690	µg/mL	Unstressed
	Purity 99%			+/- 151.7284	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,502.9 µg/mL	+/- 14.5520	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)		+/- 151.0098	µg/mL	Unstressed
	Purity 96%			+/- 151.3684	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,502.5 µg/mL	+/- 14.5498	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)		+/- 150.9869	µg/mL	Unstressed
	Purity 99%			+/- 151.3454	µg/mL	Stressed
38	1,3-Dichloropropane		2,502.7 µg/mL	+/- 14.5507	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)		+/- 150.9970	µg/mL	Unstressed
	Purity 99%			+/- 151.3555	µg/mL	Stressed
39	Tetrachloroethene		2,505.0 µg/mL	+/- 14.5643	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)		+/- 151.1378	µg/mL	Unstressed
	Purity 99%			+/- 151.4966	µg/mL	Stressed

40	Dibromochloromethane		2,502.4 µg/mL	+/-	14.5494	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot 10206360)		+/-	150.9832	µg/mL	Unstressed
	Purity 97%			+/-	151.3417	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,503.3 µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)		+/-	151.0372	µg/mL	Unstressed
	Purity 99%			+/-	151.3958	µg/mL	Stressed
42	Chlorobenzene		2,504.8 µg/mL	+/-	14.5633	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)		+/-	151.1277	µg/mL	Unstressed
	Purity 99%			+/-	151.4865	µg/mL	Stressed
43	m-Xylene		1,251.7 µg/mL	+/-	7.2941	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)		+/-	75.5202	µg/mL	Unstressed
	Purity 99%			+/-	75.6995	µg/mL	Stressed
44	p-Xylene		1,253.7 µg/mL	+/-	7.3058	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)		+/-	75.6409	µg/mL	Unstressed
	Purity 99%			+/-	75.8205	µg/mL	Stressed
45	Ethylbenzene		2,503.5 µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)		+/-	151.0472	µg/mL	Unstressed
	Purity 99%			+/-	151.4059	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,506.7 µg/mL	+/-	14.5740	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)		+/-	151.2383	µg/mL	Unstressed
	Purity 99%			+/-	151.5974	µg/mL	Stressed
47	o-Xylene		2,504.2 µg/mL	+/-	14.5594	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01)		+/-	151.0875	µg/mL	Unstressed
	Purity 99%			+/-	151.4462	µg/mL	Stressed
48	Styrene		2,507.2 µg/mL	+/-	14.5769	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)		+/-	151.2685	µg/mL	Unstressed
	Purity 99%			+/-	151.6276	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,505.2 µg/mL	+/-	14.5653	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)		+/-	151.1478	µg/mL	Unstressed
	Purity 99%			+/-	151.5067	µg/mL	Stressed
50	Bromoform		2,500.5 µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5461400)		+/-	150.8661	µg/mL	Unstressed
	Purity 97%			+/-	151.2243	µg/mL	Stressed
51	Bromodichloromethane		2,501.3 µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)		+/-	150.9137	µg/mL	Unstressed
	Purity 98%			+/-	151.2720	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,502.0 µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)		+/-	150.9567	µg/mL	Unstressed
	Purity 99%			+/-	151.3151	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,505.7 µg/mL	+/-	14.5682	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot GUHZN)		+/-	151.1780	µg/mL	Unstressed
	Purity 99%			+/-	151.5369	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,514.2 µg/mL	+/-	14.6177	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-3)		+/-	151.6922	µg/mL	Unstressed
	Purity 98%			+/-	152.0524	µg/mL	Stressed
55	n-Propylbenzene		2,503.7 µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC)		+/-	151.0573	µg/mL	Unstressed
	Purity 99%			+/-	151.4159	µg/mL	Stressed

56	Bromobenzene		2,506.2	µg/mL	+/-	14.5711	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	151.2081	µg/mL	Unstressed
	Purity 99%				+/-	151.5671	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot FGH02-CMLN)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
58	2-Chlorotoluene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
59	4-Chlorotoluene		2,509.2	µg/mL	+/-	14.5885	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	151.3891	µg/mL	Unstressed
	Purity 99%				+/-	151.7486	µg/mL	Stressed
60	tert-Butylbenzene		2,505.8	µg/mL	+/-	14.5691	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot D6OHC)			+/-	151.1880	µg/mL	Unstressed
	Purity 99%				+/-	151.5470	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot JMIYD)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
62	sec-Butylbenzene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,500.3	µg/mL	+/-	14.5372	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 6628200)			+/-	150.8562	µg/mL	Unstressed
	Purity 99%				+/-	151.2143	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,506.3	µg/mL	+/-	14.5720	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	151.2182	µg/mL	Unstressed
	Purity 99%				+/-	151.5772	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,509.8	µg/mL	+/-	14.5924	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	151.4294	µg/mL	Unstressed
	Purity 99%				+/-	151.7889	µg/mL	Stressed
66	n-Butylbenzene		2,513.7	µg/mL	+/-	14.6147	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot MMPGA)			+/-	151.6607	µg/mL	Unstressed
	Purity 99%				+/-	152.0207	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.8	µg/mL	+/-	14.5459	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.9467	µg/mL	Unstressed
	Purity 99%				+/-	151.3051	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,508.5	µg/mL	+/-	14.5845	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	151.3473	µg/mL	Unstressed
	Purity 98%				+/-	151.7066	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed
70	Hexachlorobutadiene		2,504.4	µg/mL	+/-	14.5607	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	151.1002	µg/mL	Unstressed
	Purity 97%				+/-	151.4590	µg/mL	Stressed
71	Naphthalene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot 4KW3H-OO)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,512.2 µg/mL	+/-	14.6063	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	151.5740	µg/mL	Unstressed
	Purity 98%			+/-	151.9338	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

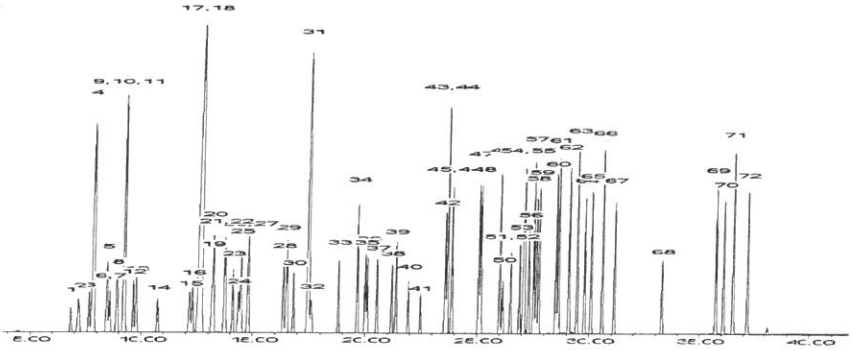
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 17-Dec-2018 **Balance:** 1127510105

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 21-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM571993_00003

VM571993-00003 Rec: 12/4/18

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571993 **Lot No.:** A0139911

Description : 8260 List 3/ Std#1 Polar Additions (2017)

8260 List 3/ Std#1 Polar Additions (2017) 2,500-25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetonitrile		25,212.5 µg/mL	+/- 147.6247	µg/mL	Gravimetric
	CAS # 75-05-8	(Lot SHBH6233)		+/- 1,247.3304	µg/mL	Unstressed
	Purity 99%			+/- 1,278.3404	µg/mL	Stressed
2	Diisopropyl ether (DIPE)		2,525.0 µg/mL	+/- 14.8181	µg/mL	Gravimetric
	CAS # 108-20-3	(Lot SHBC0391V)		+/- 124.9226	µg/mL	Unstressed
	Purity 99%			+/- 128.0281	µg/mL	Stressed
3	Ethyl-tert-butyl ether (ETBE)		2,518.5 µg/mL	+/- 14.7800	µg/mL	Gravimetric
	CAS # 637-92-3	(Lot MKCC2702)		+/- 124.6010	µg/mL	Unstressed
	Purity 99%			+/- 127.6985	µg/mL	Stressed
4	Propionitrile		25,227.5 µg/mL	+/- 147.7126	µg/mL	Gravimetric
	CAS # 107-12-0	(Lot BCBV8545)		+/- 1,248.0725	µg/mL	Unstressed
	Purity 99%			+/- 1,279.1009	µg/mL	Stressed
5	tert-Amyl alcohol		25,152.5 µg/mL	+/- 147.2734	µg/mL	Gravimetric
	CAS # 75-85-4	(Lot STBB1898V)		+/- 1,244.3621	µg/mL	Unstressed
	Purity 99%			+/- 1,275.2982	µg/mL	Stressed
6	tert-Amyl methyl ether (TAME)		2,525.0 µg/mL	+/- 14.8181	µg/mL	Gravimetric
	CAS # 994-05-8	(Lot HMBF8365V)		+/- 124.9226	µg/mL	Unstressed
	Purity 99%			+/- 128.0281	µg/mL	Stressed

Reagent

VM571993S_00005

VM571993S-00005 RCC: 12/4/18

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571993.SEC **Lot No.:** A0139245

Description : 8260 List 3/ Std#1 Polar Additions (2017)

8260 List 3/ Std#1 Polar Additions (2017) 2,500-25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetonitrile	25,059.0 µg/mL	+/- 146.7260	µg/mL	Gravimetric
	CAS # 75-05-8.SEC (Lot 7KGDA)		+/- 1,239.7364	µg/mL	Unstressed
	Purity 99%		+/- 1,270.5575	µg/mL	Stressed
2	Diisopropyl ether (DIPE)	2,518.6 µg/mL	+/- 14.7806	µg/mL	Gravimetric
	CAS # 108-20-3.SEC (Lot LL7TN-SH)		+/- 124.6059	µg/mL	Unstressed
	Purity 98%		+/- 127.7036	µg/mL	Stressed
3	Ethyl-tert-butyl ether (ETBE)	2,508.0 µg/mL	+/- 14.7183	µg/mL	Gravimetric
	CAS # 637-92-3.SEC (Lot MHBJG-QK)		+/- 124.0815	µg/mL	Unstressed
	Purity 99%		+/- 127.1661	µg/mL	Stressed
4	Propionitrile	25,069.0 µg/mL	+/- 146.7845	µg/mL	Gravimetric
	CAS # 107-12-0.SEC (Lot SASVN)		+/- 1,240.2311	µg/mL	Unstressed
	Purity 99%		+/- 1,271.0646	µg/mL	Stressed
5	tert-Amyl alcohol	25,008.0 µg/mL	+/- 146.4273	µg/mL	Gravimetric
	CAS # 75-85-4.SEC (Lot MMGO1)		+/- 1,237.2133	µg/mL	Unstressed
	Purity 99%		+/- 1,267.9717	µg/mL	Stressed
6	tert-Amyl methyl ether (TAME)	2,501.0 µg/mL	+/- 14.6770	µg/mL	Gravimetric
	CAS # 994-05-8.SEC (Lot 7375800)		+/- 123.7332	µg/mL	Unstressed
	Purity 98%		+/- 126.8091	µg/mL	Stressed

Reagent

VM571993S_00006

VM571993S-00006 Rec'd 4/9/19

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571993.SEC **Lot No.:** A0143318

Description : 8260 List 3/ Std#1 Polar Additions (2017)

8260 List 3/ Std#1 Polar Additions (2017) 2,500-25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetonitrile **CAS #** 75-05-8.SEC (Lot 7KGDA) **Purity** 99%	25,020.5 µg/mL	+/- 146.5005 µg/mL +/- 1,237.8317 µg/mL +/- 1,268.6055 µg/mL	Gravimetric Unstressed Stressed
2	Diisopropyl ether (DIPE) **CAS #** 108-20-3.SEC (Lot LL7TN-SH) **Purity** 98%	2,506.8 µg/mL	+/- 14.7115 µg/mL +/- 124.0241 µg/mL +/- 127.1073 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl-tert-butyl ether (ETBE) **CAS #** 637-92-3.SEC (Lot MHBJG-QK) **Purity** 99%	2,509.0 µg/mL	+/- 14.7242 µg/mL +/- 124.1310 µg/mL +/- 127.2168 µg/mL	Gravimetric Unstressed Stressed
4	Propionitrile **CAS #** 107-12-0.SEC (Lot PS48O) **Purity** 99%	25,017.5 µg/mL	+/- 146.4830 µg/mL +/- 1,237.6833 µg/mL +/- 1,268.4534 µg/mL	Gravimetric Unstressed Stressed
5	tert-Amyl alcohol **CAS #** 75-85-4.SEC (Lot ZL6RD) **Purity** 99%	25,019.0 µg/mL	+/- 146.4917 µg/mL +/- 1,237.7575 µg/mL +/- 1,268.5294 µg/mL	Gravimetric Unstressed Stressed
6	tert-Amyl methyl ether (TAME) **CAS #** 994-05-8.SEC (Lot 7375800) **Purity** 98%	2,510.3 µg/mL	+/- 14.7317 µg/mL +/- 124.1938 µg/mL +/- 127.2812 µg/mL	Gravimetric Unstressed Stressed

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW-164B-15-20	240-133597-2	77	75	87	95
	MB 240-443733/7	73	71	86	94
	LCS 240-443733/5	73	68	84	85
	LCS 240-443733/6	73	70	86	96
	240-133595-C-3-B MS	77	69	91	98
	240-133595-C-3-C MSD	75	67	89	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	56-122
DCA = 1,2-Dichloroethane-d4 (Surr)	59-120
TOL = Toluene-d8 (Surr)	64-124
BFB = 4-Bromofluorobenzene (Surr)	51-127

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-071620	240-133597-1	98	95	94	98
	MB 240-443947/7	99	93	97	94
	LCS 240-443947/4	102	97	92	97
	240-133570-E-1 MS	102	102	94	96
	240-133570-F-1 MSD	106	102	97	101

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	78-129
DCA = 1,2-Dichloroethane-d4 (Surr)	75-130
TOL = Toluene-d8 (Surr)	69-122
BFB = 4-Bromofluorobenzene (Surr)	47-134

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 1425534.D

Lab ID: LCS 240-443733/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	47.6	95	72-120	
1,1-Dichloropropene	50.0	47.2	94	69-120	
1,1-Dichloroethane	50.0	47.3	95	69-120	
1,2,3-Trichlorobenzene	50.0	41.8	84	55-124	
1,2,3-Trichloropropane	50.0	41.6	83	68-130	
1,2-Dichloroethane	50.0	43.7	87	66-120	
1,1-Dichloroethene	50.0	58.1	116	48-140	
1,2-Dichloropropane	50.0	45.6	91	77-120	
1,2,4-Trimethylbenzene	50.0	52.8	106	69-122	
2-Hexanone	100	98.7	99	54-135	
1,1,2,2-Tetrachloroethane	50.0	42.3	85	61-134	
Acetone	100	130	130	47-157	
Benzene	50.0	46.8	94	75-120	
Bromoform	50.0	40.4	81	44-131	
Bromomethane	20.0	26.1	131	10-158	
Carbon disulfide	50.0	57.9	116	33-144	E
Carbon tetrachloride	50.0	49.9	100	54-130	
1,1,1-Trichloroethane	50.0	47.8	96	60-126	
Chlorobenzene	50.0	47.5	95	79-120	
1,3-Dichloropropane	50.0	44.6	89	76-120	
Chloroethane	20.0	24.1	121	10-159	
1,2-Dibromo-3-Chloropropane	50.0	45.0	90	35-137	
Chloroform	50.0	46.7	93	74-120	
Chloromethane	20.0	20.1	101	40-127	
cis-1,2-Dichloroethene	50.0	48.3	97	76-120	
cis-1,3-Dichloropropene	50.0	46.5	93	62-124	
Bromodichloromethane	50.0	47.7	95	63-121	
1,1,2-Trichlorotrifluoroethane	50.0	46.5	93	58-144	
Dichlorodifluoromethane	20.0	16.5	83	18-137	
1,2,4-Trichlorobenzene	50.0	43.4	87	56-120	
Ethylbenzene	50.0	47.1	94	75-120	
1,2-Dibromoethane	50.0	45.2	90	73-126	
2,2-Dichloropropane	50.0	57.3	115	47-131	
1,2-Dichlorobenzene	50.0	44.7	89	74-120	
1,3-Dichlorobenzene	50.0	46.1	92	74-120	
1,4-Dichlorobenzene	50.0	45.8	92	74-120	
2-Chloroethyl vinyl ether	50.0	41.2 J	82	36-132	
Isopropylbenzene	50.0	50.3	101	74-120	
2-Chlorotoluene	50.0	48.2	96	72-121	
2-Butanone (MEK)	100	88.6	89	61-131	
4-Methyl-2-pentanone (MIBK)	100	102	102	56-124	
Bromobenzene	50.0	47.0	94	73-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 1425534.D

Lab ID: LCS 240-443733/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Methyl tert-butyl ether	50.0	49.5	99	66-120	
Bromochloromethane	50.0	44.5	89	74-120	
Methylene Chloride	50.0	51.5	103	48-142	
4-Chlorotoluene	50.0	48.5	97	72-124	
Styrene	50.0	52.0	104	70-120	
4-Isopropyltoluene	50.0	54.4	109	70-121	
m-Xylene & p-Xylene	50.0	47.9	96	76-120	
o-Xylene	50.0	49.9	100	76-120	
Tetrachloroethene	50.0	49.1	98	75-124	
Hexachlorobutadiene	50.0	48.9	98	63-130	
Toluene	50.0	50.5	101	76-120	
Dibromomethane	50.0	43.9	88	74-120	
trans-1,2-Dichloroethene	50.0	48.6	97	74-125	
Naphthalene	50.0	42.8	86	43-127	
trans-1,3-Dichloropropene	50.0	45.7	91	58-120	
n-Butylbenzene	50.0	55.4	111	64-123	
Trichloroethene	50.0	47.0	94	75-123	
N-Propylbenzene	50.0	53.1	106	70-122	
Trichlorofluoromethane	20.0	23.0	115	33-152	
sec-Butylbenzene	50.0	54.7	109	69-122	
Vinyl chloride	20.0	19.5	98	39-140	
tert-Butylbenzene	50.0	53.1	106	68-121	
Vinyl acetate	50.0	37.6	75	55-138	
Xylenes, Total	100	97.8	98	77-120	
tert-Butyl alcohol	500	389	78	40-138	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX8811.D

Lab ID: LCS 240-443947/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	11.2	112	77-120	
1,1-Dichloropropene	10.0	10.1	101	78-120	
1,1-Dichloroethane	10.0	10.0	100	74-126	
1,2,3-Trichlorobenzene	10.0	10.9	109	42-126	E
1,2,3-Trichloropropane	10.0	6.99	70	57-137	
1,2-Dichloroethane	10.0	10.3	103	66-129	
1,1-Dichloroethene	10.0	10.9	109	73-129	
1,2-Dichloropropane	10.0	9.51	95	79-127	
1,2,4-Trimethylbenzene	10.0	10.7	107	66-129	
2-Hexanone	20.0	15.8	79	43-142	
1,1,2,2-Tetrachloroethane	10.0	6.85	69	45-151	
Acetone	20.0	17.1	86	33-155	
Benzene	10.0	8.82	88	77-123	
Bromoform	10.0	9.40	94	47-133	
Bromomethane	10.0	9.24	92	48-144	
Carbon disulfide	10.0	9.32	93	67-127	
Carbon tetrachloride	10.0	15.2	152	61-142	*
1,1,1-Trichloroethane	10.0	14.3	143	65-141	*
Chlorobenzene	10.0	10.1	101	80-120	
1,3-Dichloropropane	10.0	8.27	83	74-122	
Chloroethane	10.0	10.7	107	41-147	
1,2-Dibromo-3-Chloropropane	10.0	6.37	64	34-136	
Chloroform	10.0	10.3	103	74-127	
Chloromethane	10.0	14.3	143	46-148	
cis-1,2-Dichloroethene	10.0	9.99	100	75-124	
cis-1,3-Dichloropropene	10.0	8.67	87	68-128	
Bromodichloromethane	10.0	10.1	101	73-122	
1,1,2-Trichlorotrifluoroethane	10.0	14.9	149	54-148	*
Dichlorodifluoromethane	10.0	13.1	131	35-137	
1,2,4-Trichlorobenzene	10.0	12.8	128	47-120	*
Ethylbenzene	10.0	9.77	98	80-120	
1,2-Dibromoethane	10.0	8.94	89	73-120	
2,2-Dichloropropane	10.0	12.2	122	67-137	
1,2-Dichlorobenzene	10.0	10.8	108	74-120	
1,3-Dichlorobenzene	10.0	10.4	104	74-120	
1,4-Dichlorobenzene	10.0	9.97	100	75-120	
2-Chloroethyl vinyl ether	10.0	7.34 J	73	29-146	
Isopropylbenzene	10.0	11.7	117	73-123	
2-Chlorotoluene	10.0	9.95	99	73-126	
2-Butanone (MEK)	20.0	17.6	88	41-151	
4-Methyl-2-pentanone (MIBK)	20.0	17.5	87	43-145	
Bromobenzene	10.0	9.87	99	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX8811.D

Lab ID: LCS 240-443947/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methyl tert-butyl ether	10.0	9.34	93	57-127	
Bromochloromethane	10.0	9.45	94	70-128	
Methylene Chloride	10.0	9.92	99	63-134	
4-Chlorotoluene	10.0	9.74	97	73-126	
Styrene	10.0	9.36	94	75-121	
4-Isopropyltoluene	10.0	13.6	136	66-127	*
m-Xylene & p-Xylene	10.0	10.0	100	79-121	
o-Xylene	10.0	10.4	104	75-123	
Tetrachloroethene	10.0	12.6	126	70-125	*
Hexachlorobutadiene	10.0	19.9	199	40-120	*
Toluene	10.0	9.13	91	79-122	
Dibromomethane	10.0	10.0	100	67-121	
trans-1,2-Dichloroethene	10.0	10.3	103	74-130	
Naphthalene	10.0	6.94	69	28-130	
trans-1,3-Dichloropropene	10.0	7.63	76	64-120	
n-Butylbenzene	10.0	13.7	137	54-129	*
Trichloroethene	10.0	10.6	106	71-121	
N-Propylbenzene	10.0	10.8	108	67-130	
Trichlorofluoromethane	10.0	15.4	154	52-148	*
sec-Butylbenzene	10.0	13.4	134	60-131	*
Vinyl chloride	10.0	11.5	115	61-134	
tert-Butylbenzene	10.0	12.4	124	63-126	
Vinyl acetate	10.0	10.4	104	44-160	
Xylenes, Total	20.0	20.4	102	78-122	
tert-Butyl alcohol	100	78.5	79	15-169	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 1425544.D

Lab ID: 240-133595-C-3-B MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acetone	135	29 U	183	135	18-167	
Carbon disulfide	67.7	2.1 J	78.0	112	10-134	E
Chlorobenzene	67.7	1.3 U	58.7	87	16-129	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX8816.D

Lab ID: 240-133570-E-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	10.0	0.41 U	10.3	103	71-121	
1,2-Dichloroethane	10.0	0.43 U	10.4	104	65-127	
1,1-Dichloroethene	10.0	0.46 U	11.1	111	64-132	
1,2-Dichloropropane	10.0	0.37 U	9.97	100	73-125	
2-Hexanone	20.0	2.1 U	16.6	83	44-142	
1,1,2,2-Tetrachloroethane	10.0	0.56 U	7.04	70	37-149	
Acetone	20.0	5.4 U	16.0	80	32-157	
Benzene	10.0	0.38 U	9.34	93	70-121	
Bromoform	10.0	0.76 U	9.30	93	41-128	
Bromomethane	10.0	0.42 U	9.83	98	41-136	
Carbon disulfide	10.0	0.28 U	9.74	97	54-131	
Carbon tetrachloride	10.0	0.26 U	15.7	157	53-142	F1
1,1,1-Trichloroethane	10.0	0.24 U	14.9	149	62-135	F1
Chlorobenzene	10.0	0.32 U	10.1	101	73-120	
Chloroethane	10.0	0.83 U	11.5	115	37-142	
Chloroform	10.0	0.40 U	10.7	107	66-126	
Chloromethane	10.0	0.64 U	15.3	153	33-146	F1
cis-1,2-Dichloroethene	10.0	0.38 U	9.88	99	68-121	
cis-1,3-Dichloropropene	10.0	0.61 U	8.49	85	56-121	
Bromodichloromethane	10.0	0.35 U	10.9	109	69-120	
1,2,4-Trichlorobenzene	10.0	0.81 U	13.5	135	37-120	F1
Ethylbenzene	10.0	0.39 U	10.7	107	66-122	
1,2-Dichlorobenzene	10.0	0.43 U	11.1	111	65-120	
1,3-Dichlorobenzene	10.0	0.40 U	10.8	108	64-120	
1,4-Dichlorobenzene	10.0	0.37 U	10.8	108	65-120	
2-Butanone (MEK)	20.0	2.4 U	17.6	88	40-147	
4-Methyl-2-pentanone (MIBK)	20.0	2.1 U	16.7	84	40-147	
Methylene Chloride	10.0	1.3 U	10.1	101	59-127	
Styrene	10.0	0.40 U	9.69	97	57-126	
m-Xylene & p-Xylene	10.0	0.40 U	10.8	108	65-123	
o-Xylene	10.0	0.43 U	10.7	107	63-124	
Tetrachloroethene	10.0	0.33 U	13.3	133	52-129	F1
Toluene	10.0	0.35 U	9.47	95	68-124	
trans-1,2-Dichloroethene	10.0	0.43 U	10.3	103	69-126	
Trichloroethene	10.0	0.36 U	10.3	103	56-124	
Vinyl chloride	10.0	0.50 U	13.5	135	49-136	
Xylenes, Total	20.0	0.42 U	21.5	108	64-124	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 1425545.D

Lab ID: 240-133595-C-3-C MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acetone	142	186	131	2	40	18-167	
Carbon disulfide	70.8	77.5	106	1	40	10-134	E
Chlorobenzene	70.8	63.7	90	8	40	16-129	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX8817.D

Lab ID: 240-133570-F-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	10.0	10.1	101	2	35	71-121	
1,2-Dichloroethane	10.0	10.5	105	1	35	65-127	
1,1-Dichloroethene	10.0	11.4	114	2	35	64-132	
1,2-Dichloropropane	10.0	10.2	102	3	35	73-125	
2-Hexanone	20.0	16.4	82	1	35	44-142	
1,1,2,2-Tetrachloroethane	10.0	7.11	71	1	35	37-149	
Acetone	20.0	16.4	82	2	35	32-157	
Benzene	10.0	9.15	91	2	35	70-121	
Bromoform	10.0	9.08	91	2	35	41-128	
Bromomethane	10.0	9.96	100	1	35	41-136	
Carbon disulfide	10.0	9.75	98	0	35	54-131	
Carbon tetrachloride	10.0	14.6	146	7	35	53-142	F1
1,1,1-Trichloroethane	10.0	14.1	141	5	35	62-135	F1
Chlorobenzene	10.0	10.6	106	4	35	73-120	
Chloroethane	10.0	11.0	110	4	35	37-142	
Chloroform	10.0	10.6	106	1	35	66-126	
Chloromethane	10.0	16.1	161	5	35	33-146	F1
cis-1,2-Dichloroethene	10.0	9.84	98	0	35	68-121	
cis-1,3-Dichloropropene	10.0	8.96	90	5	35	56-121	
Bromodichloromethane	10.0	10.2	102	7	35	69-120	
1,2,4-Trichlorobenzene	10.0	13.8	138	2	25	37-120	F1
Ethylbenzene	10.0	10.8	108	1	35	66-122	
1,2-Dichlorobenzene	10.0	10.9	109	2	35	65-120	
1,3-Dichlorobenzene	10.0	10.9	109	1	35	64-120	
1,4-Dichlorobenzene	10.0	10.5	105	3	35	65-120	
2-Butanone (MEK)	20.0	15.5	78	13	35	40-147	
4-Methyl-2-pentanone (MIBK)	20.0	17.3	86	3	35	40-147	
Methylene Chloride	10.0	10.2	102	1	32	59-127	
Styrene	10.0	9.60	96	1	35	57-126	
m-Xylene & p-Xylene	10.0	10.6	106	2	35	65-123	
o-Xylene	10.0	11.0	110	2	35	63-124	
Tetrachloroethene	10.0	13.7	137	2	35	52-129	F1
Toluene	10.0	9.88	99	4	35	68-124	
trans-1,2-Dichloroethene	10.0	10.9	109	5	35	69-126	
Trichloroethene	10.0	10.8	108	5	35	56-124	
Vinyl chloride	10.0	13.6	136	1	35	49-136	
Xylenes, Total	20.0	21.6	108	0	35	64-124	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: 1425536.D Lab Sample ID: MB 240-443733/7

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 07/22/2020 14:32

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-443733/5	1425534.D	07/22/2020 13:48
	LCS 240-443733/6	1425535.D	07/22/2020 14:10
	240-133595-C-3-B MS	1425544.D	07/22/2020 17:30
	240-133595-C-3-C MSD	1425545.D	07/22/2020 17:52
MRC-MW-164B-15-20	240-133597-2	1425562.D	07/23/2020 00:10

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: UXX8814.D Lab Sample ID: MB 240-443947/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 07/23/2020 15:04

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-443947/4	UXX8811.D	07/23/2020 13:48
	240-133570-E-1 MS	UXX8816.D	07/23/2020 16:03
	240-133570-F-1 MSD	UXX8817.D	07/23/2020 16:28
TB-071620	240-133597-1	UXX8834.D	07/23/2020 23:33

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB1718.D BFB Injection Date: 01/15/2020

Instrument ID: A3UX10 BFB Injection Time: 14:40

Analysis Batch No.: 419116

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.2	
75	30.0 - 60.0 % of mass 95	43.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.1	(0.2) 1
174	50.0 - 120.00 % of mass 95	57.3	
175	5.0 - 9.0 % of mass 174	3.9	(6.7) 1
176	95.0 - 101.0 % of mass 174	55.8	(97.3) 1
177	5.0 - 9.0 % of mass 176	3.8	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-419116/2	UXX5174.D	01/15/2020	15:09
	STD8260 240-419116/3	UXX5175.D	01/15/2020	15:34
	STD8260 240-419116/4	UXX5176.D	01/15/2020	16:00
	STD8260 240-419116/5	UXX5177.D	01/15/2020	16:25
	STD8260 240-419116/6	UXX5178.D	01/15/2020	16:50
	STD8260 240-419116/7	UXX5179.D	01/15/2020	17:15
	STD8260 240-419116/8	UXX5180.D	01/15/2020	17:40
	ICV 240-419116/9	UXX5181.D	01/15/2020	18:04
	STDA9 240-419116/10	UXX5182.D	01/15/2020	18:29
	STDA9 240-419116/11	UXX5183.D	01/15/2020	18:54
	STDA9 240-419116/12	UXX5184.D	01/15/2020	19:19
	STDA9 240-419116/13	UXX5185.D	01/15/2020	19:44
	STDA9 240-419116/14	UXX5186.D	01/15/2020	20:09
	STDA9 240-419116/15	UXX5187.D	01/15/2020	20:34
	STDA9 240-419116/16	UXX5188.D	01/15/2020	20:59
	ICV 240-419116/17	UXX5189.D	01/15/2020	21:24

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB1897.D BFB Injection Date: 07/23/2020

Instrument ID: A3UX10 BFB Injection Time: 12:33

Analysis Batch No.: 443947

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	29.0	
75	30.0 - 60.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.4	(0.6) 1
174	50.0 - 120.00 % of mass 95	62.7	
175	5.0 - 9.0 % of mass 174	4.1	(6.6) 1
176	95.0 - 101.0 % of mass 174	62.3	(99.3) 1
177	5.0 - 9.0 % of mass 176	3.8	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-443947/2	UXX8809.D	07/23/2020	12:58
	CCV 240-443947/3	UXX8810.D	07/23/2020	13:23
	LCS 240-443947/4	UXX8811.D	07/23/2020	13:48
	MB 240-443947/7	UXX8814.D	07/23/2020	15:04
	240-133570-E-1 MS	UXX8816.D	07/23/2020	16:03
	240-133570-F-1 MSD	UXX8817.D	07/23/2020	16:28
TB-071620	240-133597-1	UXX8834.D	07/23/2020	23:33

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14138.D BFB Injection Date: 03/19/2020

Instrument ID: A3UX14 BFB Injection Time: 14:52

Analysis Batch No.: 427472

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.5	
75	30.0 - 60.0 % of mass 95	55.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	67.0	
175	5.0 - 9.0 % of mass 174	5.2	(7.8) 1
176	95.0 - 101.0 % of mass 174	65.0	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-427472/3	1424107.D	03/19/2020	15:34
	IC 240-427472/4	1424108.D	03/19/2020	15:57
	IC 240-427472/5	1424109.D	03/19/2020	16:19
	ICIS 240-427472/6	1424110.D	03/19/2020	16:41
	IC 240-427472/7	1424111.D	03/19/2020	17:03
	IC 240-427472/8	1424112.D	03/19/2020	17:25
	IC 240-427472/9	1424113.D	03/19/2020	17:47
	IC 240-427472/10	1424114.D	03/19/2020	18:10
	IC 240-427472/11	1424115.D	03/19/2020	18:32

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14139.D BFB Injection Date: 03/20/2020

Instrument ID: A3UX14 BFB Injection Time: 10:36

Analysis Batch No.: 427647

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.6	
75	30.0 - 60.0 % of mass 95	56.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	66.6	
175	5.0 - 9.0 % of mass 174	5.0	(7.5) 1
176	95.0 - 101.0 % of mass 174	64.6	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-427647/4	1424122.D	03/20/2020	11:42
	IC 240-427647/5	1424123.D	03/20/2020	12:04
	IC 240-427647/6	1424124.D	03/20/2020	12:26
	IC 240-427647/7	1424125.D	03/20/2020	12:48
	IC 240-427647/8	1424126.D	03/20/2020	13:11
	IC 240-427647/9	1424127.D	03/20/2020	13:33
	IC 240-427647/10	1424128.D	03/20/2020	13:55
	IC 240-427647/11	1424129.D	03/20/2020	14:17
	IC 240-427647/12	1424130.D	03/20/2020	14:39
	ICV 240-427647/13	1424131.D	03/20/2020	15:02

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14153.D BFB Injection Date: 04/20/2020

Instrument ID: A3UX14 BFB Injection Time: 13:56

Analysis Batch No.: 431364

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.9	
75	30.0 - 60.0 % of mass 95	57.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.1	(0.1) 1
174	50.0 - 120.00 % of mass 95	77.6	
175	5.0 - 9.0 % of mass 174	5.4	(7.0) 1
176	95.0 - 101.0 % of mass 174	76.8	(99.0) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-431364/3	1424358.D	04/20/2020	14:38
	IC 240-431364/4	1424359.D	04/20/2020	15:00
	IC 240-431364/5	1424360.D	04/20/2020	15:22
	ICIS 240-431364/6	1424361.D	04/20/2020	15:45
	IC 240-431364/7	1424362.D	04/20/2020	16:07
	IC 240-431364/8	1424363.D	04/20/2020	16:29
	IC 240-431364/9	1424364.D	04/20/2020	16:51
	IC 240-431364/10	1424365.D	04/20/2020	17:13
	IC 240-431364/11	1424366.D	04/20/2020	17:35
	ICV 240-431364/13	1424368.D	04/20/2020	18:20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab File ID: BFB14195.D BFB Injection Date: 07/22/2020

Instrument ID: A3UX14 BFB Injection Time: 12:18

Analysis Batch No.: 443733

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.0	
75	30.0 - 60.0 % of mass 95	58.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	81.0	
175	5.0 - 9.0 % of mass 174	5.8	(7.2) 1
176	95.0 - 101.0 % of mass 174	77.4	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-443733/3	1425532.D	07/22/2020	13:03
	CCV 240-443733/4	1425533.D	07/22/2020	13:25
	LCS 240-443733/5	1425534.D	07/22/2020	13:48
	LCS 240-443733/6	1425535.D	07/22/2020	14:10
	MB 240-443733/7	1425536.D	07/22/2020	14:32
	240-133595-C-3-B MS	1425544.D	07/22/2020	17:30
	240-133595-C-3-C MSD	1425545.D	07/22/2020	17:52
MRC-MW-164B-15-20	240-133597-2	1425562.D	07/23/2020	0:10

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: STD8260 240-419116/4 Date Analyzed: 01/15/2020 16:00

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX5176.D Heated Purge: (Y/N) N

Calibration ID: 54865

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		402471	4.97	261526	7.65	107871	9.87
UPPER LIMIT		804942	5.47	523052	8.15	215742	10.37
LOWER LIMIT		201236	4.47	130763	7.15	53936	9.37
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-419116/9		391338	4.97	251783	7.65	102138	9.87
ICV 240-419116/17		377866	4.98	240230	7.64	96745	9.86
CCVIS 240-443947/2		339527	4.97	221162	7.65	100871	9.87

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: CCVIS 240-443947/2 Date Analyzed: 07/23/2020 12:58

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX8809.D Heated Purge: (Y/N) N

Calibration ID: 54867

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		339527	4.97	221162	7.65	100871	9.87
UPPER LIMIT		679054	5.47	442324	8.15	201742	10.37
LOWER LIMIT		169764	4.47	110581	7.15	50436	9.37
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-443947/3		330147	4.96	206470	7.64	88928	9.86
LCS 240-443947/4		319478	4.97	213960	7.65	97980	9.87
MB 240-443947/7		324658	4.96	201003	7.64	83933	9.86
240-133570-E-1 MS		319992	4.96	207393	7.64	92163	9.86
240-133570-F-1 MSD		322993	4.97	204004	7.64	90995	9.87
240-133597-1	TB-071620	274816	4.97	176932	7.65	81915	9.87

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: ICIS 240-431364/6 Date Analyzed: 04/20/2020 15:45

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 1424361.D Heated Purge: (Y/N) Y

Calibration ID: 56769

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1392237	6.23	1137744	9.21	552205	11.21
UPPER LIMIT		2784474	6.73	2275488	9.71	1104410	11.71
LOWER LIMIT		696119	5.73	568872	8.71	276103	10.71
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-431364/13		1210983	6.23	1053695	9.21	538773	11.21
CCVIS 240-443733/3		1466192	6.23	1129115	9.22	557646	11.22

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Sample No.: CCVIS 240-443733/3 Date Analyzed: 07/22/2020 13:03

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 1425532.D Heated Purge: (Y/N) Y

Calibration ID: 56769

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1466192	6.23	1129115	9.22	557646	11.22
UPPER LIMIT		2932384	6.73	2258230	9.72	1115292	11.72
LOWER LIMIT		733096	5.73	564558	8.72	278823	10.72
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-443733/4		1318412	6.23	1042717	9.22	484343	11.22
LCS 240-443733/5		1382583	6.23	1064700	9.22	545673	11.22
LCS 240-443733/6		1367380	6.23	1034906	9.22	488790	11.22
MB 240-443733/7		1263405	6.23	979016	9.22	460885	11.22
240-133595-C-3-B MS		1150289	6.23	874976	9.22	389049	11.22
240-133595-C-3-C MSD		1118817	6.23	862754	9.22	400036	11.22
240-133597-2	MRC-MW-164B-15-20	889511	6.23	728276	9.22	340351	11.22

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: TB-071620 Lab Sample ID: 240-133597-1

Matrix: Water Lab File ID: UXX8834.D

Analysis Method: 8260B Date Collected: 07/16/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 23:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	5.4	U	10	5.4
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
71-43-2	Benzene	0.38	U	1.0	0.38
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U *	1.0	0.26
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.40	U	1.0	0.40
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
74-87-3	Chloromethane	0.64	U	1.0	0.64
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
591-78-6	2-Hexanone	2.1	U	10	2.1
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
100-42-5	Styrene	0.40	U	1.0	0.40
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
127-18-4	Tetrachloroethene	0.33	U *	1.0	0.33
108-88-3	Toluene	0.35	U	1.0	0.35
79-01-6	Trichloroethene	0.36	U	1.0	0.36
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	0.24	U *	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: TB-071620 Lab Sample ID: 240-133597-1

Matrix: Water Lab File ID: UXX8834.D

Analysis Method: 8260B Date Collected: 07/16/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 23:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
156-59-2	cis-1,2-Dichloroethene	0.38	U	1.0	0.38
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
98-82-8	Isopropylbenzene	0.45	U	1.0	0.45
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
120-82-1	1,2,4-Trichlorobenzene	0.81	U *	1.0	0.81
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
110-75-8	2-Chloroethyl vinyl ether	1.1	U	10	1.1
75-69-4	Trichlorofluoromethane	0.45	U *	1.0	0.45
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
108-86-1	Bromobenzene	0.38	U	1.0	0.38
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
99-87-6	4-Isopropyltoluene	0.49	U *	1.0	0.49
87-68-3	Hexachlorobutadiene	0.83	U *	1.0	0.83
74-95-3	Dibromomethane	0.33	U	1.0	0.33
108-20-3	Diisopropyl ether	0.36	U	10	0.36
91-20-3	Naphthalene	0.82	U	1.0	0.82
104-51-8	n-Butylbenzene	0.59	U *	1.0	0.59
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
135-98-8	sec-Butylbenzene	0.63	U *	1.0	0.63
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: TB-071620 Lab Sample ID: 240-133597-1

Matrix: Water Lab File ID: UXX8834.D

Analysis Method: 8260B Date Collected: 07/16/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 23:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		75-130
460-00-4	4-Bromofluorobenzene (Surr)	98		47-134
2037-26-5	Toluene-d8 (Surr)	94		69-122
1868-53-7	Dibromofluoromethane (Surr)	98		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8834.D
Lims ID: 240-133597-B-1
Client ID: TB-071620
Sample Type: Client
Inject. Date: 23-Jul-2020 23:33:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-027
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.974	4.964	0.010	97	274816	10.0	
* 2 Chlorobenzene-d5	117	7.647	7.637	0.010	90	176932	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.871	9.861	0.010	96	81915	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.406	4.405	0.001	91	62760	9.77	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.690	4.689	0.001	91	89282	9.47	
$ 6 Toluene-d8 (Surr)	98	6.334	6.333	0.001	95	256718	9.44	
$ 7 4-Bromofluorobenzene (Surr)	95	8.747	8.746	0.001	80	83827	9.79	
9 Dichlorodifluoromethane	85		1.247				ND	
10 Chloromethane	50		1.401				ND	
11 Vinyl chloride	62		1.483				ND	
13 Bromomethane	94		1.744				ND	
14 Chloroethane	64		1.827				ND	
16 Trichlorofluoromethane	101		2.051				ND	
19 1,1-Dichloroethene	96		2.489				ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.513				ND	
21 Acetone	43		2.536				ND	
24 Carbon disulfide	76		2.666				ND	
28 Methylene Chloride	84		2.903				ND	
29 2-Methyl-2-propanol	59		3.021				ND	
30 trans-1,2-Dichloroethene	96		3.139				ND	
32 Methyl tert-butyl ether	73		3.151				ND	
34 1,1-Dichloroethane	63		3.506				ND	
35 Vinyl acetate	43		3.553				ND	
36 Isopropyl ether	87		3.568				ND	
38 Tert-butyl ethyl ether	59		3.876				ND	
39 2,2-Dichloropropane	97		3.991				ND	
40 cis-1,2-Dichloroethene	96		3.991				ND	
41 2-Butanone (MEK)	43		4.015				ND	
45 Chlorobromomethane	128		4.204				ND	
47 Chloroform	83		4.263				ND	
48 1,1,1-Trichloroethane	97		4.417				ND	
50 1,1-Dichloropropene	75		4.559				ND	
51 Carbon tetrachloride	117		4.559				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
53 Benzene	78		4.736				ND	
54 1,2-Dichloroethane	62		4.748				ND	
55 Tert-amyl methyl ether	73		4.834				ND	
58 Trichloroethene	130		5.280				ND	
61 1,2-Dichloropropane	63		5.470				ND	
63 Dibromomethane	93		5.576				ND	
65 Dichlorobromomethane	83		5.706				ND	
67 2-Chloroethyl vinyl ether	63		5.966				ND	
68 cis-1,3-Dichloropropene	75		6.097				ND	
69 4-Methyl-2-pentanone (MIBK)	43		6.239				ND	
70 Toluene	91		6.392				ND	
71 trans-1,3-Dichloropropene	75		6.593				ND	
74 Tetrachloroethene	164		6.889				ND	
75 1,3-Dichloropropane	76		6.913				ND	
76 2-Hexanone	43		6.984				ND	
78 Chlorodibromomethane	129		7.114				ND	
80 Ethylene Dibromide	107		7.220				ND	
82 Chlorobenzene	112		7.670				ND	
83 1,1,1,2-Tetrachloroethane	131		7.741				ND	
84 Ethylbenzene	106		7.764				ND	
85 m-Xylene & p-Xylene	106		7.883				ND	
86 o-Xylene	106		8.249				ND	
87 Styrene	104		8.261				ND	
88 Bromoform	173		8.439				ND	
89 Isopropylbenzene	105		8.604				ND	
93 Bromobenzene	156		8.888				ND	
92 1,1,2,2-Tetrachloroethane	83		8.888				ND	
94 1,2,3-Trichloropropane	110		8.935				ND	
96 N-Propylbenzene	120		8.995				ND	
97 2-Chlorotoluene	126		9.077				ND	
99 4-Chlorotoluene	126		9.184				ND	
100 tert-Butylbenzene	119		9.480				ND	
102 1,2,4-Trimethylbenzene	105		9.527				ND	
103 sec-Butylbenzene	105		9.692				ND	
104 1,3-Dichlorobenzene	146		9.799				ND	
105 4-Isopropyltoluene	119		9.846				ND	
106 1,4-Dichlorobenzene	146		9.894				ND	
107 1,2,3-Trimethylbenzene	105		9.944				ND	
109 n-Butylbenzene	91		10.237				ND	
110 1,2-Dichlorobenzene	146		10.248				ND	
111 1,2-Dibromo-3-Chloropropane	157		11.017				ND	
113 1,2,4-Trichlorobenzene	180		11.845				ND	
114 Hexachlorobutadiene	225		12.011				ND	
115 Naphthalene	128		12.082				ND	
116 1,2,3-Trichlorobenzene	180		12.330				ND	
S 130 Xylenes, Total	106		16.530				ND	

Reagents:

VM50IS_00084	Amount Added:	1.00	Units: uL	Run Reagent
vm50ss_stk_00085	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00176	Amount Added:	0.00	Units:	Run Reagent

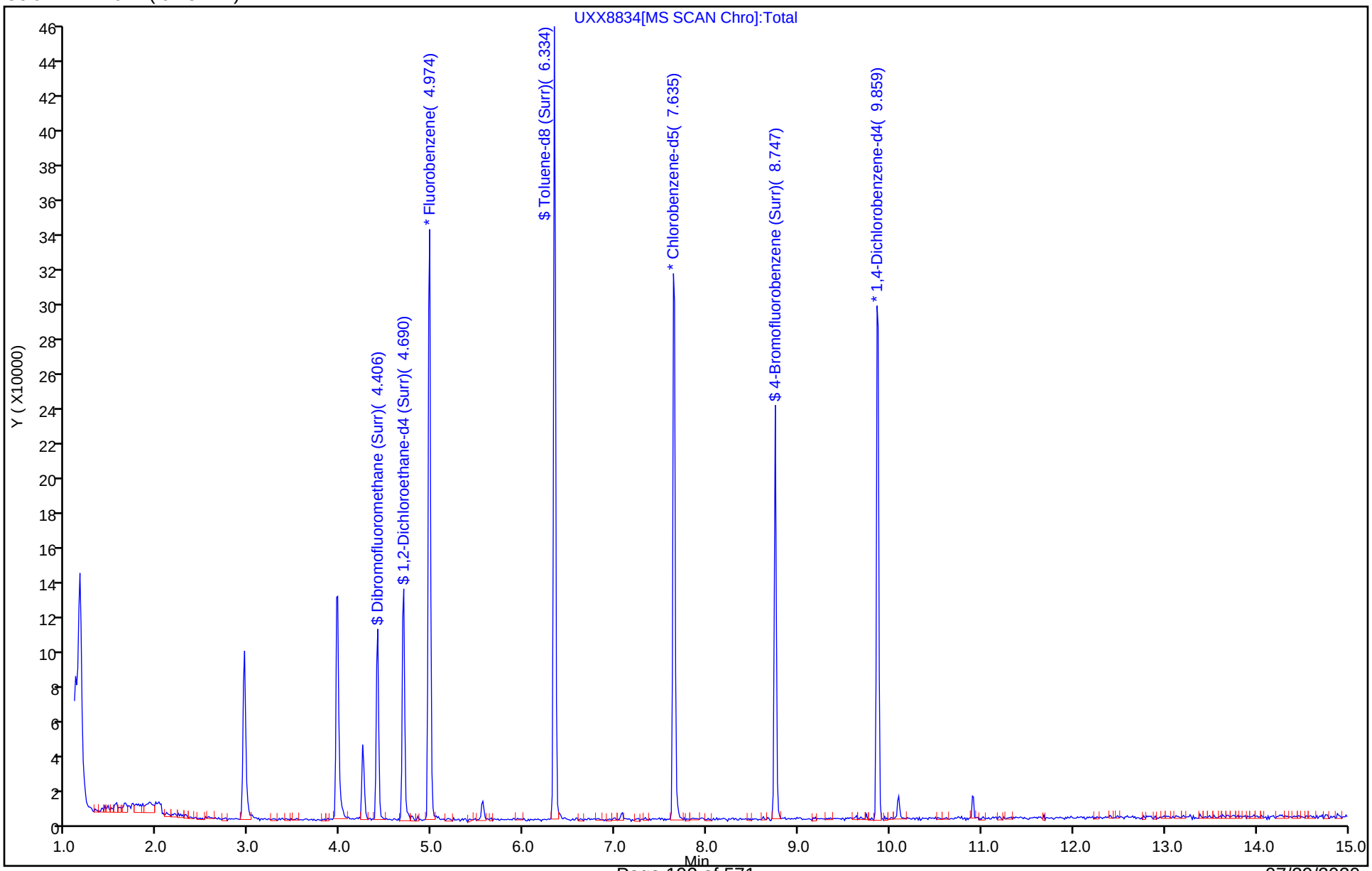
Report Date: 24-Jul-2020 11:32:31 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8834.D

Injection Date:	23-Jul-2020 23:33:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	240-133597-B-1	Lab Sample ID:	240-133597-1	Worklist Smp#:	27
Client ID:	TB-071620				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8834.D
Lims ID: 240-133597-B-1
Client ID: TB-071620
Sample Type: Client
Inject. Date: 23-Jul-2020 23:33:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-027
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.77	97.70
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	9.47	94.66
$ 6 Toluene-d8 (Surr)	10.0	9.44	94.36
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.79	97.88

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.4	U	5.7	3.4
71-55-6	1,1,1-Trichloroethane	0.93	U	5.7	0.93
79-34-5	1,1,2,2-Tetrachloroethane	1.6	U	5.7	1.6
76-13-1	1,1,2-Trichlorotrifluoroethane	1.4	U	5.7	1.4
75-34-3	1,1-Dichloroethane	0.78	U	5.7	0.78
75-35-4	1,1-Dichloroethene	1.0	U	5.7	1.0
563-58-6	1,1-Dichloropropene	1.1	U	5.7	1.1
87-61-6	1,2,3-Trichlorobenzene	0.65	U	5.7	0.65
96-18-4	1,2,3-Trichloropropane	1.8	U	5.7	1.8
526-73-8	1,2,3-Trimethylbenzene	2.1	U	5.7	2.1
120-82-1	1,2,4-Trichlorobenzene	0.65	U	5.7	0.65
95-63-6	1,2,4-Trimethylbenzene	1.1	U	5.7	1.1
96-12-8	1,2-Dibromo-3-Chloropropane	4.1	U	11	4.1
95-50-1	1,2-Dichlorobenzene	1.3	U	5.7	1.3
107-06-2	1,2-Dichloroethane	0.87	U	5.7	0.87
78-87-5	1,2-Dichloropropane	0.96	U	5.7	0.96
541-73-1	1,3-Dichlorobenzene	0.92	U	5.7	0.92
142-28-9	1,3-Dichloropropane	1.1	U	5.7	1.1
106-46-7	1,4-Dichlorobenzene	1.0	U	5.7	1.0
594-20-7	2,2-Dichloropropane	1.3	U	5.7	1.3
110-75-8	2-Chloroethyl vinyl ether	10	U	57	10
95-49-8	2-Chlorotoluene	1.1	U	5.7	1.1
591-78-6	2-Hexanone	4.6	U	23	4.6
108-86-1	Bromobenzene	1.3	U	5.7	1.3
74-97-5	Bromochloromethane	0.67	U	5.7	0.67
106-43-4	4-Chlorotoluene	0.97	U	5.7	0.97
99-87-6	4-Isopropyltoluene	3.3	U	5.7	3.3
67-64-1	Acetone	24	U	28	24
71-43-2	Benzene	0.79	U	5.7	0.79
75-25-2	Bromoform	2.7	U	5.7	2.7
74-83-9	Bromomethane	1.1	U	5.7	1.1
75-15-0	Carbon disulfide	1.5	J B	5.7	1.3
56-23-5	Carbon tetrachloride	3.7	U	5.7	3.7
108-90-7	Chlorobenzene	1.0	U	5.7	1.0
75-00-3	Chloroethane	1.4	U	5.7	1.4
67-66-3	Chloroform	0.89	U	5.7	0.89

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.2	U	5.7	1.2
156-59-2	cis-1,2-Dichloroethene	0.74	U	5.7	0.74
10061-01-5	cis-1,3-Dichloropropene	1.6	U	5.7	1.6
87-68-3	Hexachlorobutadiene	4.2	U	5.7	4.2
74-95-3	Dibromomethane	0.76	U	5.7	0.76
75-27-4	Bromodichloromethane	0.77	U	5.7	0.77
75-71-8	Dichlorodifluoromethane	1.1	U	5.7	1.1
100-41-4	Ethylbenzene	1.2	U	5.7	1.2
106-93-4	1,2-Dibromoethane	0.87	U	5.7	0.87
108-20-3	Diisopropyl ether	0.86	U	11	0.86
91-20-3	Naphthalene	3.1	U	5.7	3.1
104-51-8	n-Butylbenzene	3.9	U	5.7	3.9
98-82-8	Isopropylbenzene	0.94	U	5.7	0.94
103-65-1	N-Propylbenzene	0.83	U	5.7	0.83
78-93-3	2-Butanone (MEK)	4.0	U	23	4.0
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2	U	23	4.2
135-98-8	sec-Butylbenzene	0.98	U	5.7	0.98
1634-04-4	Methyl tert-butyl ether	0.93	U	5.7	0.93
994-05-8	Tert-amyl methyl ether	2.5	U *	5.7	2.5
75-09-2	Methylene Chloride	14	U	28	14
100-42-5	Styrene	1.3	U	5.7	1.3
637-92-3	Ethyl tert-butyl ether	2.5	U	5.7	2.5
98-06-6	tert-Butylbenzene	1.0	U	5.7	1.0
127-18-4	Tetrachloroethene	0.83	U	5.7	0.83
108-88-3	Toluene	0.87	U	5.7	0.87
156-60-5	trans-1,2-Dichloroethene	0.53	U	5.7	0.53
10061-02-6	trans-1,3-Dichloropropene	1.2	U	5.7	1.2
79-01-6	Trichloroethene	50		5.7	0.72
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	2.4	U	11	2.4
75-01-4	Vinyl chloride	0.95	U	5.7	0.95
75-65-0	tert-Butyl alcohol	19	U	230	19
1330-20-7	Xylenes, Total	1.8	U	11	1.8
124-48-1	Chlorodibromomethane	3.1	U	5.7	3.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: MRC-MW-164B-15-20 Lab Sample ID: 240-133597-2

Matrix: Solid Lab File ID: 1425562.D

Analysis Method: 8260B Date Collected: 07/16/2020 13:00

Sample wt/vol: 5.23(g) Date Analyzed: 07/23/2020 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		59-120
460-00-4	4-Bromofluorobenzene (Surr)	95		51-127
2037-26-5	Toluene-d8 (Surr)	87		64-124
1868-53-7	Dibromofluoromethane (Surr)	77		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D
Lims ID: 240-133597-B-2-A
Client ID: MRC-MW-164B-15-20
Sample Type: Client
Inject. Date: 23-Jul-2020 00:10:30 ALS Bottle#: 32 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-133597-b-2-a
Misc. Info.: 240-0100262-033
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 23-Jul-2020 11:48:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	889511	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	728276	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	98	340351	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	91	220636	38.7	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	96	269255	37.4	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	893013	43.6	
$ 7 4-Bromofluorobenzene (Surr)	95	10.239	10.240	-0.001	0	264103	47.5	
9 Dichlorodifluoromethane	85		1.057				ND	
10 Chloromethane	50		1.187				ND	
11 Vinyl chloride	62		1.270				ND	
13 Bromomethane	94		1.519				ND	
15 Chloroethane	64		1.590				ND	
17 Trichlorofluoromethane	101		1.791				ND	
21 1,1-Dichloroethene	96		2.240				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.276				ND	
24 Acetone	43	2.300	2.300	0.000	99	40333	17.3	
26 Carbon disulfide	76	2.418	2.430	-0.012	91	1405	1.37	
30 Methylene Chloride	84	2.737	2.737	0.000	94	13592	2.52	
31 2-Methyl-2-propanol	59	2.974	2.962	0.012	39	588	1.29	
32 trans-1,2-Dichloroethene	96		3.069				ND	
33 Methyl tert-butyl ether	73		3.104				ND	
36 1,1-Dichloroethane	63		3.625				ND	
39 Vinyl acetate	86		3.779				ND	
38 Isopropyl ether	87		3.826				ND	
40 Tert-butyl ethyl ether	59		4.430				ND	
41 2,2-Dichloropropane	97		4.572				ND	
42 cis-1,2-Dichloroethene	96		4.583				ND	
43 2-Butanone (MEK)	43	4.678	4.678	0.000	73	3623	1.70	
46 Chlorobromomethane	128		4.974				ND	
49 Chloroform	83		5.151				ND	
50 1,1,1-Trichloroethane	97		5.364				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
52 Carbon tetrachloride	117		5.589				ND	
53 1,1-Dichloropropene	75		5.601				ND	
54 Benzene	78		5.861				ND	
56 1,2-Dichloroethane	62	5.909	5.897	0.012	26	1018	0.1226	
57 Tert-amyl methyl ether	73		6.086				ND	
59 Trichloroethene	130	6.654	6.654	0.000	95	247542	44.1	
63 1,2-Dichloropropane	63		6.891				ND	
65 Dibromomethane	93		7.009				ND	
68 Dichlorobromomethane	83		7.198				ND	
70 2-Chloroethyl vinyl ether	63		7.553				ND	
71 cis-1,3-Dichloropropene	75		7.660				ND	
73 4-Methyl-2-pentanone (MIBK)	43		7.837				ND	
74 Toluene	91		7.968				ND	
75 trans-1,3-Dichloropropene	75		8.204				ND	
78 Tetrachloroethene	164		8.476				ND	
79 1,3-Dichloropropane	76		8.500				ND	
80 2-Hexanone	43		8.618				ND	
82 Chlorodibromomethane	129		8.701				ND	
83 Ethylene Dibromide	107		8.796				ND	
85 Chlorobenzene	112		9.246				ND	
86 1,1,1,2-Tetrachloroethane	131		9.328				ND	
87 Ethylbenzene	106		9.352				ND	
88 m-Xylene & p-Xylene	106		9.459				ND	
89 o-Xylene	106		9.802				ND	
90 Styrene	104		9.814				ND	
91 Bromoform	173		9.956				ND	
92 Isopropylbenzene	105		10.121				ND	
94 Bromobenzene	156		10.358				ND	
95 1,1,2,2-Tetrachloroethane	83		10.370				ND	
96 1,2,3-Trichloropropane	110		10.405				ND	
98 N-Propylbenzene	120		10.476				ND	
99 2-Chlorotoluene	126		10.535				ND	
101 4-Chlorotoluene	126		10.630				ND	
103 tert-Butylbenzene	119		10.902				ND	
105 1,2,4-Trimethylbenzene	105		10.938				ND	
107 sec-Butylbenzene	105		11.080				ND	
108 1,3-Dichlorobenzene	146		11.162				ND	U
109 4-Isopropyltoluene	119		11.210				ND	U
110 1,4-Dichlorobenzene	146		11.233				ND	
111 1,2,3-Trimethylbenzene	105		11.293				ND	U
114 1,2-Dichlorobenzene	146		11.553				ND	
113 n-Butylbenzene	91		11.553				ND	
115 1,2-Dibromo-3-Chloropropane	157		12.192				ND	
117 1,2,4-Trichlorobenzene	180		12.890				ND	
118 Hexachlorobutadiene	225		13.056				ND	
119 Naphthalene	128		13.091				ND	U
120 1,2,3-Trichlorobenzene	180		13.292				ND	
S 134 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

VM250SS_00058	Amount Added:	1.00	Units: uL	Run Reagent
VM568718_00018	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00175	Amount Added:	0.00	Units:	Run Reagent

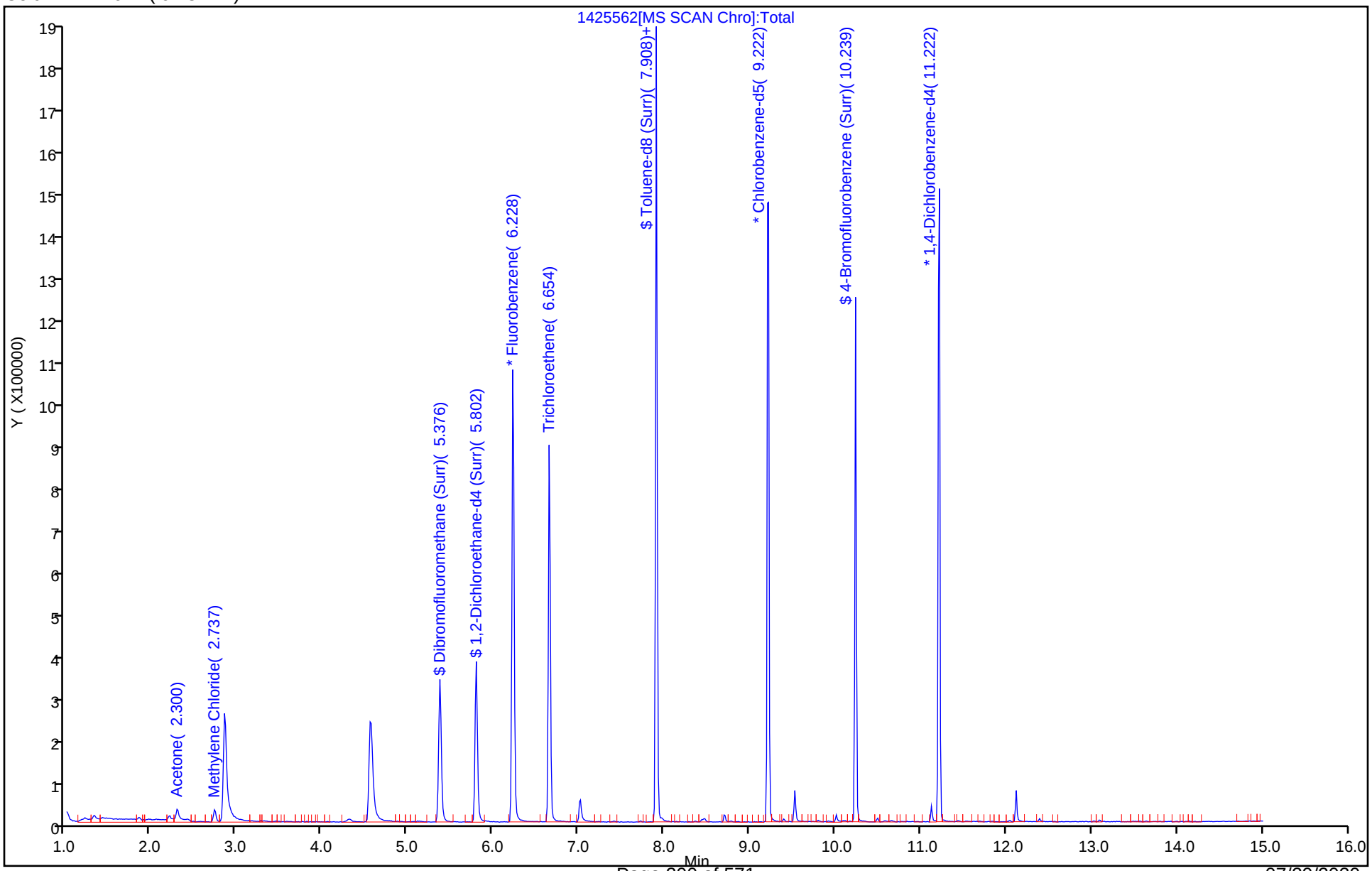
Report Date: 23-Jul-2020 11:55:56 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D

Injection Date:	23-Jul-2020 00:10:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	240-133597-B-2-A	Lab Sample ID:	240-133597-2	Worklist Smp#:	33
Client ID:	MRC-MW-164B-15-20				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D
Lims ID: 240-133597-B-2-A
Client ID: MRC-MW-164B-15-20
Sample Type: Client
Inject. Date: 23-Jul-2020 00:10:30 ALS Bottle#: 32 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-133597-b-2-a
Misc. Info.: 240-0100262-033
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 23-Jul-2020 11:48:50

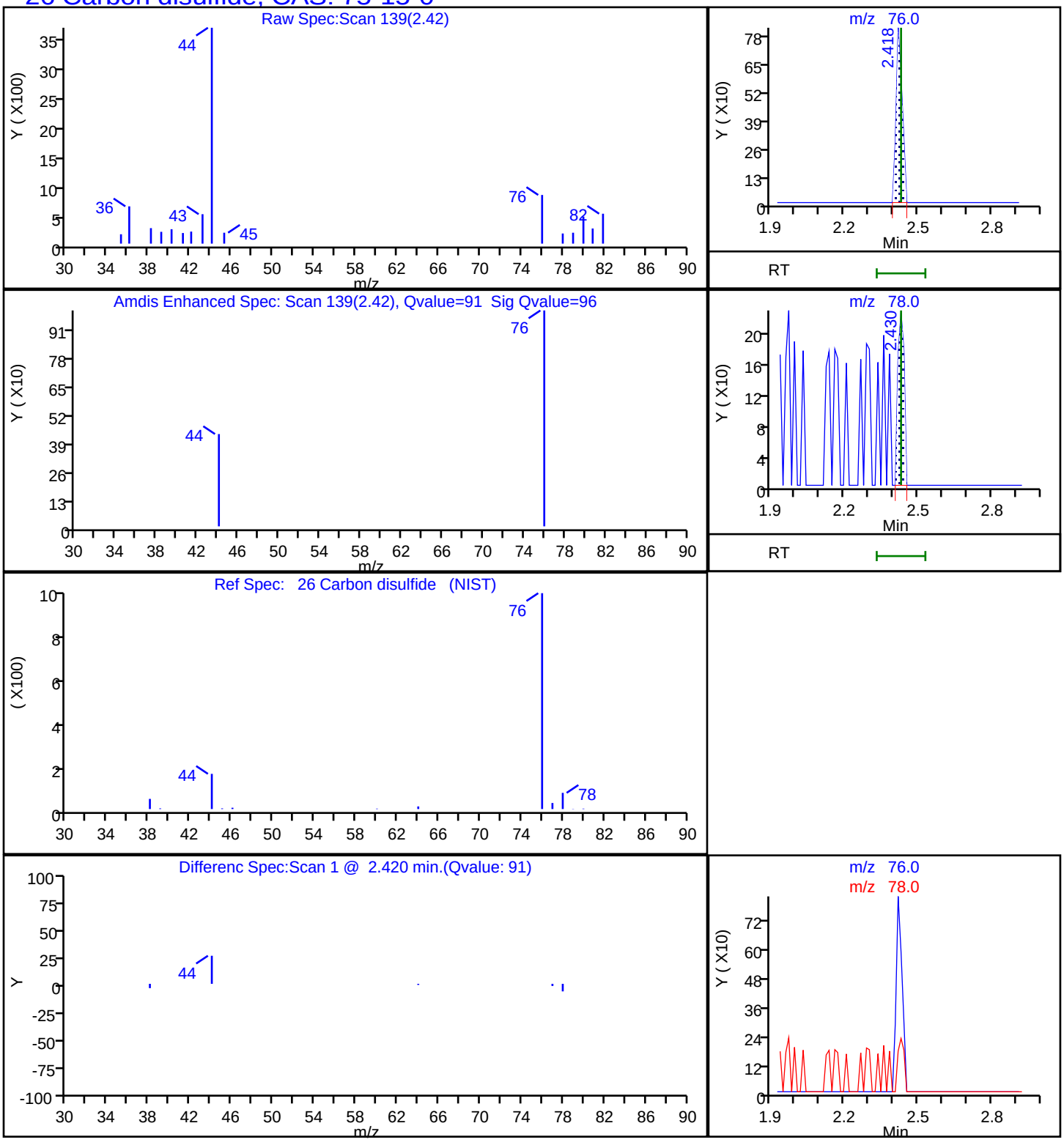
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	38.7	77.44
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	37.4	74.76
$ 6 Toluene-d8 (Surr)	50.0	43.6	87.30
$ 7 4-Bromofluorobenzene (Surr)	50.0	47.5	95.06

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D

Injection Date:	23-Jul-2020 00:10:30	Instrument ID:	A3UX14		
Lims ID:	240-133597-B-2-A	Lab Sample ID:	240-133597-2		
Client ID:	MRC-MW-164B-15-20				
Operator ID:	002808	ALS Bottle#:	32	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_14	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0



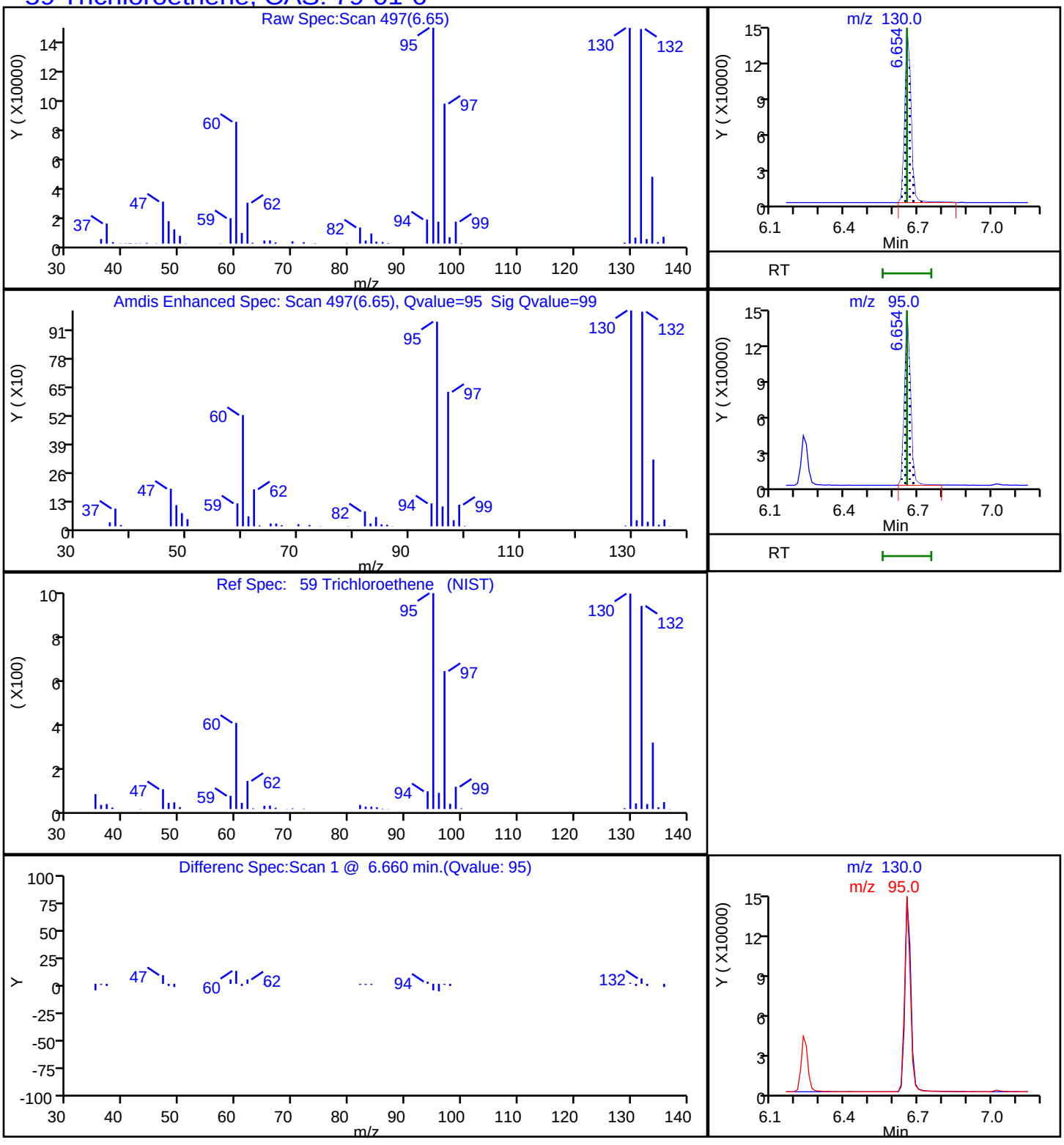
Report Date: 23-Jul-2020 11:55:56 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D

Injection Date:	23-Jul-2020 00:10:30	Instrument ID:	A3UX14		
Lims ID:	240-133597-B-2-A	Lab Sample ID:	240-133597-2		
Client ID:	MRC-MW-164B-15-20				
Operator ID:	002808	ALS Bottle#:	32	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_14	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

59 Trichloroethene, CAS: 79-01-6



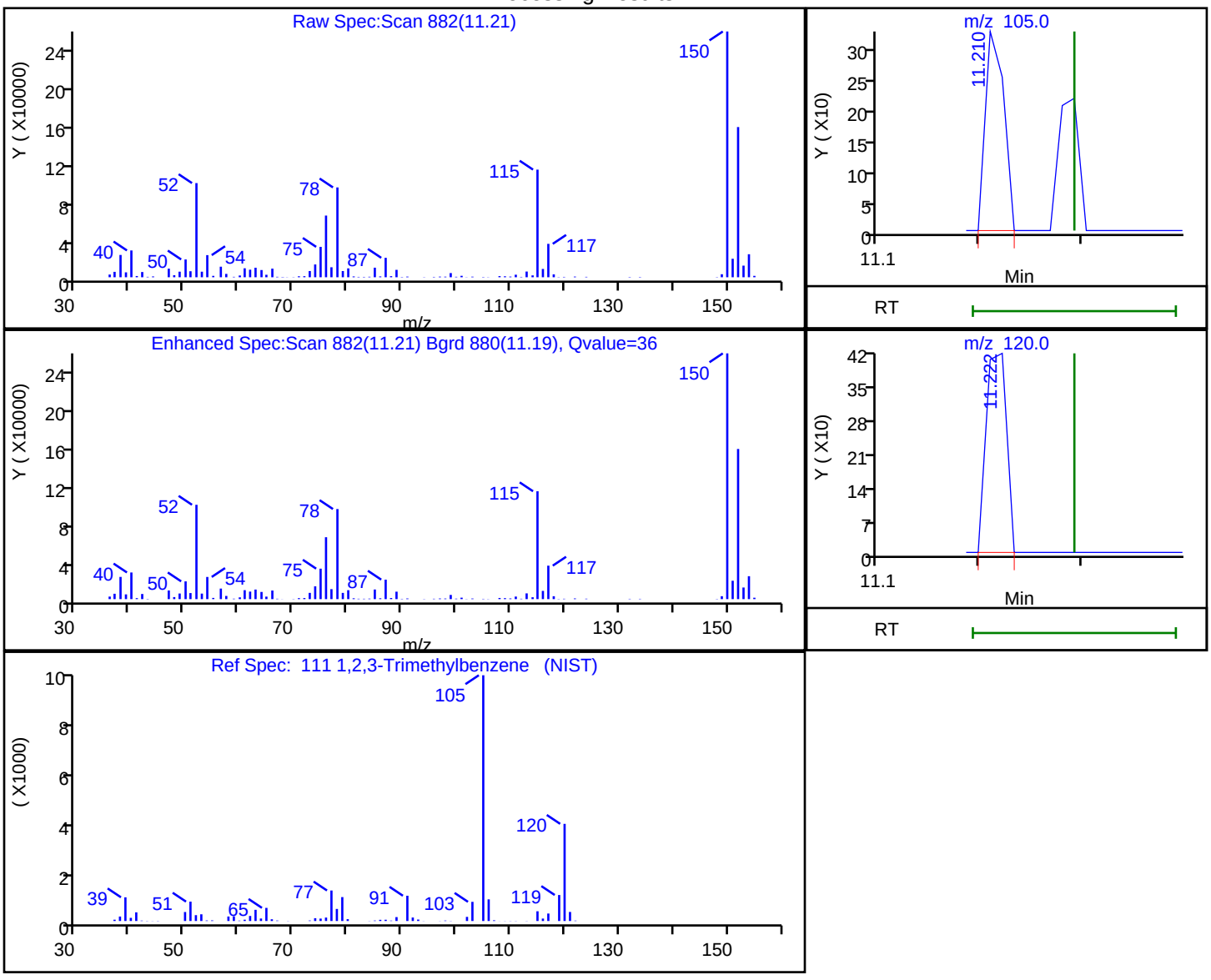
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D				
Injection Date:	23-Jul-2020 00:10:30	Instrument ID:	A3UX14		
Lims ID:	240-133597-B-2-A	Lab Sample ID:	240-133597-2		
Client ID:	MRC-MW-164B-15-20				
Operator ID:	002808	ALS Bottle#:	32	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_14	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

111 1,2,3-Trimethylbenzene, CAS: 526-73-8

Processing Results



RT	Mass	Response	Amount
11.21	105.00	413	0.022980
11.22	120.00	586	

Reviewer: macenczaks, 23-Jul-2020 11:47:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

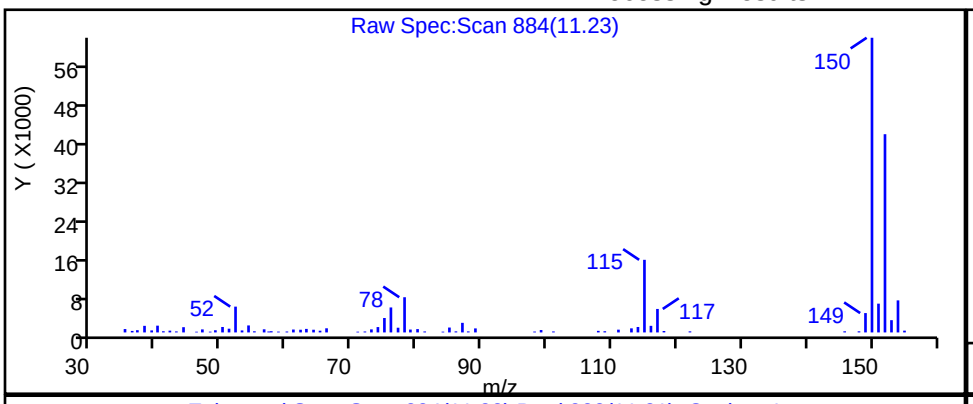
User Disabled Compound Report

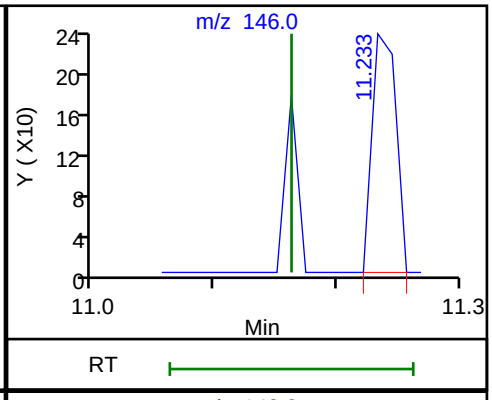
Eurofins TestAmerica, Canton

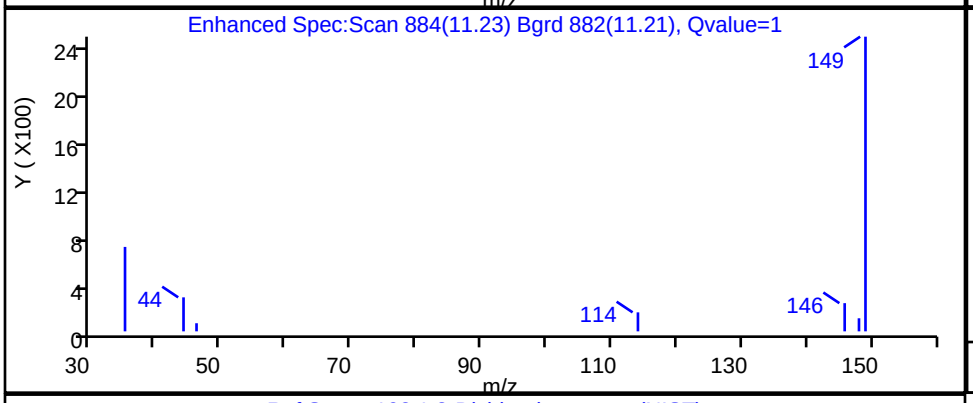
Data File:	\\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D				
Injection Date:	23-Jul-2020 00:10:30	Instrument ID:	A3UX14		
Lims ID:	240-133597-B-2-A	Lab Sample ID:	240-133597-2		
Client ID:	MRC-MW-164B-15-20				
Operator ID:	002808	ALS Bottle#:	32	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_14	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

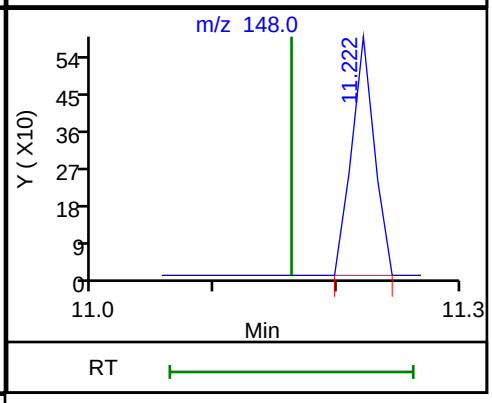
108 1,3-Dichlorobenzene, CAS: 541-73-1

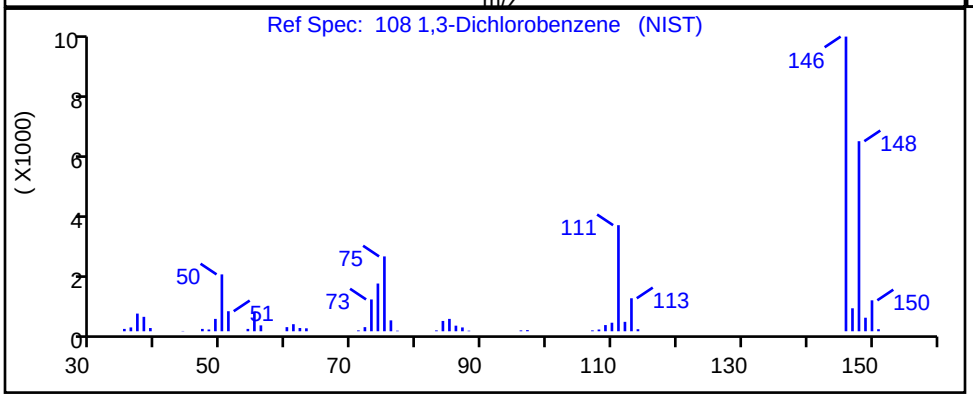
Processing Results











RT	Mass	Response	Amount
11.23	146.00	317	0.034934
11.22	148.00	762	

Reviewer: macenczaks, 23-Jul-2020 11:47:40

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

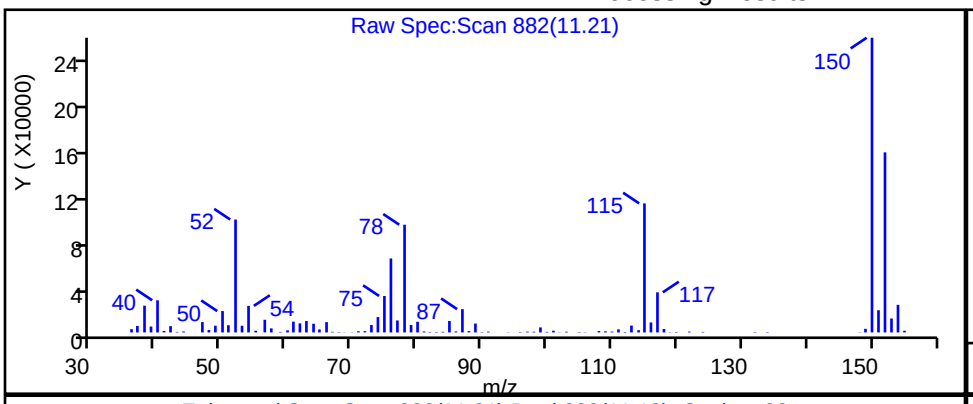
User Disabled Compound Report

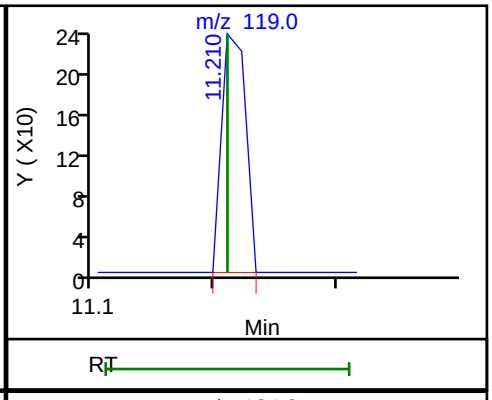
Eurofins TestAmerica, Canton

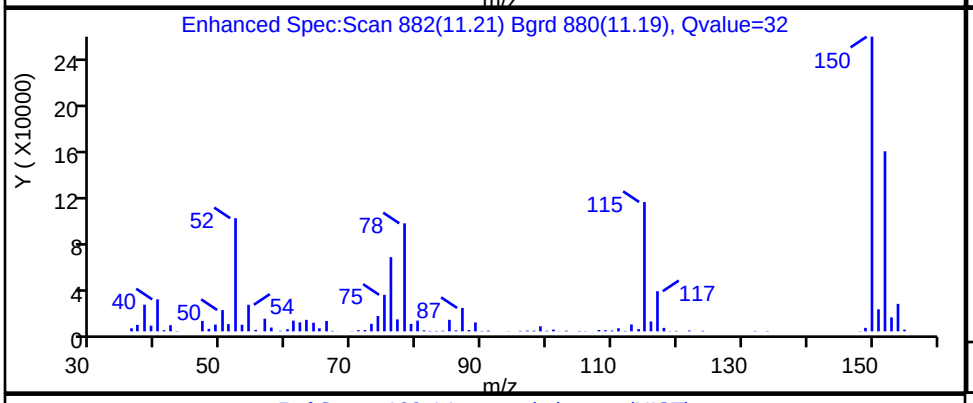
Data File:	\\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D				
Injection Date:	23-Jul-2020 00:10:30	Instrument ID:	A3UX14		
Lims ID:	240-133597-B-2-A	Lab Sample ID:	240-133597-2		
Client ID:	MRC-MW-164B-15-20				
Operator ID:	002808	ALS Bottle#:	32	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_14	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

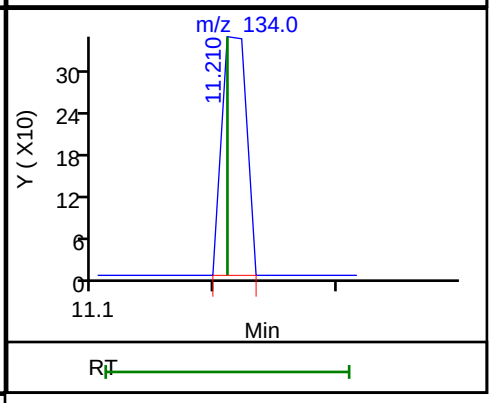
109 4-Isopropyltoluene, CAS: 99-87-6

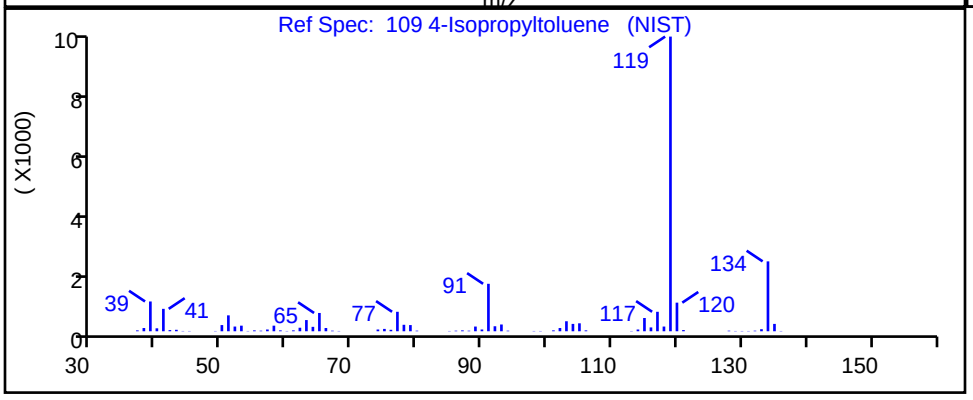
Processing Results











RT	Mass	Response	Amount
11.21	119.00	317	0.018177
11.21	134.00	486	

Reviewer: macenczaks, 23-Jul-2020 11:47:42

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

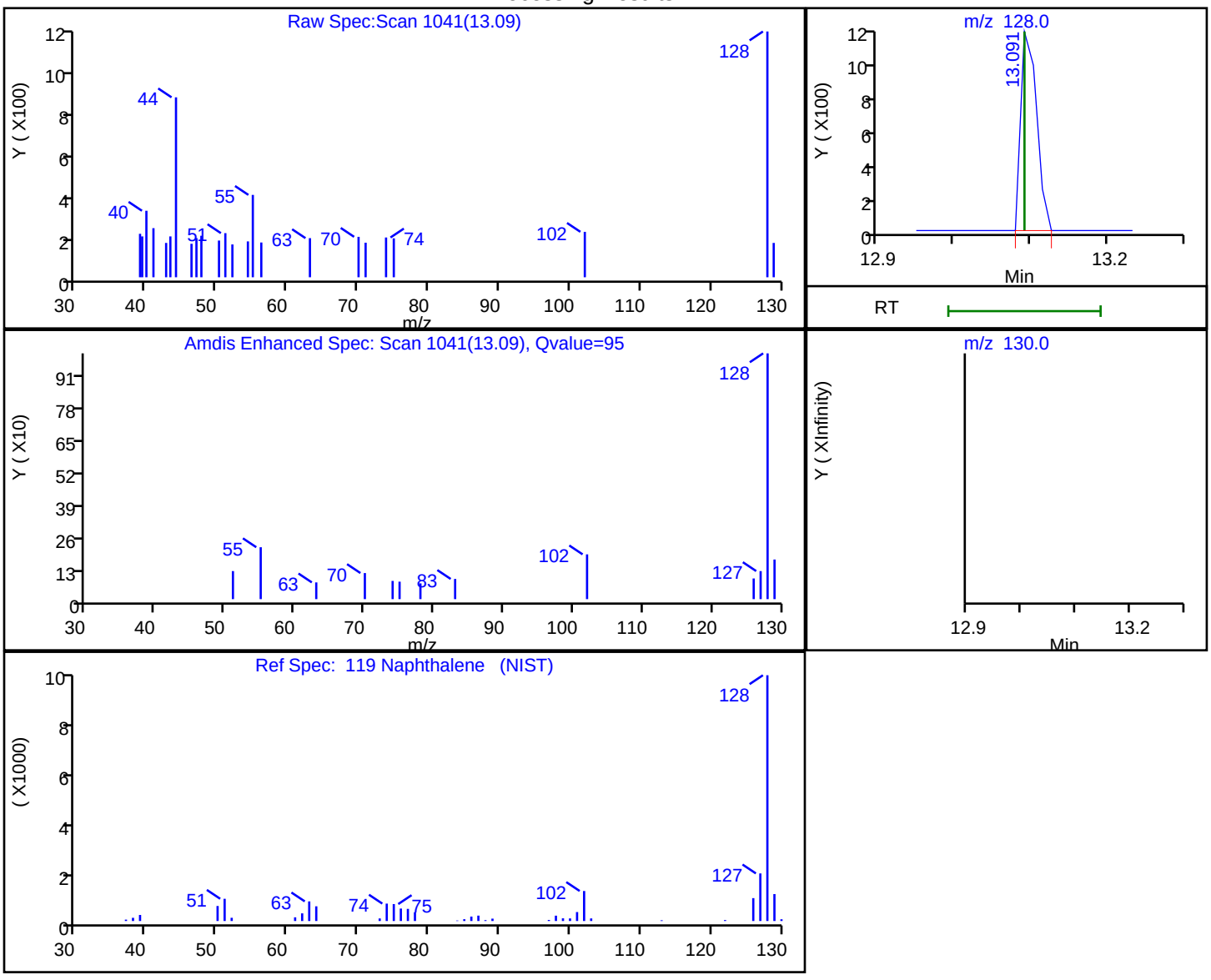
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425562.D				
Injection Date:	23-Jul-2020 00:10:30	Instrument ID:	A3UX14		
Lims ID:	240-133597-B-2-A	Lab Sample ID:	240-133597-2		
Client ID:	MRC-MW-164B-15-20				
Operator ID:	002808	ALS Bottle#:	32	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_14	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

119 Naphthalene, CAS: 91-20-3

Processing Results



RT	Mass	Response	Amount
13.09	128.00	1637	0.098005
13.09	130.00	0	

Reviewer: macenczaks, 23-Jul-2020 11:47:46

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-419116/8	UXX5180.D
Level 2	STD8260 240-419116/7	UXX5179.D
Level 3	STD8260 240-419116/6	UXX5178.D
Level 4	STD8260 240-419116/5	UXX5177.D
Level 5	STD8260 240-419116/4	UXX5176.D
Level 6	STD8260 240-419116/3	UXX5175.D
Level 7	STD8260 240-419116/2	UXX5174.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2231 0.2266	0.2138 0.2044	0.2139	0.2119	0.2226	Ave		0.2166				3.6		15.0			
Chloromethane	0.4313 0.4793	0.4329 0.4334	0.4357	0.4347	0.4526	Ave		0.4428			0.1000	4.0		15.0			
Vinyl chloride	0.3215 0.3396	0.3271 0.3129	0.3254	0.3364	0.3217	Ave		0.3264				2.8		15.0			
Butadiene	0.2674 0.1864	0.1841 0.1755	0.1807	0.2254	0.1903	Lin1	0.0770	0.1780							0.9950		0.9900
Bromomethane	0.1746 0.1417	0.1731 0.1321	0.1551	0.1639	0.1480	Ave		0.1555				10.3		15.0			
Chloroethane	0.1620 0.1933	0.1633 0.1723	0.1652	0.1827	0.1852	Ave		0.1748				7.0		15.0			
Dichlorofluoromethane	0.5744 0.4160	0.4527 0.3593	0.4309	0.4469	0.4094	Ave		0.4414				15.0		15.0			
Trichlorofluoromethane	0.2205 0.2592	0.2133 0.2329	0.2353	0.2461	0.2357	Ave		0.2347				6.5		15.0			
Ethyl ether	0.2863 0.3072	0.3234 0.2892	0.3019	0.3276	0.3216	Ave		0.3082				5.4		15.0			
Acrolein	0.0532 0.0546	0.0659 0.0525	0.0620	0.0652	0.0592	Ave		0.0590				9.5		15.0			
1,1-Dichloroethene	0.2174 0.2346	0.2365 0.2259	0.2416	0.2436	0.2502	Ave		0.2357				4.7		15.0			
1,1,2-Trichlorotrifluoroethane	0.0261 0.1129	0.0445 0.1141	0.0942	0.1061	0.1141	Lin1	-0.101	0.1182							0.9980		0.9900
Acetone	0.2164 0.1260	0.1933 0.1199	0.1570	0.1459	0.1435	Lin1	0.2457	0.1201							0.9970		0.9900
Iodomethane	0.2382 0.2814	0.2725 0.2959	0.2717	0.2857	0.2836	Ave		0.2756				6.7		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.7649 0.8227	0.8241 0.8044	0.8344	0.8601	0.8712	Ave		0.8260				4.3		15.0			
3-Chloro-1-propene	0.1921 0.2288	0.2026 0.2131	0.2224	0.2257	0.2104	Ave		0.2136				6.2		15.0			
Methyl acetate	0.3177 0.3494	0.3440 0.3435	0.3593	0.3871	0.3724	Ave		0.3533				6.3		15.0			
Methylene Chloride	0.2813 0.2925	0.2989 0.2814	0.2793	0.3043	0.2977	Ave		0.2908				3.5		15.0			
tert-Butyl alcohol	0.0417 0.0403	0.0416 0.0380	0.0395	0.0424	0.0457	Ave		0.0413				5.9		15.0			
Acrylonitrile	0.1619 0.1691	0.1761 0.1662	0.1702	0.1812	0.1808	Ave		0.1722				4.3		15.0			
trans-1,2-Dichloroethene	0.2579 0.2766	0.2619 0.2768	0.2645	0.2926	0.2817	Ave		0.2732				4.5		15.0			
Methyl tert-butyl ether	0.7646 0.8157	0.7784 0.7766	0.7983	0.7932	0.8554	Ave		0.7975				3.8		15.0			
Hexane	0.0479 0.0540	0.0504 0.0530	0.0530	0.0550	0.0555	Ave		0.0527				5.1		15.0			
1,1-Dichloroethane	0.5806 0.6524	0.6629 0.6235	0.6496	0.6745	0.6735	Ave		0.6453			0.1000	5.2		15.0			
Vinyl acetate	0.4330 0.8220	0.5494 +++++	0.6411	0.7034	0.7697	Lin1	-0.497	0.8269							0.9980		0.9900
2,2-Dichloropropane	0.0549 0.0607	0.0580 0.0582	0.0685	0.0639	0.0645	Ave		0.0612				7.6		15.0			
cis-1,2-Dichloroethene	0.2870 0.3049	0.3008 0.3094	0.2845	0.3160	0.3273	Ave		0.3043				5.0		15.0			
2-Butanone (MEK)	0.2117 0.2052	0.2465 0.1981	0.2190	0.2168	0.2331	Ave		0.2186				7.6		15.0			
Bromochloromethane	0.1035 0.1315	0.1201 0.1313	0.1205	0.1287	0.1319	Ave		0.1239				8.3		15.0			
Tetrahydrofuran	0.1718 0.1403	0.1641 0.1323	0.1442	0.1607	0.1587	Ave		0.1532				9.4		15.0			
Chloroform	0.4329 0.4666	0.4946 0.4530	0.4790	0.4847	0.4973	Ave		0.4726				4.9		15.0			
1,1,1-Trichloroethane	0.2833 0.2915	0.3142 0.2816	0.3076	0.3062	0.3111	Ave		0.2994				4.5		15.0			
Cyclohexane	0.5332 0.5650	0.5502 0.5422	0.5899	0.5885	0.5987	Ave		0.5668				4.6		15.0			
1,1-Dichloropropene	0.3400 0.3704	0.3756 0.3647	0.3741	0.3789	0.3915	Ave		0.3707				4.3		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.1973 0.2491	0.2266 0.2381	0.2508	0.2592	0.2520	Ave		0.2390				8.9		15.0			
Isobutyl alcohol	0.0195 0.0212	0.0295 0.0209	0.0197	0.0224	0.0233	Lin1	0.0972	0.0212							0.9940		0.9900
Benzene	1.1617 1.2333	1.2090 1.1865	1.2560	1.3184	1.2952	Ave		1.2372				4.6		15.0			
1,2-Dichloroethane	0.4567 0.4561	0.4396 0.4380	0.4391	0.4803	0.4743	Ave		0.4549				3.8		15.0			
n-Heptane	0.0334 0.0439	0.0389 0.0437	0.0393	0.0447	0.0485	Ave		0.0418				11.8		15.0			
Trichloroethene	0.2218 0.2537	0.2685 0.2593	0.2511	0.2722	0.2716	Ave		0.2569				6.9		15.0			
Methylcyclohexane	0.3242 0.3286	0.3040 0.3151	0.3410	0.3292	0.3503	Ave		0.3275				4.7		15.0			
1,2-Dichloropropane	0.3857 0.3769	0.3873 0.3695	0.3915	0.4040	0.4082	Ave		0.3890				3.5		15.0			
Dibromomethane	0.1477 0.1614	0.1532 0.1597	0.1604	0.1599	0.1659	Ave		0.1583				3.8		15.0			
1,4-Dioxane	+++++ 0.0030	0.0021 0.0023	0.0017	0.0021	0.0034	Qua	-0.145	0.0043	-0.000002						0.9960		0.9900
Bromodichloromethane	0.3180 0.3532	0.3637 0.3463	0.3597	0.3678	0.3663	Ave		0.3536				4.9		15.0			
2-Chloroethyl vinyl ether	0.2444 0.2801	0.2845 0.2717	0.2829	0.3020	0.3002	Ave		0.2808				6.9		15.0			
cis-1,3-Dichloropropene	0.4266 0.4937	0.4789 0.4784	0.4829	0.5177	0.5104	Ave		0.4841				6.1		15.0			
4-Methyl-2-pentanone (MIBK)	0.4484 0.4254	0.4766 0.3767	0.4756	0.4819	0.4806	Ave		0.4522				8.7		15.0			
Toluene	1.7205 1.7966	1.8772 1.7992	1.8087	1.8914	1.9275	Ave		1.8316				3.9		15.0			
trans-1,3-Dichloropropene	0.5409 0.6732	0.6054 0.6739	0.6471	0.6622	0.6998	Ave		0.6432				8.4		15.0			
Ethyl methacrylate	0.6942 0.6834	0.6980 0.6595	0.6910	0.7715	0.7453	Ave		0.7061				5.5		15.0			
1,1,2-Trichloroethane	0.3803 0.3790	0.3855 0.3720	0.3770	0.4112	0.4116	Ave		0.3881				4.2		15.0			
Tetrachloroethene	0.1902 0.2161	0.2076 0.2215	0.2159	0.2171	0.2200	Ave		0.2126				5.1		15.0			
1,3-Dichloropropane	0.6545 0.7256	0.6722 0.7014	0.7096	0.7265	0.7546	Ave		0.7063				4.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.4156 0.4438	0.4863 0.4087	0.4608	0.4840	0.4963	Ave		0.4565				7.7		15.0			
Chlorodibromomethane	0.3264 0.3370	0.3138 0.3376	0.3274	0.3457	0.3617	Ave		0.3357				4.6		15.0			
1,2-Dibromoethane	0.3082 0.3424	0.3344 0.3602	0.3331	0.3592	0.3807	Ave		0.3454				6.8		15.0			
Chlorobenzene	0.9030 0.9827	0.9914 0.9576	0.9582	1.0016	1.0531	Ave		0.9782			0.3000	4.7		15.0			
1,1,1,2-Tetrachloroethane	0.2631 0.3177	0.3144 0.2830	0.3055	0.3189	0.3358	Ave		0.3055				8.1		15.0			
Ethylbenzene	0.5341 0.5466	0.5358 0.5226	0.5226	0.5630	0.5835	Ave		0.5440				4.1		15.0			
m-Xylene & p-Xylene	0.6363 0.6459	0.6398 0.6126	0.6348	0.6570	0.7016	Ave		0.6468				4.3		15.0			
o-Xylene	0.5449 0.6027	0.6347 0.5493	0.6147	0.6515	0.6426	Ave		0.6058				7.2		15.0			
Styrene	1.0759 1.0790	1.1060 1.0106	1.0637	1.1055	1.1451	Ave		1.0837				3.9		15.0			
Bromoform	0.1526 0.1820	0.1679 0.1742	0.1670	0.1984	0.2017	Ave		0.1777			0.1000	10.0		15.0			
Isopropylbenzene	1.4441 1.3701	1.4527 1.1836	1.4047	1.4639	1.5067	Ave		1.4037				7.6		15.0			
1,1,2,2-Tetrachloroethane	1.1743 1.2118	1.2388 1.1148	1.2107	1.2743	1.2387	Ave		1.2090			0.3000	4.3		15.0			
Bromobenzene	0.7291 0.7835	0.7638 0.8641	0.7334	0.7727	0.7708	Ave		0.7739				5.8		15.0			
1,2,3-Trichloropropane	0.2226 0.3309	0.3455 0.3203	0.3325	0.3615	0.3476	Ave		0.3230				14.3		15.0			
trans-1,4-Dichloro-2-butene	0.3793 0.5104	0.3885 0.6178	0.4568	0.4813	0.4924	Lin1	-0.350	0.5815							0.9900		0.9900
N-Propylbenzene	0.8859 0.8798	0.8809 0.9040	0.8833	0.8972	0.9111	Ave		0.8917				1.4		15.0			
2-Chlorotoluene	0.7413 0.8067	0.8092 0.7983	0.8251	0.8399	0.8154	Ave		0.8051				3.9		15.0			
1,3,5-Trimethylbenzene	2.4943 2.6153	2.6057 2.4043	2.5768	2.8374	2.7364	Ave		2.6100				5.5		15.0			
4-Chlorotoluene	0.7566 0.8677	0.8065 0.8884	0.8728	0.9005	0.8737	Ave		0.8523				6.1		15.0			
tert-Butylbenzene	1.8958 1.8968	1.9891 1.7047	2.0520	2.0614	2.0184	Ave		1.9454				6.5		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.8613 2.7170	2.8372 2.4453	2.8747	2.9402	2.9039	Ave		2.7971				6.1		15.0			
sec-Butylbenzene	2.7585 2.5997	2.7812 2.3235	2.8021	2.9453	2.8184	Ave		2.7184				7.4		15.0			
1,3-Dichlorobenzene	1.3127 1.4116	1.3949 1.3583	1.4331	1.4774	1.4006	Ave		1.3984				3.8		15.0			
4-Isopropyltoluene	2.1057 2.1201	2.2535 1.8288	2.3016	2.2939	2.2858	Ave		2.1699				7.9		15.0			
1,4-Dichlorobenzene	1.3016 1.4125	1.4017 1.4241	1.4605	1.4951	1.4599	Ave		1.4222				4.4		15.0			
n-Butylbenzene	2.1791 1.9468	2.1065 1.5980	2.1151	2.2093	2.1436	Ave		2.0426				10.4		15.0			
1,2-Dichlorobenzene	1.4293 1.3804	1.4162 1.1577	1.4359	1.4803	1.4604	Ave		1.3943				7.8		15.0			
1,2-Dibromo-3-Chloropropane	0.1480 0.1640	0.2203 0.1043	0.2126	0.2381	0.2136	Qua	-0.004	0.2353	-0.003283						0.9970		0.9900
1,2,4-Trichlorobenzene	0.5926 0.4504	0.6437 +++++	0.6710	0.6843	0.6575	Ave		0.6166				14.2		15.0			
Hexachlorobutadiene	+++++ 0.1124	0.1677 +++++	0.1560	0.1658	0.1535	Ave		0.1511				14.9		15.0			
Naphthalene	3.0521 +++++	3.3633 +++++	3.2929	3.4186	3.0306	Ave		3.2315				5.6		15.0			
1,2,3-Trichlorobenzene	0.6329 +++++	0.5701 +++++	0.6175	0.6528	0.5954	Ave		0.6137				5.2		15.0			
Dibromofluoromethane (Surr)	0.2409 0.2371	0.2333 0.2245	0.2361	0.2274	0.2369	Ave		0.2337				2.5		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3531 0.3409	0.3476 0.3204	0.3544	0.3476	0.3384	Ave		0.3432				3.4		15.0			
Toluene-d8 (Surr)	1.7460 1.5195	1.5440 1.4667	1.5253	1.4774	1.4848	Ave		1.5377				6.2		15.0			
4-Bromofluorobenzene (Surr)	0.5136 0.4885	0.4963 0.4427	0.4843	0.4785	0.4845	Ave		0.4841				4.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-419116/8	UXX5180.D
Level 2	STD8260 240-419116/7	UXX5179.D
Level 3	STD8260 240-419116/6	UXX5178.D
Level 4	STD8260 240-419116/5	UXX5177.D
Level 5	STD8260 240-419116/4	UXX5176.D
Level 6	STD8260 240-419116/3	UXX5175.D
Level 7	STD8260 240-419116/2	UXX5174.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	8588 184971	16579 348415	33680	41891	89573	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Chloromethane	FB	Ave	16600 391156	33571 738754	68617	85933	182157	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Vinyl chloride	FB	Ave	12374 277193	25364 533232	51236	66500	129471	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Butadiene	FB	Lin1	10294 152127	14274 299133	28448	44552	76586	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Bromomethane	FB	Ave	6719 115685	13424 225093	24430	32401	59557	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Chloroethane	FB	Ave	6234 157736	12664 293599	26016	36120	74548	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	22111 339518	35107 612424	67854	88338	164760	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	8487 211561	16539 396905	37050	48652	94875	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl ether	FB	Ave	11022 250763	25076 492860	47544	64767	129451	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Acrolein	FB	Ave	10247 222686	25566 447463	48809	64403	119223	5.00 100	10.0 200	20.0	25.0	50.0
1,1-Dichloroethene	FB	Ave	8368 191503	18341 384984	38047	48165	100715	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,2-Trichlorotrifluoroethane	FB	Lin1	1003 92141	3454 194447	14837	20968	45925	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Acetone	FB	Lin1	16660 205689	29985 408717	49433	57675	115530	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Iodomethane	FB	Ave	9168 229631	21134 504270	42781	56486	114147	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Carbon disulfide	FB	Ave	29441 671488	63899 1371104	131388	170025	350621	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	7394 186739	15710 363226	35023	44624	84698	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methyl acetate	FB	Ave	24455 570411	53355 1170999	113148	153053	299742	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Methylene Chloride	FB	Ave	10827 238705	23178 479700	43982	60151	119814	1.00 20.0	2.00 40.0	4.00	5.00	10.0
tert-Butyl alcohol	FB	Ave	16060 328526	32261 647317	62130	83819	183739	10.0 200	20.0 400	40.0	50.0	100
Acrylonitrile	FB	Ave	62326 1379901	136584 2832530	267966	358288	727779	10.0 200	20.0 400	40.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	9928 225779	20309 471758	41658	57846	113370	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	29432 665746	60357 1323684	125702	156813	344262	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Hexane	FB	Ave	1843 44066	3912 90384	8352	10877	22347	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	22348 532464	51406 1062752	102290	133331	271075	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Vinyl acetate	FB	Lin1	16668 670872	42604 +++++	100952	139049	309795	1.00 20.0	2.00 +++++	4.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	2112 49556	4499 99183	10781	12641	25966	1.00 20.0	2.00 40.0	4.00	5.00	10.0
cis-1,2-Dichloroethene	FB	Ave	11048 248831	23327 527277	44803	62462	131741	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	16294 334871	38232 675419	68978	85736	187669	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Bromochloromethane	FB	Ave	3985 107315	9314 223761	18971	25448	53066	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Tetrahydrofuran	FB	Ave	13222 229072	25452 451105	45424	63550	127746	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Chloroform	FB	Ave	16664 380793	38353 772060	75432	95814	200134	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	10906 237910	24363 479949	48446	60526	125222	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Cyclohexane	FB	Ave	20523 461154	42667 924168	92889	116343	240944	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	13086 302315	29124 621625	58913	74907	157561	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Carbon tetrachloride	FB	Ave	7596 203301	17573 405876	39488	51250	101403	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Isobutyl alcohol	CBNZ d5	Lin1	12344 280839	37582 563013	51890	73630	152214	25.0 500	50.0 1000	100	125	250

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	44716 1006535	93751 2022315	197778	260636	521274	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichloroethane	FB	Ave	17578 372263	34090 746590	69151	94942	190893	1.00 20.0	2.00 40.0	4.00	5.00	10.0
n-Heptane	FB	Ave	1287 35822	3016 74422	6183	8836	19537	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Trichloroethene	FB	Ave	8538 207059	20817 441948	39540	53807	109296	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methylcyclohexane	FB	Ave	12478 268151	23572 537031	53694	65075	141004	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	14848 307572	30035 629714	61647	79871	164272	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Dibromomethane	FB	Ave	5684 131742	11876 272179	25254	31602	66754	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,4-Dioxane	FB	Qua	+++++ 49426	3204 78837	5481	8358	27049	+++++ 400	40.0 800	80.0	100	200
Bromodichloromethane	FB	Ave	12241 288240	28201 590156	56640	72710	147444	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Ave	18817 457211	44119 926284	89098	119394	241641	2.00 40.0	4.00 80.0	8.00	10.0	20.0
cis-1,3-Dichloropropene	FB	Ave	16420 402901	37132 815403	76037	102349	205433	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	34518 694450	73911 1284192	149794	190519	386894	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Toluene	CBNZ d5	Ave	43545 952043	95639 1934151	190560	248868	504086	1.00 20.0	2.00 40.0	4.00	5.00	10.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	13691 356734	30847 724427	68179	87136	183024	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	17569 362159	35561 708973	72802	101519	194915	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Ave	9626 200859	19641 399922	39718	54109	107654	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	4815 114500	10579 238119	22751	28561	57524	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	16566 384481	34250 753983	74760	95599	197340	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Hexanone	CBNZ d5	Ave	21037 470395	49553 878609	97100	127375	259574	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Chlorodibromomethane	CBNZ d5	Ave	8260 178566	15988 362910	34500	45488	94601	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	7801 181419	17038 387178	35096	47261	99558	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	22854 520761	50513 1029417	100955	131794	275411	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6659 168350	16020 304231	32187	41967	87822	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	13519 289622	27299 561828	55060	74081	152603	1.00 20.0	2.00 40.0	4.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	16104 342261	32596 658521	66882	86448	183493	1.00 20.0	2.00 40.0	4.00	5.00	10.0
o-Xylene	CBNZ d5	Ave	13792 319375	32337 590509	64763	85719	168052	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Styrene	CBNZ d5	Ave	27230 571751	56348 1086333	112067	145465	299470	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Bromoform	CBNZ d5	Ave	3862 96445	8554 187221	17599	26105	52762	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Isopropylbenzene	CBNZ d5	Ave	36550 726047	74013 1272350	148004	192618	394049	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	11743 251928	25562 397452	49998	67486	133615	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	7291 162882	15762 308073	30286	40920	83151	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Ave	2226 68790	7129 114214	13733	19146	37501	1.00 20.0	2.00 40.0	4.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	3793 106104	8016 220280	18866	25489	53115	1.00 20.0	2.00 40.0	4.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	8859 182904	18177 322291	36476	47514	98281	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	7413 167723	16698 284610	34073	44478	87963	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24944 543712	53769 857216	106414	150264	295183	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	7566 180386	16643 316754	36045	47687	94251	1.00 20.0	2.00 40.0	4.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Ave	18959 394340	41045 607771	84741	109170	217722	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	28614 564871	58546 871849	118715	155708	313247	1.00 20.0	2.00 40.0	4.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	27586 540475	57391 828401	115720	155977	304021	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	13128 293479	28783 484300	59183	78243	151080	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	21058 440776	46502 652029	95048	121479	246570	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 15:09 Calibration End Date: 01/15/2020 17:40 Calibration ID: 54865

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	13017 293656	28924 507740	60314	79180	157477	1.00 20.0	2.00 40.0	4.00	5.00	10.0
n-Butylbenzene	DCBd 4	Ave	21792 404747	43467 569737	87348	117002	231231	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	14294 286985	29223 412773	59299	78394	157537	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Qua	1480 34090	4546 37189	8781	12607	23044	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	5926 93635	13282 +++++	27711	36240	70921	1.00 20.0	2.00 +++++	4.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 23374	3460 +++++	6441	8782	16555	+++++ 20.0	2.00 +++++	4.00	5.00	10.0
Naphthalene	DCBd 4	Ave	30522 +++++	69402 +++++	135986	181044	326917	1.00 +++++	2.00 +++++	4.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	6329 +++++	11763 +++++	25501	34569	64230	1.00 +++++	2.00 +++++	4.00	5.00	10.0
Dibromofluoromethane (Surr)	FB	Ave	9272 193471	18094 382594	37185	44962	95327	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	13590 278242	26957 546102	55814	68712	136206	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	44192 805170	78667 1576678	160706	194389	388305	1.00 20.0	2.00 40.0	4.00	5.00	10.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	12999 258874	25288 475939	51023	62957	126701	1.00 20.0	2.00 40.0	4.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5174.D
Lims ID: STD8260 L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Jan-2020 15:09:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-002
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 17:01:47 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 20-Jan-2020 17:01:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.976	4.972	0.004	98	426105	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.638	7.646	-0.008	89	268745	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.861	9.869	-0.008	95	89134	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.408	4.408	0.000	92	382594	40.0	38.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.692	4.691	0.001	96	546102	40.0	37.3	
$ 6 Toluene-d8 (Surr)	98	6.336	6.336	0.000	94	1576678	40.0	38.2	
$ 7 4-Bromofluorobenzene (Surr	95	8.749	8.749	0.000	79	475939	40.0	36.6	
9 Dichlorodifluoromethane	85	1.250	1.249	0.001	99	348415	40.0	37.7	
10 Chloromethane	50	1.404	1.391	0.013	99	738754	40.0	39.1	
11 Vinyl chloride	62	1.487	1.486	0.001	98	533232	40.0	38.3	
12 Butadiene	54	1.510	1.510	0.000	94	299133	40.0	39.0	
13 Bromomethane	94	1.759	1.758	0.001	90	225093	40.0	34.0	
14 Chloroethane	64	1.853	1.841	0.012	98	293599	40.0	39.4	
15 Dichlorofluoromethane	67	2.019	2.018	0.001	98	612424	40.0	32.6	
16 Trichlorofluoromethane	101	2.054	2.042	0.012	98	396905	40.0	39.7	
17 Ethyl ether	59	2.291	2.290	0.001	98	492860	40.0	37.5	
18 Acrolein	56	2.409	2.409	0.000	99	447463	200.0	178.1	
19 1,1-Dichloroethene	96	2.492	2.491	0.001	92	384984	40.0	38.3	
20 1,1,2-Trichloro-1,2,2-trif	151	2.528	2.515	0.013	96	194447	40.0	39.5	
21 Acetone	43	2.539	2.539	0.000	100	408717	80.0	77.8	
22 Iodomethane	142	2.646	2.621	0.025	97	504270	40.0	42.9	
24 Carbon disulfide	76	2.693	2.681	0.012	100	1371104	40.0	39.0	
26 3-Chloro-1-propene	76	2.812	2.811	0.001	91	363226	40.0	39.9	
27 Methyl acetate	43	2.835	2.834	0.001	99	1170999	80.0	77.8	
28 Methylene Chloride	84	2.918	2.917	0.001	98	479700	40.0	38.7	
29 2-Methyl-2-propanol	59	3.024	3.024	0.000	98	647317	400.0	367.9	
31 Acrylonitrile	53	3.131	3.130	0.001	100	2832530	400.0	386.0	
30 trans-1,2-Dichloroethene	96	3.143	3.154	-0.011	91	471758	40.0	40.5	
32 Methyl tert-butyl ether	73	3.155	3.154	0.001	98	1323684	40.0	39.0	
33 Hexane	86	3.379	3.378	0.001	93	90384	40.0	40.2	
34 1,1-Dichloroethane	63	3.509	3.509	0.000	96	1062752	40.0	38.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43		3.556				ND	ND	U
39 2,2-Dichloropropane	97	3.994	4.005	-0.011	51	99183	40.0	38.0	
40 cis-1,2-Dichloroethene	96	3.994	4.005	-0.011	88	527277	40.0	40.7	
41 2-Butanone (MEK)	43	4.018	4.017	0.001	99	675419	80.0	72.5	
45 Chlorobromomethane	128	4.207	4.206	0.001	92	223761	40.0	42.4	
46 Tetrahydrofuran	42	4.243	4.242	0.001	93	451105	80.0	69.1	
47 Chloroform	83	4.266	4.266	0.000	98	772060	40.0	38.3	
48 1,1,1-Trichloroethane	97	4.420	4.419	0.001	96	479949	40.0	37.6	
49 Cyclohexane	56	4.467	4.467	0.000	91	924168	40.0	38.3	
50 1,1-Dichloropropene	75	4.562	4.561	0.001	92	621625	40.0	39.3	
51 Carbon tetrachloride	117	4.562	4.561	0.001	72	405876	40.0	39.9	
52 Isobutyl alcohol	41	4.669	4.668	0.001	96	563013	1000.0	984.5	
53 Benzene	78	4.740	4.739	0.001	98	2022315	40.0	38.4	
54 1,2-Dichloroethane	62	4.751	4.751	0.000	96	746590	40.0	38.5	
56 n-Heptane	100	4.964	4.963	0.001	97	74422	40.0	41.8	
58 Trichloroethene	130	5.284	5.283	0.001	96	441948	40.0	40.4	
60 Methylcyclohexane	83	5.449	5.448	0.001	98	537031	40.0	38.5	
61 1,2-Dichloropropane	63	5.473	5.472	0.001	97	629714	40.0	38.0	
63 Dibromomethane	93	5.579	5.579	0.000	89	272179	40.0	40.4	
64 1,4-Dioxane	88	5.591	5.590	0.001	97	78837	800.0	799.6	
65 Dichlorobromomethane	83	5.709	5.709	0.000	98	590156	40.0	39.2	
67 2-Chloroethyl vinyl ether	63	5.970	5.969	0.001	91	926284	80.0	77.4	
68 cis-1,3-Dichloropropene	75	6.100	6.099	0.001	92	815403	40.0	39.5	
69 4-Methyl-2-pentanone (MIBK	43	6.242	6.241	0.001	97	1284192	80.0	66.7	
70 Toluene	91	6.396	6.395	0.001	97	1934151	40.0	39.3	
71 trans-1,3-Dichloropropene	75	6.585	6.596	-0.011	97	724427	40.0	41.9	
72 Ethyl methacrylate	69	6.668	6.667	0.001	95	708973	40.0	37.4	
73 1,1,2-Trichloroethane	97	6.750	6.761	-0.011	93	399922	40.0	38.3	
74 Tetrachloroethene	164	6.892	6.892	0.000	95	238119	40.0	41.7	
75 1,3-Dichloropropane	76	6.904	6.903	0.001	99	753983	40.0	39.7	
76 2-Hexanone	43	6.975	6.986	-0.011	98	878609	80.0	71.6	
78 Chlorodibromomethane	129	7.117	7.116	0.001	91	362910	40.0	40.2	
80 Ethylene Dibromide	107	7.212	7.223	-0.011	97	387178	40.0	41.7	
82 Chlorobenzene	112	7.673	7.672	0.001	93	1029417	40.0	39.2	
83 1,1,1,2-Tetrachloroethane	131	7.744	7.743	0.001	96	304231	40.0	37.1	
84 Ethylbenzene	106	7.768	7.767	0.001	99	561828	40.0	38.4	
85 m-Xylene & p-Xylene	106	7.874	7.873	0.001	99	658521	40.0	37.9	
86 o-Xylene	106	8.253	8.252	0.001	98	590509	40.0	36.3	
87 Styrene	104	8.264	8.264	0.000	94	1086333	40.0	37.3	
88 Bromoform	173	8.442	8.441	0.001	95	187221	40.0	39.2	
89 Isopropylbenzene	105	8.596	8.607	-0.011	97	1272350	40.0	33.7	
93 Bromobenzene	156	8.891	8.891	0.000	96	308073	40.0	44.7	
92 1,1,2,2-Tetrachloroethane	83	8.891	8.891	0.000	75	397452	40.0	36.9	
94 1,2,3-Trichloropropane	110	8.927	8.926	0.001	86	114214	40.0	39.7	
95 trans-1,4-Dichloro-2-buten	53	8.939	8.938	0.001	81	220280	40.0	43.1	
96 N-Propylbenzene	120	8.998	8.997	0.001	100	322291	40.0	40.5	
97 2-Chlorotoluene	126	9.081	9.080	0.001	96	284610	40.0	39.7	
98 1,3,5-Trimethylbenzene	105	9.163	9.163	0.000	93	857216	40.0	36.8	
99 4-Chlorotoluene	126	9.187	9.186	0.001	98	316754	40.0	41.7	
100 tert-Butylbenzene	119	9.483	9.482	0.001	94	607771	40.0	35.0	
102 1,2,4-Trimethylbenzene	105	9.530	9.529	0.001	97	871849	40.0	35.0	
103 sec-Butylbenzene	105	9.696	9.695	0.001	95	828401	40.0	34.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,3-Dichlorobenzene	146	9.802	9.801	0.001	96	484300	40.0	38.9	
105 4-Isopropyltoluene	119	9.838	9.837	0.001	97	652029	40.0	33.7	
106 1,4-Dichlorobenzene	146	9.885	9.884	0.001	92	507740	40.0	40.1	
109 n-Butylbenzene	91	10.240	10.239	0.001	98	569737	40.0	31.3	
110 1,2-Dichlorobenzene	146	10.252	10.251	0.001	94	412773	40.0	33.2	
111 1,2-Dibromo-3-Chloropropan	157	11.021	11.020	0.000	75	37189	40.0	32.4	
113 1,2,4-Trichlorobenzene	180		11.836				ND	ND	U
114 Hexachlorobutadiene	225		12.013				ND	ND	U
115 Naphthalene	128		12.084				ND	ND	U
116 1,2,3-Trichlorobenzene	180		12.321				ND	ND	U
S 128 1,2-Dichloroethene, Total	96				0			81.2	
S 129 1,3-Dichloropropene, Total	75				0			81.4	
S 130 Xylenes, Total	106				0		80.0	74.2	
S 156 Total BTEX	1				0		200.0	190.2	
S 131 Trihalomethanes, Total	1				0		160.0	157.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

VMRPRIMW_00369	Amount Added:	32.00	Units: uL
VMFASAW_00312	Amount Added:	32.00	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL
VMRGAS_00323	Amount Added:	32.00	Units: uL
vm50ss_00387	Amount Added:	32.00	Units: uL

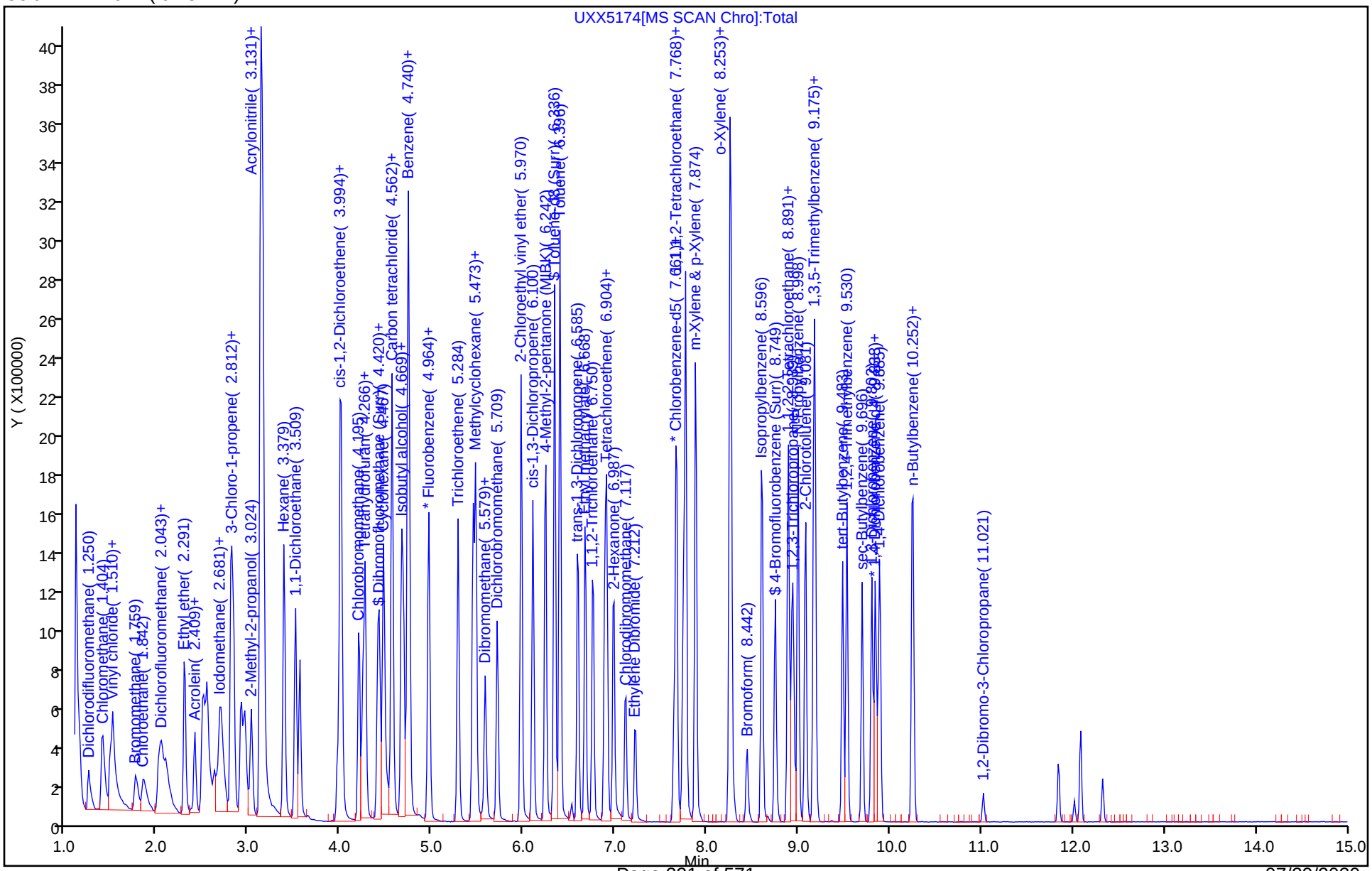
Report Date: 20-Jan-2020 17:01:53 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5174.D

Injection Date:	15-Jan-2020 15:09:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STD8260 L7			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



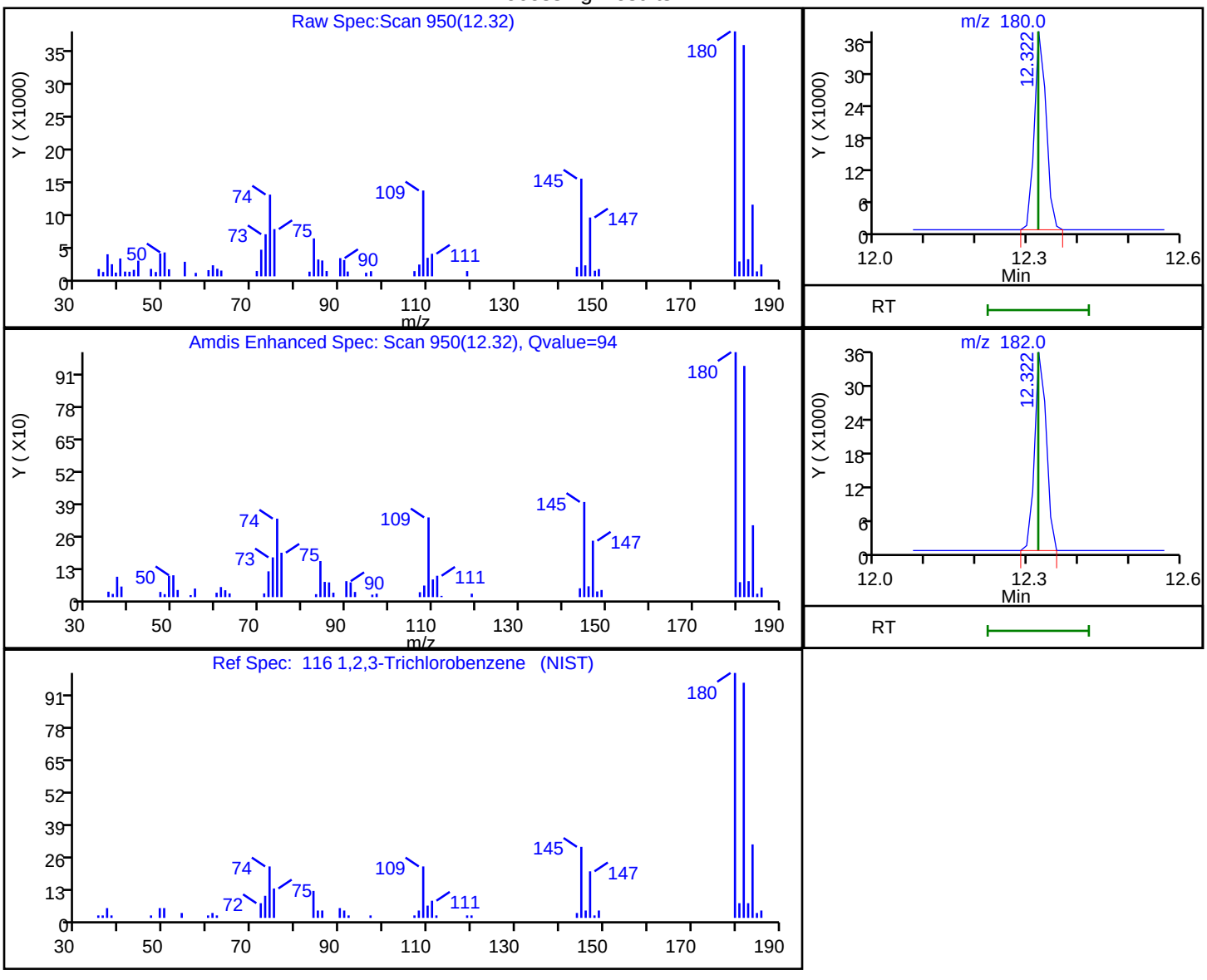
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File:	\\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5174.D				
Injection Date:	15-Jan-2020 15:09:30	Instrument ID:	A3UX10		
Lims ID:	STD8260 L7				
Client ID:					
Operator ID:	001644	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_10	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

116 1,2,3-Trichlorobenzene, CAS: 87-61-6

Processing Results



RT	Mass	Response	Amount
12.32	180.00	60418	13.207226
12.32	182.00	56546	

Reviewer: williamsla, 20-Jan-2020 15:37:29

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

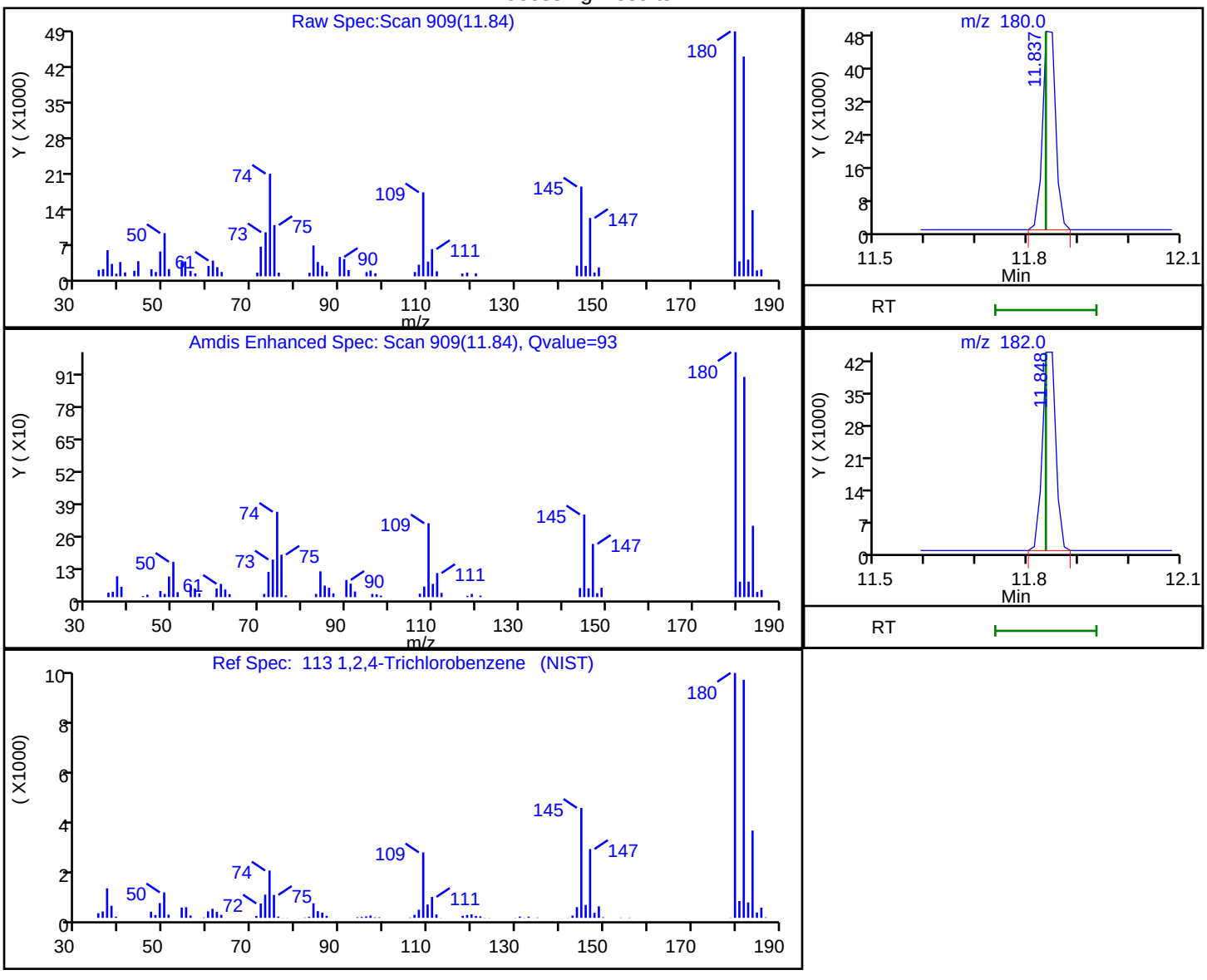
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5174.D
Injection Date: 15-Jan-2020 15:09:30 Instrument ID: A3UX10
Lims ID: STD8260 L7
Client ID:
Operator ID: 001644 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

113 1,2,4-Trichlorobenzene, CAS: 120-82-1

Processing Results



RT	Mass	Response	Amount
11.84	180.00	87122	21.282434
11.85	182.00	79970	

Reviewer: williamsla, 20-Jan-2020 16:44:14
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

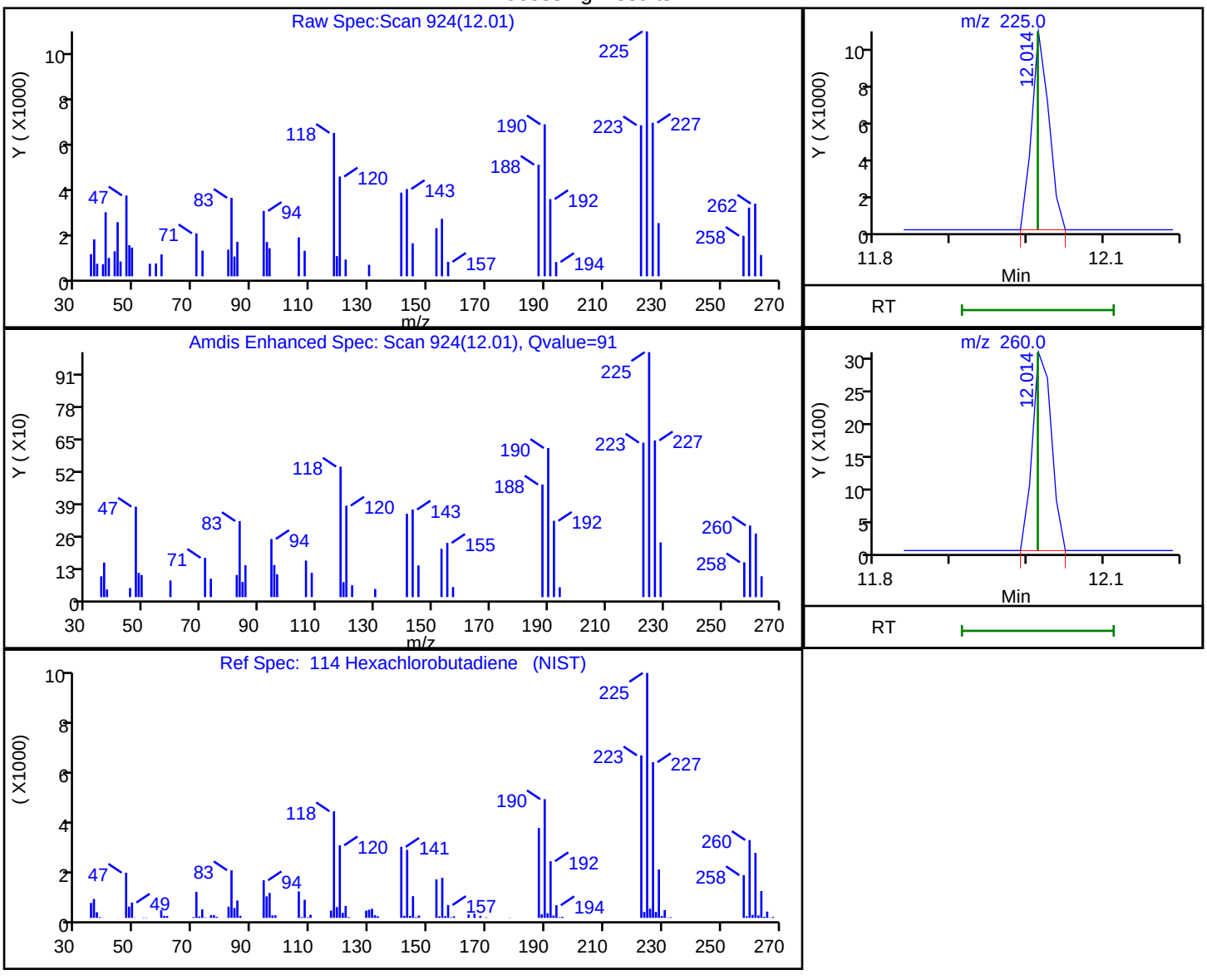
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5174.D
Injection Date: 15-Jan-2020 15:09:30 Instrument ID: A3UX10
Lims ID: STD8260 L7
Client ID:
Operator ID: 001644 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

114 Hexachlorobutadiene, CAS: 87-68-3

Processing Results



RT	Mass	Response	Amount
12.01	225.00	16641	13.966535
12.01	260.00	5218	

Reviewer: williamsla, 20-Jan-2020 15:51:31
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

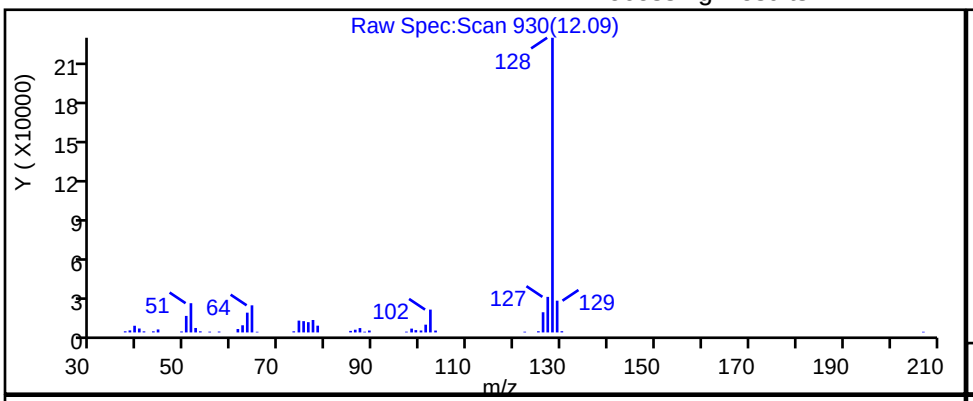
User Disabled Compound Report

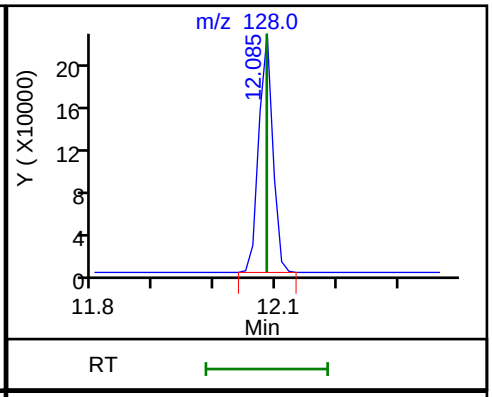
Eurofins TestAmerica, Canton

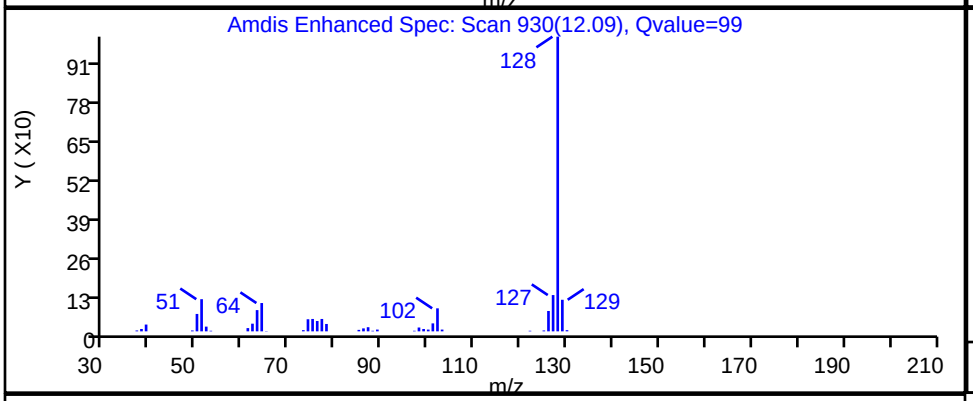
Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5174.D
Injection Date: 15-Jan-2020 15:09:30 Instrument ID: A3UX10
Lims ID: STD8260 L7
Client ID:
Operator ID: 001644 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

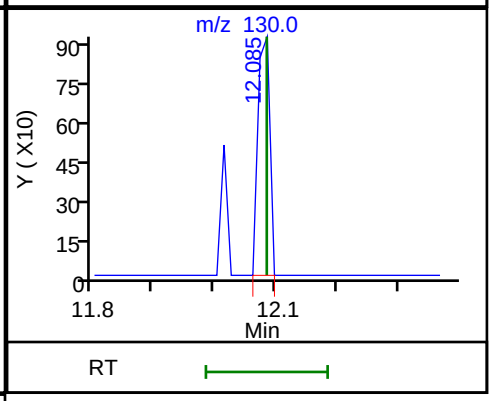
115 Naphthalene, CAS: 91-20-3

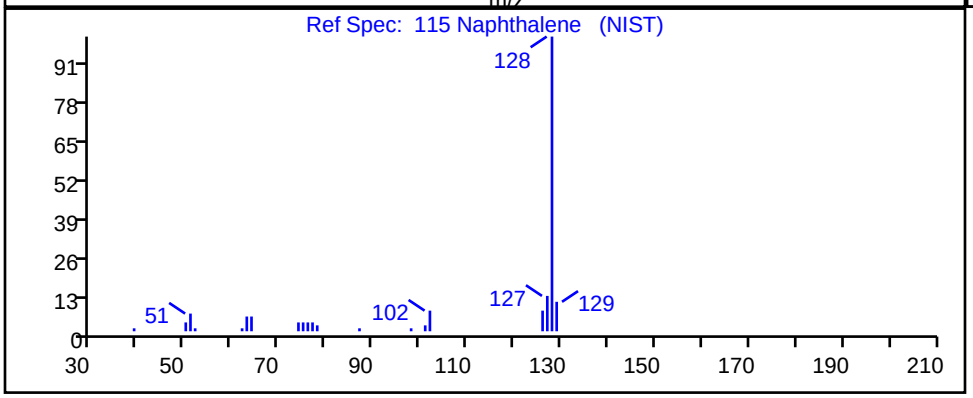
Processing Results











RT	Mass	Response	Amount
12.09	128.00	351805	14.522046
12.09	130.00	1251	

Reviewer: williamsla, 20-Jan-2020 15:37:26
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

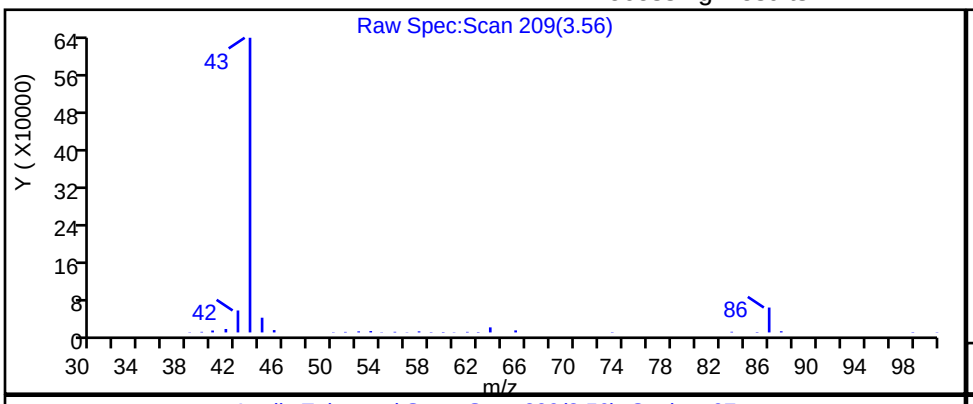
User Disabled Compound Report

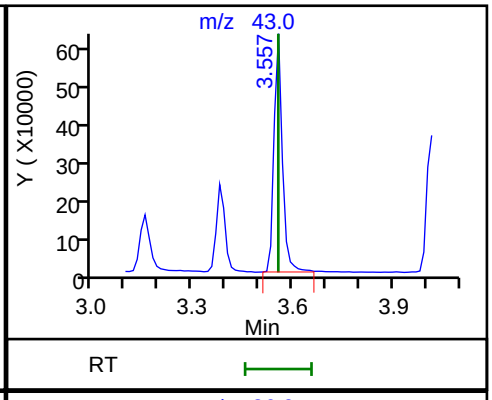
Eurofins TestAmerica, Canton

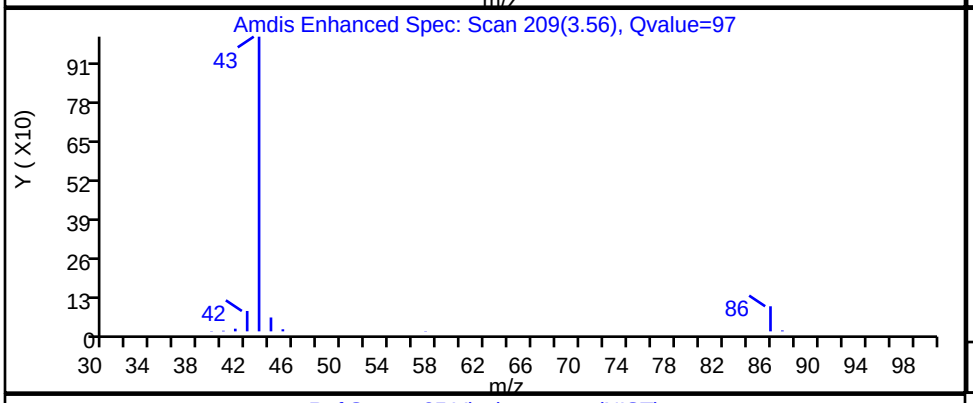
Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5174.D
Injection Date: 15-Jan-2020 15:09:30 Instrument ID: A3UX10
Lims ID: STD8260 L7
Client ID:
Operator ID: 001644 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

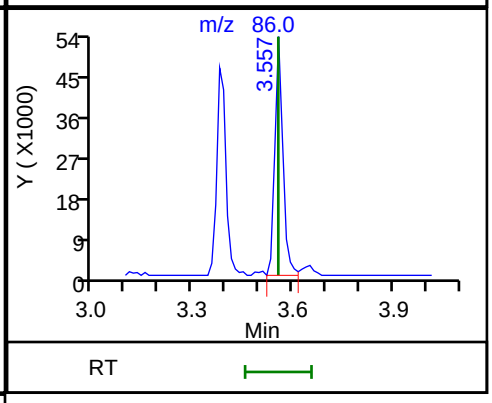
35 Vinyl acetate, CAS: 108-05-4

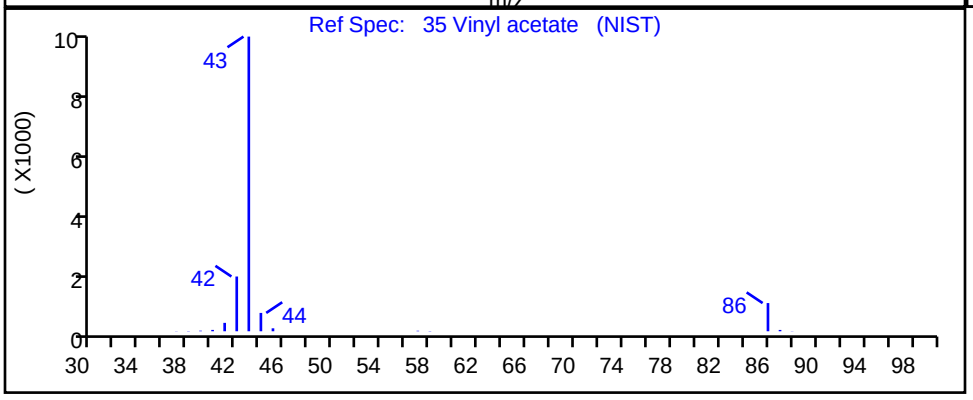
Processing Results











RT	Mass	Response	Amount
3.56	43.00	1112947	39.993189
3.56	86.00	91366	

Reviewer: williamsla, 20-Jan-2020 15:50:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5175.D
Lims ID: STD8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Jan-2020 15:34:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-003
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 17:08:45 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 20-Jan-2020 16:42:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.973	4.972	0.001	98	408078	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.635	7.646	-0.011	93	264953	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.870	9.869	0.001	96	103950	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.406	4.408	-0.002	93	193471	20.0	20.3	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.690	4.691	-0.001	97	278242	20.0	19.9	
$ 6 Toluene-d8 (Surr)	98	6.334	6.336	-0.002	94	805170	20.0	19.8	
$ 7 4-Bromofluorobenzene (Surr	95	8.747	8.749	-0.002	78	258874	20.0	20.2	
9 Dichlorodifluoromethane	85	1.247	1.249	-0.002	99	184971	20.0	20.9	
10 Chloromethane	50	1.401	1.391	0.010	99	391156	20.0	21.6	
11 Vinyl chloride	62	1.484	1.486	-0.002	98	277193	20.0	20.8	
12 Butadiene	54	1.519	1.510	0.009	95	152127	20.0	20.5	
13 Bromomethane	94	1.768	1.758	0.010	89	115685	20.0	18.2	
14 Chloroethane	64	1.851	1.841	0.010	99	157736	20.0	22.1	
15 Dichlorofluoromethane	67	2.016	2.018	-0.002	98	339518	20.0	18.9	
16 Trichlorofluoromethane	101	2.052	2.042	0.010	99	211561	20.0	22.1	
17 Ethyl ether	59	2.300	2.290	0.010	98	250763	20.0	19.9	
18 Acrolein	56	2.407	2.409	-0.002	99	222686	100.0	92.6	
19 1,1-Dichloroethene	96	2.489	2.491	-0.002	92	191503	20.0	19.9	
20 1,1,2-Trichloro-1,2,2-trif	151	2.525	2.515	0.010	97	92141	20.0	20.0	
21 Acetone	43	2.549	2.539	0.010	100	205689	40.0	39.9	
22 Iodomethane	142	2.620	2.621	-0.001	97	229631	20.0	20.4	
24 Carbon disulfide	76	2.691	2.681	0.009	100	671488	20.0	19.9	
26 3-Chloro-1-propene	76	2.809	2.811	-0.002	90	186739	20.0	21.4	
27 Methyl acetate	43	2.832	2.834	-0.002	99	570411	40.0	39.6	
28 Methylene Chloride	84	2.915	2.917	-0.002	97	238705	20.0	20.1	
29 2-Methyl-2-propanol	59	3.022	3.024	-0.002	98	328526	200.0	195.0	
31 Acrylonitrile	53	3.128	3.130	-0.002	99	1379901	200.0	196.3	
30 trans-1,2-Dichloroethene	96	3.152	3.154	-0.002	90	225779	20.0	20.3	
32 Methyl tert-butyl ether	73	3.152	3.154	-0.002	98	665746	20.0	20.5	
33 Hexane	86	3.388	3.378	0.010	91	44066	20.0	20.5	
34 1,1-Dichloroethane	63	3.507	3.509	-0.002	96	532464	20.0	20.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.554	3.556	-0.002	97	670872	20.0	20.5	
39 2,2-Dichloropropane	97	4.003	4.005	-0.002	76	49556	20.0	19.8	
40 cis-1,2-Dichloroethene	96	4.003	4.005	-0.002	88	248831	20.0	20.0	
41 2-Butanone (MEK)	43	4.015	4.017	-0.002	99	334871	40.0	37.5	
45 Chlorobromomethane	128	4.205	4.206	-0.001	90	107315	20.0	21.2	
46 Tetrahydrofuran	42	4.240	4.242	-0.002	93	229072	40.0	36.6	
47 Chloroform	83	4.264	4.266	-0.002	97	380793	20.0	19.7	
48 1,1,1-Trichloroethane	97	4.429	4.419	0.010	95	237910	20.0	19.5	
49 Cyclohexane	56	4.465	4.467	-0.002	91	461154	20.0	19.9	
50 1,1-Dichloropropene	75	4.559	4.561	-0.002	91	302315	20.0	20.0	
51 Carbon tetrachloride	117	4.559	4.561	-0.002	74	203301	20.0	20.8	
52 Isobutyl alcohol	41	4.666	4.668	-0.002	95	280839	500.0	495.9	
53 Benzene	78	4.737	4.739	-0.002	98	1006535	20.0	19.9	
54 1,2-Dichloroethane	62	4.749	4.751	-0.002	97	372263	20.0	20.1	
56 n-Heptane	100	4.962	4.963	-0.001	96	35822	20.0	21.0	
58 Trichloroethene	130	5.281	5.283	-0.002	96	207059	20.0	19.8	
60 Methylcyclohexane	83	5.447	5.448	-0.001	98	268151	20.0	20.1	
61 1,2-Dichloropropane	63	5.470	5.472	-0.002	96	307572	20.0	19.4	
63 Dibromomethane	93	5.577	5.579	-0.002	90	131742	20.0	20.4	
64 1,4-Dioxane	88	5.588	5.590	-0.002	95	49426	400.0	397.7	
65 Dichlorobromomethane	83	5.707	5.709	-0.002	98	288240	20.0	20.0	
67 2-Chloroethyl vinyl ether	63	5.967	5.969	-0.002	91	457211	40.0	39.9	
68 cis-1,3-Dichloropropene	75	6.097	6.099	-0.002	91	402901	20.0	20.4	
69 4-Methyl-2-pentanone (MIBK	43	6.239	6.241	-0.002	97	694450	40.0	37.6	
70 Toluene	91	6.393	6.395	-0.002	97	952043	20.0	19.6	
71 trans-1,3-Dichloropropene	75	6.594	6.596	-0.002	97	356734	20.0	20.9	
72 Ethyl methacrylate	69	6.677	6.667	0.010	95	362159	20.0	19.4	
73 1,1,2-Trichloroethane	97	6.760	6.761	-0.001	93	200859	20.0	19.5	
74 Tetrachloroethene	164	6.890	6.892	-0.002	92	114500	20.0	20.3	
75 1,3-Dichloropropane	76	6.901	6.903	-0.002	97	384481	20.0	20.5	
76 2-Hexanone	43	6.984	6.986	-0.002	97	470395	40.0	38.9	
78 Chlorodibromomethane	129	7.114	7.116	-0.002	90	178566	20.0	20.1	
80 Ethylene Dibromide	107	7.221	7.223	-0.002	98	181419	20.0	19.8	
82 Chlorobenzene	112	7.670	7.672	-0.002	91	520761	20.0	20.1	
83 1,1,1,2-Tetrachloroethane	131	7.741	7.743	-0.002	96	168350	20.0	20.8	
84 Ethylbenzene	106	7.765	7.767	-0.002	99	289622	20.0	20.1	
85 m-Xylene & p-Xylene	106	7.883	7.873	0.010	99	342261	20.0	20.0	
86 o-Xylene	106	8.250	8.252	-0.002	97	319375	20.0	19.9	
87 Styrene	104	8.262	8.264	-0.002	93	571751	20.0	19.9	
88 Bromoform	173	8.439	8.441	-0.002	93	96445	20.0	20.5	
89 Isopropylbenzene	105	8.605	8.607	-0.002	96	726047	20.0	19.5	
93 Bromobenzene	156	8.889	8.891	-0.002	95	162882	20.0	20.2	
92 1,1,2,2-Tetrachloroethane	83	8.889	8.891	-0.002	77	251928	20.0	20.0	
94 1,2,3-Trichloropropane	110	8.924	8.926	-0.002	86	68790	20.0	20.5	
95 trans-1,4-Dichloro-2-buten	53	8.948	8.938	0.010	88	106104	20.0	18.2	
96 N-Propylbenzene	120	8.995	8.997	-0.002	100	182904	20.0	19.7	
97 2-Chlorotoluene	126	9.078	9.080	-0.002	95	167723	20.0	20.0	
98 1,3,5-Trimethylbenzene	105	9.161	9.163	-0.002	94	543712	20.0	20.0	
99 4-Chlorotoluene	126	9.184	9.186	-0.002	99	180386	20.0	20.4	
100 tert-Butylbenzene	119	9.480	9.482	-0.002	95	394340	20.0	19.5	
102 1,2,4-Trimethylbenzene	105	9.527	9.529	-0.002	96	564871	20.0	19.4	
103 sec-Butylbenzene	105	9.693	9.695	-0.002	95	540475	20.0	19.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,3-Dichlorobenzene	146	9.799	9.801	-0.002	96	293479	20.0	20.2	
105 4-Isopropyltoluene	119	9.835	9.837	-0.002	97	440776	20.0	19.5	
106 1,4-Dichlorobenzene	146	9.894	9.884	0.010	93	293656	20.0	19.9	
109 n-Butylbenzene	91	10.237	10.239	-0.002	98	404747	20.0	19.1	
110 1,2-Dichlorobenzene	146	10.249	10.251	-0.002	93	286985	20.0	19.8	
111 1,2-Dibromo-3-Chloropropan	157	11.018	11.020	-0.002	74	34090	20.0	19.0	
113 1,2,4-Trichlorobenzene	180	11.846	11.836	0.010	93	93635	20.0	14.6	
114 Hexachlorobutadiene	225	12.011	12.013	-0.002	90	23374	20.0	14.9	
115 Naphthalene	128		12.084				ND	ND	U
116 1,2,3-Trichlorobenzene	180		12.321				ND	ND	U
S 128 1,2-Dichloroethene, Total	96				0			40.3	
S 129 1,3-Dichloropropene, Total	75				0			41.3	
S 130 Xylenes, Total	106				0		40.0	39.9	
S 156 Total BTEX	1				0		100.0	99.5	
S 131 Trihalomethanes, Total	1				0		80.0	80.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

VMRPRIMW_00369	Amount Added:	16.00	Units: uL
VMFASAW_00312	Amount Added:	16.00	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL
VMRGAS_00323	Amount Added:	16.00	Units: uL
vm50ss_00387	Amount Added:	16.00	Units: uL

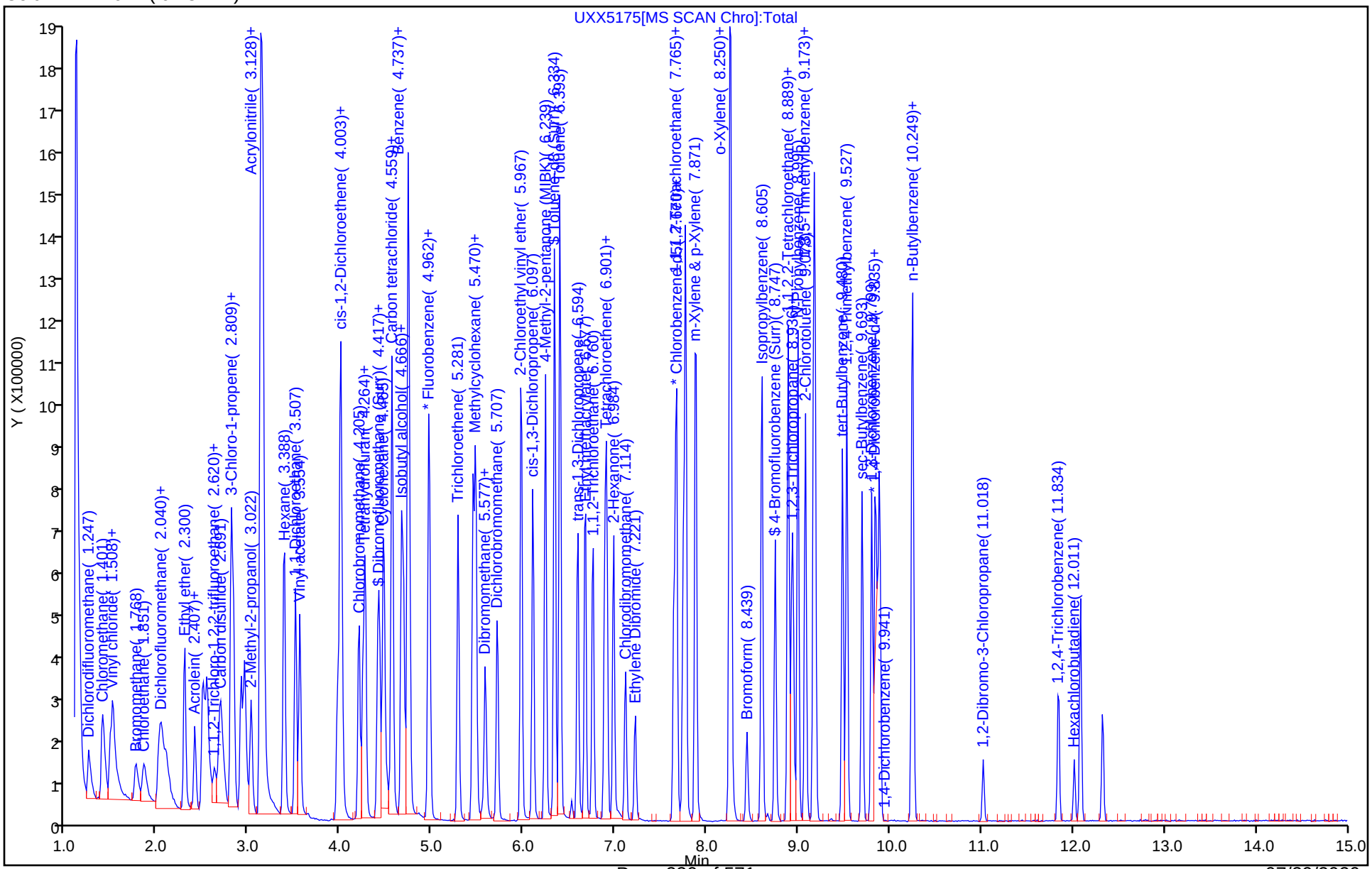
Report Date: 20-Jan-2020 17:08:47 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5175.D

Injection Date:	15-Jan-2020 15:34:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STD8260 L6			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



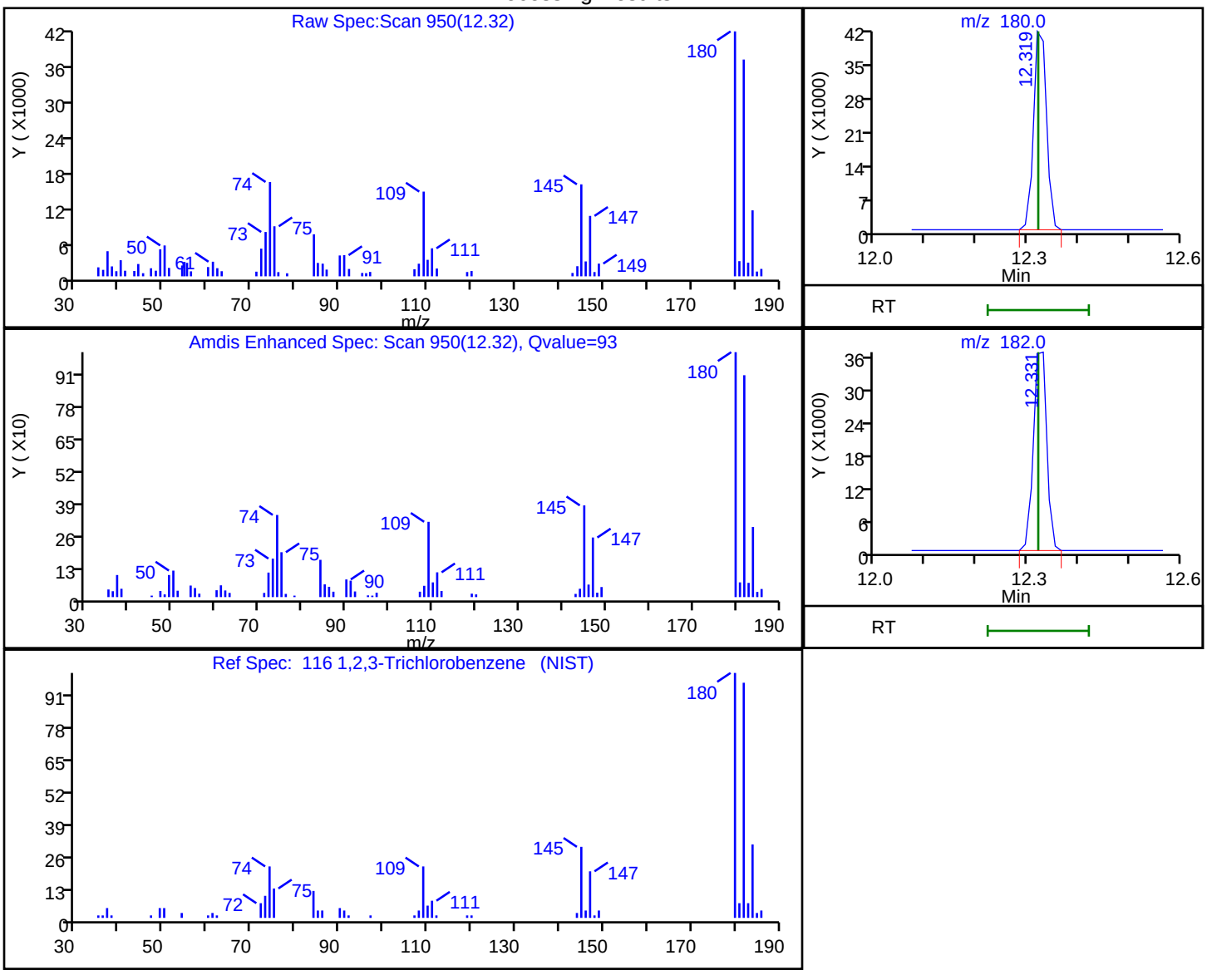
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5175.D
Injection Date: 15-Jan-2020 15:34:30 Instrument ID: A3UX10
Lims ID: STD8260 L6
Client ID:
Operator ID: 001644 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

116 1,2,3-Trichlorobenzene, CAS: 87-61-6

Processing Results



RT	Mass	Response	Amount
12.32	180.00	73707	15.139043
12.33	182.00	68027	

Reviewer: williamsla, 20-Jan-2020 15:37:46
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

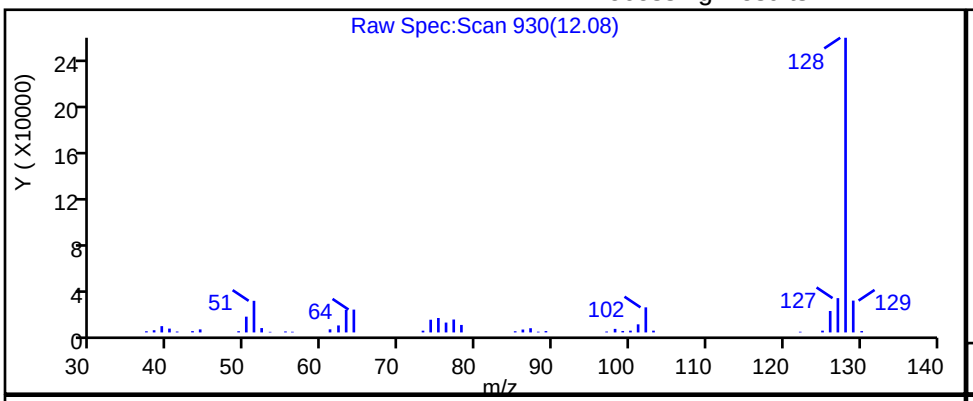
User Disabled Compound Report

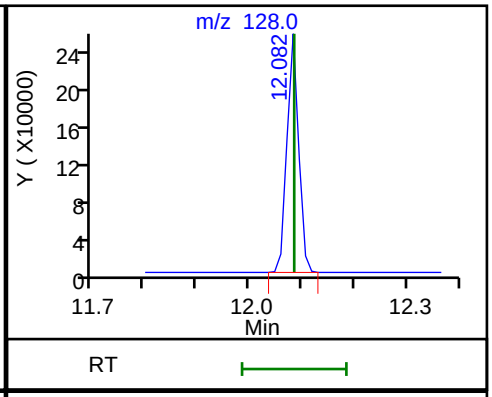
Eurofins TestAmerica, Canton

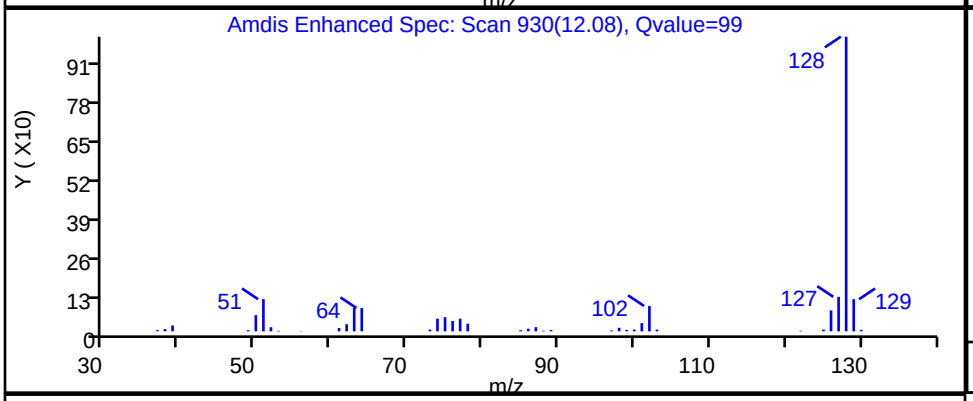
Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5175.D
Injection Date: 15-Jan-2020 15:34:30 Instrument ID: A3UX10
Lims ID: STD8260 L6
Client ID:
Operator ID: 001644 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

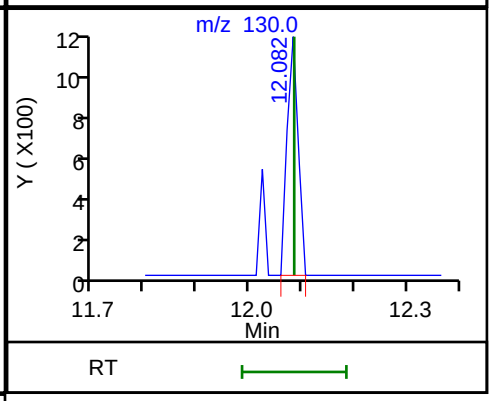
115 Naphthalene, CAS: 91-20-3

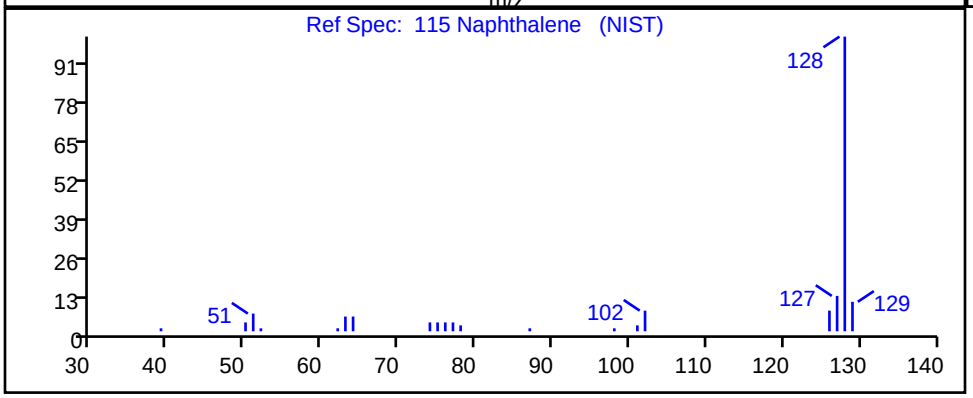
Processing Results











RT	Mass	Response	Amount
12.08	128.00	391053	16.421916
12.08	130.00	1711	

Reviewer: williamsla, 20-Jan-2020 15:37:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5176.D
Lims ID: STD8260 L5
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 15-Jan-2020 16:00:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-004
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:51:21 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 20-Jan-2020 15:46:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.973	4.973	0.000	96	402471	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.646	7.646	0.000	89	261526	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.870	9.870	0.000	96	107871	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.405	4.405	0.000	92	95327	10.0	10.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.689	4.689	0.000	97	136206	10.0	9.86	
$ 6 Toluene-d8 (Surr)	98	6.333	6.333	0.000	95	388305	10.0	9.66	
$ 7 4-Bromofluorobenzene (Surr	95	8.746	8.746	0.000	78	126701	10.0	10.0	
9 Dichlorodifluoromethane	85	1.247	1.247	0.000	99	89573	10.0	10.3	
10 Chloromethane	50	1.401	1.401	0.000	99	182157	10.0	10.2	
11 Vinyl chloride	62	1.484	1.484	0.000	98	129471	10.0	9.86	
12 Butadiene	54	1.519	1.519	0.000	95	76586	10.0	10.3	
13 Bromomethane	94	1.768	1.768	0.000	91	59557	10.0	9.52	
14 Chloroethane	64	1.850	1.850	0.000	98	74548	10.0	10.6	
15 Dichlorofluoromethane	67	2.028	2.028	0.000	99	164760	10.0	9.27	
16 Trichlorofluoromethane	101	2.052	2.052	0.000	99	94875	10.0	10.0	
17 Ethyl ether	59	2.300	2.300	0.000	98	129451	10.0	10.4	
18 Acrolein	56	2.406	2.406	0.000	99	119223	50.0	50.3	
19 1,1-Dichloroethene	96	2.501	2.501	0.000	94	100715	10.0	10.6	
20 1,1,2-Trichloro-1,2,2-trif	151	2.525	2.525	0.000	93	45925	10.0	10.5	
21 Acetone	43	2.548	2.548	0.000	100	115530	20.0	21.8	
22 Iodomethane	142	2.631	2.631	0.000	96	114147	10.0	10.3	
24 Carbon disulfide	76	2.690	2.690	0.000	100	350621	10.0	10.5	
26 3-Chloro-1-propene	76	2.809	2.809	0.000	91	84698	10.0	9.85	
27 Methyl acetate	43	2.832	2.832	0.000	99	299742	20.0	21.1	
28 Methylene Chloride	84	2.915	2.915	0.000	97	119814	10.0	10.2	
29 2-Methyl-2-propanol	59	3.021	3.021	0.000	98	183739	100.0	110.6	
31 Acrylonitrile	53	3.128	3.128	0.000	99	727779	100.0	105.0	
30 trans-1,2-Dichloroethene	96	3.152	3.152	0.000	91	113370	10.0	10.3	
32 Methyl tert-butyl ether	73	3.152	3.152	0.000	98	344262	10.0	10.7	
33 Hexane	86	3.388	3.388	0.000	92	22347	10.0	10.5	
34 1,1-Dichloroethane	63	3.506	3.506	0.000	96	271075	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.554	3.554	0.000	97	309795	10.0	9.91	
39 2,2-Dichloropropane	97	4.003	4.003	0.000	50	25966	10.0	10.5	
40 cis-1,2-Dichloroethene	96	4.003	4.003	0.000	87	131741	10.0	10.8	
41 2-Butanone (MEK)	43	4.015	4.015	0.000	99	187669	20.0	21.3	
45 Chlorobromomethane	128	4.204	4.204	0.000	87	53066	10.0	10.6	
46 Tetrahydrofuran	42	4.240	4.240	0.000	93	127746	20.0	20.7	
47 Chloroform	83	4.275	4.275	0.000	98	200134	10.0	10.5	
48 1,1,1-Trichloroethane	97	4.429	4.429	0.000	96	125222	10.0	10.4	
49 Cyclohexane	56	4.465	4.465	0.000	91	240944	10.0	10.6	
50 1,1-Dichloropropene	75	4.559	4.559	0.000	90	157561	10.0	10.6	
51 Carbon tetrachloride	117	4.559	4.559	0.000	73	101403	10.0	10.5	
52 Isobutyl alcohol	41	4.666	4.666	0.000	95	152214	250.0	270.2	
53 Benzene	78	4.737	4.737	0.000	98	521274	10.0	10.5	
54 1,2-Dichloroethane	62	4.748	4.748	0.000	96	190893	10.0	10.4	
56 n-Heptane	100	4.961	4.961	0.000	96	19537	10.0	11.6	
58 Trichloroethene	130	5.281	5.281	0.000	95	109296	10.0	10.6	
60 Methylcyclohexane	83	5.446	5.446	0.000	97	141004	10.0	10.7	
61 1,2-Dichloropropane	63	5.470	5.470	0.000	97	164272	10.0	10.5	
63 Dibromomethane	93	5.576	5.576	0.000	90	66754	10.0	10.5	
64 1,4-Dioxane	88	5.588	5.588	0.000	98	27049	200.0	213.4	
65 Dichlorobromomethane	83	5.707	5.707	0.000	97	147444	10.0	10.4	
67 2-Chloroethyl vinyl ether	63	5.967	5.967	0.000	91	241641	20.0	21.4	
68 cis-1,3-Dichloropropene	75	6.097	6.097	0.000	91	205433	10.0	10.5	
69 4-Methyl-2-pentanone (MIBK	43	6.239	6.239	0.000	97	386894	20.0	21.3	
70 Toluene	91	6.393	6.393	0.000	97	504086	10.0	10.5	
71 trans-1,3-Dichloropropene	75	6.594	6.594	0.000	97	183024	10.0	10.9	
72 Ethyl methacrylate	69	6.676	6.676	0.000	94	194915	10.0	10.6	
73 1,1,2-Trichloroethane	97	6.759	6.759	0.000	93	107654	10.0	10.6	
74 Tetrachloroethene	164	6.889	6.889	0.000	91	57524	10.0	10.3	
75 1,3-Dichloropropane	76	6.901	6.901	0.000	98	197340	10.0	10.7	
76 2-Hexanone	43	6.984	6.984	0.000	96	259574	20.0	21.7	
78 Chlorodibromomethane	129	7.114	7.114	0.000	91	94601	10.0	10.8	
80 Ethylene Dibromide	107	7.221	7.221	0.000	97	99558	10.0	11.0	
82 Chlorobenzene	112	7.670	7.670	0.000	91	275411	10.0	10.8	
83 1,1,1,2-Tetrachloroethane	131	7.741	7.741	0.000	96	87822	10.0	11.0	
84 Ethylbenzene	106	7.765	7.765	0.000	99	152603	10.0	10.7	
85 m-Xylene & p-Xylene	106	7.883	7.883	0.000	99	183493	10.0	10.8	
86 o-Xylene	106	8.250	8.250	0.000	96	168052	10.0	10.6	
87 Styrene	104	8.261	8.261	0.000	94	299470	10.0	10.6	
88 Bromoform	173	8.439	8.439	0.000	93	52762	10.0	11.4	
89 Isopropylbenzene	105	8.605	8.605	0.000	96	394049	10.0	10.7	
93 Bromobenzene	156	8.888	8.888	0.000	94	83151	10.0	9.96	
92 1,1,2,2-Tetrachloroethane	83	8.888	8.888	0.000	78	133615	10.0	10.2	
94 1,2,3-Trichloropropane	110	8.924	8.924	0.000	85	37501	10.0	10.8	
95 trans-1,4-Dichloro-2-buten	53	8.948	8.948	0.000	88	53115	10.0	9.07	
96 N-Propylbenzene	120	8.995	8.995	0.000	100	98281	10.0	10.2	
97 2-Chlorotoluene	126	9.078	9.078	0.000	95	87963	10.0	10.1	
98 1,3,5-Trimethylbenzene	105	9.172	9.172	0.000	94	295183	10.0	10.5	
99 4-Chlorotoluene	126	9.184	9.184	0.000	98	94251	10.0	10.3	
100 tert-Butylbenzene	119	9.480	9.480	0.000	95	217722	10.0	10.4	
102 1,2,4-Trimethylbenzene	105	9.527	9.527	0.000	96	313247	10.0	10.4	
103 sec-Butylbenzene	105	9.693	9.693	0.000	94	304021	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,3-Dichlorobenzene	146	9.799	9.799	0.000	94	151080	10.0	10.0	
105 4-Isopropyltoluene	119	9.835	9.835	0.000	97	246570	10.0	10.5	
106 1,4-Dichlorobenzene	146	9.882	9.882	0.000	94	157477	10.0	10.3	
109 n-Butylbenzene	91	10.237	10.237	0.000	99	231231	10.0	10.5	
110 1,2-Dichlorobenzene	146	10.249	10.249	0.000	92	157537	10.0	10.5	
111 1,2-Dibromo-3-Chloropropan	157	11.018	11.018	0.000	74	23044	10.0	10.7	
113 1,2,4-Trichlorobenzene	180	11.846	11.846	0.000	92	70921	10.0	10.7	
114 Hexachlorobutadiene	225	12.011	12.011	0.000	87	16555	10.0	10.2	
115 Naphthalene	128	12.082	12.082	0.000	99	326917	10.0	9.38	
116 1,2,3-Trichlorobenzene	180	12.319	12.319	0.000	92	64230	10.0	9.70	
S 130 Xylenes, Total	106				0		20.0	21.5	
S 156 Total BTEX	1				0		50.0	53.2	
S 131 Trihalomethanes, Total	1				0		40.0	43.0	

Reagents:

VMRPRIMW_00369	Amount Added:	8.00	Units: uL
VMFASAW_00312	Amount Added:	8.00	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL
VMRGAS_00323	Amount Added:	8.00	Units: uL
vm50ss_00387	Amount Added:	8.00	Units: uL

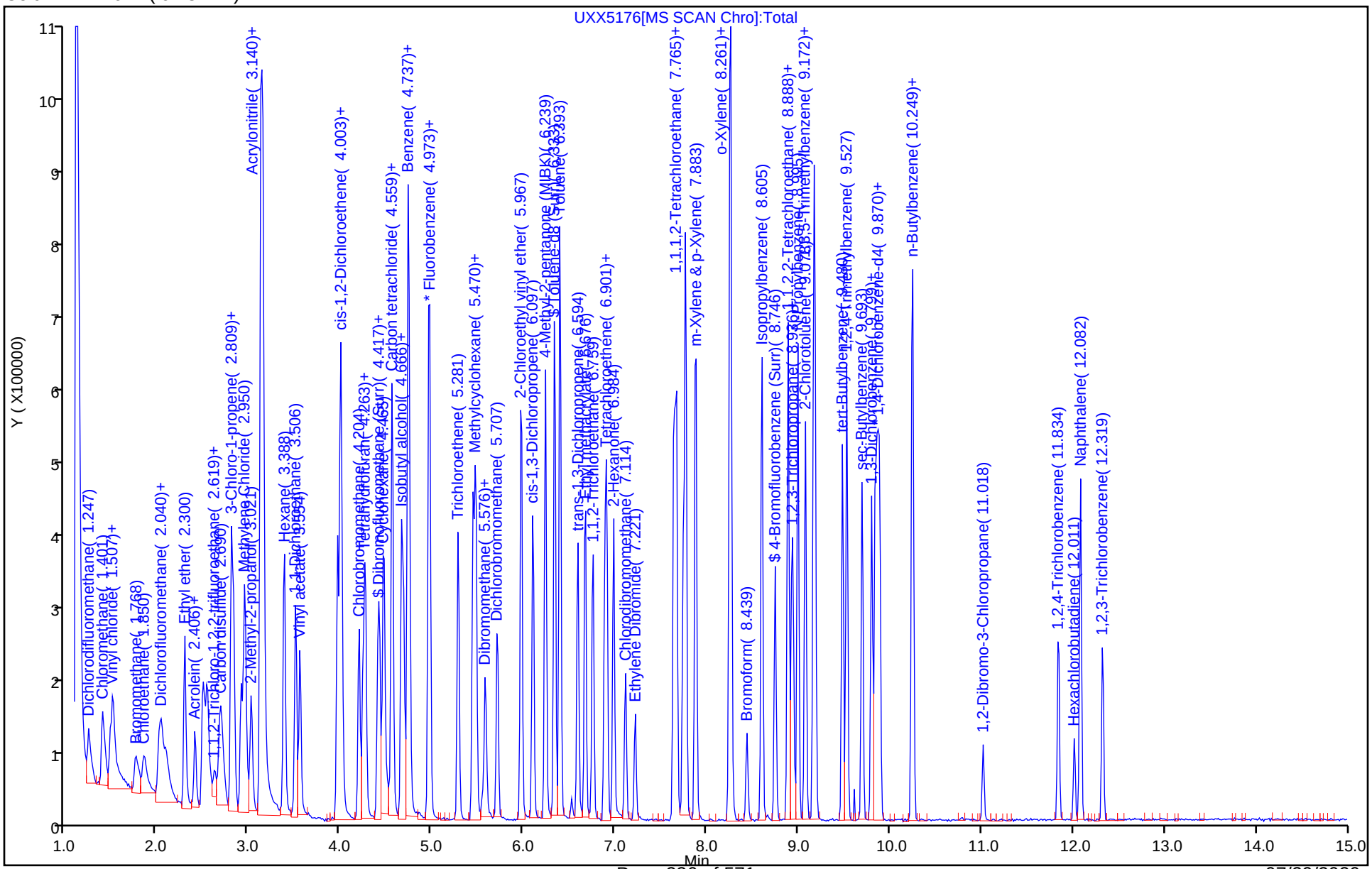
Report Date: 20-Jan-2020 16:51:23 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5176.D

Injection Date:	15-Jan-2020 16:00:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STD8260 L5			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5177.D
Lims ID: STD8260 L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-Jan-2020 16:25:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-005
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:51:30 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 20-Jan-2020 13:35:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.975	4.975	0.000	98	395375	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.637	7.637	0.000	91	263159	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.861	9.861	0.000	97	105917	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.408	4.408	0.000	92	44962	5.00	4.87	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.691	4.691	0.000	96	68712	5.00	5.06	
$ 6 Toluene-d8 (Surr)	98	6.336	6.336	0.000	94	194389	5.00	4.80	
$ 7 4-Bromofluorobenzene (Surr	95	8.749	8.749	0.000	79	62957	5.00	4.94	
9 Dichlorodifluoromethane	85	1.249	1.249	0.000	98	41891	5.00	4.89	
10 Chloromethane	50	1.391	1.391	0.000	98	85933	5.00	4.91	
11 Vinyl chloride	62	1.486	1.486	0.000	98	66500	5.00	5.15	
12 Butadiene	54	1.510	1.510	0.000	92	44552	5.00	5.90	
13 Bromomethane	94	1.758	1.758	0.000	88	32401	5.00	5.27	
14 Chloroethane	64	1.841	1.841	0.000	98	36120	5.00	5.22	
15 Dichlorofluoromethane	67	2.018	2.018	0.000	98	88338	5.00	5.06	
16 Trichlorofluoromethane	101	2.042	2.042	0.000	95	48652	5.00	5.24	
17 Ethyl ether	59	2.290	2.290	0.000	98	64767	5.00	5.32	
18 Acrolein	56	2.409	2.409	0.000	99	64403	25.0	27.6	
19 1,1-Dichloroethene	96	2.491	2.491	0.000	93	48165	5.00	5.17	
20 1,1,2-Trichloro-1,2,2-trif	151	2.515	2.515	0.000	41	20968	5.00	5.34	
21 Acetone	43	2.539	2.539	0.000	100	57675	10.0	10.1	
22 Iodomethane	142	2.621	2.621	0.000	96	56486	5.00	5.18	
24 Carbon disulfide	76	2.681	2.681	0.000	99	170025	5.00	5.21	
26 3-Chloro-1-propene	76	2.811	2.811	0.000	91	44624	5.00	5.28	
27 Methyl acetate	43	2.834	2.834	0.000	99	153053	10.0	11.0	
28 Methylene Chloride	84	2.917	2.917	0.000	96	60151	5.00	5.23	
29 2-Methyl-2-propanol	59	3.024	3.024	0.000	98	83819	50.0	51.3	
31 Acrylonitrile	53	3.130	3.130	0.000	100	358288	50.0	52.6	
30 trans-1,2-Dichloroethene	96	3.154	3.154	0.000	88	57846	5.00	5.36	
32 Methyl tert-butyl ether	73	3.154	3.154	0.000	97	156813	5.00	4.97	
33 Hexane	86	3.378	3.378	0.000	91	10877	5.00	5.22	
34 1,1-Dichloroethane	63	3.509	3.509	0.000	96	133331	5.00	5.23	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.556	3.556	0.000	97	139049	5.00	4.85	
39 2,2-Dichloropropane	97	4.005	4.005	0.000	50	12641	5.00	5.22	
40 cis-1,2-Dichloroethene	96	4.005	4.005	0.000	88	62462	5.00	5.19	
41 2-Butanone (MEK)	43	4.017	4.017	0.000	99	85736	10.0	9.92	
45 Chlorobromomethane	128	4.206	4.206	0.000	86	25448	5.00	5.19	
46 Tetrahydrofuran	42	4.242	4.242	0.000	93	63550	10.0	10.5	
47 Chloroform	83	4.266	4.266	0.000	98	95814	5.00	5.13	
48 1,1,1-Trichloroethane	97	4.419	4.419	0.000	95	60526	5.00	5.11	
49 Cyclohexane	56	4.467	4.467	0.000	92	116343	5.00	5.19	
51 Carbon tetrachloride	117	4.561	4.561	0.000	75	51250	5.00	5.42	
50 1,1-Dichloropropene	75	4.561	4.561	0.000	88	74907	5.00	5.11	
52 Isobutyl alcohol	41	4.668	4.668	0.000	94	73630	125.0	127.5	
53 Benzene	78	4.739	4.739	0.000	98	260636	5.00	5.33	
54 1,2-Dichloroethane	62	4.751	4.751	0.000	95	94942	5.00	5.28	
56 n-Heptane	100	4.963	4.963	0.000	96	8836	5.00	5.35	
58 Trichloroethene	130	5.283	5.283	0.000	95	53807	5.00	5.30	
60 Methylcyclohexane	83	5.448	5.448	0.000	96	65075	5.00	5.03	
61 1,2-Dichloropropane	63	5.472	5.472	0.000	96	79871	5.00	5.19	
63 Dibromomethane	93	5.579	5.579	0.000	89	31602	5.00	5.05	
64 1,4-Dioxane	88	5.590	5.590	0.000	89	8358	100.0	86.6	
65 Dichlorobromomethane	83	5.709	5.709	0.000	97	72710	5.00	5.20	
67 2-Chloroethyl vinyl ether	63	5.969	5.969	0.000	91	119394	10.0	10.8	
68 cis-1,3-Dichloropropene	75	6.099	6.099	0.000	92	102349	5.00	5.35	
69 4-Methyl-2-pentanone (MIBK	43	6.241	6.241	0.000	97	190519	10.0	10.7	
70 Toluene	91	6.395	6.395	0.000	98	248868	5.00	5.16	
71 trans-1,3-Dichloropropene	75	6.596	6.596	0.000	97	87136	5.00	5.15	
72 Ethyl methacrylate	69	6.667	6.667	0.000	93	101519	5.00	5.46	
73 1,1,2-Trichloroethane	97	6.761	6.761	0.000	91	54109	5.00	5.30	
74 Tetrachloroethene	164	6.892	6.892	0.000	93	28561	5.00	5.10	
75 1,3-Dichloropropane	76	6.903	6.903	0.000	97	95599	5.00	5.14	
76 2-Hexanone	43	6.986	6.986	0.000	97	127375	10.0	10.6	
78 Chlorodibromomethane	129	7.116	7.116	0.000	89	45488	5.00	5.15	
80 Ethylene Dibromide	107	7.223	7.223	0.000	96	47261	5.00	5.20	
82 Chlorobenzene	112	7.672	7.672	0.000	91	131794	5.00	5.12	
83 1,1,1,2-Tetrachloroethane	131	7.743	7.743	0.000	96	41967	5.00	5.22	
84 Ethylbenzene	106	7.767	7.767	0.000	99	74081	5.00	5.17	
85 m-Xylene & p-Xylene	106	7.873	7.873	0.000	98	86448	5.00	5.08	
86 o-Xylene	106	8.252	8.252	0.000	98	85719	5.00	5.38	
87 Styrene	104	8.264	8.264	0.000	94	145465	5.00	5.10	
88 Bromoform	173	8.441	8.441	0.000	92	26105	5.00	5.58	
89 Isopropylbenzene	105	8.607	8.607	0.000	96	192618	5.00	5.21	
92 1,1,2,2-Tetrachloroethane	83	8.891	8.891	0.000	79	67486	5.00	5.27	
93 Bromobenzene	156	8.891	8.891	0.000	94	40920	5.00	4.99	
94 1,2,3-Trichloropropane	110	8.926	8.926	0.000	86	19146	5.00	5.60	
95 trans-1,4-Dichloro-2-buten	53	8.938	8.938	0.000	87	25489	5.00	4.74	
96 N-Propylbenzene	120	8.997	8.997	0.000	100	47514	5.00	5.03	
97 2-Chlorotoluene	126	9.080	9.080	0.000	95	44478	5.00	5.22	
98 1,3,5-Trimethylbenzene	105	9.163	9.163	0.000	93	150264	5.00	5.44	
99 4-Chlorotoluene	126	9.186	9.186	0.000	98	47687	5.00	5.28	
100 tert-Butylbenzene	119	9.482	9.482	0.000	94	109170	5.00	5.30	
102 1,2,4-Trimethylbenzene	105	9.529	9.529	0.000	97	155708	5.00	5.26	
103 sec-Butylbenzene	105	9.695	9.695	0.000	95	155977	5.00	5.42	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,3-Dichlorobenzene	146	9.801	9.801	0.000	96	78243	5.00	5.28	
105 4-Isopropyltoluene	119	9.837	9.837	0.000	96	121479	5.00	5.29	
106 1,4-Dichlorobenzene	146	9.884	9.884	0.000	93	79180	5.00	5.26	
109 n-Butylbenzene	91	10.239	10.239	0.000	99	117002	5.00	5.41	
110 1,2-Dichlorobenzene	146	10.251	10.251	0.000	92	78394	5.00	5.31	
111 1,2-Dibromo-3-Chloropropan	157	11.020	11.020	0.000	74	12607	5.00	5.50	
113 1,2,4-Trichlorobenzene	180	11.836	11.836	0.000	93	36240	5.00	5.55	
114 Hexachlorobutadiene	225	12.013	12.013	0.000	88	8782	5.00	5.49	
115 Naphthalene	128	12.084	12.084	0.000	99	181044	5.00	5.29	
116 1,2,3-Trichlorobenzene	180	12.321	12.321	0.000	94	34569	5.00	5.32	
S 128 1,2-Dichloroethene, Total	96				0			10.5	
S 129 1,3-Dichloropropene, Total	75				0			10.5	
S 130 Xylenes, Total	106				0		10.0	10.5	
S 156 Total BTEX	1				0		25.0	26.1	
S 131 Trihalomethanes, Total	1				0		20.0	21.1	

Reagents:

VMRPRIMW_00369	Amount Added:	4.00	Units: uL	
VMFASAW_00312	Amount Added:	4.00	Units: uL	
VM50IS_00080	Amount Added:	1.00	Units: uL	
VMRGAS_00323	Amount Added:	4.00	Units: uL	
vm50ss_00387	Amount Added:	4.00	Units: uL	

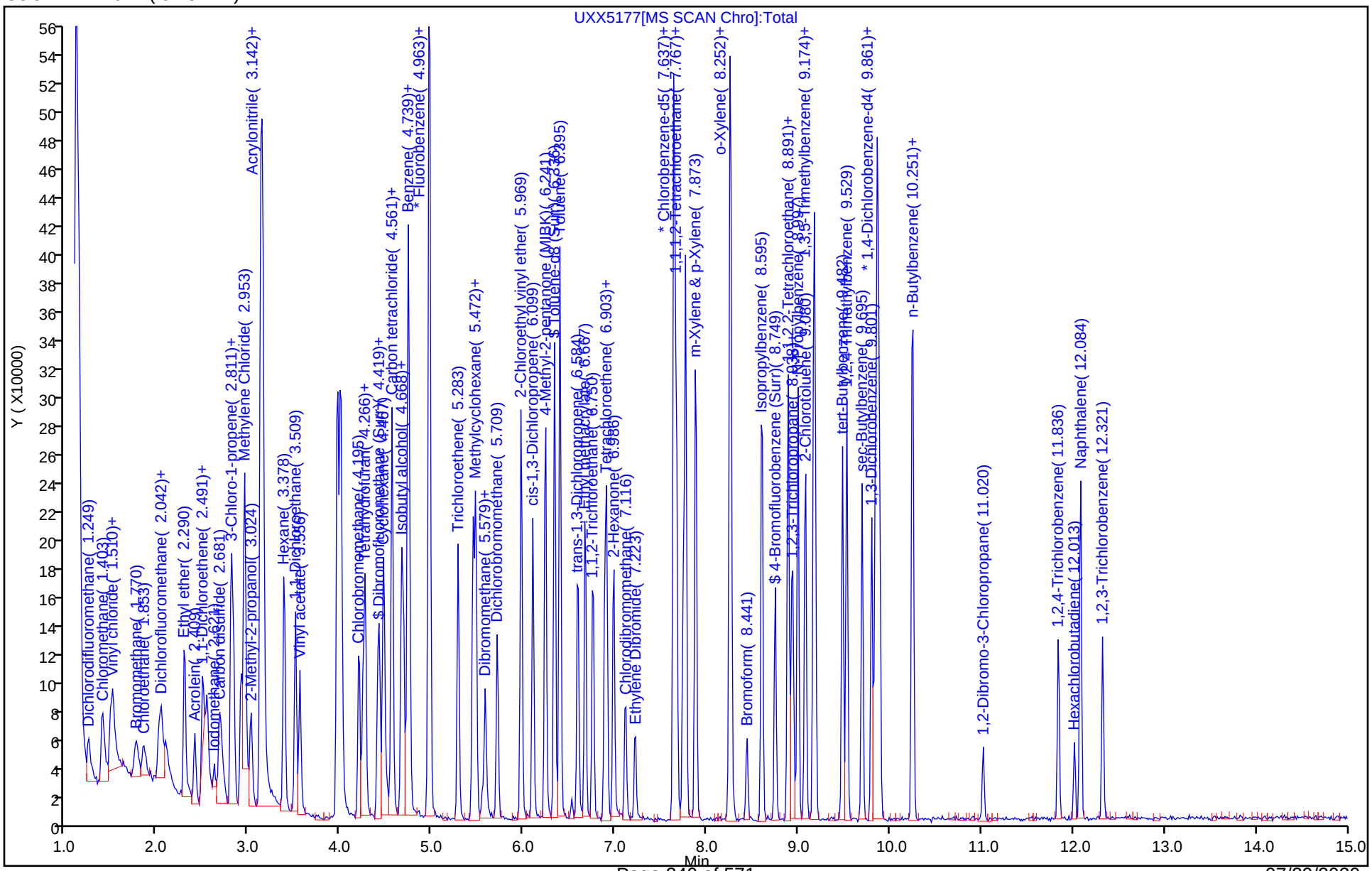
Report Date: 20-Jan-2020 16:51:32 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5177.D

Injection Date:	15-Jan-2020 16:25:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STD8260 L4			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5178.D
Lims ID: STD8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-Jan-2020 16:50:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-006
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:51:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 20-Jan-2020 15:36:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.974	4.975	-0.001	97	393679	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.636	7.637	-0.001	90	263400	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.859	9.861	-0.001	97	103243	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.406	4.408	-0.002	92	37185	4.00	4.04	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.690	4.691	-0.001	95	55814	4.00	4.13	
$ 6 Toluene-d8 (Surr)	98	6.335	6.336	-0.001	95	160706	4.00	3.97	
$ 7 4-Bromofluorobenzene (Surr	95	8.748	8.749	-0.001	79	51023	4.00	4.00	
9 Dichlorodifluoromethane	85	1.248	1.249	-0.001	98	33680	4.00	3.95	
10 Chloromethane	50	1.402	1.391	0.011	99	68617	4.00	3.94	
11 Vinyl chloride	62	1.485	1.486	-0.001	97	51236	4.00	3.99	
12 Butadiene	54	1.520	1.510	0.010	92	28448	4.00	3.63	
13 Bromomethane	94	1.769	1.758	0.011	92	24430	4.00	3.99	
14 Chloroethane	64	1.852	1.841	0.011	97	26016	4.00	3.78	
15 Dichlorofluoromethane	67	2.017	2.018	-0.001	98	67854	4.00	3.91	
16 Trichlorofluoromethane	101	2.053	2.042	0.011	97	37050	4.00	4.01	
17 Ethyl ether	59	2.301	2.290	0.011	99	47544	4.00	3.92	
18 Acrolein	56	2.407	2.409	-0.002	98	48809	20.0	21.0	
19 1,1-Dichloroethene	96	2.490	2.491	-0.001	94	38047	4.00	4.10	
20 1,1,2-Trichloro-1,2,2-trif	151	2.514	2.515	-0.001	45	14837	4.00	4.05	
21 Acetone	43	2.549	2.539	0.010	99	49433	8.00	8.41	
22 Iodomethane	142	2.632	2.621	0.011	97	42781	4.00	3.94	
24 Carbon disulfide	76	2.680	2.681	-0.001	99	131388	4.00	4.04	
26 3-Chloro-1-propene	76	2.810	2.811	-0.001	91	35023	4.00	4.16	
27 Methyl acetate	43	2.833	2.834	-0.001	99	113148	8.00	8.13	
28 Methylene Chloride	84	2.916	2.917	-0.001	97	43982	4.00	3.84	
29 2-Methyl-2-propanol	59	3.023	3.024	-0.001	98	62130	40.0	38.2	
31 Acrylonitrile	53	3.129	3.130	-0.001	99	267966	40.0	39.5	
30 trans-1,2-Dichloroethene	96	3.153	3.154	-0.001	88	41658	4.00	3.87	
32 Methyl tert-butyl ether	73	3.153	3.154	-0.001	97	125702	4.00	4.00	
33 Hexane	86	3.389	3.378	0.011	92	8352	4.00	4.03	
34 1,1-Dichloroethane	63	3.508	3.509	-0.001	95	102290	4.00	4.03	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.555	3.556	-0.001	96	100952	4.00	3.70	
39 2,2-Dichloropropane	97	4.004	4.005	-0.001	61	10781	4.00	4.47	
40 cis-1,2-Dichloroethene	96	4.004	4.005	-0.001	89	44803	4.00	3.74	
41 2-Butanone (MEK)	43	4.016	4.017	-0.001	98	68978	8.00	8.01	
45 Chlorobromomethane	128	4.205	4.206	-0.001	86	18971	4.00	3.89	
46 Tetrahydrofuran	42	4.241	4.242	-0.001	95	45424	8.00	7.53	
47 Chloroform	83	4.265	4.266	-0.001	97	75432	4.00	4.05	
48 1,1,1-Trichloroethane	97	4.430	4.419	0.011	95	48446	4.00	4.11	
49 Cyclohexane	56	4.466	4.467	-0.001	91	92889	4.00	4.16	
50 1,1-Dichloropropene	75	4.560	4.561	-0.001	90	58913	4.00	4.04	
51 Carbon tetrachloride	117	4.560	4.561	-0.001	73	39488	4.00	4.20	
52 Isobutyl alcohol	41	4.667	4.668	-0.001	96	51890	100.0	88.4	
53 Benzene	78	4.738	4.739	-0.001	97	197778	4.00	4.06	
54 1,2-Dichloroethane	62	4.750	4.751	-0.001	95	69151	4.00	3.86	
56 n-Heptane	100	4.962	4.963	-0.001	96	6183	4.00	3.76	
58 Trichloroethene	130	5.282	5.283	-0.001	93	39540	4.00	3.91	
60 Methylcyclohexane	83	5.447	5.448	-0.001	96	53694	4.00	4.16	
61 1,2-Dichloropropane	63	5.471	5.472	-0.001	96	61647	4.00	4.03	
63 Dibromomethane	93	5.578	5.579	-0.001	83	25254	4.00	4.05	
64 1,4-Dioxane	88	5.601	5.590	0.011	81	5481	80.0	68.4	
65 Dichlorobromomethane	83	5.708	5.709	-0.001	98	56640	4.00	4.07	
67 2-Chloroethyl vinyl ether	63	5.968	5.969	-0.001	92	89098	8.00	8.06	
68 cis-1,3-Dichloropropene	75	6.098	6.099	-0.001	91	76037	4.00	3.99	
69 4-Methyl-2-pentanone (MIBK	43	6.240	6.241	-0.001	97	149794	8.00	8.41	
70 Toluene	91	6.394	6.395	-0.001	96	190560	4.00	3.95	
71 trans-1,3-Dichloropropene	75	6.595	6.596	-0.001	98	68179	4.00	4.02	
72 Ethyl methacrylate	69	6.678	6.667	0.011	95	72802	4.00	3.91	
73 1,1,2-Trichloroethane	97	6.760	6.761	-0.001	93	39718	4.00	3.89	
74 Tetrachloroethene	164	6.890	6.892	-0.002	92	22751	4.00	4.06	
75 1,3-Dichloropropane	76	6.902	6.903	-0.001	97	74760	4.00	4.02	
76 2-Hexanone	43	6.985	6.986	-0.001	97	97100	8.00	8.08	
78 Chlorodibromomethane	129	7.115	7.116	-0.001	89	34500	4.00	3.90	
80 Ethylene Dibromide	107	7.222	7.223	-0.001	99	35096	4.00	3.86	
82 Chlorobenzene	112	7.671	7.672	-0.001	90	100955	4.00	3.92	
83 1,1,1,2-Tetrachloroethane	131	7.742	7.743	-0.001	96	32187	4.00	4.00	
84 Ethylbenzene	106	7.766	7.767	-0.001	99	55060	4.00	3.84	
85 m-Xylene & p-Xylene	106	7.872	7.873	-0.001	99	66882	4.00	3.93	
86 o-Xylene	106	8.251	8.252	-0.001	98	64763	4.00	4.06	
87 Styrene	104	8.263	8.264	-0.001	94	112067	4.00	3.93	
88 Bromoform	173	8.440	8.441	-0.001	90	17599	4.00	3.76	
89 Isopropylbenzene	105	8.606	8.607	-0.001	96	148004	4.00	4.00	
93 Bromobenzene	156	8.890	8.891	-0.001	95	30286	4.00	3.79	
92 1,1,2,2-Tetrachloroethane	83	8.890	8.891	-0.001	78	49998	4.00	4.01	
94 1,2,3-Trichloropropane	110	8.925	8.926	-0.001	86	13733	4.00	4.12	
95 trans-1,4-Dichloro-2-buten	53	8.949	8.938	0.011	90	18866	4.00	3.74	
96 N-Propylbenzene	120	8.996	8.997	-0.001	100	36476	4.00	3.96	
97 2-Chlorotoluene	126	9.079	9.080	-0.001	95	34073	4.00	4.10	
98 1,3,5-Trimethylbenzene	105	9.162	9.163	-0.001	94	106414	4.00	3.95	
99 4-Chlorotoluene	126	9.185	9.186	-0.001	99	36045	4.00	4.10	
100 tert-Butylbenzene	119	9.481	9.482	-0.001	95	84741	4.00	4.22	
102 1,2,4-Trimethylbenzene	105	9.528	9.529	-0.001	96	118715	4.00	4.11	
103 sec-Butylbenzene	105	9.694	9.695	-0.001	95	115720	4.00	4.12	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,3-Dichlorobenzene	146	9.800	9.801	-0.001	95	59183	4.00	4.10	
105 4-Isopropyltoluene	119	9.836	9.837	-0.001	97	95048	4.00	4.24	
106 1,4-Dichlorobenzene	146	9.883	9.884	-0.001	94	60314	4.00	4.11	
109 n-Butylbenzene	91	10.238	10.239	-0.001	98	87348	4.00	4.14	
110 1,2-Dichlorobenzene	146	10.250	10.251	-0.001	93	59299	4.00	4.12	
111 1,2-Dibromo-3-Chloropropan	157	11.019	11.020	-0.001	75	8781	4.00	3.84	
113 1,2,4-Trichlorobenzene	180	11.847	11.836	0.011	89	27711	4.00	4.35	
114 Hexachlorobutadiene	225	12.012	12.013	-0.001	83	6441	4.00	4.13	
115 Naphthalene	128	12.083	12.084	-0.001	99	135986	4.00	4.08	
116 1,2,3-Trichlorobenzene	180	12.320	12.321	-0.001	93	25501	4.00	4.02	
S 128 1,2-Dichloroethene, Total	96				0			7.61	
S 129 1,3-Dichloropropene, Total	75				0			8.01	
S 130 Xylenes, Total	106				0		8.00	7.98	
S 156 Total BTEX	1				0		20.0	19.8	
S 131 Trihalomethanes, Total	1				0		16.0	15.8	

Reagents:

VMRPRIMW_00369	Amount Added:	3.20	Units: uL
VMFASAW_00312	Amount Added:	3.20	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL
VMRGAS_00323	Amount Added:	3.20	Units: uL
vm50ss_00387	Amount Added:	3.20	Units: uL

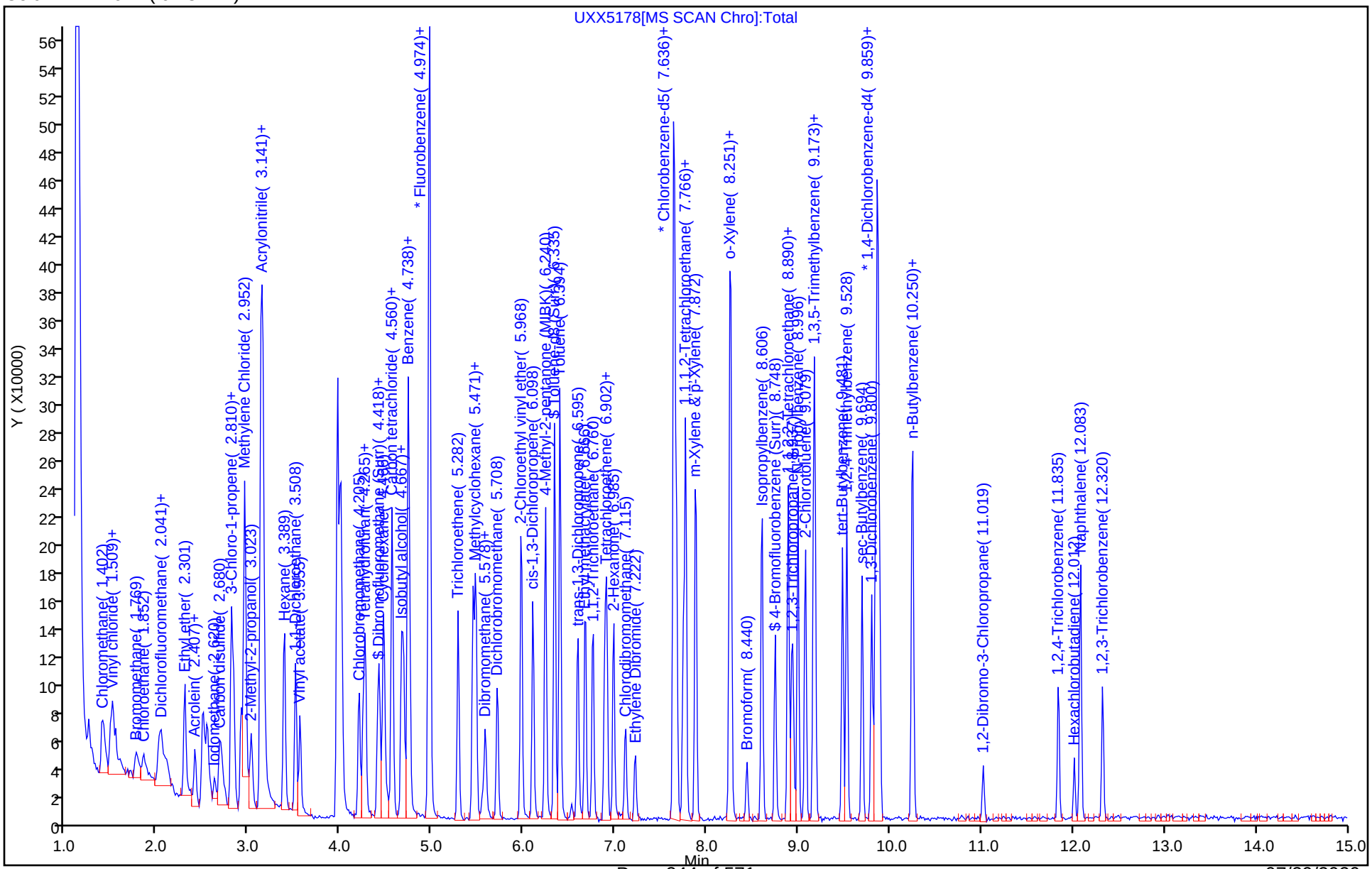
Report Date: 20-Jan-2020 16:51:40 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5178.D

Injection Date:	15-Jan-2020 16:50:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STD8260 L3			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5179.D
Lims ID: STD8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Jan-2020 17:15:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-007
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:51:46 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.976	4.975	0.001	98	387711	10.0	10.0	
*	2 Chlorobenzene-d5	117	7.637	7.637	0.000	91	254745	10.0	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.861	9.861	0.001	97	103175	10.0	10.0	
$	4 Dibromofluoromethane (Surr	113	4.408	4.408	0.000	89	18094	2.00	2.00	
$	5 1,2-Dichloroethane-d4 (Sur	65	4.692	4.691	0.001	94	26957	2.00	2.03	
$	6 Toluene-d8 (Surr)	98	6.336	6.336	0.000	96	78667	2.00	2.01	
$	7 4-Bromofluorobenzene (Surr	95	8.749	8.749	0.000	78	25288	2.00	2.05	
	9 Dichlorodifluoromethane	85	1.250	1.249	0.001	98	16579	2.00	1.97	
	10 Chloromethane	50	1.392	1.391	0.001	99	33571	2.00	1.96	
	11 Vinyl chloride	62	1.487	1.486	0.001	97	25364	2.00	2.00	
	12 Butadiene	54	1.510	1.510	0.000	91	14274	2.00	1.64	
	13 Bromomethane	94	1.770	1.758	0.012	87	13424	2.00	2.23	
	14 Chloroethane	64	1.853	1.841	0.012	98	12664	2.00	1.87	
	15 Dichlorofluoromethane	67	2.019	2.018	0.001	96	35107	2.00	2.05	
	16 Trichlorofluoromethane	101	2.043	2.042	0.001	92	16539	2.00	1.82	
	17 Ethyl ether	59	2.303	2.290	0.013	92	25076	2.00	2.10	
	18 Acrolein	56	2.409	2.409	0.000	94	25566	10.0	11.2	
	19 1,1-Dichloroethene	96	2.492	2.491	0.001	94	18341	2.00	2.01	
	20 1,1,2-Trichloro-1,2,2-trif	151	2.516	2.515	0.001	42	3454	2.00	1.61	
	21 Acetone	43	2.539	2.539	0.000	99	29985	4.00	4.39	
	22 Iodomethane	142	2.622	2.621	0.001	95	21134	2.00	1.98	
	24 Carbon disulfide	76	2.693	2.681	0.012	100	63899	2.00	2.00	
	26 3-Chloro-1-propene	76	2.811	2.811	0.000	91	15710	2.00	1.90	
	27 Methyl acetate	43	2.835	2.834	0.001	99	53355	4.00	3.89	
	28 Methylene Chloride	84	2.918	2.917	0.001	98	23178	2.00	2.06	
	29 2-Methyl-2-propanol	59	3.024	3.024	0.000	99	32261	20.0	20.1	
	31 Acrylonitrile	53	3.131	3.130	0.001	99	136584	20.0	20.5	
	30 trans-1,2-Dichloroethene	96	3.143	3.154	-0.011	90	20309	2.00	1.92	
	32 Methyl tert-butyl ether	73	3.154	3.154	0.000	97	60357	2.00	1.95	
	33 Hexane	86	3.379	3.378	0.001	89	3912	2.00	1.91	
	34 1,1-Dichloroethane	63	3.509	3.509	0.000	96	51406	2.00	2.05	
	35 Vinyl acetate	43	3.557	3.556	0.001	96	42604	2.00	1.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2,2-Dichloropropane	97	4.006	4.005	0.001	40	4499	2.00	1.89	
40 cis-1,2-Dichloroethene	96	4.006	4.005	0.001	87	23327	2.00	1.98	
41 2-Butanone (MEK)	43	4.018	4.017	0.001	99	38232	4.00	4.51	
45 Chlorobromomethane	128	4.207	4.206	0.001	87	9314	2.00	1.94	
46 Tetrahydrofuran	42	4.243	4.242	0.001	90	25452	4.00	4.29	
47 Chloroform	83	4.266	4.266	0.000	95	38353	2.00	2.09	
48 1,1,1-Trichloroethane	97	4.420	4.419	0.001	94	24363	2.00	2.10	
49 Cyclohexane	56	4.467	4.467	0.000	90	42667	2.00	1.94	
51 Carbon tetrachloride	117	4.562	4.561	0.001	68	17573	2.00	1.90	
50 1,1-Dichloropropene	75	4.562	4.561	0.001	90	29124	2.00	2.03	
52 Isobutyl alcohol	41	4.668	4.668	0.000	97	37582	50.0	65.1	
53 Benzene	78	4.739	4.739	0.000	97	93751	2.00	1.95	
54 1,2-Dichloroethane	62	4.751	4.751	0.000	97	34090	2.00	1.93	
56 n-Heptane	100	4.964	4.963	0.001	91	3016	2.00	1.86	
58 Trichloroethene	130	5.284	5.283	0.001	94	20817	2.00	2.09	
60 Methylcyclohexane	83	5.449	5.448	0.001	94	23572	2.00	1.86	
61 1,2-Dichloropropane	63	5.473	5.472	0.001	96	30035	2.00	1.99	
63 Dibromomethane	93	5.579	5.579	0.000	88	11876	2.00	1.94	
64 1,4-Dioxane	88	5.591	5.590	0.001	40	3204	40.0	54.4	
65 Dichlorobromomethane	83	5.709	5.709	0.000	97	28201	2.00	2.06	
67 2-Chloroethyl vinyl ether	63	5.970	5.969	0.001	90	44119	4.00	4.05	
68 cis-1,3-Dichloropropene	75	6.100	6.099	0.001	91	37132	2.00	1.98	
69 4-Methyl-2-pentanone (MIBK	43	6.242	6.241	0.001	97	73911	4.00	4.22	
70 Toluene	91	6.395	6.395	0.000	96	95639	2.00	2.05	
71 trans-1,3-Dichloropropene	75	6.585	6.596	-0.011	97	30847	2.00	1.88	
72 Ethyl methacrylate	69	6.667	6.667	0.000	95	35561	2.00	1.98	
73 1,1,2-Trichloroethane	97	6.750	6.761	-0.011	92	19641	2.00	1.99	
74 Tetrachloroethene	164	6.880	6.892	-0.012	89	10579	2.00	1.95	
75 1,3-Dichloropropane	76	6.904	6.903	0.001	98	34250	2.00	1.90	
76 2-Hexanone	43	6.975	6.986	-0.011	95	49553	4.00	4.26	
78 Chlorodibromomethane	129	7.117	7.116	0.001	89	15988	2.00	1.87	
80 Ethylene Dibromide	107	7.212	7.223	-0.011	99	17038	2.00	1.94	
82 Chlorobenzene	112	7.673	7.672	0.001	91	50513	2.00	2.03	
83 1,1,1,2-Tetrachloroethane	131	7.744	7.743	0.001	94	16020	2.00	2.06	
84 Ethylbenzene	106	7.768	7.767	0.001	98	27299	2.00	1.97	
85 m-Xylene & p-Xylene	106	7.874	7.873	0.001	98	32596	2.00	1.98	
86 o-Xylene	106	8.253	8.252	0.000	97	32337	2.00	2.10	
87 Styrene	104	8.264	8.264	0.000	95	56348	2.00	2.04	
88 Bromoform	173	8.442	8.441	0.001	78	8554	2.00	1.89	
89 Isopropylbenzene	105	8.596	8.607	-0.011	96	74013	2.00	2.07	
92 1,1,2,2-Tetrachloroethane	83	8.891	8.891	0.000	78	25562	2.00	2.05	
93 Bromobenzene	156	8.891	8.891	0.000	94	15762	2.00	1.97	
94 1,2,3-Trichloropropane	110	8.927	8.926	0.001	86	7129	2.00	2.14	
95 trans-1,4-Dichloro-2-buten	53	8.939	8.938	0.001	71	8016	2.00	1.94	
96 N-Propylbenzene	120	8.998	8.997	0.001	99	18177	2.00	1.98	
97 2-Chlorotoluene	126	9.080	9.080	0.000	95	16698	2.00	2.01	
98 1,3,5-Trimethylbenzene	105	9.163	9.163	0.000	95	53769	2.00	2.00	
99 4-Chlorotoluene	126	9.187	9.186	0.001	99	16643	2.00	1.89	
100 tert-Butylbenzene	119	9.483	9.482	0.001	93	41045	2.00	2.04	
102 1,2,4-Trimethylbenzene	105	9.530	9.529	0.001	97	58546	2.00	2.03	
103 sec-Butylbenzene	105	9.696	9.695	0.001	94	57391	2.00	2.05	
104 1,3-Dichlorobenzene	146	9.802	9.801	0.001	94	28783	2.00	1.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 4-Isopropyltoluene	119	9.838	9.837	0.001	98	46502	2.00	2.08	
106 1,4-Dichlorobenzene	146	9.885	9.884	0.001	91	28924	2.00	1.97	
109 n-Butylbenzene	91	10.240	10.239	0.001	98	43467	2.00	2.06	
110 1,2-Dichlorobenzene	146	10.252	10.251	0.001	92	29223	2.00	2.03	
111 1,2-Dibromo-3-Chloropropan	157	11.020	11.020	0.000	72	4546	2.00	1.94	
113 1,2,4-Trichlorobenzene	180	11.837	11.836	0.001	92	13282	2.00	2.09	
114 Hexachlorobutadiene	225	12.014	12.013	0.001	87	3460	2.00	2.22	
115 Naphthalene	128	12.085	12.084	0.001	99	69402	2.00	2.08	
116 1,2,3-Trichlorobenzene	180	12.322	12.321	0.001	91	11763	2.00	1.86	
S 128 1,2-Dichloroethene, Total	96				0			3.90	
S 129 1,3-Dichloropropene, Total	75				0			3.86	
S 130 Xylenes, Total	106				0		4.00	4.07	
S 156 Total BTEX	1				0		10.0	10.0	
S 131 Trihalomethanes, Total	1				0		8.00	7.91	

Reagents:

VMRPRIMW_00369	Amount Added:	1.60	Units: uL
VMFASAW_00312	Amount Added:	1.60	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL
VMRGAS_00323	Amount Added:	1.60	Units: uL
vm50ss_00387	Amount Added:	1.60	Units: uL

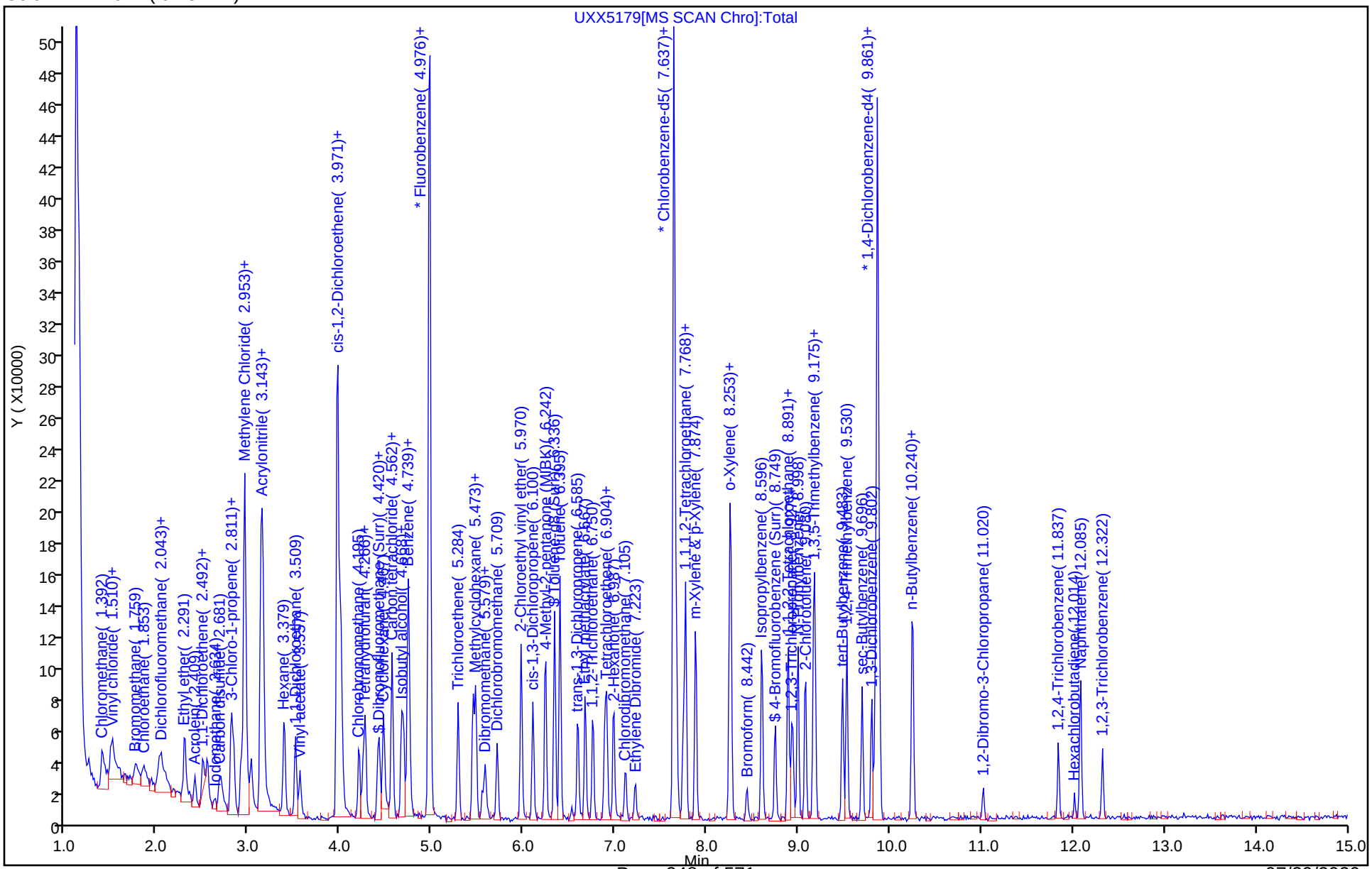
Report Date: 20-Jan-2020 16:51:47 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5179.D

Injection Date:	15-Jan-2020 17:15:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STD8260 L2			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5180.D
Lims ID: STD8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-Jan-2020 17:40:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-008
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 17:05:45 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:14:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.973	4.972	0.001	98	384916	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.647	7.646	0.001	90	253100	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.870	9.869	0.001	97	100004	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.406	4.408	-0.002	89	9272	1.00	1.03	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.689	4.691	-0.002	89	13590	1.00	1.03	
$ 6 Toluene-d8 (Surr)	98	6.334	6.336	-0.002	95	44192	1.00	1.14	
$ 7 4-Bromofluorobenzene (Surr	95	8.747	8.749	-0.002	77	12999	1.00	1.06	
9 Dichlorodifluoromethane	85	1.247	1.249	-0.002	93	8588	1.00	1.03	
10 Chloromethane	50	1.401	1.391	0.010	96	16600	1.00	0.9738	
11 Vinyl chloride	62	1.496	1.486	0.010	95	12374	1.00	0.9850	
12 Butadiene	54	1.508	1.510	-0.002	59	10294	1.00	1.07	
13 Bromomethane	94	1.768	1.758	0.010	82	6719	1.00	1.12	
14 Chloroethane	64	1.851	1.841	0.010	89	6234	1.00	0.9263	
15 Dichlorofluoromethane	67	2.028	2.018	0.010	76	22111	1.00	1.30	
16 Trichlorofluoromethane	101	2.064	2.042	0.022	90	8487	1.00	0.9394	
17 Ethyl ether	59	2.300	2.290	0.010	96	11022	1.00	0.9291	
18 Acrolein	56	2.407	2.409	-0.002	97	10247	5.00	4.52	
19 1,1-Dichloroethene	96	2.489	2.491	-0.002	90	8368	1.00	0.9223	
20 1,1,2-Trichloro-1,2,2-trif	151	2.513	2.515	-0.002	40	1003	1.00	1.08	
21 Acetone	43	2.548	2.539	0.009	97	16660	2.00	1.56	
22 Iodomethane	142	2.619	2.621	-0.002	93	9168	1.00	0.8643	
24 Carbon disulfide	76	2.690	2.681	0.009	99	29441	1.00	0.9260	
26 3-Chloro-1-propene	76	2.809	2.811	-0.002	91	7394	1.00	0.8993	
27 Methyl acetate	43	2.832	2.834	-0.002	99	24455	2.00	1.80	
28 Methylene Chloride	84	2.915	2.917	-0.002	92	10827	1.00	0.9674	
29 2-Methyl-2-propanol	59	3.022	3.024	-0.002	99	16060	10.0	10.1	
31 Acrylonitrile	53	3.128	3.130	-0.002	100	62326	10.0	9.40	
30 trans-1,2-Dichloroethene	96	3.152	3.154	-0.002	90	9928	1.00	0.9442	
32 Methyl tert-butyl ether	73	3.152	3.154	-0.002	98	29432	1.00	0.9588	
33 Hexane	86	3.388	3.378	0.010	92	1843	1.00	0.9085	
34 1,1-Dichloroethane	63	3.507	3.509	-0.002	95	22348	1.00	0.8997	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.554	3.556	-0.002	96	16668	1.00	1.12	
40 cis-1,2-Dichloroethene	96	4.003	4.005	-0.002	84	11048	1.00	0.9433	
39 2,2-Dichloropropane	97	4.003	4.005	-0.002	61	2112	1.00	0.8959	
41 2-Butanone (MEK)	43	4.015	4.017	-0.002	82	16294	2.00	1.94	
45 Chlorobromomethane	128	4.204	4.206	-0.002	88	3985	1.00	0.8354	
46 Tetrahydrofuran	42	4.252	4.242	0.010	93	13222	2.00	2.24	
47 Chloroform	83	4.275	4.266	0.009	95	16664	1.00	0.9161	
48 1,1,1-Trichloroethane	97	4.429	4.419	0.010	91	10906	1.00	0.9464	
49 Cyclohexane	56	4.465	4.467	-0.002	93	20523	1.00	0.9407	
51 Carbon tetrachloride	117	4.571	4.561	0.010	80	7596	1.00	0.8256	
50 1,1-Dichloropropene	75	4.559	4.561	-0.002	87	13086	1.00	0.9170	
52 Isobutyl alcohol	41	4.666	4.668	-0.002	96	12344	25.0	18.4	
53 Benzene	78	4.737	4.739	-0.002	98	44716	1.00	0.9390	
54 1,2-Dichloroethane	62	4.760	4.751	0.009	95	17578	1.00	1.00	
56 n-Heptane	100	4.961	4.963	-0.002	33	1287	1.00	0.8005	
58 Trichloroethene	130	5.281	5.283	-0.002	92	8538	1.00	0.8635	
60 Methylcyclohexane	83	5.446	5.448	-0.002	87	12478	1.00	0.9899	
61 1,2-Dichloropropane	63	5.482	5.472	0.010	93	14848	1.00	0.99	
63 Dibromomethane	93	5.577	5.579	-0.002	85	5684	1.00	0.9329	
64 1,4-Dioxane	88		5.590				ND	ND	U
65 Dichlorobromomethane	83	5.707	5.709	-0.002	95	12241	1.00	0.8995	
67 2-Chloroethyl vinyl ether	63	5.967	5.969	-0.002	89	18817	2.00	1.74	
68 cis-1,3-Dichloropropene	75	6.097	6.099	-0.002	89	16420	1.00	0.8812	
69 4-Methyl-2-pentanone (MIBK	43	6.239	6.241	-0.002	97	34518	2.00	1.98	
70 Toluene	91	6.393	6.395	-0.002	98	43545	1.00	0.9393	
71 trans-1,3-Dichloropropene	75	6.594	6.596	-0.002	96	13691	1.00	0.8410	
72 Ethyl methacrylate	69	6.677	6.667	0.010	93	17569	1.00	0.9830	
73 1,1,2-Trichloroethane	97	6.759	6.761	-0.002	91	9626	1.00	0.9799	
74 Tetrachloroethene	164	6.890	6.892	-0.002	89	4815	1.00	0.8947	
75 1,3-Dichloropropane	76	6.901	6.903	-0.002	97	16566	1.00	0.9266	
76 2-Hexanone	43	6.984	6.986	-0.002	94	21037	2.00	1.82	
78 Chlorodibromomethane	129	7.114	7.116	-0.002	86	8260	1.00	0.9723	
80 Ethylene Dibromide	107	7.221	7.223	-0.002	93	7801	1.00	0.8922	
82 Chlorobenzene	112	7.670	7.672	-0.002	88	22854	1.00	0.9230	
83 1,1,1,2-Tetrachloroethane	131	7.741	7.743	-0.002	90	6659	1.00	0.8612	
84 Ethylbenzene	106	7.765	7.767	-0.002	98	13519	1.00	0.9818	
85 m-Xylene & p-Xylene	106	7.883	7.873	0.010	99	16104	1.00	0.9836	
86 o-Xylene	106	8.250	8.252	-0.002	97	13792	1.00	0.8996	
87 Styrene	104	8.262	8.264	-0.002	94	27230	1.00	0.99	
88 Bromoform	173	8.439	8.441	-0.002	91	3862	1.00	0.8587	
89 Isopropylbenzene	105	8.605	8.607	-0.002	96	36550	1.00	1.03	
93 Bromobenzene	156	8.889	8.891	-0.002	91	7291	1.00	0.9421	
92 1,1,2,2-Tetrachloroethane	83	8.889	8.891	-0.002	72	11743	1.00	0.9712	
94 1,2,3-Trichloropropane	110	8.924	8.926	-0.002	28	2226	1.00	0.6891	
95 trans-1,4-Dichloro-2-buten	53	8.936	8.938	-0.002	67	3793	1.00	1.25	
96 N-Propylbenzene	120	8.995	8.997	-0.002	99	8859	1.00	0.99	
97 2-Chlorotoluene	126	9.078	9.080	-0.002	95	7413	1.00	0.9207	
98 1,3,5-Trimethylbenzene	105	9.161	9.163	-0.002	96	24944	1.00	0.9557	
99 4-Chlorotoluene	126	9.184	9.186	-0.002	97	7566	1.00	0.8877	
100 tert-Butylbenzene	119	9.480	9.482	-0.002	95	18959	1.00	0.9745	
102 1,2,4-Trimethylbenzene	105	9.527	9.529	-0.002	95	28614	1.00	1.02	
103 sec-Butylbenzene	105	9.693	9.695	-0.002	94	27586	1.00	1.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,3-Dichlorobenzene	146	9.799	9.801	-0.002	90	13128	1.00	0.9388	
105 4-Isopropyltoluene	119	9.835	9.837	-0.002	95	21058	1.00	0.9704	
106 1,4-Dichlorobenzene	146	9.882	9.884	-0.002	91	13017	1.00	0.9152	
109 n-Butylbenzene	91	10.237	10.239	-0.002	97	21792	1.00	1.07	
110 1,2-Dichlorobenzene	146	10.249	10.251	-0.002	92	14294	1.00	1.03	
111 1,2-Dibromo-3-Chloropropan	157	11.018	11.020	-0.002	65	1480	1.00	0.6524	
113 1,2,4-Trichlorobenzene	180	11.846	11.836	0.010	87	5926	1.00	0.9611	
114 Hexachlorobutadiene	225		12.013				ND	ND	
115 Naphthalene	128	12.082	12.084	-0.002	98	30522	1.00	0.9445	
116 1,2,3-Trichlorobenzene	180	12.331	12.321	0.010	89	6329	1.00	1.03	
S 128 1,2-Dichloroethene, Total	96				0			1.89	
S 129 1,3-Dichloropropene, Total	75				0			1.72	
S 130 Xylenes, Total	106				0		2.00	1.88	
S 156 Total BTEX	1				0		5.00	4.74	
S 131 Trihalomethanes, Total	1				0		4.00	3.65	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

VMRPRIMW_00369	Amount Added:	0.80	Units: uL
VMFASAW_00312	Amount Added:	0.80	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL
VMRGAS_00323	Amount Added:	0.80	Units: uL
vm50ss_00387	Amount Added:	0.80	Units: uL

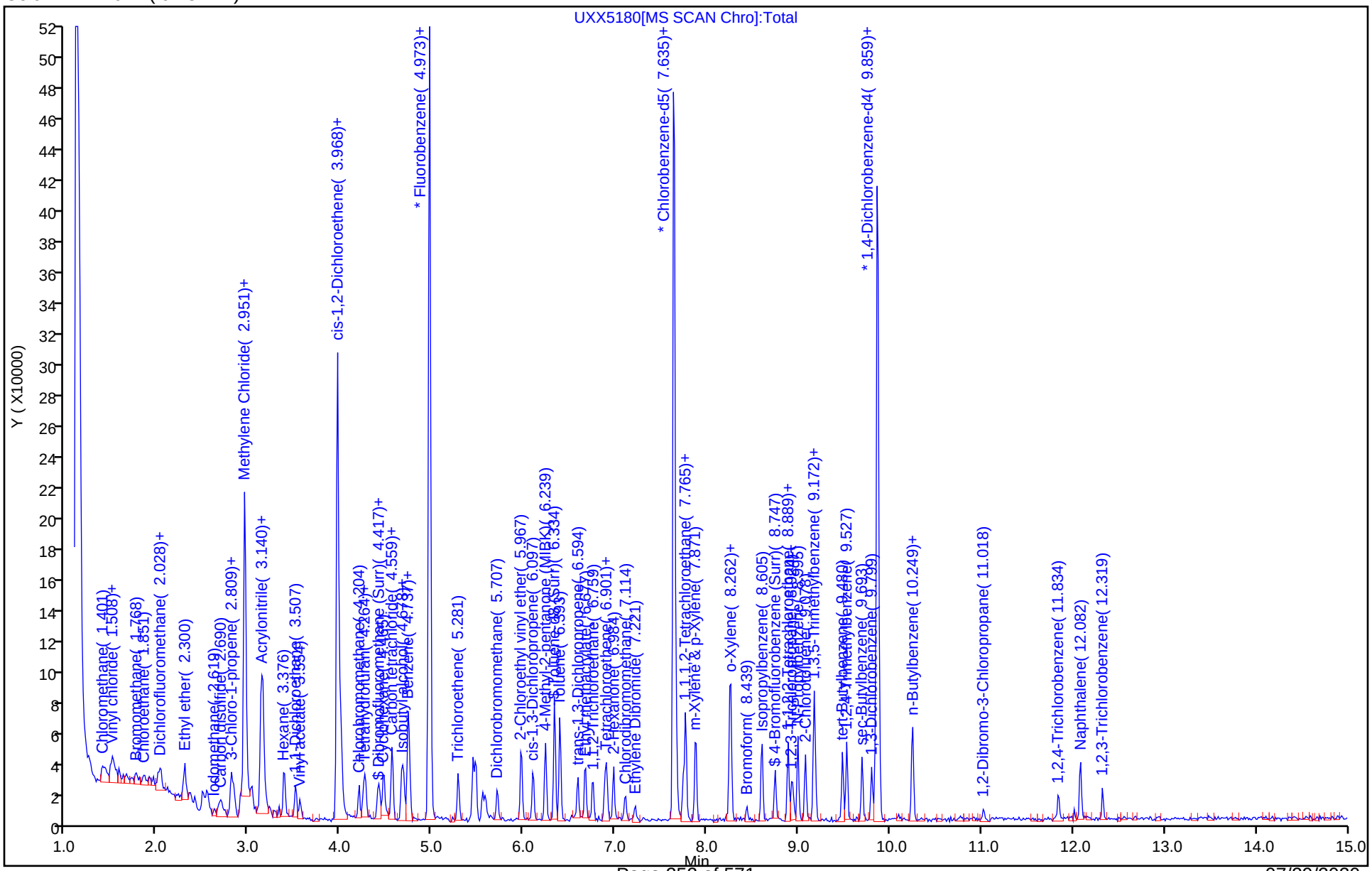
Report Date: 20-Jan-2020 17:05:48 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5180.D

Injection Date:	15-Jan-2020 17:40:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STD8260 L1			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



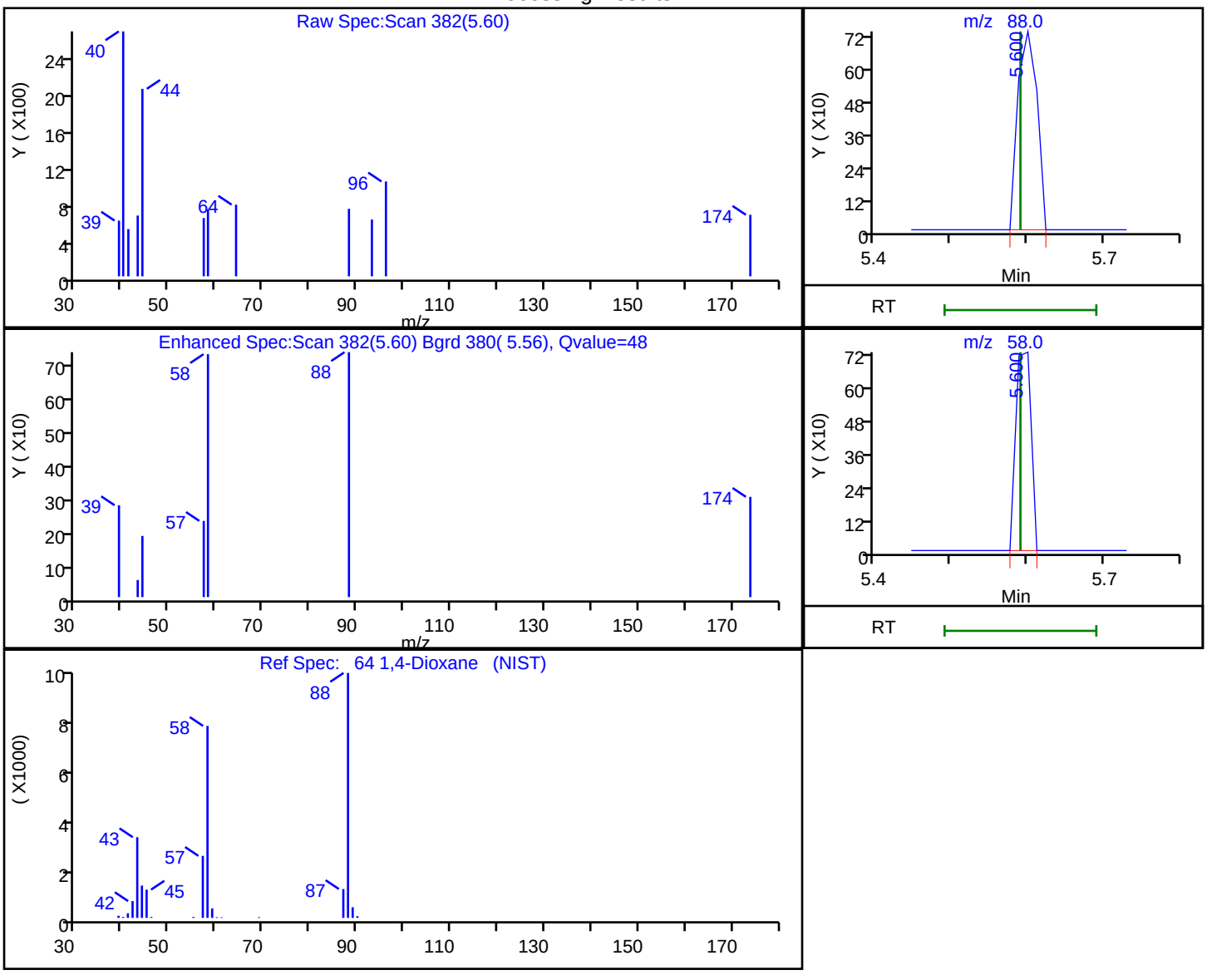
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File:	\\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5180.D				
Injection Date:	15-Jan-2020 17:40:30	Instrument ID:	A3UX10		
Lims ID:	STD8260 L1				
Client ID:					
Operator ID:	001644	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_10	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
5.60	88.00	1287	34.766912
5.60	58.00	1022	

Reviewer: williamsla, 20-Jan-2020 16:43:21

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-419116/16	UXX5188.D
Level 2	STDA9 240-419116/15	UXX5187.D
Level 3	STDA9 240-419116/14	UXX5186.D
Level 4	STDA9 240-419116/13	UXX5185.D
Level 5	STDA9 240-419116/12	UXX5184.D
Level 6	STDA9 240-419116/11	UXX5183.D
Level 7	STDA9 240-419116/10	UXX5182.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0589 0.0494	0.0401 0.0511	0.0474	0.0440	0.0461	Ave		0.0481				12.4		15.0			
Diisopropyl ether	0.2404 0.2573	0.2637 0.2676	0.2679	0.2671	0.2527	Ave		0.2595				3.9		15.0			
2-Chloro-1,3-butadiene	0.5938 0.5956	0.6126 0.6176	0.6253	0.6519	0.6028	Ave		0.6142				3.3		15.0			
Ethyl tert-butyl ether	1.0995 1.1534	1.1757 1.1713	1.2497	1.2142	1.1682	Ave		1.1760				4.0		15.0			
Ethyl acetate	0.5678 0.4431	0.4956 0.4404	0.4582	0.4528	0.4286	Ave		0.4695				10.3		15.0			
Propionitrile	0.0578 0.0621	0.0633 0.0639	0.0628	0.0617	0.0605	Ave		0.0617				3.3		15.0			
Methacrylonitrile	0.2970 0.2818	0.2919 0.2806	0.2995	0.2972	0.2818	Ave		0.2900				2.9		15.0			
Isooctane	0.7121 0.6604	0.6795 0.6323	0.6641	0.6824	0.6724	Ave		0.6719				3.6		15.0			
Tert-amyl methyl ether	0.8272 0.8674	0.8820 0.8633	0.9192	0.9192	0.8707	Ave		0.8784				3.7		15.0			
n-Butanol	0.0227 0.0182	0.0198 0.0177	0.0181	0.0192	0.0171	Ave		0.0190				9.9		15.0			
Ethyl acrylate	0.6515 0.6151	0.6646 0.6217	0.6800	0.6631	0.6091	Ave		0.6436				4.3		15.0			
Methyl methacrylate	0.4314 0.4029	0.4037 0.4103	0.4429	0.4349	0.4106	Ave		0.4195				3.9		15.0			
2-Nitropropane	0.1614 0.1153	0.1281 0.1163	0.1309	0.1240	0.1115	Ave		0.1268				13.3		15.0			
n-Butyl acetate	0.8652 0.4561	0.4730 0.4526	0.4725	0.4612	0.4320	Lin1	0.2663	0.4352							0.9940		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1-Chlorohexane	0.4604 0.4699	0.4961 0.4838	0.4487	0.4894	0.4531	Ave		0.4716				3.9		15.0			
Cyclohexanone	0.0819 0.0541	0.0735 0.0499	0.0593	0.0581	0.0541	Lin1	0.3759	0.0502							0.9990		0.9900
Pentachloroethane	+++++ 0.0101	+++++ 0.0181	+++++	+++++	0.0064	Ave		0.0115				51.8	*	15.0			
1,2,3-Trimethylbenzene	2.7574 2.9873	3.1666 2.9031	3.0731	3.0946	2.8067	Ave		2.9698				5.2		15.0			
Benzyl chloride	0.3913 0.4908	0.4121 0.4770	0.4437	0.4744	0.4404	Ave		0.4471				8.1		15.0			
1,3,5-Trichlorobenzene	0.5619 0.6617	0.6959 0.6473	0.6443	0.7278	0.6444	Ave		0.6548				7.9		15.0			
2-Methylnaphthalene	1.3022 1.2244	1.4627 1.0195	1.3767	1.4829	1.4250	Ave		1.3276				12.3		15.0			
1-Methylnaphthalene	1.2042 1.0340	1.3224 0.8301	1.2414	1.3162	1.2477	Qua	0.4176	1.2752	-0.005656						0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-419116/16	UXX5188.D
Level 2	STDA9 240-419116/15	UXX5187.D
Level 3	STDA9 240-419116/14	UXX5186.D
Level 4	STDA9 240-419116/13	UXX5185.D
Level 5	STDA9 240-419116/12	UXX5184.D
Level 6	STDA9 240-419116/11	UXX5183.D
Level 7	STDA9 240-419116/10	UXX5182.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	22326 387210	30899 804112	71172	85178	174378	10.0 200	20.0 400	40.0	50.0	100
Diisopropyl ether	FB	Ave	9115 201661	20324 420963	40231	51743	95494	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Chloro-1,3-butadiene	FB	Ave	22517 466776	47217 971506	93888	126274	227831	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl tert-butyl ether	FB	Ave	41694 903838	90627 1842498	187654	235175	441552	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Ethyl acetate	FB	Ave	43063 694517	76406 1385528	137619	175395	323958	2.00 40.0	4.00 80.0	8.00	10.0	20.0
Propionitrile	FB	Ave	21923 486302	48805 1004432	94227	119502	228755	10.0 200	20.0 400	40.0	50.0	100
Methacrylonitrile	FB	Ave	112647 2207980	225005 4413774	449745	575674	1065185	10.0 200	20.0 400	40.0	50.0	100
Isooctane	FB	Ave	27006 517501	52377 994685	99723	132175	254140	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	31368 679750	67983 1358090	138034	178050	329089	1.00 20.0	2.00 40.0	4.00	5.00	10.0
n-Butanol	CBNZ d5	Ave	14107 227412	24300 448867	44686	59427	107061	25.0 500	50.0 1000	100	125	250
Ethyl acrylate	FB	Ave	24708 482042	51225 978024	102105	128437	230238	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Methyl methacrylate	FB	Ave	32716 631443	62234 1290765	133013	168485	310366	2.00 40.0	4.00 80.0	8.00	10.0	20.0
2-Nitropropane	FB	Ave	12240 180757	19747 365757	39325	48053	84287	2.00 40.0	4.00 80.0	8.00	10.0	20.0
n-Butyl acetate	CBNZ d5	Lin1	21494 228176	23227 458854	46721	57193	108023	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	11436 235081	24366 490471	44370	60683	113305	1.00 20.0	2.00 40.0	4.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 419116

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/15/2020 18:29 Calibration End Date: 01/15/2020 20:59 Calibration ID: 54867

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Cyclohexanone	DCBd 4	Lin1	7948 108175	14117 204545	23190	28685	55613	10.0 200	20.0 400	40.0	50.0	100
Pentachloroethane	CBNZ d5	Ave	+++++ 10130	+++++ 36659	+++++	+++++	3193	+++++ 40.0	+++++ 80.0	+++++	+++++	20.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	26769 597281	60787 1190239	120084	152865	288280	1.00 20.0	2.00 40.0	4.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	3799 98124	7911 195574	17339	23435	45235	1.00 20.0	2.00 40.0	4.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	5455 132305	13359 265396	25178	35952	66188	1.00 20.0	2.00 40.0	4.00	5.00	10.0
2-Methylnaphthalene	DCBd 4	Ave	25284 489625	56155 835955	107595	146502	292734	2.00 40.0	4.00 80.0	8.00	10.0	20.0
1-Methylnaphthalene	DCBd 4	Qua	23381 413463	50770 680653	97016	130032	256312	2.00 40.0	4.00 80.0	8.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5182.D
Lims ID: STDA9 L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Jan-2020 18:29:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-010
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:08 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:06:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.976	4.975	0.001	98	393270	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.638	7.637	0.001	93	253444	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.861	9.861	0.001	98	102498	10.0	10.0	
25 Acetonitrile	41	2.788	2.784	0.004	99	804112	400.0	424.7	
36 Isopropyl ether	87	3.569	3.577	-0.009	97	420963	40.0	41.2	
37 2-Chloro-1,3-butadiene	53	3.580	3.588	-0.008	92	971506	40.0	40.2	
38 Tert-butyl ethyl ether	59	3.876	3.872	0.004	98	1842498	40.0	39.8	
43 Propionitrile	54	4.065	4.073	-0.008	75	1004432	400.0	413.8	
42 Ethyl acetate	43	4.065	4.073	-0.008	99	1385528	80.0	75.0	
44 Methacrylonitrile	41	4.195	4.192	0.003	95	4413774	400.0	387.0	
158 Isooctane	57	4.810	4.807	0.003	97	994685	40.0	37.6	
55 Tert-amyl methyl ether	73	4.834	4.830	0.004	94	1358090	40.0	39.3	
57 n-Butanol	56	5.224	5.233	-0.009	86	448867	1000.0	933.7	
59 Ethyl acrylate	55	5.378	5.375	0.003	98	978024	40.0	38.6	
62 Methyl methacrylate	41	5.568	5.576	-0.008	94	1290765	80.0	78.2	
66 2-Nitropropane	41	5.911	5.907	0.004	95	365757	80.0	73.4	
77 n-Butyl acetate	56	7.093	7.102	-0.009	97	458854	40.0	41.0	
81 1-Chlorohexane	91	7.649	7.646	0.003	94	490471	40.0	41.0	
91 Cyclohexanone	55	8.690	8.687	0.003	94	204545	400.0	390.4	
101 Pentachloroethane	167	9.495	9.493	0.002	86	36659	80.0	125.5	
107 1,2,3-Trimethylbenzene	105	9.944	9.940	0.004	99	1190239	40.0	39.1	
108 Benzyl chloride	126	10.027	10.023	0.004	100	195574	40.0	42.7	
112 1,3,5-Trichlorobenzene	180	11.233	11.230	0.003	97	265396	40.0	39.5	
117 2-Methylnaphthalene	142	13.244	13.241	0.003	98	835955	80.0	61.4	
157 1-Methylnaphthalene	142	13.457	13.465	-0.008	94	680653	80.0	80.5	

Reagents:

VMRA9W_00329	Amount Added: 32.00	Units: uL
VM50IS_00080	Amount Added: 1.00	Units: uL

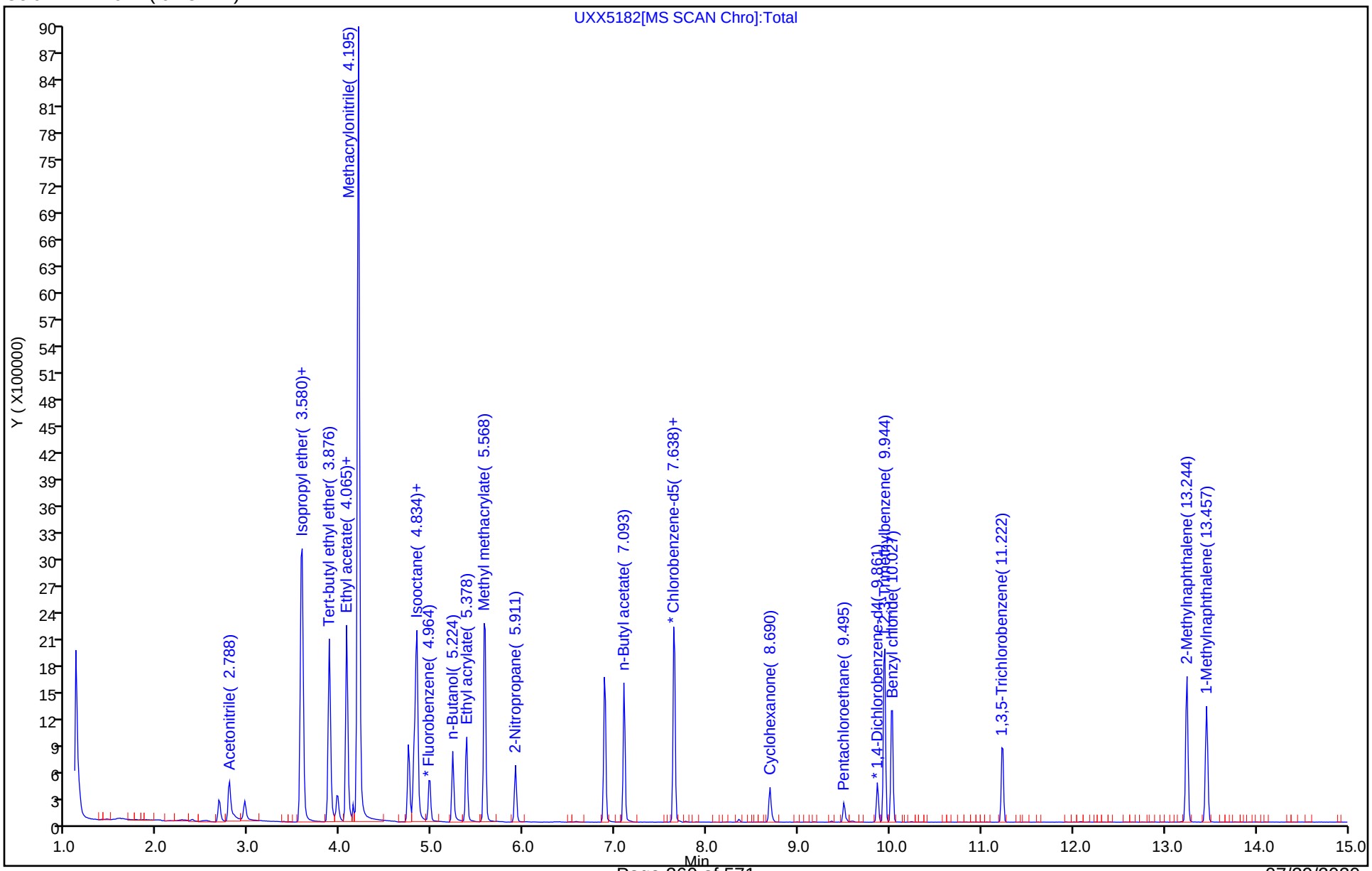
Report Date: 20-Jan-2020 16:52:09 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5182.D

Injection Date:	15-Jan-2020 18:29:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STDA9 L7			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5183.D
Lims ID: STDA9 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Jan-2020 18:54:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-011
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:11 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:17:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.975	4.975	0.000	98	391824	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.636	7.637	-0.001	95	250114	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.860	9.861	0.000	98	99969	10.0	10.0	
25 Acetonitrile	41	2.786	2.784	0.002	99	387210	200.0	205.3	
36 Isopropyl ether	87	3.567	3.577	-0.010	97	201661	20.0	19.8	
37 2-Chloro-1,3-butadiene	53	3.579	3.588	-0.009	93	466776	20.0	19.4	
38 Tert-butyl ethyl ether	59	3.875	3.872	0.003	98	903838	20.0	19.6	
43 Propionitrile	54	4.064	4.073	-0.009	72	486302	200.0	201.1	
42 Ethyl acetate	43	4.064	4.073	-0.009	99	694517	40.0	37.8	
44 Methacrylonitrile	41	4.194	4.192	0.002	95	2207980	200.0	194.3	
158 Isooctane	57	4.809	4.807	0.002	95	517501	20.0	19.7	
55 Tert-amyl methyl ether	73	4.833	4.830	0.003	94	679750	20.0	19.7	
57 n-Butanol	56	5.223	5.233	-0.010	87	227412	500.0	479.4	
59 Ethyl acrylate	55	5.377	5.375	0.002	98	482042	20.0	19.1	
62 Methyl methacrylate	41	5.578	5.576	0.002	94	631443	40.0	38.4	
66 2-Nitropropane	41	5.909	5.907	0.002	94	180757	40.0	36.4	
77 n-Butyl acetate	56	7.092	7.102	-0.010	98	228176	20.0	20.3	
81 1-Chlorohexane	91	7.648	7.646	0.002	91	235081	20.0	19.9	
91 Cyclohexanone	55	8.689	8.687	0.002	94	108175	200.0	208.3	
101 Pentachloroethane	167	9.505	9.493	0.012	88	10130	40.0	35.1	
107 1,2,3-Trimethylbenzene	105	9.943	9.940	0.003	99	597281	20.0	20.1	
108 Benzyl chloride	126	10.026	10.023	0.003	100	98124	20.0	22.0	
112 1,3,5-Trichlorobenzene	180	11.232	11.230	0.002	94	132305	20.0	20.2	
117 2-Methylnaphthalene	142	13.243	13.241	0.002	99	489625	40.0	36.9	
157 1-Methylnaphthalene	142	13.456	13.465	-0.009	94	413463	40.0	38.8	

Reagents:

VMRA9W_00329	Amount Added: 16.00	Units: uL
VM50IS_00080	Amount Added: 1.00	Units: uL

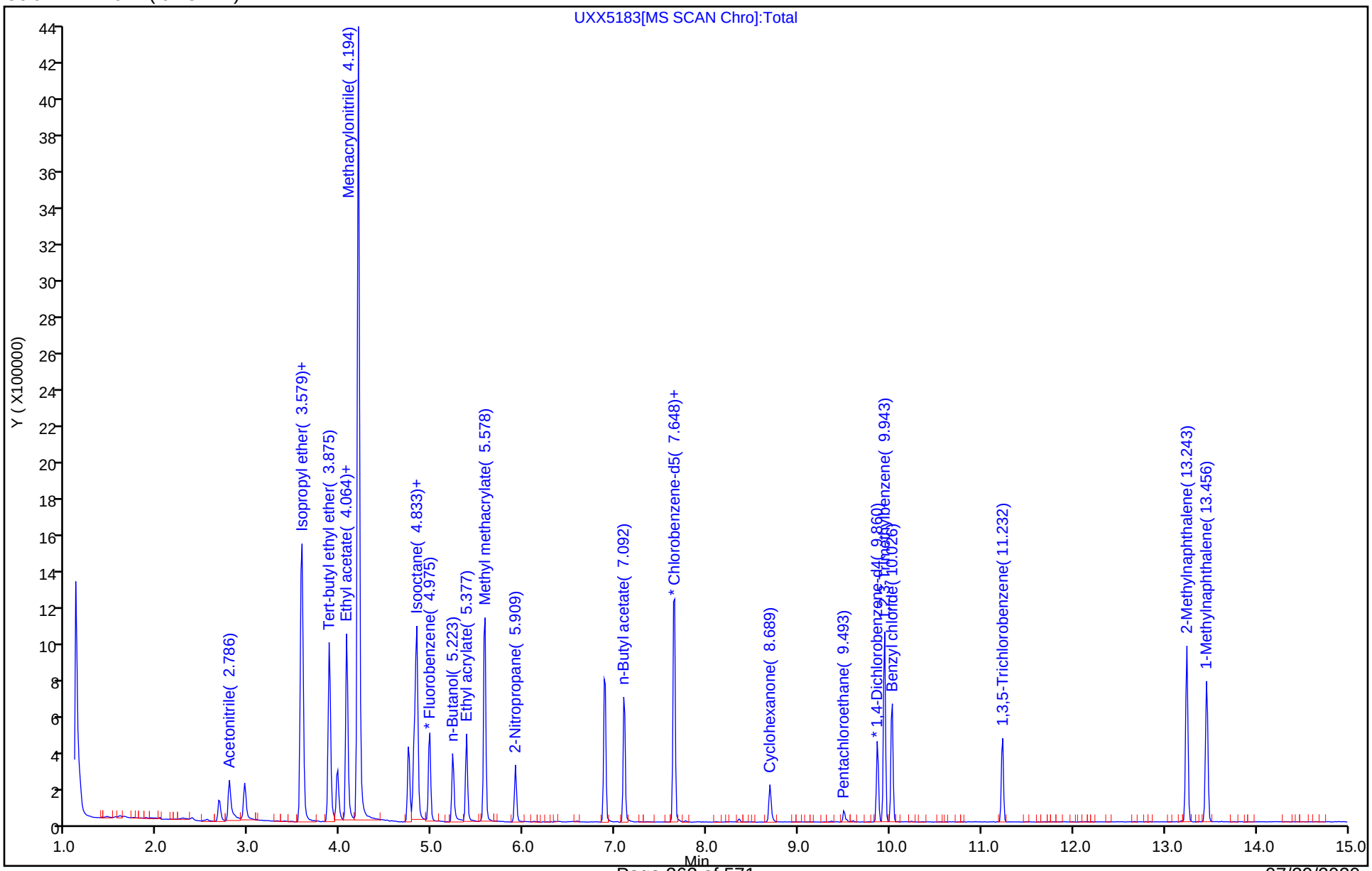
Report Date: 20-Jan-2020 16:52:12 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5183.D

Injection Date:	15-Jan-2020 18:54:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STDA9 L6			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5184.D
Lims ID: STDA9 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-Jan-2020 19:19:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-012
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:14 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 17-Jan-2020 14:42:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.974	4.974	0.000	98	377968	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.635	7.635	0.000	90	250079	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.871	9.871	0.000	95	102711	10.0	10.0	
25 Acetonitrile	41	2.786	2.786	0.000	100	174378	100.0	95.8	
36 Isopropyl ether	87	3.566	3.566	0.000	97	95494	10.0	9.74	
37 2-Chloro-1,3-butadiene	53	3.578	3.578	0.000	68	227831	10.0	9.81	
38 Tert-butyl ethyl ether	59	3.874	3.874	0.000	96	441552	10.0	9.93	
43 Propionitrile	54	4.063	4.063	0.000	72	228755	100.0	98.1	
42 Ethyl acetate	43	4.063	4.063	0.000	96	323958	20.0	18.3	
44 Methacrylonitrile	41	4.193	4.193	0.000	95	1065185	100.0	97.2	
158 Isooctane	57	4.808	4.808	0.000	90	254140	10.0	10.0	
55 Tert-amyl methyl ether	73	4.832	4.832	0.000	92	329089	10.0	9.91	
57 n-Butanol	56	5.222	5.222	0.000	87	107061	250.0	225.7	
59 Ethyl acrylate	55	5.376	5.376	0.000	97	230238	10.0	9.46	
62 Methyl methacrylate	41	5.577	5.577	0.000	93	310366	20.0	19.6	
66 2-Nitropropane	41	5.908	5.908	0.000	93	84287	20.0	17.6	
77 n-Butyl acetate	56	7.091	7.091	0.000	97	108023	10.0	9.31	
81 1-Chlorohexane	91	7.647	7.647	0.000	76	113305	10.0	9.61	
91 Cyclohexanone	55	8.688	8.688	0.000	86	55613	100.0	100.5	
101 Pentachloroethane	167	9.493	9.493	0.000	83	3193	20.0	11.1	a
107 1,2,3-Trimethylbenzene	105	9.942	9.942	0.000	97	288280	10.0	9.45	
108 Benzyl chloride	126	10.025	10.025	0.000	99	45235	10.0	9.85	
112 1,3,5-Trichlorobenzene	180	11.231	11.231	0.000	91	66188	10.0	9.84	
117 2-Methylnaphthalene	142	13.242	13.242	0.000	99	292734	20.0	21.5	
157 1-Methylnaphthalene	142	13.455	13.455	0.000	90	256312	20.0	21.2	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

VMRA9W_00329	Amount Added:	8.00	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL

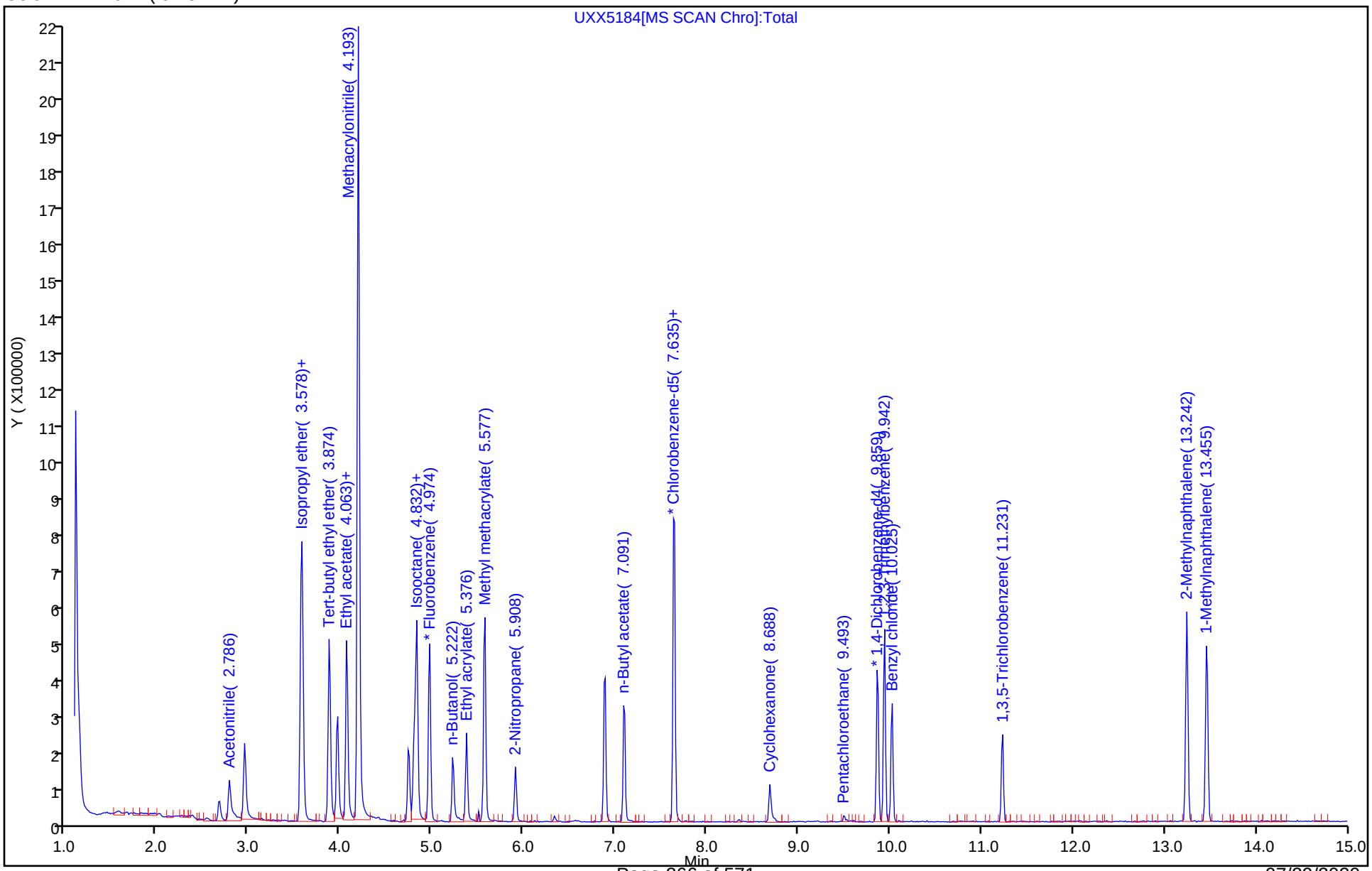
Report Date: 20-Jan-2020 16:52:15 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5184.D

Injection Date:	15-Jan-2020 19:19:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STDA9 L5			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

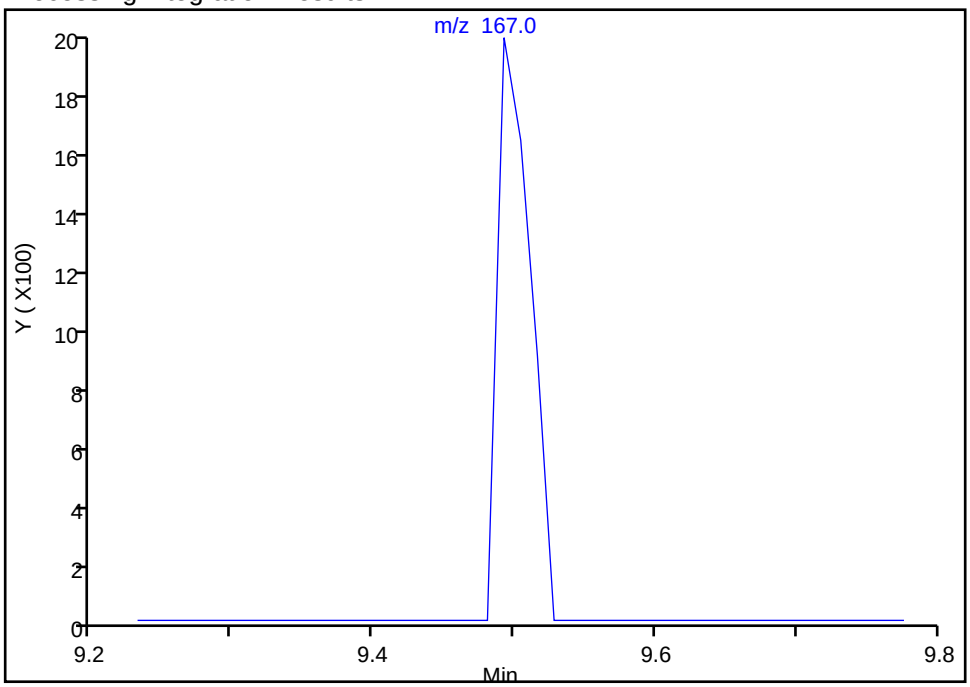
Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5184.D
Injection Date: 15-Jan-2020 19:19:30 Instrument ID: A3UX10
Lims ID: STDA9 L5
Client ID:
Operator ID: 001644 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

101 Pentachloroethane, CAS: 76-01-7

Signal: 1

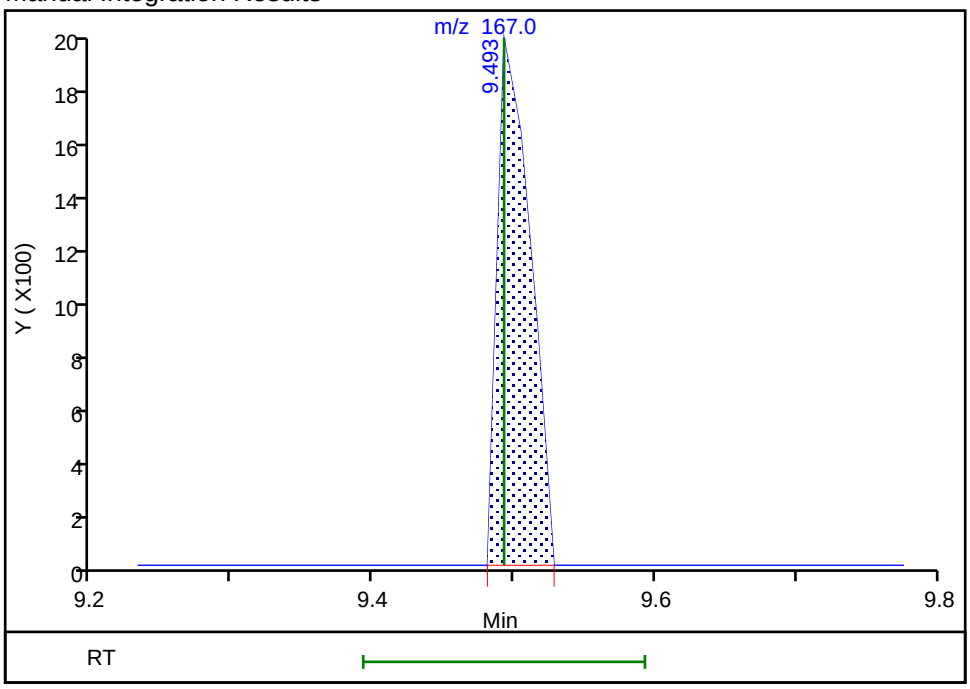
Not Detected
Expected RT: 9.49

Processing Integration Results



Manual Integration Results

RT: 9.49
Area: 3193
Amount: 11.073758
Amount Units: ug/l



Reviewer: williamsla, 17-Jan-2020 14:43:34
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5185.D
Lims ID: STDA9 L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-Jan-2020 19:44:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-013
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:18 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:20:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.972	4.972	0.000	98	387385	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.646	7.646	0.000	92	248009	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.869	9.869	0.000	98	98796	10.0	10.0	
25 Acetonitrile	41	2.784	2.784	0.000	98	85178	50.0	45.7	
36 Isopropyl ether	87	3.577	3.577	0.000	97	51743	5.00	5.15	
37 2-Chloro-1,3-butadiene	53	3.588	3.588	0.000	91	126274	5.00	5.31	
38 Tert-butyl ethyl ether	59	3.872	3.872	0.000	97	235175	5.00	5.16	
43 Propionitrile	54	4.073	4.073	0.000	71	119502	50.0	50.0	
42 Ethyl acetate	43	4.073	4.073	0.000	99	175395	10.0	9.64	
44 Methacrylonitrile	41	4.192	4.192	0.000	96	575674	50.0	51.2	
158 Isooctane	57	4.807	4.807	0.000	94	132175	5.00	5.08	
55 Tert-amyl methyl ether	73	4.830	4.830	0.000	95	178050	5.00	5.23	
57 n-Butanol	56	5.233	5.233	0.000	85	59427	125.0	126.3	
59 Ethyl acrylate	55	5.375	5.375	0.000	98	128437	5.00	5.15	
62 Methyl methacrylate	41	5.576	5.576	0.000	94	168485	10.0	10.4	
66 2-Nitropropane	41	5.907	5.907	0.000	97	48053	10.0	9.78	
77 n-Butyl acetate	56	7.102	7.102	0.000	97	57193	5.00	4.69	
81 1-Chlorohexane	91	7.646	7.646	0.000	91	60683	5.00	5.19	
91 Cyclohexanone	55	8.687	8.687	0.000	95	28685	50.0	50.4	
101 Pentachloroethane	167		9.493				ND	ND	
107 1,2,3-Trimethylbenzene	105	9.940	9.940	0.000	99	152865	5.00	5.21	
108 Benzyl chloride	126	10.023	10.023	0.000	100	23435	5.00	5.31	
112 1,3,5-Trichlorobenzene	180	11.230	11.230	0.000	93	35952	5.00	5.56	
117 2-Methylnaphthalene	142	13.241	13.241	0.000	98	146502	10.0	11.2	
157 1-Methylnaphthalene	142	13.465	13.465	0.000	93	130032	10.0	10.5	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

VMRA9W_00329	Amount Added:	4.00	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL

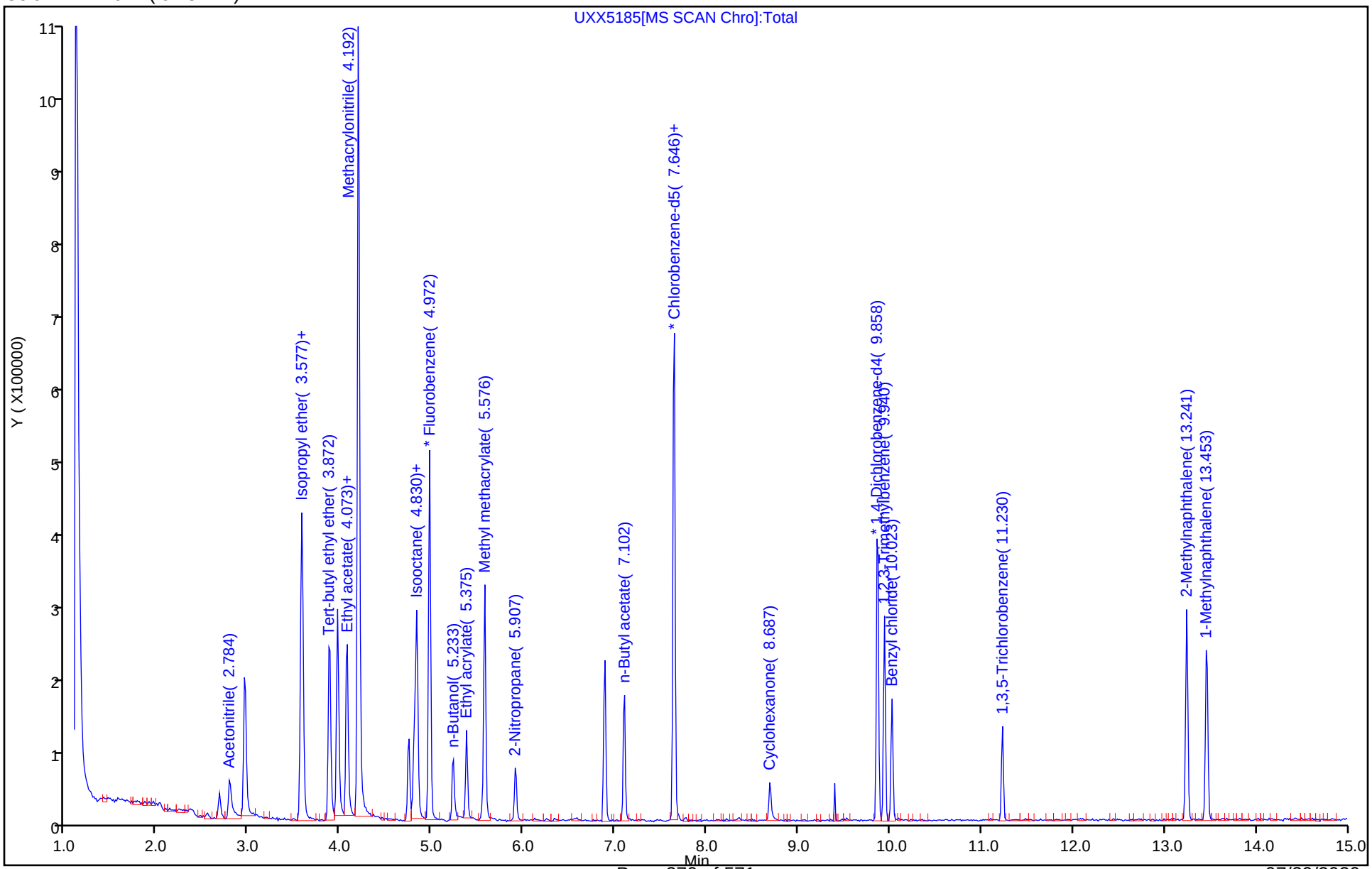
Report Date: 20-Jan-2020 16:52:19 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5185.D

Injection Date:	15-Jan-2020 19:44:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STDA9 L4			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5186.D
Lims ID: STDA9 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-Jan-2020 20:09:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-014
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:21 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:22:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.975	4.972	0.003	98	375399	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.636	7.646	-0.010	94	247217	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.860	9.869	-0.009	98	97691	10.0	10.0	
25 Acetonitrile	41	2.786	2.784	0.002	99	71172	40.0	39.4	
36 Isopropyl ether	87	3.579	3.577	0.002	97	40231	4.00	4.13	
37 2-Chloro-1,3-butadiene	53	3.579	3.588	-0.009	93	93888	4.00	4.07	
38 Tert-butyl ethyl ether	59	3.875	3.872	0.003	98	187654	4.00	4.25	
43 Propionitrile	54	4.064	4.073	-0.009	74	94227	40.0	40.7	
42 Ethyl acetate	43	4.064	4.073	-0.009	99	137619	8.00	7.81	
44 Methacrylonitrile	41	4.194	4.192	0.002	96	449745	40.0	41.3	
158 Isooctane	57	4.809	4.807	0.002	94	99723	4.00	3.95	
55 Tert-amyl methyl ether	73	4.833	4.830	0.003	93	138034	4.00	4.19	
57 n-Butanol	56	5.223	5.233	-0.010	89	44686	100.0	95.3	
59 Ethyl acrylate	55	5.377	5.375	0.002	98	102105	4.00	4.23	
62 Methyl methacrylate	41	5.578	5.576	0.002	96	133013	8.00	8.45	
66 2-Nitropropane	41	5.909	5.907	0.002	97	39325	8.00	8.26	
77 n-Butyl acetate	56	7.092	7.102	-0.010	97	46721	4.00	3.73	
81 1-Chlorohexane	91	7.648	7.646	0.002	85	44370	4.00	3.81	
91 Cyclohexanone	55	8.689	8.687	0.002	94	23190	40.0	39.8	
101 Pentachloroethane	167		9.493				ND	ND	
107 1,2,3-Trimethylbenzene	105	9.943	9.940	0.003	99	120084	4.00	4.14	
108 Benzyl chloride	126	10.025	10.023	0.002	100	17339	4.00	3.97	
112 1,3,5-Trichlorobenzene	180	11.232	11.230	0.002	90	25178	4.00	3.94	
117 2-Methylnaphthalene	142	13.243	13.241	0.002	98	107595	8.00	8.30	
157 1-Methylnaphthalene	142	13.456	13.465	-0.009	93	97016	8.00	7.72	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

VMRA9W_00329	Amount Added:	3.20	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL

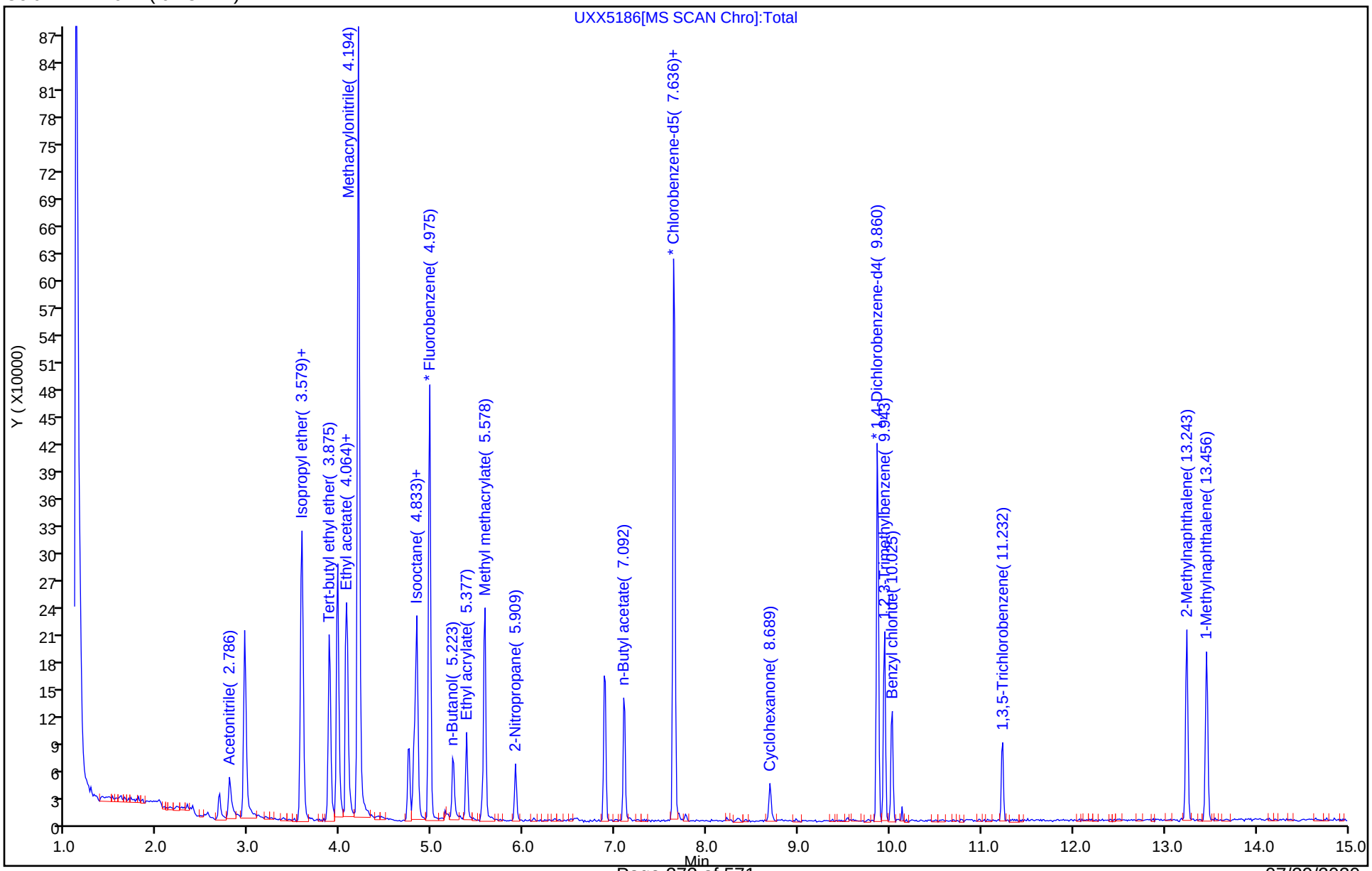
Report Date: 20-Jan-2020 16:52:22 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5186.D

Injection Date:	15-Jan-2020 20:09:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STDA9 L3			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5187.D
Lims ID: STDA9 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Jan-2020 20:34:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-015
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:24 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:22:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.973	4.972	0.001	98	385405	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.646	7.646	0.000	91	245552	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.870	9.869	0.001	96	95980	10.0	10.0	
25 Acetonitrile	41	2.784	2.784	0.000	99	30899	20.0	16.7	
36 Isopropyl ether	87	3.577	3.577	0.000	97	20324	2.00	2.03	
37 2-Chloro-1,3-butadiene	53	3.589	3.588	0.001	94	47217	2.00	1.99	
38 Tert-butyl ethyl ether	59	3.885	3.872	0.013	98	90627	2.00	2.00	
43 Propionitrile	54	4.074	4.073	0.001	71	48805	20.0	20.5	
42 Ethyl acetate	43	4.074	4.073	0.001	99	76406	4.00	4.22	
44 Methacrylonitrile	41	4.192	4.192	0.000	95	225005	20.0	20.1	
158 Isooctane	57	4.807	4.807	0.000	94	52377	2.00	2.02	
55 Tert-amyl methyl ether	73	4.831	4.830	0.001	95	67983	2.00	2.01	
57 n-Butanol	56	5.233	5.233	0.000	85	24300	50.0	52.2	
59 Ethyl acrylate	55	5.375	5.375	0.000	99	51225	2.00	2.07	
62 Methyl methacrylate	41	5.576	5.576	0.000	95	62234	4.00	3.85	
66 2-Nitropropane	41	5.907	5.907	0.000	94	19747	4.00	4.04	
77 n-Butyl acetate	56	7.102	7.102	0.000	98	23227	2.00	1.56	
81 1-Chlorohexane	91	7.646	7.646	0.000	41	24366	2.00	2.10	
91 Cyclohexanone	55	8.687	8.687	0.000	95	14117	20.0	21.8	
101 Pentachloroethane	167		9.493				ND	ND	
107 1,2,3-Trimethylbenzene	105	9.941	9.940	0.001	99	60787	2.00	2.13	
108 Benzyl chloride	126	10.024	10.023	0.001	99	7911	2.00	1.84	
112 1,3,5-Trichlorobenzene	180	11.230	11.230	0.000	88	13359	2.00	2.13	
117 2-Methylnaphthalene	142	13.241	13.241	0.000	98	56155	4.00	4.41	
157 1-Methylnaphthalene	142	13.466	13.465	0.001	93	50770	4.00	3.89	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

VMRA9W_00329	Amount Added:	1.60	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL

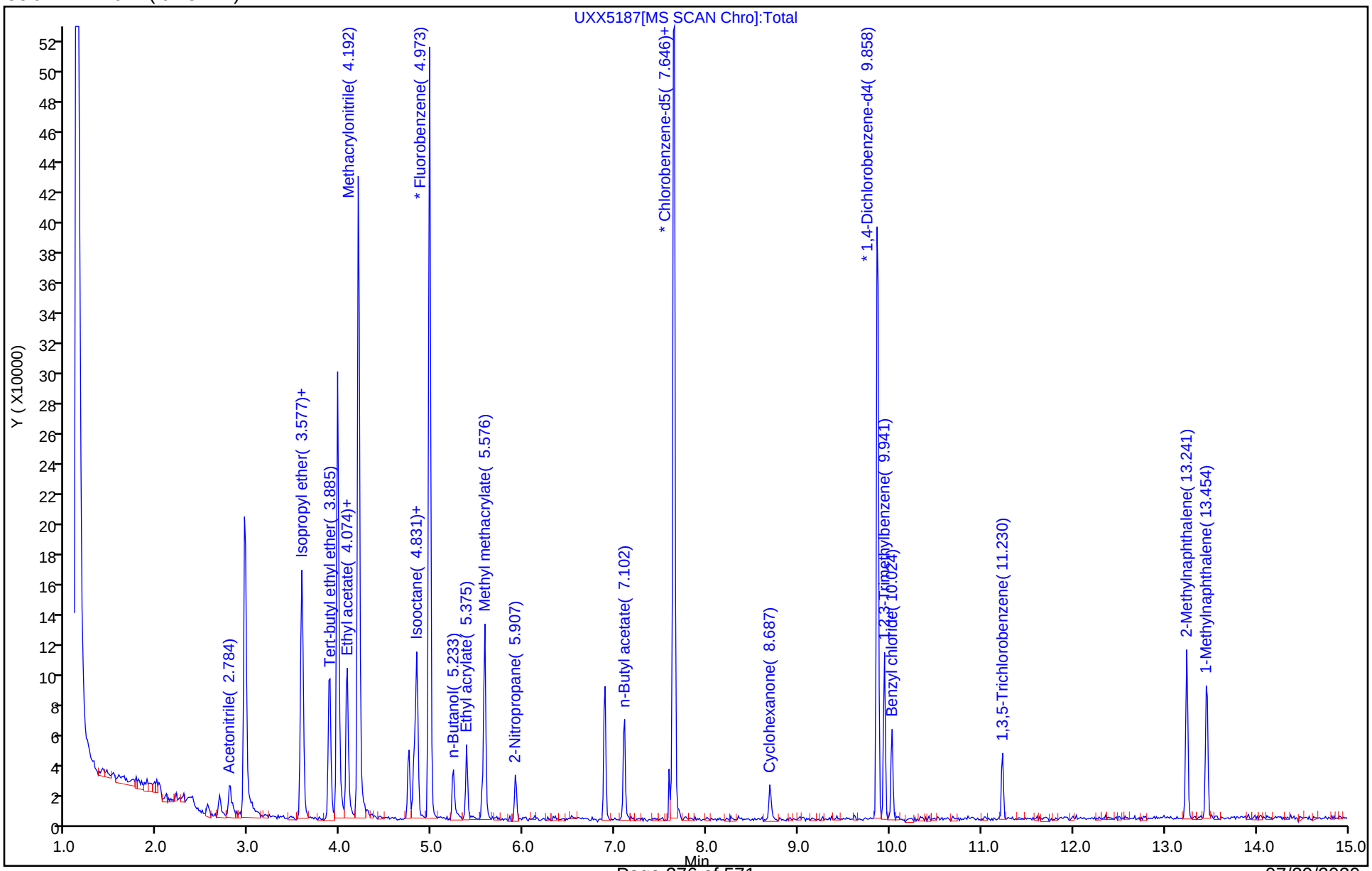
Report Date: 20-Jan-2020 16:52:25 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5187.D

Injection Date:	15-Jan-2020 20:34:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STDA9 L2			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D
Lims ID: STDA9 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-Jan-2020 20:59:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-016
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:27 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:05:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.974	4.972	0.002	97	379219	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.635	7.646	-0.011	93	248418	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.871	9.869	0.002	97	97081	10.0	10.0	
25 Acetonitrile	41	2.785	2.784	0.001	99	22326	10.0	12.2	
36 Isopropyl ether	87	3.578	3.577	0.001	97	9115	1.00	0.9262	
37 2-Chloro-1,3-butadiene	53	3.590	3.588	0.002	92	22517	1.00	0.9667	
38 Tert-butyl ethyl ether	59	3.874	3.872	0.002	96	41694	1.00	0.9349	
43 Propionitrile	54	4.075	4.073	0.002	69	21923	10.0	9.37	
42 Ethyl acetate	43	4.075	4.073	0.002	99	43063	2.00	2.42	
44 Methacrylonitrile	41	4.193	4.192	0.001	95	112647	10.0	10.2	
158 Isooctane	57	4.808	4.807	0.001	92	27006	1.00	1.06	
55 Tert-amyl methyl ether	73	4.832	4.830	0.002	95	31368	1.00	0.9416	
57 n-Butanol	56	5.234	5.233	0.001	86	14107	25.0	29.9	
59 Ethyl acrylate	55	5.376	5.375	0.001	97	24708	1.00	1.01	
62 Methyl methacrylate	41	5.577	5.576	0.001	95	32716	2.00	2.06	
66 2-Nitropropane	41	5.908	5.907	0.001	90	12240	2.00	2.55	
77 n-Butyl acetate	56	7.103	7.102	0.001	97	21494	1.00	1.38	
81 1-Chlorohexane	91	7.647	7.646	0.001	37	11436	1.00	0.9761	
91 Cyclohexanone	55	8.688	8.687	0.001	95	7948	10.0	8.83	
101 Pentachloroethane	167		9.493				ND	ND	
107 1,2,3-Trimethylbenzene	105	9.942	9.940	0.002	98	26769	1.00	0.9285	
108 Benzyl chloride	126	10.024	10.023	0.001	98	3799	1.00	0.8752	
112 1,3,5-Trichlorobenzene	180	11.231	11.230	0.001	93	5455	1.00	0.8582	
117 2-Methylnaphthalene	142	13.242	13.241	0.001	97	25284	2.00	1.96	
157 1-Methylnaphthalene	142	13.455	13.465	-0.010	89	23381	2.00	1.57	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

VM50IS_00080	Amount Added:	1.00	Units: uL
VMRA9W_00329	Amount Added:	0.80	Units: uL

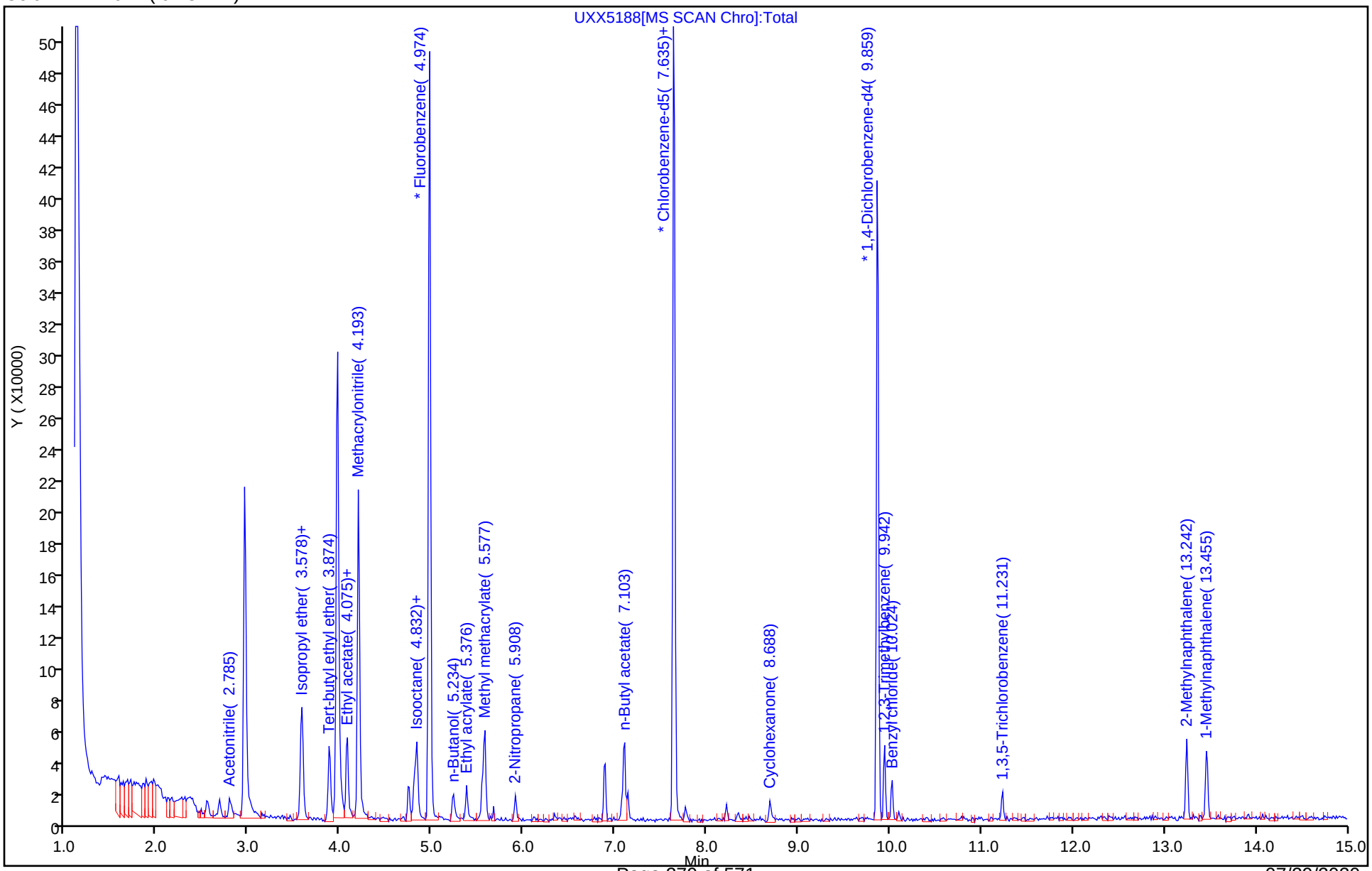
Report Date: 20-Jan-2020 16:52:29 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Injection Date:	15-Jan-2020 20:59:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	STDA9 L1			Worklist Smp#:	16
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427472/11	1424115.D
Level 2	IC 240-427472/10	1424114.D
Level 3	IC 240-427472/9	1424113.D
Level 4	IC 240-427472/8	1424112.D
Level 5	IC 240-427472/7	1424111.D
Level 6	ICIS 240-427472/6	1424110.D
Level 7	IC 240-427472/5	1424109.D
Level 8	IC 240-427472/4	1424108.D
Level 9	IC 240-427472/3	1424107.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2965	+++++ 0.3260	0.3036 0.3328	0.2878 0.3210	0.2919	Ave		0.3085				5.8		15.0			
Chloromethane	0.3328 0.2988	0.2628 0.3371	0.3131 0.3374	0.3033 0.3150	0.2989	Ave		0.3110			0.1000	7.7		15.0			
Vinyl chloride	0.2933 0.2757	0.2129 0.3099	0.2839 0.3165	0.2732 0.2998	0.2803	Ave		0.2828				10.7		15.0			
Butadiene	0.2247 0.2496	0.1791 0.2767	0.2568 0.2838	0.2440 0.2750	0.2500	Ave		0.2489				12.9		15.0			
Bromomethane	0.1756 0.1383	0.1497 0.1108	0.1693 +++++	0.1646 +++++	0.1519	Ave		0.1515				14.5		15.0			
Chloroethane	0.1710 0.1613	0.1353 +++++	0.1899 +++++	0.1769 +++++	0.1722	Ave		0.1677				11.0		15.0			
Dichlorofluoromethane	0.4073 0.3506	0.3117 0.3407	0.3728 +++++	0.3624 +++++	0.3635	Ave		0.3584				8.2		15.0			
Trichlorofluoromethane	0.3291 0.3423	0.2569 0.3358	0.3597 0.2920	0.3567 +++++	0.3613	Ave		0.3292				11.2		15.0			
Ethyl ether	0.2347 0.2471	0.2507 0.2272	0.2624 0.1930	0.2396 0.1798	0.2461	Ave		0.2312				11.9		15.0			
Acrolein	0.0358 0.0363	0.0347 0.0330	0.0364 0.0287	0.0335 0.0264	0.0339	Ave		0.0332				10.5		15.0			
1,1-Dichloroethene	+++++ 0.2087	0.1876 0.2086	0.2192 0.2018	0.2014 0.2028	0.2037	Ave		0.2042				4.4		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.1310	+++++ 0.1445	0.1411 0.1460	0.1357 0.1488	0.1367	Ave		0.1405				4.5		15.0			
Acetone	+++++ 0.0750	+++++ 0.0669	0.0961 +++++	0.0798 +++++	0.0712	Ave		0.0778				14.5		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Iodomethane	0.2959 0.3311	0.3117 0.3337	0.3462 0.3273	0.3162 0.3297	0.3195	Ave		0.3235				4.5		15.0			
Carbon disulfide	0.5098 0.6410	0.5402 0.6499	0.6221 0.6628	0.6194 0.6563	0.6521	Ave		0.6171				8.9		15.0			
3-Chloro-1-propene	+++++ 0.1528	+++++ 0.1535	0.1408 0.1553	0.1368 0.1573	0.1459	Ave		0.1489				5.3		15.0			
Methyl acetate	0.1758 0.1898	0.1887 0.1814	0.1913 0.1771	0.1779 0.1831	0.1812	Ave		0.1829				3.1		15.0			
Methylene Chloride	+++++ 0.2420	0.2893 0.2302	0.2730 0.2287	0.2438 0.2315	0.2417	Ave		0.2475				8.9		15.0			
2-Methyl-2-propanol	0.0180 0.0185	0.0178 0.0168	0.0182 0.0149	0.0167 +++++	0.0181	Ave		0.0174				6.9		15.0			
Acrylonitrile	0.0867 0.0898	0.0908 0.0844	0.0909 0.0825	0.0832 0.0837	0.0873	Ave		0.0866				3.9		15.0			
trans-1,2-Dichloroethene	0.2166 0.2522	0.2288 0.2435	0.2598 0.2504	0.2404 0.2590	0.2527	Ave		0.2448				5.9		15.0			
Methyl tert-butyl ether	0.4412 0.4672	0.4587 0.4731	0.4847 0.4705	0.4535 0.4441	0.4713	Ave		0.4627				3.1		15.0			
Hexane	+++++ 0.0832	0.0716 0.0855	0.0860 0.0872	0.0832 0.0903	0.0859	Ave		0.0841				6.6		15.0			
1,1-Dichloroethane	0.4227 0.4825	0.4567 0.4754	0.4934 0.4815	0.4719 0.4880	0.4870	Ave		0.4732			0.1000	4.6		15.0			
Vinyl acetate	0.0399 0.0541	0.0416 0.0558	0.0510 0.0557	0.0464 0.0574	0.0491	Ave		0.0501				12.7		15.0			
2,2-Dichloropropane	0.0396 0.0508	0.0458 0.0507	0.0509 0.0485	0.0473 0.0482	0.0496	Ave		0.0479				7.4		15.0			
cis-1,2-Dichloroethene	0.2508 0.2787	0.2738 0.2701	0.2848 0.2693	0.2692 0.2735	0.2790	Ave		0.2721				3.5		15.0			
2-Butanone (MEK)	+++++ 0.1237	0.1349 0.1209	0.1307 0.1156	0.1217 0.1189	0.1186	Ave		0.1231				5.3		15.0			
Chlorobromomethane	0.1261 0.1340	0.1365 0.1277	0.1365 0.1290	0.1295 0.1290	0.1343	Ave		0.1314				3.0		15.0			
Tetrahydrofuran	0.0901 0.0776	0.0767 0.0757	0.0805 0.0730	0.0714 0.0745	0.0741	Ave		0.0771				7.2		15.0			
Chloroform	0.4712 0.4793	0.4727 0.4630	0.4970 0.4597	0.4645 0.4646	0.4812	Ave		0.4726				2.5		15.0			
1,1,1-Trichloroethane	+++++ 0.3576	0.2849 0.3654	0.3443 0.3662	0.3384 0.3693	0.3529	Ave		0.3474				7.9		15.0			
Cyclohexane	+++++ 0.4410	0.3536 0.4495	0.4451 0.4537	0.4419 0.4661	0.4543	Ave		0.4382				8.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Carbon tetrachloride	+++++ 0.3112	+++++ 0.3232	0.2779 0.3357	0.2729 0.3491	0.2983	Ave		0.3098				9.2		15.0			
1,1-Dichloropropene	0.3030 0.3991	0.3492 0.3953	0.4135 0.3916	0.3944 0.4025	0.4001	Ave		0.3832				9.1		15.0			
Benzene	0.9795 1.0712	1.0496 1.0568	1.1545 1.0115	1.0822 1.0152	1.0915	Ave		1.0569				4.9		15.0			
1,2-Dichloroethane	0.4634 0.4633	0.4832 0.4568	0.4881 0.4417	0.4573 0.4431	0.4673	Ave		0.4627				3.4		15.0			
Isobutyl alcohol	+++++ 0.0087	+++++ 0.0087	0.0067 0.0086	0.0072 0.0088	0.0081	Ave		0.0081				10.5		15.0			
n-Heptane	+++++ 0.0972	+++++ 0.1022	0.0976 0.1039	0.0971 0.1082	0.1006	Ave		0.1010				4.1		15.0			
Trichloroethene	0.2403 0.2808	0.2655 0.2796	0.2927 0.2721	0.2862 0.2790	0.2860	Ave		0.2758				5.6		15.0			
Methylcyclohexane	+++++ 0.4473	+++++ 0.4456	0.4576 0.4543	0.4477 0.4682	0.4529	Ave		0.4534				1.7		15.0			
1,2-Dichloropropane	0.2531 0.2823	0.2790 0.2872	0.2938 0.2806	0.2727 0.2833	0.2839	Ave		0.2795				4.1		15.0			
Dibromomethane	0.1612 0.1692	0.1683 0.1659	0.1781 0.1595	0.1620 0.1621	0.1697	Ave		0.1662				3.5		15.0			
1,4-Dioxane	0.0023 0.0026	0.0025 0.0026	0.0026 0.0025	0.0027 0.0025	0.0027	Ave		0.0026				4.0		15.0			
Dichlorobromomethane	0.2762 0.3571	0.2956 0.3637	0.3340 0.3603	0.3311 0.3637	0.3463	Ave		0.3364				9.3		15.0			
2-Chloroethyl vinyl ether	+++++ 0.1699	0.1462 0.1788	0.1580 0.1764	0.1563 0.1817	0.1631	Ave		0.1663				7.5		15.0			
cis-1,3-Dichloropropene	0.3163 0.4429	0.3518 0.4619	0.3941 0.4521	0.4021 0.4608	0.4267	Ave		0.4121				12.4		15.0			
4-Methyl-2-pentanone (MIBK)	0.3308 0.3764	0.3157 0.3576	0.3414 0.3490	0.3357 0.3537	0.3500	Ave		0.3456				5.0		15.0			
Toluene	1.5154 1.5862	1.5859 1.5415	1.6620 1.4631	1.5844 1.4466	1.5970	Ave		1.5536				4.4		15.0			
trans-1,3-Dichloropropene	+++++ 0.5786	+++++ 0.6027	0.4568 0.6184	0.4820 0.6253	0.5200	Ave		0.5548				12.3		15.0			
Ethyl methacrylate	+++++ 0.5009	+++++ 0.4957	0.4139 0.5011	0.4194 0.5114	0.4529	Ave		0.4707				8.8		15.0			
1,1,2-Trichloroethane	0.2790 0.3052	0.3153 0.3100	0.3199 0.3075	0.3023 0.3008	0.2973	Ave		0.3041				3.9		15.0			
Tetrachloroethene	0.2260 0.2960	0.2673 0.2920	0.3066 0.2925	0.2906 0.3010	0.2977	Ave		0.2855				8.7		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,3-Dichloropropane	0.5631 0.6009	0.6063 0.5948	0.6271 0.5893	0.5937 0.5870	0.5938	Ave		0.5951				2.9		15.0			
2-Hexanone	0.1822 0.2740	0.2325 0.2678	0.2437 0.2630	0.2384 0.2638	0.2499	Ave		0.2461				11.3		15.0			
Chlorodibromomethane	+++++ 0.3359	+++++ 0.3396	0.2762 0.3462	0.2787 0.3552	0.3053	Ave		0.3196				10.2		15.0			
Ethylene Dibromide	0.2848 0.3278	0.3040 0.3162	0.3209 0.3151	0.3095 0.3144	0.3179	Ave		0.3123				3.9		15.0			
Chlorobenzene	1.0273 1.0077	1.0281 0.9786	1.0682 0.9460	1.0125 0.9466	1.0267	Ave		1.0046			0.3000	4.0		15.0			
1,1,1,2-Tetrachloroethane	0.2097 0.3058	0.2326 0.3009	0.2560 0.3123	0.2624 0.3182	0.2864	Ave		0.2760				13.8		15.0			
Ethylbenzene	0.4867 0.5494	0.5038 0.5416	0.5631 0.5333	0.5405 0.5476	0.5495	Ave		0.5351				4.6		15.0			
m-Xylene & p-Xylene	0.5877 0.6695	0.6284 0.6597	0.6810 0.6522	0.6614 0.6633	0.6721	Ave		0.6528				4.4		15.0			
o-Xylene	0.5147 0.6181	0.5629 0.5973	0.6326 0.6030	0.6070 0.6107	0.6208	Ave		0.5963				6.1		15.0			
Styrene	0.8967 1.0607	0.9178 1.0534	1.0114 1.0335	1.0038 1.0347	1.0449	Ave		1.0063				5.9		15.0			
Bromoform	+++++ 0.1687	+++++ 0.1777	0.1187 0.1879	0.1285 0.1942	0.1453	Lin1	-0.546	0.1905			0.1000				0.9980		0.9900
Isopropylbenzene	1.1806 1.5275	1.3673 1.4746	1.5444 1.4257	1.5110 1.3735	1.5474	Ave		1.4391				8.3		15.0			
Bromobenzene	0.8597 0.8457	0.8245 0.8079	0.9026 0.7582	0.8433 0.7497	0.8627	Ave		0.8283				6.0		15.0			
1,1,2,2-Tetrachloroethane	0.6696 0.8323	0.7629 0.7853	0.8342 0.7400	0.7767 0.7389	0.8190	Ave		0.7732			0.3000	6.9		15.0			
1,2,3-Trichloropropane	0.2615 0.2804	0.2900 0.2629	0.2997 0.2437	0.2734 0.2425	0.2815	Ave		0.2706				7.3		15.0			
trans-1,4-Dichloro-2-butene	0.2542 0.2939	0.2561 0.2972	0.2540 0.2841	0.2474 0.2917	0.2693	Ave		0.2720				7.3		15.0			
N-Propylbenzene	0.7546 1.0316	0.8647 0.9880	1.0288 0.9370	1.0234 0.9543	1.0642	Ave		0.9607				10.2		15.0			
2-Chlorotoluene	0.7124 0.8483	0.7916 0.8086	0.8872 0.7630	0.8573 0.7768	0.8623	Ave		0.8119				7.0		15.0			
1,3,5-Trimethylbenzene	2.1183 2.9098	2.4671 2.7729	2.8558 2.6714	2.8252 2.6378	2.9589	Ave		2.6908				9.8		15.0			
4-Chlorotoluene	0.8195 0.8929	0.8818 0.8456	0.9445 0.7920	0.8904 0.8081	0.9096	Ave		0.8649				5.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
tert-Butylbenzene	1.8666 2.4506	2.1526 2.4176	2.4969 2.4297	2.4416 2.4030	2.5209	Ave		2.3533				9.0		15.0			
1,2,4-Trimethylbenzene	2.2273 2.9148	2.5080 2.8386	2.9017 2.7295	2.8154 2.6104	2.9280	Ave		2.7193				8.6		15.0			
sec-Butylbenzene	2.4478 3.5794	3.0757 3.4967	3.6732 3.2549	3.5963 3.1370	3.7294	Ave		3.3323				12.2		15.0			
1,3-Dichlorobenzene	1.5703 1.5133	1.5472 1.4586	1.5910 1.4509	1.5180 1.4482	1.5499	Ave		1.5164				3.5		15.0			
4-Isopropyltoluene	2.1092 3.0903	2.5858 3.0301	3.0728 2.9152	3.0031 2.8048	3.1776	Ave		2.8654				11.7		15.0			
1,4-Dichlorobenzene	1.7456 1.5356	1.7303 1.4795	1.6635 1.4594	1.5646 1.4792	1.5701	Ave		1.5809				6.9		15.0			
1,2-Dichlorobenzene	1.4592 1.4253	1.4604 1.4176	1.4801 1.3981	1.4036 1.3997	1.4590	Ave		1.4337				2.2		15.0			
n-Butylbenzene	1.8449 2.8325	2.2656 2.8122	2.7161 2.7400	2.7229 2.7140	2.8346	Ave		2.6092				12.8		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1310	+++++ 0.1412	0.0942 0.1525	0.0915 0.1539	0.1115	Lin1	-0.488	0.1523							0.9970		0.9900
1,2,4-Trichlorobenzene	1.0759 1.0643	1.0489 1.0597	1.0344 1.0405	1.0177 1.0329	1.0433	Ave		1.0464				1.7		15.0			
Hexachlorobutadiene	0.4039 0.5202	0.4284 0.5336	0.5068 0.5242	0.5098 0.5382	0.5206	Ave		0.4984				9.6		15.0			
Naphthalene	2.4058 2.7083	2.4340 2.6606	2.5540 2.4771	2.4853 2.3571	2.6052	Ave		2.5208				4.7		15.0			
1,2,3-Trichlorobenzene	1.0209 1.0341	1.0203 1.0123	1.0487 0.9814	0.9989 0.9597	1.0069	Ave		1.0093				2.7		15.0			
Dibromofluoromethane (Surr)	+++++ 0.2538	+++++ 0.2422	0.2589 0.2430	0.2611 0.2437	0.2603	Ave		0.2518				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3734	+++++ 0.3558	0.4181 0.3504	0.4058 0.3501	0.3893	Ave		0.3776				7.3		15.0			
Toluene-d8 (Surr)	+++++ 1.4085	+++++ 1.3345	1.4792 1.3141	1.4883 1.3018	1.4367	Ave		1.3947				5.6		15.0			
4-Bromofluorobenzene (Surr)	+++++ 1.1954	+++++ 1.0970	1.3422 1.0485	1.2983 1.0325	1.2463	Ave		1.1800				10.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427472/11	1424115.D
Level 2	IC 240-427472/10	1424114.D
Level 3	IC 240-427472/9	1424113.D
Level 4	IC 240-427472/8	1424112.D
Level 5	IC 240-427472/7	1424111.D
Level 6	ICIS 240-427472/6	1424110.D
Level 7	IC 240-427472/5	1424109.D
Level 8	IC 240-427472/4	1424108.D
Level 9	IC 240-427472/3	1424107.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 697900	+++++ 1428638	67869 2852545	130201 3432015	267799	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Chloromethane	FB	Ave	14681 703449	23337 1477417	69991 2891344	137228 3367448	274217	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl chloride	FB	Ave	12938 648944	18909 1358170	63465 2712833	123595 3205130	257133	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Butadiene	FB	Ave	9911 587695	15903 1212639	57406 2432750	110400 2939985	229287	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromomethane	FB	Ave	7746 325596	13295 485599	37835 +++++	74486 +++++	139340	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
Chloroethane	FB	Ave	7541 379617	12019 +++++	42440 +++++	80022 +++++	157936	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
Dichlorofluoromethane	FB	Ave	17967 825457	27685 1493076	83324 +++++	163960 +++++	333395	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
Trichlorofluoromethane	FB	Ave	14515 805819	22818 1471787	80392 2502320	161370 +++++	331407	1.00 50.0	2.00 100	5.00 200	10.0 +++++	20.0
Ethyl ether	FB	Ave	10351 581807	22264 995632	58653 1653801	108391 1921829	225702	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acrolein	FB	Ave	7888 427281	15414 722982	40732 1228064	75740 1410656	155275	5.00 250	10.0 500	25.0 1000	50.0 1250	100
1,1-Dichloroethene	FB	Ave	+++++ 491249	16662 914277	48998 1729836	91104 2168053	186812	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	+++++ 308296	+++++ 633290	31546 1251054	61396 1590721	125365	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Acetone	FB	Ave	+++++ 353146	+++++ 586605	42955 +++++	72193 +++++	130613	+++++ 100	+++++ 200	10.0 +++++	20.0 +++++	40.0
Iodomethane	FB	Ave	13053 779541	27686 1462659	77373 2805566	143049 3524079	293036	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Carbon disulfide	FB	Ave	22485 1508927	47976 2848303	139061 5680588	280228 7015873	598172	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
3-Chloro-1-propene	FB	Ave	+++++ 359697	+++++ 672721	31470 1330766	61883 1681303	133873	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Methyl acetate	FB	Ave	15511 893468	33525 1590175	85500 3035597	160975 3915185	332363	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Methylene Chloride	FB	Ave	+++++ 569789	25697 1009019	61012 1959841	110325 2474911	221671	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Methyl-2-propanol	FB	Ave	7933 435388	15845 737896	40744 1277888	75452 +++++	166475	10.0 500	20.0 1000	50.0 2000	100 +++++	200
Acrylonitrile	FB	Ave	38226 2114614	80686 3699193	203127 7067516	376567 8945149	800455	10.0 500	20.0 1000	50.0 2000	100 2500	200
trans-1,2-Dichloroethene	FB	Ave	9553 593607	20320 1066950	58059 2146109	108781 2769224	231811	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl tert-butyl ether	FB	Ave	19463 1099953	40740 2073315	108332 4032244	205181 4747664	432346	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexane	FB	Ave	+++++ 195963	6359 374678	19213 747697	37666 965617	78838	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1-Dichloroethane	FB	Ave	18646 1135916	40557 2083457	110277 4126701	213491 5216455	446719	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl acetate	FB	Ave	1762 127300	3697 244767	11401 477471	20983 613182	45078	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2,2-Dichloropropane	FB	Ave	1748 119474	4071 222127	11379 416017	21418 515678	45473	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
cis-1,2-Dichloroethene	FB	Ave	11064 656062	24316 1183752	63655 2307967	121782 2923493	255938	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Butanone (MEK)	FB	Ave	+++++ 582622	23953 1059951	58420 1982089	110102 2542525	217593	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
Chlorobromomethane	FB	Ave	5564 315422	12122 559569	30520 1105502	58574 1378833	123211	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrahydrofuran	FB	Ave	7951 365521	13630 663376	35988 1251179	64577 1593824	135913	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Chloroform	FB	Ave	20783 1128417	41982 2029145	111099 3939584	210184 4966143	441394	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1-Trichloroethane	FB	Ave	+++++ 841907	25299 1601338	76954 3138287	153090 3947769	323743	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Cyclohexane	FB	Ave	+++++ 1038132	31403 1969926	99488 3888232	199954 4982798	416754	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Carbon tetrachloride	FB	Ave	+++++ 732611	+++++ 1416615	62115 2877082	123494 3732341	273658	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1-Dichloropropene	FB	Ave	13363 939618	31012 1732432	92416 3356554	178452 4302380	366967	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzene	FB	Ave	43205 2521836	93217 4631358	258045 8668982	489630 10852834	1001214	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane	FB	Ave	20439 1090722	42916 2001768	109109 3785966	206900 4736798	428631	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Isobutyl alcohol	FB	Ave	+++++ 514254	+++++ 951267	37311 1840823	81393 2349298	185091	+++++ 1250	+++++ 2500	125 5000	250 6250	500
n-Heptane	FB	Ave	+++++ 228903	+++++ 447796	21822 890125	43952 1156557	92292	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Trichloroethene	FB	Ave	10599 661098	23581 1225231	65418 2332090	129509 2982643	262328	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methylcyclohexane	FB	Ave	+++++ 1053090	+++++ 1952934	102273 3893589	202562 5005191	415418	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloropropane	FB	Ave	11162 664558	24778 1258794	65659 2405134	123391 3028445	260457	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromomethane	FB	Ave	7112 398437	14950 727174	39815 1366746	73315 1733334	155647	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dioxane	FB	Ave	2048 122270	4496 227715	11468 433855	24176 542085	48885	20.0 1000	40.0 2000	100 4000	200 5000	400
Dichlorobromomethane	FB	Ave	12184 840699	26256 1593946	74646 3087773	149786 3887891	317668	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 800110	25963 1567235	70636 3023581	141471 3884208	299148	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
cis-1,3-Dichloropropene	FB	Ave	13953 1042650	31246 2024446	88078 3874633	181938 4925832	391438	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	21045 1242008	40469 2263522	111848 4177039	220110 5315006	461809	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Toluene	CBNZ d5	Ave	48204 2616779	101641 4879330	272206 8755342	519352 10868726	1053701	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	+++++ 954560	+++++ 1907673	74812 3700477	157999 4698061	343088	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Ethyl methacrylate	CBNZ d5	Ave	+++++ 826347	+++++ 1569023	67785 2998299	137464 3842125	298836	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	8876 503491	20207 981164	52395 1840337	99092 2259767	196171	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrachloroethene	CBNZ d5	Ave	7189 488308	17129 924263	50223 1750436	95245 2261741	196431	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichloropropane	CBNZ d5	Ave	17913 991303	38860 1882710	102703 3526314	194628 4410066	391758	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Hexanone	CBNZ d5	Ave	11590 903982	29798 1695462	79835 3147377	156303 3963402	329740	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Chlorodibromomethane	CBNZ d5	Ave	+++++ 554119	+++++ 1074859	45232 2071872	91368 2668424	201436	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Ethylene Dibromide	CBNZ d5	Ave	9060 540779	19482 1000940	52559 1885676	101449 2362057	209725	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chlorobenzene	CBNZ d5	Ave	32677 1662397	65894 3097365	174959 5660779	331906 7112267	677420	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6669 504544	14909 952276	41928 1868682	86024 2390368	188954	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethylbenzene	CBNZ d5	Ave	15483 906432	32289 1714306	92223 3191236	177179 4114135	362526	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	18694 1104568	40276 2087998	111537 3902698	216818 4983741	443430	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
o-Xylene	CBNZ d5	Ave	16372 1019795	36077 1890569	103603 3608103	198966 4587996	409571	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Styrene	CBNZ d5	Ave	28524 1749909	58822 3334262	165645 6184174	329046 7773796	689416	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromoform	CBNZ d5	Lin1	+++++ 278247	+++++ 562395	19437 1124378	42128 1459436	95889	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Isopropylbenzene	CBNZ d5	Ave	37555 2520033	87632 4667643	252947 8531229	495302 10319343	1020989	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromobenzene	DCBd 4	Ave	11540 581701	22490 1108284	61798 2100037	116575 2624235	236095	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	8988 572481	20808 1077298	57110 2049689	107367 2586431	224152	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	3510 192849	7910 360669	20516 674918	37800 848921	77054	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3412 202163	6984 407671	17393 787034	34202 1021155	73700	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
N-Propylbenzene	DCBd 4	Ave	10129 709505	23585 1355367	70438 2595360	141472 3340375	291248	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chlorotoluene	DCBd 4	Ave	9563 583482	21591 1109320	60742 2113451	118512 2719008	235991	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	28436 2001377	67292 3804060	195520 7399458	390565 9233054	809796	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Chlorotoluene	DCBd 4	Ave	11001 614148	24051 1159972	64668 2193848	123088 2828480	248939	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
tert-Butylbenzene	DCBd 4	Ave	25057 1685544	58713 3316622	170952 6729960	337536 8411072	689916	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	29899 2004771	68408 3894180	198664 7560483	389206 9137208	801337	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
sec-Butylbenzene	DCBd 4	Ave	32859 2461889	83892 4796947	251486 9015690	497162 10980413	1020664	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	21079 1040864	42200 2001034	108927 4018783	209850 5069066	424174	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427472

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/19/2020 15:34 Calibration End Date: 03/19/2020 18:32 Calibration ID: 56229

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Isopropyltoluene	DCBd 4	Ave	28313 2125501	70529 4156902	210380 8074807	415150 9817561	869651	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	23433 1056177	47194 2029704	113890 4042340	216291 5177601	429713	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	19588 980309	39834 1944765	101334 3872594	194038 4899268	399310	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butylbenzene	DCBd 4	Ave	24765 1948224	61797 3857948	185958 7589432	376421 9499815	775767	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 90109	+++++ 193771	6451 422516	12651 538656	30513	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	14442 732041	28610 1453748	70820 2881989	140686 3615490	285519	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexachlorobutadiene	DCBd 4	Ave	5422 357766	11685 731992	34701 1452071	70478 1883848	142481	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Naphthalene	DCBd 4	Ave	32295 1862741	66388 3649999	174860 6861366	343576 8250406	713001	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	13705 711228	27829 1388770	71801 2718388	138084 3359164	275580	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 597481	+++++ 1061279	57878 2082385	118130 2604988	238777	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 878963	+++++ 1559539	93446 3003529	183604 3742678	357081	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2323729	+++++ 4224142	242266 7863729	487866 9780562	947945	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
4-Bromofluorobenzene (Surr)	DCBd 4	Ave	+++++ 822184	+++++ 1504876	91894 2904349	179484 3614018	341079	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424107.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-Mar-2020 15:34:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-003
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:12:27 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 19-Mar-2020 16:02:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2138002	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1502645	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.210	0.012	96	700054	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.364	0.012	92	2604988	250.0	241.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.802	5.790	0.012	97	3742678	250.0	231.8	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	93	9780562	250.0	233.3	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.239	0.000	0	3614018	250.0	218.7	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	3432015	250.0	260.1	
10 Chloromethane	50	1.187	1.187	0.000	99	3367448	250.0	253.2	
11 Vinyl chloride	62	1.270	1.270	0.000	98	3205130	250.0	265.0	
12 Butadiene	54	1.282	1.294	-0.012	98	2939985	250.0	276.3	
13 Bromomethane	94	1.495	1.507	-0.012	91	757997	250.0	117.0	
15 Chloroethane	64	1.578	1.590	-0.012	100	627241	250.0	87.4	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	2364086	250.0	154.2	
17 Trichlorofluoromethane	101	1.779	1.791	-0.012	99	2803116	250.0	199.1	
18 Ethyl ether	59	2.051	2.051	0.000	88	1921829	250.0	194.4	
19 Acrolein	56	2.158	2.146	0.012	100	1410656	1250.0	994.3	
21 1,1-Dichloroethene	96	2.240	2.240	0.000	98	2168053	250.0	248.3	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.288	-0.012	96	1590721	250.0	264.7	
24 Acetone	43	2.323	2.300	0.023	99	1192231	500.0	358.4	
25 Iodomethane	142	2.382	2.371	0.011	99	3524079	250.0	254.8	
26 Carbon disulfide	76	2.418	2.430	-0.012	100	7015873	250.0	265.9	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	88	1681303	250.0	264.1	
29 Methyl acetate	43	2.666	2.655	0.011	98	3915185	500.0	500.6	
30 Methylene Chloride	84	2.737	2.737	0.000	98	2474911	250.0	233.8	
31 2-Methyl-2-propanol	59	3.010	2.962	0.048	97	2230538	2500.0	2999.6	
34 Acrylonitrile	53	3.057	3.033	0.024	97	8945149	2500.0	2416.1	
32 trans-1,2-Dichloroethene	96	3.057	3.069	-0.012	95	2769224	250.0	264.5	
33 Methyl tert-butyl ether	73	3.116	3.104	0.012	97	4747664	250.0	240.0	
35 Hexane	86	3.447	3.459	-0.012	94	965617	250.0	268.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	5216455	250.0	257.8	
39 Vinyl acetate	86	3.779	3.767	0.012	98	613182	250.0	286.1	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	90	515678	250.0	251.5	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	85	2923493	250.0	251.2	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	100	2542525	500.0	482.9	
46 Chlorobromomethane	128	4.962	4.962	0.000	97	1378833	250.0	245.4	
48 Tetrahydrofuran	42	5.057	5.057	0.000	87	1593824	500.0	483.6	
49 Chloroform	83	5.139	5.140	-0.001	96	4966143	250.0	245.8	
50 1,1,1-Trichloroethane	97	5.352	5.353	0.000	98	3947769	250.0	265.8	
51 Cyclohexane	56	5.423	5.423	0.000	92	4982798	250.0	266.0	
52 Carbon tetrachloride	117	5.577	5.577	0.000	93	3732341	250.0	281.8	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	93	4302380	250.0	262.6	
54 Benzene	78	5.861	5.849	0.012	98	10852834	250.0	240.1	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	4736798	250.0	239.4	
55 Isobutyl alcohol	41	5.956	5.944	0.012	93	2349298	6250.0	6777.4	
58 n-Heptane	100	6.287	6.287	0.000	91	1156557	250.0	267.9	
59 Trichloroethene	130	6.654	6.654	0.000	97	2982643	250.0	252.9	
62 Methylcyclohexane	83	6.843	6.843	0.000	95	5005191	250.0	258.2	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	3028445	250.0	253.4	
65 Dibromomethane	93	6.997	6.997	0.000	94	1733334	250.0	243.8	
67 1,4-Dioxane	88	7.068	7.068	0.000	96	542085	5000.0	4957.3	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	3887891	250.0	270.3	
70 2-Chloroethyl vinyl ether	63	7.553	7.542	0.011	94	3884208	500.0	546.2	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	93	4925832	250.0	279.5	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.837	0.000	96	5315006	500.0	511.7	
74 Toluene	91	7.968	7.968	0.000	96	10868726	250.0	232.8	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	96	4698061	250.0	281.8	
76 Ethyl methacrylate	69	8.323	8.323	0.000	91	3842125	250.0	271.6	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	95	2259767	250.0	247.2	
78 Tetrachloroethene	164	8.476	8.476	0.000	92	2261741	250.0	263.6	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	4410066	250.0	246.6	
80 2-Hexanone	43	8.618	8.618	0.000	96	3963402	500.0	535.8	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	2668424	250.0	277.8	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	2362057	250.0	251.7	
85 Chlorobenzene	112	9.234	9.234	0.000	90	7112267	250.0	235.6	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	-0.001	93	2390368	250.0	288.2	
87 Ethylbenzene	106	9.352	9.352	0.000	96	4114135	250.0	255.9	
88 m-Xylene & p-Xylene	106	9.459	9.459	-0.001	96	4983741	250.0	254.0	
89 o-Xylene	106	9.802	9.790	0.012	97	4587996	250.0	256.0	
90 Styrene	104	9.813	9.802	0.011	95	7773796	250.0	257.0	
91 Bromoform	173	9.955	9.956	-0.001	98	1459436	250.0	257.8	
92 Isopropylbenzene	105	10.121	10.121	0.000	97	10319343	250.0	238.6	
94 Bromobenzene	156	10.358	10.358	0.000	97	2624235	250.0	226.3	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	96	2586431	250.0	238.9	
96 1,2,3-Trichloropropane	110	10.405	10.393	0.012	86	848921	250.0	224.0	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	84	1021155	250.0	268.1	
98 N-Propylbenzene	120	10.476	10.464	0.012	97	3340375	250.0	248.3	
99 2-Chlorotoluene	126	10.535	10.523	0.012	96	2719008	250.0	239.2	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	88	9233054	250.0	245.1	
101 4-Chlorotoluene	126	10.630	10.618	0.012	98	2828480	250.0	233.6	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	8411072	250.0	255.3	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	94	9137208	250.0	240.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	96	10980413	250.0	235.4	
108 1,3-Dichlorobenzene	146	11.162	11.162	0.000	96	5069066	250.0	238.8	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	93	9817561	250.0	244.7	
110 1,4-Dichlorobenzene	146	11.233	11.233	0.000	90	5177601	250.0	233.9	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	93	4899268	250.0	244.1	
113 n-Butylbenzene	91	11.553	11.553	0.000	95	9499815	250.0	260.0	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	80	538656	250.0	255.9	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	3615490	250.0	246.8	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	95	1883848	250.0	270.0	
119 Naphthalene	128	13.091	13.091	0.000	99	8250406	250.0	233.8	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	3359164	250.0	237.7	
S 132 1,2-Dichloroethene, Total	96				0			515.8	
S 133 1,3-Dichloropropene, Total	75				0			561.3	
S 134 Xylenes, Total	106				0		500.0	510.0	
S 135 Trihalomethanes, Total	1				0		1000.0	1051.7	
S 157 Total BTEX	1				0		1250.0	1238.8	

Reagents:

VMRPRIMW_00378	Amount Added:	25.00	Units: uL
VMRGAS_00332	Amount Added:	25.00	Units: uL
VMAROLISTDW_00337	Amount Added:	25.00	Units: uL
vm50ss_00394	Amount Added:	25.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

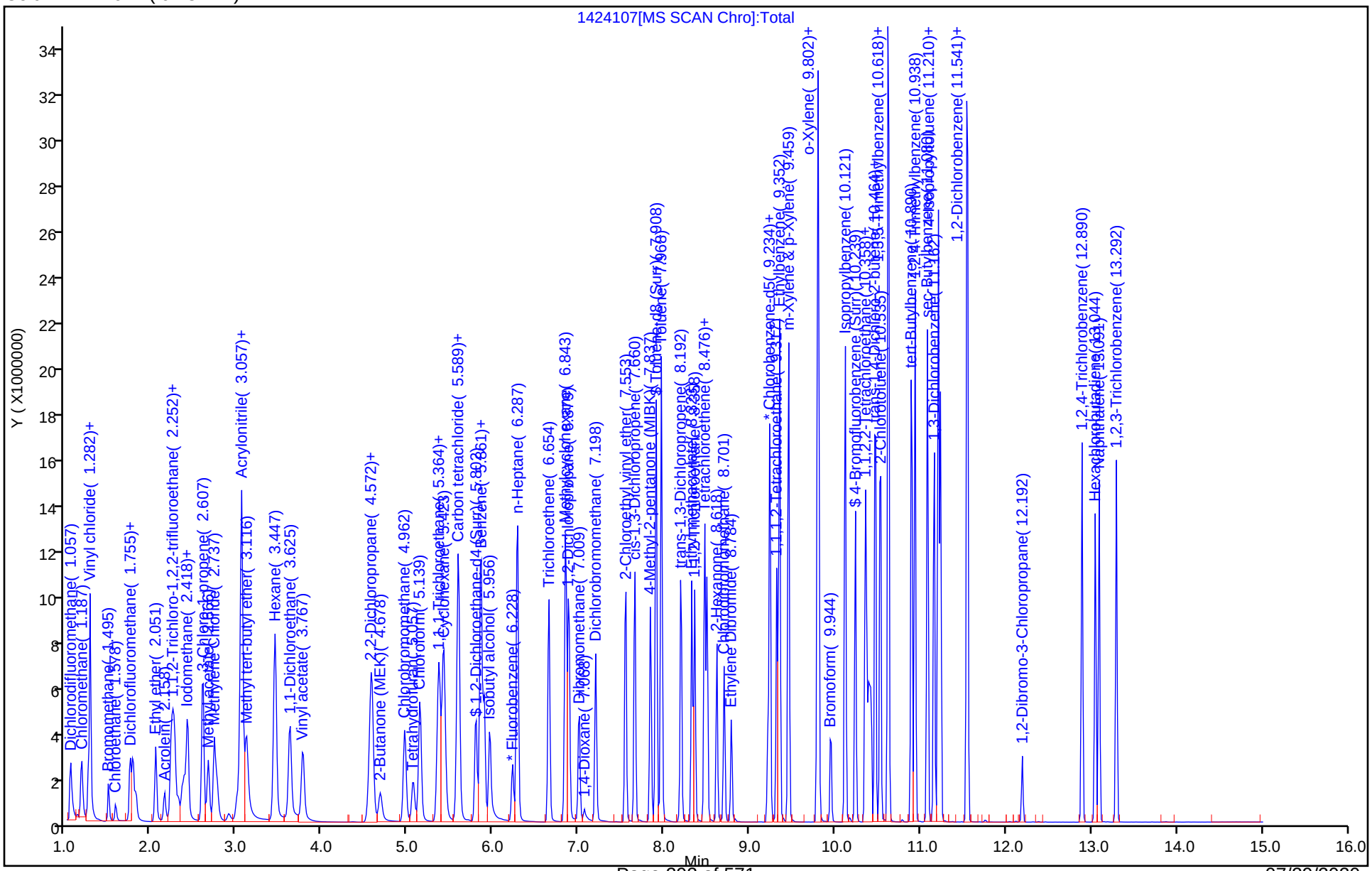
Report Date: 20-Mar-2020 16:12:30 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424107.D

Injection Date:	19-Mar-2020 15:34:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424108.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 19-Mar-2020 15:57:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-004
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:12:35 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 19-Mar-2020 16:19:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2142664	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1495979	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	692476	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.364	0.012	92	2082385	200.0	192.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.802	5.790	0.012	97	3003529	200.0	185.6	
$ 6 Toluene-d8 (Surr)	98	7.909	7.908	0.001	94	7863729	200.0	188.4	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.239	0.001	0	2904349	200.0	177.7	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	2852545	200.0	215.8	
10 Chloromethane	50	1.187	1.187	0.000	99	2891344	200.0	216.9	
11 Vinyl chloride	62	1.270	1.270	0.000	98	2712833	200.0	223.8	
12 Butadiene	54	1.282	1.294	-0.012	99	2432750	200.0	228.1	
13 Bromomethane	94	1.495	1.507	-0.012	91	711776	200.0	109.7	
15 Chloroethane	64	1.578	1.590	-0.012	100	607564	200.0	84.5	
16 Dichlorofluoromethane	67	1.744	1.755	-0.011	97	2237723	200.0	145.7	
17 Trichlorofluoromethane	101	1.779	1.791	-0.012	98	2502320	200.0	177.4	
18 Ethyl ether	59	2.051	2.051	0.000	88	1653801	200.0	167.0	
19 Acrolein	56	2.158	2.146	0.012	100	1228064	1000.0	863.7	
21 1,1-Dichloroethene	96	2.241	2.240	0.001	98	1729836	200.0	197.7	
22 1,1,2-Trichloro-1,2,2-trif	151	2.264	2.288	-0.024	97	1251054	200.0	207.7	
24 Acetone	43	2.312	2.300	0.012	99	905314	400.0	271.5	
25 Iodomethane	142	2.371	2.371	0.000	100	2805566	200.0	202.4	
26 Carbon disulfide	76	2.418	2.430	-0.012	100	5680588	200.0	214.8	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	88	1330766	200.0	208.5	
29 Methyl acetate	43	2.667	2.655	0.012	98	3035597	400.0	387.3	
30 Methylene Chloride	84	2.738	2.737	0.001	98	1959841	200.0	184.8	
31 2-Methyl-2-propanol	59	2.998	2.962	0.036	96	1277888	2000.0	1714.8	
34 Acrylonitrile	53	3.045	3.033	0.012	98	7067516	2000.0	1904.8	
32 trans-1,2-Dichloroethene	96	3.057	3.069	-0.012	95	2146109	200.0	204.6	
33 Methyl tert-butyl ether	73	3.116	3.104	0.012	97	4032244	200.0	203.4	
35 Hexane	86	3.448	3.459	-0.011	95	747697	200.0	207.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	4126701	200.0	203.5	
39 Vinyl acetate	86	3.779	3.767	0.012	98	477471	200.0	222.3	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	92	416017	200.0	202.5	
42 cis-1,2-Dichloroethene	96	4.584	4.583	0.001	85	2307967	200.0	197.9	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	100	1982089	400.0	375.6	
46 Chlorobromomethane	128	4.962	4.962	0.000	97	1105502	200.0	196.3	
48 Tetrahydrofuran	42	5.057	5.057	0.000	87	1251179	400.0	378.8	
49 Chloroform	83	5.140	5.140	0.000	96	3939584	200.0	194.5	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.001	98	3138287	200.0	210.8	
51 Cyclohexane	56	5.424	5.423	0.001	92	3888232	200.0	207.1	
52 Carbon tetrachloride	117	5.577	5.577	0.000	94	2877082	200.0	216.7	
53 1,1-Dichloropropene	75	5.601	5.589	0.012	94	3356554	200.0	204.4	
54 Benzene	78	5.850	5.849	0.001	98	8668982	200.0	191.4	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	3785966	200.0	190.9	
55 Isobutyl alcohol	41	5.956	5.944	0.012	93	1840823	5000.0	5299.0	
58 n-Heptane	100	6.287	6.287	0.000	92	890125	200.0	205.7	
59 Trichloroethene	130	6.654	6.654	0.000	97	2332090	200.0	197.3	
62 Methylcyclohexane	83	6.844	6.843	0.001	95	3893589	200.0	200.4	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	2405134	200.0	200.8	
65 Dibromomethane	93	6.997	6.997	0.000	94	1366746	200.0	191.8	
67 1,4-Dioxane	88	7.068	7.068	0.000	96	433855	4000.0	3958.9	
68 Dichlorobromomethane	83	7.199	7.198	0.001	98	3087773	200.0	214.2	
70 2-Chloroethyl vinyl ether	63	7.554	7.542	0.012	94	3023581	400.0	424.3	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	93	3874633	200.0	219.4	
73 4-Methyl-2-pentanone (MIBK	43	7.838	7.837	0.001	97	4177039	400.0	404.0	
74 Toluene	91	7.968	7.968	0.000	97	8755342	200.0	188.4	
75 trans-1,3-Dichloropropene	75	8.193	8.192	0.001	97	3700477	200.0	222.9	
76 Ethyl methacrylate	69	8.323	8.323	0.000	90	2998299	200.0	212.9	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	95	1840337	200.0	202.2	
78 Tetrachloroethene	164	8.477	8.476	0.001	93	1750436	200.0	204.9	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	3526314	200.0	198.0	
80 2-Hexanone	43	8.619	8.618	0.001	96	3147377	400.0	427.4	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	2071872	200.0	216.7	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	1885676	200.0	201.8	
85 Chlorobenzene	112	9.234	9.234	0.000	91	5660779	200.0	188.3	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	93	1868682	200.0	226.3	
87 Ethylbenzene	106	9.352	9.352	0.000	98	3191236	200.0	199.3	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	98	3902698	200.0	199.8	
89 o-Xylene	106	9.790	9.790	0.000	97	3608103	200.0	202.2	
90 Styrene	104	9.802	9.802	0.000	95	6184174	200.0	205.4	
91 Bromoform	173	9.956	9.956	0.000	98	1124378	200.0	200.2	
92 Isopropylbenzene	105	10.121	10.121	0.000	97	8531229	200.0	198.1	
94 Bromobenzene	156	10.358	10.358	0.000	97	2100037	200.0	183.1	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	97	2049689	200.0	191.4	
96 1,2,3-Trichloropropane	110	10.405	10.393	0.012	87	674918	200.0	180.1	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	86	787034	200.0	208.9	
98 N-Propylbenzene	120	10.476	10.464	0.012	98	2595360	200.0	195.1	
99 2-Chlorotoluene	126	10.535	10.523	0.012	97	2113451	200.0	187.9	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	87	7399458	200.0	198.6	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	2193848	200.0	183.1	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	6729960	200.0	206.5	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	7560483	200.0	200.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	96	9015690	200.0	195.4	
108 1,3-Dichlorobenzene	146	11.163	11.162	0.001	97	4018783	200.0	191.4	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	96	8074807	200.0	203.5	
110 1,4-Dichlorobenzene	146	11.234	11.233	0.001	90	4042340	200.0	184.6	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	93	3872594	200.0	195.0	
113 n-Butylbenzene	91	11.553	11.553	0.000	96	7589432	200.0	210.0	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	86	422516	200.0	203.6	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	2881989	200.0	198.9	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	95	1452071	200.0	210.4	
119 Naphthalene	128	13.091	13.091	0.000	98	6861366	200.0	196.5	
120 1,2,3-Trichlorobenzene	180	13.293	13.292	0.001	94	2718388	200.0	194.5	
S 132 1,2-Dichloroethene, Total	96				0			402.5	
S 133 1,3-Dichloropropene, Total	75				0			442.3	
S 134 Xylenes, Total	106				0		400.0	402.0	
S 135 Trihalomethanes, Total	1				0		800.0	825.6	
S 157 Total BTEX	1				0		1000.0	981.1	

Reagents:

VMRPRIMW_00378	Amount Added:	20.00	Units: uL
VMRGAS_00332	Amount Added:	20.00	Units: uL
VMAROLISTDW_00337	Amount Added:	20.00	Units: uL
vm50ss_00394	Amount Added:	20.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

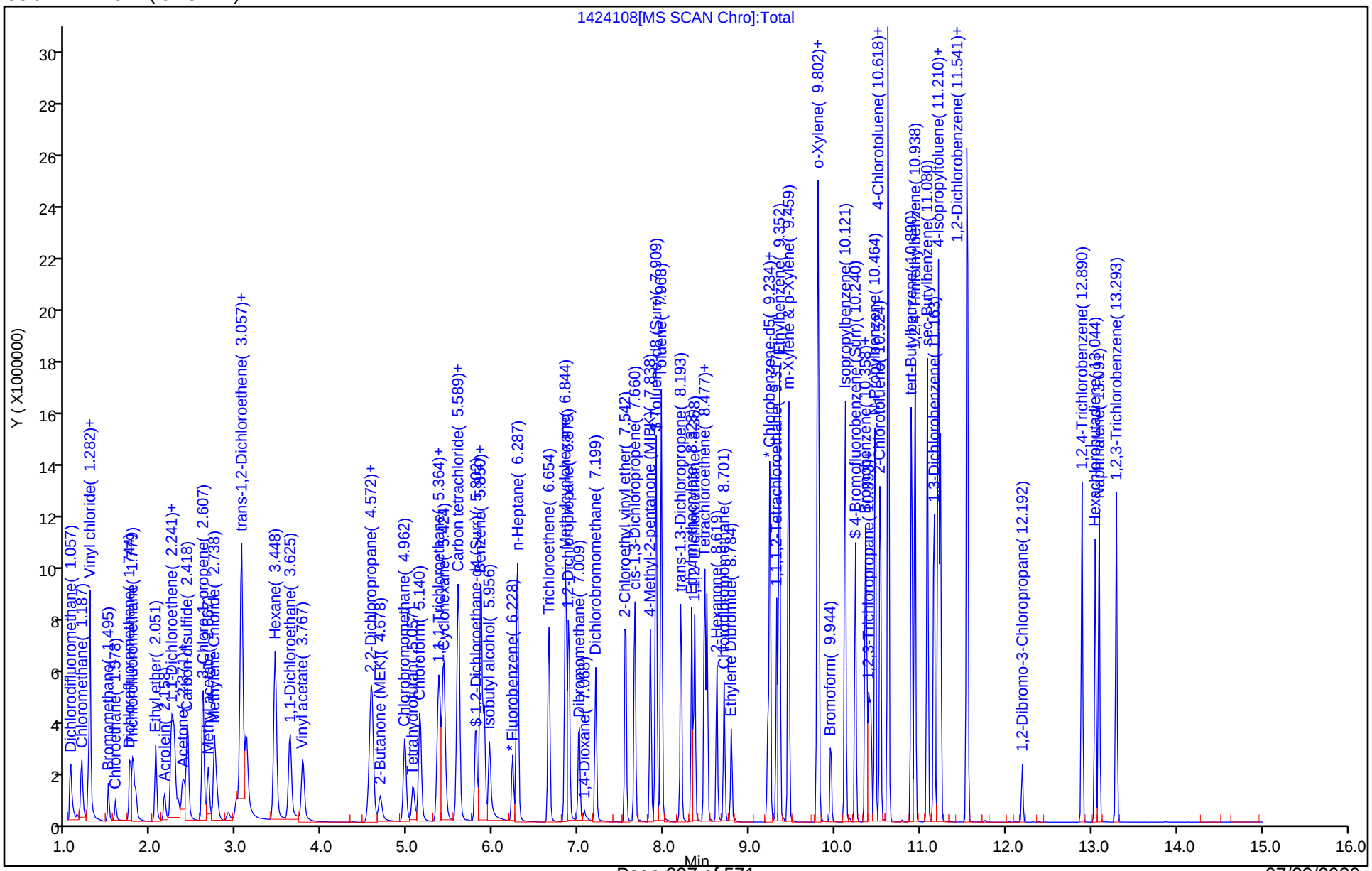
Report Date: 20-Mar-2020 16:12:37 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424108.D

Injection Date:	19-Mar-2020 15:57:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424109.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-Mar-2020 16:19:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-005
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:12:41 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 19-Mar-2020 16:42:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2191292	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1582629	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	685924	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.364	0.012	92	1061279	100.0	96.2	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	96	1559539	100.0	94.2	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	93	4224142	100.0	95.7	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.239	0.001	0	1504876	100.0	93.0	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	1428638	100.0	105.7	
10 Chloromethane	50	1.187	1.187	0.000	99	1477417	100.0	108.4	
11 Vinyl chloride	62	1.270	1.270	0.000	98	1358170	100.0	109.6	
12 Butadiene	54	1.282	1.294	-0.012	97	1212639	100.0	111.2	
13 Bromomethane	94	1.507	1.507	0.000	91	485599	100.0	73.2	
15 Chloroethane	64	1.590	1.590	0.000	99	533146	100.0	72.5	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	1493076	100.0	95.0	
17 Trichlorofluoromethane	101	1.791	1.791	0.000	98	1471787	100.0	102.0	
18 Ethyl ether	59	2.051	2.051	0.000	89	995632	100.0	98.3	
19 Acrolein	56	2.146	2.146	0.000	100	722982	500.0	497.2	
21 1,1-Dichloroethene	96	2.241	2.240	0.000	96	914277	100.0	102.2	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.288	-0.012	97	633290	100.0	102.8	
24 Acetone	43	2.312	2.300	0.012	100	586605	200.0	172.0	
25 Iodomethane	142	2.371	2.371	0.000	100	1462659	100.0	103.2	
26 Carbon disulfide	76	2.430	2.430	0.000	100	2848303	100.0	105.3	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	87	672721	100.0	103.1	
29 Methyl acetate	43	2.666	2.655	0.011	98	1590175	200.0	198.4	
30 Methylene Chloride	84	2.737	2.737	0.000	98	1009019	100.0	93.0	
31 2-Methyl-2-propanol	59	2.974	2.962	0.012	96	737896	1000.0	968.2	
34 Acrylonitrile	53	3.045	3.033	0.012	97	3699193	1000.0	974.9	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	95	1066950	100.0	99.4	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	98	2073315	100.0	102.2	
35 Hexane	86	3.447	3.459	-0.012	94	374678	100.0	101.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	2083457	100.0	100.5	
39 Vinyl acetate	86	3.767	3.767	0.000	98	244767	100.0	111.4	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	89	222127	100.0	105.7	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	85	1183752	100.0	99.3	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	100	1059951	200.0	196.4	
46 Chlorobromomethane	128	4.962	4.962	0.000	97	559569	100.0	97.2	
48 Tetrahydrofuran	42	5.057	5.057	0.000	87	663376	200.0	196.4	
49 Chloroform	83	5.140	5.140	0.000	96	2029145	100.0	98.0	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.001	98	1601338	100.0	105.2	
51 Cyclohexane	56	5.424	5.423	0.001	93	1969926	100.0	102.6	
52 Carbon tetrachloride	117	5.589	5.577	0.012	93	1416615	100.0	104.3	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	93	1732432	100.0	103.2	
54 Benzene	78	5.850	5.849	0.001	97	4631358	100.0	100.0	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	2001768	100.0	98.7	
55 Isobutyl alcohol	41	5.944	5.944	0.000	93	951267	2500.0	2677.5	
58 n-Heptane	100	6.287	6.287	0.000	92	447796	100.0	101.2	
59 Trichloroethene	130	6.654	6.654	0.000	97	1225231	100.0	101.4	
62 Methylcyclohexane	83	6.844	6.843	0.001	94	1952934	100.0	98.3	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	94	1258794	100.0	102.7	
65 Dibromomethane	93	6.997	6.997	0.000	94	727174	100.0	99.8	
67 1,4-Dioxane	88	7.068	7.068	0.000	97	227715	2000.0	2031.8	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	1593946	100.0	108.1	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	94	1567235	200.0	215.0	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	92	2024446	100.0	112.1	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.837	0.000	97	2263522	200.0	206.9	
74 Toluene	91	7.968	7.968	0.000	98	4879330	100.0	99.2	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	98	1907673	100.0	108.6	
76 Ethyl methacrylate	69	8.323	8.323	0.000	90	1569023	100.0	105.3	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	981164	100.0	101.9	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	924263	100.0	102.3	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	1882710	100.0	99.9	
80 2-Hexanone	43	8.618	8.618	0.000	96	1695462	200.0	217.6	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	1074859	100.0	106.3	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	1000940	100.0	101.3	
85 Chlorobenzene	112	9.234	9.234	0.000	91	3097365	100.0	97.4	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	92	952276	100.0	109.0	
87 Ethylbenzene	106	9.352	9.352	0.000	98	1714306	100.0	101.2	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	2087998	100.0	101.0	
89 o-Xylene	106	9.790	9.790	0.000	97	1890569	100.0	100.2	
90 Styrene	104	9.802	9.802	0.000	92	3334262	100.0	104.7	
91 Bromoform	173	9.956	9.956	0.000	98	562395	100.0	96.1	
92 Isopropylbenzene	105	10.121	10.121	0.000	97	4667643	100.0	102.5	
94 Bromobenzene	156	10.358	10.358	0.000	99	1108284	100.0	97.5	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	97	1077298	100.0	101.6	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	87	360669	100.0	97.1	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	75	407671	100.0	109.3	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	1355367	100.0	102.8	
99 2-Chlorotoluene	126	10.524	10.523	0.001	94	1109320	100.0	99.6	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	83	3804060	100.0	103.1	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	1159972	100.0	97.8	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	3316622	100.0	102.7	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	3894180	100.0	104.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	4796947	100.0	104.9	
108 1,3-Dichlorobenzene	146	11.163	11.162	0.000	97	2001034	100.0	96.2	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	96	4156902	100.0	105.7	
110 1,4-Dichlorobenzene	146	11.234	11.233	0.001	91	2029704	100.0	93.6	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	93	1944765	100.0	98.9	
113 n-Butylbenzene	91	11.553	11.553	0.000	97	3857948	100.0	107.8	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	79	193771	100.0	96.0	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	1453748	100.0	101.3	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	96	731992	100.0	107.1	
119 Naphthalene	128	13.091	13.091	0.000	98	3649999	100.0	105.5	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	1388770	100.0	100.3	
S 132 1,2-Dichloroethene, Total	96				0			198.7	
S 133 1,3-Dichloropropene, Total	75				0			220.7	
S 134 Xylenes, Total	106				0		200.0	201.2	
S 135 Trihalomethanes, Total	1				0		400.0	408.5	
S 157 Total BTEX	1				0		500.0	501.6	

Reagents:

VMRPRIMW_00378	Amount Added:	10.00	Units: uL
VMRGAS_00332	Amount Added:	10.00	Units: uL
VMAROLISTDW_00337	Amount Added:	10.00	Units: uL
vm50ss_00394	Amount Added:	10.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

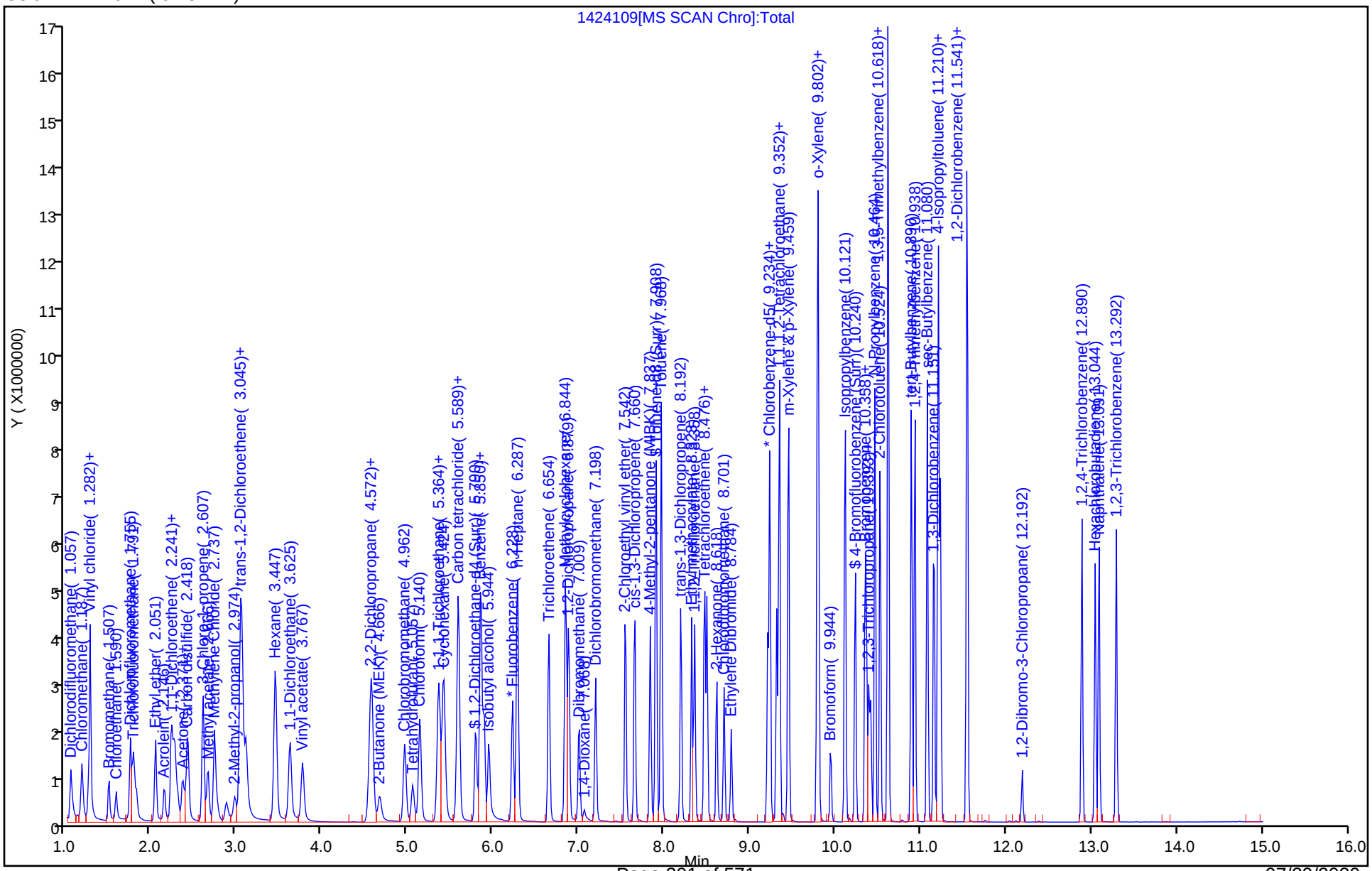
Report Date: 20-Mar-2020 16:12:43 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424109.D

Injection Date:	19-Mar-2020 16:19:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424110.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 19-Mar-2020 16:41:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icis
Misc. Info.: 240-0096794-006
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:12:47 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 20-Mar-2020 09:14:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2354139	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1649765	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	92	687800	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	597481	50.0	50.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	96	878963	50.0	49.4	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	2323729	50.0	50.5	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.239	0.000	0	822184	50.0	50.7	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	697900	50.0	48.0	
10 Chloromethane	50	1.187	1.187	0.000	99	703449	50.0	48.0	
11 Vinyl chloride	62	1.270	1.270	0.000	98	648944	50.0	48.7	
12 Butadiene	54	1.294	1.294	0.000	99	587695	50.0	50.2	
13 Bromomethane	94	1.507	1.507	0.000	90	325596	50.0	45.7	
15 Chloroethane	64	1.590	1.590	0.000	100	379617	50.0	48.1	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	98	825457	50.0	48.9	
17 Trichlorofluoromethane	101	1.791	1.791	0.000	98	805819	50.0	52.0	
18 Ethyl ether	59	2.051	2.051	0.000	91	581807	50.0	53.5	
19 Acrolein	56	2.146	2.146	0.000	100	427281	250.0	273.5	
21 1,1-Dichloroethene	96	2.240	2.240	0.000	95	491249	50.0	51.1	
22 1,1,2-Trichloro-1,2,2-trif	151	2.288	2.288	0.000	96	308296	50.0	46.6	
24 Acetone	43	2.300	2.300	0.000	100	353146	100.0	96.4	
25 Iodomethane	142	2.371	2.371	0.000	99	779541	50.0	51.2	
26 Carbon disulfide	76	2.430	2.430	0.000	99	1508927	50.0	51.9	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	87	359697	50.0	51.3	
29 Methyl acetate	43	2.655	2.655	0.000	98	893468	100.0	103.7	
30 Methylene Chloride	84	2.737	2.737	0.000	98	569789	50.0	48.9	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	96	435388	500.0	531.8	
34 Acrylonitrile	53	3.033	3.033	0.000	98	2114614	500.0	518.7	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	95	593607	50.0	51.5	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	97	1099953	50.0	50.5	
35 Hexane	86	3.459	3.459	0.000	95	195963	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	1135916	50.0	51.0	
39 Vinyl acetate	86	3.767	3.767	0.000	98	127300	50.0	53.9	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	88	119474	50.0	52.9	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	84	656062	50.0	51.2	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	99	582622	100.0	100.5	
46 Chlorobromomethane	128	4.962	4.962	0.000	97	315422	50.0	51.0	
48 Tetrahydrofuran	42	5.057	5.057	0.000	87	365521	100.0	100.7	
49 Chloroform	83	5.140	5.140	0.000	96	1128417	50.0	50.7	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.000	98	841907	50.0	51.5	
51 Cyclohexane	56	5.423	5.423	0.000	93	1038132	50.0	50.3	
52 Carbon tetrachloride	117	5.577	5.577	0.000	93	732611	50.0	50.2	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	93	939618	50.0	52.1	
54 Benzene	78	5.849	5.849	0.000	97	2521836	50.0	50.7	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	1090722	50.0	50.1	
55 Isobutyl alcohol	41	5.944	5.944	0.000	93	514254	1250.0	1347.3	
58 n-Heptane	100	6.287	6.287	0.000	93	228903	50.0	48.1	
59 Trichloroethene	130	6.654	6.654	0.000	97	661098	50.0	50.9	
62 Methylcyclohexane	83	6.843	6.843	0.000	95	1053090	50.0	49.3	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	664558	50.0	50.5	
65 Dibromomethane	93	6.997	6.997	0.000	95	398437	50.0	50.9	
67 1,4-Dioxane	88	7.068	7.068	0.000	97	122270	1000.0	1015.5	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	840699	50.0	53.1	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	94	800110	100.0	102.2	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	92	1042650	50.0	53.7	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.837	0.000	97	1242008	100.0	108.9	
74 Toluene	91	7.968	7.968	0.000	98	2616779	50.0	51.0	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	98	954560	50.0	52.1	
76 Ethyl methacrylate	69	8.323	8.323	0.000	90	826347	50.0	53.2	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	503491	50.0	50.2	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	488308	50.0	51.8	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	991303	50.0	50.5	
80 2-Hexanone	43	8.618	8.618	0.000	97	903982	100.0	111.3	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	554119	50.0	52.5	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	540779	50.0	52.5	
85 Chlorobenzene	112	9.234	9.234	0.000	92	1662397	50.0	50.2	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	92	504544	50.0	55.4	
87 Ethylbenzene	106	9.352	9.352	0.000	98	906432	50.0	51.3	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	1104568	50.0	51.3	
89 o-Xylene	106	9.790	9.790	0.000	97	1019795	50.0	51.8	
90 Styrene	104	9.802	9.802	0.000	90	1749909	50.0	52.7	
91 Bromoform	173	9.956	9.956	0.000	98	278247	50.0	47.1	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	2520033	50.0	53.1	
94 Bromobenzene	156	10.358	10.358	0.000	99	581701	50.0	51.1	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	572481	50.0	53.8	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	90	192849	50.0	51.8	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	76	202163	50.0	54.0	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	709505	50.0	53.7	
99 2-Chlorotoluene	126	10.523	10.523	0.000	94	583482	50.0	52.2	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	84	2001377	50.0	54.1	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	614148	50.0	51.6	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	1685544	50.0	52.1	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	2004771	50.0	53.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	2461889	50.0	53.7	
108 1,3-Dichlorobenzene	146	11.162	11.162	0.000	98	1040864	50.0	49.9	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	97	2125501	50.0	53.9	
110 1,4-Dichlorobenzene	146	11.233	11.233	0.000	92	1056177	50.0	48.6	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	93	980309	50.0	49.7	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	1948224	50.0	54.3	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	77	90109	50.0	46.2	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	732041	50.0	50.9	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	96	357766	50.0	52.2	
119 Naphthalene	128	13.091	13.091	0.000	97	1862741	50.0	53.7	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	711228	50.0	51.2	
S 134 Xylenes, Total	106				0		100.0	103.1	
S 135 Trihalomethanes, Total	1				0		200.0	203.5	
S 157 Total BTEX	1				0		250.0	256.2	

Reagents:

VMAROLISTDW_00337	Amount Added:	5.00	Units: uL
VMRGAS_00332	Amount Added:	5.00	Units: uL
VMRPRIMW_00378	Amount Added:	5.00	Units: uL
vm50ss_00394	Amount Added:	5.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

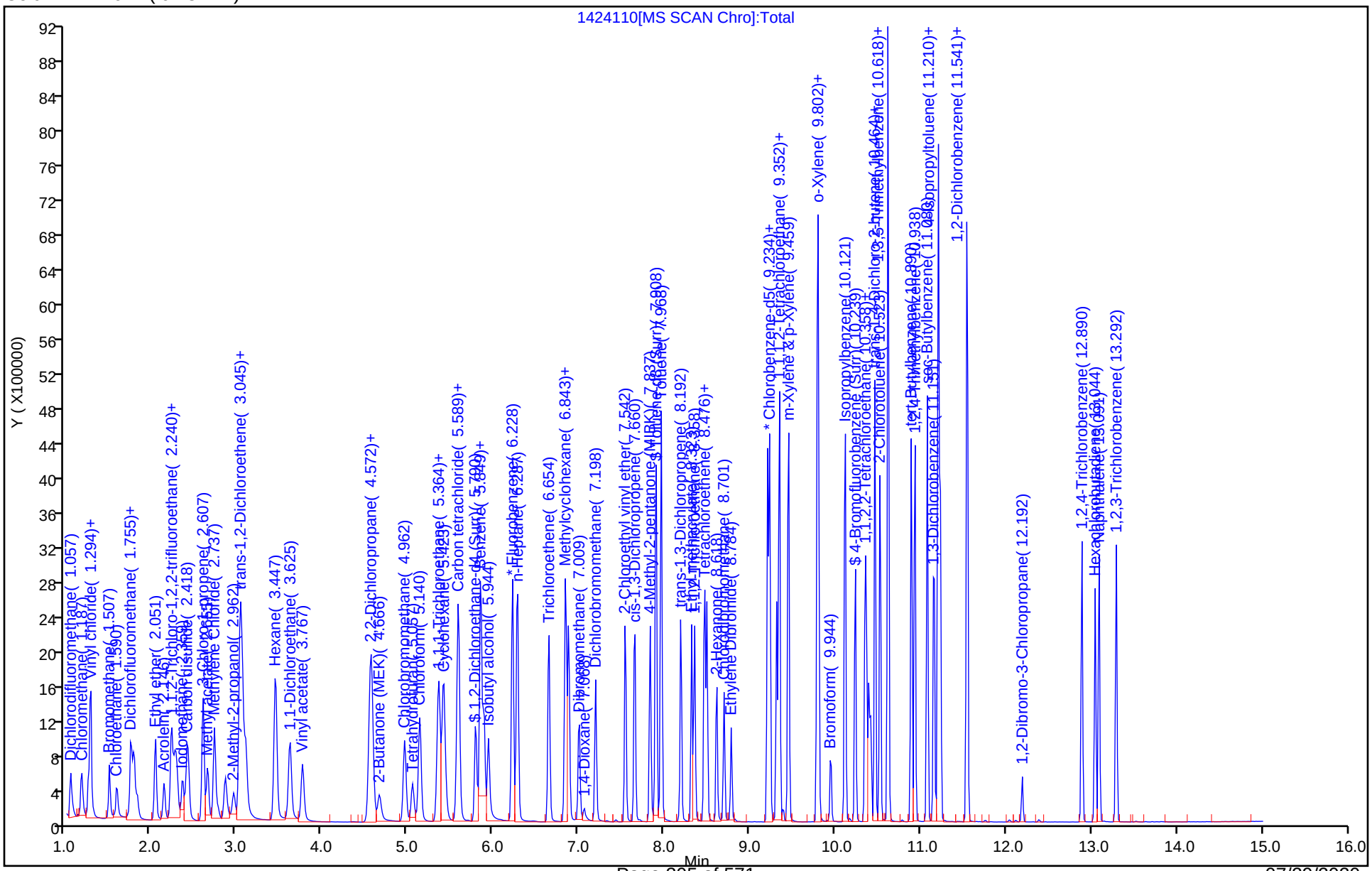
Report Date: 20-Mar-2020 16:12:50 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424110.D

Injection Date:	19-Mar-2020 16:41:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	icis			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424111.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-Mar-2020 17:03:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-007
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:12:53 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 20-Mar-2020 09:15:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2293207	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1649484	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	92	684198	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	238777	20.0	20.7	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	96	357081	20.0	20.6	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	947945	20.0	20.6	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.239	0.001	0	341079	20.0	21.1	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	267799	20.0	18.9	
10 Chloromethane	50	1.187	1.187	0.000	99	274217	20.0	19.2	
11 Vinyl chloride	62	1.270	1.270	0.000	98	257133	20.0	19.8	
12 Butadiene	54	1.294	1.294	0.000	99	229287	20.0	20.1	
13 Bromomethane	94	1.507	1.507	0.000	91	139340	20.0	20.1	
15 Chloroethane	64	1.602	1.590	0.012	100	157936	20.0	20.5	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	333395	20.0	20.3	
17 Trichlorofluoromethane	101	1.803	1.791	0.012	98	331407	20.0	21.9	
18 Ethyl ether	59	2.051	2.051	0.000	91	225702	20.0	21.3	
19 Acrolein	56	2.146	2.146	0.000	100	155275	100.0	102.0	
21 1,1-Dichloroethene	96	2.241	2.240	0.000	95	186812	20.0	19.9	
22 1,1,2-Trichloro-1,2,2-trif	151	2.288	2.288	0.000	96	125365	20.0	19.5	
24 Acetone	43	2.300	2.300	0.000	100	130613	40.0	36.6	
25 Iodomethane	142	2.371	2.371	0.000	99	293036	20.0	19.8	
26 Carbon disulfide	76	2.430	2.430	0.000	100	598172	20.0	21.1	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	86	133873	20.0	19.6	
29 Methyl acetate	43	2.655	2.655	0.000	98	332363	40.0	39.6	
30 Methylene Chloride	84	2.737	2.737	0.000	98	221671	20.0	19.5	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	96	166475	200.0	208.7	
34 Acrylonitrile	53	3.033	3.033	0.000	97	800455	200.0	201.6	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	95	231811	20.0	20.6	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	97	432346	20.0	20.4	
35 Hexane	86	3.459	3.459	0.000	94	78838	20.0	20.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	446719	20.0	20.6	
39 Vinyl acetate	86	3.767	3.767	0.000	98	45078	20.0	19.6	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	72	45473	20.0	20.7	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	85	255938	20.0	20.5	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	100	217593	40.0	38.5	
46 Chlorobromomethane	128	4.962	4.962	0.000	97	123211	20.0	20.4	
48 Tetrahydrofuran	42	5.057	5.057	0.000	87	135913	40.0	38.4	
49 Chloroform	83	5.140	5.140	0.000	96	441394	20.0	20.4	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.001	97	323743	20.0	20.3	
51 Cyclohexane	56	5.424	5.423	0.001	93	416754	20.0	20.7	
52 Carbon tetrachloride	117	5.577	5.577	0.000	93	273658	20.0	19.3	
53 1,1-Dichloropropene	75	5.601	5.589	0.012	92	366967	20.0	20.9	
54 Benzene	78	5.850	5.849	0.001	97	1001214	20.0	20.7	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	428631	20.0	20.2	
55 Isobutyl alcohol	41	5.944	5.944	0.000	93	185091	500.0	497.8	
58 n-Heptane	100	6.287	6.287	0.000	93	92292	20.0	19.9	
59 Trichloroethene	130	6.654	6.654	0.000	97	262328	20.0	20.7	
62 Methylcyclohexane	83	6.844	6.843	0.001	94	415418	20.0	20.0	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	94	260457	20.0	20.3	
65 Dibromomethane	93	6.997	6.997	0.000	95	155647	20.0	20.4	
67 1,4-Dioxane	88	7.068	7.068	0.000	97	48885	400.0	416.8	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	317668	20.0	20.6	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	94	299148	40.0	39.2	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	91	391438	20.0	20.7	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.837	0.000	98	461809	40.0	40.5	
74 Toluene	91	7.968	7.968	0.000	98	1053701	20.0	20.6	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	98	343088	20.0	18.7	
76 Ethyl methacrylate	69	8.323	8.323	0.000	90	298836	20.0	19.2	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	95	196171	20.0	19.6	
78 Tetrachloroethene	164	8.476	8.476	0.000	94	196431	20.0	20.9	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	391758	20.0	20.0	
80 2-Hexanone	43	8.618	8.618	0.000	96	329740	40.0	40.6	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	201436	20.0	19.1	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	209725	20.0	20.4	
85 Chlorobenzene	112	9.234	9.234	0.000	93	677420	20.0	20.4	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	91	188954	20.0	20.8	
87 Ethylbenzene	106	9.352	9.352	0.000	98	362526	20.0	20.5	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	443430	20.0	20.6	
89 o-Xylene	106	9.790	9.790	0.000	98	409571	20.0	20.8	
90 Styrene	104	9.802	9.802	0.000	93	689416	20.0	20.8	
91 Bromoform	173	9.956	9.956	0.000	97	95889	20.0	18.1	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	1020989	20.0	21.5	
94 Bromobenzene	156	10.358	10.358	0.000	99	236095	20.0	20.8	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	224152	20.0	21.2	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	92	77054	20.0	20.8	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	76	73700	20.0	19.8	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	291248	20.0	22.2	
99 2-Chlorotoluene	126	10.524	10.523	0.001	94	235991	20.0	21.2	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	84	809796	20.0	22.0	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	248939	20.0	21.0	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	689916	20.0	21.4	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	801337	20.0	21.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	1020664	20.0	22.4	
108 1,3-Dichlorobenzene	146	11.163	11.162	0.001	97	424174	20.0	20.4	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	97	869651	20.0	22.2	
110 1,4-Dichlorobenzene	146	11.234	11.233	0.001	94	429713	20.0	19.9	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	93	399310	20.0	20.4	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	775767	20.0	21.7	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	75	30513	20.0	17.9	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	285519	20.0	19.9	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	96	142481	20.0	20.9	
119 Naphthalene	128	13.091	13.091	0.000	97	713001	20.0	20.7	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	275580	20.0	20.0	
S 132 1,2-Dichloroethene, Total	96				0			41.2	
S 133 1,3-Dichloropropene, Total	75				0			39.5	
S 134 Xylenes, Total	106				0		40.0	41.4	
S 135 Trihalomethanes, Total	1				0		80.0	78.2	
S 157 Total BTEX	1				0		100.0	103.2	

Reagents:

VMRPRIMW_00378	Amount Added:	2.00	Units: uL
VMRGAS_00332	Amount Added:	2.00	Units: uL
VMAROLISTDW_00337	Amount Added:	2.00	Units: uL
vm50ss_00394	Amount Added:	2.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

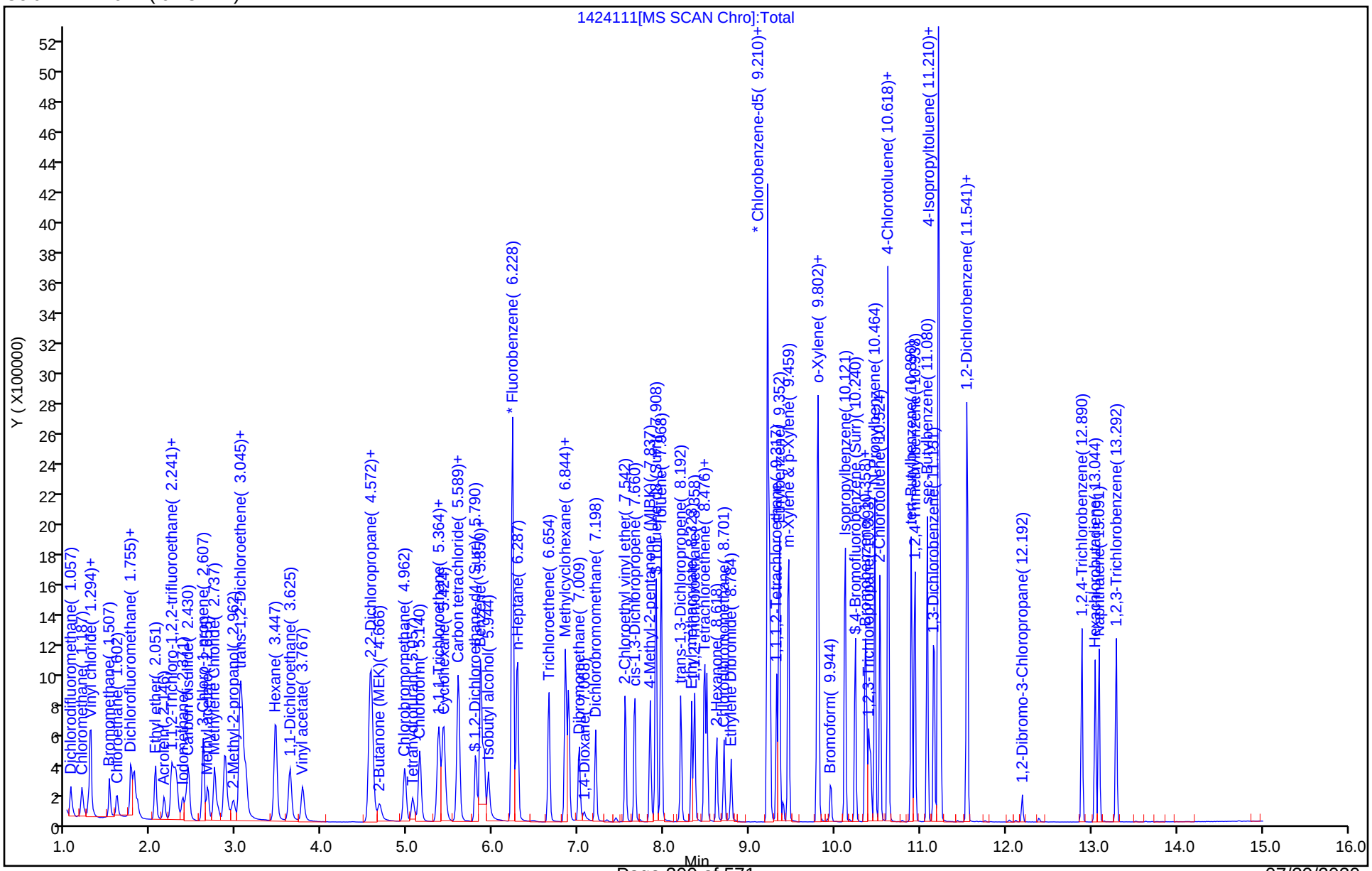
Report Date: 20-Mar-2020 16:12:55 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424111.D

Injection Date:	19-Mar-2020 17:03:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424112.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 19-Mar-2020 17:25:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-008
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:12:58 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 20-Mar-2020 09:16:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2262255	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1638987	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	691207	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.364	0.012	92	118130	10.0	10.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.802	5.790	0.012	97	183604	10.0	10.7	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	487866	10.0	10.7	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.239	0.000	0	179484	10.0	11.0	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	98	130201	10.0	9.33	
10 Chloromethane	50	1.187	1.187	0.000	99	137228	10.0	9.75	
11 Vinyl chloride	62	1.270	1.270	0.000	98	123595	10.0	9.66	
12 Butadiene	54	1.294	1.294	0.000	99	110400	10.0	9.80	
13 Bromomethane	94	1.507	1.507	0.000	91	74486	10.0	10.9	
15 Chloroethane	64	1.601	1.590	0.011	100	80022	10.0	10.5	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	163960	10.0	10.1	
17 Trichlorofluoromethane	101	1.803	1.791	0.012	98	161370	10.0	10.8	
18 Ethyl ether	59	2.051	2.051	0.000	92	108391	10.0	10.4	
19 Acrolein	56	2.158	2.146	0.012	99	75740	50.0	50.5	
21 1,1-Dichloroethene	96	2.240	2.240	0.000	94	91104	10.0	9.86	
22 1,1,2-Trichloro-1,2,2-trif	151	2.288	2.288	0.000	95	61396	10.0	9.66	
24 Acetone	43	2.311	2.300	0.011	100	72193	20.0	20.5	
25 Iodomethane	142	2.371	2.371	0.000	99	143049	10.0	9.77	
26 Carbon disulfide	76	2.430	2.430	0.000	100	280228	10.0	10.0	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	86	61883	10.0	9.19	
29 Methyl acetate	43	2.666	2.655	0.011	98	160975	20.0	19.5	
30 Methylene Chloride	84	2.737	2.737	0.000	98	110325	10.0	9.85	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	95	75452	100.0	95.9	
34 Acrylonitrile	53	3.045	3.033	0.012	98	376567	100.0	96.1	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	94	108781	10.0	9.82	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	97	205181	10.0	9.80	
35 Hexane	86	3.459	3.459	0.000	94	37666	10.0	9.90	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	213491	10.0	9.97	
39 Vinyl acetate	86	3.779	3.767	0.012	98	20983	10.0	9.25	
41 2,2-Dichloropropane	97	4.571	4.560	0.011	49	21418	10.0	9.87	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	85	121782	10.0	9.89	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	99	110102	20.0	19.8	
46 Chlorobromomethane	128	4.974	4.962	0.012	95	58574	10.0	9.85	
48 Tetrahydrofuran	42	5.057	5.057	0.000	89	64577	20.0	18.5	
49 Chloroform	83	5.139	5.140	-0.001	96	210184	10.0	9.83	
50 1,1,1-Trichloroethane	97	5.352	5.353	0.000	97	153090	10.0	9.74	
51 Cyclohexane	56	5.423	5.423	0.000	94	199954	10.0	10.1	
52 Carbon tetrachloride	117	5.589	5.577	0.012	92	123494	10.0	8.81	
53 1,1-Dichloropropene	75	5.601	5.589	0.012	94	178452	10.0	10.3	
54 Benzene	78	5.849	5.849	0.000	97	489630	10.0	10.2	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	206900	10.0	9.88	
55 Isobutyl alcohol	41	5.944	5.944	0.000	92	81393	250.0	221.9	
58 n-Heptane	100	6.287	6.287	0.000	93	43952	10.0	9.62	
59 Trichloroethene	130	6.654	6.654	0.000	96	129509	10.0	10.4	
62 Methylcyclohexane	83	6.843	6.843	0.000	93	202562	10.0	9.87	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	94	123391	10.0	9.76	
65 Dibromomethane	93	7.009	6.997	0.012	96	73315	10.0	9.75	
67 1,4-Dioxane	88	7.068	7.068	0.000	97	24176	200.0	208.9	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	149786	10.0	9.84	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	94	141471	20.0	18.8	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	92	181938	10.0	9.76	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.837	0.000	98	220110	20.0	19.4	
74 Toluene	91	7.967	7.968	-0.001	98	519352	10.0	10.2	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	98	157999	10.0	8.69	
76 Ethyl methacrylate	69	8.322	8.323	-0.001	90	137464	10.0	8.91	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	93	99092	10.0	9.94	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	95245	10.0	10.2	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	194628	10.0	9.98	
80 2-Hexanone	43	8.618	8.618	0.000	97	156303	20.0	19.4	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	91368	10.0	8.72	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	101449	10.0	9.91	
85 Chlorobenzene	112	9.234	9.234	0.000	92	331906	10.0	10.1	
86 1,1,1,2-Tetrachloroethane	131	9.316	9.317	-0.001	90	86024	10.0	9.51	
87 Ethylbenzene	106	9.352	9.352	0.000	99	177179	10.0	10.1	
88 m-Xylene & p-Xylene	106	9.458	9.459	-0.001	99	216818	10.0	10.1	
89 o-Xylene	106	9.790	9.790	0.000	98	198966	10.0	10.2	
90 Styrene	104	9.802	9.802	0.000	90	329046	10.0	9.98	
91 Bromoform	173	9.955	9.956	-0.001	98	42128	10.0	9.61	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	495302	10.0	10.5	
94 Bromobenzene	156	10.358	10.358	0.000	98	116575	10.0	10.2	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	107367	10.0	10.0	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	91	37800	10.0	10.1	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	66	34202	10.0	9.10	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	141472	10.0	10.7	
99 2-Chlorotoluene	126	10.523	10.523	0.000	94	118512	10.0	10.6	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	82	390565	10.0	10.5	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	123088	10.0	10.3	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	337536	10.0	10.4	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	389206	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	497162	10.0	10.8	
108 1,3-Dichlorobenzene	146	11.162	11.162	0.000	97	209850	10.0	10.0	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	97	415150	10.0	10.5	
110 1,4-Dichlorobenzene	146	11.233	11.233	0.000	95	216291	10.0	9.90	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	93	194038	10.0	9.79	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	376421	10.0	10.4	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	70	12651	10.0	9.22	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	140686	10.0	9.73	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	96	70478	10.0	10.2	
119 Naphthalene	128	13.091	13.091	0.000	97	343576	10.0	9.86	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	138084	10.0	9.90	
S 132 1,2-Dichloroethene, Total	96				0			19.7	
S 133 1,3-Dichloropropene, Total	75				0			18.4	
S 134 Xylenes, Total	106				0		20.0	20.3	
S 135 Trihalomethanes, Total	1				0		40.0	38.0	
S 157 Total BTEX	1				0		50.0	50.9	

Reagents:

VMAROLISTDW_00337	Amount Added:	1.00	Units: uL
VMRGAS_00332	Amount Added:	1.00	Units: uL
VMRPRIMW_00378	Amount Added:	1.00	Units: uL
vm50ss_00394	Amount Added:	1.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

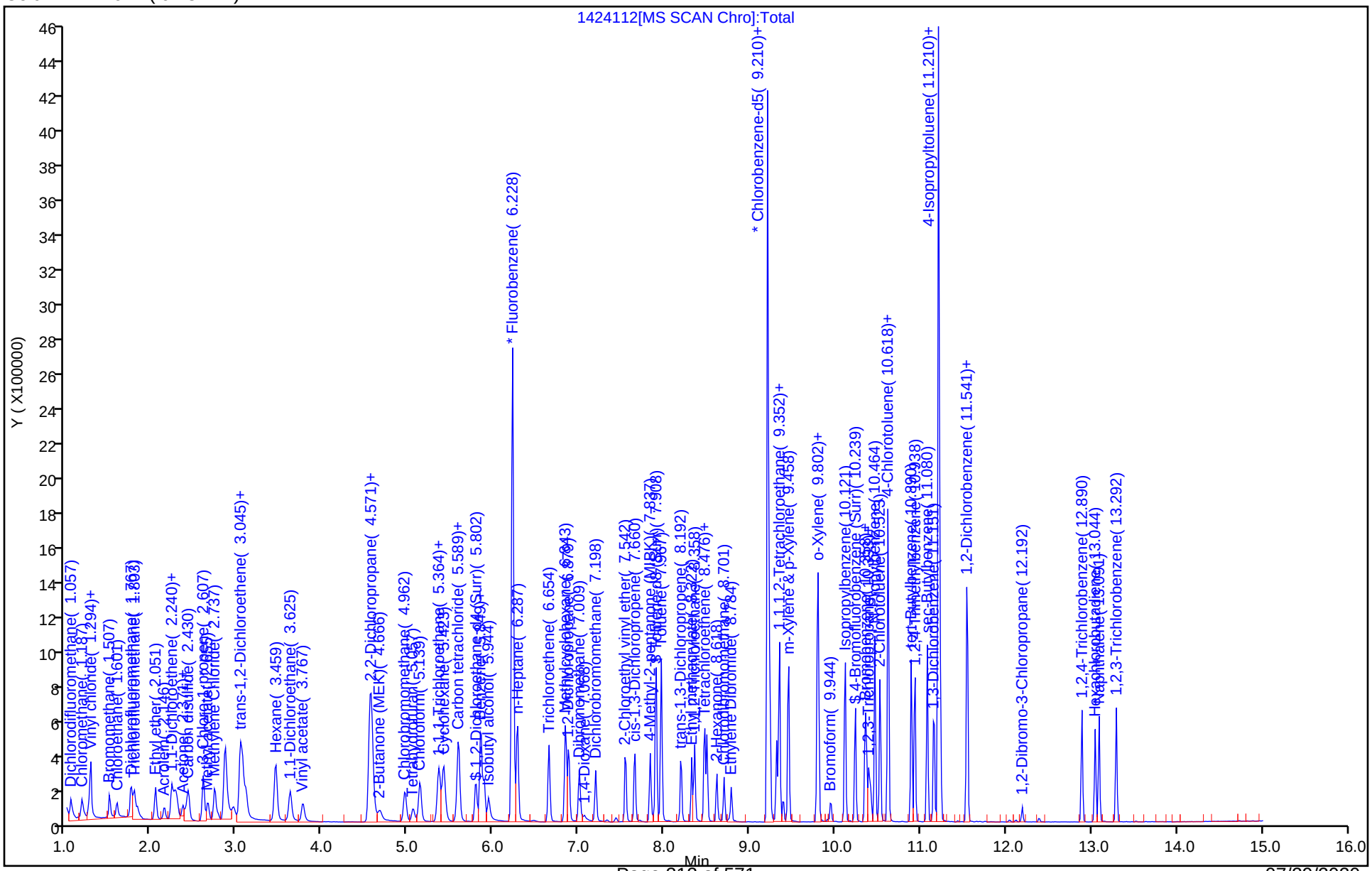
Report Date: 20-Mar-2020 16:13:02 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424112.D

Injection Date:	19-Mar-2020 17:25:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424113.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-Mar-2020 17:47:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-009
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:13:07 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 20-Mar-2020 09:16:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2235176	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1637841	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	684644	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.364	0.012	92	57878	5.00	5.14	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	95	93446	5.00	5.54	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	242266	5.00	5.30	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.239	0.000	0	91894	5.00	5.69	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	67869	5.00	4.92	
10 Chloromethane	50	1.187	1.187	0.000	99	69991	5.00	5.03	
11 Vinyl chloride	62	1.270	1.270	0.000	98	63465	5.00	5.02	
12 Butadiene	54	1.294	1.294	0.000	99	57406	5.00	5.16	
13 Bromomethane	94	1.507	1.507	0.000	91	37835	5.00	5.59	
15 Chloroethane	64	1.601	1.590	0.011	100	42440	5.00	5.66	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	83324	5.00	5.20	
17 Trichlorofluoromethane	101	1.803	1.791	0.012	98	80392	5.00	5.46	
18 Ethyl ether	59	2.051	2.051	0.000	91	58653	5.00	5.68	
19 Acrolein	56	2.146	2.146	0.000	99	40732	25.0	27.5	
21 1,1-Dichloroethene	96	2.240	2.240	0.000	94	48998	5.00	5.37	
22 1,1,2-Trichloro-1,2,2-trif	151	2.288	2.288	0.000	95	31546	5.00	5.02	
24 Acetone	43	2.311	2.300	0.011	99	42955	10.0	12.4	
25 Iodomethane	142	2.371	2.371	0.000	98	77373	5.00	5.35	
26 Carbon disulfide	76	2.430	2.430	0.000	100	139061	5.00	5.04	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	86	31470	5.00	4.73	
29 Methyl acetate	43	2.655	2.655	0.000	99	85500	10.0	10.5	
30 Methylene Chloride	84	2.737	2.737	0.000	98	61012	5.00	5.51	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	95	40744	50.0	52.4	
34 Acrylonitrile	53	3.045	3.033	0.012	98	203127	50.0	52.5	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	95	58059	5.00	5.31	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	98	108332	5.00	5.24	
35 Hexane	86	3.459	3.459	0.000	93	19213	5.00	5.11	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	110277	5.00	5.21	
39 Vinyl acetate	86	3.767	3.767	0.000	98	11401	5.00	5.09	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	45	11379	5.00	5.31	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	84	63655	5.00	5.23	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	99	58420	10.0	10.6	
46 Chlorobromomethane	128	4.962	4.962	0.000	97	30520	5.00	5.20	
48 Tetrahydrofuran	42	5.057	5.057	0.000	87	35988	10.0	10.4	
49 Chloroform	83	5.139	5.140	-0.001	96	111099	5.00	5.26	
50 1,1,1-Trichloroethane	97	5.352	5.353	0.000	97	76954	5.00	4.96	
51 Cyclohexane	56	5.423	5.423	0.000	93	99488	5.00	5.08	
52 Carbon tetrachloride	117	5.577	5.577	0.000	93	62115	5.00	4.49	
53 1,1-Dichloropropene	75	5.601	5.589	0.012	93	92416	5.00	5.40	
54 Benzene	78	5.849	5.849	0.000	97	258045	5.00	5.46	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	109109	5.00	5.28	
55 Isobutyl alcohol	41	5.944	5.944	0.000	93	37311	125.0	103.0	
58 n-Heptane	100	6.287	6.287	0.000	93	21822	5.00	4.83	
59 Trichloroethene	130	6.654	6.654	0.000	97	65418	5.00	5.31	
62 Methylcyclohexane	83	6.843	6.843	0.000	92	102273	5.00	5.05	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	65659	5.00	5.25	
65 Dibromomethane	93	7.009	6.997	0.012	92	39815	5.00	5.36	
67 1,4-Dioxane	88	7.068	7.068	0.000	96	11468	100.0	100.3	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	74646	5.00	4.96	
70 2-Chloroethyl vinyl ether	63	7.553	7.542	0.011	94	70636	10.0	9.50	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	91	88078	5.00	4.78	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.837	0.000	98	111848	10.0	9.88	
74 Toluene	91	7.968	7.968	0.000	98	272206	5.00	5.35	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	99	74812	5.00	4.12	
76 Ethyl methacrylate	69	8.323	8.323	0.000	90	67785	5.00	4.40	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	93	52395	5.00	5.26	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	50223	5.00	5.37	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	102703	5.00	5.27	
80 2-Hexanone	43	8.618	8.618	0.000	98	79835	10.0	9.90	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	45232	5.00	4.32	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	52559	5.00	5.14	
85 Chlorobenzene	112	9.234	9.234	0.000	96	174959	5.00	5.32	
86 1,1,1,2-Tetrachloroethane	131	9.316	9.317	-0.001	88	41928	5.00	4.64	
87 Ethylbenzene	106	9.352	9.352	0.000	98	92223	5.00	5.26	
88 m-Xylene & p-Xylene	106	9.458	9.459	-0.001	99	111537	5.00	5.22	
89 o-Xylene	106	9.790	9.790	0.000	98	103603	5.00	5.30	
90 Styrene	104	9.802	9.802	0.000	95	165645	5.00	5.03	
91 Bromoform	173	9.955	9.956	-0.001	95	19437	5.00	5.98	
92 Isopropylbenzene	105	10.121	10.121	0.000	97	252947	5.00	5.37	
94 Bromobenzene	156	10.358	10.358	0.000	97	61798	5.00	5.45	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	57110	5.00	5.39	
96 1,2,3-Trichloropropane	110	10.405	10.393	0.012	91	20516	5.00	5.54	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	63	17393	5.00	4.67	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	70438	5.00	5.35	
99 2-Chlorotoluene	126	10.523	10.523	0.000	94	60742	5.00	5.46	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	81	195520	5.00	5.31	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	64668	5.00	5.46	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	170952	5.00	5.31	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	97	198664	5.00	5.34	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	251486	5.00	5.51	
108 1,3-Dichlorobenzene	146	11.162	11.162	0.000	97	108927	5.00	5.25	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	57	210380	5.00	5.36	
110 1,4-Dichlorobenzene	146	11.233	11.233	0.000	92	113890	5.00	5.26	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	93	101334	5.00	5.16	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	185958	5.00	5.20	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	72	6451	5.00	6.30	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	70820	5.00	4.94	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	95	34701	5.00	5.08	
119 Naphthalene	128	13.091	13.091	0.000	97	174860	5.00	5.07	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	71801	5.00	5.20	
S 132 1,2-Dichloroethene, Total	96				0			10.5	
S 133 1,3-Dichloropropene, Total	75				0			8.90	
S 134 Xylenes, Total	106				0		10.0	10.5	
S 135 Trihalomethanes, Total	1				0		20.0	20.5	
S 157 Total BTEX	1				0		25.0	26.6	

Reagents:

VMRPRIMW_00378	Amount Added:	0.50	Units: uL
VMRGAS_00332	Amount Added:	0.50	Units: uL
VMAROLISTDW_00337	Amount Added:	0.50	Units: uL
vm50ss_00394	Amount Added:	0.50	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

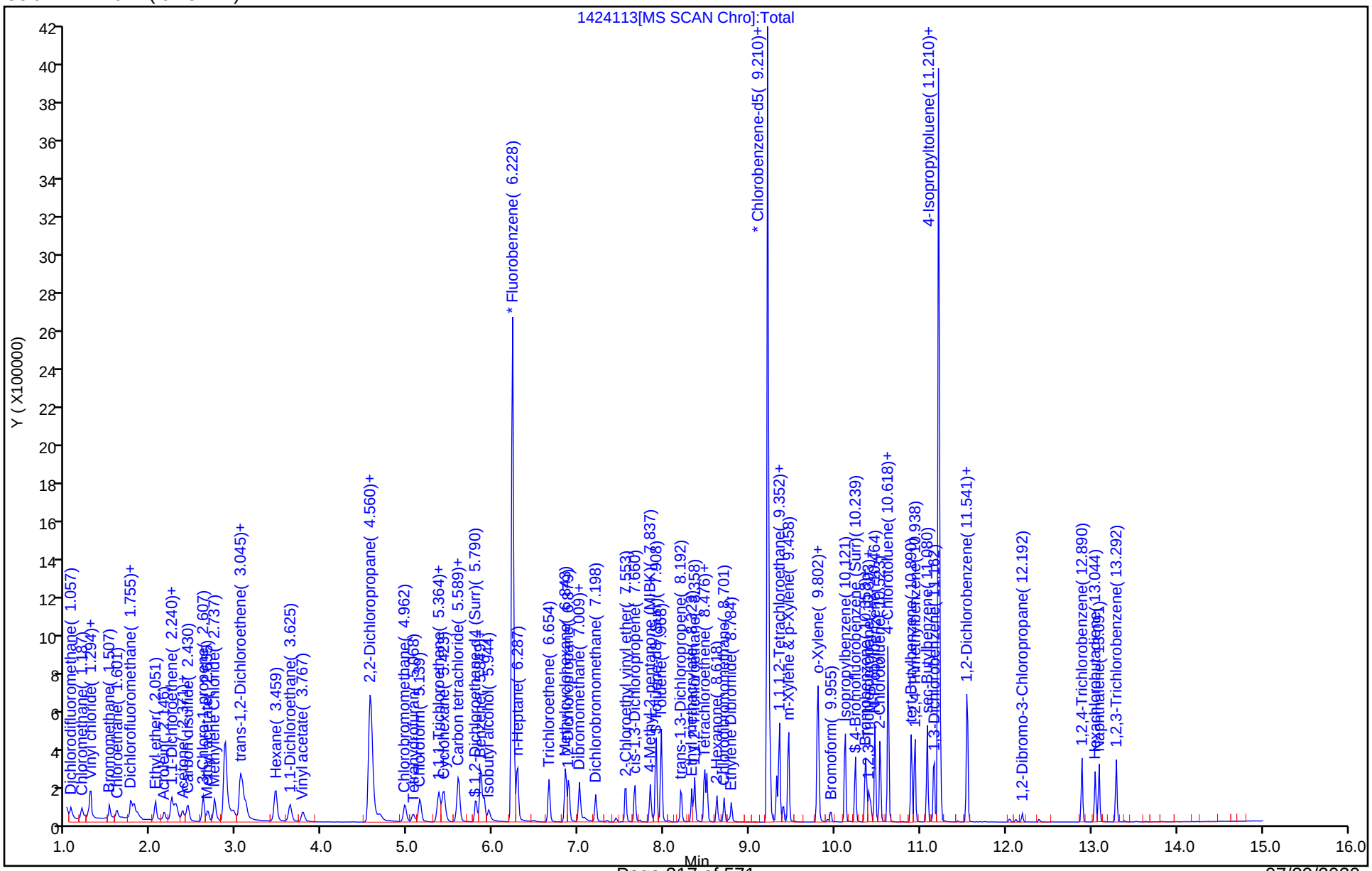
Report Date: 20-Mar-2020 16:13:09 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424113.D

Injection Date:	19-Mar-2020 17:47:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424114.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-Mar-2020 18:10:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-010
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:13:12 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 20-Mar-2020 09:17:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2220317	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1602276	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	681893	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.364	0.012	91	25219	2.00	2.25	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.802	5.790	0.012	96	45018	2.00	2.69	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	110952	2.00	2.48	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.239	0.000	0	44346	2.00	2.76	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	15746	2.00	1.15	
10 Chloromethane	50	1.187	1.187	0.000	99	23337	2.00	1.69	
11 Vinyl chloride	62	1.270	1.270	0.000	97	18909	2.00	1.51	
12 Butadiene	54	1.282	1.294	-0.012	97	15903	2.00	1.44	
13 Bromomethane	94	1.507	1.507	0.000	90	13295	2.00	1.98	
15 Chloroethane	64	1.590	1.590	0.000	100	12019	2.00	1.61	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	27685	2.00	1.74	
17 Trichlorofluoromethane	101	1.791	1.791	0.000	97	22818	2.00	1.56	
18 Ethyl ether	59	2.051	2.051	0.000	91	22264	2.00	2.17	
19 Acrolein	56	2.146	2.146	0.000	97	15414	10.0	10.5	
21 1,1-Dichloroethene	96	2.240	2.240	0.000	96	16662	2.00	1.84	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.288	-0.012	95	9327	2.00	1.49	
24 Acetone	43	2.300	2.300	0.000	100	21077	4.00	6.10	
25 Iodomethane	142	2.371	2.371	0.000	99	27686	2.00	1.93	
26 Carbon disulfide	76	2.430	2.430	0.000	99	47976	2.00	1.75	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	85	10575	2.00	1.60	
29 Methyl acetate	43	2.666	2.655	0.011	98	33525	4.00	4.13	
30 Methylene Chloride	84	2.737	2.737	0.000	99	25697	2.00	2.34	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	96	15845	20.0	20.5	
34 Acrylonitrile	53	3.045	3.033	0.012	97	80686	20.0	21.0	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	95	20320	2.00	1.87	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	98	40740	2.00	1.98	
35 Hexane	86	3.459	3.459	0.000	95	6359	2.00	1.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	40557	2.00	1.93	
39 Vinyl acetate	86	3.779	3.767	0.012	98	3697	2.00	1.66	
41 2,2-Dichloropropane	97	4.572	4.560	0.012	42	4071	2.00	1.91	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	80	24316	2.00	2.01	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	99	23953	4.00	4.38	
46 Chlorobromomethane	128	4.974	4.962	0.012	95	12122	2.00	2.08	
48 Tetrahydrofuran	42	5.068	5.057	0.011	84	13630	4.00	3.98	
49 Chloroform	83	5.139	5.140	-0.001	96	41982	2.00	2.00	
50 1,1,1-Trichloroethane	97	5.352	5.353	0.000	97	25299	2.00	1.64	
51 Cyclohexane	56	5.423	5.423	0.000	93	31403	2.00	1.61	
52 Carbon tetrachloride	117	5.577	5.577	0.000	96	19650	2.00	1.43	
53 1,1-Dichloropropene	75	5.601	5.589	0.012	93	31012	2.00	1.82	
54 Benzene	78	5.861	5.849	0.012	97	93217	2.00	1.99	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	42916	2.00	2.09	
55 Isobutyl alcohol	41	5.956	5.944	0.012	88	13876	50.0	38.5	
58 n-Heptane	100	6.287	6.287	0.000	92	6373	2.00	1.42	
59 Trichloroethene	130	6.654	6.654	0.000	96	23581	2.00	1.93	
62 Methylcyclohexane	83	6.843	6.843	0.000	94	30150	2.00	1.50	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	24778	2.00	2.00	
65 Dibromomethane	93	7.009	6.997	0.012	90	14950	2.00	2.03	
67 1,4-Dioxane	88	7.068	7.068	0.000	97	4496	40.0	39.6	
68 Dichlorobromomethane	83	7.198	7.198	0.000	97	26256	2.00	1.76	
70 2-Chloroethyl vinyl ether	63	7.553	7.542	0.011	95	25963	4.00	3.52	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	90	31246	2.00	1.71	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.837	0.000	96	40469	4.00	3.65	
74 Toluene	91	7.968	7.968	0.000	98	101641	2.00	2.04	
75 trans-1,3-Dichloropropene	75	8.204	8.192	0.012	99	25228	2.00	1.42	
76 Ethyl methacrylate	69	8.323	8.323	0.000	89	22876	2.00	1.52	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	93	20207	2.00	2.07	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	17129	2.00	1.87	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	38860	2.00	2.04	
80 2-Hexanone	43	8.618	8.618	0.000	97	29798	4.00	3.78	
82 Chlorodibromomethane	129	8.701	8.701	0.000	91	15278	2.00	1.49	
83 Ethylene Dibromide	107	8.784	8.784	0.000	99	19482	2.00	1.95	
85 Chlorobenzene	112	9.234	9.234	0.000	97	65894	2.00	2.05	
86 1,1,1,2-Tetrachloroethane	131	9.316	9.317	-0.001	85	14909	2.00	1.69	
87 Ethylbenzene	106	9.352	9.352	0.000	99	32289	2.00	1.88	
88 m-Xylene & p-Xylene	106	9.458	9.459	-0.001	99	40276	2.00	1.93	
89 o-Xylene	106	9.790	9.790	0.000	99	36077	2.00	1.89	
90 Styrene	104	9.802	9.802	0.000	91	58822	2.00	1.82	
91 Bromoform	173	9.955	9.956	-0.001	95	7303	2.00	4.06	
92 Isopropylbenzene	105	10.121	10.121	0.000	97	87632	2.00	1.90	
94 Bromobenzene	156	10.358	10.358	0.000	97	22490	2.00	1.99	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	20808	2.00	1.97	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	92	7910	2.00	2.14	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	61	6984	2.00	1.88	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	23585	2.00	1.80	
99 2-Chlorotoluene	126	10.523	10.523	0.000	94	21591	2.00	1.95	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	78	67292	2.00	1.83	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	24051	2.00	2.04	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	58713	2.00	1.83	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	97	68408	2.00	1.84	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	83892	2.00	1.85	
108 1,3-Dichlorobenzene	146	11.162	11.162	0.000	97	42200	2.00	2.04	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	47	70529	2.00	1.80	
110 1,4-Dichlorobenzene	146	11.233	11.233	0.000	93	47194	2.00	2.19	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	94	39834	2.00	2.04	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	61797	2.00	1.74	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	74	2481	2.00	4.40	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	28610	2.00	2.00	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	93	11685	2.00	1.72	
119 Naphthalene	128	13.091	13.091	0.000	97	66388	2.00	1.93	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	27829	2.00	2.02	
S 132 1,2-Dichloroethene, Total	96				0			3.88	
S 133 1,3-Dichloropropene, Total	75				0			3.13	
S 134 Xylenes, Total	106				0		4.00	3.81	
S 135 Trihalomethanes, Total	1				0		8.00	9.31	
S 157 Total BTEX	1				0		10.0	9.72	

Reagents:

VMAROLISTDW_00337	Amount Added:	0.20	Units: uL
VMRGAS_00332	Amount Added:	0.20	Units: uL
VMRPRIMW_00378	Amount Added:	0.20	Units: uL
vm50ss_00394	Amount Added:	0.20	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

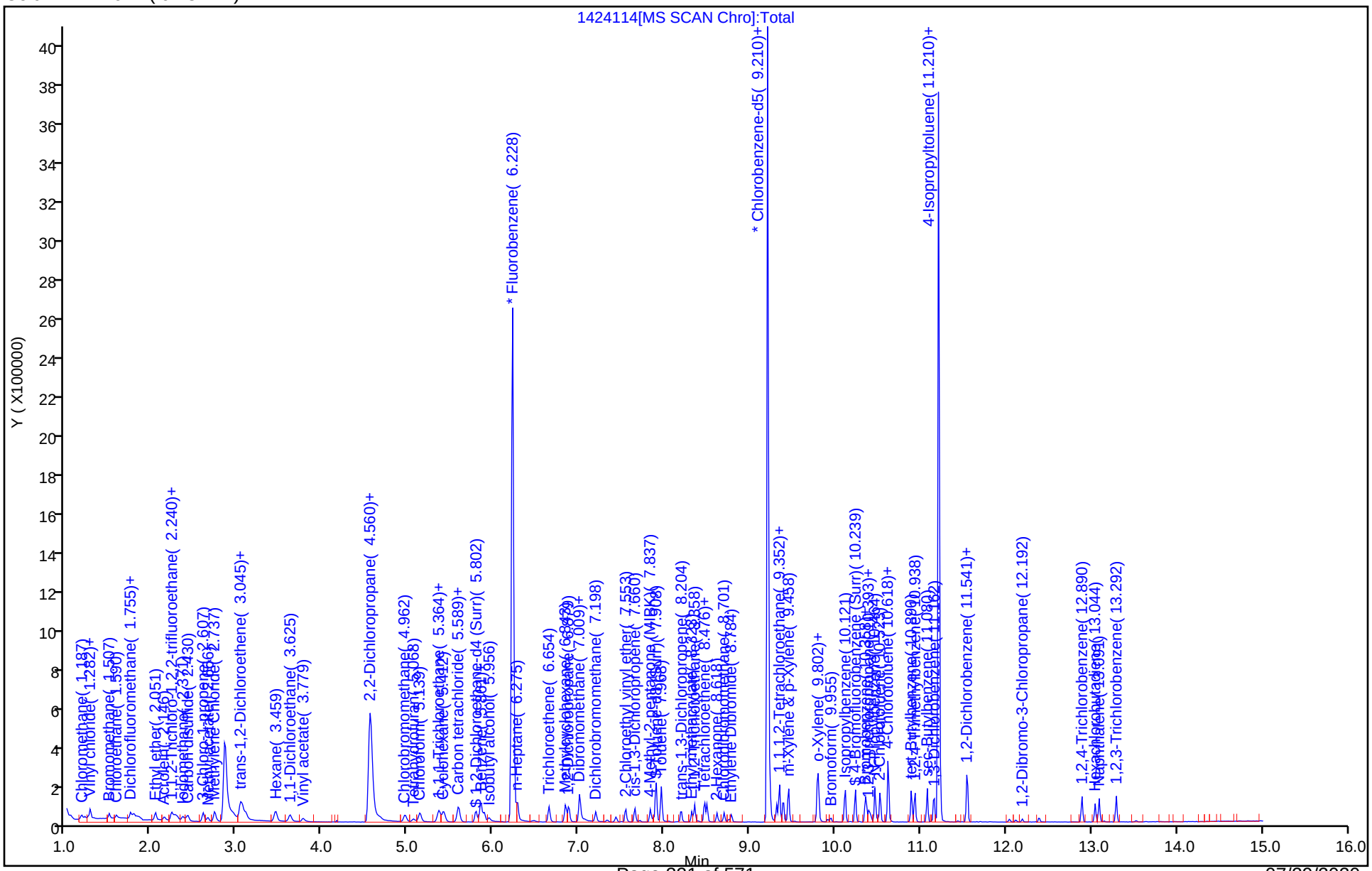
Report Date: 20-Mar-2020 16:13:14 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424114.D

Injection Date:	19-Mar-2020 18:10:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 19-Mar-2020 18:32:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096794-011
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Mar-2020 16:13:18 Calib Date: 19-Mar-2020 18:32:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: macenczaks Date: 20-Mar-2020 09:39:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2205479	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1590489	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	94	671189	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.364	0.012	92	15792	1.00	1.42	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	96	29723	1.00	1.78	
$ 6 Toluene-d8 (Surr)	98	7.909	7.908	0.001	94	71764	1.00	1.62	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.239	0.001	0	29578	1.00	1.87	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	97	10269	1.00	0.7546	
10 Chloromethane	50	1.187	1.187	0.000	99	14681	1.00	1.07	
11 Vinyl chloride	62	1.270	1.270	0.000	97	12938	1.00	1.04	
12 Butadiene	54	1.282	1.294	-0.012	97	9911	1.00	0.9029	
13 Bromomethane	94	1.507	1.507	0.000	91	7746	1.00	1.16	
15 Chloroethane	64	1.602	1.590	0.012	98	7541	1.00	1.02	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	17967	1.00	1.14	
17 Trichlorofluoromethane	101	1.803	1.791	0.012	97	14515	1.00	1.00	
18 Ethyl ether	59	2.051	2.051	0.000	93	10351	1.00	1.02	
19 Acrolein	56	2.146	2.146	0.000	96	7888	5.00	5.39	
21 1,1-Dichloroethene	96	2.241	2.240	0.001	95	6386	1.00	0.7089	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.288	-0.012	90	3253	1.00	0.5248	
24 Acetone	43	2.300	2.300	0.000	99	16053	2.00	4.68	
25 Iodomethane	142	2.371	2.371	0.000	99	13053	1.00	0.9148	
26 Carbon disulfide	76	2.430	2.430	0.000	100	22485	1.00	0.8261	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	85	4903	1.00	0.7465	
29 Methyl acetate	43	2.655	2.655	0.000	98	15511	2.00	1.92	
30 Methylene Chloride	84	2.738	2.737	0.001	98	15227	1.00	1.39	
31 2-Methyl-2-propanol	59	2.951	2.962	-0.011	94	7933	10.0	10.3	
34 Acrylonitrile	53	3.045	3.033	0.012	98	38226	10.0	10.0	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	95	9553	1.00	0.8847	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	97	19463	1.00	0.9536	
35 Hexane	86	3.448	3.459	-0.011	94	2447	1.00	0.6594	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	18646	1.00	0.8933	
39 Vinyl acetate	86	3.791	3.767	0.024	98	1762	1.00	0.7970	
41 2,2-Dichloropropane	97	4.572	4.560	0.012	42	1748	1.00	0.8266	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	57	11064	1.00	0.9217	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	100	14683	2.00	2.70	
46 Chlorobromomethane	128	4.974	4.962	0.012	96	5564	1.00	0.9600	
48 Tetrahydrofuran	42	5.069	5.057	0.012	84	7951	2.00	2.34	
49 Chloroform	83	5.140	5.140	0.000	95	20783	1.00	1.00	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.001	95	10783	1.00	0.7038	
51 Cyclohexane	56	5.424	5.423	0.001	93	12566	1.00	0.6502	
52 Carbon tetrachloride	117	5.577	5.577	0.000	95	8556	1.00	0.6262	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	92	13363	1.00	0.7906	
54 Benzene	78	5.850	5.849	0.001	97	43205	1.00	0.9268	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	97	20439	1.00	1.00	
55 Isobutyl alcohol	41	5.956	5.944	0.012	89	6239	25.0	17.4	
58 n-Heptane	100	6.287	6.287	0.000	89	2543	1.00	0.5709	
59 Trichloroethene	130	6.654	6.654	0.000	94	10599	1.00	0.8712	
62 Methylcyclohexane	83	6.844	6.843	0.001	91	10906	1.00	0.5454	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	92	11162	1.00	0.9052	
65 Dibromomethane	93	7.009	6.997	0.012	83	7112	1.00	0.9699	
67 1,4-Dioxane	88	7.068	7.068	0.000	89	2048	20.0	18.2	
68 Dichlorobromomethane	83	7.199	7.198	0.001	97	12184	1.00	0.8210	
70 2-Chloroethyl vinyl ether	63	7.554	7.542	0.012	94	11138	2.00	1.52	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	91	13953	1.00	0.7676	
73 4-Methyl-2-pentanone (MIBK	43	7.838	7.837	0.001	97	21045	2.00	1.91	
74 Toluene	91	7.968	7.968	0.000	97	48204	1.00	0.9754	
75 trans-1,3-Dichloropropene	75	8.204	8.192	0.012	97	11071	1.00	0.6273	
76 Ethyl methacrylate	69	8.323	8.323	0.000	91	9642	1.00	0.6439	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	8876	1.00	0.9174	
78 Tetrachloroethene	164	8.476	8.476	0.000	92	7189	1.00	0.7915	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	95	17913	1.00	0.9463	
80 2-Hexanone	43	8.618	8.618	0.000	97	11590	2.00	1.48	
82 Chlorodibromomethane	129	8.701	8.701	0.000	90	6744	1.00	0.6634	
83 Ethylene Dibromide	107	8.784	8.784	0.000	97	9060	1.00	0.9120	
85 Chlorobenzene	112	9.234	9.234	0.000	95	32677	1.00	1.02	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	84	6669	1.00	0.7595	
87 Ethylbenzene	106	9.352	9.352	0.000	98	15483	1.00	0.9097	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	98	18694	1.00	0.9002	
89 o-Xylene	106	9.790	9.790	0.000	99	16372	1.00	0.8631	
90 Styrene	104	9.814	9.802	0.012	96	28524	1.00	0.8911	
91 Bromoform	173	9.956	9.956	0.000	91	3056	1.00	3.37	
92 Isopropylbenzene	105	10.121	10.121	0.000	97	37555	1.00	0.8204	
94 Bromobenzene	156	10.358	10.358	0.000	97	11540	1.00	1.04	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	8988	1.00	0.8660	
96 1,2,3-Trichloropropane	110	10.405	10.393	0.012	91	3510	1.00	0.9662	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	65	3412	1.00	0.9345	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	10129	1.00	0.7854	
99 2-Chlorotoluene	126	10.524	10.523	0.001	95	9563	1.00	0.8774	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	75	28436	1.00	0.7872	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	11001	1.00	0.9475	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	25057	1.00	0.7932	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	29899	1.00	0.8191	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	32859	1.00	0.7346	
108 1,3-Dichlorobenzene	146	11.163	11.162	0.001	96	21079	1.00	1.04	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	45	28313	1.00	0.7361	
110 1,4-Dichlorobenzene	146	11.234	11.233	0.001	94	23433	1.00	1.10	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	92	19588	1.00	1.02	
113 n-Butylbenzene	91	11.553	11.553	0.000	97	24765	1.00	0.7071	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	67	1208	1.00	3.80	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	14442	1.00	1.03	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	94	5422	1.00	0.8104	
119 Naphthalene	128	13.091	13.091	0.000	98	32295	1.00	0.9544	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	13705	1.00	1.01	
S 132 1,2-Dichloroethene, Total	96				0			1.81	
S 133 1,3-Dichloropropene, Total	75				0			1.39	
S 134 Xylenes, Total	106				0		2.00	1.76	
S 135 Trihalomethanes, Total	1				0		4.00	5.85	
S 157 Total BTEX	1				0		5.00	4.58	

Reagents:

VMRPRIMW_00378	Amount Added:	0.10	Units: uL
VMRGAS_00332	Amount Added:	0.10	Units: uL
VMAROLISTDW_00337	Amount Added:	0.10	Units: uL
vm50ss_00394	Amount Added:	0.10	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

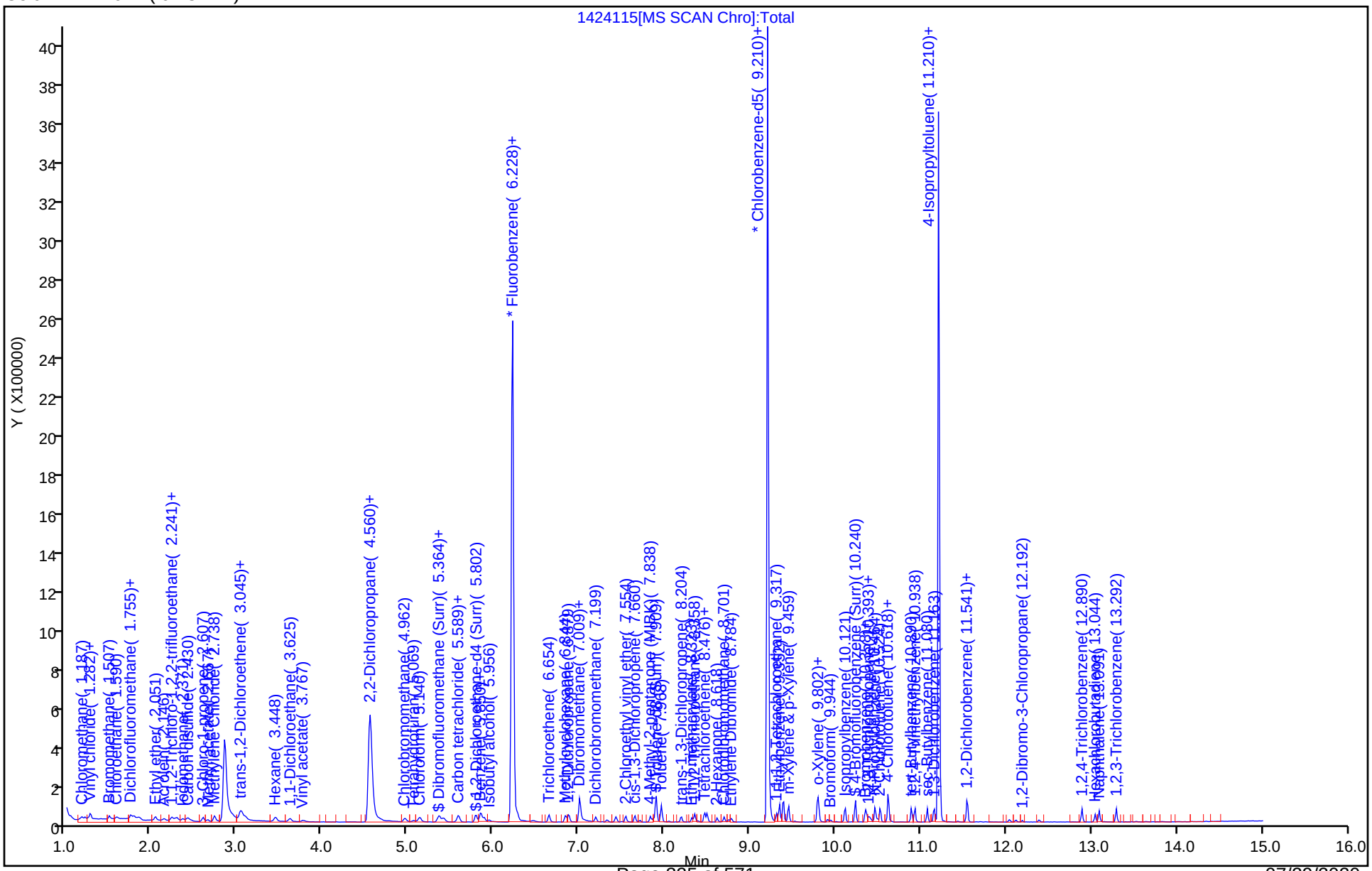
Report Date: 20-Mar-2020 16:13:19 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D

Injection Date:	19-Mar-2020 18:32:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427647/12	1424130.D
Level 2	IC 240-427647/11	1424129.D
Level 3	IC 240-427647/10	1424128.D
Level 4	IC 240-427647/9	1424127.D
Level 5	IC 240-427647/8	1424126.D
Level 6	IC 240-427647/7	1424125.D
Level 7	IC 240-427647/6	1424124.D
Level 8	IC 240-427647/5	1424123.D
Level 9	IC 240-427647/4	1424122.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Acetonitrile	0.0214 0.0223	0.0214 0.0228	0.0212 0.0215	0.0196 0.0212	0.0221	Ave		0.0215				4.2		15.0			
2-Chloro-1,3-butadiene	0.3795 0.4715	0.3864 0.4761	0.4179 0.4666	0.4361 0.4786	0.4560	Ave		0.4410				8.7		15.0			
Diisopropyl ether	0.2041 0.2224	0.2157 0.2222	0.2119 0.2131	0.2144 0.2149	0.2189	Ave		0.2153				2.6		15.0			
Ethyl tert-butyl ether	0.5674 0.6175	0.6045 0.5919	0.5794 0.5731	0.5914 0.5615	0.6150	Ave		0.5891				3.5		15.0			
Propionitrile	0.0365 0.0347	0.0336 0.0348	0.0317 0.0325	0.0336 0.0326	0.0342	Ave		0.0338				4.3		15.0			
Ethyl acetate	0.2664 0.2665	0.2583 0.2705	0.2432 0.2534	0.2506 0.2563	0.2596	Ave		0.2583				3.4		15.0			
Methacrylonitrile	0.1498 0.1683	0.1700 0.1669	0.1586 0.1516	0.1633 0.1496	0.1666	Ave		0.1605				5.2		15.0			
Isooctane	0.6999 0.9230	0.8047 0.9192	0.8722 0.9278	0.9179 0.9357	0.9125	Ave		0.8792				8.9		15.0			
Tert-amyl methyl ether	0.5271 0.6028	0.5518 0.5917	0.5652 0.5485	0.5906 0.5403	0.6101	Ave		0.5698				5.2		15.0			
n-Butanol	+++++ 0.0088	0.0054 0.0098	0.0062 0.0097	0.0064 0.0100	0.0073	Lin1	-0.413	0.0098							0.9970		0.9900
Ethyl acrylate	0.2751 0.3638	0.2902 0.3761	0.2805 0.3646	0.3184 0.3666	0.3370	Ave		0.3303				12.2		15.0			
Methyl methacrylate	0.1928 0.2680	0.2240 0.2706	0.2311 0.2608	0.2466 0.2594	0.2542	Ave		0.2453				10.3		15.0			
2-Nitropropane	+++++ 0.0662	+++++ 0.0749	0.0575 0.0750	0.0524 0.0790	0.0594	Lin1	-0.383	0.0770							0.9970		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
n-Butyl acetate	+++++ 0.5861	0.6011 0.5995	0.5473 0.5607	0.5814 0.5638	0.5654	Ave		0.5757				3.4		15.0			
1-Chlorohexane	0.4185 0.5423	0.4551 0.5441	0.4698 0.5394	0.5050 0.5544	0.5217	Ave		0.5056				9.4		15.0			
Cyclohexanone	0.0087 0.0116	0.0090 0.0119	0.0093 0.0115	0.0099 0.0115	0.0108	Ave		0.0105				12.0		15.0			
Pentachloroethane	+++++ 0.3108	+++++ 0.3439	0.2020 0.3564	0.2260 0.3724	0.2767	Lin1	-2.381	0.3645							0.9980		0.9900
1,2,3-Trimethylbenzene	2.2559 2.8157	2.4665 2.8477	2.4952 2.7345	2.6508 2.7334	2.7625	Ave		2.6403				7.4		15.0			
Benzyl chloride	+++++ 0.1856	+++++ 0.2330	0.0957 0.2616	0.1130 0.2873	0.1371	Qua	-0.856	0.1935	0.0003826						1.0000		0.9900
1,3,5-Trichlorobenzene	1.0031 1.0632	1.0167 1.1131	0.9765 1.1124	1.0295 1.1546	1.0634	Ave		1.0592				5.5		15.0			
2-Methylnaphthalene	1.3861 1.8264	1.4725 1.8422	1.4735 1.6799	1.6732 1.6145	1.7565	Ave		1.6361				10.0		15.0			
1-Methylnaphthalene	1.4353 1.6393	1.5583 1.6313	1.5098 1.4811	1.6121 1.4403	1.6082	Ave		1.5462				5.3		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-427647/12	1424130.D
Level 2	IC 240-427647/11	1424129.D
Level 3	IC 240-427647/10	1424128.D
Level 4	IC 240-427647/9	1424127.D
Level 5	IC 240-427647/8	1424126.D
Level 6	IC 240-427647/7	1424125.D
Level 7	IC 240-427647/6	1424124.D
Level 8	IC 240-427647/5	1424123.D
Level 9	IC 240-427647/4	1424122.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Acetonitrile	FB	Ave	9423 516056	18953 1069125	47628 1927242	86892 2487004	206804	10.0 500	20.0 1000	50.0 2000	100 2500	200
2-Chloro-1,3-butadiene	FB	Ave	16741 1089150	34214 2234408	93694 4179005	193345 5603216	426320	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Diisopropyl ether	FB	Ave	9003 513797	19095 1042985	47502 1908669	95075 2515644	204616	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethyl tert-butyl ether	FB	Ave	25030 1426340	53522 2777950	129892 5132626	262200 6574080	574971	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Propionitrile	FB	Ave	16105 800810	29751 1635501	71158 2911055	149115 3812247	319275	10.0 500	20.0 1000	50.0 2000	100 2500	200
Ethyl acetate	FB	Ave	23502 1231189	45730 2539380	109032 4537928	222193 6002052	485327	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Methacrylonitrile	FB	Ave	66100 3888082	150502 7834977	355642 13575802	723895 17513676	1557393	10.0 500	20.0 1000	50.0 2000	100 2500	200
Isooctane	FB	Ave	30876 2131993	71247 4314120	195528 8308763	406996 10954782	853054	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tert-amyl methyl ether	FB	Ave	23254 1392439	48858 2777062	126698 4912118	261840 6325383	570341	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butanol	CBNZ d5	Lin1	+++++ 367070	8690 832337	25310 1593206	52184 2094039	122856	+++++ 1250	50.0 2500	125 5000	250 6250	500
Ethyl acrylate	FB	Ave	12136 840442	25697 1765300	62886 3265556	141190 4292255	315047	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl methacrylate	FB	Ave	17014 1238086	39667 2540279	103601 4670644	218694 6074732	475332	2.00 100	4.00 200	10.0 400	20.0 500	40.0
2-Nitropropane	FB	Lin1	+++++ 305916	+++++ 703243	25770 1342896	46486 1849948	111123	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
n-Butyl acetate	CBNZ d5	Ave	+++++ 974473	38733 2038578	88872 3684044	188947 4736713	380268	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 427647

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/20/2020 11:42 Calibration End Date: 03/20/2020 14:39 Calibration ID: 56280

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Chlorohexane	CBNZ d5	Ave	13535 901546	29320 1850126	76292 3543907	164126 4657707	350901	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Cyclohexanone	CBNZ d5	Ave	2821 192749	5776 405577	15164 758883	32201 963646	72739	10.0 500	20.0 1000	50.0 2000	100 2500	200
Pentachloroethane	DCBd 4	Lin1	+++++ 427811	+++++ 954102	27293 1931379	60580 2504440	152158	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	30144 1937913	64899 3949918	168544 7409230	355236 9192508	759492	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Benzyl chloride	DCBd 4	Qua	+++++ 127733	+++++ 323179	6465 708776	15143 966194	37690	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	13403 731748	26753 1543945	65958 3014015	137969 3882888	292363	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Methylnaphthalene	DCBd 4	Ave	37044 2513962	77490 5110378	199056 9103294	448457 10859326	965836	2.00 100	4.00 200	10.0 400	20.0 500	40.0
1-Methylnaphthalene	DCBd 4	Ave	38357 2256459	82005 4525454	203968 8026227	432078 9687593	884277	2.00 100	4.00 200	10.0 400	20.0 500	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424122.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 20-Mar-2020 11:42:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-004
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:08 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 13:17:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2341480	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	83	1680383	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	89	672603	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	99	2487004	2500.0	2468.6	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	93	5603216	250.0	271.3	
38 Isopropyl ether	87	3.826	3.826	0.000	92	2515644	250.0	249.5	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	98	6574080	250.0	238.3	
44 Propionitrile	54	4.749	4.749	0.000	98	3812247	2500.0	2408.3	
45 Ethyl acetate	43	4.844	4.844	0.000	100	6002052	500.0	496.2	
47 Methacrylonitrile	41	5.009	4.998	0.011	90	17513676	2500.0	2329.7	
159 Isooctane	57	6.027	6.027	0.000	95	10954782	250.0	266.1	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	91	6325383	250.0	237.1	
60 n-Butanol	56	6.725	6.725	0.000	89	2094039	6250.0	6405.6	
61 Ethyl acrylate	55	6.855	6.855	0.000	98	4292255	250.0	277.5	
66 Methyl methacrylate	41	7.092	7.092	0.000	90	6074732	500.0	528.8	
69 2-Nitropropane	41	7.435	7.435	0.000	98	1849948	500.0	518.1	
81 n-Butyl acetate	43	8.749	8.749	0.000	97	4736713	250.0	244.8	
84 1-Chlorohexane	91	9.246	9.246	0.000	80	4657707	250.0	274.1	
93 Cyclohexanone	55	10.180	10.180	0.000	94	963646	2500.0	2736.9	
104 Pentachloroethane	167	10.902	10.902	0.000	89	2504440	500.0	517.3	
111 1,2,3-Trimethylbenzene	105	11.293	11.281	0.012	97	9192508	250.0	258.8	
112 Benzyl chloride	126	11.352	11.352	0.000	99	966194	250.0	251.0	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	96	3882888	250.0	272.5	
121 2-Methylnaphthalene	142	14.002	13.991	0.011	88	10859326	500.0	493.4	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	9687593	500.0	465.8	

Reagents:

VMRA9W_00337	Amount Added: 25.00	Units: uL
VM568718_00017	Amount Added: 1.00	Units: uL

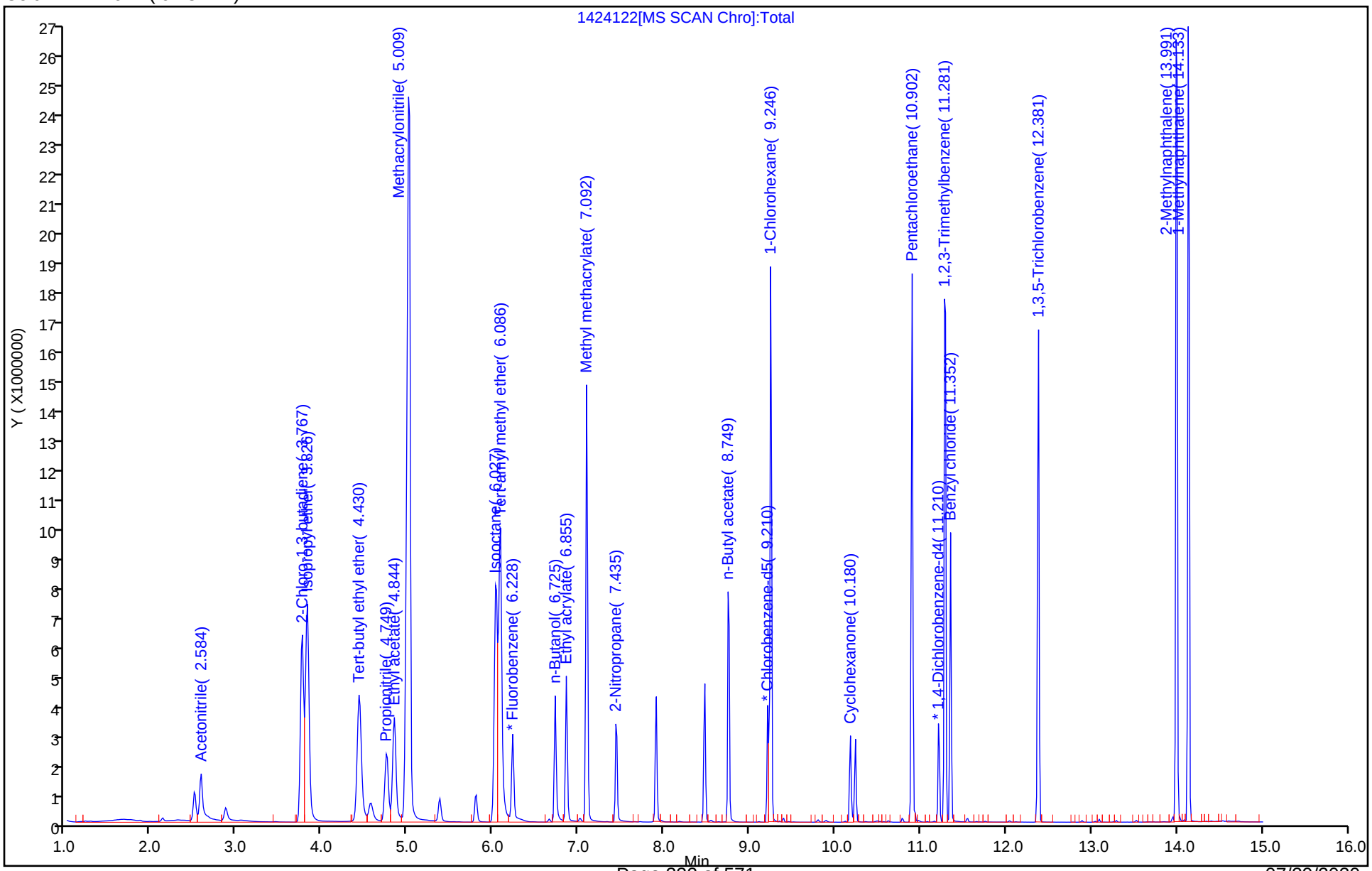
Report Date: 23-Mar-2020 10:27:09 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424122.D

Injection Date:	20-Mar-2020 11:42:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424123.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Mar-2020 12:04:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-005
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:13 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 13:18:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2238857	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1642673	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	92	677380	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	99	1927242	2000.0	2000.7	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	4179005	200.0	211.6	
38 Isopropyl ether	87	3.826	3.826	0.000	92	1908669	200.0	198.0	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	5132626	200.0	194.6	
44 Propionitrile	54	4.749	4.749	0.000	98	2911055	2000.0	1923.3	
45 Ethyl acetate	43	4.844	4.844	0.000	100	4537928	400.0	392.4	
47 Methacrylonitrile	41	5.009	4.998	0.011	91	13575802	2000.0	1888.6	
159 Isooctane	57	6.027	6.027	0.000	96	8308763	200.0	211.0	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	97	4912118	200.0	192.5	
60 n-Butanol	56	6.725	6.725	0.000	89	1593206	5000.0	4994.8	
61 Ethyl acrylate	55	6.855	6.855	0.000	99	3265556	200.0	220.8	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	4670644	400.0	425.2	
69 2-Nitropropane	41	7.435	7.435	0.000	98	1342896	400.0	394.5	
81 n-Butyl acetate	43	8.749	8.749	0.000	97	3684044	200.0	194.8	
84 1-Chlorohexane	91	9.246	9.246	0.000	88	3543907	200.0	213.4	
93 Cyclohexanone	55	10.180	10.180	0.000	94	758883	2000.0	2204.8	
104 Pentachloroethane	167	10.902	10.902	0.000	89	1931379	400.0	397.7	
111 1,2,3-Trimethylbenzene	105	11.293	11.281	0.012	99	7409230	200.0	207.1	
112 Benzyl chloride	126	11.352	11.352	0.000	99	708776	200.0	197.6	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	3014015	200.0	210.0	
121 2-Methylnaphthalene	142	14.002	13.991	0.011	92	9103294	400.0	410.7	
158 1-Methylnaphthalene	142	14.133	14.133	-0.001	97	8026227	400.0	383.2	

Reagents:

VMRA9W_00337	Amount Added: 20.00	Units: uL
VM568718_00017	Amount Added: 1.00	Units: uL

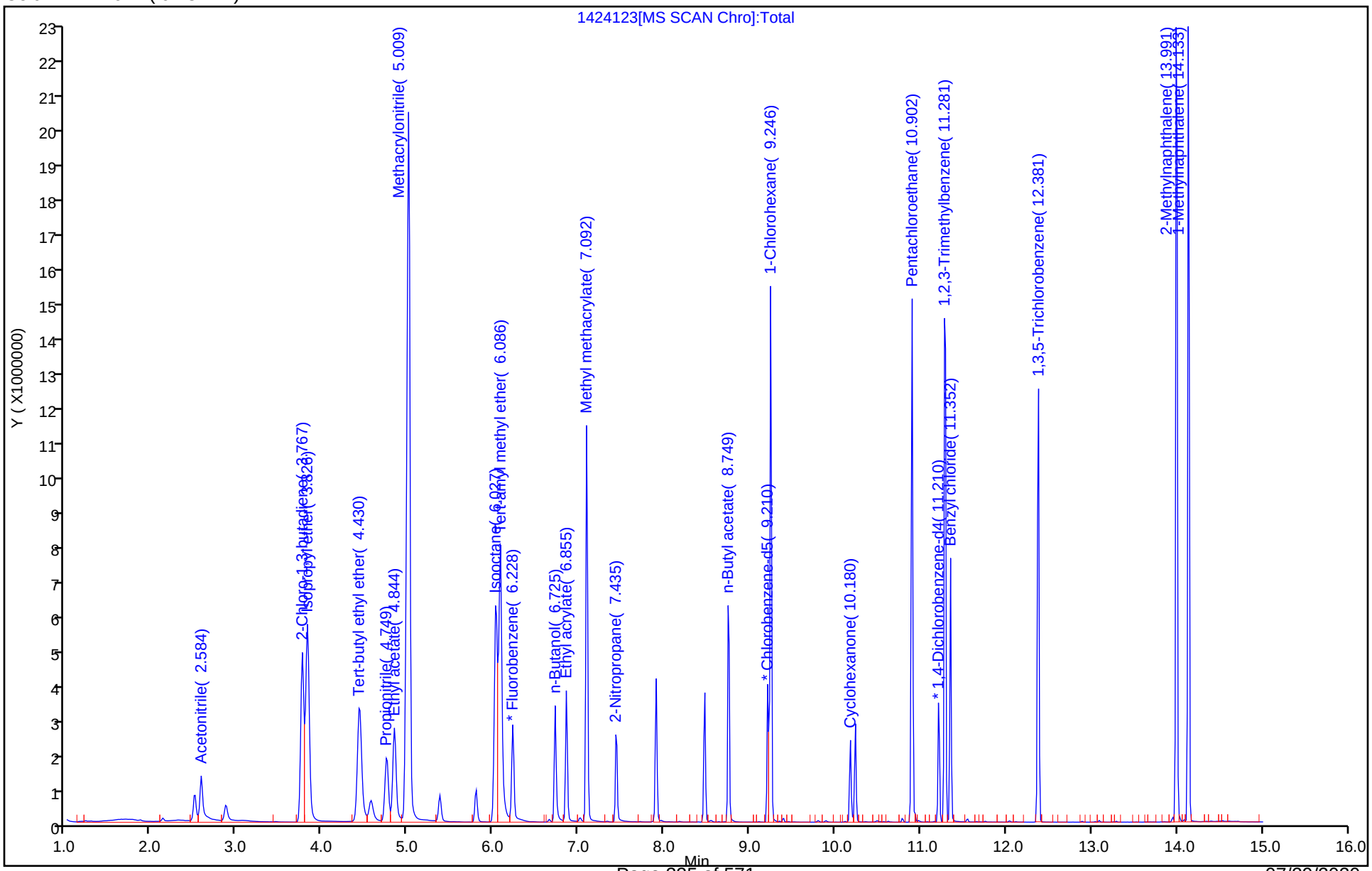
Report Date: 23-Mar-2020 10:27:14 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424123.D

Injection Date:	20-Mar-2020 12:04:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424124.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 20-Mar-2020 12:26:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-006
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:17 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 13:18:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2346564	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1700121	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	93	693522	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	99	1069125	1000.0	1058.9	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	2234408	100.0	108.0	
38 Isopropyl ether	87	3.826	3.826	0.000	93	1042985	100.0	103.2	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	98	2777950	100.0	100.5	
44 Propionitrile	54	4.749	4.749	0.000	98	1635501	1000.0	1031.0	
45 Ethyl acetate	43	4.844	4.844	0.000	100	2539380	200.0	209.5	
47 Methacrylonitrile	41	4.998	4.998	0.000	93	7834977	1000.0	1040.0	
159 Isooctane	57	6.027	6.027	0.000	94	4314120	100.0	104.6	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	97	2777062	100.0	103.9	
60 n-Butanol	56	6.725	6.725	0.000	90	832337	2500.0	2542.1	
61 Ethyl acrylate	55	6.855	6.855	0.000	99	1765300	100.0	113.9	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	2540279	200.0	220.7	
69 2-Nitropropane	41	7.435	7.435	0.000	98	703243	200.0	199.6	
81 n-Butyl acetate	43	8.749	8.749	0.000	97	2038578	100.0	104.1	
84 1-Chlorohexane	91	9.246	9.246	0.000	87	1850126	100.0	107.6	
93 Cyclohexanone	55	10.180	10.180	0.000	94	405577	1000.0	1138.5	
104 Pentachloroethane	167	10.902	10.902	0.000	89	954102	200.0	195.3	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	3949918	100.0	107.9	
112 Benzyl chloride	126	11.352	11.352	0.000	99	323179	100.0	103.6	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	1543945	100.0	105.1	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	5110378	200.0	225.2	a
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	4525454	200.0	211.0	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

VMRA9W_00337	Amount Added: 10.00	Units: uL
VM568718_00017	Amount Added: 1.00	Units: uL

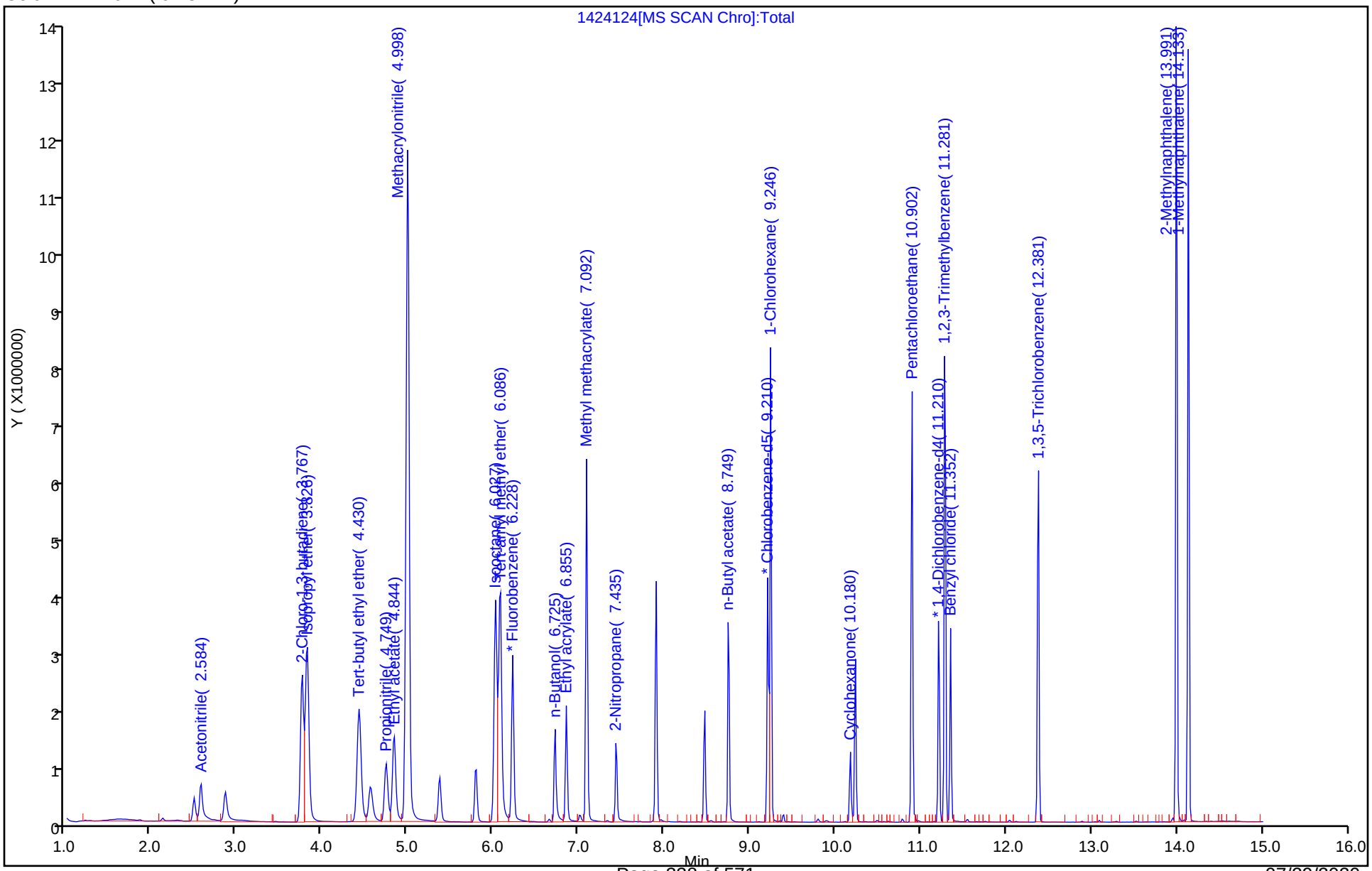
Report Date: 23-Mar-2020 10:27:18 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424124.D

Injection Date:	20-Mar-2020 12:26:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

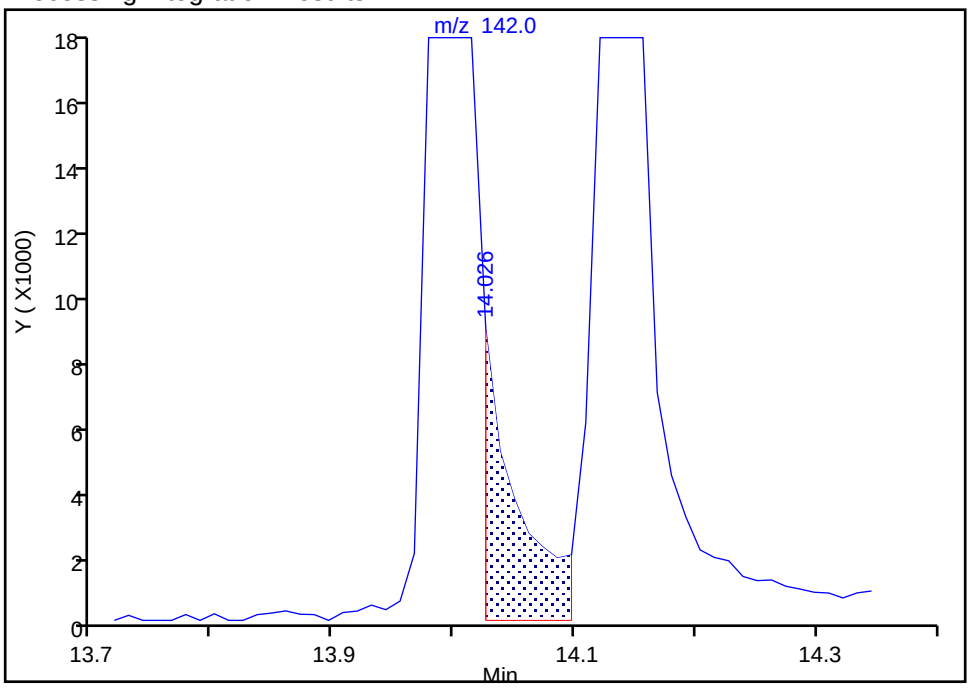
Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424124.D
Injection Date: 20-Mar-2020 12:26:30 Instrument ID: A3UX14
Lims ID: ic
Client ID:
Operator ID: 002808 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

121 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

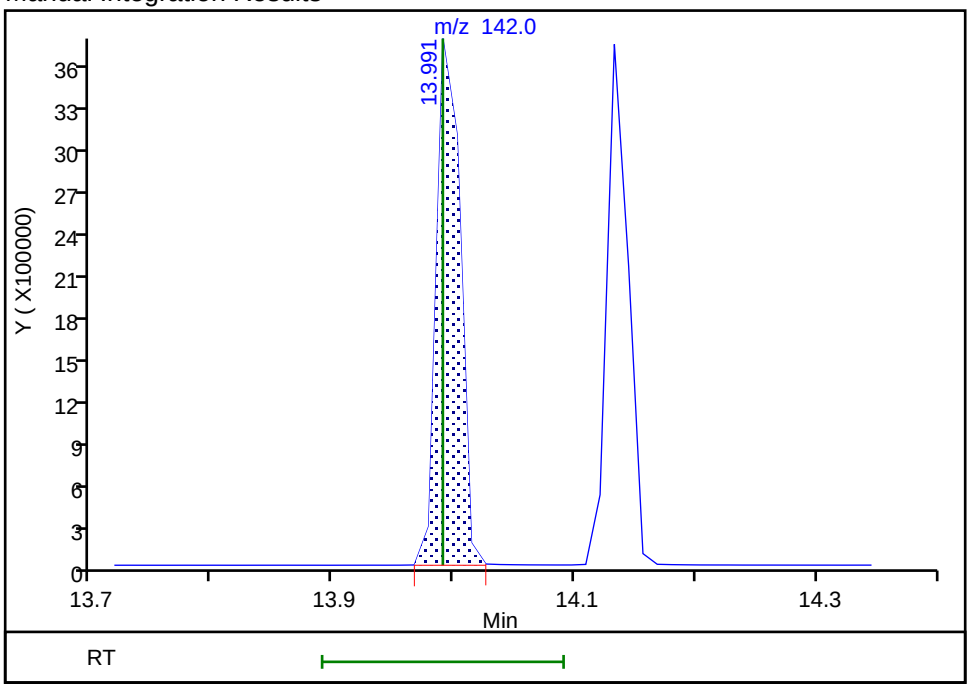
Processing Integration Results

RT: 14.03
Area: 18358
Amount: 1.599434
Amount Units: ug/l



Manual Integration Results

RT: 13.99
Area: 5110378
Amount: 225.1935
Amount Units: ug/l



Reviewer: macenczaks, 20-Mar-2020 13:18:27
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424125.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Mar-2020 12:48:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-007
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:21 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 13:17:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2309935	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1662534	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	94	688241	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	99	516056	500.0	519.2	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	1089150	50.0	53.5	
38 Isopropyl ether	87	3.826	3.826	0.000	92	513797	50.0	51.7	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	98	1426340	50.0	52.4	
44 Propionitrile	54	4.749	4.749	0.000	98	800810	500.0	512.8	
45 Ethyl acetate	43	4.844	4.844	0.000	100	1231189	100.0	103.2	
47 Methacrylonitrile	41	4.998	4.998	0.000	93	3888082	500.0	524.3	
159 Isooctane	57	6.027	6.027	0.000	94	2131993	50.0	52.5	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	97	1392439	50.0	52.9	
60 n-Butanol	56	6.725	6.725	0.000	89	367070	1250.0	1169.6	
61 Ethyl acrylate	55	6.855	6.855	0.000	99	840442	50.0	55.1	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	1238086	100.0	109.3	
69 2-Nitropropane	41	7.435	7.435	0.000	97	305916	100.0	91.0	
81 n-Butyl acetate	43	8.749	8.749	0.000	98	974473	50.0	50.9	
84 1-Chlorohexane	91	9.246	9.246	0.000	86	901546	50.0	53.6	
93 Cyclohexanone	55	10.180	10.180	0.000	94	192749	500.0	553.3	
104 Pentachloroethane	167	10.902	10.902	0.000	87	427811	100.0	91.8	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	1937913	50.0	53.3	
112 Benzyl chloride	126	11.352	11.352	0.000	99	127733	50.0	47.9	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	731748	50.0	50.2	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	2513962	100.0	111.6	a
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	2256459	100.0	106.0	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

VMRA9W_00337	Amount Added:	5.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

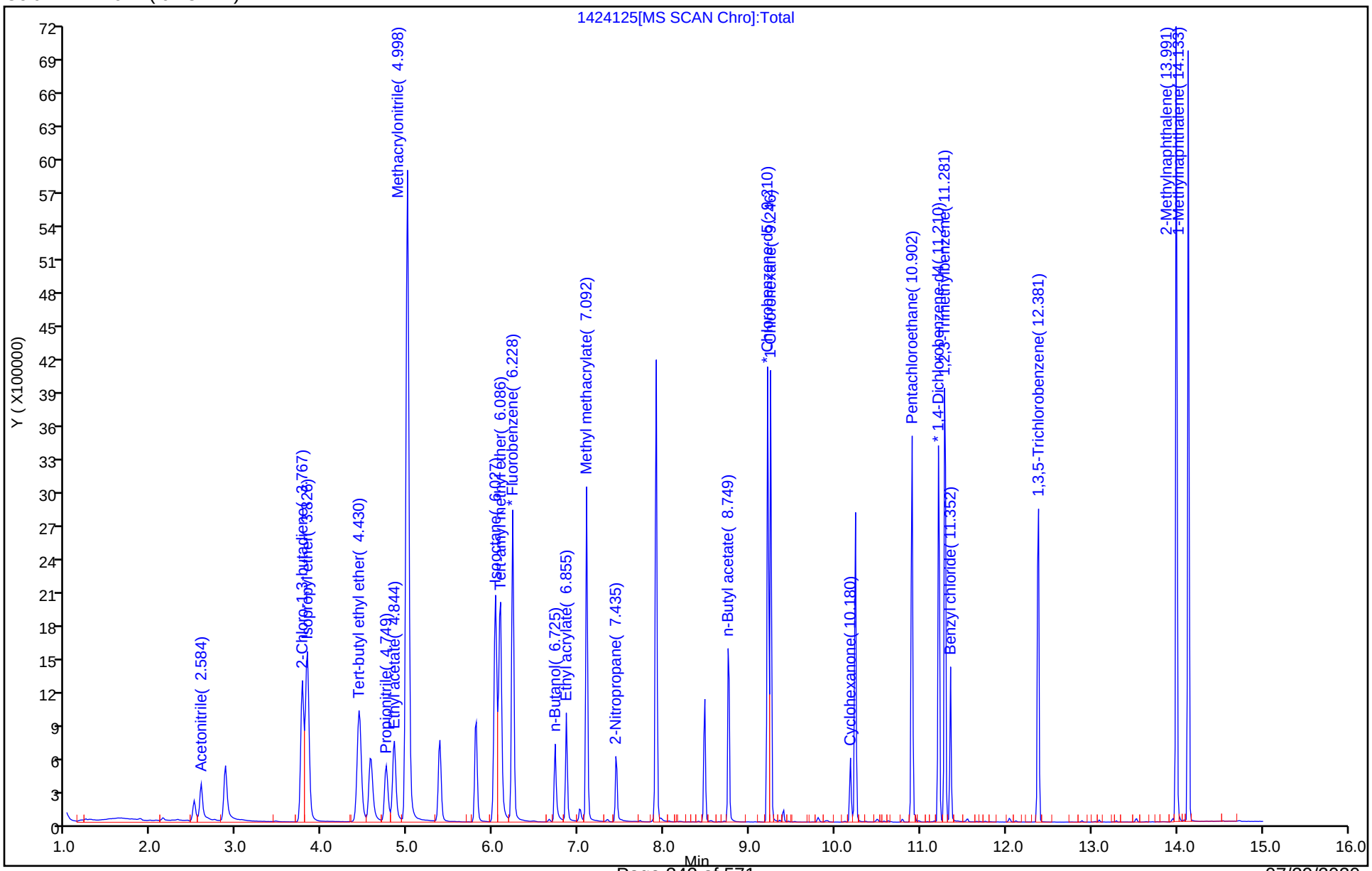
Report Date: 23-Mar-2020 10:27:24 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424125.D

Injection Date:	20-Mar-2020 12:48:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

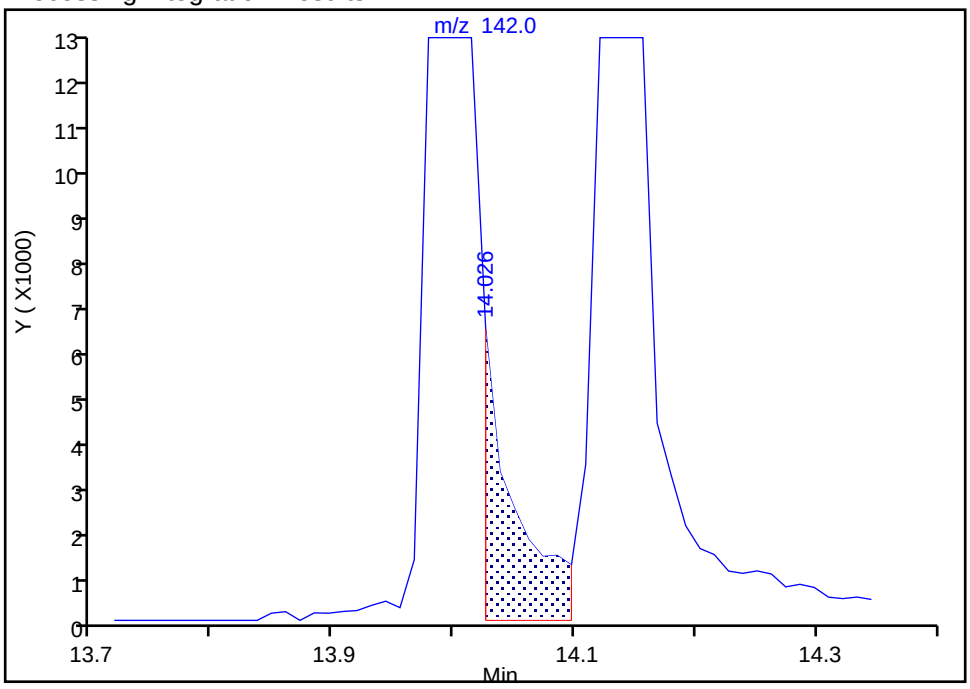
Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424125.D
Injection Date: 20-Mar-2020 12:48:30 Instrument ID: A3UX14
Lims ID: ic
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

121 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

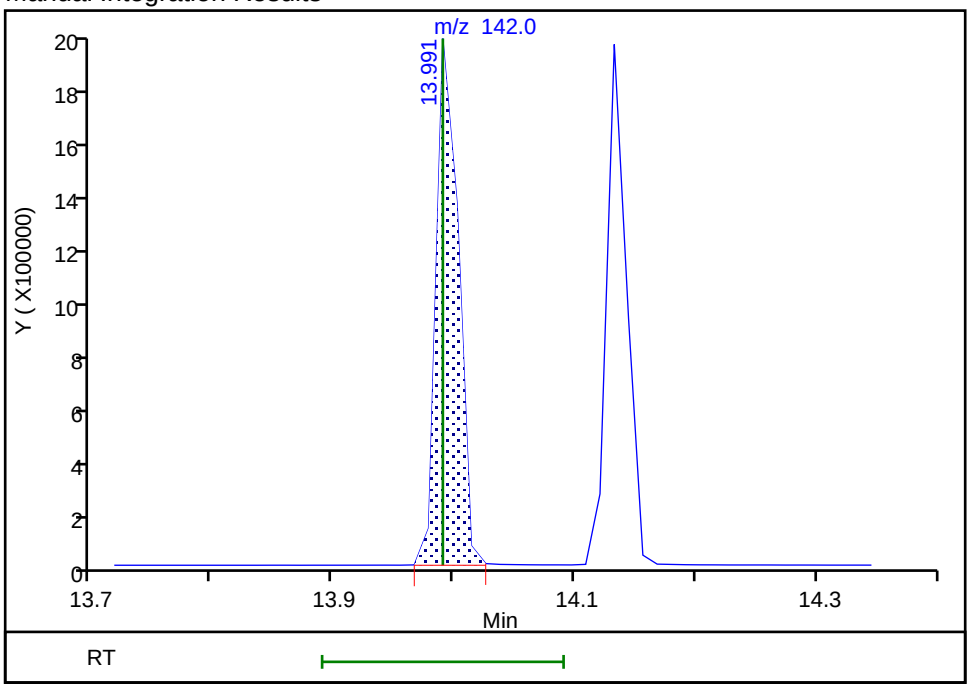
Processing Integration Results

RT: 14.03
Area: 12380
Amount: 0.699160
Amount Units: ug/l



Manual Integration Results

RT: 13.99
Area: 2513962
Amount: 111.6301
Amount Units: ug/l



Reviewer: macenczaks, 20-Mar-2020 13:18:57
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424126.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Mar-2020 13:11:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-008
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:27 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 14:40:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2337212	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1681479	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	93	687320	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	100	206804	200.0	205.7	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	426320	20.0	20.7	
38 Isopropyl ether	87	3.826	3.826	0.000	93	204616	20.0	20.3	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	574971	20.0	20.9	
44 Propionitrile	54	4.749	4.749	0.000	98	319275	200.0	202.1	
45 Ethyl acetate	43	4.844	4.844	0.000	100	485327	40.0	40.2	
47 Methacrylonitrile	41	4.998	4.998	0.000	93	1557393	200.0	207.5	
159 Isooctane	57	6.027	6.027	0.000	94	853054	20.0	20.8	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	96	570341	20.0	21.4	
60 n-Butanol	56	6.725	6.725	0.000	92	122856	500.0	415.3	
61 Ethyl acrylate	55	6.855	6.855	0.000	99	315047	20.0	20.4	
66 Methyl methacrylate	41	7.092	7.092	0.000	91	475332	40.0	41.5	
69 2-Nitropropane	41	7.435	7.435	0.000	96	111123	40.0	35.9	
81 n-Butyl acetate	43	8.749	8.749	0.000	98	380268	20.0	19.6	
84 1-Chlorohexane	91	9.246	9.246	0.000	90	350901	20.0	20.6	
93 Cyclohexanone	55	10.180	10.180	0.000	94	72739	200.0	206.5	
104 Pentachloroethane	167	10.902	10.902	0.000	84	152158	40.0	36.9	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	759492	20.0	20.9	
112 Benzyl chloride	126	11.352	11.352	0.000	98	37690	20.0	18.0	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	292363	20.0	20.1	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	965836	40.0	42.9	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	884277	40.0	41.6	

Reagents:

VMRA9W_00337	Amount Added:	2.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

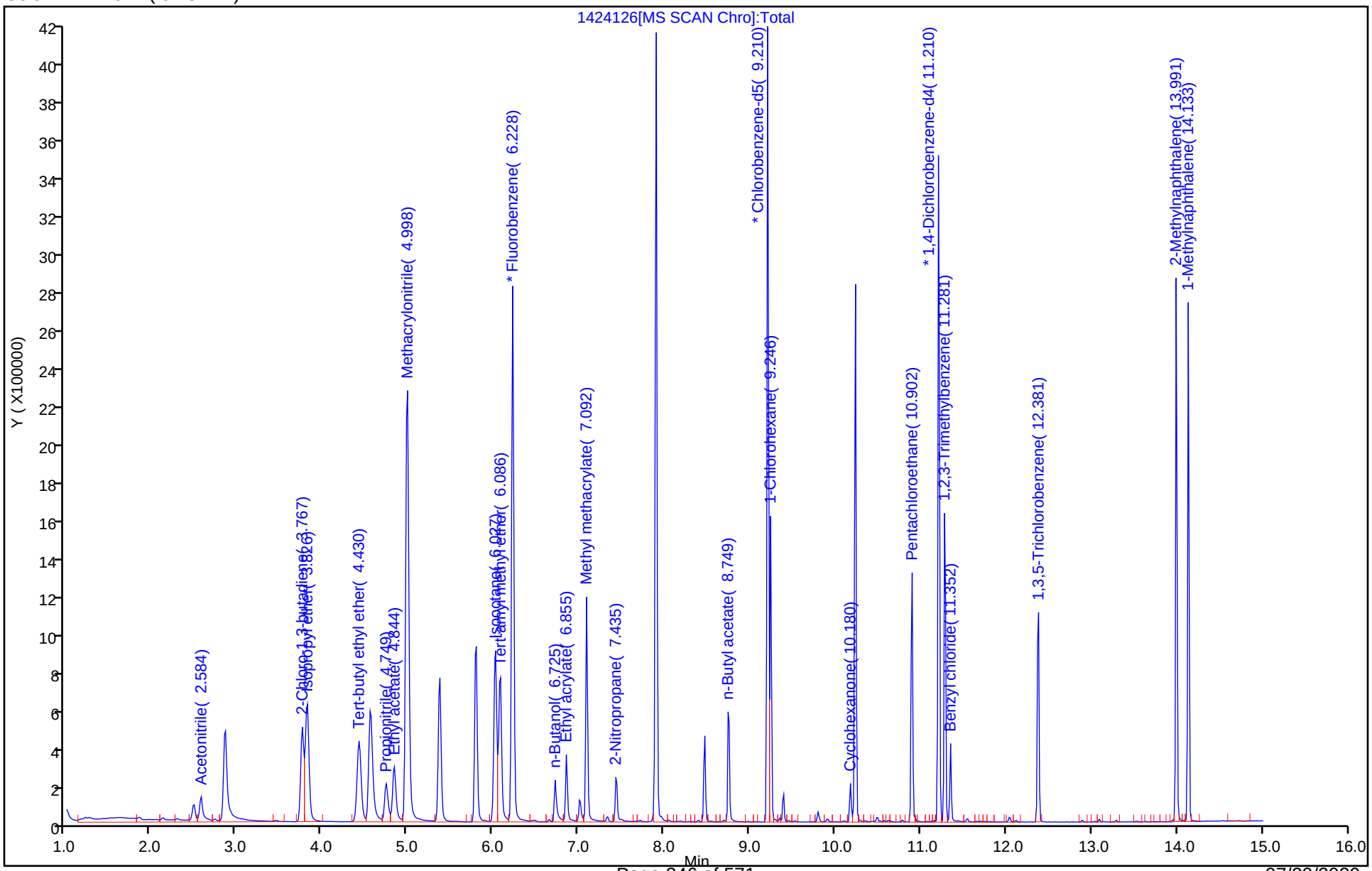
Report Date: 23-Mar-2020 10:27:28 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424126.D

Injection Date:	20-Mar-2020 13:11:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424127.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Mar-2020 13:33:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-009
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:31 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 14:39:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2216875	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1625040	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	94	670059	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	99	86892	100.0	91.1	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	193345	10.0	9.89	
38 Isopropyl ether	87	3.826	3.826	0.000	92	95075	10.0	9.96	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	262200	10.0	10.0	
44 Propionitrile	54	4.749	4.749	0.000	99	149115	100.0	99.5	
45 Ethyl acetate	43	4.844	4.844	0.000	100	222193	20.0	19.4	
47 Methacrylonitrile	41	4.998	4.998	0.000	93	723895	100.0	101.7	
159 Isooctane	57	6.027	6.027	0.000	93	406996	10.0	10.4	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	96	261840	10.0	10.4	
60 n-Butanol	56	6.725	6.725	0.000	94	52184	250.0	206.1	
61 Ethyl acrylate	55	6.855	6.855	0.000	100	141190	10.0	9.64	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	218694	20.0	20.1	
69 2-Nitropropane	41	7.435	7.435	0.000	93	46486	20.0	18.6	
81 n-Butyl acetate	43	8.749	8.749	0.000	97	188947	10.0	10.1	
84 1-Chlorohexane	91	9.246	9.246	0.000	88	164126	10.0	9.99	
93 Cyclohexanone	55	10.180	10.180	0.000	94	32201	100.0	94.6	
104 Pentachloroethane	167	10.902	10.902	0.000	77	60580	20.0	18.9	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	355236	10.0	10.0	
112 Benzyl chloride	126	11.352	11.352	0.000	98	15143	10.0	10.1	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	137969	10.0	9.72	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	448457	20.0	20.5	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	432078	20.0	20.9	

Reagents:

VMRA9W_00337	Amount Added:	1.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

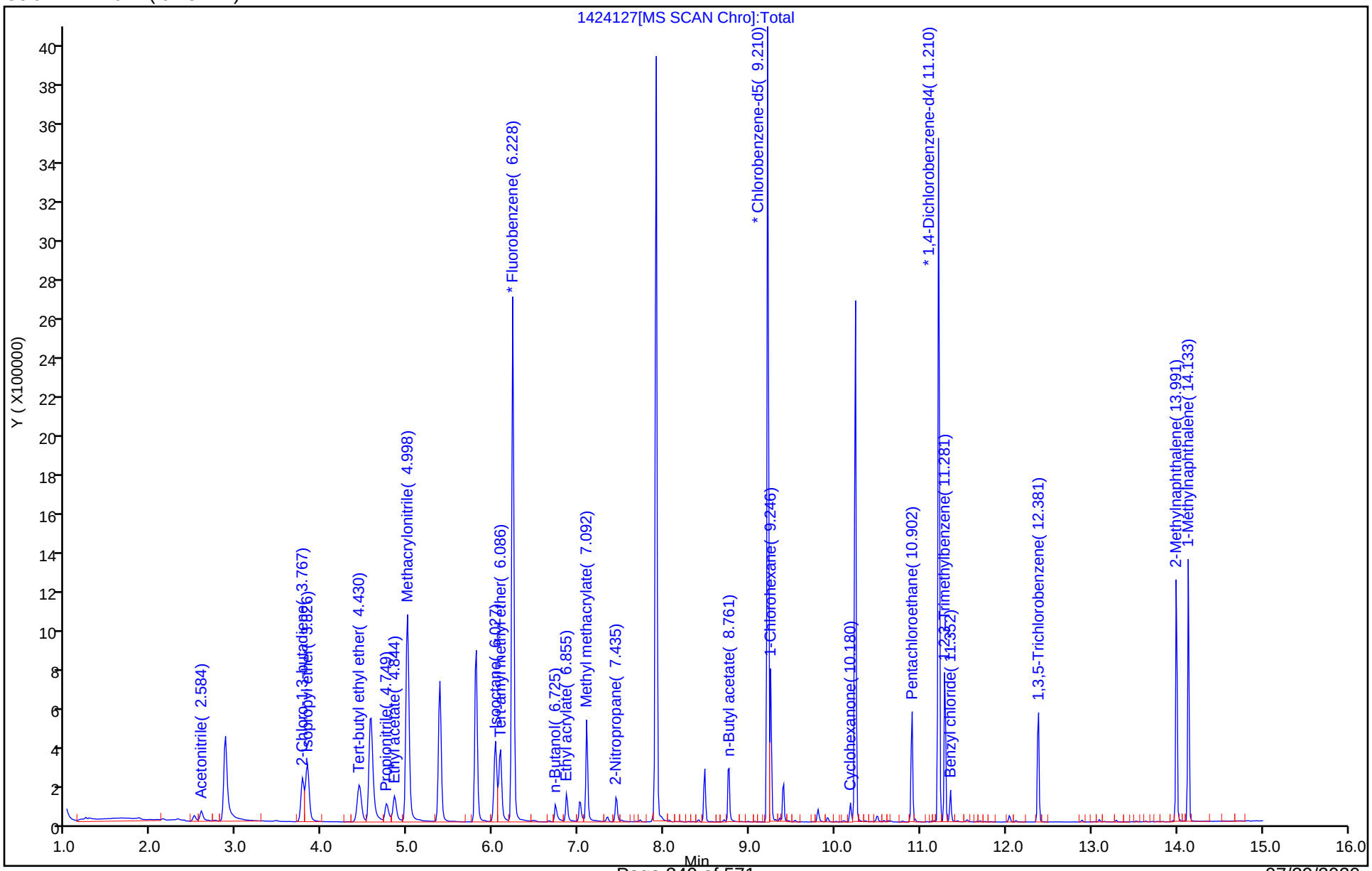
Report Date: 23-Mar-2020 10:27:32 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424127.D

Injection Date:	20-Mar-2020 13:33:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424128.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Mar-2020 13:55:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-010
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:35 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 14:39:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2241766	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1623771	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	94	675460	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	100	47628	50.0	49.4	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	93694	5.00	4.74	
38 Isopropyl ether	87	3.826	3.826	0.000	91	47502	5.00	4.92	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	129892	5.00	4.92	
44 Propionitrile	54	4.749	4.749	0.000	98	71158	50.0	47.0	
45 Ethyl acetate	43	4.844	4.844	0.000	100	109032	10.0	9.41	
47 Methacrylonitrile	41	4.998	4.998	0.000	93	355642	50.0	49.4	
159 Isooctane	57	6.015	6.027	-0.012	92	195528	5.00	4.96	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	95	126698	5.00	4.96	
60 n-Butanol	56	6.725	6.725	0.000	92	25310	125.0	121.8	
61 Ethyl acrylate	55	6.855	6.855	0.000	99	62886	5.00	4.25	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	103601	10.0	9.42	
69 2-Nitropropane	41	7.435	7.435	0.000	88	25770	10.0	12.4	
81 n-Butyl acetate	43	8.760	8.749	0.011	96	88872	5.00	4.75	
84 1-Chlorohexane	91	9.246	9.246	0.000	88	76292	5.00	4.65	
93 Cyclohexanone	55	10.180	10.180	0.000	94	15164	50.0	44.6	
104 Pentachloroethane	167	10.902	10.902	0.000	73	27293	10.0	12.1	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	168544	5.00	4.73	
112 Benzyl chloride	126	11.352	11.352	0.000	98	6465	5.00	6.81	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	65958	5.00	4.61	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	199056	10.0	9.01	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	203968	10.0	9.76	

Reagents:

VMRA9W_00337	Amount Added:	0.50	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

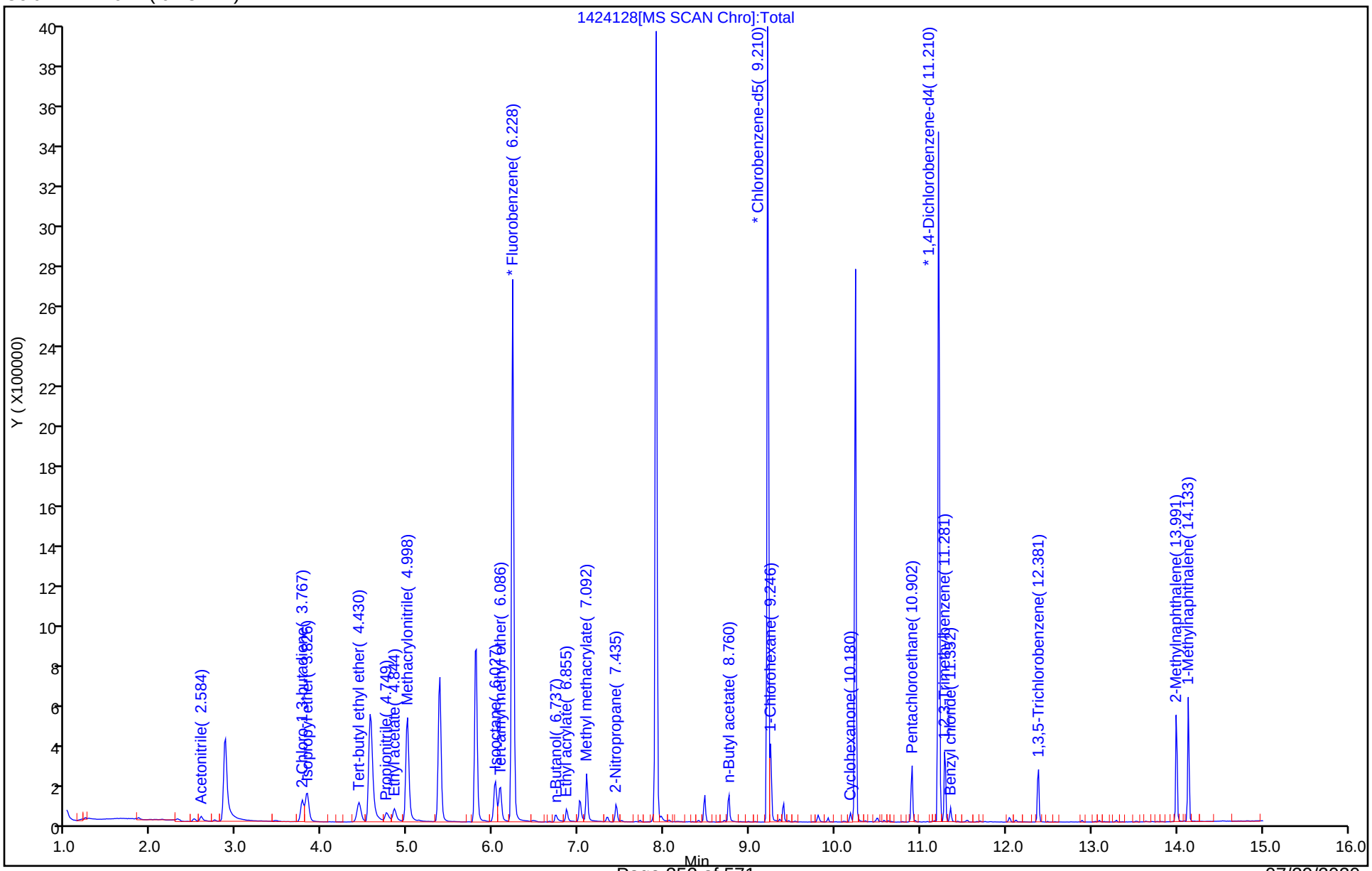
Report Date: 23-Mar-2020 10:27:36 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424128.D

Injection Date:	20-Mar-2020 13:55:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424129.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Mar-2020 14:17:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-011
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:38 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 14:39:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2213427	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1610803	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	93	657811	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	98	18953	20.0	19.9	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	34214	2.00	1.75	
38 Isopropyl ether	87	3.826	3.826	0.000	92	19095	2.00	2.00	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	53522	2.00	2.05	
44 Propionitrile	54	4.761	4.749	0.012	98	29751	20.0	19.9	
45 Ethyl acetate	43	4.856	4.844	0.012	100	45730	4.00	4.00	
47 Methacrylonitrile	41	4.998	4.998	0.000	94	150502	20.0	21.2	
159 Isooctane	57	6.027	6.027	0.000	92	71247	2.00	1.83	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	94	48858	2.00	1.94	
60 n-Butanol	56	6.737	6.725	0.012	91	8690	50.0	69.7	
61 Ethyl acrylate	55	6.867	6.855	0.012	99	25697	2.00	1.76	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	39667	4.00	3.65	
69 2-Nitropropane	41	7.435	7.435	0.000	83	15458	4.00	9.51	
81 n-Butyl acetate	43	8.761	8.749	0.011	96	38733	2.00	2.09	
84 1-Chlorohexane	91	9.246	9.246	0.000	87	29320	2.00	1.80	
93 Cyclohexanone	55	10.180	10.180	0.000	93	5776	20.0	17.1	
104 Pentachloroethane	167	10.902	10.902	0.000	69	10382	4.00	8.70	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	64899	2.00	1.87	
112 Benzyl chloride	126	11.352	11.352	0.000	98	2395	2.00	5.31	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	96	26753	2.00	1.92	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	93	77490	4.00	3.60	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	82005	4.00	4.03	

Reagents:

VMRA9W_00337	Amount Added:	0.20	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

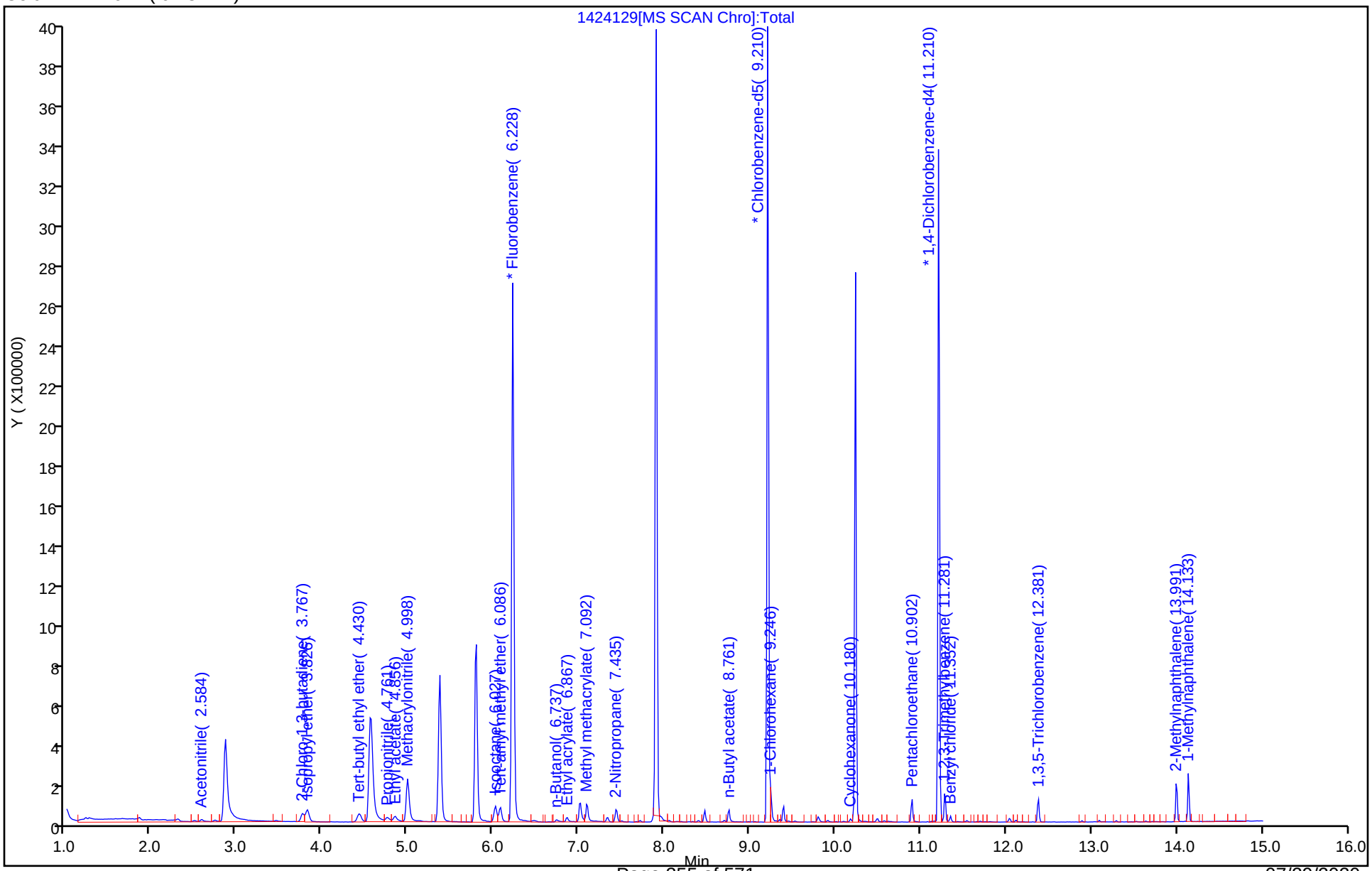
Report Date: 23-Mar-2020 10:27:39 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424129.D

Injection Date:	20-Mar-2020 14:17:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Mar-2020 14:39:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0096832-012
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:42 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 15:14:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2205763	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1616971	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	93	668111	50.0	50.0	
28 Acetonitrile	41	2.584	2.584	0.000	98	9423	10.0	9.93	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	16741	1.00	0.8605	
38 Isopropyl ether	87	3.826	3.826	0.000	92	9003	1.00	0.9479	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	25030	1.00	0.9632	
44 Propionitrile	54	4.773	4.749	0.024	97	16105	10.0	10.8	
45 Ethyl acetate	43	4.856	4.844	0.012	99	23502	2.00	2.06	
47 Methacrylonitrile	41	4.998	4.998	0.000	95	66100	10.0	9.33	
159 Isooctane	57	6.027	6.027	0.000	91	30876	1.00	0.7960	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	94	23254	1.00	0.9251	
60 n-Butanol	56	6.749	6.725	0.024	90	4099	25.0	55.1	
61 Ethyl acrylate	55	6.867	6.855	0.012	98	12136	1.00	0.8329	
66 Methyl methacrylate	41	7.092	7.092	0.000	91	17014	2.00	1.57	
69 2-Nitropropane	41	7.435	7.435	0.000	80	12321	2.00	8.60	
81 n-Butyl acetate	43	8.760	8.749	0.011	95	25309	1.00	1.36	
84 1-Chlorohexane	91	9.246	9.246	0.000	86	13535	1.00	0.8278	
93 Cyclohexanone	55	10.180	10.180	0.000	88	2821	10.0	8.33	
104 Pentachloroethane	167	10.902	10.902	0.000	66	5092	2.00	7.58	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	98	30144	1.00	0.8544	
112 Benzyl chloride	126	11.352	11.352	0.000	96	1362	1.00	4.91	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	96	13403	1.00	0.9470	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	37044	2.00	1.69	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	38357	2.00	1.86	

Reagents:

VMRA9W_00337	Amount Added:	0.10	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL

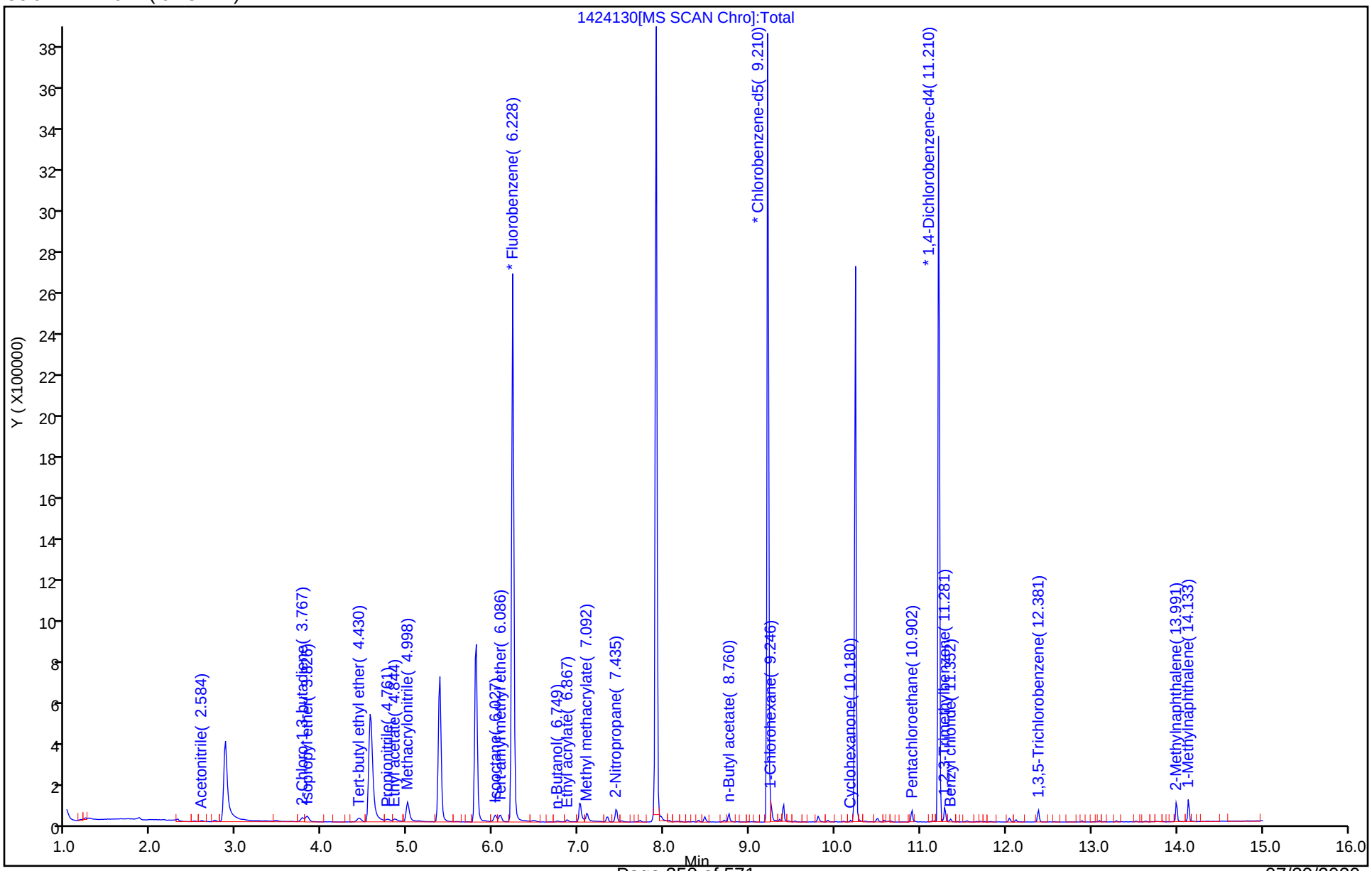
Report Date: 23-Mar-2020 10:27:43 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Injection Date:	20-Mar-2020 14:39:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ic			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-431364/11	1424366.D
Level 2	IC 240-431364/10	1424365.D
Level 3	IC 240-431364/9	1424364.D
Level 4	IC 240-431364/8	1424363.D
Level 5	IC 240-431364/7	1424362.D
Level 6	ICIS 240-431364/6	1424361.D
Level 7	IC 240-431364/5	1424360.D
Level 8	IC 240-431364/4	1424359.D
Level 9	IC 240-431364/3	1424358.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2933	+++++ 0.2862	0.3044 0.3003	0.3099 0.3083	0.3083	Ave		0.3015				3.0		15.0			
Chloromethane	0.3249 0.3422	0.3539 0.3385	0.3787 0.3445	0.3839 0.3409	0.3725	Ave		0.3533			0.1000	5.8		15.0			
Vinyl chloride	+++++ 0.3966	0.3671 0.3909	0.4454 0.4125	0.4343 0.4186	0.4345	Ave		0.4125				6.4		15.0			
Butadiene	+++++ 0.3061	0.2617 0.3030	0.3341 0.3225	0.3277 0.3329	0.3292	Ave		0.3147				7.8		15.0			
Bromomethane	0.3296 0.2535	0.3134 +++++	0.3563 +++++	0.3614 +++++	0.3693	Ave		0.3306				13.1		15.0			
Chloroethane	0.2193 0.2514	0.2457 +++++	0.2684 +++++	0.2937 +++++	0.3045	Ave		0.2638				12.0		15.0			
Dichlorofluoromethane	0.5181 0.6535	0.6386 0.5957	0.6851 +++++	0.6931 +++++	0.7026	Ave		0.6409				10.2		15.0			
Trichlorofluoromethane	+++++ 0.7276	+++++ 0.6698	0.7516 0.5555	0.7755 +++++	0.7662	Ave		0.7077				11.8		15.0			
Ethyl ether	0.4412 0.3944	0.4050 0.3913	0.4100 0.3662	0.4200 0.3350	0.3665	Ave		0.3922				8.2		15.0			
Acrolein	0.0419 0.0442	0.0436 0.0429	0.0455 0.0416	0.0430 0.0397	0.0403	Ave		0.0425				4.4		15.0			
1,1-Dichloroethene	0.3634 0.4038	0.3254 0.4018	0.3934 0.4300	0.4362 0.4416	0.3862	Ave		0.3980				9.3		15.0			
1,1,2-Trichlorotrifluoroethane	+++++ 0.3156	+++++ 0.3169	0.3095 0.3473	0.3292 +++++	0.3141	Ave		0.3221				4.3		15.0			
Acetone	+++++ 0.1092	+++++ 0.1037	0.1346 0.0971	0.1363 0.0938	0.1154	Lin1	0.6098	0.0959							0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Iodomethane	0.6667 0.7622	0.6150 0.7010	0.7573 0.7719	0.8077 0.8488	0.7467	Ave		0.7419				9.6		15.0			
Carbon disulfide	0.6541 1.2315	0.5664 +++++	0.8154 +++++	0.8344 +++++	1.2309	Qua	-1.578	1.2095	0.0011327						0.9970		0.9900
3-Chloro-1-propene	0.1520 0.1814	0.1499 0.1839	0.1664 0.1996	0.1776 0.1930	0.1639	Ave		0.1742				10.0		15.0			
Methyl acetate	0.2154 0.1930	0.1963 0.1883	0.1836 0.1954	0.1934 0.1836	0.1773	Ave		0.1918				5.7		15.0			
Methylene Chloride	+++++ 0.2917	+++++ 0.2784	0.3429 0.2923	0.3458 0.2880	0.2870	Ave		0.3037				9.3		15.0			
tert-Butyl alcohol	0.0274 0.0237	0.0227 0.0218	0.0278 0.0277	0.0275 0.0281	0.0243	Ave		0.0257				9.7		15.0			
Acrylonitrile	0.0940 0.0920	0.0891 0.0911	0.0852 0.0976	0.0935 0.0957	0.0837	Ave		0.0913				5.1		15.0			
trans-1,2-Dichloroethene	0.2876 0.3080	0.2594 0.3217	0.2933 0.3708	0.3152 0.3718	0.2805	Ave		0.3120				12.3		15.0			
Methyl tert-butyl ether	0.6932 0.7527	0.6710 0.7393	0.6995 0.7761	0.7895 0.7787	0.7017	Ave		0.7335				5.9		15.0			
Hexane	+++++ 0.0878	+++++ 0.0913	0.0809 0.1000	0.0925 0.1024	0.0841	Ave		0.0913				8.6		15.0			
1,1-Dichloroethane	0.4951 0.5269	0.4753 0.5282	0.5209 0.5573	0.5512 0.5430	0.4944	Ave		0.5214			0.1000	5.4		15.0			
Vinyl acetate	+++++ 0.0608	+++++ 0.0587	0.0491 0.0652	0.0560 0.0658	0.0533	Ave		0.0584				10.5		15.0			
2,2-Dichloropropane	0.0589 0.0671	0.0543 0.0639	0.0589 0.0686	0.0670 0.0681	0.0591	Ave		0.0629				8.2		15.0			
cis-1,2-Dichloroethene	0.3590 0.3315	0.3114 0.3304	0.3302 0.3510	0.3518 0.3448	0.3123	Ave		0.3358				5.1		15.0			
2-Butanone (MEK)	+++++ 0.1176	0.1394 0.1147	0.1210 0.1146	0.1261 0.1120	0.1155	Ave		0.1201				7.4		15.0			
Bromochloromethane	0.1480 0.1583	0.1556 0.1598	0.1542 0.1669	0.1703 0.1638	0.1513	Ave		0.1587				4.6		15.0			
Tetrahydrofuran	+++++ 0.0772	0.0884 0.0748	0.0743 0.0741	0.0742 0.0715	0.0712	Ave		0.0757				7.2		15.0			
Chloroform	0.5234 0.5364	0.4950 0.5348	0.5197 0.5655	0.5785 0.5522	0.5072	Ave		0.5347				5.1		15.0			
1,1,1-Trichloroethane	+++++ 0.4215	+++++ 0.4329	0.3838 0.4711	0.4182 0.4842	0.3816	Ave		0.4276				9.2		15.0			
Cyclohexane	+++++ 0.4167	+++++ 0.4234	0.4055 0.4431	0.4356 0.4600	0.3966	Ave		0.4259				5.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Carbon tetrachloride	+++++ 0.3774	+++++ 0.3996	0.3286 +++++	0.3646 +++++	0.3373	Ave		0.3615				8.0		15.0			
1,1-Dichloropropene	0.3559 0.4385	0.3154 0.4506	0.4113 0.4977	0.4378 0.5045	0.4140	Ave		0.4251				14.3		15.0			
Benzene	1.1517 1.1957	1.0814 1.1934	1.1615 1.2759	1.2512 1.2967	1.1530	Ave		1.1956				5.7		15.0			
1,2-Dichloroethane	0.4760 0.4642	0.4452 0.4580	0.4527 0.4855	0.4837 0.4903	0.4452	Ave		0.4667				3.8		15.0			
Isobutyl alcohol	0.0071 0.0092	0.0078 0.0083	0.0094 0.0085	0.0096 0.0087	0.0090	Ave		0.0086				9.2		15.0			
n-Heptane	+++++ 0.0995	+++++ 0.1029	0.0898 0.1160	0.1007 0.1247	0.0982	Ave		0.1045				11.3		15.0			
Trichloroethene	0.2866 0.3163	0.2613 0.3196	0.3088 0.3533	0.3250 0.3605	0.3076	Ave		0.3155				9.7		15.0			
Methylcyclohexane	+++++ 0.5096	+++++ 0.5265	0.4847 0.5587	0.5231 0.5880	0.4738	Ave		0.5235				7.6		15.0			
1,2-Dichloropropane	0.2923 0.2883	0.2664 0.2923	0.2818 0.3114	0.2952 0.3237	0.2798	Ave		0.2924				5.8		15.0			
Dibromomethane	0.2095 0.1946	0.1770 0.1903	0.1881 0.2004	0.1992 0.2059	0.1869	Ave		0.1947				5.2		15.0			
1,4-Dioxane	0.0027 0.0030	0.0031 0.0027	0.0031 0.0027	0.0033 0.0029	0.0032	Ave		0.0030				7.6		15.0			
Bromodichloromethane	0.3364 0.3967	0.3160 0.3996	0.3378 0.4374	0.3810 0.4481	0.3673	Ave		0.3800				12.0		15.0			
2-Chloroethyl vinyl ether	0.1500 0.1688	0.1268 0.1690	0.1432 0.1840	0.1604 0.1999	0.1665	Ave		0.1632				13.3		15.0			
cis-1,3-Dichloropropene	0.3879 0.4800	0.3482 0.4832	0.3954 0.5243	0.4525 0.5603	0.4574	Ave		0.4543				14.9		15.0			
4-Methyl-2-pentanone (MIBK)	0.3251 0.3018	0.2221 0.2902	0.2546 0.2973	0.2960 0.2908	0.2884	Ave		0.2851				10.5		15.0			
Toluene	1.4697 1.4999	1.3579 1.5258	1.4088 1.7010	1.5078 1.6897	1.4161	Ave		1.5085				7.9		15.0			
trans-1,3-Dichloropropene	+++++ 0.5257	+++++ 0.5491	0.4017 +++++	0.4699 +++++	0.4756	Ave		0.4844				11.8		15.0			
Ethyl methacrylate	+++++ 0.4420	+++++ 0.4408	0.3211 0.4734	0.3841 0.4851	0.4036	Ave		0.4214				13.5		15.0			
1,1,2-Trichloroethane	0.2976 0.2876	0.2657 0.2911	0.2756 0.3118	0.2893 0.3155	0.2768	Ave		0.2901				5.7		15.0			
Tetrachloroethene	+++++ 0.2742	+++++ 0.2857	0.2605 0.3314	0.2766 0.3471	0.2573	Ave		0.2904				12.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,3-Dichloropropane	0.5478 0.5486	0.4987 0.5443	0.5234 0.5880	0.5632 0.5997	0.5342	Ave		0.5498				5.6		15.0			
2-Hexanone	0.1880 0.2137	0.1605 0.2014	0.1791 0.2009	0.2071 0.2043	0.2144	Ave		0.1966				9.0		15.0			
Chlorodibromomethane	+++++ 0.3284	+++++ 0.3372	0.2576 0.3773	0.3017 0.3847	0.3016	Ave		0.3269				13.7		15.0			
1,2-Dibromoethane	0.2822 0.3085	0.2473 0.3028	0.2874 0.3184	0.3006 0.3222	0.2961	Ave		0.2962				7.6		15.0			
Chlorobenzene	1.0434 0.9763	0.9032 0.9799	0.9419 1.0729	1.0143 1.1091	0.9267	Ave		0.9964			0.3000	6.9		15.0			
1,1,1,2-Tetrachloroethane	+++++ 0.3204	+++++ 0.3274	0.2696 0.3714	0.3041 0.3867	0.2944	Ave		0.3249				12.8		15.0			
Ethylbenzene	+++++ 0.5248	+++++ 0.5362	0.4789 0.6079	0.5193 0.6522	0.4847	Ave		0.5434				11.8		15.0			
m-Xylene & p-Xylene	+++++ 0.6341	+++++ 0.6427	0.5670 0.7240	0.6217 0.7806	0.5920	Ave		0.6517				11.5		15.0			
o-Xylene	+++++ 0.6234	+++++ 0.6453	0.5353 0.7562	0.6131 +++++	0.5688	Ave		0.6237				12.2		15.0			
Styrene	+++++ 1.0409	+++++ 1.0867	0.8212 +++++	0.9426 +++++	0.9524	Ave		0.9688				10.6		15.0			
Bromoform	+++++ 0.1812	+++++ 0.1802	0.1327 0.2078	0.1503 0.2217	0.1639	Lin1	-0.609	0.2106			0.1000				0.9940		0.9900
Isopropylbenzene	+++++ 1.4981	+++++ 1.4942	1.3276 1.6681	1.4951 1.7857	1.4019	Ave		1.5244				10.2		15.0			
Bromobenzene	0.7685 0.7494	0.7275 0.6864	0.7728 0.6444	0.8224 0.6051	0.7466	Ave		0.7248				9.4		15.0			
1,1,2,2-Tetrachloroethane	0.7587 0.7452	0.6339 0.6374	0.7707 +++++	0.8233 +++++	0.8021	Ave		0.7388			0.3000	10.2		15.0			
1,2,3-Trichloropropane	0.2581 0.2320	0.2235 0.1973	0.2481 0.1739	0.2506 +++++	0.2510	Ave		0.2293				13.0		15.0			
trans-1,4-Dichloro-2-butene	0.2026 0.1920	0.1749 0.1775	0.1677 0.1605	0.1888 0.1466	0.1914	Ave		0.1780				9.9		15.0			
N-Propylbenzene	0.6881 0.8751	0.6257 0.8029	0.8247 0.7585	0.8819 0.7315	0.8329	Ave		0.7802				11.1		15.0			
2-Chlorotoluene	0.7426 0.7246	0.6774 0.6586	0.7383 0.6187	0.7823 0.5976	0.7146	Ave		0.6950				8.8		15.0			
1,3,5-Trimethylbenzene	2.0695 2.6050	1.8368 2.5526	2.3331 2.5940	2.5612 2.4491	2.4537	Ave		2.3839				11.1		15.0			
4-Chlorotoluene	0.7524 0.7977	0.7206 0.7838	0.7456 0.8058	0.8077 0.8004	0.7708	Ave		0.7761				4.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
tert-Butylbenzene	1.7705 2.1136	1.5657 1.9562	2.0291 1.9640	2.1961 1.8966	2.0863	Ave		1.9531				9.8		15.0			
1,2,4-Trimethylbenzene	1.9202 2.4366	1.9260 2.3014	2.2844 2.2852	2.5063 2.1414	2.4130	Ave		2.2461				9.4		15.0			
sec-Butylbenzene	2.3575 3.1431	2.2246 2.9097	2.9912 2.7506	3.2015 2.5076	3.0555	Ave		2.7935				12.7		15.0			
1,3-Dichlorobenzene	1.5614 1.3209	1.2980 1.2224	1.3752 1.2122	1.4194 1.1977	1.3903	Ave		1.3331				8.8		15.0			
4-Isopropyltoluene	2.1887 2.8205	2.0148 2.6633	2.6483 2.6519	2.8780 2.4127	2.7794	Ave		2.5620				11.6		15.0			
1,4-Dichlorobenzene	1.7353 1.3804	1.4723 1.2793	1.4869 1.2743	1.5008 1.2465	1.4426	Ave		1.4243				10.7		15.0			
1,2-Dichlorobenzene	1.5388 1.3717	1.2952 1.3120	1.3672 1.4318	1.4369 1.4625	1.3997	Ave		1.4018				5.4		15.0			
n-Butylbenzene	1.8152 2.4903	1.6073 2.4372	2.2688 2.5753	2.4646 2.4723	2.4616	Ave		2.2881				14.9		15.0			
1,2-Dibromo-3-Chloropropane	0.1157 0.1360	0.0977 0.1228	0.1108 0.1192	0.1426 0.1095	0.1347	Ave		0.1210				12.0		15.0			
1,2,4-Trichlorobenzene	1.0875 0.9585	0.9310 0.9084	0.9834 0.9357	1.0248 0.9099	1.0245	Ave		0.9737				6.3		15.0			
Hexachlorobutadiene	0.3463 0.4445	0.3511 0.4302	0.4341 0.4536	0.4764 0.4411	0.4571	Ave		0.4261				10.8		15.0			
Naphthalene	2.6802 2.5551	2.3025 2.2544	2.5839 2.1402	2.9118 1.9045	2.7519	Ave		2.4538				13.2		15.0			
1,2,3-Trichlorobenzene	1.1886 0.9590	0.9211 0.8809	1.0360 0.9016	1.1213 0.8456	1.0565	Ave		0.9901				11.8		15.0			
Dibromofluoromethane (Surr)	+++++ 0.3020	0.3708 0.3062	0.3208 0.3275	0.3191 0.3266	0.2897	Ave		0.3203				7.6		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3868	+++++ 0.3846	0.4467 0.3975	0.4318 0.3966	0.3905	Ave		0.4049				6.0		15.0			
Toluene-d8 (Surr)	+++++ 1.3232	+++++ 1.3646	1.4462 1.4902	1.4031 1.5071	1.2978	Ave		1.4046				5.8		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.8897	+++++ 0.8297	1.0588 0.7433	1.0143 +++++	0.9131	Lin1	2.1292	0.7715							0.9950		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-431364/11	1424366.D
Level 2	IC 240-431364/10	1424365.D
Level 3	IC 240-431364/9	1424364.D
Level 4	IC 240-431364/8	1424363.D
Level 5	IC 240-431364/7	1424362.D
Level 6	ICIS 240-431364/6	1424361.D
Level 7	IC 240-431364/5	1424360.D
Level 8	IC 240-431364/4	1424359.D
Level 9	IC 240-431364/3	1424358.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 408288	+++++ 820924	38889 1670279	79480 1896788	155421	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Chloromethane	FB	Ave	7430 476438	17170 971036	48389 1915708	98480 2096905	187787	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl chloride	FB	Ave	+++++ 552201	17810 1121301	56910 2293828	111413 2575114	219059	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Butadiene	FB	Ave	+++++ 426151	12700 869302	42690 1793462	84055 2047904	165994	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromomethane	FB	Ave	7538 352907	15207 +++++	45527 +++++	92695 +++++	186215	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
Chloroethane	FB	Ave	5016 350021	11923 +++++	34286 +++++	75340 +++++	153518	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
Dichlorofluoromethane	FB	Ave	11847 909780	30984 1709035	87533 +++++	177780 +++++	354229	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
Trichlorofluoromethane	FB	Ave	+++++ 1012946	+++++ 1921587	96028 3089278	198919 +++++	386305	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0
Ethyl ether	FB	Ave	10089 549140	19653 1122440	52387 2036454	107737 2060847	184807	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acrolein	FB	Ave	4787 307965	10568 614808	29097 1155837	55125 1220563	101709	5.00 250	10.0 500	25.0 1000	50.0 1250	100
1,1-Dichloroethene	FB	Ave	8310 562238	15788 1152776	50259 2391097	111885 2716401	194715	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	+++++ 439412	+++++ 909142	39545 1931527	84437 +++++	158343	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0
Acetone	FB	Lin1	+++++ 304147	+++++ 594962	34385 1080339	69914 1153699	116329	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
Iodomethane	FB	Ave	15247 1061211	29840 2010906	96750 4292382	207182 5221350	376495	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Carbon disulfide	FB	Qua	14958 1714588	27480 +++++	104180 +++++	214044 +++++	620611	1.00 50.0	2.00 +++++	5.00 +++++	10.0 +++++	20.0
3-Chloro-1-propene	FB	Ave	3475 252532	7275 527596	21256 1109923	45545 1187219	82630	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl acetate	FB	Ave	9850 537491	19050 1080195	46904 2173560	99199 2258740	178765	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Methylene Chloride	FB	Ave	+++++ 406166	+++++ 798638	43803 1625399	88692 1771594	144722	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
tert-Butyl alcohol	FB	Ave	6274 329335	11038 625337	35477 1538863	70440 1728127	122528	10.0 500	20.0 1000	50.0 2000	100 2500	200
Acrylonitrile	FB	Ave	21501 1280533	43225 2613641	108862 5429557	239859 5890008	421837	10.0 500	20.0 1000	50.0 2000	100 2500	200
trans-1,2-Dichloroethene	FB	Ave	6577 428749	12584 922796	37473 2062248	80861 2287294	141440	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl tert-butyl ether	FB	Ave	15852 1047907	32558 2120921	89372 4315908	202521 4790105	353795	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexane	FB	Ave	+++++ 122222	+++++ 261792	10331 555959	23737 629945	42387	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1-Dichloroethane	FB	Ave	11322 733585	23064 1515207	66552 3099495	141394 3340573	249243	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl acetate	FB	Ave	+++++ 84582	+++++ 168439	6270 362615	14361 404931	26859	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
2,2-Dichloropropane	FB	Ave	1348 93406	2637 183269	7524 381551	17183 418835	29822	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
cis-1,2-Dichloroethene	FB	Ave	8209 461513	15107 947939	42192 1951992	90228 2121167	157454	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Butanone (MEK)	FB	Ave	+++++ 327441	13524 658016	30925 1274886	64667 1378028	116445	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
Bromochloromethane	FB	Ave	3385 220451	7552 458434	19701 927958	43691 1007384	76282	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrahydrofuran	FB	Ave	+++++ 215001	8583 429292	18994 824089	38057 879461	71841	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
Chloroform	FB	Ave	11969 746853	24016 1534122	66392 3144803	148379 3396706	255704	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1-Trichloroethane	FB	Ave	+++++ 586787	+++++ 1241912	49031 2619640	107273 2978650	192412	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Cyclohexane	FB	Ave	+++++ 580210	+++++ 1214650	51810 2464230	111725 2830076	199963	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Carbon tetrachloride	FB	Ave	+++++ 525454	+++++ 1146323	41982 +++++	93536 +++++	170056	+++++ 50.0	+++++ 100	5.00 +++++	10.0 +++++	20.0
1,1-Dichloropropene	FB	Ave	8139 610489	15304 1292565	52546 2767621	112304 3103334	208710	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzene	FB	Ave	26337 1664669	52468 3423758	148399 7095705	320940 7977037	581301	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane	FB	Ave	10885 646258	21602 1314032	57834 2699835	124072 3016051	224443	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Isobutyl alcohol	FB	Ave	4080 319083	9416 591880	29957 1183131	61285 1341623	113599	25.0 1250	50.0 2500	125 5000	250 6250	500
n-Heptane	FB	Ave	+++++ 138505	+++++ 295187	11472 644975	25826 767010	49493	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Trichloroethene	FB	Ave	6555 440370	12679 916976	39446 1964864	83377 2217921	155106	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methylcyclohexane	FB	Ave	+++++ 709433	+++++ 1510385	61926 3107157	134181 3617122	238877	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloropropane	FB	Ave	6685 401399	12925 838473	36000 1731956	75731 1991491	141063	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromomethane	FB	Ave	4790 270972	8589 545975	24036 1114495	51097 1266803	94255	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dioxane	FB	Ave	1214 82961	2970 157778	7965 300353	16957 358559	32040	20.0 1000	40.0 2000	100 4000	200 5000	400
Bromodichloromethane	FB	Ave	7694 552278	15330 1146421	43152 2432214	97742 2756848	185162	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chloroethyl vinyl ether	FB	Ave	6859 470107	12309 969528	36589 2046418	82278 2459059	167931	2.00 100	4.00 200	10.0 400	20.0 500	40.0
cis-1,3-Dichloropropene	FB	Ave	8870 668326	16895 1386226	50511 2915441	116075 3446527	230590	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	12808 686853	18306 1340905	54855 2543799	126180 2931123	251097	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Toluene	CBNZ d5	Ave	28954 1706558	55958 3524637	151772 7277219	321395 8515625	616460	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	+++++ 598091	+++++ 1268487	43278 +++++	100168 +++++	207025	+++++ 50.0	+++++ 100	5.00 +++++	10.0 +++++	20.0
Ethyl methacrylate	CBNZ d5	Ave	+++++ 502853	+++++ 1018279	34595 2025345	81879 2444605	175714	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	5862 327181	10950 672387	29694 1334132	61674 1590300	120508	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrachloroethene	CBNZ d5	Ave	+++++ 312003	+++++ 659917	28060 1417897	58961 1749188	112014	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,3-Dichloropropane	CBNZ d5	Ave	10793 624140	20552 1257362	56390 2515446	120050 3022545	232541	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Hexanone	CBNZ d5	Ave	7409 486375	13230 930483	38588 1719298	88269 2059671	186696	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Chlorodibromomethane	CBNZ d5	Ave	+++++ 373637	+++++ 778967	27754 1614409	64313 1938602	131311	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dibromoethane	CBNZ d5	Ave	5559 350976	10191 699589	30957 1362076	64063 1623723	128915	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chlorobenzene	CBNZ d5	Ave	20555 1110813	37220 2263717	101477 4590347	216206 5589417	403433	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	+++++ 364540	+++++ 756358	29048 1589000	64814 1948930	128176	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Ethylbenzene	CBNZ d5	Ave	+++++ 597108	+++++ 1238616	51593 2600874	110686 3287024	211012	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	+++++ 721457	+++++ 1484586	61088 3097659	132524 3934051	257704	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
o-Xylene	CBNZ d5	Ave	+++++ 709221	+++++ 1490722	57673 3235109	130690 +++++	247608	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0
Styrene	CBNZ d5	Ave	+++++ 1184255	+++++ 2510314	88472 +++++	200918 +++++	414596	+++++ 50.0	+++++ 100	5.00 +++++	10.0 +++++	20.0
Bromoform	CBNZ d5	Lin1	+++++ 206106	+++++ 416163	14295 888927	32043 1117258	71346	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Isopropylbenzene	CBNZ d5	Ave	+++++ 1704481	+++++ 3451760	143025 7136526	318682 8999450	610304	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Bromobenzene	DCBd 4	Ave	6952 413816	13753 831120	37413 1793260	80048 2314031	154619	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6863 411525	11983 771816	37309 +++++	80139 +++++	166131	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	2335 128134	4225 238934	12010 483882	24389 +++++	51986	1.00 50.0	2.00 100	5.00 200	10.0 +++++	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1833 106012	3307 214875	8120 446529	18375 560438	39633	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
N-Propylbenzene	DCBd 4	Ave	6225 483247	11828 972181	39923 2110697	85843 2797416	172512	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chlorotoluene	DCBd 4	Ave	6718 400137	12805 797443	35743 1721803	76146 2285352	148009	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	18721 1438514	34723 3090665	112949 7218731	249308 9365749	508193	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Chlorotoluene	DCBd 4	Ave	6806 440507	13623 948977	36094 2242415	78625 3060947	159640	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
tert-Butylbenzene	DCBd 4	Ave	16016 1167139	29598 2368509	98231 5465444	213770 7252972	432100	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	17371 1345522	36408 2786563	110593 6359261	243960 8189139	499765	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
sec-Butylbenzene	DCBd 4	Ave	21327 1735655	42053 3523084	144806 7654432	311634 9589415	632828	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	14125 729427	24537 1480066	66575 3373255	138160 4580236	287954	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1 Analy Batch No.: 431364

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 04/20/2020 14:38 Calibration End Date: 04/20/2020 17:35 Calibration ID: 56769

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Isopropyltoluene	DCBd 4	Ave	19800 1557478	38088 3224774	128209 7379673	280148 9226437	575637	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	15698 762271	27832 1548944	71981 3546072	146090 4766968	298782	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	13920 757474	24484 1588591	66190 3984382	139863 5592786	289899	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butylbenzene	DCBd 4	Ave	16421 1375168	30384 2951016	109835 7166612	239908 9454538	509830	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1047 75117	1847 148704	5363 331838	13883 418807	27902	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9838 529292	17600 1099896	47606 2603865	99751 3479430	212185	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexachlorobutadiene	DCBd 4	Ave	3133 245456	6637 520855	21017 1262386	46370 1686752	94677	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Naphthalene	DCBd 4	Ave	24246 1410934	43526 2729575	125090 5955855	283434 7283101	569941	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	10752 529585	17413 1066636	50152 2508945	109149 3233682	218805	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 420410	17989 878465	40980 1821239	81852 2009189	146059	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 538572	+++++ 1103400	57068 2210376	110754 2439599	196884	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 1505463	+++++ 3152329	155805 6375467	299065 7595647	564977	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
4-Bromofluorobenzene (Surr)	DCBd 4	Lin1	+++++ 491284	+++++ 1004545	51258 2068445	98735 +++++	189103	+++++ 50.0	+++++ 100	5.00 200	10.0 +++++	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424358.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 20-Apr-2020 14:38:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-003
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:34:57 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 20-Apr-2020 15:28:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1230350	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1007961	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	96	764833	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	2009189	250.0	254.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	2439599	250.0	244.8	
$ 6 Toluene-d8 (Surr)	98	7.909	7.909	0.000	93	7595647	250.0	268.2	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	2664346	250.0	223.0	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	1896788	250.0	255.7	
10 Chloromethane	50	1.187	1.187	0.000	99	2096905	250.0	241.2	
12 Butadiene	54	1.282	1.282	0.000	98	2047904	250.0	264.5	
11 Vinyl chloride	62	1.282	1.282	0.000	97	2575114	250.0	253.7	
13 Bromomethane	94	1.495	1.507	-0.012	91	688606	250.0	84.6	
15 Chloroethane	64	1.578	1.590	-0.012	99	455885	250.0	70.2	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	2505819	250.0	158.9	
17 Trichlorofluoromethane	101	1.791	1.803	-0.012	98	3189344	250.0	183.1	
18 Ethyl ether	59	2.051	2.051	0.000	81	2060847	250.0	213.5	
19 Acrolein	56	2.158	2.146	0.012	99	1220563	1250.0	1166.6	
21 1,1-Dichloroethene	96	2.241	2.241	0.000	97	2716401	250.0	277.4	
22 1,1,2-Trichloro-1,2,2-trif	151	2.264	2.276	-0.012	92	2381850	250.0	300.5	
24 Acetone	43	2.312	2.300	0.012	98	1153699	500.0	482.4	
25 Iodomethane	142	2.371	2.371	0.000	98	5221350	250.0	286.0	
26 Carbon disulfide	76	2.418	2.418	0.000	98	8583244	250.0	237.1	
27 3-Chloro-1-propene	76	2.596	2.607	-0.011	85	1187219	250.0	277.0	
29 Methyl acetate	43	2.667	2.655	0.012	97	2258740	500.0	478.6	
30 Methylene Chloride	84	2.738	2.738	0.000	91	1771594	250.0	237.0	
31 2-Methyl-2-propanol	59	3.010	2.962	0.048	97	1728127	2500.0	2737.0	
34 Acrylonitrile	53	3.045	3.033	0.012	98	5890008	2500.0	2620.9	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	96	2287294	250.0	297.9	
33 Methyl tert-butyl ether	73	3.116	3.104	0.012	95	4790105	250.0	265.4	
35 Hexane	86	3.447	3.448	-0.001	94	629945	250.0	280.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.613	3.625	-0.012	96	3340573	250.0	260.4	
39 Vinyl acetate	86	3.767	3.767	0.000	97	404931	250.0	281.8	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	88	418835	250.0	270.7	
42 cis-1,2-Dichloroethene	96	4.572	4.572	0.000	85	2121167	250.0	256.7	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	99	1378028	500.0	466.3	
46 Chlorobromomethane	128	4.962	4.962	0.000	91	1007384	250.0	258.0	
48 Tetrahydrofuran	42	5.057	5.057	0.000	84	879461	500.0	472.0	
49 Chloroform	83	5.140	5.140	0.000	94	3396706	250.0	258.2	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.000	98	2978650	250.0	283.1	
51 Cyclohexane	56	5.412	5.412	0.000	89	2830076	250.0	270.1	
52 Carbon tetrachloride	117	5.577	5.577	0.000	94	2859239	250.0	321.4	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	95	3103334	250.0	296.7	
54 Benzene	78	5.850	5.850	0.000	95	7977037	250.0	271.1	
56 1,2-Dichloroethane	62	5.897	5.885	0.012	98	3016051	250.0	262.6	
55 Isobutyl alcohol	41	5.956	5.944	0.012	91	1341623	6250.0	6331.5	
58 n-Heptane	100	6.287	6.287	0.000	86	767010	250.0	298.2	
59 Trichloroethene	130	6.654	6.654	0.000	96	2217921	250.0	285.7	
62 Methylcyclohexane	83	6.844	6.844	0.000	88	3617122	250.0	280.8	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	1991491	250.0	276.8	
65 Dibromomethane	93	6.997	6.997	0.000	94	1266803	250.0	264.5	
67 1,4-Dioxane	88	7.068	7.068	0.000	91	358559	5000.0	4919.3	
68 Dichlorobromomethane	83	7.199	7.199	0.000	98	2756848	250.0	294.8	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	94	2459059	500.0	612.4	
71 cis-1,3-Dichloropropene	75	7.660	7.648	0.012	94	3446527	250.0	308.3	
73 4-Methyl-2-pentanone (MIBK	43	7.838	7.838	0.000	95	2931123	500.0	509.9	
74 Toluene	91	7.968	7.968	0.000	98	8515625	250.0	280.0	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	95	3194503	250.0	327.1	
76 Ethyl methacrylate	69	8.323	8.323	0.000	87	2444605	250.0	287.7	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	1590300	250.0	271.9	
78 Tetrachloroethene	164	8.476	8.476	0.000	95	1749188	250.0	298.8	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	3022545	250.0	272.7	
80 2-Hexanone	43	8.618	8.607	0.011	95	2059671	500.0	519.6	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	1938602	250.0	294.1	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	1623723	250.0	272.0	
85 Chlorobenzene	112	9.234	9.234	0.000	93	5589417	250.0	278.3	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	94	1948930	250.0	297.6	
87 Ethylbenzene	106	9.352	9.352	0.000	97	3287024	250.0	300.0	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	97	3934051	250.0	299.4	
89 o-Xylene	106	9.790	9.790	0.000	96	4265863	250.0	339.3	
90 Styrene	104	9.802	9.802	0.000	91	7136929	250.0	365.4	
91 Bromoform	173	9.944	9.944	0.000	93	1117258	250.0	266.0	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	8999450	250.0	292.9	
94 Bromobenzene	156	10.358	10.358	0.000	93	2314031	250.0	208.7	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	2043947	250.0	180.9	
96 1,2,3-Trichloropropane	110	10.405	10.393	0.012	88	607402	250.0	173.2	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	82	560438	250.0	205.8	
98 N-Propylbenzene	120	10.476	10.464	0.012	97	2797416	250.0	234.4	
99 2-Chlorotoluene	126	10.535	10.524	0.011	96	2285352	250.0	215.0	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	90	9365749	250.0	256.8	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	3060947	250.0	257.8	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	7252972	250.0	242.8	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	94	8189139	250.0	238.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	9589415	250.0	224.4	
108 1,3-Dichlorobenzene	146	11.163	11.163	0.000	97	4580236	250.0	224.6	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	94	9226437	250.0	235.4	
110 1,4-Dichlorobenzene	146	11.234	11.234	0.000	92	4766968	250.0	218.8	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	5592786	250.0	260.8	
113 n-Butylbenzene	91	11.553	11.553	0.000	95	9454538	250.0	270.1	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	90	418807	250.0	226.2	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	3479430	250.0	233.6	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	95	1686752	250.0	258.8	
119 Naphthalene	128	13.091	13.091	0.000	98	7283101	250.0	194.0	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	3233682	250.0	213.5	
S 132 1,2-Dichloroethene, Total	96				0			554.6	
S 133 1,3-Dichloropropene, Total	75				0			635.4	
S 134 Xylenes, Total	106				0		500.0	638.7	
S 157 Total BTEX	1				0		1250.0	1489.9	
S 135 Trihalomethanes, Total	1				0		1000.0	1113.1	

Reagents:

VMAROLISTDW_00341	Amount Added:	25.00	Units: uL
VMRGAS_00335	Amount Added:	25.00	Units: uL
VMRPRIMW_00382	Amount Added:	25.00	Units: uL
VM568718_00017	Amount Added:	1.00	Units: uL
vm50ss_00398	Amount Added:	25.00	Units: uL

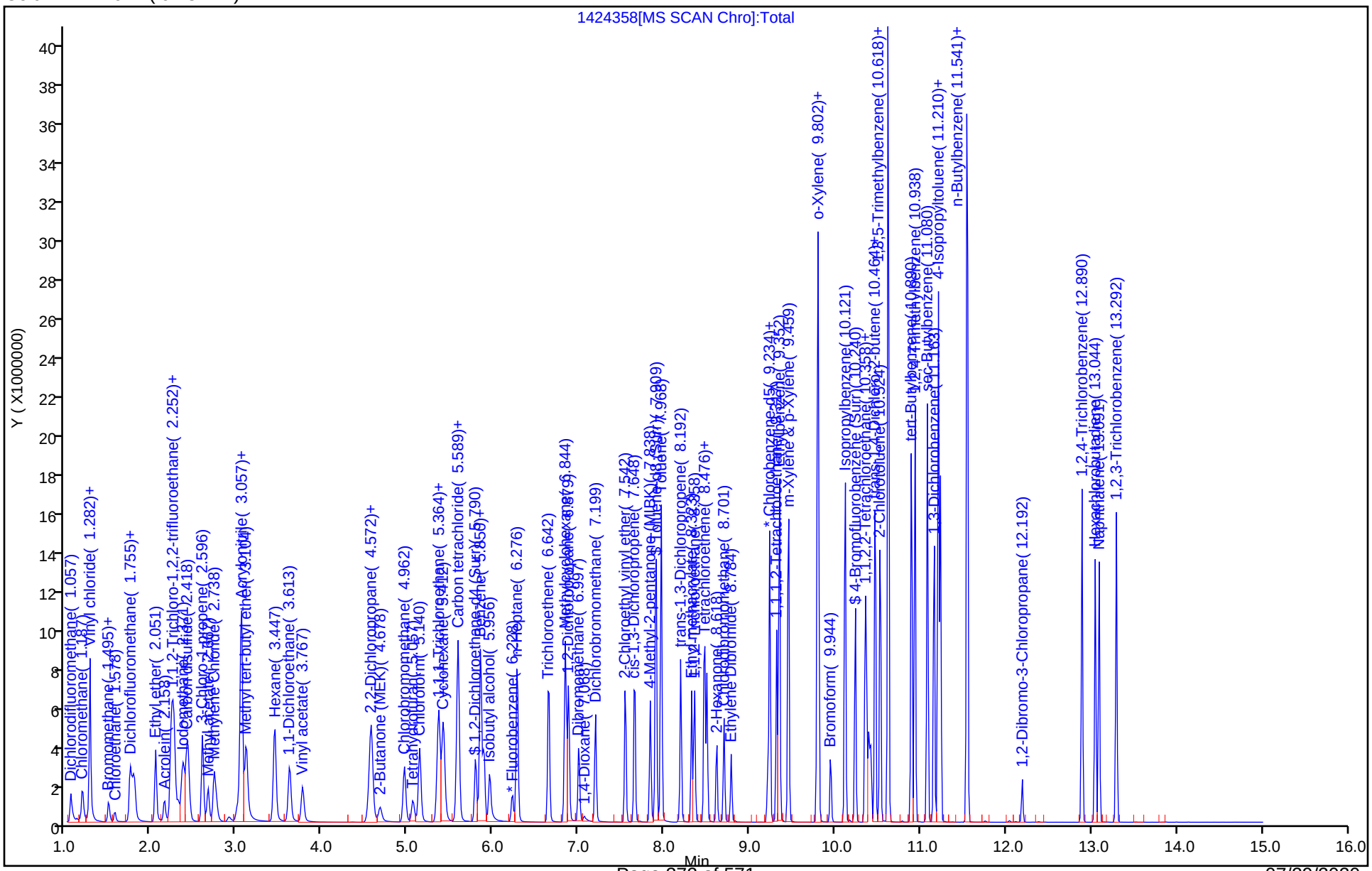
Report Date: 22-Apr-2020 10:34:59 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424358.D

Injection Date:	20-Apr-2020 14:38:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



07/29/2020

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424359.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Apr-2020 15:00:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-004
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:02 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 20-Apr-2020 15:29:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1390288	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1069572	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	93	695703	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	1821239	200.0	204.5	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	2210376	200.0	196.3	
$ 6 Toluene-d8 (Surr)	98	7.908	7.909	0.000	93	6375467	200.0	212.2	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.240	-0.001	0	2068445	200.0	189.9	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	1670279	200.0	199.2	
10 Chloromethane	50	1.199	1.187	0.012	99	1915708	200.0	195.0	
12 Butadiene	54	1.282	1.282	0.000	97	1793462	200.0	205.0	
11 Vinyl chloride	62	1.282	1.282	0.000	97	2293828	200.0	200.0	
13 Bromomethane	94	1.495	1.507	-0.012	90	564047	200.0	61.4	
15 Chloroethane	64	1.578	1.590	-0.012	99	439833	200.0	60.0	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	96	2539065	200.0	142.5	
17 Trichlorofluoromethane	101	1.791	1.803	-0.012	99	3089278	200.0	157.0	
18 Ethyl ether	59	2.051	2.051	0.000	82	2036454	200.0	186.7	
19 Acrolein	56	2.158	2.146	0.012	100	1155837	1000.0	977.7	
21 1,1-Dichloroethene	96	2.229	2.241	-0.013	94	2391097	200.0	216.1	
22 1,1,2-Trichloro-1,2,2-trif	151	2.264	2.276	-0.012	91	1931527	200.0	215.7	
24 Acetone	43	2.311	2.300	0.011	99	1080339	400.0	398.7	
25 Iodomethane	142	2.359	2.371	-0.012	98	4292382	200.0	208.1	
26 Carbon disulfide	76	2.418	2.418	0.000	100	5099295	200.0	135.7	
27 3-Chloro-1-propene	76	2.595	2.607	-0.012	85	1109923	200.0	229.2	
29 Methyl acetate	43	2.666	2.655	0.011	97	2173560	400.0	407.6	
30 Methylene Chloride	84	2.737	2.738	-0.001	91	1625399	200.0	192.5	
31 2-Methyl-2-propanol	59	2.998	2.962	0.036	97	1538863	2000.0	2156.9	
34 Acrylonitrile	53	3.045	3.033	0.012	98	5429557	2000.0	2138.1	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	98	2062248	200.0	237.7	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	95	4315908	200.0	211.6	
35 Hexane	86	3.447	3.448	-0.001	94	555959	200.0	219.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.613	3.625	-0.012	96	3099495	200.0	213.8	
39 Vinyl acetate	86	3.767	3.767	0.000	97	362615	200.0	223.3	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	90	381551	200.0	218.2	
42 cis-1,2-Dichloroethene	96	4.571	4.572	-0.001	83	1951992	200.0	209.0	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	99	1274886	400.0	381.8	
46 Chlorobromomethane	128	4.962	4.962	0.000	91	927958	200.0	210.3	
48 Tetrahydrofuran	42	5.057	5.057	0.000	83	824089	400.0	391.4	
49 Chloroform	83	5.139	5.140	-0.001	95	3144803	200.0	211.5	
50 1,1,1-Trichloroethane	97	5.352	5.353	-0.001	98	2619640	200.0	220.3	
51 Cyclohexane	56	5.412	5.412	0.000	90	2464230	200.0	208.1	
52 Carbon tetrachloride	117	5.577	5.577	0.000	95	2492363	200.0	247.9	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	95	2767621	200.0	234.2	
54 Benzene	78	5.849	5.850	-0.001	96	7095705	200.0	213.4	
56 1,2-Dichloroethane	62	5.897	5.885	0.012	98	2699835	200.0	208.0	
55 Isobutyl alcohol	41	5.956	5.944	0.012	92	1183131	5000.0	4941.2	
58 n-Heptane	100	6.287	6.287	0.000	87	644975	200.0	221.9	
59 Trichloroethene	130	6.654	6.654	0.000	97	1964864	200.0	224.0	
62 Methylcyclohexane	83	6.843	6.844	-0.001	89	3107157	200.0	213.5	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	1731956	200.0	213.0	
65 Dibromomethane	93	6.997	6.997	0.000	95	1114495	200.0	205.9	
67 1,4-Dioxane	88	7.068	7.068	0.000	91	300353	4000.0	3646.7	
68 Dichlorobromomethane	83	7.198	7.199	-0.001	98	2432214	200.0	230.2	
70 2-Chloroethyl vinyl ether	63	7.541	7.542	-0.001	94	2046418	400.0	451.0	
71 cis-1,3-Dichloropropene	75	7.660	7.648	0.012	94	2915441	200.0	230.8	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.838	-0.001	95	2543799	400.0	417.0	
74 Toluene	91	7.967	7.968	-0.001	99	7277219	200.0	225.5	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	95	2646308	200.0	255.4	
76 Ethyl methacrylate	69	8.322	8.323	-0.001	87	2025345	200.0	224.7	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	93	1334132	200.0	215.0	
78 Tetrachloroethene	164	8.476	8.476	0.000	94	1417897	200.0	228.3	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	2515446	200.0	213.9	
80 2-Hexanone	43	8.618	8.607	0.011	95	1719298	400.0	408.8	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	1614409	200.0	230.8	
83 Ethylene Dibromide	107	8.784	8.784	0.000	97	1362076	200.0	215.0	
85 Chlorobenzene	112	9.234	9.234	0.000	93	4590347	200.0	215.4	
86 1,1,1,2-Tetrachloroethane	131	9.316	9.317	-0.001	94	1589000	200.0	228.7	
87 Ethylbenzene	106	9.352	9.352	0.000	97	2600874	200.0	223.7	
88 m-Xylene & p-Xylene	106	9.458	9.459	-0.001	98	3097659	200.0	222.2	
89 o-Xylene	106	9.790	9.790	0.000	96	3235109	200.0	242.5	
90 Styrene	104	9.802	9.802	0.000	92	5489884	200.0	264.9	
91 Bromoform	173	9.944	9.944	0.000	93	888927	200.0	200.2	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	7136526	200.0	218.9	
94 Bromobenzene	156	10.358	10.358	0.000	93	1793260	200.0	177.8	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	1591144	200.0	154.8	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	87	483882	200.0	151.7	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	83	446529	200.0	180.3	
98 N-Propylbenzene	120	10.464	10.464	0.000	98	2110697	200.0	194.4	
99 2-Chlorotoluene	126	10.535	10.524	0.011	97	1721803	200.0	178.1	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	88	7218731	200.0	217.6	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	2242415	200.0	207.7	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	5465444	200.0	201.1	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	95	6359261	200.0	203.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	7654432	200.0	196.9	
108 1,3-Dichlorobenzene	146	11.162	11.163	-0.001	98	3373255	200.0	181.9	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	95	7379673	200.0	207.0	
110 1,4-Dichlorobenzene	146	11.233	11.234	-0.001	92	3546072	200.0	178.9	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	3984382	200.0	204.3	
113 n-Butylbenzene	91	11.553	11.553	0.000	96	7166612	200.0	225.1	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	84	331838	200.0	197.1	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	2603865	200.0	192.2	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	93	1262386	200.0	212.9	
119 Naphthalene	128	13.091	13.091	0.000	97	5955855	200.0	174.4	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	2508945	200.0	182.1	
S 132 1,2-Dichloroethene, Total	96				0			446.7	
S 133 1,3-Dichloropropene, Total	75				0			486.2	
S 134 Xylenes, Total	106				0		400.0	464.7	
S 157 Total BTEX	1				0		1000.0	1127.4	
S 135 Trihalomethanes, Total	1				0		800.0	872.7	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
vm50ss_00398	Amount Added:	20.00	Units: uL
VMAROLISTDW_00341	Amount Added:	20.00	Units: uL
VMRGAS_00335	Amount Added:	20.00	Units: uL
VMRPRIMW_00382	Amount Added:	20.00	Units: uL

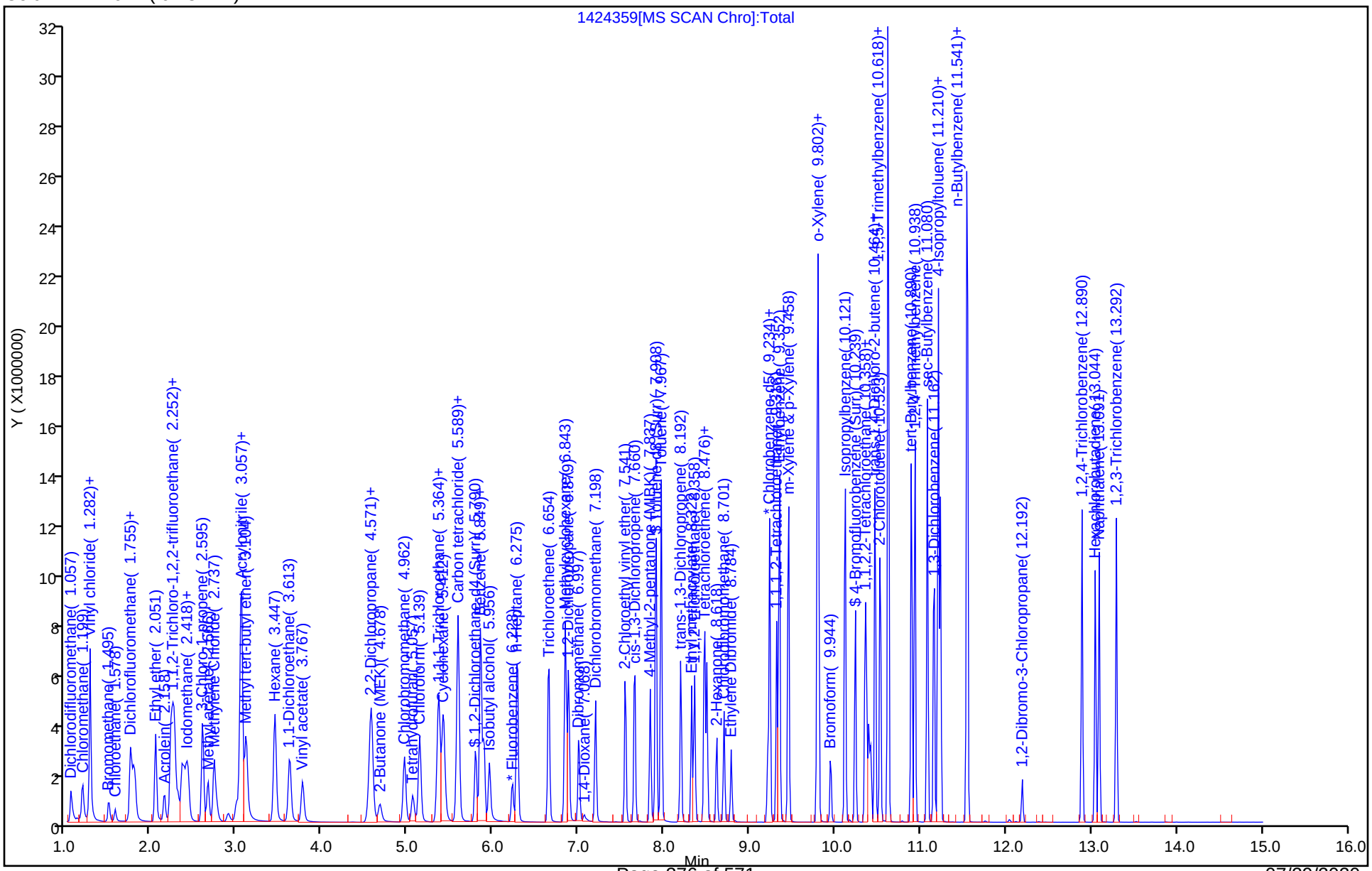
Report Date: 22-Apr-2020 10:35:04 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424359.D

Injection Date:	20-Apr-2020 15:00:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424360.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 20-Apr-2020 15:22:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-005
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:07 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 20-Apr-2020 15:44:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1434412	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	95	1155021	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	58	605400	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	878465	100.0	95.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	1103400	100.0	95.0	
$ 6 Toluene-d8 (Surr)	98	7.909	7.909	0.001	93	3152329	100.0	97.2	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	1004545	100.0	104.8	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	820924	100.0	94.9	
10 Chloromethane	50	1.187	1.187	0.000	99	971036	100.0	95.8	
12 Butadiene	54	1.282	1.282	0.000	97	869302	100.0	96.3	
11 Vinyl chloride	62	1.282	1.282	0.000	98	1121301	100.0	94.8	
13 Bromomethane	94	1.507	1.507	0.000	90	440794	100.0	46.5	
15 Chloroethane	64	1.578	1.590	-0.012	98	484335	100.0	64.0	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	96	1709035	100.0	92.9	
17 Trichlorofluoromethane	101	1.791	1.803	-0.012	99	1921587	100.0	94.6	
18 Ethyl ether	59	2.039	2.051	-0.012	84	1122440	100.0	99.8	
19 Acrolein	56	2.146	2.146	0.000	100	614808	500.0	504.0	
21 1,1-Dichloroethene	96	2.229	2.241	-0.012	96	1152776	100.0	101.0	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.276	0.000	92	909142	100.0	98.4	
24 Acetone	43	2.300	2.300	0.000	100	594962	200.0	209.9	
25 Iodomethane	142	2.359	2.371	-0.012	99	2010906	100.0	94.5	
26 Carbon disulfide	76	2.418	2.418	0.000	100	2285435	100.0	63.4	
27 3-Chloro-1-propene	76	2.596	2.607	-0.011	85	527596	100.0	105.6	
29 Methyl acetate	43	2.655	2.655	0.000	97	1080195	200.0	196.3	
30 Methylene Chloride	84	2.738	2.738	0.000	92	798638	100.0	91.7	
31 2-Methyl-2-propanol	59	2.974	2.962	0.012	97	625337	1000.0	849.5	
34 Acrylonitrile	53	3.033	3.033	0.000	98	2613641	1000.0	997.6	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	99	922796	100.0	103.1	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	96	2120921	100.0	100.8	
35 Hexane	86	3.448	3.448	0.000	94	261792	100.0	100.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.613	3.625	-0.012	97	1515207	100.0	101.3	
39 Vinyl acetate	86	3.767	3.767	0.000	97	168439	100.0	100.5	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	90	183269	100.0	101.6	
42 cis-1,2-Dichloroethene	96	4.572	4.572	0.000	83	947939	100.0	98.4	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	99	658016	200.0	191.0	
46 Chlorobromomethane	128	4.962	4.962	0.000	93	458434	100.0	100.7	
48 Tetrahydrofuran	42	5.057	5.057	0.000	84	429292	200.0	197.6	
49 Chloroform	83	5.140	5.140	0.000	94	1534122	100.0	100.0	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.000	98	1241912	100.0	101.2	
51 Cyclohexane	56	5.412	5.412	0.000	90	1214650	100.0	99.4	
52 Carbon tetrachloride	117	5.577	5.577	0.000	94	1146323	100.0	110.5	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	94	1292565	100.0	106.0	
54 Benzene	78	5.850	5.850	0.000	96	3423758	100.0	99.8	
56 1,2-Dichloroethane	62	5.885	5.885	0.000	98	1314032	100.0	98.1	
55 Isobutyl alcohol	41	5.944	5.944	0.000	92	591880	2500.0	2395.9	
58 n-Heptane	100	6.287	6.287	0.000	88	295187	100.0	98.4	
59 Trichloroethene	130	6.654	6.654	0.000	96	916976	100.0	101.3	
62 Methylcyclohexane	83	6.844	6.844	0.000	88	1510385	100.0	100.6	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	838473	100.0	100.0	
65 Dibromomethane	93	6.997	6.997	0.000	92	545975	100.0	97.8	
67 1,4-Dioxane	88	7.068	7.068	0.000	91	157778	2000.0	1856.7	
68 Dichlorobromomethane	83	7.199	7.199	0.000	99	1146421	100.0	105.2	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	93	969528	200.0	207.1	
71 cis-1,3-Dichloropropene	75	7.648	7.648	0.000	94	1386226	100.0	106.4	
73 4-Methyl-2-pentanone (MIBK	43	7.838	7.838	0.000	96	1340905	200.0	203.6	
74 Toluene	91	7.968	7.968	0.000	98	3524637	100.0	101.1	
75 trans-1,3-Dichloropropene	75	8.193	8.192	0.001	95	1268487	100.0	113.4	
76 Ethyl methacrylate	69	8.323	8.323	0.000	87	1018279	100.0	104.6	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	672387	100.0	100.3	
78 Tetrachloroethene	164	8.477	8.476	0.000	95	659917	100.0	98.4	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	1257362	100.0	99.0	
80 2-Hexanone	43	8.607	8.607	0.000	98	930483	200.0	204.9	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	778967	100.0	103.1	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	699589	100.0	102.3	
85 Chlorobenzene	112	9.234	9.234	0.000	94	2263717	100.0	98.3	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	94	756358	100.0	100.8	
87 Ethylbenzene	106	9.352	9.352	0.000	98	1238616	100.0	98.7	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	98	1484586	100.0	98.6	
89 o-Xylene	106	9.790	9.790	0.000	96	1490722	100.0	103.5	
90 Styrene	104	9.802	9.802	0.000	92	2510314	100.0	112.2	
91 Bromoform	173	9.944	9.944	0.000	94	416163	100.0	88.4	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	3451760	100.0	98.0	
94 Bromobenzene	156	10.358	10.358	0.000	95	831120	100.0	94.7	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	771816	100.0	86.3	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	87	238934	100.0	86.1	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	81	214875	100.0	99.7	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	972181	100.0	102.9	
99 2-Chlorotoluene	126	10.524	10.524	0.000	95	797443	100.0	94.8	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	87	3090665	100.0	107.1	
101 4-Chlorotoluene	126	10.618	10.618	0.000	99	948977	100.0	101.0	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	2368509	100.0	100.2	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	2786563	100.0	102.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	95	3523084	100.0	104.2	
108 1,3-Dichlorobenzene	146	11.163	11.163	0.000	97	1480066	100.0	91.7	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	95	3224774	100.0	104.0	
110 1,4-Dichlorobenzene	146	11.234	11.234	0.000	94	1548944	100.0	89.8	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	1588591	100.0	93.6	
113 n-Butylbenzene	91	11.541	11.553	-0.012	98	2951016	100.0	106.5	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	84	148704	100.0	101.5	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	1099896	100.0	93.3	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	96	520855	100.0	101.0	
119 Naphthalene	128	13.091	13.091	0.000	97	2729575	100.0	91.9	
120 1,2,3-Trichlorobenzene	180	13.293	13.292	0.000	95	1066636	100.0	89.0	
S 132 1,2-Dichloroethene, Total	96				0			201.5	
S 133 1,3-Dichloropropene, Total	75				0			219.7	
S 134 Xylenes, Total	106				0		200.0	202.1	
S 157 Total BTEX	1				0		500.0	501.7	
S 135 Trihalomethanes, Total	1				0		400.0	396.7	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
VMRPRIMW_00382	Amount Added:	10.00	Units: uL
VMRGAS_00335	Amount Added:	10.00	Units: uL
VMAROLISTDW_00341	Amount Added:	10.00	Units: uL
vm50ss_00398	Amount Added:	10.00	Units: uL

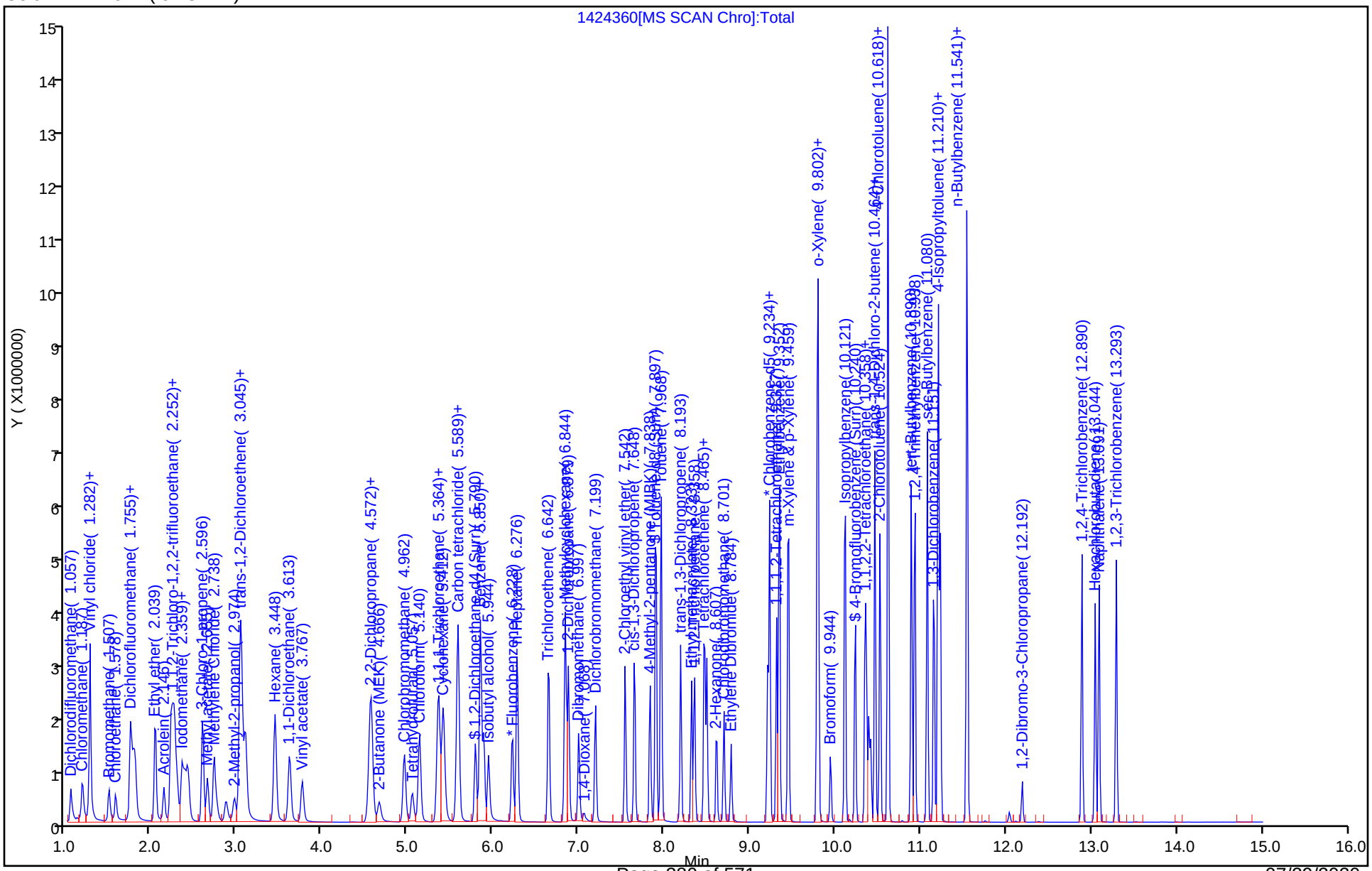
Report Date: 22-Apr-2020 10:35:09 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424360.D

Injection Date:	20-Apr-2020 15:22:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424361.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 20-Apr-2020 15:45:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icis
Misc. Info.: 240-0097619-006
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:12 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 21-Apr-2020 10:54:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1392237	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	95	1137744	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	92	552205	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	420410	50.0	47.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	538572	50.0	47.8	
$ 6 Toluene-d8 (Surr)	98	7.909	7.909	0.000	93	1505463	50.0	47.1	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	491284	50.0	54.9	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	408288	50.0	48.6	
10 Chloromethane	50	1.187	1.187	0.000	99	476438	50.0	48.4	
12 Butadiene	54	1.282	1.282	0.000	97	426151	50.0	48.6	
11 Vinyl chloride	62	1.282	1.282	0.000	97	552201	50.0	48.1	
13 Bromomethane	94	1.507	1.507	0.000	89	352907	50.0	38.3	
15 Chloroethane	64	1.590	1.590	0.000	98	350021	50.0	47.6	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	909780	50.0	51.0	
17 Trichlorofluoromethane	101	1.803	1.803	0.000	98	1012946	50.0	51.4	
18 Ethyl ether	59	2.051	2.051	0.000	84	549140	50.0	50.3	
19 Acrolein	56	2.146	2.146	0.000	100	307965	250.0	260.1	
21 1,1-Dichloroethene	96	2.241	2.241	0.000	97	562238	50.0	50.7	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.276	0.000	92	439412	50.0	49.0	
24 Acetone	43	2.300	2.300	0.000	100	304147	100.0	107.5	
25 Iodomethane	142	2.371	2.371	0.000	99	1061211	50.0	51.4	
26 Carbon disulfide	76	2.418	2.418	0.000	99	1714588	50.0	49.9	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	85	252532	50.0	52.1	
29 Methyl acetate	43	2.655	2.655	0.000	97	537491	100.0	100.6	
30 Methylene Chloride	84	2.738	2.738	0.000	92	406166	50.0	48.0	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	97	329335	500.0	460.9	
34 Acrylonitrile	53	3.033	3.033	0.000	98	1280533	500.0	503.6	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	98	428749	50.0	49.3	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	96	1047907	50.0	51.3	
35 Hexane	86	3.448	3.448	0.000	94	122222	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	96	733585	50.0	50.5	
39 Vinyl acetate	86	3.767	3.767	0.000	97	84582	50.0	52.0	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	89	93406	50.0	53.3	
42 cis-1,2-Dichloroethene	96	4.572	4.572	0.000	83	461513	50.0	49.4	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	99	327441	100.0	97.9	
46 Chlorobromomethane	128	4.962	4.962	0.000	93	220451	50.0	49.9	
48 Tetrahydrofuran	42	5.057	5.057	0.000	84	215001	100.0	102.0	
49 Chloroform	83	5.140	5.140	0.000	95	746853	50.0	50.2	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.000	98	586787	50.0	49.3	
51 Cyclohexane	56	5.412	5.412	0.000	90	580210	50.0	48.9	
52 Carbon tetrachloride	117	5.577	5.577	0.000	94	525454	50.0	52.2	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	95	610489	50.0	51.6	
54 Benzene	78	5.850	5.850	0.000	96	1664669	50.0	50.0	
56 1,2-Dichloroethane	62	5.885	5.885	0.000	98	646258	50.0	49.7	
55 Isobutyl alcohol	41	5.944	5.944	0.000	91	319083	1250.0	1330.7	
58 n-Heptane	100	6.287	6.287	0.000	87	138505	50.0	47.6	
59 Trichloroethene	130	6.654	6.654	0.000	96	440370	50.0	50.1	
62 Methylcyclohexane	83	6.844	6.844	0.000	89	709433	50.0	48.7	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	401399	50.0	49.3	
65 Dibromomethane	93	6.997	6.997	0.000	93	270972	50.0	50.0	
67 1,4-Dioxane	88	7.068	7.068	0.000	91	82961	1000.0	1005.8	
68 Dichlorobromomethane	83	7.199	7.199	0.000	99	552278	50.0	52.2	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	93	470107	100.0	103.5	
71 cis-1,3-Dichloropropene	75	7.648	7.648	0.000	94	668326	50.0	52.8	
73 4-Methyl-2-pentanone (MIBK	43	7.838	7.838	0.000	96	686853	100.0	105.9	
74 Toluene	91	7.968	7.968	0.000	98	1706558	50.0	49.7	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	96	598091	50.0	54.3	
76 Ethyl methacrylate	69	8.323	8.323	0.000	87	502853	50.0	52.4	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	327181	50.0	49.6	
78 Tetrachloroethene	164	8.476	8.476	0.000	94	312003	50.0	47.2	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	624140	50.0	49.9	
80 2-Hexanone	43	8.607	8.607	0.000	98	486375	100.0	108.7	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	373637	50.0	50.2	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	350976	50.0	52.1	
85 Chlorobenzene	112	9.234	9.234	0.000	94	1110813	50.0	49.0	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	93	364540	50.0	49.3	
87 Ethylbenzene	106	9.352	9.352	0.000	98	597108	50.0	48.3	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	721457	50.0	48.6	
89 o-Xylene	106	9.790	9.790	0.000	96	709221	50.0	50.0	
90 Styrene	104	9.802	9.802	0.000	93	1184255	50.0	53.7	
91 Bromoform	173	9.944	9.944	0.000	94	206106	50.0	45.9	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	1704481	50.0	49.1	
94 Bromobenzene	156	10.358	10.358	0.000	94	413816	50.0	51.7	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	96	411525	50.0	50.4	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	89	128134	50.0	50.6	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	77	106012	50.0	53.9	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	483247	50.0	56.1	
99 2-Chlorotoluene	126	10.524	10.524	0.000	95	400137	50.0	52.1	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	87	1438514	50.0	54.6	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	440507	50.0	51.4	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	1167139	50.0	54.1	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	97	1345522	50.0	54.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	94	1735655	50.0	56.3	
108 1,3-Dichlorobenzene	146	11.163	11.163	0.000	97	729427	50.0	49.5	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	97	1557478	50.0	55.0	
110 1,4-Dichlorobenzene	146	11.234	11.234	0.000	94	762271	50.0	48.5	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	757474	50.0	48.9	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	1375168	50.0	54.4	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	83	75117	50.0	56.2	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	529292	50.0	49.2	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	95	245456	50.0	52.2	
119 Naphthalene	128	13.091	13.091	0.000	97	1410934	50.0	52.1	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	529585	50.0	48.4	
S 134 Xylenes, Total	106				0		100.0	98.6	
S 157 Total BTEX	1				0		250.0	246.6	
S 135 Trihalomethanes, Total	1				0		200.0	198.5	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
vm50ss_00398	Amount Added:	5.00	Units: uL
VMAROLISTDW_00341	Amount Added:	5.00	Units: uL
VMRGAS_00335	Amount Added:	5.00	Units: uL
VMRPRIMW_00382	Amount Added:	5.00	Units: uL

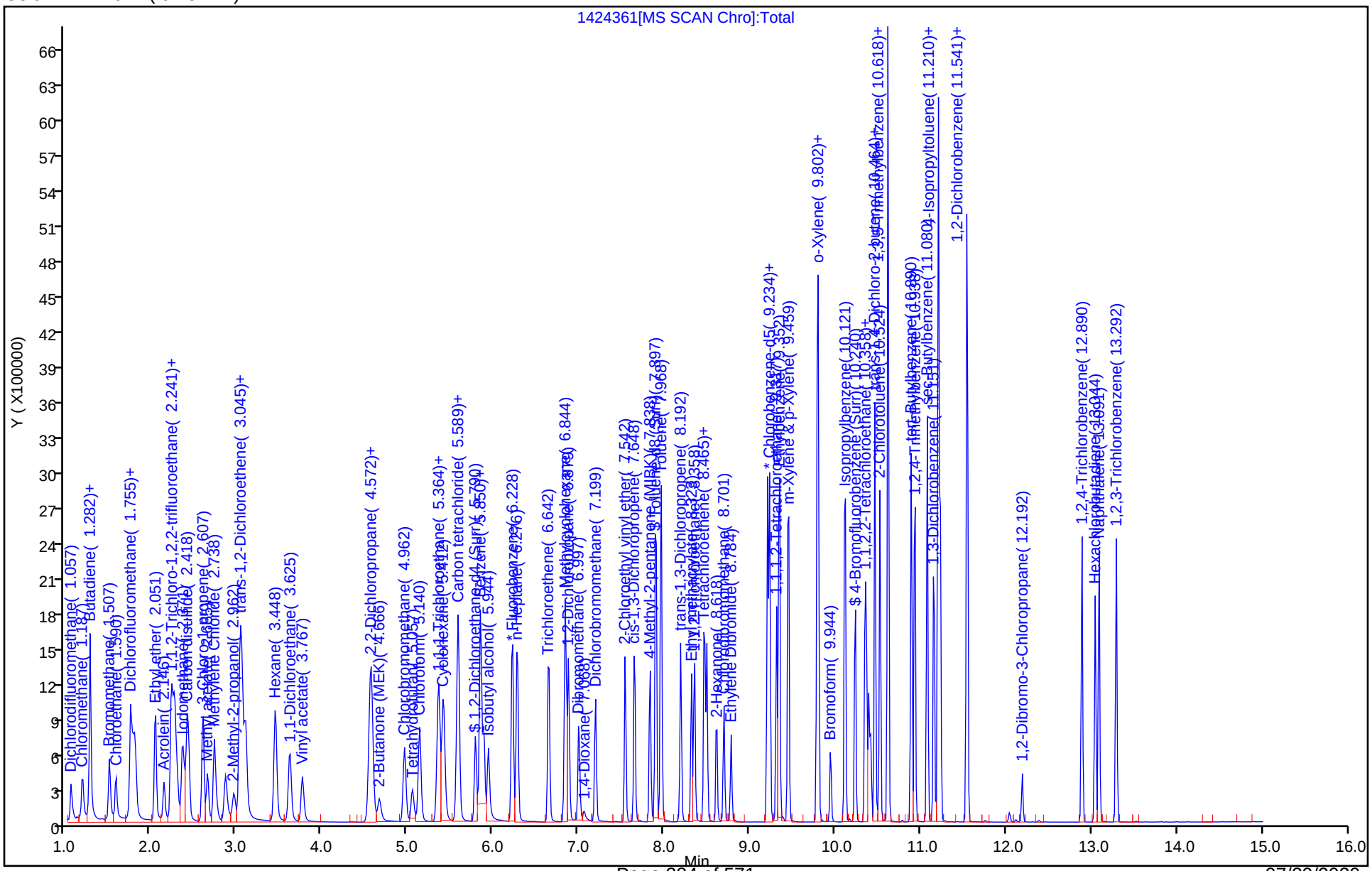
Report Date: 22-Apr-2020 10:35:14 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424361.D

Injection Date:	20-Apr-2020 15:45:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ICIS			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424362.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Apr-2020 16:07:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-007
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:16 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 21-Apr-2020 10:54:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1260450	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1088326	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	95	517776	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	91	146059	20.0	18.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	196884	20.0	19.3	
$ 6 Toluene-d8 (Surr)	98	7.908	7.909	0.000	93	564977	20.0	18.5	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	189103	20.0	20.9	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	155421	20.0	20.4	
10 Chloromethane	50	1.187	1.187	0.000	99	187787	20.0	21.1	
12 Butadiene	54	1.282	1.282	0.000	96	165994	20.0	20.9	
11 Vinyl chloride	62	1.270	1.282	-0.012	98	219059	20.0	21.1	
13 Bromomethane	94	1.507	1.507	0.000	89	186215	20.0	22.3	
15 Chloroethane	64	1.590	1.590	0.000	98	153518	20.0	23.1	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	96	354229	20.0	21.9	
17 Trichlorofluoromethane	101	1.791	1.803	-0.012	98	386305	20.0	21.7	
18 Ethyl ether	59	2.051	2.051	0.000	84	184807	20.0	18.7	
19 Acrolein	56	2.146	2.146	0.000	100	101709	100.0	94.9	
21 1,1-Dichloroethene	96	2.240	2.241	-0.001	97	194715	20.0	19.4	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.276	0.000	93	158343	20.0	19.5	
24 Acetone	43	2.300	2.300	0.000	100	116329	40.0	41.8	
25 Iodomethane	142	2.371	2.371	0.000	99	376495	20.0	20.1	
26 Carbon disulfide	76	2.430	2.418	0.012	99	620611	20.0	21.2	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	86	82630	20.0	18.8	
29 Methyl acetate	43	2.655	2.655	0.000	97	178765	40.0	37.0	
30 Methylene Chloride	84	2.737	2.738	-0.001	93	144722	20.0	18.9	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	96	122528	200.0	189.4	
34 Acrylonitrile	53	3.033	3.033	0.000	98	421837	200.0	183.2	
32 trans-1,2-Dichloroethene	96	3.069	3.057	0.012	98	141440	20.0	18.0	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	96	353795	20.0	19.1	
35 Hexane	86	3.447	3.448	-0.001	95	42387	20.0	18.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	96	249243	20.0	19.0	
39 Vinyl acetate	86	3.767	3.767	0.000	97	26859	20.0	18.2	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	76	29822	20.0	18.8	
42 cis-1,2-Dichloroethene	96	4.583	4.572	0.011	82	157454	20.0	18.6	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	99	116445	40.0	38.5	
46 Chlorobromomethane	128	4.962	4.962	0.000	92	76282	20.0	19.1	
48 Tetrahydrofuran	42	5.057	5.057	0.000	83	71841	40.0	37.6	
49 Chloroform	83	5.140	5.140	0.000	95	255704	20.0	19.0	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.000	98	192412	20.0	17.8	
51 Cyclohexane	56	5.412	5.412	0.000	90	199963	20.0	18.6	
52 Carbon tetrachloride	117	5.577	5.577	0.000	94	170056	20.0	18.7	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	95	208710	20.0	19.5	
54 Benzene	78	5.850	5.850	0.000	95	581301	20.0	19.3	
56 1,2-Dichloroethane	62	5.897	5.885	0.012	98	224443	20.0	19.1	
55 Isobutyl alcohol	41	5.944	5.944	0.000	91	113599	500.0	523.3	
58 n-Heptane	100	6.287	6.287	0.000	89	49493	20.0	18.8	
59 Trichloroethene	130	6.654	6.654	0.000	96	155106	20.0	19.5	
62 Methylcyclohexane	83	6.843	6.844	-0.001	89	238877	20.0	18.1	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	92	141063	20.0	19.1	
65 Dibromomethane	93	6.997	6.997	0.000	95	94255	20.0	19.2	
67 1,4-Dioxane	88	7.068	7.068	0.000	93	32040	400.0	429.1	
68 Dichlorobromomethane	83	7.198	7.199	-0.001	98	185162	20.0	19.3	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	93	167931	40.0	40.8	
71 cis-1,3-Dichloropropene	75	7.648	7.648	0.000	94	230590	20.0	20.1	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.838	-0.001	96	251097	40.0	40.5	
74 Toluene	91	7.968	7.968	0.000	98	616460	20.0	18.8	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	96	207025	20.0	19.6	
76 Ethyl methacrylate	69	8.323	8.323	0.000	87	175714	20.0	19.2	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	120508	20.0	19.1	
78 Tetrachloroethene	164	8.476	8.476	0.000	94	112014	20.0	17.7	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	232541	20.0	19.4	
80 2-Hexanone	43	8.618	8.607	0.011	96	186696	40.0	43.6	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	131311	20.0	18.5	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	128915	20.0	20.0	
85 Chlorobenzene	112	9.234	9.234	0.000	94	403433	20.0	18.6	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	93	128176	20.0	18.1	
87 Ethylbenzene	106	9.352	9.352	0.000	98	211012	20.0	17.8	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	257704	20.0	18.2	
89 o-Xylene	106	9.790	9.790	0.000	97	247608	20.0	18.2	
90 Styrene	104	9.802	9.802	0.000	93	414596	20.0	19.7	
91 Bromoform	173	9.944	9.944	0.000	93	71346	20.0	18.5	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	610304	20.0	18.4	
94 Bromobenzene	156	10.358	10.358	0.000	95	154619	20.0	20.6	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	166131	20.0	21.7	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	94	51986	20.0	21.9	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	75	39633	20.0	21.5	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	172512	20.0	21.4	
99 2-Chlorotoluene	126	10.524	10.524	0.000	95	148009	20.0	20.6	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	87	508193	20.0	20.6	
101 4-Chlorotoluene	126	10.618	10.618	0.000	99	159640	20.0	19.9	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	432100	20.0	21.4	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	97	499765	20.0	21.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	94	632828	20.0	21.9	
108 1,3-Dichlorobenzene	146	11.162	11.163	-0.001	98	287954	20.0	20.9	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	97	575637	20.0	21.7	
110 1,4-Dichlorobenzene	146	11.233	11.234	-0.001	95	298782	20.0	20.3	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	289899	20.0	20.0	
113 n-Butylbenzene	91	11.553	11.553	0.000	97	509830	20.0	21.5	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	82	27902	20.0	22.3	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	212185	20.0	21.0	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	96	94677	20.0	21.5	
119 Naphthalene	128	13.091	13.091	0.000	97	569941	20.0	22.4	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	218805	20.0	21.3	
S 132 1,2-Dichloroethene, Total	96				0			36.6	
S 133 1,3-Dichloropropene, Total	75				0			39.8	
S 134 Xylenes, Total	106				0		40.0	36.4	
S 157 Total BTEX	1				0		100.0	92.3	
S 135 Trihalomethanes, Total	1				0		80.0	75.2	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
VMRPRIMW_00382	Amount Added:	2.00	Units: uL
VMRGAS_00335	Amount Added:	2.00	Units: uL
VMAROLISTDW_00341	Amount Added:	2.00	Units: uL
vm50ss_00398	Amount Added:	2.00	Units: uL

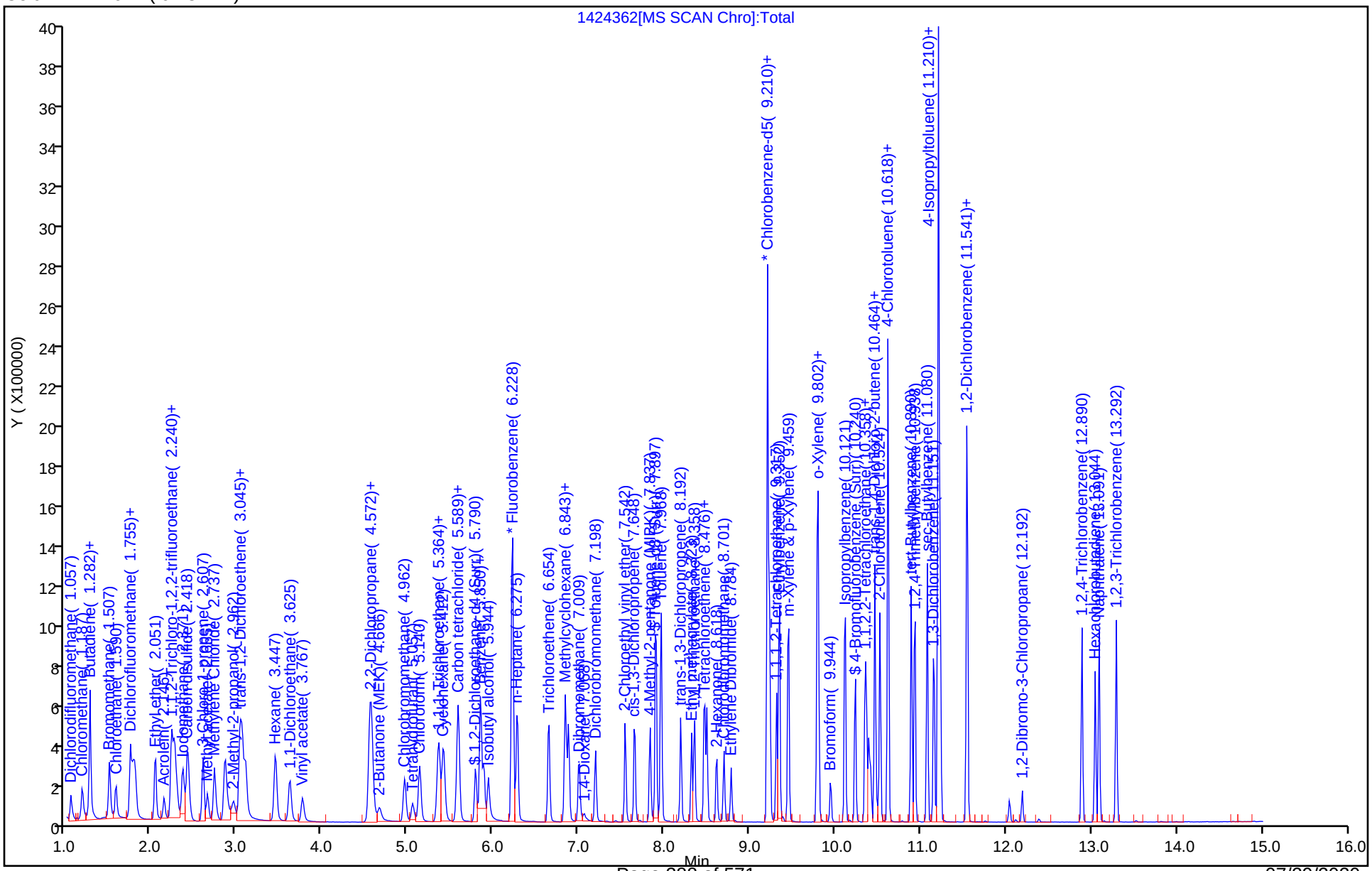
Report Date: 22-Apr-2020 10:35:18 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424362.D

Injection Date:	20-Apr-2020 16:07:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424363.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Apr-2020 16:29:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-008
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:20 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 21-Apr-2020 10:55:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1282555	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1065760	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	96	486699	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	81852	10.0	9.96	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	110754	10.0	10.7	
$ 6 Toluene-d8 (Surr)	98	7.908	7.909	0.000	93	299065	10.0	9.99	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	98735	10.0	10.4	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	79480	10.0	10.3	
10 Chloromethane	50	1.187	1.187	0.000	99	98480	10.0	10.9	
12 Butadiene	54	1.282	1.282	0.000	96	84055	10.0	10.4	
11 Vinyl chloride	62	1.282	1.282	0.000	98	111413	10.0	10.5	
13 Bromomethane	94	1.507	1.507	0.000	90	92695	10.0	10.9	
15 Chloroethane	64	1.590	1.590	0.000	98	75340	10.0	11.1	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	96	177780	10.0	10.8	
17 Trichlorofluoromethane	101	1.803	1.803	0.000	98	198919	10.0	11.0	
18 Ethyl ether	59	2.051	2.051	0.000	85	107737	10.0	10.7	
19 Acrolein	56	2.146	2.146	0.000	99	55125	50.0	50.5	
21 1,1-Dichloroethene	96	2.240	2.241	-0.001	98	111885	10.0	11.0	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.276	0.000	92	84437	10.0	10.2	
24 Acetone	43	2.300	2.300	0.000	100	69914	20.0	22.1	
25 Iodomethane	142	2.371	2.371	0.000	99	207182	10.0	10.9	
26 Carbon disulfide	76	2.418	2.418	0.000	100	214044	10.0	8.14	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	86	45545	10.0	10.2	
29 Methyl acetate	43	2.655	2.655	0.000	97	99199	20.0	20.2	
30 Methylene Chloride	84	2.737	2.738	-0.001	92	88692	10.0	11.4	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	96	70440	100.0	107.0	
34 Acrylonitrile	53	3.033	3.033	0.000	98	239859	100.0	102.4	
32 trans-1,2-Dichloroethene	96	3.069	3.057	0.012	98	80861	10.0	10.1	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	96	202521	10.0	10.8	
35 Hexane	86	3.447	3.448	-0.001	94	23737	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	96	141394	10.0	10.6	
39 Vinyl acetate	86	3.767	3.767	0.000	98	14361	10.0	9.59	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	52	17183	10.0	10.7	
42 cis-1,2-Dichloroethene	96	4.583	4.572	0.011	83	90228	10.0	10.5	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	99	64667	20.0	21.0	
46 Chlorobromomethane	128	4.962	4.962	0.000	92	43691	10.0	10.7	
48 Tetrahydrofuran	42	5.057	5.057	0.000	85	38057	20.0	19.6	
49 Chloroform	83	5.140	5.140	0.000	95	148379	10.0	10.8	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.000	98	107273	10.0	9.78	
51 Cyclohexane	56	5.412	5.412	0.000	90	111725	10.0	10.2	
52 Carbon tetrachloride	117	5.577	5.577	0.000	93	93536	10.0	10.1	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	94	112304	10.0	10.3	
54 Benzene	78	5.850	5.850	0.000	95	320940	10.0	10.5	
56 1,2-Dichloroethane	62	5.897	5.885	0.012	98	124072	10.0	10.4	
55 Isobutyl alcohol	41	5.944	5.944	0.000	91	61285	250.0	277.4	
58 n-Heptane	100	6.287	6.287	0.000	88	25826	10.0	9.63	
59 Trichloroethene	130	6.654	6.654	0.000	96	83377	10.0	10.3	
62 Methylcyclohexane	83	6.843	6.844	-0.001	89	134181	10.0	10.0	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	75731	10.0	10.1	
65 Dibromomethane	93	6.997	6.997	0.000	96	51097	10.0	10.2	
67 1,4-Dioxane	88	7.068	7.068	0.000	91	16957	200.0	223.2	
68 Dichlorobromomethane	83	7.198	7.199	-0.001	98	97742	10.0	10.0	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	93	82278	20.0	19.7	
71 cis-1,3-Dichloropropene	75	7.660	7.648	0.012	94	116075	10.0	9.96	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.838	-0.001	96	126180	20.0	20.8	
74 Toluene	91	7.968	7.968	0.000	98	321395	10.0	10.0	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	97	100168	10.0	9.70	
76 Ethyl methacrylate	69	8.323	8.323	0.000	87	81879	10.0	9.11	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	61674	10.0	9.97	
78 Tetrachloroethene	164	8.476	8.476	0.000	94	58961	10.0	9.53	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	120050	10.0	10.2	
80 2-Hexanone	43	8.618	8.607	0.011	97	88269	20.0	21.1	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	64313	10.0	9.23	
83 Ethylene Dibromide	107	8.784	8.784	0.000	99	64063	10.0	10.1	
85 Chlorobenzene	112	9.234	9.234	0.000	96	216206	10.0	10.2	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	92	64814	10.0	9.36	
87 Ethylbenzene	106	9.352	9.352	0.000	98	110686	10.0	9.56	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	132524	10.0	9.54	
89 o-Xylene	106	9.790	9.790	0.000	97	130690	10.0	9.83	
90 Styrene	104	9.802	9.802	0.000	93	200918	10.0	9.73	
91 Bromoform	173	9.944	9.944	0.000	95	32043	10.0	10.0	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	318682	10.0	9.81	
94 Bromobenzene	156	10.358	10.358	0.000	93	80048	10.0	11.3	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	96	80139	10.0	11.1	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	90	24389	10.0	10.9	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	70	18375	10.0	10.6	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	85843	10.0	11.3	
99 2-Chlorotoluene	126	10.524	10.524	0.000	95	76146	10.0	11.3	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	87	249308	10.0	10.7	
101 4-Chlorotoluene	126	10.618	10.618	0.000	99	78625	10.0	10.4	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	213770	10.0	11.2	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	243960	10.0	11.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	94	311634	10.0	11.5	
108 1,3-Dichlorobenzene	146	11.162	11.163	-0.001	98	138160	10.0	10.6	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	97	280148	10.0	11.2	
110 1,4-Dichlorobenzene	146	11.233	11.234	-0.001	95	146090	10.0	10.5	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	139863	10.0	10.3	
113 n-Butylbenzene	91	11.541	11.553	-0.012	98	239908	10.0	10.8	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	80	13883	10.0	11.8	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	99751	10.0	10.5	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	96	46370	10.0	11.2	
119 Naphthalene	128	13.091	13.091	0.000	97	283434	10.0	11.9	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	96	109149	10.0	11.3	
S 132 1,2-Dichloroethene, Total	96				0			20.6	
S 133 1,3-Dichloropropene, Total	75				0			19.7	
S 134 Xylenes, Total	106				0		20.0	19.4	
S 157 Total BTEX	1				0		50.0	49.4	
S 135 Trihalomethanes, Total	1				0		40.0	40.1	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
vm50ss_00398	Amount Added:	1.00	Units: uL
VMAROLISTDW_00341	Amount Added:	1.00	Units: uL
VMRGAS_00335	Amount Added:	1.00	Units: uL
VMRPRIMW_00382	Amount Added:	1.00	Units: uL

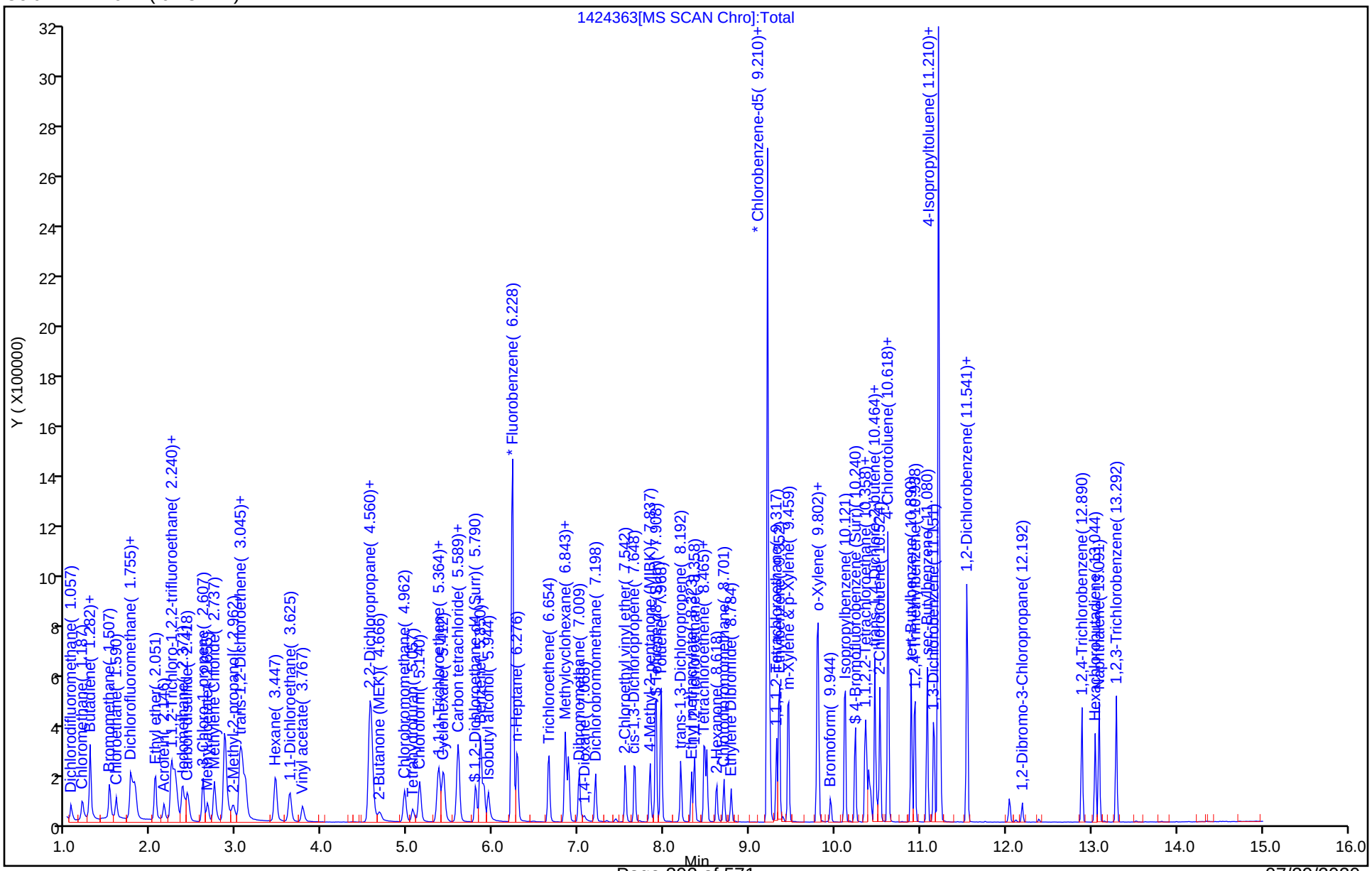
Report Date: 22-Apr-2020 10:35:22 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424363.D

Injection Date:	20-Apr-2020 16:29:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424364.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Apr-2020 16:51:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-009
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:24 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 21-Apr-2020 10:56:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1277600	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1077320	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	96	484114	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	40980	5.00	5.01	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	57068	5.00	5.52	
$ 6 Toluene-d8 (Surr)	98	7.908	7.909	0.000	93	155805	5.00	5.15	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.240	-0.001	0	51258	5.00	4.10	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	38889	5.00	5.05	
10 Chloromethane	50	1.187	1.187	0.000	99	48389	5.00	5.36	
12 Butadiene	54	1.282	1.282	0.000	97	42690	5.00	5.31	
11 Vinyl chloride	62	1.282	1.282	0.000	98	56910	5.00	5.40	
13 Bromomethane	94	1.507	1.507	0.000	92	45527	5.00	5.39	
15 Chloroethane	64	1.590	1.590	0.000	98	34286	5.00	5.09	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	87533	5.00	5.34	
17 Trichlorofluoromethane	101	1.803	1.803	0.000	98	96028	5.00	5.31	
18 Ethyl ether	59	2.039	2.051	-0.012	84	52387	5.00	5.23	
19 Acrolein	56	2.146	2.146	0.000	99	29097	25.0	26.8	
21 1,1-Dichloroethene	96	2.229	2.241	-0.012	98	50259	5.00	4.94	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.276	0.000	93	39545	5.00	4.80	
24 Acetone	43	2.300	2.300	0.000	100	34385	10.0	7.67	
25 Iodomethane	142	2.359	2.371	-0.012	99	96750	5.00	5.10	
26 Carbon disulfide	76	2.418	2.418	0.000	100	104180	5.00	4.66	
27 3-Chloro-1-propene	76	2.595	2.607	-0.012	85	21256	5.00	4.78	
29 Methyl acetate	43	2.655	2.655	0.000	97	46904	10.0	9.57	
30 Methylene Chloride	84	2.737	2.738	-0.001	92	43803	5.00	5.64	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	97	35477	50.0	54.1	
34 Acrylonitrile	53	3.033	3.033	0.000	99	108862	50.0	46.6	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	98	37473	5.00	4.70	
33 Methyl tert-butyl ether	73	3.092	3.104	-0.012	95	89372	5.00	4.77	
35 Hexane	86	3.447	3.448	-0.001	95	10331	5.00	4.43	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.613	3.625	-0.012	96	66552	5.00	5.00	
39 Vinyl acetate	86	3.767	3.767	0.000	98	6270	5.00	4.20	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	47	7524	5.00	4.68	
42 cis-1,2-Dichloroethene	96	4.571	4.572	-0.001	82	42192	5.00	4.92	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	99	30925	10.0	10.1	
46 Chlorobromomethane	128	4.962	4.962	0.000	93	19701	5.00	4.86	
48 Tetrahydrofuran	42	5.057	5.057	0.000	83	18994	10.0	9.82	
49 Chloroform	83	5.139	5.140	-0.001	95	66392	5.00	4.86	
50 1,1,1-Trichloroethane	97	5.352	5.353	-0.001	97	49031	5.00	4.49	
51 Cyclohexane	56	5.412	5.412	0.000	91	51810	5.00	4.76	
52 Carbon tetrachloride	117	5.577	5.577	0.000	92	41982	5.00	4.54	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	94	52546	5.00	4.84	
54 Benzene	78	5.849	5.850	-0.001	96	148399	5.00	4.86	
56 1,2-Dichloroethane	62	5.885	5.885	0.000	98	57834	5.00	4.85	
55 Isobutyl alcohol	41	5.944	5.944	0.000	90	29957	125.0	136.1	
58 n-Heptane	100	6.287	6.287	0.000	87	11472	5.00	4.30	
59 Trichloroethene	130	6.654	6.654	0.000	96	39446	5.00	4.89	
62 Methylcyclohexane	83	6.843	6.844	-0.001	88	61926	5.00	4.63	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	94	36000	5.00	4.82	
65 Dibromomethane	93	6.997	6.997	0.000	92	24036	5.00	4.83	
67 1,4-Dioxane	88	7.068	7.068	0.000	91	7965	100.0	105.2	
68 Dichlorobromomethane	83	7.198	7.199	-0.001	98	43152	5.00	4.44	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	94	36589	10.0	8.78	
71 cis-1,3-Dichloropropene	75	7.648	7.648	0.000	93	50511	5.00	4.35	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.838	-0.001	96	54855	10.0	8.93	
74 Toluene	91	7.968	7.968	0.000	98	151772	5.00	4.67	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	96	43278	5.00	4.15	
76 Ethyl methacrylate	69	8.322	8.323	-0.001	87	34595	5.00	3.81	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	94	29694	5.00	4.75	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	28060	5.00	4.48	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	56390	5.00	4.76	
80 2-Hexanone	43	8.618	8.607	0.011	96	38588	10.0	9.11	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	27754	5.00	3.94	
83 Ethylene Dibromide	107	8.784	8.784	0.000	99	30957	5.00	4.85	
85 Chlorobenzene	112	9.234	9.234	0.000	96	101477	5.00	4.73	
86 1,1,1,2-Tetrachloroethane	131	9.316	9.317	-0.001	91	29048	5.00	4.15	
87 Ethylbenzene	106	9.352	9.352	0.000	98	51593	5.00	4.41	
88 m-Xylene & p-Xylene	106	9.458	9.459	-0.001	99	61088	5.00	4.35	
89 o-Xylene	106	9.790	9.790	0.000	98	57673	5.00	4.29	
90 Styrene	104	9.802	9.802	0.000	94	88472	5.00	4.24	
91 Bromoform	173	9.944	9.944	0.000	91	14295	5.00	6.04	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	143025	5.00	4.35	
94 Bromobenzene	156	10.358	10.358	0.000	94	37413	5.00	5.33	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	96	37309	5.00	5.22	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	90	12010	5.00	5.41	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	69	8120	5.00	4.71	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	39923	5.00	5.29	
99 2-Chlorotoluene	126	10.523	10.524	-0.001	95	35743	5.00	5.31	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	86	112949	5.00	4.89	
101 4-Chlorotoluene	126	10.618	10.618	0.000	99	36094	5.00	4.80	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	98231	5.00	5.19	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	110593	5.00	5.09	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	94	144806	5.00	5.35	
108 1,3-Dichlorobenzene	146	11.162	11.163	-0.001	97	66575	5.00	5.16	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	55	128209	5.00	5.17	
110 1,4-Dichlorobenzene	146	11.233	11.234	-0.001	95	71981	5.00	5.22	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	66190	5.00	4.88	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	109835	5.00	4.96	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	77	5363	5.00	4.58	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	47606	5.00	5.05	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	94	21017	5.00	5.09	
119 Naphthalene	128	13.091	13.091	0.000	97	125090	5.00	5.27	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	50152	5.00	5.23	
S 132 1,2-Dichloroethene, Total	96				0			9.62	
S 133 1,3-Dichloropropene, Total	75				0			8.50	
S 134 Xylenes, Total	106				0		10.0	8.64	
S 157 Total BTEX	1				0		25.0	22.6	
S 135 Trihalomethanes, Total	1				0		20.0	19.3	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
VMRPRIMW_00382	Amount Added:	0.50	Units: uL
VMRGAS_00335	Amount Added:	0.50	Units: uL
VMAROLISTDW_00341	Amount Added:	0.50	Units: uL
vm50ss_00398	Amount Added:	0.50	Units: uL

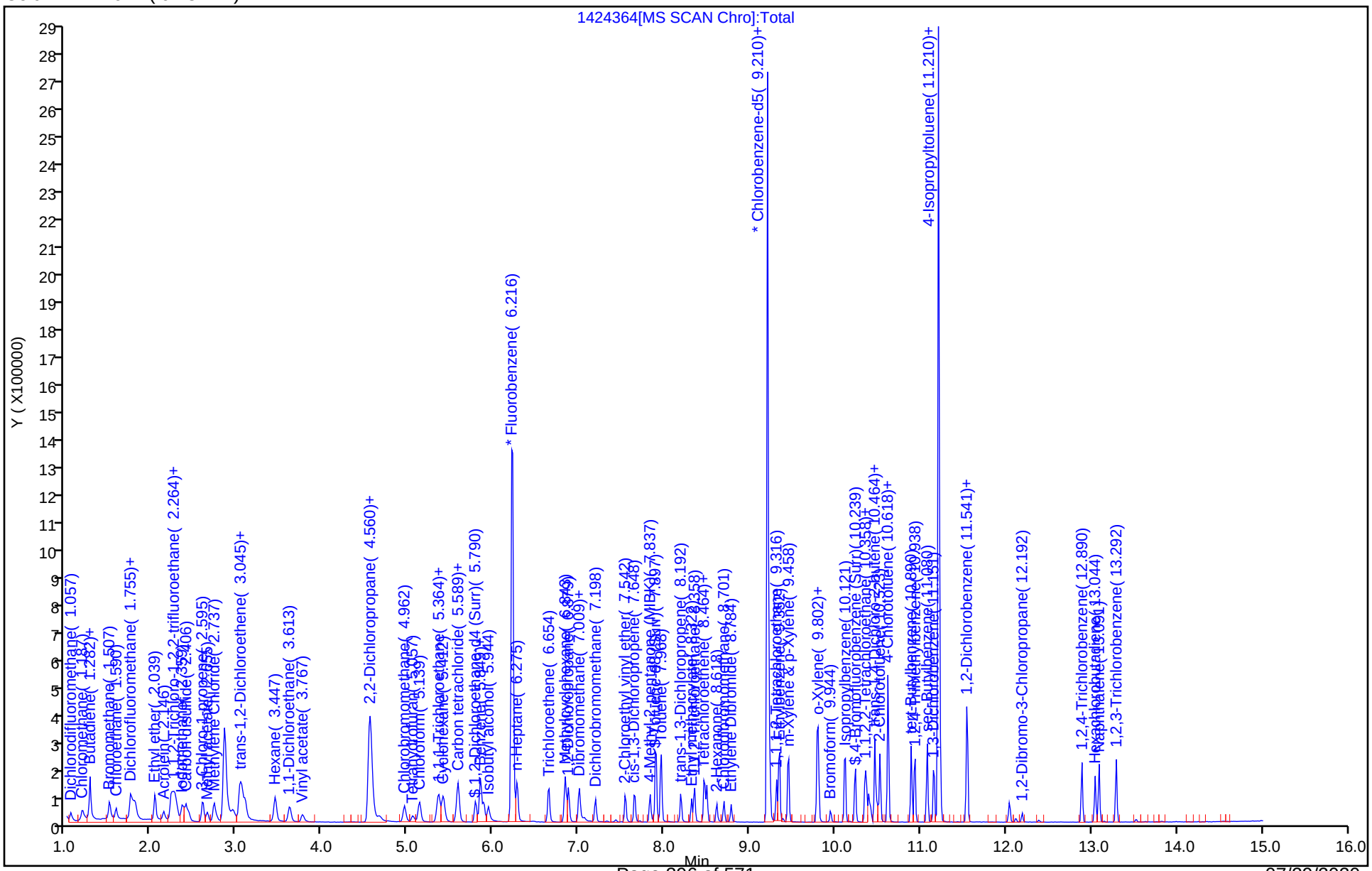
Report Date: 22-Apr-2020 10:35:26 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424364.D

Injection Date:	20-Apr-2020 16:51:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424365.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Apr-2020 17:13:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-010
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:27 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 21-Apr-2020 10:56:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1213004	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1030203	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	96	472595	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	17989	2.00	2.31	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	28480	2.00	2.90	
$ 6 Toluene-d8 (Surr)	98	7.908	7.909	0.000	94	73111	2.00	2.53	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.240	-0.001	0	25876	2.00	0.7886	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	98	10632	2.00	1.45	
10 Chloromethane	50	1.187	1.187	0.000	99	17170	2.00	2.00	
12 Butadiene	54	1.282	1.282	0.000	99	12700	2.00	1.66	
11 Vinyl chloride	62	1.270	1.282	-0.012	95	17810	2.00	1.78	
13 Bromomethane	94	1.507	1.507	0.000	91	15207	2.00	1.90	
15 Chloroethane	64	1.590	1.590	0.000	98	11923	2.00	1.86	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	96	30984	2.00	1.99	
17 Trichlorofluoromethane	101	1.791	1.803	-0.012	97	28509	2.00	1.66	
18 Ethyl ether	59	2.039	2.051	-0.012	88	19653	2.00	2.07	
19 Acrolein	56	2.146	2.146	0.000	98	10568	10.0	10.2	
21 1,1-Dichloroethene	96	2.229	2.241	-0.012	96	15788	2.00	1.64	
22 1,1,2-Trichloro-1,2,2-trif	151	2.264	2.276	-0.012	92	8081	2.00	1.03	
24 Acetone	43	2.300	2.300	0.000	100	19316	4.00	1.94	
25 Iodomethane	142	2.359	2.371	-0.012	99	29840	2.00	1.66	
26 Carbon disulfide	76	2.418	2.418	0.000	99	27480	2.00	2.24	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	86	7275	2.00	1.72	
29 Methyl acetate	43	2.655	2.655	0.000	97	19050	4.00	4.09	
30 Methylene Chloride	84	2.737	2.738	-0.001	90	21997	2.00	2.99	
31 2-Methyl-2-propanol	59	2.950	2.962	-0.012	96	11038	20.0	17.7	
34 Acrylonitrile	53	3.033	3.033	0.000	97	43225	20.0	19.5	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	98	12584	2.00	1.66	
33 Methyl tert-butyl ether	73	3.092	3.104	-0.012	96	32558	2.00	1.83	
35 Hexane	86	3.459	3.448	0.011	92	2252	2.00	1.02	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	96	23064	2.00	1.82	
39 Vinyl acetate	86	3.767	3.767	0.000	98	2101	2.00	1.48	
41 2,2-Dichloropropane	97	4.572	4.560	0.012	44	2637	2.00	1.73	
42 cis-1,2-Dichloroethene	96	4.572	4.572	0.000	72	15107	2.00	1.85	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	98	13524	4.00	4.64	
46 Chlorobromomethane	128	4.962	4.962	0.000	91	7552	2.00	1.96	
48 Tetrahydrofuran	42	5.068	5.057	0.011	82	8583	4.00	4.67	
49 Chloroform	83	5.139	5.140	-0.001	95	24016	2.00	1.85	
50 1,1,1-Trichloroethane	97	5.352	5.353	-0.001	97	14128	2.00	1.36	
51 Cyclohexane	56	5.412	5.412	0.000	89	12101	2.00	1.17	
52 Carbon tetrachloride	117	5.577	5.577	0.000	96	10598	2.00	1.21	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	94	15304	2.00	1.48	
54 Benzene	78	5.849	5.850	-0.001	95	52468	2.00	1.81	
56 1,2-Dichloroethane	62	5.897	5.885	0.012	98	21602	2.00	1.91	
55 Isobutyl alcohol	41	5.944	5.944	0.000	91	9416	50.0	45.1	
58 n-Heptane	100	6.275	6.287	-0.012	84	2335	2.00	0.9208	
59 Trichloroethene	130	6.654	6.654	0.000	95	12679	2.00	1.66	
62 Methylcyclohexane	83	6.843	6.844	-0.001	89	12524	2.00	0.9862	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	90	12925	2.00	1.82	
65 Dibromomethane	93	6.997	6.997	0.000	91	8589	2.00	1.82	
67 1,4-Dioxane	88	7.068	7.068	0.000	91	2970	40.0	41.3	
68 Dichlorobromomethane	83	7.198	7.199	-0.001	97	15330	2.00	1.66	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	94	12309	4.00	3.11	
71 cis-1,3-Dichloropropene	75	7.660	7.648	0.012	94	16895	2.00	1.53	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.838	-0.001	96	18306	4.00	3.12	
74 Toluene	91	7.968	7.968	0.000	97	55958	2.00	1.80	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	97	14189	2.00	1.42	
76 Ethyl methacrylate	69	8.323	8.323	0.000	87	11381	2.00	1.31	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	93	10950	2.00	1.83	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	8389	2.00	1.40	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	92	20552	2.00	1.81	
80 2-Hexanone	43	8.618	8.607	0.011	97	13230	4.00	3.27	
82 Chlorodibromomethane	129	8.701	8.701	0.000	91	9049	2.00	1.34	
83 Ethylene Dibromide	107	8.784	8.784	0.000	99	10191	2.00	1.67	
85 Chlorobenzene	112	9.234	9.234	0.000	97	37220	2.00	1.81	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	-0.001	88	10246	2.00	1.53	
87 Ethylbenzene	106	9.352	9.352	0.000	98	16705	2.00	1.49	
88 m-Xylene & p-Xylene	106	9.458	9.459	-0.001	99	20567	2.00	1.53	
89 o-Xylene	106	9.790	9.790	0.000	97	20065	2.00	1.56	
90 Styrene	104	9.802	9.802	0.000	94	30260	2.00	1.52	
91 Bromoform	173	9.955	9.944	0.011	94	4906	2.00	4.02	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	45182	2.00	1.44	
94 Bromobenzene	156	10.358	10.358	0.000	94	13753	2.00	2.01	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	96	11983	2.00	1.72	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	91	4225	2.00	1.95	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	66	3307	2.00	1.97	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	11828	2.00	1.60	
99 2-Chlorotoluene	126	10.523	10.524	-0.001	95	12805	2.00	1.95	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	80	34723	2.00	1.54	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	13623	2.00	1.86	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	29598	2.00	1.60	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	36408	2.00	1.71	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	94	42053	2.00	1.59	
108 1,3-Dichlorobenzene	146	11.162	11.163	-0.001	97	24537	2.00	1.95	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	47	38088	2.00	1.57	
110 1,4-Dichlorobenzene	146	11.233	11.234	-0.001	94	27832	2.00	2.07	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	24484	2.00	1.85	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	30384	2.00	1.40	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	78	1847	2.00	1.61	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	17600	2.00	1.91	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	94	6637	2.00	1.65	
119 Naphthalene	128	13.091	13.091	0.000	97	43526	2.00	1.88	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	17413	2.00	1.86	
S 132 1,2-Dichloroethene, Total	96				0			3.52	
S 133 1,3-Dichloropropene, Total	75				0			2.95	
S 134 Xylenes, Total	106				0		4.00	3.09	
S 157 Total BTEX	1				0		10.0	8.19	
S 135 Trihalomethanes, Total	1				0		8.00	8.88	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
vm50ss_00398	Amount Added:	0.20	Units: uL
VMAROLISTDW_00341	Amount Added:	0.20	Units: uL
VMRGAS_00335	Amount Added:	0.20	Units: uL
VMRPRIMW_00382	Amount Added:	0.20	Units: uL

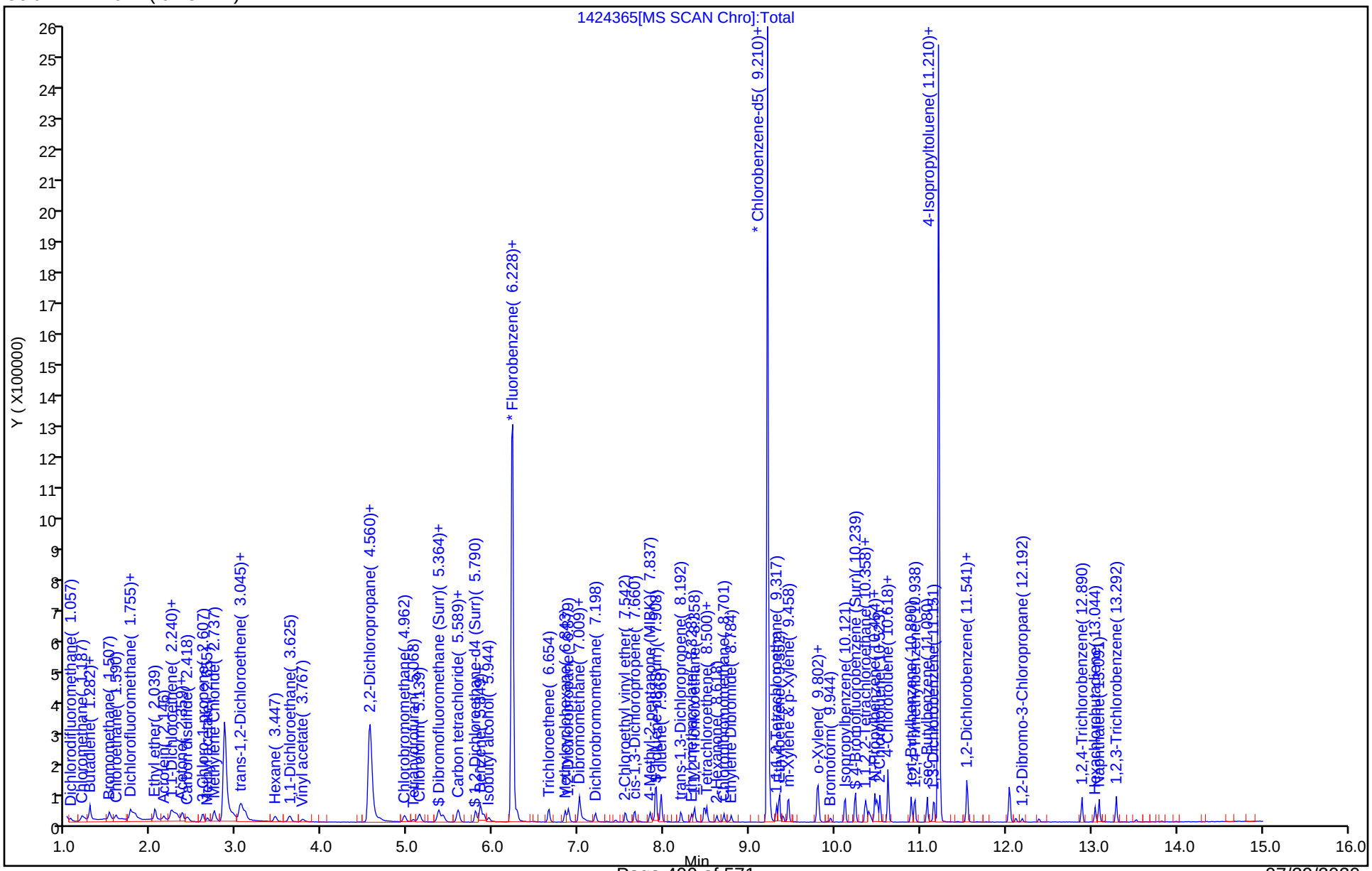
Report Date: 22-Apr-2020 10:35:29 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424365.D

Injection Date:	20-Apr-2020 17:13:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Apr-2020 17:35:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 240-0097619-011
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:30 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 21-Apr-2020 11:16:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1143410	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	985033	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	452314	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	91	10020	1.00	1.37	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.802	5.790	0.012	96	17583	1.00	1.90	
$ 6 Toluene-d8 (Surr)	98	7.908	7.909	0.000	93	44917	1.00	1.62	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	16449	1.00	-0.4030	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	96	3657	1.00	0.5304	
10 Chloromethane	50	1.199	1.187	0.012	98	7430	1.00	0.9196	
12 Butadiene	54	1.282	1.282	0.000	95	4492	1.00	0.6243	
11 Vinyl chloride	62	1.282	1.282	0.000	74	6827	1.00	0.7237	
13 Bromomethane	94	1.507	1.507	0.000	89	7538	1.00	1.00	
15 Chloroethane	64	1.590	1.590	0.000	97	5016	1.00	0.8313	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	11847	1.00	0.8083	
17 Trichlorofluoromethane	101	1.803	1.803	0.000	96	9636	1.00	0.5954	
18 Ethyl ether	59	2.051	2.051	0.000	85	10089	1.00	1.12	
19 Acrolein	56	2.146	2.146	0.000	98	4787	5.00	4.92	
21 1,1-Dichloroethene	96	2.241	2.241	0.000	96	8310	1.00	0.9131	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.276	0.000	92	5200	1.00	0.7060	
24 Acetone	43	2.300	2.300	0.000	100	14023	2.00	0.0356	
25 Iodomethane	142	2.371	2.371	0.000	99	15247	1.00	0.8987	
26 Carbon disulfide	76	2.418	2.418	0.000	99	14958	1.00	1.84	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	83	3475	1.00	0.8724	
29 Methyl acetate	43	2.655	2.655	0.000	96	9850	2.00	2.25	
30 Methylene Chloride	84	2.738	2.738	0.000	92	15340	1.00	2.21	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	95	6274	10.0	10.7	
34 Acrylonitrile	53	3.045	3.033	0.012	98	21501	10.0	10.3	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	97	6577	1.00	0.9217	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	95	15852	1.00	0.9450	
35 Hexane	86	3.447	3.448	-0.001	93	1184	1.00	0.5673	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	96	11322	1.00	0.9496	
39 Vinyl acetate	86	3.791	3.767	0.024	97	1093	1.00	0.8184	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	44	1348	1.00	0.9373	
42 cis-1,2-Dichloroethene	96	4.583	4.572	0.011	56	8209	1.00	1.07	
43 2-Butanone (MEK)	43	4.678	4.666	0.012	98	8714	2.00	3.17	
46 Chlorobromomethane	128	4.962	4.962	0.000	89	3385	1.00	0.9327	
48 Tetrahydrofuran	42	5.069	5.057	0.012	89	5320	2.00	3.07	
49 Chloroform	83	5.140	5.140	0.000	94	11969	1.00	0.9788	
50 1,1,1-Trichloroethane	97	5.353	5.353	0.000	97	7540	1.00	0.7711	
51 Cyclohexane	56	5.412	5.412	0.000	89	6512	1.00	0.6687	
52 Carbon tetrachloride	117	5.577	5.577	0.000	93	5434	1.00	0.6573	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	95	8139	1.00	0.8373	
54 Benzene	78	5.850	5.850	0.000	94	26337	1.00	0.9633	
56 1,2-Dichloroethane	62	5.897	5.885	0.012	97	10885	1.00	1.02	
55 Isobutyl alcohol	41	5.956	5.944	0.012	86	4080	25.0	20.7	
58 n-Heptane	100	6.287	6.287	0.000	79	1181	1.00	0.4941	
59 Trichloroethene	130	6.654	6.654	0.000	95	6555	1.00	0.9086	
62 Methylcyclohexane	83	6.844	6.844	0.000	91	7356	1.00	0.6145	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	92	6685	1.00	1.00	
65 Dibromomethane	93	7.009	6.997	0.012	91	4790	1.00	1.08	
67 1,4-Dioxane	88	7.068	7.068	0.000	81	1214	20.0	17.9	
68 Dichlorobromomethane	83	7.199	7.199	0.000	95	7694	1.00	0.8853	
70 2-Chloroethyl vinyl ether	63	7.554	7.542	0.012	94	6859	2.00	1.84	
71 cis-1,3-Dichloropropene	75	7.660	7.648	0.012	93	8870	1.00	0.8537	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.838	-0.001	95	12808	2.00	2.28	
74 Toluene	91	7.968	7.968	0.000	98	28954	1.00	0.9743	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	96	7036	1.00	0.7373	
76 Ethyl methacrylate	69	8.323	8.323	0.000	86	6139	1.00	0.7394	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	91	5862	1.00	1.03	
78 Tetrachloroethene	164	8.476	8.476	0.000	92	4752	1.00	0.8306	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	93	10793	1.00	1.00	
80 2-Hexanone	43	8.618	8.607	0.011	95	7409	2.00	1.91	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	4777	1.00	0.7417	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	5559	1.00	0.9528	
85 Chlorobenzene	112	9.234	9.234	0.000	97	20555	1.00	1.05	
86 1,1,1,2-Tetrachloroethane	131	9.317	9.317	0.000	89	4685	1.00	0.7320	
87 Ethylbenzene	106	9.352	9.352	0.000	98	8657	1.00	0.8086	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	98	10776	1.00	0.8393	
89 o-Xylene	106	9.790	9.790	0.000	97	10098	1.00	0.8218	
90 Styrene	104	9.802	9.802	0.000	95	15790	1.00	0.8273	
91 Bromoform	173	9.956	9.944	0.012	89	2360	1.00	3.46	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	22878	1.00	0.7618	
94 Bromobenzene	156	10.358	10.358	0.000	90	6952	1.00	1.06	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	94	6863	1.00	1.03	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	90	2335	1.00	1.13	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	61	1833	1.00	1.14	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	6225	1.00	0.8820	
99 2-Chlorotoluene	126	10.524	10.524	0.000	95	6718	1.00	1.07	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	79	18721	1.00	0.8681	
101 4-Chlorotoluene	126	10.618	10.618	0.000	98	6806	1.00	0.9694	
103 tert-Butylbenzene	119	10.890	10.890	0.000	93	16016	1.00	0.9065	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	96	17371	1.00	0.8549	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	94	21327	1.00	0.8439	
108 1,3-Dichlorobenzene	146	11.163	11.163	0.000	97	14125	1.00	1.17	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	48	19800	1.00	0.8543	
110 1,4-Dichlorobenzene	146	11.234	11.234	0.000	93	15698	1.00	1.22	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	13920	1.00	1.10	
113 n-Butylbenzene	91	11.553	11.553	0.000	96	16421	1.00	0.7933	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	77	1047	1.00	0.9564	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	9838	1.00	1.12	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	86	3133	1.00	0.8129	
119 Naphthalene	128	13.091	13.091	0.000	98	24246	1.00	1.09	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	95	10752	1.00	1.20	
S 132 1,2-Dichloroethene, Total	96				0			1.99	
S 133 1,3-Dichloropropene, Total	75				0			1.59	
S 134 Xylenes, Total	106				0		2.00	1.66	
S 157 Total BTEX	1				0		5.00	4.41	
S 135 Trihalomethanes, Total	1				0		4.00	6.06	

Reagents:

VM568718_00017	Amount Added:	1.00	Units: uL
VMRPRIMW_00382	Amount Added:	0.10	Units: uL
VMRGAS_00335	Amount Added:	0.10	Units: uL
VMAROLISTDW_00341	Amount Added:	0.10	Units: uL
vm50ss_00398	Amount Added:	0.10	Units: uL

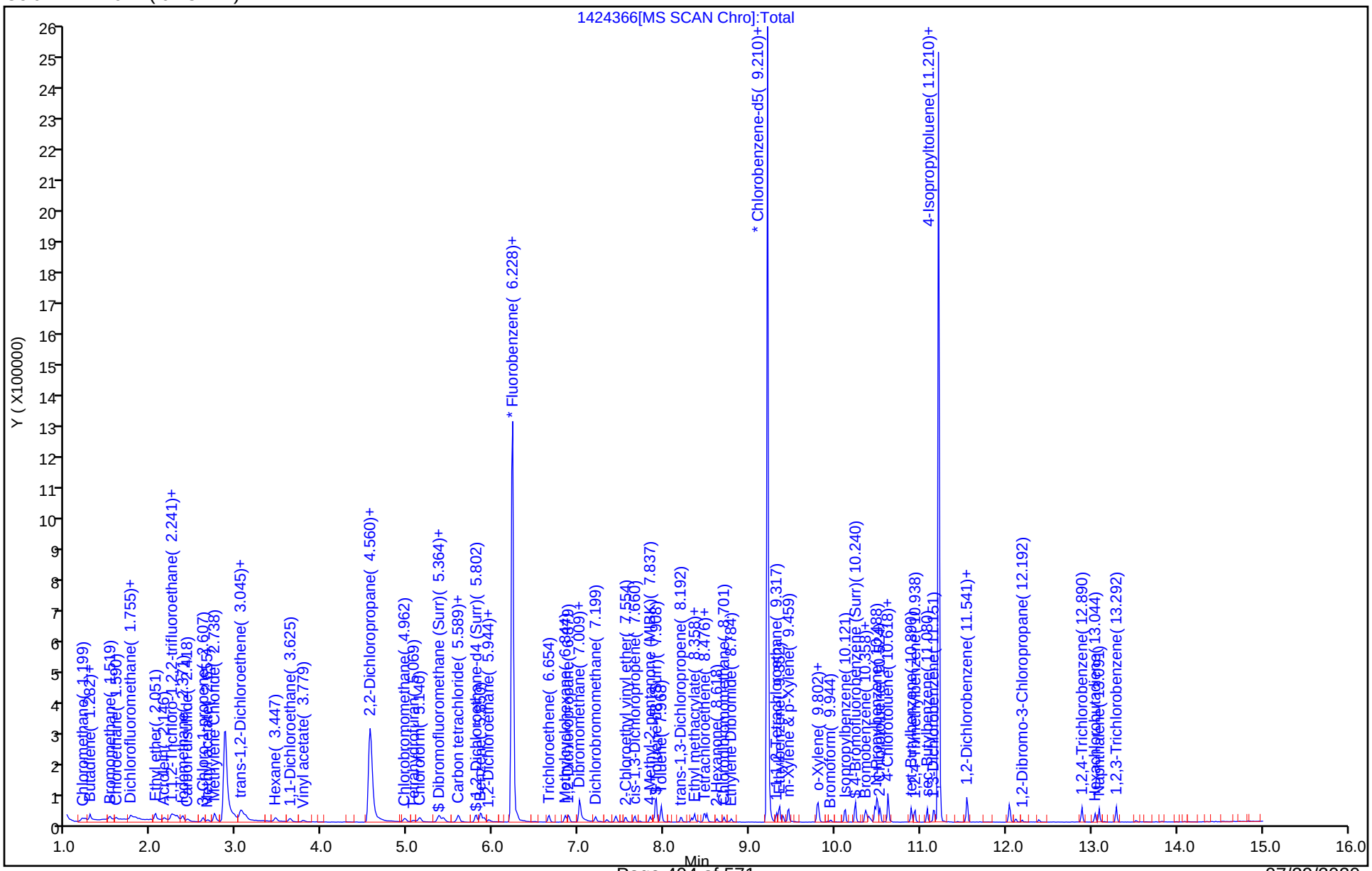
Report Date: 22-Apr-2020 10:35:32 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Injection Date:	20-Apr-2020 17:35:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	IC			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/9 Calibration Date: 01/15/2020 18:04

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX5181.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2166	0.1995		0.00921	0.0100	-7.9	50.0
Chloromethane	Ave	0.4428	0.4326	0.1000	0.00977	0.0100	-2.3	50.0
Vinyl chloride	Ave	0.3264	0.3234		0.00991	0.0100	-0.9	20.0
Butadiene	Lin1		0.1908		0.0103	0.0100	2.8	50.0
Bromomethane	Ave	0.1555	0.1436		0.00924	0.0100	-7.6	50.0
Chloroethane	Ave	0.1748	0.1707		0.00976	0.0100	-2.4	50.0
Dichlorofluoromethane	Ave	0.4414	0.4340		0.00983	0.0100	-1.7	50.0
Trichlorofluoromethane	Ave	0.2347	0.2386		0.0102	0.0100	1.6	50.0
Ethyl ether	Ave	0.3082	0.3119		0.0101	0.0100	1.2	50.0
Acrolein	Ave	0.0590	0.0554		0.0470	0.0500	-6.1	50.0
1,1-Dichloroethene	Ave	0.2357	0.2396		0.0102	0.0100	1.6	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.1057		0.00980	0.0100	-2.0	50.0
Acetone	Lin1		0.1261		0.0189	0.0200	-5.3	50.0
Iodomethane	Ave	0.2756	0.2852		0.0103	0.0100	3.5	50.0
Carbon disulfide	Ave	0.8260	0.8473		0.0103	0.0100	2.6	50.0
3-Chloro-1-propene	Ave	0.2136	0.2316		0.0108	0.0100	8.4	50.0
Methyl acetate	Ave	0.3533	0.3580		0.0203	0.0200	1.3	50.0
Methylene Chloride	Ave	0.2908	0.2958		0.0102	0.0100	1.7	50.0
tert-Butyl alcohol	Ave	0.0413	0.0404		0.0977	0.100	-2.3	50.0
Acrylonitrile	Ave	0.1722	0.1675		0.0973	0.100	-2.7	50.0
Methyl tert-butyl ether	Ave	0.7975	0.8002		0.0100	0.0100	0.3	50.0
trans-1,2-Dichloroethene	Ave	0.2732	0.2816		0.0103	0.0100	3.1	50.0
Hexane	Ave	0.0527	0.0544		0.0103	0.0100	3.2	20.0
1,1-Dichloroethane	Ave	0.6453	0.6693	0.1000	0.0104	0.0100	3.7	50.0
Vinyl acetate	Lin1		0.6686		0.00869	0.0100	-13.1	50.0
2,2-Dichloropropane	Ave	0.0612	0.0602		0.00983	0.0100	-1.7	50.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3130		0.0103	0.0100	2.9	50.0
2-Butanone (MEK)	Ave	0.2186	0.1982		0.0181	0.0200	-9.4	50.0
Bromochloromethane	Ave	0.1239	0.1240		0.0100	0.0100	0.0	50.0
Tetrahydrofuran	Ave	0.1532	0.1379		0.0180	0.0200	-9.9	50.0
Chloroform	Ave	0.4726	0.4588		0.00971	0.0100	-2.9	20.0
1,1,1-Trichloroethane	Ave	0.2994	0.3068		0.0102	0.0100	2.5	50.0
Cyclohexane	Ave	0.5668	0.5620		0.00991	0.0100	-0.9	50.0
1,1-Dichloropropene	Ave	0.3707	0.3656		0.00986	0.0100	-1.4	50.0
Carbon tetrachloride	Ave	0.2390	0.2462		0.0103	0.0100	3.0	50.0
Isobutyl alcohol	Lin1		0.0218		0.253	0.250	1.1	50.0
Benzene	Ave	1.237	1.231		0.00995	0.0100	-0.5	50.0
1,2-Dichloroethane	Ave	0.4549	0.4515		0.00992	0.0100	-0.8	50.0
n-Heptane	Ave	0.0418	0.0390		0.00934	0.0100	-6.6	50.0
Trichloroethene	Ave	0.2569	0.2532		0.00986	0.0100	-1.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/9 Calibration Date: 01/15/2020 18:04

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX5181.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3275	0.3273		0.00999	0.0100	-0.0	50.0
1,2-Dichloropropane	Ave	0.3890	0.3954		0.0102	0.0100	1.7	20.0
Dibromomethane	Ave	0.1583	0.1640		0.0104	0.0100	3.6	50.0
1,4-Dioxane	Qua		0.0021		0.140	0.200	-30.1	50.0
Bromodichloromethane	Ave	0.3536	0.3595		0.0102	0.0100	1.7	50.0
2-Chloroethyl vinyl ether	Ave	0.2808	0.2842		0.0101	0.0100	1.2	50.0
cis-1,3-Dichloropropene	Ave	0.4841	0.4930		0.0102	0.0100	1.8	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4522	0.4292		0.0190	0.0200	-5.1	50.0
Toluene	Ave	1.832	1.849		0.0101	0.0100	0.9	20.0
trans-1,3-Dichloropropene	Ave	0.6432	0.6327		0.00984	0.0100	-1.6	50.0
Ethyl methacrylate	Ave	0.7061	0.7214		0.0102	0.0100	2.2	50.0
1,1,2-Trichloroethane	Ave	0.3881	0.3848		0.00992	0.0100	-0.8	50.0
Tetrachloroethene	Ave	0.2126	0.2099		0.00987	0.0100	-1.3	50.0
1,3-Dichloropropane	Ave	0.7063	0.7204		0.0102	0.0100	2.0	50.0
2-Hexanone	Ave	0.4565	0.4434		0.0194	0.0200	-2.9	50.0
Chlorodibromomethane	Ave	0.3357	0.3450		0.0103	0.0100	2.8	50.0
1,2-Dibromoethane	Ave	0.3454	0.3525		0.0102	0.0100	2.0	50.0
Chlorobenzene	Ave	0.9782	0.996	0.3000	0.0102	0.0100	1.8	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3055	0.3183		0.0104	0.0100	4.2	50.0
Ethylbenzene	Ave	0.5440	0.5438		0.0100	0.0100	-0.0	20.0
m-Xylene & p-Xylene	Ave	0.6468	0.6456		0.00998	0.0100	-0.2	50.0
o-Xylene	Ave	0.6058	0.6435		0.0106	0.0100	6.2	50.0
Styrene	Ave	1.084	1.104		0.0102	0.0100	1.8	50.0
Bromoform	Ave	0.1777	0.1798	0.1000	0.0101	0.0100	1.2	50.0
Isopropylbenzene	Ave	1.404	1.412		0.0101	0.0100	0.6	50.0
1,1,2,2-Tetrachloroethane	Ave	1.209	1.188	0.3000	0.00983	0.0100	-1.7	50.0
Bromobenzene	Ave	0.7739	0.7459		0.00964	0.0100	-3.6	50.0
1,2,3-Trichloropropane	Ave	0.3230	0.3332		0.0103	0.0100	3.1	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.4687		0.00866	0.0100	-13.4	50.0
N-Propylbenzene	Ave	0.8917	0.9129		0.0102	0.0100	2.4	50.0
2-Chlorotoluene	Ave	0.8051	0.7696		0.00956	0.0100	-4.4	50.0
1,3,5-Trimethylbenzene	Ave	2.610	2.665		0.0102	0.0100	2.1	50.0
4-Chlorotoluene	Ave	0.8523	0.8373		0.00982	0.0100	-1.8	50.0
tert-Butylbenzene	Ave	1.945	1.967		0.0101	0.0100	1.1	50.0
1,2,4-Trimethylbenzene	Ave	2.797	2.805		0.0100	0.0100	0.3	50.0
sec-Butylbenzene	Ave	2.718	2.775		0.0102	0.0100	2.1	50.0
1,3-Dichlorobenzene	Ave	1.398	1.375		0.00983	0.0100	-1.7	50.0
4-Isopropyltoluene	Ave	2.170	2.233		0.0103	0.0100	2.9	50.0
1,4-Dichlorobenzene	Ave	1.422	1.414		0.00994	0.0100	-0.6	50.0
n-Butylbenzene	Ave	2.043	2.092		0.0102	0.0100	2.4	50.0
1,2-Dichlorobenzene	Ave	1.394	1.391		0.00997	0.0100	-0.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/9 Calibration Date: 01/15/2020 18:04

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX5181.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Qua		0.2035		0.0101	0.0100	0.9	50.0
1,2,4-Trichlorobenzene	Ave	0.6166	0.6303		0.0102	0.0100	2.2	50.0
Hexachlorobutadiene	Ave	0.1511	0.1382		0.00915	0.0100	-8.5	50.0
Naphthalene	Ave	3.231	2.958		0.00915	0.0100	-8.5	50.0
1,2,3-Trichlorobenzene	Ave	0.6137	0.5666		0.00923	0.0100	-7.7	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2180		0.00933	0.0100	-6.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3432	0.3363		0.00980	0.0100	-2.0	50.0
Toluene-d8 (Surr)	Ave	1.538	1.501		0.00976	0.0100	-2.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4841	0.4796		0.00991	0.0100	-0.9	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5181.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 15-Jan-2020 18:04:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-009
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub63

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:51:51 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 16-Jan-2020 10:42:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.973	4.975	-0.002	97	391338	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.646	7.637	0.009	89	251783	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.870	9.861	0.010	97	102138	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.405	4.408	-0.003	91	85313	10.0	9.33	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.689	4.691	-0.002	97	131624	10.0	9.80	
$ 6 Toluene-d8 (Surr)	98	6.333	6.336	-0.003	94	377905	10.0	9.76	
$ 7 4-Bromofluorobenzene (Surr	95	8.746	8.749	-0.003	77	120761	10.0	9.91	
9 Dichlorodifluoromethane	85	1.247	1.249	-0.002	98	78076	10.0	9.21	
10 Chloromethane	50	1.401	1.391	0.010	99	169301	10.0	9.77	
11 Vinyl chloride	62	1.484	1.486	-0.002	98	126568	10.0	9.91	
12 Butadiene	54	1.519	1.510	0.009	95	74656	10.0	10.3	
13 Bromomethane	94	1.767	1.758	0.009	91	56209	10.0	9.24	
14 Chloroethane	64	1.850	1.841	0.009	97	66794	10.0	9.76	
15 Dichlorofluoromethane	67	2.016	2.018	-0.002	99	169824	10.0	9.83	
16 Trichlorofluoromethane	101	2.051	2.042	0.009	96	93352	10.0	10.2	
17 Ethyl ether	59	2.300	2.290	0.010	98	122065	10.0	10.1	
18 Acrolein	56	2.406	2.409	-0.003	99	108363	50.0	47.0	
19 1,1-Dichloroethene	96	2.489	2.491	-0.002	92	93746	10.0	10.2	
20 1,1,2-Trichloro-1,2,2-trif	151	2.525	2.515	0.009	94	41369	10.0	9.80	
21 Acetone	43	2.548	2.539	0.009	99	98683	20.0	18.9	
22 Iodomethane	142	2.619	2.621	-0.002	97	111608	10.0	10.3	
24 Carbon disulfide	76	2.678	2.681	-0.003	100	331565	10.0	10.3	
26 3-Chloro-1-propene	76	2.808	2.811	-0.003	90	90644	10.0	10.8	
27 Methyl acetate	43	2.832	2.834	-0.002	99	280177	20.0	20.3	
28 Methylene Chloride	84	2.915	2.917	-0.002	97	115767	10.0	10.2	
29 2-Methyl-2-propanol	59	3.021	3.024	-0.003	99	157943	100.0	97.7	
31 Acrylonitrile	53	3.128	3.130	-0.002	100	655620	100.0	97.3	
30 trans-1,2-Dichloroethene	96	3.151	3.154	-0.003	91	110197	10.0	10.3	
32 Methyl tert-butyl ether	73	3.151	3.154	-0.003	98	313135	10.0	10.0	
33 Hexane	86	3.388	3.378	0.010	92	21293	10.0	10.3	
34 1,1-Dichloroethane	63	3.506	3.509	-0.003	96	261924	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.554	3.556	-0.002	97	261660	10.0	8.69	
39 2,2-Dichloropropane	97	4.003	4.005	-0.002	50	23570	10.0	9.83	
40 cis-1,2-Dichloroethene	96	4.003	4.005	-0.002	87	122491	10.0	10.3	
41 2-Butanone (MEK)	43	4.015	4.017	-0.002	99	155088	20.0	18.1	
45 Chlorobromomethane	128	4.204	4.206	-0.002	88	48515	10.0	10.0	
46 Tetrahydrofuran	42	4.240	4.242	-0.002	94	107959	20.0	18.0	
47 Chloroform	83	4.263	4.266	-0.003	98	179562	10.0	9.71	
48 1,1,1-Trichloroethane	97	4.429	4.419	0.010	96	120079	10.0	10.2	
49 Cyclohexane	56	4.464	4.467	-0.003	91	219922	10.0	9.91	
51 Carbon tetrachloride	117	4.559	4.561	-0.002	75	96328	10.0	10.3	
50 1,1-Dichloropropene	75	4.559	4.561	-0.002	89	143053	10.0	9.86	
52 Isobutyl alcohol	41	4.665	4.668	-0.003	94	137209	250.0	252.7	
53 Benzene	78	4.736	4.739	-0.003	98	481646	10.0	9.95	
54 1,2-Dichloroethane	62	4.748	4.751	-0.003	96	176675	10.0	9.92	
56 n-Heptane	100	4.961	4.963	-0.002	96	15262	10.0	9.34	
58 Trichloroethene	130	5.281	5.283	-0.002	94	99093	10.0	9.86	
60 Methylcyclohexane	83	5.446	5.448	-0.002	97	128071	10.0	10.0	
61 1,2-Dichloropropane	63	5.470	5.472	-0.002	97	154750	10.0	10.2	
63 Dibromomethane	93	5.576	5.579	-0.003	88	64180	10.0	10.4	
64 1,4-Dioxane	88	5.588	5.590	-0.002	91	16196	200.0	139.9	
65 Dichlorobromomethane	83	5.706	5.709	-0.003	97	140667	10.0	10.2	
67 2-Chloroethyl vinyl ether	63	5.978	5.969	0.009	91	111225	10.0	10.1	
68 cis-1,3-Dichloropropene	75	6.097	6.099	-0.002	91	192919	10.0	10.2	
69 4-Methyl-2-pentanone (MIBK	43	6.239	6.241	-0.002	97	335921	20.0	19.0	
70 Toluene	91	6.392	6.395	-0.003	97	465480	10.0	10.1	
71 trans-1,3-Dichloropropene	75	6.594	6.596	-0.002	98	159306	10.0	9.84	
72 Ethyl methacrylate	69	6.676	6.667	0.009	94	181646	10.0	10.2	
73 1,1,2-Trichloroethane	97	6.759	6.761	-0.002	93	96891	10.0	9.92	
74 Tetrachloroethene	164	6.889	6.892	-0.003	89	52853	10.0	9.87	
75 1,3-Dichloropropane	76	6.901	6.903	-0.002	98	181394	10.0	10.2	
76 2-Hexanone	43	6.984	6.986	-0.002	96	223277	20.0	19.4	
78 Chlorodibromomethane	129	7.114	7.116	-0.002	90	86860	10.0	10.3	
80 Ethylene Dibromide	107	7.220	7.223	-0.003	99	88748	10.0	10.2	
82 Chlorobenzene	112	7.670	7.672	-0.002	90	250811	10.0	10.2	
83 1,1,1,2-Tetrachloroethane	131	7.741	7.743	-0.002	96	80153	10.0	10.4	
84 Ethylbenzene	106	7.765	7.767	-0.002	99	136923	10.0	10.0	
85 m-Xylene & p-Xylene	106	7.883	7.873	0.010	99	162550	10.0	9.98	
86 o-Xylene	106	8.250	8.252	-0.002	97	162027	10.0	10.6	
87 Styrene	104	8.261	8.264	-0.003	91	277866	10.0	10.2	
88 Bromoform	173	8.439	8.441	-0.002	92	45272	10.0	10.1	
89 Isopropylbenzene	105	8.604	8.607	-0.003	97	355399	10.0	10.1	
92 1,1,2,2-Tetrachloroethane	83	8.888	8.891	-0.003	79	121382	10.0	9.83	
93 Bromobenzene	156	8.888	8.891	-0.003	94	76181	10.0	9.64	
94 1,2,3-Trichloropropane	110	8.924	8.926	-0.002	84	34029	10.0	10.3	
95 trans-1,4-Dichloro-2-buten	53	8.947	8.938	0.009	83	47870	10.0	8.66	
96 N-Propylbenzene	120	8.995	8.997	-0.002	99	93243	10.0	10.2	
97 2-Chlorotoluene	126	9.078	9.080	-0.002	94	78601	10.0	9.56	
98 1,3,5-Trimethylbenzene	105	9.172	9.163	0.009	94	272178	10.0	10.2	
99 4-Chlorotoluene	126	9.184	9.186	-0.002	99	85523	10.0	9.82	
100 tert-Butylbenzene	119	9.480	9.482	-0.002	94	200889	10.0	10.1	
102 1,2,4-Trimethylbenzene	105	9.527	9.529	-0.002	96	286458	10.0	10.0	
103 sec-Butylbenzene	105	9.693	9.695	-0.002	95	283436	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,3-Dichlorobenzene	146	9.799	9.801	-0.002	95	140447	10.0	9.83	
105 4-Isopropyltoluene	119	9.835	9.837	-0.002	97	228096	10.0	10.3	
106 1,4-Dichlorobenzene	146	9.894	9.884	0.010	92	144406	10.0	9.94	
109 n-Butylbenzene	91	10.237	10.239	-0.002	98	213641	10.0	10.2	
110 1,2-Dichlorobenzene	146	10.249	10.251	-0.002	93	142053	10.0	9.97	
111 1,2-Dibromo-3-Chloropropan	157	11.017	11.020	-0.003	70	20788	10.0	10.1	
113 1,2,4-Trichlorobenzene	180	11.845	11.836	0.009	92	64377	10.0	10.2	
114 Hexachlorobutadiene	225	12.011	12.013	-0.002	89	14113	10.0	9.15	
115 Naphthalene	128	12.082	12.084	-0.002	99	302116	10.0	9.15	
116 1,2,3-Trichlorobenzene	180	12.319	12.321	-0.002	93	57872	10.0	9.23	
S 130 Xylenes, Total	106				0		20.0	20.6	
S 156 Total BTEX	1				0		50.0	50.6	
S 131 Trihalomethanes, Total	1				0		40.0	40.3	

Reagents:

VMFASPW_00334	Amount Added:	8.00	Units: uL
VMFASGW_00343	Amount Added:	8.00	Units: uL
VMAROLISTDW_00328	Amount Added:	8.00	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL
vm50ss_00387	Amount Added:	8.00	Units: uL

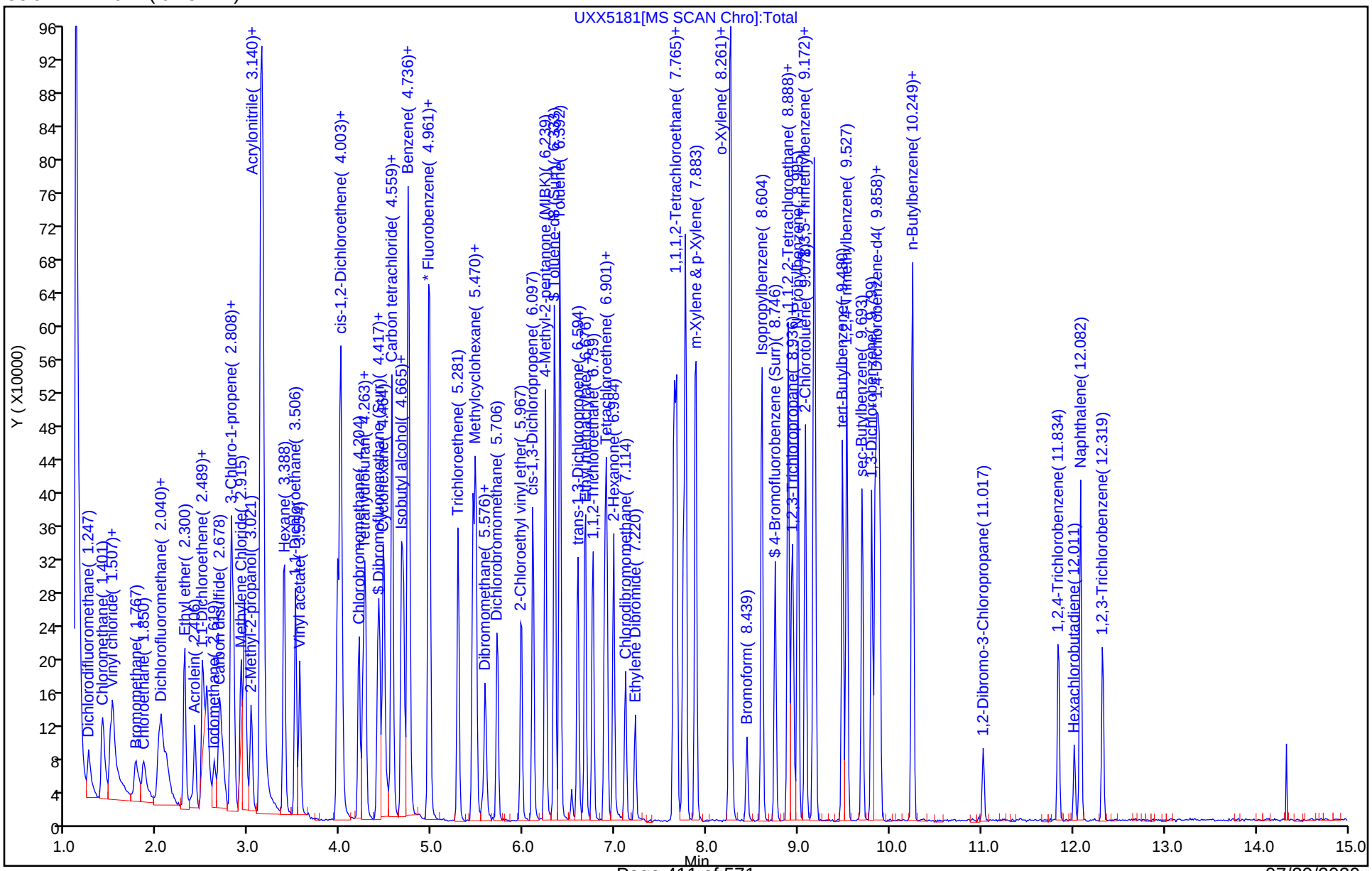
Report Date: 20-Jan-2020 16:52:01 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5181.D

Injection Date:	15-Jan-2020 18:04:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	ICV			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-419116/17 Calibration Date: 01/15/2020 21:24

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 18:29

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 20:59

Lab File ID: UXX5189.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0481	0.0443		0.0921	0.100	-7.9	50.0
Diisopropyl ether	Ave	0.2595	0.2675		0.0103	0.0100	3.1	50.0
2-Chloro-1,3-butadiene	Ave	0.6142	0.6454		0.0105	0.0100	5.1	50.0
Ethyl tert-butyl ether	Ave	1.176	1.231		0.0105	0.0100	4.7	50.0
Ethyl acetate	Ave	0.4695	0.4651		0.0198	0.0200	-0.9	50.0
Propionitrile	Ave	0.0617	0.0611		0.0989	0.100	-1.1	50.0
Methacrylonitrile	Ave	0.2900	0.3015		0.104	0.100	4.0	50.0
Tert-amyl methyl ether	Ave	0.8784	0.9427		0.0107	0.0100	7.3	50.0
n-Butanol	Ave	0.0190	0.0178		0.234	0.250	-6.4	50.0
Ethyl acrylate	Ave	0.6436	0.6543		0.0102	0.0100	1.7	50.0
Methyl methacrylate	Ave	0.4195	0.4240		0.0202	0.0200	1.1	50.0
2-Nitropropane	Ave	0.1268	0.1172		0.0185	0.0200	-7.6	50.0
n-Butyl acetate	Lin1		0.4825		0.0105	0.0100	4.7	50.0
1-Chlorohexane	Ave	0.4716	0.4831		0.0102	0.0100	2.4	50.0
Cyclohexanone	Lin1		0.0543		0.101	0.100	0.7	50.0
1,2,3-Trimethylbenzene	Ave	2.970	3.097		0.0104	0.0100	4.3	50.0
Benzyl chloride	Ave	0.4471	0.4530		0.0101	0.0100	1.3	50.0
1,3,5-Trichlorobenzene	Ave	0.6548	0.6556		0.0100	0.0100	0.1	50.0
2-Methylnaphthalene	Ave	1.328	1.255		0.0189	0.0200	-5.4	50.0
Pentachloroethane	Ave	0.0115			0.00100	0.0200	0*	45-155

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5189.D
Lims ID: ICV A9
Client ID:
Sample Type: ICV
Inject. Date: 15-Jan-2020 21:24:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-017
Operator ID: 001644 Instrument ID: A3UX10
Sublist:

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:52:27 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: williamsla Date: 20-Jan-2020 15:57:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.976	4.972	0.004	98	377866	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.637	7.646	-0.009	97	240230	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.861	9.869	-0.008	97	96745	10.0	10.0	
25 Acetonitrile	41	2.788	2.784	0.004	99	167513	100.0	92.1	
36 Isopropyl ether	87	3.568	3.577	-0.009	97	101066	10.0	10.3	
37 2-Chloro-1,3-butadiene	53	3.580	3.588	-0.008	93	243881	10.0	10.5	
38 Tert-butyl ethyl ether	59	3.876	3.872	0.004	98	465264	10.0	10.5	
43 Propionitrile	54	4.065	4.073	-0.008	72	230708	100.0	98.9	
42 Ethyl acetate	43	4.065	4.073	-0.008	99	351499	20.0	19.8	
44 Methacrylonitrile	41	4.195	4.192	0.003	95	1139252	100.0	104.0	
158 Isooctane	57	4.810	4.807	0.003	96	249689	10.0	9.83	
55 Tert-amyl methyl ether	73	4.834	4.830	0.004	94	356228	10.0	10.7	
57 n-Butanol	56	5.224	5.233	-0.009	86	106637	250.0	234.0	
59 Ethyl acrylate	55	5.378	5.375	0.003	98	247228	10.0	10.2	
62 Methyl methacrylate	41	5.567	5.576	-0.009	94	320453	20.0	20.2	
66 2-Nitropropane	41	5.910	5.907	0.003	96	88558	20.0	18.5	
77 n-Butyl acetate	56	7.093	7.102	-0.009	98	115912	10.0	10.5	
81 1-Chlorohexane	91	7.649	7.646	0.003	89	116046	10.0	10.2	
91 Cyclohexanone	55	8.690	8.687	0.003	93	52512	100.0	100.7	
101 Pentachloroethane	167		9.493				ND	ND	
107 1,2,3-Trimethylbenzene	105	9.944	9.940	0.004	99	299581	10.0	10.4	
108 Benzyl chloride	126	10.027	10.023	0.004	100	43824	10.0	10.1	
112 1,3,5-Trichlorobenzene	180	11.233	11.230	0.003	94	63422	10.0	10.0	
117 2-Methylnaphthalene	142	13.244	13.241	0.003	98	242885	20.0	18.9	
157 1-Methylnaphthalene	142	13.457	13.465	-0.008	94	216502	20.0	18.8	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

VMFASA9W_00261	Amount Added:	8.00	Units: uL
VM50IS_00080	Amount Added:	1.00	Units: uL

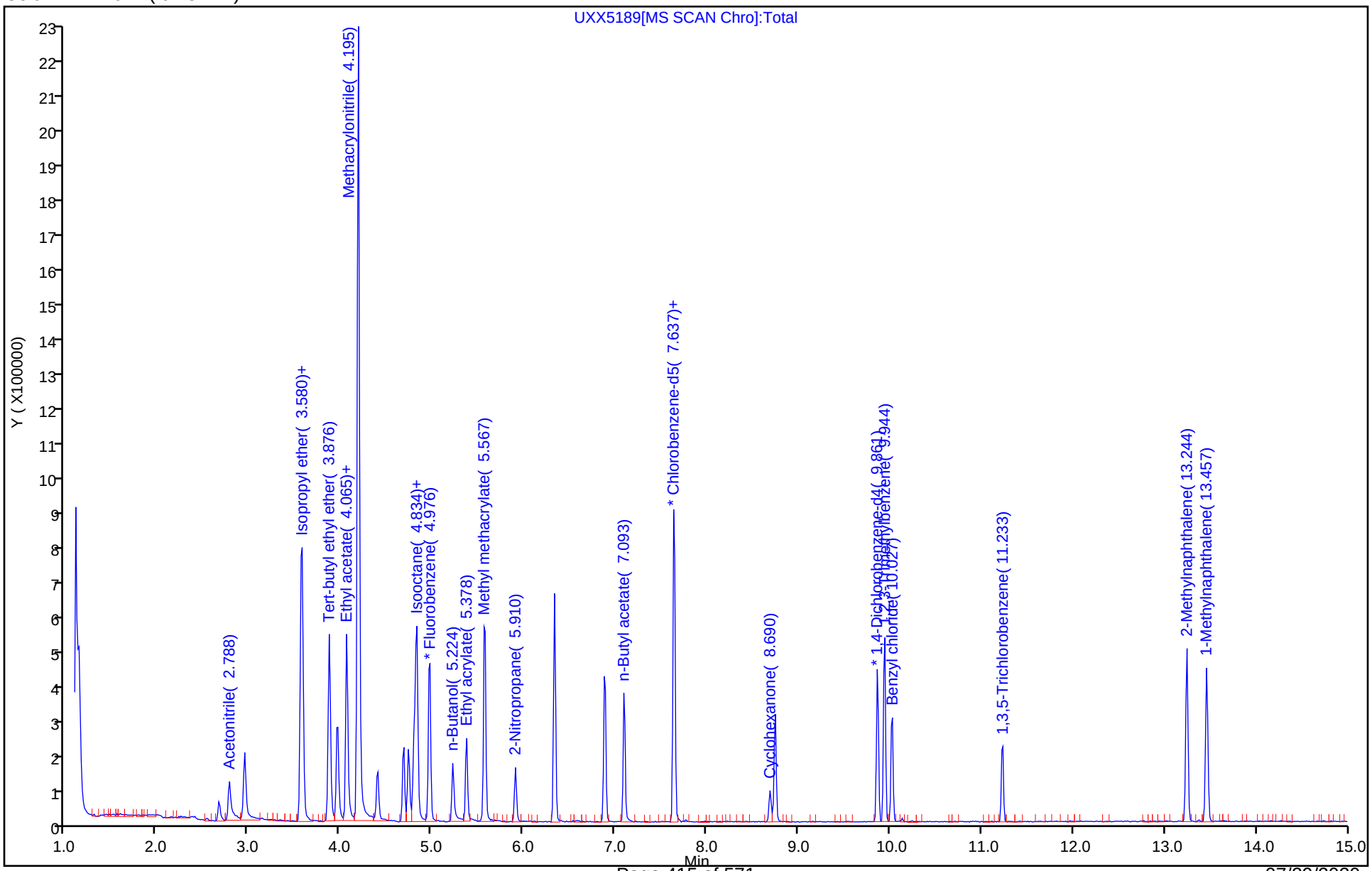
Report Date: 20-Jan-2020 16:52:32 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5189.D

Injection Date:	15-Jan-2020 21:24:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	ICV A9			Worklist Smp#:	17
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443947/2 Calibration Date: 07/23/2020 12:58

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX8809.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2166	0.2745		0.0127	0.0100	26.7	50.0
Chloromethane	Ave	0.4428	0.6563	0.1000	0.0148	0.0100	48.2	50.0
Vinyl chloride	Ave	0.3264	0.3643		0.0112	0.0100	11.6	20.0
Butadiene	Lin1		0.4226		0.0233	0.0100	133.0*	50.0
Bromomethane	Ave	0.1555	0.1346		0.00865	0.0100	-13.5	50.0
Chloroethane	Ave	0.1748	0.1785		0.0102	0.0100	2.1	50.0
Dichlorofluoromethane	Ave	0.4414	0.3668		0.00831	0.0100	-16.9	50.0
Trichlorofluoromethane	Ave	0.2347	0.3305		0.0141	0.0100	40.8	50.0
Ethyl ether	Ave	0.3082	0.3394		0.0110	0.0100	10.1	50.0
Acrolein	Ave	0.0590	0.0201		0.0170	0.0500	-66.0*	50.0
1,1-Dichloroethene	Ave	0.2357	0.2510		0.0106	0.0100	6.5	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.1676		0.0150	0.0100	50.4*	50.0
Acetone	Lin1		0.1113		0.0165	0.0200	-17.6	50.0
Iodomethane	Ave	0.2756	0.3933		0.0143	0.0100	42.7	50.0
Carbon disulfide	Ave	0.8260	0.7879		0.00954	0.0100	-4.6	50.0
3-Chloro-1-propene	Ave	0.2136	0.1830		0.00857	0.0100	-14.3	50.0
Methyl acetate	Ave	0.3533	0.3315		0.0188	0.0200	-6.2	50.0
Methylene Chloride	Ave	0.2908	0.2799		0.00963	0.0100	-3.7	50.0
tert-Butyl alcohol	Ave	0.0413	0.0300		0.0726	0.100	-27.4	50.0
Acrylonitrile	Ave	0.1722	0.1507		0.0875	0.100	-12.5	50.0
trans-1,2-Dichloroethene	Ave	0.2732	0.2822		0.0103	0.0100	3.3	50.0
Methyl tert-butyl ether	Ave	0.7975	0.7623		0.00956	0.0100	-4.4	50.0
Hexane	Ave	0.0527	0.0782		0.0148	0.0100	48.5*	20.0
1,1-Dichloroethane	Ave	0.6453	0.6561	0.1000	0.0102	0.0100	1.7	50.0
Vinyl acetate	Lin1		0.9317		0.0119	0.0100	18.7	50.0
2,2-Dichloropropane	Ave	0.0612	0.0775		0.0127	0.0100	26.5	50.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3063		0.0101	0.0100	0.7	50.0
2-Butanone (MEK)	Ave	0.2186	0.1762		0.0161	0.0200	-19.4	50.0
Bromochloromethane	Ave	0.1239	0.1346		0.0109	0.0100	8.6	50.0
Tetrahydrofuran	Ave	0.1532	0.1206		0.0158	0.0200	-21.2	50.0
Chloroform	Ave	0.4726	0.4965		0.0105	0.0100	5.1	20.0
1,1,1-Trichloroethane	Ave	0.2994	0.4221		0.0141	0.0100	41.0	50.0
Cyclohexane	Ave	0.5668	0.7990		0.0141	0.0100	41.0	50.0
1,1-Dichloropropene	Ave	0.3707	0.3825		0.0103	0.0100	3.2	50.0
Carbon tetrachloride	Ave	0.2390	0.3379		0.0141	0.0100	41.4	50.0
Isobutyl alcohol	Lin1		0.0165		0.190	0.250	-23.9	50.0
Benzene	Ave	1.237	1.133		0.00916	0.0100	-8.4	50.0
1,2-Dichloroethane	Ave	0.4549	0.4895		0.0108	0.0100	7.6	50.0
n-Heptane	Ave	0.0418	0.0679		0.0163	0.0100	62.6*	50.0
Trichloroethene	Ave	0.2569	0.2894		0.0113	0.0100	12.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443947/2 Calibration Date: 07/23/2020 12:58

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX8809.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3275	0.4092		0.0125	0.0100	25.0	50.0
1,2-Dichloropropane	Ave	0.3890	0.3666		0.00942	0.0100	-5.8	20.0
Dibromomethane	Ave	0.1583	0.1457		0.00921	0.0100	-7.9	50.0
1,4-Dioxane	Qua		0.0018		0.124	0.200	-38.1	50.0
Bromodichloromethane	Ave	0.3536	0.3602		0.0102	0.0100	1.9	50.0
2-Chloroethyl vinyl ether	Ave	0.2808	0.1985		0.0141	0.0200	-29.3	50.0
cis-1,3-Dichloropropene	Ave	0.4841	0.4145		0.00856	0.0100	-14.4	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4522	0.3902		0.0173	0.0200	-13.7	50.0
Toluene	Ave	1.832	1.724		0.00942	0.0100	-5.8	20.0
trans-1,3-Dichloropropene	Ave	0.6432	0.5670		0.00882	0.0100	-11.8	50.0
Ethyl methacrylate	Ave	0.7061	0.4603		0.00652	0.0100	-34.8	50.0
1,1,2-Trichloroethane	Ave	0.3881	0.3352		0.00864	0.0100	-13.6	50.0
Tetrachloroethene	Ave	0.2126	0.2773		0.0130	0.0100	30.4	50.0
1,3-Dichloropropane	Ave	0.7063	0.5806		0.00822	0.0100	-17.8	50.0
2-Hexanone	Ave	0.4565	0.3716		0.0163	0.0200	-18.6	50.0
Chlorodibromomethane	Ave	0.3357	0.3426		0.0102	0.0100	2.1	50.0
1,2-Dibromoethane	Ave	0.3454	0.3224		0.00933	0.0100	-6.7	50.0
Chlorobenzene	Ave	0.9782	1.016	0.3000	0.0104	0.0100	3.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3055	0.3612		0.0118	0.0100	18.2	50.0
Ethylbenzene	Ave	0.5440	0.5824		0.0107	0.0100	7.0	20.0
m-Xylene & p-Xylene	Ave	0.6468	0.6820		0.0105	0.0100	5.4	50.0
o-Xylene	Ave	0.6058	0.6498		0.0107	0.0100	7.3	50.0
Styrene	Ave	1.084	1.102		0.0102	0.0100	1.7	50.0
Bromoform	Ave	0.1777	0.1691	0.1000	0.00952	0.0100	-4.8	50.0
Isopropylbenzene	Ave	1.404	1.655		0.0118	0.0100	17.9	50.0
1,1,2,2-Tetrachloroethane	Ave	1.209	0.7968	0.3000	0.00659	0.0100	-34.1	50.0
Bromobenzene	Ave	0.7739	0.7422		0.00959	0.0100	-4.1	50.0
1,2,3-Trichloropropane	Ave	0.3230	0.2395		0.00741	0.0100	-25.9	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.3446		0.00653	0.0100	-34.7	50.0
N-Propylbenzene	Ave	0.8917	0.9483		0.0106	0.0100	6.3	50.0
2-Chlorotoluene	Ave	0.8051	0.8577		0.0107	0.0100	6.5	50.0
1,3,5-Trimethylbenzene	Ave	2.610	2.931		0.0112	0.0100	12.3	50.0
4-Chlorotoluene	Ave	0.8523	0.8391		0.00984	0.0100	-1.6	50.0
tert-Butylbenzene	Ave	1.945	2.442		0.0126	0.0100	25.5	50.0
1,2,4-Trimethylbenzene	Ave	2.797	2.971		0.0106	0.0100	6.2	50.0
sec-Butylbenzene	Ave	2.718	3.578		0.0132	0.0100	31.6	50.0
1,3-Dichlorobenzene	Ave	1.398	1.493		0.0107	0.0100	6.7	50.0
4-Isopropyltoluene	Ave	2.170	2.931		0.0135	0.0100	35.1	50.0
1,4-Dichlorobenzene	Ave	1.422	1.491		0.0105	0.0100	4.9	50.0
n-Butylbenzene	Ave	2.043	2.586		0.0127	0.0100	26.6	50.0
1,2-Dichlorobenzene	Ave	1.394	1.452		0.0104	0.0100	4.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443947/2 Calibration Date: 07/23/2020 12:58

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 15:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 17:40

Lab File ID: UXX8809.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Qua		0.1449		0.00683	0.0100	-31.7	50.0
1,2,4-Trichlorobenzene	Ave	0.6166	0.8278		0.0134	0.0100	34.3	50.0
Hexachlorobutadiene	Ave	0.1511	0.3000		0.0199	0.0100	98.6*	50.0
Naphthalene	Ave	3.231	2.263		0.00700	0.0100	-30.0	50.0
1,2,3-Trichlorobenzene	Ave	0.6137	0.7364		0.0120	0.0100	20.0	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2481		0.0106	0.0100	6.2	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3432	0.3325		0.00969	0.0100	-3.1	50.0
Toluene-d8 (Surr)	Ave	1.538	1.406		0.00915	0.0100	-8.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4841	0.4367		0.00902	0.0100	-9.8	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8809.D
Lims ID: CCVIS L4 8260
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2020 12:58:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-002
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub82

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:33 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.973	4.973	0.000	98	339527	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.646	7.646	0.000	89	221162	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.870	9.870	0.000	95	100871	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.405	4.405	0.000	92	84245	10.0	10.6	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.689	4.689	0.000	94	112891	10.0	9.69	
$ 6 Toluene-d8 (Surr)	98	6.333	6.333	0.000	96	311048	10.0	9.15	
$ 7 4-Bromofluorobenzene (Surr)	95	8.746	8.746	0.000	82	96577	10.0	9.02	
9 Dichlorodifluoromethane	85	1.247	1.247	0.000	99	93182	10.0	12.7	
10 Chloromethane	50	1.401	1.401	0.000	99	222821	10.0	14.8	
11 Vinyl chloride	62	1.483	1.483	0.000	97	123702	10.0	11.2	
12 Butadiene	54	1.495	1.495	0.000	96	143467	10.0	23.3	
13 Bromomethane	94	1.744	1.744	0.000	90	45683	10.0	8.65	
14 Chloroethane	64	1.827	1.827	0.000	95	60598	10.0	10.2	
15 Dichlorofluoromethane	67	2.004	2.004	0.000	98	124540	10.0	8.31	
16 Trichlorofluoromethane	101	2.051	2.051	0.000	97	112206	10.0	14.1	
17 Ethyl ether	59	2.288	2.288	0.000	90	115243	10.0	11.0	
18 Acrolein	56	2.394	2.394	0.000	96	34033	50.0	17.0	
19 1,1-Dichloroethene	96	2.489	2.489	0.000	90	85203	10.0	10.6	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.513	2.513	0.000	96	56914	10.0	15.0	
21 Acetone	43	2.536	2.536	0.000	98	75569	20.0	16.5	
22 Iodomethane	142	2.619	2.619	0.000	97	133542	10.0	14.3	
24 Carbon disulfide	76	2.666	2.666	0.000	100	267510	10.0	9.54	
26 3-Chloro-1-propene	76	2.796	2.796	0.000	92	62129	10.0	8.57	
27 Methyl acetate	43	2.820	2.820	0.000	100	225087	20.0	18.8	
28 Methylene Chloride	84	2.903	2.903	0.000	89	95048	10.0	9.63	
29 2-Methyl-2-propanol	59	3.021	3.021	0.000	97	101761	100.0	72.6	
31 Acrylonitrile	53	3.128	3.128	0.000	100	511724	100.0	87.5	
30 trans-1,2-Dichloroethene	96	3.139	3.139	0.000	88	95796	10.0	10.3	
32 Methyl tert-butyl ether	73	3.151	3.151	0.000	97	258811	10.0	9.56	
33 Hexane	86	3.376	3.376	0.000	92	26565	10.0	14.8	
34 1,1-Dichloroethane	63	3.506	3.506	0.000	96	222767	10.0	10.2	
35 Vinyl acetate	43	3.553	3.553	0.000	96	316349	10.0	11.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2,2-Dichloropropane	97	3.991	3.991	0.000	60	26309	10.0	12.7	
40 cis-1,2-Dichloroethene	96	3.991	3.991	0.000	88	104002	10.0	10.1	
41 2-Butanone (MEK)	43	4.015	4.015	0.000	97	119622	20.0	16.1	
45 Chlorobromomethane	128	4.204	4.204	0.000	83	45686	10.0	10.9	
46 Tetrahydrofuran	42	4.240	4.240	0.000	86	81910	20.0	15.8	
47 Chloroform	83	4.263	4.263	0.000	98	168588	10.0	10.5	
48 1,1,1-Trichloroethane	97	4.417	4.417	0.000	97	143323	10.0	14.1	
49 Cyclohexane	56	4.464	4.464	0.000	88	271293	10.0	14.1	
50 1,1-Dichloropropene	75	4.559	4.559	0.000	88	129878	10.0	10.3	
51 Carbon tetrachloride	117	4.559	4.559	0.000	84	114715	10.0	14.1	
52 Isobutyl alcohol	41	4.665	4.665	0.000	95	91260	250.0	190.2	
53 Benzene	78	4.736	4.736	0.000	94	384767	10.0	9.16	
54 1,2-Dichloroethane	62	4.748	4.748	0.000	93	166201	10.0	10.8	
56 n-Heptane	100	4.961	4.961	0.000	94	23066	10.0	16.3	
58 Trichloroethene	130	5.280	5.280	0.000	93	98241	10.0	11.3	
60 Methylcyclohexane	83	5.446	5.446	0.000	92	138949	10.0	12.5	
61 1,2-Dichloropropane	63	5.470	5.470	0.000	95	124476	10.0	9.42	
63 Dibromomethane	93	5.576	5.576	0.000	89	49480	10.0	9.21	
64 1,4-Dioxane	88	5.588	5.588	0.000	85	12030	200.0	123.9	
65 Dichlorobromomethane	83	5.706	5.706	0.000	95	122288	10.0	10.2	
67 2-Chloroethyl vinyl ether	63	5.966	5.966	0.000	87	134805	20.0	14.1	
68 cis-1,3-Dichloropropene	75	6.097	6.097	0.000	88	140723	10.0	8.56	
69 4-Methyl-2-pentanone (MIBK)	43	6.239	6.239	0.000	96	264959	20.0	17.3	
70 Toluene	91	6.392	6.392	0.000	98	381390	10.0	9.42	
71 trans-1,3-Dichloropropene	75	6.593	6.593	0.000	96	125405	10.0	8.82	
72 Ethyl methacrylate	69	6.676	6.676	0.000	92	101799	10.0	6.52	
73 1,1,2-Trichloroethane	97	6.759	6.759	0.000	94	74140	10.0	8.64	
74 Tetrachloroethene	164	6.889	6.889	0.000	92	61318	10.0	13.0	
75 1,3-Dichloropropane	76	6.913	6.913	0.000	95	128401	10.0	8.22	
76 2-Hexanone	43	6.984	6.984	0.000	99	164381	20.0	16.3	
78 Chlorodibromomethane	129	7.114	7.114	0.000	90	75771	10.0	10.2	
80 Ethylene Dibromide	107	7.220	7.220	0.000	95	71299	10.0	9.33	
82 Chlorobenzene	112	7.670	7.670	0.000	92	224776	10.0	10.4	
83 1,1,1,2-Tetrachloroethane	131	7.741	7.741	0.000	95	79887	10.0	11.8	
84 Ethylbenzene	106	7.764	7.764	0.000	98	128802	10.0	10.7	
85 m-Xylene & p-Xylene	106	7.883	7.883	0.000	98	150842	10.0	10.5	
86 o-Xylene	106	8.249	8.249	0.000	95	143703	10.0	10.7	
87 Styrene	104	8.261	8.261	0.000	89	243635	10.0	10.2	
88 Bromoform	173	8.439	8.439	0.000	95	37401	10.0	9.52	
89 Isopropylbenzene	105	8.604	8.604	0.000	97	365926	10.0	11.8	
93 Bromobenzene	156	8.888	8.888	0.000	95	74865	10.0	9.59	
92 1,1,2,2-Tetrachloroethane	83	8.888	8.888	0.000	74	80378	10.0	6.59	
94 1,2,3-Trichloropropane	110	8.935	8.935	0.000	86	24154	10.0	7.41	
95 trans-1,4-Dichloro-2-butene	53	8.947	8.947	0.000	79	34760	10.0	6.53	
96 N-Propylbenzene	120	8.995	8.995	0.000	99	95655	10.0	10.6	
97 2-Chlorotoluene	126	9.077	9.077	0.000	95	86513	10.0	10.7	
98 1,3,5-Trimethylbenzene	105	9.172	9.172	0.000	94	295643	10.0	11.2	
99 4-Chlorotoluene	126	9.184	9.184	0.000	99	84637	10.0	9.84	
100 tert-Butylbenzene	119	9.480	9.480	0.000	93	246342	10.0	12.6	
102 1,2,4-Trimethylbenzene	105	9.527	9.527	0.000	95	299656	10.0	10.6	
103 sec-Butylbenzene	105	9.692	9.692	0.000	95	360932	10.0	13.2	
104 1,3-Dichlorobenzene	146	9.799	9.799	0.000	95	150574	10.0	10.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 4-Isopropyltoluene	119	9.846	9.846	0.000	97	295605	10.0	13.5	
106 1,4-Dichlorobenzene	146	9.894	9.894	0.000	94	150443	10.0	10.5	
109 n-Butylbenzene	91	10.237	10.237	0.000	97	260819	10.0	12.7	
110 1,2-Dichlorobenzene	146	10.248	10.248	0.000	91	146428	10.0	10.4	
111 1,2-Dibromo-3-Chloropropane	157	11.017	11.017	0.000	78	14618	10.0	6.83	
113 1,2,4-Trichlorobenzene	180	11.845	11.845	0.000	93	83502	10.0	13.4	
114 Hexachlorobutadiene	225	12.011	12.011	0.000	90	30264	10.0	19.9	
115 Naphthalene	128	12.082	12.082	0.000	98	228255	10.0	7.00	
116 1,2,3-Trichlorobenzene	180	12.330	12.330	0.000	97	74283	10.0	12.0	E
S 130 Xylenes, Total	106				0		20.0	21.3	
S 156 Total BTEX	1				0		50.0	50.6	
S 131 Trihalomethanes, Total	1				0		40.0	40.4	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VMRPRIMW_00394	Amount Added:	8.00	Units: uL	
VMAROLISTDW_00353	Amount Added:	8.00	Units: uL	
VMRGAS_00348	Amount Added:	8.00	Units: uL	
VM50IS_00084	Amount Added:	1.00	Units: uL	Run Reagent
vm50ss_stk_00085	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00176	Amount Added:	0.00	Units:	Run Reagent

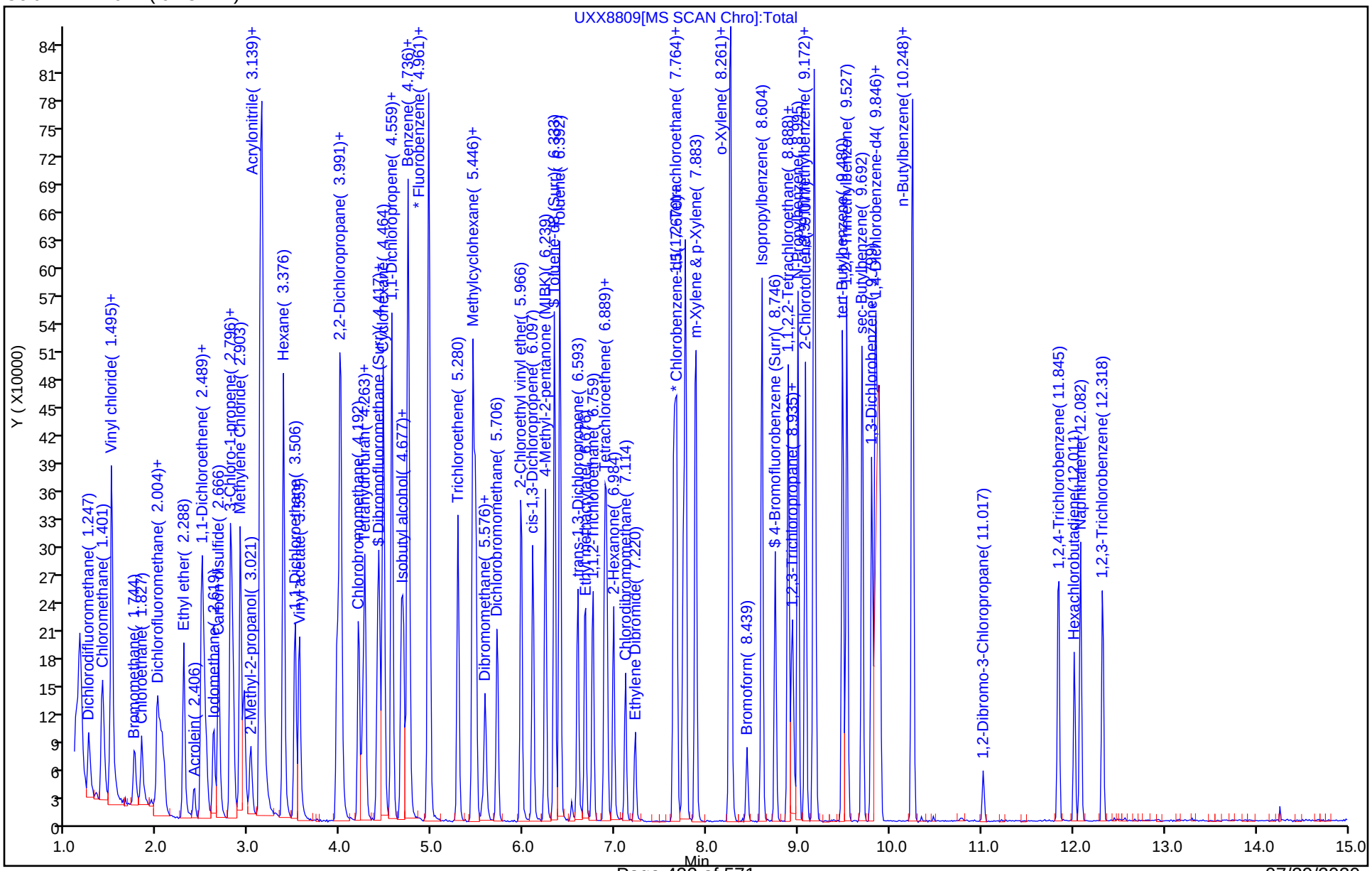
Report Date: 24-Jul-2020 11:31:34 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8809.D

Injection Date:	23-Jul-2020 12:58:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	CCVIS L4 8260			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCV 240-443947/3 Calibration Date: 07/23/2020 13:23

Instrument ID: A3UX10 Calib Start Date: 01/15/2020 18:29

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/15/2020 20:59

Lab File ID: UXX8810.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0481	0.0439		0.0912	0.100	-8.8	50.0
Diisopropyl ether	Ave	0.2595	0.2283		0.00880	0.0100	-12.0	50.0
2-Chloro-1,3-butadiene	Ave	0.6142	0.7412		0.0121	0.0100	20.7	50.0
Ethyl acetate	Ave	0.4695	0.0523		0.00223	0.0200	-88.9*	50.0
Ethyl tert-butyl ether	Ave	1.176	1.169		0.00994	0.0100	-0.6	50.0
Propionitrile	Ave	0.0617	0.0525		0.0851	0.100	-14.9	50.0
Methacrylonitrile	Ave	0.2900	0.2447		0.0844	0.100	-15.6	50.0
Tert-amyl methyl ether	Ave	0.8784	0.7070		0.00805	0.0100	-19.5	50.0
n-Butanol	Ave	0.0190	0.0135		0.177	0.250	-29.0	50.0
Ethyl acrylate	Ave	0.6436	0.4708		0.00731	0.0100	-26.9	50.0
Methyl methacrylate	Ave	0.4195	0.3228		0.0154	0.0200	-23.1	50.0
2-Nitropropane	Ave	0.1268	0.0732		0.0115	0.0200	-42.3	50.0
n-Butyl acetate	Lin1		0.3663		0.00780	0.0100	-22.0	50.0
1-Chlorohexane	Ave	0.4716	0.4782		0.0101	0.0100	1.4	50.0
Cyclohexanone	Lin1		0.0421		0.0764	0.100	-23.6	50.0
Pentachloroethane	Ave	0.0115	0.1227		0.213	0.0200	964.4*	50.0
1,2,3-Trimethylbenzene	Ave	2.970	2.924		0.00984	0.0100	-1.6	50.0
Benzyl chloride	Ave	0.4471	0.2995		0.00670	0.0100	-33.0	50.0
1,3,5-Trichlorobenzene	Ave	0.6548	0.8848		0.0135	0.0100	35.1	50.0
2-Methylnaphthalene	Ave	1.328	0.9132		0.0138	0.0200	-31.2	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8810.D
Lims ID: CCV A9 L4
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2020 13:23:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-003
Operator ID: 001644 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub86

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

First Level Reviewer: williamsla Date: 23-Jul-2020 14:05:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.964	4.964	0.000	98	330147	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.637	7.637	0.000	96	206470	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.861	9.861	0.000	97	88928	10.0	10.0	
25 Acetonitrile	41	2.776	2.776	0.000	95	144937	100.0	91.2	
36 Isopropyl ether	87	3.568	3.568	0.000	99	75372	10.0	8.80	
37 2-Chloro-1,3-butadiene	53	3.580	3.580	0.000	89	244692	10.0	12.1	
42 Ethyl acetate	43	3.876	3.876	0.000	35	34514	20.0	2.23	a
38 Tert-butyl ethyl ether	59	3.876	3.876	0.000	97	385854	10.0	9.94	
43 Propionitrile	54	4.065	4.065	0.000	76	173376	100.0	85.1	
44 Methacrylonitrile	41	4.195	4.195	0.000	96	807802	100.0	84.4	
158 Isooctane	57	4.798	4.798	0.000	94	470142	10.0	21.2	
55 Tert-amyl methyl ether	73	4.834	4.834	0.000	90	233409	10.0	8.05	
57 n-Butanol	56	5.224	5.224	0.000	88	69474	250.0	177.4	
59 Ethyl acrylate	55	5.378	5.378	0.000	98	155425	10.0	7.31	
62 Methyl methacrylate	41	5.567	5.567	0.000	92	213143	20.0	15.4	
66 2-Nitropropane	41	5.910	5.910	0.000	96	48324	20.0	11.5	
77 n-Butyl acetate	56	7.093	7.093	0.000	96	75620	10.0	7.80	
81 1-Chlorohexane	91	7.649	7.649	0.000	86	98724	10.0	10.1	
91 Cyclohexanone	55	8.690	8.690	0.000	90	37421	100.0	76.4	
101 Pentachloroethane	167	9.506	9.506	0.000	88	50677	20.0	212.9	E
107 1,2,3-Trimethylbenzene	105	9.944	9.944	0.000	98	259983	10.0	9.84	
108 Benzyl chloride	126	10.027	10.027	0.000	99	26636	10.0	6.70	
112 1,3,5-Trichlorobenzene	180	11.233	11.233	0.000	93	78679	10.0	13.5	
117 2-Methylnaphthalene	142	13.244	13.244	0.000	98	162422	20.0	13.8	
157 1-Methylnaphthalene	142	13.457	13.457	0.000	94	128326	20.0	11.6	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Review Flags
a - User Assigned ID

Reagents:

VMRA9W_00353	Amount Added:	8.00	Units: uL
VM50IS_00084	Amount Added:	1.00	Units: uL

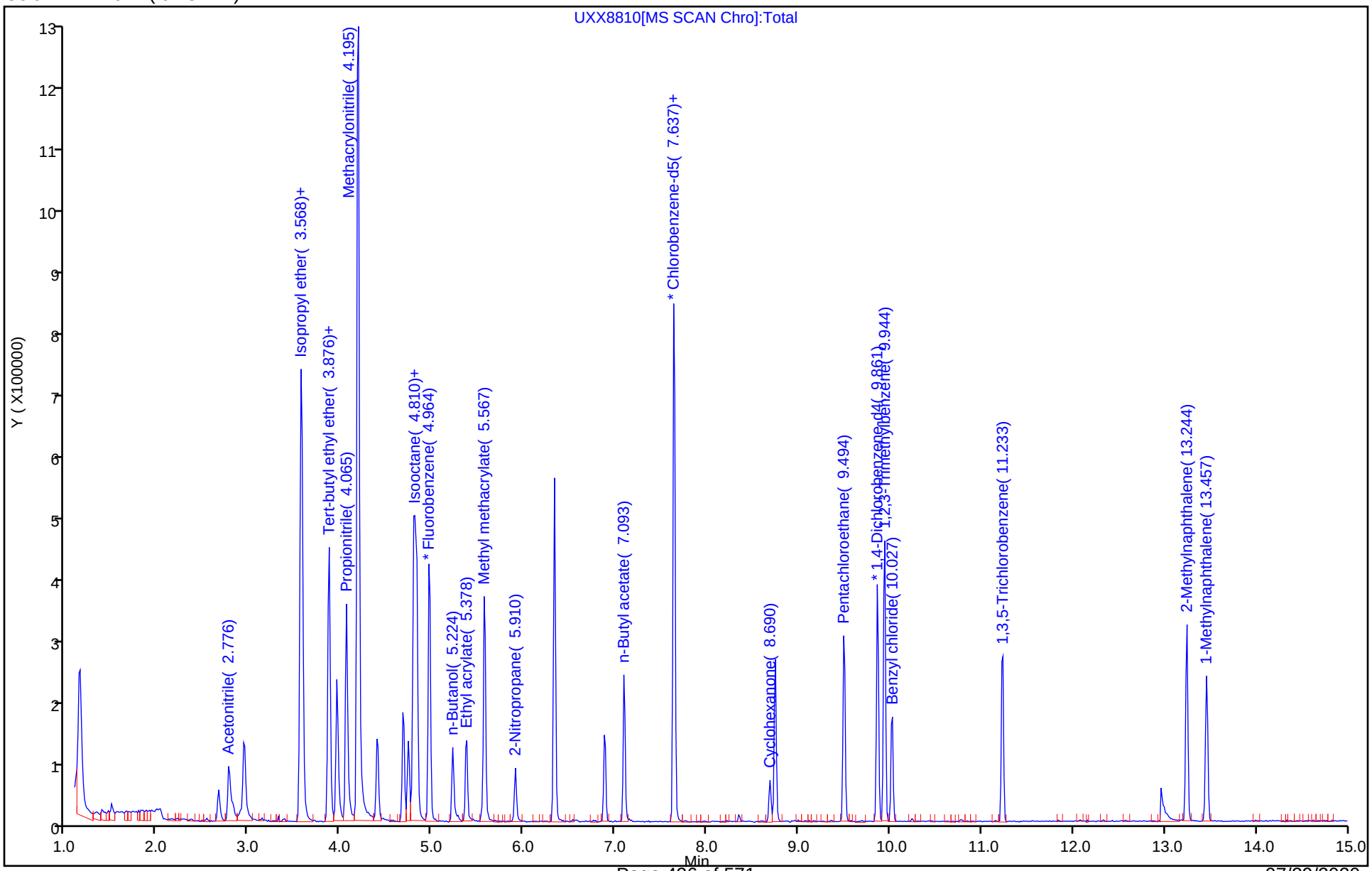
Report Date: 24-Jul-2020 11:31:39 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8810.D

Injection Date:	23-Jul-2020 13:23:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	CCV A9 L4			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Canton

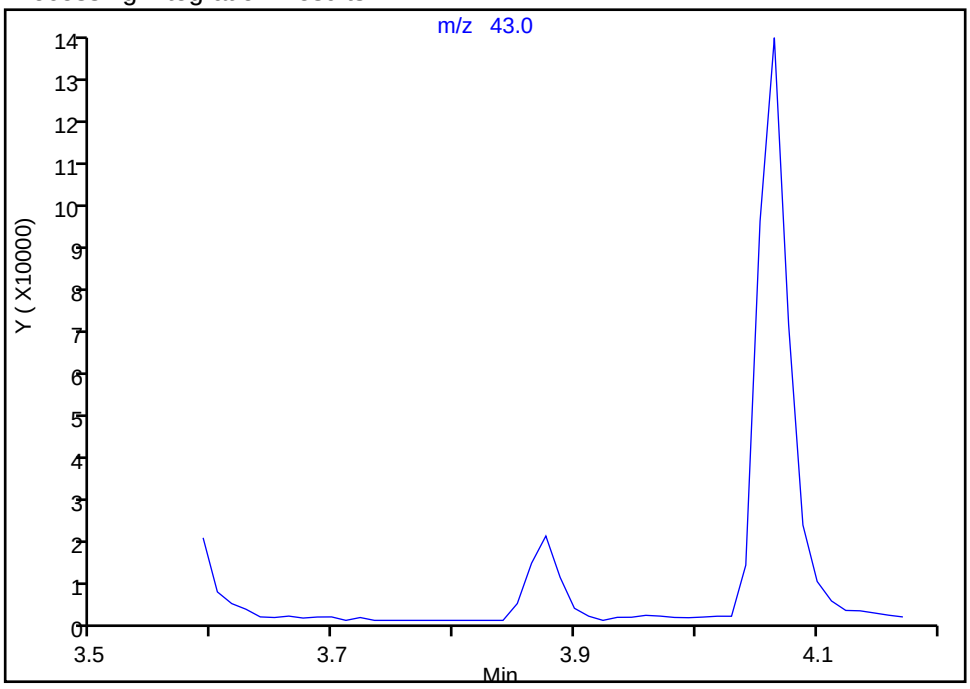
Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8810.D
Injection Date: 23-Jul-2020 13:23:30 Instrument ID: A3UX10
Lims ID: CCV A9 L4
Client ID:
Operator ID: 001644 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

42 Ethyl acetate, CAS: 141-78-6

Signal: 1

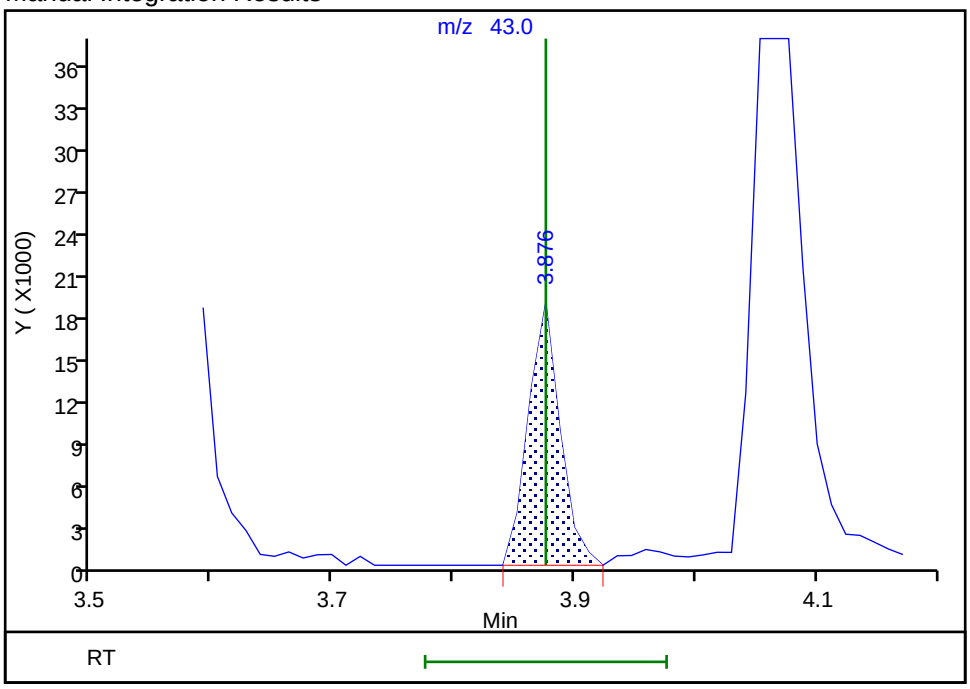
Not Detected
Expected RT: 3.88

Processing Integration Results



Manual Integration Results

RT: 3.88
Area: 34514
Amount: 2.226662
Amount Units: ug/l



Reviewer: williamsla, 23-Jul-2020 14:04:29
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-427647/13 Calibration Date: 03/20/2020 15:02

Instrument ID: A3UX14 Calib Start Date: 03/19/2020 15:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/19/2020 18:32

Lab File ID: 1424131.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2518	0.2297		0.0456	0.0500	-8.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3776	0.3297		0.0437	0.0500	-12.7	50.0
Toluene-d8 (Surr)	Ave	1.395	1.294		0.0464	0.0500	-7.2	50.0
4-Bromofluorobenzene (Surr)	Ave	1.180	1.080		0.0458	0.0500	-8.5	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424131.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 20-Mar-2020 15:02:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icv
Misc. Info.: 240-0096832-013
Operator ID: 002808 Instrument ID: A3UX14
Sublist:

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:42 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 15:28:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2253644	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1617474	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	669328	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.376	0.000	92	517642	50.0	45.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.802	-0.012	94	743066	50.0	43.7	
$ 6 Toluene-d8 (Surr)	98	7.909	7.909	0.000	94	2093404	50.0	46.4	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	723062	50.0	45.8	
28 Acetonitrile	41	2.584	2.584	0.000	99	499789	500.0	515.4	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	1122582	50.0	56.5	
38 Isopropyl ether	87	3.826	3.826	0.000	92	514822	50.0	53.1	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	1379546	50.0	52.0	
44 Propionitrile	54	4.749	4.749	0.000	98	799459	500.0	524.7	
45 Ethyl acetate	43	4.844	4.844	0.000	100	1202158	100.0	103.3	
47 Methacrylonitrile	41	4.998	4.998	0.000	93	3900777	500.0	539.1	
159 Isooctane	57	6.027	6.027	0.000	94	2228950	50.0	56.2	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	96	1423911	50.0	55.4	
60 n-Butanol	56	6.725	6.725	0.000	92	346038	1250.0	1134.6	
61 Ethyl acrylate	55	6.855	6.855	0.000	99	810835	50.0	54.5	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	1229944	100.0	111.2	
69 2-Nitropropane	41	7.435	7.435	0.000	98	301768	100.0	91.9	
81 n-Butyl acetate	43	8.749	8.749	0.000	98	928178	50.0	49.8	
84 1-Chlorohexane	91	9.246	9.246	0.000	88	885816	50.0	54.2	
93 Cyclohexanone	55	10.180	10.180	0.000	95	176884	500.0	521.9	
104 Pentachloroethane	167	10.902	10.902	0.000	85	369363	100.0	82.2	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	1998417	50.0	56.5	
112 Benzyl chloride	126	11.352	11.352	0.000	99	116671	50.0	45.4	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	96	729159	50.0	51.4	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	2284206	100.0	104.3	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	2068832	100.0	100.0	

Reagents:

VMRA9W_00337	Amount Added:	5.00	Units: uL	
VM250SS_00057	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00014	Amount Added:	0.00	Units:	Run Reagent
VM568718_00017	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00165	Amount Added:	0.00	Units:	Run Reagent

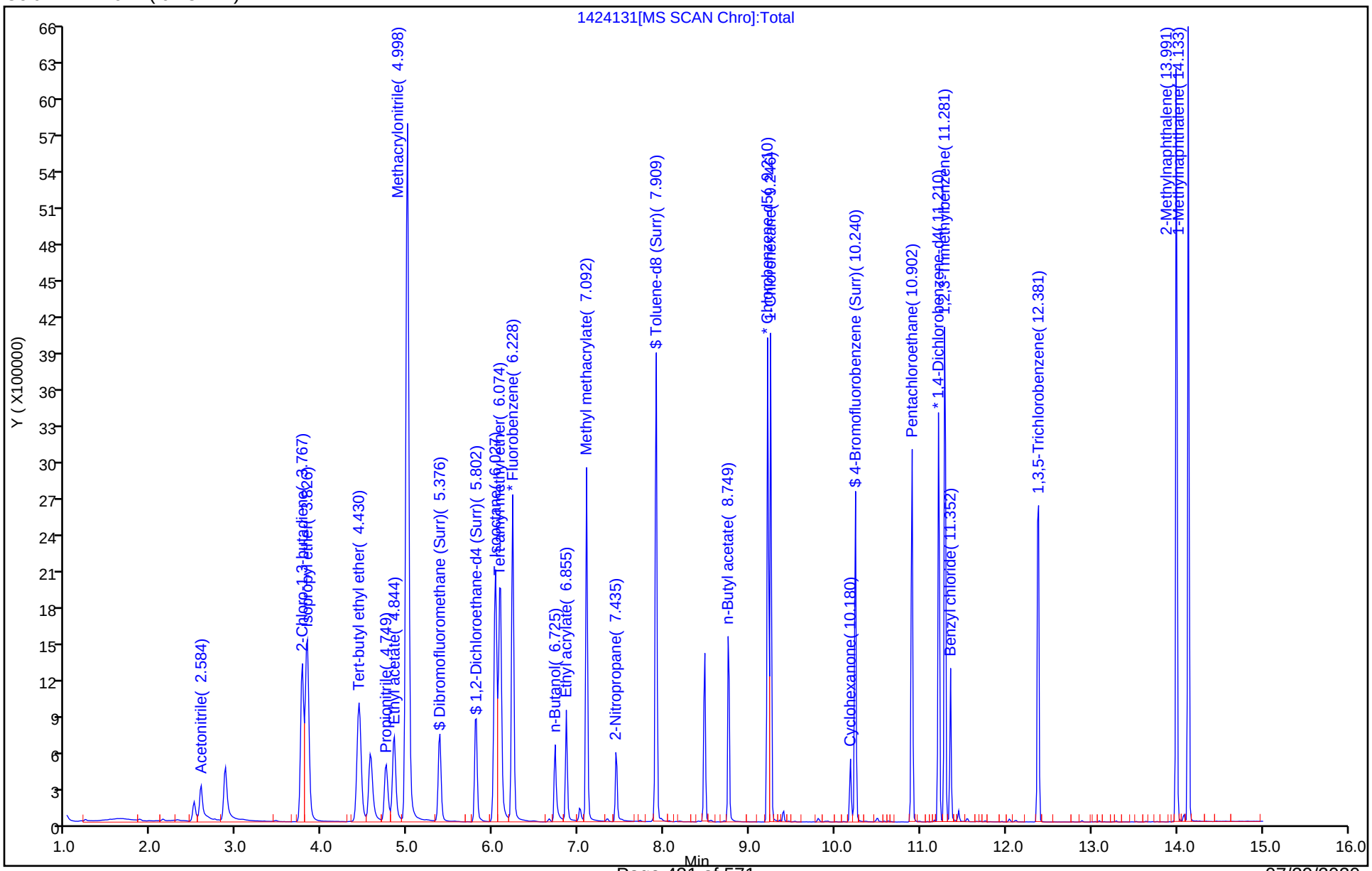
Report Date: 23-Mar-2020 10:27:48 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424131.D

Injection Date:	20-Mar-2020 15:02:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	icv			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-427647/13 Calibration Date: 03/20/2020 15:02

Instrument ID: A3UX14 Calib Start Date: 03/20/2020 11:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/20/2020 14:39

Lab File ID: 1424131.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0215	0.0222		0.515	0.500	3.1	50.0
2-Chloro-1,3-butadiene	Ave	0.4410	0.4981		0.0565	0.0500	13.0	50.0
Diisopropyl ether	Ave	0.2153	0.2284		0.0531	0.0500	6.1	50.0
Ethyl tert-butyl ether	Ave	0.5891	0.6121		0.0520	0.0500	3.9	50.0
Propionitrile	Ave	0.0338	0.0355		0.525	0.500	4.9	50.0
Ethyl acetate	Ave	0.2583	0.2667		0.103	0.100	3.3	50.0
Methacrylonitrile	Ave	0.1605	0.1731		0.539	0.500	7.8	50.0
Tert-amyl methyl ether	Ave	0.5698	0.6318		0.0554	0.0500	10.9	50.0
n-Butanol	Lin1		0.0086		1.13	1.25	-9.2	50.0
Ethyl acrylate	Ave	0.3303	0.3598		0.0545	0.0500	8.9	50.0
Methyl methacrylate	Ave	0.2453	0.2729		0.111	0.100	11.2	50.0
2-Nitropropane	Lin1		0.0670		0.0919	0.100	-8.1	50.0
n-Butyl acetate	Ave	0.5757	0.5738		0.0498	0.0500	-0.3	50.0
1-Chlorohexane	Ave	0.5056	0.5477		0.0542	0.0500	8.3	50.0
Cyclohexanone	Ave	0.0105	0.0109		0.522	0.500	4.4	50.0
Pentachloroethane	Lin1		0.2759		0.0822	0.100	-17.8	50.0
1,2,3-Trimethylbenzene	Ave	2.640	2.986		0.0565	0.0500	13.1	50.0
Benzyl chloride	Qua		0.1743		0.0454	0.0500	-9.2	50.0
1,3,5-Trichlorobenzene	Ave	1.059	1.089		0.0514	0.0500	2.9	50.0
2-Methylnaphthalene	Ave	1.636	1.706		0.104	0.100	4.3	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424131.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 20-Mar-2020 15:02:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icv
Misc. Info.: 240-0096832-013
Operator ID: 002808 Instrument ID: A3UX14
Sublist:

Method: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Mar-2020 10:27:42 Calib Date: 20-Mar-2020 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0335

First Level Reviewer: macenczaks Date: 20-Mar-2020 15:28:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	2253644	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	97	1617474	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	97	669328	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.376	5.376	0.000	92	517642	50.0	45.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.802	-0.012	94	743066	50.0	43.7	
$ 6 Toluene-d8 (Surr)	98	7.909	7.909	0.000	94	2093404	50.0	46.4	
$ 7 4-Bromofluorobenzene (Surr	95	10.240	10.240	0.000	0	723062	50.0	45.8	
28 Acetonitrile	41	2.584	2.584	0.000	99	499789	500.0	515.4	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	96	1122582	50.0	56.5	
38 Isopropyl ether	87	3.826	3.826	0.000	92	514822	50.0	53.1	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	97	1379546	50.0	52.0	
44 Propionitrile	54	4.749	4.749	0.000	98	799459	500.0	524.7	
45 Ethyl acetate	43	4.844	4.844	0.000	100	1202158	100.0	103.3	
47 Methacrylonitrile	41	4.998	4.998	0.000	93	3900777	500.0	539.1	
159 Isooctane	57	6.027	6.027	0.000	94	2228950	50.0	56.2	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	96	1423911	50.0	55.4	
60 n-Butanol	56	6.725	6.725	0.000	92	346038	1250.0	1134.6	
61 Ethyl acrylate	55	6.855	6.855	0.000	99	810835	50.0	54.5	
66 Methyl methacrylate	41	7.092	7.092	0.000	92	1229944	100.0	111.2	
69 2-Nitropropane	41	7.435	7.435	0.000	98	301768	100.0	91.9	
81 n-Butyl acetate	43	8.749	8.749	0.000	98	928178	50.0	49.8	
84 1-Chlorohexane	91	9.246	9.246	0.000	88	885816	50.0	54.2	
93 Cyclohexanone	55	10.180	10.180	0.000	95	176884	500.0	521.9	
104 Pentachloroethane	167	10.902	10.902	0.000	85	369363	100.0	82.2	
111 1,2,3-Trimethylbenzene	105	11.281	11.281	0.000	99	1998417	50.0	56.5	
112 Benzyl chloride	126	11.352	11.352	0.000	99	116671	50.0	45.4	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	96	729159	50.0	51.4	
121 2-Methylnaphthalene	142	13.991	13.991	0.000	92	2284206	100.0	104.3	
158 1-Methylnaphthalene	142	14.133	14.133	0.000	97	2068832	100.0	100.0	

Reagents:

VMRA9W_00337	Amount Added:	5.00	Units: uL	
VM250SS_00057	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00014	Amount Added:	0.00	Units:	Run Reagent
VM568718_00017	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00165	Amount Added:	0.00	Units:	Run Reagent

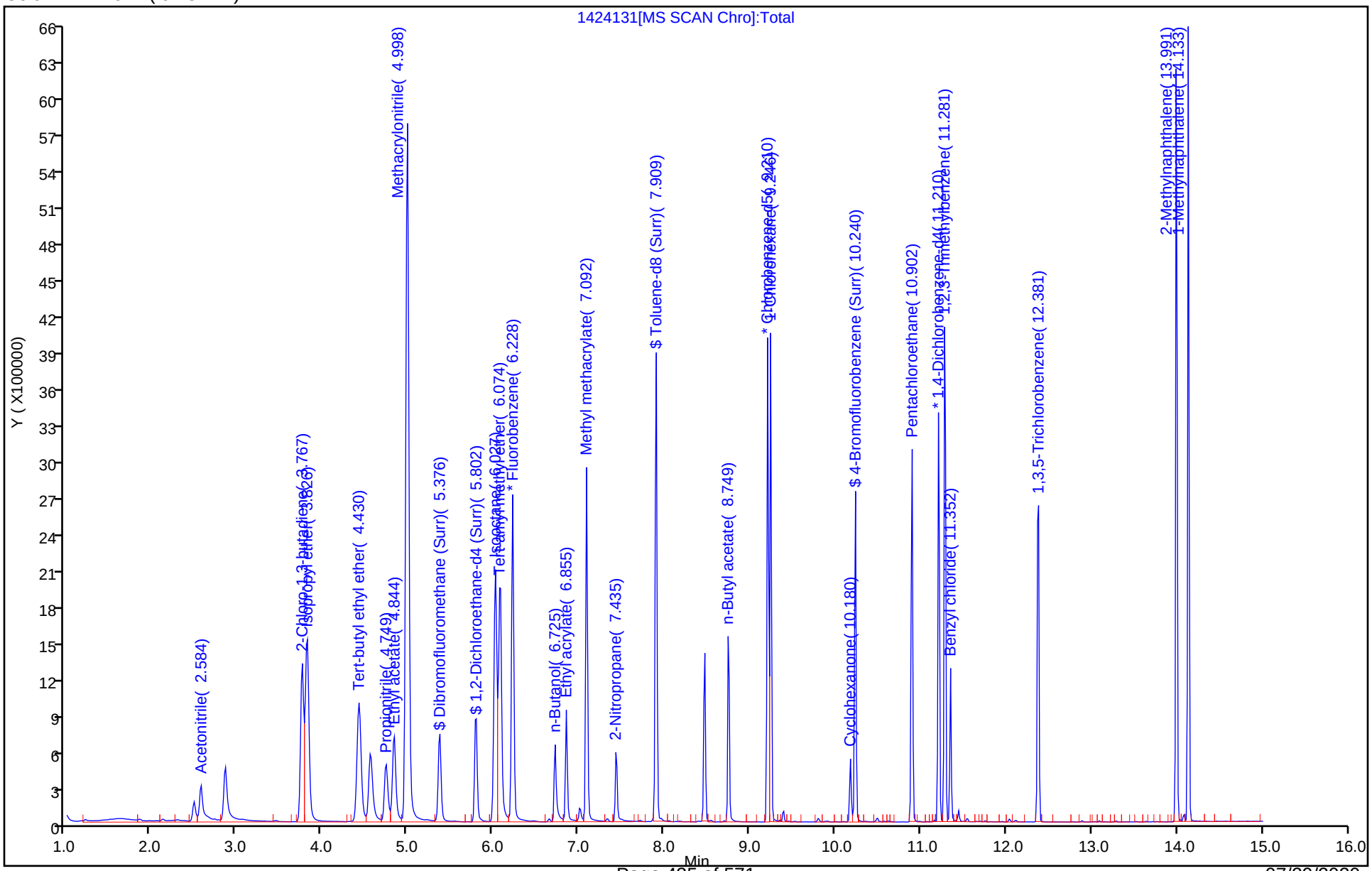
Report Date: 23-Mar-2020 10:27:48 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424131.D

Injection Date:	20-Mar-2020 15:02:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	icv			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-431364/13 Calibration Date: 04/20/2020 18:20

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1424368.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3015	0.2711		0.0180	0.0200	-10.1	50.0
Chloromethane	Ave	0.3533	0.3675	0.1000	0.0208	0.0200	4.0	50.0
Vinyl chloride	Ave	0.4125	0.4279		0.0207	0.0200	3.7	20.0
Butadiene	Ave	0.3147	0.3488		0.0222	0.0200	10.9	50.0
Bromomethane	Ave	0.3306	0.3405		0.0206	0.0200	3.0	50.0
Chloroethane	Ave	0.2638	0.3139		0.0238	0.0200	19.0	50.0
Dichlorofluoromethane	Ave	0.6409	0.7604		0.0237	0.0200	18.6	50.0
Trichlorofluoromethane	Ave	0.7077	0.7987		0.0226	0.0200	12.9	50.0
Ethyl ether	Ave	0.3922	0.4315		0.0550	0.0500	10.0	50.0
Acrolein	Ave	0.0425	0.0506		0.297	0.250	18.9	50.0
1,1-Dichloroethene	Ave	0.3980	0.4531		0.0569	0.0500	13.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3221	0.3466		0.0538	0.0500	7.6	50.0
Acetone	Lin1		0.1126		0.111	0.100	11.1	50.0
Iodomethane	Ave	0.7419	0.8326		0.0561	0.0500	12.2	50.0
Carbon disulfide	Qua		1.078		0.0441	0.0500	-11.9	50.0
3-Chloro-1-propene	Ave	0.1742	0.1820		0.0522	0.0500	4.5	50.0
Methyl acetate	Ave	0.1918	0.1854		0.0967	0.100	-3.3	50.0
Methylene Chloride	Ave	0.3037	0.3158		0.0520	0.0500	4.0	50.0
tert-Butyl alcohol	Ave	0.0257	0.0230		0.448	0.500	-10.4	50.0
Acrylonitrile	Ave	0.0913	0.0910		0.498	0.500	-0.3	50.0
trans-1,2-Dichloroethene	Ave	0.3120	0.3190		0.0511	0.0500	2.2	50.0
Methyl tert-butyl ether	Ave	0.7335	0.7730		0.0527	0.0500	5.4	50.0
Hexane	Ave	0.0913	0.0942		0.0516	0.0500	3.2	20.0
1,1-Dichloroethane	Ave	0.5214	0.5327	0.1000	0.0511	0.0500	2.2	50.0
Vinyl acetate	Ave	0.0584	0.0646		0.0553	0.0500	10.6	50.0
2,2-Dichloropropane	Ave	0.0629	0.0645		0.0513	0.0500	2.5	50.0
cis-1,2-Dichloroethene	Ave	0.3358	0.3447		0.0513	0.0500	2.6	50.0
2-Butanone (MEK)	Ave	0.1201	0.1196		0.0996	0.100	-0.4	50.0
Bromochloromethane	Ave	0.1587	0.1605		0.0506	0.0500	1.1	50.0
Tetrahydrofuran	Ave	0.0757	0.0786		0.104	0.100	3.8	50.0
Chloroform	Ave	0.5347	0.5542		0.0518	0.0500	3.6	20.0
1,1,1-Trichloroethane	Ave	0.4276	0.4371		0.0511	0.0500	2.2	50.0
Cyclohexane	Ave	0.4259	0.4346		0.0510	0.0500	2.0	50.0
Carbon tetrachloride	Ave	0.3615	0.3881		0.0537	0.0500	7.4	50.0
1,1-Dichloropropene	Ave	0.4251	0.4362		0.0513	0.0500	2.6	50.0
Benzene	Ave	1.196	1.227		0.0513	0.0500	2.6	50.0
1,2-Dichloroethane	Ave	0.4667	0.4718		0.0505	0.0500	1.1	50.0
Isobutyl alcohol	Ave	0.0086	0.0087		1.27	1.25	1.3	50.0
n-Heptane	Ave	0.1045	0.1067		0.0510	0.0500	2.1	50.0
Trichloroethene	Ave	0.3155	0.3226		0.0511	0.0500	2.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-431364/13 Calibration Date: 04/20/2020 18:20

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1424368.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5235	0.5266		0.0503	0.0500	0.6	50.0
1,2-Dichloropropane	Ave	0.2924	0.3048		0.0521	0.0500	4.3	20.0
Dibromomethane	Ave	0.1947	0.2042		0.0525	0.0500	4.9	50.0
1,4-Dioxane	Ave	0.0030	0.0032		1.08	1.00	8.3	50.0
Bromodichloromethane	Ave	0.3800	0.4212		0.0554	0.0500	10.8	50.0
2-Chloroethyl vinyl ether	Ave	0.1632	0.1736		0.0532	0.0500	6.4	50.0
cis-1,3-Dichloropropene	Ave	0.4543	0.4923		0.0542	0.0500	8.4	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2851	0.3006		0.105	0.100	5.4	50.0
Toluene	Ave	1.509	1.507		0.0500	0.0500	-0.0	20.0
trans-1,3-Dichloropropene	Ave	0.4844	0.4959		0.0512	0.0500	2.4	50.0
Ethyl methacrylate	Ave	0.4214	0.4430		0.0526	0.0500	5.1	50.0
1,1,2-Trichloroethane	Ave	0.2901	0.2910		0.0502	0.0500	0.3	50.0
Tetrachloroethene	Ave	0.2904	0.2771		0.0477	0.0500	-4.6	50.0
1,3-Dichloropropane	Ave	0.5498	0.5584		0.0508	0.0500	1.6	50.0
2-Hexanone	Ave	0.1966	0.2114		0.108	0.100	7.5	50.0
Chlorodibromomethane	Ave	0.3269	0.3356		0.0513	0.0500	2.6	50.0
1,2-Dibromoethane	Ave	0.2962	0.3104		0.0524	0.0500	4.8	50.0
Chlorobenzene	Ave	0.996	0.995	0.3000	0.0499	0.0500	-0.1	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3249	0.3157		0.0486	0.0500	-2.8	50.0
Ethylbenzene	Ave	0.5434	0.5317		0.0489	0.0500	-2.2	20.0
m-Xylene & p-Xylene	Ave	0.6517	0.6409		0.0492	0.0500	-1.7	50.0
o-Xylene	Ave	0.6237	0.6348		0.0509	0.0500	1.8	50.0
Styrene	Ave	0.9688	1.057		0.0546	0.0500	9.1	50.0
Bromoform	Lin1		0.1821	0.1000	0.0461	0.0500	-7.8	50.0
Isopropylbenzene	Ave	1.524	1.523		0.0499	0.0500	-0.1	50.0
Bromobenzene	Ave	0.7248	0.7307		0.0504	0.0500	0.8	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7388	0.7116	0.3000	0.0482	0.0500	-3.7	50.0
1,2,3-Trichloropropane	Ave	0.2293	0.2264		0.0494	0.0500	-1.3	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1780	0.1822		0.0512	0.0500	2.4	50.0
N-Propylbenzene	Ave	0.7802	0.8233		0.0528	0.0500	5.5	50.0
2-Chlorotoluene	Ave	0.6950	0.7056		0.0508	0.0500	1.5	50.0
1,3,5-Trimethylbenzene	Ave	2.384	2.484		0.0521	0.0500	4.2	50.0
4-Chlorotoluene	Ave	0.7761	0.7750		0.0499	0.0500	-0.1	50.0
tert-Butylbenzene	Ave	1.953	2.041		0.0522	0.0500	4.5	50.0
1,2,4-Trimethylbenzene	Ave	2.246	2.401		0.0534	0.0500	6.9	50.0
sec-Butylbenzene	Ave	2.793	2.984		0.0534	0.0500	6.8	50.0
1,3-Dichlorobenzene	Ave	1.333	1.270		0.0476	0.0500	-4.7	50.0
4-Isopropyltoluene	Ave	2.562	2.731		0.0533	0.0500	6.6	50.0
1,4-Dichlorobenzene	Ave	1.424	1.333		0.0468	0.0500	-6.4	50.0
1,2-Dichlorobenzene	Ave	1.402	1.289		0.0460	0.0500	-8.0	50.0
n-Butylbenzene	Ave	2.288	2.392		0.0523	0.0500	4.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: ICV 240-431364/13 Calibration Date: 04/20/2020 18:20

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1424368.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1210	0.1293		0.0534	0.0500	6.8	50.0
1,2,4-Trichlorobenzene	Ave	0.9737	0.9001		0.0462	0.0500	-7.6	50.0
Hexachlorobutadiene	Ave	0.4261	0.4199		0.0493	0.0500	-1.4	50.0
Naphthalene	Ave	2.454	2.297		0.0468	0.0500	-6.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9901	0.8880		0.0448	0.0500	-10.3	50.0
Dibromofluoromethane (Surr)	Ave	0.3203	0.2697		0.0421	0.0500	-15.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4049	0.3328		0.0411	0.0500	-17.8	50.0
Toluene-d8 (Surr)	Ave	1.405	1.233		0.0439	0.0500	-12.2	50.0
4-Bromofluorobenzene (Surr)	Lin1		0.8115		0.0498	0.0500	-0.3	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424368.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Apr-2020 18:20:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icv
Misc. Info.: 240-0097619-013
Operator ID: 002808 Instrument ID: A3UX14
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Apr-2020 10:35:33 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0316

First Level Reviewer: macenczaks Date: 21-Apr-2020 11:17:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1210983	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.210	9.210	0.000	96	1053695	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.210	11.210	0.000	96	538773	50.0	50.0	
$ 4 Dibromofluoromethane (Surr	113	5.364	5.364	0.000	92	326553	50.0	42.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.790	5.790	0.000	97	403063	50.0	41.1	
$ 6 Toluene-d8 (Surr)	98	7.908	7.909	0.000	93	1298978	50.0	43.9	
$ 7 4-Bromofluorobenzene (Surr	95	10.239	10.240	-0.001	0	437198	50.0	49.8	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	131321	20.0	18.0	
10 Chloromethane	50	1.187	1.187	0.000	99	177997	20.0	20.8	
12 Butadiene	54	1.282	1.282	0.000	95	168967	20.0	22.2	
11 Vinyl chloride	62	1.270	1.282	-0.012	98	207282	20.0	20.7	
13 Bromomethane	94	1.507	1.507	0.000	89	164937	20.0	20.6	
15 Chloroethane	64	1.590	1.590	0.000	98	152072	20.0	23.8	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	96	368348	20.0	23.7	
17 Trichlorofluoromethane	101	1.791	1.803	-0.012	98	386862	20.0	22.6	
18 Ethyl ether	59	2.039	2.051	-0.012	86	522509	50.0	55.0	
19 Acrolein	56	2.146	2.146	0.000	100	306074	250.0	297.2	
21 1,1-Dichloroethene	96	2.240	2.241	-0.001	97	548689	50.0	56.9	
22 1,1,2-Trichloro-1,2,2-trif	151	2.276	2.276	0.000	95	419693	50.0	53.8	
24 Acetone	43	2.300	2.300	0.000	100	272785	100.0	111.1	
25 Iodomethane	142	2.359	2.371	-0.012	99	1008281	50.0	56.1	
26 Carbon disulfide	76	2.418	2.418	0.000	99	1305789	50.0	44.1	
27 3-Chloro-1-propene	76	2.607	2.607	0.000	85	220338	50.0	52.2	
29 Methyl acetate	43	2.655	2.655	-0.001	97	449088	100.0	96.7	
30 Methylene Chloride	84	2.737	2.738	-0.001	92	382410	50.0	52.0	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	97	278533	500.0	448.2	
34 Acrylonitrile	53	3.033	3.033	0.000	98	1102491	500.0	498.4	
32 trans-1,2-Dichloroethene	96	3.057	3.057	0.000	98	386243	50.0	51.1	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	95	936141	50.0	52.7	
35 Hexane	86	3.447	3.448	-0.001	94	114084	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.613	3.625	-0.012	96	645034	50.0	51.1	
39 Vinyl acetate	86	3.767	3.767	0.000	98	78217	50.0	55.3	
41 2,2-Dichloropropane	97	4.560	4.560	0.000	82	78066	50.0	51.3	
42 cis-1,2-Dichloroethene	96	4.571	4.572	-0.001	83	417440	50.0	51.3	
43 2-Butanone (MEK)	43	4.666	4.666	0.000	99	289693	100.0	99.6	
46 Chlorobromomethane	128	4.962	4.962	0.000	92	194324	50.0	50.6	
48 Tetrahydrofuran	42	5.057	5.057	0.000	84	190339	100.0	103.8	
49 Chloroform	83	5.139	5.140	-0.001	95	671130	50.0	51.8	
50 1,1,1-Trichloroethane	97	5.352	5.353	-0.001	98	529292	50.0	51.1	
51 Cyclohexane	56	5.412	5.412	0.000	90	526255	50.0	51.0	
52 Carbon tetrachloride	117	5.577	5.577	0.000	93	469960	50.0	53.7	
53 1,1-Dichloropropene	75	5.589	5.589	0.000	95	528187	50.0	51.3	
54 Benzene	78	5.849	5.850	-0.001	95	1485331	50.0	51.3	
56 1,2-Dichloroethane	62	5.885	5.885	0.000	98	571365	50.0	50.5	
55 Isobutyl alcohol	41	5.944	5.944	0.000	91	264080	1250.0	1266.2	
58 n-Heptane	100	6.287	6.287	0.000	88	129195	50.0	51.0	
59 Trichloroethene	130	6.654	6.654	0.000	96	390636	50.0	51.1	
62 Methylcyclohexane	83	6.843	6.844	-0.001	88	637686	50.0	50.3	
63 1,2-Dichloropropane	63	6.879	6.879	0.000	93	369103	50.0	52.1	
65 Dibromomethane	93	6.997	6.997	0.000	93	247314	50.0	52.5	
67 1,4-Dioxane	88	7.068	7.068	0.000	92	77684	1000.0	1082.8	
68 Dichlorobromomethane	83	7.198	7.199	-0.001	99	510075	50.0	55.4	
70 2-Chloroethyl vinyl ether	63	7.542	7.542	0.000	93	210249	50.0	53.2	
71 cis-1,3-Dichloropropene	75	7.648	7.648	0.000	94	596143	50.0	54.2	
73 4-Methyl-2-pentanone (MIBK	43	7.837	7.838	-0.001	96	633494	100.0	105.4	
74 Toluene	91	7.967	7.968	-0.001	98	1588280	50.0	50.0	
75 trans-1,3-Dichloropropene	75	8.192	8.192	0.000	96	522539	50.0	51.2	
76 Ethyl methacrylate	69	8.322	8.323	-0.001	87	466752	50.0	52.6	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	93	306670	50.0	50.2	
78 Tetrachloroethene	164	8.476	8.476	0.000	94	292010	50.0	47.7	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	91	588423	50.0	50.8	
80 2-Hexanone	43	8.606	8.607	-0.001	98	445586	100.0	107.5	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	353611	50.0	51.3	
83 Ethylene Dibromide	107	8.784	8.784	0.000	98	327051	50.0	52.4	
85 Chlorobenzene	112	9.234	9.234	0.000	94	1048606	50.0	49.9	
86 1,1,1,2-Tetrachloroethane	131	9.316	9.317	-0.001	93	332621	50.0	48.6	
87 Ethylbenzene	106	9.352	9.352	0.000	98	560292	50.0	48.9	
88 m-Xylene & p-Xylene	106	9.458	9.459	-0.001	98	675339	50.0	49.2	
89 o-Xylene	106	9.790	9.790	0.000	96	668866	50.0	50.9	
90 Styrene	104	9.802	9.802	0.000	93	1113992	50.0	54.6	
91 Bromoform	173	9.944	9.944	0.000	94	191857	50.0	46.1	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	1604432	50.0	49.9	
94 Bromobenzene	156	10.358	10.358	0.000	94	393684	50.0	50.4	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	96	383415	50.0	48.2	
96 1,2,3-Trichloropropane	110	10.393	10.393	0.000	89	121964	50.0	49.4	
97 trans-1,4-Dichloro-2-buten	53	10.417	10.417	0.000	80	98151	50.0	51.2	
98 N-Propylbenzene	120	10.464	10.464	0.000	99	443585	50.0	52.8	
99 2-Chlorotoluene	126	10.523	10.524	-0.001	95	380134	50.0	50.8	
100 1,3,5-Trimethylbenzene	105	10.618	10.618	0.000	87	1338116	50.0	52.1	
101 4-Chlorotoluene	126	10.618	10.618	0.000	99	417567	50.0	49.9	
103 tert-Butylbenzene	119	10.890	10.890	0.000	92	1099558	50.0	52.2	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	97	1293577	50.0	53.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	94	1607779	50.0	53.4	
108 1,3-Dichlorobenzene	146	11.162	11.163	-0.001	98	684300	50.0	47.6	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	96	1471242	50.0	53.3	
110 1,4-Dichlorobenzene	146	11.233	11.234	-0.001	95	718234	50.0	46.8	
114 1,2-Dichlorobenzene	146	11.541	11.541	0.000	95	694498	50.0	46.0	
113 n-Butylbenzene	91	11.553	11.553	0.000	97	1288631	50.0	52.3	
115 1,2-Dibromo-3-Chloropropan	157	12.192	12.192	0.000	82	69655	50.0	53.4	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	94	484936	50.0	46.2	
118 Hexachlorobutadiene	225	13.044	13.044	0.000	95	226242	50.0	49.3	
119 Naphthalene	128	13.091	13.091	0.000	97	1237558	50.0	46.8	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	478417	50.0	44.8	
S 134 Xylenes, Total	106				0		100.0	100.1	
S 157 Total BTEX	1				0		250.0	250.2	
S 135 Trihalomethanes, Total	1				0		200.0	204.7	

Reagents:

VMFASPW_00347	Amount Added:	5.00	Units: uL	
VMFASAW_00325	Amount Added:	5.00	Units: uL	
VMFASGW_00356	Amount Added:	2.00	Units: uL	
VM250SS_00057	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00014	Amount Added:	0.00	Units:	Run Reagent
VM568718_00017	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00165	Amount Added:	0.00	Units:	Run Reagent

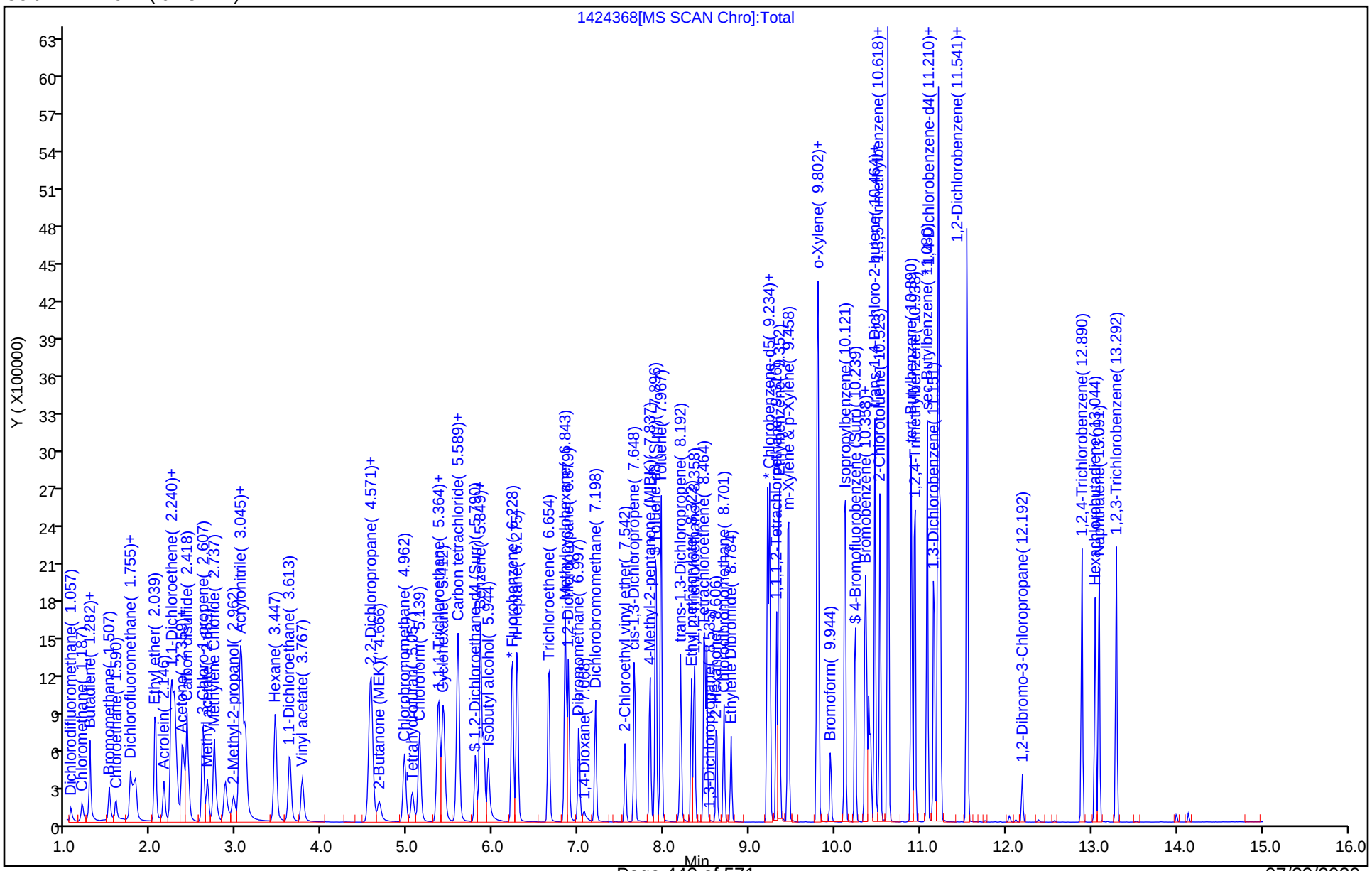
Report Date: 22-Apr-2020 10:35:37 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424368.D

Injection Date:	20-Apr-2020 18:20:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ICV			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443733/3 Calibration Date: 07/22/2020 13:03

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1425532.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3015	0.2634		0.0175	0.0200	-12.6	50.0
Chloromethane	Ave	0.3533	0.3582	0.1000	0.0203	0.0200	1.4	50.0
Vinyl chloride	Ave	0.4125	0.4107		0.0199	0.0200	-0.4	20.0
Butadiene	Ave	0.3147	0.3676		0.0234	0.0200	16.8	50.0
Bromomethane	Ave	0.3306	0.4243		0.0257	0.0200	28.3	50.0
Chloroethane	Ave	0.2638	0.3169		0.0240	0.0200	20.1	50.0
Dichlorofluoromethane	Ave	0.6409	0.7102		0.0222	0.0200	10.8	50.0
Trichlorofluoromethane	Ave	0.7077	0.8024		0.0227	0.0200	13.4	50.0
Ethyl ether	Ave	0.3922	0.3780		0.0482	0.0500	-3.6	50.0
Acrolein	Ave	0.0425	0.0237		0.139	0.250	-44.2	50.0
1,1-Dichloroethene	Ave	0.3980	0.4084		0.0513	0.0500	2.6	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3221	0.2816		0.0437	0.0500	-12.6	50.0
Acetone	Lin1		0.1225		0.121	0.100	21.3	50.0
Iodomethane	Ave	0.7419	0.7247		0.0488	0.0500	-2.3	50.0
Carbon disulfide	Qua		1.284		0.0519	0.0500	3.7	50.0
3-Chloro-1-propene	Ave	0.1742	0.1586		0.0455	0.0500	-8.9	50.0
Methyl acetate	Ave	0.1918	0.1658		0.0864	0.100	-13.6	50.0
Methylene Chloride	Ave	0.3037	0.2605		0.0429	0.0500	-14.2	50.0
tert-Butyl alcohol	Ave	0.0257	0.0162		0.315	0.500	-36.9	50.0
Acrylonitrile	Ave	0.0913	0.0757		0.414	0.500	-17.2	50.0
trans-1,2-Dichloroethene	Ave	0.3120	0.2627		0.0421	0.0500	-15.8	50.0
Methyl tert-butyl ether	Ave	0.7335	0.6291		0.0429	0.0500	-14.2	50.0
Hexane	Ave	0.0913	0.0726		0.0398	0.0500	-20.5*	20.0
1,1-Dichloroethane	Ave	0.5214	0.4331	0.1000	0.0415	0.0500	-16.9	50.0
Vinyl acetate	Ave	0.0584	0.0427		0.0365	0.0500	-26.9	50.0
2,2-Dichloropropane	Ave	0.0629	0.0595		0.0473	0.0500	-5.4	50.0
cis-1,2-Dichloroethene	Ave	0.3358	0.2781		0.0414	0.0500	-17.2	50.0
2-Butanone (MEK)	Ave	0.1201	0.0969		0.0807	0.100	-19.3	50.0
Bromochloromethane	Ave	0.1587	0.1320		0.0416	0.0500	-16.8	50.0
Tetrahydrofuran	Ave	0.0757	0.0608		0.0803	0.100	-19.7	50.0
Chloroform	Ave	0.5347	0.4449		0.0416	0.0500	-16.8	20.0
1,1,1-Trichloroethane	Ave	0.4276	0.3609		0.0422	0.0500	-15.6	50.0
Cyclohexane	Ave	0.4259	0.3794		0.0445	0.0500	-10.9	50.0
Carbon tetrachloride	Ave	0.3615	0.3229		0.0447	0.0500	-10.7	50.0
1,1-Dichloropropene	Ave	0.4251	0.3659		0.0430	0.0500	-13.9	50.0
Benzene	Ave	1.196	1.003		0.0419	0.0500	-16.1	50.0
1,2-Dichloroethane	Ave	0.4667	0.3669		0.0393	0.0500	-21.4	50.0
Isobutyl alcohol	Ave	0.0086	0.0063		0.908	1.25	-27.3	50.0
n-Heptane	Ave	0.1045	0.0838		0.0401	0.0500	-19.8	50.0
Trichloroethene	Ave	0.3155	0.2629		0.0417	0.0500	-16.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443733/3 Calibration Date: 07/22/2020 13:03

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1425532.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5235	0.4392		0.0420	0.0500	-16.1	50.0
1,2-Dichloropropane	Ave	0.2924	0.2409		0.0412	0.0500	-17.6	20.0
Dibromomethane	Ave	0.1947	0.1495		0.0384	0.0500	-23.2	50.0
1,4-Dioxane	Ave	0.0030	0.0021		0.716	1.00	-28.4	50.0
Bromodichloromethane	Ave	0.3800	0.3204		0.0422	0.0500	-15.7	50.0
2-Chloroethyl vinyl ether	Ave	0.1632	0.1332		0.0816	0.100	-18.4	50.0
cis-1,3-Dichloropropene	Ave	0.4543	0.3759		0.0414	0.0500	-17.3	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2851	0.2682		0.0940	0.100	-6.0	50.0
Toluene	Ave	1.509	1.378		0.0457	0.0500	-8.6	20.0
trans-1,3-Dichloropropene	Ave	0.4844	0.4259		0.0440	0.0500	-12.1	50.0
Ethyl methacrylate	Ave	0.4214	0.3432		0.0407	0.0500	-18.6	50.0
1,1,2-Trichloroethane	Ave	0.2901	0.2505		0.0432	0.0500	-13.7	50.0
Tetrachloroethene	Ave	0.2904	0.2557		0.0440	0.0500	-11.9	50.0
1,3-Dichloropropane	Ave	0.5498	0.4512		0.0410	0.0500	-17.9	50.0
2-Hexanone	Ave	0.1966	0.1834		0.0933	0.100	-6.7	50.0
Chlorodibromomethane	Ave	0.3269	0.2807		0.0429	0.0500	-14.1	50.0
1,2-Dibromoethane	Ave	0.2962	0.2463		0.0416	0.0500	-16.8	50.0
Chlorobenzene	Ave	0.996	0.8577	0.3000	0.0430	0.0500	-13.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3249	0.2838		0.0437	0.0500	-12.6	50.0
Ethylbenzene	Ave	0.5434	0.4692		0.0432	0.0500	-13.7	20.0
m-Xylene & p-Xylene	Ave	0.6517	0.5752		0.0441	0.0500	-11.7	50.0
o-Xylene	Ave	0.6237	0.5654		0.0453	0.0500	-9.3	50.0
Styrene	Ave	0.9688	0.9307		0.0480	0.0500	-3.9	50.0
Bromoform	Lin1		0.1447	0.1000	0.0372	0.0500	-25.5	50.0
Isopropylbenzene	Ave	1.524	1.394		0.0457	0.0500	-8.5	50.0
Bromobenzene	Ave	0.7248	0.6409		0.0442	0.0500	-11.6	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7388	0.5938	0.3000	0.0402	0.0500	-19.6	50.0
1,2,3-Trichloropropane	Ave	0.2293	0.1812		0.0395	0.0500	-21.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1780	0.1614		0.0453	0.0500	-9.3	50.0
N-Propylbenzene	Ave	0.7802	0.7884		0.0505	0.0500	1.1	50.0
2-Chlorotoluene	Ave	0.6950	0.6448		0.0464	0.0500	-7.2	50.0
1,3,5-Trimethylbenzene	Ave	2.384	2.383		0.0500	0.0500	-0.0	50.0
4-Chlorotoluene	Ave	0.7761	0.7126		0.0459	0.0500	-8.2	50.0
tert-Butylbenzene	Ave	1.953	1.950		0.0499	0.0500	-0.2	50.0
1,2,4-Trimethylbenzene	Ave	2.246	2.218		0.0494	0.0500	-1.2	50.0
sec-Butylbenzene	Ave	2.793	2.836		0.0508	0.0500	1.5	50.0
1,3-Dichlorobenzene	Ave	1.333	1.181		0.0443	0.0500	-11.4	50.0
4-Isopropyltoluene	Ave	2.562	2.651		0.0517	0.0500	3.5	50.0
1,4-Dichlorobenzene	Ave	1.424	1.226		0.0430	0.0500	-13.9	50.0
1,2-Dichlorobenzene	Ave	1.402	1.219		0.0435	0.0500	-13.0	50.0
n-Butylbenzene	Ave	2.288	2.394		0.0523	0.0500	4.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCVIS 240-443733/3 Calibration Date: 07/22/2020 13:03

Instrument ID: A3UX14 Calib Start Date: 04/20/2020 14:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2020 17:35

Lab File ID: 1425532.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1210	0.0927		0.0383	0.0500	-23.4	50.0
1,2,4-Trichlorobenzene	Ave	0.9737	0.8108		0.0416	0.0500	-16.7	50.0
Hexachlorobutadiene	Ave	0.4261	0.3812		0.0447	0.0500	-10.5	50.0
Naphthalene	Ave	2.454	1.973		0.0402	0.0500	-19.6	50.0
1,2,3-Trichlorobenzene	Ave	0.9901	0.7805		0.0394	0.0500	-21.2	50.0
Dibromofluoromethane (Surr)	Ave	0.3203	0.2198		0.0343	0.0500	-31.4	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4049	0.2592		0.0320	0.0500	-36.0	50.0
Toluene-d8 (Surr)	Ave	1.405	1.114		0.0396	0.0500	-20.7	50.0
4-Bromofluorobenzene (Surr)	Lin1		0.6836		0.0415	0.0500	-16.9	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425532.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 22-Jul-2020 13:03:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvis
Misc. Info.: 240-0100262-003
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub81

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:05 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 13:21:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1466192	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	96	1129115	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	97	557646	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	92	322309	50.0	34.3	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	99	380071	50.0	32.0	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	1257294	50.0	39.6	
$ 7 4-Bromofluorobenzene (Surr)	95	10.240	10.240	0.000	0	381188	50.0	41.5	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	154495	20.0	17.5	
10 Chloromethane	50	1.187	1.187	0.000	99	210093	20.0	20.3	
11 Vinyl chloride	62	1.270	1.270	0.000	98	240872	20.0	19.9	
12 Butadiene	54	1.282	1.282	0.000	93	215602	20.0	23.4	
13 Bromomethane	94	1.519	1.519	0.000	89	248815	20.0	25.7	
15 Chloroethane	64	1.590	1.590	0.000	100	185875	20.0	24.0	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	97	416522	20.0	22.2	
17 Trichlorofluoromethane	101	1.791	1.791	0.000	97	470572	20.0	22.7	
18 Ethyl ether	59	2.051	2.051	0.000	89	554237	50.0	48.2	
19 Acrolein	56	2.146	2.146	0.000	99	173822	250.0	139.4	
21 1,1-Dichloroethene	96	2.240	2.240	0.000	99	598753	50.0	51.3	
22 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.276	2.276	0.000	94	412936	50.0	43.7	
24 Acetone	43	2.300	2.300	0.000	99	359158	100.0	121.3	
25 Iodomethane	142	2.371	2.371	0.000	98	1062578	50.0	48.8	
26 Carbon disulfide	76	2.430	2.430	0.000	100	1882491	50.0	51.9	E
27 3-Chloro-1-propene	76	2.607	2.607	0.000	85	232571	50.0	45.5	
29 Methyl acetate	43	2.655	2.655	0.000	98	486074	100.0	86.4	
30 Methylene Chloride	84	2.737	2.737	0.000	94	381881	50.0	42.9	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	96	237384	500.0	315.5	
34 Acrylonitrile	53	3.045	3.045	0.000	98	1109350	500.0	414.2	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	98	385184	50.0	42.1	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	97	922403	50.0	42.9	
35 Hexane	86	3.459	3.459	0.000	95	106416	50.0	39.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	635035	50.0	41.5	
39 Vinyl acetate	86	3.779	3.779	0.000	98	62574	50.0	36.5	
41 2,2-Dichloropropane	97	4.572	4.572	0.000	72	87258	50.0	47.3	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	83	407803	50.0	41.4	
43 2-Butanone (MEK)	43	4.678	4.678	0.000	100	284263	100.0	80.7	
46 Chlorobromomethane	128	4.974	4.974	0.000	95	193501	50.0	41.6	
48 Tetrahydrofuran	42	5.057	5.057	0.000	84	178273	100.0	80.3	
49 Chloroform	83	5.151	5.151	0.000	96	652237	50.0	41.6	
50 1,1,1-Trichloroethane	97	5.364	5.364	0.000	98	529120	50.0	42.2	
51 Cyclohexane	56	5.424	5.424	0.000	93	556215	50.0	44.5	
52 Carbon tetrachloride	117	5.589	5.589	0.000	93	473476	50.0	44.7	
53 1,1-Dichloropropene	75	5.601	5.601	0.000	92	536524	50.0	43.0	
54 Benzene	78	5.861	5.861	0.000	96	1470694	50.0	41.9	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	537991	50.0	39.3	
55 Isobutyl alcohol	41	5.944	5.944	0.000	90	229370	1250.0	908.3	
58 n-Heptane	100	6.287	6.287	0.000	89	122840	50.0	40.1	
59 Trichloroethene	130	6.654	6.654	0.000	96	385487	50.0	41.7	
62 Methylcyclohexane	83	6.855	6.855	0.000	89	644009	50.0	42.0	
63 1,2-Dichloropropane	63	6.891	6.891	0.000	93	353180	50.0	41.2	
65 Dibromomethane	93	7.009	7.009	0.000	94	219221	50.0	38.4	
67 1,4-Dioxane	88	7.068	7.068	0.000	94	62202	1000.0	716.1	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	469800	50.0	42.2	
70 2-Chloroethyl vinyl ether	63	7.553	7.553	0.000	93	390531	100.0	81.6	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	92	551184	50.0	41.4	
73 4-Methyl-2-pentanone (MIBK)	43	7.837	7.837	0.000	97	605550	100.0	94.0	
74 Toluene	91	7.968	7.968	0.000	98	1556353	50.0	45.7	
75 trans-1,3-Dichloropropene	75	8.204	8.204	0.000	97	480921	50.0	44.0	
76 Ethyl methacrylate	69	8.323	8.323	0.000	89	387521	50.0	40.7	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	92	282823	50.0	43.2	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	288729	50.0	44.0	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	94	509500	50.0	41.0	
80 2-Hexanone	43	8.618	8.618	0.000	97	414092	100.0	93.3	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	316967	50.0	42.9	
83 Ethylene Dibromide	107	8.796	8.796	0.000	99	278076	50.0	41.6	
85 Chlorobenzene	112	9.246	9.246	0.000	96	968458	50.0	43.0	
86 1,1,1,2-Tetrachloroethane	131	9.328	9.328	0.000	93	320441	50.0	43.7	
87 Ethylbenzene	106	9.352	9.352	0.000	99	529822	50.0	43.2	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	649425	50.0	44.1	
89 o-Xylene	106	9.802	9.802	0.000	97	638439	50.0	45.3	
90 Styrene	104	9.814	9.814	0.000	95	1050855	50.0	48.0	
91 Bromoform	173	9.956	9.956	0.000	94	163417	50.0	37.2	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	1574188	50.0	45.7	
94 Bromobenzene	156	10.358	10.358	0.000	95	357381	50.0	44.2	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	95	331114	50.0	40.2	
96 1,2,3-Trichloropropane	110	10.405	10.405	0.000	88	101027	50.0	39.5	
97 trans-1,4-Dichloro-2-butene	53	10.429	10.429	0.000	81	89997	50.0	45.3	
98 N-Propylbenzene	120	10.476	10.476	0.000	99	439630	50.0	50.5	
99 2-Chlorotoluene	126	10.535	10.535	0.000	97	359594	50.0	46.4	
100 1,3,5-Trimethylbenzene	105	10.630	10.630	0.000	88	1329061	50.0	50.0	
101 4-Chlorotoluene	126	10.630	10.630	0.000	97	397361	50.0	45.9	
103 tert-Butylbenzene	119	10.902	10.902	0.000	93	1087292	50.0	49.9	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	98	1237053	50.0	49.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	11.080	11.080	0.000	96	1581276	50.0	50.8	
108 1,3-Dichlorobenzene	146	11.162	11.162	0.000	98	658743	50.0	44.3	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	96	1478395	50.0	51.7	
110 1,4-Dichlorobenzene	146	11.233	11.233	0.000	92	683624	50.0	43.0	
114 1,2-Dichlorobenzene	146	11.553	11.553	0.000	95	679706	50.0	43.5	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	1334811	50.0	52.3	
115 1,2-Dibromo-3-Chloropropane	157	12.192	12.192	0.000	74	51685	50.0	38.3	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	452163	50.0	41.6	
118 Hexachlorobutadiene	225	13.056	13.056	0.000	96	212546	50.0	44.7	
119 Naphthalene	128	13.091	13.091	0.000	97	1099971	50.0	40.2	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	435240	50.0	39.4	
S 134 Xylenes, Total	106				0		100.0	89.5	
S 157 Total BTEX	1				0		250.0	220.3	
S 135 Trihalomethanes, Total	1				0		200.0	163.9	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VMAROLISTDW_00353	Amount Added:	5.00	Units: uL	
VMRGAS_00347	Amount Added:	2.00	Units: uL	
VMRPRIMW_00394	Amount Added:	5.00	Units: uL	
VM250SS_00058	Amount Added:	1.00	Units: uL	Run Reagent
VM568718_00018	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00175	Amount Added:	0.00	Units:	Run Reagent

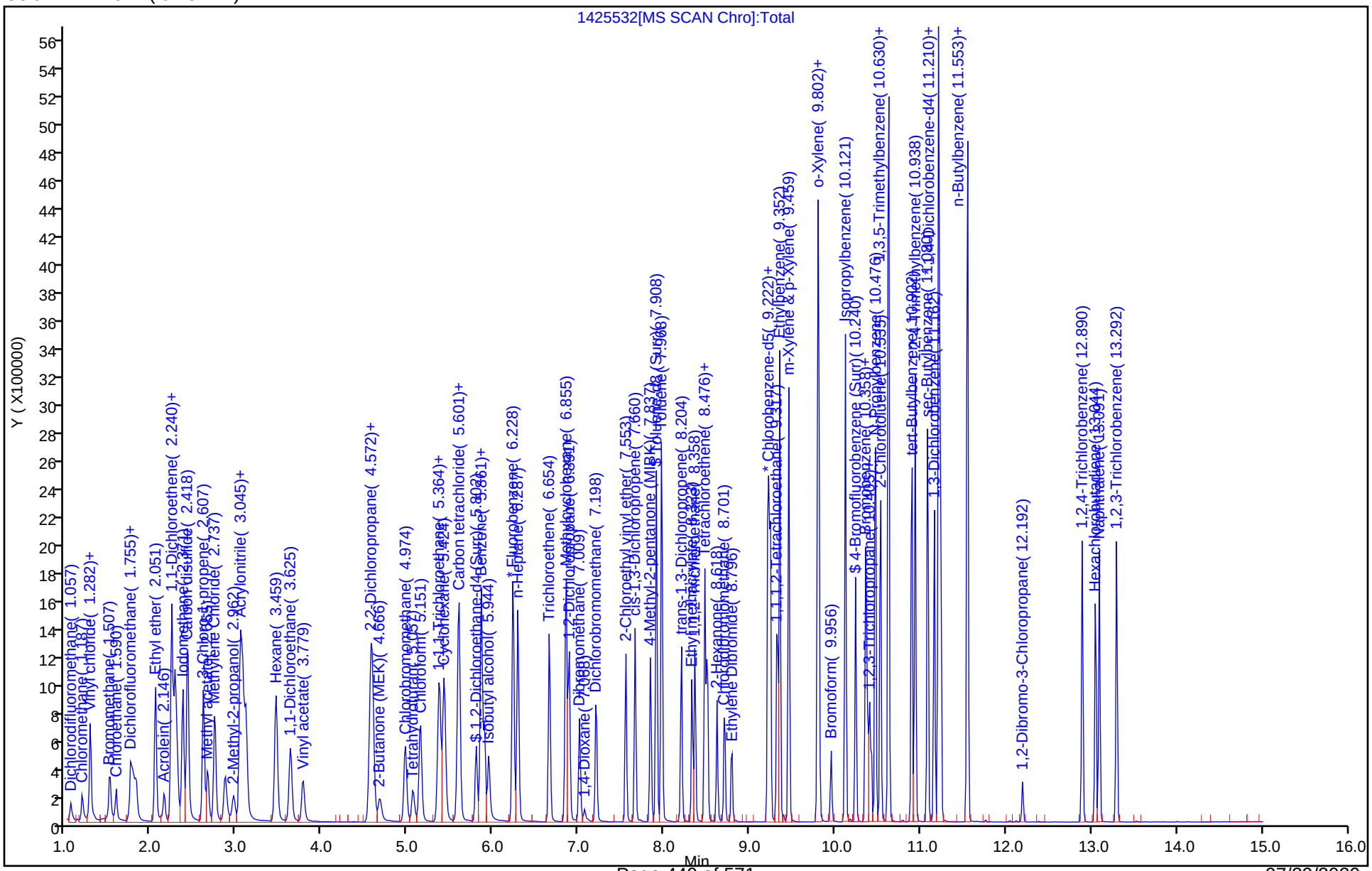
Report Date: 23-Jul-2020 11:55:07 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425532.D

Injection Date:	22-Jul-2020 13:03:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ccvis			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Lab Sample ID: CCV 240-443733/4 Calibration Date: 07/22/2020 13:25

Instrument ID: A3UX14 Calib Start Date: 03/20/2020 11:42

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/20/2020 14:39

Lab File ID: 1425533.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0215	0.0403		0.937	0.500	87.4*	50.0
2-Chloro-1,3-butadiene	Ave	0.4410	0.4084		0.0463	0.0500	-7.4	50.0
Diisopropyl ether	Ave	0.2153	0.2307		0.0536	0.0500	7.2	50.0
Ethyl tert-butyl ether	Ave	0.5891	0.6561		0.0557	0.0500	11.4	50.0
Propionitrile	Ave	0.0338	0.0312		0.461	0.500	-7.8	50.0
Ethyl acetate	Ave	0.2583	0.2163		0.0837	0.100	-16.3	50.0
Methacrylonitrile	Ave	0.1605	0.1578		0.491	0.500	-1.7	50.0
Tert-amyl methyl ether	Ave	0.5698	0.6769		0.0594	0.0500	18.8	50.0
n-Butanol	Lin1		0.0065		0.869	1.25	-30.5	50.0
Ethyl acrylate	Ave	0.3303	0.2696		0.0408	0.0500	-18.4	50.0
Methyl methacrylate	Ave	0.2453	0.2163		0.0882	0.100	-11.8	50.0
2-Nitropropane	Lin1		0.0605		0.0835	0.100	-16.5	50.0
n-Butyl acetate	Ave	0.5757	0.4129		0.0359	0.0500	-28.3	50.0
1-Chlorohexane	Ave	0.5056	0.4590		0.0454	0.0500	-9.2	50.0
Cyclohexanone	Ave	0.0105	0.0097		0.463	0.500	-7.5	50.0
Pentachloroethane	Lin1		0.3767		0.110	0.100	9.9	50.0
1,2,3-Trimethylbenzene	Ave	2.640	2.523		0.0478	0.0500	-4.4	50.0
Benzyl chloride	Qua		0.1754		0.0456	0.0500	-8.8	50.0
1,3,5-Trichlorobenzene	Ave	1.059	1.040		0.0491	0.0500	-1.8	50.0
2-Methylnaphthalene	Ave	1.636	1.694		0.104	0.100	3.5	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425533.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-Jul-2020 13:25:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Misc. Info.: 240-0100262-004
Operator ID: 002808 Instrument ID: A3UX14
Sublist: chrom-8260_14*sub84

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 14:19:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1318412	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	1042717	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	98	484343	50.0	50.0	
28 Acetonitrile	41	2.572	2.572	0.000	100	531405	500.0	936.8	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	95	538399	50.0	46.3	
38 Isopropyl ether	87	3.826	3.826	0.000	91	304140	50.0	53.6	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	96	865064	50.0	55.7	
44 Propionitrile	54	4.749	4.749	0.000	98	411110	500.0	461.2	
45 Ethyl acetate	43	4.844	4.844	0.000	100	570257	100.0	83.7	
47 Methacrylonitrile	41	4.997	4.997	0.000	92	2080182	500.0	491.4	
159 Isooctane	57	6.027	6.027	0.000	92	1262202	50.0	54.4	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	98	892378	50.0	59.4	
60 n-Butanol	56	6.725	6.725	0.000	91	168829	1250.0	869.0	
61 Ethyl acrylate	55	6.855	6.855	0.000	100	355390	50.0	40.8	
66 Methyl methacrylate	41	7.092	7.092	0.000	89	570330	100.0	88.2	
69 2-Nitropropane	41	7.447	7.447	0.000	100	159407	100.0	83.5	
81 n-Butyl acetate	43	8.760	8.760	0.000	97	430551	50.0	35.9	
84 1-Chlorohexane	91	9.246	9.246	0.000	84	478604	50.0	45.4	
93 Cyclohexanone	55	10.180	10.180	0.000	94	101075	500.0	462.6	
104 Pentachloroethane	167	10.902	10.902	0.000	85	364862	100.0	109.9	
111 1,2,3-Trimethylbenzene	105	11.293	11.293	0.000	98	1221998	50.0	47.8	
112 Benzyl chloride	126	11.352	11.352	0.000	98	84929	50.0	45.6	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	503572	50.0	49.1	
121 2-Methylnaphthalene	142	14.002	14.002	0.000	93	1640908	100.0	103.5	
158 1-Methylnaphthalene	142	14.132	14.132	0.000	98	1439689	100.0	96.1	

Reagents:

VMRA9W_00353	Amount Added:	5.00	Units: uL
VM568718_00018	Amount Added:	1.00	Units: uL

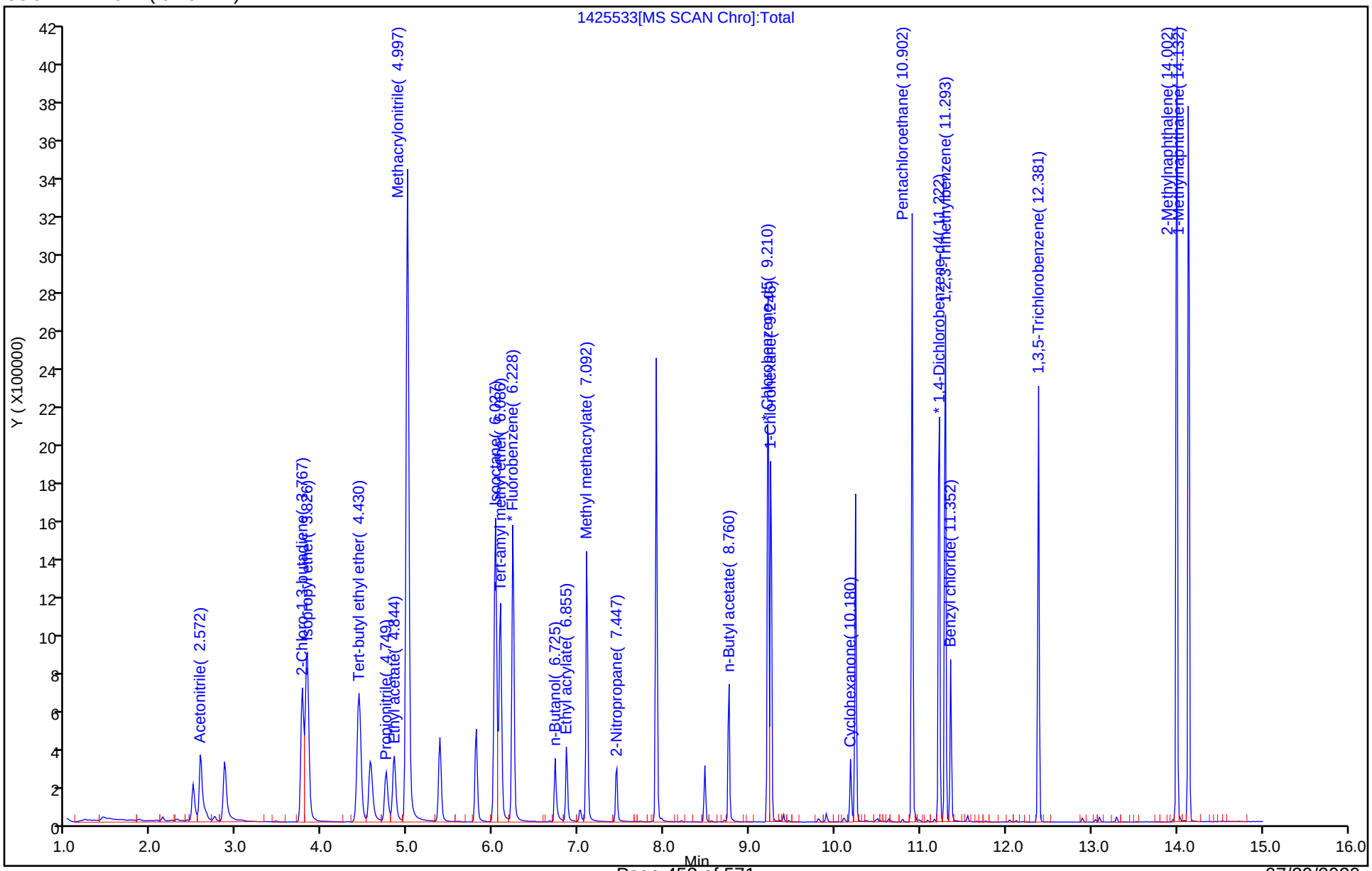
Report Date: 23-Jul-2020 11:55:11 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425533.D

Injection Date:	22-Jul-2020 13:25:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	ccv			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\BFB1718.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 15-Jan-2020 14:40:30 ALS Bottle#: 20 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0094937-001
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 20-Jan-2020 16:50:49 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.326	3.326	0.000	0	681278	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

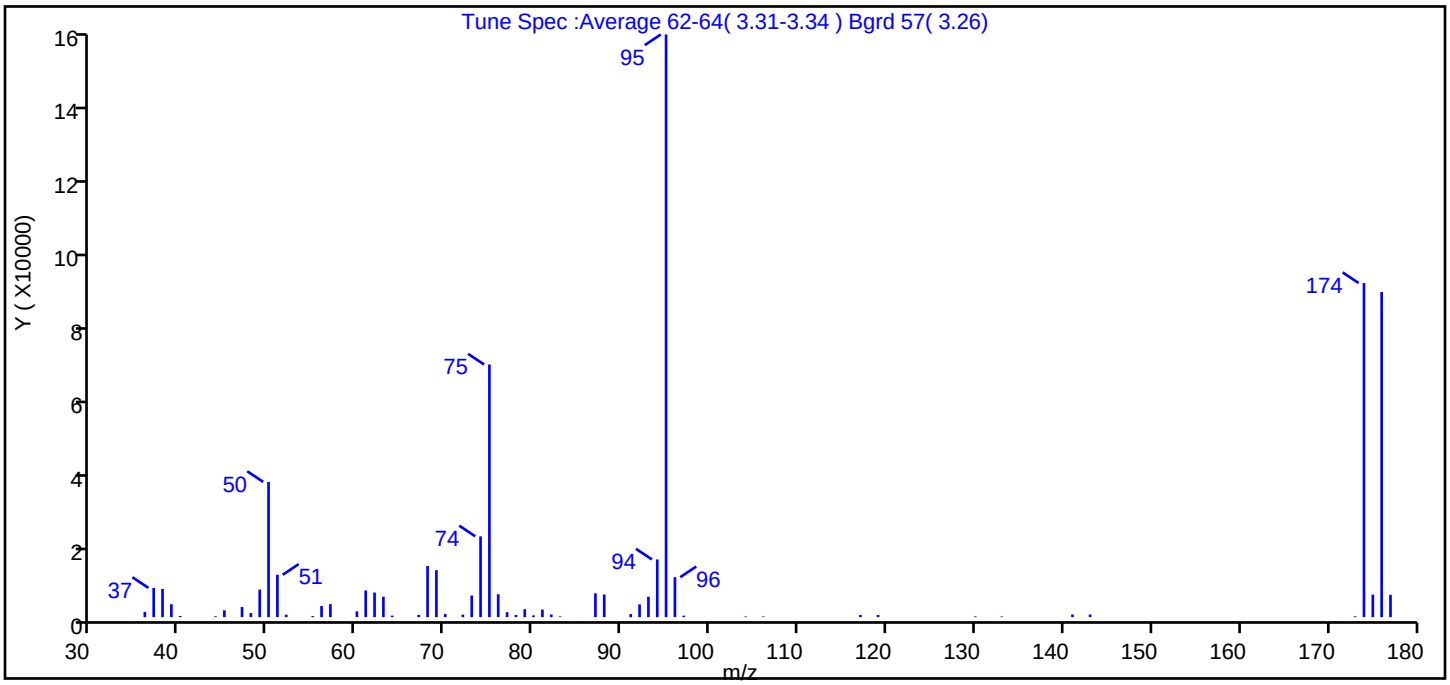
vmbfb_00024 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\BFB1718.D
Injection Date: 15-Jan-2020 14:40:30 Instrument ID: A3UX10
Lims ID: BFB
Client ID:
Operator ID: 001644 ALS Bottle#: 20 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.2
75	30 to 60% of m/z 95	43.4
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.1 (0.2)
174	50 to 120% of m/z 95	57.3
175	5 to 9% of m/z 174	3.9 (6.7)
176	Greater than 95% but less than 101% of m/z 174	55.8 (97.3)
177	5 to 9% of m/z 176	3.8 (6.9)

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\BFB1718.D\8260_10.rslt\spectra.d
Injection Date: 15-Jan-2020 14:40:30
Spectrum: Tune Spec :Average 62-64(3.31-3.34) Bgrd 57(3.26)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 59

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1411	57.00	3489	77.00	1320	97.00	394
37.00	7839	60.00	1548	78.00	571	104.00	184
38.00	7546	61.00	7152	79.00	2131	106.00	177
39.00	3454	62.00	6590	80.00	472	117.00	571
40.00	318	63.00	5463	81.00	2034	119.00	573
44.00	227	64.00	406	82.00	706	130.00	199
45.00	1839	67.00	599	83.00	188	133.00	183
47.00	2735	68.00	13720	87.00	6389	141.00	721
48.00	1091	69.00	12599	88.00	6062	143.00	697
49.00	7382	70.00	834	91.00	828	173.00	222
50.00	36240	72.00	671	92.00	3417	174.00	89536
51.00	11354	73.00	5782	93.00	5472	175.00	6043
52.00	667	74.00	21656	94.00	15461	176.00	87144
55.00	289	75.00	67712	95.00	156160	177.00	5975
56.00	2984	76.00	6130	96.00	10712		

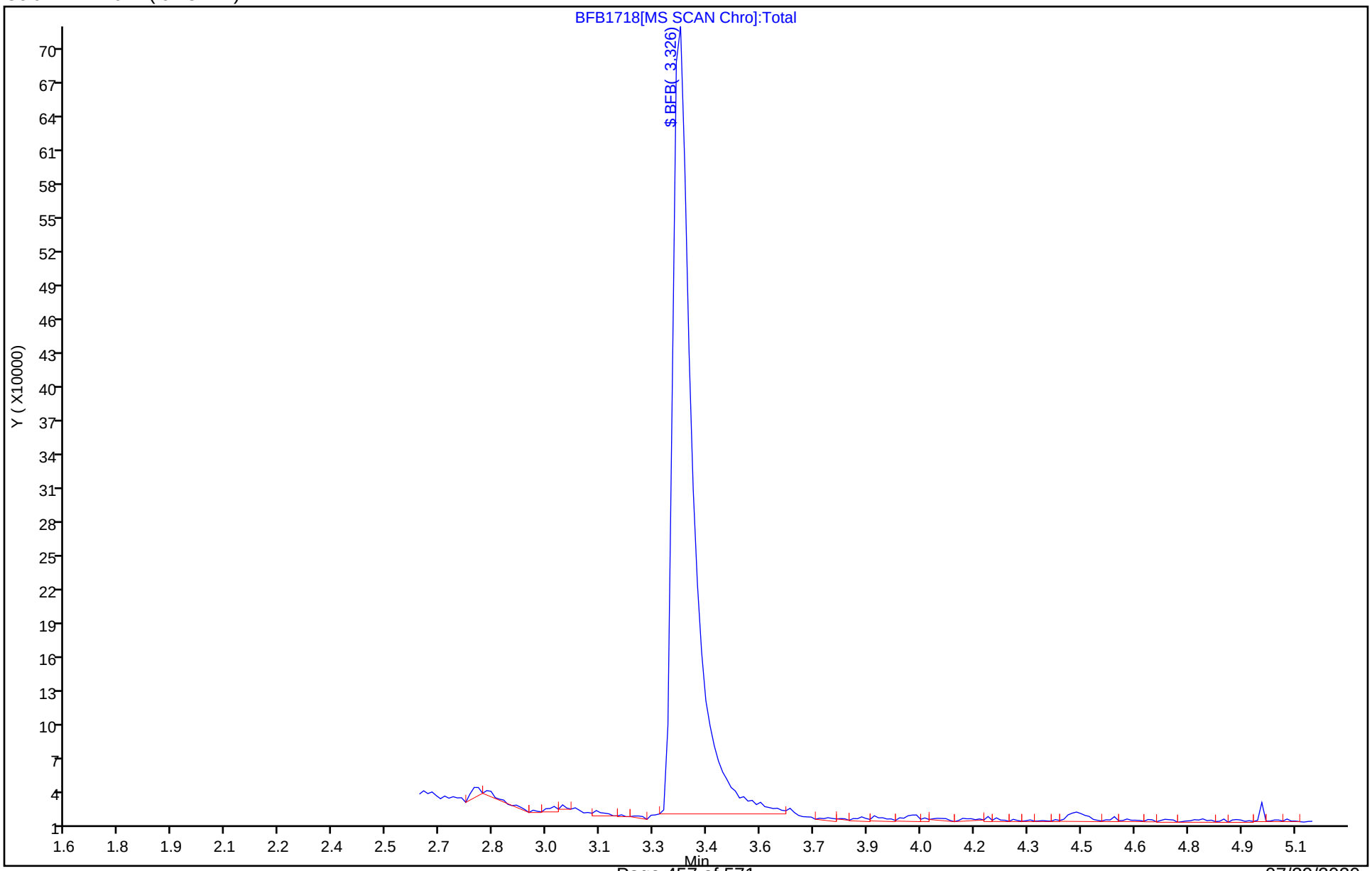
Report Date: 20-Jan-2020 16:50:51 Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\BFB1718.D

Injection Date:	15-Jan-2020 14:40:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\BFB1897.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 23-Jul-2020 12:33:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-001
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:32 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.209	3.209	0.000	0	334013	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

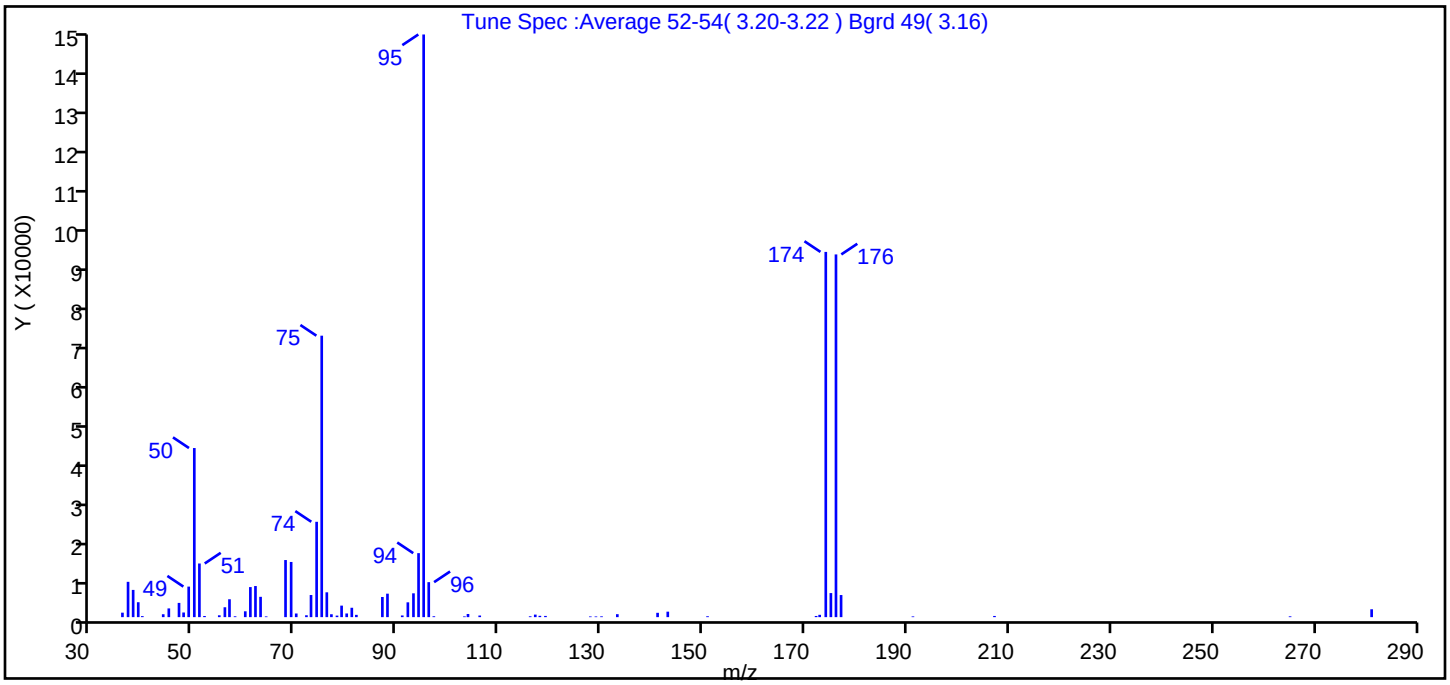
VMBFB_00025 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\BFB1897.D
Injection Date: 23-Jul-2020 12:33:30 Instrument ID: A3UX10
Lims ID: BFB
Client ID:
Operator ID: 001644 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	29.0
75	30 to 60% of m/z 95	48.3
96	5 to 9% of m/z 95	6.0
173	Less than 2% of m/z 174	0.4 (0.6)
174	50 to 120% of m/z 95	62.7
175	5 to 9% of m/z 174	4.1 (6.6)
176	Greater than 95% but less than 101% of m/z 174	62.3 (99.3)
177	5 to 9% of m/z 176	3.8 (6.1)

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\BFB1897.D\8260_10.rslt\spectra.d
Injection Date: 23-Jul-2020 12:33:30
Spectrum: Tune Spec :Average 52-54(3.20-3.22) Bgrd 49(3.16)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1136	61.00	7624	87.00	5111	130.00	200
37.00	8957	62.00	7888	88.00	5953	133.00	751
38.00	6908	63.00	5153	91.00	424	141.00	1098
39.00	3784	64.00	185	92.00	3759	143.00	1389
40.00	259	68.00	14481	93.00	6043	151.00	224
44.00	737	69.00	13995	94.00	16230	172.00	295
45.00	2215	70.00	925	95.00	147776	173.00	589
47.00	3612	72.00	478	96.00	8874	174.00	92632
48.00	1180	73.00	5611	97.00	221	175.00	6105
49.00	7746	74.00	24184	103.00	186	176.00	91992
50.00	42888	75.00	71384	104.00	800	177.00	5606
51.00	13607	76.00	6298	106.00	409	191.00	184
52.00	288	77.00	735	116.00	214	207.00	300
55.00	468	78.00	391	117.00	644	265.00	203
56.00	2507	79.00	2922	118.00	335	281.00	2000
57.00	4537	80.00	930	119.00	310		
58.00	216	81.00	2381	128.00	176		
60.00	1482	82.00	580	129.00	175		

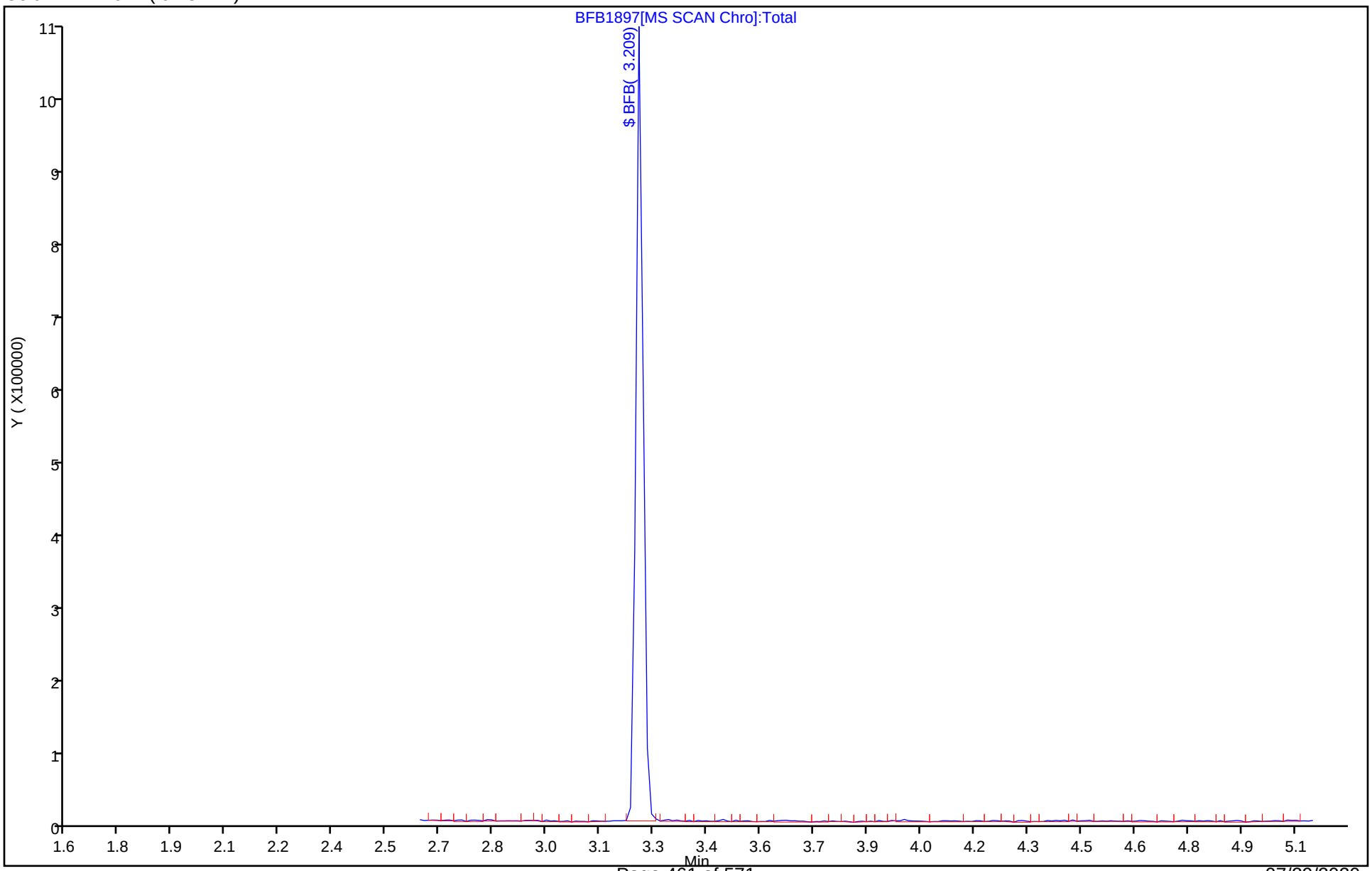
Report Date: 24-Jul-2020 11:31:32 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\BFB1897.D

Injection Date:	23-Jul-2020 12:33:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromna\Canton\ChromData\A3UX14\20200319-96794.b\BFB14138.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-Mar-2020 14:52:30	ALS Bottle#:	1	Worklist Smp#:	17
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	240-0096794-017				
Operator ID:	002808	Instrument ID:	A3UX14		
Method:	\\chromna\Canton\ChromData\A3UX14\20200319-96794.b\8260_14.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	20-Mar-2020 16:12:23	Calib Date:	19-Mar-2020 18:32:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Canton\ChromData\A3UX14\20200319-96794.b\1424115.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX0303				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.650	3.650	0.000	0	606980	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

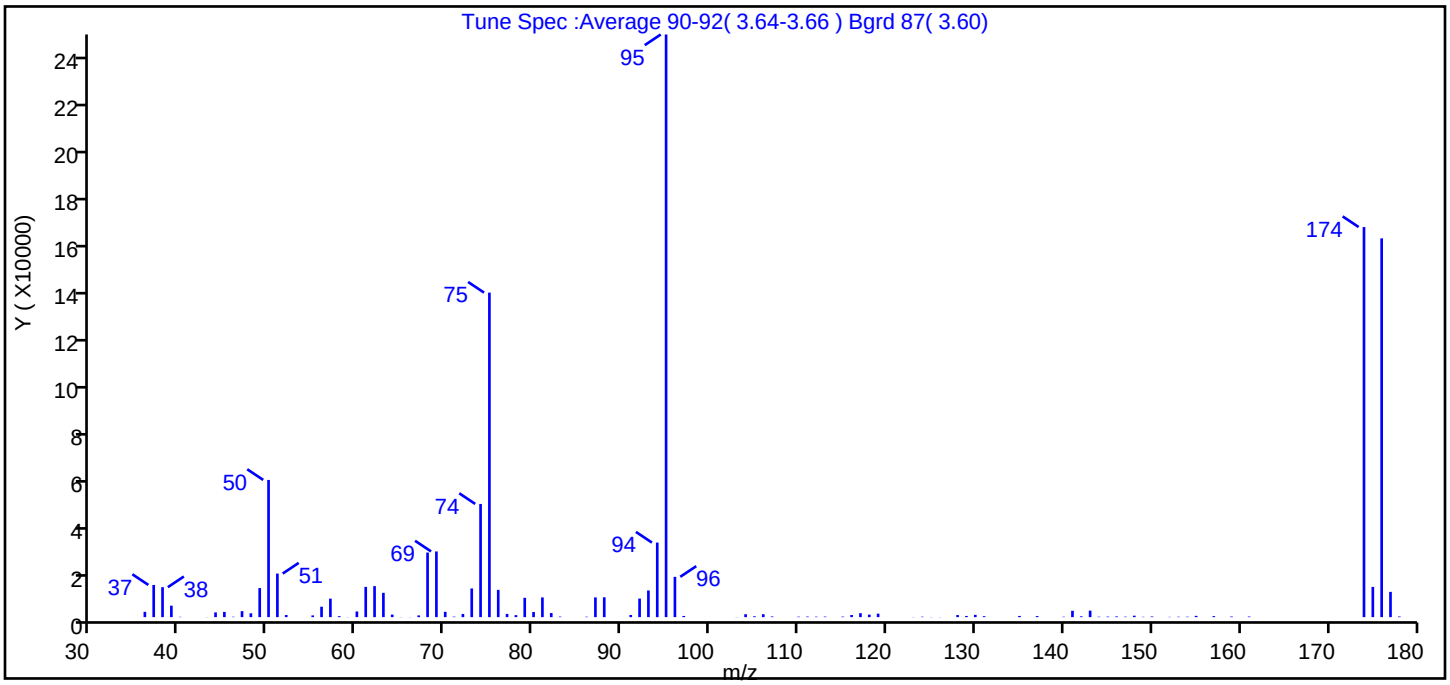
vmbfb_00024 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\BFB14138.D
Injection Date: 19-Mar-2020 14:52:30 Instrument ID: A3UX14
Lims ID: BFB
Client ID:
Operator ID: 002808 ALS Bottle#: 1 Worklist Smp#: 17
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.5
75	30 to 60% of m/z 95	55.7
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	67.0
175	5 to 9% of m/z 174	5.2 (7.8)
176	Greater than 95% but less than 101% of m/z 174	65.0 (97.1)
177	5 to 9% of m/z 176	4.3 (6.7)

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\BFB14138.D\8260_14.rslt\spectra.d
Injection Date: 19-Mar-2020 14:52:30
Spectrum: Tune Spec :Average 90-92(3.64-3.66) Bgrd 87(3.60)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 101

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2195	66.00	50	96.00	16640	140.00	165
37.00	13290	67.00	714	97.00	488	141.00	2628
38.00	12374	68.00	26664	103.00	61	142.00	334
39.00	4732	69.00	27120	104.00	1200	143.00	2688
40.00	128	70.00	2197	105.00	353	144.00	177
43.00	55	71.00	213	106.00	1211	145.00	229
44.00	1965	72.00	1320	107.00	274	146.00	298
45.00	2154	73.00	11837	110.00	197	147.00	194
46.00	171	74.00	46728	111.00	238	148.00	603
47.00	2472	75.00	133952	112.00	195	149.00	141
48.00	1592	76.00	11261	113.00	227	150.00	270
49.00	12007	77.00	1329	115.00	219	152.00	116
50.00	56640	78.00	828	116.00	885	153.00	172
51.00	17992	79.00	7986	117.00	1637	154.00	178
52.00	878	80.00	2114	118.00	1050	155.00	535
55.00	714	81.00	8139	119.00	1439	157.00	421
56.00	4300	82.00	1702	123.00	63	159.00	255
57.00	7641	83.00	222	124.00	182	161.00	256
58.00	401	86.00	178	125.00	65	174.00	161024
59.00	56	87.00	8147	126.00	54	175.00	12483
60.00	2340	88.00	8199	128.00	862	176.00	156352
61.00	12497	91.00	884	129.00	496	177.00	10432
62.00	12810	92.00	7669	130.00	942	178.00	269
63.00	10042	93.00	11009	131.00	390		
64.00	1066	94.00	30784	135.00	498		
65.00	62	95.00	240512	137.00	449		

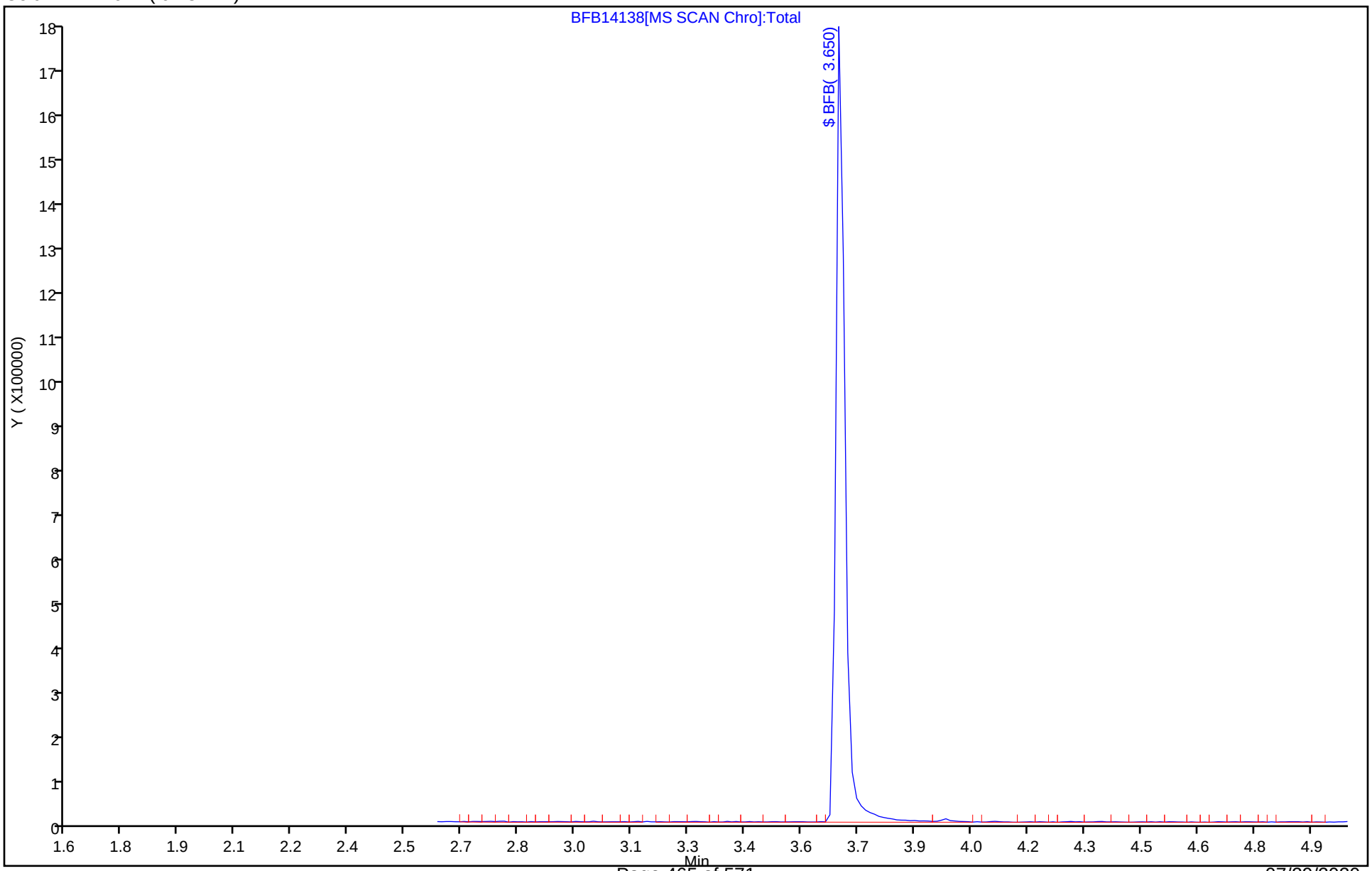
Report Date: 20-Mar-2020 16:12:24 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200319-96794.b\BFB14138.D

Injection Date:	19-Mar-2020 14:52:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	BFB			Worklist Smp#:	17
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromna\Canton\ChromData\A3UX14\20200320-96832.b\BFB14139.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	20-Mar-2020 10:36:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	240-0096832-001				
Operator ID:	002808	Instrument ID:	A3UX14		
Method:	\\chromna\Canton\ChromData\A3UX14\20200320-96832.b\8260_14.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	23-Mar-2020 10:26:45	Calib Date:	20-Mar-2020 14:39:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Canton\ChromData\A3UX14\20200320-96832.b\1424130.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX0335				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.650	3.650	0.000	0	700391	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

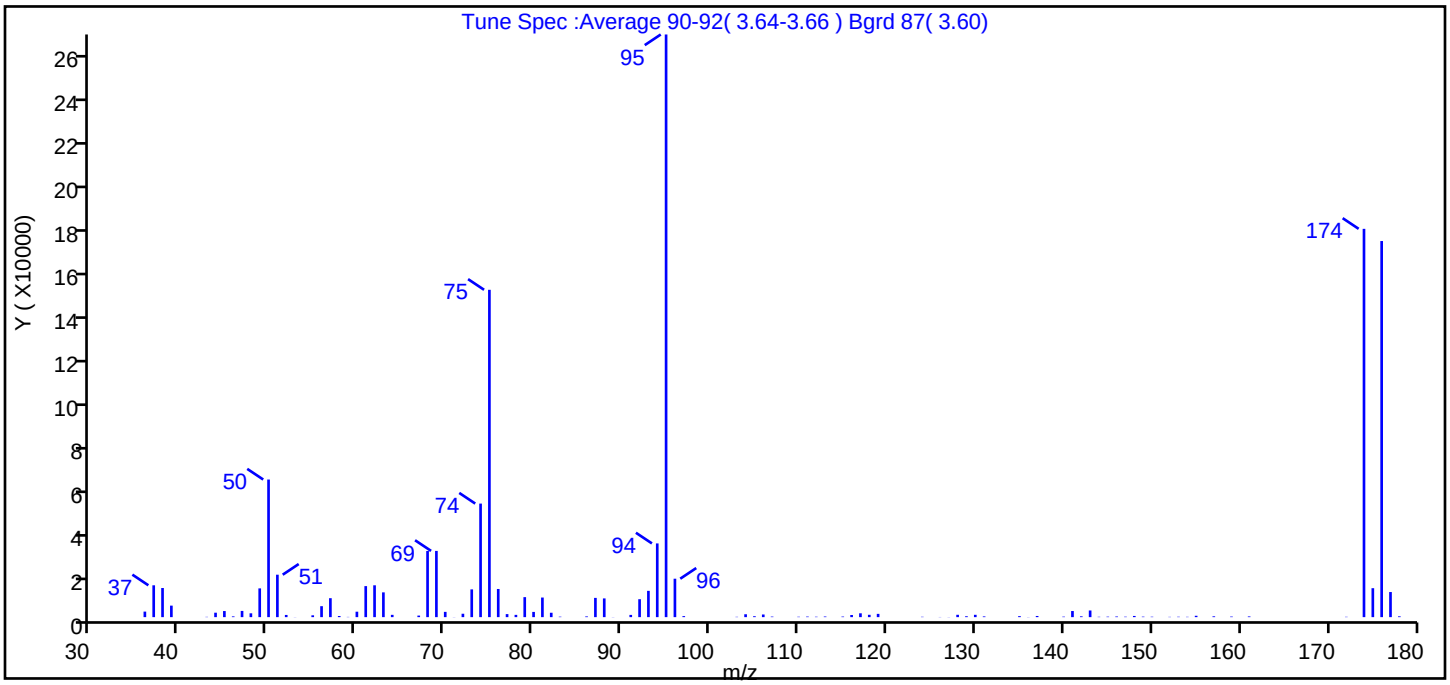
vmbfb_00024 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\BFB14139.D
Injection Date: 20-Mar-2020 10:36:30 Instrument ID: A3UX14
Lims ID: bfb
Client ID:
Operator ID: 002808 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.6
75	30 to 60% of m/z 95	56.2
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	66.6
175	5 to 9% of m/z 174	5.0 (7.5)
176	Greater than 95% but less than 101% of m/z 174	64.6 (96.9)
177	5 to 9% of m/z 176	4.3 (6.7)

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\BFB14139.D\8260_14.rslt\spectra.d
Injection Date: 20-Mar-2020 10:36:30
Spectrum: Tune Spec :Average 90-92(3.64-3.66) Bgrd 87(3.60)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 101

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2531	68.00	30200	97.00	463	141.00	2793
37.00	14543	69.00	30248	103.00	145	142.00	371
38.00	13305	70.00	2410	104.00	1321	143.00	3041
39.00	5260	71.00	55	105.00	417	144.00	164
43.00	131	72.00	1557	106.00	1214	145.00	220
44.00	2029	73.00	12673	107.00	250	146.00	296
45.00	2784	74.00	51864	110.00	182	147.00	204
46.00	344	75.00	149504	111.00	261	148.00	541
47.00	2842	76.00	12859	112.00	192	149.00	226
48.00	1752	77.00	1387	113.00	286	150.00	194
49.00	13134	78.00	1039	115.00	266	152.00	129
50.00	62848	79.00	9135	116.00	975	153.00	183
51.00	19384	80.00	2387	117.00	1757	154.00	147
52.00	1001	81.00	8954	118.00	1071	155.00	625
53.00	52	82.00	2009	119.00	1499	157.00	372
55.00	835	83.00	212	124.00	166	159.00	262
56.00	5009	86.00	335	126.00	74	161.00	323
57.00	8657	87.00	8793	127.00	58	172.00	153
58.00	511	88.00	8555	128.00	1075	174.00	177344
59.00	106	89.00	57	129.00	409	175.00	13222
60.00	2488	91.00	1025	130.00	1067	176.00	171776
61.00	14176	92.00	8195	131.00	331	177.00	11467
62.00	14545	93.00	12009	135.00	455	178.00	365
63.00	11316	94.00	33672	136.00	62		
64.00	1052	95.00	266112	137.00	529		
67.00	713	96.00	17552	140.00	228		

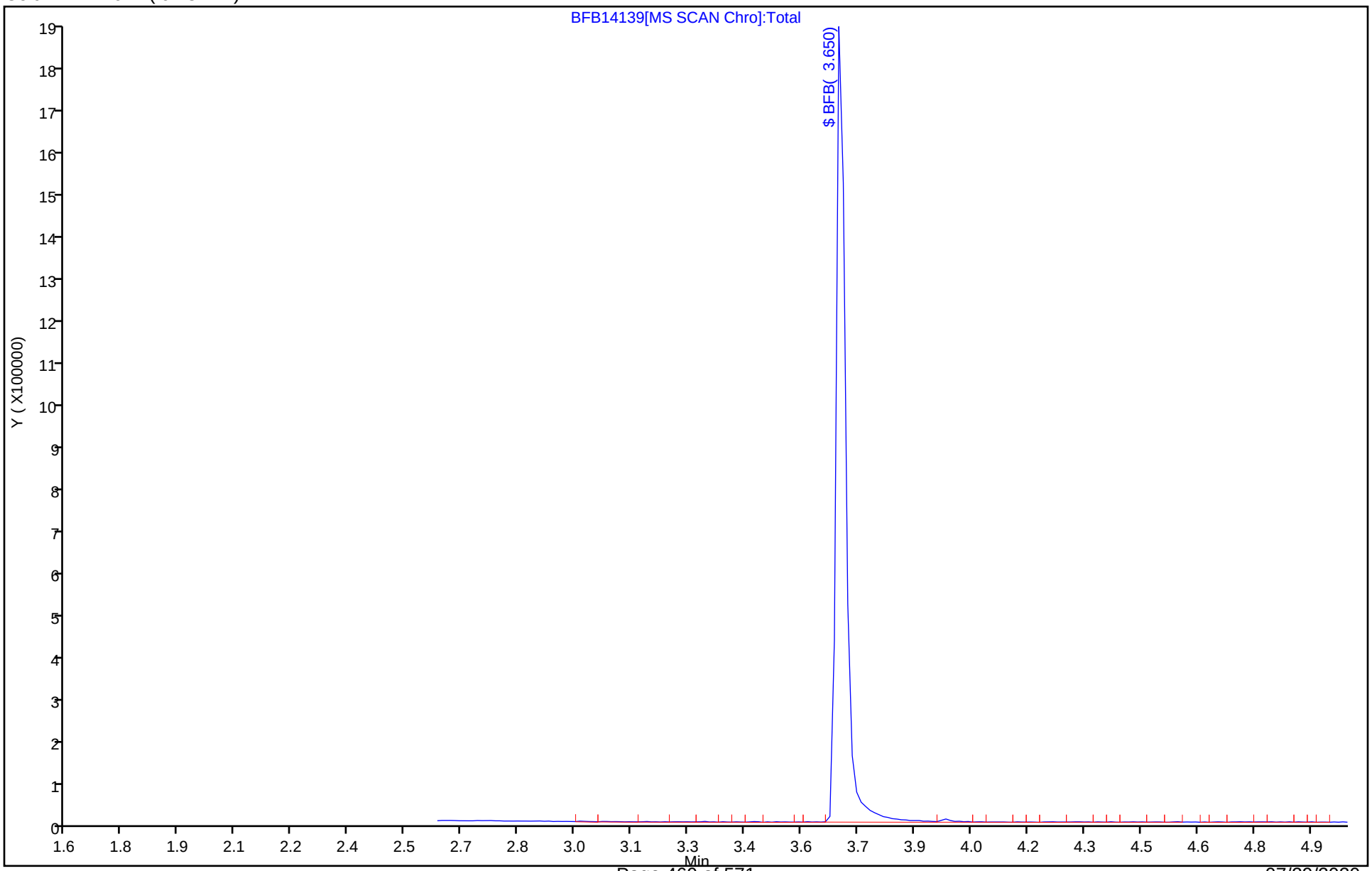
Report Date: 23-Mar-2020 10:26:46 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromna\Canton\ChromData\A3UX14\20200320-96832.b\BFB14139.D

Injection Date:	20-Mar-2020 10:36:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\BFB14153.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	20-Apr-2020 13:56:30	ALS Bottle#:	1	Worklist Smp#:	19
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	240-0097619-019				
Operator ID:	002808	Instrument ID:	A3UX14		
Method:	\\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\8260_14.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	22-Apr-2020 10:34:55	Calib Date:	20-Apr-2020 17:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX0316				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.650	3.650	0.000	0	518695	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

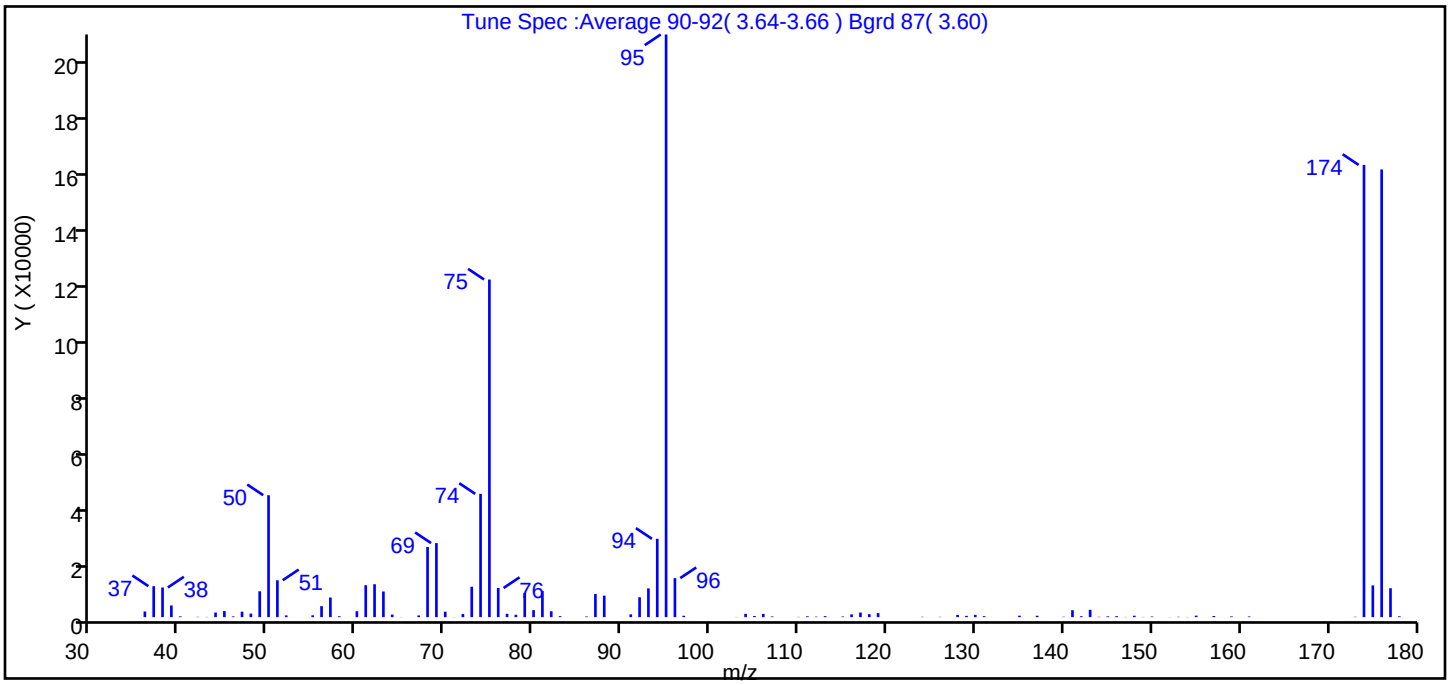
vmbfb_00024 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\BFB14153.D
Injection Date: 20-Apr-2020 13:56:30 Instrument ID: A3UX14
Lims ID: BFB
Client ID:
Operator ID: 002808 ALS Bottle#: 1 Worklist Smp#: 19
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.9
75	30 to 60% of m/z 95	57.9
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.1 (0.1)
174	50 to 120% of m/z 95	77.6
175	5 to 9% of m/z 174	5.4 (7.0)
176	Greater than 95% but less than 101% of m/z 174	76.8 (99.0)
177	5 to 9% of m/z 176	5.0 (6.5)

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\BFB14153.D\8260_14.rslt\spectra.d
Injection Date: 20-Apr-2020 13:56:30
Spectrum: Tune Spec :Average 90-92(3.64-3.66) Bgrd 87(3.60)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1991	65.00	60	95.00	205248	140.00	135
37.00	10915	67.00	601	96.00	13752	141.00	2441
38.00	10452	68.00	24720	97.00	488	142.00	323
39.00	4123	69.00	26088	103.00	66	143.00	2596
40.00	279	70.00	1918	104.00	1171	144.00	130
42.00	114	71.00	50	105.00	394	145.00	274
43.00	77	72.00	1124	106.00	1137	146.00	341
44.00	1611	73.00	10709	107.00	232	147.00	73
45.00	2137	74.00	43424	110.00	86	148.00	501
46.00	263	75.00	118936	111.00	297	149.00	71
47.00	1924	76.00	10276	112.00	167	150.00	204
48.00	1251	77.00	1178	113.00	359	152.00	50
49.00	9114	78.00	837	115.00	224	153.00	134
50.00	42960	79.00	8556	116.00	984	154.00	67
51.00	13000	80.00	2479	117.00	1618	155.00	533
52.00	617	81.00	9221	118.00	1045	157.00	405
55.00	649	82.00	2069	119.00	1427	159.00	257
56.00	3876	83.00	345	124.00	130	161.00	238
57.00	6914	86.00	235	126.00	107	173.00	132
58.00	323	87.00	8169	128.00	766	174.00	159296
60.00	2103	88.00	7584	129.00	446	175.00	11178
61.00	11249	91.00	986	130.00	790	176.00	157696
62.00	11592	92.00	7009	131.00	342	177.00	10196
63.00	9037	93.00	10133	135.00	519	178.00	285
64.00	906	94.00	27600	137.00	497		

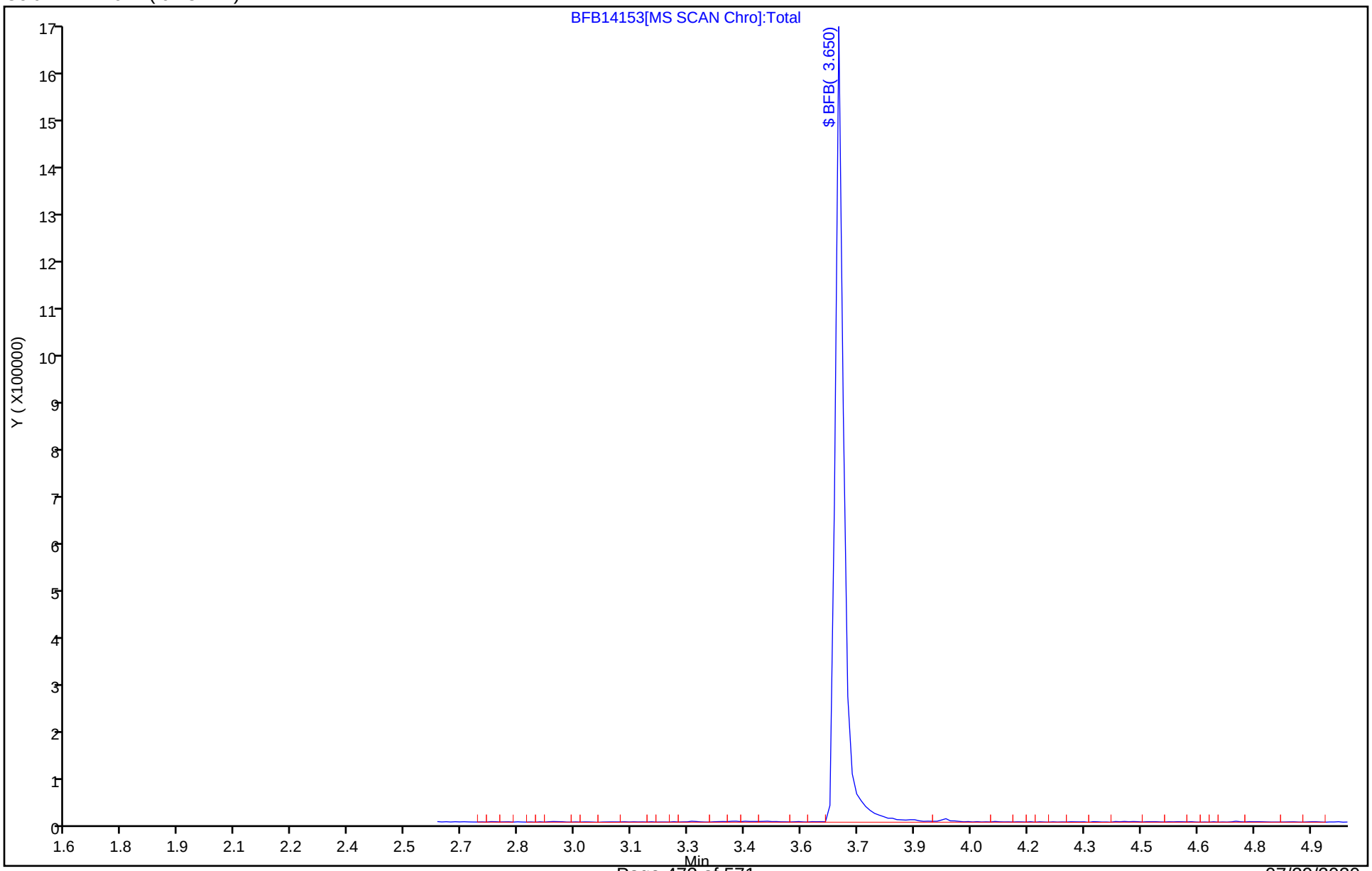
Report Date: 22-Apr-2020 10:34:55 Chrom Revision: 2.3 11-Mar-2020 18:53:20

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\BFB14153.D

Injection Date:	20-Apr-2020 13:56:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	BFB			Worklist Smp#:	19
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\BFB14195.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	22-Jul-2020 12:18:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	240-0100262-001				
Operator ID:	002808	Instrument ID:	A3UX14		
Method:	\\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	23-Jul-2020 11:55:02	Calib Date:	20-Apr-2020 17:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1017				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.650	3.650	0.000	0	857539	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

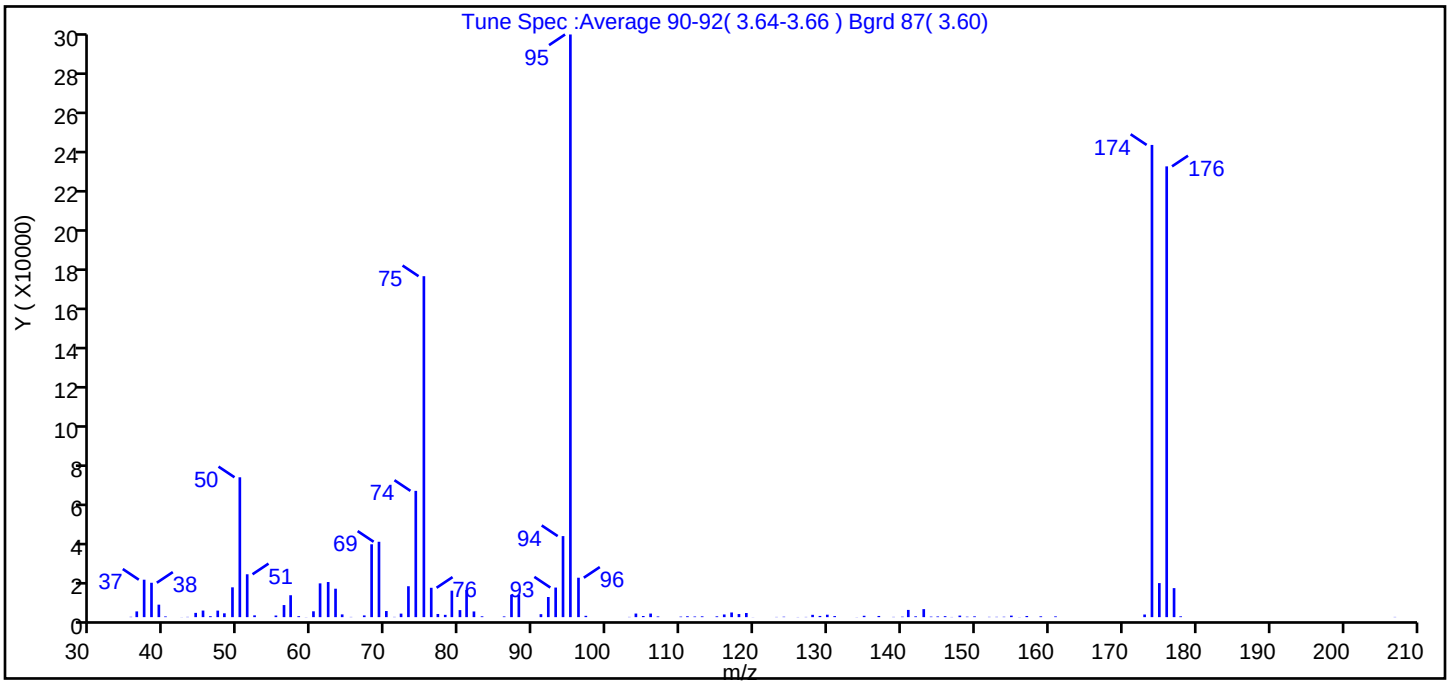
vmbfb_00025 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\BFB14195.D
Injection Date: 22-Jul-2020 12:18:30 Instrument ID: A3UX14
Lims ID: bfb
Client ID:
Operator ID: 002808 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	24.0
75	30 to 60% of m/z 95	58.5
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	81.0
175	5 to 9% of m/z 174	5.8 (7.2)
176	Greater than 95% but less than 101% of m/z 174	77.4 (95.5)
177	5 to 9% of m/z 176	5.0 (6.4)

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\BFB14195.D\8260_14.rslt\spectra.d
Injection Date: 22-Jul-2020 12:18:30
Spectrum: Tune Spec :Average 90-92(3.64-3.66) Bgrd 87(3.60)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	172	65.00	114	97.00	674	139.00	130
36.00	2920	67.00	873	103.00	119	140.00	246
37.00	19008	68.00	36984	104.00	1827	141.00	3670
38.00	17456	69.00	38256	105.00	572	142.00	413
39.00	6336	70.00	3101	106.00	1819	143.00	4068
40.00	360	71.00	127	107.00	344	144.00	267
42.00	51	72.00	1791	110.00	268	145.00	355
43.00	133	73.00	15690	111.00	457	146.00	498
44.00	2168	74.00	64096	112.00	327	147.00	91
45.00	3348	75.00	173056	113.00	413	148.00	783
46.00	471	76.00	14908	115.00	425	149.00	226
47.00	3317	77.00	1609	116.00	1357	150.00	406
48.00	1944	78.00	1171	117.00	2363	152.00	155
49.00	15131	79.00	13442	118.00	1577	153.00	159
50.00	70992	80.00	3574	119.00	2102	154.00	196
51.00	21760	81.00	13803	120.00	51	155.00	770
52.00	905	82.00	2890	123.00	111	156.00	72
55.00	824	83.00	424	124.00	214	157.00	584
56.00	6130	86.00	364	126.00	80	159.00	420
57.00	11120	87.00	11349	127.00	118	161.00	390
58.00	480	88.00	11380	128.00	1179	173.00	1340
59.00	62	91.00	1511	129.00	609	174.00	239680
60.00	2968	92.00	10223	130.00	1236	175.00	17280
61.00	17144	93.00	15016	131.00	542	176.00	228800
62.00	17824	94.00	41136	134.00	63	177.00	14731
63.00	14433	95.00	295744	135.00	694	178.00	412
64.00	1392	96.00	20008	137.00	597	207.00	113

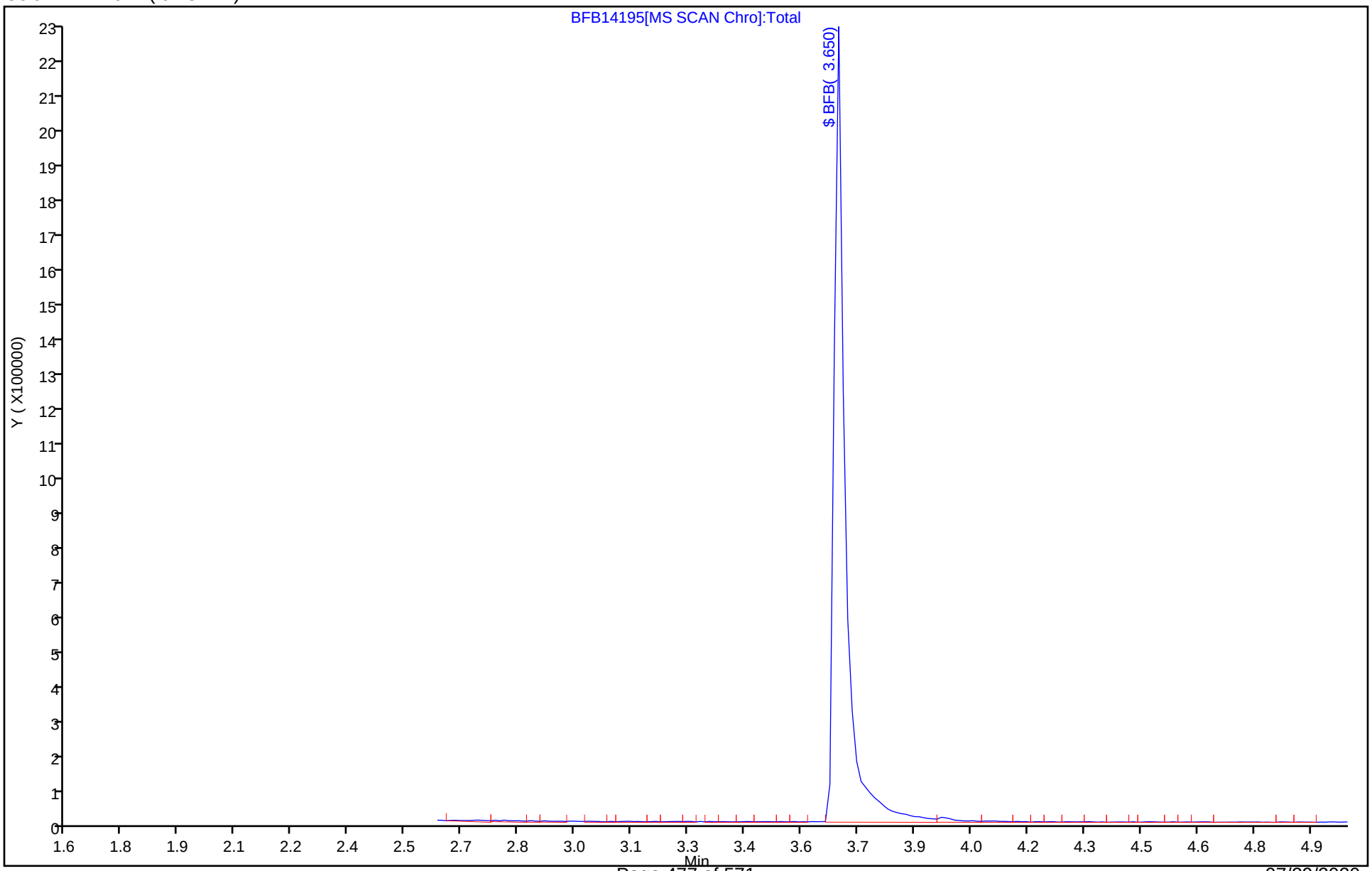
Report Date: 23-Jul-2020 11:55:03 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\BFB14195.D

Injection Date:	22-Jul-2020 12:18:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443733/7

Matrix: Solid Lab File ID: 1425536.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.0	U	5.0	3.0
563-58-6	1,1-Dichloropropene	0.99	U	5.0	0.99
75-34-3	1,1-Dichloroethane	0.69	U	5.0	0.69
87-61-6	1,2,3-Trichlorobenzene	0.57	U	5.0	0.57
96-18-4	1,2,3-Trichloropropane	1.6	U	5.0	1.6
107-06-2	1,2-Dichloroethane	0.77	U	5.0	0.77
75-35-4	1,1-Dichloroethene	0.90	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	1.8	U	5.0	1.8
78-87-5	1,2-Dichloropropane	0.85	U	5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	1.0	U	5.0	1.0
591-78-6	2-Hexanone	4.1	U	20	4.1
79-34-5	1,1,2,2-Tetrachloroethane	1.4	U	5.0	1.4
67-64-1	Acetone	21	U	25	21
71-43-2	Benzene	0.70	U	5.0	0.70
75-25-2	Bromoform	2.4	U	5.0	2.4
74-83-9	Bromomethane	0.99	U	5.0	0.99
75-15-0	Carbon disulfide	1.37	J	5.0	1.2
56-23-5	Carbon tetrachloride	3.3	U	5.0	3.3
71-55-6	1,1,1-Trichloroethane	0.82	U	5.0	0.82
108-90-7	Chlorobenzene	0.92	U	5.0	0.92
142-28-9	1,3-Dichloropropane	0.99	U	5.0	0.99
75-00-3	Chloroethane	1.2	U	5.0	1.2
96-12-8	1,2-Dibromo-3-Chloropropane	3.6	U	10	3.6
67-66-3	Chloroform	0.79	U	5.0	0.79
74-87-3	Chloromethane	1.0	U	5.0	1.0
156-59-2	cis-1,2-Dichloroethene	0.65	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	1.4	U	5.0	1.4
75-27-4	Bromodichloromethane	0.68	U	5.0	0.68
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3
75-71-8	Dichlorodifluoromethane	0.94	U	5.0	0.94
120-82-1	1,2,4-Trichlorobenzene	0.57	U	5.0	0.57
100-41-4	Ethylbenzene	1.0	U	5.0	1.0
106-93-4	1,2-Dibromoethane	0.77	U	5.0	0.77
594-20-7	2,2-Dichloropropane	1.2	U	5.0	1.2
95-50-1	1,2-Dichlorobenzene	1.1	U	5.0	1.1
541-73-1	1,3-Dichlorobenzene	0.82	U	5.0	0.82

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443733/7

Matrix: Solid Lab File ID: 1425536.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.88	U	5.0	0.88
110-75-8	2-Chloroethyl vinyl ether	8.9	U	50	8.9
98-82-8	Isopropylbenzene	0.83	U	5.0	0.83
95-49-8	2-Chlorotoluene	0.95	U	5.0	0.95
78-93-3	2-Butanone (MEK)	3.6	U	20	3.6
108-10-1	4-Methyl-2-pentanone (MIBK)	3.7	U	20	3.7
108-86-1	Bromobenzene	1.2	U	5.0	1.2
1634-04-4	Methyl tert-butyl ether	0.82	U	5.0	0.82
74-97-5	Bromochloromethane	0.59	U	5.0	0.59
75-09-2	Methylene Chloride	12	U	25	12
106-43-4	4-Chlorotoluene	0.86	U	5.0	0.86
100-42-5	Styrene	1.2	U	5.0	1.2
99-87-6	4-Isopropyltoluene	2.9	U	5.0	2.9
127-18-4	Tetrachloroethene	0.73	U	5.0	0.73
87-68-3	Hexachlorobutadiene	3.7	U	5.0	3.7
108-88-3	Toluene	0.77	U	5.0	0.77
74-95-3	Dibromomethane	0.67	U	5.0	0.67
108-20-3	Diisopropyl ether	0.76	U	10	0.76
156-60-5	trans-1,2-Dichloroethene	0.47	U	5.0	0.47
91-20-3	Naphthalene	2.7	U	5.0	2.7
10061-02-6	trans-1,3-Dichloropropene	1.0	U	5.0	1.0
104-51-8	n-Butylbenzene	3.5	U	5.0	3.5
79-01-6	Trichloroethene	0.63	U	5.0	0.63
103-65-1	N-Propylbenzene	0.73	U	5.0	0.73
75-69-4	Trichlorofluoromethane	1.1	U	5.0	1.1
135-98-8	sec-Butylbenzene	0.86	U	5.0	0.86
994-05-8	Tert-amyl methyl ether	2.2	U	5.0	2.2
637-92-3	Ethyl tert-butyl ether	2.3	U	5.0	2.3
75-01-4	Vinyl chloride	0.84	U	5.0	0.84
98-06-6	tert-Butylbenzene	0.91	U	5.0	0.91
108-05-4	Vinyl acetate	2.1	U	10	2.1
1330-20-7	Xylenes, Total	1.6	U	10	1.6
124-48-1	Chlorodibromomethane	2.8	U	5.0	2.8
75-65-0	tert-Butyl alcohol	17	U	200	17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443733/7

Matrix: Solid Lab File ID: 1425536.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	71		59-120
460-00-4	4-Bromofluorobenzene (Surr)	94		51-127
2037-26-5	Toluene-d8 (Surr)	86		64-124
1868-53-7	Dibromofluoromethane (Surr)	73		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 22-Jul-2020 14:32:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 240-0100262-007
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 15:35:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1263405	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	979016	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	98	460885	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	91	296743	50.0	36.7	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	95	364256	50.0	35.6	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	1176449	50.0	42.8	
$ 7 4-Bromofluorobenzene (Surr)	95	10.239	10.240	-0.001	0	352227	50.0	46.8	
9 Dichlorodifluoromethane	85		1.057					ND	
10 Chloromethane	50		1.187					ND	
11 Vinyl chloride	62		1.270					ND	
12 Butadiene	54		1.282					ND	
13 Bromomethane	94		1.519					ND	
156 1-Chloro-1-fluoroethane TIC	47		1.524					ND	U
15 Chloroethane	64		1.590					ND	
16 Dichlorofluoromethane	67		1.755					ND	
17 Trichlorofluoromethane	101		1.791					ND	
14 Ethylene oxide	44		1.895					ND	U
18 Ethyl ether	59		2.051					ND	
19 Acrolein	56		2.146					ND	
21 1,1-Dichloroethene	96		2.240					ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.276					ND	
24 Acetone	43		2.300					ND	
25 Iodomethane	142		2.371					ND	
26 Carbon disulfide	76	2.418	2.430	-0.012	93	2121		1.37	
28 Acetonitrile	41	2.560	2.572	-0.012	96	3319		6.11	
27 3-Chloro-1-propene	76		2.607					ND	
29 Methyl acetate	43		2.655					ND	
30 Methylene Chloride	84	2.737	2.737	0.000	93	7940		1.03	
20 Propene oxide	58		2.819					ND	U
23 Methylal	45		2.932					ND	U
31 2-Methyl-2-propanol	59		2.962					ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Acrylonitrile	53		3.045					ND	U
32 trans-1,2-Dichloroethene	96		3.069					ND	
33 Methyl tert-butyl ether	73		3.104					ND	
35 Hexane	86		3.459					ND	
36 1,1-Dichloroethane	63		3.625					ND	
37 2-Chloro-1,3-butadiene	53		3.767					ND	
39 Vinyl acetate	86		3.779					ND	
38 Isopropyl ether	87		3.826					ND	
40 Tert-butyl ethyl ether	59		4.430					ND	
41 2,2-Dichloropropane	97		4.572					ND	
42 cis-1,2-Dichloroethene	96		4.583					ND	
43 2-Butanone (MEK)	43		4.678					ND	
44 Propionitrile	54		4.749					ND	U
45 Ethyl acetate	43		4.844					ND	
46 Chlorobromomethane	128		4.974					ND	
47 Methacrylonitrile	41	5.021	4.997	0.024	83	2174		0.5360	
48 Tetrahydrofuran	42		5.057					ND	
49 Chloroform	83		5.151					ND	U
50 1,1,1-Trichloroethane	97		5.364					ND	
51 Cyclohexane	56		5.424					ND	
52 Carbon tetrachloride	117		5.589					ND	
53 1,1-Dichloropropene	75		5.601					ND	
54 Benzene	78		5.861					ND	
56 1,2-Dichloroethane	62	5.909	5.897	0.012	89	1462		0.1240	
55 Isobutyl alcohol	41		5.944					ND	U
159 Isooctane	57		6.027					ND	U
57 Tert-amyl methyl ether	73		6.086					ND	
58 n-Heptane	100		6.287					ND	
59 Trichloroethene	130		6.654					ND	
60 n-Butanol	56		6.725					ND	
61 Ethyl acrylate	55		6.855					ND	U
62 Methylcyclohexane	83		6.855					ND	
63 1,2-Dichloropropane	63		6.891					ND	
65 Dibromomethane	93		7.009					ND	
67 1,4-Dioxane	88		7.068					ND	
66 Methyl methacrylate	41		7.092					ND	
68 Dichlorobromomethane	83		7.198					ND	
64 Tetrahydrothiophene	60		7.255					ND	U
69 2-Nitropropane	41		7.447					ND	U
70 2-Chloroethyl vinyl ether	63		7.553					ND	
71 cis-1,3-Dichloropropene	75		7.660					ND	
73 4-Methyl-2-pentanone (MIBK)	43		7.837					ND	
72 Epichlorohydrin	57		7.919					ND	U
74 Toluene	91		7.968					ND	
75 trans-1,3-Dichloropropene	75		8.204					ND	
76 Ethyl methacrylate	69		8.323					ND	
77 1,1,2-Trichloroethane	97		8.358					ND	
78 Tetrachloroethene	164		8.476					ND	
79 1,3-Dichloropropane	76		8.500					ND	
80 2-Hexanone	43		8.618					ND	U
82 Chlorodibromomethane	129		8.701					ND	
81 n-Butyl acetate	43	8.760	8.760	0.000	91	2005		0.1779	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
83 Ethylene Dibromide	107		8.796					ND	
84 1-Chlorohexane	91		9.246					ND	U
85 Chlorobenzene	112		9.246					ND	
86 1,1,1,2-Tetrachloroethane	131		9.328					ND	
87 Ethylbenzene	106		9.352					ND	
88 m-Xylene & p-Xylene	106		9.459					ND	
89 o-Xylene	106		9.802					ND	
90 Styrene	104		9.814					ND	
91 Bromoform	173		9.956					ND	
92 Isopropylbenzene	105		10.121					ND	
93 Cyclohexanone	55		10.180					ND	U
94 Bromobenzene	156		10.358					ND	
95 1,1,2,2-Tetrachloroethane	83		10.370					ND	U
96 1,2,3-Trichloropropane	110		10.405					ND	
97 trans-1,4-Dichloro-2-butene	53		10.429					ND	
98 N-Propylbenzene	120		10.476					ND	
99 2-Chlorotoluene	126		10.535					ND	
100 1,3,5-Trimethylbenzene	105		10.630					ND	
101 4-Chlorotoluene	126		10.630					ND	
104 Pentachloroethane	167		10.902					ND	
103 tert-Butylbenzene	119		10.902					ND	U
102 3-Ethyltoluene	105		10.920					ND	U
105 1,2,4-Trimethylbenzene	105		10.938					ND	
107 sec-Butylbenzene	105		11.080					ND	
108 1,3-Dichlorobenzene	146		11.162					ND	
106 2-Ethyltoluene	105		11.168					ND	U
109 4-Isopropyltoluene	119		11.210					ND	U
110 1,4-Dichlorobenzene	146		11.233					ND	U
111 1,2,3-Trimethylbenzene	105		11.293					ND	
112 Benzyl chloride	126		11.352					ND	
114 1,2-Dichlorobenzene	146		11.553					ND	
113 n-Butylbenzene	91		11.553					ND	
115 1,2-Dibromo-3-Chloropropane	157		12.192					ND	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	91	1889		0.1935	
117 1,2,4-Trichlorobenzene	180	12.902	12.890	0.012	90	1433		0.1597	
118 Hexachlorobutadiene	225		13.056					ND	
119 Naphthalene	128	13.091	13.091	0.000	97	4525		0.2001	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	89	1695		0.1857	
121 2-Methylnaphthalene	142	14.002	14.002	0.000	92	18074		1.20	
158 1-Methylnaphthalene	142	14.132	14.132	0.000	98	18990		1.33	
125 Isobutylene TIC	1		0.000					ND	U
126 1,3-Diethylbenzene TIC	1		0.000					ND	U
128 Butyl Methacrylate TIC	1		0.000					ND	U
123 1,4-Dichlorobutane	1		0.000					ND	U
122 Chlorodifluoromethane TIC	1		0.000					ND	U
124 Hexachloroethane TIC	1		0.000					ND	U
S 132 1,2-Dichloroethene, Total	96		1.140					ND	
S 133 1,3-Dichloropropene, Total	75		6.760					ND	
S 134 Xylenes, Total	106		16.530					ND	
S 157 Total BTEX	1		0.000					ND	
S 135 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

VM250SS_00058	Amount Added:	1.00	Units: uL	Run Reagent
VM568718_00018	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00175	Amount Added:	0.00	Units:	Run Reagent

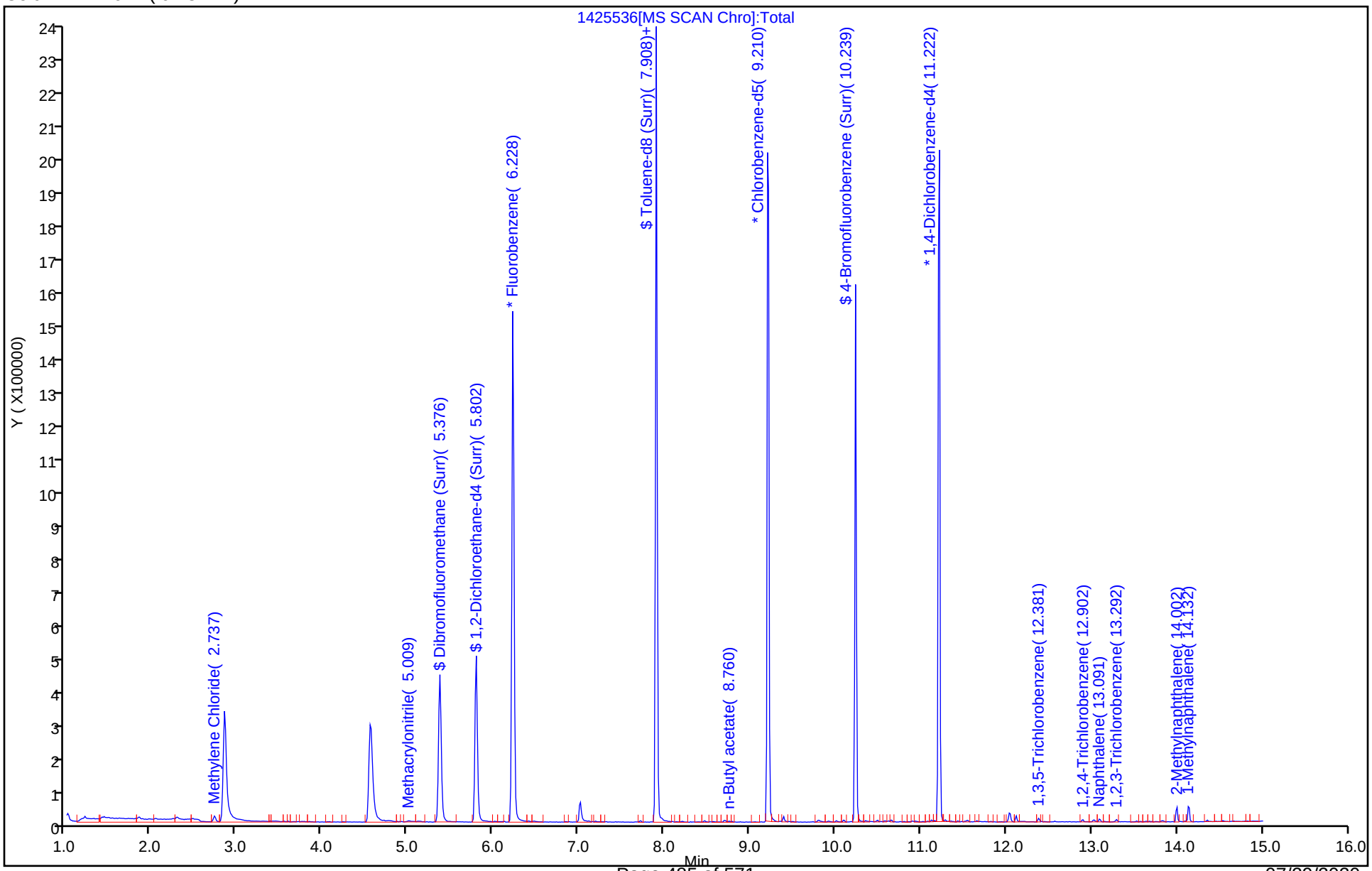
Report Date: 23-Jul-2020 11:55:23 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D

Injection Date:	22-Jul-2020 14:32:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 22-Jul-2020 14:32:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 240-0100262-007
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

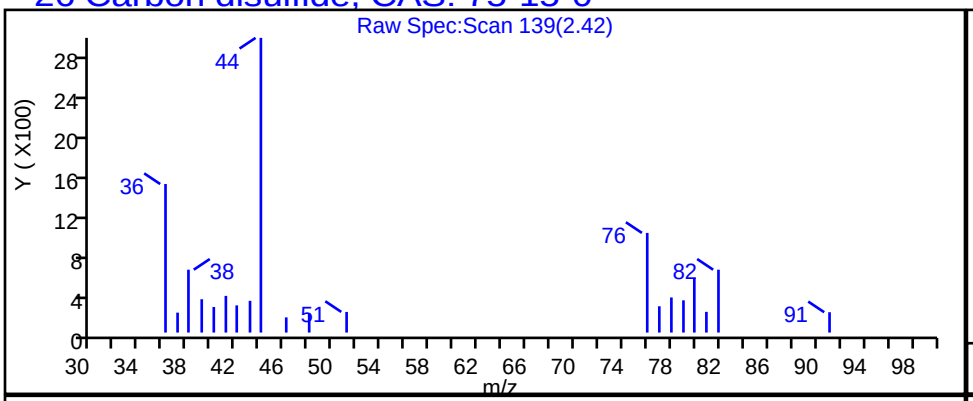
First Level Reviewer: macenczaks Date: 22-Jul-2020 15:35:29

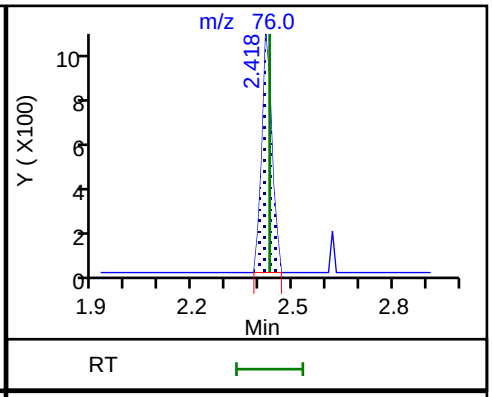
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	36.7	73.32
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	35.6	71.20
$ 6 Toluene-d8 (Surr)	50.0	42.8	85.55
$ 7 4-Bromofluorobenzene (Surr)	50.0	46.8	93.54

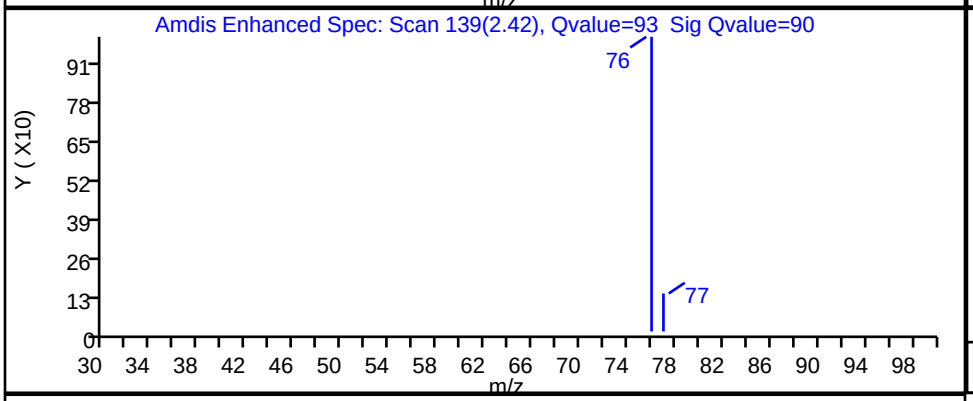
Eurofins TestAmerica, Canton

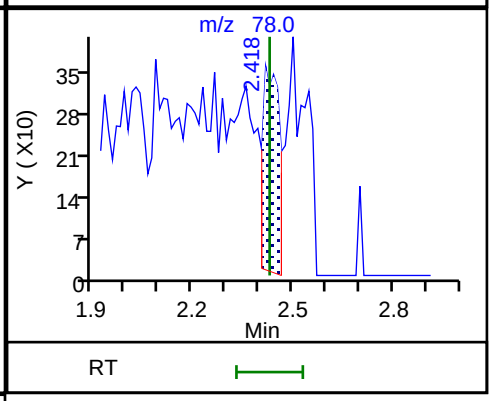
Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Injection Date: 22-Jul-2020 14:32:30 Instrument ID: A3UX14
Lims ID: MB
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

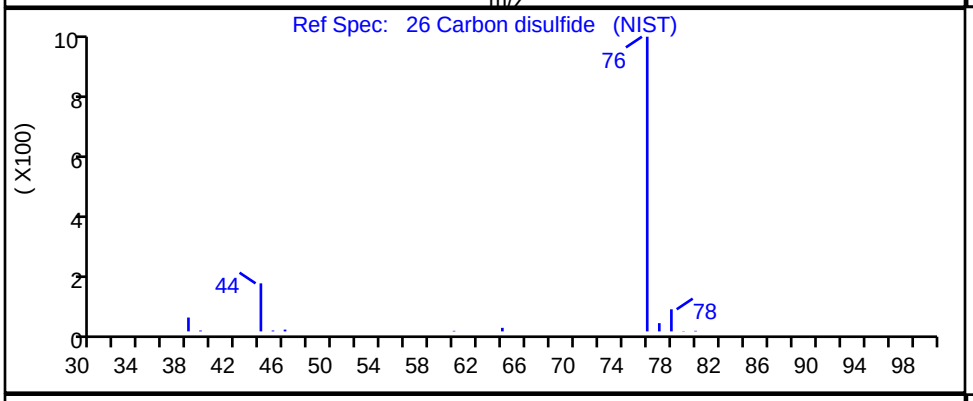
26 Carbon disulfide, CAS: 75-15-0

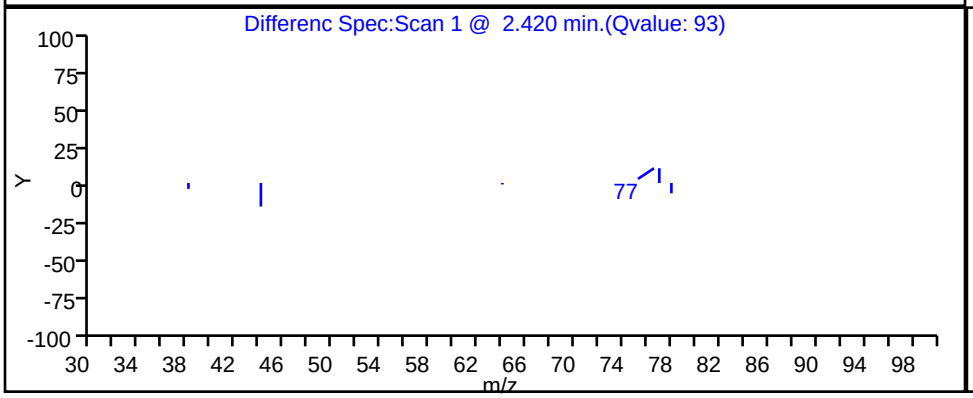


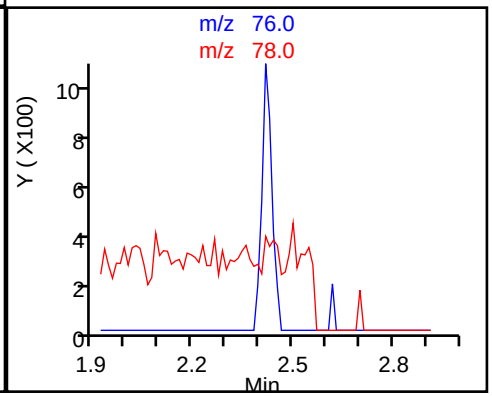












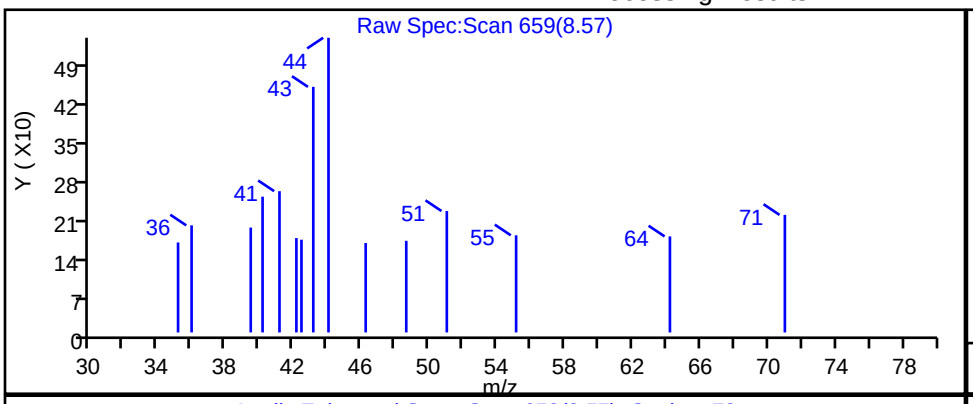
User Disabled Compound Report

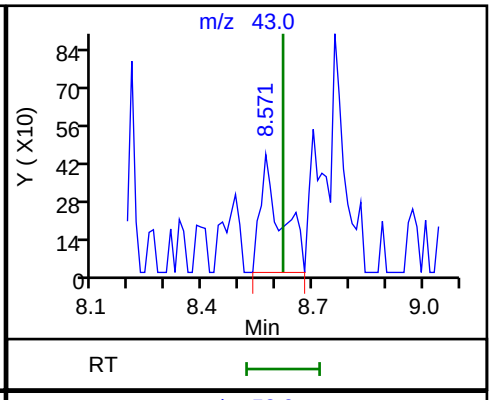
Eurofins TestAmerica, Canton

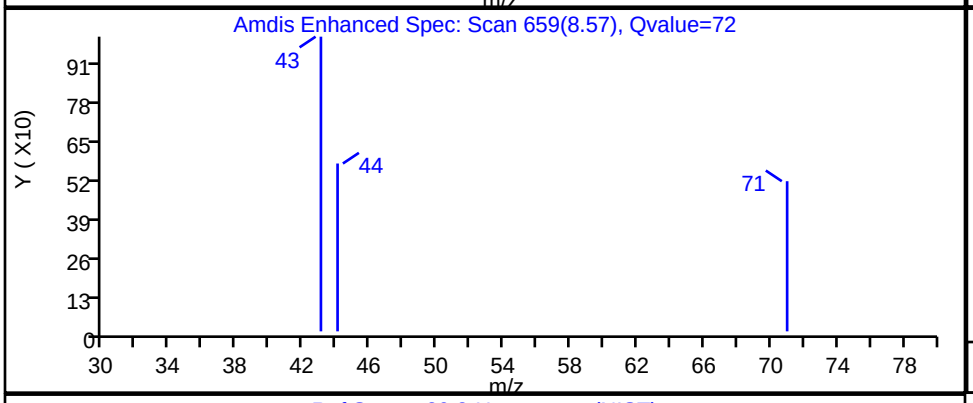
Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Injection Date: 22-Jul-2020 14:32:30 Instrument ID: A3UX14
Lims ID: MB
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

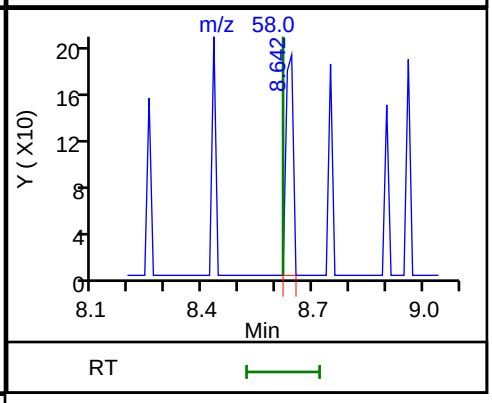
80 2-Hexanone, CAS: 591-78-6

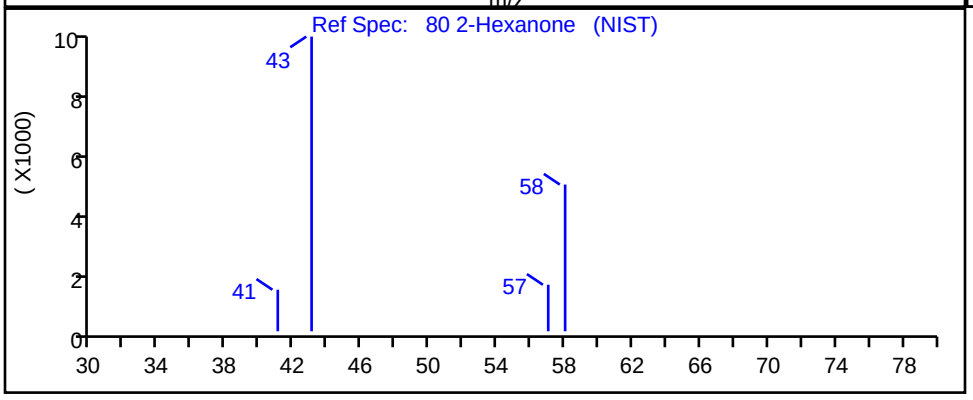
Processing Results











RT	Mass	Response	Amount
8.57	43.00	1780	0.462356
8.64	58.00	266	

Reviewer: macenczaks, 22-Jul-2020 15:34:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

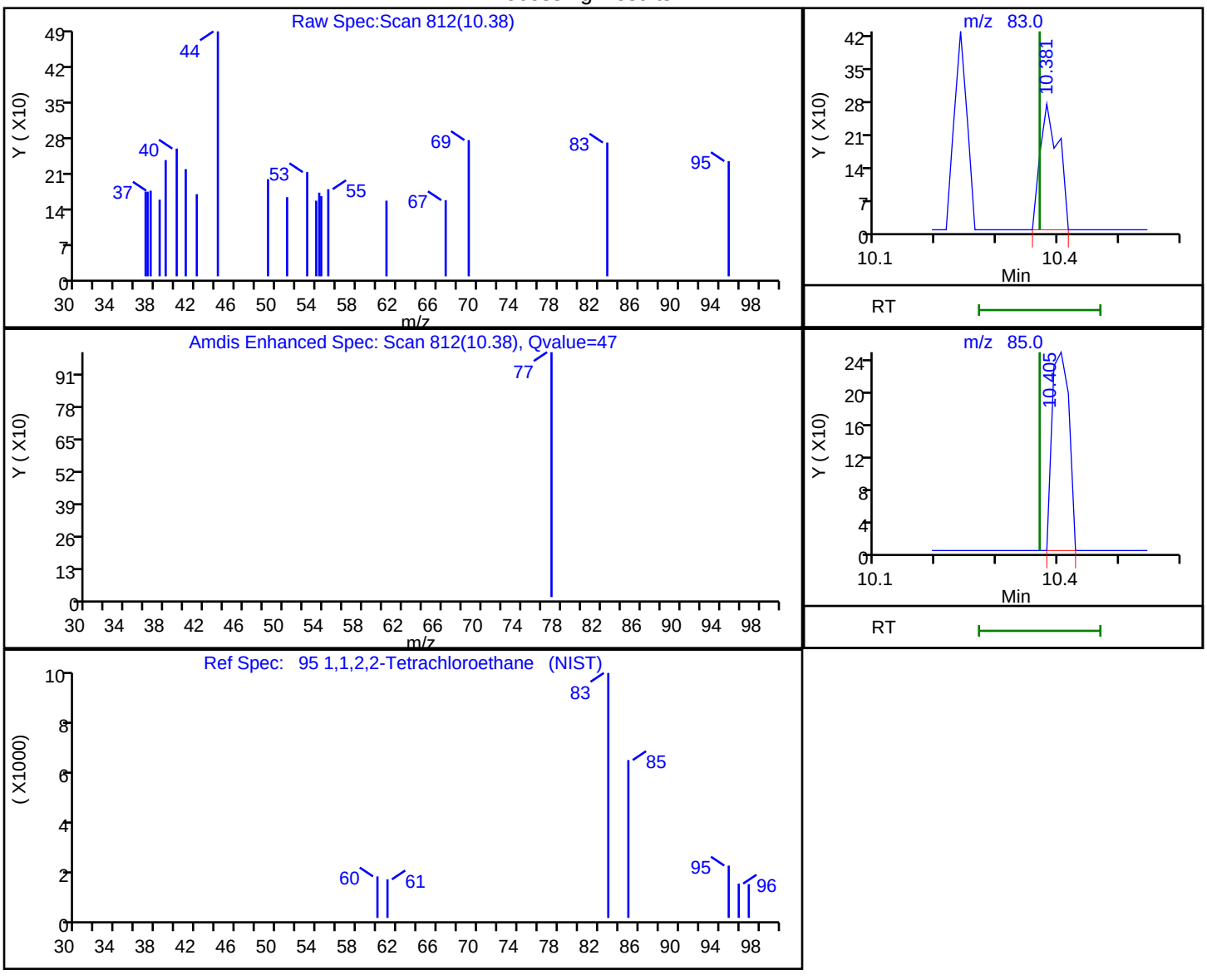
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Injection Date: 22-Jul-2020 14:32:30 Instrument ID: A3UX14
Lims ID: MB
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

95 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Processing Results



RT	Mass	Response	Amount
10.38	83.00	562	0.082530
10.41	85.00	466	

Reviewer: macenczaks, 22-Jul-2020 15:34:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

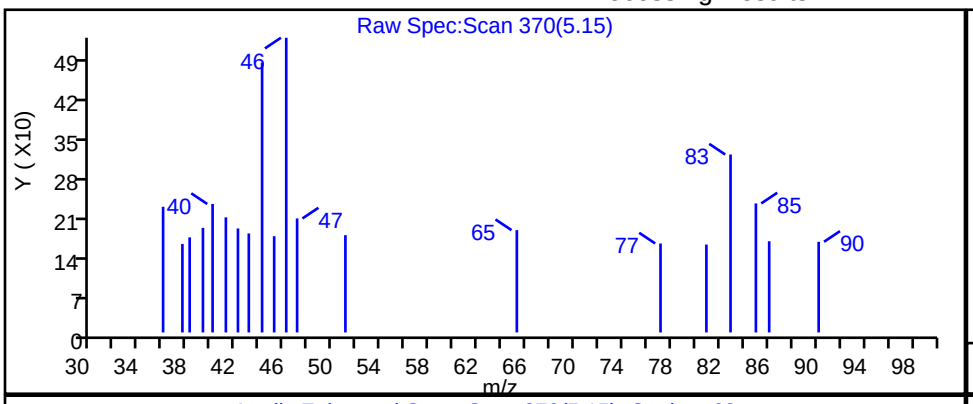
User Disabled Compound Report

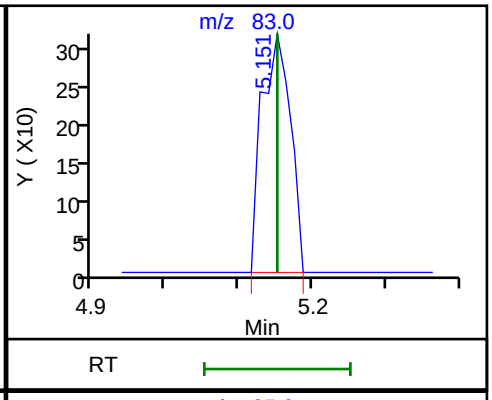
Eurofins TestAmerica, Canton

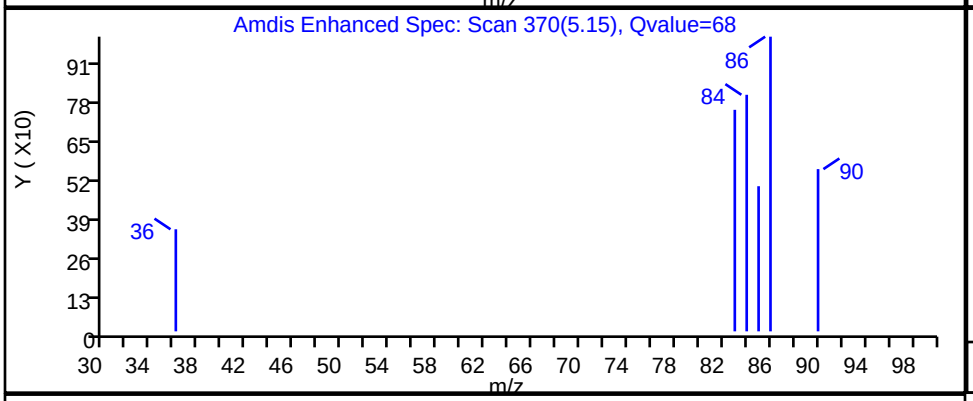
Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Injection Date: 22-Jul-2020 14:32:30 Instrument ID: A3UX14
Lims ID: MB
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

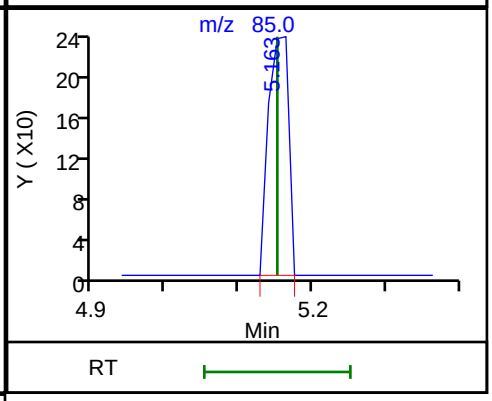
49 Chloroform, CAS: 67-66-3

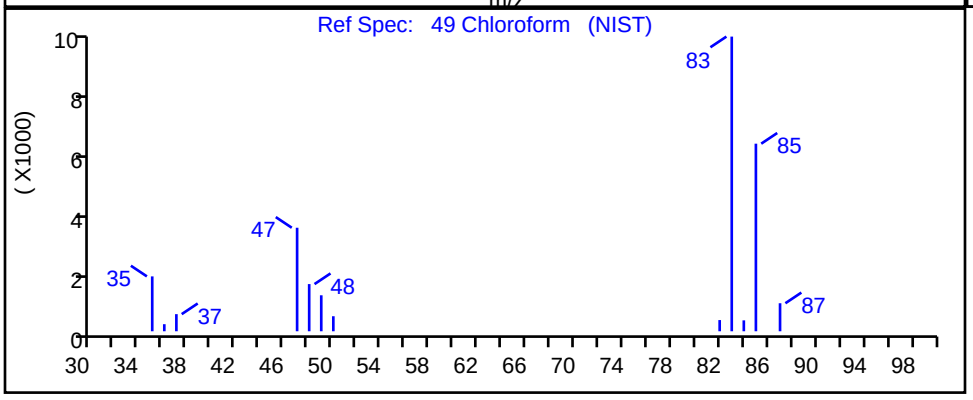
Processing Results











RT	Mass	Response	Amount
5.15	83.00	867	0.064168
5.16	85.00	451	

Reviewer: macenczaks, 22-Jul-2020 15:34:25
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

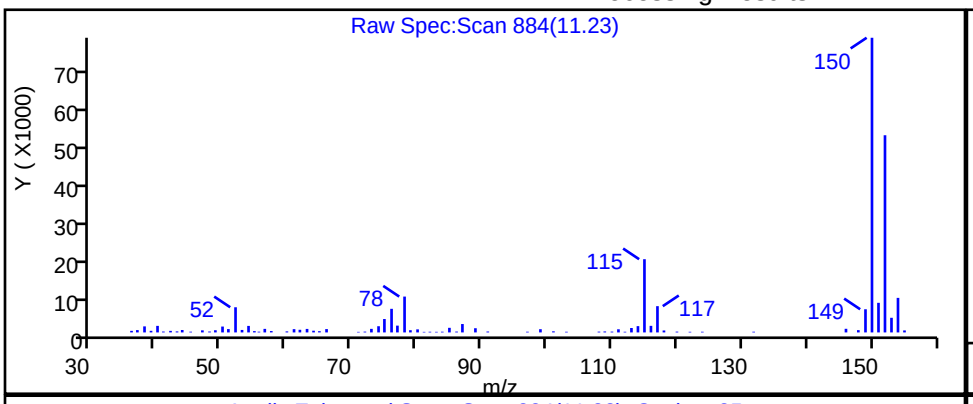
User Disabled Compound Report

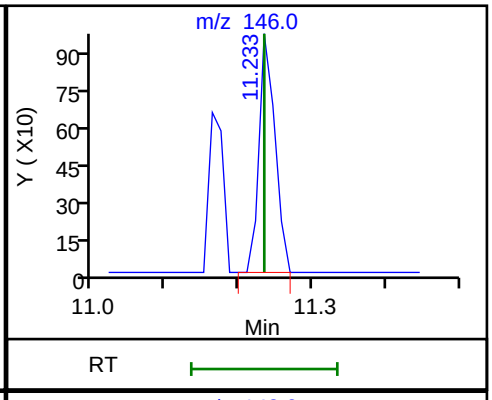
Eurofins TestAmerica, Canton

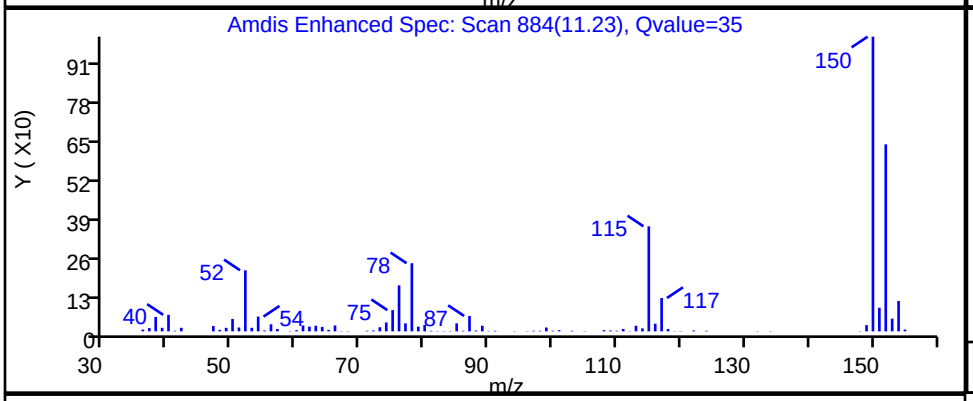
Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Injection Date: 22-Jul-2020 14:32:30 Instrument ID: A3UX14
Lims ID: MB
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

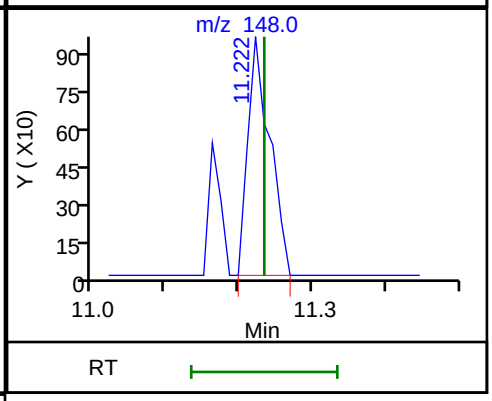
110 1,4-Dichlorobenzene, CAS: 106-46-7

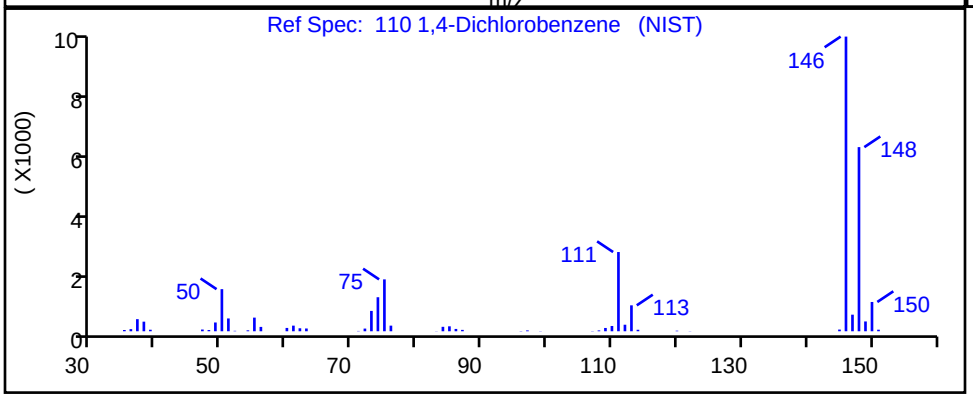
Processing Results











RT	Mass	Response	Amount
11.23	146.00	1472	0.112123
11.22	148.00	2003	

Reviewer: macenczaks, 22-Jul-2020 15:35:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

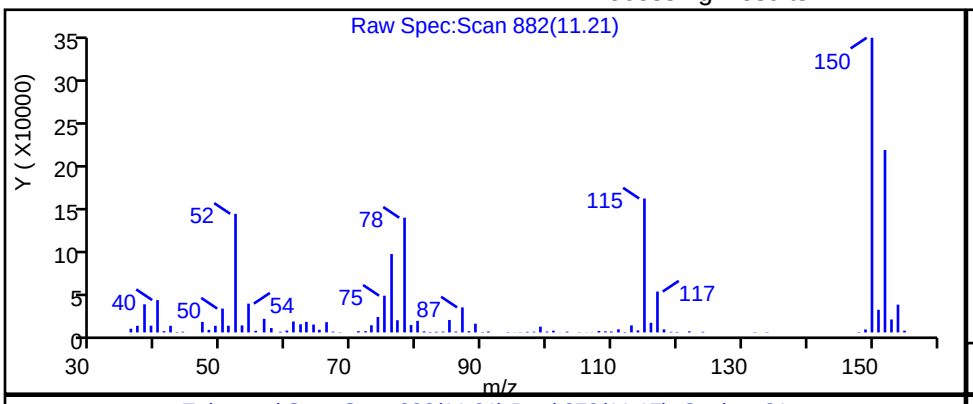
User Disabled Compound Report

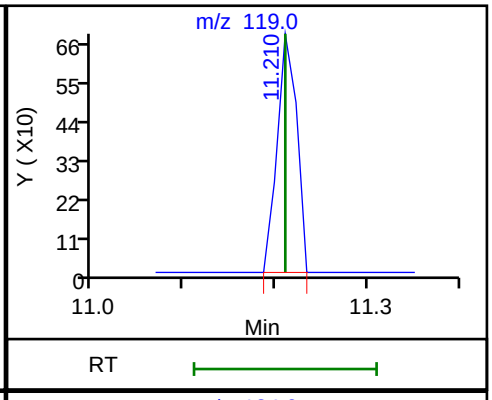
Eurofins TestAmerica, Canton

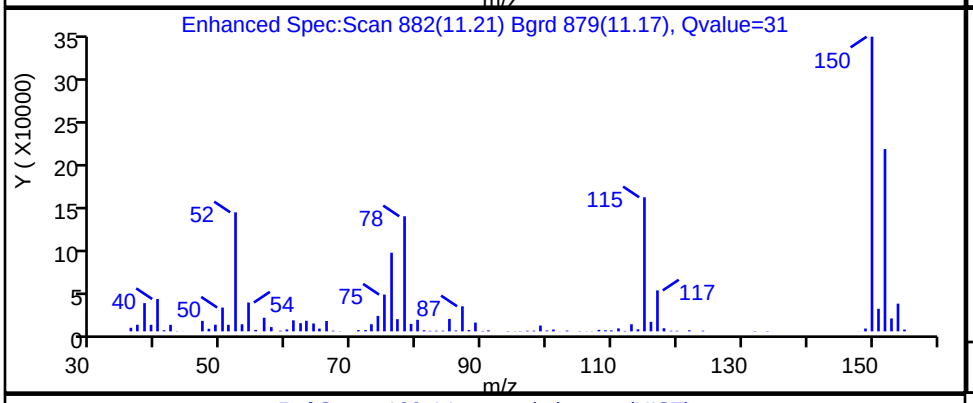
Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Injection Date: 22-Jul-2020 14:32:30 Instrument ID: A3UX14
Lims ID: MB
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

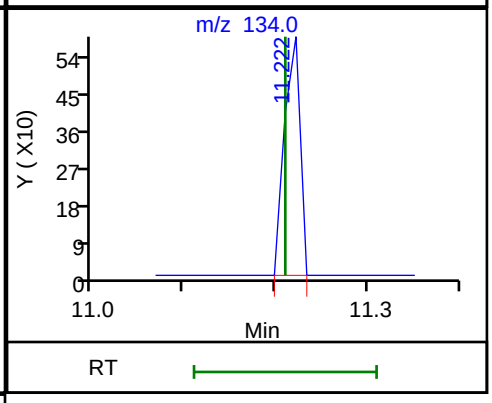
109 4-Isopropyltoluene, CAS: 99-87-6

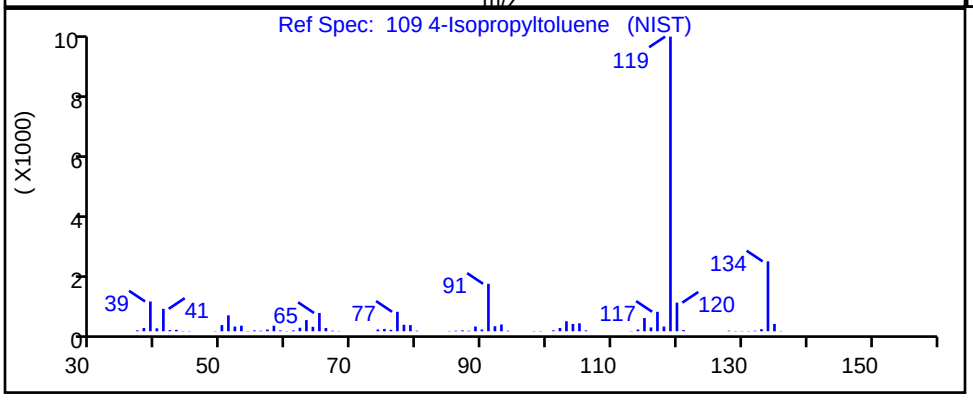
Processing Results











RT	Mass	Response	Amount
11.21	119.00	1021	0.043234
11.22	134.00	698	

Reviewer: macenczaks, 22-Jul-2020 15:35:06
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

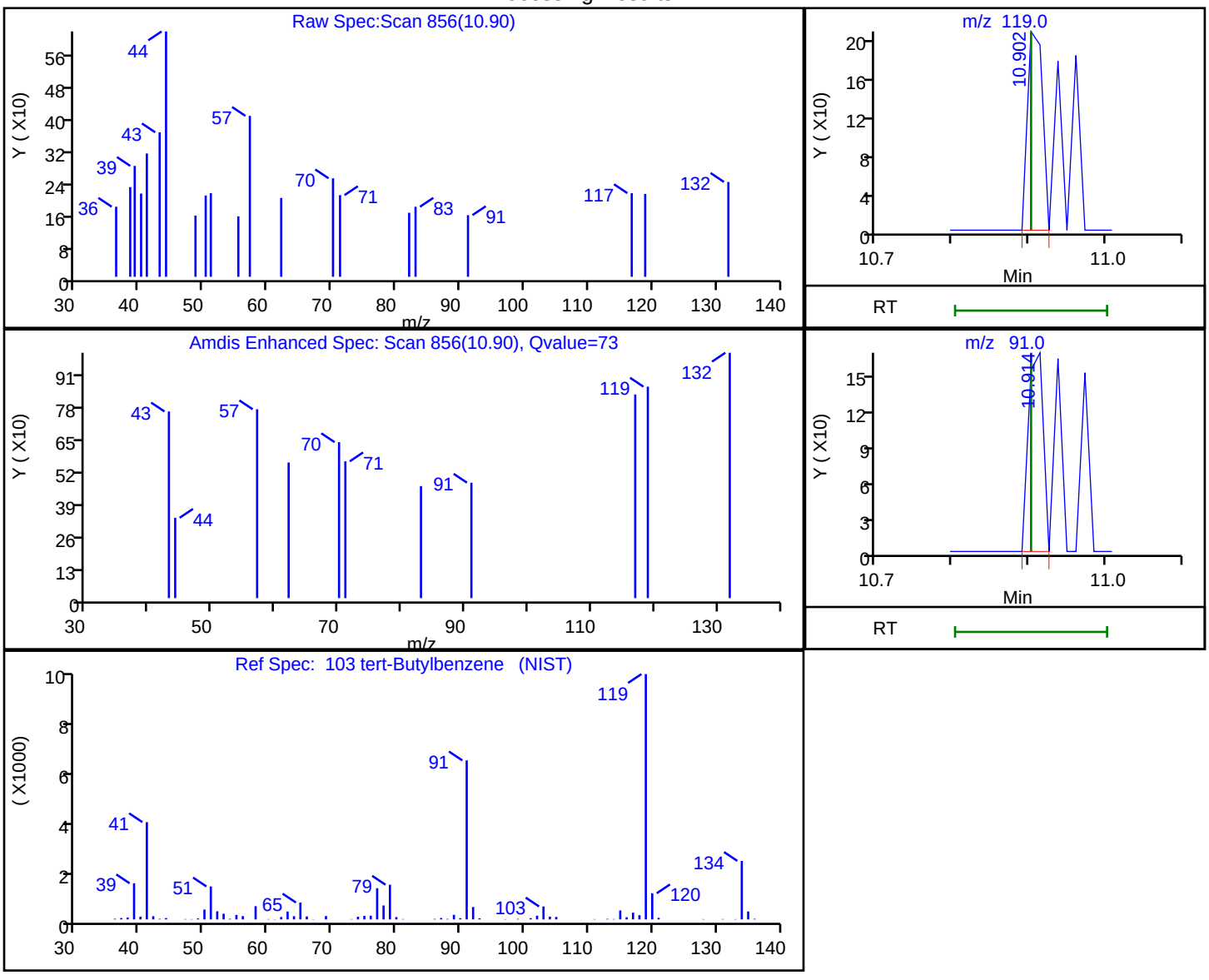
User Disabled Compound Report

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D				
Injection Date:	22-Jul-2020 14:32:30	Instrument ID:	A3UX14		
Lims ID:	MB				
Client ID:					
Operator ID:	002808	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_14	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

103 tert-Butylbenzene, CAS: 98-06-6

Processing Results



RT	Mass	Response	Amount
10.90	119.00	284	0.015775
10.91	91.00	229	

Reviewer: macenczaks, 22-Jul-2020 15:35:01

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

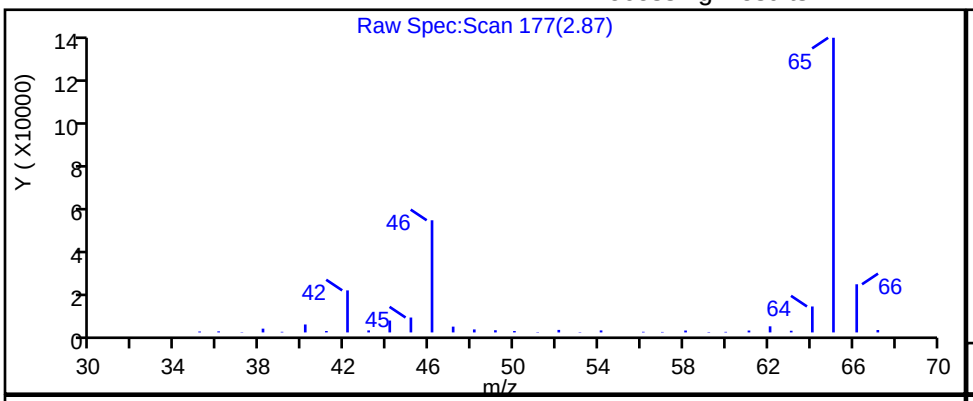
User Disabled Compound Report

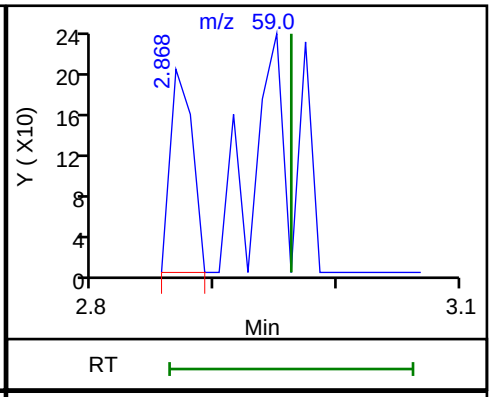
Eurofins TestAmerica, Canton

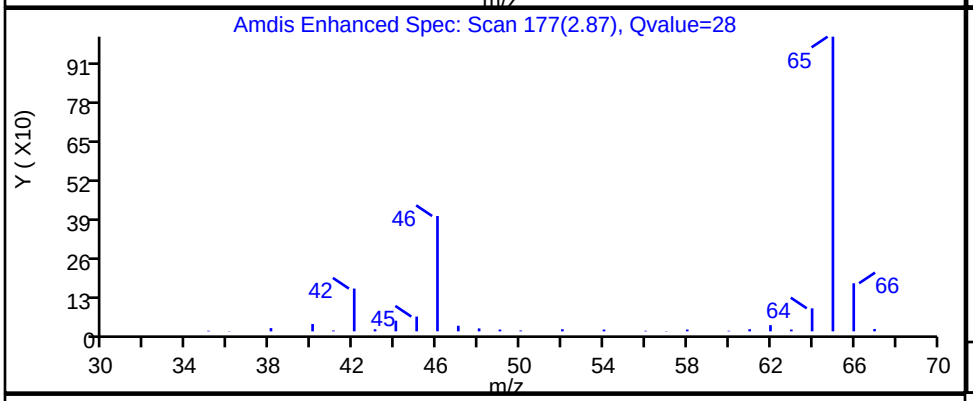
Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425536.D
Injection Date: 22-Jul-2020 14:32:30 Instrument ID: A3UX14
Lims ID: MB
Client ID:
Operator ID: 002808 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_14 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

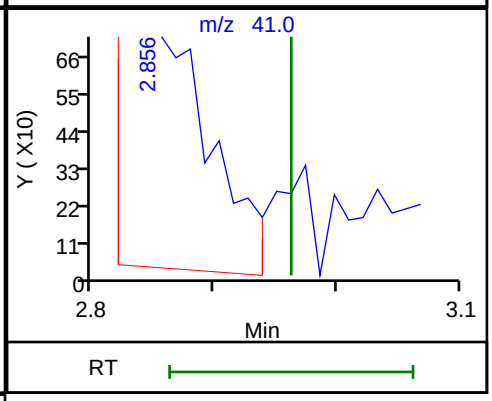
31 2-Methyl-2-propanol, CAS: 75-65-0

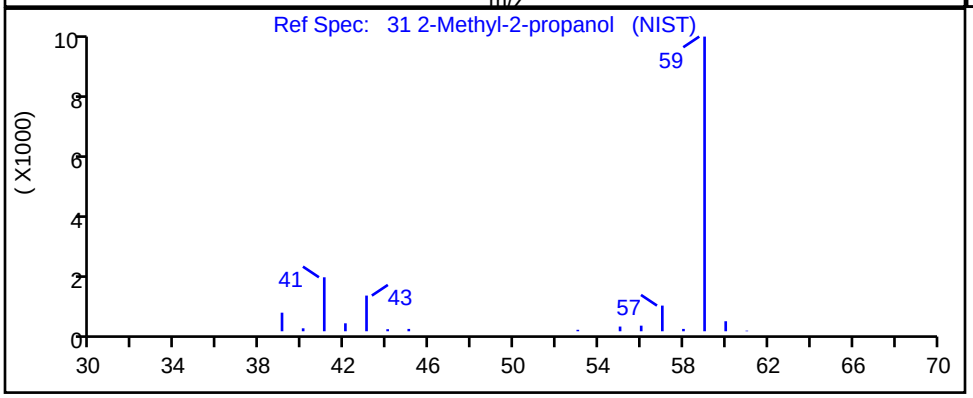
Processing Results











RT	Mass	Response	Amount
2.87	59.00	251	0.387131
2.86	41.00	2981	

Reviewer: macenczaks, 22-Jul-2020 15:34:13
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443947/7

Matrix: Water Lab File ID: UXX8814.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 15:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.41	U	1.0	0.41
563-58-6	1,1-Dichloropropene	0.37	U	1.0	0.37
75-34-3	1,1-Dichloroethane	0.41	U	1.0	0.41
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.51	U	1.0	0.51
107-06-2	1,2-Dichloroethane	0.43	U	1.0	0.43
75-35-4	1,1-Dichloroethene	0.46	U	1.0	0.46
526-73-8	1,2,3-Trimethylbenzene	0.36	U	5.0	0.36
78-87-5	1,2-Dichloropropane	0.37	U	1.0	0.37
95-63-6	1,2,4-Trimethylbenzene	0.45	U	1.0	0.45
591-78-6	2-Hexanone	2.1	U	10	2.1
79-34-5	1,1,2,2-Tetrachloroethane	0.56	U	1.0	0.56
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.38	U	1.0	0.38
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
75-00-3	Chloroethane	0.83	U	1.0	0.83
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
67-66-3	Chloroform	0.40	U	1.0	0.40
74-87-3	Chloromethane	0.64	U	1.0	0.64
156-59-2	cis-1,2-Dichloroethene	0.38	U	1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
75-27-4	Bromodichloromethane	0.35	U	1.0	0.35
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.81	U	1.0	0.81
100-41-4	Ethylbenzene	0.39	U	1.0	0.39
106-93-4	1,2-Dibromoethane	0.37	U	1.0	0.37
594-20-7	2,2-Dichloropropane	0.95	U	1.0	0.95
95-50-1	1,2-Dichlorobenzene	0.43	U	1.0	0.43
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443947/7

Matrix: Water Lab File ID: UXX8814.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 15:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.37	U	1.0	0.37
110-75-8	2-Chloroethyl vinyl ether	1.1	U	10	1.1
98-82-8	Isopropylbenzene	0.45	U	1.0	0.45
95-49-8	2-Chlorotoluene	0.42	U	1.0	0.42
78-93-3	2-Butanone (MEK)	2.4	U	10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1
108-86-1	Bromobenzene	0.38	U	1.0	0.38
1634-04-4	Methyl tert-butyl ether	0.44	U	1.0	0.44
74-97-5	Bromochloromethane	0.52	U	1.0	0.52
75-09-2	Methylene Chloride	1.3	U	5.0	1.3
106-43-4	4-Chlorotoluene	0.44	U	1.0	0.44
100-42-5	Styrene	0.40	U	1.0	0.40
99-87-6	4-Isopropyltoluene	0.49	U	1.0	0.49
127-18-4	Tetrachloroethene	0.33	U	1.0	0.33
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-88-3	Toluene	0.35	U	1.0	0.35
74-95-3	Dibromomethane	0.33	U	1.0	0.33
108-20-3	Diisopropyl ether	0.36	U	10	0.36
156-60-5	trans-1,2-Dichloroethene	0.43	U	1.0	0.43
91-20-3	Naphthalene	0.82	U	1.0	0.82
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
104-51-8	n-Butylbenzene	0.59	U	1.0	0.59
79-01-6	Trichloroethene	0.36	U	1.0	0.36
103-65-1	N-Propylbenzene	0.46	U	1.0	0.46
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
135-98-8	sec-Butylbenzene	0.63	U	1.0	0.63
994-05-8	Tert-amyl methyl ether	0.39	U	5.0	0.39
637-92-3	Ethyl tert-butyl ether	0.43	U	5.0	0.43
75-01-4	Vinyl chloride	0.50	U	1.0	0.50
98-06-6	tert-Butylbenzene	0.51	U	1.0	0.51
108-05-4	Vinyl acetate	0.78	U	2.0	0.78
1330-20-7	Xylenes, Total	0.42	U	2.0	0.42
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39
75-65-0	tert-Butyl alcohol	1.7	U	40	1.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-443947/7

Matrix: Water Lab File ID: UXX8814.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 15:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		75-130
460-00-4	4-Bromofluorobenzene (Surr)	94		47-134
2037-26-5	Toluene-d8 (Surr)	97		69-122
1868-53-7	Dibromofluoromethane (Surr)	99		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8814.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 23-Jul-2020 15:04:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-007
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

First Level Reviewer: williamsla Date: 23-Jul-2020 16:42:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.964	4.964	0.000	98	324658	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.637	7.637	0.000	92	201003	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.861	9.861	0.000	97	83933	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.396	4.405	-0.009	92	75198	10.0	9.91	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.680	4.689	-0.009	92	103940	10.0	9.33	
$ 6 Toluene-d8 (Surr)	98	6.336	6.333	0.003	94	298895	10.0	9.67	
$ 7 4-Bromofluorobenzene (Surr)	95	8.749	8.746	0.003	82	90998	10.0	9.35	
9 Dichlorodifluoromethane	85		1.247					ND	
10 Chloromethane	50		1.401					ND	
11 Vinyl chloride	62		1.483					ND	
12 Butadiene	54		1.495					ND	
13 Bromomethane	94		1.744					ND	
14 Chloroethane	64		1.827					ND	
15 Dichlorofluoromethane	67		2.004					ND	
16 Trichlorofluoromethane	101		2.051					ND	
17 Ethyl ether	59		2.288					ND	
18 Acrolein	56		2.394					ND	
19 1,1-Dichloroethene	96		2.489					ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.513					ND	
21 Acetone	43		2.536					ND	
22 Iodomethane	142		2.619					ND	
24 Carbon disulfide	76		2.666					ND	
25 Acetonitrile	41		2.776					ND	U
26 3-Chloro-1-propene	76		2.796					ND	
27 Methyl acetate	43		2.820					ND	
120 Propene oxide	58		2.856					ND	
28 Methylene Chloride	84	2.906	2.903	0.003	85	4152		0.4398	
29 2-Methyl-2-propanol	59		3.021					ND	
23 Methylal	45		3.057					ND	
31 Acrylonitrile	53		3.128					ND	
30 trans-1,2-Dichloroethene	96		3.139					ND	
32 Methyl tert-butyl ether	73		3.151					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Hexane	86		3.376					ND	
34 1,1-Dichloroethane	63		3.506					ND	
35 Vinyl acetate	43		3.553					ND	
36 Isopropyl ether	87		3.568					ND	
37 2-Chloro-1,3-butadiene	53		3.580					ND	
42 Ethyl acetate	43		3.876					ND	
38 Tert-butyl ethyl ether	59		3.876					ND	
39 2,2-Dichloropropane	97		3.991					ND	
40 cis-1,2-Dichloroethene	96		3.991					ND	
41 2-Butanone (MEK)	43		4.015					ND	
43 Propionitrile	54		4.065					ND	
44 Methacrylonitrile	41		4.195					ND	
45 Chlorobromomethane	128		4.204					ND	
46 Tetrahydrofuran	42		4.240					ND	
47 Chloroform	83		4.263					ND	
48 1,1,1-Trichloroethane	97		4.417					ND	
49 Cyclohexane	56		4.464					ND	
50 1,1-Dichloropropene	75		4.559					ND	
51 Carbon tetrachloride	117		4.559					ND	
52 Isobutyl alcohol	41		4.665					ND	
53 Benzene	78		4.736					ND	
54 1,2-Dichloroethane	62		4.748					ND	
158 Isooctane	57		4.798					ND	
55 Tert-amyl methyl ether	73		4.834					ND	
56 n-Heptane	100		4.961					ND	
57 n-Butanol	56		5.224					ND	
58 Trichloroethene	130		5.280					ND	
59 Ethyl acrylate	55		5.378					ND	
60 Methylcyclohexane	83		5.446					ND	
61 1,2-Dichloropropane	63		5.470					ND	
62 Methyl methacrylate	41		5.567					ND	
63 Dibromomethane	93		5.576					ND	
64 1,4-Dioxane	88		5.588					ND	
65 Dichlorobromomethane	83		5.706					ND	
66 2-Nitropropane	41		5.910					ND	
67 2-Chloroethyl vinyl ether	63		5.966					ND	
68 cis-1,3-Dichloropropene	75		6.097					ND	
69 4-Methyl-2-pentanone (MIBK)	43		6.239					ND	
70 Toluene	91		6.392					ND	
71 trans-1,3-Dichloropropene	75		6.593					ND	
72 Ethyl methacrylate	69		6.676					ND	
73 1,1,2-Trichloroethane	97		6.759					ND	
74 Tetrachloroethene	164		6.889					ND	
75 1,3-Dichloropropane	76		6.913					ND	
76 2-Hexanone	43		6.984					ND	
77 n-Butyl acetate	56		7.093					ND	
78 Chlorodibromomethane	129		7.114					ND	
80 Ethylene Dibromide	107		7.220					ND	
81 1-Chlorohexane	91		7.649					ND	
82 Chlorobenzene	112		7.670					ND	
79 Tetrahydrothiophene	60		7.696					ND	
83 1,1,1,2-Tetrachloroethane	131		7.741					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 Ethylbenzene	106		7.764					ND	
85 m-Xylene & p-Xylene	106		7.883					ND	
86 o-Xylene	106		8.249					ND	
87 Styrene	104		8.261					ND	
88 Bromoform	173		8.439					ND	
89 Isopropylbenzene	105		8.604					ND	
91 Cyclohexanone	55		8.690					ND	
93 Bromobenzene	156		8.888					ND	
92 1,1,2,2-Tetrachloroethane	83		8.888					ND	
94 1,2,3-Trichloropropane	110		8.935					ND	
95 trans-1,4-Dichloro-2-butene	53		8.947					ND	
96 N-Propylbenzene	120		8.995					ND	
97 2-Chlorotoluene	126		9.077					ND	
98 1,3,5-Trimethylbenzene	105		9.172					ND	
99 4-Chlorotoluene	126		9.184					ND	
90 1,4-Dichlorobutane	55		9.294					ND	
100 tert-Butylbenzene	119		9.480					ND	
101 Pentachloroethane	167		9.506					ND	
102 1,2,4-Trimethylbenzene	105		9.527					ND	
126 3-Ethyltoluene	105		9.662					ND	
103 sec-Butylbenzene	105		9.692					ND	
104 1,3-Dichlorobenzene	146		9.799					ND	
105 4-Isopropyltoluene	119		9.846					ND	
106 1,4-Dichlorobenzene	146		9.894					ND	
107 1,2,3-Trimethylbenzene	105		9.944					ND	
119 2-Ethyltoluene	105		9.946					ND	
108 Benzyl chloride	126		10.027					ND	
109 n-Butylbenzene	91		10.237					ND	
110 1,2-Dichlorobenzene	146		10.248					ND	
111 1,2-Dibromo-3-Chloropropane	157		11.017					ND	
112 1,3,5-Trichlorobenzene	180		11.233					ND	
113 1,2,4-Trichlorobenzene	180		11.845					ND	
114 Hexachlorobutadiene	225		12.011					ND	
115 Naphthalene	128		12.082					ND	
116 1,2,3-Trichlorobenzene	180		12.330					ND	
117 2-Methylnaphthalene	142		13.244					ND	
157 1-Methylnaphthalene	142		13.457					ND	
122 Epichlorohydrin	1		0.000					ND	
124 Ethylene oxide	1		0.000					ND	
118 1,3-Diethylbenzene TIC	1		0.000					ND	
S 128 1,2-Dichloroethene, Total	96		1.140					ND	
S 129 1,3-Dichloropropene, Total	75		6.760					ND	
S 130 Xylenes, Total	106		16.530					ND	
S 156 Total BTEX	1		0.000					ND	
S 131 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

VM50IS_00084	Amount Added:	1.00	Units: uL	Run Reagent
vm50ss_stk_00085	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00176	Amount Added:	0.00	Units:	Run Reagent

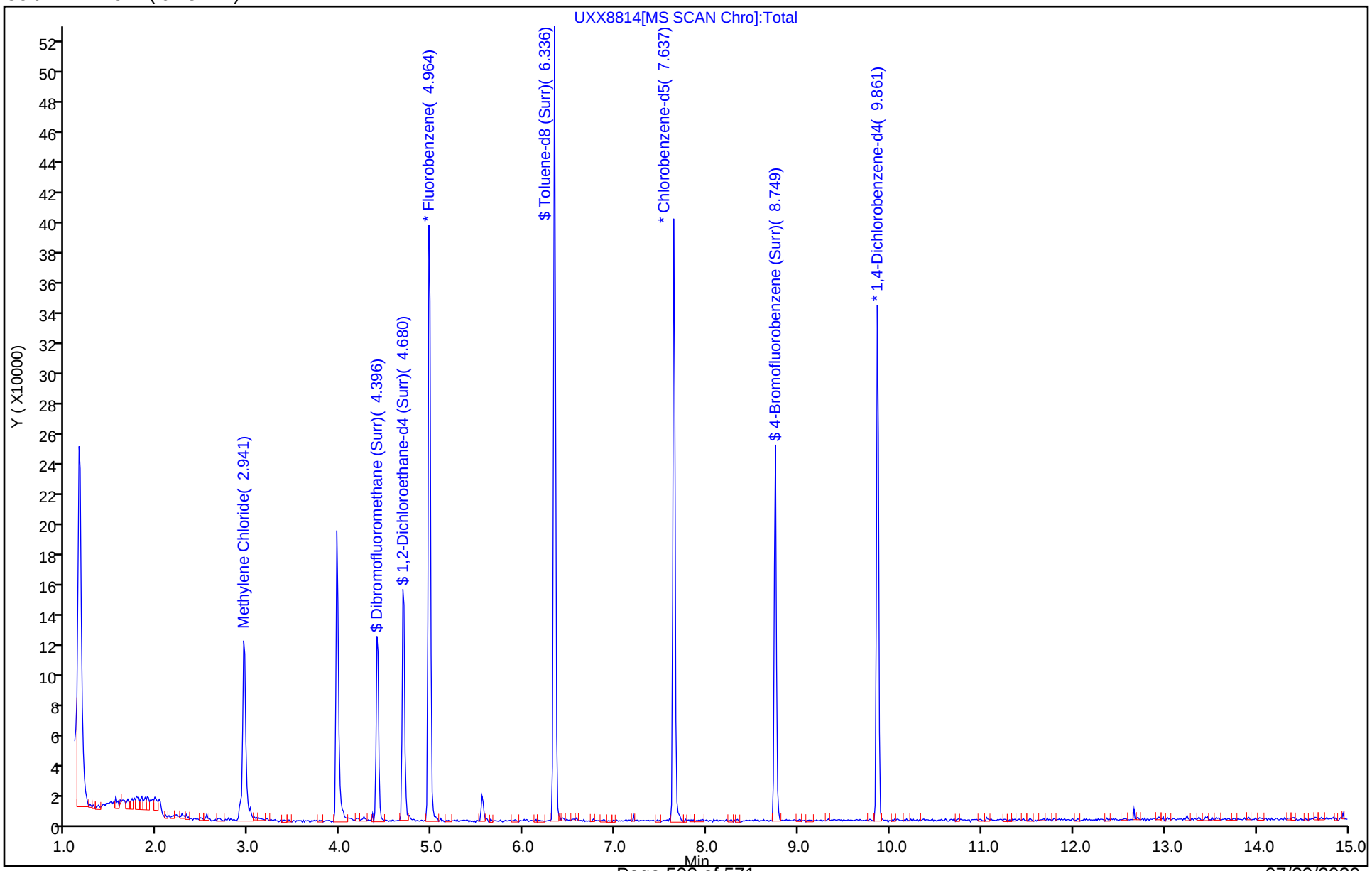
Report Date: 24-Jul-2020 11:32:06 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8814.D

Injection Date:	23-Jul-2020 15:04:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8814.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 23-Jul-2020 15:04:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-007
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

First Level Reviewer: williamsla Date: 23-Jul-2020 16:42:32

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.91	99.09
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	9.33	93.28
$ 6 Toluene-d8 (Surr)	10.0	9.67	96.71
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.35	93.53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443733/5

Matrix: Solid Lab File ID: 1425534.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	47.6		5.0	3.0
563-58-6	1,1-Dichloropropene	47.2		5.0	0.99
75-34-3	1,1-Dichloroethane	47.3		5.0	0.69
87-61-6	1,2,3-Trichlorobenzene	41.8		5.0	0.57
96-18-4	1,2,3-Trichloropropane	41.6		5.0	1.6
107-06-2	1,2-Dichloroethane	43.7		5.0	0.77
75-35-4	1,1-Dichloroethene	58.1		5.0	0.90
78-87-5	1,2-Dichloropropane	45.6		5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	52.8		5.0	1.0
591-78-6	2-Hexanone	98.7		20	4.1
79-34-5	1,1,2,2-Tetrachloroethane	42.3		5.0	1.4
67-64-1	Acetone	130		25	21
71-43-2	Benzene	46.8		5.0	0.70
75-25-2	Bromoform	40.4		5.0	2.4
74-83-9	Bromomethane	26.1		5.0	0.99
75-15-0	Carbon disulfide	57.9		5.0	1.2
56-23-5	Carbon tetrachloride	49.9		5.0	3.3
71-55-6	1,1,1-Trichloroethane	47.8		5.0	0.82
108-90-7	Chlorobenzene	47.5		5.0	0.92
142-28-9	1,3-Dichloropropane	44.6		5.0	0.99
75-00-3	Chloroethane	24.1		5.0	1.2
96-12-8	1,2-Dibromo-3-Chloropropane	45.0		10	3.6
67-66-3	Chloroform	46.7		5.0	0.79
74-87-3	Chloromethane	20.1		5.0	1.0
156-59-2	cis-1,2-Dichloroethene	48.3		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	46.5		5.0	1.4
75-27-4	Bromodichloromethane	47.7		5.0	0.68
76-13-1	1,1,2-Trichlorotrifluoroethane	46.5		5.0	1.3
75-71-8	Dichlorodifluoromethane	16.5		5.0	0.94
120-82-1	1,2,4-Trichlorobenzene	43.4		5.0	0.57
100-41-4	Ethylbenzene	47.1		5.0	1.0
106-93-4	1,2-Dibromoethane	45.2		5.0	0.77
594-20-7	2,2-Dichloropropane	57.3		5.0	1.2
95-50-1	1,2-Dichlorobenzene	44.7		5.0	1.1
541-73-1	1,3-Dichlorobenzene	46.1		5.0	0.82
106-46-7	1,4-Dichlorobenzene	45.8		5.0	0.88

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443733/5

Matrix: Solid Lab File ID: 1425534.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
110-75-8	2-Chloroethyl vinyl ether	41.2	J	50	8.9
98-82-8	Isopropylbenzene	50.3		5.0	0.83
95-49-8	2-Chlorotoluene	48.2		5.0	0.95
78-93-3	2-Butanone (MEK)	88.6		20	3.6
108-10-1	4-Methyl-2-pentanone (MIBK)	102		20	3.7
108-86-1	Bromobenzene	47.0		5.0	1.2
1634-04-4	Methyl tert-butyl ether	49.5		5.0	0.82
74-97-5	Bromochloromethane	44.5		5.0	0.59
75-09-2	Methylene Chloride	51.5		25	12
106-43-4	4-Chlorotoluene	48.5		5.0	0.86
100-42-5	Styrene	52.0		5.0	1.2
99-87-6	4-Isopropyltoluene	54.4		5.0	2.9
127-18-4	Tetrachloroethene	49.1		5.0	0.73
87-68-3	Hexachlorobutadiene	48.9		5.0	3.7
108-88-3	Toluene	50.5		5.0	0.77
74-95-3	Dibromomethane	43.9		5.0	0.67
156-60-5	trans-1,2-Dichloroethene	48.6		5.0	0.47
91-20-3	Naphthalene	42.8		5.0	2.7
10061-02-6	trans-1,3-Dichloropropene	45.7		5.0	1.0
104-51-8	n-Butylbenzene	55.4		5.0	3.5
79-01-6	Trichloroethene	47.0		5.0	0.63
103-65-1	N-Propylbenzene	53.1		5.0	0.73
75-69-4	Trichlorofluoromethane	23.0		5.0	1.1
135-98-8	sec-Butylbenzene	54.7		5.0	0.86
75-01-4	Vinyl chloride	19.5		5.0	0.84
98-06-6	tert-Butylbenzene	53.1		5.0	0.91
108-05-4	Vinyl acetate	37.6		10	2.1
1330-20-7	Xylenes, Total	97.8		10	1.6
124-48-1	Chlorodibromomethane	47.9		5.0	2.8
75-65-0	tert-Butyl alcohol	389		200	17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443733/5

Matrix: Solid Lab File ID: 1425534.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	68		59-120
460-00-4	4-Bromofluorobenzene (Surr)	85		51-127
2037-26-5	Toluene-d8 (Surr)	84		64-124
1868-53-7	Dibromofluoromethane (Surr)	73		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425534.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 22-Jul-2020 13:48:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 240-0100262-005
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 14:22:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1382583	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	1064700	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	97	545673	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	92	325200	50.0	36.7	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	98	381805	50.0	34.1	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	1259370	50.0	42.1	
$ 7 4-Bromofluorobenzene (Surr)	95	10.240	10.240	0.000	0	379380	50.0	42.3	
9 Dichlorodifluoromethane	85	1.057	1.057	0.000	99	137800	20.0	16.5	
10 Chloromethane	50	1.187	1.187	0.000	99	196567	20.0	20.1	
11 Vinyl chloride	62	1.270	1.270	0.000	98	222699	20.0	19.5	
12 Butadiene	54	1.282	1.282	0.000	93	200776	20.0	23.1	
13 Bromomethane	94	1.507	1.519	-0.012	90	238713	20.0	26.1	
15 Chloroethane	64	1.590	1.590	0.000	99	175849	20.0	24.1	
16 Dichlorofluoromethane	67	1.755	1.755	0.000	96	408343	20.0	23.0	
17 Trichlorofluoromethane	101	1.791	1.791	0.000	97	450099	20.0	23.0	
18 Ethyl ether	59	2.051	2.051	0.000	89	596614	50.0	55.0	
19 Acrolein	56	2.146	2.146	0.000	99	156298	250.0	132.9	
21 1,1-Dichloroethene	96	2.240	2.240	0.000	98	639622	50.0	58.1	
22 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.276	2.276	0.000	94	413989	50.0	46.5	
24 Acetone	43	2.300	2.300	0.000	99	362832	100.0	130.4	
25 Iodomethane	142	2.371	2.371	0.000	99	1108780	50.0	54.0	
26 Carbon disulfide	76	2.430	2.430	0.000	100	1997951	50.0	57.9	E
27 3-Chloro-1-propene	76	2.607	2.607	0.000	87	408996	50.0	84.9	
29 Methyl acetate	43	2.655	2.655	0.000	97	792853	100.0	149.5	
30 Methylene Chloride	84	2.737	2.737	0.000	94	432327	50.0	51.5	
31 2-Methyl-2-propanol	59	2.962	2.962	0.000	96	276357	500.0	389.5	
34 Acrylonitrile	53	3.045	3.045	0.000	99	1202223	500.0	476.1	
32 trans-1,2-Dichloroethene	96	3.069	3.069	0.000	98	419542	50.0	48.6	
33 Methyl tert-butyl ether	73	3.104	3.104	0.000	97	1004318	50.0	49.5	
35 Hexane	86	3.459	3.459	0.000	95	115169	50.0	45.6	
36 1,1-Dichloroethane	63	3.625	3.625	0.000	97	682153	50.0	47.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Vinyl acetate	86	3.779	3.779	0.000	98	60762	50.0	37.6	
41 2,2-Dichloropropane	97	4.572	4.572	0.000	79	99702	50.0	57.3	
42 cis-1,2-Dichloroethene	96	4.583	4.583	0.000	83	448262	50.0	48.3	
43 2-Butanone (MEK)	43	4.678	4.678	0.000	100	294335	100.0	88.6	
46 Chlorobromomethane	128	4.974	4.974	0.000	96	195458	50.0	44.5	
48 Tetrahydrofuran	42	5.057	5.057	0.000	85	189601	100.0	90.5	
49 Chloroform	83	5.151	5.151	0.000	96	689991	50.0	46.7	
50 1,1,1-Trichloroethane	97	5.364	5.364	0.000	98	565740	50.0	47.8	
51 Cyclohexane	56	5.424	5.424	0.000	93	595836	50.0	50.6	
52 Carbon tetrachloride	117	5.589	5.589	0.000	93	498487	50.0	49.9	
53 1,1-Dichloropropene	75	5.601	5.601	0.000	92	554262	50.0	47.2	
54 Benzene	78	5.861	5.861	0.000	96	1547629	50.0	46.8	
56 1,2-Dichloroethane	62	5.897	5.897	0.000	98	564251	50.0	43.7	
55 Isobutyl alcohol	41	5.944	5.944	0.000	90	253208	1250.0	1063.4	
58 n-Heptane	100	6.287	6.287	0.000	90	127093	50.0	44.0	
59 Trichloroethene	130	6.654	6.654	0.000	96	410107	50.0	47.0	
62 Methylcyclohexane	83	6.855	6.855	0.000	89	680514	50.0	47.0	
63 1,2-Dichloropropane	63	6.891	6.891	0.000	93	368633	50.0	45.6	
65 Dibromomethane	93	7.009	7.009	0.000	93	236248	50.0	43.9	
67 1,4-Dioxane	88	7.068	7.068	0.000	93	65922	1000.0	804.8	
68 Dichlorobromomethane	83	7.198	7.198	0.000	98	501715	50.0	47.7	
70 2-Chloroethyl vinyl ether	63	7.553	7.553	0.000	94	186075	50.0	41.2	
71 cis-1,3-Dichloropropene	75	7.660	7.660	0.000	92	584297	50.0	46.5	
73 4-Methyl-2-pentanone (MIBK)	43	7.837	7.837	0.000	97	620194	100.0	102.1	
74 Toluene	91	7.968	7.968	0.000	98	1621499	50.0	50.5	
75 trans-1,3-Dichloropropene	75	8.204	8.204	0.000	96	471850	50.0	45.7	
76 Ethyl methacrylate	69	8.323	8.323	0.000	88	406704	50.0	45.3	
77 1,1,2-Trichloroethane	97	8.358	8.358	0.000	92	293411	50.0	47.5	
78 Tetrachloroethene	164	8.476	8.476	0.000	93	303436	50.0	49.1	
79 1,3-Dichloropropane	76	8.500	8.500	0.000	94	521665	50.0	44.6	
80 2-Hexanone	43	8.618	8.618	0.000	97	413135	100.0	98.7	
82 Chlorodibromomethane	129	8.701	8.701	0.000	89	333242	50.0	47.9	
83 Ethylene Dibromide	107	8.796	8.796	0.000	97	284982	50.0	45.2	
85 Chlorobenzene	112	9.246	9.246	0.000	96	1007083	50.0	47.5	
86 1,1,1,2-Tetrachloroethane	131	9.328	9.328	0.000	93	329489	50.0	47.6	
87 Ethylbenzene	106	9.352	9.352	0.000	98	544471	50.0	47.1	
88 m-Xylene & p-Xylene	106	9.459	9.459	0.000	99	664405	50.0	47.9	
89 o-Xylene	106	9.802	9.802	0.000	97	663345	50.0	49.9	
90 Styrene	104	9.814	9.814	0.000	95	1071822	50.0	52.0	
91 Bromoform	173	9.956	9.956	0.000	95	168227	50.0	40.4	
92 Isopropylbenzene	105	10.121	10.121	0.000	96	1633702	50.0	50.3	
94 Bromobenzene	156	10.358	10.358	0.000	95	371791	50.0	47.0	
95 1,1,2,2-Tetrachloroethane	83	10.370	10.370	0.000	96	341008	50.0	42.3	
96 1,2,3-Trichloropropane	110	10.405	10.405	0.000	88	104193	50.0	41.6	
97 trans-1,4-Dichloro-2-butene	53	10.417	10.429	-0.012	81	96748	50.0	49.8	
98 N-Propylbenzene	120	10.476	10.476	0.000	99	452389	50.0	53.1	
99 2-Chlorotoluene	126	10.535	10.535	0.000	97	365910	50.0	48.2	
100 1,3,5-Trimethylbenzene	105	10.630	10.630	0.000	88	1356228	50.0	52.1	
101 4-Chlorotoluene	126	10.630	10.630	0.000	97	410885	50.0	48.5	
103 tert-Butylbenzene	119	10.902	10.902	0.000	92	1131345	50.0	53.1	
105 1,2,4-Trimethylbenzene	105	10.938	10.938	0.000	98	1293166	50.0	52.8	
107 sec-Butylbenzene	105	11.080	11.080	0.000	96	1668060	50.0	54.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	11.162	11.162	0.000	98	670513	50.0	46.1	
109 4-Isopropyltoluene	119	11.210	11.210	0.000	97	1520196	50.0	54.4	
110 1,4-Dichlorobenzene	146	11.233	11.233	0.000	92	712178	50.0	45.8	
114 1,2-Dichlorobenzene	146	11.541	11.553	-0.012	95	683095	50.0	44.7	
113 n-Butylbenzene	91	11.553	11.553	0.000	98	1384438	50.0	55.4	
115 1,2-Dibromo-3-Chloropropane	157	12.192	12.192	0.000	74	59452	50.0	45.0	
117 1,2,4-Trichlorobenzene	180	12.890	12.890	0.000	93	461472	50.0	43.4	
118 Hexachlorobutadiene	225	13.056	13.056	0.000	95	227599	50.0	48.9	
119 Naphthalene	128	13.091	13.091	0.000	97	1144950	50.0	42.8	
120 1,2,3-Trichlorobenzene	180	13.292	13.292	0.000	94	451679	50.0	41.8	
S 134 Xylenes, Total	106				0		100.0	97.8	
S 157 Total BTEX	1				0		250.0	242.2	
S 135 Trihalomethanes, Total	1				0		200.0	182.7	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VMFASPW_00359	Amount Added:	5.00	Units: uL	
VMFASAW_00336	Amount Added:	5.00	Units: uL	
VMFASGW_00368	Amount Added:	2.00	Units: uL	
VM250SS_00058	Amount Added:	1.00	Units: uL	Run Reagent
VM568718_00018	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00175	Amount Added:	0.00	Units:	Run Reagent

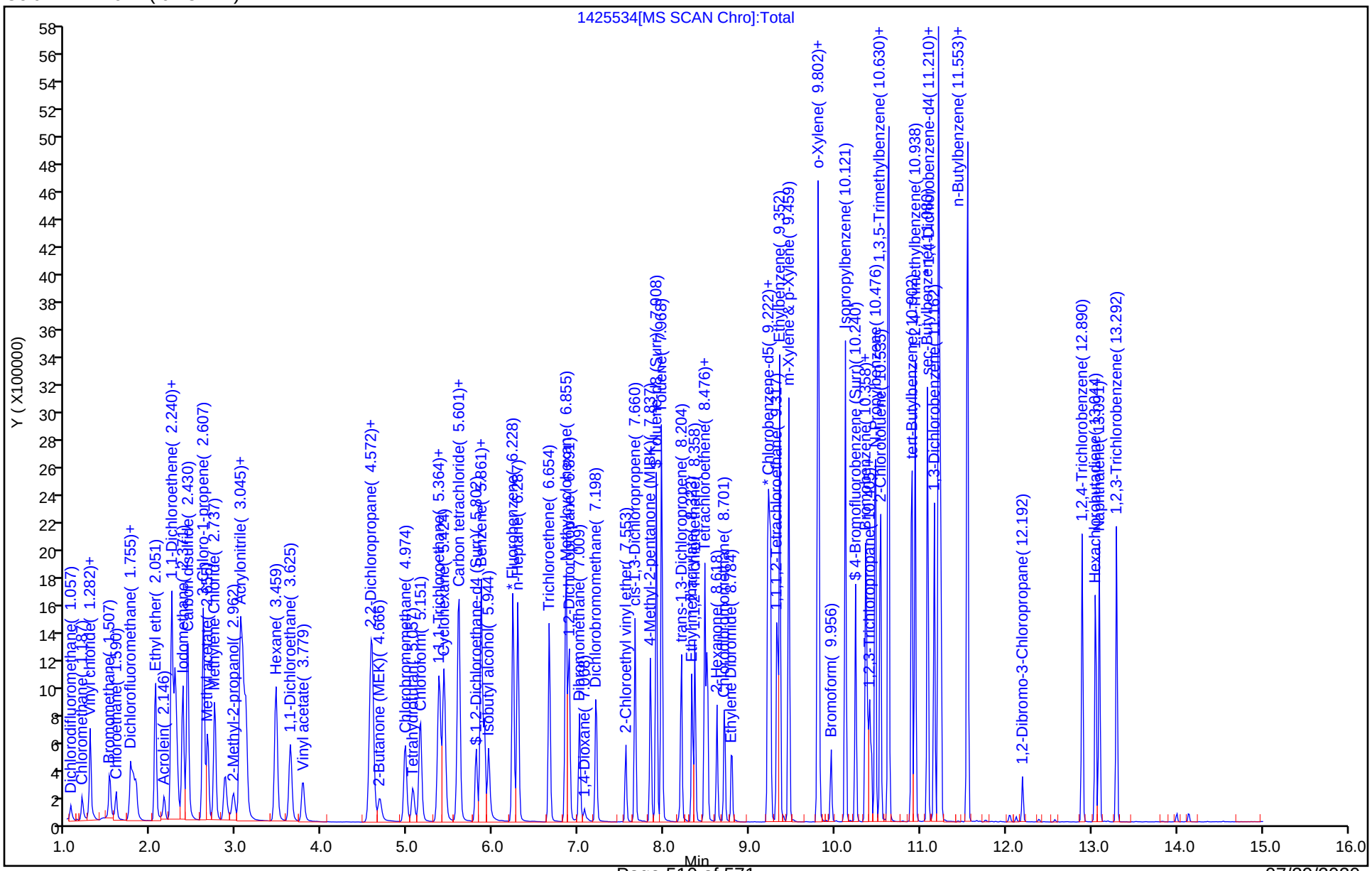
Report Date: 23-Jul-2020 11:55:15 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425534.D

Injection Date:	22-Jul-2020 13:48:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	LCS			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425534.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 22-Jul-2020 13:48:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 240-0100262-005
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 14:22:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	36.7	73.43
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	34.1	68.20
$ 6 Toluene-d8 (Surr)	50.0	42.1	84.21
$ 7 4-Bromofluorobenzene (Surr)	50.0	42.3	84.60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443733/6

Matrix: Solid Lab File ID: 1425535.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/22/2020 14:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
526-73-8	1,2,3-Trimethylbenzene	47.8		5.0	1.8
108-20-3	Diisopropyl ether	54.8		10	0.76
994-05-8	Tert-amyl methyl ether	63.1		5.0	2.2
637-92-3	Ethyl tert-butyl ether	57.5		5.0	2.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	70		59-120
460-00-4	4-Bromofluorobenzene (Surr)	96		51-127
2037-26-5	Toluene-d8 (Surr)	86		64-124
1868-53-7	Dibromofluoromethane (Surr)	73		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425535.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 22-Jul-2020 14:10:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 240-0100262-006
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 14:37:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1367380	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	1034906	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	98	488790	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	92	318902	50.0	36.4	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	96	386750	50.0	34.9	
$ 6 Toluene-d8 (Surr)	98	7.908	7.908	0.000	94	1247629	50.0	42.9	
$ 7 4-Bromofluorobenzene (Surr)	95	10.239	10.240	-0.001	0	381034	50.0	47.8	
28 Acetonitrile	41	2.572	2.572	0.000	99	548335	500.0	932.0	
37 2-Chloro-1,3-butadiene	53	3.767	3.767	0.000	95	575000	50.0	47.7	
38 Isopropyl ether	87	3.826	3.826	0.000	91	322713	50.0	54.8	
40 Tert-butyl ethyl ether	59	4.430	4.430	0.000	96	925730	50.0	57.5	
44 Propionitrile	54	4.749	4.749	0.000	98	436891	500.0	472.6	
45 Ethyl acetate	43	4.844	4.844	0.000	100	594193	100.0	84.1	
47 Methacrylonitrile	41	4.998	4.997	0.001	92	2158795	500.0	491.7	
159 Isooctane	57	6.027	6.027	0.000	92	1319656	50.0	54.9	
57 Tert-amyl methyl ether	73	6.086	6.086	0.000	98	983714	50.0	63.1	
60 n-Butanol	56	6.725	6.725	0.000	91	175677	1250.0	909.0	
61 Ethyl acrylate	55	6.855	6.855	0.000	100	354699	50.0	39.3	
66 Methyl methacrylate	41	7.092	7.092	0.000	89	583732	100.0	87.0	
69 2-Nitropropane	41	7.447	7.447	0.000	100	157454	100.0	79.8	
81 n-Butyl acetate	43	8.760	8.760	0.000	97	447892	50.0	37.6	
84 1-Chlorohexane	91	9.257	9.246	0.011	85	481256	50.0	46.0	
93 Cyclohexanone	55	10.180	10.180	0.000	94	93865	500.0	432.9	
104 Pentachloroethane	167	10.902	10.902	0.000	83	216413	100.0	67.3	
111 1,2,3-Trimethylbenzene	105	11.293	11.293	0.000	98	1234159	50.0	47.8	
112 Benzyl chloride	126	11.352	11.352	0.000	98	86581	50.0	46.0	
116 1,3,5-Trichlorobenzene	180	12.381	12.381	0.000	97	502434	50.0	48.5	
121 2-Methylnaphthalene	142	14.002	14.002	0.000	93	1656392	100.0	103.6	
158 1-Methylnaphthalene	142	14.133	14.132	0.000	97	1475913	100.0	97.6	

Reagents:

VMFASA9W_00285	Amount Added:	5.00	Units: uL	
VM250SS_00058	Amount Added:	1.00	Units: uL	Run Reagent
VM568718_00018	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00175	Amount Added:	0.00	Units:	Run Reagent

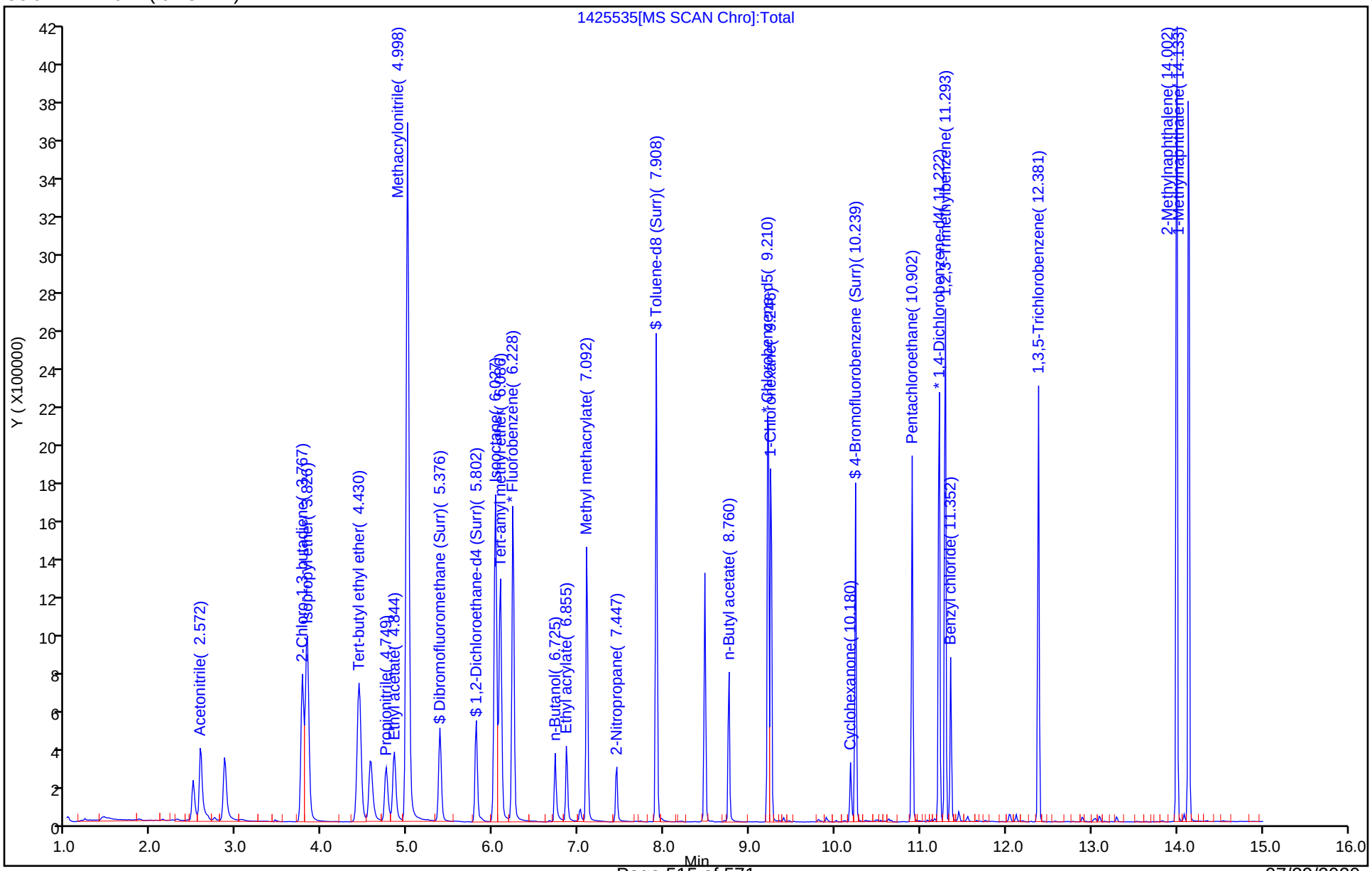
Report Date: 23-Jul-2020 11:55:20 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425535.D

Injection Date:	22-Jul-2020 14:10:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	lcs			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425535.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 22-Jul-2020 14:10:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 240-0100262-006
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 22-Jul-2020 14:37:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	36.4	72.81
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	34.9	69.85
$ 6 Toluene-d8 (Surr)	50.0	42.9	85.83
$ 7 4-Bromofluorobenzene (Surr)	50.0	47.8	95.52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443947/4

Matrix: Water Lab File ID: UXX8811.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	11.2		1.0	0.41
563-58-6	1,1-Dichloropropene	10.1		1.0	0.37
75-34-3	1,1-Dichloroethane	10.0		1.0	0.41
87-61-6	1,2,3-Trichlorobenzene	10.9		1.0	0.54
96-18-4	1,2,3-Trichloropropane	6.99		1.0	0.51
107-06-2	1,2-Dichloroethane	10.3		1.0	0.43
75-35-4	1,1-Dichloroethene	10.9		1.0	0.46
78-87-5	1,2-Dichloropropane	9.51		1.0	0.37
95-63-6	1,2,4-Trimethylbenzene	10.7		1.0	0.45
591-78-6	2-Hexanone	15.8		10	2.1
79-34-5	1,1,2,2-Tetrachloroethane	6.85		1.0	0.56
67-64-1	Acetone	17.1		10	5.4
71-43-2	Benzene	8.82		1.0	0.38
75-25-2	Bromoform	9.40		1.0	0.76
74-83-9	Bromomethane	9.24		1.0	0.42
75-15-0	Carbon disulfide	9.32		1.0	0.28
56-23-5	Carbon tetrachloride	15.2		1.0	0.26
71-55-6	1,1,1-Trichloroethane	14.3		1.0	0.24
108-90-7	Chlorobenzene	10.1		1.0	0.32
142-28-9	1,3-Dichloropropane	8.27		1.0	0.21
75-00-3	Chloroethane	10.7		1.0	0.83
96-12-8	1,2-Dibromo-3-Chloropropane	6.37		2.0	0.91
67-66-3	Chloroform	10.3		1.0	0.40
74-87-3	Chloromethane	14.3		1.0	0.64
156-59-2	cis-1,2-Dichloroethene	9.99		1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	8.67		1.0	0.61
75-27-4	Bromodichloromethane	10.1		1.0	0.35
76-13-1	1,1,2-Trichlorotrifluoroethane	14.9		1.0	0.41
75-71-8	Dichlorodifluoromethane	13.1		1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	12.8		1.0	0.81
100-41-4	Ethylbenzene	9.77		1.0	0.39
106-93-4	1,2-Dibromoethane	8.94		1.0	0.37
594-20-7	2,2-Dichloropropane	12.2		1.0	0.95
95-50-1	1,2-Dichlorobenzene	10.8		1.0	0.43
541-73-1	1,3-Dichlorobenzene	10.4		1.0	0.40
106-46-7	1,4-Dichlorobenzene	9.97		1.0	0.37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443947/4

Matrix: Water Lab File ID: UXX8811.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
110-75-8	2-Chloroethyl vinyl ether	7.34	J	10	1.1
98-82-8	Isopropylbenzene	11.7		1.0	0.45
95-49-8	2-Chlorotoluene	9.95		1.0	0.42
78-93-3	2-Butanone (MEK)	17.6		10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	17.5		10	2.1
108-86-1	Bromobenzene	9.87		1.0	0.38
1634-04-4	Methyl tert-butyl ether	9.34		1.0	0.44
74-97-5	Bromochloromethane	9.45		1.0	0.52
75-09-2	Methylene Chloride	9.92		5.0	1.3
106-43-4	4-Chlorotoluene	9.74		1.0	0.44
100-42-5	Styrene	9.36		1.0	0.40
99-87-6	4-Isopropyltoluene	13.6		1.0	0.49
127-18-4	Tetrachloroethene	12.6		1.0	0.33
87-68-3	Hexachlorobutadiene	19.9		1.0	0.83
108-88-3	Toluene	9.13		1.0	0.35
74-95-3	Dibromomethane	10.0		1.0	0.33
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.43
91-20-3	Naphthalene	6.94		1.0	0.82
10061-02-6	trans-1,3-Dichloropropene	7.63		1.0	0.67
104-51-8	n-Butylbenzene	13.7		1.0	0.59
79-01-6	Trichloroethene	10.6		1.0	0.36
103-65-1	N-Propylbenzene	10.8		1.0	0.46
75-69-4	Trichlorofluoromethane	15.4		1.0	0.45
135-98-8	sec-Butylbenzene	13.4		1.0	0.63
75-01-4	Vinyl chloride	11.5		1.0	0.50
98-06-6	tert-Butylbenzene	12.4		1.0	0.51
108-05-4	Vinyl acetate	10.4		2.0	0.78
1330-20-7	Xylenes, Total	20.4		2.0	0.42
124-48-1	Chlorodibromomethane	9.66		1.0	0.39
75-65-0	tert-Butyl alcohol	78.5		40	1.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-443947/4

Matrix: Water Lab File ID: UXX8811.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		75-130
460-00-4	4-Bromofluorobenzene (Surr)	97		47-134
2037-26-5	Toluene-d8 (Surr)	92		69-122
1868-53-7	Dibromofluoromethane (Surr)	102		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8811.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 23-Jul-2020 13:48:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-004
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

First Level Reviewer: williamsla Date: 23-Jul-2020 14:16:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.972	4.964	0.008	98	319478	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.646	7.637	0.009	90	213960	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.869	9.861	0.008	95	97980	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.405	4.405	0.000	92	76415	10.0	10.2	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.689	4.689	-0.001	94	106158	10.0	9.68	
$ 6 Toluene-d8 (Surr)	98	6.333	6.333	0.000	94	301672	10.0	9.17	
$ 7 4-Bromofluorobenzene (Surr)	95	8.746	8.746	0.000	81	100538	10.0	9.71	
9 Dichlorodifluoromethane	85	1.246	1.247	-0.001	98	90433	10.0	13.1	
10 Chloromethane	50	1.400	1.401	-0.001	99	201906	10.0	14.3	
11 Vinyl chloride	62	1.483	1.483	0.000	97	120110	10.0	11.5	
12 Butadiene	54	1.495	1.495	0.000	96	163614	10.0	28.3	
13 Bromomethane	94	1.743	1.744	-0.001	92	45888	10.0	9.24	
14 Chloroethane	64	1.826	1.827	0.000	94	59837	10.0	10.7	
15 Dichlorofluoromethane	67	1.992	2.004	-0.012	98	129173	10.0	9.16	
16 Trichlorofluoromethane	101	2.039	2.051	-0.012	97	115688	10.0	15.4	
17 Ethyl ether	59	2.287	2.288	-0.001	93	105967	10.0	10.8	
18 Acrolein	56	2.394	2.394	0.000	98	30885	50.0	16.4	
19 1,1-Dichloroethene	96	2.477	2.489	-0.012	91	82137	10.0	10.9	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.500	2.513	-0.013	96	53224	10.0	14.9	
21 Acetone	43	2.536	2.536	0.000	99	73510	20.0	17.1	
22 Iodomethane	142	2.607	2.619	-0.012	98	121754	10.0	13.8	
24 Carbon disulfide	76	2.666	2.666	0.000	100	245920	10.0	9.32	
26 3-Chloro-1-propene	76	2.796	2.796	0.000	92	55742	10.0	8.17	
27 Methyl acetate	43	2.820	2.820	0.000	99	213839	20.0	18.9	
28 Methylene Chloride	84	2.902	2.903	-0.001	89	92116	10.0	9.92	
29 2-Methyl-2-propanol	59	3.021	3.021	0.000	96	103576	100.0	78.5	
31 Acrylonitrile	53	3.115	3.128	-0.013	99	512888	100.0	93.2	
30 trans-1,2-Dichloroethene	96	3.139	3.139	0.000	89	89866	10.0	10.3	
32 Methyl tert-butyl ether	73	3.151	3.151	0.000	96	238000	10.0	9.34	
33 Hexane	86	3.376	3.376	0.000	92	27142	10.0	16.1	
34 1,1-Dichloroethane	63	3.506	3.506	0.000	96	206749	10.0	10.0	
35 Vinyl acetate	43	3.553	3.553	0.000	96	259026	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2,2-Dichloropropane	97	3.991	3.991	0.000	62	23885	10.0	12.2	
40 cis-1,2-Dichloroethene	96	3.991	3.991	0.000	90	97074	10.0	9.99	
41 2-Butanone (MEK)	43	4.014	4.015	-0.001	95	123122	20.0	17.6	
45 Chlorobromomethane	128	4.204	4.204	0.000	82	37404	10.0	9.45	
46 Tetrahydrofuran	42	4.239	4.240	-0.001	86	80495	20.0	16.4	
47 Chloroform	83	4.263	4.263	0.000	98	155670	10.0	10.3	
48 1,1,1-Trichloroethane	97	4.416	4.417	-0.001	96	136719	10.0	14.3	
49 Cyclohexane	56	4.464	4.464	0.000	88	268995	10.0	14.9	
50 1,1-Dichloropropene	75	4.558	4.559	-0.001	87	119545	10.0	10.1	
51 Carbon tetrachloride	117	4.558	4.559	-0.001	91	115815	10.0	15.2	
52 Isobutyl alcohol	41	4.665	4.665	0.000	95	93245	250.0	201.2	
53 Benzene	78	4.736	4.736	0.000	95	348746	10.0	8.82	
54 1,2-Dichloroethane	62	4.748	4.748	0.000	95	149892	10.0	10.3	
56 n-Heptane	100	4.961	4.961	0.000	95	25526	10.0	19.1	
58 Trichloroethene	130	5.280	5.280	0.000	96	86947	10.0	10.6	
60 Methylcyclohexane	83	5.446	5.446	0.000	91	143281	10.0	13.7	
61 1,2-Dichloropropane	63	5.469	5.470	-0.001	94	118173	10.0	9.51	
63 Dibromomethane	93	5.576	5.576	0.000	85	50819	10.0	10.0	
64 1,4-Dioxane	88	5.587	5.588	-0.001	48	11807	200.0	127.9	
65 Dichlorobromomethane	83	5.706	5.706	0.000	96	114060	10.0	10.1	
67 2-Chloroethyl vinyl ether	63	5.966	5.966	0.000	87	65890	10.0	7.34	
68 cis-1,3-Dichloropropene	75	6.096	6.097	-0.001	89	134063	10.0	8.67	
69 4-Methyl-2-pentanone (MIBK)	43	6.238	6.239	-0.001	97	252280	20.0	17.5	
70 Toluene	91	6.392	6.392	0.000	97	357948	10.0	9.13	
71 trans-1,3-Dichloropropene	75	6.593	6.593	0.000	97	105009	10.0	7.63	
72 Ethyl methacrylate	69	6.676	6.676	0.000	92	100439	10.0	6.65	
73 1,1,2-Trichloroethane	97	6.758	6.759	-0.001	94	67993	10.0	8.19	
74 Tetrachloroethene	164	6.889	6.889	0.000	91	57157	10.0	12.6	
75 1,3-Dichloropropane	76	6.900	6.913	-0.013	96	124914	10.0	8.27	
76 2-Hexanone	43	6.983	6.984	-0.001	98	154702	20.0	15.8	
78 Chlorodibromomethane	129	7.113	7.114	-0.001	91	69407	10.0	9.66	
80 Ethylene Dibromide	107	7.220	7.220	0.000	97	66053	10.0	8.94	
82 Chlorobenzene	112	7.669	7.670	-0.001	92	211109	10.0	10.1	
83 1,1,1,2-Tetrachloroethane	131	7.740	7.741	-0.001	92	72902	10.0	11.2	
84 Ethylbenzene	106	7.764	7.764	0.000	98	113669	10.0	9.77	
85 m-Xylene & p-Xylene	106	7.882	7.883	-0.001	99	138331	10.0	10.0	
86 o-Xylene	106	8.249	8.249	0.000	97	135318	10.0	10.4	
87 Styrene	104	8.261	8.261	0.000	85	217014	10.0	9.36	
88 Bromoform	173	8.438	8.439	-0.001	93	35748	10.0	9.40	
89 Isopropylbenzene	105	8.604	8.604	0.000	97	351857	10.0	11.7	
93 Bromobenzene	156	8.888	8.888	0.000	93	74833	10.0	9.87	
92 1,1,2,2-Tetrachloroethane	83	8.888	8.888	0.000	79	81152	10.0	6.85	
94 1,2,3-Trichloropropane	110	8.935	8.935	0.000	84	22108	10.0	6.99	
95 trans-1,4-Dichloro-2-butene	53	8.947	8.947	0.000	72	36532	10.0	7.01	
96 N-Propylbenzene	120	8.994	8.995	-0.001	99	93969	10.0	10.8	
97 2-Chlorotoluene	126	9.077	9.077	0.000	95	78462	10.0	9.95	
98 1,3,5-Trimethylbenzene	105	9.172	9.172	0.000	94	274761	10.0	10.7	
99 4-Chlorotoluene	126	9.183	9.184	-0.001	98	81314	10.0	9.74	
100 tert-Butylbenzene	119	9.479	9.480	-0.001	93	235645	10.0	12.4	
102 1,2,4-Trimethylbenzene	105	9.526	9.527	-0.001	95	294192	10.0	10.7	
103 sec-Butylbenzene	105	9.692	9.692	0.000	95	355782	10.0	13.4	
104 1,3-Dichlorobenzene	146	9.798	9.799	-0.001	96	143053	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 4-Isopropyltoluene	119	9.834	9.846	-0.012	97	288896	10.0	13.6	
106 1,4-Dichlorobenzene	146	9.893	9.894	-0.001	90	138981	10.0	9.97	
109 n-Butylbenzene	91	10.236	10.237	-0.001	99	274595	10.0	13.7	
110 1,2-Dichlorobenzene	146	10.248	10.248	0.000	96	147427	10.0	10.8	
111 1,2-Dibromo-3-Chloropropane	157	11.017	11.017	0.000	78	13329	10.0	6.37	
113 1,2,4-Trichlorobenzene	180	11.845	11.845	0.000	93	77413	10.0	12.8	
114 Hexachlorobutadiene	225	12.022	12.011	0.011	93	29471	10.0	19.9	
115 Naphthalene	128	12.081	12.082	-0.001	98	219852	10.0	6.94	
116 1,2,3-Trichlorobenzene	180	12.330	12.330	0.000	92	65316	10.0	10.9	E
S 130 Xylenes, Total	106				0		20.0	20.4	
S 156 Total BTEX	1				0		50.0	48.2	
S 131 Trihalomethanes, Total	1				0		40.0	39.5	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VMFASPW_00359	Amount Added:	8.00	Units: uL	
VMFASAW_00336	Amount Added:	8.00	Units: uL	
VMFASGW_00368	Amount Added:	8.00	Units: uL	
VM50IS_00084	Amount Added:	1.00	Units: uL	Run Reagent
vm50ss_stk_00085	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00176	Amount Added:	0.00	Units:	Run Reagent

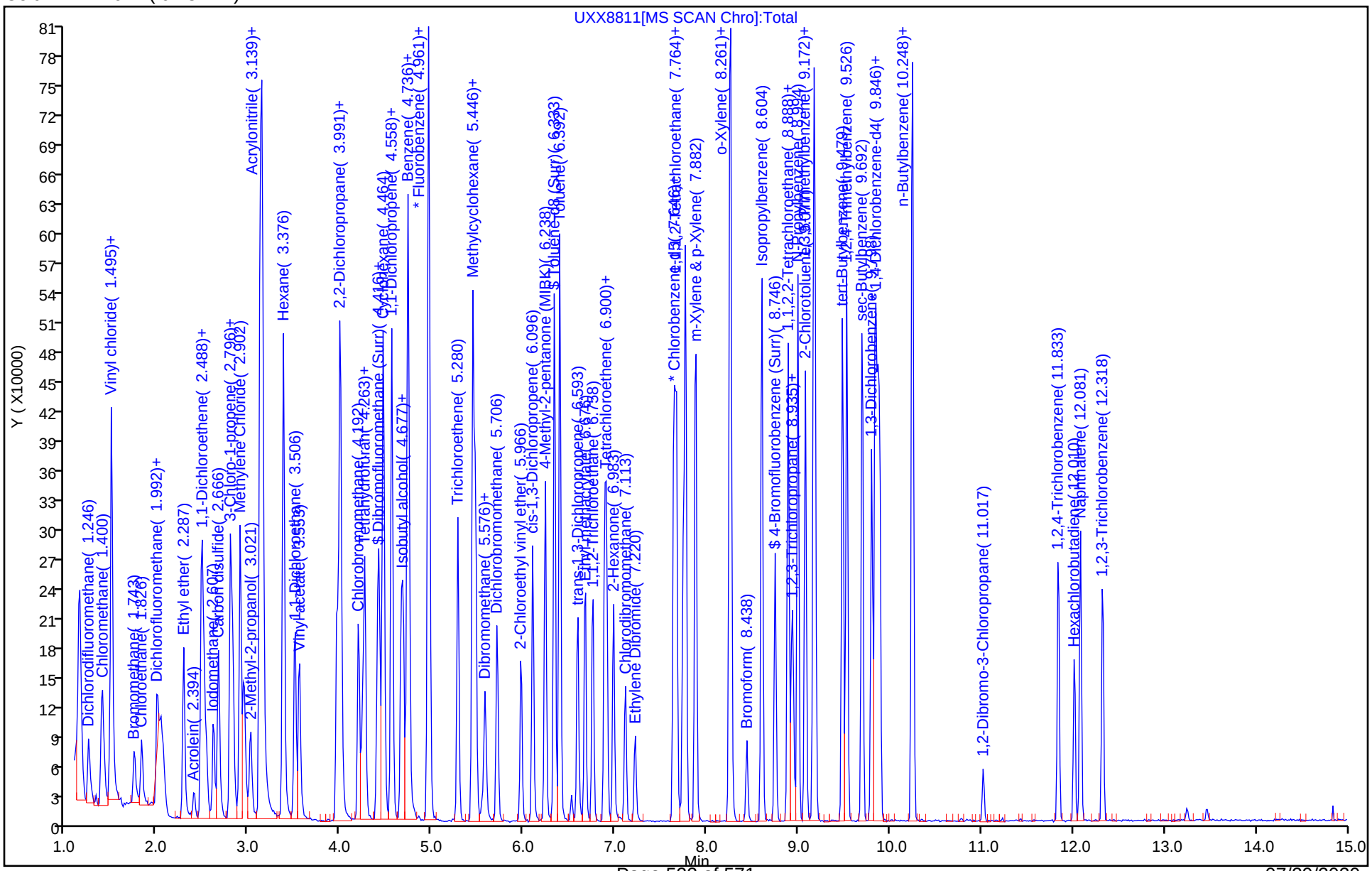
Report Date: 24-Jul-2020 11:31:45 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8811.D

Injection Date:	23-Jul-2020 13:48:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8811.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 23-Jul-2020 13:48:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-004
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

First Level Reviewer: williamsla Date: 23-Jul-2020 14:16:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	10.2	102.33
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	9.68	96.82
$ 6 Toluene-d8 (Surr)	10.0	9.17	91.69
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.71	97.07

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-133595-C-3-B MS

Matrix: Solid Lab File ID: 1425544.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5.46(g) Date Analyzed: 07/22/2020 17:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 32.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	183		34	28
75-15-0	Carbon disulfide	78.0		6.8	1.6
108-90-7	Chlorobenzene	58.7		6.8	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	69		59-120
460-00-4	4-Bromofluorobenzene (Surr)	98		51-127
2037-26-5	Toluene-d8 (Surr)	91		64-124
1868-53-7	Dibromofluoromethane (Surr)	77		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425544.D
Lims ID: 240-133595-C-3-B MS
Client ID: 2020AN-SED-03
Sample Type: MS
Inject. Date: 22-Jul-2020 17:30:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-133595-c-3-b ms
Misc. Info.: 240-0100262-015
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 23-Jul-2020 11:33:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1150289	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	96	874976	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	97	389049	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	92	283826	50.0	38.5	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	98	322420	50.0	34.6	
$ 6 Toluene-d8 (Surr)	98	7.909	7.908	0.001	94	1118196	50.0	45.5	
$ 7 4-Bromofluorobenzene (Surr)	95	10.240	10.240	0.000	0	312005	50.0	49.2	
24 Acetone	43	2.300	2.300	0.000	99	311926	100.0	135.0	
26 Carbon disulfide	76	2.418	2.430	-0.012	100	1654268	50.0	57.6	E
85 Chlorobenzene	112	9.246	9.246	0.000	96	756426	50.0	43.4	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

VMFASPW_00359	Amount Added:	5.00	Units: uL	
VMFASAW_00336	Amount Added:	5.00	Units: uL	
VMFASGW_00368	Amount Added:	2.00	Units: uL	
VM250SS_00058	Amount Added:	1.00	Units: uL	Run Reagent
VM568718_00018	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00175	Amount Added:	0.00	Units:	Run Reagent

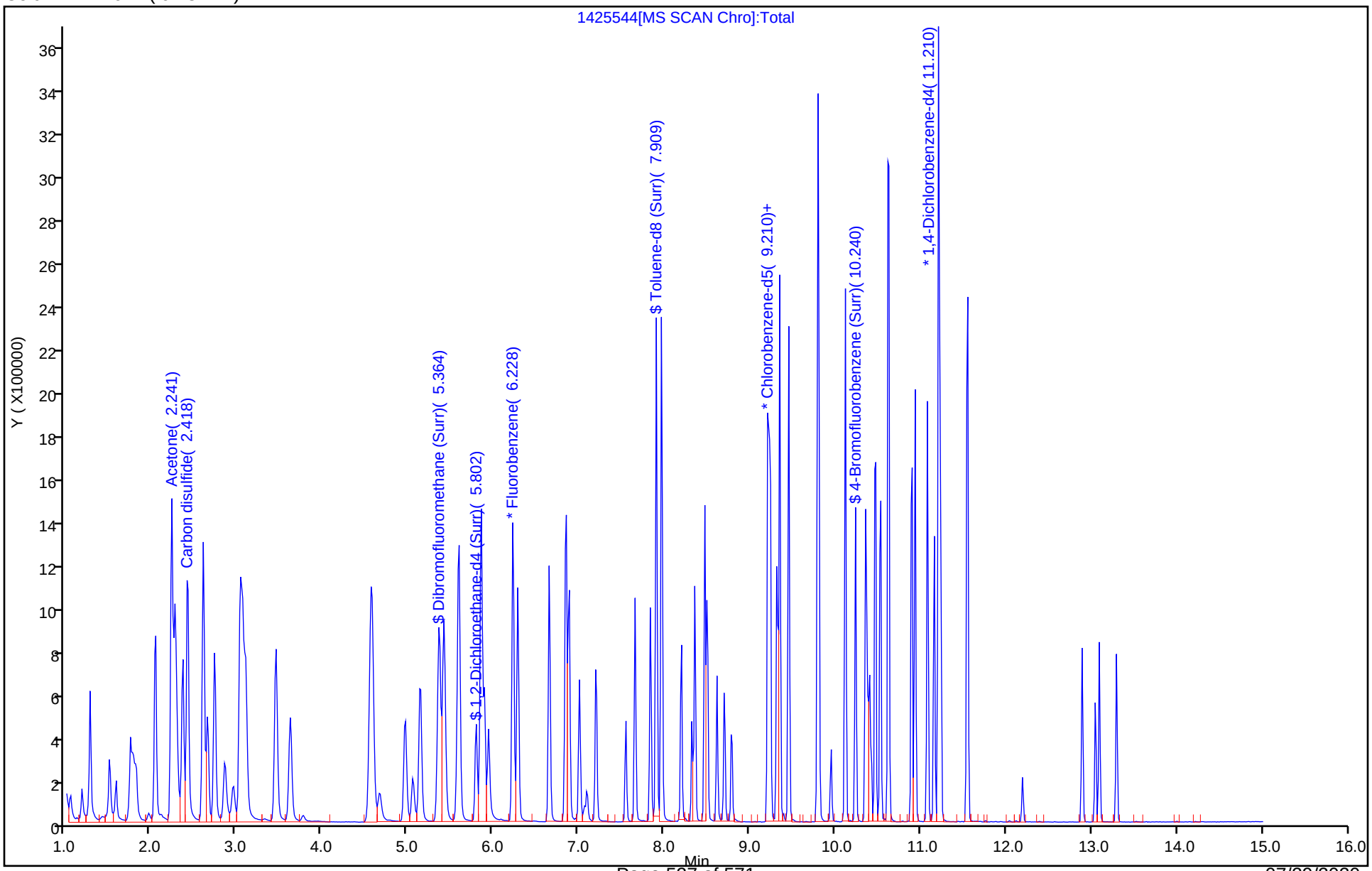
Report Date: 23-Jul-2020 11:55:41 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425544.D

Injection Date:	22-Jul-2020 17:30:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	240-133595-C-3-B MS			Worklist Smp#:	15
Client ID:	2020AN-SED-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



07/29/2020

Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425544.D
Lims ID: 240-133595-C-3-B MS
Client ID: 2020AN-SED-03
Sample Type: MS
Inject. Date: 22-Jul-2020 17:30:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-133595-c-3-b ms
Misc. Info.: 240-0100262-015
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 23-Jul-2020 11:33:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	38.5	77.03
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	34.6	69.22
$ 6 Toluene-d8 (Surr)	50.0	45.5	90.98
$ 7 4-Bromofluorobenzene (Surr)	50.0	49.2	98.43

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-133570-E-1 MS

Matrix: Water Lab File ID: UXX8816.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 16:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	10.3		1.0	0.41
107-06-2	1,2-Dichloroethane	10.4		1.0	0.43
75-35-4	1,1-Dichloroethene	11.1		1.0	0.46
78-87-5	1,2-Dichloropropane	9.97		1.0	0.37
591-78-6	2-Hexanone	16.6		10	2.1
79-34-5	1,1,2,2-Tetrachloroethane	7.04		1.0	0.56
67-64-1	Acetone	16.0		10	5.4
71-43-2	Benzene	9.34		1.0	0.38
75-25-2	Bromoform	9.30		1.0	0.76
74-83-9	Bromomethane	9.83		1.0	0.42
75-15-0	Carbon disulfide	9.74		1.0	0.28
56-23-5	Carbon tetrachloride	15.7		1.0	0.26
71-55-6	1,1,1-Trichloroethane	14.9		1.0	0.24
108-90-7	Chlorobenzene	10.1		1.0	0.32
75-00-3	Chloroethane	11.5		1.0	0.83
67-66-3	Chloroform	10.7		1.0	0.40
74-87-3	Chloromethane	15.3		1.0	0.64
156-59-2	cis-1,2-Dichloroethene	9.88		1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	8.49		1.0	0.61
75-27-4	Bromodichloromethane	10.9		1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	13.5		1.0	0.81
100-41-4	Ethylbenzene	10.7		1.0	0.39
95-50-1	1,2-Dichlorobenzene	11.1		1.0	0.43
541-73-1	1,3-Dichlorobenzene	10.8		1.0	0.40
106-46-7	1,4-Dichlorobenzene	10.8		1.0	0.37
78-93-3	2-Butanone (MEK)	17.6		10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	16.7		10	2.1
75-09-2	Methylene Chloride	10.1		5.0	1.3
100-42-5	Styrene	9.69		1.0	0.40
127-18-4	Tetrachloroethene	13.3		1.0	0.33
108-88-3	Toluene	9.47		1.0	0.35
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.43
79-01-6	Trichloroethene	10.3		1.0	0.36
75-01-4	Vinyl chloride	13.5		1.0	0.50
1330-20-7	Xylenes, Total	21.5		2.0	0.42
124-48-1	Chlorodibromomethane	10.3		1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-133570-E-1 MS

Matrix: Water Lab File ID: UXX8816.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 16:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		75-130
460-00-4	4-Bromofluorobenzene (Surr)	96		47-134
2037-26-5	Toluene-d8 (Surr)	94		69-122
1868-53-7	Dibromofluoromethane (Surr)	102		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8816.D
Lims ID: 240-133570-E-1 MS
Client ID: MW-202C-96
Sample Type: MS
Inject. Date: 23-Jul-2020 16:03:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-009
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.964	4.964	0.000	98	319992	10.0	10.0	
*	2 Chlorobenzene-d5	117	7.638	7.637	0.001	91	207393	10.0	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.861	9.861	0.000	94	92163	10.0	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.397	4.405	-0.008	91	76520	10.0	10.2	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.680	4.689	-0.009	94	112220	10.0	10.2	
$	6 Toluene-d8 (Surr)	98	6.336	6.333	0.003	95	299236	10.0	9.38	
$	7 4-Bromofluorobenzene (Surr)	95	8.750	8.746	0.004	82	96646	10.0	9.63	
	10 Chloromethane	50	1.404	1.401	0.003	99	216981	10.0	15.3	
	11 Vinyl chloride	62	1.487	1.483	0.004	98	140782	10.0	13.5	
	13 Bromomethane	94	1.747	1.744	0.003	91	48901	10.0	9.83	
	14 Chloroethane	64	1.830	1.827	0.004	96	64427	10.0	11.5	
	19 1,1-Dichloroethene	96	2.480	2.489	-0.009	90	84015	10.0	11.1	
	21 Acetone	43	2.540	2.536	0.004	99	69483	20.0	16.0	
	24 Carbon disulfide	76	2.670	2.666	0.004	99	257453	10.0	9.74	
	28 Methylene Chloride	84	2.906	2.903	0.003	91	94031	10.0	10.1	
	30 trans-1,2-Dichloroethene	96	3.143	3.139	0.004	90	90340	10.0	10.3	
	34 1,1-Dichloroethane	63	3.498	3.506	-0.008	96	212160	10.0	10.3	
	40 cis-1,2-Dichloroethene	96	3.994	3.991	0.003	90	96148	10.0	9.88	
	41 2-Butanone (MEK)	43	4.006	4.015	-0.009	96	123351	20.0	17.6	
	47 Chloroform	83	4.266	4.263	0.003	96	161465	10.0	10.7	
	48 1,1,1-Trichloroethane	97	4.420	4.417	0.003	96	142676	10.0	14.9	
	51 Carbon tetrachloride	117	4.562	4.559	0.003	85	119803	10.0	15.7	
	53 Benzene	78	4.728	4.736	-0.008	95	369808	10.0	9.34	
	54 1,2-Dichloroethane	62	4.751	4.748	0.003	94	151842	10.0	10.4	
	58 Trichloroethene	130	5.284	5.280	0.004	94	84579	10.0	10.3	
	61 1,2-Dichloropropane	63	5.473	5.470	0.003	97	124109	10.0	9.97	
	65 Dichlorobromomethane	83	5.710	5.706	0.004	97	122994	10.0	10.9	
	68 cis-1,3-Dichloropropene	75	6.100	6.097	0.003	89	131586	10.0	8.49	
	69 4-Methyl-2-pentanone (MIBK)	43	6.230	6.239	-0.009	97	241830	20.0	16.7	
	70 Toluene	91	6.396	6.392	0.004	97	359671	10.0	9.47	
	73 1,1,2-Trichloroethane	97	6.750	6.759	-0.009	92	62768	10.0	7.80	
	74 Tetrachloroethene	164	6.881	6.889	-0.008	89	58829	10.0	13.3	
	76 2-Hexanone	43	6.975	6.984	-0.009	99	156989	20.0	16.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
78 Chlorodibromomethane	129	7.117	7.114	0.003	90	71692	10.0	10.3	
82 Chlorobenzene	112	7.673	7.670	0.003	91	205172	10.0	10.1	
84 Ethylbenzene	106	7.768	7.764	0.004	98	121243	10.0	10.7	
85 m-Xylene & p-Xylene	106	7.874	7.883	-0.009	98	145293	10.0	10.8	
86 o-Xylene	106	8.253	8.249	0.004	92	134952	10.0	10.7	
87 Styrene	104	8.265	8.261	0.004	89	217817	10.0	9.69	
88 Bromoform	173	8.442	8.439	0.003	92	34254	10.0	9.30	
92 1,1,2,2-Tetrachloroethane	83	8.891	8.888	0.003	75	78464	10.0	7.04	
104 1,3-Dichlorobenzene	146	9.802	9.799	0.003	96	139142	10.0	10.8	
106 1,4-Dichlorobenzene	146	9.885	9.894	-0.009	90	141110	10.0	10.8	
110 1,2-Dichlorobenzene	146	10.252	10.248	0.004	94	142784	10.0	11.1	
113 1,2,4-Trichlorobenzene	180	11.837	11.845	-0.008	92	76642	10.0	13.5	
S 128 1,2-Dichloroethene, Total	96				0			20.2	
S 130 Xylenes, Total	106				0		20.0	21.6	

Reagents:

VMFASPW_00359	Amount Added:	8.00	Units: uL	
VMFASAW_00336	Amount Added:	8.00	Units: uL	
VMFASGW_00368	Amount Added:	8.00	Units: uL	
VM50IS_00084	Amount Added:	1.00	Units: uL	Run Reagent
vm50ss_stk_00085	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00176	Amount Added:	0.00	Units:	Run Reagent

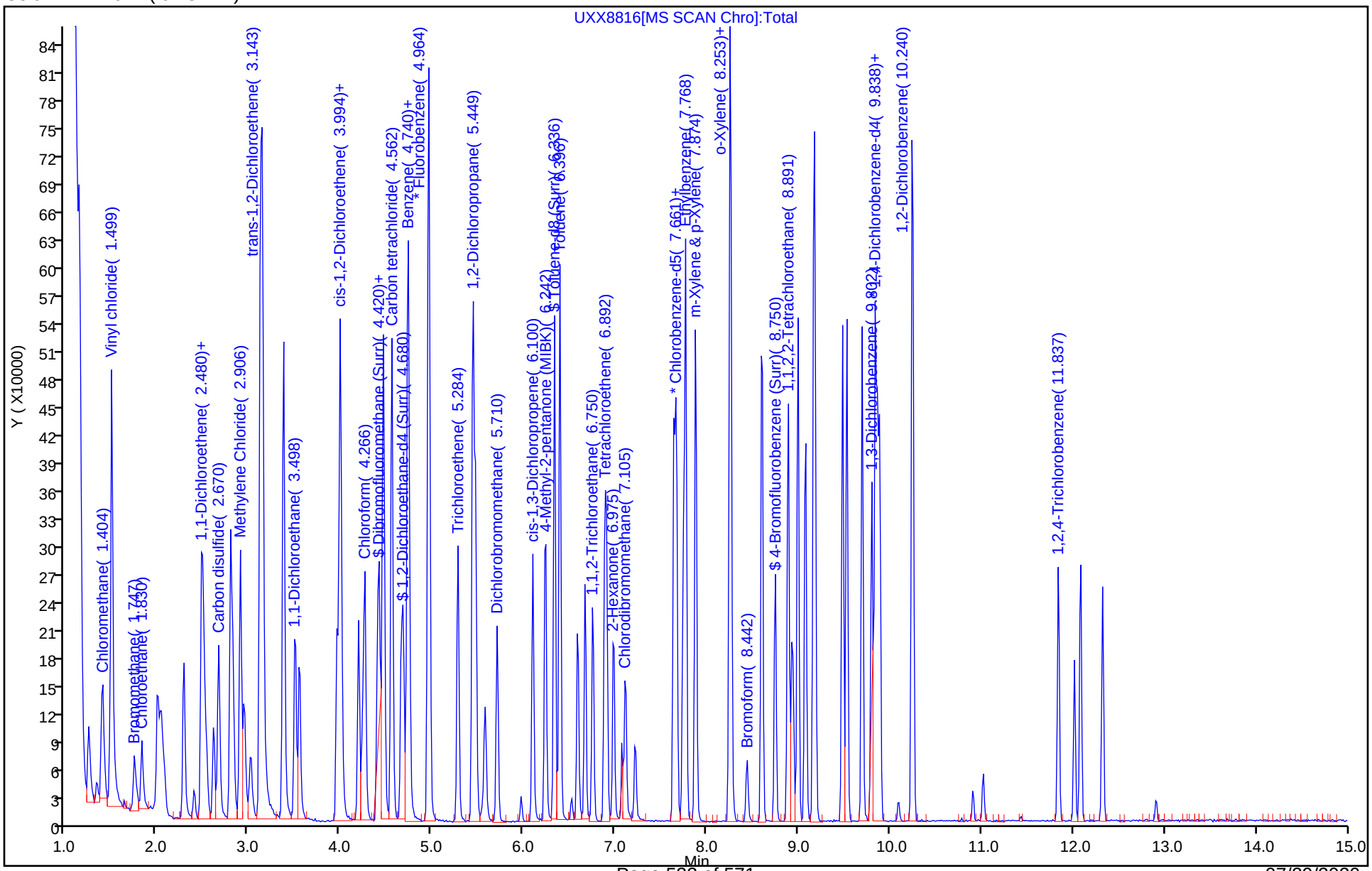
Report Date: 24-Jul-2020 11:32:13 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8816.D

Injection Date:	23-Jul-2020 16:03:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	240-133570-E-1 MS			Worklist Smp#:	9
Client ID:	MW-202C-96				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8816.D
Lims ID: 240-133570-E-1 MS
Client ID: MW-202C-96
Sample Type: MS
Inject. Date: 23-Jul-2020 16:03:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-009
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	10.2	102.31
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.18
$ 6 Toluene-d8 (Surr)	10.0	9.38	93.83
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.63	96.27

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-133595-C-3-C MSD

Matrix: Solid Lab File ID: 1425545.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5.22(g) Date Analyzed: 07/22/2020 17:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 32.4 Level: (low/med) Low

Analysis Batch No.: 443733 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	186		35	30
75-15-0	Carbon disulfide	77.5		7.1	1.6
108-90-7	Chlorobenzene	63.7		7.1	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	67		59-120
460-00-4	4-Bromofluorobenzene (Surr)	96		51-127
2037-26-5	Toluene-d8 (Surr)	89		64-124
1868-53-7	Dibromofluoromethane (Surr)	75		56-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425545.D
Lims ID: 240-133595-C-3-C MSD
Client ID: 2020AN-SED-03
Sample Type: MSD
Inject. Date: 22-Jul-2020 17:52:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-133595-c-3-c msd
Misc. Info.: 240-0100262-016
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 23-Jul-2020 11:33:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	6.228	6.228	0.000	99	1118817	50.0	50.0	
* 2 Chlorobenzene-d5	117	9.222	9.222	0.000	97	862754	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.222	11.222	0.000	97	400036	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	113	5.376	5.376	0.000	91	268190	50.0	37.4	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	5.802	5.802	0.000	99	305384	50.0	33.7	
$ 6 Toluene-d8 (Surr)	98	7.909	7.908	0.001	94	1079980	50.0	44.6	
$ 7 4-Bromofluorobenzene (Surr)	95	10.240	10.240	0.000	0	312668	50.0	47.9	
24 Acetone	43	2.300	2.300	0.000	99	295621	100.0	131.4	
26 Carbon disulfide	76	2.430	2.430	0.000	100	1521010	50.0	54.7	E
85 Chlorobenzene	112	9.246	9.246	0.000	98	773546	50.0	45.0	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

VMFASAW_00336	Amount Added:	5.00	Units: uL	
VMFASPW_00359	Amount Added:	5.00	Units: uL	
VMFASGW_00368	Amount Added:	2.00	Units: uL	
VM250SS_00058	Amount Added:	1.00	Units: uL	Run Reagent
VM568718_00018	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00175	Amount Added:	0.00	Units:	Run Reagent

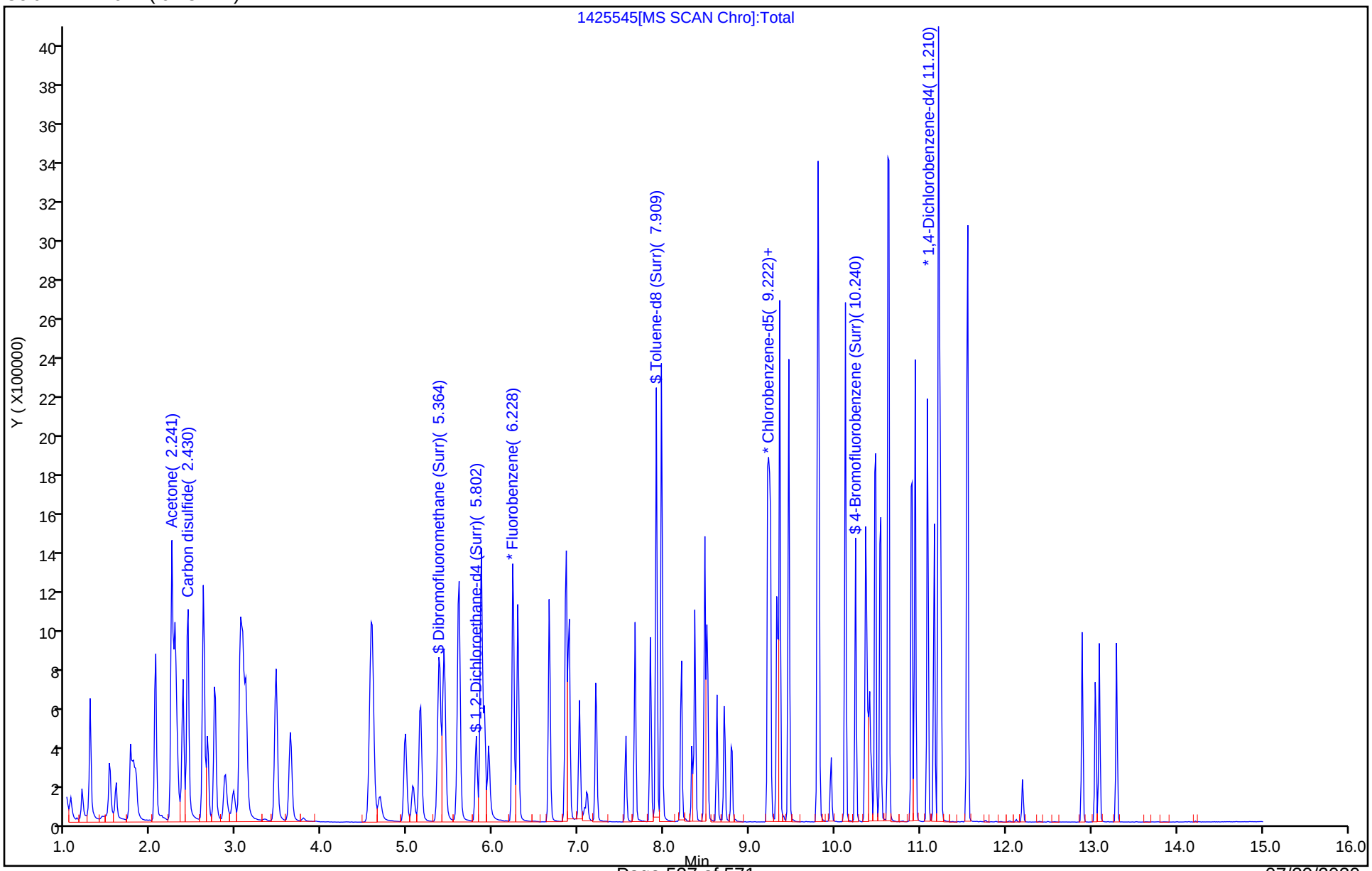
Report Date: 23-Jul-2020 11:55:42 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425545.D

Injection Date:	22-Jul-2020 17:52:30	Instrument ID:	A3UX14	Operator ID:	002808
Lims ID:	240-133595-C-3-C MSD			Worklist Smp#:	16
Client ID:	2020AN-SED-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8260_14	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\1425545.D
Lims ID: 240-133595-C-3-C MSD
Client ID: 2020AN-SED-03
Sample Type: MSD
Inject. Date: 22-Jul-2020 17:52:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-133595-c-3-c msd
Misc. Info.: 240-0100262-016
Operator ID: 002808 Instrument ID: A3UX14

Method: \\chromfs\Canton\ChromData\A3UX14\20200722-100262.b\8260_14.m
Limit Group: MSV 8260B ICAL
Last Update: 23-Jul-2020 11:55:10 Calib Date: 20-Apr-2020 17:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX14\20200420-97619.b\1424366.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1017

First Level Reviewer: macenczaks Date: 23-Jul-2020 11:33:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	37.4	74.83
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	33.7	67.41
$ 6 Toluene-d8 (Surr)	50.0	44.6	89.12
$ 7 4-Bromofluorobenzene (Surr)	50.0	47.9	95.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-133570-F-1 MSD

Matrix: Water Lab File ID: UXX8817.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 16:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	10.1		1.0	0.41
107-06-2	1,2-Dichloroethane	10.5		1.0	0.43
75-35-4	1,1-Dichloroethene	11.4		1.0	0.46
78-87-5	1,2-Dichloropropane	10.2		1.0	0.37
591-78-6	2-Hexanone	16.4		10	2.1
79-34-5	1,1,2,2-Tetrachloroethane	7.11		1.0	0.56
67-64-1	Acetone	16.4		10	5.4
71-43-2	Benzene	9.15		1.0	0.38
75-25-2	Bromoform	9.08		1.0	0.76
74-83-9	Bromomethane	9.96		1.0	0.42
75-15-0	Carbon disulfide	9.75		1.0	0.28
56-23-5	Carbon tetrachloride	14.6		1.0	0.26
71-55-6	1,1,1-Trichloroethane	14.1		1.0	0.24
108-90-7	Chlorobenzene	10.6		1.0	0.32
75-00-3	Chloroethane	11.0		1.0	0.83
67-66-3	Chloroform	10.6		1.0	0.40
74-87-3	Chloromethane	16.1		1.0	0.64
156-59-2	cis-1,2-Dichloroethene	9.84		1.0	0.38
10061-01-5	cis-1,3-Dichloropropene	8.96		1.0	0.61
75-27-4	Bromodichloromethane	10.2		1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	13.8		1.0	0.81
100-41-4	Ethylbenzene	10.8		1.0	0.39
95-50-1	1,2-Dichlorobenzene	10.9		1.0	0.43
541-73-1	1,3-Dichlorobenzene	10.9		1.0	0.40
106-46-7	1,4-Dichlorobenzene	10.5		1.0	0.37
78-93-3	2-Butanone (MEK)	15.5		10	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	17.3		10	2.1
75-09-2	Methylene Chloride	10.2		5.0	1.3
100-42-5	Styrene	9.60		1.0	0.40
127-18-4	Tetrachloroethene	13.7		1.0	0.33
108-88-3	Toluene	9.88		1.0	0.35
156-60-5	trans-1,2-Dichloroethene	10.9		1.0	0.43
79-01-6	Trichloroethene	10.8		1.0	0.36
75-01-4	Vinyl chloride	13.6		1.0	0.50
1330-20-7	Xylenes, Total	21.6		2.0	0.42
124-48-1	Chlorodibromomethane	10.0		1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-133570-F-1 MSD

Matrix: Water Lab File ID: UXX8817.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/23/2020 16:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 443947 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		75-130
460-00-4	4-Bromofluorobenzene (Surr)	101		47-134
2037-26-5	Toluene-d8 (Surr)	97		69-122
1868-53-7	Dibromofluoromethane (Surr)	106		78-129

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8817.D
Lims ID: 240-133570-F-1 MSD
Client ID: MW-202C-96
Sample Type: MSD
Inject. Date: 23-Jul-2020 16:28:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-010
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.974	4.964	0.010	98	322993	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.636	7.637	-0.001	90	204004	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.871	9.861	0.010	96	90995	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.406	4.405	0.001	92	80351	10.0	10.6	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.690	4.689	0.001	94	113420	10.0	10.2	
$ 6 Toluene-d8 (Surr)	98	6.334	6.333	0.001	95	303106	10.0	9.66	
$ 7 4-Bromofluorobenzene (Surr)	95	8.748	8.746	0.002	80	99276	10.0	10.1	
10 Chloromethane	50	1.402	1.401	0.001	99	230923	10.0	16.1	
11 Vinyl chloride	62	1.485	1.483	0.002	97	143484	10.0	13.6	
13 Bromomethane	94	1.745	1.744	0.001	89	50023	10.0	9.96	
14 Chloroethane	64	1.828	1.827	0.002	94	62372	10.0	11.0	
19 1,1-Dichloroethene	96	2.478	2.489	-0.011	90	86808	10.0	11.4	
21 Acetone	43	2.538	2.536	0.002	99	71617	20.0	16.4	
24 Carbon disulfide	76	2.668	2.666	0.002	100	260206	10.0	9.75	
28 Methylene Chloride	84	2.904	2.903	0.001	89	95769	10.0	10.2	
30 trans-1,2-Dichloroethene	96	3.141	3.139	0.002	91	96249	10.0	10.9	
34 1,1-Dichloroethane	63	3.507	3.506	0.001	96	210940	10.0	10.1	
40 cis-1,2-Dichloroethene	96	3.992	3.991	0.001	90	96668	10.0	9.84	
41 2-Butanone (MEK)	43	4.016	4.015	0.001	96	109718	20.0	15.5	
47 Chloroform	83	4.265	4.263	0.001	98	161862	10.0	10.6	
48 1,1,1-Trichloroethane	97	4.418	4.417	0.001	95	136744	10.0	14.1	
51 Carbon tetrachloride	117	4.560	4.559	0.001	89	112943	10.0	14.6	
53 Benzene	78	4.738	4.736	0.002	94	365573	10.0	9.15	
54 1,2-Dichloroethane	62	4.749	4.748	0.001	95	154321	10.0	10.5	
58 Trichloroethene	130	5.282	5.280	0.002	94	89775	10.0	10.8	
61 1,2-Dichloropropane	63	5.471	5.470	0.001	95	128455	10.0	10.2	
65 Dichlorobromomethane	83	5.708	5.706	0.002	97	115979	10.0	10.2	
68 cis-1,3-Dichloropropene	75	6.098	6.097	0.001	90	140080	10.0	8.96	
69 4-Methyl-2-pentanone (MIBK)	43	6.240	6.239	0.001	96	252541	20.0	17.3	
70 Toluene	91	6.394	6.392	0.002	97	369003	10.0	9.88	
73 1,1,2-Trichloroethane	97	6.760	6.759	0.001	95	68768	10.0	8.69	
74 Tetrachloroethene	164	6.890	6.889	0.001	88	59318	10.0	13.7	
76 2-Hexanone	43	6.985	6.984	0.001	97	152952	20.0	16.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
78 Chlorodibromomethane	129	7.115	7.114	0.001	90	68569	10.0	10.0	
82 Chlorobenzene	112	7.671	7.670	0.001	91	210719	10.0	10.6	
84 Ethylbenzene	106	7.766	7.764	0.002	99	119938	10.0	10.8	
85 m-Xylene & p-Xylene	106	7.872	7.883	-0.011	98	139967	10.0	10.6	
86 o-Xylene	106	8.251	8.249	0.002	97	135772	10.0	11.0	
87 Styrene	104	8.263	8.261	0.002	89	212237	10.0	9.60	
88 Bromoform	173	8.440	8.439	0.001	94	32931	10.0	9.08	
92 1,1,2,2-Tetrachloroethane	83	8.889	8.888	0.001	75	78198	10.0	7.11	
104 1,3-Dichlorobenzene	146	9.800	9.799	0.001	96	139253	10.0	10.9	
106 1,4-Dichlorobenzene	146	9.883	9.894	-0.011	91	135594	10.0	10.5	
110 1,2-Dichlorobenzene	146	10.250	10.248	0.002	91	138598	10.0	10.9	
113 1,2,4-Trichlorobenzene	180	11.847	11.845	0.002	94	77150	10.0	13.8	
S 128 1,2-Dichloroethene, Total	96				0			20.7	
S 130 Xylenes, Total	106				0		20.0	21.6	

Reagents:

VMFASAW_00336	Amount Added:	8.00	Units: uL	
VMFASGW_00368	Amount Added:	8.00	Units: uL	
VMFASPW_00359	Amount Added:	8.00	Units: uL	
VM50IS_00084	Amount Added:	1.00	Units: uL	Run Reagent
vm50ss_stk_00085	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
vmDist_H2o_00176	Amount Added:	0.00	Units:	Run Reagent

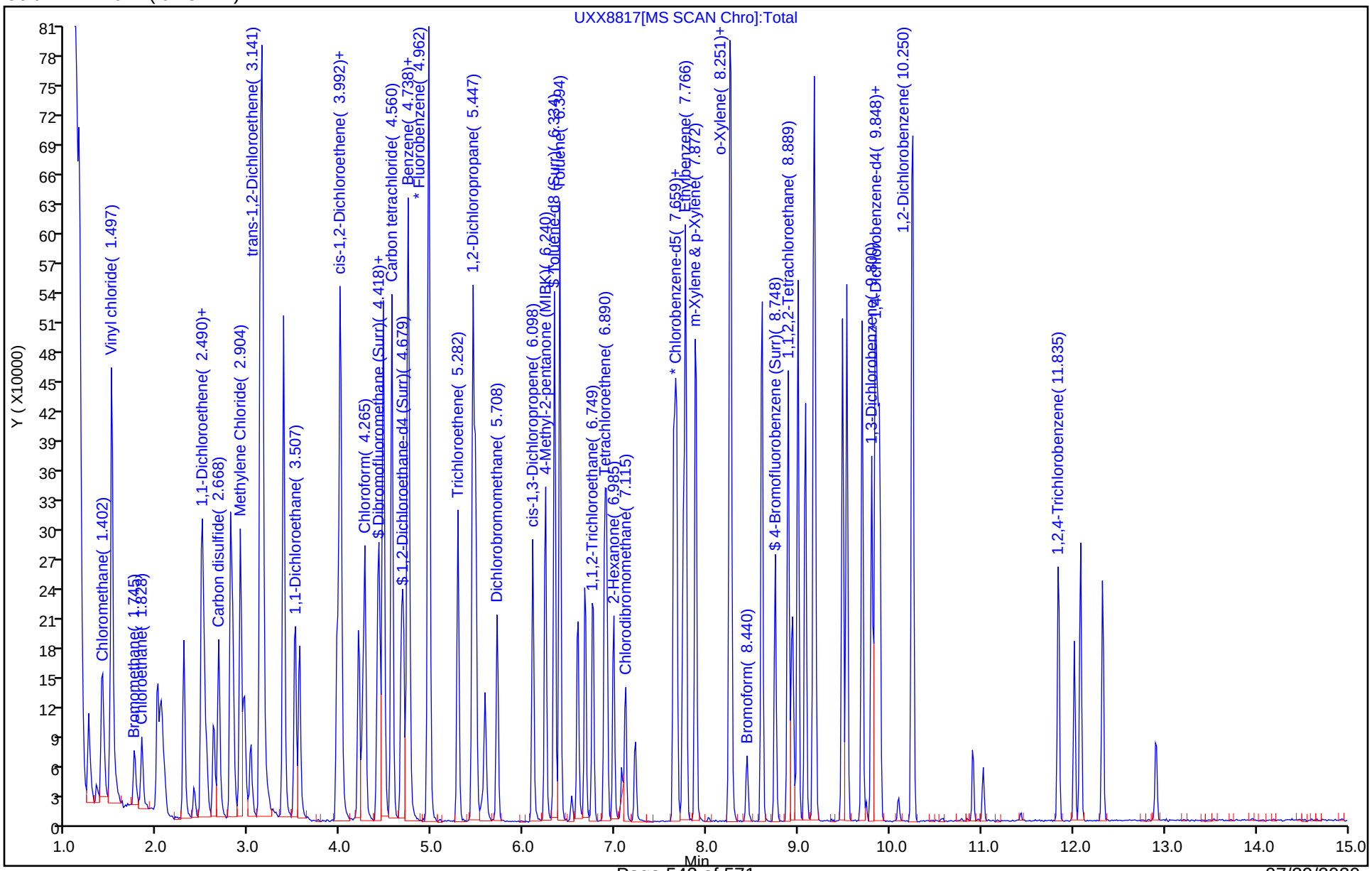
Report Date: 24-Jul-2020 11:32:15 Chrom Revision: 2.3 30-Jun-2020 12:05:54

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8817.D

Injection Date:	23-Jul-2020 16:28:30	Instrument ID:	A3UX10	Operator ID:	001644
Lims ID:	240-133570-F-1 MSD			Worklist Smp#:	10
Client ID:	MW-202C-96				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8260_10	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\UXX8817.D
Lims ID: 240-133570-F-1 MSD
Client ID: MW-202C-96
Sample Type: MSD
Inject. Date: 23-Jul-2020 16:28:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0100306-010
Operator ID: 001644 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20200723-100306.b\8260_10.m
Limit Group: MSV 8260B ICAL
Last Update: 24-Jul-2020 11:31:39 Calib Date: 15-Jan-2020 20:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX10\20200115-94937.b\UXX5188.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1042

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	10.6	106.43
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.31
$ 6 Toluene-d8 (Surr)	10.0	9.66	96.63
$ 7 4-Bromofluorobenzene (Surr)	10.0	10.1	100.53

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX10 Start Date: 01/15/2020 14:40

Analysis Batch Number: 419116 End Date: 01/15/2020 21:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-419116/1		01/15/2020 14:40	1	BFB1718.D	DB-624 0.18(mm)
STD8260 240-419116/2 IC		01/15/2020 15:09	1	UXX5174.D	DB-624 0.18(mm)
STD8260 240-419116/3 IC		01/15/2020 15:34	1	UXX5175.D	DB-624 0.18(mm)
STD8260 240-419116/4 ICIS		01/15/2020 16:00	1	UXX5176.D	DB-624 0.18(mm)
STD8260 240-419116/5 IC		01/15/2020 16:25	1	UXX5177.D	DB-624 0.18(mm)
STD8260 240-419116/6 IC		01/15/2020 16:50	1	UXX5178.D	DB-624 0.18(mm)
STD8260 240-419116/7 IC		01/15/2020 17:15	1	UXX5179.D	DB-624 0.18(mm)
STD8260 240-419116/8 IC		01/15/2020 17:40	1	UXX5180.D	DB-624 0.18(mm)
ICV 240-419116/9		01/15/2020 18:04	1	UXX5181.D	DB-624 0.18(mm)
STDA9 240-419116/10 IC		01/15/2020 18:29	1	UXX5182.D	DB-624 0.18(mm)
STDA9 240-419116/11 IC		01/15/2020 18:54	1	UXX5183.D	DB-624 0.18(mm)
STDA9 240-419116/12 IC		01/15/2020 19:19	1	UXX5184.D	DB-624 0.18(mm)
STDA9 240-419116/13 IC		01/15/2020 19:44	1	UXX5185.D	DB-624 0.18(mm)
STDA9 240-419116/14 IC		01/15/2020 20:09	1	UXX5186.D	DB-624 0.18(mm)
STDA9 240-419116/15 IC		01/15/2020 20:34	1	UXX5187.D	DB-624 0.18(mm)
STDA9 240-419116/16 IC		01/15/2020 20:59	1	UXX5188.D	DB-624 0.18(mm)
ICV 240-419116/17		01/15/2020 21:24	1	UXX5189.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX14 Start Date: 03/19/2020 14:52

Analysis Batch Number: 427472 End Date: 03/19/2020 20:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-427472/17		03/19/2020 14:52	1	BFB14138.D	DB-624 0.18(mm)
IC 240-427472/3		03/19/2020 15:34	1	1424107.D	DB-624 0.18(mm)
IC 240-427472/4		03/19/2020 15:57	1	1424108.D	DB-624 0.18(mm)
IC 240-427472/5		03/19/2020 16:19	1	1424109.D	DB-624 0.18(mm)
ICIS 240-427472/6		03/19/2020 16:41	1	1424110.D	DB-624 0.18(mm)
IC 240-427472/7		03/19/2020 17:03	1	1424111.D	DB-624 0.18(mm)
IC 240-427472/8		03/19/2020 17:25	1	1424112.D	DB-624 0.18(mm)
IC 240-427472/9		03/19/2020 17:47	1	1424113.D	DB-624 0.18(mm)
IC 240-427472/10		03/19/2020 18:10	1	1424114.D	DB-624 0.18(mm)
IC 240-427472/11		03/19/2020 18:32	1	1424115.D	DB-624 0.18(mm)
ICV 240-427472/12		03/19/2020 18:54	1		DB-624 0.18(mm)
ZZZZZ		03/19/2020 19:16	1		DB-624 0.18(mm)
ZZZZZ		03/19/2020 19:39	1		DB-624 0.18(mm)
ZZZZZ		03/19/2020 20:01	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX14 Start Date: 03/20/2020 10:36

Analysis Batch Number: 427647 End Date: 03/20/2020 22:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-427647/1		03/20/2020 10:36	1	BFB14139.D	DB-624 0.18(mm)
CCVIS 240-427647/3		03/20/2020 11:19	1		DB-624 0.18(mm)
IC 240-427647/4		03/20/2020 11:42	1	1424122.D	DB-624 0.18(mm)
IC 240-427647/5		03/20/2020 12:04	1	1424123.D	DB-624 0.18(mm)
IC 240-427647/6		03/20/2020 12:26	1	1424124.D	DB-624 0.18(mm)
IC 240-427647/7		03/20/2020 12:48	1	1424125.D	DB-624 0.18(mm)
IC 240-427647/8		03/20/2020 13:11	1	1424126.D	DB-624 0.18(mm)
IC 240-427647/9		03/20/2020 13:33	1	1424127.D	DB-624 0.18(mm)
IC 240-427647/10		03/20/2020 13:55	1	1424128.D	DB-624 0.18(mm)
IC 240-427647/11		03/20/2020 14:17	1	1424129.D	DB-624 0.18(mm)
IC 240-427647/12		03/20/2020 14:39	1	1424130.D	DB-624 0.18(mm)
ICV 240-427647/13		03/20/2020 15:02	1	1424131.D	DB-624 0.18(mm)
ZZZZZ		03/20/2020 15:24	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 15:46	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 16:08	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 16:30	1		DB-624 0.18(mm)
240-124436-A-2-A MDLV		03/20/2020 16:53	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 19:50	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 20:13	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 20:35	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 20:57	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 21:19	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 21:41	1		DB-624 0.18(mm)
ZZZZZ		03/20/2020 22:04	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX14 Start Date: 04/20/2020 13:56

Analysis Batch Number: 431364 End Date: 04/20/2020 19:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-431364/19		04/20/2020 13:56	1	BFB14153.D	DB-624 0.18(mm)
IC 240-431364/3		04/20/2020 14:38	1	1424358.D	DB-624 0.18(mm)
IC 240-431364/4		04/20/2020 15:00	1	1424359.D	DB-624 0.18(mm)
IC 240-431364/5		04/20/2020 15:22	1	1424360.D	DB-624 0.18(mm)
ICIS 240-431364/6		04/20/2020 15:45	1	1424361.D	DB-624 0.18(mm)
IC 240-431364/7		04/20/2020 16:07	1	1424362.D	DB-624 0.18(mm)
IC 240-431364/8		04/20/2020 16:29	1	1424363.D	DB-624 0.18(mm)
IC 240-431364/9		04/20/2020 16:51	1	1424364.D	DB-624 0.18(mm)
IC 240-431364/10		04/20/2020 17:13	1	1424365.D	DB-624 0.18(mm)
IC 240-431364/11		04/20/2020 17:35	1	1424366.D	DB-624 0.18(mm)
CCV 240-431364/12		04/20/2020 17:58	1		DB-624 0.18(mm)
ICV 240-431364/13		04/20/2020 18:20	1	1424368.D	DB-624 0.18(mm)
ZZZZZ		04/20/2020 18:42	1		DB-624 0.18(mm)
ZZZZZ		04/20/2020 19:04	1		DB-624 0.18(mm)
ZZZZZ		04/20/2020 19:27	1		DB-624 0.18(mm)
ZZZZZ		04/20/2020 19:49	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX14 Start Date: 07/22/2020 12:18

Analysis Batch Number: 443733 End Date: 07/23/2020 00:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-443733/1		07/22/2020 12:18	1	BFB14195.D	DB-624 0.18(mm)
CCVIS 240-443733/3		07/22/2020 13:03	1	1425532.D	DB-624 0.18(mm)
CCV 240-443733/4		07/22/2020 13:25	1	1425533.D	DB-624 0.18(mm)
LCS 240-443733/5		07/22/2020 13:48	1	1425534.D	DB-624 0.18(mm)
LCS 240-443733/6		07/22/2020 14:10	1	1425535.D	DB-624 0.18(mm)
MB 240-443733/7		07/22/2020 14:32	1	1425536.D	DB-624 0.18(mm)
ZZZZZ		07/22/2020 14:54	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 15:17	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 15:39	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 16:01	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 16:23	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 16:46	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 17:08	1		DB-624 0.18(mm)
240-133595-C-3-B MS		07/22/2020 17:30	1	1425544.D	DB-624 0.18(mm)
240-133595-C-3-C MSD		07/22/2020 17:52	1	1425545.D	DB-624 0.18(mm)
ZZZZZ		07/22/2020 18:15	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 18:37	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 18:59	1		DB-624 0.18(mm)
ZZZZZ		07/22/2020 19:21	1		DB-624 0.18(mm)
240-133597-2		07/23/2020 00:10	1	1425562.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: A3UX10 Start Date: 07/23/2020 12:33

Analysis Batch Number: 443947 End Date: 07/24/2020 00:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-443947/1		07/23/2020 12:33	1	BFB1897.D	DB-624 0.18(mm)
CCVIS 240-443947/2		07/23/2020 12:58	1	UXX8809.D	DB-624 0.18(mm)
CCV 240-443947/3		07/23/2020 13:23	1	UXX8810.D	DB-624 0.18(mm)
LCS 240-443947/4		07/23/2020 13:48	1	UXX8811.D	DB-624 0.18(mm)
MRL 240-443947/5 MDLV		07/23/2020 14:13	1		DB-624 0.18(mm)
MRL 240-443947/6 MDLV		07/23/2020 14:39	1		DB-624 0.18(mm)
MB 240-443947/7		07/23/2020 15:04	1	UXX8814.D	DB-624 0.18(mm)
ZZZZZ		07/23/2020 15:29	1		DB-624 0.18(mm)
240-133570-E-1 MS		07/23/2020 16:03	1	UXX8816.D	DB-624 0.18(mm)
240-133570-F-1 MSD		07/23/2020 16:28	1	UXX8817.D	DB-624 0.18(mm)
ZZZZZ		07/23/2020 16:53	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 17:18	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 17:43	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 18:08	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 18:33	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 18:58	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 19:23	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 19:48	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 20:13	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 20:38	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 21:03	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 21:28	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 21:53	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 22:18	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 22:43	1		DB-624 0.18(mm)
ZZZZZ		07/23/2020 23:08	1		DB-624 0.18(mm)
240-133597-1		07/23/2020 23:33	1	UXX8834.D	DB-624 0.18(mm)
ZZZZZ		07/23/2020 23:58	1		DB-624 0.18(mm)
ZZZZZ		07/24/2020 00:23	1		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 419116 Batch Start Date: 01/15/20 14:40 Batch Analyst: Williams, Larry

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	VM50IS 00080	vm50ss 00387	VMAROLISTDW 00328	vmbfb 00024
BFB 240-419116/1		8260B		5 mL	5 mL				1 uL
STD8260 240-419116/2 IC		8260B		5 mL	5 mL	1 uL	32 uL		
STD8260 240-419116/3 IC		8260B		5 mL	5 mL	1 uL	16 uL		
STD8260 240-419116/4 ICIS		8260B		5 mL	5 mL	1 uL	8 uL		
STD8260 240-419116/5 IC		8260B		5 mL	5 mL	1 uL	4 uL		
STD8260 240-419116/6 IC		8260B		5 mL	5 mL	1 uL	3.2 uL		
STD8260 240-419116/7 IC		8260B		5 mL	5 mL	1 uL	1.6 uL		
STD8260 240-419116/8 IC		8260B		5 mL	5 mL	1 uL	0.8 uL		
ICV 240-419116/9		8260B		5 mL	5 mL	1 uL	8 uL	8 uL	
STDA9 240-419116/10 IC		8260B		5 mL	5 mL	1 uL			
STDA9 240-419116/11 IC		8260B		5 mL	5 mL	1 uL			
STDA9 240-419116/12 IC		8260B		5 mL	5 mL	1 uL			
STDA9 240-419116/13 IC		8260B		5 mL	5 mL	1 uL			
STDA9 240-419116/14 IC		8260B		5 mL	5 mL	1 uL			
STDA9 240-419116/15 IC		8260B		5 mL	5 mL	1 uL			
STDA9 240-419116/16 IC		8260B		5 mL	5 mL	1 uL			
ICV 240-419116/17		8260B		5 mL	5 mL	1 uL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 419116 Batch Start Date: 01/15/20 14:40 Batch Analyst: Williams, Larry

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMFASA9W 00261	VMFASAW 00312	VMFASGW 00343	VMFASPW 00334	VMRA9W 00329	VMRGAS 00323
BFB 240-419116/1		8260B							
STD8260 240-419116/2 IC		8260B			32 uL				32 uL
STD8260 240-419116/3 IC		8260B			16 uL				16 uL
STD8260 240-419116/4 ICIS		8260B			8 uL				8 uL
STD8260 240-419116/5 IC		8260B			4 uL				4 uL
STD8260 240-419116/6 IC		8260B			3.2 uL				3.2 uL
STD8260 240-419116/7 IC		8260B			1.6 uL				1.6 uL
STD8260 240-419116/8 IC		8260B			0.8 uL				0.8 uL
ICV 240-419116/9		8260B				8 uL	8 uL		
STDA9 240-419116/10 IC		8260B						32 uL	
STDA9 240-419116/11 IC		8260B						16 uL	
STDA9 240-419116/12 IC		8260B						8 uL	
STDA9 240-419116/13 IC		8260B						4 uL	
STDA9 240-419116/14 IC		8260B						3.2 uL	
STDA9 240-419116/15 IC		8260B						1.6 uL	
STDA9 240-419116/16 IC		8260B						0.8 uL	
ICV 240-419116/17		8260B		8 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 419116 Batch Start Date: 01/15/20 14:40 Batch Analyst: Williams, Larry

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00369					
BFB 240-419116/1		8260B							
STD8260 240-419116/2 IC		8260B		32 uL					
STD8260 240-419116/3 IC		8260B		16 uL					
STD8260 240-419116/4 ICIS		8260B		8 uL					
STD8260 240-419116/5 IC		8260B		4 uL					
STD8260 240-419116/6 IC		8260B		3.2 uL					
STD8260 240-419116/7 IC		8260B		1.6 uL					
STD8260 240-419116/8 IC		8260B		0.8 uL					
ICV 240-419116/9		8260B							
STDA9 240-419116/10 IC		8260B							
STDA9 240-419116/11 IC		8260B							
STDA9 240-419116/12 IC		8260B							
STDA9 240-419116/13 IC		8260B							
STDA9 240-419116/14 IC		8260B							
STDA9 240-419116/15 IC		8260B							
STDA9 240-419116/16 IC		8260B							
ICV 240-419116/17		8260B							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 419116 Batch Start Date: 01/15/20 14:40 Batch Analyst: Williams, Larry

Batch Method: 8260B Batch End Date:

Batch Notes	
pH Indicator ID	HC861525

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443733 Batch Start Date: 07/22/20 12:18 Batch Analyst: Macenczak, Steven

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	VM250SS 00058	VM568718 00018	VMAROLISTDW 00353	vmbfb 00025
BFB 240-443733/1		8260B		5 mL	5 mL				1 uL
CCVIS 240-443733/3		8260B		5 mL	5 mL	1 uL	1 uL	5 uL	
CCV 240-443733/4		8260B		5 mL	5 mL		1 uL		
LCS 240-443733/5		8260B		5 g	5 mL	1 uL	1 uL		
LCS 240-443733/6		8260B		5 g	5 mL	1 uL	1 uL		
MB 240-443733/7		8260B		5 g	5 mL	1 uL	1 uL		
240-133595-C-3-B MS	2020AN-SED-03	8260B	T	5 g	5 mL	1 uL	1 uL		
240-133595-C-3-C MSD	2020AN-SED-03	8260B	T	5 g	5 mL	1 uL	1 uL		
240-133597-B-2-A	MRC-MW-164B-15-20	8260B	T	5 g	5 mL	1 uL	1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMFASA9W 00285	VMFASAW 00336	VMFASGW 00368	VMFASPW 00359	VMRA9W 00353	VMRGAS 00347
BFB 240-443733/1		8260B							
CCVIS 240-443733/3		8260B							2 uL
CCV 240-443733/4		8260B						5 uL	
LCS 240-443733/5		8260B			5 uL	2 uL	5 uL		
LCS 240-443733/6		8260B		5 uL					
MB 240-443733/7		8260B							
240-133595-C-3-B MS	2020AN-SED-03	8260B	T		5 uL	2 uL	5 uL		
240-133595-C-3-C MSD	2020AN-SED-03	8260B	T		5 uL	2 uL	5 uL		
240-133597-B-2-A	MRC-MW-164B-15-20	8260B	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00394					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443733 Batch Start Date: 07/22/20 12:18 Batch Analyst: Macenczak, Steven

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00394					
BFB 240-443733/1		8260B							
CCVIS 240-443733/3		8260B		5 uL					
CCV 240-443733/4		8260B							
LCS 240-443733/5		8260B							
LCS 240-443733/6		8260B							
MB 240-443733/7		8260B							
240-133595-C-3-B MS	2020AN-SED-03	8260B	T						
240-133595-C-3-C MSD	2020AN-SED-03	8260B	T						
240-133597-B-2-A	MRC-MW-164B-15-20	8260B	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443751 Batch Start Date: 07/22/20 13:48 Batch Analyst: Macenczak, Steven

Batch Method: 5030A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
240-133595-C-3 MS		5030A, 8260B	T	5.46 g	5 mL				
240-133595-C-3 MSD		5030A, 8260B	T	5.22 g	5 mL				
240-133597-B-2	MRC-MW-164B-15-20	5030A, 8260B	T	5.23 g	5 mL				

Batch Notes	
Balance ID	B050
Blank Matrix ID	195327
Vial Lot Number	4771193

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443947 Batch Start Date: 07/23/20 12:33 Batch Analyst: Williams, Larry

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VM50IS 00084	vm50ss_stk 00085	VMAROLISTDW 00353
BFB 240-443947/1		8260B		5 mL	5 mL				
CCVIS 240-443947/2		8260B		5 mL	5 mL		1 uL	1 uL	8 uL
CCV 240-443947/3		8260B		5 mL	5 mL		1 uL		
LCS 240-443947/4		8260B		5 mL	5 mL		1 uL	1 uL	
MB 240-443947/7		8260B		5 mL	5 mL		1 uL	1 uL	
240-133570-E-1 MS	MW-202C-96	8260B	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-133570-F-1 MSD	MW-202C-96	8260B	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-133597-B-1	TB-071620	8260B	T	5 mL	5 mL	<2 SU	1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMBFB 00025	VMFASAW 00336	VMFASGW 00368	VMFASPW 00359	VMRA9W 00353	VMRGAS 00348
BFB 240-443947/1		8260B		1 uL					
CCVIS 240-443947/2		8260B							8 uL
CCV 240-443947/3		8260B						8 uL	
LCS 240-443947/4		8260B			8 uL	8 uL	8 uL		
MB 240-443947/7		8260B							
240-133570-E-1 MS	MW-202C-96	8260B	T		8 uL	8 uL	8 uL		
240-133570-F-1 MSD	MW-202C-96	8260B	T		8 uL	8 uL	8 uL		
240-133597-B-1	TB-071620	8260B	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00394					
BFB 240-443947/1		8260B							
CCVIS 240-443947/2		8260B		8 uL					
CCV 240-443947/3		8260B							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443947 Batch Start Date: 07/23/20 12:33 Batch Analyst: Williams, Larry

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00394					
LCS 240-443947/4		8260B							
MB 240-443947/7		8260B							
240-133570-E-1 MS	MW-202C-96	8260B	T						
240-133570-F-1 MSD	MW-202C-96	8260B	T						
240-133597-B-1	TB-071620	8260B	T						

Batch Notes	
pH Indicator ID	HC861525

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-133597-1

SDG No.:

Project: MRC Block E

Client Sample ID	Lab Sample ID
MRC-MW-164B-15-20	240-133597-2

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-133597-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-133597-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 07/22/2020 10:17 End Date: 07/22/2020 10:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				% Sol	Moist																									
ZZZZZZ			10:17	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 07/22/2020 10:17 End Date: 07/22/2020 10:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				% Sol	Moist																									
ZZZZZZ			10:17	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 07/22/2020 10:17 End Date: 07/22/2020 10:49

Lab Sample Id	D/F	Type	Time	Analytes																									
				% Sol	Moist																								
ZZZZZZ			10:17																										
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 07/22/2020 10:17 End Date: 07/22/2020 10:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				% Sol	Moist																									
ZZZZZZ			10:49																											
ZZZZZZ			10:49																											
ZZZZZZ			10:49																											
ZZZZZZ			10:49																											
ZZZZZZ			10:49																											
ZZZZZZ			10:49																											
240-133597-2 DU	1	T	10:49	X	X																									
240-133597-2	1	T	10:49	X	X																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-133597-1

SDG No.:

Batch Number: 443716 Batch Start Date: 07/22/20 10:17 Batch Analyst: Loeb, Brendan W

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-133597-A-2 DU	MRC-MW-164B-15-20	Moisture	T	4.2916 g	8.8235 g	8.1212 g			
240-133597-A-2	MRC-MW-164B-15-20	Moisture	T	4.2916 g	11.8598 g	10.6931 g			

Batch Notes	
Balance ID	B047
Date samples were placed in the oven	07/22/2020
Oven Temp In	104.5 Degrees C
Time samples were place in the oven	11:50
Date samples were removed from oven	07/21/2020
Oven Temp Out	104.1 Degrees C
Time Samples were removed from oven	03:10
Oven ID	002
Thermometer ID	Tempguard Box C #6
Temperature - Start - Uncorrected	104.8 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

4.3/5.2

Chain of Custody Record

273360

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Baltimore #201

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210 (0713)

Client Contact	Project Manager: Samantha Brenner	Site Contact: Josh Mullis	Date: 7/16/20	COC No:
Company Name: Tetra Tech	Tel/Fax: 301-528-3052	Lab Contact: Gordan	Carrier: Fed Ex	1 of 1 COCs
Address: 20251 Century Blvd. Suite 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3021	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — Standard			Lab Sampling:
Project Name: South of Building C				Job / SDG No.:
Site: MRC				
PO# 112EW9011				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs	Sample Specific Notes:
TB-071620	7/16/20	0000	Blank	water	2			X	
MRC-MW-164B-15-20	7/16/20	1330	Grab	Soil	1			X	

240-133597 Chain of Custody

7/16/20

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by:	Tetra Tech	7/16/20 1515	Received by:	FEDEX	7/16/20 1520
Relinquished by:	ETA	7/16/20 1700	Received by:	ETA	7-17-20 1000
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

07/29/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 133597**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Tamy Rapp

Cooler Received on 7-1-20 Opened on 7-17-20

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 74 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. 4.3 °C Corrected Cooler Temp. 5.2 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC911298
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Client: Josh Mullis
Tetra Tech, Inc.
20251 Century Blvd.
Suite 200
Germantown, MD 20874

Phone:

Fax:

Identifier: 041RH **Date Rec:** 08/12/2020 **Report Date:** 08/17/2020

Client Project #: 112IC09011 **Client Project Name:** South of Building C

Purchase Order #:

Analysis Requested: CENSUS, Miscellaneous

Reviewed By:



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Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Tetra Tech, Inc.**
Project: South of Building C

MI Project Number: **041RH**
Date Received: 08/12/2020

Sample Information

Client Sample ID:	**MRC-MW-164B-081120**
Sample Date:	08/11/2020
Units:	cells/mL
Analyst/Reviewer:	HT/HT

Dechlorinating Bacteria

Dehalococcoides	*DHC*	<5.00E-01
tceA Reductase	TCE	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	<5.00E-01
Vinyl Chloride Reductase	VCR	<5.00E-01

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **8/12/2020**

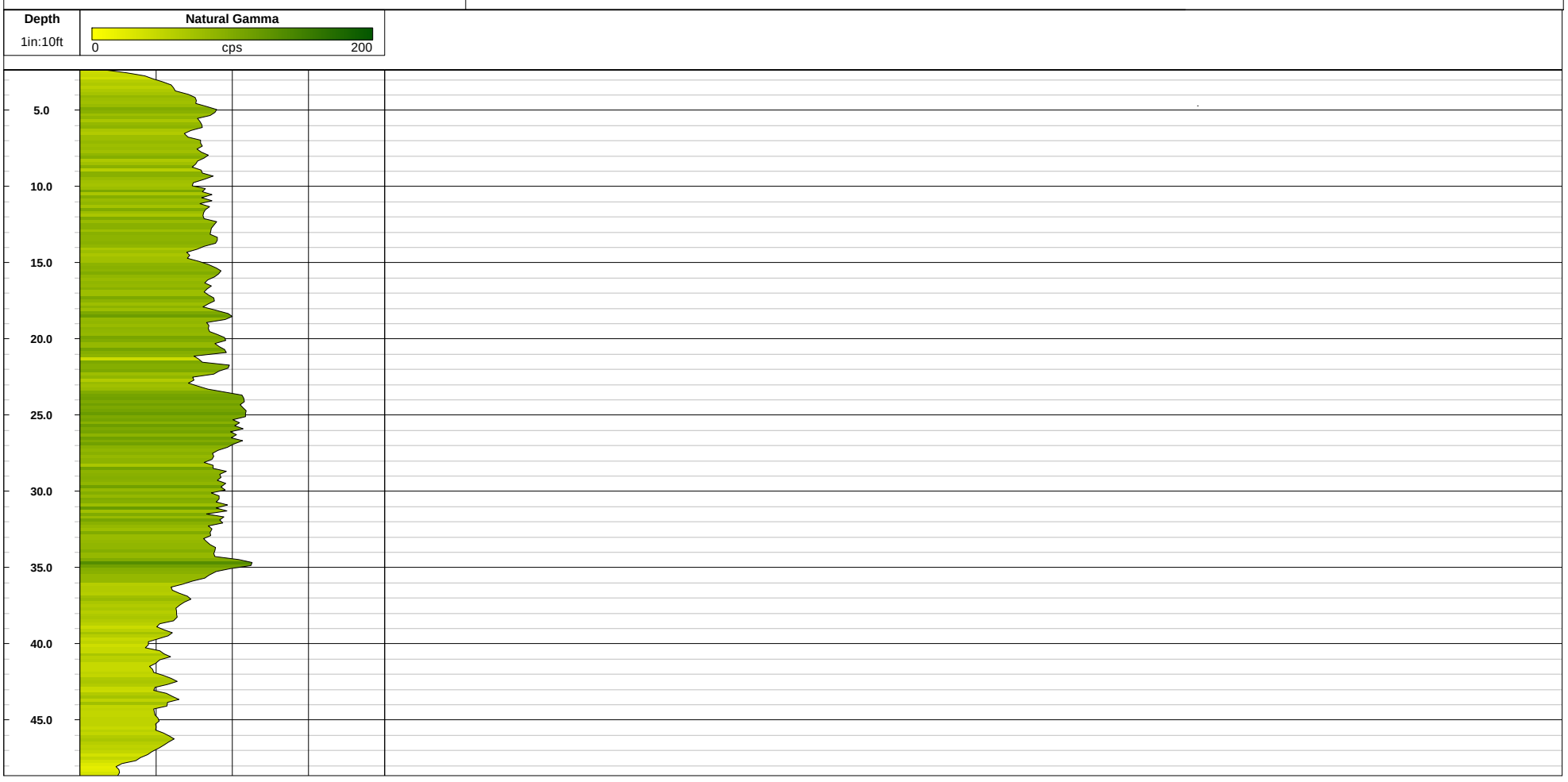
Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	08/12/2020	08/17/2020	1 °C	102%	non-detect	non-detect
BVC	08/12/2020	08/17/2020	1 °C	95%	non-detect	non-detect
TCE	08/12/2020	08/17/2020	1 °C	93%	non-detect	non-detect
VCR	08/12/2020	08/17/2020	1 °C	97%	non-detect	non-detect

APPENDIX G—NATURAL GAMMA LOGS, BLOCK I

Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-08B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

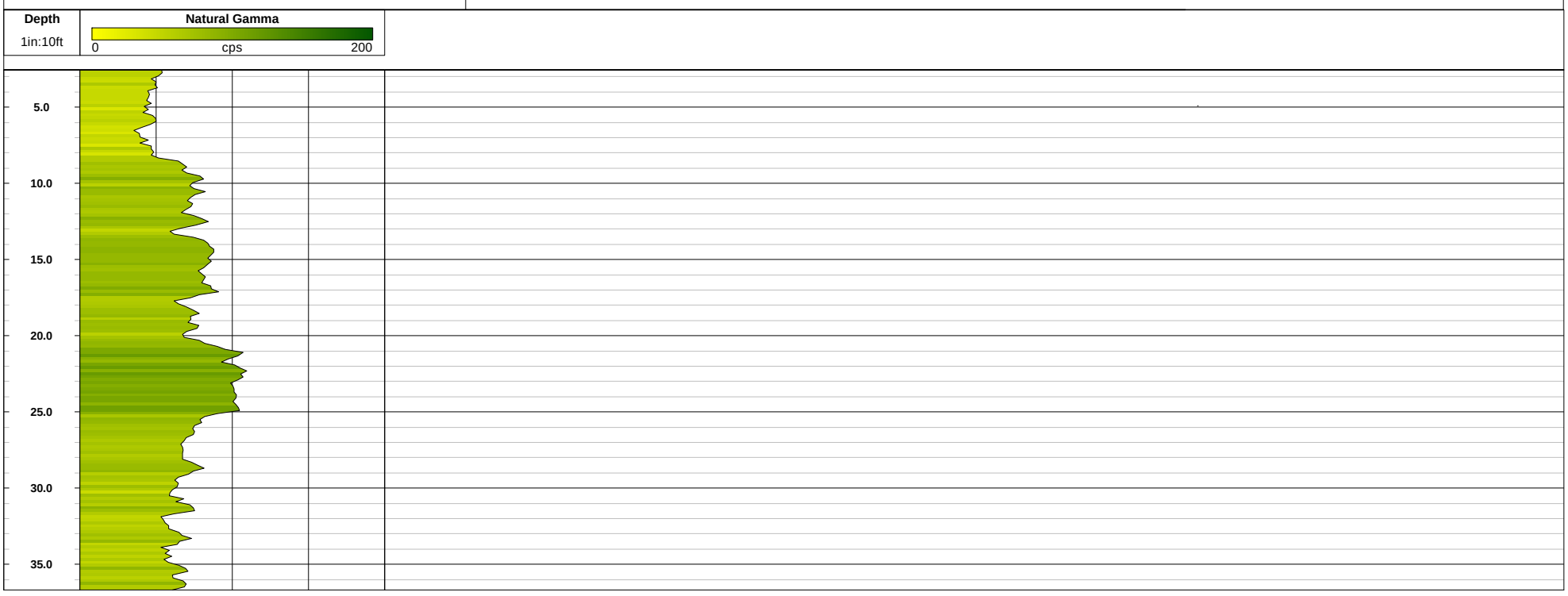
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **49.11'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-22B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **37.26'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-27C**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

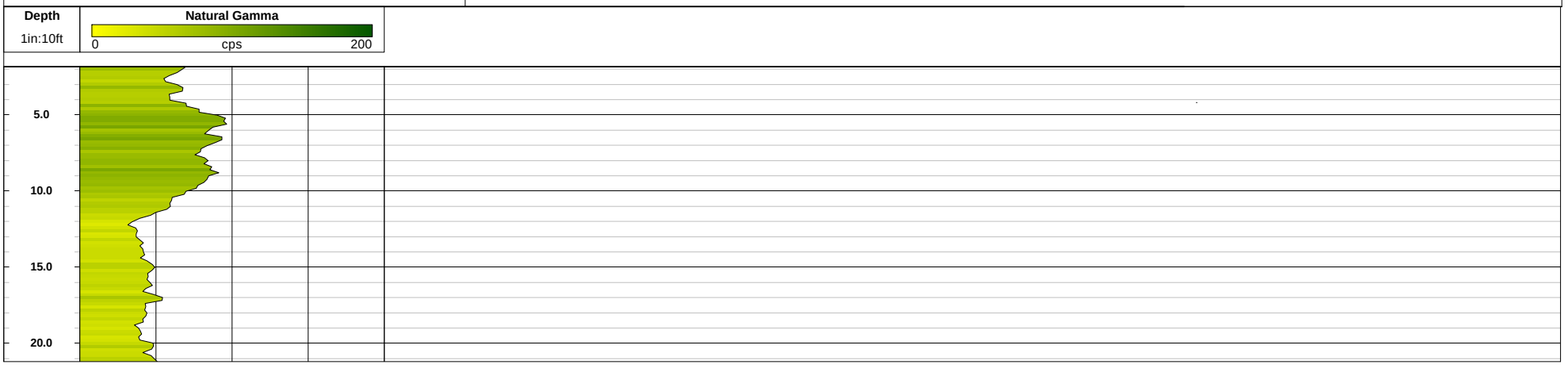
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **77.30'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-48A**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

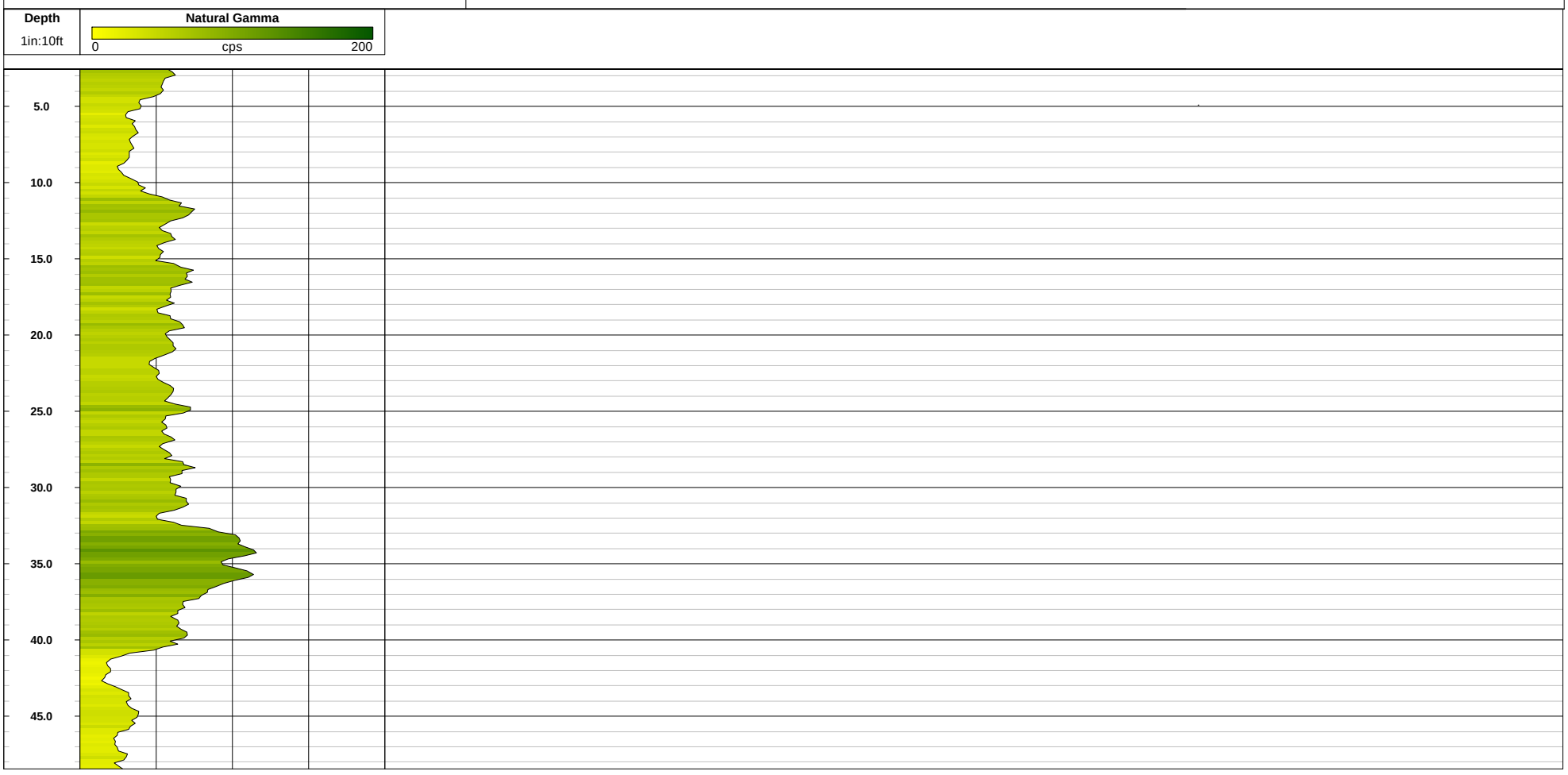
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **21.84'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-53B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

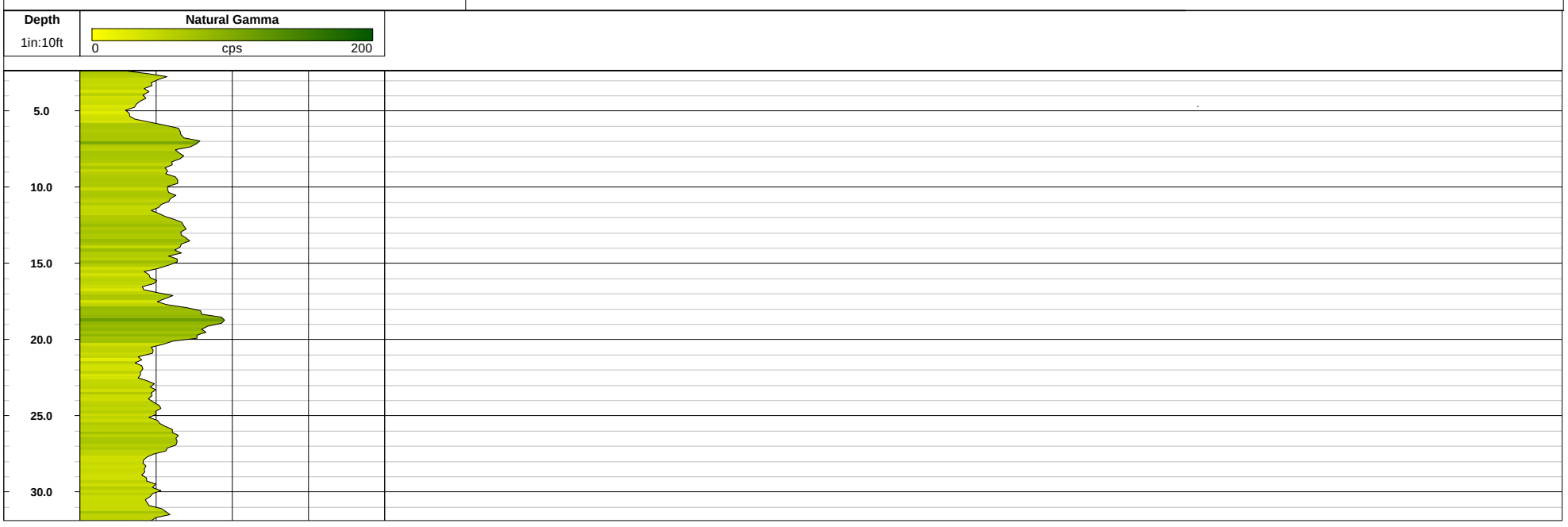
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **49.00'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-60B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

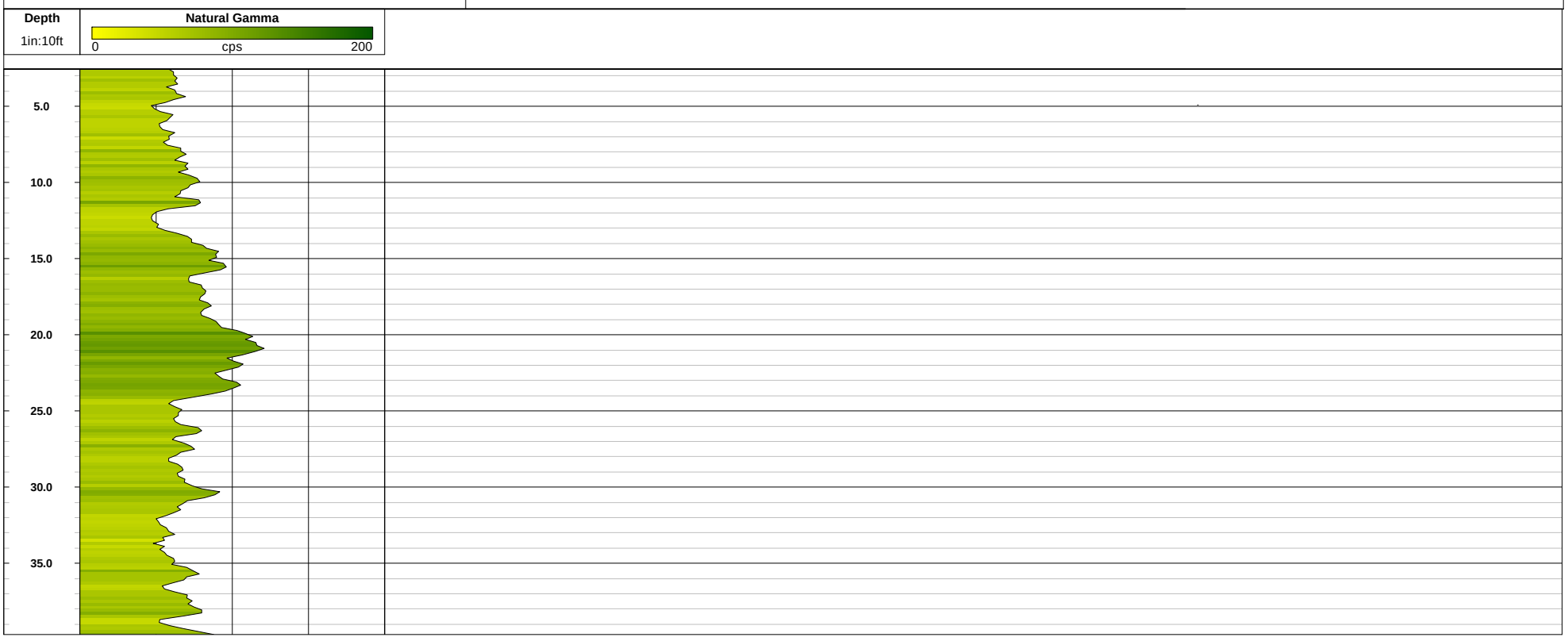
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **32.20'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-69B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

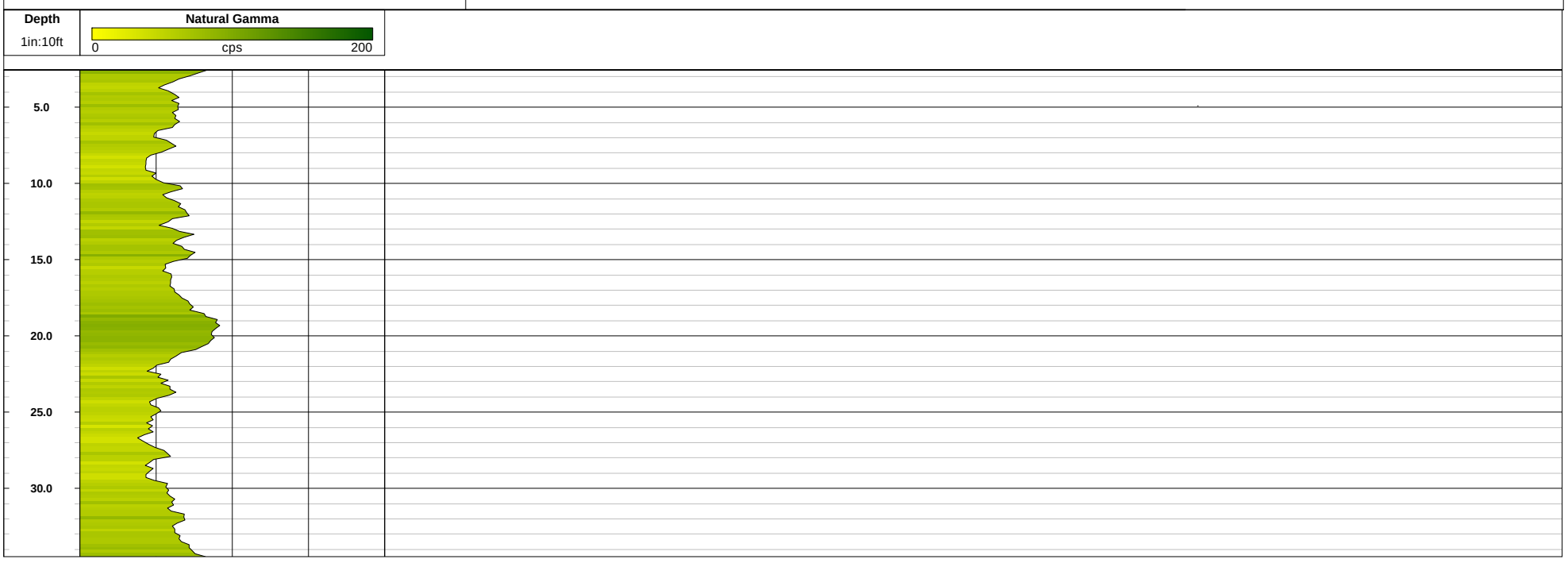
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **40.30'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-76B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

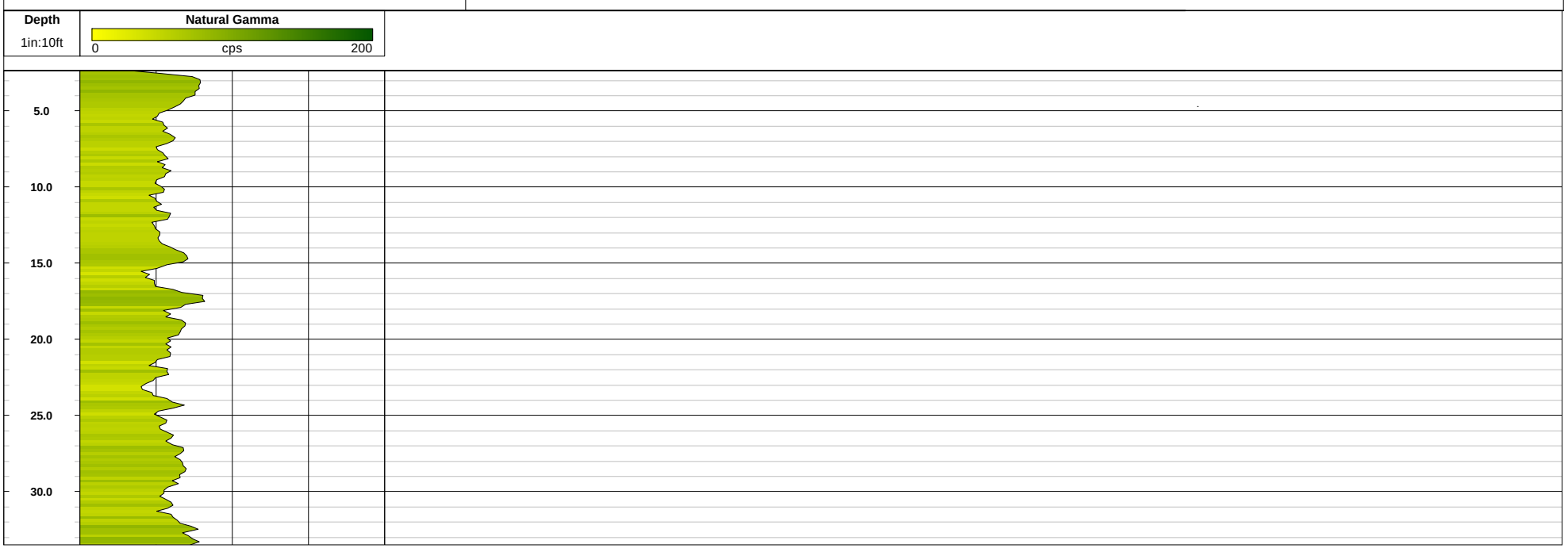
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **34.99**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-78B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

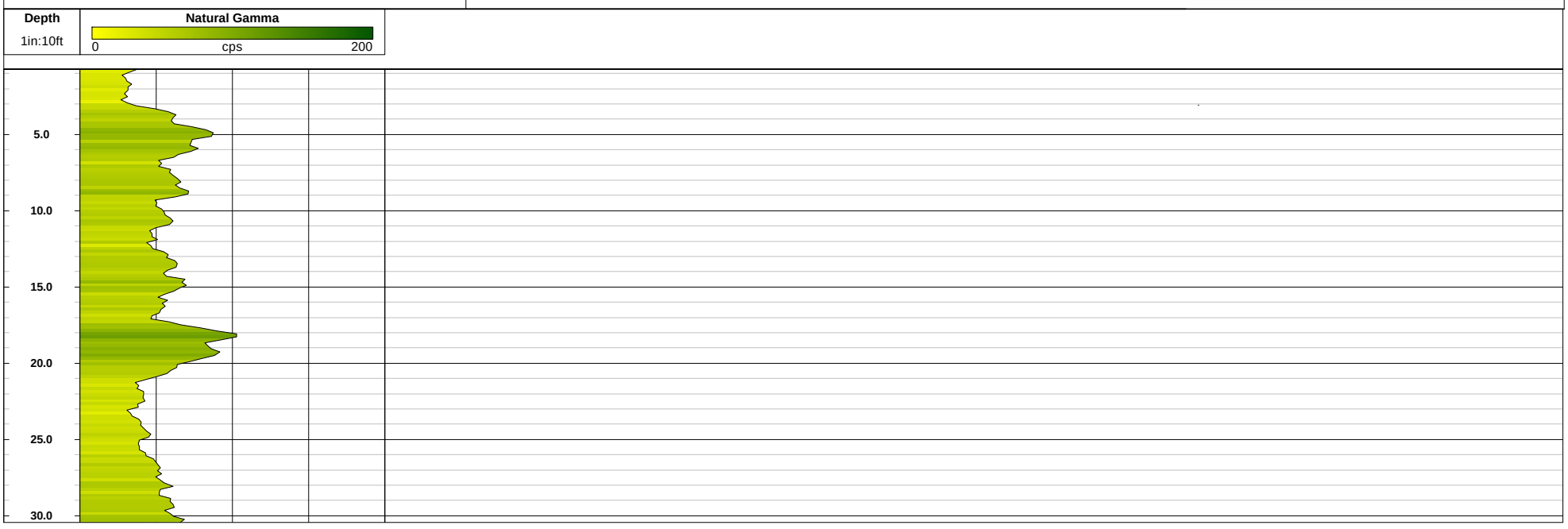
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **33.96'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-81B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

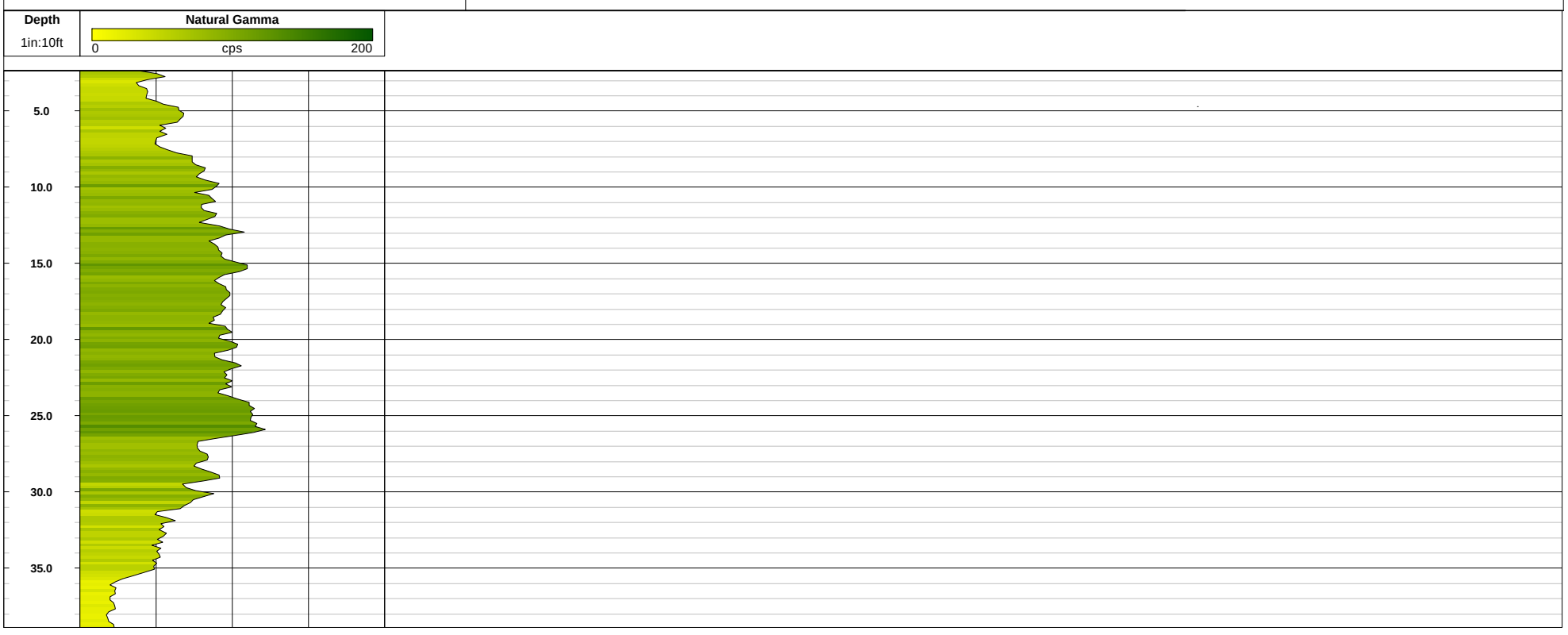
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **30.90'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-90B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

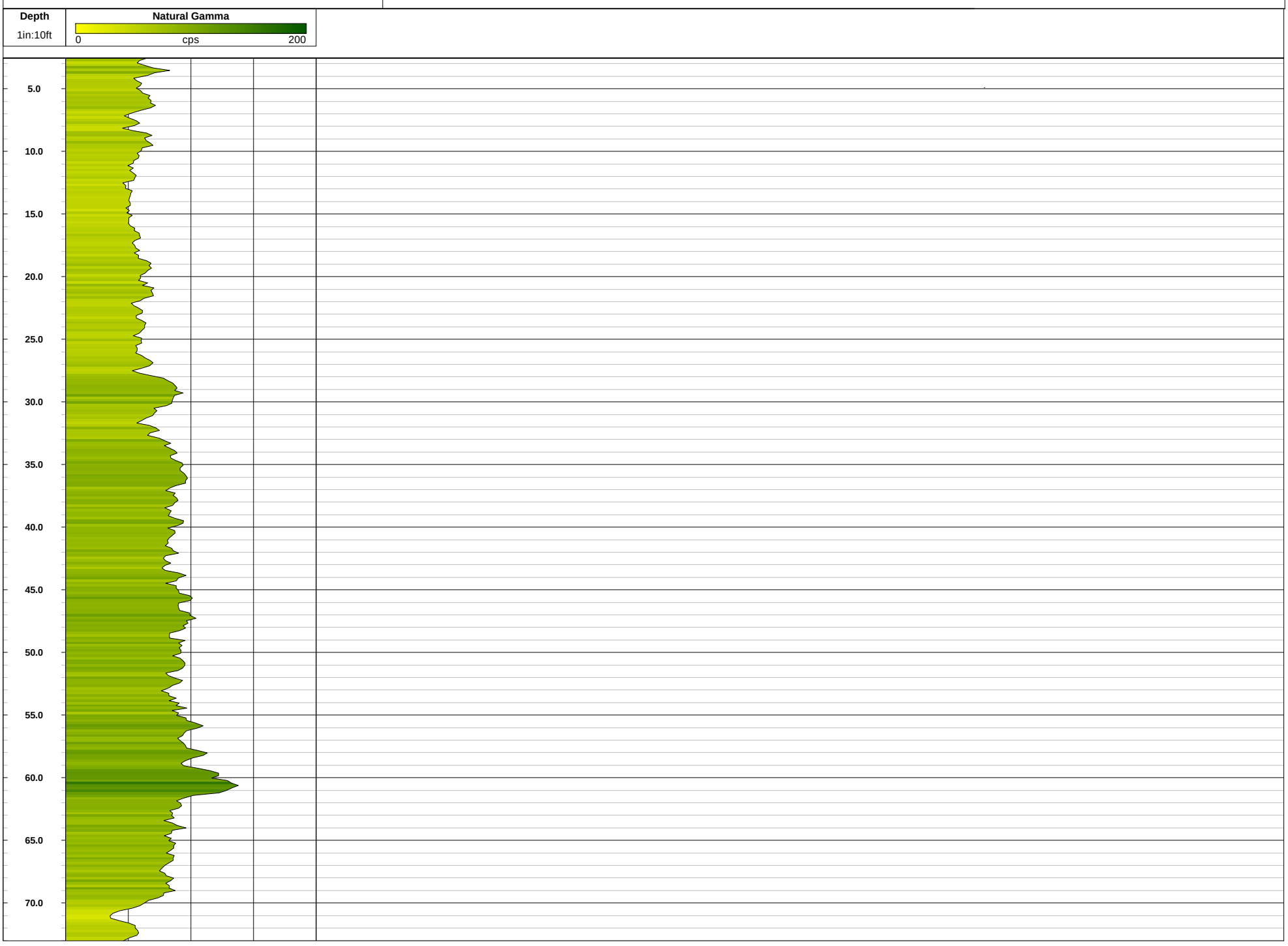
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **39.46'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-92C**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **73.54'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-96B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **49.19'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-109B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

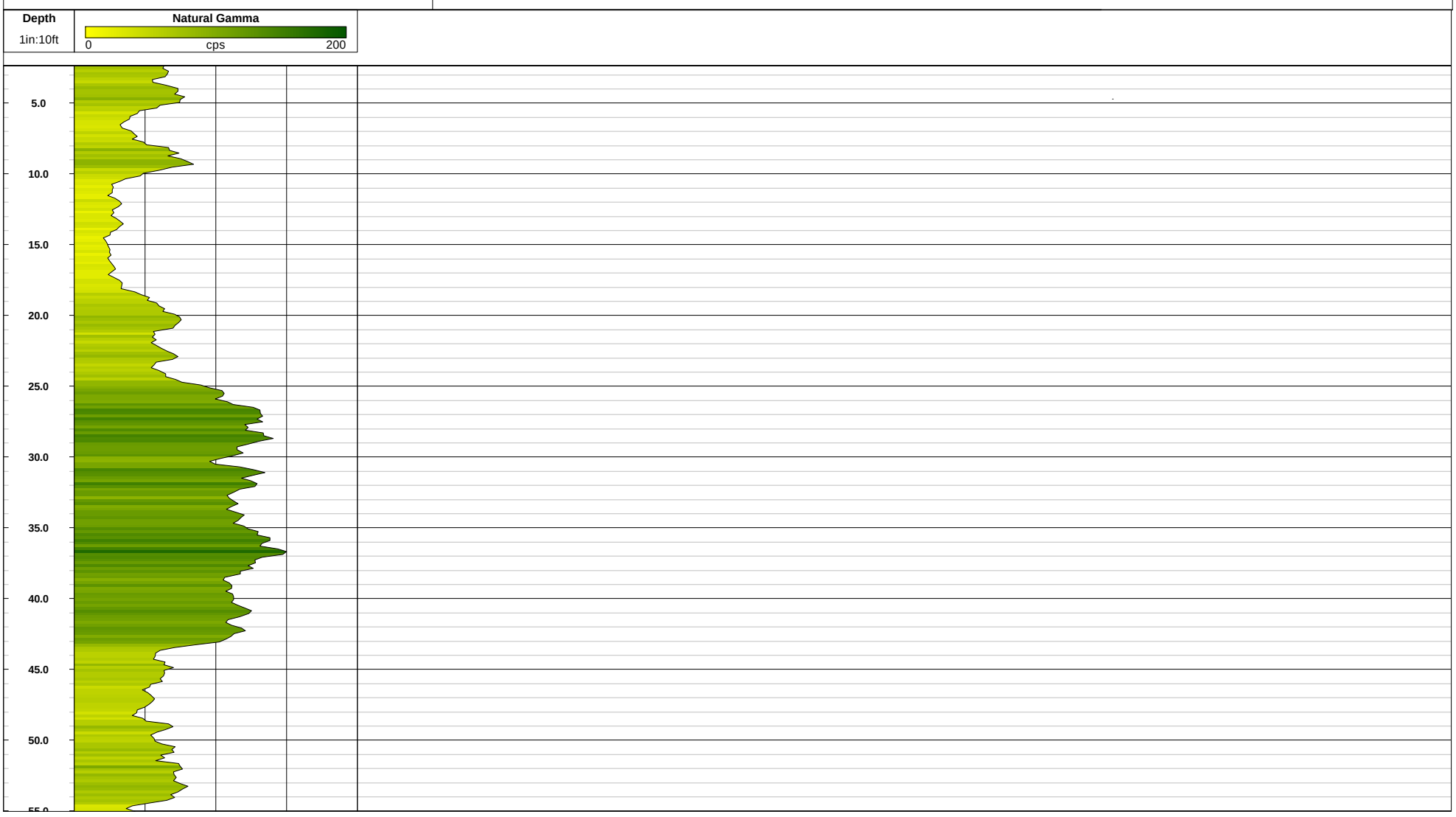
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **47.83'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-110B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

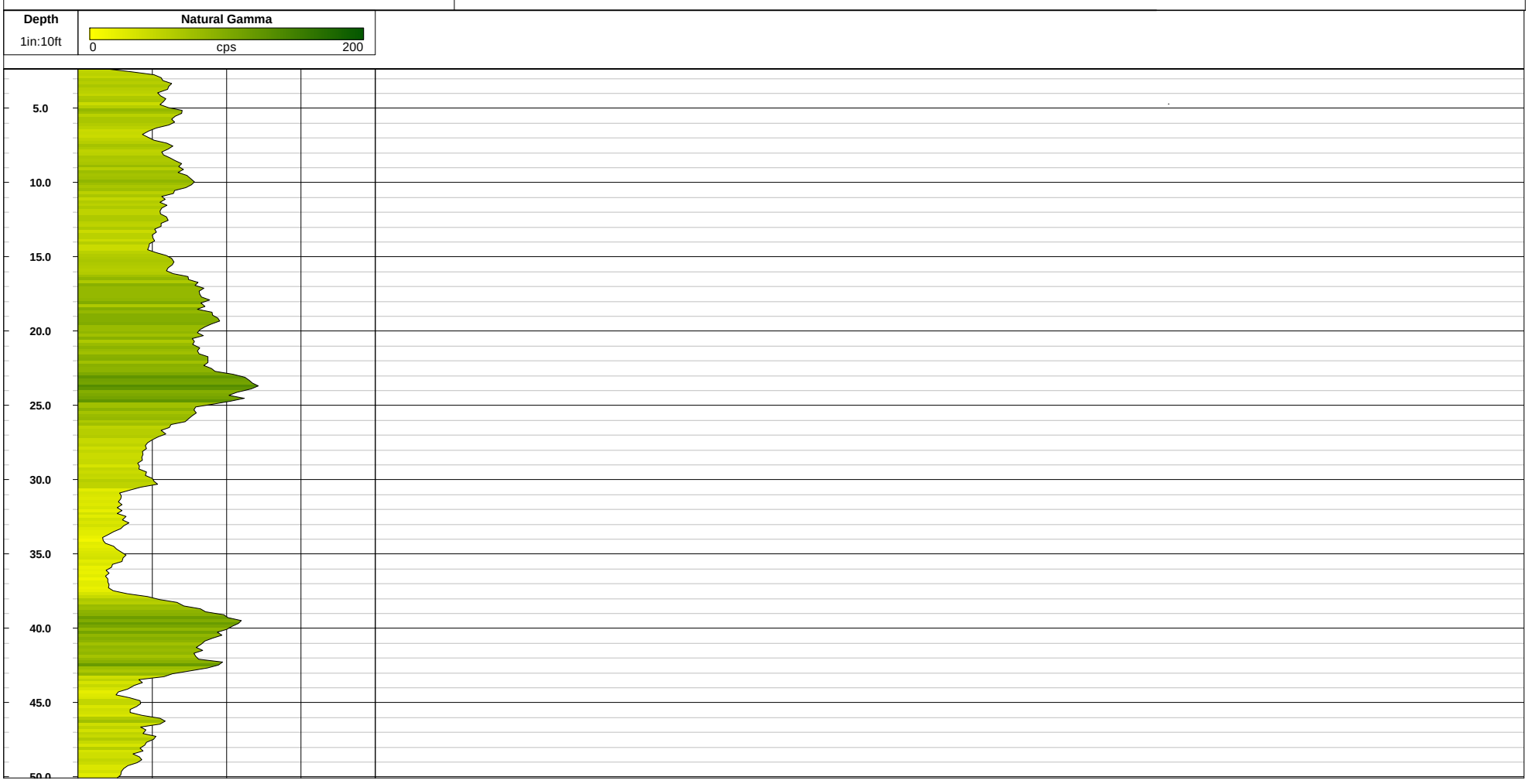
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **55.50'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-117B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

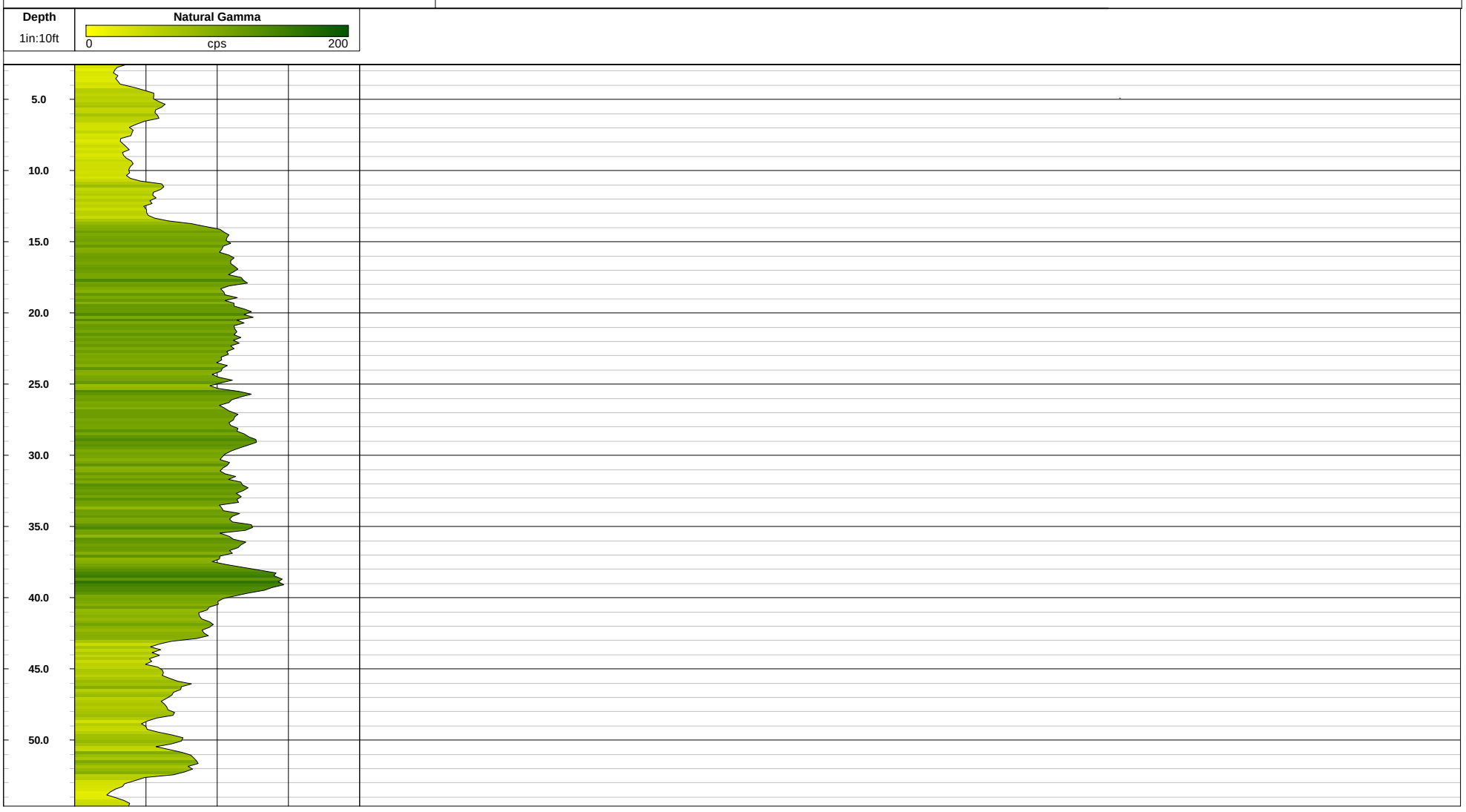
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **50.50'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-118B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **55.08'**



Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-119B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

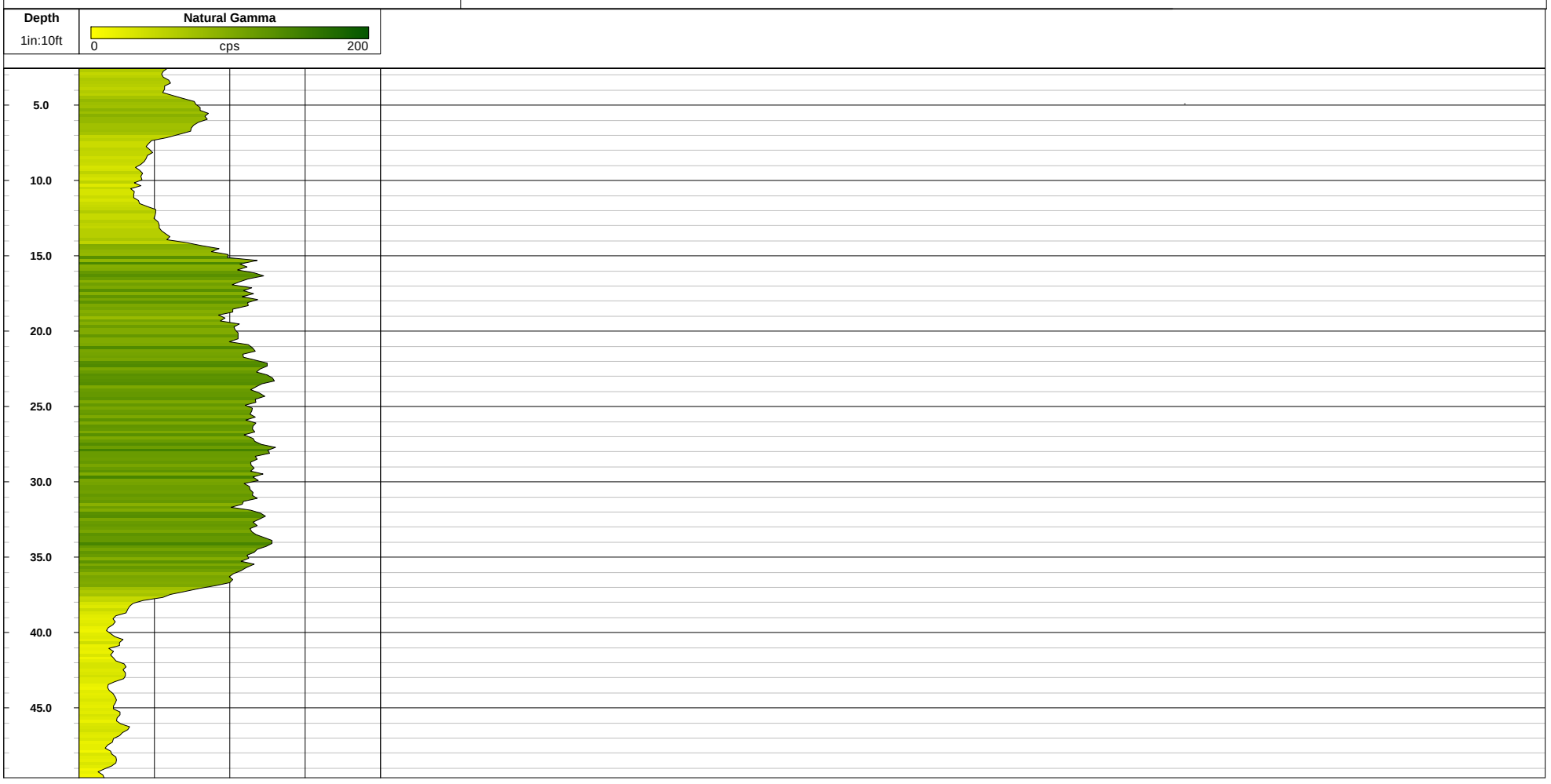
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **59.25'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-120B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

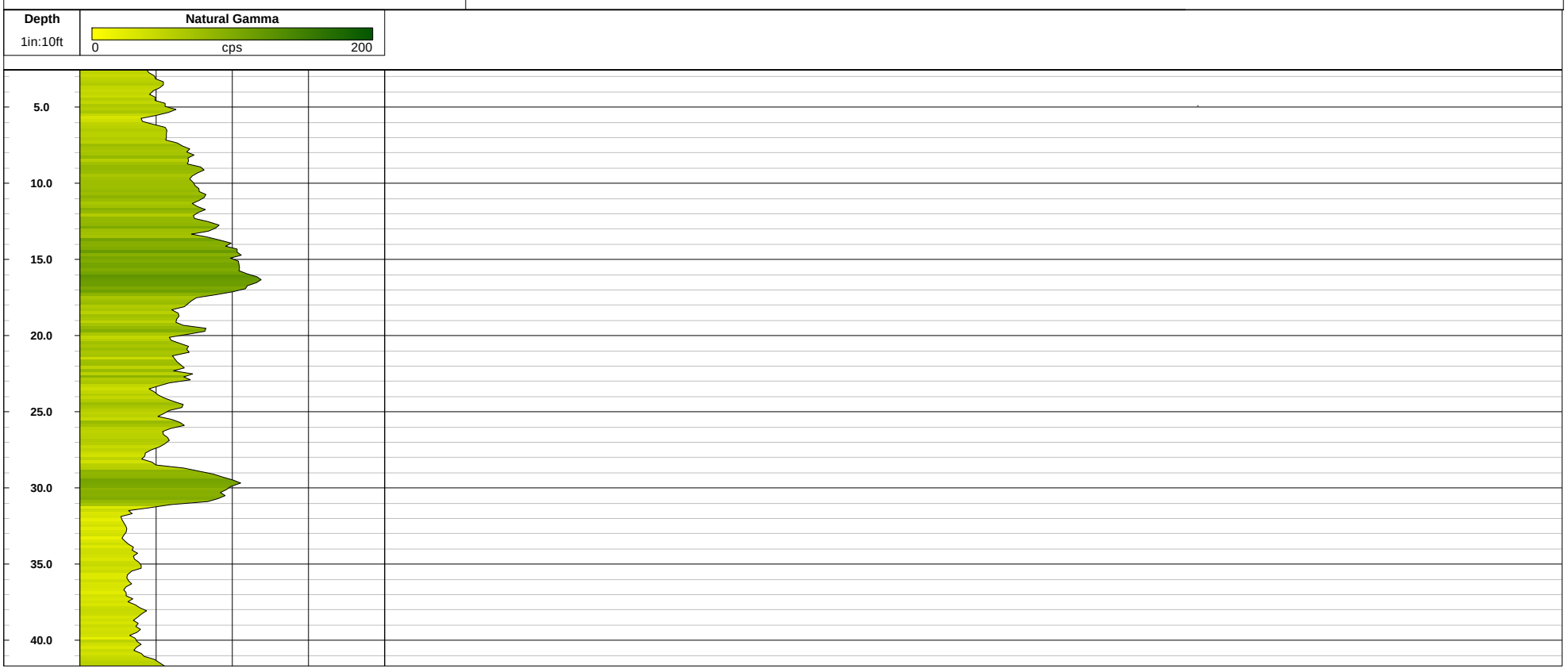
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **50.11'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-121B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

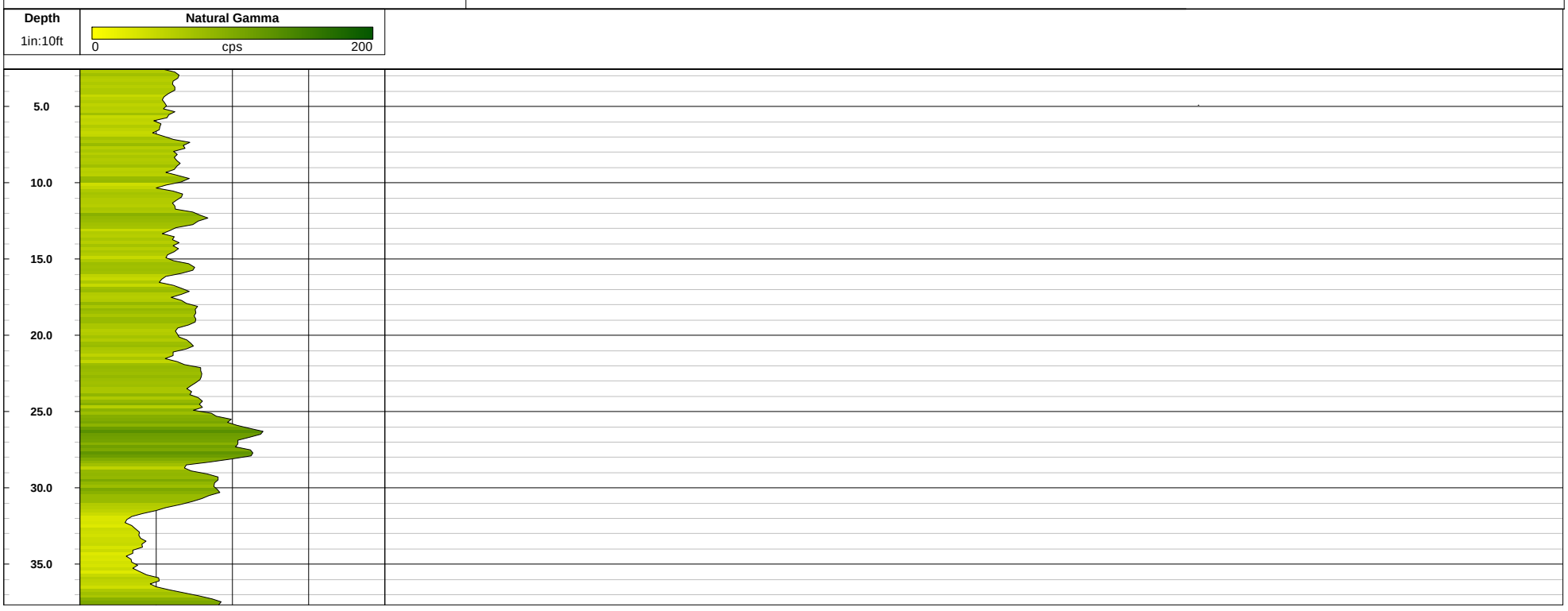
Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **42.20'**



Earth Data Northeast, Inc.

Client: **Tetra Tech, Inc.**
Location: **LMC MRC Blocks G/H/I, Middle River, MD**
Well Name: **MRC-MW-164B**
Date: **10/13/20**
Depth Reference: **Ground Surface**
Magnetic Declination: **N/A**
North reference: **N/A**

Borehole Diameter: **2" (nominal)**
Static Water Level: **N/A**
Casing Depth: **N/A**
Total Depth: **38.00'**



APPENDIX H—SIGNED WASTE MANIFESTS

Please print or type. Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MDR000524413
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 014541312 FLE

5. Generator's Name and Mailing Address
Middle River Complex
195 Chesapeake Park Plaza Rd
Middle River, MD 21220
Generator's Phone: (301) 528-3021 ATTN:Anthony Apanavage

Generator's Site Address (if different than mailing address)
195 Chesapeake Park Plaza Rd
Baltimore, MD 21220

6. Transporter 1 Company Name: Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Robbie D Wood Inc
U.S. EPA ID Number: ALD067138892

8. Designated Facility Name and Site Address
Clean Harbors Chattanooga LLC
3300 Cummings Road
Chattanooga, TN 37419
Facility's Phone: (423) 821-6926
U.S. EPA ID Number: TND982141392

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON D.O.T. REGULATED, (SOIL)	5	DM	1500	P	
	2. NON D.O.T. REGULATED	1	DM	250	P	
	3. NON D.O.T. REGULATED, (WATER)	1	DF	300	P	
	4.					

14. Special Handling Instructions and Additional Information
1.CH2063192
2.CH2027091
3.CH2063208
1) 5x55
2) 1x55
3) 1x55

Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf for purposes of transportation efficiency, convenience, or safety

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X Christopher Keller
Signature:
Month 8 Day 28 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Corey Joyner
Signature:
Month 8 Day 28 Year 2020

Transporter 2 Printed/Typed Name: Doug Thacker
Signature:
Month 8 Day 31 Year 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

18b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Chris White
Signature:
Month 9 Day 15 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

D4 2004465648 PPW

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	MDR000524413	1	(800) 483-3718	014541313 FLE

GENERATOR

5. Generator's Name and Mailing Address
Middle River Complex
195 Chesapeake Park Plaza Rd
Middle River, MD 21220
Generator's Phone: (301) 528-3021 ATTN: Anthony Apanavage

Generator's Site Address (if different than mailing address)
195 Chesapeake Park Plaza Rd
Baltimore, MD 21220

6. Transporter 1 Company Name
Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number
MAD039322250

7. Transporter 2 Company Name
Robert D Wood Inc
U.S. EPA ID Number
NJD067138891

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number
ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (TRICHLOROETHENE), 9, PG III	1	DM	200	P	F001		
	2. NON D.O.T. REGULATED. (WATER)	2	DM	200	P			
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. CH669936 ERG#171 1) 1x55
2. CH2063177 2) 2x55

Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf for purposes of transportation efficiency, convenience, or safety

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Christopher Kelly — Signature — Month 8 Day 28 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Larry Lowe — Signature — Month 9 Day 28 Year 2020
Transporter 2 Printed/Typed Name: Noel Gautier — Signature — Month 9 Day 8 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040	H040		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Constance Lentz — Signature — Month 10 Day 11 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

D4 2004465648 PPW

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material

MDR000524413 1 (800) 483-3718

Middle River Complex
195 Chesapeake Park Plaza Rd
Middle River, MD 21220
(301) 528-3021 ATTN:Anthony Apanavage

195 Chesapeake Park Plaza Rd
Baltimore, MD 21220

Clean Harbors Environmental Services, Inc. MAD039322250

Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
(870) 863-7173

ARD069748192

NA3082, HAZARDOUS WASTE, LIQUID, N.O.S.,
x (TRICHLOROETHENE), 9, PG III

F001

NON D.O.T. REGULATED. (WATER)

1. CH669936 ERG#171
2. CH2063177

Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf for purposes of transportation efficiency, convenience, or safety

H040 H040

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

D4 2004465648 PPW

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: MDR000524413

22. Page: 2/2

23. Manifest Tracking Number: 014541313 FLE

24. Generator's Name: middle River Complex

25. Transporter 3 Company Name: Clean Harbors Environmental Services Inc.

U.S. EPA ID Number: MAD039322250

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
	T P O					

32. Special Handling Instructions and Additional Information

GENERATOR

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Shelia Taylor (Agent for CHES) Signature: Shelia Taylor Month: 9 Day: 18 Year: 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name Signature Month Day Year

TRANSPORTER

35. Discrepancy

DESIGNATED FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

T P O

CleanHarbors
ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Aug 27, 2020

MANIFEST INFORMATION

Generator : Middle River Complex

Address: 195 Chesapeake Park Plaza Rd
Baltimore,MD 21220

EPA ID #: M D R 0 0 0 5 2 4 4 1 3

Manifest Tracking Info.

014541313FLE

Sales Order No: 2004465648

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH669936	WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
F001	NONE

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
TRICHLOROETHYLENE	N	Y	N

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.
This waste is not restricted as specified in 40 CFR 268 Subpart D.	2.

Waste analysis data, where available, is attached.

Signature : X _____ Print Name _____

Title : _____ Date : X 8/28/20

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH2063192

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *MDR000524413* GENERATOR NAME: *Middle River Complex*

GENERATOR CODE (Assigned by Clean Harbors) *MI5240* CITY *Baltimore* STATE/PROVINCE *MD* ZIP/POSTAL CODE *21220*

ADDRESS *195 Chesapeake Park Plaza Rd* PHONE: *(301) 528-3021*

CUSTOMER CODE (Assigned by Clean Harbors) *TE0740* CUSTOMER NAME: *Tetra Tech Inc*

ADDRESS *20251 Century Boulevard Suite 200* CITY *Germantown* STATE/PROVINCE *MD* ZIP/POSTAL CODE *20874*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *South of Building C Soil (Sample: WC-SBC-S-060520)*

PROCESS GENERATING WASTE: **Monitoring Well Installation**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
- [ ] % FREE LIQUID
- [ ] % SETTLED SOLID
- [ ] % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3 % BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- [ ] 1 - 100 (e.g. Water)
- [ ] 101 - 500 (e.g. Motor Oil)
- [ ] 501 - 10,000 (e.g. Molasses)
- [ ] > 10,000

COLOR *Varies*

ODOR
- [x] NONE
- [ ] MILD
- [ ] STRONG

Describe:

BOILING POINT ºF (ºC)
- [ ] <= 95 (<=35)
- [ ] 95 - 100 (35-38)
- [ ] 101 - 129 (38-54)
- [ ] >= 130 (>54)

MELTING POINT ºF (ºC)
- [ ] < 140 (<60)
- [ ] 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- [ ] 1-9%
- [ ] >= 10%

FLASH POINT ºF (ºC)
- [ ] < 73 (<23)
- [ ] 73 - 100 (23-38)
- [ ] 101 -140 (38-60)
- [ ] 141 -200 (60-93)
- [ ] > 200 (>93)

pH
- [ ] <= 2
- [ ] 2.1 - 6.9
- [x] 7 (Neutral)
- [ ] 7.1 - 12.4
- [ ] >= 12.5

SPECIFIC GRAVITY
- [ ] < 0.8 (e.g. Gasoline)
- [ ] 0.8-1.0 (e.g. Ethanol)
- [ ] 1.0 (e.g. Water)
- [ ] 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- [ ] < 0.1
- [ ] 0.1 - 1.0
- [ ] 1.1 - 5.0
- [ ] 5.1 - 20.0
- [ ] > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- [ ] 2,000-5,000 (4.6-11.6)
- [ ] 5,000-10,000 (11.6-23.2)
- [ ] > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
ACETONE	29.0000000	--	29.0000000	PPB
ARSENIC (TCLP)	0.0051000	--	0.0051000	PPM
BARIUM (TCLP)	0.2400000	--	0.2400000	PPM
CHROMIUM (TCLP)	0.0063000	--	0.0063000	PPM
SOIL	99.0000000	--	100.0000000	%
TRICHLOROETHENE	51.0000000	--	51.0000000	PPB

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [ ] NO [x]

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [ ] NO [x]

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [ ] NO [x]

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G44* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W301*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

- NONE
- ☑ < 1000 PPM
- >= 1000 PPM

PCBs

- ☑ NONE
- < 50 PPM
- >=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: ***Not subject to LDR***
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS A VERY SMALL QUANTITY GENERATOR (VSQG) OR A STATE EQUIVALENT DESIGNATION?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 76.6 KPA (11.1 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON D.O.T. REGULATED, (SOIL)

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ☑ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

☑ **CONTAINERIZED**

5 CONTAINERS/SHIPMENT

STORAGE CAPACITY: ***5***

CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE

CUBIC YARD BOX ☑ DRUM

OTHER: DRUM SIZE: ***55***

BULK LIQUID

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
[signature]	THOMAS D. BUCKMAN	PROJECT LEAD	August 14, 2020

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH2063177

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *MDR000524413* GENERATOR NAME: *Middle River Complex*

GENERATOR CODE (Assigned by Clean Harbors) *MI5240* CITY *Baltimore* STATE/PROVINCE *MD* ZIP/POSTAL CODE *21220*

ADDRESS *195 Chesapeake Park Plaza Rd* PHONE: *(301) 528-3021*

CUSTOMER CODE (Assigned by Clean Harbors) *TE0740* CUSTOMER NAME: *Tetra Tech inc*

ADDRESS *20251 Century Boulevard Suite 200* CITY *Germantown* STATE/PROVINCE *MD* ZIP/POSTAL CODE *20874*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *South Building C Water (Sample WC-SBC-W-060520)*

PROCESS GENERATING WASTE: **Monitoring Well Installation**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

[x] 1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

Clear/Brown

ODOR
- [x] NONE
- MILD
- STRONG

Describe:

BOILING POINT ºF (ºC)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- [x] >= 130 (>54)

MELTING POINT ºF (ºC)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT ºF (ºC)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- [x] > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- [x] 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
1,1-DICHLOROETHENE		--		Trace
2-BUTANONE (MEK)	2.10000000	--	2.1000000	PPB
ACETONE	20.0000000	--	20.0000000	PPB
AROCHLOR 1260		--		Trace
BARIUM (TCLP)	0.0220000	--	0.0220000	PPM
CHROMIUM (TCLP)	0.00500000	--	0.0050000	PPM
CIS-1,2-DICHLOROETHENE	8.700000	--	8.7000000	PPB
PERFLUOROOCTANESULFONIC ACID		--		Trace
PERFLUOROOCTANOIC ACID		--		Trace
TRICHLOROETHENE	41.0000000	--	41.0000000	PPB

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G44* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W113*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

NONE
☑ < 1000 PPM
>= 1000 PPM

PCBs

NONE
☑ < 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: ***Not subject to LDR***
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS A VERY SMALL QUANTITY GENERATOR (VSQG) OR A STATE EQUIVALENT DESIGNATION?

YES ☐ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES ☐ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☐ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 76.6 KPA (11.1 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES ☐ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES ☐ NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES ☐ NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? ☐ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data ☐ Knowledge ☐ Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON D.O.T. REGULATED, (WATER)

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY ☑ YEARLY OTHER

☑ **CONTAINERIZED**

2 CONTAINERS/SHIPMENT

STORAGE CAPACITY: *2*

CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE

CUBIC YARD BOX ☑ DRUM

OTHER: DRUM SIZE: *55*

BULK LIQUID

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
[signature]	THOMAS D. BUKOWSKI	PROJECT LEAD	Aug. 14, 2020

Addendum

D. COMPOSITION

CHEMICAL	MIN	--	MAX	UOM
WATER	100.0000000	--	100.000000	%

G. DOT/TDG INFORMATION

Certificate of Disposal / Treatment - Storage and Transfer

Run Date: 10/16/2020

Manifested To Site: Chattanooga, TN Facility
3300 Cummings Road
Chattanooga, TN 37419

EPA ID/Prov ID: TND982141392

Generator ID	Manifest No.	Generation Date	Received Date
MI5240	014230606FLE	2/18/2020	3/5/2020
MI5240	014760715FLE	5/8/2020	5/26/2020
MI5240	014760108FLE	6/16/2020	7/6/2020
MI5240	014760109FLE	6/16/2020	7/6/2020
MI5240	014541312FLE	8/28/2020	9/15/2020

The above described waste, received at the Clean Harbors facility listed above pursuant to the manifest(s) listed above, has/will be treated and/or disposed of by Clean Harbors, or another licensed facility approved by Clean Harbors, in accordance with applicable federal, state and provincial laws and regulations. Any waste received by Clean Harbors and subsequently shipped to another licensed facility has been or shall be identified as being generated by Clean Harbors in accordance with 40CFR 264.71(c).

For waste imported/exported to/from Canada the waste has/will be disposed or recycled according to the Canadian export and import of hazardous waste or hazardous recyclable material regulation as published in the Canadian Gazette Part II, vol 139, No 11, SOR/2005-149 May 17, 2005

Under civil and criminal penalties of law for the making of submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signed: Paul A. Mills **Date:** **10/16/2020**

Title: **Director Facility Applications**

Certificate of Disposal / Treatment - Storage and Transfer

Run Date: 10/16/2020

Manifested To Site: Spring Grove, OH Facility
4879 Spring Grove Avenue
Cincinnati, OH 45232

EPA ID/Prov ID: OHD000816629

Generator ID	Manifest No.	Generation Date	Received Date
MI5240	014230607FLE	2/18/2020	3/1/2020

The above described waste, received at the Clean Harbors facility listed above pursuant to the manifest(s) listed above, has/will be treated and/or disposed of by Clean Harbors, or another licensed facility approved by Clean Harbors, in accordance with applicable federal, state and provincial laws and regulations. Any waste received by Clean Harbors and subsequently shipped to another licensed facility has been or shall be identified as being generated by Clean Harbors in accordance with 40CFR 264.71(c).

For waste imported/exported to/from Canada the waste has/will be disposed or recycled according to the Canadian export and import of hazardous waste or hazardous recyclable material regulation as published in the Canadian Gazette Part II, vol 139, No 11, SOR/2005-149 May 17, 2005

Under civil and criminal penalties of law for the making of submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signed: Paul A. Mills **Date:** **10/16/2020**

Title: **Director Facility Applications**

Certificate of Disposal / Treatment - Storage and Transfer

Run Date: 10/16/2020

Manifested To Site: Hebron, OH Facility
581 Milliken Drive SE
Hebron, OH 43025

EPA ID/Prov ID: OHD980587364

Generator ID	Manifest No.	Generation Date	Received Date
MI5240	014230608FLE	2/18/2020	3/10/2020
MI5240	014541314FLE	8/28/2020	9/28/2020

The above described waste, received at the Clean Harbors facility listed above pursuant to the manifest(s) listed above, has/will be treated and/or disposed of by Clean Harbors, or another licensed facility approved by Clean Harbors, in accordance with applicable federal, state and provincial laws and regulations. Any waste received by Clean Harbors and subsequently shipped to another licensed facility has been or shall be identified as being generated by Clean Harbors in accordance with 40CFR 264.71(c).

For waste imported/exported to/from Canada the waste has/will be disposed or recycled according to the Canadian export and import of hazardous waste or hazardous recyclable material regulation as published in the Canadian Gazette Part II, vol 139, No 11, SOR/2005-149 May 17, 2005

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Signed: Paul A. Mills **Date:** **10/16/2020**

Title: **Director Facility Applications**

Certificate of Disposal / Treatment - Storage and Transfer

Run Date: 10/16/2020

Manifested To Site: El Dorado, AR Facility
309 American Circle
El Dorado, AR 71730

EPA ID/Prov ID: ARD069748192

Generator ID	Manifest No.	Generation Date	Received Date
MI5240	014760110FLE	6/16/2020	6/27/2020
MI5240	014541313FLE	8/28/2020	10/11/2020

The above described waste, received at the Clean Harbors facility listed above pursuant to the manifest(s) listed above, has/will be treated and/or disposed of by Clean Harbors, or another licensed facility approved by Clean Harbors, in accordance with applicable federal, state and provincial laws and regulations. Any waste received by Clean Harbors and subsequently shipped to another licensed facility has been or shall be identified as being generated by Clean Harbors in accordance with 40CFR 264.71(c).

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Signed: Paul A. Mills **Date:** **10/16/2020**

Title: **Director Facility Applications**