FINAL

2015 Vapor Intrusion Investigation Report

Former Lockheed Electronics Company Site
Boroughs of Watchung & North Plainfield,
Somerset County, New Jersey

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ACRONYMS

AOC	Area of Concern
ECRA	Environmental Cleanup Responsibility Act
FSPM	Field Sampling Procedures Manual
GWES	Groundwater Extraction System
gpm	Gallons per minute
GWSL	Ground Water Screening Level
IASL	Indoor Air Screening Level
ISRA	Industrial Site Recovery Act
LSRP	Licensed Site Remediation Professional
LEC	Lockheed Electronics Company
Lockheed Martin	Lockheed Martin Corporation
LOTO	Lock-out-tag-out
ug/m^3	microgram per cubic meter
ug/L	microgram per liter
mL/min	milliliters/minute
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
PID	photoionization detector
RAP	Remedial Action Permit
RAPR	Remedial Action Progress Report
SGSL	Soil Gas Screening Level
TCE	Trichloroethene
Tetra Tech	Tetra Tech, Inc.
U.S.	United States
USEPA	United States Environmental Protection Agency
VOC	volatile organic compounds
VI	vapor intrusion
VITG	Vapor Intrusion Technical Guidance (March 2013)

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1.0 INTRODUCTION AND SITE BACKGROUND

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this *2015 Vapor Intrusion Investigation Report* that describes the vapor intrusion (VI) investigation conducted in January 2015 in connection with the former Lockheed Electronics Company (LEC) Site (hereinafter the "Site"). This report presents the 2015 sampling results as well as the conclusions and recommendations of the investigation.

The scope of the 2015 investigation was based on the recommendations of the *2014 Vapor Intrusion Investigation Report* (Tetra Tech, 2014). The 2014 VI investigation was conducted at Avalon Watchung (formerly Crystal Ridge Club), a large residential apartment complex located to the southwest (hydraulically downgradient) of the former LEC property. This complex, along with Regency Village (a condominium complex located further southwest of Avalon Watchung) and the Wal-Mart store located on the southwest corner of the former LEC property have been the focus of past VI investigations. Based on the recommendations of the 2012 VI investigation, no further VI investigation was warranted for the Wal-Mart store. Based on the recommendations of the 2013 Comprehensive VI investigation, no further VI investigation was warranted for the buildings at Regency Village, and confirmatory investigations were recommended for three buildings investigated at Avalon Watchung (Buildings 3, 6 and 7). Based on the recommendations of the 2014 VI investigation, confirmatory investigations were recommended for only two buildings at Avalon Watchung. These two buildings, Building 3 and 6, represent the scope of work for the 2015 investigation; the conclusion of the 2014 VI investigation was that no further investigations were warranted for Building 7 at Avalon Watchung.

All activities were conducted using field and sampling methods consistent with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) dated August 2005, the NJDEP Technical Requirements for Site Remediation (New Jersey Administrative Code [N.J.A.C.] 7:26E), and the March 2013 Vapor Intrusion Technical Guidance (VITG).

1.1 SITE LOCATION AND DESCRIPTION

The former LEC Site is located on U.S. Route 22 West in the Boroughs of Watchung and North Plainfield, Somerset County, New Jersey. The Site is a parcel of land approximately 80 acres in size located on the north side of U.S. Route 22. LEC activities at the Site ceased in 1989 and the Site was redeveloped as the Watchung Square Mall in 2000.

The Site is located in a mixed residential and commercial area. The Site is bordered to the south by U.S. Route 22, which is a predominately commercial area with residential properties located on side streets and mapped wetlands in drainage areas. The Site is bordered to the west by an apartment complex (formerly Crystal Ridge Club, presently Avalon Watchung); further to the west is the Regency Village Condominiums complex. Forested areas and residences border the Site to the north, and commercial properties border the Site to the east.

The Site location is shown on Figure 1-1. The Site ranges in elevation from 140 to 320 feet above mean sea level, sloping to the south from higher elevations on the First Watchung Mountain, located northwest of the Site, to lower elevations along U.S. Route 22, located southeast of the Site. The closest surface water body is Crab Brook located south of the Site and U.S. Route 22 (Figure 1-1). Wetlands areas have been mapped by the NJDEP within one mile of the Site at locations immediately to the north of the Site, and south of the Site along U.S. Route 22.

1.2 SITE HISTORY

The Site was originally developed in 1953 by Stavid Engineering. Lockheed Martin acquired Stavid Engineering in 1959 and created Lockheed Electronics Corporation, which was subsequently operated by Sanders, a Lockheed Martin Company. Additional land acquisitions resulted in the current Site boundaries. The Site was used to manufacture, assemble, and test electronic components. Trichloroethene (TCE) was used at the Site as a non-flammable liquid coolant in conjunction with low-temperature testing of electronic components and to clean circuit boards. Operations at the Site ceased in 1989.

The cessation of Site activities in 1989 triggered a Site investigation under the New Jersey Environmental Cleanup Responsibility Act (ECRA) (superseded by the Industrial Site Recovery Act [ISRA]). The initial investigations identified several areas of concern (AOCs) and included collection of soil, sediment, groundwater, and surface water samples. Investigation and remedial action results

have been documented in a series of reports submitted to the NJDEP since 1991. Soil AOCs contained volatile organic compounds (VOCs), primarily TCE, as well as fuel oil, and were addressed either through excavation and off-Site disposal or soil-vapor extraction. Site-wide soil remediation has been completed to the satisfaction of the NJDEP.

Early investigation activities identified a TCE groundwater plume emanating from the Site. An extensive monitoring well network has been installed to delineate and monitor the TCE concentrations and groundwater monitoring activities are ongoing in accordance with the Site's NJDEP-approved monitoring schedule.

To remediate the groundwater plume and intercept groundwater base flow to Crab Brook, the Site's groundwater extraction system (GWES) was activated on July 17, 2003. Until the GWES was deactivated in late May 2011, groundwater was pumped from extraction well RW-1, located on North Drive in North Plainfield, at a rate of approximately 120 gallons per minute (gpm). Until deactivation, the GWES had worked almost continuously from start-up and functioned as designed, providing control of the bedrock groundwater plume and intercepting groundwater base flow to Crab Brook. The GWES has remained inactive since May 2011.

A long-term groundwater and surface water monitoring program commenced in 2003 coincident with the construction and activation of the GWES. An extensive monitoring well network has been installed to delineate and monitor the TCE concentrations. There are currently 50 active monitoring wells and piezometers associated with this project in the Boroughs of Watchung and North Plainfield. Groundwater monitoring activities are ongoing in accordance with the monitoring schedule provided in the NJDEP-approved Groundwater Remedial Action Permit (RAP) dated June 26, 2014. Based on the approved RAP, the GWES will remain inactive and is slated for demolition in 2015. Recovery well RW-1 is also scheduled to be abandoned in 2015.

1.3 PHYSICAL SETTING

Based on previous investigations, the overburden at the Site is generally composed of construction fill associated with the remediation area of former LEC Building 3, a sandy outwash deposit, and a thin layer of glacial till. In the vicinity of the Site, the thickness of the overburden decreases towards the south-southwest but increases south of Crab Brook. The overburden deposits are underlain by the Passaic Formation, a reddish-brown siltstone of Jurassic age. The upper surface of the bedrock

is generally weathered and soft, and becomes more competent with depth. Bedrock surface topography generally slopes to the southeast perpendicular to the First Watchung Mountain.

Groundwater at the Site occurs within the bedrock, and locally within the overburden. Dissolved VOC migration within the bedrock is influenced by both bedrock structure and local groundwater discharge areas, particularly Crab Brook. The groundwater in the bedrock enters the Site from upgradient to the northeast, moves across the Site to the southwest (along the strike direction of regional bedrock bedding), and then trends in a more southerly direction toward Crab Brook. At monitoring well cluster MW-549 (located at the Site), the depth to groundwater is approximately 55 feet below ground surface (bgs). At monitoring well cluster MW-550 (located near Regency Village both topographically and hydraulically downgradient of the Site), the depth to groundwater is approximately 21 feet bgs. While no monitoring wells are present at Avalon Watchung, the depth to groundwater beneath the apartment complex is expected to be between 21 and 55 feet bgs. Based on the September 2014 groundwater elevation data, the average horizontal hydraulic gradient in the shallow water-table zone across the Site is approximately 0.01 feet per foot (ft/ft), steepening slightly downgradient and southwest of the Site to approximately 0.018 ft/ft.

2.0 2015 VAPOR INTRUSION INVESTIGATION

As noted in Section 1, following cessation of activities at the Site by LEC, the Site was redeveloped as the Watchung Square Mall with a Wal-Mart Store located in the southwest corner. Avalon Watchung is a residential apartment complex located adjacent to the southwestern boundary of the former LEC property. Southwest of Avalon Watchung is Regency Village, a condominium complex. Due to the proximity of these properties to the groundwater plume source area, the Wal-Mart, Avalon Watchung and Regency Village were the areas of potential concern for vapor intrusion. The locations of the Wal-Mart, Avalon Watchung, and Regency Village are shown on Figure 2-1. All three properties have been the focus of past VI investigations and Avalon Watchung is the remaining area of vapor intrusion concern. The scope of work for the 2015 investigation is limited to confirmatory sampling for two buildings at Avalon Watchung.

2.1 PRIOR INVESTIGATIONS

The July 2009 Remedial Action Progress Report (RAPR) presented an evaluation of the potential for exposure to vapor within structures located above the Site's groundwater contaminant plume. The July 2009 RAPR included an evaluation of the known or suspected Site-specific contaminants, contaminant migration pathways, potential human receptors and the exposure routes by which these receptors may come in contact with contaminants. The evaluation concluded that the potential for VI to occur and to result in unacceptable indoor air concentrations in occupied structures nearest to the Site exists, and that further investigation was warranted.

Since the submittal of the July 2009 RAPR, work plans were submitted and VI investigations have been conducted. These investigations have been documented in the following reports that have been submitted to NJDEP and/or to the Licensed Site Remediation Professional (LSRP):

- ***Revised VI Investigation Work Plan, August 2010***. The 2010 Work Plan was approved by NJDEP on December 9, 2010.

- ***VI Investigation Report, November 22, 2011*.** NJDEP issued a technical review and comment letter, dated December 9, 2011 in response to this report.

- ***VI Investigation Report Addendum, January 31, 2012.*** This investigation implemented the recommendations of the November 22, 2011 report. NJDEP commented via e-mail on June 25, 2012. The report recommended that an additional round of sub-slab soil gas samples be collected from Avalon Watchung Buildings 3, 6, 7 and 12 and from the Clubhouse. To provide correlative data for the evaluation of the sub-slab soil gas sampling proposed, additional indoor air sampling was also recommended for Avalon Watchung Buildings 3, 6, 7 and 12 and the Clubhouse.

- ***VI Investigation Data Submittal, April 10, 2012.*** This submittal presented the data collected at Wal-Mart.

- ***2013 Comprehensive Vapor Intrusion Investigation Report, June 11, 2013.*** The 2013 Comprehensive VI Investigation addressed the recommendations of the January 2012 VI Investigation Report Addendum. The 2013 Comprehensive VI Investigation also addressed the VI concerns related to Regency Village as discussed in the 2011 RAPR. The 2011 RAPR recommended that the construction of Regency Village Buildings 3, 4, 5, and 6 (closest to the former LEC facility) be evaluated to determine whether there were any ground floor or basement living units in any of the buildings. These four buildings did not have living spaces but did have crawl spaces and were included as part of the 2013 Comprehensive VI Investigation. The investigation was later expanded to include Buildings 17, 26, 36 and 38 at Regency Village which were found to have (or potentially have) basement living units. The 2013 investigation also included an additional round of sub-slab soil gas and indoor air samples from Avalon Watchung Buildings 3, 6, 7 and 12 and from the Clubhouse.

- ***2014 Vapor Intrusion Investigation Report.*** The 2014 Vapor Intrusion Investigation Report addressed the recommendations of the 2013 Comprehensive Vapor Intrusion Investigation Report. The 2014 Vapor Intrusion Investigation included one round of sub-slab soil gas and indoor air samples from Avalon Watchung Buildings 3, 6, and 7.

2.2 AREAS OF INVESTIGATION

The scope of the 2015 VI investigation was based on the recommendations of the 2014 Vapor Intrusion Investigation (Tetra Tech, 2014). Since the 2014 VI investigation, additional groundwater data at the Site has been collected with the most recent groundwater sampling conducted in September 2014. These data were evaluated against the current (2013) vapor intrusion Ground Water Screening Level (GWSL) for TCE of 2 microgram per liter (ug/L). As noted in the 2013 RAPR (Tetra Tech, 2014), TCE concentrations in the shallow zone groundwater exceeded the 2 ug/L GWSL in only one well (2.3 ug/L in well MW-549S) during the March 2013 sampling event, but no reported TCE concentrations exceeded the 2 ug/L GWSL in the shallow zone groundwater samples collected during the September 2013 sampling event. Similarly, during groundwater sampling in 2014, TCE concentrations in shallow groundwater samples exceeded the 2 ug/L GWSL in only one well (2.8 µg/L in well MW-1S) during the March 2014 sampling event, but no reported TCE concentrations exceeded the 2 ug/L GWSL in the shallow zone groundwater samples collected during the September 2014 sampling event. These results suggest a potential seasonal change in the dissolved TCE concentrations in groundwater.

As noted above, the TCE concentration in the groundwater sample collected from MW-1S in March 2014 (2.8 ug/L) exceeded the 2 ug/L GWSL. Monitoring well MW-1S was installed in fall 2013 and is situated in a cul-de-sac located northwest of the former source area and MW-549S (Figure 2-2). Given the reported TCE concentration in MW-1S in March 2014, the area of VI concern as delineated by the 2 ug/L isoconcentration for TCE (with a 100-foot buffer) is presented in Figure 2-1. As shown on the figure, a private residence is located within the 100-foot buffer of the TCE GWSL. Based on discussions with the LSRP, the elevated TCE concentration reported in MW-1S in March 2014 is not considered to be a vapor concern based on the following lines of evidence:

- The groundwater analytical results for nearby shallow monitoring well MW-508S (located approximately 156 feet southeast of the private residence) indicated that TCE concentrations were below the 2 ug/L GWSL in March and September 2014 (1.6 ug/L and 1.9 ug/L, respectively) and during the previous year (Tetra Tech, 2014). The screen interval in well MW-508S (57.7-67.7 feet bgs) is approximately 100 feet shallower that the screen interval in well MW-1S (170-180 feet bgs), indicating that a clean water lens exists between the elevated concentrations in MW-1S and the private residence. Furthermore, the reported TCE concentration in MW-1S in September 2014 (1.3 µg/L) was below the 2 ug/L GWSL.

- The results from previous VI investigations at nearby Avalon Watchung Apartment Buildings 7 and 8 indicate no current VI concerns. The analytical results for sub-slab soil gas samples collected in January 2014 from Avalon Watchung Building 7, which is located within the 2 ug/L TCE GWSL contour line and the associated 100-foot buffer (Figure 2-1), indicate that the residential Soil Gas Screening Level (SGSL) was not exceeded for any target chemical, and TCE was not detected. Given that the SGSL was not exceeded, the indoor air sample collected in Building 7 was not analyzed. In addition, no target chemical concentrations exceeded the residential SGSL in sub-slab soil gas samples collected from Building 7 in 2013. Based on these results, it was determined that no further VI investigation is warranted at Building 7 (Tetra Tech, 2013). Similarly, sub-slab sampling conducted prior to 2013 at Building 8, which is adjacent to Building 7 and within the 100 foot buffer of the 2 ug/L TCE GWSL contour line, indicated no screening levels were exceeded.

- Monitoring well MW-1S is screened from 170-180 feet bgs and was initially vertically profiled in December 2013. The groundwater analytical results from vertical profiling indicated reported TCE concentrations of 0.84 ug/L in the top 5 feet of the screen interval and 2.8 ug/L in the bottom 5 feet of the screen interval. The reported TCE concentration in the upper portion of the screen interval was below the 2 ug/L GWSL, indicating that clean water exists above the zone of elevated TCE concentrations in the lower portion of the screen.

- Based on the vertical profiling results, all subsequent samples from MW-1S were collected from the bottom 5 feet of the screen interval (samples were collected using passive diffusion bag samplers). Analytical results for the subsequent samples indicate TCE concentrations of 2.5 ug/L in January 2014, 2.8 ug/L in March 2014, and 1.3 ug/L in September 2014. Section 7.3.2 of the NJDEP Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria (Version 1.0, September 24, 2012) provides for averaging of ground water analytical results to determine whether a vapor intrusion investigation is triggered. Using the analytical results for MW-1S to date, the average TCE concentration is 2.35 ug/L, which rounds down to 2 ug/L. The rounded concentration value does not exceed the GWSL for TCE.

Continued monitoring of MW-1S will be conducted as part of the long-term monitoring plan established for the Site in the NJDEP-approved Groundwater RAP. As discussed with the LSRP,

vertical profiling of MW-1S will be conducted during future groundwater sampling events moving forward to monitor for potential changes in TCE concentrations in the upper and lower portions of the MW-1S screen interval. In the event that conditions change, this issue will be revisited.

The Avalon Watchung complex consists of seventeen buildings (15 apartment buildings, a Clubhouse and a maintenance building) identified in Figure 2-1. The buildings are located on a steeply graded property with buildings close to Route 22 at lower elevations than those along the north property line. As noted earlier, the conclusions of the 2014 Vapor Intrusion Investigation Report (Tetra Tech, 2014) recommended that additional sampling be conducted at two buildings within the Avalon Watchung complex:

Building 3: An additional sub-slab sampling event in 2015 was recommended to confirm that the concentrations of TCE in sub-slab soil gas are continuing to decline to levels less than the residential SGSL, as noted from the previous sampling rounds in 2011, 2013, and the latest sampling conducted in 2014. If sub-slab soil gas concentrations exceed the residential SGSL, an indoor air sample was to be collected from the ground floor utility room for analysis.

Building 6: An additional sub-slab sampling event for 2015 was recommended to confirm that the concentrations of TCE in sub-slab soil gas are continuing to decline to levels less than the residential SGSL. These data would support the decline noted in the previous investigations conducted in February and December 2011. If sub-slab soil gas concentrations exceed the residential SGSL, an indoor air sample was to be collected from the ground floor storage room.

In addition, an ambient air sample would be collected concurrent with the indoor air samples. As with the 2013 and 2014 investigations, the ambient sample was collected at the Clubhouse located between Buildings 3 and 6.

The two investigation buildings are highlighted in Figure 2-1; the Clubhouse is also identified. The buildings at Avalon Watchung were constructed with a passive radon mitigation system beneath the concrete slab. This system represents a physical barrier for migrating vapors, and hence sub-slab samples collected from beneath the existing concrete slab would not be an effective measure of vapor intrusion. In addition, drilling through the slab could potentially damage the radon mitigation system, thereby compromising its integrity. Therefore, sub-slab soil gas samples were

collected through the walls of the elevator pit. Each building has an elevator located in the center of the building and the pit is located to a depth of approximately 4 feet below building ground floor level. Soil gas samples were collected through the sidewalls of the pit at an elevation of approximately 2 feet below the building ground floor level.

To provide correlative indoor air data, indoor air sampling was also recommended for Buildings 3 and 6. The 2015 VI Investigation addressed this recommendation through the collection of indoor air samples from the ground floor of these buildings at locations close to the elevator pits. For Building 3, the indoor air sample was collected from a ground floor utility room across from the elevator. For Building 6, the indoor air sample was collected from a storage room adjacent to the elevator pit. These samples were collected prior to the sub-slab sampling event, but were only analyzed if the sub-slab sample exceeded the SGSL.

2.3 SAMPLING LOCATIONS RATIONALE

As with earlier investigations, sub-slab soil gas samples were collected from the sidewall of the building elevator pit at a location beneath the level of the ground floor slab. These locations were close to the sample locations from earlier events to ensure spatial consistency. The indoor air sampling locations in Buildings 3 and 6 were selected to be as close as possible to the elevator shaft while ensuring that the samples would not be disturbed and were sufficiently removed from potential background sources and other physical impairments. Sample locations were confirmed during walk-throughs with Avalon Watchung property management personnel.

2.3.1 Sampling Location - Building 3

As with earlier investigations, the sub-slab soil gas sample was collected from the sidewall of the elevator pit. The indoor air sample was collected from the ground floor utility room; this location was also selected during the 2014 VI investigation. This is an unfinished space with exposed concrete walls and floor. The utility room is situated close to the elevator shaft. The utility room houses the water lines for the fire suppression system along with other utilities. The location of the indoor air and sub-slab sampling locations are superimposed onto the ground floor plan (provided by Avalon Watchung) and included as Figure 2-3.

2.3.2 Sampling Location - Building 6

The sub-slab soil gas sample was collected through the sidewall of the elevator pit which is centrally located within the building's footprint. The adjacent utility room was found to house hydraulic equipment that services the elevator. The room also housed containers of hydraulic fluid and oil stains were noted; therefore, this location was deemed unacceptable for indoor air sampling. A large storage area is located to the west of the elevator shaft, a portion of which abuts the northwest wall of the elevator shaft. The proposed sampling location was adjacent to the elevator shaft wall as close to the sub-slab location as possible. The storage room is used by building tenants for storage of personal items held within large locked units. This location was also selected for the 2014 VI investigation. The location of the indoor air and sub-slab sampling locations are superimposed onto the ground floor plan (provided by Avalon Watchung) and included as Figure 2-4.

2.3.3 Ambient Sampling Location - Clubhouse

Per the recommendations of the VITG, an ambient air sample was collected to coincide with the indoor air sampling event. The purpose of an ambient sample is to quantify potential background sources from outside of the sampling domain that could impact the indoor air results. As the indoor air sampling was being conducted in Buildings 3 and 6, the ambient sample was collected on the balcony of the Clubhouse. As shown on Figure 2-1, the Clubhouse is located equidistant between Buildings 3 and 6 and provides a representative location for ambient air. In addition, the balcony is covered and access is limited, minimizing potential disturbances. Ambient temperatures and pressures were recorded at a select location during the 24-hour period of indoor air sampling. A portable weather station was set to collect ambient weather data during the entirety of the sampling event; however, an error occurred during the data retrieval process and the ambient weather data were lost. As an alternative, publically available meteorological data from Weather Underground are provided in Appendix A. The ambient sampling location was superimposed onto the floor plan (provided by Avalon Watchung) and is included on Figure 2-5.

2.4 BUILDING WALK-THROUGH SURVEYS

The building walk-through survey can identify likely sources of background volatile compounds and can be used as a line of evidence to assess the potential for vapor intrusion. All observations from the walk-through surveys were documented in the NJDEP's Indoor Air Building Survey and

Sampling Forms. The completed forms are included in Appendix B. The walk-through surveys were conducted by a Tetra Tech scientist accompanied by a representative of the property. If any potential background sources were identified, they were removed (if possible) or were documented and were retained for consideration as lines of evidence for evaluating the indoor air sampling results.

2.4.1 Building 3 Walk-Through

The indoor air sample was collected from a utility room that is an unfinished space with exposed concrete walls and floor (Figure 2-3). The room houses the water lines for the fire suppression system along with other utilities. A floor drain was located in the center of the room that is connected to the sewer line running through the building. A water pipe was noted penetrating the wall through an unsealed hole, and cracks were also noted along the outer edges of the floor. Some staining was noted along the northwest wall and the supervisor stated that this was likely from antifreeze used in the fire-suppression system. Evidence of water leaks were also noted beneath the fire suppression line. A small quantity of garbage, including used work gloves, was observed during the walk through, but were removed prior to indoor air sampling. A small (~ 5 gallon) air pressure tank was also present that is part of the pressurization system. The indoor air sample was located close to the unsealed penetration in the wall which is below ground surface and close to the floor drain. The indoor air sample (CR-011415-IA-B3) was located at the same location as the sample collected in 2014.

2.4.2 Building 6 Walk-Through

The indoor air sample was collected from the first floor storage room, adjacent to the northwest wall of the Building 6 elevator pit (Figure 2-4). Entry is through a single door located along the main building hallway to the south. The storage room floor is constructed of poured concrete that was painted and no cracks or other floor penetrations were observed. The walls are primarily plasterboard or similar material, except for the poured concrete wall of the elevator shaft located to the east. Several locked private metal storage units belonging to building residents were present. As these locked units belong to residents, they were not accessed. One unit was unlocked and empty. A small mechanical room containing a furnace and air conditioning unit with associated duct work adjoins the storage room to the south. Ducts feed upstairs units only, thus no floor penetrations are present. An electrical supply room containing numerous subsurface conduits feeding large circuit panels through an unfinished concrete floor was located to the northeast.

Single doors separate the main building hallway, mechanical room, and electric room from the main storage room space, all of which were kept closed and locked during the sampling event.

As documented in the Indoor Air Building Survey and Sampling Form (Appendix B), no potential sources of background contamination were evident, although the locked, private storage units prevented inspection of the entire sample space. There were no obvious odors, no photoionization detector (PID) readings, and atmospheric conditions (pressure and temperature) appeared normal during canister placement and retrieval. According to Avalon Watchung's maintenance supervisor, no substantial construction or cleaning work had occurred prior to sampling.

2.4.3 Clubhouse Walk-Through – Ambient Location

The ambient sample was collected at a rear balcony outside of the Clubhouse. The balcony was only accessible through weather tight exterior doors which were kept closed and locked due to the low outside temperatures. Maintenance personnel and associated staff were instructed not to open these doors during the sampling event. There were no obvious odors or PID readings during canister placement and retrieval.

2.5 SUBSURFACE UTILITIES

Efforts were made to obtain maps and drawings of subsurface utilities for both complexes. These maps can be of use in locating preferential pathways from a source and the building under investigation.

Construction drawings provided by Avalon Watchung show points where sanitary sewer, gas and water supply lines enter the buildings. Utility conduits enter along the perimeter of the ground floor or basement. While these may present preferential pathways, the buildings were constructed with a passive radon mitigation system beneath the concrete slab and the system represents a physical barrier for migrating vapors, thereby negating any preferential pathways. As sub-slab sampling was conducted on the only location without a barrier, the sampling approach adequately addresses the only pathway into the building.

3.0 SAMPLE COLLECTION AND ANALYSIS

Indoor air and sub-slab sampling was conducted using methods consistent with the March 2013 NJDEP VITG (NJDEP, 2013). The indoor air samples were collected over a 24-hour sampling period on the first day (January 14th, 2015) of the investigation prior to sub-slab sampling (conducted on January 15th, 2015). Note that the investigation was conducted during the heating season (November 1st through March 31st) which is considered the "worst case" conditions for vapor intrusion.

In addition to the walk-through survey forms that were completed for each indoor sampling location, parameters recorded as part of sampling procedures were separately documented. These included:

- Identification and recording of canister and flow controller ID's and sample location
- Sampling time and date at both beginning and end of the event
- Recording of ambient temperature and pressure at the beginning and end of the sampling period
- Canister pressure at the start and end of each sampling event
- Existing meteorological conditions (i.e., temperature and atmospheric pressures) during the sampling event

All this information was captured in the VI Investigation Field Log and is provided in Table 3-1.

Individually certified canisters and the flow controllers were provided by the laboratory contracted to conduct the analysis. All canisters and flow controllers were under the control of Tetra Tech for the duration of the event. Once sampled, all canisters were shipped to the laboratory at the end of the sampling day.

3.1 INDOOR AIR SAMPLING

For indoor air sampling, air samples were collected at breathing-zone height and were collected over an approximate 24-hour period using laboratory certified 6-liter stainless steel SUMMA®

canisters. Individually certified SUMMA® canisters and calibrated regulators were supplied by the laboratory responsible for sample analysis. The flow regulators were calibrated for a 24-hour sampling duration.

Canister pressures were documented at the start and end of each sampling event. Time, temperature, and ambient pressure were also recorded at the end of sampling. All recorded data are provided in Table 3-1. A tag providing contact and general information was attached to the canister so as to inform residents of the purpose of the canister and provide a means to contact Tetra Tech in case of questions. The sample locations were selected to be as unobtrusive as possible to minimize possible interference. Photographs of the sampling locations and canister configuration are provided in Appendix C.

Once the indoor air sample was collected, the flow controller was closed and the sampling canister was sealed and removed from the sampling location. Chain of custody information was completed by Tetra Tech and all canisters were kept under the control of Tetra Tech until collection by the laboratory. Note that the VITG has a requirement for a residual vacuum of -5 inches of mercury at the completion of the indoor air sampling event. Both indoor air samples as well as the ambient sample met this requirement.

3.2 SUB-SLAB SAMPLING

Sub-slab sampling was conducted by EST Associates under the supervision of Tetra Tech. A Tetra Tech scientist was responsible for documentation of the sampling canisters and flow controllers. The sub-slab samples were collected from the sidewalls of the elevator pits adjacent to the sampling locations from previous events. Given the hazardous nature of entering an operational elevator shaft, special health and safety procedures were developed and reviewed by Tetra Tech's Health and Safety personnel prior to sample collection. The company responsible for maintaining the elevator (Otis Elevator) was directly contracted to provide personnel to immobilize the drive mechanisms for the elevators. Lock-out-tag-out (LOTO) procedures were also implemented by Tetra Tech. In addition, secondary supports were placed into the elevator pits to further protect the sampling crews.

3.2.1 Temporary Port Installation

Temporary sample ports were installed at all sampling locations. Temporary ports were drilled using a rotary hammer drill and a 5/16" masonry bit to drill through the sidewalls of the elevator pit. The hole was then advanced 2" to 3" into the sub-slab material. Teflon tubing (¼" outer diameter), was placed through the port through the thickness of the slab. The tubing was then sealed at the slab surface using a non-VOC and non-shrinking putty.

3.2.2 Integrity Testing

The VITG provides performance objectives for ensuring that the soil gas probe and the sampling train are not susceptible to dilution by ambient air. One of the methods recommended by the VITG is to place a shroud over the soil gas probe and sampling train and to fill the shroud with helium to a target concentration. Helium is then used as a tracer in the soil gas sample and if the helium concentration in the sample is greater than 10% of the concentration under the shroud, a leak is likely present. This process was followed for each sub-slab location using a purpose-built shroud with integrated sampling ports. Laboratory grade helium was used so as to avoid introducing new contaminants. The helium concentration was measured within the shroud and from within the sampling tube (leading to the canister) until the performance criterion was met.

Independent of the shroud test, the VITG also provides guidance for a shut-in test. The shut-in test is used to assess the integrity of the valves lines and fittings downstream of the sampling port. The closed-valve lines are evacuated to a measured vacuum and the pressure of the vacuum is observed for a minimum of 1 minute for any observable loss. The shut-in test is not necessary if the complete sampling train has been included in the shroud leak check. However, since 6-Liter canisters were used, placing the entire sampling train within a shroud would be difficult. There were additional challenges of performing a leak check with a shroud at Avalon Watchung where a sample port was installed through a vertical wall located within a confined space. As a 6-liter sampling canister would be part of the sampling train, the shroud would need to be prohibitively large to accommodate the sampling port, tubing, valves and a 6-liter canister. The shroud would also need to be held tight against the vertical wall while maintaining a seal. An alternative approach was developed to perform both tests (helium shroud and shut-in tests) over different portions of the sampling train. The two stage process included:

1. Per the VITG, a leak check was performed over the soil gas probe using a shroud filled with helium tracer gas over the sealed vapor point. This ensured that there was no break-

through at the sampling port. The vapor shroud was placed over the sampling port and filled with laboratory grade helium to a concentration of 20% or greater. The level of helium in the shroud was measured through a sample port in the shroud using a dialectic helium meter. A soil gas sample was extracted from the sampling line into a Tedlar® bag using a low-flow pump. The helium meter was used to ensure that the helium concentration in the Tedlar® bag did not exceed 10% of the concentration in the shroud.

2. A separate shut-in test was performed on the remaining sampling train to verify that the aboveground fittings did not leak. The shut-in test consisted of assembling the aboveground apparatus (valves, lines and fittings downstream of the top of the sample probe) and evacuating the line to a measured vacuum greater than or equal to -10 inches Hg with closed valves on opposite ends of the sample train. The vacuum gauge was observed for at least 1 minute with no observable loss of vacuum.

Once the shroud test and the shut-in test had been successfully performed, the sample train was then purged of three volumes with the low-flow pump. The stainless steel "T" quick-connect fitting was switched to the 6-liter SUMMA® canister which was then opened to begin sample collection. Samples were collected using individually certified 6-liter stainless steel SUMMA® canisters. During sub-slab soil gas sampling, the sample flow rate did not exceed a maximum of 200 milliliters/minute (mL/min), which corresponds to a sample time of 30 minutes for a 6-liter canister. The portable weather station was used to record temperature and barometric readings at start and end of sampling.

Following sampling, the implant locations were abandoned with granular bentonite, while the boreholes advanced through concrete were capped with hydraulic cement. Dedicated Teflon tubing was placed in the port to collect the sub-slab soil gas sample at each sampling location. The masonry bit was bucket washed using phosphate-free detergent and water followed by a water rinse prior to drilling each sampling port.

3.2.3 Sampling Observations

As noted, the sub-slab samples were collected from the sidewalls of the elevator pits and the sampling locations were located as close to the previous sampling locations as possible. Some of the observations specific to this event are presented below.

1. Components of the elevator extend to the floor of the pit and these are bolted to the concrete floor (Appendix C). The floor of the elevator pits also house a sump pit that is covered with a steel grate (Appendix C). Pumps were noted in each sump pit. During the sampling event, a small amount of water was noted in the sumps in Buildings 3 and 6.

2. After the port was installed in the wall of the elevator shaft in Building 6, a leak and shut-in check was performed and the line was purged. However, once sampling commenced it was noted that the pressure drop in one of the 6-liter SUMMA® sample canisters (CR011515-SS-B6) was proceeding at a slightly faster rate than its duplicate sample canister (CR011515-SS-DUP) in the sample train, despite nearly identical calibrated flow rates. After thirty minutes the canisters were closed and sampling was completed. The end pressures of canisters CR011515-SS-B6 and CR011515-SS-DUP were -0.97 inches Hg and -4.64 inches Hg, respectively. The laboratory case narrative for CR011515-SS-B6, prepared by Alpha Analytical Laboratories (Appendix D), noted that the relative percent difference (RPD) for the pre- and post-calibration check for the flow controller was 34%, which is outside of the control limit of 20%. The initial flow rate was 156 mL/min and the final was 221 mL/min, which exceeded the sampling requirement. Discussions with Alpha Analytical, however, indicate that the flow controller RPD exceedance will not affect the sub-slab soil vapor analytical results.

3.3 AMBIENT SAMPLING

Per the recommendations of the VITG, an ambient air sample was collected to coincide with the indoor air sampling event. The purpose of an ambient sample is to quantify potential background sources from outside of the sampling domain that could impact the indoor air results. This may be of concern for an urban environment where neighboring industrial facilities and vehicular traffic result in atmospheric releases that could migrate into indoor spaces and compromise indoor air samples.

The ambient sample was placed outdoors but beyond the influence of potentially inclement weather. The sample placement needed to be representative of the investigation area and therefore the ambient sample was placed on the balcony of the Clubhouse. As shown in Figure 2-1, the Clubhouse is located equidistant between Buildings 3 and 6 and provides a representative ambient location. Ambient temperatures and pressures were recorded at the location during the

24-hour period of indoor air sampling. As noted in Section 2, the data from the portable weather station were lost due to technical issues. As an alternative, publically available meteorological data from Weather Underground are provided in Appendix A.

The sample was collected using an individually certified 6-liter SUMMA® canister with a flow controller calibrated for 24 hours of sampling time. The canister used for the ambient sample was randomly selected from the canisters supplied by the laboratories for the sampling event.

3.4 LABORATORY ANALYSIS

Ambient, indoor air and sub-slab samples were submitted to an NJDEP certified laboratory for analysis using United States Environmental Protection Agency (USEPA) Low Level Method TO-15. Alpha Analytical Laboratories of Mansfield, Massachusetts was used to analyze the ambient, sub-slab and indoor air samples and is certified by NJDEP for EPA Low Level Method TO-15. The canisters and flow controllers were also provided by Alpha Analytical Laboratories. As requested, all 6-liter SUMMA® canisters were individually certified. The samples were analyzed for the full NJDEP parameter list for USEPA TO-15.

All laboratory-provided chains of custody were completed by Tetra Tech scientists and all field observations made during sampling were documented. Tetra Tech arranged for sample collection at the end of each day of sampling to minimize the possibility of interference. All samples were picked up at the Site by the laboratory's courier.

3.4.1 Data Usability Assessment

The ambient, indoor air, and sub-slab samples were analyzed by Alpha Analytical Laboratories for volatile compounds consistent with the NJDEP Data of Known Quality Protocols (DKQP) to meet the measurement performance criteria and quality control samples specified for USEPA TO-15. A screening review was performed by a USEPA Region II certified data validator using the criteria specified in NJDEP's Data of Known Quality Protocols Technical Guidance and Data Quality Assessment and Data Usability Evaluation Technical Guidance, in conjunction with Standard Operating Procedure HW-31, Rev. 4, October 2006, and best professional judgment. The data validation reports and qualified sample summaries are provided in Appendix E and the primary issues identified are summarized below.

A review of the laboratory analytical data reports indicates that the VI data quality is acceptable and that all of the data are useable, with the exception of the results for chloromethane in the sub-slab soil gas samples. The laboratory report indicated that the presence of chloromethane could not be determined due to a non-target compound interfering with its integration; therefore, the chloromethane results were qualified as unusable (R) in sub-slab soil gas samples CR011515-SS-B3, CR011515-SS-B6, and CR011515-SS-DUP. Chloromethane is not a contaminant of concern at the Site.

Precision between field duplicates was evaluated and deemed acceptable if the RPD was below 25% when both sample values were greater than 5 times the reporting limit. Consequently, tetrachloroethene exceeded the limits of field precision and was qualified as estimated (J) in sub-slab soil gas samples CR011515-SS-B6 and CR011515-SS-DUP. The laboratory duplicate analyses were satisfactory.

As noted above, the RPD value between the pre-sampling and post-sampling flow controller calibration checks exceeded 20% for sample CR011415-1A-B6. Based on a discussion with Alpha Analytical and a review of the NJDEP's DKQP Technical Guidance, this is not a data usability issue and no action was taken.

Hexachlorobutadiene and 1,2,4-trichlorobenzene exceeded % Difference criteria in the continuing calibration and were qualified as estimated (UJ) in sub-slab soil gas samples CR011515-SS-B3, CR011515-SS-B6, and CR011515-SS-DUP. These compounds are not contaminants of concern at the Site.

The reporting limits were acceptable to demonstrate compliance with the residential SGSLs and Indoor Air Screening Levels (IASL), as appropriate, and holding times were met.

4.0 RESULTS AND ANALYSIS

The analytical results for the sub-slab soil gas and indoor air samples are summarized in Tables 4-1 and 4-2, respectively. Full data analysis reports generated by the laboratory are provided in Appendix D.

The analytical results from the sub-slab soil gas samples were compared to the March 2013 version of NJDEP's Residential SGSL. Similarly, the indoor air samples were compared to the March 2013 NJDEP Residential IASL. The residential screening levels are risk-based criteria based on the exposure assumptions of a person occupying a home for 350 days per year for 30 years. These risk-based screening levels were estimated so as to not exceed an incremental lifetime cancer risk of $1x10^{-6}$ and/or a non-cancer Hazard Quotient of 1. The appropriate residential SGSL and IASL are provided in Tables 4-1 and 4-2, respectively. The tables identify all contaminants detected above the reporting limits. Those contaminants with sub-slab or indoor air concentrations above the applicable screening levels are reported in bold type and the cells are highlighted.

4.1 BUILDING 3

A sub-slab sample (CR011515-SS-B3) was collected from the sidewall of the elevator pit and the results are presented in Table 4-1. Chloroform was detected in soil gas at a concentration of 730 micrograms per cubic meter (ug/m^3) which exceeds its residential SGSL of 24 ug/m^3. Chloroform is not a contaminant of concern for the former LEC facility. TCE was detected in soil gas at a concentration of 9 ug/m^3 which was less than the residential SGSL of 27 ug/m^3.

As the SGSL for chloroform was exceeded, the indoor air sample (CR011415-IA-B3) was collected from the utility room adjacent to the Building 3 elevator and was analyzed. The indoor air sample was analyzed for chloroform and the results are presented in Table 4-2. Chloroform was detected in indoor air at a concentration of 3 ug/m^3 which exceeds its residential IASL of 2 ug/m^3.

Chloroform is not a contaminant associated with the former LEC site and it is often associated with public drinking water; however, because the concentration of chloroform was above the Residential IASL, Lockheed Martin notified the Avalon Bay property management regarding the sub-slab and

indoor air sampling results for Building 3. Avalon Bay subsequently arranged to collect confirmation indoor air samples from inside the Building 3 ground floor utility room and from the hallway outside of the utility room. The confirmation indoor air samples were collected by Avalon Bay's environmental consultant (EcolSciences, Inc. located in Rockaway, New Jersey). The confirmation indoor air samples were collected after Avalon Bay personnel conducted maintenance in the ground floor utility room (e.g., sealing a floor drain and pipe conduits). The confirmation indoor air samples were analyzed for chloroform.

The confirmation indoor air sampling results indicated that chloroform was detected at concentrations below the NJDEP's Residential IASL in the ground floor utility room. Chloroform was not detected in the confirmation indoor air sample collected in the hallway outside the utility room.

4.2 BUILDING 6

A sub-slab sample as well as its duplicate (CR011515-SS-B6 and CR011515-SS-DUP, respectively) were collected from the sidewall of the elevator pit in Building 6. The sub-slab soil gas results are presented in Table 4-1 for both samples. As discussed, the flow controller used for sub-slab sample CR011515-SS-B6 reported a relative percent difference (RPD) between the pre- and post-calibration check of 34%, which is outside of the control limit of 20%. The initial flow rate was 156 mL/min and the final was 221 mL/min, which exceeded the sampling requirement. The duplicate sample (CR011515-SS-DUP) utilized a separate flow controller and no issues were reported for the duplicate sample. The results indicate that TCE was detected in soil gas at concentrations of 270 ug/m^3 and 280 ug/m^3 in both the original and duplicate sample, respectively. Both detected concentrations exceed the residential SGSL of 27 ug/m^3. Both samples were collected simultaneously through the same sub-slab port.

As the SGSL for TCE was exceeded, the indoor air sample was analyzed. The indoor air sampling result for Building 6 (CR011415-IA-B6) presented in Table 4-2 indicates no detection of TCE in indoor air. The absence of TCE in indoor air indicates that a complete VI pathway does not exist.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the recommendations of the 2014 VI investigation (Tetra Tech, 2014), confirmatory investigations were recommended for two of the three buildings at Avalon Watchung investigated in 2014. Sub-slab sampling was recommended for Buildings 3 and 6 to confirm that the concentrations of TCE in sub-slab soil gas were continuing to decline to levels less than the residential SGSL. If sub-slab soil gas concentrations exceeded the residential SGSL, an indoor air sample was to be collected from the ground floor utility room for analysis.

Since the 2014 VI investigation was completed, additional groundwater data has been collected and this has been used to further characterize and delineate the TCE concentrations in groundwater. The updated 2 ug/L GWSL for TCE (including the 100-foot buffer) defines the area of VI concern, which is now located near monitoring well MW-1S, where TCE concentrations in shallow zone groundwater exceeded the 2 ug/L GWSL in March 2014 (2.8 ug/L). A private residence is located within the 100-foot buffer; however, based on discussions with the LSRP, the elevated TCE concentration reported in MW-1S in March 2014 is not considered to be a vapor concern based on the lines of evidence detailed in Section 2.2 and summarized below:

- Groundwater analytical results for nearby shallow monitoring well MW-508S indicated that TCE concentrations were below the 2 ug/L GWSL in March and September 2014 and during the previous year (Tetra Tech, 2014). Well MW-508S is screened approximately 100 feet shallower that well MW-1S, indicating that a clean water lens exists between the elevated concentrations in MW-1S and the private residence. Furthermore, the reported TCE concentration in MW-1S in September 2014 was below the 2 ug/L GWSL

- The results from the 2013 and 2014 VI investigations at nearby Avalon Watchung Apartment Building 7, which is located within the 2 ug/L TCE contour line and the associated 100-foot buffer) indicate no current VI concerns. The residential SGSL was not exceeded for any target chemical and TCE was not detected in 2014. Based on these results, it was determined that no further VI investigation is warranted at Building 7 (Tetra Tech, 2013). Similarly, sub-slab sampling conducted prior to 2013 at Building 8, which is adjacent to

Building 7 and within the 100 foot buffer of the 2 ug/L TCE contour line, indicated no screening levels were exceeded.

- The groundwater analytical results from vertical profiling of MW-1S in December 2013 indicated reported TCE concentrations of 0.84 ug/L in the top 5 feet of the screen interval and 2.8 ug/L in the bottom 5 feet of the screen interval. The reported TCE concentration in the upper portion of the screen interval was below the 2 ug/L GWSL, indicating that clean water exists above the zone of elevated TCE concentrations in the lower portion of the screen.

- Based on the vertical profiling results, subsequent samples from MW-1S were collected from the bottom 5 feet of the screen interval (samples were collected using passive diffusion bag samplers). Using the TCE analytical results for MW-1S to date (samples collected in December 2013 [2.8 µg/L], January 2014 [2.5 µg/L], March 2014 [2.8 µg/L], and September 2014 [1.3 µg/L]), the average TCE concentration is 2.35 µg/L, which rounds down to 2 µg/L. The rounded concentration value does not exceed the GWSL for TCE.

Continued monitoring of MW-1S will be conducted as part of the long-term monitoring plan established for the Site in the NJDEP-approved Groundwater RAP. As discussed with the LSRP, vertical profiling of MW-1S will be conducted during future groundwater sampling events moving forward to monitor for potential changes in TCE concentrations in the upper and lower portions of the MW-1S screen interval. In the event that conditions change, this issue will be revisited.

As noted in the VITG (§ 3.3.1.1 and § 3.5.1), sub-slab samples are useful for assessing if a potential VI pathway exists. While concentrations of chemicals in sub-slab are indications of a source, no detected concentrations in indoor air would indicate that the pathway is not complete. Indoor air represents the most direct measurement of exposure and the pathway cannot be considered complete if concentrations are not detected in indoor air.

The conclusions and recommendations for each building within the areas of concern were reached using the multiple lines of evidence approach as described in the VITG, specifically:

- Elevated concentrations of chemicals in indoor air typically associated with household products and furnishings were evaluated against their concentrations reported in sub-slab samples. Walk-through surveys were reviewed to assess if background sources were

present. A review of these lines of evidence was used to evaluate if indoor air concentrations are a consequence of background sources or represent a VI concern.

- The results were evaluated in the context of co-occurrence in indoor air and sub-slab soil gas. Detections in both indoor air and sub-slab soil gas could indicate a complete pathway.

- Co-occurrence of contaminants in groundwater and soil gas or indoor air would be indicative of a complete pathway.

The conclusions of the May 30, 2014 Vapor Intrusion Investigation Report recommended that an additional round of sub-slab soil gas samples be collected from Avalon Watchung Buildings 3 and 6. The conclusions and recommendations of the 2015 VI investigation for each of the buildings investigated are:

Building 3: Chloroform was detected in sub-slab soil gas at concentrations exceeding its residential SGSL value. Chloroform was detected in the indoor air sample at concentrations exceeding the IASL, however chloroform is not a contaminant of concern for the former LEC facility and is often associated with public drinking water. However, because the concentration of chloroform was above the Residential IASL, Lockheed Martin notified the Avalon Bay property management regarding the sub-slab and indoor air sampling results for Building 3. Avalon Bay subsequently collected confirmation indoor air samples from inside the Building 3 ground floor utility room and from the hallway outside of the utility room. The confirmation indoor air samples were collected after Avalon Bay conducted maintenance in the ground floor utility room (e.g., sealing a floor drain and pipe conduits). The confirmation indoor air sampling results indicated that reported chloroform concentrations were below the NJDEP's Residential IASL in the ground floor utility room, and chloroform was not detected in the sample collected in the hallway outside the utility room.

TCE was not detected in sub-slab soil gas at concentrations higher than its residential SGSL value. Continued sub-slab sampling is recommended for 2016 to confirm that the concentrations of TCE in sub-slab soil gas remains less than the residential SGSL. If sub-slab soil gas concentrations exceed the residential SGSL

during the proposed 2016 event, an indoor air sample will be collected from the ground floor utility room for analysis.

Building 6: The sub-slab soil gas results indicate that TCE was detected at concentrations exceeding its residential SGSL in both the original and duplicate samples. No other chemicals were detected in sub-slab soil gas above their respective SGSLs. The results from the indoor air sample indicate no detections of TCE. The absence of TCE in indoor air indicates that a complete VI pathway does not exist. Concentrations of TCE in sub-slab soil gas from this event exceeded the SGSL and the VITG suggests that for sub-slab concentrations greater than the SGSL but less than 10 times the SGSL, long-term monitoring is required. Sub-slab sampling for 2016 is recommended to confirm that the concentrations of TCE in sub-slab soil gas are declining to levels less than the residential SGSL. If sub-slab soil gas concentrations exceed the residential SGSL during the proposed 2016 event, an indoor air sample will be collected from the ground floor storage room for analysis.

6.0 REFERENCES

Tetra Tech, 2014. 2014 Vapor Intrusion Investigation Report - FINAL. Former Lockheed Electronics Company Site, Boroughs of Watchung and North Plainfield, Somerset County, New Jersey. May 30, 2014

Tetra Tech, 2013. 2013 Comprehensive Vapor Intrusion Investigation Report. Former Lockheed Electronics Company Site, Boroughs of Watchung & North Plainfield, Somerset County, New Jersey. June 11, 2013.

Tetra Tech, 2014. 2013 Remedial Action Progress Report – FINAL. Former Lockheed Electronics Company Site, Boroughs of Watchung & North Plainfield, Somerset County, New Jersey. July 9, 2014.

NJDEP, 2013. New Jersey Department of Environmental Protection, Site Remediation Program. Vapor Intrusion Technical Guidance. March 2013 (Version 3.1).

TABLES

TABLE 3-1
Vapor Intrusion Investigation Field Log
Avalon Watchung, New Jersey

Location	Type	Sample ID	Size	Canister Number	Flow Controller Number	Calibrated Flow Rate	Confirm FC Calibration (Y/N)	Start Date	Start Time	End Date	End Time	Canister Pressure Start ("Hg)	Canister Pressure End ("Hg)	Temp Start (◦F)	Temp End (◦F)	Atmospheric Pressure Start ("Hg)	Atmospheric Pressure End ("Hg)
Bldg. 3	Sub Slab	CR011515-SS-B3	6 Liter	1899	591	156	Y	1/15/2015	11:41	1/15/2015	12:14	-29.31	-1.92	60.8	63.31	29.94	29.91
	Indoor Air	CR011415-IA-B3	6 Liter	687	0286	3.1	Y	1/14/2015	10:08	1/15/2015	09:50	-29.89	-7.09	51.2	57.5	30.24	30.00
Bldg. 6	Sub Slab	CR011515-SS-B6	6 Liter	1999	0247	156	Y	1/15/2015	13:30	1/15/2015	14:00	-29.15	-0.97	75.6	74.6	29.84	29.83
	Sub Slab	CR011515-SS-DUP	6 Liter	966	0049	157	Y	1/15/2015	13:30	1/15/2015	14:00	-29.22	-4.64	75.6	74.6	29.84	29.83
	Indoor Air	CR011415-IA-B6	6 Liter	1809	0616	3.2	Y	1/14/2015	10:25	1/15/2015	10:13	-30.09	-6.23	56.6	57.5	30.22	29.97
Outdoor	Ambient	CR011415-AMB-01	6 Liter	1590	0099	3.0	Y	1/14/2015	09:50	1/15/2015	09:28	-30.77	-5.69	31.1	37.8	30.23	29.98

TABLE 4-1
Summary of Sub-Slab Soil Gas Sampling Results
Avalon Watchung, Watchung, New Jersey

AVALON WATCHUNG				BUILDING 3	BUILDING 6	
Client Sample ID:	**CAS No.**	**Units**	**Soil Gas Screening Levels**	**CR011515-SS-B3**	**CR011515-SS-B6**	**CR011515-SS-DUP**
Lab Sample ID:				**L1500977-01**	**L1500977-02**	**L1500977-03**
Date Sampled:			**Residential**	**1/15/2015**	**1/15/2015**	**1/15/2015**
Matrix:			***µg/m³***	**Soil Vapor**	**Soil Vapor**	**Soil Vapor**
GC/MS Volatiles (TO-15) - ug/m3						
1,1,1-Trichloroethane	71-55-6	ug/m3	260,000	4 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	34	5 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	ug/m3	27	4 U	1 U	1 U
1,1-Dichloroethane	75-34-3	ug/m3	76	3 U	0.8 U	0.8 U
1,1-Dichloroethene	75-35-4	ug/m3	10000	3 U	0.8 U	0.8 U
1,2,4-Trichlorobenzene	120-82-1	ug/m3	100	5 UJ	1 UJ	1 UJ
1,2,4-Trimethylbenzene	95-63-6	ug/m3	NS	3 U	1 U	1 U
1,2-Dibromoethane	106-93-4	ug/m3	38	5 U	2 U	2 U
1,2-Dichlorobenzene	95-50-1	ug/m3	10000	4 U	1 U	1 U
1,2-Dichloroethane	107-06-2	ug/m3	20	3 U	0.8 U	0.8 U
1,2-Dichloropropane	78-87-5	ug/m3	23	3 U	0.9 U	0.9 U
1,3,5-Trimethybenzene	108-67-8	ug/m3	NS	3 U	1 U	1 U
1,3-Butadiene	106-99-0	ug/m3	11	1 U	0.4 U	0.4 U
1,3-Dichlorobenzene	541-73-1	ug/m3	NS	4 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	ug/m3	30	4 U	1 U	1 U
1,4-Dioxane	123-91-1	ug/m3	NS	2 U	0.7 U	0.7 U
2,2,4-Trimethylpentane	540-84-1	ug/m3	NS	3 U	0.9 U	0.9 U
2-Butanone	78-93-3	ug/m3	260000	6	0.7	0.9
2-Chlorotoluene	95-49-8	ug/m3	NS	3 U	1 U	1 U
3-Chloropropene	107-05-1	ug/m3	20	2 U	0.6 U	0.6 U
4-Ethyltoluene	622-96-8	ug/m3	NS	3 U	1 U	1 U
4-Methyl-2-pentanone	108-10-1	ug/m3	160000	3 U	0.8 U	0.8 U
Acetone	67-64-1	ug/m3	1600000	50	26	23
Benzene	71-43-2	ug/m3	16	2 U	0.6 U	0.6 U
Bromodichloromethane	75-27-4	ug/m3	34	4 U	1 U	1 U
Bromoform	75-25-2	ug/m3	110	7 U	2 U	2 U
Bromomethane	74-83-9	ug/m3	260	3 U	0.8 U	0.8 U
Carbon disulfide	75-15-0	ug/m3	36000	2 U	2	2
Carbon tetrachloride	56-23-5	ug/m3	31	4 U	1 U	1 U
Chlorobenzene	108-90-7	ug/m3	2600	3 U	0.9 U	0.9 U
Chloroethane	75-00-3	ug/m3	520,000	2 U	0.5 U	0.5 U
Chloroform	67-66-3	ug/m3	24	**730**	1 U	1 U
Chloromethane	74-87-3	ug/m3	4700	1 R	0.4 R	0.4 R
cis-1,2-Dichloroethene	156-59-2	ug/m3	NS	3 U	0.8 U	0.8 U
cis-1,3-Dichloropropene	10061-01-5	ug/m3	NS	3 U	0.9 U	0.9 U
Cyclohexane	110-82-7	ug/m3	310000	2 U	0.7 U	0.7 U
Dibromochloromethane	124-48-1	ug/m3	43	6 U	2 U	2 U
Dichlorodifluoromethane	75-71-8	ug/m3	5,200	4	35	34
Ethanol	64-17-5	ug/m3	NS	38	12	10
Ethylbenzene	100-41-4	ug/m3	49	3 U	0.9 U	0.9 U
Freon-113	76-13-1	ug/m3	1,600,000	5 U	140	150
Freon-114	76-14-2	ug/m3	NS	5 U	1 U	1 U
Heptane	142-82-5	ug/m3	NS	3 U	0.8 U	0.8 U
Hexachlorobutadiene	87-68-3	ug/m3	53	7 UJ	2 UJ	2 UJ
Isopropanol	67-63-0	ug/m3	NS	15	1 U	1 U
Methyl Methacrylate	80-62-6	ug/m3	NS	7 U	2 U	2 U
Methyl tert butyl ether	1634-04-4	ug/m3	470	2 U	0.7 U	0.7 U
Methylene chloride	75-09-2	ug/m3	4800	6 U	2 U	2 U
n-Hexane	110-54-3	ug/m3	36000	2 U	0.7 U	0.7 U
o-Xylene	95-47-6	ug/m3	NS	3 U	0.9 U	0.9 U
p/m-Xylene	179601-23-1	ug/m3	NS	6 U	2 U	2 U
Styrene	100-42-5	ug/m3	52,000	3 U	0.9 U	0.9 U
Tertiary butyl Alcohol	75-65-0	ug/m3	NS	5 U	2 U	2 U
Tetrachloroethene	127-18-4	ug/m3	470	10	7 J	16 J
Tetrahydrofuran	109-99-9	ug/m3	NS	2 U	0.6 U	0.6 U
Toluene	108-88-3	ug/m3	260,000	4	2	2
trans-1,2-Dichloroethene	156-60-5	ug/m3	3100	3 U	0.8 U	0.8 U
trans-1,3-Dichloropropene	10061-02-6	ug/m3	NS	3 U	0.9 U	0.9 U
Trichloroethene	79-01-6	ug/m3	27	9	**270**	**280**
Trichlorofluoromethane	75-69-4	ug/m3	36000	4 U	4	4
Vinyl bromide	593-60-2	ug/m3	22	3 U	0.9 U	0.9 U
Vinyl chloride	75-01-4	ug/m3	13	2 U	0.5 U	0.5 U

NR - Not reported
NS - No screening level available

U - Not detected at the reported detection limit for the sample.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

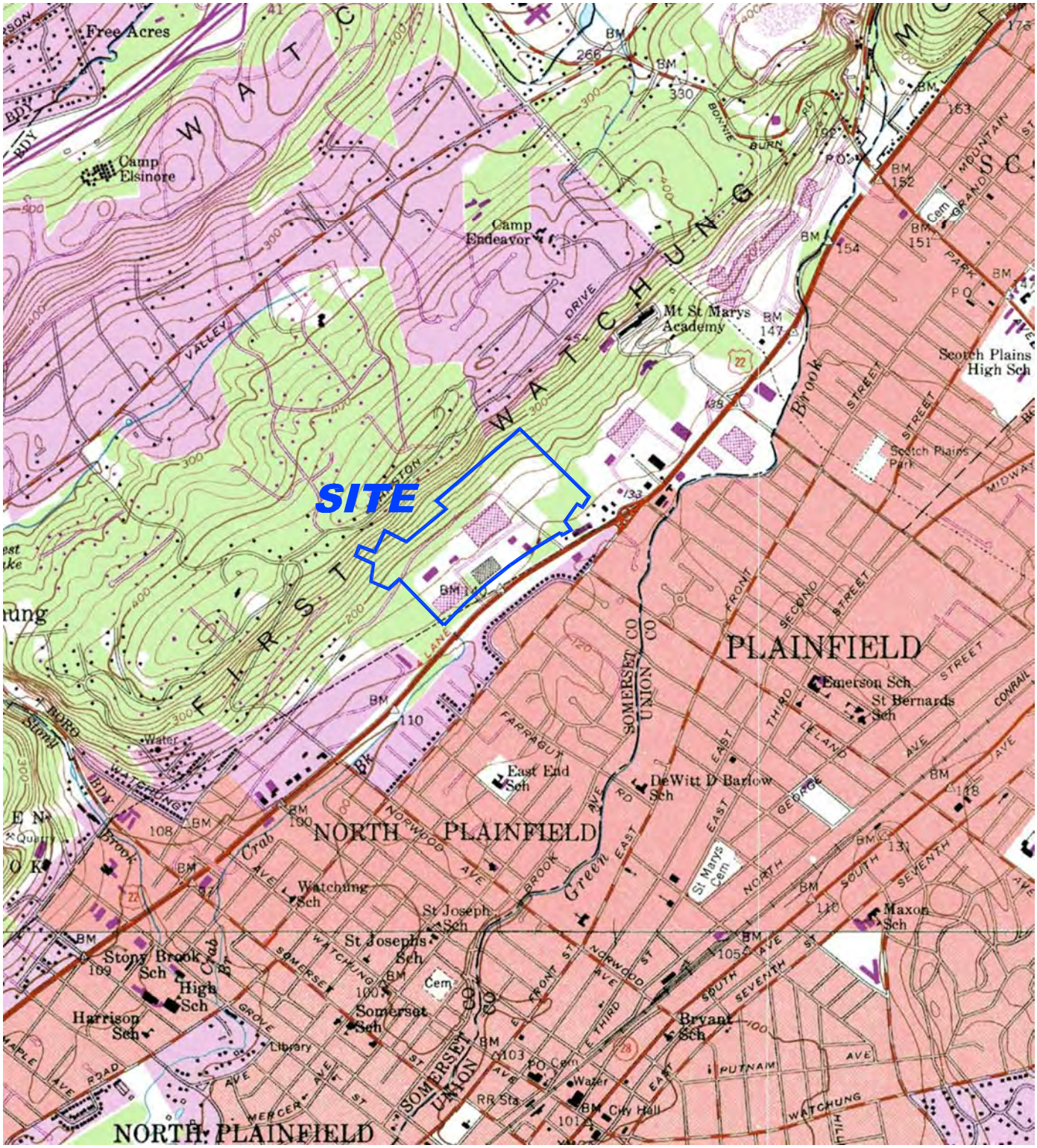
R - The sample results are rejected (qualified as unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 4-2
Summary of Indoor Air Sampling Results
Avalon Watchung, Watchung, New Jersey

AVALON WATCHUNG				BUILDING 3	BUILDING 6	AMBIENT
Client Sample ID:	**CAS No.**	**Units**	**Indoor Air Screening Levels Residential**	**CR011415-IA-B3**	**CR011415-IA-B6**	**CR011415-AMB-01**
Lab Sample ID:				**L1500978-02**	**L1500978-03**	**L1500978-01**
Date Sampled:				**1/15/2015**	**1/15/2015**	**1/15/2015**
Matrix:			***µg/m³***	**Indoor Air**	**Indoor Air**	**Indoor Air**
GC/MS Volatiles (TO-15) - ug/m3						
1,1,1-Trichloroethane	71-55-6	ug/m3	5,200	--	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	3	--	1 U	1 U
1,1,2-Trichloroethane	79-00-5	ug/m3	3	--	1 U	1 U
1,1-Dichloroethane	75-34-3	ug/m3	2	--	0.8 U	0.8 U
1,1-Dichloroethene	75-35-4	ug/m3	210	--	0.8 U	0.8 U
1,2,4-Trichlorobenzene	120-82-1	ug/m3	4	--	1 U	1 U
1,2,4-Trimethylbenzene	95-63-6	ug/m3	NS	--	1 U	1 U
1,2-Dibromoethane	106-93-4	ug/m3	4	--	2 U	2 U
1,2-Dichlorobenzene	95-50-1	ug/m3	210	--	1 U	1 U
1,2-Dichloroethane	107-06-2	ug/m3	2	--	0.8 U	0.8 U
1,2-Dichloropropane	78-87-5	ug/m3	2	--	0.9 U	0.9 U
1,3,5-Trimethybenzene	108-67-8	ug/m3	NS	--	1 U	1 U
1,3-Butadiene	106-99-0	ug/m3	1	--	0.4 U	0.4 U
1,3-Dichlorobenzene	541-73-1	ug/m3	NS	--	1 U	1 U
1,4-Dichlorobenzene	106-46-7	ug/m3	3	--	1 U	1 U
1,4-Dioxane	123-91-1	ug/m3	NS	--	0.7 U	0.7 U
2,2,4-Trimethylpentane	540-84-1	ug/m3	NS	--	0.9 U	0.9 U
2-Butanone	78-93-3	ug/m3	5200	--	0.9	0.6
2-Chlorotoluene	95-49-8	ug/m3	NS	--	1 U	1 U
3-Chloropropene	107-05-1	ug/m3	2	--	0.6 U	0.6 U
4-Ethyltoluene	622-96-8	ug/m3	NS	--	1 U	1 U
4-Methyl-2-pentanone	108-10-1	ug/m3	3100	--	0.8 U	0.8 U
Acetone	67-64-1	ug/m3	32000	--	10	4
Benzene	71-43-2	ug/m3	2	--	0.8	0.7
Bromodichloromethane	75-27-4	ug/m3	3	--	1 U	1 U
Bromoform	75-25-2	ug/m3	5	--	2 U	2 U
Bromomethane	74-83-9	ug/m3	5	--	0.8 U	0.8 U
Carbon disulfide	75-15-0	ug/m3	730	--	0.6 U	0.6 U
Carbon tetrachloride	56-23-5	ug/m3	3	--	1 U	1 U
Chlorobenzene	108-90-7	ug/m3	52	--	0.9 U	0.9 U
Chloroethane	75-00-3	ug/m3	10,000	--	0.5 U	0.5 U
Chloroform	67-66-3	ug/m3	2	**3**	1 U	1 U
Chloromethane	74-87-3	ug/m3	94	--	0.6	1
cis-1,2-Dichloroethene	156-59-2	ug/m3	NS	--	0.8 U	0.8 U
cis-1,3-Dichloropropene	10061-01-5	ug/m3	2	--	0.9 U	0.9 U
Cyclohexane	110-82-7	ug/m3	6300	--	0.7 U	0.7 U
Dibromochloromethane	124-48-1	ug/m3	4	--	2 U	2 U
Dichlorodifluoromethane	75-71-8	ug/m3	100	--	2	2
Ethanol	64-17-5	ug/m3	NS	--	49	5 U
Ethylbenzene	100-41-4	ug/m3	2	--	0.9 U	0.9 U
Freon-113	76-13-1	ug/m3	31,000	--	2 U	2 U
Freon-114	76-14-2	ug/m3	NS	--	1 U	1 U
Heptane	142-82-5	ug/m3	NS	--	0.8 U	0.8 U
Hexachlorobutadiene	87-68-3	ug/m3	5	--	2 U	2 U
Isopropanol	67-63-0	ug/m3	NS	--	9	1 U
Methyl Methacrylate	80-62-6	ug/m3	NS	--	2 U	2 U
Methyl tert butyl ether	1634-04-4	ug/m3	9	--	0.7 U	0.7 U
Methylene chloride	75-09-2	ug/m3	96	--	2 U	2 U
n-Hexane	110-54-3	ug/m3	730	--	0.7 U	0.7 U
o-Xylene	95-47-6	ug/m3	NS	--	0.9 U	0.9 U
p/m-Xylene	179601-23-1	ug/m3	NS	--	2 U	2 U
Styrene	100-42-5	ug/m3	1,000	--	0.9 U	0.9 U
Tertiary butyl Alcohol	75-65-0	ug/m3	NS	--	2 U	2 U
Tetrachloroethene	127-18-4	ug/m3	9	--	1 U	1 U
Tetrahydrofuran	109-99-9	ug/m3	NS	--	0.6 U	0.6 U
Toluene	108-88-3	ug/m3	5,200	--	2	1
trans-1,2-Dichloroethene	156-60-5	ug/m3	63	--	0.8 U	0.8 U
trans-1,3-Dichloropropene	10061-02-6	ug/m3	2	--	0.9 U	0.9 U
Trichloroethene	79-01-6	ug/m3	3	--	1 U	1 U
Trichlorofluoromethane	75-69-4	ug/m3	730	--	1	1
Vinyl bromide	593-60-2	ug/m3	2	--	0.9 U	0.9 U
Vinyl chloride	75-01-4	ug/m3	1	--	0.5 U	0.5 U

-- - Not analyzed
NR - Not reported
NS - No screening level available
U - Not detected at the reported detection limit for the sample.

FIGURES



SOURCE: USGS 7.5 MINUTE QUADRANGLE (CHATHAM, NJ).

FIGURE 1-1

SITE LOCATION MAP

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

TETRA TECH GEO

DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 07/25/12



QUADRANGLE LOCATION

SCALE: 1" = 2000'



DWG: FIGURE_1-1 07/25/12



SOURCE: THIS FIGURE BASED UPON INFORMATION PROVIDED BY CDM SMITH, EDISON, NJ, AS CONTAINED IN THEIR JANUARY 2012 VAPOR INTRUSION INVESTIGATION REPORT ADDENDUM PREPARED FOR FORMER LOCKHEED ELECTRONICS COMPANY, INC.

SCALE

400 200 0 400 FEET

LEGEND

- PROPERTY LINE
- 50 BUILDING NUMBER
- 6 BUILDING SAMPLED FOR POTENTIAL VAPOR INTRUSION
- 2 ug/L TCE ISOCONCENTRATION CONTOUR
- 100 - FOOT BUFFER LINE

FIGURE 2-1

SITE PLAN WITH SELECTED BUILDINGS FOR 2015 VAPOR INTRUSION INVESTIGATION

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

TETRA TECH

DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 03/17/15

DWG: FIGURE_2-1 03/17/15



SHALLOW ZONE - OVERBURDEN AND SHALLOW BEDROCK GROUNDWATER FROM THE GROUNDWATER TABLE TO APPROXIMATELY 50 FEET ABOVE MEAN SEA LEVEL (MSL).

INTERMEDIATE ZONE - BEDROCK GROUNDWATER FROM APPROXIMATELY 50 FT ABOVE MSL TO APPROXIMATELY 50 FEET BELOW MSL.

DEEP ZONE - BEDROCK GROUNDWATER DEEPER THAN APPROXIMATELY 50 FT BELOW MSL.

NOTE: THIS FIGURE WAS DEVELOPED USING NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION GEOGRAPHIC INFORMATION SYSTEM DIGITAL DATA, BUT THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED BY NJDEP AND IS NOT STATE-AUTHORIZED.

SCALE

1000 500 0 1000 FEET

LEGEND

- PROPERTY LINE
- ACTIVE MONITORING WELL OR PIEZOMETER
- RECOVERY WELL LOCATION
- TCE ISOCONCENTRATION CONTOUR
- TCE ISOCONCENTRATION CONTOUR (INFERRED)
- 2.8 TCE CONCENTRATION (ug/L)
- U NOT DETECTED
- J ESTIMATED CONCENTRATION

FIGURE 2-2

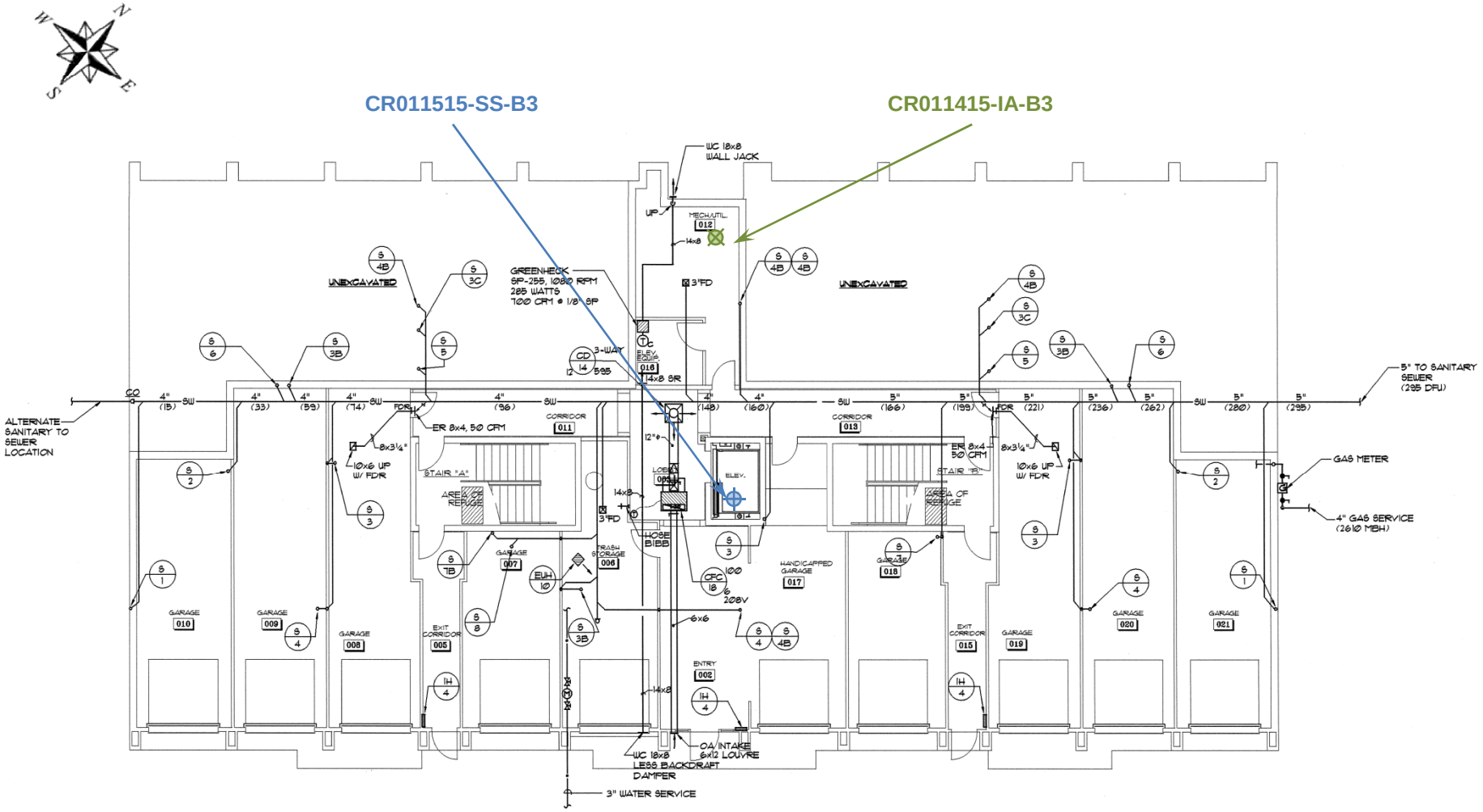
SHALLOW TCE ISOCONCENTRATION MAP (MARCH 2014)

FORMER LOCKHEED ELECTRONICS COMPANY, INC. WATCHUNG, NEW JERSEY

TETRA TECH

DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 03/17/15

DWG: FIGURE_2-2 03/17/15



Not to Scale

Type B

FIGURE 2-3: **Avalon Watchung, Building 3 Basement Locations of Sub-Slab and Indoor Samples**

Sub Slab Sampling Location

Indoor Air Sampling Location

TETRA TECH

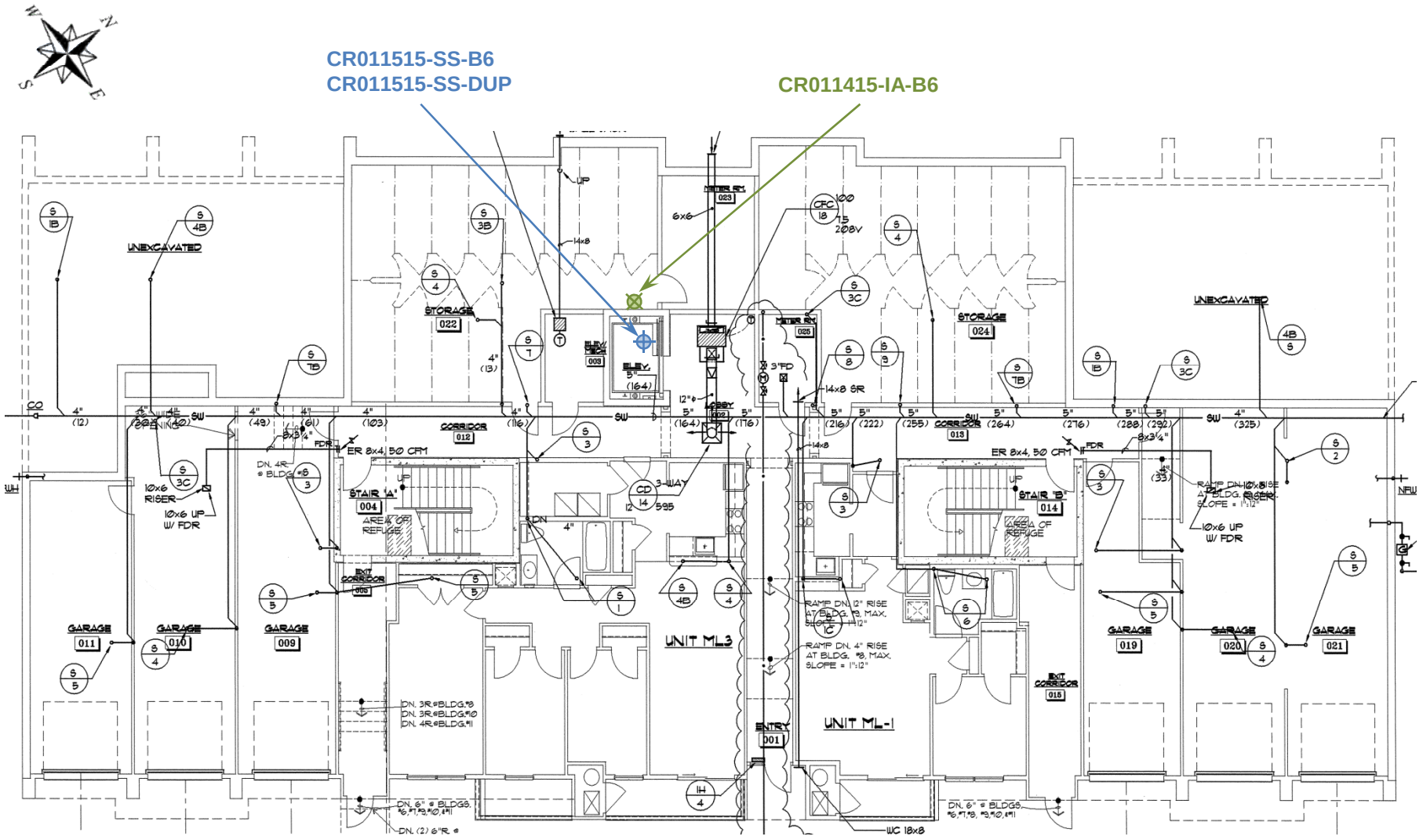


FIGURE 2-4: **Avalon Watchung, Building 6 First Floor Locations of Sub-Slab and Indoor Samples**

Sub Slab Sampling Location

Indoor Air Sampling Location

TETRA TECH

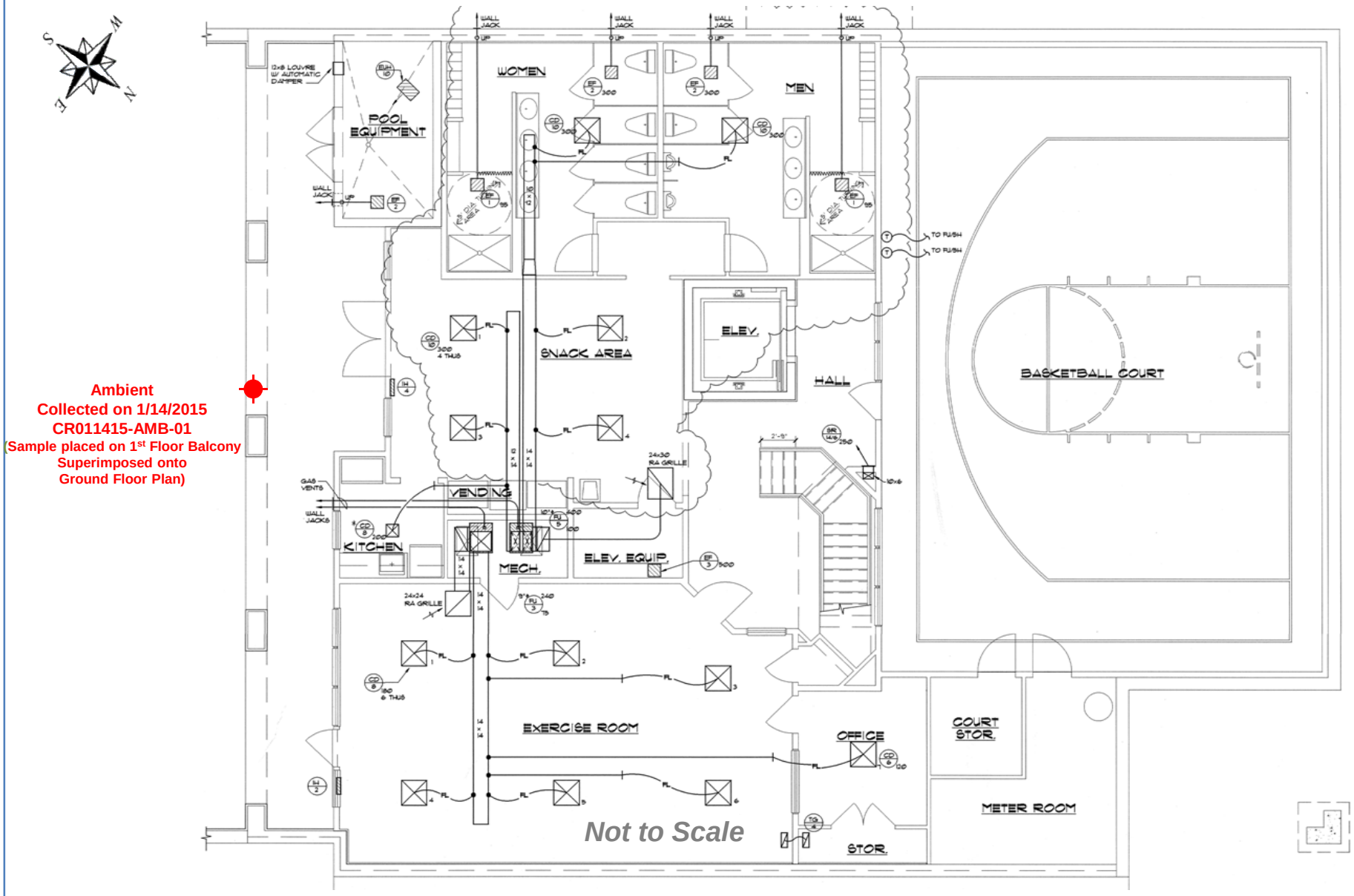


FIGURE 2-5: **Avalon Watchung, Clubhouse Ground Floor Location of Ambient Sample**

Sub Slab Sampling Location

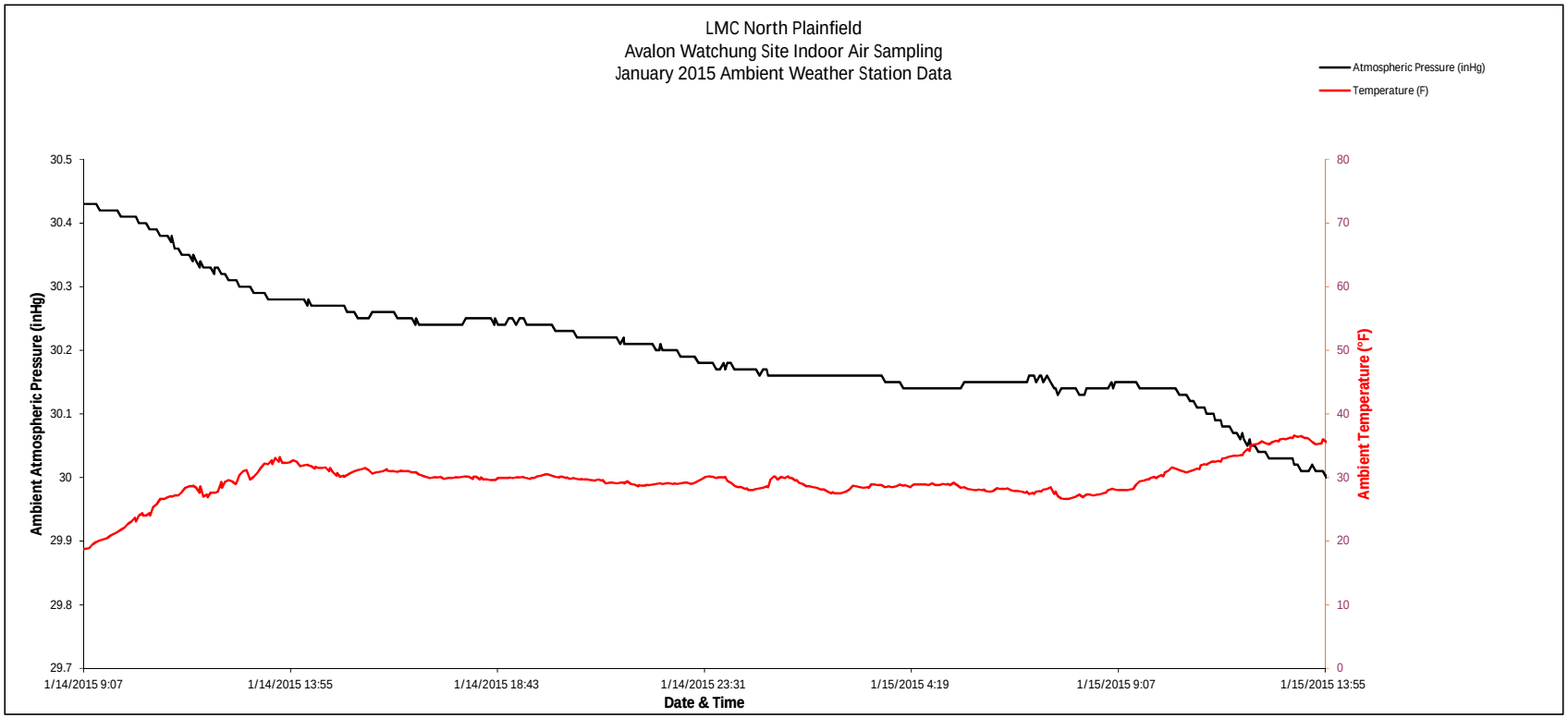
Indoor Air Sampling Location

TETRA TECH

APPENDIX A

Weather Station Data

Appendix A
Atmospheric Pressure and Temperature Readings Recorded from Weather Underground (www.weatherunderground.com)
Recorded for 1/14/2015 through 1/15/2015 for the January Sampling Event - Avalon Watchung



APPENDIX B

NJDEP Building Walk-Through Survey Forms

New Jersey Department of Environmental Protection

INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name: Keith McDermott Date: 1/07/15

Preparer's affiliation: Tetra Tech Phone #: 908-534-2303

Site Name: Former LEC Facility Case #: E90038

Part I - Occupants

Building Address: Avalon – Building 3

Property Contact: Maintenance Supervisor Owner/ Renter / other: _____

Contact's Phone: home ( )_____ work ( )_____ cell ( )_____

# of Building occupants: Children under age 13 _____ Children age 13-18 _____ Adults _____

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial

Describe building: _____ Year constructed: 2002 – 2003

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors below grade: _____ (full basement / crawl space / slab on grade)

Number of floors at or above grade: 3

Depth of basement below grade surface: NA ft. Basement size: _____ ft^2

Basement floor construction: concrete / dirt / floating / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify) _____

Basement sump present? *Yes* / *No* Sump pump? *Yes* / *No* Water in sump? *Yes* / *No*

** In elevator pit, inspected on 1/15/15 during sub-slab soil gas sampling*

Type of heating system (circle all that apply):

hot air circulation	hot air radiation	wood	steam radiation
heat pump	hot water radiation	kerosene heater	electric baseboard

other (specify): Utility Room not heated/cooled.

Type of ventilation system (circle all that apply):

central air conditioning	mechanical fans	bathroom ventilation fans individual air
conditioning units	kitchen range hood fan	outside air intake

other (specify): Utility Room not heated/cooled

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? *Yes / No*

Is there a whole house fan? *Yes / No*

Septic system? *Yes / Yes (but not used) / No*

Irrigation/private well? *Yes / Yes (but not used) / No*

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? *Yes / No* *active / passive*

Sub-slab vapor/moisture barrier in place? *Yes / No*
Type of barrier: _____

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): Former Lockheed Electronics Company Facility

Other stationary sources nearby (gas stations, emission stacks, etc.): NA

Heavy vehicular traffic nearby (or other mobile sources): US Route 22

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	**Location(s) (Mechanical Room Only)**	**Removed** (Yes / No / NA)
Gasoline storage cans	No	
Gas-powered equipment	No	
Kerosene storage cans	No	
Paints / thinners / strippers	No	
Cleaning solvents	No	
Oven cleaners	No	
Carpet / upholstery cleaners	No	
Other house cleaning products	No	
Moth balls	No	
Polishes / waxes	No	
Insecticides	No	
Furniture / floor polish	No	
Nail polish / polish remover	No	
Hairspray	No	
Cologne / perfume	No	
Air fresheners	No	
Fuel tank (inside building)	No	
Wood stove or fireplace	No	
New furniture / upholstery	No	
New carpeting / flooring	No	
Hobbies - glues, paints, etc.	No	

Part V – Miscellaneous Items

Do any occupants of the building smoke? *Yes / No* How often? Public Space

Last time someone smoked in the building? _____ hours / *days ago*

Does the building have an attached garage directly connected to living space? *Yes / No*

If so, is a car usually parked in the garage? *Yes / No*

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? *Yes / No / Unknown*

Do the occupants of the building have their clothes dry cleaned? *Yes / No*

If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? *Yes / No*

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? *Yes / No*

Have any pesticides/herbicides been applied around the building or in the yard? *Yes* / No

If so, when and which chemicals? _____

Has there ever been a fire in the building? *Yes / No* If yes, when? _____

Has painting or staining been done in the building in the last 6 months? *Yes / No*

If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: Keith McDermott Phone number: (908) 534 – 2303

Company: Tetra Tech

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Were "Instructions for Occupants" followed? Y*es / No*

If not, describe modifications: _____

Sample locations (floor, room):

SAMPLING DATA

Sample #	Location	Analytical Method	Sample Volume	Sample Time	Sample Date	Sampler Type	Ambient Temp (°F)
CR011415-IA-B3	Bldg 3 Indoor Air	TO-15	6 Liter	10:08	1/14/15	Stainless Steel Canister	51.2
CR011515-SS-B3	Bldg 3, Sub Slab	TO-15	6 Liter	11:41	1/15/14	Stainless Steel Canister	63.1

Provide Drawing of Sample Location(s) in Building

SEE ATTACHED FIGURE

Type of field instrument used (include summary of results): _____

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? *Yes / No*

Describe the general weather conditions: ___See Attached_____

_____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Walk through conducted in 1st floor public areas proposed for indoor sampling only. Pressure tank used for Fire Suppression system present during walk-through. Small quantity of garbage including used work gloves were observed. Avalon Mgt. to remove before sampling.

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)

New Jersey Department of Environmental Protection

INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name: Keith McDermott Date: 1/07/15

Preparer's affiliation: Tetra Tech Phone #: 908-534-2303

Site Name: Former LEC Facility Case #: E90038

Part I - Occupants

Building Address: Avalon – Building 6

Property Contact: Maintenance Supervisor Owner/ Renter / other: _____

Contact's Phone: home ( )_____ work ( )_____ cell ( )_____

# of Building occupants: Children under age 13 _____ Children age 13-18 _____ Adults _____

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial

Describe building: _____ Year constructed: 2002 – 2003

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors below grade: _____ (full basement / crawl space / slab on grade)

Number of floors at or above grade: 3

Depth of basement below grade surface: NA ft. Basement size: _____ ft^2

Basement floor construction: concrete / dirt / floating / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify) _____

Basement sump present? *Yes* / *No* Sump pump? *Yes* / *No* Water in sump? *Yes* / *No*

** In elevator pit, inspected on 1/15/15 during sub-slab soil gas sampling*

Type of heating system (circle all that apply):

hot air circulation	hot air radiation	wood	steam radiation
heat pump	hot water radiation	kerosene heater	electric baseboard

other (specify): NA

Type of ventilation system (circle all that apply):

central air conditioning	mechanical fans	bathroom ventilation fans individual air
conditioning units	kitchen range hood fan	outside air intake

other (specify): NA

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? *Yes / No*

Is there a whole house fan? *Yes / No*

Septic system? *Yes / Yes (but not used) / No*

Irrigation/private well? *Yes / Yes (but not used) / No*

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? *Yes / No* *active / passive*

Sub-slab vapor/moisture barrier in place? *Yes / No*
Type of barrier: _____

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): Former Lockheed Electronics Company Facility

Other stationary sources nearby (gas stations, emission stacks, etc.): NA

Heavy vehicular traffic nearby (or other mobile sources): US Route 22

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	**Location(s) (Storage Room Only – Locked storage units not accessible)**	**Removed** (Yes / No / NA)
Gasoline storage cans	No	
Gas-powered equipment	No	
Kerosene storage cans	No	
Paints / thinners / strippers	No	
Cleaning solvents	No	
Oven cleaners	No	
Carpet / upholstery cleaners	No	
Other house cleaning products	No	
Moth balls	No	
Polishes / waxes	No	
Insecticides	No	
Furniture / floor polish	No	
Nail polish / polish remover	No	
Hairspray	No	
Cologne / perfume	No	
Air fresheners	No	
Fuel tank (inside building)	No	
Wood stove or fireplace	No	
New furniture / upholstery	No	
New carpeting / flooring	No	
Hobbies - glues, paints, etc.	No	

Part V – Miscellaneous Items

Do any occupants of the building smoke? *Yes / No* How often? Public Space

Last time someone smoked in the building? _____ hours / *days ago*

Does the building have an attached garage directly connected to living space? *Yes / No*

If so, is a car usually parked in the garage? *Yes / No*

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? *Yes / No / Unknown*

Do the occupants of the building have their clothes dry cleaned? *Yes / No*

If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? *Yes / No*

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? *Yes / No*

Have any pesticides/herbicides been applied around the building or in the yard? *Yes* / No

If so, when and which chemicals? _____

Has there ever been a fire in the building? *Yes / No* If yes, when? _____

Has painting or staining been done in the building in the last 6 months? *Yes / No*

If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: Keith McDermott Phone number: (908) 534 – 2303

Company: Tetra Tech

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Were "Instructions for Occupants" followed? Y*es / No*

If not, describe modifications: _____

Sample locations (floor, room):

SAMPLING DATA

Sample #	Location	Analytical Method	Sample Volume	Sample Time	Sample Date	Sampler Type	Ambient Temp (°F)
CR011415-IA-B6	Bldg 6, Indoor Air	TO-15	6 Liter	10:25	1/14/15	Stainless Steel Canister	57.5
CR011515-SS-B6	Bldg 6, Sub Slab	TO-15	6 Liter	13:30	1/15/15	Stainless Steel Canister	74.6
CR011515-SS-DUP	Bldg 6, Sub Slab (DUP)	TO-15	6 Liter	13:30	1/15/15	Stainless Steel Canister	74.6

Provide Drawing of Sample Location(s) in Building

SEE ATTACHED FIGURE

Type of field instrument used (include summary of results): _____

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? *Yes / No*

Describe the general weather conditions: See Attached

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Walk-through conducted in 1st floor public areas proposed for indoor sampling only. Locked storage cabinet was not accessible (residents private space)

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)

APPENDIX C

Photolog of Sampling Locations

PHOTOLOG



Photo 1	Building 3 Elevator equipment room.	1/07/15

PHOTOLOG



Photo 2	Building 3 Electrical Supply Room	1/07/15

PHOTOLOG



Photo 3	Building 3 Proposed indoor air sampling location during the walk-through survey.	1/07/15

PHOTOLOG



Photo 4	Building 6 Storage Room with resident's storage units. The units were locked and were not inspected.	1/07/15

PHOTOLOG



Photo 5	Building 6 Elevator Equipment Room adjacent to elevator shaft. Elevator equipment includes oil feed lines.	1/07/15

PHOTOLOG



Photo 6	Building 6 Storage Room – proposed indoor air sample location. The wall is adjacent to the elevator shaft.	1/07/15

PHOTOLOG



Photo 7	Building 6 Electrical Supply Room	1/07/15

PHOTOLOG



Photo 8	Ambient Sample CR011415-AMB-01 installed on balcony of Clubhouse.	1/14/15

PHOTOLOG



Photo 9	Building 3 Utility Room and Indoor Air Sample CR011415-IA-B3	1/14/15

PHOTOLOG



Photo 10	Building 6 Indoor Air Sample CR011415-IA-B6	1/14/15

PHOTOLOG



Photo 11	Building 6 Elevator Pit Sump with water present.	1/15/15

PHOTOLOG



Photo 12	Example sub-slab sample point Installation through sidewall of elevator shaft.	1/15/15

PHOTOLOG



Photo 13	Example Sub Slab Soil Gas sample train leak detection with shroud filled with helium used for leak check.	1/15/15

PHOTOLOG



Photo 14	Sub-Slab Soil Gas Sample CR011515-SS-B3 Collection	1/15/15

PHOTOLOG



Photo 15	Building 6 Elevator Pit, CR011515-SS-B6 and CR011515-SS-DUP sample collection.	1/15/15

APPENDIX D

Laboratory Data Deliverables

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com



Lab Number: L1500977

Client: Tetra Tech GEO

ATTN: Steve Feldmann

Project Name: FORMER LEC

Project Number: 117-0507600

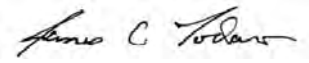
The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

ANALYTICAL DATA PACKAGE FOR THE
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
TRENTON NEW JERSEY 08625

Agency/Division:	**Bureau/Office:**
Project No: 117-0507600	**Contract No:**
Laboratory: Alpha Analytical	**Laboratory Location:** Mansfield, Ma
SDG No: L1500977	**NJDEP Certification #:** MA015
Date of First Sample Receipt: 01/15/2015	**Date of Last Sample Receipt:** 01/15/2015

Agency Sample Number	Laboratory Sample Number	Sample Location	Date/Time of Collection
CR011515-SS-B3	L1500977-01	FORMER LEC	01/15/2015 12:14
CR011515-SS-B6	L1500977-02	FORMER LEC	01/15/2015 14:00
CR011515-SS-DUP	L1500977-03	FORMER LEC	01/15/2015 14:00
CAN 634	L1500977-04	FORMER LEC	
CAN 738	L1500977-05	FORMER LEC	

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on disk or electronically has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Laboratory Manager (Typed)	Arin Jones	01/20/15
Laboratory Manager (Signature)		
Quality Assurance Officer (Typed)	James Todaro	01/20/15
Quality Assurance Officer (Signature)		

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Alpha Analytical

320 Forbes Blvd
Mansfield, MA 02048-1806
Tel: 508-822-9300
Fax: 508-822-3288

AIR Chain-of-Custody - NJ

Date Rec'd in Lab | **ALPHA Job#** L1500977

Client Contact Information

Company: TETRATECH
Address: 295 RT 22E
City/State/Zip: WHITEHOUSE STN NJ
Phone: (908) 534 2303
FAX:
Email:
Site Contact: KMCDERMOTT
Site Contact Phone: (908)5342303

Project Information

Project Name: FORMER LEC
Project No: 117-0507600
Site/Location: N PLAINFIELD
Project Manager: SFELDMANN

Analysis Turn-Around Time

Standard (Specify)
Rush (Specify) 48HR

NJ DEP Information

Bureau: Division: Contract No:

Report Information - Data Deliverables:

☐ FAX: FULL NJ LAB DELIVERABLES
☐ ADEx ☐ Criteria Checker:
☐ EMail (standard pdf report)

Billing Information

☐ Same as Client Info PO #:

____ of ____ COCs

ALPHA LAB ID (Lab Use Only)	Sample Identification	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field (Hg) (Start)	Canister Pressure in Field (Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Outgoing Canister Pressure (Hg) (Note1)	Incoming Canister Pressure (Hg) (Note 2)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min) (Note1)	Batch Cert ID (Note 1)	Analysis: TO-15	Analysis: EPA 3C	Analysis: EPA 6C TO-15	Analysis:	Analysis:	Matrix: Indoor /Ambient Air	Matrix: Soil Gas	Matrix:	Matrix:
1	CR011515-SS-B3	1/15/15	1141	1214	-29.31	-1.92	60.8	63.1			0591	1899	6					X						
2	CR011515-SS-B6	1/15/15	1330	1400	-29.5	-0.97	75.6	74.6			0247	1999	6					X						
3	CR011515-SS-DUP	1/15/15	1330	1400	-29.22	-4.64	75.6	74.6			0049	966	6					X						

Custody Seals:
Outgoing Seal No: 577,579 (refer to crate seal)
Incoming Seal No: _____ (if applicable)

Temperature (Fahrenheit)

	Ambient	Maximum	Minimum	
Start				
Stop				

Individual Preparing Canister/Containers and Laboratory Canister Certification
Name: Kevin Garcia
Signature: Kevin Garcia

Pressure (inches of Hg)

	Ambient	Maximum	Minimum	
Start				
Stop				

Footnotes:
(1) Refer to equipment tags for these readings.
(2) Readings provided in data deliverable package.

Special Instructions/QC Requirements & Comments: * RUSH 48 HR TAT
NJDKQP

470

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 1/15/15, 1445	Received by: AAL	Date/Time: 1/15/15 14:45
Relinquished by:	Date/Time: 1/15/15 1840	Received by:	Date/Time: 1-15-15 1840
Tom Taber 1-16-15 0100			1/16/15 0100

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until all ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Note: Combined External Chain of Custody and NJDEP Field Test Data Sheet

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1500977-01A	Can-6	INTACT	17-JAN-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1500977-01A	Can-6	INTACT	16-JAN-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1500977-01A	Can-6	INTACT	16-JAN-15	A2-LOGIN	A2-LOGIN	Maria Raposo	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Maria Raposo
L1500977-02A	Can-6	INTACT	17-JAN-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1500977-02A	Can-6	INTACT	16-JAN-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1500977-02A	Can-6	INTACT	16-JAN-15	A2-LOGIN	A2-LOGIN	Sharon Hoffman	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Sharon Hoffman
L1500977-03A	Can-6	INTACT	17-JAN-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1500977-03A	Can-6	INTACT	16-JAN-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1500977-03A	Can-6	INTACT	16-JAN-15	A2-LOGIN	A2-LOGIN	Sharon Hoffman	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Sharon Hoffman

Shipping Documentation

Sample Delivery Group Form

Laboratory Job number: L1500977

Project Number: 117-0507600

Project Name: FORMER LEC **Received:** 01/15/2015 14:45

Client Account: Tetra Tech GEO **Received by:** TWM

Samples Delivered by: COURIER **Call Tracker #**

Bill Of Laden N/A **Trackingnum**

Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt **Are samples Properly Preserved?** Yes

Initial pH **preserved in house with** **Final pH**

Other Issues

Chlorine Check N/A

Are VOA/VPH Vials Present? No

Aqueous: Do Vials Contain Head Space? N/A

Soils: Is MeOHCovering the Soil? N/A

Reagent H2O Preserved vials Frozen on N/A

Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
N/A	Present/Intact	No	No	-	No	No

Project Manager: Chris Anderson **Review Date:** 01/16/2015

STANDARD NAME:	TO15 ICAL STD	**Primary Standard ID#s :**	**1)**	**CSS14-011**	**Conc. 1.0 ppmV**
ROOT STANDARD ID#	SS14-027		**2)**	**CSS14-013**	**Conc. 1.0 ppmV**
Prepared by:	RY		**3)**	**CSS14-014**	**Conc. 1.0 ppmV**
Date Prepared:	10/2/2014		**4)**	**PS14-017(BAG)**	**Conc. 50.0 ppmV**
Expiration Date:	1/2/2015		**5)**		**Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	894	3000 mL	50 mL/ min for 60 min	15	2	30	100 ppbV
B1 & B2	1684/1681	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
C	1682	300 mL of can A	NA	15	2	30	1.0 ppbV
D	1803	30 mL of can A	NA	15	2	30	0.1 ppbV
E (NJ CC)	1683	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
F (NJ CC)	1686	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV

Notes: BAG INJ (PS14-017) A=60mL B,E,+F=6mL SOLID PHASE INJECTIONS -- SEE TABLE 3B IN SOP

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM N2

Lot #: BULK TANK

STANDARD NAME: TO15-LCS STD

ROOT STANDARD ID# SS14-026

Prepared by: RY

Date Prepared: 09/23/14

Expiration Date: 12/23/14

Primary Standard ID#s :

1) **CSS14-003** **Conc. 1.0 ppmV**
2) **CSS14-004** **Conc. 1.0 ppmV**
3) **CSS14-006** **Conc. 1.0 ppmV**
4) **PS14-016(BAG)** **Conc. 50.0 ppmV**
5) **Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	916	300 mL	50mL/ MIN FOR 6 MINS.	15	2.0	30.0	10 ppbV
B	591	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
C	912	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
D	606	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
E	1501	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
F	893	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV

Notes: 6mLs OF BAG STD. (PS14-016) ADDED VIA DIRECT INJECTION

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM N2

Lot #: BULK TANK

STANDARD NAME: TO15-LCS STD

ROOT STANDARD ID# SS14-034

Prepared by: RY

Date Prepared: 11/05/14

Expiration Date: 02/05/15

Primary Standard ID#s :

1) **CSS14-003** **Conc. 1.0 ppmV**
2) **CSS14-004** **Conc. 1.0 ppmV**
3) **CSS14-006** **Conc. 1.0 ppmV**
4) **PS14-018(BAG)** **Conc. 50.0 ppmV**
5) **Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	592	300 mL	50mL/ MIN FOR 6 MINS.	15	2.0	30.0	10 ppbV
B	917	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
C	703	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
D	914	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
E	895	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV

Notes: 6mLs OF BAG STD. (PS14-018) ADDED VIA DIRECT INJECTION

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM N2

Lot #: BULK TANK

STANDARD NAME:	TO15 ICAL STD	**Primary Standard ID#s :**	**1)**	**CSS14-011**	**Conc. 1.0 ppmV**
ROOT STANDARD ID#	SS14-040		**2)**	**CSS14-013**	**Conc. 1.0 ppmV**
Prepared by:	RY		**3)**	**CSS14-014**	**Conc. 1.0 ppmV**
Date Prepared:	12/24/2014		**4)**	**PS14-021(BAG)**	**Conc. 50.0 ppmV**
Expiration Date:	3/26/2015		**5)**		**Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	894	3000 mL	50 mL/ min for 60 min	15	2	30	100 ppbV
B1 & B2	1684/1681	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
C	1682	300 mL of can A	NA	15	2	30	1.0 ppbV
D	1803	30 mL of can A	NA	15	2	30	0.1 ppbV
E (NJ CC)	703	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
F (NJ CC)	914	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV

Notes: BAG INJ (PS14-021) A=60mL B,E,+F=6mL SOLID PHASE INJECTIONS -- SEE TABLE 3B IN SOP

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM N2

Lot #: BULK TANK

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CS514-011
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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256057
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1200 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Freon-12	75-71-8	1.00 ppm	1.05 ppm
Chloromethane	74-87-3	1.00 ppm	1.04 ppm
Freon-114	76-14-2	1.00 ppm	1.03 ppm
Vinyl Chloride	75-01-4	1.00 ppm	1.03 ppm
Bromomethane	74-83-9	1.00 ppm	1.03 ppm
Chloroethane	75-00-3	1.00 ppm	1.03 ppm
Freon-11	75-69-4	1.00 ppm	1.07 ppm
1,1-Dichloroethene	75-35-4	1.00 ppm	0.99 ppm
Methylene Chloride	75-09-2	1.00 ppm	1.00 ppm
Freon-113	76-13-1	1.00 ppm	1.01 ppm
1,1-Dichloroethane	75-34-3	1.00 ppm	0.99 ppm
Cis-1,2-Dichloroethylene	156-59-2	1.00 ppm	1.02 ppm
Chloroform	67-66-3	1.00 ppm	1.03 ppm
1,2-Dichloroethane	107-06-2	1.00 ppm	1.00 ppm
1,1,1-Trichloroethane	71-55-6	1.00 ppm	1.01 ppm
Benzene	71-43-2	1.00 ppm	1.01 ppm
Carbon Tetrachloride	56-23-5	1.00 ppm	1.03 ppm
1,2-Dichloropropane	78-87-5	1.00 ppm	1.02 ppm
Trichloroethylene	79-01-6	1.00 ppm	1.05 ppm
Cis-1,3-Dichloropropene	10061-01-5	1.00 ppm	1.01 ppm
Trans-1,3-Dichloropropene	10061-02-6	1.00 ppm	1.05 ppm
1,1,2-Trichloroethane	79-00-5	1.00 ppm	1.02 ppm
Toluene	108-88-3	1.00 ppm	1.02 ppm
1,2-Dibromoethane	106-93-4	1.00 ppm	1.02 ppm
Tetrachloroethylene	127-18-4	1.00 ppm	1.00 ppm
Chlorobenzene	108-90-7	1.00 ppm	1.01 ppm
Ethylbenzene	100-41-4	1.00 ppm	1.02 ppm
P-Xylene	106-42-3	1.00 ppm	1.02 ppm

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PAGE: 2 of 2

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256057
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1200 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
M-Xylene	108-38-3	1.00 ppm	1.02 ppm
Styrene	100-42-5	1.00 ppm	1.01 ppm
O-Xylene	95-47-6	1.00 ppm	1.02 ppm
1,1,2,2-Tetrachloroethane	79-34-5	1.00 ppm	1.01 ppm
4-Ethyltoluene	622-96-8	1.00 ppm	1.04 ppm
1,2,4-Trimethylbenzene	95-63-6	1.00 ppm	1.02 ppm
1,3-Dichlorobenzene	541-73-1	1.00 ppm	1.02 ppm
1,4-Dichlorobenzene	106-46-7	1.00 ppm	1.03 ppm
1,2-Dichlorobenzene	95-50-1	1.00 ppm	1.00 ppm
1,2,4-Trichlorobenzene	120-82-1	1.00 ppm	0.98 ppm
Hexachloro-1,3-Butadiene	87-68-3	1.00 ppm	0.99 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: _____
Matthew Jackson

DATE: Aug-21-2014

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PAGE: 1 of 2

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256101
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1600 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	3200 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propylene	115-07-1	1.00 ppm	0.97 ppm
1,3-Butadiene	106-99-0	1.00 ppm	0.96 ppm
Vinyl Bromide	593-60-2	1.00 ppm	1.04 ppm
Acetone	67-64-1	1.00 ppm	1.03 ppm
Isopropyl Alcohol	67-63-0	1.00 ppm	0.96 ppm
Carbon Disulfide (Analytical Accuracy ± 10%)	75-15-0	1.00 ppm	1.05 ppm
Allyl Chloride	107-05-1	1.00 ppm	0.99 ppm
Trans-1,2-Dichloroethene	156-60-5	1.00 ppm	1.08 ppm
Methyl Tert-Butyl Ether	1634-04-4	1.00 ppm	1.01 ppm
Vinyl Acetate	108-05-4	1.00 ppm	0.95 ppm
Methyl Ethyl Ketone	78-93-3	1.00 ppm	1.04 ppm
n-Hexane	110-54-3	1.00 ppm	1.02 ppm
Ethyl Acetate	141-78-6	1.00 ppm	1.03 ppm
Tetrahydrofuran	109-99-9	1.00 ppm	1.04 ppm
Cyclohexane	110-82-7	1.00 ppm	1.02 ppm
Bromodichloromethane	75-27-4	1.00 ppm	1.03 ppm
1,4-Dioxane	123-91-1	1.00 ppm	1.03 ppm
2,2,4-Trimethylpentane	540-84-1	1.00 ppm	1.03 ppm
n-Heptane	142-82-5	1.00 ppm	1.03 ppm
Methyl Isobutyl Ketone	108-10-1	1.00 ppm	1.02 ppm
Methyl Butyl Ketone	591-78-6	1.00 ppm	1.02 ppm
Dibromochloromethane	124-48-1	1.00 ppm	1.03 ppm
Bromoform	75-25-2	1.00 ppm	1.02 ppm

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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256101
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1600 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	3200 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Ethyltoluene	622-96-8	1.00 ppm	1.04 ppm
Benzyl Chloride (Analytical Accuracy ± 10%)	100-44-7	1.00 ppm	1.01 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Justin Kutz

DATE: Aug-21-2014

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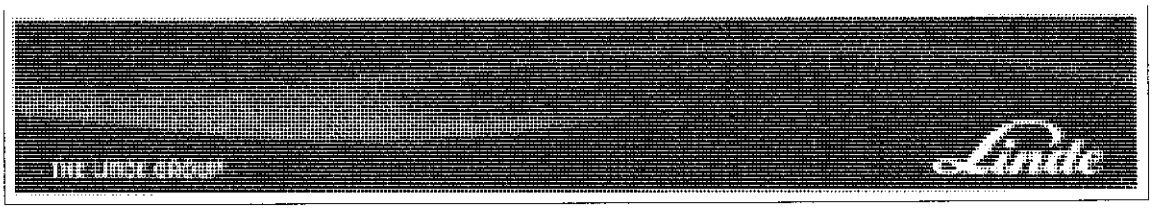
CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-197190
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Aug-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propane	74-98-6	1.00 ppm	1.02 ppm
Chlorodifluoromethane	75-45-6	1.00 ppm	1.07 ppm
Methanol (No Stability Guarantee)	67-56-1	5.00 ppm	5.24 ppm
n-Butane	106-97-8	1.00 ppm	1.12 ppm
Dichlorofluoromethane	75-43-4	1.00 ppm	1.06 ppm
Ethanol (Analytical Accuracy +/- 10%)	64-17-5	5.00 ppm	4.91 ppm
Acetonitrile (No Stability Guarantee)	75-05-8	1.00 ppm	1.01 ppm
Acrolein	107-02-8	1.00 ppm	1.13 ppm
n-Pentane	109-66-0	1.00 ppm	1.01 ppm
Acrylonitrile	107-13-1	1.00 ppm	1.01 ppm
Ethyl Ether	60-29-7	1.00 ppm	1.08 ppm
Tert Butyl Alcohol	75-65-0	1.00 ppm	1.11 ppm
2,2-Dichloropropane	594-20-7	1.00 ppm	1.07 ppm
Di-isopropyl Ether	108-20-3	1.00 ppm	1.07 ppm
Ethyl Tert-Butyl Ether	637-92-3	1.00 ppm	1.06 ppm
1,1-Dichloropropene	563-58-6	1.00 ppm	1.06 ppm
Tert Amyl Methyl Ether	994-05-8	1.00 ppm	1.07 ppm
Dibromomethane	74-95-3	1.00 ppm	1.05 ppm
1,3-Dichloropropane	142-28-9	1.00 ppm	1.07 ppm
n-Butyl Acetate	123-86-4	1.00 ppm	1.12 ppm
n-Octane	111-65-9	1.00 ppm	1.07 ppm
1,1,1,2-Tetrachloroethane	630-20-6	1.00 ppm	1.08 ppm
1,2,3-Trichloropropane	96-18-4	1.00 ppm	1.05 ppm
Nonane	111-84-2	1.00 ppm	1.07 ppm
Isopropylbenzene	98-82-8	1.00 ppm	1.04 ppm
Bromobenzene	108-86-1	1.00 ppm	0.98 ppm
o-Chlorotoluene	95-49-8	1.00 ppm	1.08 ppm
n-Propylbenzene	103-65-1	1.00 ppm	1.04 ppm



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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-197190
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Aug-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Chlorotoluene	106-43-4	1.00 ppm	1.04 ppm
Tert-Butyl Benzene	98-06-6	1.00 ppm	1.06 ppm
n-Decane	124-18-5	1.00 ppm	1.06 ppm
Sec-Butyl Benzene	135-98-8	1.00 ppm	1.06 ppm
p-Cymene	99-87-6	1.00 ppm	1.04 ppm
n-Butyl Benzene	104-51-8	1.00 ppm	1.09 ppm
1,2-Dibromo-3-Chloropropane	96-12-8	1.00 ppm	1.03 ppm
n-Undecane	1120-21-4	1.00 ppm	1.02 ppm
Naphthalene (No Stability Guarantee)	91-20-3	1.00 ppm	0.99 ppm
n-Dodecane	112-40-3	1.00 ppm	0.99 ppm
1,2,3-Trichlorobenzene	87-61-6	1.00 ppm	1.08 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

Lou Lorenzetti

DATE: Aug-15-2014

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CERTIFICATE OF ANALYSIS

Sales#:	110967849	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2905150	**Cylinder # :**	CC-349592
Certification Date:	Dec-09-2013	**Cylinder Pressure:**	1200 psig
P.O.# :	R8320	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liter
Expiration Date:	Dec-09-2014	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propylene	115-07-1	1.00 ppm	1.02 ppm
1,3-Butadiene	106-99-0	1.00 ppm	1.00 ppm
Vinyl Bromide	593-60-2	1.00 ppm	1.00 ppm
Acetone	67-64-1	1.00 ppm	1.01 ppm
Isopropyl Alcohol	67-63-0	1.00 ppm	1.02 ppm
Carbon Disulfide (Analytical Accuracy +/- 10%)	75-15-0	1.00 ppm	1.03 ppm
Allyl Chloride	107-05-1	1.00 ppm	1.04 ppm
Trans-1,2-Dichloroethene	156-60-5	1.00 ppm	0.99 ppm
Methyl Tert-Butyl Ether	1634-04-4	1.00 ppm	1.07 ppm
Vinyl Acetate	108-05-4	1.00 ppm	1.03 ppm
Methyl Ethyl Ketone	78-93-3	1.00 ppm	1.01 ppm
n-Hexane	110-54-3	1.00 ppm	1.00 ppm
Ethyl Acetate	141-78-6	1.00 ppm	1.01 ppm
Tetrahydrofuran	109-99-9	1.00 ppm	1.00 ppm
Cyclohexane	110-82-7	1.00 ppm	1.02 ppm
Bromodichloromethane	75-27-4	1.00 ppm	1.03 ppm
1,4-Dioxane	123-91-1	1.00 ppm	1.03 ppm
2,2,4-Trimethylpentane	540-84-1	1.00 ppm	1.02 ppm
n-Heptane	142-82-5	1.00 ppm	1.02 ppm
Methyl Isobutyl Ketone	108-10-1	1.00 ppm	1.03 ppm
Methyl Butyl Ketone	591-78-6	1.00 ppm	1.02 ppm
Dibromochloromethane	124-48-1	1.00 ppm	0.99 ppm
Bromoform	75-25-2	1.00 ppm	0.99 ppm

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CERTIFICATE OF ANALYSIS

Sales#:	110967849	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2905150	**Cylinder # :**	CC-349592
Certification Date:	Dec-09-2013	**Cylinder Pressure:**	1200 psig
P.O.# :	R8320	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liter
Expiration Date:	Dec-09-2014	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Ethyltoluene	622-96-8	1.00 ppm	1.01 ppm
Benzyl Chloride (Analytical Accuracy +/- 10%)	100-44-7	1.00 ppm	1.03 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: Dec-09-2013

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CERTIFICATE OF ANALYSIS

Sales#:	111826905
Production#:	2957830
Certification Date:	Aug-15-2014
P.O.# :	R9194
Blend Type:	CERTIFIED
Material#:	14004551
Traceability:	NIST by weight
Expiration Date:	Aug-15-2015
Do NOT use under:	150 psig

Cylinder Size:	2A (8" X 47.5")
Cylinder # :	CC-267374
Cylinder Pressure:	2000 psig
Cylinder Valve:	CGA 350 / Steel
Cylinder Volume:	29.5 Liter
Cylinder Material:	Aluminum
Gas Volume:	4000 Liters
Blend Tolerance:	10% Relative
Analytical Accuracy:	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
n-Butane	106-97-8	1.00 ppm	1.01 ppm
Ethanol	64-17-5	1.00 ppm	0.79 ppm
Tert-Butanol	75-65-0	1.00 ppm	1.02 ppm
Methyl Methacrylate	80-62-6	1.00 ppm	1.00 ppm
2-Chlorotoluene	95-49-8	1.00 ppm	1.04 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: _____
Lou Lorenzetti

DATE: Aug-15-2014

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REPORT OF CS513-004

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PAGE: 1 of 1

CERTIFICATE OF ANALYSIS

Sales#:	111826905
Production#:	2957830
Certification Date:	Aug-15-2014
P.O.# :	R9194
Blend Type:	CERTIFIED
Material#:	14004551
Traceability:	NIST by weight
Expiration Date:	Aug-15-2015
Do NOT use under:	150 psig

Cylinder Size:	2A (8" X 47.5")
Cylinder # :	CC-267249
Cylinder Pressure:	2000 psig
Cylinder Valve:	CGA 350 / Steel
Cylinder Volume:	29.5 Liter
Cylinder Material:	Aluminum
Gas Volume:	4000 Liters
Blend Tolerance:	10% Relative
Analytical Accuracy:	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
n-Butane	106-97-8	1.00 ppm	1.06 ppm
Ethanol	64-17-5	1.00 ppm	0.89 ppm
Tert-Butanol	75-65-0	1.00 ppm	1.03 ppm
Methyl Methacrylate	80-62-6	1.00 ppm	1.00 ppm
2-Chlorotoluene	95-49-8	1.00 ppm	1.05 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: Aug-15-2014

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Methodology Summary NJDEP Form A-4 - NJDEP-LLTO-15 Method-3/2007

Laboratory:	Alpha Analytical	**Project No:**	117-0507600
Location:	FORMER LEC	**SDG No:**	L1500977

Name	Required Methodology	Indicate Method
Volatile Organics	NJDEP-LLTO-15	NJDEP-LLTO-15

NJ DEP
Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	YES
5b	Were these reporting limits met?	YES
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	YES
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Case Narrative Documentation

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted.

Results contained within this Data Deliverable Package relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this Data Deliverable Package is organized by parameter (i.e. VOC, SVOC, etc.). If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted.

The performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC tables. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Customer Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Customer Services at 800-624-9220 with any questions.

NJDEP Volatile Organics in Air

Canisters were released from the laboratory on January 12, 2015. The canister certification results are provided as an addendum.

Any Manual integrations that were performed on L1500977 as well as its associated quality control samples and are noted on the individual quantitation reports. A listing of all manual integrations performed and the integration code definitions are provided in manual integration documentation section of the data package.

Case Narrative (continued)

Please note, dilution analysis due to exceedance of the calibration range is not required for Ethanol or Isopropyl Alcohol.

GC column and trap information utilized for the analysis of this sample delivery group is detailed below:
Column Type: Restek RTX-1
Column Length: 60 Meters
Internal diameter: 0.52 mm
Film thickness: 1.00 um
Trap 1: Entech Cold Trap - no packing material
Trap 2: Entech Tenax - 20 cm packing material

Gaseous calibration standards were utilized for system calibration and quality control standards associated with this sample delivery group. These standards were purchased from Linde (formerly Spectra Gases).

Laboratory standard procedure for QC (i.e. method blanks, LCS) and sample analysis is to withdraw a 250 mL aliquot from the canister as the "1X" analysis. For some calibration levels and samples, subsequent dilutions will be performed as needed by decreasing aliquot volumes via the instrumentation, or performing a dilution using a second canister. Make-up air is not routinely added to canisters prior to sample analysis.

Sample L1500977-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Samples L1500977-01 through -03 The presence of Chloromethane could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound.

The sample designated CR011515-SS-B6 (L1500977-02) had a RPD for the pre- and post-flow controller calibration check (34% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 156 mL/minute; the final flow rate was 221 mL/minute. The final pressure recorded by the

Case Narrative (continued)

laboratory of the associated canister was -0.5 inches of mercury.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer readable data submitted on CD/diskette and by electronic mail has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Authorized Signature: 

Title: Technical Director/Representative Date: 01/20/15

Manual Integration Summary

Sample Type	Lab Id	Analyte	Manual Integration Code
Field Sample	WG756340-2	propylene	M6
Field Sample	WG756340-3	propylene	M6
Field Sample	WG756340-4	acetone	M3
Field Sample	L1500304-03	acetone	M6
Field Sample	L1500416-03	acetone	M6
Field Sample	L1500304-01	acetone	M6
Field Sample	L1500304-01	1,3,5-trimethylbenzene	M4
Field Sample	L1500304-02	acetone	M6
Field Sample	L1500304-02	4-ethyl toluene	M3
Field Sample	L1500416-01	acetone	M6
Field Sample	L1500416-02	acetone	M6
Field Sample	L1500304-04D	acetone	M6
Field Sample	L1500416-05D	dichlorodifluoromethane	M3

M1 - Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 - Peak not found by automatic integration algorithm.
M3 - Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 - Poor automated baseline construction.
M5 - Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 - Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 - A qualifier ion was manually integrated (only for GC/MS data).
M8 - Integration of individual analyte eluting on top of an unresolved complex.
M9 - Other- Explain on chromatogram

Manual Integration Codes

Flag	Reason
M1	Split or tailing peak, auto integration stopped early resulting in false low area count.
M2	Peak not found by automatic integration algorithm.
M3	Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4	Poor automated baseline construction.
M5	Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6	Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7	A qualifier ion was manually integrated (only for GC/MS data).
M8	Integration of individual analyte eluting on top of an unresolved complex.
M9	Other- Explain on chromatogram

Project: 117-0507600
Field ID Number: CR011515-SS-B3
Laboratory ID Number: L1500977-01 D

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/16/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.79		4			
Chloromethane	74-87-3	50.5	0.67	U	1			
Freon-114	76-14-2	170.9	0.67	U	5			
Vinyl chloride	75-01-4	62.5	0.67	U	2			
1,3-Butadiene	106-99-0	54.1	0.67	U	1			
Bromomethane	74-83-9	94.9	0.67	U	3			
Chloroethane	75-00-3	64.5	0.67	U	2			
Ethanol	64-17-5	46.1	20		38			
Vinyl bromide	593-60-2	106.9	0.67	U	3			
Acetone	67-64-1	58.1	21		50			
Trichlorofluoromethane	75-69-4	137.4	0.67	U	4			
Isopropanol	67-63-0	60.1	6.3		15			
1,1-Dichloroethene	75-35-4	96.9	0.67	U	3			
Tertiary butyl Alcohol	75-65-0	74.1	1.7	U	5			
Methylene chloride	75-09-2	84.9	1.7	U	6			
3-Chloropropene	107-05-1	76.5	0.67	U	2			
Carbon disulfide	75-15-0	76.1	0.67	U	2			
Freon-113	76-13-1	187.4	0.67	U	5			
trans-1,2-Dichloroethene	156-60-5	96.9	0.67	U	3			
1,1-Dichloroethane	75-34-3	99.0	0.67	U	3			
Methyl tert butyl ether	1634-04-4	88.2	0.67	U	2			
2-Butanone	78-93-3	72.1	2.0		6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.67	U	3			
Chloroform	67-66-3	119.4	150		730			
Tetrahydrofuran	109-99-9	72.1	0.67	U	2			
1,2-Dichloroethane	107-06-2	99.0	0.67	U	3			
n-Hexane	110-54-3	86.2	0.67	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.67	U	4			
Benzene	71-43-2	78.1	0.67	U	2			
Carbon tetrachloride	56-23-5	153.8	0.67	U	4			
Cyclohexane	110-82-7	84.2	0.67	U	2			
1,2-Dichloropropane	78-87-5	113.0	0.67	U	3			
Bromodichloromethane	75-27-4	163.8	0.67	U	4			
1,4-Dioxane	123-91-1	88.1	0.67	U	2			
Trichloroethene	79-01-6	131.4	1.7		9			
2,2,4-Trimethylpentane	540-84-1	114.2	0.67	U	3			
Methyl Methacrylate	80-62-6	100.1	1.7	U	7			
Heptane	142-82-5	100.2	0.67	U	3			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.67	U	3			
4-Methyl-2-pentanone	108-10-1	100.2	0.67	U	3			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.67	U	3			
1,1,2-Trichloroethane	79-00-5	133.4	0.67	U	4			
Toluene	108-88-3	92.1	1.0		4			
Dibromochloromethane	124-48-1	208.3	0.67	U	6			
1,2-Dibromoethane	106-93-4	187.9	0.67	U	5			
Tetrachloroethene	127-18-4	165.8	1.5		10			
Chlorobenzene	108-90-7	112.6	0.67	U	3			
Ethylbenzene	100-41-4	106.2	0.67	U	3			
p/m-Xylene	179601-23-1	106.2	1.3	U	6			
Bromoform	75-25-2	252.8	0.67	U	7			
Styrene	100-42-5	104.1	0.67	U	3			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.67	U	5			
o-Xylene	95-47-6	106.2	0.67	U	3			
2-Chlorotoluene	95-49-8	126.6	0.67	U	3			
4-Ethyltoluene	622-96-8	120.2	0.67	U	3			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.67	U	3			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.67	U	3			
1,3-Dichlorobenzene	541-73-1	147.0	0.67	U	4			
1,4-Dichlorobenzene	106-46-7	147.0	0.67	U	4			
1,2-Dichlorobenzene	95-50-1	147.0	0.67	U	4			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.67	U	5			
Hexachlorobutadiene	87-68-3	260.8	0.67	U	7			

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Norflurane	811-97-2		6.8	NJ		4.13		
Ethane, 1-chloro-1,1-difluoro-	75-68-3		36	NJ		4.64		
Methyl Alcohol	67-56-1		5.7	NJ		4.94		
Cyclotrisiloxane, Hexamethyl-	541-05-9		9.8	NJ		16.54		
unknown siloxane			68	J		18.89		
unknown siloxane			13	J		20.39		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	7.0		35			
Chloromethane	74-87-3	50.5	0.20	U	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	6.2		12			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	11		26			
Trichlorofluoromethane	75-69-4	137.4	0.74		4			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.53		2			
Freon-113	76-13-1	187.4	18		140			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.24		0.7			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	51		270			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.54		2			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	1.0		7			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Ethane, 1-chloro-1,1-difluoro-	75-68-3		20	NJ		4.64		
Methyl Alcohol	67-56-1		2.6	NJ		4.94		
Cyclotrisiloxane, Hexamethyl-	541-05-9		1.8	NJ		16.55		
unknown siloxane			3.0	J		18.9		
Nonanal	124-19-6		1.3	NJ		19.92		
unknown siloxane			4.4	J		20.38		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	6.8		34			
Chloromethane	74-87-3	50.5	0.20	U	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	5.5		10			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	9.7		23			
Trichlorofluoromethane	75-69-4	137.4	0.76		4			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.53		2			
Freon-113	76-13-1	187.4	19		150			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.29		0.9			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	53		280			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.46		2			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	2.4		16			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Ethane, 1-chloro-1,1-difluoro-	75-68-3		20	NJ		4.64		
Methyl Alcohol	67-56-1		2.7	NJ		4.94		
Cyclotrisiloxane, Hexamethyl-	541-05-9		1.9	NJ		16.55		
unknown siloxane			4.7	J		18.9		
unknown siloxane			4.4	J		20.38		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.20	U	1			
Chloromethane	74-87-3	50.5	0.20	U	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Butane	106-97-8	58.1	0.20	U	0.5			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	2.5	U	5			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	1.0	U	2			
Trichlorofluoromethane	75-69-4	137.4	0.20	U	1			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.20	U	0.6			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.20	U	0.6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.20	U	0.8			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
No Tentatively Identified Compounds	NONE			U				

DATA QUALIFIERS

CODE	DESCRIPTION
A	Spectra identified as "Aldol Condensation Product".
B	The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
C	Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
DL	Sample was re-analyzed at a dilution. Qualifier applied to sample number.
E	Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	The lower value for the two columns has been reported due to obvious interference.
J	Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
M	Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
ND	Not detected at the reporting limit (RL) for the sample.
NJ	Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
P	The RPD between the results for the two columns exceeds the method-specified criteria.
Q	The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
R	Analytical results are from sample re-analysis.
RE	Analytical results are from sample re-extraction.

v.091814

Method Detection Limit Studies

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Approved

Page 1 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS **Toxic Organic Air Pollutants**

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean Accuracy	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv			ppbv	ppbv	
1	chlorodifluoromethane	0.2	0.241	0.217	0.215	0.236	0.217	0.182	0.202	0.216	108%	0.020	0.06	0.2	
2	propylene	0.2	0.247	0.17	0.254	0.248	0.219	0.209	0.215	0.223	112%	0.030	0.09	0.5	6/23/2009
3	propane	0.2	0.217	0.244	0.169	0.211	0.277	0.262	0.244	0.232	116%	0.036	0.11	0.5	6/23/2009
4	dichlorodifluoromethane	0.2	0.242	0.222	0.232	0.223	0.215	0.237	0.259	0.233	116%	0.015	0.05	0.2	
5	chloromethane	0.2	0.244	0.268	0.286	0.261	0.269	0.239	0.33	0.271	136%	0.030	0.10	0.5	
6	Freon-114	0.2	0.183	0.205	0.175	0.19	0.188	0.19	0.176	0.187	93%	0.010	0.03	0.2	
7	methanol	5	5.0799	4.5532	4.6465	5.174	5.0552	5.02	4.9599	4.927	99%	0.234	0.74	5	7/6-7/2009
8	vinyl chloride	0.2	0.174	0.177	0.175	0.191	0.179	0.18	0.18	0.179	90%	0.006	0.02	0.2	
9	1,3-butadiene	0.2	0.174	0.215	0.188	0.157	0.197	0.195	0.141	0.181	91%	0.025	0.08	0.2	
10	butane	0.2	0.219	0.198	0.202	0.193	0.198	0.172	0.196	0.197	98%	0.014	0.04	0.2	6/23/2009
11	bromomethane	0.2	0.272	0.26	0.24	0.247	0.256	0.235	0.3	0.259	129%	0.022	0.07	0.2	6/23/2009
12	chloroethane	0.5	0.407	0.444	0.443	0.491	0.449	0.449	0.45	0.448	90%	0.024	0.08	0.2	
13	dichlorofluoromethane	0.2	0.197	0.215	0.197	0.163	0.168	0.196	0.185	0.189	94%	0.018	0.06	0.2	
14	ethanol	1	1.284	1.451	1.362	1.318	1.501	1.359	1.79	1.438	144%	0.172	0.54	2	
15	acetonitrile	0.2	0.192	0.243	0.221	0.207	0.225	0.223	0.205	0.217	108%	0.017	0.05	0.2	
16	vinyl bromide	0.2	0.177	0.165	0.197	0.16	0.142	0.152	0.13	0.160	80%	0.022	0.07	0.2	
17	acrolein	0.2	0.199	0.265	0.181	0.204	0.192	0.204	0.229	0.211	105%	0.028	0.09	0.5	6/23/2009
18	acetone	0.4051	0.348	0.372	0.367	0.365	0.379	0.355	0.413	0.371	92%	0.021	0.07	0.5	7/6-7/2009
19	trichlorofluoromethane	0.2	0.205	0.211	0.203	0.178	0.195	0.2	0.18	0.196	98%	0.013	0.04	0.2	
20	isopropyl alcohol	0.2	0.278	0.299	0.278	0.265	0.298	0.292	0.302	0.287	144%	0.014	0.04	0.2	
21	acrylonitrile	0.2	0.193	0.199	0.252	0.238	0.245	0.197	0.209	0.219	110%	0.025	0.08	0.2	6/23/2009
22	pentane	0.2	0.205	0.211	0.229	0.203	0.229	0.214	0.226	0.217	108%	0.011	0.04	0.2	
23	ethyl ether	0.2	0.207	0.215	0.246	0.208	0.235	0.239	0.197	0.221	111%	0.019	0.06	0.2	
24	1,1-dichloroethene	0.2	0.174	0.187	0.193	0.167	0.178	0.193	0.142	0.176	88%	0.018	0.06	0.2	
25	Tertiary butyl Alcohol	0.2	0.198	0.178	0.221	0.229	0.19	0.218	0.22	0.208	104%	0.019	0.06	0.2	6/23/2009
26	methylene chloride	0.2	0.226	0.262	0.246	0.263	0.227	0.236	0.257	0.245	123%	0.016	0.05	0.2	6/23/2009
27	3-chloropropene	0.2	0.159	0.214	0.2	0.159	0.208	0.164	0.157	0.180	90%	0.026	0.08	0.2	
28	carbon disulfide	0.2	0.205	0.212	0.209	0.186	0.203	0.201	0.205	0.203	102%	0.008	0.03	0.2	
29	Freon 113	0.2	0.199	0.177	0.167	0.181	0.205	0.191	0.161	0.183	92%	0.016	0.05	0.2	
30	trans-1,2-dichloroethene	0.2	0.195	0.177	0.158	0.171	0.162	0.212	0.142	0.174	87%	0.024	0.07	0.2	
31	1,1-dichloroethane	0.2	0.172	0.234	0.192	0.2	0.216	0.195	0.162	0.196	98%	0.025	0.08	0.2	
32	MTBE	0.2	0.207	0.223	0.22	0.227	0.229	0.227	0.208	0.220	110%	0.009	0.03	0.2	
33	vinyl acetate	0.2	0.217	0.22	0.236	0.224	0.24	0.241	0.222	0.229	114%	0.010	0.03	0.2	
34	2-butanone	0.2	0.218	0.228	0.237	0.231	0.255	0.239	0.251	0.237	119%	0.013	0.04	0.2	
35	cis-1,2-dichloroethene	0.2	0.168	0.186	0.198	0.196	0.209	0.199	0.157	0.188	94%	0.019	0.06	0.2	
36	chloroform	0.2	0.175	0.193	0.193	0.184	0.18	0.187	0.175	0.184	92%	0.008	0.02	0.2	
37	1,2-dichloroethane	0.2	0.202	0.224	0.205	0.187	0.238	0.2	0.196	0.207	104%	0.018	0.06	0.2	
38	hexane	0.2	0.19	0.221	0.21	0.219	0.182	0.213	0.186	0.203	102%	0.016	0.05	0.2	
39	diisopropyl ether	0.2	0.222	0.277	0.229	0.23	0.214	0.244	0.247	0.238	119%	0.021	0.07	0.2	6/23/2009
40	ethyl acetate	0.2	0.17	0.284	0.194	0.197	0.198	0.151	0.194	0.198	99%	0.042	0.13	0.5	6/23/2009
41	2,2-dichloropropane	0.2	0.167	0.186	0.155	0.198	0.198	0.198	0.164	0.181	90%	0.018	0.06	0.2	
42	tetrahydrofuran	0.2	0.193	0.186	0.173	0.201	0.165	0.178	0.211	0.187	93%	0.016	0.05	0.2	6/23/2009
43	tert-butyl ethyl ether	0.2	0.199	0.198	0.192	0.196	0.224	0.215	0.173	0.200	100%	0.016	0.05	0.2	
44	1,1,1-trichloroethane	0.2	0.17	0.197	0.199	0.18	0.198	0.219	0.169	0.190	95%	0.018	0.06	0.2	
45	1,1-dichloropropene	0.2	0.181	0.217	0.18	0.145	0.158	0.17	0.184	0.176	88%	0.023	0.07	0.2	6/23/2009
46	benzene	0.2	0.18	0.217	0.201	0.213	0.23	0.227	0.205	0.210	105%	0.017	0.05	0.2	

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Page 2 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS **Toxic Organic Air Pollutants**

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean Accuracy	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv			ppbv	ppbv	
47	carbon tetrachloride	0.2	0.171	0.212	0.192	0.186	0.183	0.178	0.167	0.184	92%	0.015	0.05	0.2	
48	cyclohexane	0.2	0.168	0.174	0.152	0.208	0.188	0.191	0.152	0.176	88%	0.021	0.07	0.2	
49	tert-amyl methyl ether	0.2	0.171	0.224	0.245	0.202	0.204	0.228	0.188	0.209	104%	0.025	0.08	0.2	
50	dibromomethane	0.2	0.189	0.194	0.217	0.193	0.212	0.203	0.172	0.197	99%	0.015	0.05	0.2	
51	1,2-dichloropropane	0.2	0.16	0.203	0.174	0.219	0.207	0.183	0.168	0.188	94%	0.022	0.07	0.2	6/23/2009
52	bromodichloromethane	0.2	0.174	0.183	0.155	0.185	0.18	0.189	0.131	0.171	86%	0.021	0.07	0.2	
53	trichloroethene	0.2	0.165	0.201	0.208	0.165	0.149	0.196	0.195	0.183	91%	0.023	0.07	0.2	
54	1,4-dioxane	0.2	0.181	0.208	0.141	0.153	0.202	0.193	0.177	0.179	90%	0.025	0.08	0.2	6/23/2009
55	2,2,4-trimethylpentane	0.2	0.169	0.218	0.182	0.202	0.213	0.18	0.166	0.190	95%	0.021	0.07	0.2	
56	heptane	0.2	0.165	0.212	0.171	0.207	0.199	0.191	0.186	0.190	95%	0.018	0.06	0.2	
57	cis-1,3-dichloropropene	0.2	0.166	0.201	0.173	0.182	0.217	0.224	0.169	0.190	95%	0.024	0.07	0.2	
58	4-methyl-2-pentanone	0.2	0.21	0.228	0.181	0.198	0.219	0.207	0.175	0.203	101%	0.019	0.06	0.2	
59	trans-1,3-dichloropropene	0.2	0.141	0.186	0.194	0.183	0.193	0.188	0.148	0.176	88%	0.022	0.07	0.2	
60	1,1,2-trichloroethane	0.2	0.193	0.23	0.212	0.212	0.229	0.217	0.17	0.209	105%	0.021	0.07	0.2	
61	toluene	0.2	0.212	0.23	0.228	0.226	0.271	0.233	0.211	0.230	115%	0.020	0.06	0.2	
62	1,3-dichloropropane	0.2	0.178	0.203	0.14	0.197	0.186	0.16	0.146	0.173	86%	0.025	0.08	0.2	
63	2-hexanone	0.2	0.198	0.189	0.203	0.178	0.205	0.215	0.158	0.192	96%	0.019	0.06	0.2	
64	dibromochloromethane	0.2	0.166	0.175	0.163	0.177	0.225	0.183	0.15	0.177	89%	0.024	0.07	0.2	
65	1,2-dibromoethane	0.2	0.172	0.215	0.193	0.178	0.211	0.205	0.146	0.189	94%	0.025	0.08	0.2	
66	butyl acetate	0.2	0.235	0.206	0.228	0.254	0.223	0.186	0.191	0.218	109%	0.025	0.08	0.2	6/23/2009
67	octane	0.2	0.172	0.196	0.169	0.186	0.193	0.198	0.167	0.183	92%	0.013	0.04	0.2	6/23/2009
68	tetrachloroethene	0.2	0.188	0.188	0.177	0.236	0.19	0.182	0.231	0.199	99%	0.024	0.08	0.2	
69	1,1,1,2-tetrachloroethane	0.2	0.193	0.207	0.171	0.201	0.192	0.199	0.159	0.189	94%	0.017	0.05	0.2	
70	chlorobenzene	0.2	0.198	0.219	0.211	0.226	0.23	0.214	0.156	0.208	104%	0.025	0.08	0.2	
71	ethylbenzene	0.2	0.194	0.204	0.203	0.203	0.232	0.204	0.172	0.202	101%	0.018	0.06	0.2	
72	m+p-xylene	0.4	0.327	0.418	0.424	0.397	0.442	0.403	0.336	0.392	98%	0.044	0.14	0.4	
73	bromoform	0.2	0.172	0.159	0.155	0.193	0.178	0.18	0.145	0.169	84%	0.017	0.05	0.2	
74	styrene	0.2	0.141	0.172	0.182	0.179	0.207	0.202	0.145	0.175	88%	0.025	0.08	0.2	
75	1,1,2,2-tetrachloroethane	0.2	0.168	0.18	0.187	0.194	0.209	0.16	0.166	0.181	90%	0.017	0.05	0.2	
76	o-xylene	0.2	0.159	0.2	0.192	0.188	0.214	0.201	0.164	0.188	94%	0.020	0.06	0.2	
77	1,2,3-trichloropropane	0.2	0.171	0.203	0.192	0.22	0.198	0.197	0.145	0.189	95%	0.024	0.08	0.2	
78	nonane	0.2	0.186	0.191	0.215	0.201	0.211	0.193	0.185	0.197	99%	0.012	0.04	0.2	
79	isopropylbenzene	0.2	0.163	0.183	0.159	0.169	0.147	0.183	0.162	0.167	83%	0.013	0.04	0.2	6/23/2009
80	bromobenzene	0.2	0.175	0.212	0.21	0.182	0.201	0.195	0.14	0.188	94%	0.025	0.08	0.2	
81	2-chlorotoluene	0.2	0.16	0.205	0.161	0.166	0.167	0.177	0.175	0.173	87%	0.016	0.05	0.2	6/23/2009
82	n-propylbenzene	0.2	0.189	0.173	0.159	0.171	0.134	0.16	0.155	0.163	82%	0.017	0.05	0.2	
83	4-chlorotoluene	0.2	0.177	0.193	0.2	0.168	0.211	0.219	0.151	0.188	94%	0.024	0.08	0.2	
84	4-ethyl toluene	0.2	0.166	0.187	0.186	0.169	0.219	0.181	0.138	0.178	89%	0.025	0.08	0.2	
85	1,3,5-trimethylbenzene	0.2	0.16	0.179	0.179	0.179	0.185	0.185	0.134	0.172	86%	0.019	0.06	0.2	
86	tert-butylbenzene	0.2	0.16	0.164	0.155	0.163	0.176	0.157	0.144	0.160	80%	0.010	0.03	0.2	
87	1,2,4-trimethylbenzene	0.2	0.144	0.183	0.177	0.192	0.189	0.187	0.139	0.173	87%	0.022	0.07	0.2	
88	decane	0.2	0.155	0.179	0.174	0.169	0.2	0.172	0.155	0.172	86%	0.015	0.05	0.2	
89	benzyl chloride	0.2	0.164	0.166	0.191	0.157	0.196	0.18	0.137	0.170	85%	0.021	0.06	0.2	
90	1,3-dichlorobenzene	0.2	0.163	0.191	0.177	0.148	0.194	0.197	0.153	0.175	87%	0.020	0.06	0.2	
91	1,4-dichlorobenzene	0.2	0.173	0.171	0.194	0.178	0.17	0.19	0.168	0.178	89%	0.010	0.03	0.2	
92	sec-butylbenzene	0.2	0.149	0.171	0.191	0.157	0.206	0.169	0.14	0.169	85%	0.023	0.07	0.2	

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Page 3 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean Accuracy	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv			ppbv	ppbv	
93	p-isopropyltoluene	0.2	0.178	0.177	0.161	0.160	0.191	0.166	0.130	0.166	83%	0.019	0.06	0.2	
94	1,2-dichlorobenzene	0.2	0.148	0.152	0.175	0.180	0.166	0.152	0.122	0.156	78%	0.020	0.06	0.2	
95	n-butylbenzene	0.2	0.148	0.173	0.178	0.145	0.155	0.177	0.123	0.157	79%	0.020	0.06	0.2	
96	1,2-dibromo-3-chloropropane	0.2	0.156	0.181	0.160	0.113	0.139	0.175	0.137	0.152	76%	0.024	0.07	0.2	
97	undecane	0.2	0.153	0.169	0.176	0.143	0.179	0.184	0.189	0.170	85%	0.017	0.05	0.2	
98	dodecane	0.2	0.128	0.152	0.132	0.128	0.116	0.125	0.132	0.130	65%	0.011	0.03	0.2	6/23/2009
99	1,2,4-trichlorobenzene	0.2	0.151	0.145	0.122	0.121	0.123	0.092	0.135	0.127	64%	0.019	0.06	0.2	6/23/2009
100	naphthalene	0.2	0.131	0.155	0.123	0.132	0.110	0.128	0.126	0.129	65%	0.014	0.04	0.2	
101	1,2,3-trichlorobenzene	0.2	0.129	0.132	0.111	0.150	0.112	0.120	0.128	0.126	63%	0.013	0.04	0.2	
102	hexachlorobutadiene	0.2	0.156	0.208	0.179	0.156	0.155	0.137	0.179	0.167	84%	0.023	0.07	0.2	6/23/2009
103	thiophene	0.2	0.146	0.190	0.159	0.160	0.157	0.179	0.144	0.162	81%	0.017	0.05	0.2	
104	2-methylthiophene	0.2	0.198	0.229	0.202	0.207	0.221	0.215	0.208	0.211	106%	0.011	0.03	0.2	
105	3-methylthiophene	0.2	0.179	0.200	0.171	0.178	0.148	0.165	0.167	0.173	86%	0.016	0.05	0.2	
106	indan	0.2	0.187	0.204	0.157	0.184	0.127	0.187	0.177	0.175	87%	0.025	0.08	0.2	6/23/2009
107	indene	0.2	0.158	0.187	0.135	0.172	0.132	0.155	0.160	0.157	79%	0.019	0.06	0.2	6/23/2009
108	benzothiophene	0.2	0.113	0.147	0.119	0.129	0.135	0.121	0.153	0.131	66%	0.015	0.05	2.5	
109	2-methylnaphthalene	1	0.742	0.744	0.649	0.651	0.533	0.791	0.726	0.691	69%	0.087	0.27	2.5	7/6-7/2009
110	1-methylnaphthalene	1	0.877	0.851	0.785	0.750	0.640	0.834	0.809	0.792	79%	0.079	0.25	2.5	7/6-7/2009
	Surrogates														
1	1,2-dichloroethane-D4	10	9.435	9.458	9.978	10.052	11.192	9.292	10.425	9.976	100%				
2	toluene-D8	10	9.879	10.102	10.321	10.258	12.64	9.302	10.222	10.389	104%				
3	bromofluorobenzene	10	9.18	9.343	8.91	8.73	10.452	7.691	9.39	9.099	91%				

Comments: _____

Approved

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 1 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2013**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
1	methyl methacrylate	0.0221	0.065	0.130	0.1	Verified - JRH	0.5	
2	tert-butlybenzene	0.0307	0.069	0.138	0.1	Verified - JRH	0.2	
3	carbon disulfide	0.0345	0.076	0.151	0.1	Verified - JRH	0.2	
4	1,4-dichlorobenzene	0.0361	0.076	0.152	0.1	Verified - JRH	0.2	
5	vinyl chloride	0.0378	0.078	0.156	0.1	Verified - JRH	0.2	
6	isopropylbenzene	0.0410	0.083	0.166	0.1	Verified - JRH	0.2	
7	trichlorofluoromethane	0.0416	0.084	0.168	0.1	Verified - JRH	0.2	
8	Freon-114	0.0419	0.084	0.168	0.1	Verified - JRH	0.2	
9	octane	0.0421	0.088	0.177	0.1	Verified - JRH	0.2	
10	naphthalene	0.0425	0.090	0.181	0.1	Verified - JRH	0.2	
11	1,2,3-trichlorobenzene	0.0436	0.093	0.185	0.1	Verified - JRH	0.2	
12	dichlorodifluoromethane	0.0466	0.093	0.186	0.1	Verified - JRH	0.2	
13	benzothiophene	0.0468	0.094	0.187	0.1	Verified - JRH	0.5	
14	carbon tetrachloride	0.0471	0.094	0.188	0.1	Verified - JRH	0.2	
15	2-butanone	0.0472	0.095	0.190	0.1	Verified - JRH	0.2	
16	pentane	0.0475	0.097	0.193	0.1	Verified - JRH	0.2	
17	dibromomethane	0.0476	0.097	0.195	0.1	Verified - JRH	0.2	
18	2-chlorotoluene	0.0487	0.101	0.200	0.2	Verified - JRH	0.2	
19	Freon 113	0.0511	0.102	0.200	0.2	Verified - JRH	0.2	
20	tert-butyl ethyl ether	0.0515	0.103	0.200	0.2	Verified - JRH	0.2	
21	hexane	0.0518	0.104	0.200	0.2	Verified - JRH	0.2	
22	bromoform	0.0523	0.105	0.200	0.2	Verified - JRH	0.2	
23	isopropyl alcohol	0.0525	0.106	0.211	0.2	Verified - JRH	0.5	
24	thiophene	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
25	MTBE	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
26	chloroform	0.0531	0.108	0.200	0.2	Verified - JRH	0.2	
27	benzene	0.0537	0.109	0.200	0.2	Verified - JRH	0.2	
28	n-propylbenzene	0.0540	0.109	0.200	0.2	Verified - JRH	0.2	
29	1,1,1,2-tetrachloroethane	0.0547	0.110	0.200	0.2	Verified - JRH	0.2	
30	1,1,2,2-tetrachloroethane	0.0548	0.110	0.200	0.2	Verified - JRH	0.2	
31	1,2-dichloroethane	0.0552	0.111	0.200	0.2	Verified - JRH	0.2	
32	heptane	0.0553	0.111	0.200	0.2	Verified - JRH	0.2	
33	ethylbenzene	0.0555	0.113	0.200	0.2	Verified - JRH	0.2	
34	1,1-dichloroethene	0.0566	0.113	0.200	0.2	Verified - JRH	0.2	
35	vinyl acetate	0.0567	0.114	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2013**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
36	1,1,1-trichloroethane	0.0570	0.114	0.200	0.2	Verified - JRH	0.2	
37	2-Ethylthiophene	0.0571	0.114	0.200	0.2	Verified - JRH	0.2	
38	dichlorofluoromethane	0.0572	0.116	0.200	0.2	Verified - JRH	0.2	
39	2,2-dichloropropane	0.0581	0.117	0.200	0.2	Verified - JRH	0.2	
40	1,3,5-trimethylbenzene	0.0584	0.117	0.200	0.2	Verified - JRH	0.2	
41	cis-1,2-dichloroethene	0.0587	0.121	0.200	0.2	Verified - JRH	0.2	
42	ethyl ether	0.0591	0.122	0.200	0.2	Verified - JRH	0.2	
43	2-hexanone	0.0604	0.122	0.200	0.2	Verified - JRH	0.2	
44	4-methyl-2-pentanone	0.0607	0.122	0.200	0.2	Verified - JRH	0.2	
45	tetrahydrofuran	0.0608	0.122	0.200	0.2	Verified - JRH	0.2	
46	p-isopropyltoluene	0.0608	0.123	0.200	0.2	Verified - JRH	0.2	
47	indene	0.0608	0.125	0.200	0.2	Verified - JRH	0.2	
48	1,2,4-trichlorobenzene	0.0611	0.126	0.200	0.2	Verified - JRH	0.2	
49	1,2-dichlorobenzene	0.0614	0.126	0.200	0.2	Verified - JRH	0.2	
50	chlorodifluoromethane	0.0626	0.127	0.200	0.2	Verified - JRH	0.2	
51	toluene	0.0628	0.127	0.200	0.2	Verified - JRH	0.2	
52	o-xylene	0.0631	0.128	0.200	0.2	Verified - JRH	0.2	
53	1,3-dichlorobenzene	0.0637	0.129	0.200	0.2	Verified - JRH	0.2	
54	n-butylbenzene	0.0639	0.131	0.200	0.2	Verified - JRH	0.2	
55	benzyl chloride	0.0645	0.131	0.200	0.2	Verified - JRH	0.2	
56	bromodichloromethane	0.0656	0.131	0.200	0.2	Verified - JRH	0.2	
57	cyclohexane	0.0656	0.132	0.200	0.2	Verified - JRH	0.2	
58	diisopropyl ether	0.0656	0.133	0.200	0.2	Verified - JRH	0.2	
59	2,2,4-trimethylpentane	0.0659	0.133	0.200	0.2	Verified - JRH	0.2	
60	1,1,2-trichloroethane	0.0667	0.134	0.200	0.2	Verified - JRH	0.2	
61	3-methylthiophene	0.0669	0.139	0.200	0.2	Verified - JRH	0.2	
62	trans-1,3-dichloropropene	0.0693	0.139	0.200	0.2	Verified - JRH	0.2	
63	1,2,4-trimethylbenzene	0.0694	0.139	0.200	0.2	Verified - JRH	0.2	
64	bromomethane	0.0696	0.139	0.200	0.2	Verified - JRH	0.2	
65	1,2-dichloropropane	0.0697	0.140	0.200	0.2	Verified - JRH	0.2	
66	vinyl bromide	0.0699	0.142	0.200	0.2	Verified - JRH	0.2	
67	trichloroethene	0.0710	0.143	0.200	0.2	Verified - JRH	0.2	
68	1,1-dichloropropene	0.0715	0.146	0.200	0.2	Verified - JRH	0.2	
69	sec-butylbenzene	0.0731	0.146	0.200	0.2	Verified - JRH	0.2	
70	hexachlorobutadiene	0.0732	0.148	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 3 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2013**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
71	trans-1,2-dichloroethene	0.0740	0.149	0.200	0.2	Verified - JRH	0.2	
72	1,2-dibromo-3-chloropropane	0.0744	0.149	0.200	0.2	Verified - JRH	0.2	
73	cis-1,3-dichloropropene	0.0745	0.149	0.200	0.2	Verified - JRH	0.2	
74	dibromochloromethane	0.0747	0.150	0.200	0.2	Verified - JRH	0.2	
75	1,2,3-Trimethylbenzene	0.0751	0.152	0.200	0.2	Verified - JRH	0.2	
76	tetrachloroethene	0.0758	0.152	0.200	0.2	Verified - JRH	0.2	
77	acetonitrile	0.0761	0.153	0.200	0.2	Verified - JRH	0.2	
78	4-chlorotoluene	0.0764	0.153	0.200	0.2	Verified - JRH	0.2	
79	1,2,3-trichloropropane	0.0767	0.153	0.200	0.2	Verified - JRH	0.2	
80	chloroethane	0.0767	0.154	0.200	0.2	Verified - JRH	0.2	
81	1,1-dichloroethane	0.0771	0.155	0.200	0.2	Verified - JRH	0.2	
82	1,3-dichloropropane	0.0776	0.155	0.200	0.2	Verified - JRH	0.2	
83	4-ethyl toluene	0.0776	0.156	0.200	0.2	Verified - JRH	0.2	
84	1,2-dibromoethane	0.0779	0.156	0.200	0.2	Verified - JRH	0.2	
85	1,4-dioxane	0.0780	0.158	0.200	0.2	Verified - JRH	0.2	
86	chlorobenzene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
87	2-methylthiophene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
88	acrylonitrile	0.0790	0.158	0.200	0.2	Verified - JRH	0.2	
89	bromobenzene	0.0790	0.159	0.200	0.2	Verified - JRH	0.2	
90	1,2,4,5-Tetramethylbenzene	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
91	tert-amyl methyl ether	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
92	indan	0.0795	0.160	0.200	0.2	Verified - JRH	0.2	
93	styrene	0.0799	0.160	0.200	0.2	Verified - JRH	0.2	
94	1,3-butadiene	0.0799	0.162	0.200	0.2	Verified - JRH	0.2	
95	3-chloropropene	0.0812	0.186	0.200	0.2	Verified - JRH	0.2	
96	propylene	0.0929	0.192	0.383	0.2	Verified - JRH	0.5	
97	chloromethane	0.0958	0.227	0.200	0.2	Verified - JRH	0.2	
98	propane	0.1137	0.228	0.200	0.2	Verified - JRH	0.2	
99	acrolein	0.1138	0.262	0.500	0.5	Verified - JRH	0.5	
100	ethyl acetate	0.1310	0.278	0.500	0.5	Verified - JRH	0.5	
101	m+p-xylene	0.1388	0.295	0.400	0.4	Verified - JRH	0.4	
102	acetone	0.1649	0.330	0.660	0.5	Verified - JRH	1.0	
103	1-methylnaphthalene	0.2495	0.499	0.998	1	Verified - JRH	1.0	
104	2-methylnaphthalene	0.2725	0.545	1.000	1	Verified - JRH	1.0	
105	methylene chloride	0.2991	0.598	1.000	1	Verified - JRH	1.0	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
106	ethanol	0.5416	1.08	2.17	1	Verified - JRH	2.5	
107	acetaldehyde	0.5466	1.09	2.19	1	Verified - JRH	5.0	
108	methanol	0.7359	1.47	2.94	2.5	Verified - JRH	5.0	
	Additional Analytes							
1	undecane	0.0528	0.106	0.200	0.2	Verified - JRH	0.2	
2	dodecane	0.0478	0.127	0.200	0.2	Verified - JRH	0.2	
3	decane	0.0484	0.097	0.194	0.1	Verified - JRH	0.2	
4	nonane	0.0625	0.075	0.150	0.1	Verified - JRH	0.2	
5	butane	0.0442	0.088	0.177	0.1	Verified - JRH	0.2	
6	Tertiary butyl Alcohol	0.0599	0.120	0.239	0.2	Verified - JRH	0.5	
7	butyl acetate	0.1139	0.228	0.455	0.2	Verified - JRH	0.5	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Determination of Method Detection Limits

Alpha Analytical, Inc.
Mansfield, MA

Approved

Page 1 of 3	
Analyst:	AJ
Date:	5/5/2009
Instrument	Airpiano 2
Column ID:	RTX-1

Method: TO-15 (TALL) 2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
1	chlorodifluoromethane	0.2	0.157	0.167	0.155	0.157	0.147	0.163	0.148	0.156	78%	0.007	0.02	0.2	
2	propylene	0.2	0.236	0.248	0.251	0.254	0.236	0.263	0.249	0.248	124%	0.010	0.03	0.2	
3	propane	0.2	0.225	0.234	0.218	0.221	0.22	0.229	0.218	0.224	112%	0.006	0.02	0.5	
4	dichlorodifluoromethane	0.2	0.212	0.202	0.222	0.215	0.205	0.218	0.211	0.212	106%	0.007	0.02	0.2	
5	chloromethane	0.2	0.243	0.217	0.242	0.243	0.191	0.237	0.221	0.228	114%	0.019	0.06	0.2	
6	Freon-114	0.2	0.208	0.2	0.195	0.201	0.189	0.203	0.195	0.199	99%	0.006	0.02	0.2	
7	methanol	1	1.271	1.239	1.19	1.135	1.18	1.157	1.193	1.195	120%	0.047	0.15	5.0	
8	vinyl chloride	0.2	0.201	0.201	0.194	0.19	0.185	0.208	0.191	0.196	98%	0.008	0.02	0.2	
9	1,3-butadiene	0.2	0.202	0.208	0.201	0.181	0.189	0.219	0.199	0.200	100%	0.012	0.04	0.2	
10	butane	0.2	0.254	0.219	0.249	0.244	0.231	0.249	0.244	0.241	121%	0.012	0.04	0.2	
11	acetaldehyde	2.1398	1.782	1.969	1.568	1.615	2.033	1.889	1.867	1.818	85%	0.174	0.55	5.0	
12	bromomethane	0.2	0.218	0.217	0.212	0.207	0.199	0.208	0.203	0.209	105%	0.007	0.02	0.2	
13	chloroethane	0.2	0.188	0.174	0.175	0.183	0.186	0.181	0.182	0.181	91%	0.005	0.02	0.2	
14	ethanol	1	1.247	1.202	1.18	1.179	1.134	1.186	1.213	1.192	119%	0.035	0.11	2.5	
15	dichlorofluoromethane	0.2	0.196	0.203	0.196	0.191	0.194	0.184	0.19	0.193	97%	0.006	0.02	0.2	
16	vinyl bromide	0.2	0.201	0.202	0.193	0.193	0.200	0.200	0.189	0.197	98%	0.005	0.02	0.2	
17	acrolein	0.2	0.233	0.232	0.268	0.179	0.228	0.242	0.165	0.221	111%	0.036	0.11	0.5	
18	acetone	0.6761	0.592	0.611	0.55	0.61	0.594	0.611	0.619	0.598	88%	0.023	0.07	0.5	
19	acetonitrile	0.2	0.200	0.196	0.243	0.184	0.223	0.233	0.244	0.218	109%	0.024	0.08	0.2	
20	trichlorofluoromethane	0.2	0.226	0.214	0.229	0.217	0.206	0.215	0.209	0.217	108%	0.008	0.03	0.5	
21	isopropyl alcohol	0.4334	0.421	0.424	0.391	0.408	0.397	0.415	0.421	0.411	95%	0.013	0.04	0.2	
22	acrylonitrile	0.2	0.146	0.157	0.154	0.154	0.135	0.162	0.168	0.154	77%	0.011	0.03	0.2	
23	pentane	0.2	0.244	0.22	0.223	0.225	0.203	0.241	0.234	0.227	114%	0.014	0.04	0.2	
24	ethyl ether	0.2	0.173	0.186	0.177	0.17	0.155	0.174	0.17	0.172	86%	0.009	0.03	0.2	
25	1,1-dichloroethene	0.2	0.206	0.207	0.204	0.202	0.191	0.193	0.188	0.199	99%	0.008	0.02	0.5	
26	Tertiary butyl Alcohol	0.2	0.198	0.19	0.197	0.188	0.199	0.18	0.201	0.193	97%	0.008	0.02	0.5	
27	methylene chloride	0.2	0.263	0.257	0.257	0.262	0.261	0.25	0.236	0.255	128%	0.010	0.03	0.2	
28	3-chloropropene	0.2	0.22	0.234	0.23	0.202	0.222	0.235	0.203	0.221	110%	0.014	0.04	0.2	
29	carbon disulfide	0.2	0.229	0.211	0.225	0.225	0.204	0.229	0.21	0.219	110%	0.010	0.03	0.2	
30	Freon 113	0.2	0.203	0.215	0.203	0.201	0.193	0.210	0.203	0.204	102%	0.007	0.02	0.2	
31	trans-1,2-dichloroethene	0.2	0.204	0.193	0.184	0.200	0.197	0.190	0.188	0.194	97%	0.007	0.02	0.2	
32	1,1-dichloroethane	0.2	0.193	0.205	0.195	0.195	0.198	0.196	0.172	0.193	97%	0.010	0.03	0.2	
33	MTBE	0.2	0.171	0.169	0.159	0.176	0.173	0.161	0.176	0.169	85%	0.007	0.02	0.2	
34	vinyl acetate	0.2	0.191	0.182	0.163	0.175	0.165	0.16	0.172	0.173	86%	0.011	0.03	0.2	
35	2-butanone	0.2	0.190	0.191	0.181	0.185	0.178	0.182	0.188	0.185	93%	0.005	0.02	0.2	
36	cis-1,2-dichloroethene	0.2	0.173	0.185	0.183	0.187	0.173	0.181	0.187	0.181	91%	0.006	0.02	0.2	
37	ethyl acetate	0.2	0.169	0.223	0.205	0.179	0.202	0.223	0.17	0.196	98%	0.023	0.07	0.2	
38	chloroform	0.2	0.202	0.193	0.178	0.172	0.183	0.183	0.181	0.185	92%	0.010	0.03	0.2	
39	tetrahydrofuran	0.2	0.169	0.164	0.149	0.154	0.154	0.164	0.156	0.159	79%	0.007	0.02	0.2	
40	2,2-dichloropropane	0.2	0.187	0.185	0.190	0.173	0.18	0.171	0.178	0.181	90%	0.007	0.02	0.5	
41	1,2-dichloroethane	0.2	0.176	0.177	0.161	0.177	0.184	0.169	0.153	0.171	86%	0.011	0.03	0.2	
42	hexane	0.2	0.207	0.185	0.205	0.182	0.176	0.191	0.194	0.191	96%	0.012	0.04	0.2	
43	diisopropyl ether	0.2	0.186	0.21	0.19	0.201	0.167	0.210	0.185	0.193	96%	0.015	0.05	0.2	
44	tert-butyl ethyl ether	0.2	0.159	0.159	0.146	0.152	0.156	0.156	0.16	0.155	78%	0.005	0.02	0.2	

Determination of Method Detection Limits

Alpha Analytical, Inc.
Mansfield, MA

Approved

Page 2 of 3	
Analyst:	AJ
Date:	5/5/2009
Instrument	Airpiano 2
Column ID:	RTX-1

Method: TO-15 (TALL) 2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
45	1,1,1-trichloroethane	0.2	0.204	0.182	0.188	0.184	0.180	0.183	0.192	0.188	94%	0.008	0.03	0.2	
46	1,1-dichloropropene	0.2	0.190	0.176	0.175	0.176	0.175	0.174	0.164	0.176	88%	0.008	0.02	0.2	
47	benzene	0.2	0.224	0.203	0.206	0.194	0.211	0.207	0.195	0.206	103%	0.010	0.03	0.2	
48	thiophehe	0.2	0.197	0.177	0.162	0.170	0.171	0.183	0.168	0.175	88%	0.012	0.04	0.2	
49	carbon tetrachloride	0.2	0.193	0.177	0.172	0.182	0.161	0.183	0.176	0.178	89%	0.010	0.03	0.2	
50	cyclohexane	0.2	0.211	0.198	0.197	0.195	0.197	0.188	0.196	0.197	99%	0.007	0.02	0.2	
51	tert-amyl methyl ether	0.2	0.161	0.156	0.145	0.135	0.135	0.155	0.156	0.149	75%	0.011	0.03	0.2	
52	dibromomethane	0.2	0.199	0.171	0.173	0.168	0.183	0.164	0.165	0.175	87%	0.012	0.04	0.2	
53	1,2-dichloropropane	0.2	0.168	0.146	0.146	0.149	0.131	0.157	0.163	0.151	76%	0.012	0.04	0.2	
54	bromodichloromethane	0.2	0.171	0.164	0.165	0.157	0.170	0.168	0.17	0.166	83%	0.005	0.02	0.2	
55	1,4-dioxane	0.4345	0.352	0.320	0.335	0.308	0.319	0.308	0.304	0.321	74%	0.017	0.05	0.2	
56	trichloroethene	0.2	0.185	0.192	0.191	0.178	0.177	0.183	0.186	0.185	92%	0.006	0.02	0.2	
57	2,2,4-trimethylpentane	0.2	0.195	0.189	0.184	0.177	0.176	0.193	0.189	0.186	93%	0.007	0.02	0.2	
58	heptane	0.2	0.186	0.170	0.175	0.167	0.169	0.172	0.175	0.173	87%	0.006	0.02	0.2	
59	2,4,4-trimethyl-1-pentene	0.2	0.181	0.177	0.173	0.172	0.168	0.164	0.165	0.171	86%	0.006	0.02	0.2	
60	cis-1,3-dichloropropene	0.2	0.157	0.150	0.140	0.148	0.141	0.156	0.141	0.148	74%	0.007	0.02	0.2	
61	4-methyl-2-pentanone	0.2	0.175	0.169	0.156	0.161	0.157	0.167	0.177	0.166	83%	0.008	0.03	0.2	
62	2,4,4-trimethyl-2-pentene	0.2	0.174	0.183	0.178	0.182	0.164	0.173	0.163	0.174	87%	0.008	0.03	0.2	
63	trans-1,3-dichloropropene	0.2	0.146	0.142	0.133	0.125	0.128	0.125	0.135	0.133	67%	0.008	0.03	0.2	
64	1,1,2-trichloroethane	0.2	0.146	0.16	0.141	0.159	0.131	0.149	0.135	0.146	73%	0.011	0.04	0.2	
65	toluene	0.2	0.176	0.181	0.17	0.161	0.161	0.164	0.163	0.168	84%	0.008	0.02	0.2	
66	2-methylthiophene	0.2	0.123	0.149	0.156	0.107	0.125	0.177	0.116	0.136	68%	0.025	0.08	0.2	
67	1,3-dichloropropane	0.2	0.147	0.149	0.143	0.145	0.135	0.132	0.138	0.141	71%	0.006	0.02	0.2	
68	2-hexanone	0.2	0.177	0.170	0.168	0.16	0.165	0.151	0.162	0.165	82%	0.008	0.03	0.2	
69	3-methylthiophene	0.2	0.153	0.158	0.156	0.152	0.155	0.155	0.150	0.154	77%	0.003	0.01	0.2	
70	dibromochloromethane	0.2	0.161	0.154	0.163	0.162	0.152	0.152	0.156	0.157	79%	0.005	0.02	0.2	
71	1,2-dibromoethane	0.2	0.159	0.155	0.150	0.155	0.151	0.149	0.156	0.154	77%	0.004	0.01	0.2	
72	butyl acetate	0.2	0.206	0.213	0.242	0.23	0.202	0.181	0.22	0.213	107%	0.020	0.06	0.2	
73	octane	0.2	0.167	0.171	0.168	0.162	0.164	0.162	0.167	0.166	83%	0.003	0.01	0.2	
74	tetrachloroethene	0.2	0.186	0.173	0.182	0.179	0.179	0.18	0.178	0.180	90%	0.004	0.01	0.4	
75	1,1,1,2-tetrachloroethane	0.2	0.155	0.163	0.154	0.15	0.137	0.158	0.147	0.152	76%	0.008	0.03	0.2	
76	chlorobenzene	0.2	0.160	0.147	0.161	0.153	0.152	0.157	0.151	0.154	77%	0.005	0.02	0.2	
77	ethylbenzene	0.2	0.152	0.146	0.141	0.141	0.144	0.148	0.159	0.147	74%	0.006	0.02	0.2	
78	2-ethylthiophene	0.2	0.149	0.134	0.125	0.132	0.126	0.128	0.132	0.132	66%	0.008	0.03	0.2	
79	m+p-xylene	0.4	0.308	0.287	0.273	0.276	0.277	0.289	0.31	0.289	72%	0.015	0.05	0.2	
80	bromoform	0.2	0.144	0.137	0.131	0.135	0.128	0.132	0.126	0.133	67%	0.006	0.02	0.2	
81	styrene	0.2	0.148	0.149	0.136	0.137	0.152	0.138	0.151	0.144	72%	0.007	0.02	0.2	
82	1,1,2,2-tetrachloroethane	0.2	0.144	0.144	0.142	0.147	0.139	0.138	0.151	0.144	72%	0.005	0.01	0.2	
83	o-xylene	0.2	0.157	0.145	0.14	0.151	0.14	0.146	0.149	0.147	73%	0.006	0.02	0.2	
84	1,2,3-trichloropropane	0.2	0.140	0.156	0.151	0.133	0.160	0.136	0.146	0.146	73%	0.010	0.03	0.2	
85	nonane	0.2	0.151	0.141	0.15	0.126	0.134	0.157	0.138	0.142	71%	0.011	0.03	0.2	
86	isopropylbenzene	0.2	0.164	0.153	0.143	0.144	0.154	0.153	0.155	0.152	76%	0.007	0.02	0.2	
87	bromobenzene	0.2	0.154	0.139	0.142	0.142	0.138	0.141	0.149	0.144	72%	0.006	0.02	0.20	
88	2-chlorotoluene	0.2	0.148	0.142	0.135	0.134	0.129	0.136	0.153	0.140	70%	0.009	0.03	0.20	
89	n-propylbenzene	0.2	0.168	0.153	0.133	0.141	0.145	0.14	0.154	0.148	74%	0.012	0.04	0.20	
90	4-chlorotoluene	0.2	0.158	0.147	0.139	0.149	0.149	0.143	0.161	0.149	75%	0.008	0.02	0.20	
91	4-ethyl toluene	0.2	0.161	0.151	0.145	0.148	0.149	0.15	0.163	0.152	76%	0.007	0.02	0.20	
92	1,3,5-trimethylbenzene	0.2	0.154	0.151	0.14	0.142	0.15	0.151	0.153	0.149	74%	0.005	0.02	0.20	

Determination of Method Detection Limits

Alpha Analytical, Inc.
Mansfield, MA

Approved

Page 3 of 3	
Analyst:	AJ
Date:	5/5/2009
Instrument	Airpiano 2
Column ID:	RTX-1

Method: TO-15 (TALL) 2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
93	tert-butlybenzene	0.2	0.148	0.148	0.141	0.141	0.132	0.143	0.145	0.143	71%	0.006	0.02	0.20	
94	1,2,4-trimethylbenzene	0.2	0.161	0.15	0.144	0.145	0.149	0.155	0.164	0.153	76%	0.008	0.02	0.20	
95	decane	0.2	0.149	0.143	0.133	0.136	0.139	0.147	0.15	0.142	71%	0.007	0.02	0.20	
96	benzyl chloride	0.2	0.15	0.145	0.132	0.142	0.143	0.142	0.153	0.144	72%	0.007	0.02	0.20	
97	1,3-dichlorobenzene	0.2	0.155	0.144	0.145	0.151	0.141	0.148	0.150	0.148	74%	0.005	0.01	0.20	
98	1,4-dichlorobenzene	0.2	0.170	0.151	0.156	0.157	0.144	0.164	0.152	0.156	78%	0.009	0.03	0.20	
99	sec-butylbenzene	0.2	0.155	0.149	0.143	0.146	0.15	0.149	0.157	0.150	75%	0.005	0.02	0.20	
100	1,2,3-trimethylbenzene	0.2	0.144	0.135	0.133	0.132	0.127	0.129	0.135	0.134	67%	0.005	0.02	0.20	
101	p-isopropyltoluene	0.2	0.151	0.146	0.142	0.146	0.143	0.147	0.157	0.147	74%	0.005	0.02	0.20	
102	1,2-dichlorobenzene	0.2	0.151	0.138	0.146	0.148	0.141	0.146	0.147	0.145	73%	0.004	0.01	0.20	
103	n-butylbenzene	0.2	0.156	0.149	0.144	0.148	0.143	0.142	0.158	0.149	74%	0.006	0.02	0.20	
104	indan	0.2	0.135	0.126	0.133	0.129	0.130	0.126	0.140	0.131	66%	0.005	0.02	0.20	
105	indene	0.2	0.134	0.122	0.124	0.123	0.123	0.123	0.128	0.125	63%	0.004	0.01	0.20	
106	1,2-dibromo-3-chloropropane	0.2	0.161	0.143	0.142	0.153	0.134	0.144	0.153	0.147	74%	0.009	0.03	0.20	
107	undecane	0.2	0.141	0.145	0.126	0.135	0.138	0.132	0.139	0.137	68%	0.006	0.02	0.20	
108	1,2,4,5-tetramethylbenzene	0.5	0.236	0.298	0.287	0.25	0.236	0.259	0.283	0.264	53%	0.025	0.08	2.50	
109	dodecane	0.2	0.159	0.16	0.139	0.152	0.15	0.155	0.156	0.153	77%	0.007	0.02	0.50	
110	1,2,4-trichlorobenzene	0.2	0.159	0.156	0.167	0.153	0.149	0.143	0.173	0.157	79%	0.010	0.03	0.20	
111	naphthalene	0.2	0.159	0.133	0.138	0.139	0.139	0.139	0.150	0.142	71%	0.009	0.03	0.20	
112	1,2,3-trichlorobenzene	0.2	0.158	0.138	0.139	0.136	0.141	0.151	0.155	0.145	73%	0.009	0.03	0.20	
113	benzothiophene	0.2	0.144	0.127	0.126	0.128	0.126	0.128	0.144	0.132	66%	0.008	0.03	0.20	
114	hexachlorobutadiene	0.2	0.149	0.139	0.134	0.139	0.146	0.143	0.150	0.143	71%	0.006	0.02	0.20	
115	2-methylnaphthalene	0.2	0.150	0.128	0.134	0.132	0.130	0.139	0.155	0.138	69%	0.010	0.03	2.50	
116	1-methylnaphthalene	0.2	0.147	0.133	0.141	0.139	0.140	0.128	0.148	0.139	70%	0.007	0.02	2.50	
	Surrogates														
1	1,2-dichloroethane-D4	10	9.491	10.266	10.171	9.732	10.291	9.622	10.271	9.978	100%				
2	toluene-D8	10	8.922	10.279	10.213	9.916	9.957	9.729	10.237	9.893	99%				
3	bromofluorobenzene	10	8.823	9.833	9.556	9.759	9.476	9.497	9.728	9.525	95%				

Comments: _____

Approved

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 1 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2013**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
1	methyl methacrylate	0.0221	0.065	0.130	0.1	Verified - JRH	0.5	
2	tert-butlybenzene	0.0307	0.069	0.138	0.1	Verified - JRH	0.2	
3	carbon disulfide	0.0345	0.076	0.151	0.1	Verified - JRH	0.2	
4	1,4-dichlorobenzene	0.0361	0.076	0.152	0.1	Verified - JRH	0.2	
5	vinyl chloride	0.0378	0.078	0.156	0.1	Verified - JRH	0.2	
6	isopropylbenzene	0.0410	0.083	0.166	0.1	Verified - JRH	0.2	
7	trichlorofluoromethane	0.0416	0.084	0.168	0.1	Verified - JRH	0.2	
8	Freon-114	0.0419	0.084	0.168	0.1	Verified - JRH	0.2	
9	octane	0.0421	0.088	0.177	0.1	Verified - JRH	0.2	
10	naphthalene	0.0425	0.090	0.181	0.1	Verified - JRH	0.2	
11	1,2,3-trichlorobenzene	0.0436	0.093	0.185	0.1	Verified - JRH	0.2	
12	dichlorodifluoromethane	0.0466	0.093	0.186	0.1	Verified - JRH	0.2	
13	benzothiophene	0.0468	0.094	0.187	0.1	Verified - JRH	0.5	
14	carbon tetrachloride	0.0471	0.094	0.188	0.1	Verified - JRH	0.2	
15	2-butanone	0.0472	0.095	0.190	0.1	Verified - JRH	0.2	
16	pentane	0.0475	0.097	0.193	0.1	Verified - JRH	0.2	
17	dibromomethane	0.0476	0.097	0.195	0.1	Verified - JRH	0.2	
18	2-chlorotoluene	0.0487	0.101	0.200	0.2	Verified - JRH	0.2	
19	Freon 113	0.0511	0.102	0.200	0.2	Verified - JRH	0.2	
20	tert-butyl ethyl ether	0.0515	0.103	0.200	0.2	Verified - JRH	0.2	
21	hexane	0.0518	0.104	0.200	0.2	Verified - JRH	0.2	
22	bromoform	0.0523	0.105	0.200	0.2	Verified - JRH	0.2	
23	isopropyl alcohol	0.0525	0.106	0.211	0.2	Verified - JRH	0.5	
24	thiophene	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
25	MTBE	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
26	chloroform	0.0531	0.108	0.200	0.2	Verified - JRH	0.2	
27	benzene	0.0537	0.109	0.200	0.2	Verified - JRH	0.2	
28	n-propylbenzene	0.0540	0.109	0.200	0.2	Verified - JRH	0.2	
29	1,1,1,2-tetrachloroethane	0.0547	0.110	0.200	0.2	Verified - JRH	0.2	
30	1,1,2,2-tetrachloroethane	0.0548	0.110	0.200	0.2	Verified - JRH	0.2	
31	1,2-dichloroethane	0.0552	0.111	0.200	0.2	Verified - JRH	0.2	
32	heptane	0.0553	0.111	0.200	0.2	Verified - JRH	0.2	
33	ethylbenzene	0.0555	0.113	0.200	0.2	Verified - JRH	0.2	
34	1,1-dichloroethene	0.0566	0.113	0.200	0.2	Verified - JRH	0.2	
35	vinyl acetate	0.0567	0.114	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
36	1,1,1-trichloroethane	0.0570	0.114	0.200	0.2	Verified - JRH	0.2	
37	2-Ethylthiophene	0.0571	0.114	0.200	0.2	Verified - JRH	0.2	
38	dichlorofluoromethane	0.0572	0.116	0.200	0.2	Verified - JRH	0.2	
39	2,2-dichloropropane	0.0581	0.117	0.200	0.2	Verified - JRH	0.2	
40	1,3,5-trimethylbenzene	0.0584	0.117	0.200	0.2	Verified - JRH	0.2	
41	cis-1,2-dichloroethene	0.0587	0.121	0.200	0.2	Verified - JRH	0.2	
42	ethyl ether	0.0591	0.122	0.200	0.2	Verified - JRH	0.2	
43	2-hexanone	0.0604	0.122	0.200	0.2	Verified - JRH	0.2	
44	4-methyl-2-pentanone	0.0607	0.122	0.200	0.2	Verified - JRH	0.2	
45	tetrahydrofuran	0.0608	0.122	0.200	0.2	Verified - JRH	0.2	
46	p-isopropyltoluene	0.0608	0.123	0.200	0.2	Verified - JRH	0.2	
47	indene	0.0608	0.125	0.200	0.2	Verified - JRH	0.2	
48	1,2,4-trichlorobenzene	0.0611	0.126	0.200	0.2	Verified - JRH	0.2	
49	1,2-dichlorobenzene	0.0614	0.126	0.200	0.2	Verified - JRH	0.2	
50	chlorodifluoromethane	0.0626	0.127	0.200	0.2	Verified - JRH	0.2	
51	toluene	0.0628	0.127	0.200	0.2	Verified - JRH	0.2	
52	o-xylene	0.0631	0.128	0.200	0.2	Verified - JRH	0.2	
53	1,3-dichlorobenzene	0.0637	0.129	0.200	0.2	Verified - JRH	0.2	
54	n-butylbenzene	0.0639	0.131	0.200	0.2	Verified - JRH	0.2	
55	benzyl chloride	0.0645	0.131	0.200	0.2	Verified - JRH	0.2	
56	bromodichloromethane	0.0656	0.131	0.200	0.2	Verified - JRH	0.2	
57	cyclohexane	0.0656	0.132	0.200	0.2	Verified - JRH	0.2	
58	diisopropyl ether	0.0656	0.133	0.200	0.2	Verified - JRH	0.2	
59	2,2,4-trimethylpentane	0.0659	0.133	0.200	0.2	Verified - JRH	0.2	
60	1,1,2-trichloroethane	0.0667	0.134	0.200	0.2	Verified - JRH	0.2	
61	3-methylthiophene	0.0669	0.139	0.200	0.2	Verified - JRH	0.2	
62	trans-1,3-dichloropropene	0.0693	0.139	0.200	0.2	Verified - JRH	0.2	
63	1,2,4-trimethylbenzene	0.0694	0.139	0.200	0.2	Verified - JRH	0.2	
64	bromomethane	0.0696	0.139	0.200	0.2	Verified - JRH	0.2	
65	1,2-dichloropropane	0.0697	0.140	0.200	0.2	Verified - JRH	0.2	
66	vinyl bromide	0.0699	0.142	0.200	0.2	Verified - JRH	0.2	
67	trichloroethene	0.0710	0.143	0.200	0.2	Verified - JRH	0.2	
68	1,1-dichloropropene	0.0715	0.146	0.200	0.2	Verified - JRH	0.2	
69	sec-butylbenzene	0.0731	0.146	0.200	0.2	Verified - JRH	0.2	
70	hexachlorobutadiene	0.0732	0.148	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 3 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
71	trans-1,2-dichloroethene	0.0740	0.149	0.200	0.2	Verified - JRH	0.2	
72	1,2-dibromo-3-chloropropane	0.0744	0.149	0.200	0.2	Verified - JRH	0.2	
73	cis-1,3-dichloropropene	0.0745	0.149	0.200	0.2	Verified - JRH	0.2	
74	dibromochloromethane	0.0747	0.150	0.200	0.2	Verified - JRH	0.2	
75	1,2,3-Trimethylbenzene	0.0751	0.152	0.200	0.2	Verified - JRH	0.2	
76	tetrachloroethene	0.0758	0.152	0.200	0.2	Verified - JRH	0.2	
77	acetonitrile	0.0761	0.153	0.200	0.2	Verified - JRH	0.2	
78	4-chlorotoluene	0.0764	0.153	0.200	0.2	Verified - JRH	0.2	
79	1,2,3-trichloropropane	0.0767	0.153	0.200	0.2	Verified - JRH	0.2	
80	chloroethane	0.0767	0.154	0.200	0.2	Verified - JRH	0.2	
81	1,1-dichloroethane	0.0771	0.155	0.200	0.2	Verified - JRH	0.2	
82	1,3-dichloropropane	0.0776	0.155	0.200	0.2	Verified - JRH	0.2	
83	4-ethyl toluene	0.0776	0.156	0.200	0.2	Verified - JRH	0.2	
84	1,2-dibromoethane	0.0779	0.156	0.200	0.2	Verified - JRH	0.2	
85	1,4-dioxane	0.0780	0.158	0.200	0.2	Verified - JRH	0.2	
86	chlorobenzene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
87	2-methylthiophene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
88	acrylonitrile	0.0790	0.158	0.200	0.2	Verified - JRH	0.2	
89	bromobenzene	0.0790	0.159	0.200	0.2	Verified - JRH	0.2	
90	1,2,4,5-Tetramethylbenzene	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
91	tert-amyl methyl ether	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
92	indan	0.0795	0.160	0.200	0.2	Verified - JRH	0.2	
93	styrene	0.0799	0.160	0.200	0.2	Verified - JRH	0.2	
94	1,3-butadiene	0.0799	0.162	0.200	0.2	Verified - JRH	0.2	
95	3-chloropropene	0.0812	0.186	0.200	0.2	Verified - JRH	0.2	
96	propylene	0.0929	0.192	0.383	0.2	Verified - JRH	0.5	
97	chloromethane	0.0958	0.227	0.200	0.2	Verified - JRH	0.2	
98	propane	0.1137	0.228	0.200	0.2	Verified - JRH	0.2	
99	acrolein	0.1138	0.262	0.500	0.5	Verified - JRH	0.5	
100	ethyl acetate	0.1310	0.278	0.500	0.5	Verified - JRH	0.5	
101	m+p-xylene	0.1388	0.295	0.400	0.4	Verified - JRH	0.4	
102	acetone	0.1649	0.330	0.660	0.5	Verified - JRH	1.0	
103	1-methylnaphthalene	0.2495	0.499	0.998	1	Verified - JRH	1.0	
104	2-methylnaphthalene	0.2725	0.545	1.000	1	Verified - JRH	1.0	
105	methylene chloride	0.2991	0.598	1.000	1	Verified - JRH	1.0	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
106	ethanol	0.5416	1.08	2.17	1	Verified - JRH	2.5	
107	acetaldehyde	0.5466	1.09	2.19	1	Verified - JRH	5.0	
108	methanol	0.7359	1.47	2.94	2.5	Verified - JRH	5.0	
	Additional Analytes							
1	undecane	0.0528	0.106	0.200	0.2	Verified - JRH	0.2	
2	dodecane	0.0478	0.127	0.200	0.2	Verified - JRH	0.2	
3	decane	0.0484	0.097	0.194	0.1	Verified - JRH	0.2	
4	nonane	0.0625	0.075	0.150	0.1	Verified - JRH	0.2	
5	butane	0.0442	0.088	0.177	0.1	Verified - JRH	0.2	
6	Tertiary butyl Alcohol	0.0599	0.120	0.239	0.2	Verified - JRH	0.5	
7	butyl acetate	0.1139	0.228	0.455	0.2	Verified - JRH	0.5	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Organics

New Jersey TO-15 Methods

Quality Control Data Summary

3

LAB DUPLICATE

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1500977 Matrix: Air

Lab Sample ID : WG756340-5 Injected: 01/16/15 21:56 Lab File ID: R232168

Client Sample ID : 116 LANZA-NS-1

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
Dichlorodifluoromethane	0.60	0.62	3	25
Chloromethane	0.52	0.50	4	25
Freon-114	ND	ND	NC	25
Vinyl chloride	ND	ND	NC	25
1,3-Butadiene	ND	ND	NC	25
Bromomethane	ND	ND	NC	25
Chloroethane	ND	ND	NC	25
Ethanol	26	26	0	25
Vinyl bromide	ND	ND	NC	25
Acetone	120	120	0	25
Trichlorofluoromethane	ND	ND	NC	25
Isopropanol	34	32	6	25
1,1-Dichloroethene	ND	ND	NC	25
Tertiary butyl Alcohol	ND	ND	NC	25
Methylene chloride	ND	ND	NC	25
3-Chloropropene	ND	ND	NC	25
Carbon disulfide	0.55	0.56	2	25
Freon-113	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
Methyl tert butyl ether	ND	ND	NC	25
2-Butanone	24	23	4	25
cis-1,2-Dichloroethene	ND	ND	NC	25
Chloroform	1.3	1.3	0	25
Tetrahydrofuran	ND	ND	NC	25
1,2-Dichloroethane	ND	ND	NC	25
n-Hexane	0.48	0.45	6	25
1,1,1-Trichloroethane	ND	ND	NC	25
Benzene	1.0	0.96	4	25
Carbon tetrachloride	ND	ND	NC	25
Cyclohexane	ND	ND	NC	25
1,2-Dichloropropane	ND	ND	NC	25
Bromodichloromethane	0.52	0.52	0	25
1,4-Dioxane	ND	ND	NC	25
Trichloroethene	1.2	1.1	9	25
2,2,4-Trimethylpentane	ND	ND	NC	25
Methyl methacrylate	ND	ND	NC	25
Heptane	0.49	0.45	9	25
cis-1,3-Dichloropropene	ND	ND	NC	25
4-Methyl-2-pentanone	7.7	7.5	3	25

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

3

LAB DUPLICATE

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1500977 Matrix: Air

Lab Sample ID : WG756340-5 Injected: 01/16/15 21:56 Lab File ID: R232168

Client Sample ID : 116 LANZA-NS-1

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
trans-1,3-Dichloropropen	ND	ND	NC	25
1,1,2-Trichloroethane	ND	ND	NC	25
Toluene	2.1	2.0	5	25
Dibromochloromethane	ND	ND	NC	25
1,2-Dibromoethane	ND	ND	NC	25
Tetrachloroethene	2.3	2.3	0	25
Chlorobenzene	ND	ND	NC	25
Ethylbenzene	ND	ND	NC	25
p/m-Xylene	1.3	1.2	8	25
Bromoform	ND	ND	NC	25
Styrene	ND	ND	NC	25
1,1,2,2-Tetrachloroethan	ND	ND	NC	25
o-Xylene	0.50	0.48	4	25
2-Chlorotoluene	ND	ND	NC	25
4-Ethyltoluene	ND	ND	NC	25
1,3,5-Trimethybenzene	ND	ND	NC	25
1,2,4-Trimethylbenzene	0.54	0.56	4	25
1,3-Dichlorobenzene	ND	ND	NC	25
1,4-Dichlorobenzene	ND	ND	NC	25
1,2-Dichlorobenzene	ND	ND	NC	25
1,2,4-Trichlorobenzene	ND	ND	NC	25
Hexachlorobutadiene	ND	ND	NC	25

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500977 Matrix: Air
Lab Control Sample: WG756340-3LCS Injected: 01/16/15 13:52 Lab File ID: R232154

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	8.6	86	-	-	-		70-130
Propylene	10	NA	11	110	-	-	-		70-130
Dichlorodifluoromethane	10	NA	12	120	-	-	-		40-160
Chloromethane	10	NA	8.4	84	-	-	-		70-130
Freon-114	10	NA	8.7	87	-	-	-		70-130
Methanol	50	NA	41	82	-	-	-		70-130
Vinyl chloride	10	NA	8.8	88	-	-	-		70-130
1,3-Butadiene	10	NA	9.4	94	-	-	-		70-130
Butane	10	NA	8.1	81	-	-	-		70-130
Bromomethane	10	NA	8.6	86	-	-	-		70-130
Chloroethane	10	NA	8.5	85	-	-	-		70-130
Ethanol	50	NA	42	84	-	-	-		70-130
Dichlorofluoromethane	10	NA	7.8	78	-	-	-		70-130
Vinyl bromide	10	NA	8.8	88	-	-	-		70-130
Acrolein	10	NA	7.9	79	-	-	-		70-130
Acetone	50	NA	42	84	-	-	-		40-160
Acetonitrile	10	NA	8.4	84	-	-	-		70-130
Trichlorofluoromethane	10	NA	8.2	82	-	-	-		70-130
Isopropanol	10	NA	8.5	85	-	-	-		70-130
Acrylonitrile	10	NA	8.1	81	-	-	-		70-130
Pentane	10	NA	8.7	87	-	-	-		70-130
Ethyl ether	10	NA	8.1	81	-	-	-		70-130
1,1-Dichloroethene	10	NA	8.6	86	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	8.3	83	-	-	-		70-130
Methylene chloride	10	NA	8.3	83	-	-	-		70-130
3-Chloropropene	10	NA	8.9	89	-	-	-		70-130
Carbon disulfide	10	NA	9.1	91	-	-	-		70-130
Freon-113	10	NA	9.8	98	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	9.4	94	-	-	-		70-130
1,1-Dichloroethane	10	NA	10	100	-	-	-		70-130
Methyl tert butyl ether	10	NA	10	100	-	-	-		70-130
Vinyl acetate	10	NA	13	130	-	-	-		70-130
2-Butanone	10	NA	9.8	98	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	11	110	-	-	-		70-130
Ethyl Acetate	10	NA	10	100	-	-	-		70-130
Chloroform	10	NA	10	100	-	-	-		70-130
Tetrahydrofuran	10	NA	10	100	-	-	-		70-130
2,2-Dichloropropane	10	NA	9.2	92	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.5	95	-	-	-		70-130
n-Hexane	10	NA	9.4	94	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500977 Matrix: Air
Lab Control Sample: WG756340-3LCS Injected: 01/16/15 13:52 Lab File ID: R232154

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Diisopropyl Ether	10	NA	9.0	90	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.9	89	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	9.2	92	-	-	-		70-130
1,1-Dichloropropene	10	NA	9.4	94	-	-	-		70-130
Benzene	10	NA	9.7	97	-	-	-		70-130
Carbon tetrachloride	10	NA	9.2	92	-	-	-		70-130
Cyclohexane	10	NA	9.5	95	-	-	-		70-130
tert-amyl methyl ether	10	NA	9.0	90	-	-	-		70-130
Dibromomethane	10	NA	8.6	86	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.7	97	-	-	-		70-130
Bromodichloromethane	10	NA	9.1	91	-	-	-		70-130
1,4-Dioxane	10	NA	9.7	97	-	-	-		40-160
Trichloroethene	10	NA	9.6	96	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	9.5	95	-	-	-		70-130
Methyl methacrylate	10	NA	8.8	88	-	-	-		70-130
Heptane	10	NA	9.6	96	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	10	100	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	9.3	93	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.6	86	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	10	100	-	-	-		70-130
Toluene	10	NA	11	110	-	-	-		70-130
1,3-Dichloropropane	10	NA	10	100	-	-	-		70-130
2-Hexanone	10	NA	10	100	-	-	-		70-130
Dibromochloromethane	10	NA	10	100	-	-	-		70-130
1,2-Dibromoethane	10	NA	11	110	-	-	-		70-130
Butyl Acetate	10	NA	10	100	-	-	-		70-130
Octane	10	NA	10	100	-	-	-		70-130
Tetrachloroethene	10	NA	11	110	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	10	100	-	-	-		70-130
Chlorobenzene	10	NA	11	110	-	-	-		70-130
Ethylbenzene	10	NA	11	110	-	-	-		70-130
p/m-Xylene	20	NA	23	115	-	-	-		70-130
Bromoform	10	NA	11	110	-	-	-		70-130
Styrene	10	NA	11	110	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	12	120	-	-	-		70-130
o-Xylene	10	NA	12	120	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	11	110	-	-	-		70-130
Nonane	10	NA	10	100	-	-	-		70-130
Isopropylbenzene	10	NA	11	110	-	-	-		70-130
Bromobenzene	10	NA	10	100	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500977 Matrix: Air
Lab Control Sample: WG756340-3LCS Injected: 01/16/15 13:52 Lab File ID: R232154

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
2-Chlorotoluene	10	NA	11	110	-	-	-		70-130
n-Propylbenzene	10	NA	11	110	-	-	-		70-130
4-Chlorotoluene	10	NA	11	110	-	-	-		70-130
4-Ethyltoluene	10	NA	11	110	-	-	-		70-130
1,3,5-Trimethybenzene	10	NA	12	120	-	-	-		70-130
tert-Butylbenzene	10	NA	11	110	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	12	120	-	-	-		70-130
Decane	10	NA	11	110	-	-	-		70-130
Benzyl chloride	10	NA	12	120	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	12	120	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	12	120	-	-	-		70-130
sec-Butylbenzene	10	NA	11	110	-	-	-		70-130
p-Isopropyltoluene	10	NA	11	110	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	13	130	-	-	-		70-130
n-Butylbenzene	10	NA	12	120	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	11	110	-	-	-		70-130
Undecane	10	NA	12	120	-	-	-		70-130
Dodecane	10	NA	14	140 *	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	14	140	-	-	-		40-160
Naphthalene	10	NA	14	140	-	-	-		40-160
1,2,3-Trichlorobenzene	10	NA	14	140 *	-	-	-		70-130
Hexachlorobutadiene	10	NA	14	140	-	-	-		40-160

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NJ-TO15

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG756340-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Lab File ID: R232157 Lab Sample ID: WG756340-4

Date Analyzed: 01/16/15 Time Analyzed: 15:47

Instrument ID: AIRPIANO2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG756340-3LCS	WG756340-3	R232154	01/16/15 13:52
02	CR011515-SS-B3	L1500977-01D	R232164	01/16/15 19:50
03	CR011515-SS-B6	L1500977-02	R232165	01/16/15 20:21
04	CR011515-SS-DUP	L1500977-03	R232166	01/16/15 20:53
05	116 LANZA-NS-1DUP	WG756340-5D	R232168	01/16/15 21:56

COMMENTS: _____

_____

FORM IV NJ-TO15 LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Lab File ID: R231611_tune BFB Injection Date: 12/14/14

Instrument ID: AIRPIANO2 BFB Injection Time: 10:25

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	51
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	84.4
175	5.0 - 9.0% of mass 174	6.2 (7.3)1
176	95.0 - 101% of mass 174	82.2 (97.4)1
177	5.0 - 9.0% of mass 176	5.2 (6.3)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R231615	12/14/14	14:35
02	0.5	0.5	R231616	12/14/14	15:07
03	1.0	1.0	R231617	12/14/14	15:39
04	5.0	5.0	R231618	12/14/14	16:10
05	10	10	R231619	12/14/14	16:42
06	20	20	R231620	12/14/14	17:14
07	50	50	R231621	12/14/14	17:45
08	100	100	R231622	12/14/14	18:17
09	ICV Quant	ICV Quant	R231625	12/15/14	08:05

FORM V NJ-TO15

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Lab File ID: R232152_tune BFB Injection Date: 01/16/15

Instrument ID: AIRPIANO2 BFB Injection Time: 12:35

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.3
75	30.0 - 60.0% of mass 95	49.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	84.2
175	5.0 - 9.0% of mass 174	6 (7.2)1
176	95.0 - 101% of mass 174	80.5 (95.6)1
177	5.0 - 9.0% of mass 176	5.2 (6.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG756340-2	R232153	01/16/15	13:07
02	WG756340-3LCS	WG756340-3	R232154	01/16/15	13:52
03	WG756340-4BLANK	WG756340-4	R232157	01/16/15	15:47
04	CR011515-SS-B3	L1500977-01D	R232164	01/16/15	19:50
05	CR011515-SS-B6	L1500977-02	R232165	01/16/15	20:21
06	CR011515-SS-DUP	L1500977-03	R232166	01/16/15	20:53
07	Duplicate Sample	WG756340-5D	R232168	01/16/15	21:56

FORM V NJ-TO15

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Lab File ID (Standard): R232153 Date Analyzed: 01/16/15

Instrument ID : AIRPIANO2 Time Analyzed: 13:07

	IS1 AREA	RT	IS2 AREA	RT	IS3 AREA	RT
24 HOUR STD	188101	10.39	721984	12.55	122028	16.89
UPPER LIMIT	263341	10.72	1010778	12.88	170839	17.22
LOWER LIMIT	112861	10.06	433190	12.22	73217	16.56
	EPA SAMPLE NO.					
01	WG756340-3LCS	185168	10.38	712186	12.54	122318	16.89
02	WG756340-4BLANK	174416	10.39	672341	12.55	107340	16.89
03	CR011515-SS-B3	157128	10.39	601748	12.55	99061	16.89
04	CR011515-SS-B6	162716	10.39	613971	12.55	97146	16.89
05	CR011515-SS-DUP	155014	10.39	600063	12.55	97151	16.89
06	WG756340-5DUP	171543	10.39	653147	12.55	107711	16.89

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-01DL	Date Collected	: 01/15/15 12:14
Client ID	: CR011515-SS-B3	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 19:50
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 3.333
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232164	Instrument ID	: AIRPIANO2
Sample Amount	: 75.0 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.79	0.67	--	4	3	--	
74-87-3	Chloromethane	ND	0.67	--	ND	1.	--	U
76-14-2	Freon-114	ND	0.67	--	ND	5.	--	U
75-01-4	Vinyl chloride	ND	0.67	--	ND	2.	--	U
106-99-0	1,3-Butadiene	ND	0.67	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.67	--	ND	3.	--	U
75-00-3	Chloroethane	ND	0.67	--	ND	2.	--	U
64-17-5	Ethanol	20	8.3	--	38	16	--	
593-60-2	Vinyl bromide	ND	0.67	--	ND	3.	--	U
67-64-1	Acetone	21	3.3	--	50	7.8	--	
75-69-4	Trichlorofluoromethane	ND	0.67	--	ND	4	--	U
67-63-0	Isopropanol	6.3	1.7	--	15	4.2	--	
75-35-4	1,1-Dichloroethene	ND	0.67	--	ND	3.	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.7	--	ND	5	--	U
75-09-2	Methylene chloride	ND	1.7	--	ND	6	--	U
107-05-1	3-Chloropropene	ND	0.67	--	ND	2.	--	U
75-15-0	Carbon disulfide	ND	0.67	--	ND	2.	--	U
76-13-1	Freon-113	ND	0.67	--	ND	5	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.67	--	ND	3.	--	U
75-34-3	1,1-Dichloroethane	ND	0.67	--	ND	3.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.67	--	ND	2.	--	U
78-93-3	2-Butanone	2.0	0.67	--	6	2	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.67	--	ND	3.	--	U
67-66-3	Chloroform	150	0.67	--	730	3.3	--	
109-99-9	Tetrahydrofuran	ND	0.67	--	ND	2	--	U
107-06-2	1,2-Dichloroethane	ND	0.67	--	ND	3.	--	U
110-54-3	n-Hexane	ND	0.67	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.67	--	ND	4.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-01DL	Date Collected	: 01/15/15 12:14
Client ID	: CR011515-SS-B3	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 19:50
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 3.333
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232164	Instrument ID	: AIRPIANO2
Sample Amount	: 75.0 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.67	--	ND	2.	--	U
56-23-5	Carbon tetrachloride	ND	0.67	--	ND	4.	--	U
110-82-7	Cyclohexane	ND	0.67	--	ND	2.	--	U
78-87-5	1,2-Dichloropropane	ND	0.67	--	ND	3.	--	U
75-27-4	Bromodichloromethane	ND	0.67	--	ND	4.	--	U
123-91-1	1,4-Dioxane	ND	0.67	--	ND	2.	--	U
79-01-6	Trichloroethene	1.7	0.67	--	9	4	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.67	--	ND	3.	--	U
80-62-6	Methyl Methacrylate	ND	1.7	--	ND	7.	--	U
142-82-5	Heptane	ND	0.67	--	ND	3.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.67	--	ND	3.	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.67	--	ND	3.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.67	--	ND	3.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.67	--	ND	4.	--	U
108-88-3	Toluene	1.0	0.67	--	4	3	--	
124-48-1	Dibromochloromethane	ND	0.67	--	ND	6.	--	U
106-93-4	1,2-Dibromoethane	ND	0.67	--	ND	5.	--	U
127-18-4	Tetrachloroethene	1.5	0.67	--	10	4.5	--	
108-90-7	Chlorobenzene	ND	0.67	--	ND	3.	--	U
100-41-4	Ethylbenzene	ND	0.67	--	ND	3.	--	U
179601-23-1	p/m-Xylene	ND	1.3	--	ND	6	--	U
75-25-2	Bromoform	ND	0.67	--	ND	7.	--	U
100-42-5	Styrene	ND	0.67	--	ND	3.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.67	--	ND	5.	--	U
95-47-6	o-Xylene	ND	0.67	--	ND	3.	--	U
95-49-8	2-Chlorotoluene	ND	0.67	--	ND	3.	--	U
622-96-8	4-Ethyltoluene	ND	0.67	--	ND	3.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.67	--	ND	3.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-01DL	Date Collected	: 01/15/15 12:14
Client ID	: CR011515-SS-B3	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 19:50
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 3.333
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232164	Instrument ID	: AIRPIANO2
Sample Amount	: 75.0 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.67	--	ND	3	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.67	--	ND	4.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.67	--	ND	4.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.67	--	ND	4.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.67	--	ND	5.	--	U
87-68-3	Hexachlorobutadiene	ND	0.67	--	ND	7.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 17 13:46:24 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	157128	10.000	ppbV	0.00
Standard Area = 188101			Recovery =		83.53%	
43) 1,4-difluorobenzene	12.55	114	601748	10.000	ppbV	0.00
Standard Area = 721984			Recovery =		83.35%	
67) chlorobenzene-D5	16.89	54	99061	10.000	ppbV	0.00
Standard Area = 122028			Recovery =		81.18%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.43	85	5657	0.237	ppbV	100
6) chloromethane	0.00		0	N.D.	d	
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	5.56		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.03	31	65252	6.044	ppbV	94
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.66	43	137351	6.324	ppbV #	99
21) trichlorofluoromethane	6.86	101	3449	0.074	ppbV #	73
22) isopropyl alcohol	7.00	45	45046	1.903	ppbV #	97
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.79	59	3161	0.113	ppbV #	75
28) methylene chloride	7.85	49	2737	0.165	ppbV	86
29) 3-chloropropene	8.00		0	N.D.		
30) carbon disulfide	8.17		0	N.D.		
31) Freon 113	8.17	101	3644	0.113	ppbV	92
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	9.30		0	N.D.		
36) 2-butanone	9.74	43	16400	0.596	ppbV	97
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.54	83	1406576	44.065	ppbV	99
40) Tetrahydrofuran	11.04	42	1187	0.080	ppbV #	74
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.45		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 17 13:46:24 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) benzene	12.17		0	N.D.		
52) carbon tetrachloride	12.33		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	13.34	130	11659	0.499	ppbV	96
60) 2,2,4-trimethylpentane	13.39		0	N.D.		
61) methyl methacrylate	0.00		0	N.D.	d	
62) heptane	13.67		0	N.D.		
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	0.00		0	N.D.	d	
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	15.33	91	20185	0.310	ppbV	89
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
78) tetrachloroethene	16.36	166	14670	0.444	ppbV	94
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	17.22		0	N.D.		
83) m+p-xylene	17.36	91	4120	0.081	ppbV #	79
84) bromoform	0.00		0	N.D.		
85) styrene	17.64		0	N.D.		
86) 1,1,2,2-tetrachloroethane	17.56		0	N.D.		
87) o-xylene	17.73		0	N.D.		
93) 2-chlorotoluene	0.00		0	N.D.		
96) 4-ethyl toluene	18.64		0	N.D.		
97) 1,3,5-trimethylbenzene	18.69		0	N.D.		
99) 1,2,4-trimethylbenzene	18.99	105	3663	0.059	ppbV #	49
102) 1,3-dichlorobenzene	19.13		0	N.D.		
103) 1,4-dichlorobenzene	19.13		0	N.D.		
107) 1,2-dichlorobenzene	0.00		0	N.D.		
115) 1,2,4-trichlorobenzene	0.00		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 17 13:46:24 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

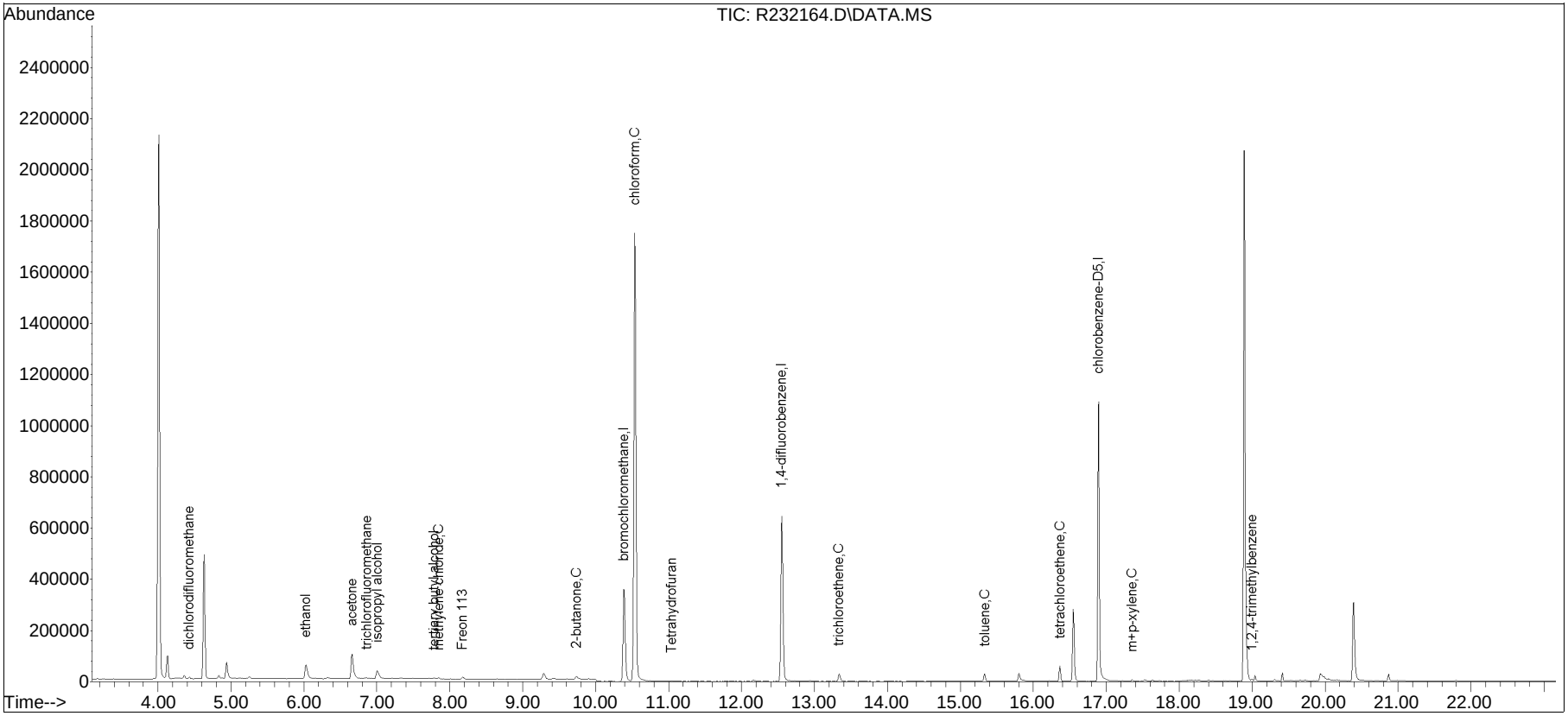
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

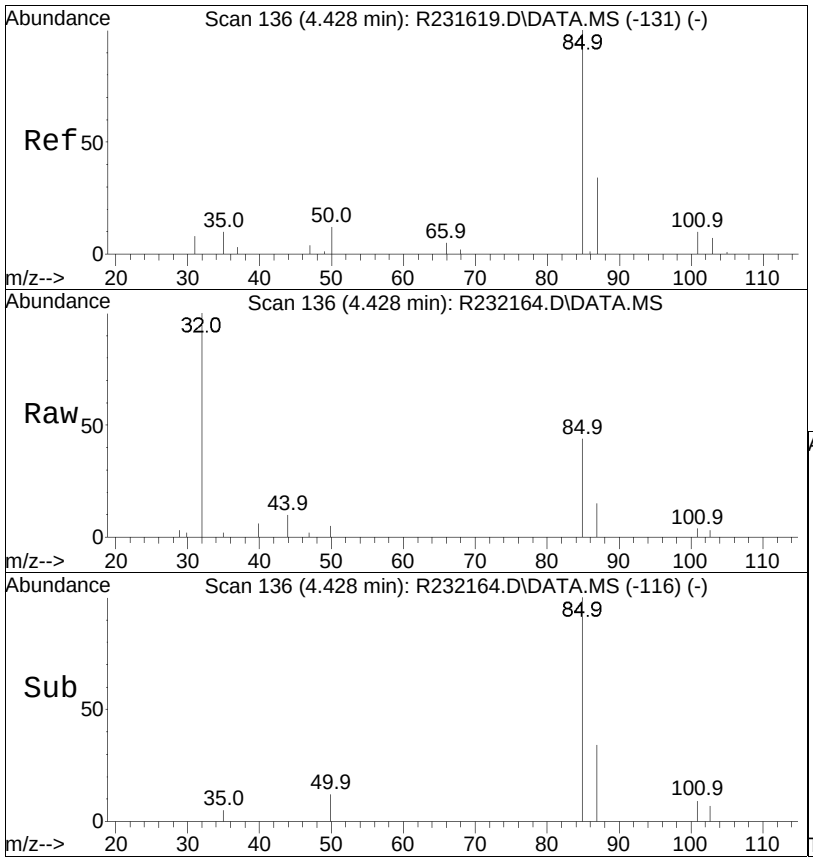
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 17 13:46:24 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\AIR2\2015\150116T\R232153.D

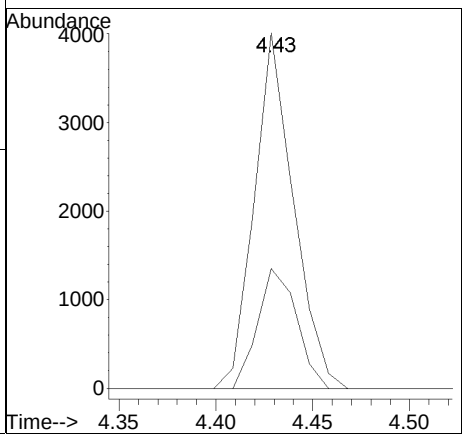


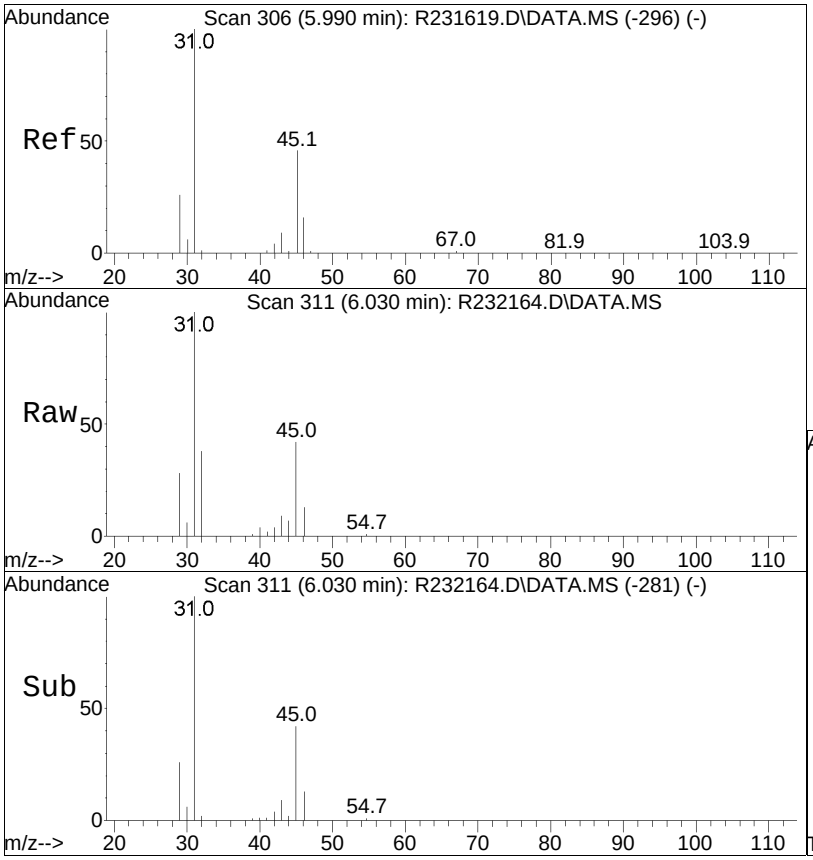


#5
dichlorodifluoromethane
Concen: 0.24 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 85 Resp: 5657

Ion	Ratio	Lower	Upper
85	100		
87	33.7	27.2	40.8

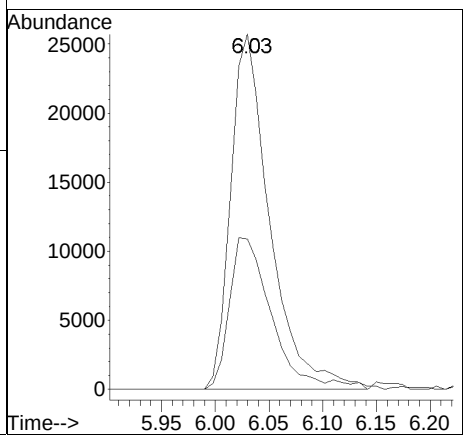


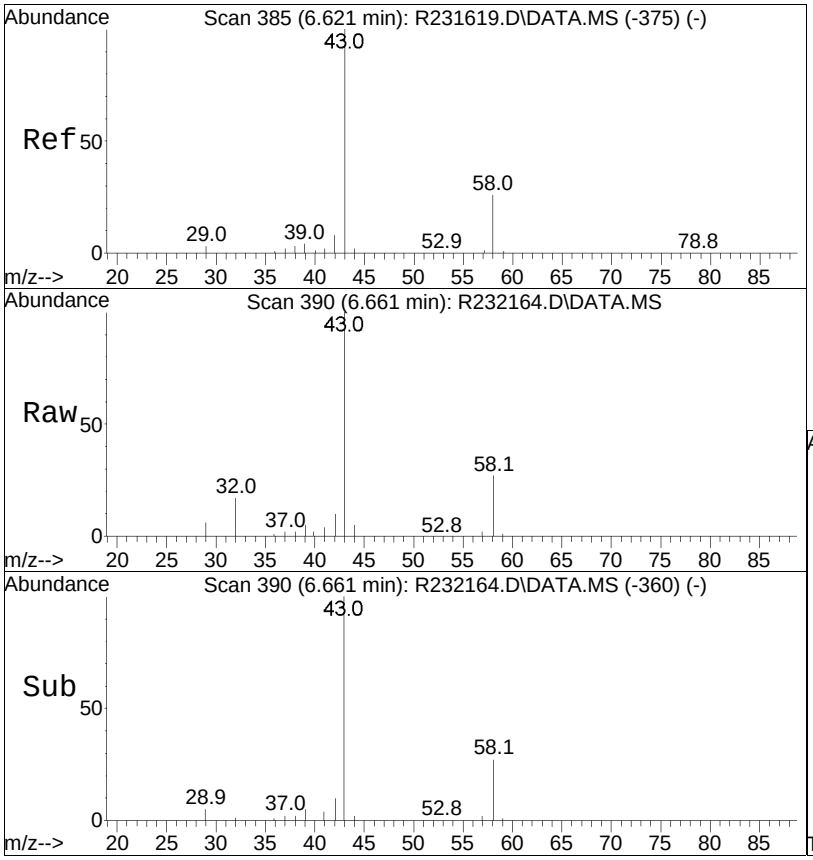


#15
ethanol
Concen: 6.04 ppbV
RT: 6.03 min Scan# 311
Delta R.T. 0.040 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 31 Resp: 65252

Ion	Ratio	Lower	Upper
31	100		
45	42.4	36.8	55.2

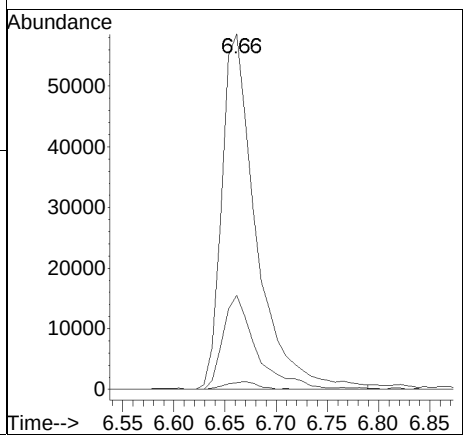


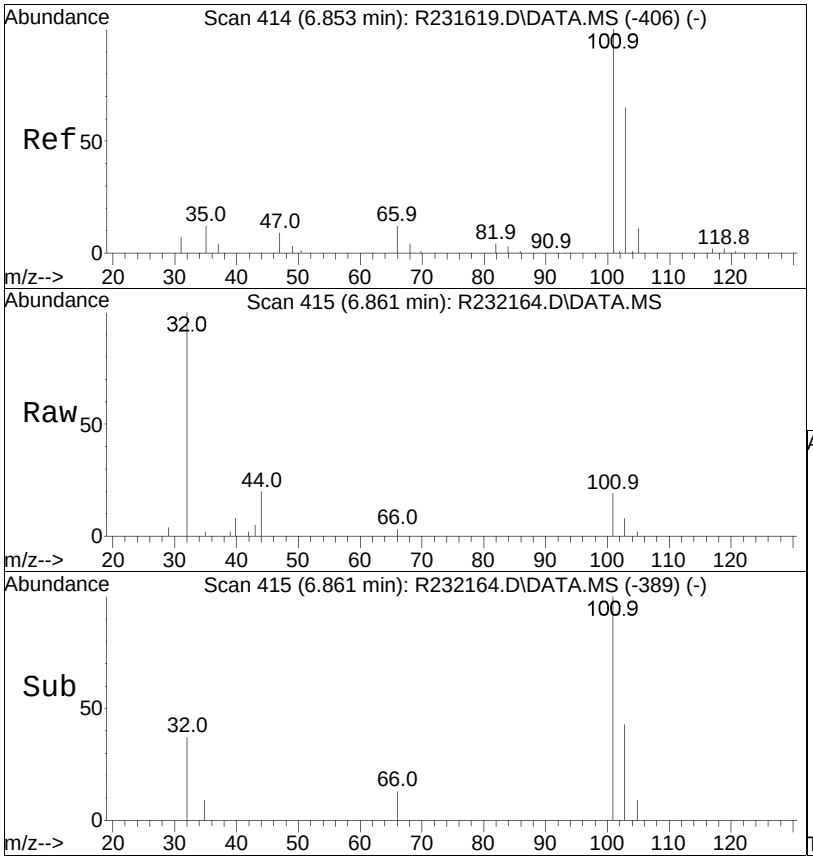


#19
acetone
Concen: 6.32 ppbV
RT: 6.66 min Scan# 390
Delta R.T. 0.040 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 43 Resp: 137351

Ion	Ratio	Lower	Upper
43	100		
58	26.5	20.6	31.0
57	1.9	0.6	1.0#

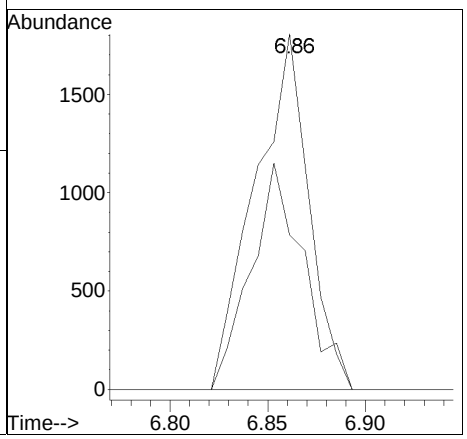


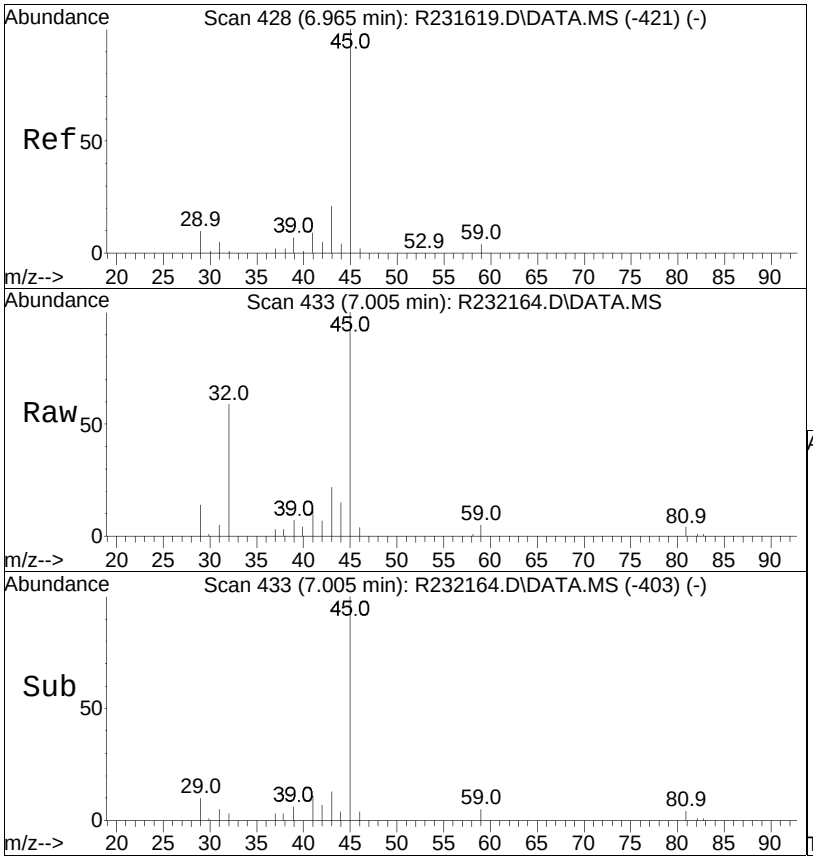


#21
trichlorofluoromethane
Concen: 0.07 ppbV
RT: 6.86 min Scan# 415
Delta R.T. 0.008 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion:101 Resp: 3449

Ion	Ratio	Lower	Upper
101	100		
103	43.4	52.1	78.1#

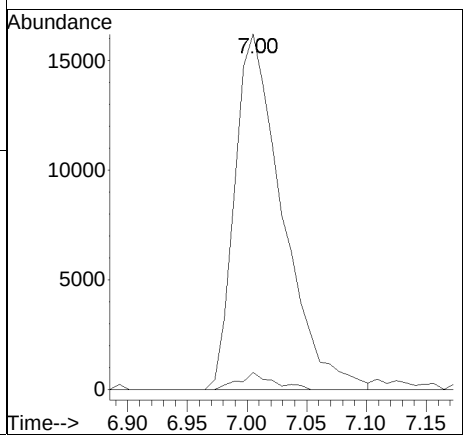


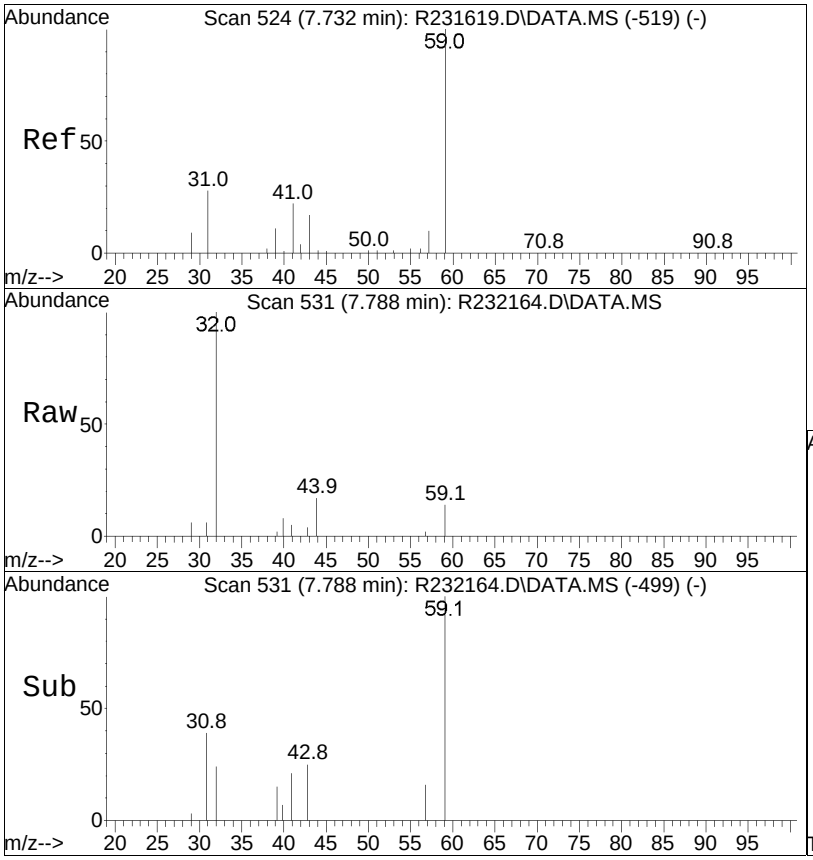


#22
isopropyl alcohol
Concen: 1.90 ppbV
RT: 7.00 min Scan# 433
Delta R.T. 0.040 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 45 Resp: 45046

Ion	Ratio	Lower	Upper
45	100		
59	4.8	3.1	4.7#

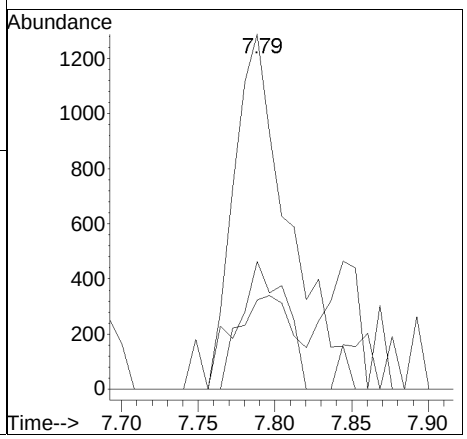


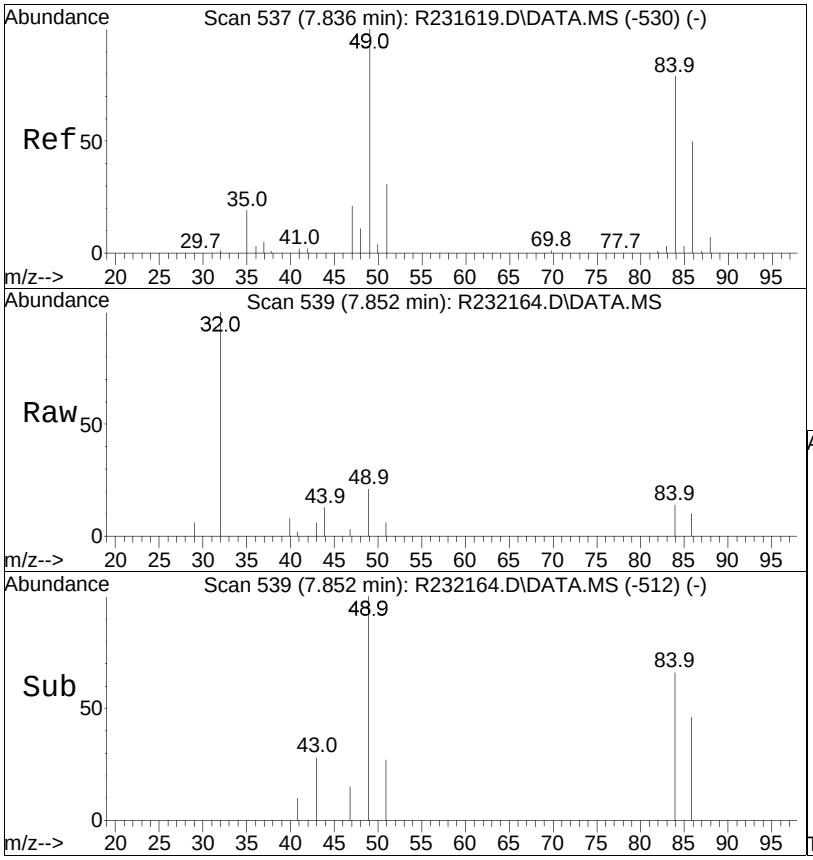


#27
tertiary butyl alcohol
Concen: 0.11 ppbV
RT: 7.79 min Scan# 531
Delta R.T. 0.056 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 59 Resp: 3161

Ion	Ratio	Lower	Upper
59	100		
41	36.0	17.4	26.2#
43	25.2	13.8	20.6#

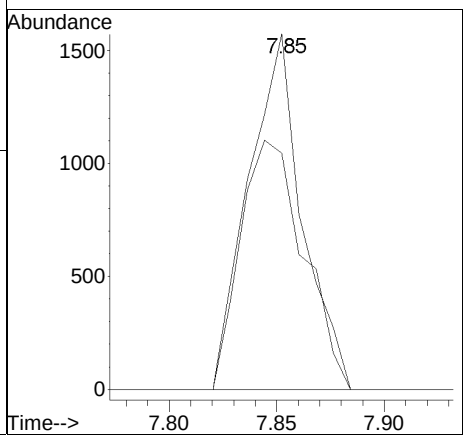


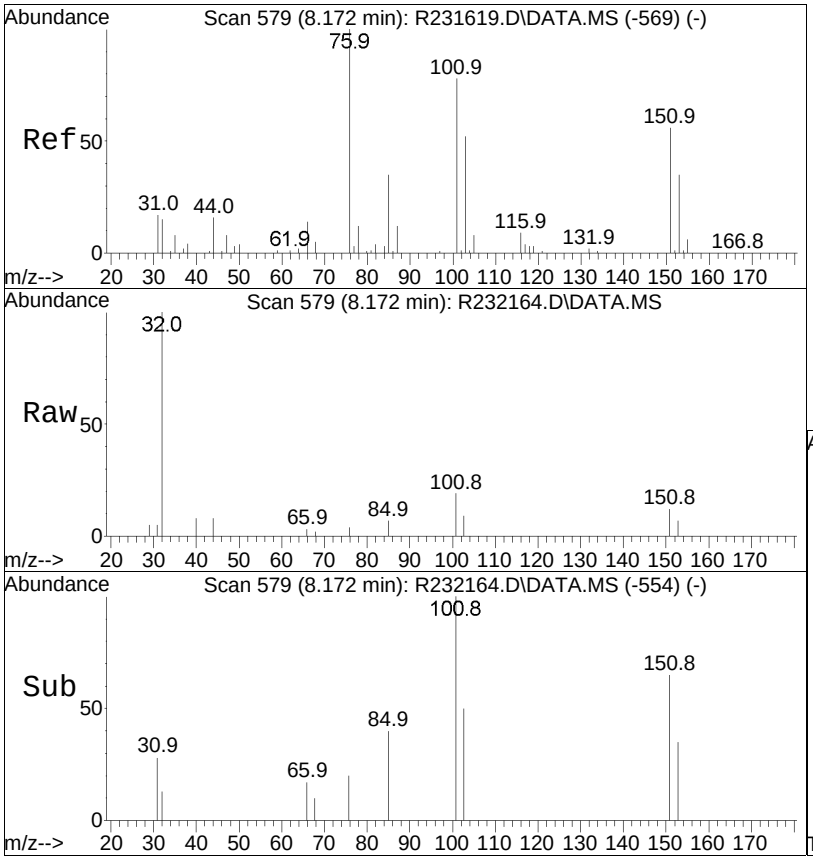


#28
methylene chloride
Concen: 0.17 ppbV
RT: 7.85 min Scan# 539
Delta R.T. 0.016 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 49 Resp: 2737

Ion	Ratio	Lower	Upper
49	100		
84	66.5	63.3	94.9

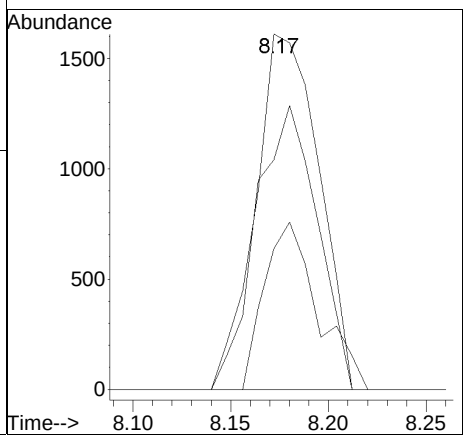


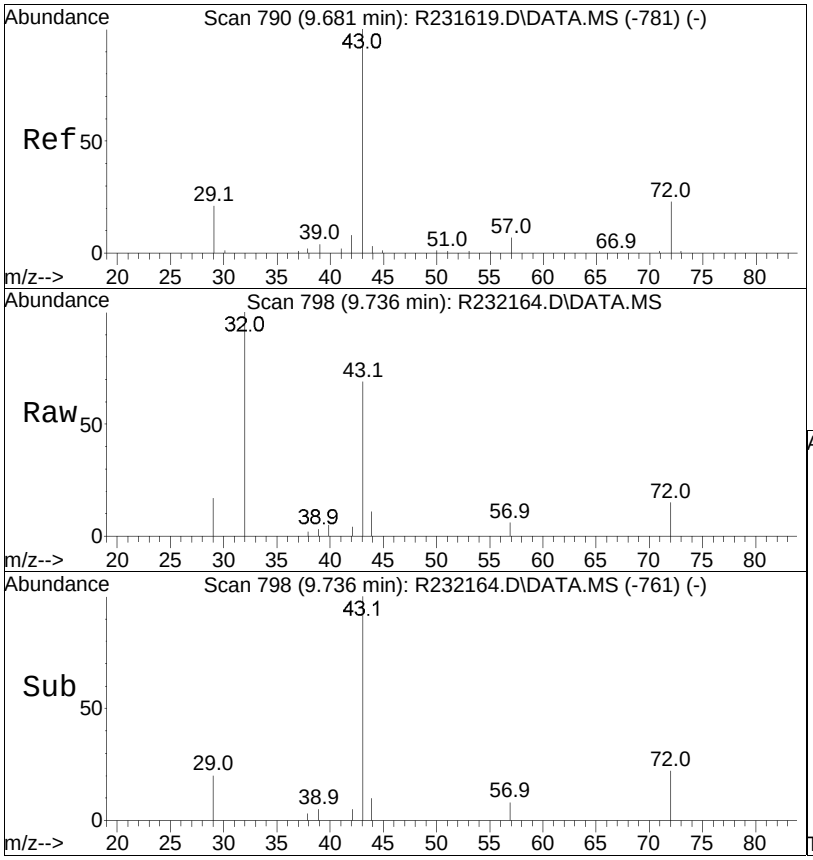


#31
Freon 113
Concen: 0.11 ppbV
RT: 8.17 min Scan# 579
Delta R.T. 0.000 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion:101 Resp: 3644

Ion	Ratio	Lower	Upper
101	100		
85	39.6	35.5	53.3
151	64.7	57.6	86.4

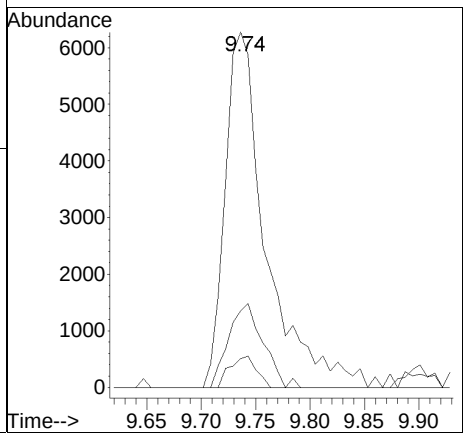


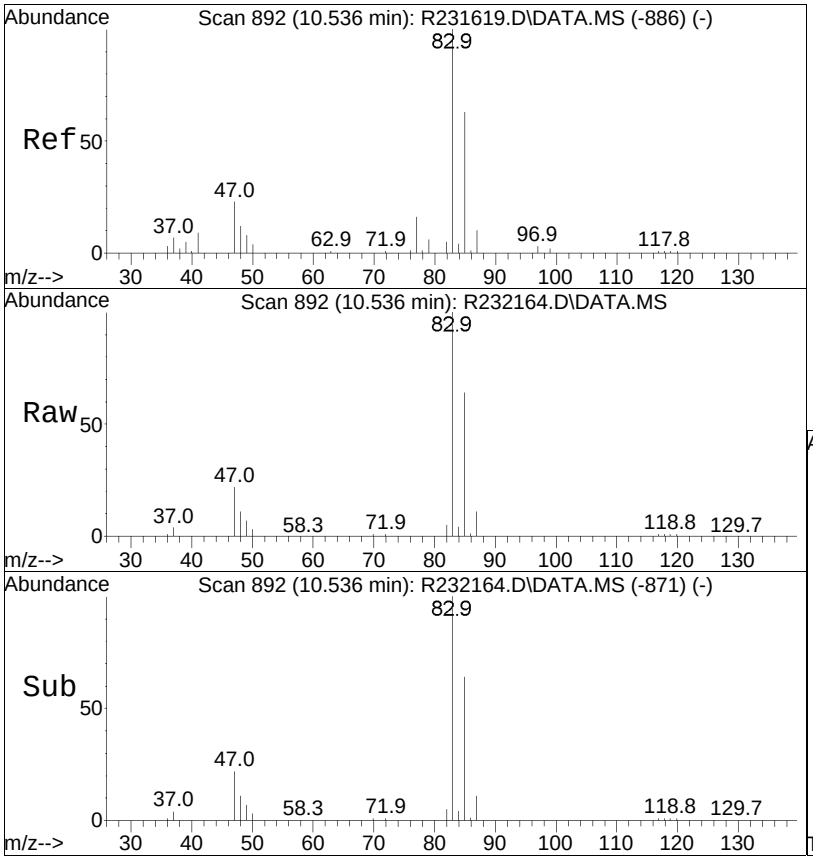


#36
2-butanone
Concen: 0.60 ppbV
RT: 9.74 min Scan# 798
Delta R.T. 0.055 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 43 Resp: 16400

Ion	Ratio	Lower	Upper
43	100		
72	21.6	18.5	27.7
57	8.1	5.4	8.2

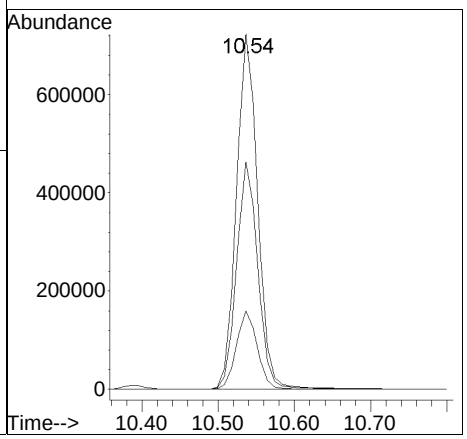


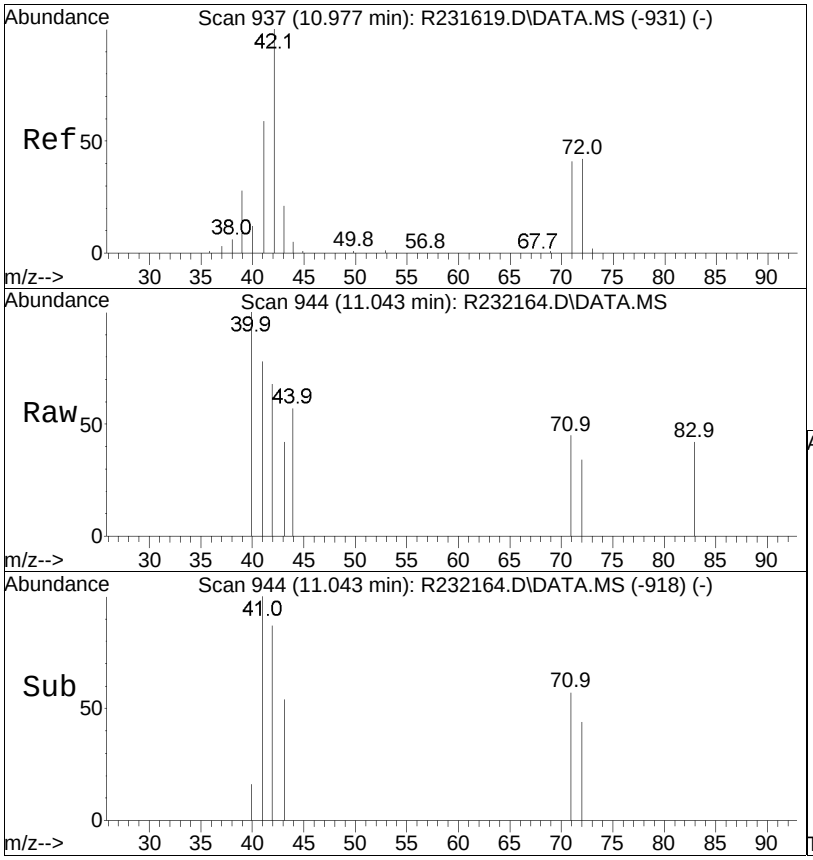


#39
chloroform
Concen: 44.06 ppbV
RT: 10.54 min Scan# 892
Delta R.T. 0.000 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 83 Resp: 1406576

Ion	Ratio	Lower	Upper
83	100		
85	64.1	50.6	75.8
47	22.1	18.2	27.4

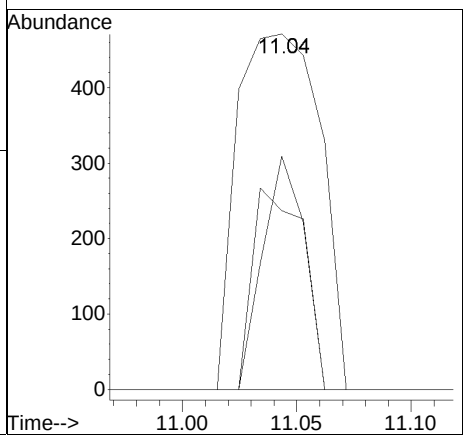


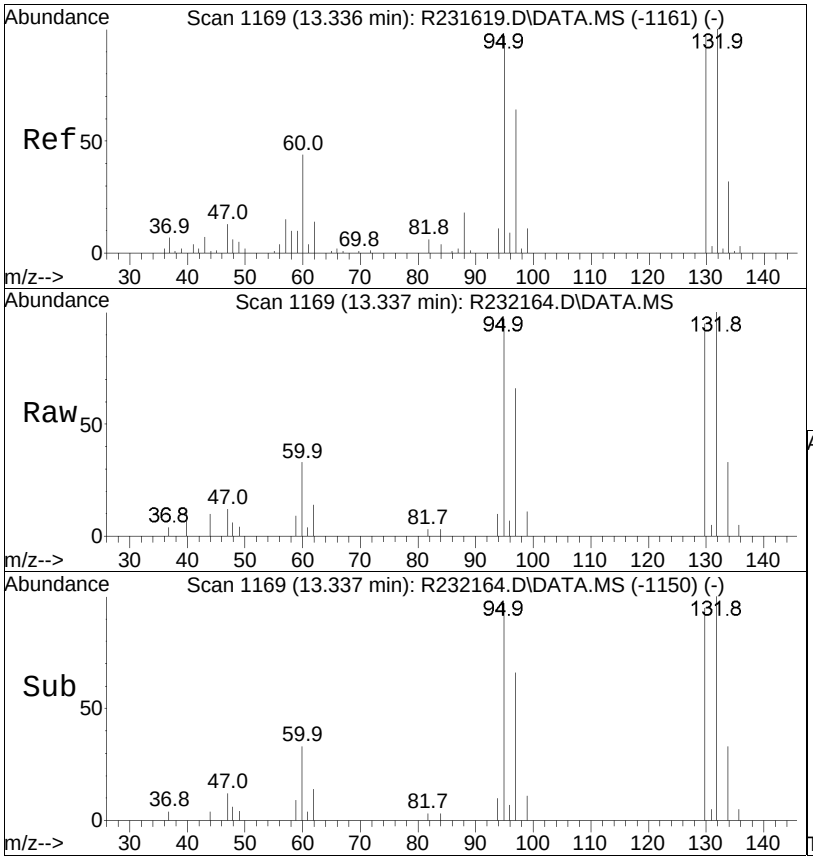


#40
Tetrahydrofuran
Concen: 0.08 ppbV
RT: 11.04 min Scan# 944
Delta R.T. 0.066 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 42 Resp: 1187

Ion	Ratio	Lower	Upper
42	100		
71	65.6	32.7	49.1#
72	50.3	33.8	50.8

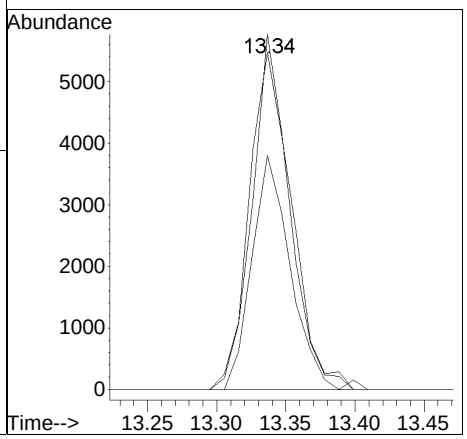


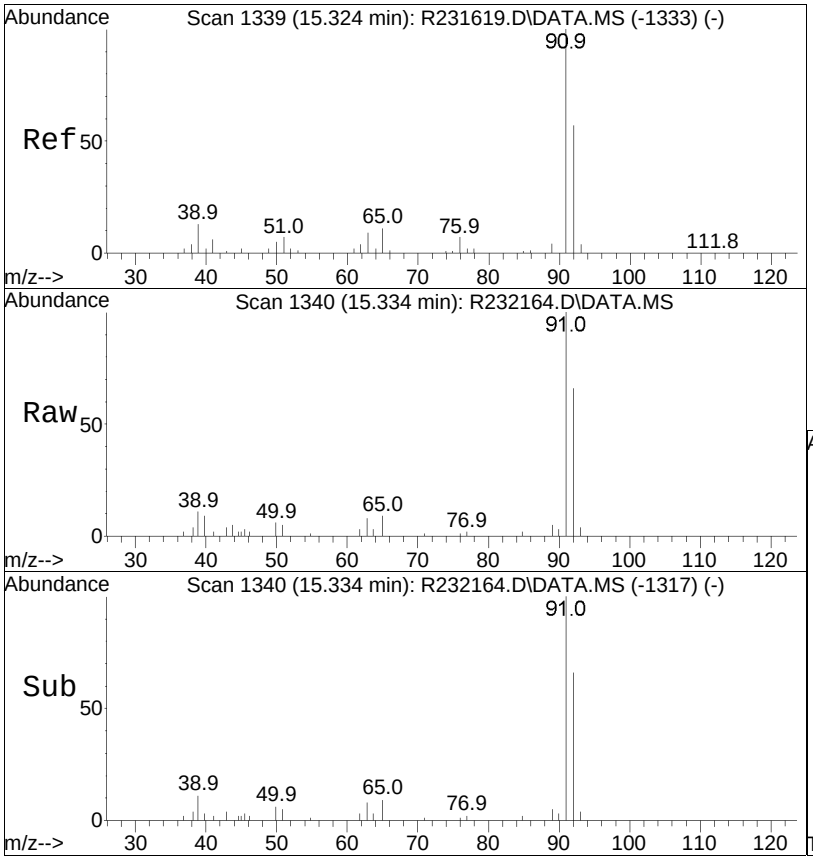


#59
trichloroethene
Concen: 0.50 ppbV
RT: 13.34 min Scan# 1169
Delta R.T. 0.000 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion:130 Resp: 11659

Ion	Ratio	Lower	Upper
130	100		
132	105.4	81.7	122.5
97	69.4	52.6	78.8

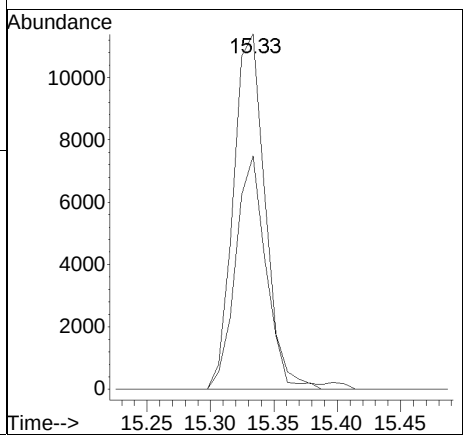


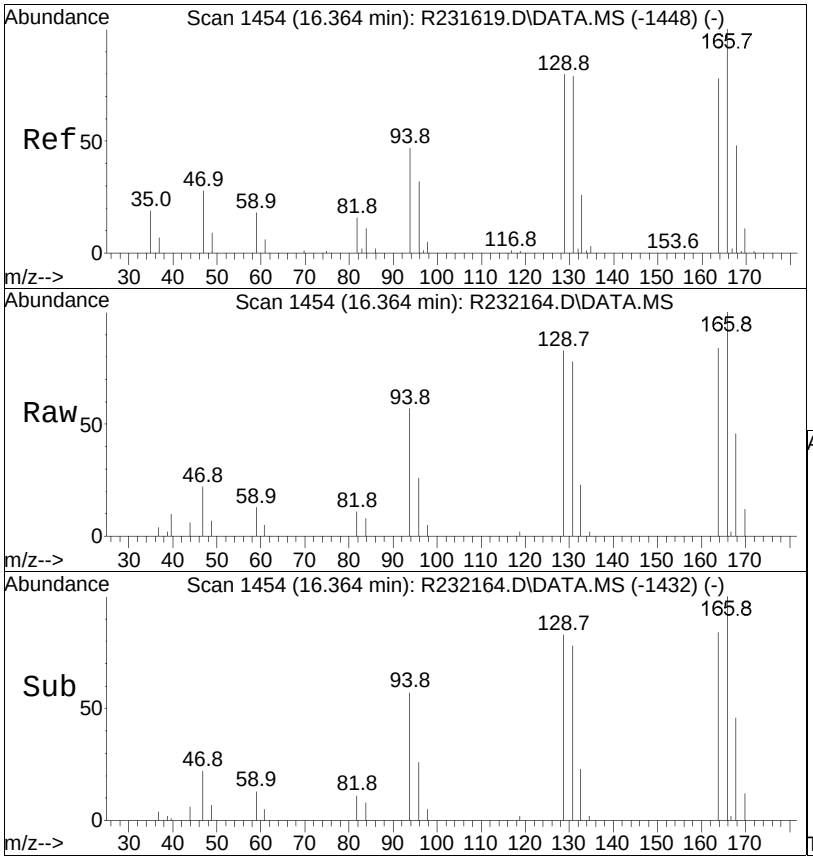


#68
toluene
Concen: 0.31 ppbV
RT: 15.33 min Scan# 1340
Delta R.T. 0.009 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 91 Resp: 20185

Ion	Ratio	Lower	Upper
91	100		
92	65.7	46.0	69.0

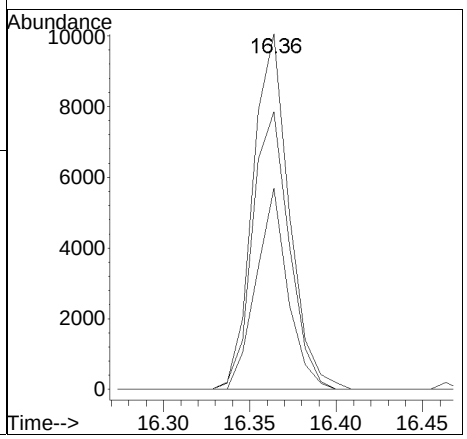


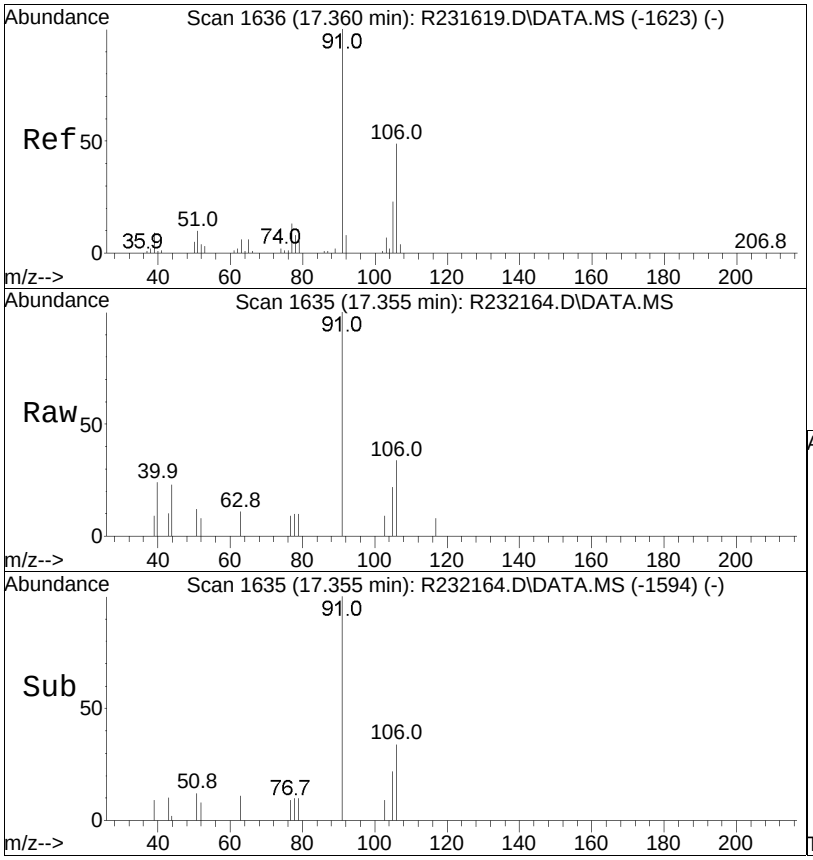


#78
tetrachloroethene
Concen: 0.44 ppbV
RT: 16.36 min Scan# 1454
Delta R.T. 0.000 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion:166 Resp: 14670

Ion	Ratio	Lower	Upper
166	100		
131	78.1	63.0	94.6
94	56.6	37.9	56.9

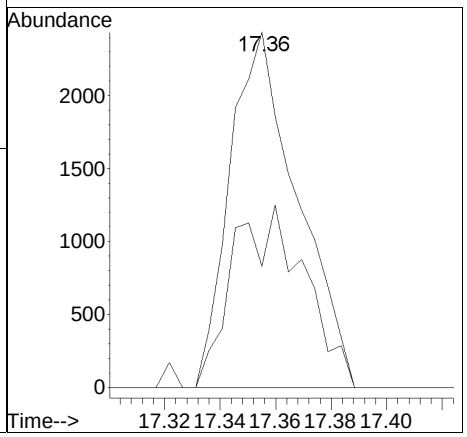


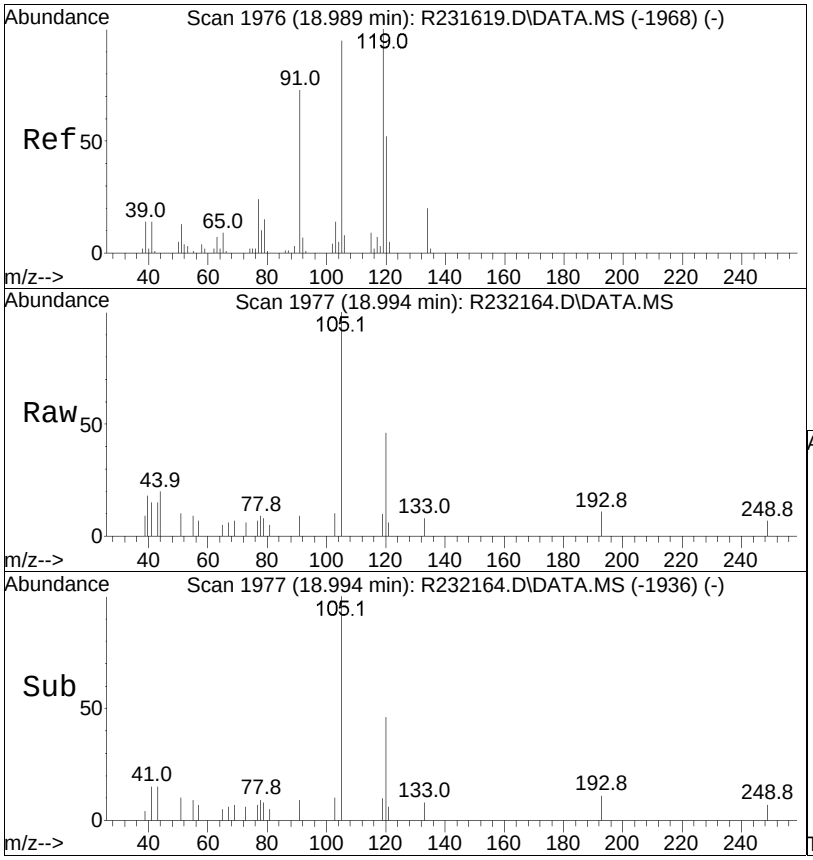


#83
m+p-xylene
Concen: 0.08 ppbV
RT: 17.36 min Scan# 1635
Delta R.T. -0.005 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion: 91 Resp: 4120

Ion	Ratio	Lower	Upper
91	100		
106	34.1	39.0	58.4#

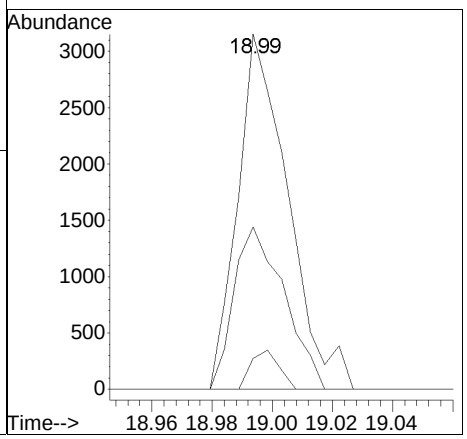




#99
1,2,4-trimethylbenzene
Concen: 0.06 ppbV
RT: 18.99 min Scan# 1977
Delta R.T. 0.005 min
Lab File: R232164.D
Acq: 16 Jan 2015 7:50 pm

Tgt Ion:105 Resp: 3663

Ion	Ratio	Lower	Upper
105	100		
120	45.7	43.4	65.0
91	8.7	61.4	92.0#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2015Q	Method	: TALL141214.M
Data File	: R232164.D	Operator	: AIRPIANO2:RY
Date Inj'd	: 1/16/2015 7:50 pm	Instrument	: Air Piano 2
Sample	: L1500977-01D,3,75,250	Quant Date	: 1/17/2015 8:08 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-01DL	Date Collected	: 01/15/15 12:14
Client ID	: CR011515-SS-B3	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 19:50
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 3.333
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232164	Instrument ID	: AIRPIANO2
Sample Amount	: 75.0 ml	GC Column	: RTX-1

Number TICS found: 6 **Concentration Units: ppbV**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000811-97-2	Norflurane	4.13	6.8	NJD
000075-68-3	Ethane, 1-chloro-1,1-difluoro-	4.64	36	NJD
000067-56-1	Methyl Alcohol	4.94	5.7	NJD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.54	9.8	NJD
	unknown siloxane	18.89	68	JD
	unknown siloxane	20.39	13	JD
	Total TIC Compounds		139.3	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R232164.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.133	102	106	111	rVB	89809	153379	4.46%	1.120%
2	4.251	114	118	120	rBV3	2730	7654	0.22%	0.056%
3	4.359	126	129	134	rVB2	13843	22239	0.65%	0.162%
4	4.428	134	136	139	rVB	6388	9410	0.27%	0.069%
5	4.636	153	157	162	rBV	484351	815540	23.72%	5.953%
6	4.833	174	177	180	rBV	12706	19616	0.57%	0.143%
7	4.941	184	188	195	rBV	65084	129969	3.78%	0.949%
8	5.257	217	220	223	rVB2	7836	14053	0.41%	0.103%
9	6.030	306	311	319	rBV	52399	129564	3.77%	0.946%
10	6.334	345	349	353	rVB2	3763	7249	0.21%	0.053%
11	6.661	385	390	399	rBV	96603	219588	6.39%	1.603%
12	7.005	428	433	443	rBV	31671	92012	2.68%	0.672%
13	7.780	528	530	535	rVB3	3523	6485	0.19%	0.047%
14	7.844	536	538	543	rVB	5390	7553	0.22%	0.055%
15	8.180	575	580	585	rBV2	8842	17290	0.50%	0.126%
16	9.290	727	733	739	rBV2	21864	52969	1.54%	0.387%
17	9.736	793	798	804	rBV2	11541	26991	0.78%	0.197%
18	10.386	871	876	887	rBV	361991	756457	22.00%	5.522%
19	10.536	887	892	906	rVV	1748648	3438432	100.00%	25.099%
20	11.043	941	944	948	rVB	2006	4034	0.12%	0.029%
21	12.166	1052	1056	1060	rBV2	6195	14867	0.43%	0.109%
22	12.549	1089	1093	1102	rBV	645256	1270133	36.94%	9.272%
23	12.725	1109	1110	1115	rVB2	2035	3463	0.10%	0.025%
24	12.943	1126	1131	1136	rVB4	3492	8871	0.26%	0.065%
25	13.337	1165	1169	1176	rBV2	30249	63536	1.85%	0.464%
26	15.334	1335	1340	1344	rBV	28756	49340	1.43%	0.360%
27	15.804	1388	1392	1396	rBV	30765	58508	1.70%	0.427%
28	16.364	1450	1454	1460	rVB	60020	89679	2.61%	0.655%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	16.545	1470	1474	1485	rVB	281546	469790	13.66%	3.429%
30	16.893	1529	1538	1553	rBV	1093212	1590853	46.27%	11.613%
31	17.350	1626	1634	1637	rBV3	6769	8514	0.25%	0.062%
32	17.488	1658	1663	1666	rBV3	3016	4030	0.12%	0.029%
33	17.522	1666	1670	1673	rBV2	6377	7533	0.22%	0.055%
34	17.631	1688	1693	1701	rBV7	5908	10199	0.30%	0.074%
35	17.726	1708	1713	1720	rVB3	3849	5199	0.15%	0.038%
36	18.412	1846	1857	1862	rBV6	4505	10036	0.29%	0.073%
37	18.607	1894	1898	1901	rBV2	3674	3966	0.12%	0.029%
38	18.636	1901	1904	1911	rVB3	2552	3483	0.10%	0.025%
39	18.688	1911	1915	1922	rBV3	2106	3754	0.11%	0.027%
40	18.841	1939	1945	1948	rBV4	2316	4624	0.13%	0.034%
41	18.889	1948	1955	1974	rVV	2073971	3222151	93.71%	23.521%
42	18.994	1974	1977	1982	rVV2	9703	13717	0.40%	0.100%
43	19.036	1982	1986	1996	rVV2	22996	31135	0.91%	0.227%
44	19.308	2037	2043	2048	rBV3	6707	11758	0.34%	0.086%
45	19.413	2060	2065	2069	rBV2	32740	34373	1.00%	0.251%
46	19.660	2111	2117	2121	rBV5	3914	4992	0.15%	0.036%
47	19.932	2167	2174	2184	rBV8	27891	80831	2.35%	0.590%
48	20.160	2219	2222	2226	rVB5	3139	4102	0.12%	0.030%
49	20.389	2260	2270	2289	rBV	307540	605251	17.60%	4.418%
50	20.700	2309	2312	2317	rBV5	1182	3741	0.11%	0.027%
51	20.871	2324	2328	2332	rBV	28119	46536	1.35%	0.340%
52	20.989	2336	2339	2345	rVV5	3451	14276	0.42%	0.104%
53	21.086	2346	2348	2354	rVB3	2569	5531	0.16%	0.040%
54	21.793	2411	2414	2421	rVB2	3924	9967	0.29%	0.073%

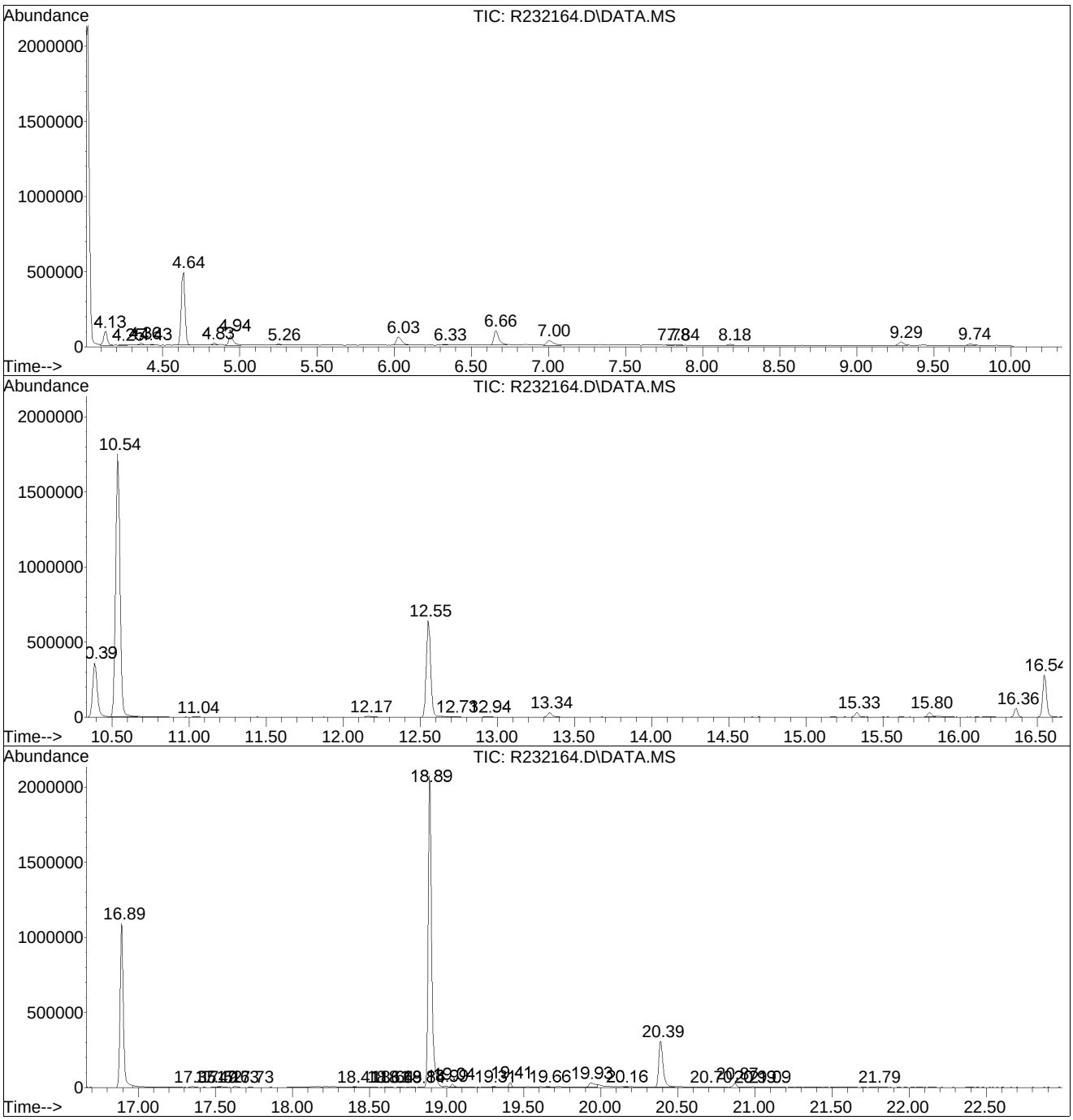
Sum of corrected areas: 13699223

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

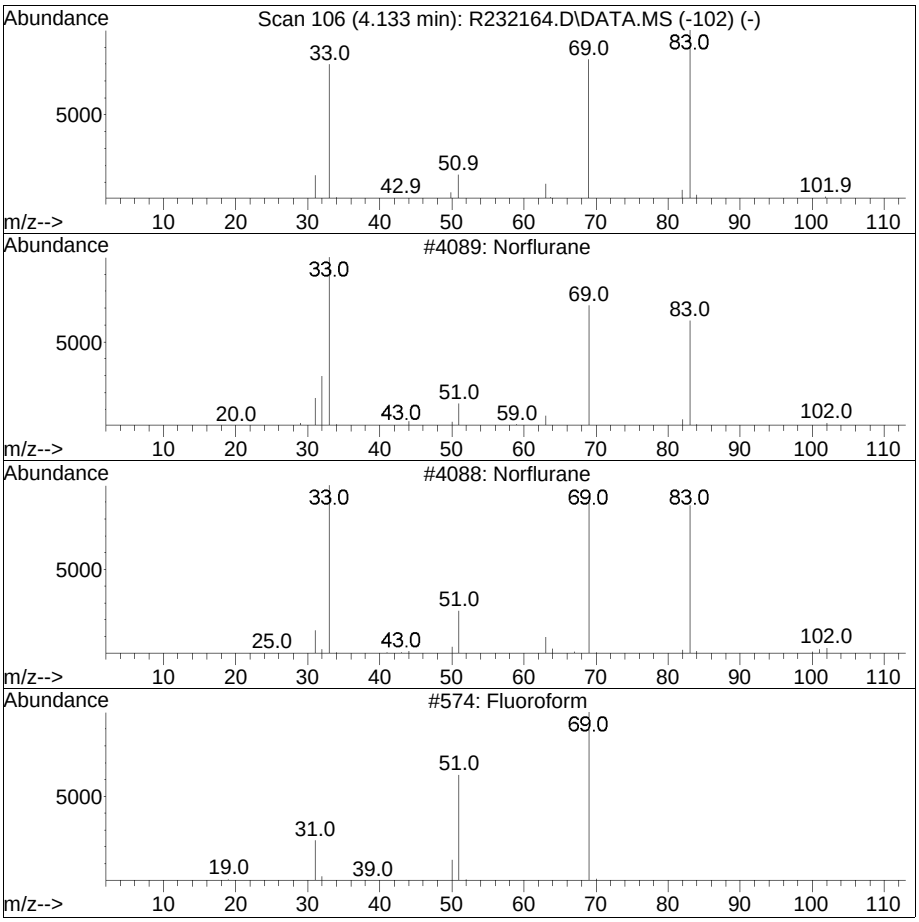
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

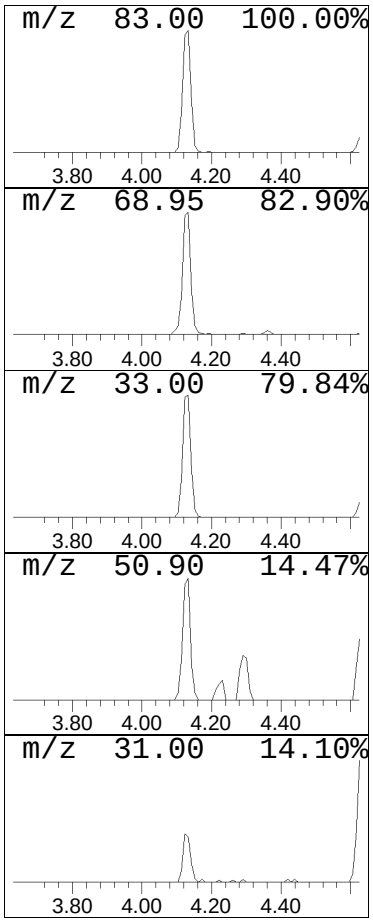
****

Peak Number 1 Norflurane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.13	2.03 ppbV	153379	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Norflurane	102	C2H2F4	000811-97-2	83
2	Norflurane	102	C2H2F4	000811-97-2	74
3	Fluoroform	70	CHF3	000075-46-7	5
4	Ethane, 1,1,1-trifluoro-	84	C2H3F3	000420-46-2	4
5	1,2-Difluoroethane	66	C2H4F2	000624-72-6	4





Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

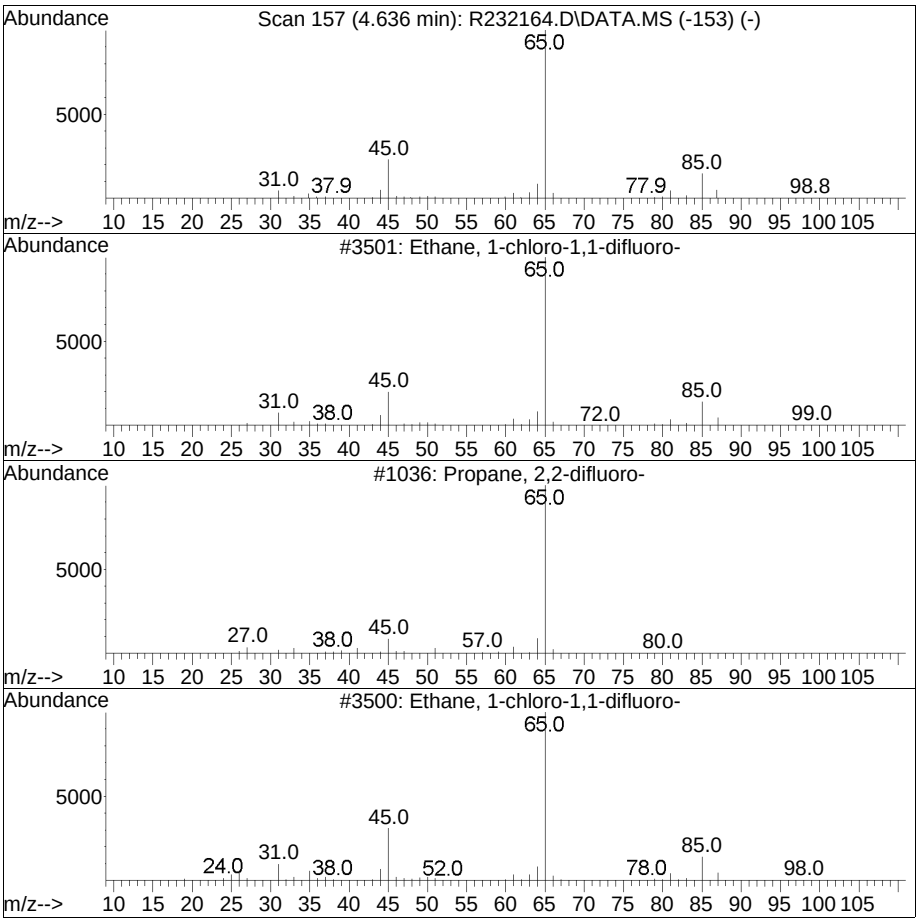
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

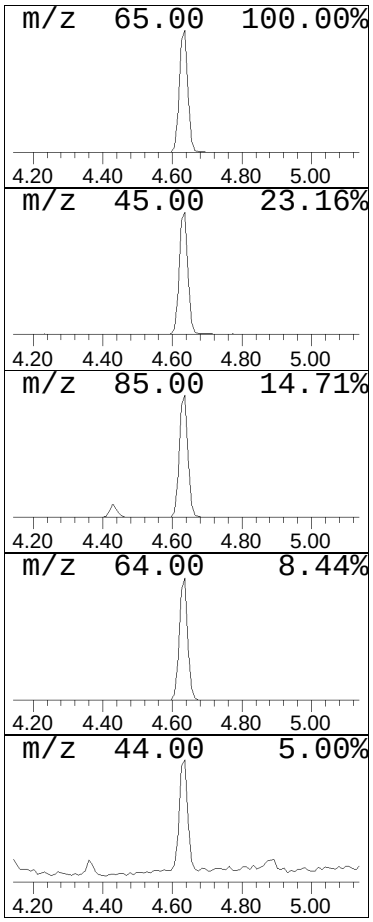
****

Peak Number 2 Ethane, 1-chloro-1,1-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.64	10.78 ppbV	815540	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	43
2	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	43
3	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	38
4	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	4
5	Benzene, 1-nitro-2-(p-methylphen...	247	C13H10FNO3	028987-57-7	1





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

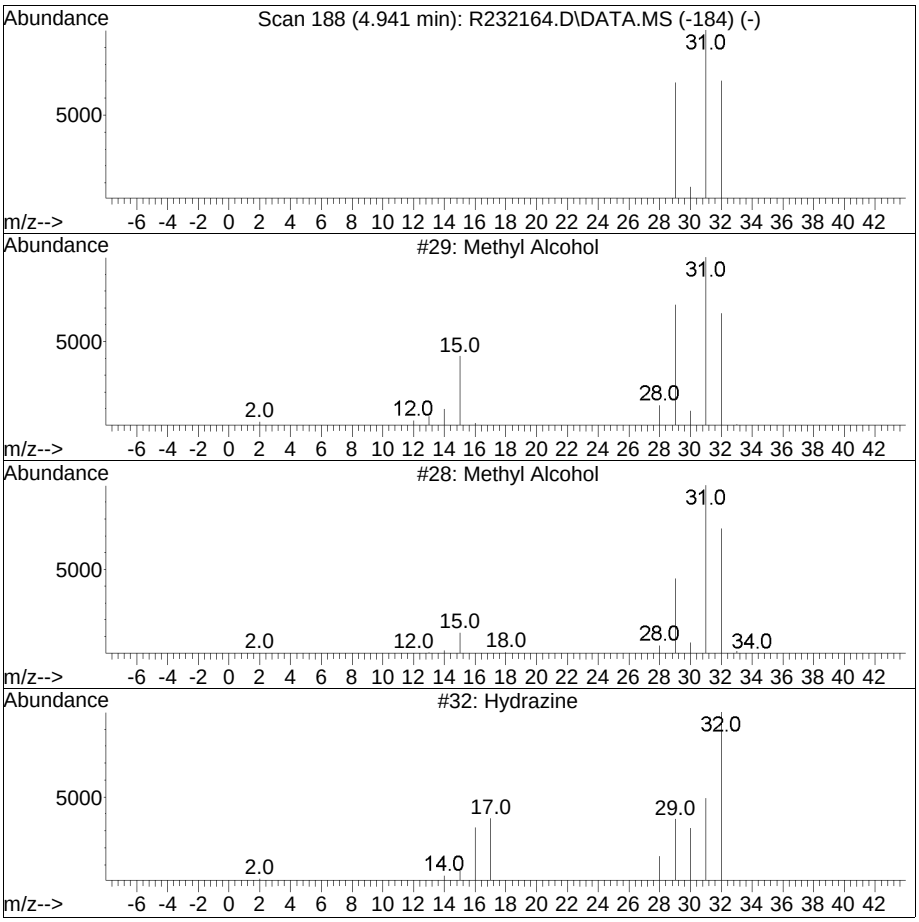
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

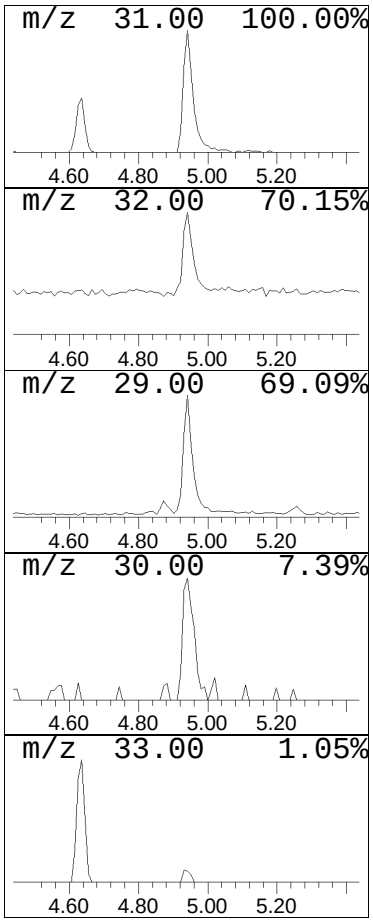
****

Peak Number 3 Methyl Alcohol Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.94	1.72 ppbV	129969	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl Alcohol	32	CH4O	000067-56-1	4
2	Methyl Alcohol	32	CH4O	000067-56-1	2
3	Hydrazine	32	H4N2	000302-01-2	2
4	Hydrazine	32	H4N2	000302-01-2	1
5	Methyl Alcohol	32	CH4O	000067-56-1	1





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

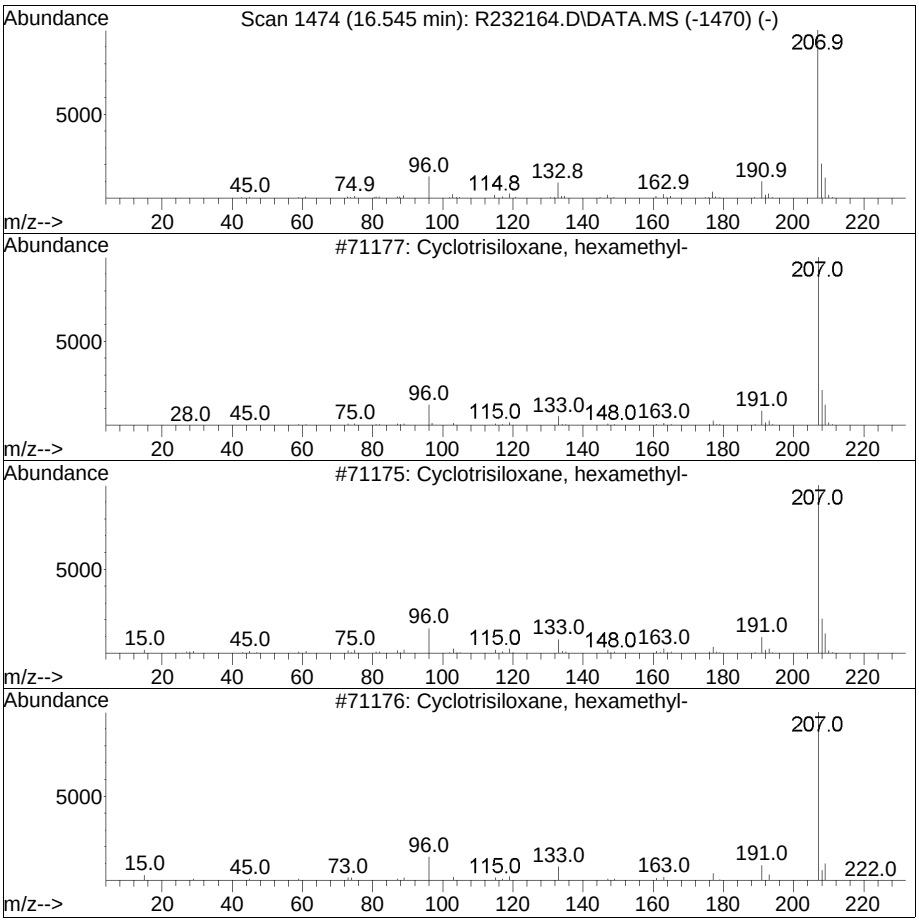
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

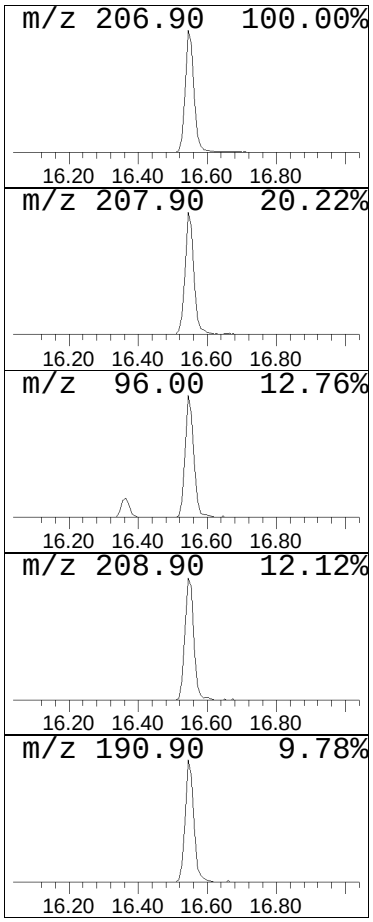
****

Peak Number 4 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.54	2.95 ppbV	469790	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	38
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	38





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

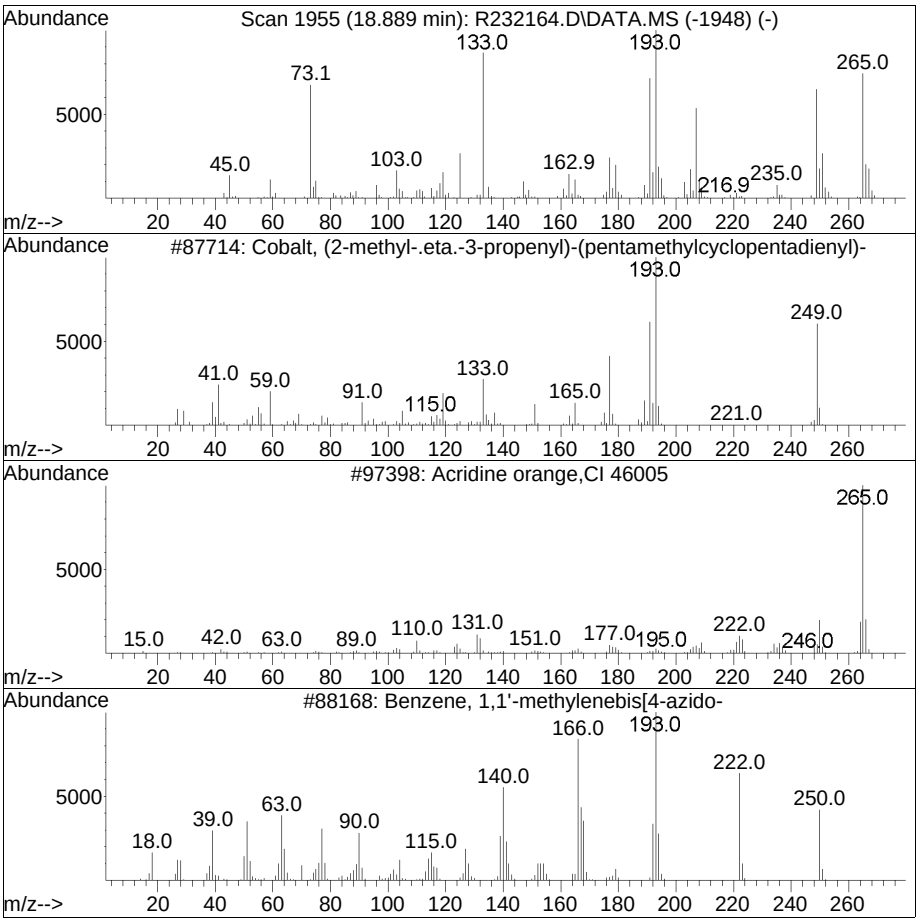
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

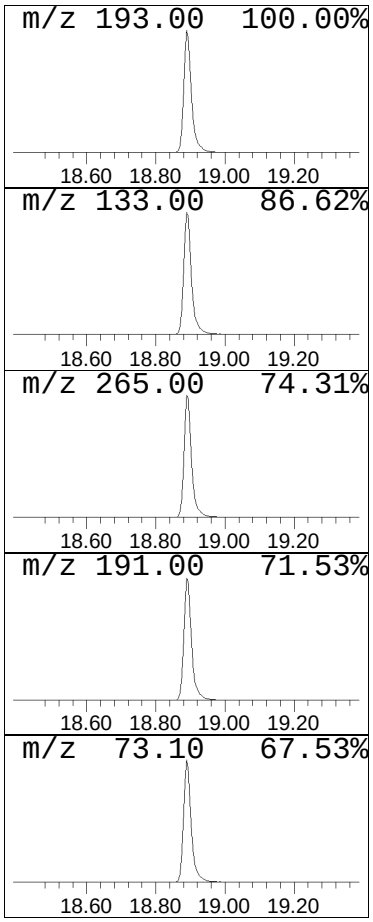
****

Peak Number 5 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.89	20.25 ppbV	3222150	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cobalt, (2-methyl-.eta.-3-propen...	249	C14H22Co	1000157-04-3	38
2	Acridine orange,CI 46005	265	C17H19N3	010127-02-3	11
3	Benzene, 1,1'-methylenebis[4-azido-	250	C13H10N6	002915-44-8	11
4	Tricyclo[4.4.0.0(2,7)]decan-3-on...	208	C13H20O2	062648-63-9	11
5	Anthracene, 9,10-dihydro-9,10-di...	208	C16H16	022566-43-4	11





Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

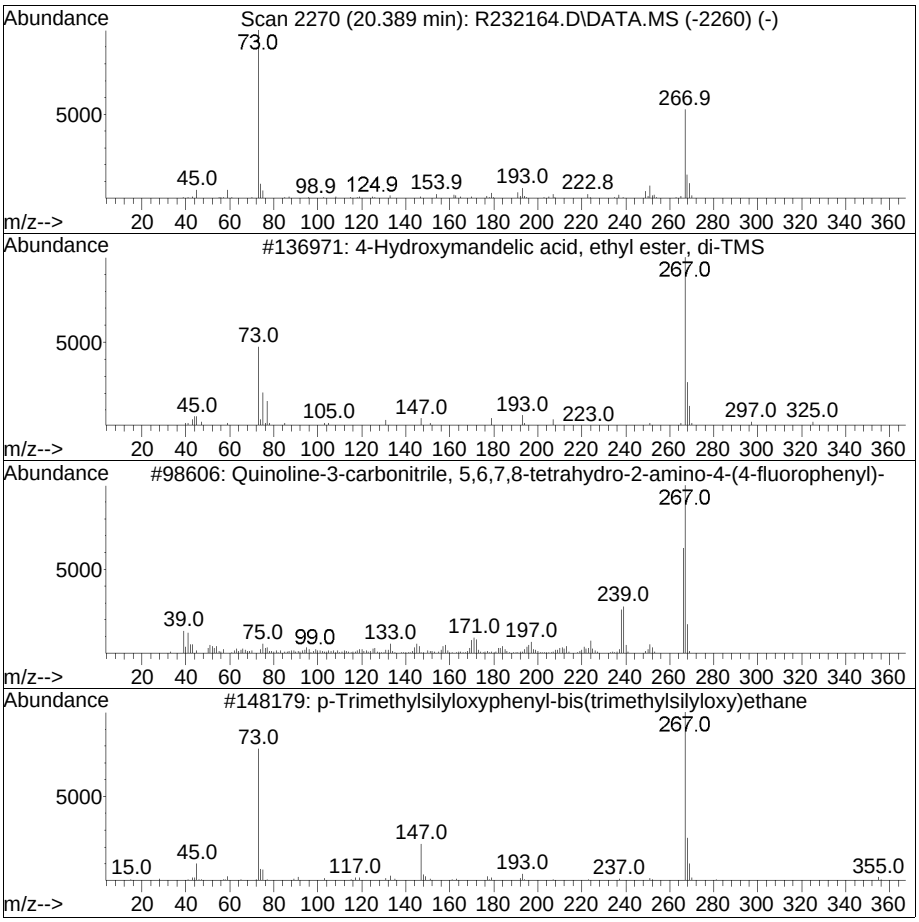
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

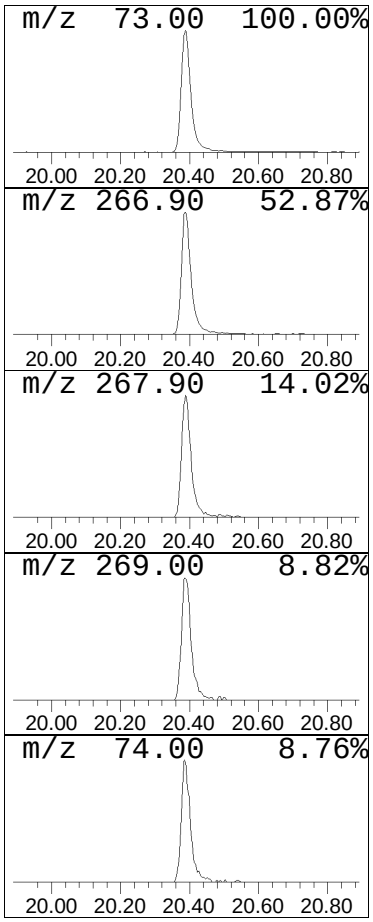
****

Peak Number 6 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.39	3.80 ppbV	605251	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	50
2	Quinoline-3-carbonitrile, 5,6,7,...	267	C16H14FN3	329693-03-0	47
3	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	45
4	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	42
5	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	38





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232164.D
Acq On : 16 Jan 2015 7:50 pm
Operator : AIRPIANO2:RY
Sample : L1500977-01D,tic3,75,250
Misc : WG756340,ICAL10499
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Norflurane	4.13	2.0	ppbV	153379	1	10.39	756457	10.0
Ethane, 1-chlor...	4.64	10.8	ppbV	815540	1	10.39	756457	10.0
Methyl Alcohol	4.94	1.7	ppbV	129969	1	10.39	756457	10.0
Cyclotrisiloxan...	16.54	3.0	ppbV	469790	3	16.89	1590850	10.0
unknown siloxane	18.89	20.3	ppbV	3222150	3	16.89	1590850	10.0
unknown siloxane	20.39	3.8	ppbV	605251	3	16.89	1590850	10.0

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-02	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:21
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232165	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	7.0	0.20	--	35	0.99	--	
74-87-3	Chloromethane	ND	0.20	--	ND	0.4	--	U
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	6.2	2.5	--	12	4.7	--	
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	11	1.0	--	26	2.4	--	
75-69-4	Trichlorofluoromethane	0.74	0.20	--	4	1	--	
67-63-0	Isopropanol	ND	0.50	--	ND	1	--	U
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	0.53	0.20	--	2	0.6	--	
76-13-1	Freon-113	18	0.20	--	140	1.5	--	
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	0.24	0.20	--	0.7	0.6	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-02	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:21
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232165	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.20	--	ND	0.6	--	U
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	51	0.20	--	270	1.1	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	0.54	0.20	--	2	0.8	--	
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	1.0	0.20	--	7	1	--	
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-02	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:21
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232165	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 17 13:48:18 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	162716	10.000	ppbV	0.00
Standard Area = 188101			Recovery =		86.50%	
43) 1,4-difluorobenzene	12.55	114	613971	10.000	ppbV	0.00
Standard Area = 721984			Recovery =		85.04%	
67) chlorobenzene-D5	16.89	54	97146	10.000	ppbV	0.00
Standard Area = 122028			Recovery =		79.61%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.43	85	172939	6.993	ppbV	98
6) chloromethane	0.00		0	N.D.	d	
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	5.53		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.03	31	69073	6.179	ppbV	95
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.65	43	244060	10.851	ppbV #	99
21) trichlorofluoromethane	6.85	101	35643	0.741	ppbV	87
22) isopropyl alcohol	7.01	45	11951	0.488	ppbV #	88
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.80	59	2327	0.081	ppbV #	91
28) methylene chloride	7.84	49	4609	0.269	ppbV	85
29) 3-chloropropene	7.92		0	N.D.		
30) carbon disulfide	8.17	76	22725	0.528	ppbV	100
31) Freon 113	8.18	101	606140	18.152	ppbV	95
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	9.74	43	6705	0.235	ppbV #	93
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.55	83	5405	0.164	ppbV	93
40) Tetrahydrofuran	0.00		0	N.D.	d	
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.44		0	N.D.		
48) 1,1,1-trichloroethane	11.66		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 17 13:48:18 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50)	benzene	12.17	78	7920	0.183	ppbV		96
52)	carbon tetrachloride	12.33	117	3095	0.074	ppbV		92
53)	cyclohexane	0.00		0	N.D.		d	
56)	1,2-dichloropropane	0.00		0	N.D.			
57)	bromodichloromethane	0.00		0	N.D.		d	
58)	1,4-dioxane	0.00		0	N.D.			
59)	trichloroethene	13.34	130	1224638	51.350	ppbV		97
60)	2,2,4-trimethylpentane	0.00		0	N.D.		d	
61)	methyl methacrylate	13.67		0	N.D.			
62)	heptane	13.67		0	N.D.			
63)	cis-1,3-dichloropropene	0.00		0	N.D.			
64)	4-methyl-2-pentanone	14.26		0	N.D.			
65)	trans-1,3-dichloropropene	0.00		0	N.D.			
66)	1,1,2-trichloroethane	0.00		0	N.D.			
68)	toluene	15.33	91	34239	0.537	ppbV		99
74)	dibromochloromethane	0.00		0	N.D.			
75)	1,2-dibromoethane	0.00		0	N.D.			
78)	tetrachloroethene	16.36	166	32360	0.999	ppbV		94
80)	chlorobenzene	16.94		0	N.D.			
81)	ethylbenzene	17.22	91	4784	0.077	ppbV		98
83)	m+p-xylene	17.35	91	14537	0.292	ppbV		97
84)	bromoform	0.00		0	N.D.			
85)	styrene	17.65		0	N.D.			
86)	1,1,2,2-tetrachloroethane	17.55		0	N.D.			
87)	o-xylene	17.72	91	5096	0.100	ppbV		97
93)	2-chlorotoluene	0.00		0	N.D.			
96)	4-ethyl toluene	18.64		0	N.D.			
97)	1,3,5-trimethylbenzene	18.69		0	N.D.			
99)	1,2,4-trimethylbenzene	19.00	105	5449	0.089	ppbV	#	55
102)	1,3-dichlorobenzene	19.14		0	N.D.			
103)	1,4-dichlorobenzene	19.17		0	N.D.			
107)	1,2-dichlorobenzene	19.44		0	N.D.			
115)	1,2,4-trichlorobenzene	0.00		0	N.D.			
119)	hexachlorobutadiene	0.00		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 17 13:48:18 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

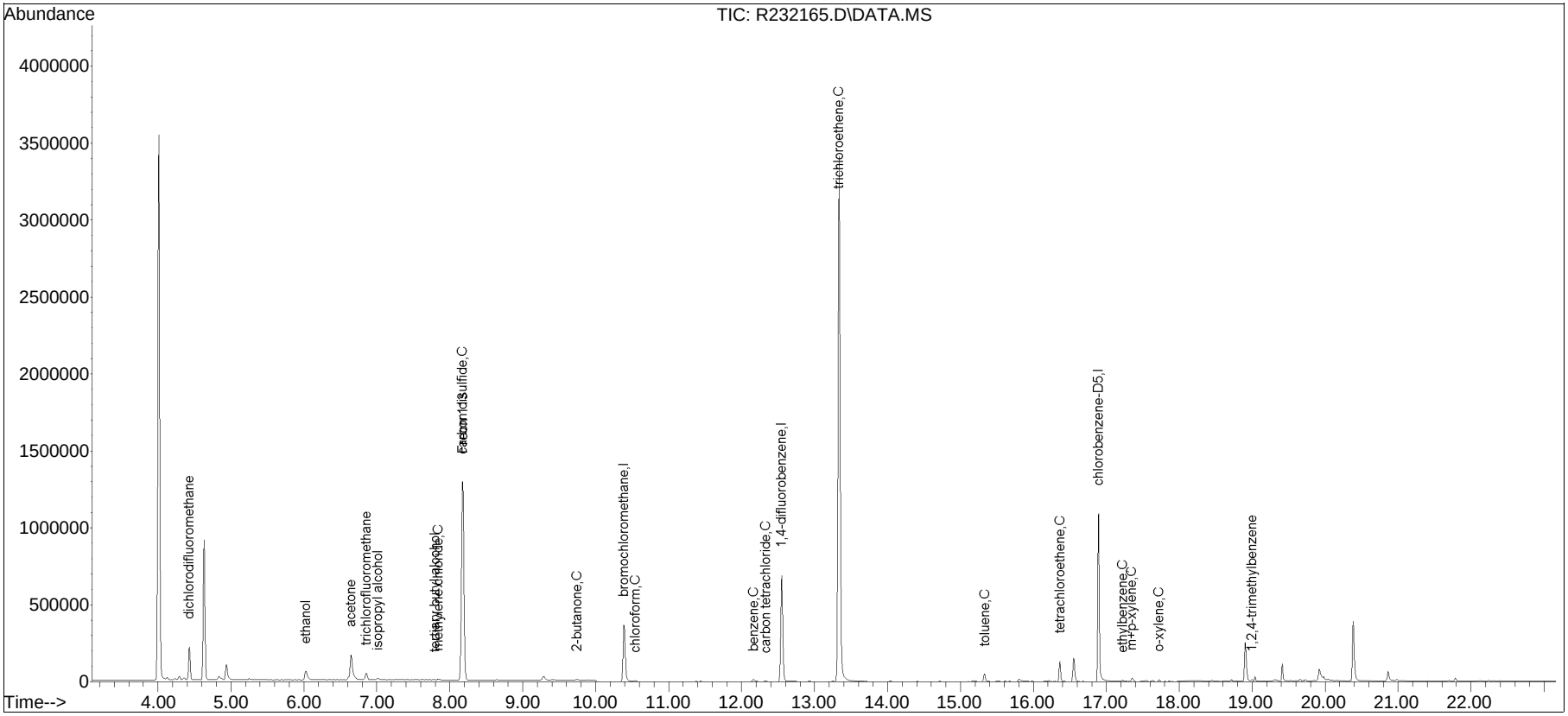
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

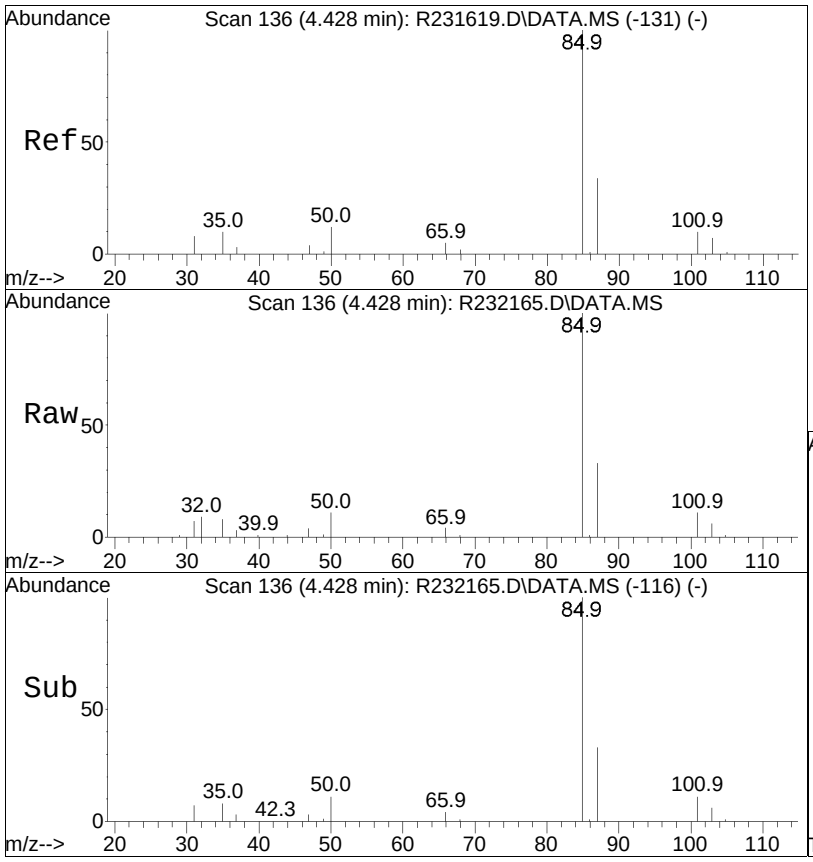
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 17 13:48:18 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\AIR2\2015\150116T\R232153.D

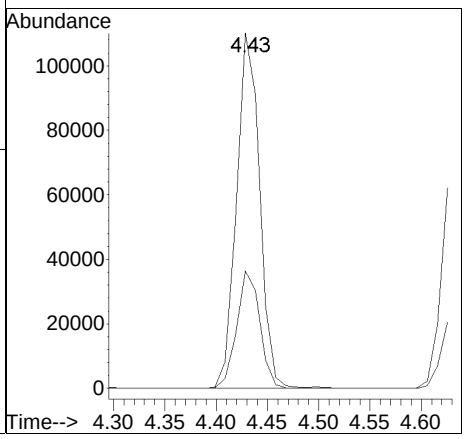


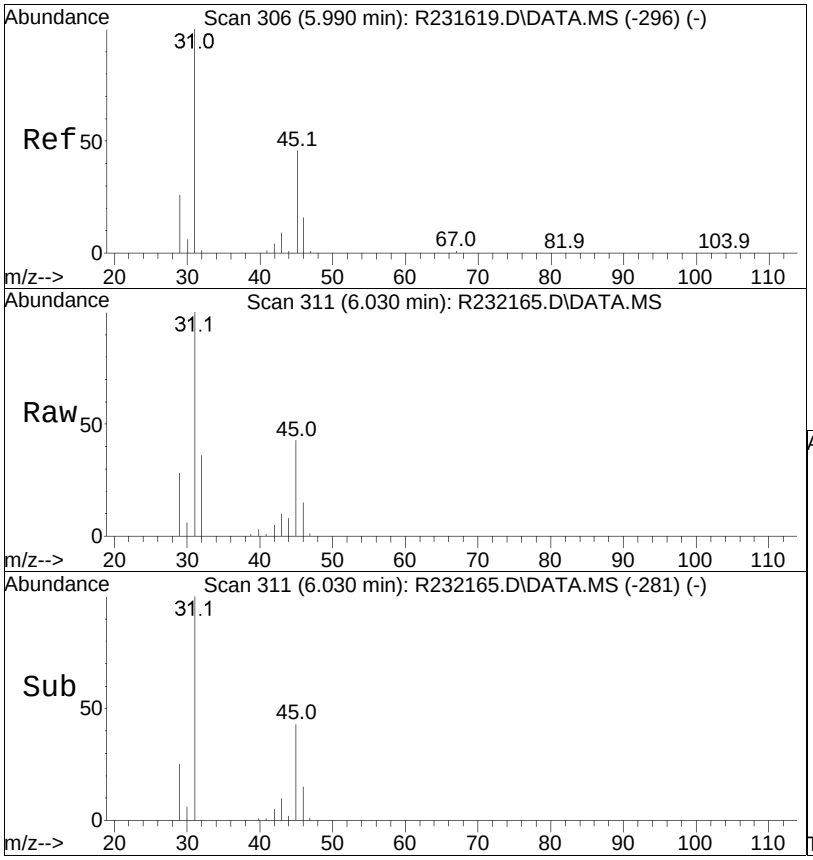


#5
dichlorodifluoromethane
Concen: 6.99 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 85 Resp: 172939

Ion	Ratio	Lower	Upper
85	100		
87	33.1	27.2	40.8

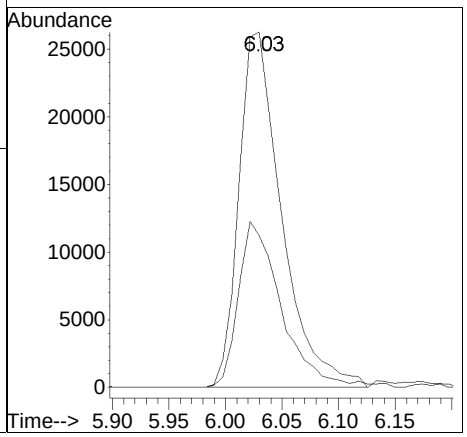


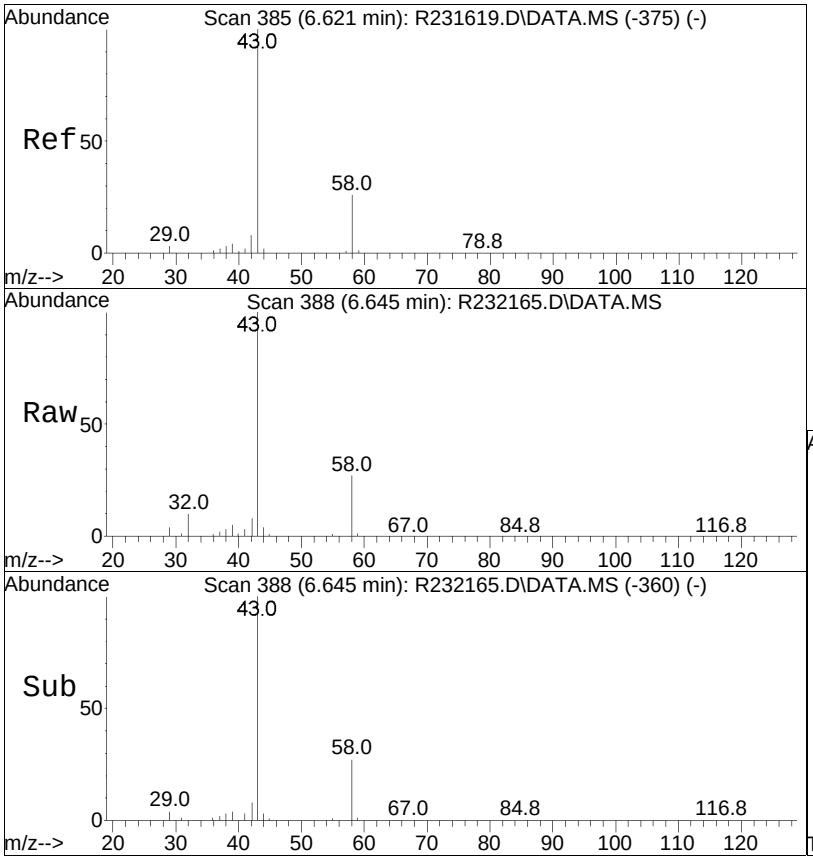


#15
ethanol
Concen: 6.18 ppbV
RT: 6.03 min Scan# 311
Delta R.T. 0.040 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 31 Resp: 69073

Ion	Ratio	Lower	Upper
31	100		
45	42.7	36.8	55.2

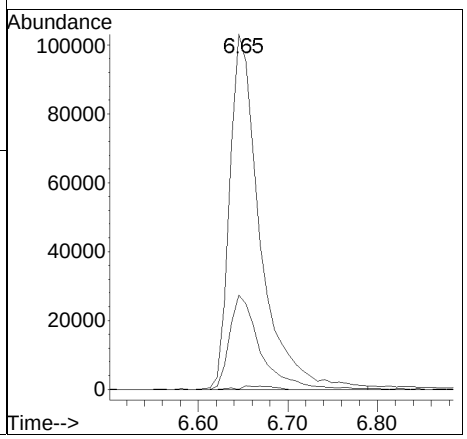


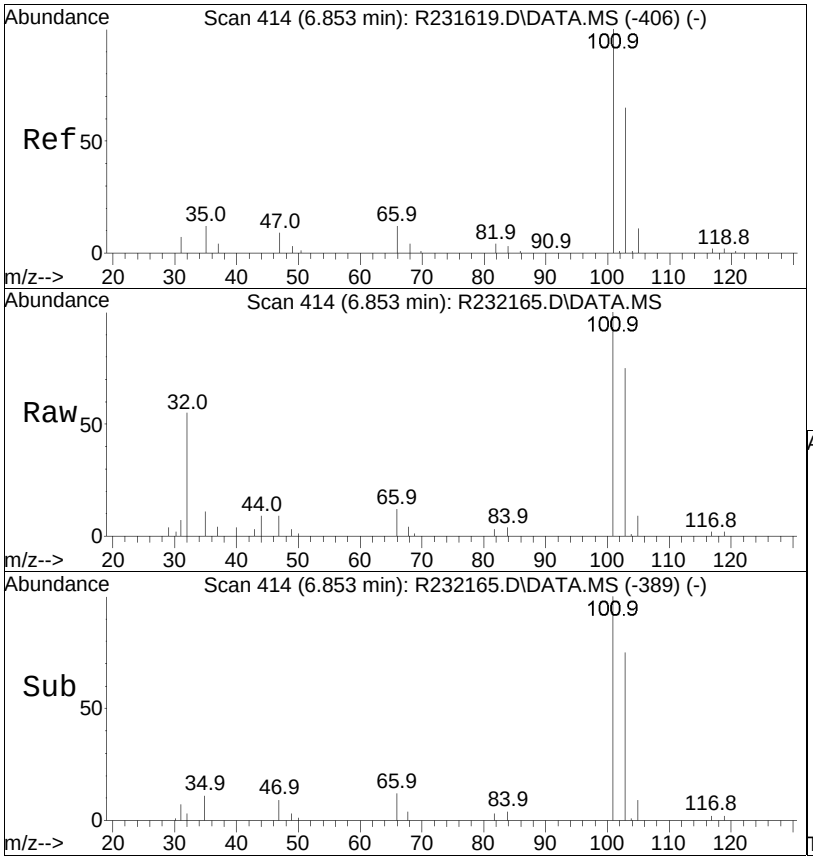


#19
acetone
Concen: 10.85 ppbV
RT: 6.65 min Scan# 388
Delta R.T. 0.024 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 43 Resp: 244060

Ion	Ratio	Lower	Upper
43	100		
58	26.5	20.6	31.0
57	0.0	0.6	1.0#

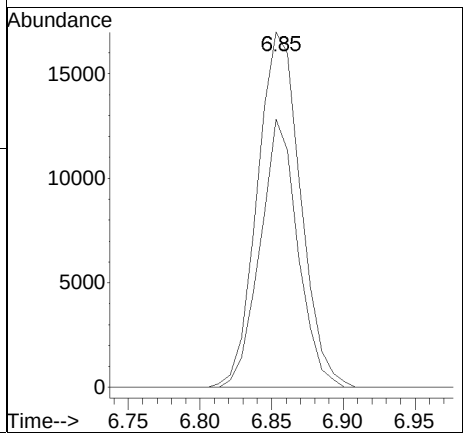


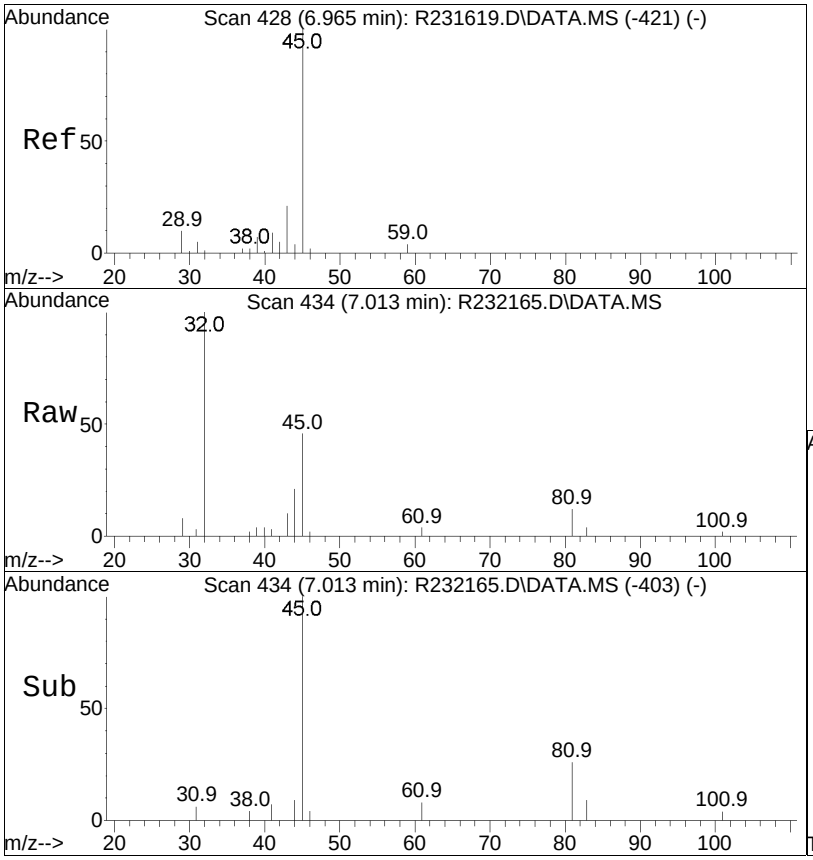


#21
trichlorofluoromethane
Concen: 0.74 ppbV
RT: 6.85 min Scan# 414
Delta R.T. 0.000 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion:101 Resp: 35643

Ion	Ratio	Lower	Upper
101	100		
103	75.5	52.1	78.1

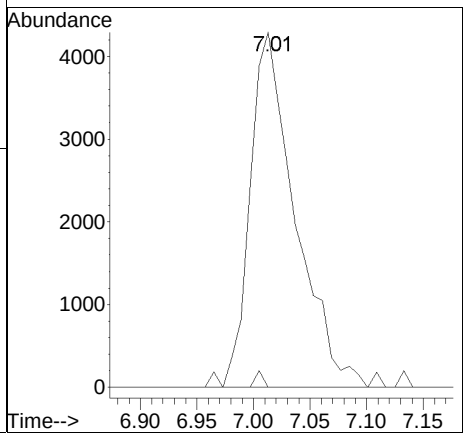


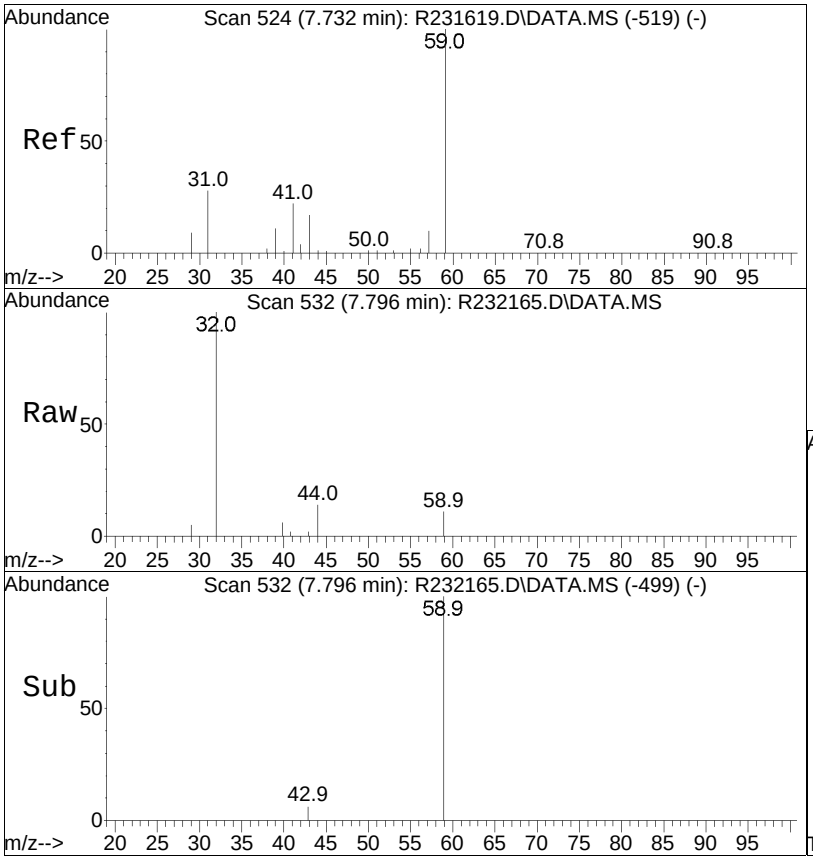


#22
isopropyl alcohol
Concen: 0.49 ppbV
RT: 7.01 min Scan# 434
Delta R.T. 0.048 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 45 Resp: 11951

Ion	Ratio	Lower	Upper
45	100		
59	0.0	3.1	4.7#

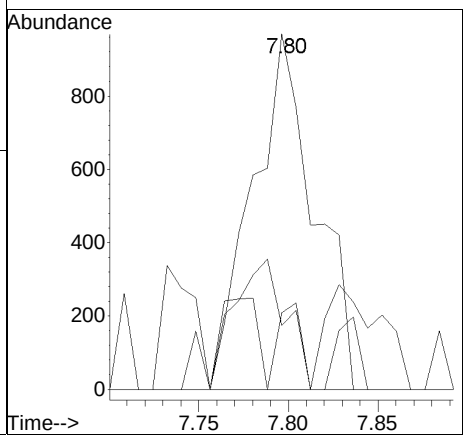


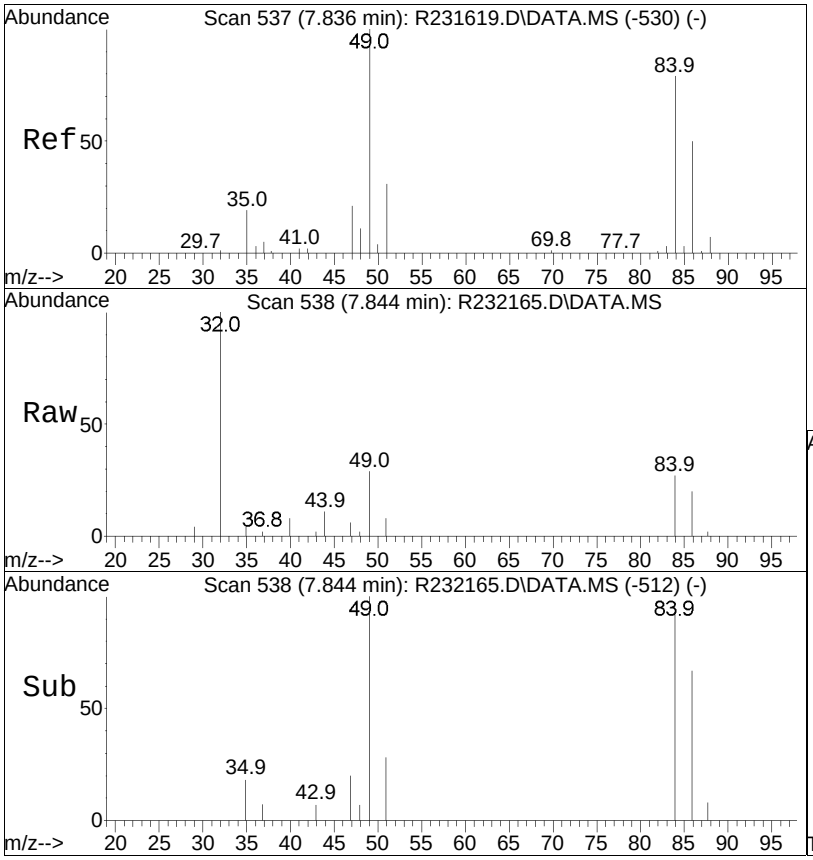


#27
tertiary butyl alcohol
Concen: 0.08 ppbV
RT: 7.80 min Scan# 532
Delta R.T. 0.064 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 59 Resp: 2327

Ion	Ratio	Lower	Upper
59	100		
41	18.0	17.4	26.2
43	21.6	13.8	20.6#

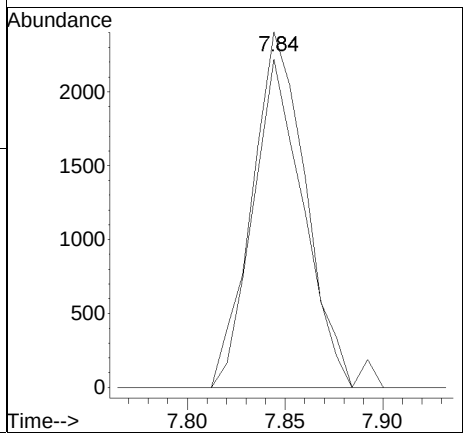


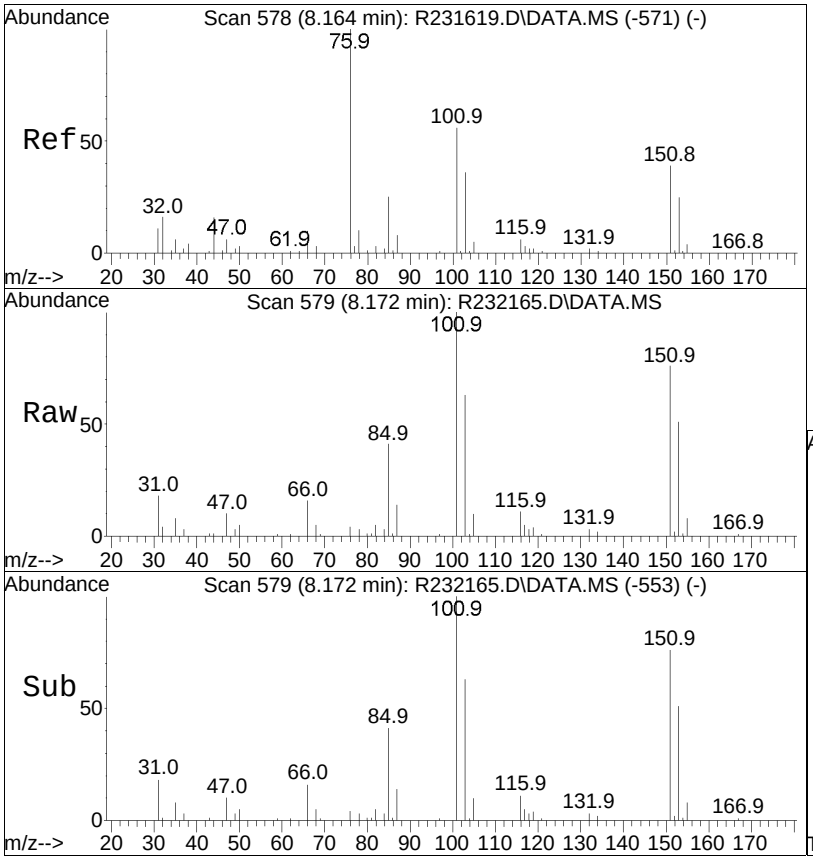


#28
methylene chloride
Concen: 0.27 ppbV
RT: 7.84 min Scan# 538
Delta R.T. 0.008 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 49 Resp: 4609

Ion	Ratio	Lower	Upper
49	100		
84	92.4	63.3	94.9

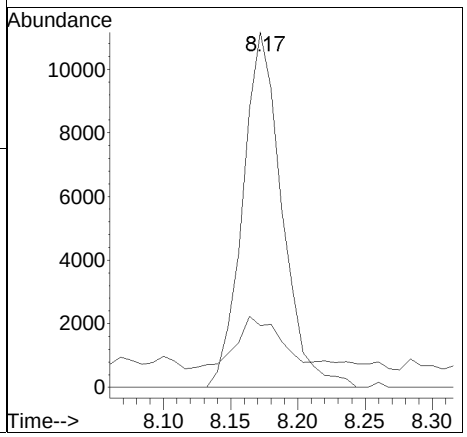


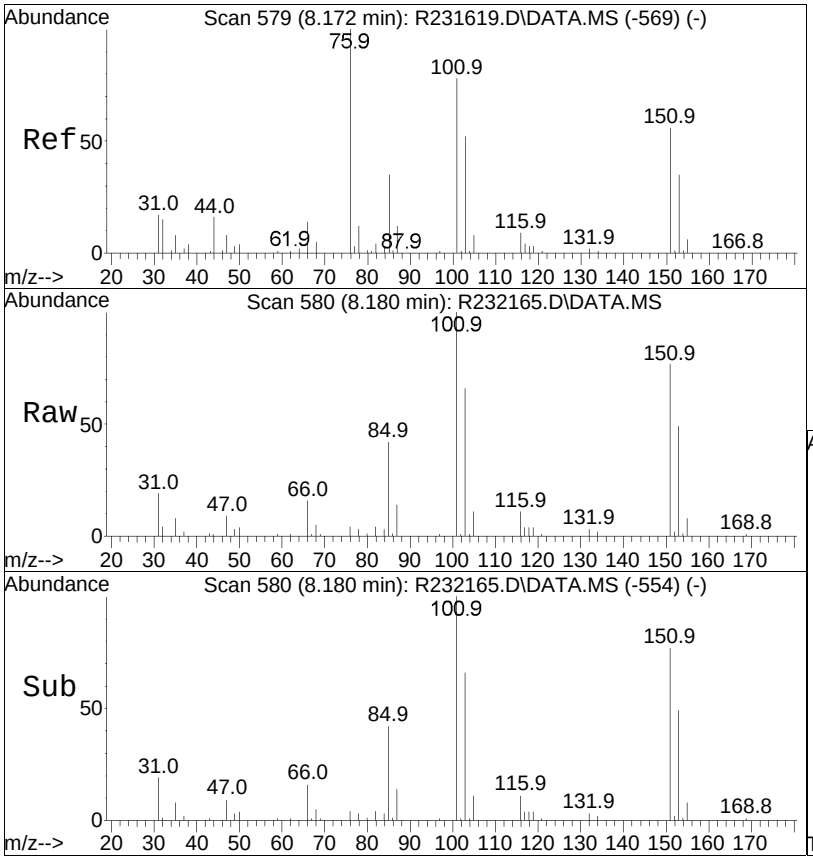


#30
carbon disulfide
Concen: 0.53 ppbV
RT: 8.17 min Scan# 579
Delta R.T. 0.008 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 76 Resp: 22725

Ion	Ratio	Lower	Upper
76	100		
44	17.4	13.9	20.9

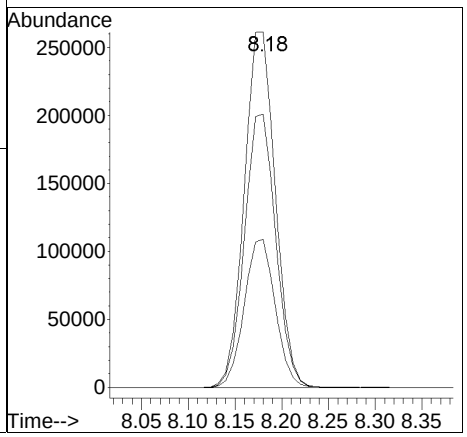


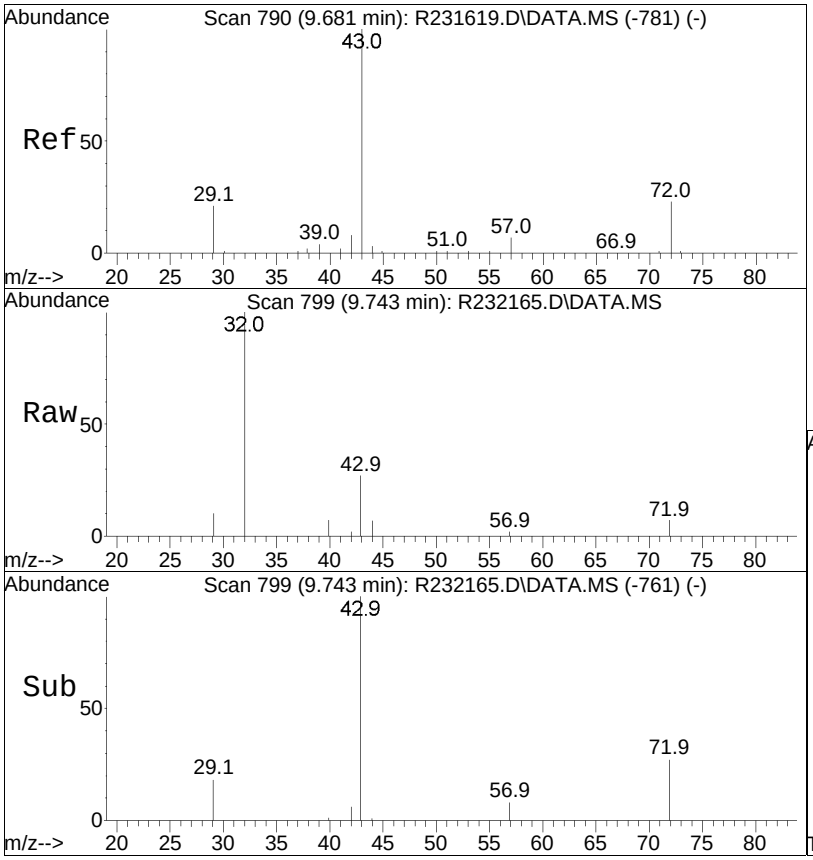


#31
Freon 113
Concen: 18.15 ppbV
RT: 8.18 min Scan# 580
Delta R.T. 0.008 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion:101 Resp: 606140

Ion	Ratio	Lower	Upper
101	100		
85	41.7	35.5	53.3
151	76.9	57.6	86.4

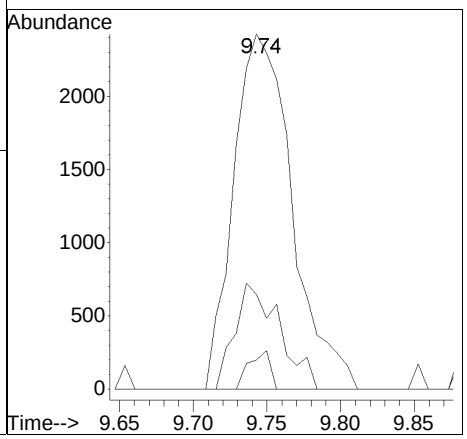


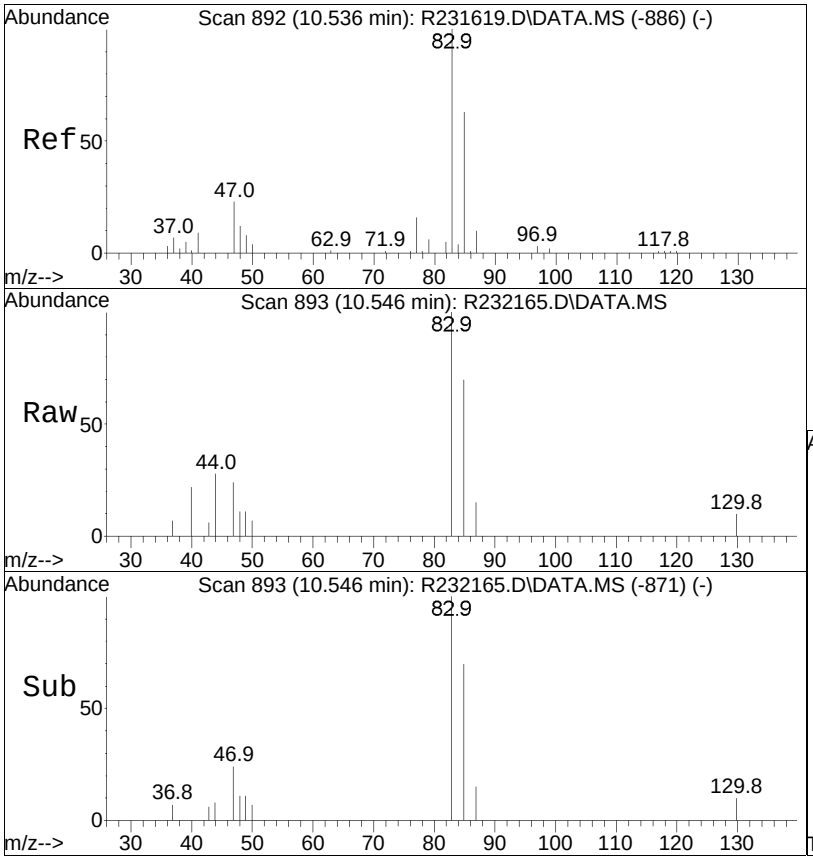


#36
2-butanone
Concen: 0.24 ppbV
RT: 9.74 min Scan# 799
Delta R.T. 0.062 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 43 Resp: 6705

Ion	Ratio	Lower	Upper
43	100		
72	26.7	18.5	27.7
57	8.3	5.4	8.2#

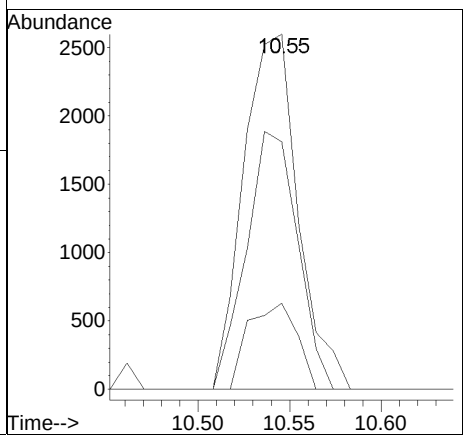


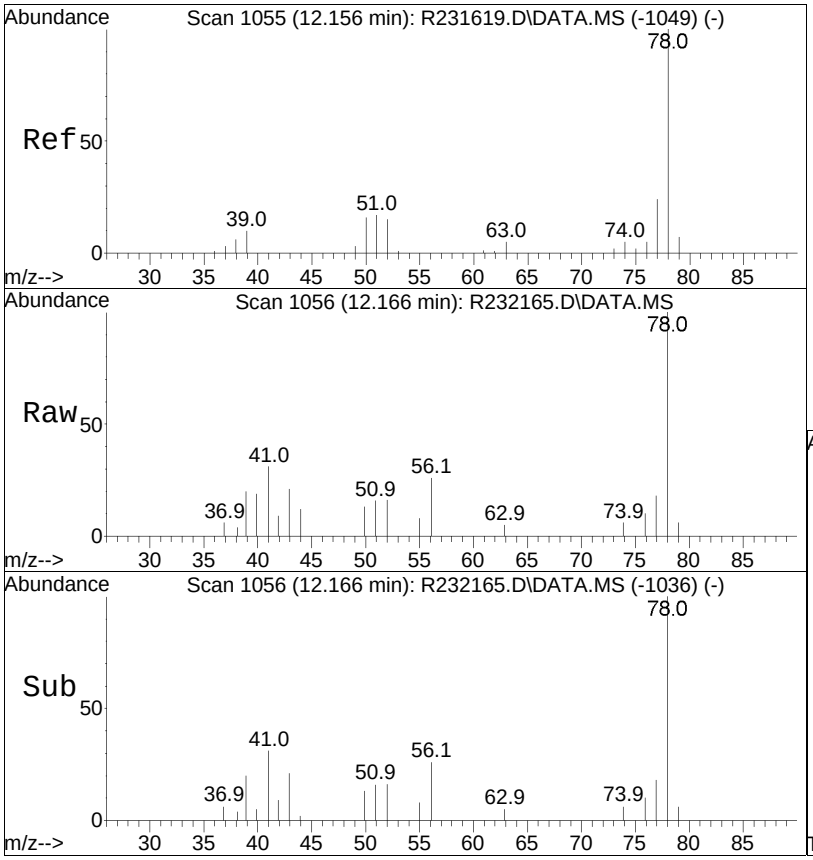


#39
chloroform
Concen: 0.16 ppbV
RT: 10.55 min Scan# 893
Delta R.T. 0.009 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 83 Resp: 5405

Ion	Ratio	Lower	Upper
83	100		
85	69.7	50.6	75.8
47	24.2	18.2	27.4

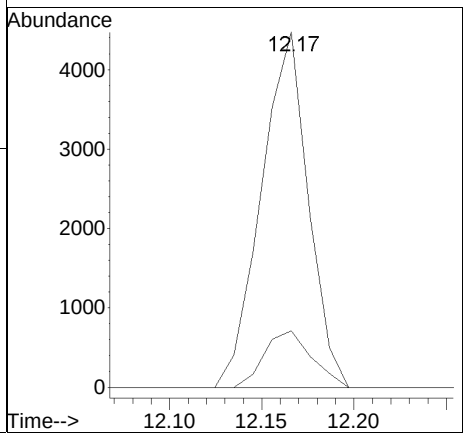


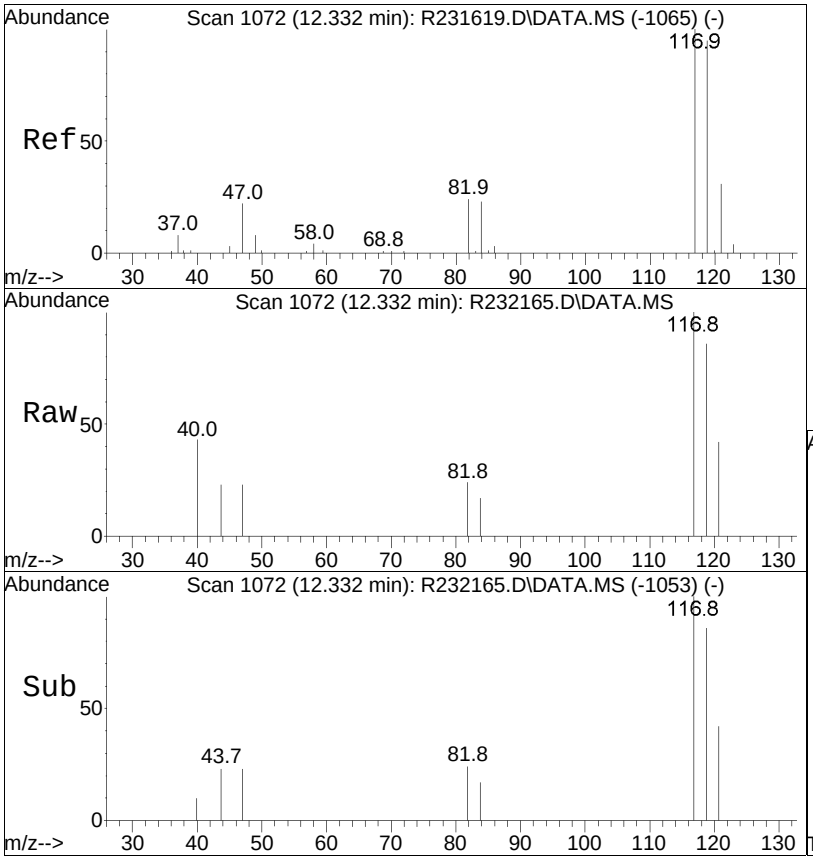


#50
benzene
Concen: 0.18 ppbV
RT: 12.17 min Scan# 1056
Delta R.T. 0.010 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 78 Resp: 7920

Ion	Ratio	Lower	Upper
78	100		
52	15.9	11.6	17.4

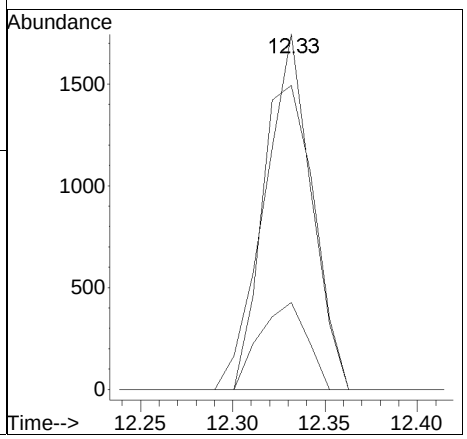


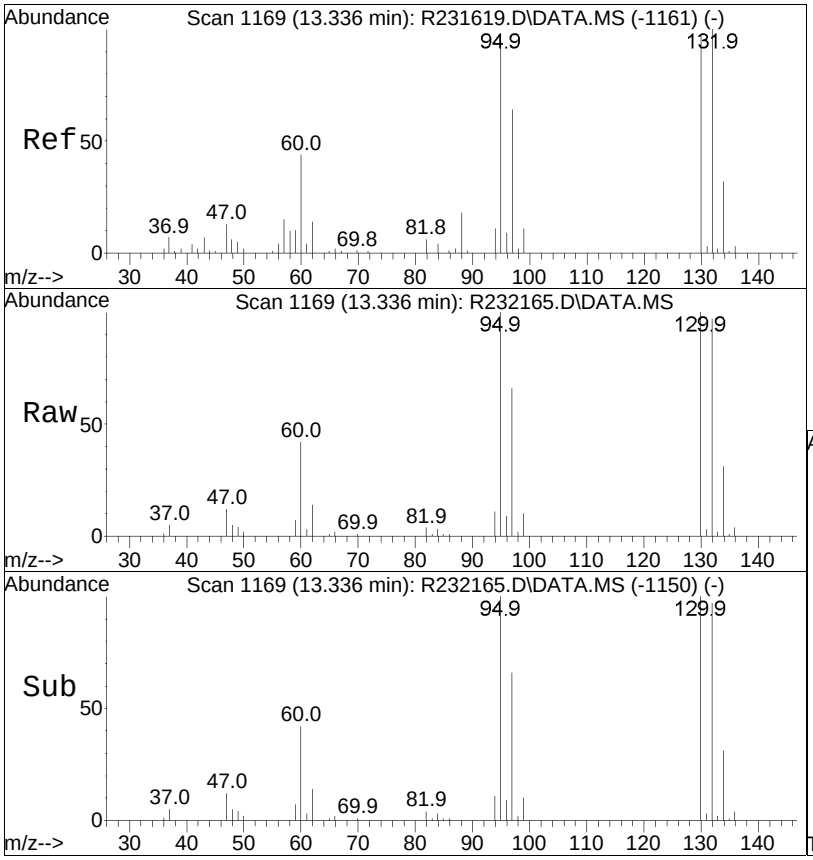


#52
carbon tetrachloride
Concen: 0.07 ppbV
RT: 12.33 min Scan# 1072
Delta R.T. 0.000 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion:117 Resp: 3095

Ion	Ratio	Lower	Upper
117	100		
119	85.6	76.2	114.4
82	24.5	19.1	28.7

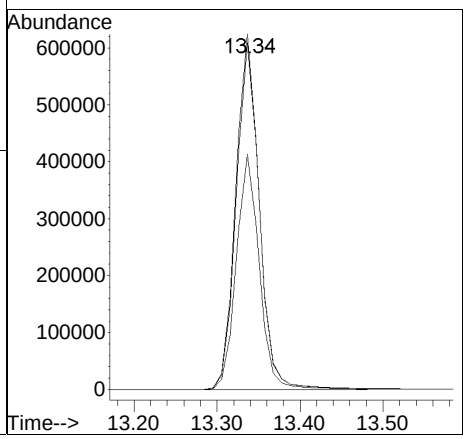


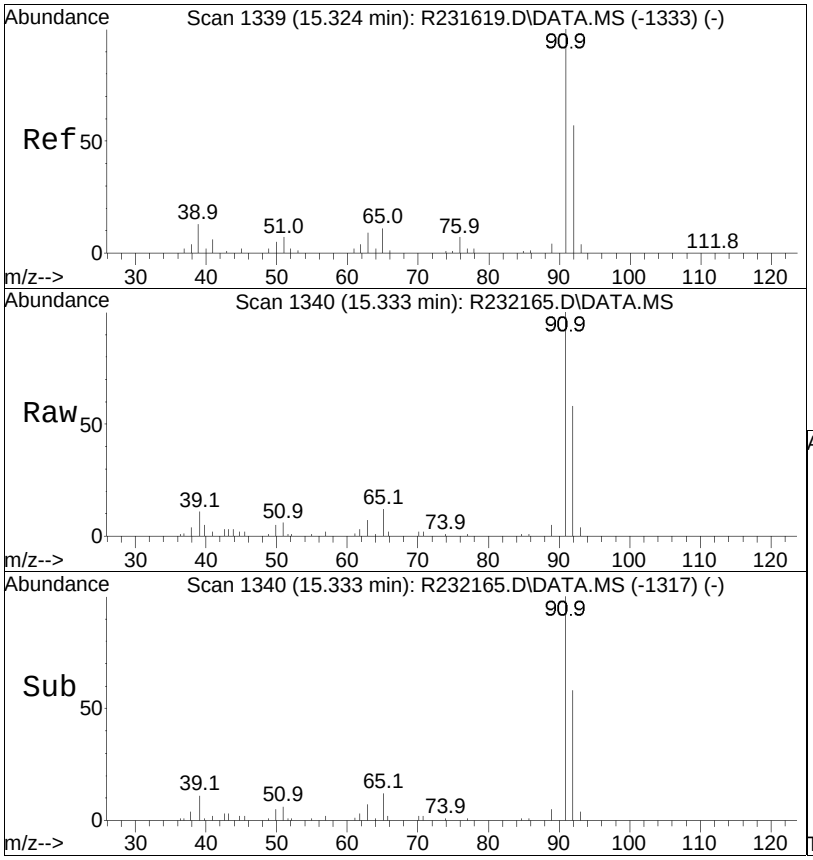


#59
trichloroethene
Concen: 51.35 ppbV
RT: 13.34 min Scan# 1169
Delta R.T. 0.000 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion:130 Resp: 1224638

Ion	Ratio	Lower	Upper
130	100		
132	97.4	81.7	122.5
97	66.1	52.6	78.8

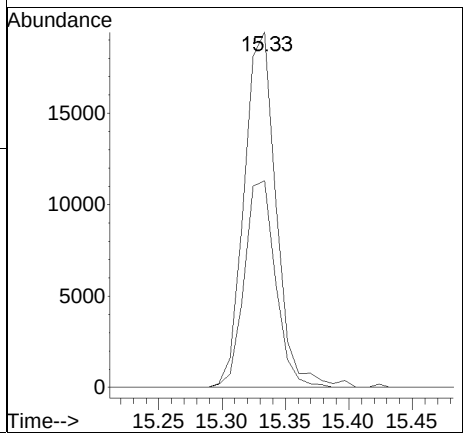


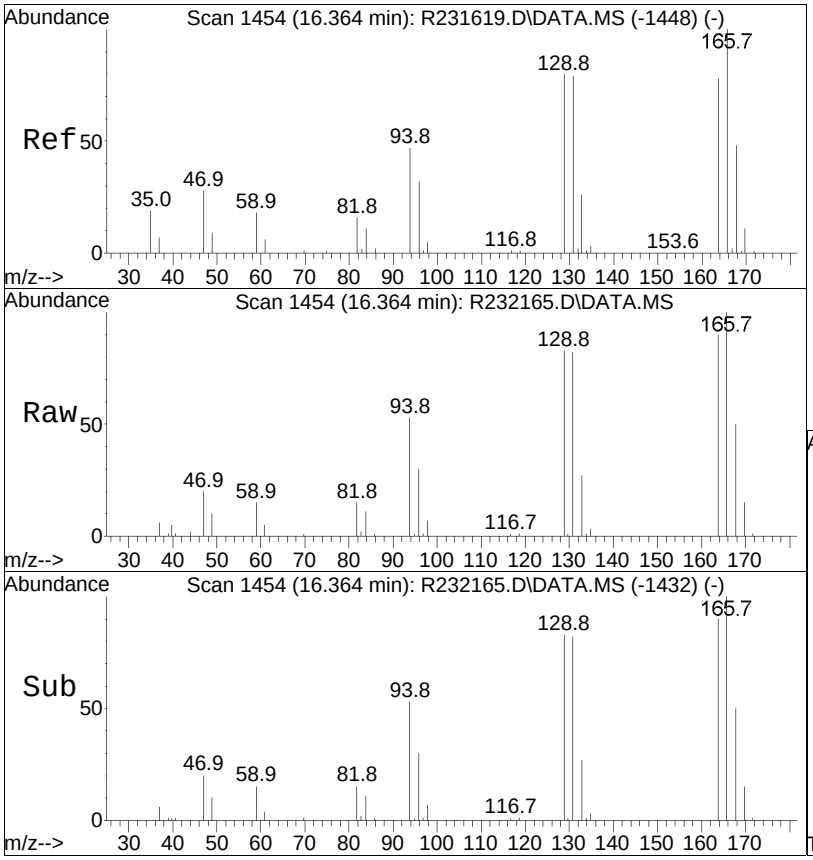


#68
toluene
Concen: 0.54 ppbV
RT: 15.33 min Scan# 1340
Delta R.T. 0.009 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 91 Resp: 34239

Ion	Ratio	Lower	Upper
91	100		
92	58.2	46.0	69.0

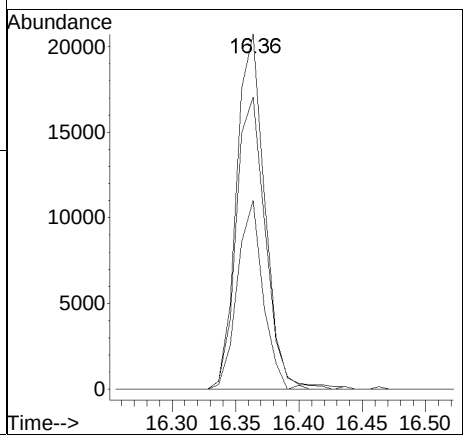


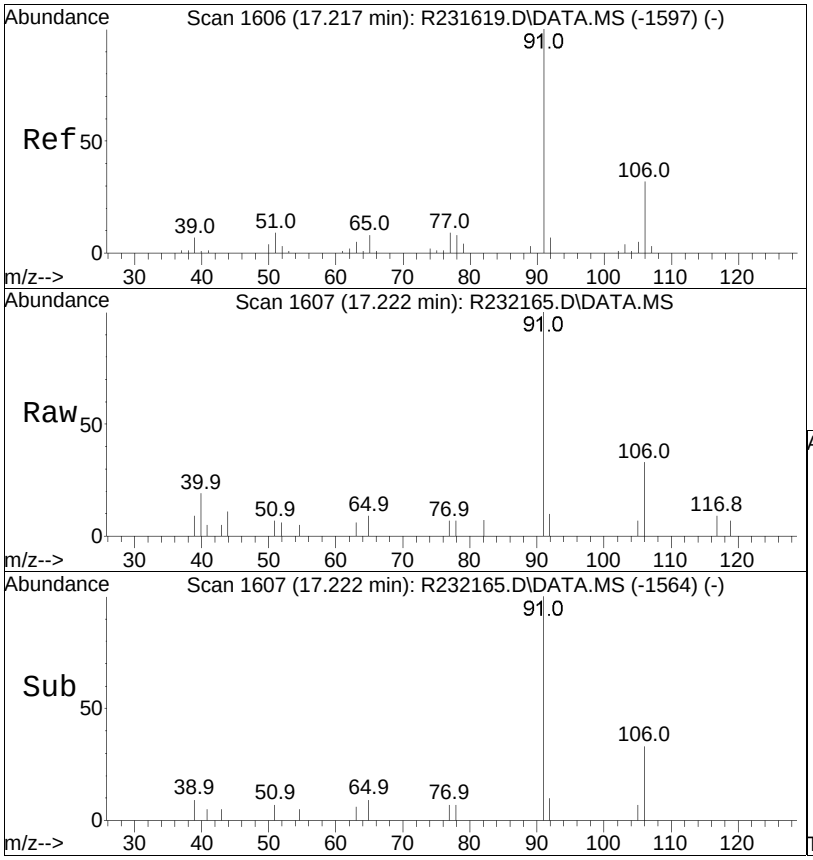


#78
tetrachloroethene
Concen: 1.00 ppbV
RT: 16.36 min Scan# 1454
Delta R.T. 0.000 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion:166 Resp: 32360

Ion	Ratio	Lower	Upper
166	100		
131	82.3	63.0	94.6
94	53.2	37.9	56.9

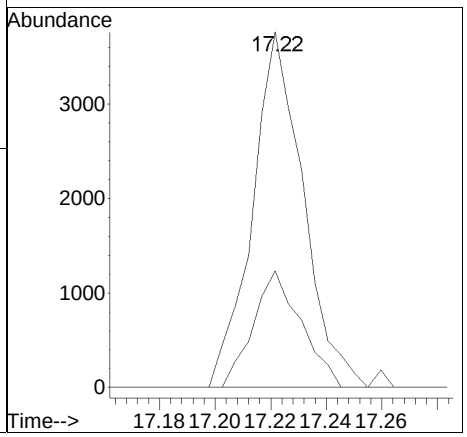


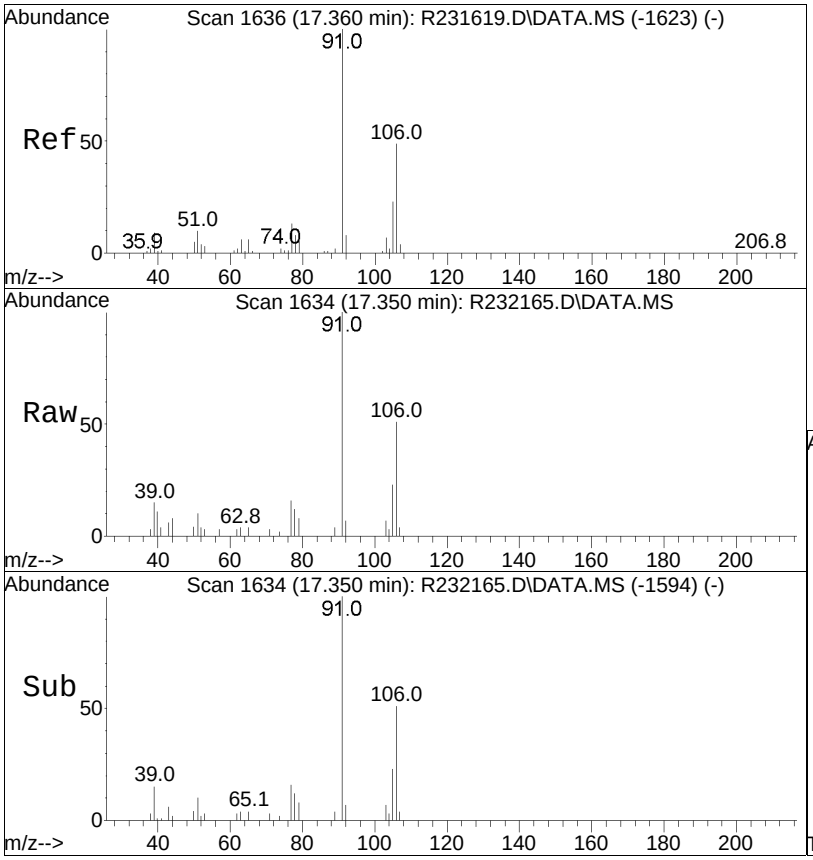


#81
ethylbenzene
Concen: 0.08 ppbV
RT: 17.22 min Scan# 1607
Delta R.T. 0.005 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 91 Resp: 4784

Ion	Ratio	Lower	Upper
91	100		
106	32.8	25.4	38.0

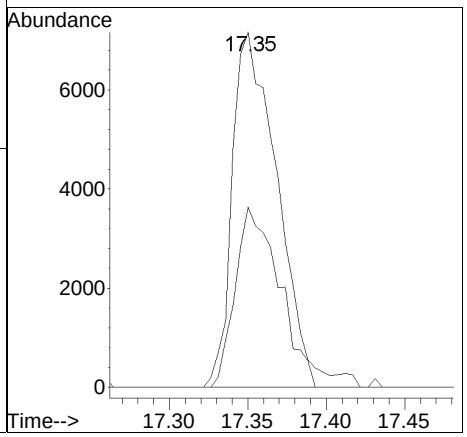


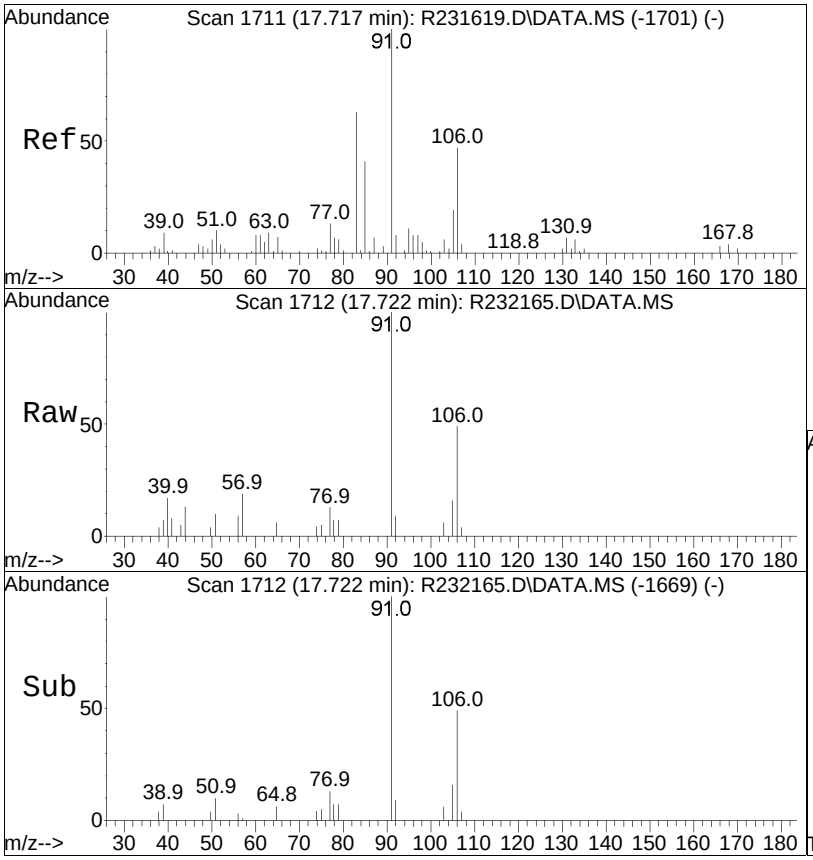


#83
m+p-xylene
Concen: 0.29 ppbV
RT: 17.35 min Scan# 1634
Delta R.T. -0.009 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 91 Resp: 14537

Ion	Ratio	Lower	Upper
91	100		
106	50.7	39.0	58.4

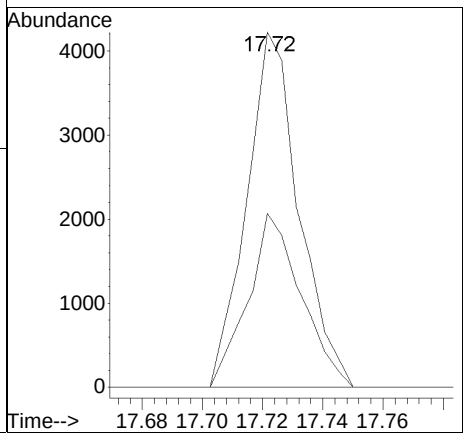


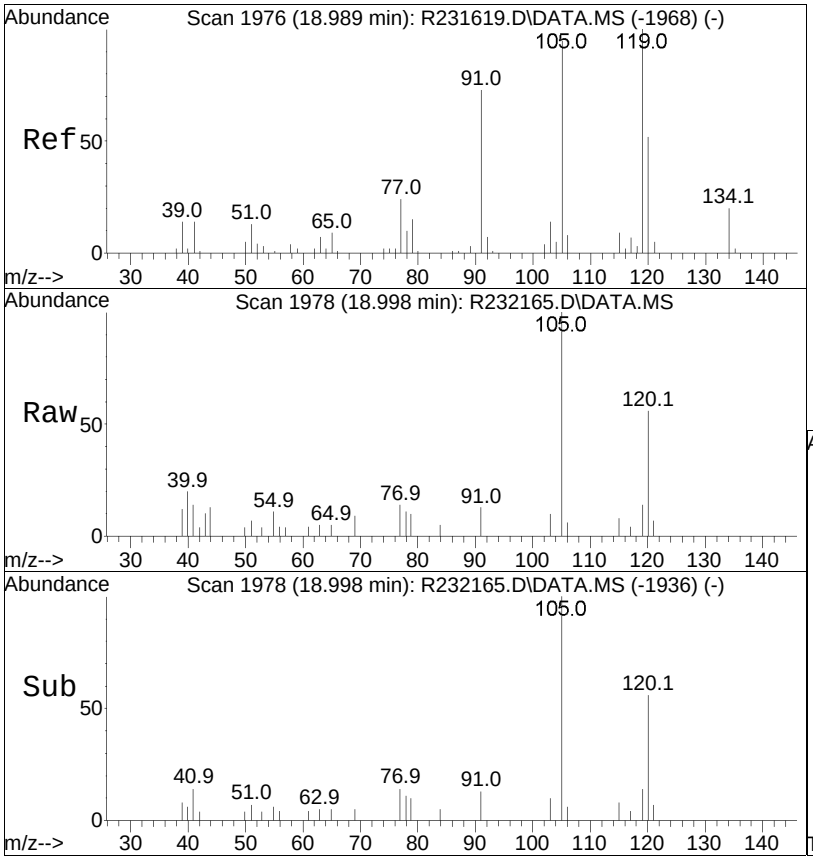


#87
o-xylene
Concen: 0.10 ppbV
RT: 17.72 min Scan# 1712
Delta R.T. 0.005 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion: 91 Resp: 5096

Ion	Ratio	Lower	Upper
91	100		
106	49.0	37.6	56.4

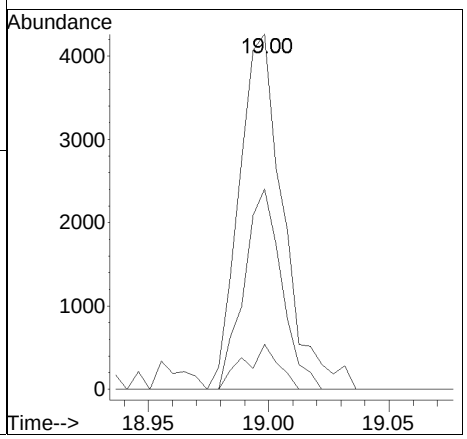




#99
1,2,4-trimethylbenzene
Concen: 0.09 ppbV
RT: 19.00 min Scan# 1978
Delta R.T. 0.010 min
Lab File: R232165.D
Acq: 16 Jan 2015 8:21 pm

Tgt Ion:105 Resp: 5449

Ion	Ratio	Lower	Upper
105	100		
120	56.4	43.4	65.0
91	12.7	61.4	92.0#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2015Q	Method	: TALL141214.M
Data File	: R232165.D	Operator	: AIRPIANO2:RY
Date Inj'd	: 1/16/2015 8:21 pm	Instrument	: Air Piano 2
Sample	: L1500977-02,3,250,250	Quant Date	: 1/17/2015 8:08 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-02	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:21
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232165	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 6 **Concentration Units: ppbV**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000075-68-3	Ethane, 1-chloro-1,1-difluoro-	4.64	20	NJ
000067-56-1	Methyl Alcohol	4.94	2.6	NJ
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.55	1.8	NJ
	unknown siloxane	18.90	3	J
000124-19-6	Nonanal	19.92	1.3	NJ
	unknown siloxane	20.38	4.4	J
	Total TIC Compounds		33.1	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R232165.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.123	103	105	110	rVB2	15410	28478	0.43%	0.149%
2	4.231	113	116	119	rVV3	7497	15556	0.23%	0.081%
3	4.290	119	122	125	rVV	23796	39700	0.59%	0.207%
4	4.359	125	129	132	rVB2	12479	27898	0.42%	0.146%
5	4.428	132	136	140	rBV	214017	330233	4.93%	1.722%
6	4.635	153	157	164	rBV	910469	1516250	22.64%	7.908%
7	4.833	173	177	184	rBV2	22789	62640	0.94%	0.327%
8	4.941	184	188	195	rBV	98306	201911	3.01%	1.053%
9	5.247	217	219	224	rVB3	7216	14114	0.21%	0.074%
10	6.030	306	311	320	rBV	53834	137775	2.06%	0.719%
11	6.645	379	388	401	rBV	165654	436601	6.52%	2.277%
12	6.853	409	414	421	rVB	42782	88444	1.32%	0.461%
13	7.013	430	434	439	rBV3	7535	18305	0.27%	0.095%
14	7.844	534	538	544	rVB3	8323	17979	0.27%	0.094%
15	8.180	572	580	589	rVV	1293100	3004440	44.86%	15.670%
16	9.283	727	732	740	rVB2	25053	58717	0.88%	0.306%
17	9.743	794	799	806	rBV4	4870	13063	0.20%	0.068%
18	10.386	871	876	887	rBV	370446	774227	11.56%	4.038%
19	10.536	890	892	898	rVB	7379	13171	0.20%	0.069%
20	12.166	1051	1056	1065	rBV	14621	33309	0.50%	0.174%
21	12.332	1069	1072	1076	rVB	5205	9679	0.14%	0.050%
22	12.549	1088	1093	1101	rBV	691125	1305750	19.50%	6.810%
23	12.932	1127	1130	1137	rVB3	3717	7129	0.11%	0.037%
24	13.336	1164	1169	1191	rBV	3413318	6697258	100.00%	34.930%
25	14.035	1223	1227	1231	rVB2	2921	7011	0.10%	0.037%
26	15.180	1317	1323	1332	rBV4	4612	11401	0.17%	0.059%
27	15.333	1332	1340	1344	rBV	48662	85333	1.27%	0.445%
28	15.803	1386	1392	1398	rBV3	18491	40095	0.60%	0.209%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	16.156	1428	1431	1434	rBV2	4070	7151	0.11%	0.037%
30	16.210	1434	1437	1441	rVB2	7108	11465	0.17%	0.060%
31	16.364	1450	1454	1465	rVB	131936	201973	3.02%	1.053%
32	16.554	1470	1475	1482	rBV	152860	289905	4.33%	1.512%
33	16.893	1530	1538	1549	rBV	1093738	1577925	23.56%	8.230%
34	17.226	1604	1608	1612	rVB	7573	8970	0.13%	0.047%
35	17.350	1628	1634	1645	rVB2	21667	40905	0.61%	0.213%
36	17.536	1667	1673	1684	rVB4	8591	15980	0.24%	0.083%
37	17.626	1686	1692	1701	rBV6	7569	14091	0.21%	0.073%
38	17.726	1708	1713	1719	rBV2	12737	17553	0.26%	0.092%
39	18.450	1860	1865	1876	rVV8	8394	15997	0.24%	0.083%
40	18.607	1893	1898	1902	rBV2	6799	9168	0.14%	0.048%
41	18.712	1914	1920	1921	rBV4	9417	10959	0.16%	0.057%
42	18.903	1948	1958	1973	rBV3	252172	469757	7.01%	2.450%
43	18.998	1973	1978	1982	rVV	13340	16545	0.25%	0.086%
44	19.036	1982	1986	1994	rVB2	30150	33287	0.50%	0.174%
45	19.312	2041	2044	2048	rVV6	8757	14118	0.21%	0.074%
46	19.341	2048	2050	2059	rVB6	7777	10228	0.15%	0.053%
47	19.412	2059	2065	2075	rBV	113613	136305	2.04%	0.711%
48	19.489	2076	2081	2086	rVB7	5003	7854	0.12%	0.041%
49	19.527	2086	2089	2094	rBV5	5818	7665	0.11%	0.040%
50	19.608	2099	2106	2107	rBV6	5014	7140	0.11%	0.037%
51	19.655	2111	2116	2121	rVV2	13902	19740	0.29%	0.103%
52	19.736	2121	2133	2138	rVB6	8878	21656	0.32%	0.113%
53	19.917	2160	2171	2181	rBV2	79754	200131	2.99%	1.044%
54	19.979	2181	2184	2189	rVB4	18923	23794	0.36%	0.124%
55	20.041	2194	2197	2205	rVV7	11507	20194	0.30%	0.105%
56	20.150	2218	2220	2224	rVV5	6106	8923	0.13%	0.047%
57	20.193	2227	2229	2236	rVV5	4808	8167	0.12%	0.043%
58	20.384	2262	2269	2288	rBV	387389	693024	10.35%	3.615%
59	20.861	2322	2327	2335	rBV	67805	142655	2.13%	0.744%
60	20.979	2335	2338	2340	rVV	9085	14151	0.21%	0.074%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	21.086	2345	2348	2351	rVB4	3699	8940	0.13%	0.047%
62	21.697	2401	2405	2408	rBV2	6481	11470	0.17%	0.060%
63	21.782	2410	2413	2417	rVV	22122	33528	0.50%	0.175%
64	22.125	2441	2445	2448	rBV5	4042	9780	0.15%	0.051%
65	22.243	2453	2456	2459	rVV3	6141	12533	0.19%	0.065%
66	22.308	2459	2462	2465	rVV4	3358	7074	0.11%	0.037%
67	22.404	2468	2471	2474	rVV3	4766	8747	0.13%	0.046%
68	22.468	2474	2477	2483	rVB3	3188	7451	0.11%	0.039%

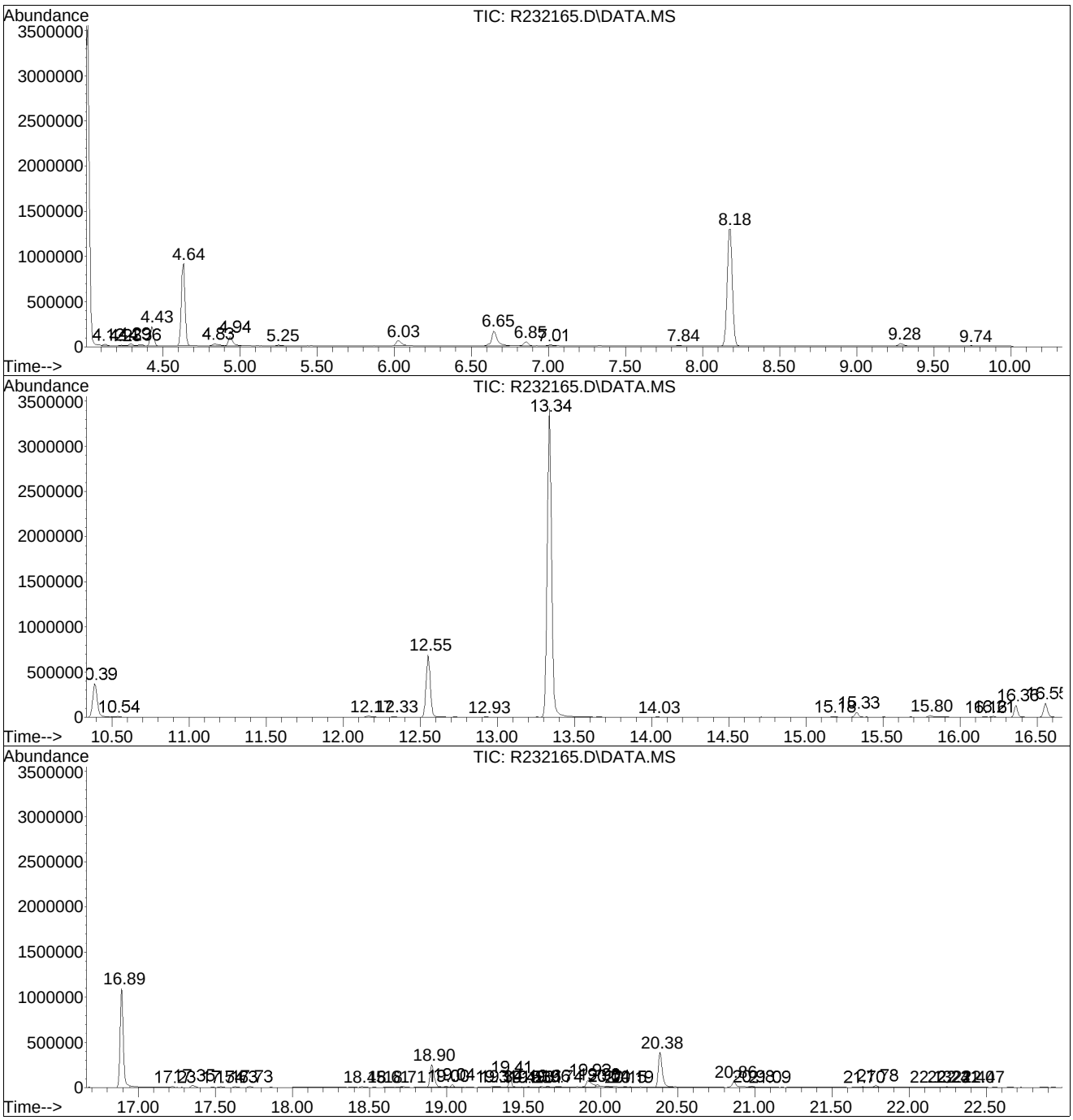
Sum of corrected areas: 19173366

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

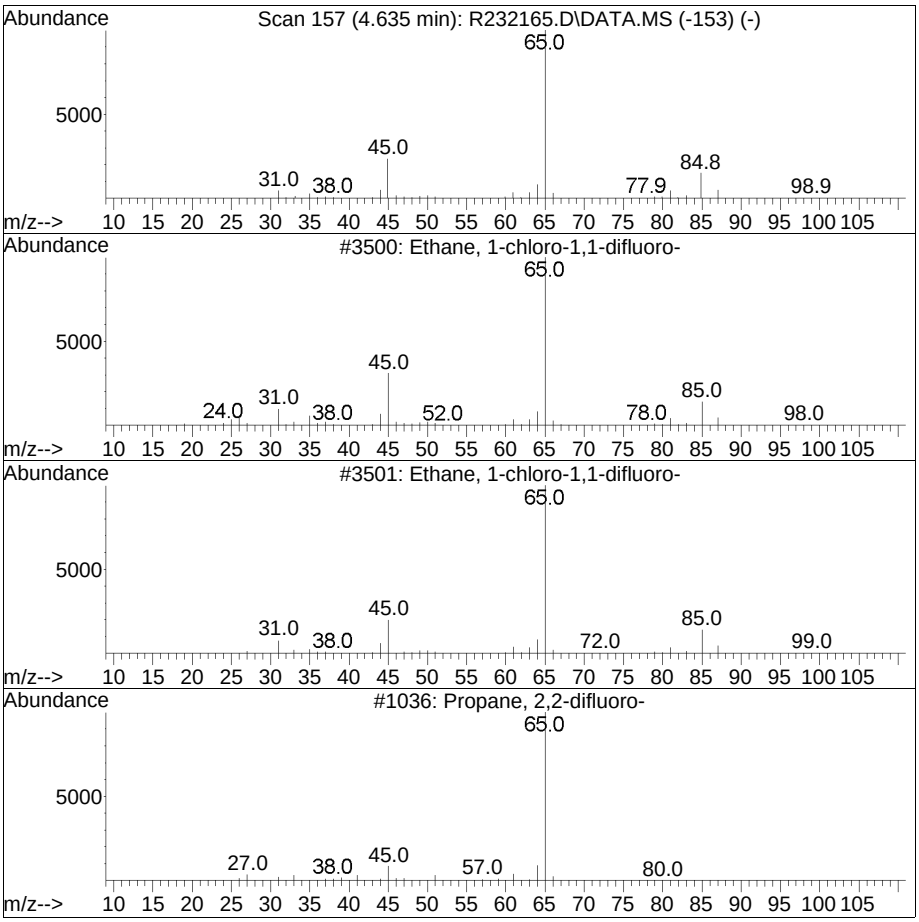
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

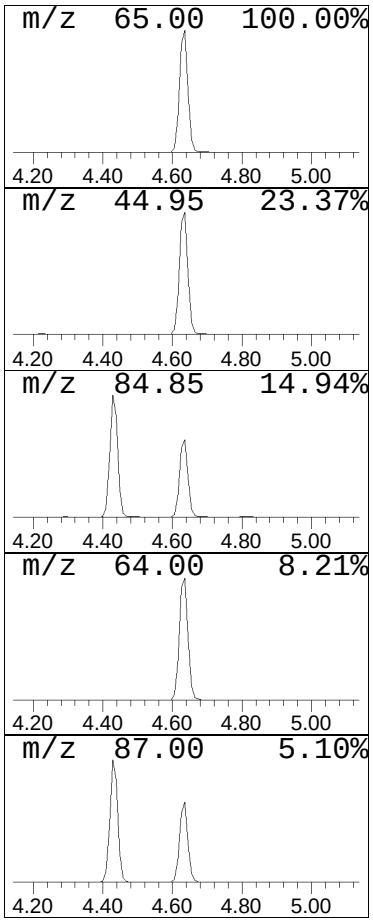
****

Peak Number 1 Ethane, 1-chloro-1,1-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.64	19.58 ppbV	1516250	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	83
2	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	43
3	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	43
4	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	9
5	Benzene, 1-nitro-2-(p-methylphen...	247	C13H10FNO3	028987-57-7	1





Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

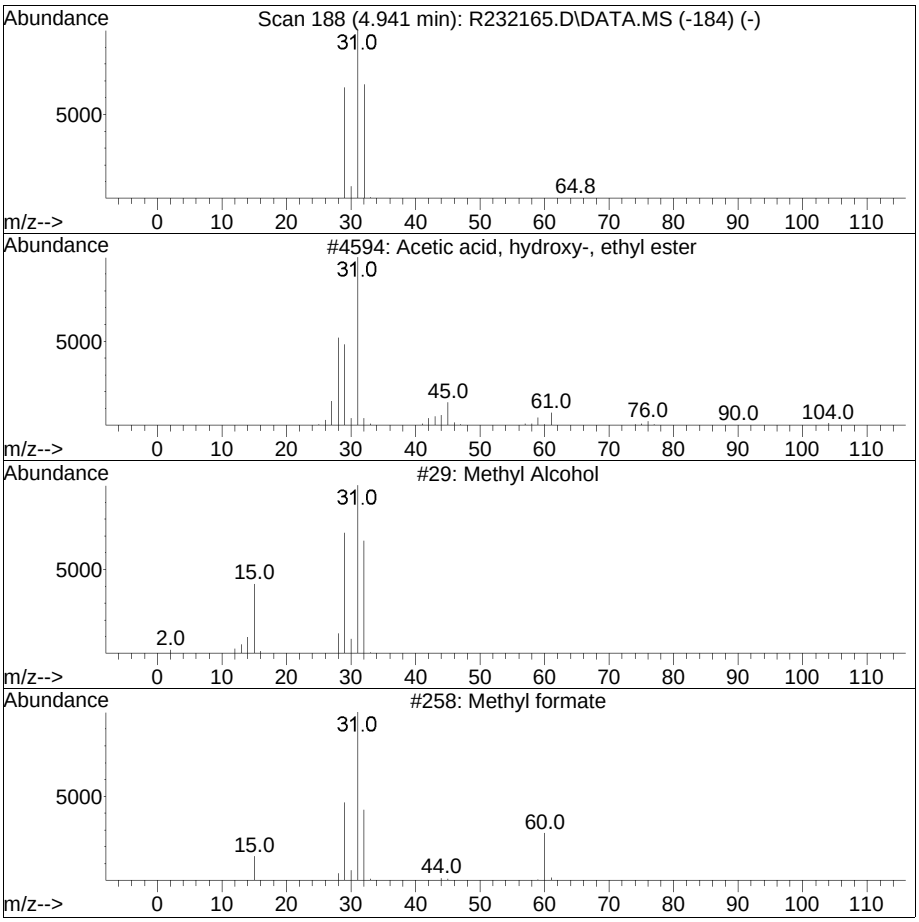
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

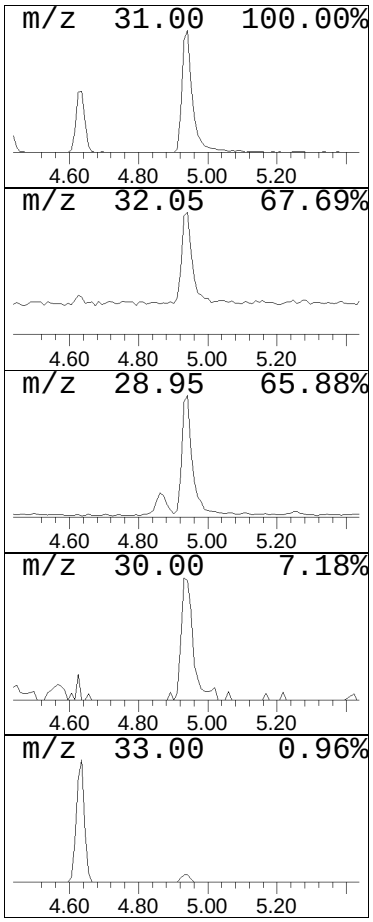
****

Peak Number 2 Methyl Alcohol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.94	2.61 ppbV	201911	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, hydroxy-, ethyl ester	104	C4H8O3	000623-50-7	4
2	Methyl Alcohol	32	CH4O	000067-56-1	4
3	Methyl formate	60	C2H4O2	000107-31-3	4
4	Methyl formate	60	C2H4O2	000107-31-3	4
5	Methyl Alcohol	32	CH4O	000067-56-1	2





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

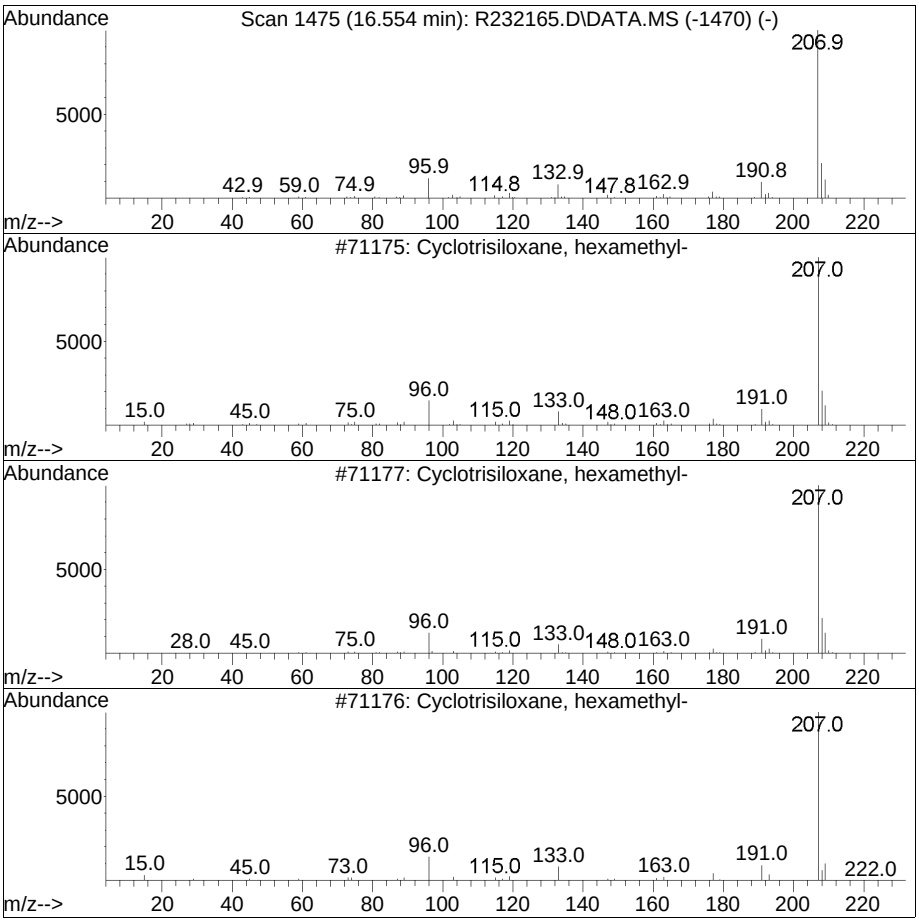
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

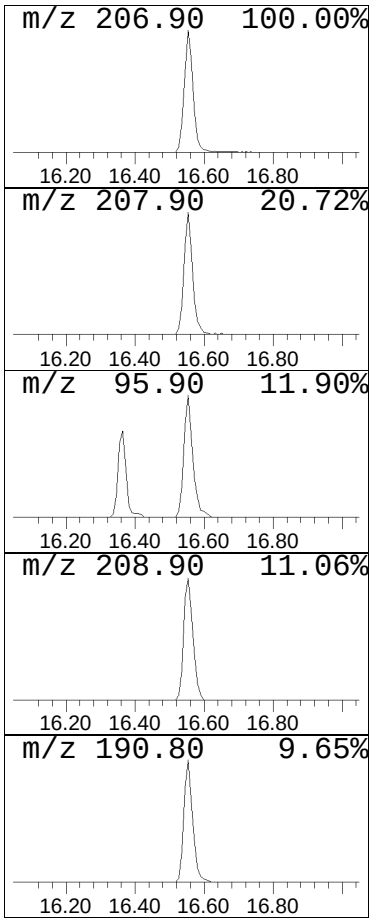
****

Peak Number 3 Cyclotrisiloxane, hexamethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.55	1.84 ppbV	289905	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	5-Methyl-2-phenylindolizine	207	C15H13N	036944-99-7	39
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39





Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

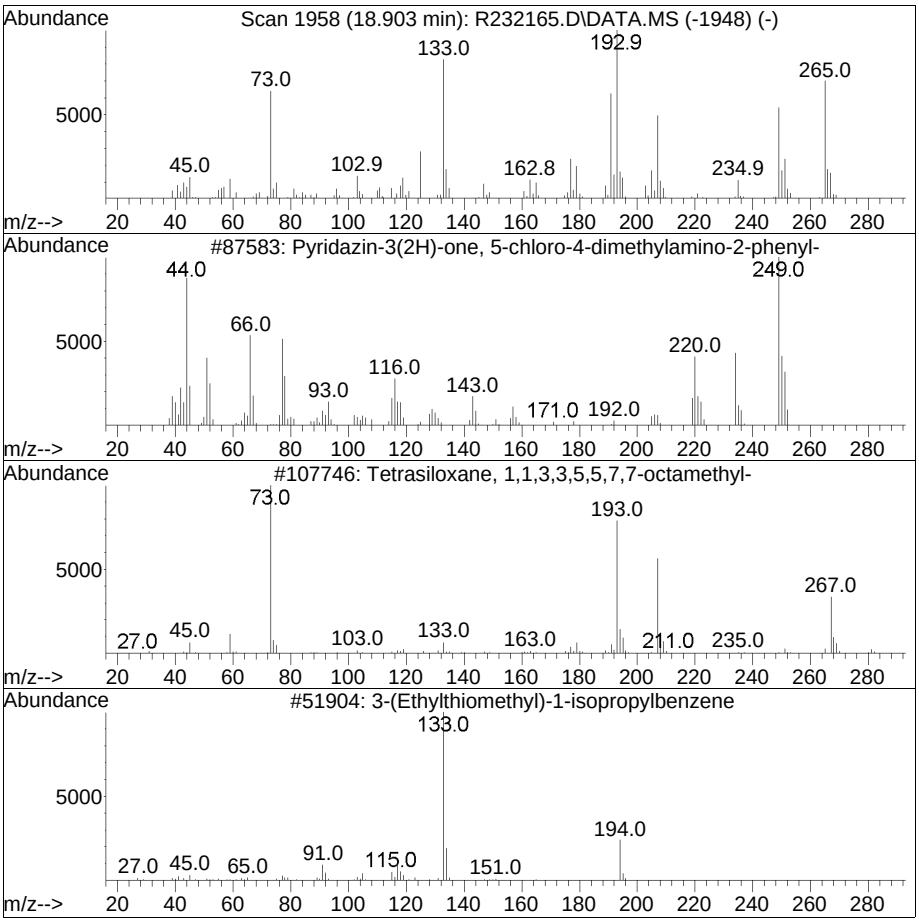
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

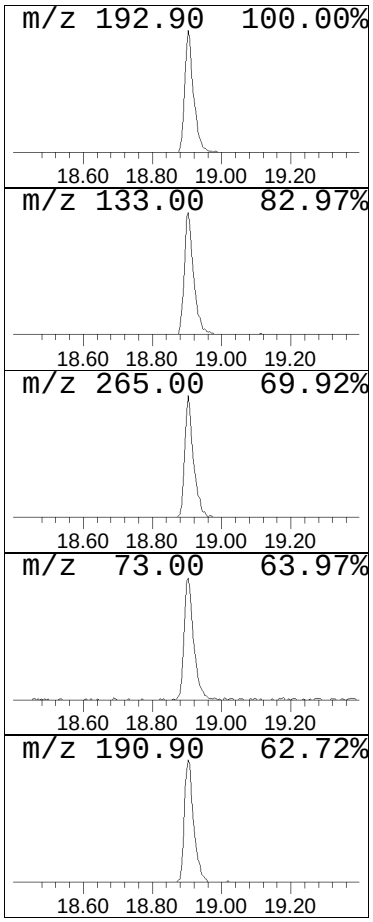
****

Peak Number 4 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.90	2.98 ppbV	469757	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyridazin-3(2H)-one, 5-chloro-4-...	249	C12H12ClN3O	091396-18-8	25
2	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	22
3	3-(Ethylthiomethyl)-1-isopropylb...	194	C12H18S	088315-69-9	11
4	1H-Indole, 2-phenyl-	193	C14H11N	000948-65-2	11
5	Benzene, 1,1'-methylenebis[4-azido-	250	C13H10N6	002915-44-8	11





Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

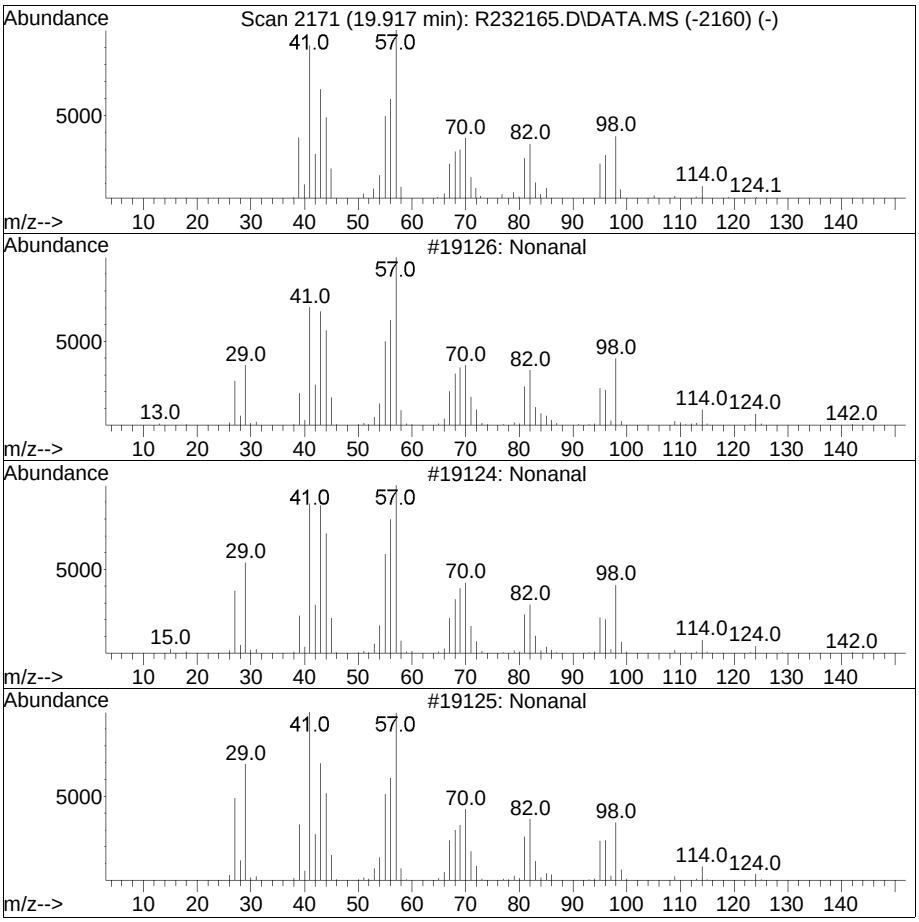
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

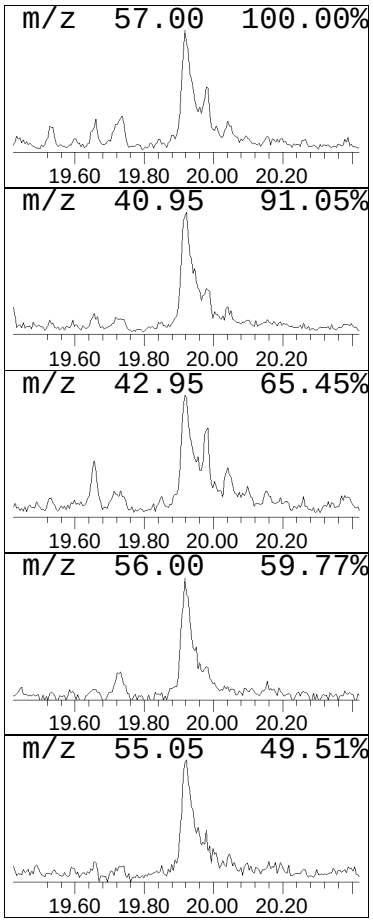
****

Peak Number 5 Nonanal Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.92	1.27 ppbV	200131	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	91
2	Nonanal	142	C9H18O	000124-19-6	86
3	Nonanal	142	C9H18O	000124-19-6	86
4	2-Nonen-1-ol	142	C9H18O	022104-79-6	35
5	Cyclohexanol, 4-methyl-, cis-	114	C7H14O	007731-28-4	30





Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

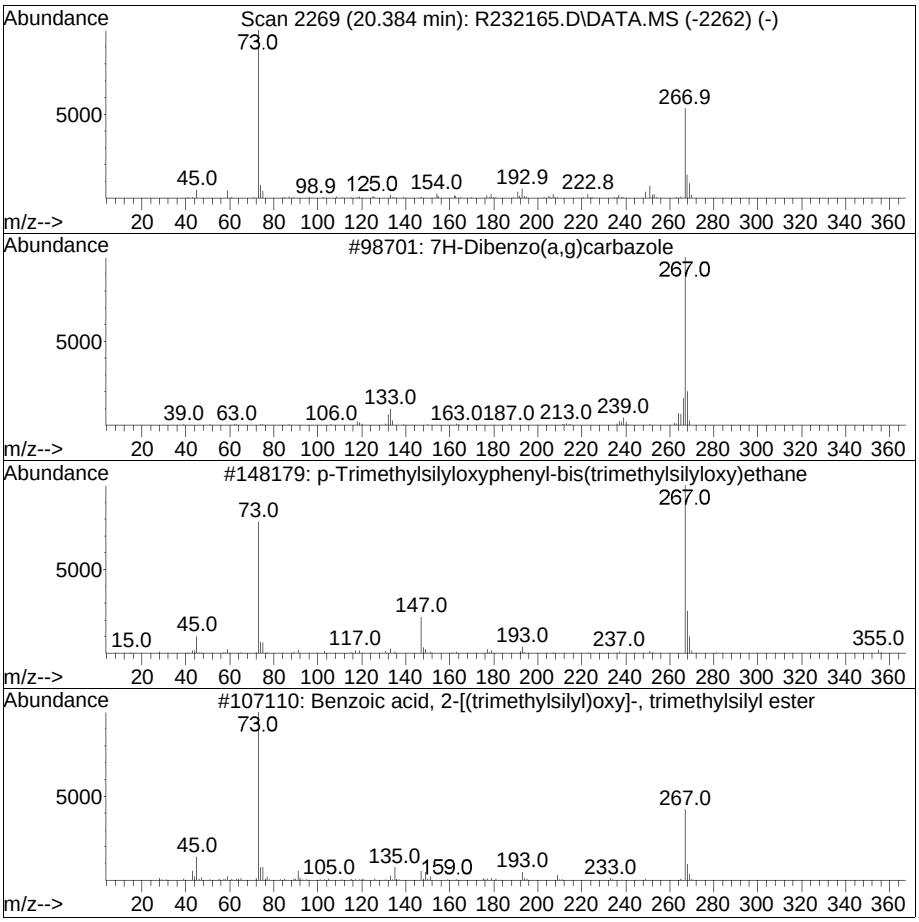
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

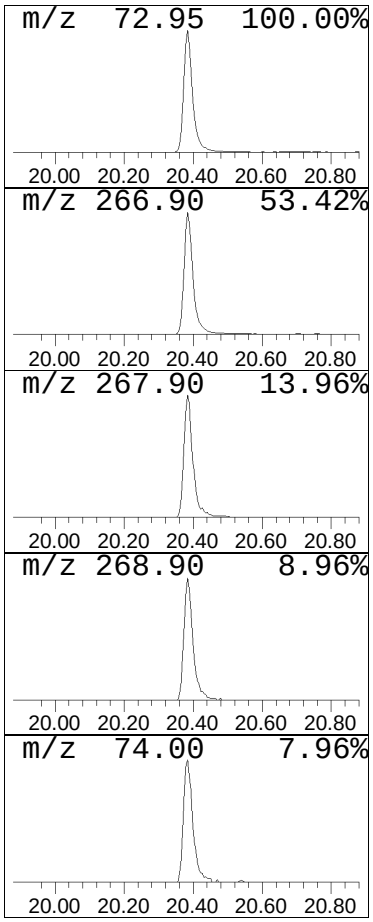
****

Peak Number 6 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.38	4.39 ppbV	693024	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	46
2	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	45
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	45
4	Butanamide, 2,2,3,3,4,4,4-heptaf...	493	C18H26F7NO3Si2	055471-01-7	45
5	Benzonitrile, 3-(2-hydroxy-5-nit...	267	C14H9N3O3	304454-14-6	43





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232165.D
Acq On : 16 Jan 2015 8:21 pm
Operator : AIRPIANO2:RY
Sample : L1500977-02,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Ethane, 1-chlor...	4.64	19.6	ppbV	1516250	1	10.39	774227	10.0
Methyl Alcohol	4.94	2.6	ppbV	201911	1	10.39	774227	10.0
Cyclotrisiloxan...	16.55	1.8	ppbV	289905	3	16.89	1577930	10.0
unknown siloxane	18.90	3.0	ppbV	469757	3	16.89	1577930	10.0
Nonanal	19.92	1.3	ppbV	200131	3	16.89	1577930	10.0
unknown siloxane	20.38	4.4	ppbV	693024	3	16.89	1577930	10.0

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-03	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-DUP	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:53
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232166	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	6.8	0.20	--	34	0.99	--	
74-87-3	Chloromethane	ND	0.20	--	ND	0.4	--	U
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	5.5	2.5	--	10	4.7	--	
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	9.7	1.0	--	23	2.4	--	
75-69-4	Trichlorofluoromethane	0.76	0.20	--	4	1	--	
67-63-0	Isopropanol	ND	0.50	--	ND	1	--	U
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	0.53	0.20	--	2	0.6	--	
76-13-1	Freon-113	19	0.20	--	150	1.5	--	
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	0.29	0.20	--	0.9	0.6	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-03	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-DUP	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:53
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232166	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.20	--	ND	0.6	--	U
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	53	0.20	--	280	1.1	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	0.46	0.20	--	2	0.8	--	
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	2.4	0.20	--	16	1.4	--	
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-03	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-DUP	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:53
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232166	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 17 13:50:50 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	155014	10.000	ppbV	0.00
Standard Area = 188101			Recovery = 82.41%			
43) 1,4-difluorobenzene	12.55	114	600063	10.000	ppbV	0.00
Standard Area = 721984			Recovery = 83.11%			
67) chlorobenzene-D5	16.89	54	97151	10.000	ppbV	0.00
Standard Area = 122028			Recovery = 79.61%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.43	85	161136	6.840	ppbV	99
6) chloromethane	0.00		0	N.D.	d	
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	5.55		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.03	31	58248	5.469	ppbV	96
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.65	43	207706	9.694	ppbV #	99
21) trichlorofluoromethane	6.85	101	35069	0.765	ppbV	96
22) isopropyl alcohol	7.01	45	7759	0.332	ppbV #	88
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.80	59	1682	0.061	ppbV #	74
28) methylene chloride	7.85	49	5159	0.316	ppbV #	78
29) 3-chloropropene	7.92		0	N.D.		
30) carbon disulfide	8.17	76	21770	0.531	ppbV #	85
31) Freon 113	8.17	101	612724	19.261	ppbV	96
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	9.29		0	N.D.		
36) 2-butanone	9.75	43	7813	0.288	ppbV #	95
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.54	83	5484	0.174	ppbV	98
40) Tetrahydrofuran	11.03		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.45		0	N.D.		
48) 1,1,1-trichloroethane	11.66		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 17 13:50:50 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50)	benzene	12.16	78	5265	0.124	ppbV	#	80
52)	carbon tetrachloride	12.33	117	3380	0.083	ppbV		87
53)	cyclohexane	12.47		0	N.D.			
56)	1,2-dichloropropane	0.00		0	N.D.			
57)	bromodichloromethane	0.00		0	N.D.	d		
58)	1,4-dioxane	0.00		0	N.D.			
59)	trichloroethene	13.34	130	1238016	53.114	ppbV		96
60)	2,2,4-trimethylpentane	0.00		0	N.D.	d		
61)	methyl methacrylate	13.59		0	N.D.			
62)	heptane	13.67		0	N.D.			
63)	cis-1,3-dichloropropene	0.00		0	N.D.			
64)	4-methyl-2-pentanone	0.00		0	N.D.	d		
65)	trans-1,3-dichloropropene	0.00		0	N.D.			
66)	1,1,2-trichloroethane	0.00		0	N.D.			
68)	toluene	15.33	91	29254	0.459	ppbV		95
74)	dibromochloromethane	0.00		0	N.D.			
75)	1,2-dibromoethane	0.00		0	N.D.			
78)	tetrachloroethene	16.36	166	76448	2.359	ppbV		97
80)	chlorobenzene	0.00		0	N.D.			
81)	ethylbenzene	17.22	91	3747	0.060	ppbV		92
83)	m+p-xylene	17.35	91	10492	0.211	ppbV	#	83
84)	bromoform	0.00		0	N.D.			
85)	styrene	17.65		0	N.D.			
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.			
87)	o-xylene	17.72	91	4247	0.084	ppbV	#	79
93)	2-chlorotoluene	0.00		0	N.D.			
96)	4-ethyl toluene	18.64		0	N.D.			
97)	1,3,5-trimethylbenzene	18.69		0	N.D.			
99)	1,2,4-trimethylbenzene	19.00	105	6639	0.109	ppbV	#	52
102)	1,3-dichlorobenzene	19.14		0	N.D.			
103)	1,4-dichlorobenzene	19.17		0	N.D.			
107)	1,2-dichlorobenzene	0.00		0	N.D.			
115)	1,2,4-trichlorobenzene	0.00		0	N.D.			
119)	hexachlorobutadiene	0.00		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 17 13:50:50 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

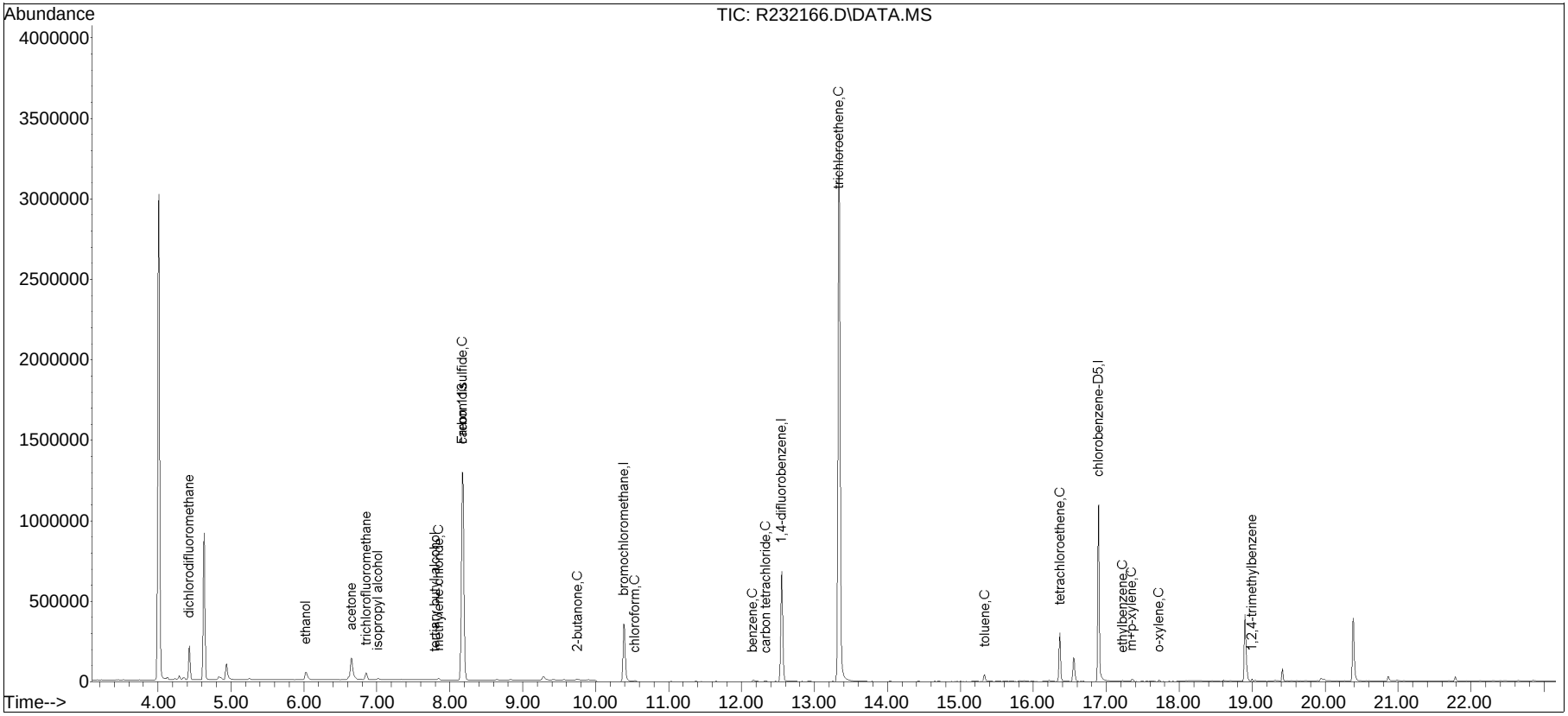
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

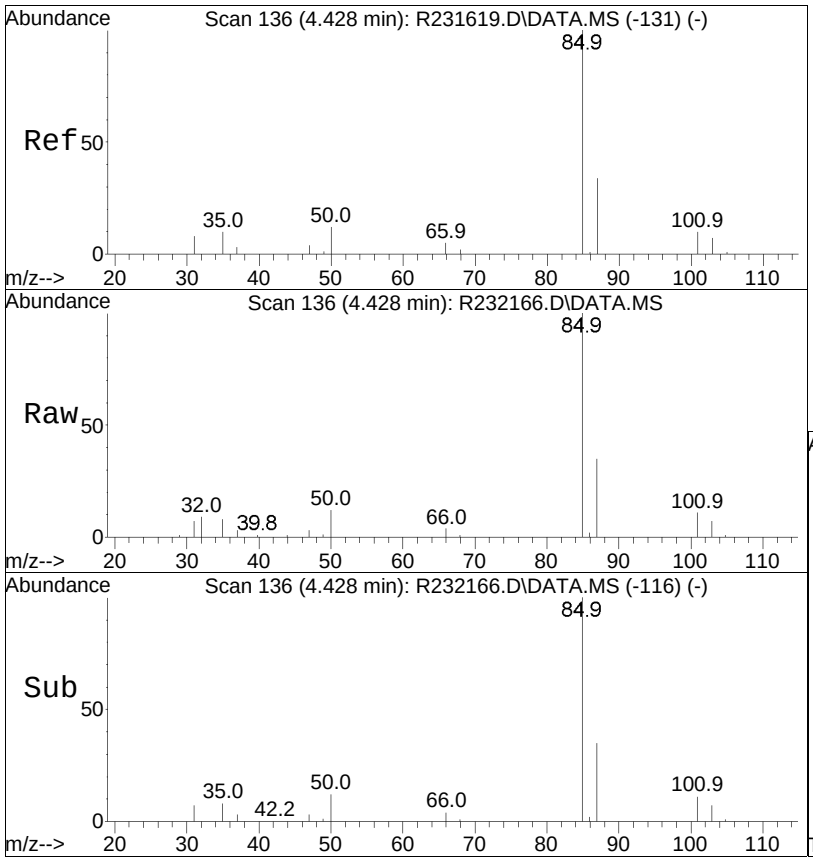
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 17 13:50:50 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\AIR2\2015\150116T\R232153.D

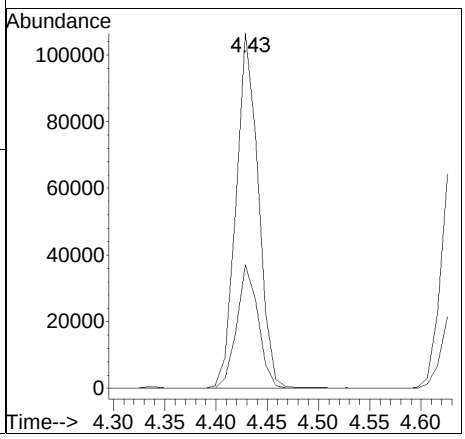


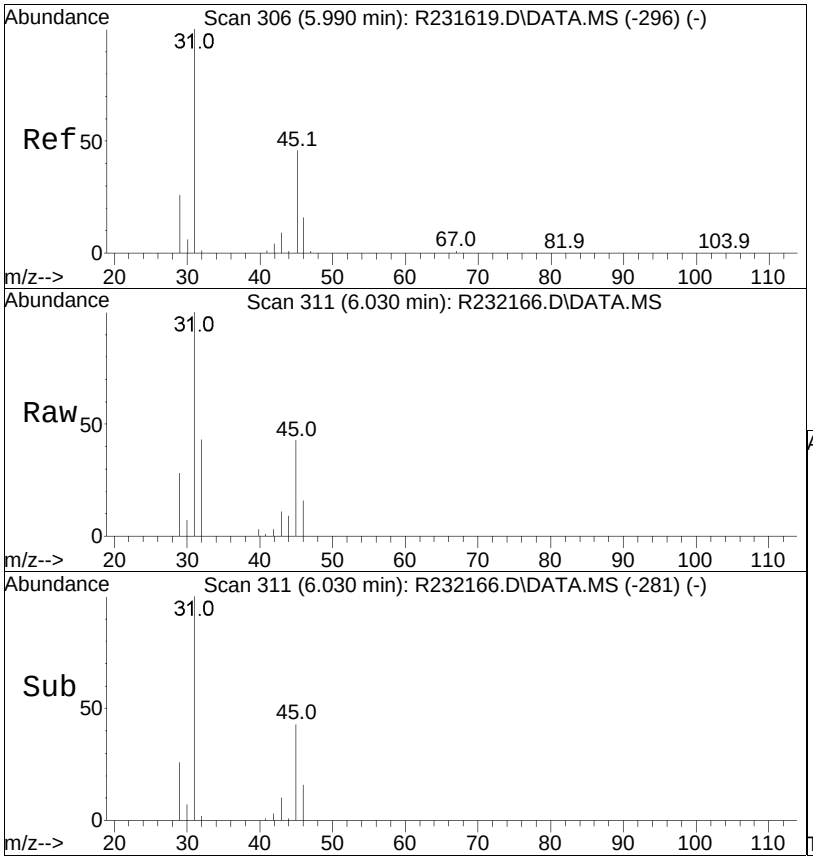


#5
dichlorodifluoromethane
Concen: 6.84 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 85 Resp: 161136

Ion	Ratio	Lower	Upper
85	100		
87	34.8	27.2	40.8

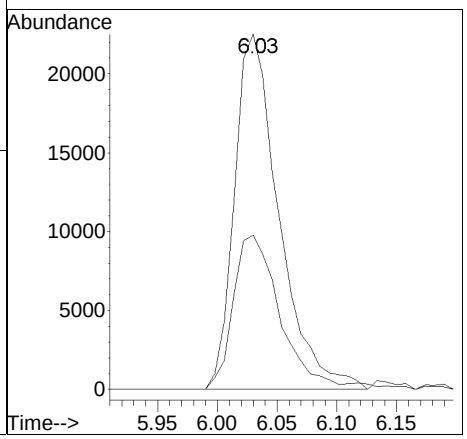


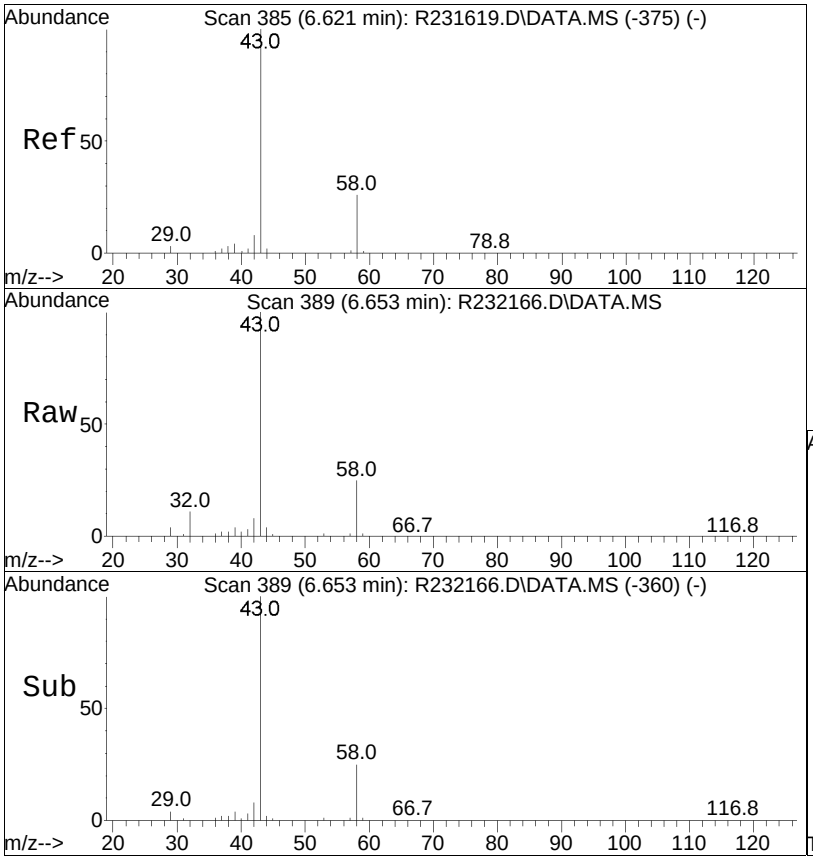


#15
ethanol
Concen: 5.47 ppbV
RT: 6.03 min Scan# 311
Delta R.T. 0.040 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 31 Resp: 58248

Ion	Ratio	Lower	Upper
31	100		
45	43.4	36.8	55.2

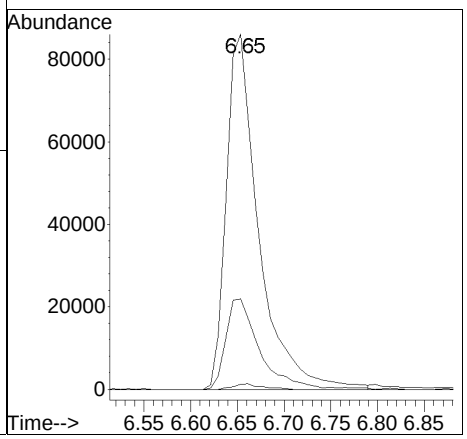


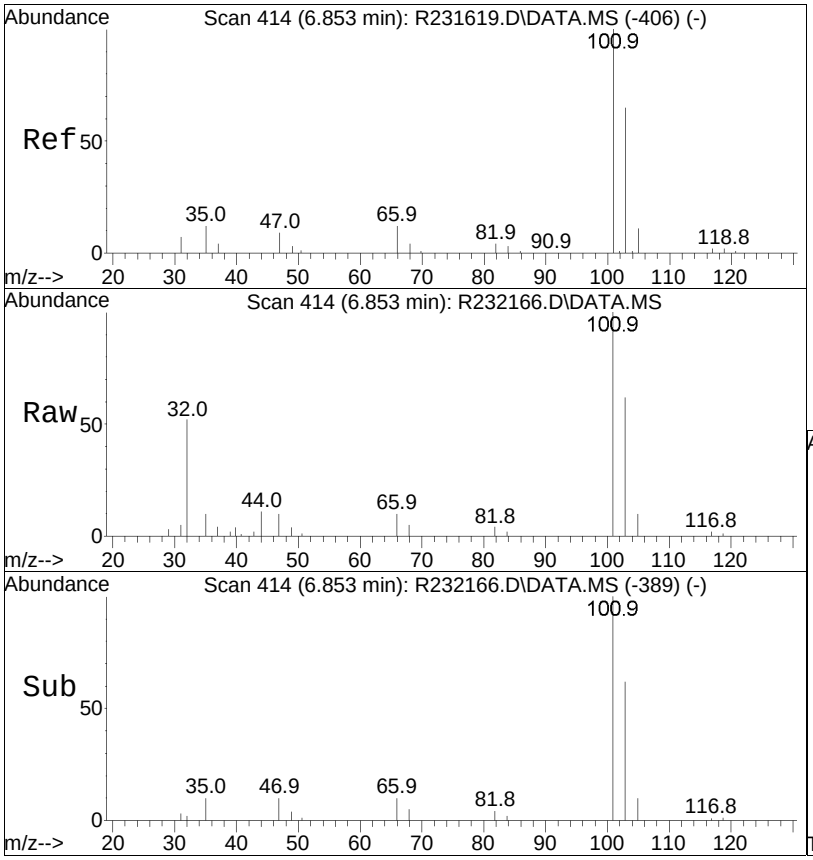


#19
acetone
Concen: 9.69 ppbV
RT: 6.65 min Scan# 389
Delta R.T. 0.032 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 43 Resp: 207706

Ion	Ratio	Lower	Upper
43	100		
58	25.5	20.6	31.0
57	1.4	0.6	1.0#

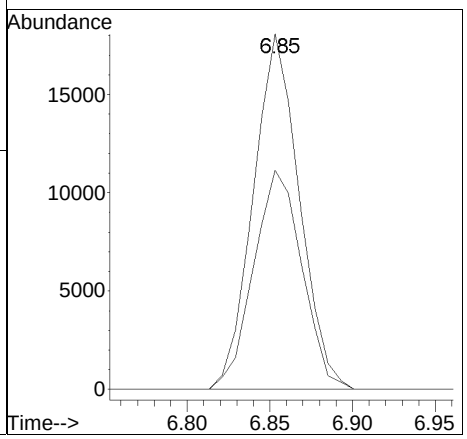


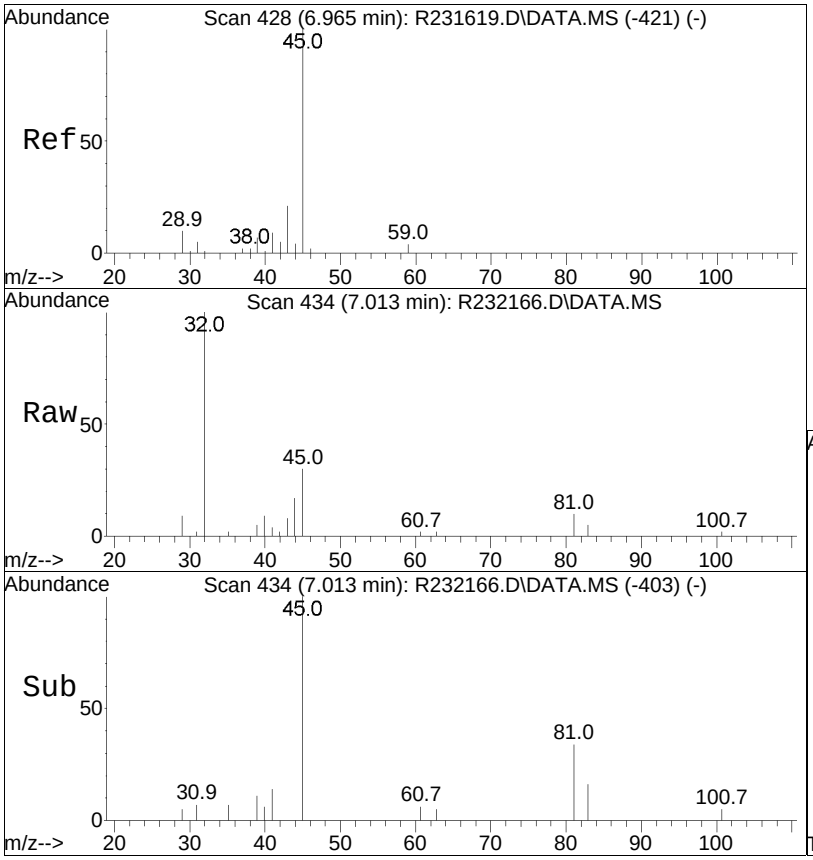


#21
trichlorofluoromethane
Concen: 0.77 ppbV
RT: 6.85 min Scan# 414
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion:101 Resp: 35069

Ion	Ratio	Lower	Upper
101	100		
103	61.7	52.1	78.1

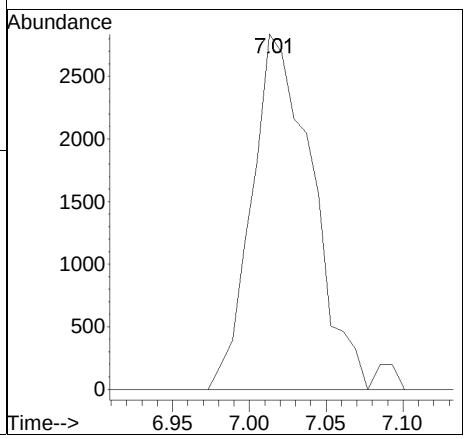


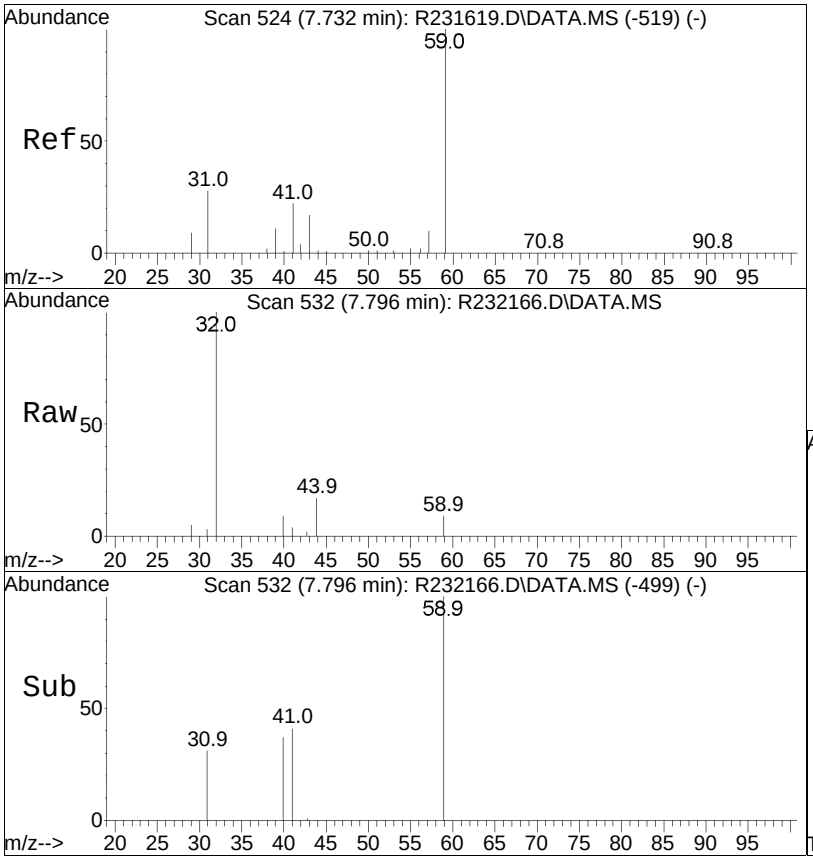


#22
isopropyl alcohol
Concen: 0.33 ppbV
RT: 7.01 min Scan# 434
Delta R.T. 0.048 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 45 Resp: 7759

Ion	Ratio	Lower	Upper
45	100		
59	0.0	3.1	4.7#

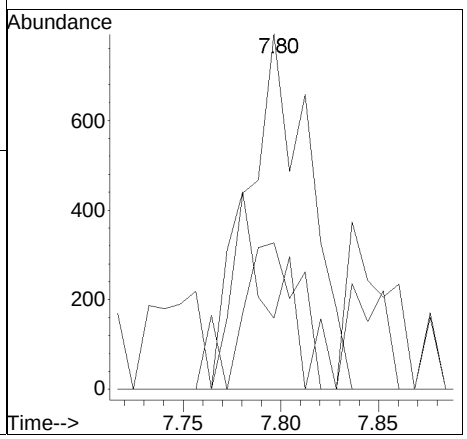


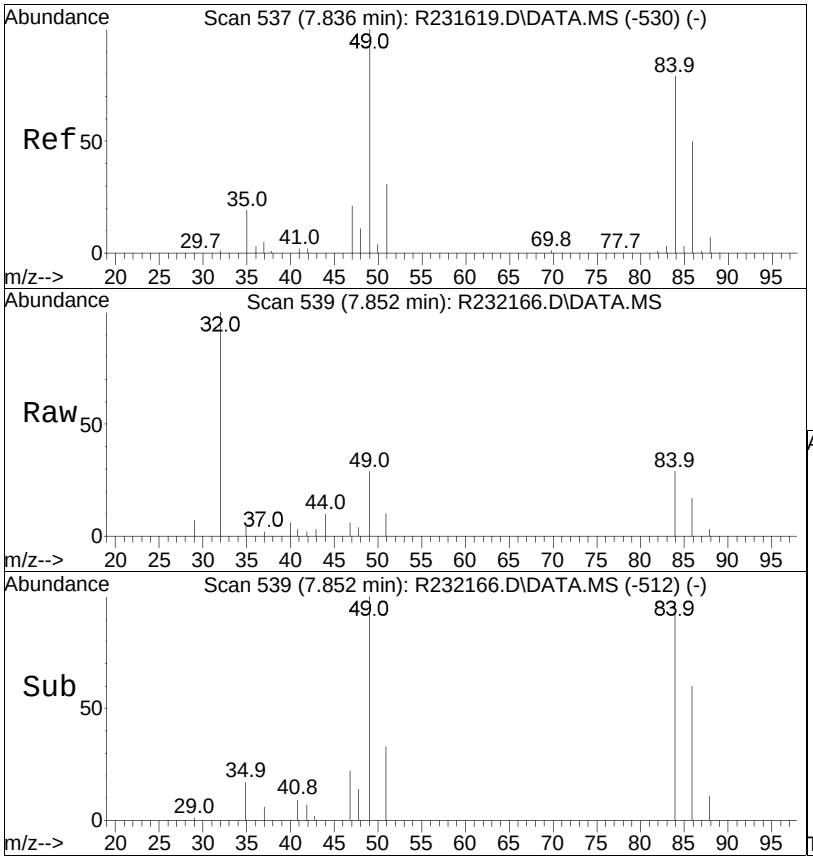


#27
tertiary butyl alcohol
Concen: 0.06 ppbV
RT: 7.80 min Scan# 532
Delta R.T. 0.064 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 59 Resp: 1682

Ion	Ratio	Lower	Upper
59	100		
41	41.2	17.4	26.2#
43	20.1	13.8	20.6

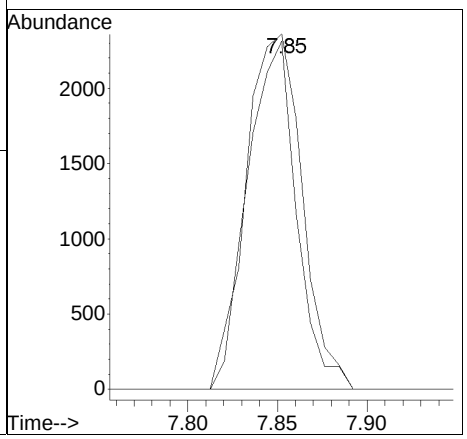


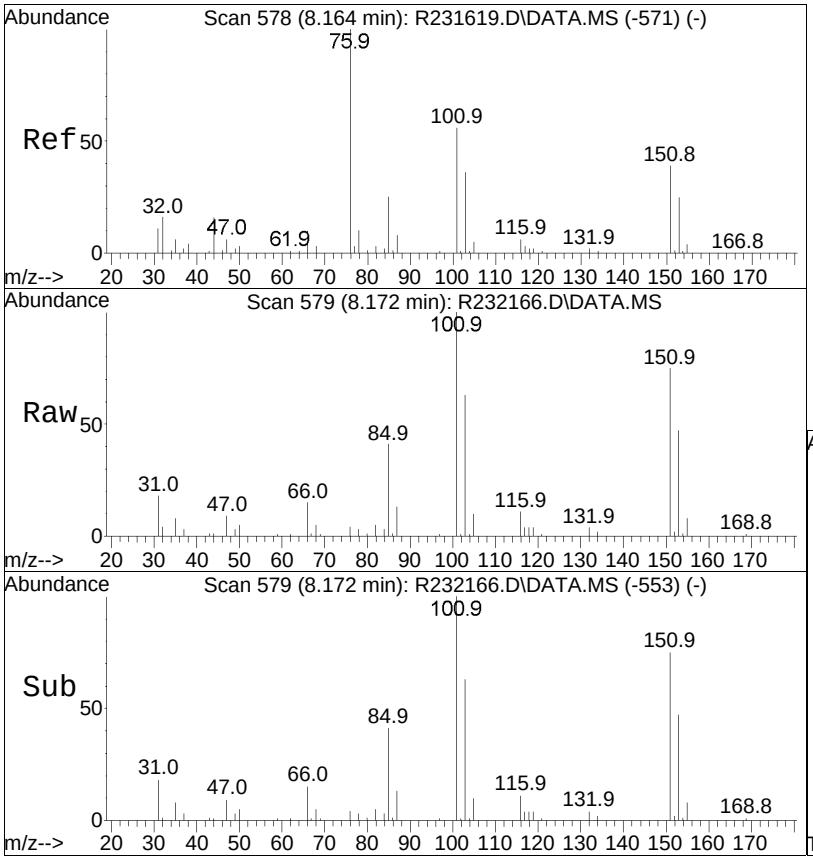


#28
methylene chloride
Concen: 0.32 ppbV
RT: 7.85 min Scan# 539
Delta R.T. 0.016 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 49 Resp: 5159

Ion	Ratio	Lower	Upper
49	100		
84	98.0	63.3	94.9#

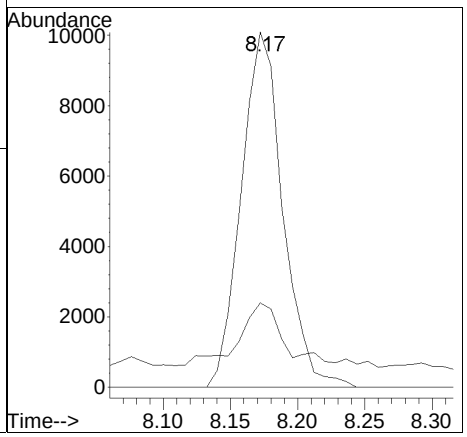


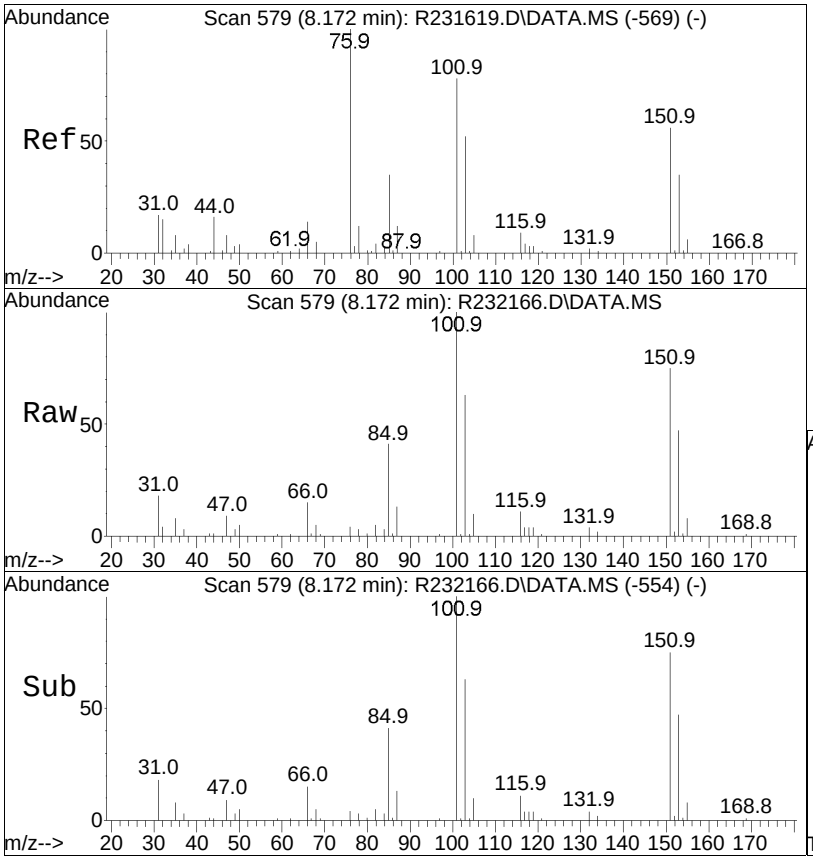


#30
carbon disulfide
Concen: 0.53 ppbV
RT: 8.17 min Scan# 579
Delta R.T. 0.008 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 76 Resp: 21770

Ion	Ratio	Lower	Upper
76	100		
44	23.8	13.9	20.9#

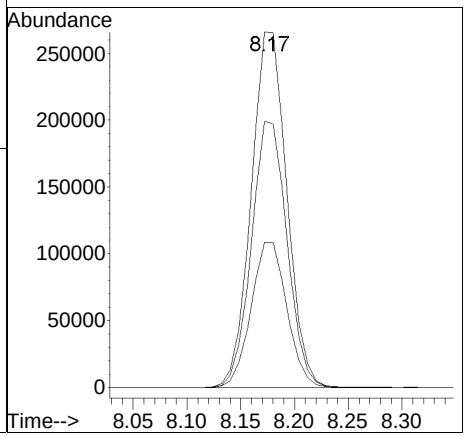


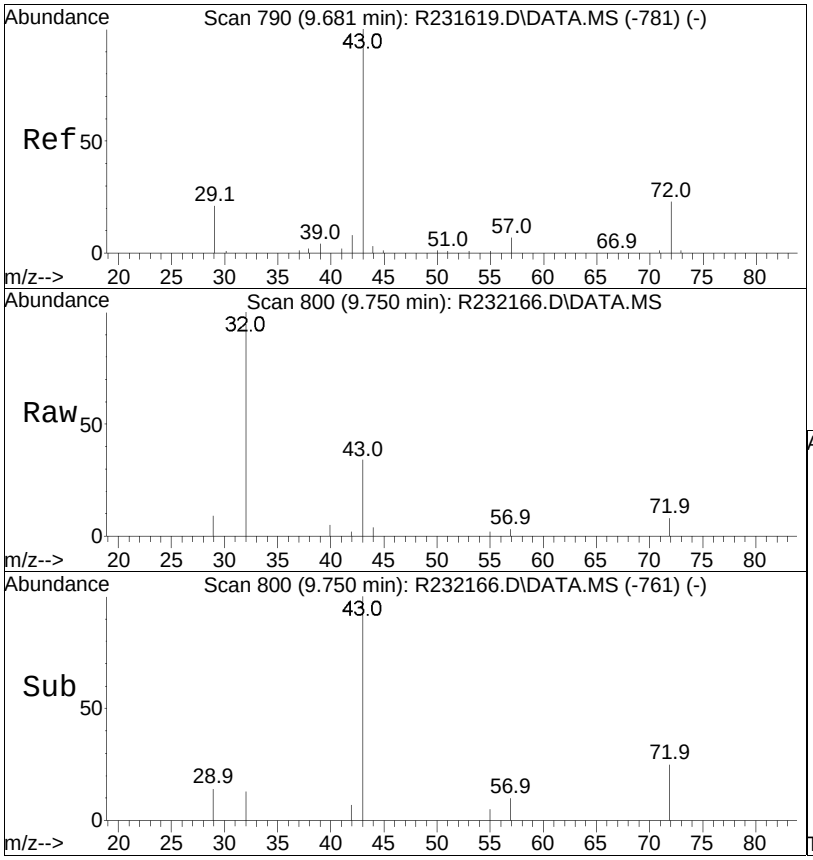


#31
Freon 113
Concen: 19.26 ppbV
RT: 8.17 min Scan# 579
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion:101 Resp: 612724

Ion	Ratio	Lower	Upper
101	100		
85	40.8	35.5	53.3
151	74.9	57.6	86.4

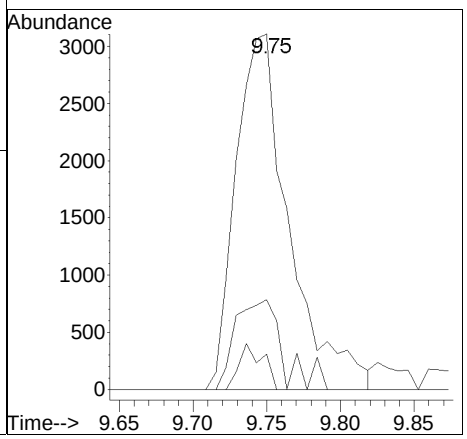


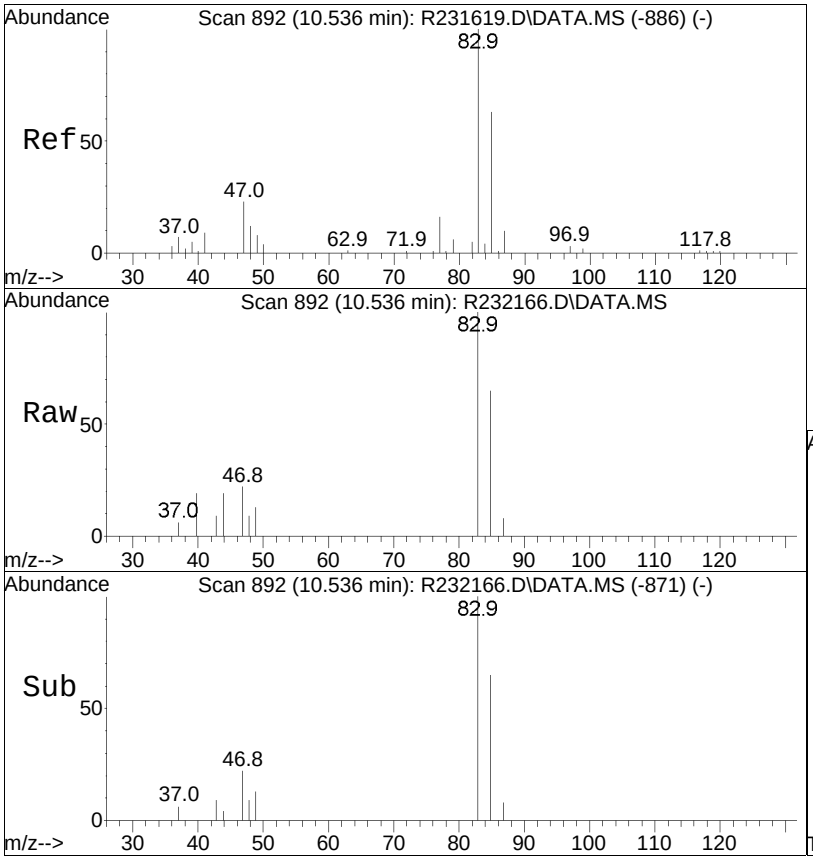


#36
2-butanone
Concen: 0.29 ppbV
RT: 9.75 min Scan# 800
Delta R.T. 0.069 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 43 Resp: 7813

Ion	Ratio	Lower	Upper
43	100		
72	25.2	18.5	27.7
57	9.9	5.4	8.2#

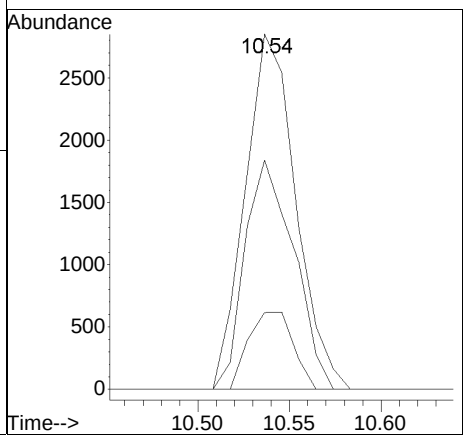


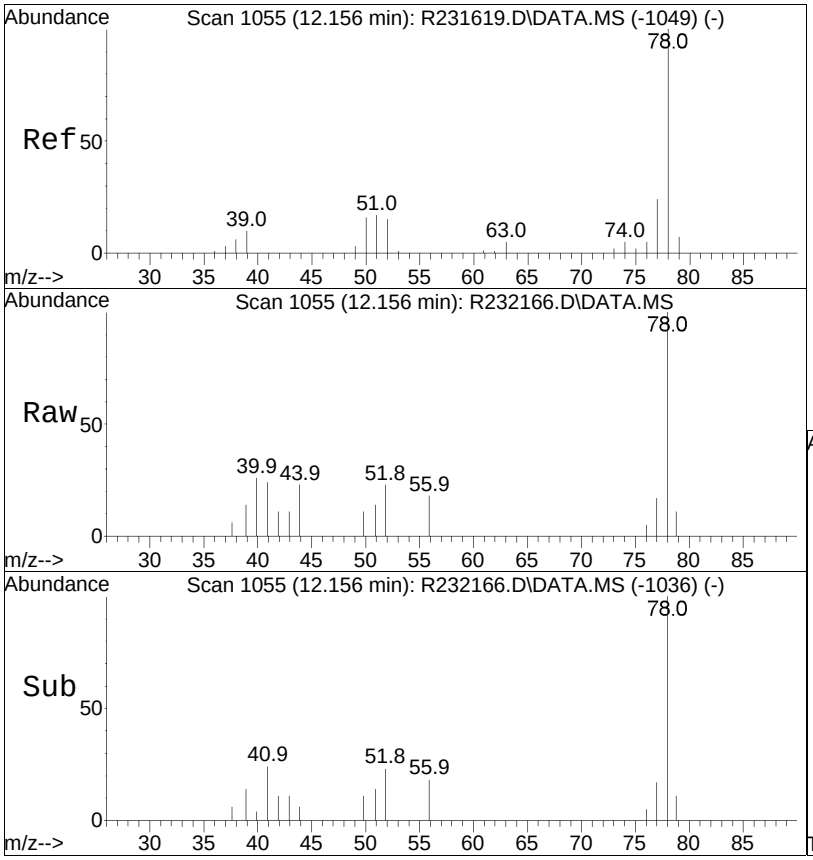


#39
chloroform
Concen: 0.17 ppbV
RT: 10.54 min Scan# 892
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 83 Resp: 5484

Ion	Ratio	Lower	Upper
83	100		
85	64.5	50.6	75.8
47	21.6	18.2	27.4

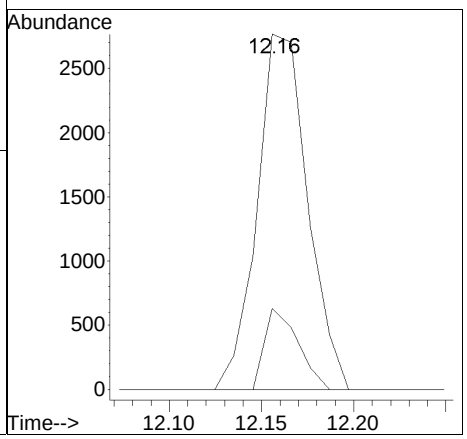


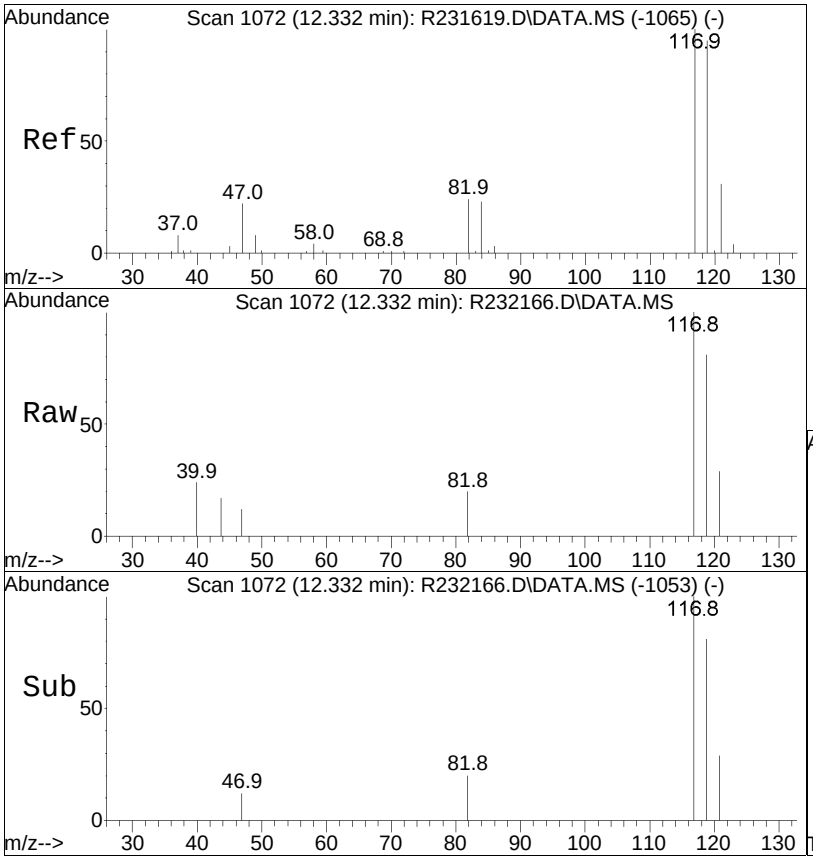


#50
benzene
Concen: 0.12 ppbV
RT: 12.16 min Scan# 1055
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 78 Resp: 5265

Ion	Ratio	Lower	Upper
78	100		
52	22.8	11.6	17.4#

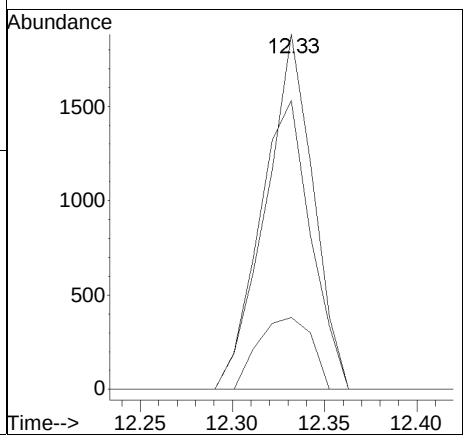


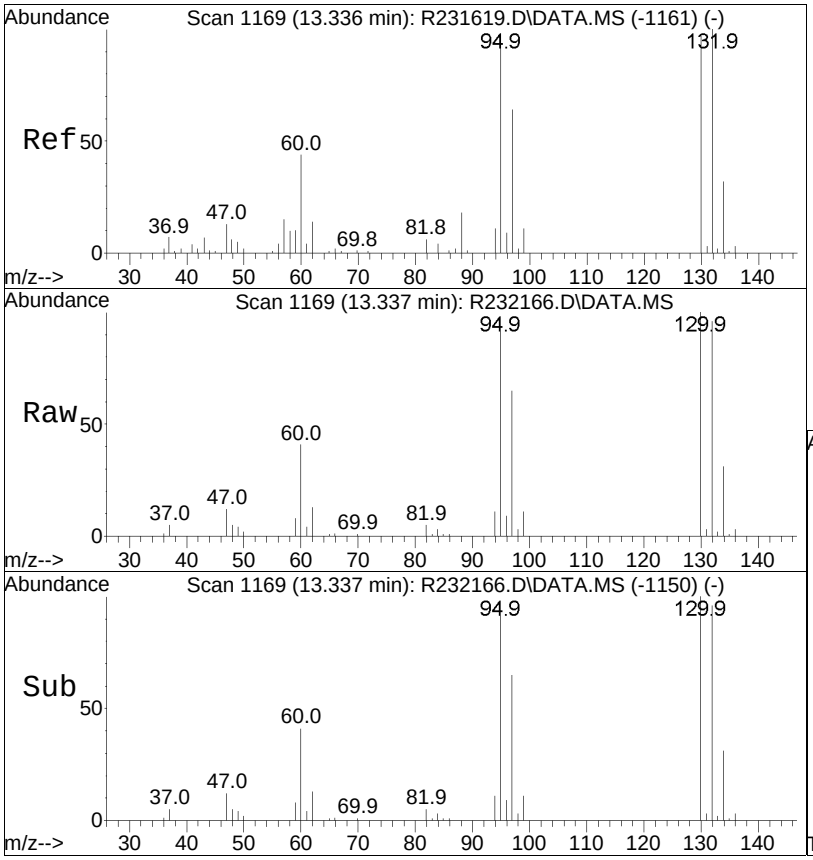


#52
carbon tetrachloride
Concen: 0.08 ppbV
RT: 12.33 min Scan# 1072
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion:117 Resp: 3380

Ion	Ratio	Lower	Upper
117	100		
119	81.3	76.2	114.4
82	20.2	19.1	28.7

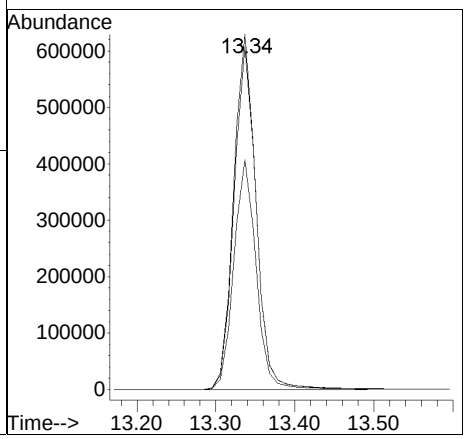


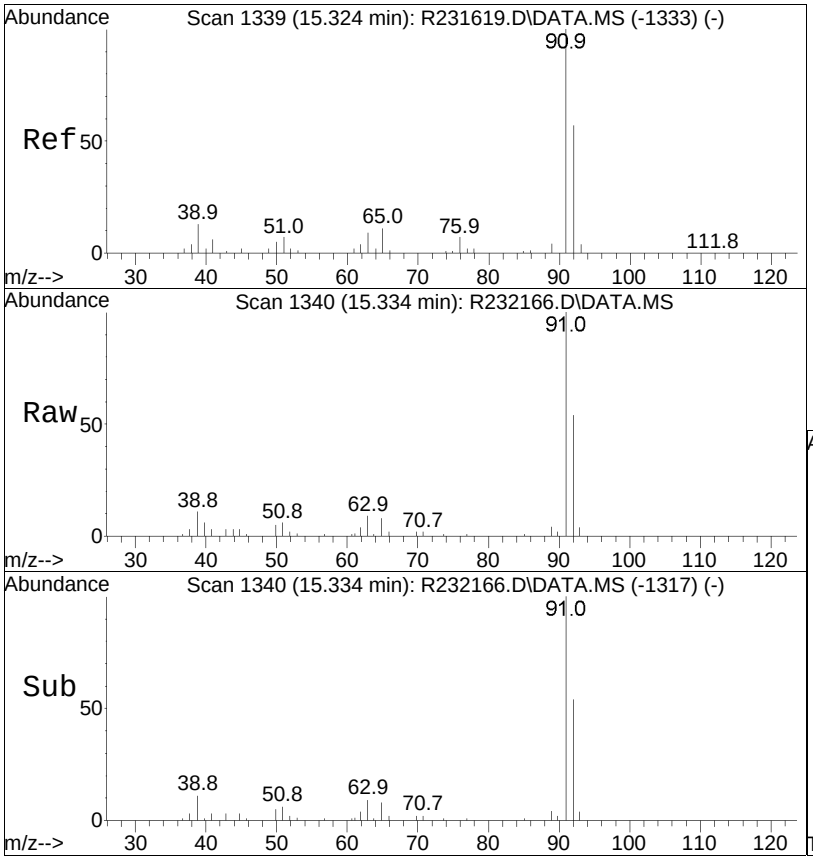


#59
trichloroethene
Concen: 53.11 ppbV
RT: 13.34 min Scan# 1169
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion:130 Resp: 1238016

Ion	Ratio	Lower	Upper
130	100		
132	96.4	81.7	122.5
97	64.6	52.6	78.8

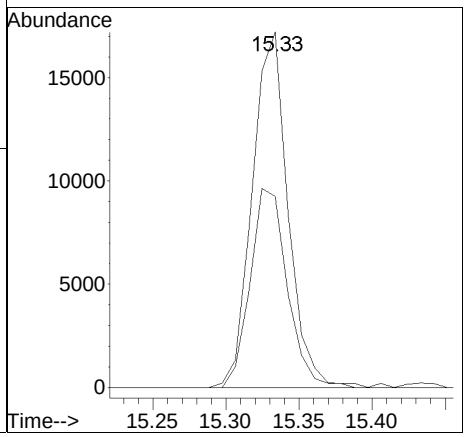


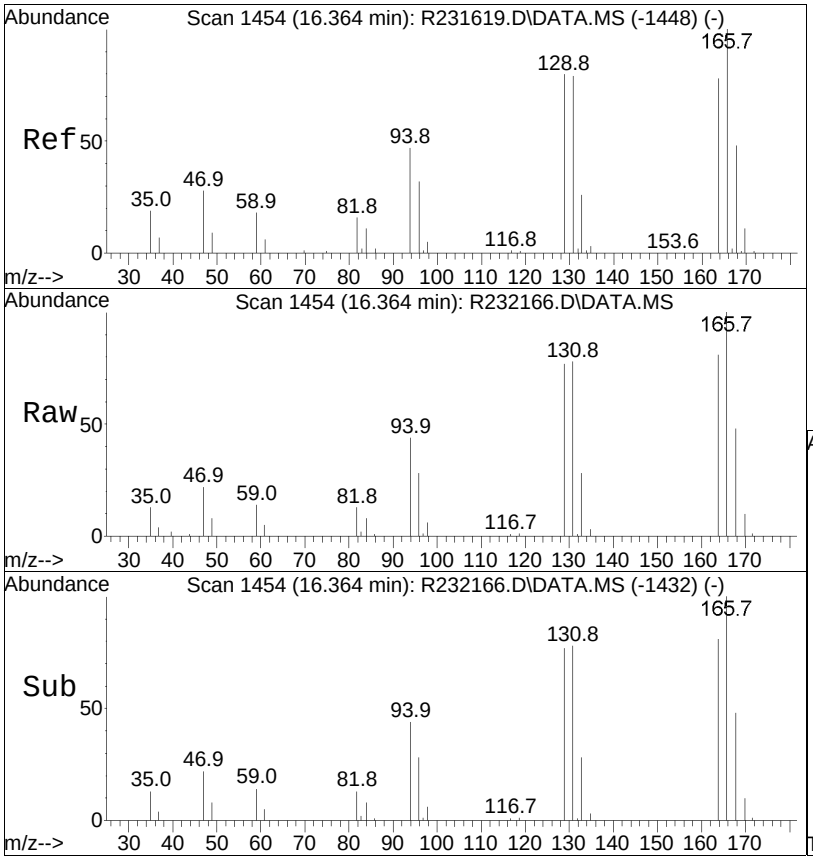


#68
toluene
Concen: 0.46 ppbV
RT: 15.33 min Scan# 1340
Delta R.T. 0.009 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 91 Resp: 29254

Ion	Ratio	Lower	Upper
91	100		
92	53.8	46.0	69.0

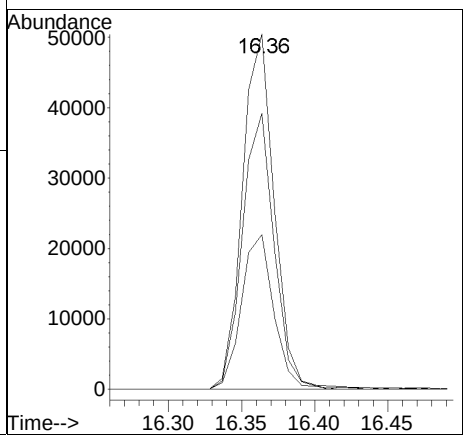


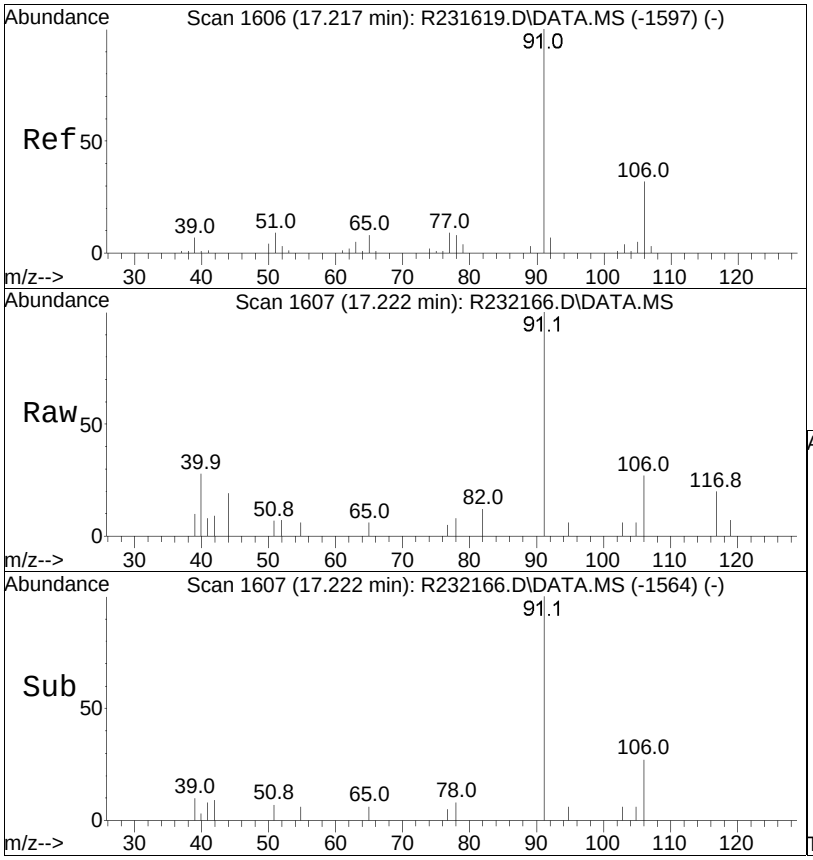


#78
tetrachloroethene
Concen: 2.36 ppbV
RT: 16.36 min Scan# 1454
Delta R.T. 0.000 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion:166 Resp: 76448

Ion	Ratio	Lower	Upper
166	100		
131	77.6	63.0	94.6
94	43.6	37.9	56.9

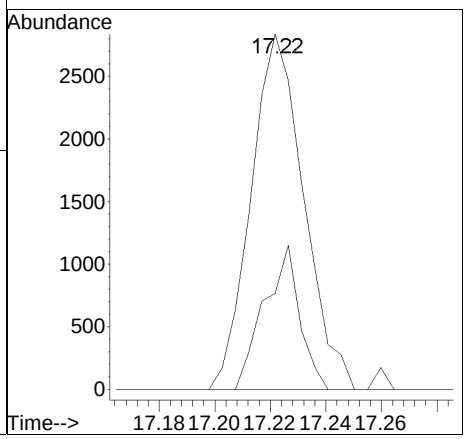


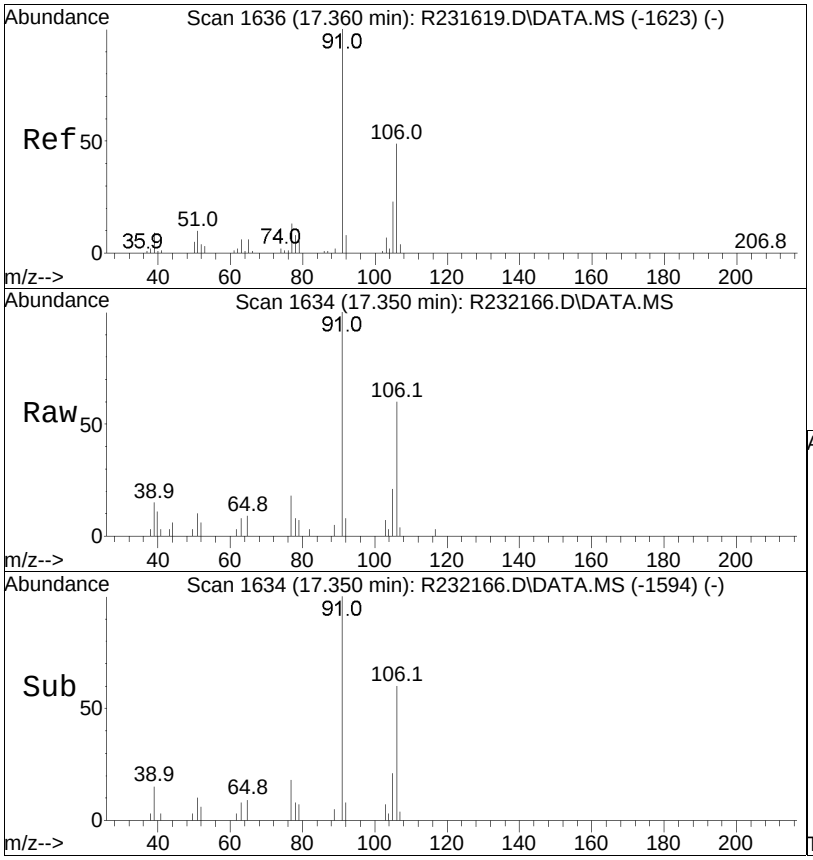


#81
ethylbenzene
Concen: 0.06 ppbV
RT: 17.22 min Scan# 1607
Delta R.T. 0.005 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 91 Resp: 3747

Ion	Ratio	Lower	Upper
91	100		
106	27.0	25.4	38.0

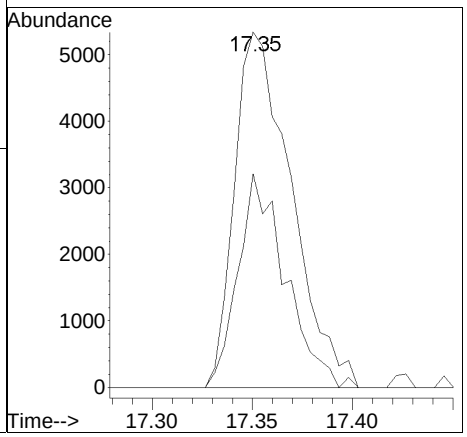


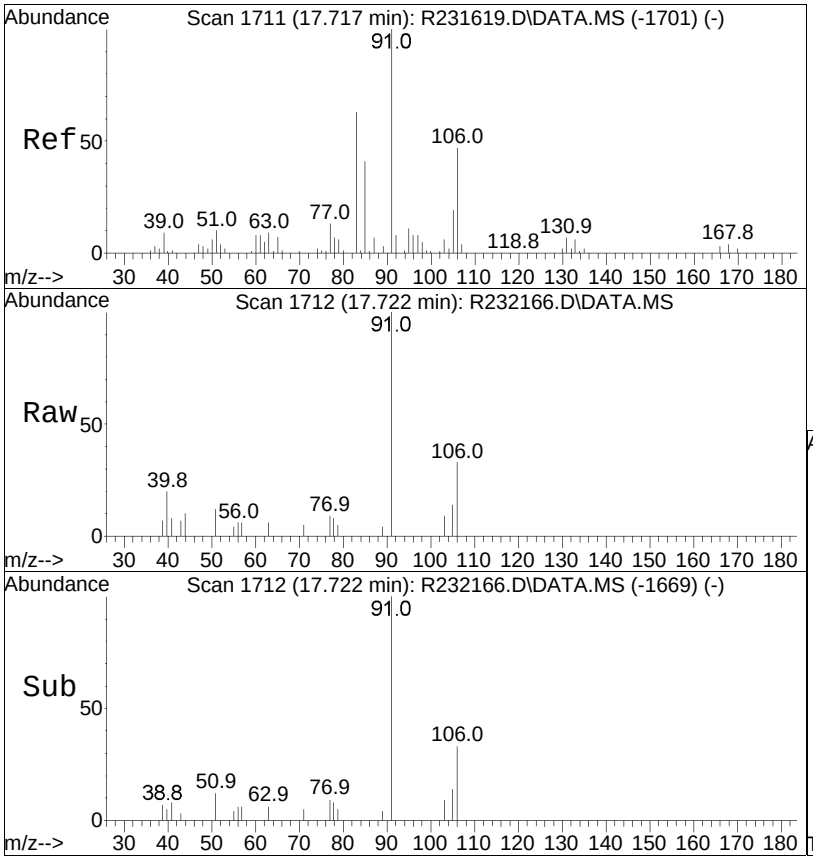


#83
m+p-xylene
Concen: 0.21 ppbV
RT: 17.35 min Scan# 1634
Delta R.T. -0.009 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 91 Resp: 10492

Ion	Ratio	Lower	Upper
91	100		
106	60.1	39.0	58.4#

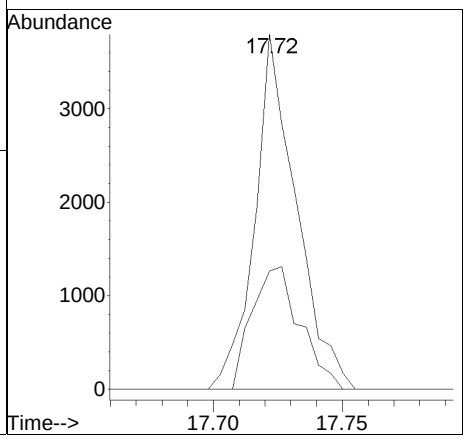


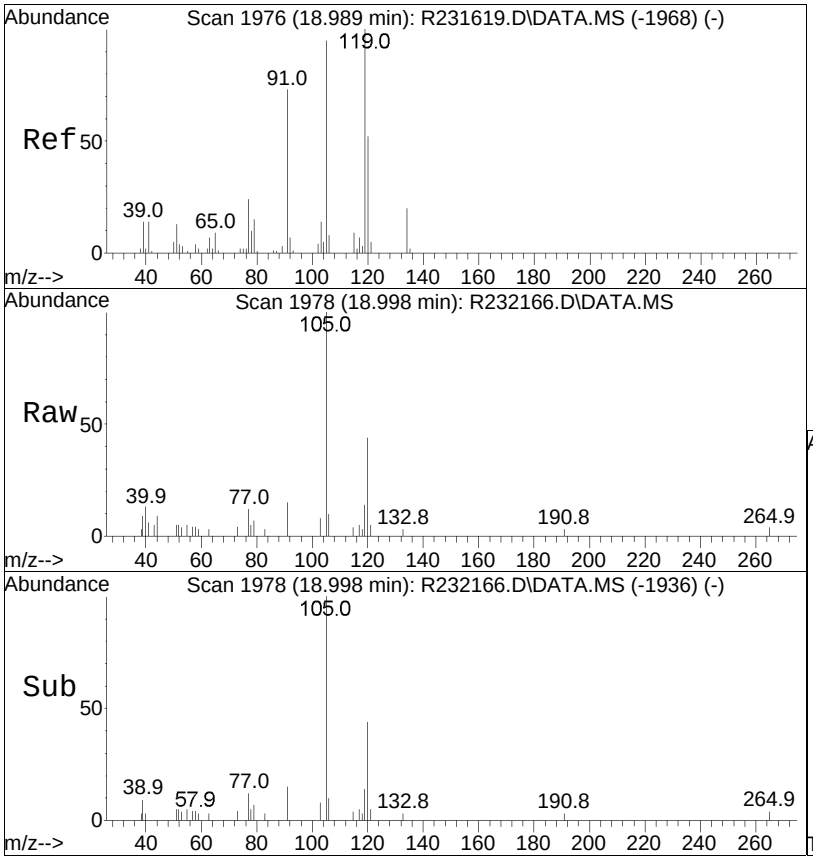


#87
o-xylene
Concen: 0.08 ppbV
RT: 17.72 min Scan# 1712
Delta R.T. 0.005 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion: 91 Resp: 4247

Ion	Ratio	Lower	Upper
91	100		
106	33.3	37.6	56.4#

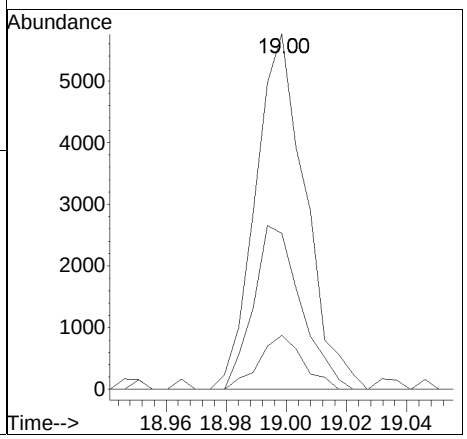




#99
1,2,4-trimethylbenzene
Concen: 0.11 ppbV
RT: 19.00 min Scan# 1978
Delta R.T. 0.010 min
Lab File: R232166.D
Acq: 16 Jan 2015 8:53 pm

Tgt Ion:105 Resp: 6639

Ion	Ratio	Lower	Upper
105	100		
120	43.9	43.4	65.0
91	15.2	61.4	92.0#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2015Q	Method	: TALL141214.M
Data File	: R232166.D	Operator	: AIRPIANO2:RY
Date Inj'd	: 1/16/2015 8:53 pm	Instrument	: Air Piano 2
Sample	: L1500977-03,3,250,250	Quant Date	: 1/17/2015 8:08 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500977-03	Date Collected	: 01/15/15 14:00
Client ID	: CR011515-SS-DUP	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/16/15 20:53
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232166	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 5 **Concentration Units: ppbV**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000075-68-3	Ethane, 1-chloro-1,1-difluoro-	4.64	20	NJ
000067-56-1	Methyl Alcohol	4.94	2.7	NJ
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.55	1.9	NJ
	unknown siloxane	18.90	4.7	J
	unknown siloxane	20.38	4.4	J
	Total TIC Compounds		33.7	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R232166.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.133	103	106	112	rVB	15567	28392	0.42%	0.149%
2	4.231	113	116	119	rVV2	6591	15475	0.23%	0.081%
3	4.291	119	122	125	rVV	24613	41254	0.61%	0.216%
4	4.350	125	128	132	rVB2	13694	31928	0.47%	0.168%
5	4.429	132	136	140	rBV	209845	309207	4.59%	1.622%
6	4.636	152	157	161	rBV	911430	1523097	22.61%	7.992%
7	4.833	174	177	179	rBV	18487	34872	0.52%	0.183%
8	4.941	184	188	202	rVB	97922	203656	3.02%	1.069%
9	5.247	217	219	223	rVB3	7387	15276	0.23%	0.080%
10	6.030	306	311	320	rBV	46354	118043	1.75%	0.619%
11	6.653	380	389	400	rBV	134372	353483	5.25%	1.855%
12	6.853	409	414	420	rVB	42503	87550	1.30%	0.459%
13	7.021	430	435	441	rBV3	8169	21832	0.32%	0.115%
14	7.844	535	538	544	rVB2	10209	20042	0.30%	0.105%
15	8.172	572	579	590	rBV	1292696	2983817	44.28%	15.656%
16	9.283	727	732	739	rBV2	22400	51874	0.77%	0.272%
17	9.736	795	798	802	rBV4	5588	9429	0.14%	0.049%
18	10.386	871	876	888	rBV	359755	748837	11.11%	3.929%
19	10.546	889	893	896	rVB2	6454	13788	0.20%	0.072%
20	12.166	1052	1056	1064	rVB2	8995	21752	0.32%	0.114%
21	12.332	1068	1072	1075	rVB	4355	8376	0.12%	0.044%
22	12.549	1088	1093	1100	rBV	684523	1275802	18.94%	6.694%
23	12.933	1126	1130	1133	rVB4	3119	6785	0.10%	0.036%
24	13.337	1164	1169	1189	rBV	3398608	6737790	100.00%	35.354%
25	15.180	1319	1323	1332	rBV5	3380	9825	0.15%	0.052%
26	15.334	1335	1340	1344	rBV	41126	72749	1.08%	0.382%
27	15.813	1389	1393	1397	rBV3	6249	11909	0.18%	0.062%
28	15.867	1397	1399	1403	rVB	3347	6814	0.10%	0.036%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	16.210	1435	1437	1441	rVB2	7791	10990	0.16%	0.058%
30	16.364	1450	1454	1462	rBV	302243	457400	6.79%	2.400%
31	16.554	1470	1475	1481	rVB	148723	307810	4.57%	1.615%
32	16.893	1529	1538	1559	rBV	1100740	1606700	23.85%	8.431%
33	17.226	1601	1608	1611	rBV3	6543	9517	0.14%	0.050%
34	17.350	1629	1634	1646	rVB	16620	30633	0.45%	0.161%
35	17.722	1706	1712	1719	rVB	9290	11364	0.17%	0.060%
36	18.450	1861	1865	1873	rVB6	5009	7062	0.10%	0.037%
37	18.607	1890	1898	1902	rBV	8684	11295	0.17%	0.059%
38	18.898	1948	1957	1973	rBV	416306	748026	11.10%	3.925%
39	18.998	1973	1978	1983	rVB	16178	19041	0.28%	0.100%
40	19.041	1983	1987	1991	rBV3	9032	10660	0.16%	0.056%
41	19.317	2037	2045	2047	rBV5	10222	17328	0.26%	0.091%
42	19.413	2060	2065	2072	rBV2	78717	91972	1.37%	0.483%
43	19.941	2171	2176	2181	rBV5	16494	33308	0.49%	0.175%
44	19.984	2183	2185	2196	rVB5	12175	17341	0.26%	0.091%
45	20.384	2259	2269	2282	rBV	393364	698518	10.37%	3.665%
46	20.861	2323	2327	2331	rBV	31476	56590	0.84%	0.297%
47	20.989	2336	2339	2340	rVV	8005	14633	0.22%	0.077%
48	21.086	2343	2348	2352	rVB4	3569	8609	0.13%	0.045%
49	21.568	2386	2393	2398	rVB6	2267	8436	0.13%	0.044%
50	21.697	2402	2405	2408	rBV3	4087	7538	0.11%	0.040%
51	21.783	2410	2413	2416	rBV	28843	41787	0.62%	0.219%
52	22.126	2442	2445	2447	rBV3	3956	8013	0.12%	0.042%
53	22.297	2458	2461	2464	rBV3	4105	10967	0.16%	0.058%
54	22.404	2469	2471	2473	rVV2	4995	8910	0.13%	0.047%
55	22.458	2473	2476	2481	rVB3	3743	10774	0.16%	0.057%
56	22.651	2491	2494	2501	rVB4	6070	14064	0.21%	0.074%
57	22.854	2509	2513	2518	rBV5	5466	15157	0.22%	0.080%

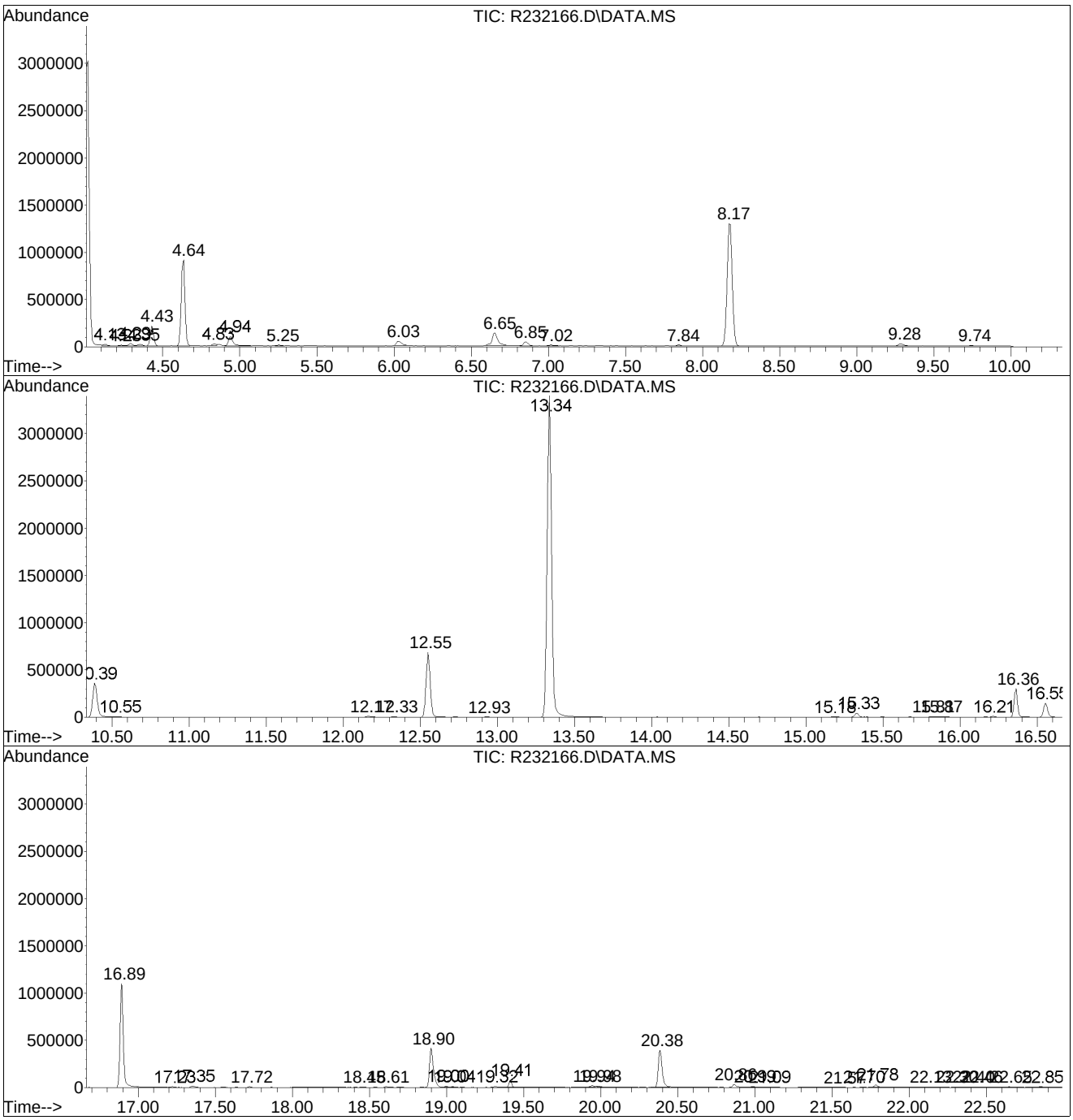
Sum of corrected areas: 19058097

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

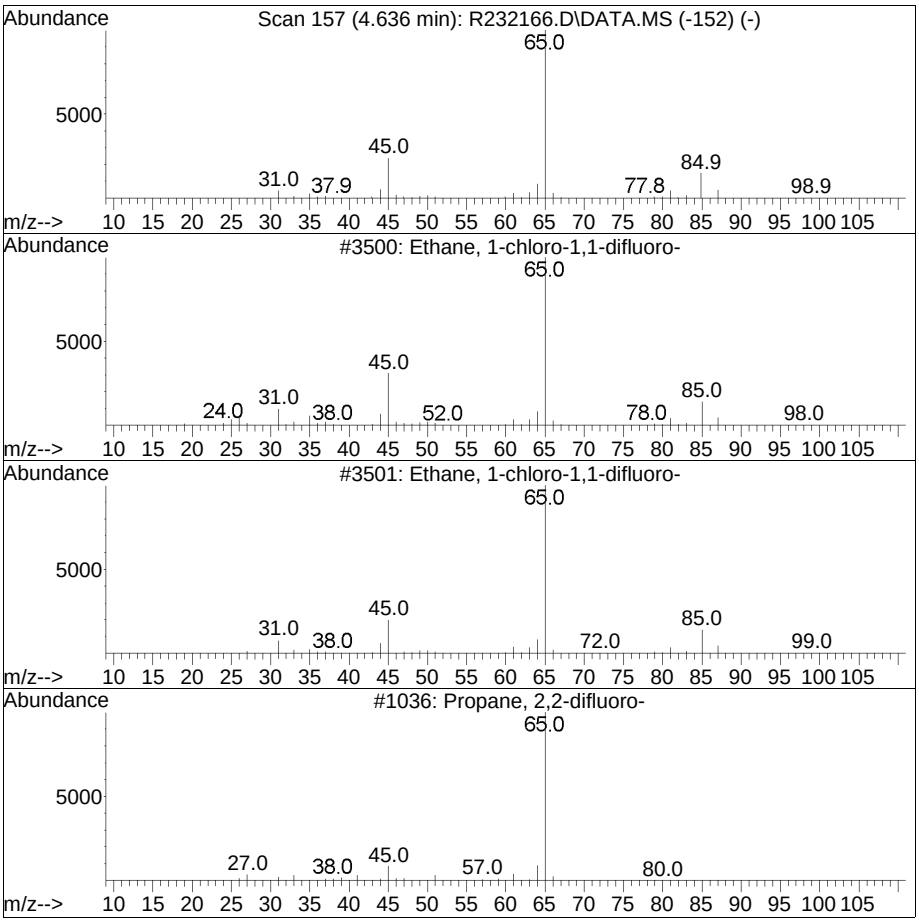
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

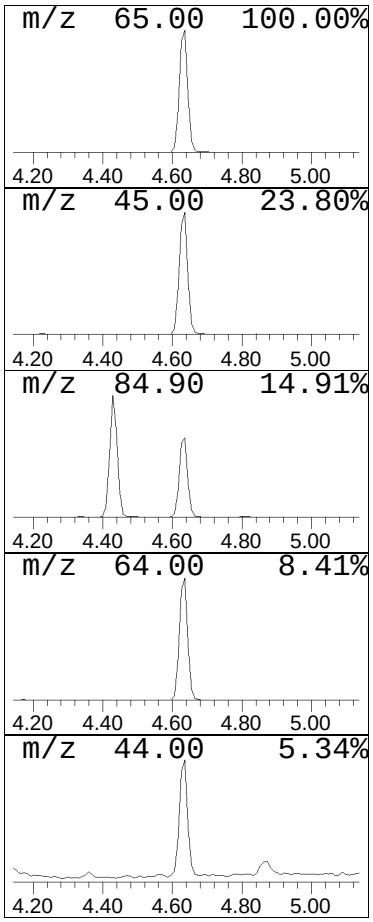
****

Peak Number 1 Ethane, 1-chloro-1,1-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.64	20.34 ppbV	1523100	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	83
2	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	43
3	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	43
4	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	9
5	Benzene, 1-nitro-2-(p-methylphen...	247	C13H10FNO3	028987-57-7	1





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

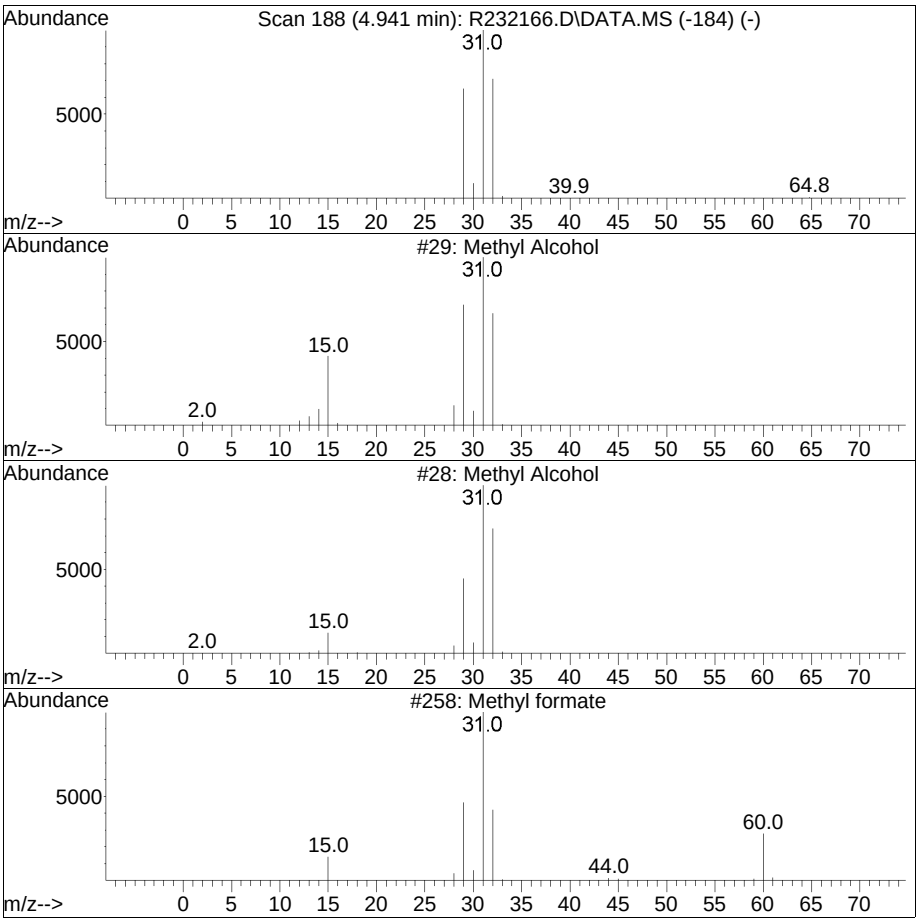
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

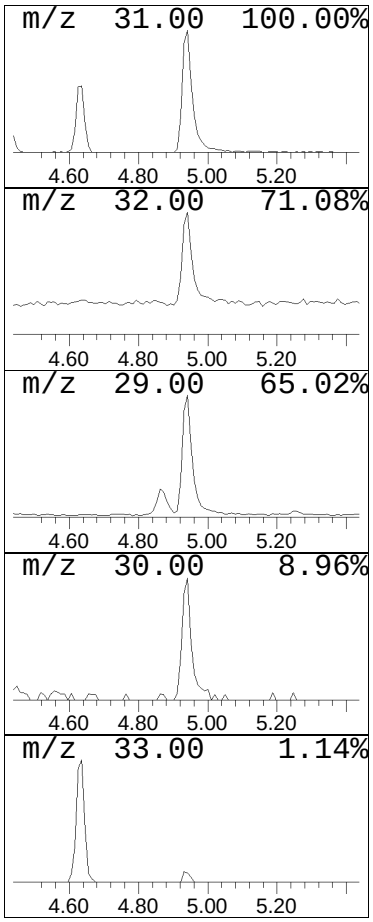
****

Peak Number 2 Methyl Alcohol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.94	2.72 ppbV	203656	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl Alcohol	32	CH4O	000067-56-1	4
2	Methyl Alcohol	32	CH4O	000067-56-1	4
3	Methyl formate	60	C2H4O2	000107-31-3	4
4	Methyl formate	60	C2H4O2	000107-31-3	4
5	Glycolaldehyde dimer	120	C4H8O4	023147-58-2	2





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

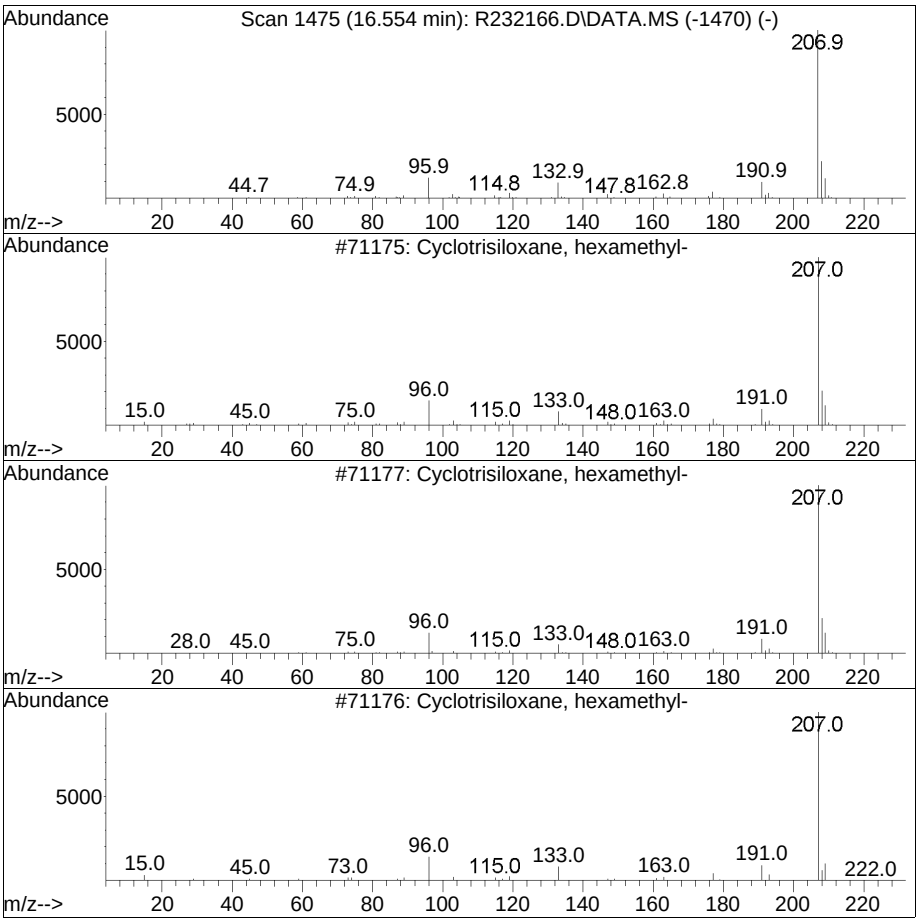
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

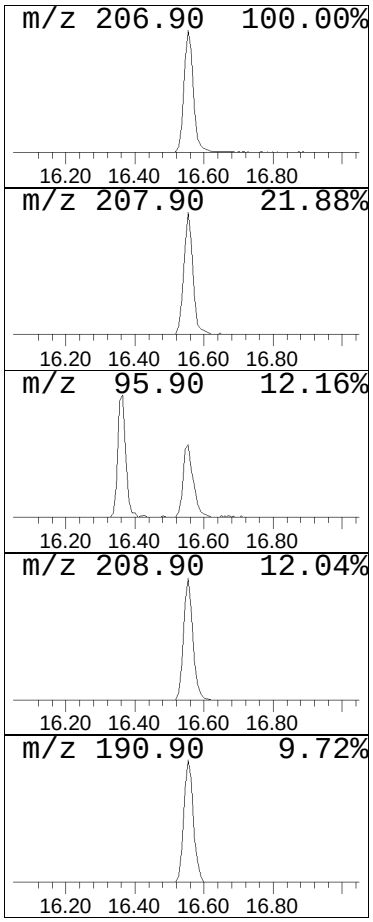
****

Peak Number 3 Cyclotrisiloxane, hexamethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.55	1.92 ppbV	307810	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	38
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	38





Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

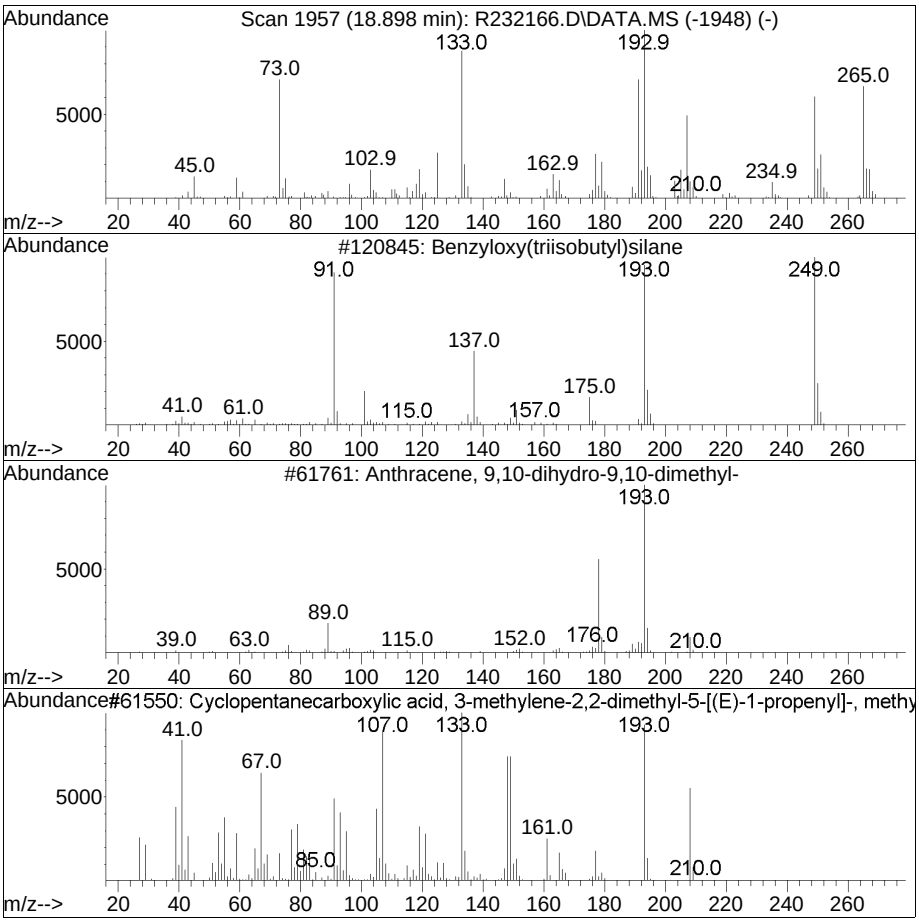
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

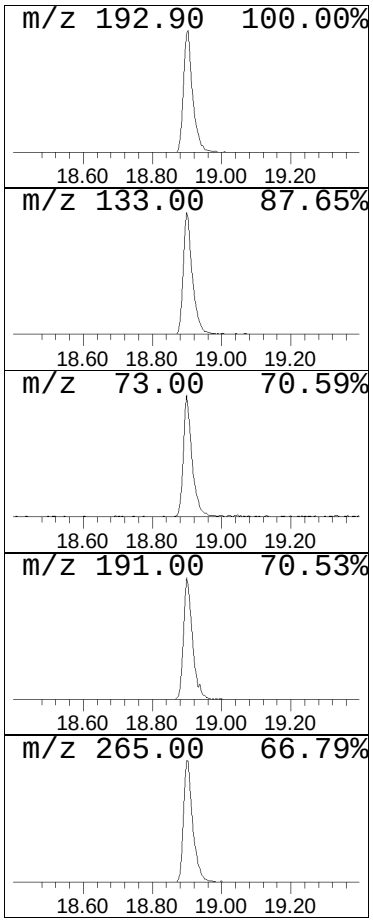
****

Peak Number 4 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.90	4.66 ppbV	748026	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzyloxy(triisobutyl)silane	306	C19H34OSi	1000282-18-0	22
2	Anthracene, 9,10-dihydro-9,10-di...	208	C16H16	022566-43-4	11
3	Cyclopentanecarboxylic acid, 3-m...	208	C13H20O2	1000159-44-4	11
4	m-Nitrobenzaldehyde dimethylhydr...	193	C9H11N3O2	032787-76-1	11
5	Disiloxane, pentamethyl-	148	C5H16OSi2	001438-82-0	11





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

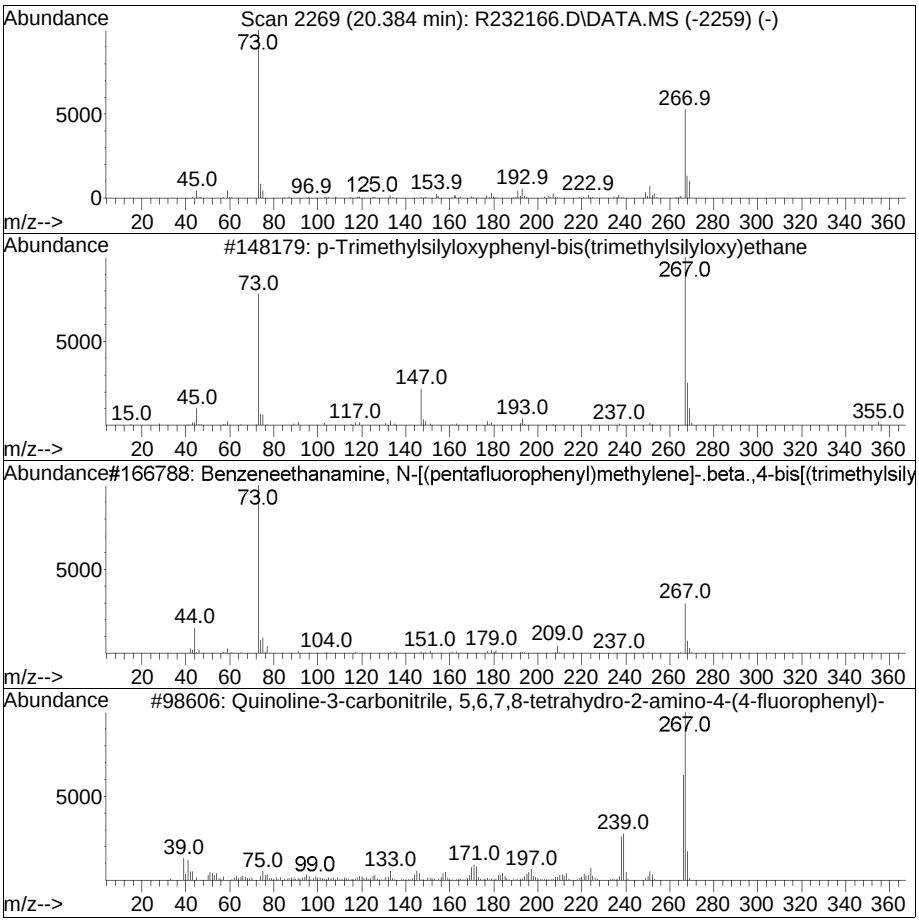
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

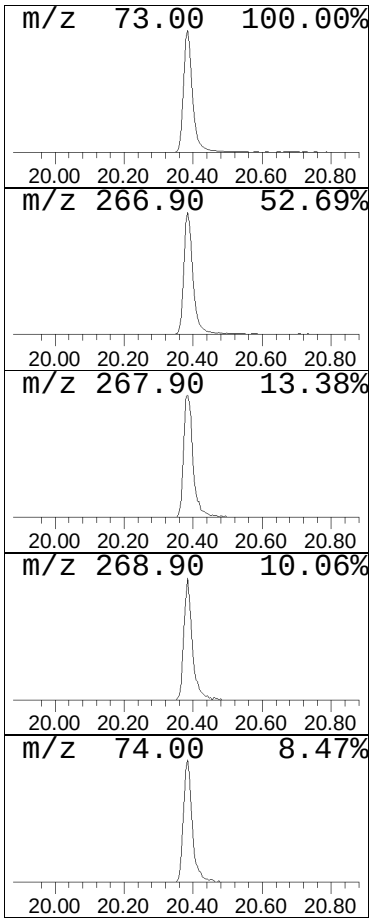
****

Peak Number 5 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.38	4.35 ppbV	698518	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	50
2	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	50
3	Quinoline-3-carbonitrile, 5,6,7,...	267	C16H14FN3	329693-03-0	47
4	3,6-Bis(N,N-dimethylamino)-9-met...	267	C17H21N3	119046-55-8	47
5	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	45





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232166.D
Acq On : 16 Jan 2015 8:53 pm
Operator : AIRPIANO2:RY
Sample : L1500977-03,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Ethane, 1-chlor...	4.64	20.3	ppbV	1523100	1	10.39	748837	10.0
Methyl Alcohol	4.94	2.7	ppbV	203656	1	10.39	748837	10.0
Cyclotrisiloxan...	16.55	1.9	ppbV	307810	3	16.89	1606700	10.0
unknown siloxane	18.90	4.7	ppbV	748026	3	16.89	1606700	10.0
unknown siloxane	20.38	4.3	ppbV	698518	3	16.89	1606700	10.0

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

Calibration Files

0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D

50 =R231621.D 100 =R231622.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.663	1.375	1.287	1.187	1.178	1.114	1.089	1.027	1.2399	16.41
3)		propylene	0.788	0.673	0.627	0.569	0.566	0.530	0.525	0.488	0.5958	16.33
4)		propane	1.113	0.976	0.816	0.690	0.658	0.625	0.628	0.566	0.7590	25.55
5)		dichlorodifluoromethane	2.344	1.617	1.436	1.393	1.546	1.271	1.581	0.971	1.5198	25.83
6)	C	chloromethane	1.019	0.841	0.718	0.700	0.657	0.628	0.611	0.574	0.7185	20.38
7)		Freon-114	3.096	2.904	2.788	2.710	2.634	2.502	2.365	2.109	2.6386	11.82
8)	C	methanol			0.420	0.346	0.334	0.289	0.282	0.268	0.3232	17.50
9)	C	vinyl chloride	0.953	0.838	0.862	0.833	0.808	0.770	0.736	0.697	0.8121	9.80
10)	C	1,3-butadiene	0.639	0.652	0.590	0.608	0.581	0.542	0.526	0.496	0.5791	9.44
11)		butane	1.743	1.514	1.467	1.307	1.246	1.211	1.168	1.098	1.3442	15.98
12)	C	acetaldehyde			0.659	0.661	0.581	0.561	0.530	0.490	0.436	0.5597	14.90
13)	C	bromomethane	1.168	1.061	0.963	0.944	0.916	0.861	0.817	0.753	0.9353	14.24
14)	C	chloroethane	0.488	0.501	0.445	0.415	0.404	0.383	0.365	0.337	0.4173	13.82
15)		ethanol			0.762	0.719	0.723	0.691	0.666	0.649	0.599	0.6870	7.89
16)		dichlorofluoromethane	2.506	2.269	2.244	2.060	1.961	1.887	1.811	1.675	2.0517	13.36
17)	C	vinyl bromide	1.021	0.993	1.019	0.985	0.934	0.897	0.861	0.784	0.9367	9.01
18)	C	acrolein			0.397	0.360	0.323	0.324	0.313	0.305	0.288	0.3301	11.22
19)		acetone	1.587	1.596	1.476	1.383	1.355	1.294	1.243	1.126	1.3823	11.92
20)	C	acetonitrile	0.937	0.821	0.788	0.753	0.732	0.700	0.692	0.662	0.7607	11.58
21)		trichlorofluoromethane	3.334	3.342	3.192	3.026	2.951	2.788	2.656	2.367	2.9570	11.56
22)		isopropyl alcohol			2.014	1.839	1.474	1.400	1.323	1.289	1.205	1.5062	20.14
23)	C	acrylonitrile	0.847	0.594	0.626	0.604	0.576	0.555	0.540	0.506	0.6062	17.25
24)		pentane	1.756	1.631	1.563	1.542	1.474	1.391	1.394	1.301	1.5066	9.76
25)		ethyl ether	1.563	1.400	1.347	1.308	1.254	1.201	1.172	1.089	1.2917	11.48
26)	C	1,1-dichloroethene	1.751	1.567	1.550	1.477	1.432	1.370	1.331	1.231	1.4636	11.02
27)		tertiary butyl alcohol			2.028	1.921	1.822	1.736	1.709	1.651	1.558	1.7750	9.07
28)	C	methylene chloride			1.300	1.242	1.049	1.025	0.971	0.929	0.868	1.0547	15.20
29)	C	3-chloropropene	1.481	1.301	1.264	1.193	1.166	0.969	1.079	1.015	1.1835	14.10
30)	C	carbon disulfide	2.842	2.804	2.764	2.742	2.702	2.452	2.537	2.308	2.6439	7.20
31)		Freon 113	2.316	2.274	2.213	2.121	2.065	1.940	1.864	1.624	2.0522	11.37
32)		trans-1,2-dichloroethene	1.228	1.260	1.277	1.223	1.211	1.159	1.159	1.143	1.2075	4.11
33)	C	1,1-dichloroethane	1.607	1.555	1.515	1.472	1.435	1.389	1.371	1.332	1.4596	6.54
34)	C	MTBE	2.686	2.529	2.504	2.429	2.388	2.297	2.275	2.234	2.4178	6.28
35)	C	vinyl acetate	1.392	1.018	0.851	0.993	1.142	1.288	1.467	1.572	1.2153	20.94
36)	C	2-butanone	2.205	1.894	1.819	1.693	1.685	1.632	1.568	1.507	1.7505	12.70
37)		cis-1,2-dichloroethene	1.258	1.167	1.138	1.066	1.074	1.028	1.025	0.990	1.0934	8.14
38)		Ethyl Acetate	0.251	0.256	0.284	0.253	0.259	0.254	0.267	0.259	0.2605	4.13
39)	C	chloroform	2.223	2.212	2.076	2.035	1.994	1.931	1.944	1.836	2.0315	6.67
40)		Tetrahydrofuran	1.082	1.067	0.955	0.924	0.928	0.894	0.879	0.839	0.9459	9.18
41)		2,2-dichloropropane	1.892	1.786	1.753	1.734	1.693	1.672	1.714	1.653	1.7372	4.38
42)	C	1,2-dichloroethane	1.415	1.308	1.286	1.239	1.215	1.179	1.158	1.098	1.2373	7.99
43)	I	1,4-difluorobenzene	ISTD									

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.337	0.347	0.326	0.323	0.330	0.320	0.346	0.368	0.3371	4.84
45)		diisopropyl ether	0.207	0.198	0.207	0.188	0.197	0.189	0.201	0.205	0.1990	3.78
46)		tert-butyl ethyl ether	0.733	0.709	0.673	0.673	0.679	0.651	0.682	0.707	0.6882	3.77
47)	s	1,2-dichloroethane-D4	0.230	0.228	0.227	0.224	0.224	0.220	0.225	0.218	0.2245	1.74
48)	C	1,1,1-trichloroethane	0.762	0.695	0.709	0.669	0.675	0.631	0.651	0.688	0.6849	5.81
49)		1,1-dichloropropene	0.443	0.365	0.357	0.357	0.363	0.354	0.369	0.382	0.3738	7.88
50)	C	benzene	0.768	0.739	0.727	0.691	0.690	0.661	0.683	0.696	0.7068	4.95
51)		thiophene	0.546	0.496	0.510	0.490	0.497	0.481	0.506	0.524	0.5063	4.11
52)	C	carbon tetrachloride	0.671	0.649	0.673	0.666	0.687	0.665	0.707	0.706	0.6780	2.98
53)		cyclohexane	0.374	0.373	0.346	0.322	0.321	0.306	0.322	0.339	0.3378	7.42
54)		tert-amyl methyl ether	0.736	0.696	0.710	0.692	0.699	0.672	0.702	0.734	0.7053	3.05
55)		dibromomethane	0.406	0.364	0.338	0.349	0.357	0.348	0.365	0.365	0.3614	5.65
56)	C	1,2-dichloropropane	0.270	0.247	0.265	0.251	0.254	0.241	0.259	0.272	0.2575	4.28
57)		bromodichloromethane	0.659	0.649	0.643	0.642	0.659	0.634	0.673	0.679	0.6547	2.42
58)	C	1,4-dioxane	0.207	0.184	0.154	0.165	0.171	0.174	0.182	0.186	0.1778	8.80
59)	C	trichloroethene	0.407	0.411	0.373	0.389	0.384	0.380	0.385	0.378	0.3884	3.49
60)	C	2,2,4-trimethylpentane	1.171	1.101	1.091	1.131	1.149	1.068	1.142	1.208	1.1324	4.00
61)		methyl methacrylate	0.378	0.364	0.362	0.335	0.333	0.317	0.334	0.343	0.3458	5.84
62)		heptane	0.467	0.464	0.435	0.420	0.417	0.396	0.424	0.447	0.4336	5.62
63)	C	cis-1,3-dichloropropene	0.354	0.380	0.362	0.381	0.387	0.382	0.410	0.433	0.3860	6.55
64)	C	4-methyl-2-pentanone	0.721	0.615	0.614	0.583	0.600	0.578	0.608	0.638	0.6198	7.26
65)		trans-1,3-dichloropropene	0.483	0.496	0.483	0.507	0.523	0.518	0.548	0.579	0.5171	6.40
66)	C	1,1,2-trichloroethane	0.468	0.419	0.433	0.433	0.439	0.411	0.435	0.440	0.4347	3.84
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	7.004	6.934	6.525	6.453	6.454	6.293	6.377	6.500	6.5673	3.94
69)	s	toluene-D8	4.879	4.907	4.802	4.708	4.685	4.577	4.508	4.482	4.6935	3.46
70)		2-methylthiophene	6.033	5.949	5.925	5.843	5.809	5.717	5.777	5.876	5.8660	1.73
71)		1,3-dichloropropane	3.090	3.073	2.806	2.920	2.905	2.868	2.917	3.014	2.9492	3.40
72)		2-hexanone	4.211	4.159	3.969	3.847	3.931	3.821	4.004	4.189	4.0165	3.82
73)		3-methylthiophene	6.346	5.720	6.054	6.127	6.065	5.982	5.982	5.881	6.0197	3.03
74)		dibromochloromethane	4.933	4.799	5.018	5.292	5.449	5.239	5.280	4.986	5.1244	4.33
75)	C	1,2-dibromoethane	4.101	3.976	3.776	4.066	4.053	3.866	3.890	3.903	3.9541	2.88
76)		butyl acetate	0.638	0.670	0.634	0.633	0.651	0.628	0.652	0.674	0.6475	2.66
77)		octane	1.884	1.819	1.783	1.832	1.818	1.742	1.815	1.862	1.8193	2.42
78)	C	tetrachloroethene	3.750	3.314	3.290	3.351	3.363	3.240	3.226	3.148	3.3353	5.45
79)		1,1,1,2-tetrachloroethane	2.534	2.494	2.407	2.529	2.550	2.501	2.529	2.347	2.4864	2.88
80)	C	chlorobenzene	4.368	4.108	3.945	4.091	4.104	4.008	4.106	4.050	4.0976	3.01
81)	C	ethylbenzene	6.685	6.459	6.239	6.431	6.424	6.218	6.375	6.468	6.4121	2.28
82)		2-ethylthiophene	5.089	5.209	5.019	5.162	5.219	5.111	5.274	5.273	5.1694	1.77
83)	C	m+p-xylene	5.074	5.087	4.931	5.094	5.178	5.123	5.257	5.196	5.1174	1.92
84)	C	bromoform	3.186	3.016	2.927	3.419	3.639	3.584	3.671	3.486	3.3661	8.55
85)	C	styrene	4.105	3.966	3.809	3.970	4.022	3.914	4.013	4.008	3.9759	2.19
86)	C	1,1,2,2-tetrachloroethane	3.603	3.629	3.718	3.814	3.890	3.866	4.023	3.663	3.7759	3.89
87)	C	o-xylene	5.250	5.222	5.024	5.293	5.385	5.346	5.403	4.907	5.2289	3.38
88)		1,2,3-trichloropropane	2.851	2.743	2.666	2.754	2.805	2.741	2.887	3.013	2.8075	3.86
89)		nonane	3.458	3.194	3.166	3.291	3.274	3.231	3.441	3.568	3.3278	4.33
90)	s	bromofluorobenzene	2.251	2.315	2.469	2.667	2.495	2.393	2.396	2.117	2.3879	6.97

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	6.641	6.422	7.099	7.327	7.399	7.180	7.304	6.980	7.0440	4.94
92)		bromobenzene	4.125	3.607	3.393	3.519	3.625	3.572	3.743	3.864	3.6808	6.20
93)		2-chlorotoluene	2.167	2.103	1.929	2.043	2.063	2.036	2.043	1.971	2.0445	3.59
94)		n-propylbenzene	2.088	2.127	2.075	2.166	2.159	2.167	2.164	2.078	2.1280	1.96
95)		4-chlorotoluene	5.668	5.348	5.114	5.440	5.519	5.497	5.593	5.752	5.4911	3.61
96)		4-ethyl toluene	7.944	7.900	7.687	8.152	8.364	8.123	8.262	7.852	8.0357	2.83
97)		1,3,5-trimethylbenzene	6.335	6.135	6.005	6.333	6.407	6.345	6.545	6.353	6.3074	2.63
98)		tert-butylbenzene	6.959	6.744	6.775	7.080	7.320	7.226	6.881	5.727	6.8391	7.22
99)		1,2,4-trimethylbenzene	6.093	6.114	5.896	6.482	6.774	6.791	6.584	5.418	6.2691	7.60
100)		decane	3.165	3.087	3.114	3.261	3.430	3.403	3.754	3.818	3.3790	8.31
101)	C	Benzyl Chloride	4.066	4.191	4.388	5.298	5.764	6.071	6.681	6.432	5.3616	19.37
102)		1,3-dichlorobenzene	4.151	4.255	4.218	4.395	4.551	4.481	4.545	4.367	4.3705	3.46
103)	C	1,4-dichlorobenzene	4.364	4.138	4.264	4.437	4.653	4.631	4.574	4.245	4.4132	4.37
104)		sec-butylbenzene	9.096	8.990	8.813	9.355	9.703	9.547	9.719	8.350	9.1967	5.19
105)		1,2,3-trimethylbenzene	5.868	5.508	5.620	5.876	6.064	6.074	6.235	5.563	5.8511	4.56
106)		p-isopropyltoluene	8.454	8.300	8.094	8.700	9.033	8.875	8.741	7.508	8.4632	5.83
107)		1,2-dichlorobenzene	3.831	3.860	3.952	4.130	4.251	4.202	4.275	4.177	4.0848	4.34
108)		n-butylbenzene	6.797	6.996	6.964	7.528	7.746	7.704	7.944	7.538	7.4020	5.73
109)		indan	6.184	5.996	6.092	6.394	6.559	6.483	6.534	6.267	6.3138	3.35
110)		indene	4.069	4.200	4.196	4.407	4.484	4.549	4.732	4.688	4.4156	5.49
111)	C	1,2-dibromo-3-chloropropane	1.530	1.568	1.589	1.843	1.941	2.016	2.233	2.286	1.8758	15.83
112)		undecane	2.963	3.052	3.124	3.667	3.830	3.898	4.351	4.353	3.6547	15.29
113)		1,2,4,5-tetramethylbenzene	1.134	1.174	1.171	1.539	1.629	1.384	1.317	1.069	1.3022	15.53
114)		dodecane	2.202	2.679	2.849	3.721	4.035	4.426	4.749	3.907	3.5710	25.18
115)	C	1,2,4-trichlorobenzene	2.908	2.511	2.824	3.209	3.490	3.578	3.729	3.104	3.1693	13.11
116)		naphthalene	6.085	7.094	7.269	8.459	8.838	8.726	9.175	8.866	8.0640	13.71
117)		1,2,3-trichlorobenzene	2.356	2.704	2.665	2.973	3.204	3.264	3.548	3.611	3.0407	14.65
118)		benzothiophene		1.097	1.087	1.382	1.487	1.455	1.443	1.178	1.3041	13.56
119)	C	hexachlorobutadiene	2.125	2.341	2.328	2.645	2.836	2.866	3.246	3.151	2.6924	15.05
120)		2-methylnaphthalene		1.383	1.457	2.794	3.153	2.846	3.354	3.516	2.6431	33.07#
121)		1-methylnaphthalene		1.837	1.735	2.447	2.737	2.488	2.871	3.010	2.4465	20.16

FORM VI-NJ-TO15

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Method File : TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Mon Dec 15 07:34:07 2014
Response Via : Initial Calibration

Calibration Files
0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D
50 =R231621.D 100 =R231622.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.663	1.375	1.287	1.187	1.178	1.114	1.089	1.027	1.2399	16.41
3)		propylene	0.788	0.673	0.627	0.569	0.566	0.530	0.525	0.488	0.5958	16.33
4)		propane	1.113	0.976	0.816	0.690	0.658	0.625	0.628	0.566	0.7590	25.55
5)		dichlorodifluoromethane	2.344	1.617	1.436	1.393	1.546	1.271	1.581	0.971	1.5198	25.83
6)	C	chloromethane	1.019	0.841	0.718	0.700	0.657	0.628	0.611	0.574	0.7185	20.38
7)		Freon-114	3.096	2.904	2.788	2.710	2.634	2.502	2.365	2.109	2.6386	11.82
8)	C	methanol			0.420	0.346	0.334	0.289	0.282	0.268	0.3232	17.50
9)	C	vinyl chloride	0.953	0.838	0.862	0.833	0.808	0.770	0.736	0.697	0.8121	9.80
10)	C	1,3-butadiene	0.639	0.652	0.590	0.608	0.581	0.542	0.526	0.496	0.5791	9.44
11)		butane	1.743	1.514	1.467	1.307	1.246	1.211	1.168	1.098	1.3442	15.98
12)	C	acetaldehyde			0.659	0.661	0.581	0.561	0.530	0.490	0.436	0.5597	14.90
13)	C	bromomethane	1.168	1.061	0.963	0.944	0.916	0.861	0.817	0.753	0.9353	14.24
14)	C	chloroethane	0.488	0.501	0.445	0.415	0.404	0.383	0.365	0.337	0.4173	13.82
15)		ethanol			0.762	0.719	0.723	0.691	0.666	0.649	0.599	0.6870	7.89
16)		dichlorofluoromethane	2.506	2.269	2.244	2.060	1.961	1.887	1.811	1.675	2.0517	13.36
17)	C	vinyl bromide	1.021	0.993	1.019	0.985	0.934	0.897	0.861	0.784	0.9367	9.01
18)	C	acrolein			0.397	0.360	0.323	0.324	0.313	0.305	0.288	0.3301	11.22
19)		acetone	1.587	1.596	1.476	1.383	1.355	1.294	1.243	1.126	1.3823	11.92
20)	C	acetonitrile	0.937	0.821	0.788	0.753	0.732	0.700	0.692	0.662	0.7607	11.58
21)		trichlorofluoromethane	3.334	3.342	3.192	3.026	2.951	2.788	2.656	2.367	2.9570	11.56
22)		isopropyl alcohol			2.014	1.839	1.474	1.400	1.323	1.289	1.205	1.5062	20.14
23)	C	acrylonitrile	0.847	0.594	0.626	0.604	0.576	0.555	0.540	0.506	0.6062	17.25
24)		pentane	1.756	1.631	1.563	1.542	1.474	1.391	1.394	1.301	1.5066	9.76
25)		ethyl ether	1.563	1.400	1.347	1.308	1.254	1.201	1.172	1.089	1.2917	11.48
26)	C	1,1-dichloroethene	1.751	1.567	1.550	1.477	1.432	1.370	1.331	1.231	1.4636	11.02
27)		tertiary butyl alcohol			2.028	1.921	1.822	1.736	1.709	1.651	1.558	1.7750	9.07
28)	C	methylene chloride			1.300	1.242	1.049	1.025	0.971	0.929	0.868	1.0547	15.20
29)	C	3-chloropropene	1.481	1.301	1.264	1.193	1.166	0.969	1.079	1.015	1.1835	14.10
30)	C	carbon disulfide	2.842	2.804	2.764	2.742	2.702	2.452	2.537	2.308	2.6439	7.20
31)		Freon 113	2.316	2.274	2.213	2.121	2.065	1.940	1.864	1.624	2.0522	11.37

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Method File : TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Mon Dec 15 07:34:07 2014
Response Via : Initial Calibration

Calibration Files
0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D
50 =R231621.D 100 =R231622.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32)		trans-1,2-dichloroethene	1.228	1.260	1.277	1.223	1.211	1.159	1.159	1.143	1.2075	4.11
33)	C	1,1-dichloroethane	1.607	1.555	1.515	1.472	1.435	1.389	1.371	1.332	1.4596	6.54
34)	C	MTBE	2.686	2.529	2.504	2.429	2.388	2.297	2.275	2.234	2.4178	6.28
35)	C	vinyl acetate	1.392	1.018	0.851	0.993	1.142	1.288	1.467	1.572	1.2153	20.94
36)	C	2-butanone	2.205	1.894	1.819	1.693	1.685	1.632	1.568	1.507	1.7505	12.70
37)		cis-1,2-dichloroethene	1.258	1.167	1.138	1.066	1.074	1.028	1.025	0.990	1.0934	8.14
38)		Ethyl Acetate	0.251	0.256	0.284	0.253	0.259	0.254	0.267	0.259	0.2605	4.13
39)	C	chloroform	2.223	2.212	2.076	2.035	1.994	1.931	1.944	1.836	2.0315	6.67
40)		Tetrahydrofuran	1.082	1.067	0.955	0.924	0.928	0.894	0.879	0.839	0.9459	9.18
41)		2,2-dichloropropane	1.892	1.786	1.753	1.734	1.693	1.672	1.714	1.653	1.7372	4.38
42)	C	1,2-dichloroethane	1.415	1.308	1.286	1.239	1.215	1.179	1.158	1.098	1.2373	7.99
43)	I	1,4-difluorobenzene	ISTD									
44)	C	hexane	0.337	0.347	0.326	0.323	0.330	0.320	0.346	0.368	0.3371	4.84
45)		diisopropyl ether	0.207	0.198	0.207	0.188	0.197	0.189	0.201	0.205	0.1990	3.78
46)		tert-butyl ethyl ether	0.733	0.709	0.673	0.673	0.679	0.651	0.682	0.707	0.6882	3.77
47)	s	1,2-dichloroethane-D4	0.230	0.228	0.227	0.224	0.224	0.220	0.225	0.218	0.2245	1.74
48)	C	1,1,1-trichloroethane	0.762	0.695	0.709	0.669	0.675	0.631	0.651	0.688	0.6849	5.81
49)		1,1-dichloropropene	0.443	0.365	0.357	0.357	0.363	0.354	0.369	0.382	0.3738	7.88
50)	C	benzene	0.768	0.739	0.727	0.691	0.690	0.661	0.683	0.696	0.7068	4.95
51)		thiophene	0.546	0.496	0.510	0.490	0.497	0.481	0.506	0.524	0.5063	4.11
52)	C	carbon tetrachloride	0.671	0.649	0.673	0.666	0.687	0.665	0.707	0.706	0.6780	2.98
53)		cyclohexane	0.374	0.373	0.346	0.322	0.321	0.306	0.322	0.339	0.3378	7.42
54)		tert-amyl methyl ether	0.736	0.696	0.710	0.692	0.699	0.672	0.702	0.734	0.7053	3.05
55)		dibromomethane	0.406	0.364	0.338	0.349	0.357	0.348	0.365	0.365	0.3614	5.65
56)	C	1,2-dichloropropane	0.270	0.247	0.265	0.251	0.254	0.241	0.259	0.272	0.2575	4.28
57)		bromodichloromethane	0.659	0.649	0.643	0.642	0.659	0.634	0.673	0.679	0.6547	2.42
58)	C	1,4-dioxane	0.207	0.184	0.154	0.165	0.171	0.174	0.182	0.186	0.1778	8.80
59)	C	trichloroethene	0.407	0.411	0.373	0.389	0.384	0.380	0.385	0.378	0.3884	3.49
60)	C	2,2,4-trimethylpentane	1.171	1.101	1.091	1.131	1.149	1.068	1.142	1.208	1.1324	4.00
61)		methyl methacrylate	0.378	0.364	0.362	0.335	0.333	0.317	0.334	0.343	0.3458	5.84
62)		heptane	0.467	0.464	0.435	0.420	0.417	0.396	0.424	0.447	0.4336	5.62

Method Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Method File : TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Mon Dec 15 07:34:07 2014
Response Via : Initial Calibration

Calibration Files
0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D
50 =R231621.D 100 =R231622.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63)	C	cis-1,3-dichloropropene	0.354	0.380	0.362	0.381	0.387	0.382	0.410	0.433	0.3860	6.55
64)	C	4-methyl-2-pentanone	0.721	0.615	0.614	0.583	0.600	0.578	0.608	0.638	0.6198	7.26
65)		trans-1,3-dichloropropene	0.483	0.496	0.483	0.507	0.523	0.518	0.548	0.579	0.5171	6.40
66)	C	1,1,2-trichloroethane	0.468	0.419	0.433	0.433	0.439	0.411	0.435	0.440	0.4347	3.84
67)	I	chlorobenzene-D5	ISTD									
68)	C	toluene	7.004	6.934	6.525	6.453	6.454	6.293	6.377	6.500	6.5673	3.94
69)	s	toluene-D8	4.879	4.907	4.802	4.708	4.685	4.577	4.508	4.482	4.6935	3.46
70)		2-methylthiophene	6.033	5.949	5.925	5.843	5.809	5.717	5.777	5.876	5.8660	1.73
71)		1,3-dichloropropane	3.090	3.073	2.806	2.920	2.905	2.868	2.917	3.014	2.9492	3.40
72)		2-hexanone	4.211	4.159	3.969	3.847	3.931	3.821	4.004	4.189	4.0165	3.82
73)		3-methylthiophene	6.346	5.720	6.054	6.127	6.065	5.982	5.982	5.881	6.0197	3.03
74)		dibromochloromethane	4.933	4.799	5.018	5.292	5.449	5.239	5.280	4.986	5.1244	4.33
75)	C	1,2-dibromoethane	4.101	3.976	3.776	4.066	4.053	3.866	3.890	3.903	3.9541	2.88
76)		butyl acetate	0.638	0.670	0.634	0.633	0.651	0.628	0.652	0.674	0.6475	2.66
77)		octane	1.884	1.819	1.783	1.832	1.818	1.742	1.815	1.862	1.8193	2.42
78)	C	tetrachloroethene	3.750	3.314	3.290	3.351	3.363	3.240	3.226	3.148	3.3353	5.45
79)		1,1,1,2-tetrachloroethane	2.534	2.494	2.407	2.529	2.550	2.501	2.529	2.347	2.4864	2.88
80)	C	chlorobenzene	4.368	4.108	3.945	4.091	4.104	4.008	4.106	4.050	4.0976	3.01
81)	C	ethylbenzene	6.685	6.459	6.239	6.431	6.424	6.218	6.375	6.468	6.4121	2.28
82)		2-ethylthiophene	5.089	5.209	5.019	5.162	5.219	5.111	5.274	5.273	5.1694	1.77
83)	C	m+p-xylene	5.074	5.087	4.931	5.094	5.178	5.123	5.257	5.196	5.1174	1.92
84)	C	bromoform	3.186	3.016	2.927	3.419	3.639	3.584	3.671	3.486	3.3661	8.55
85)	C	styrene	4.105	3.966	3.809	3.970	4.022	3.914	4.013	4.008	3.9759	2.19
86)	C	1,1,2,2-tetrachloroethane	3.603	3.629	3.718	3.814	3.890	3.866	4.023	3.663	3.7759	3.89
87)	C	o-xylene	5.250	5.222	5.024	5.293	5.385	5.346	5.403	4.907	5.2289	3.38
88)		1,2,3-trichloropropane	2.851	2.743	2.666	2.754	2.805	2.741	2.887	3.013	2.8075	3.86
89)		nonane	3.458	3.194	3.166	3.291	3.274	3.231	3.441	3.568	3.3278	4.33
90)	s	bromofluorobenzene	2.251	2.315	2.469	2.667	2.495	2.393	2.396	2.117	2.3879	6.97
91)	C	isopropylbenzene	6.641	6.422	7.099	7.327	7.399	7.180	7.304	6.980	7.0440	4.94
92)		bromobenzene	4.125	3.607	3.393	3.519	3.625	3.572	3.743	3.864	3.6808	6.20
93)		2-chlorotoluene	2.167	2.103	1.929	2.043	2.063	2.036	2.043	1.971	2.0445	3.59

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Method File : TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Mon Dec 15 07:34:07 2014
Response Via : Initial Calibration

Calibration Files
0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D
50 =R231621.D 100 =R231622.D

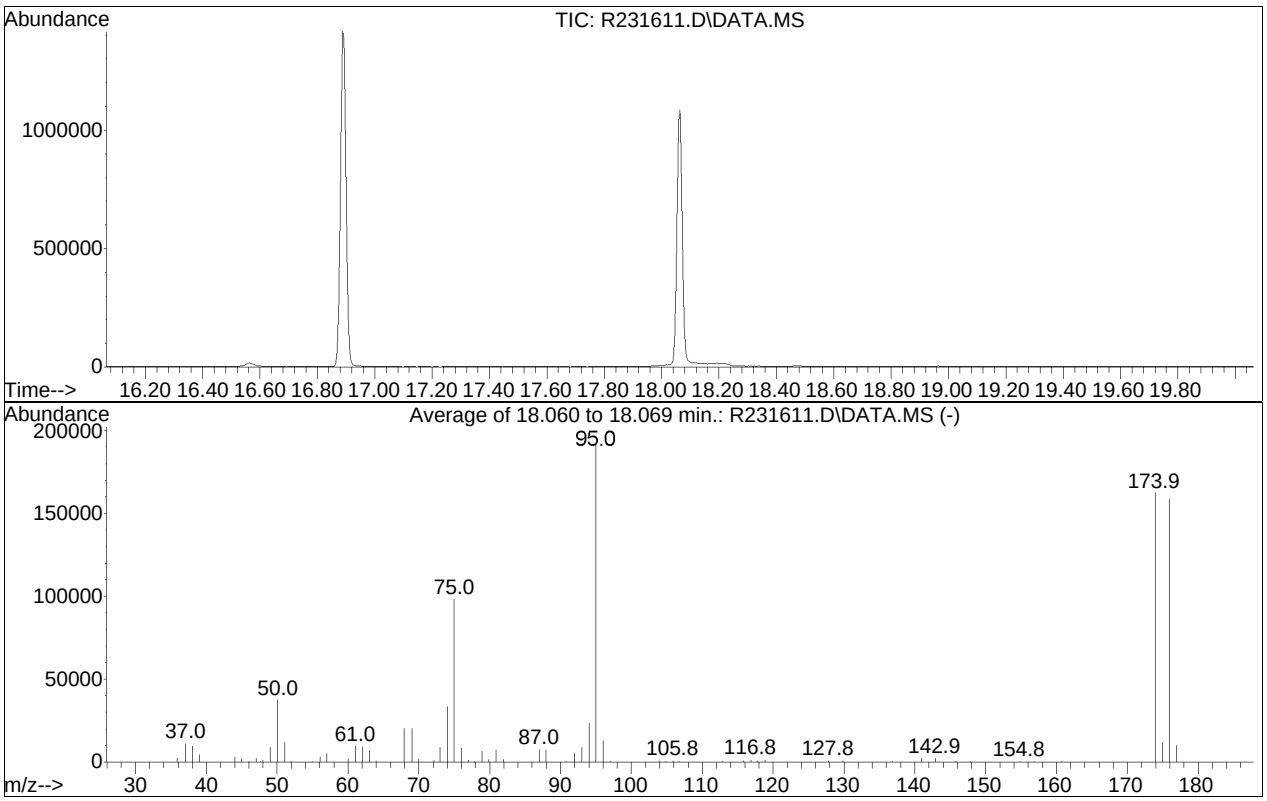
		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94)		n-propylbenzene	2.088	2.127	2.075	2.166	2.159	2.167	2.164	2.078	2.1280	1.96
95)		4-chlorotoluene	5.668	5.348	5.114	5.440	5.519	5.497	5.593	5.752	5.4911	3.61
96)		4-ethyl toluene	7.944	7.900	7.687	8.152	8.364	8.123	8.262	7.852	8.0357	2.83
97)		1,3,5-trimethylbenzene	6.335	6.135	6.005	6.333	6.407	6.345	6.545	6.353	6.3074	2.63
98)		tert-butylbenzene	6.959	6.744	6.775	7.080	7.320	7.226	6.881	5.727	6.8391	7.22
99)		1,2,4-trimethylbenzene	6.093	6.114	5.896	6.482	6.774	6.791	6.584	5.418	6.2691	7.60
100)		decane	3.165	3.087	3.114	3.261	3.430	3.403	3.754	3.818	3.3790	8.31
101)	C	Benzyl Chloride	4.066	4.191	4.388	5.298	5.764	6.071	6.681	6.432	5.3616	19.37
102)		1,3-dichlorobenzene	4.151	4.255	4.218	4.395	4.551	4.481	4.545	4.367	4.3705	3.46
103)	C	1,4-dichlorobenzene	4.364	4.138	4.264	4.437	4.653	4.631	4.574	4.245	4.4132	4.37
104)		sec-butylbenzene	9.096	8.990	8.813	9.355	9.703	9.547	9.719	8.350	9.1967	5.19
105)		1,2,3-trimethylbenzene	5.868	5.508	5.620	5.876	6.064	6.074	6.235	5.563	5.8511	4.56
106)		p-isopropyltoluene	8.454	8.300	8.094	8.700	9.033	8.875	8.741	7.508	8.4632	5.83
107)		1,2-dichlorobenzene	3.831	3.860	3.952	4.130	4.251	4.202	4.275	4.177	4.0848	4.34
108)		n-butylbenzene	6.797	6.996	6.964	7.528	7.746	7.704	7.944	7.538	7.4020	5.73
109)		indan	6.184	5.996	6.092	6.394	6.559	6.483	6.534	6.267	6.3138	3.35
110)		indene	4.069	4.200	4.196	4.407	4.484	4.549	4.732	4.688	4.4156	5.49
111)	C	1,2-dibromo-3-chloropropane	1.530	1.568	1.589	1.843	1.941	2.016	2.233	2.286	1.8758	15.83
112)		undecane	2.963	3.052	3.124	3.667	3.830	3.898	4.351	4.353	3.6547	15.29
113)		1,2,4,5-tetramethylbenzene	1.134	1.174	1.171	1.539	1.629	1.384	1.317	1.069	1.3022	15.53
114)		dodecane	2.202	2.679	2.849	3.721	4.035	4.426	4.749	3.907	3.5710	25.18
115)	C	1,2,4-trichlorobenzene	2.908	2.511	2.824	3.209	3.490	3.578	3.729	3.104	3.1693	13.11
116)		naphthalene	6.085	7.094	7.269	8.459	8.838	8.726	9.175	8.866	8.0640	13.71
117)		1,2,3-trichlorobenzene	2.356	2.704	2.665	2.973	3.204	3.264	3.548	3.611	3.0407	14.65
118)		benzothiophene		1.097	1.087	1.382	1.487	1.455	1.443	1.178	1.3041	13.56
119)	C	hexachlorobutadiene	2.125	2.341	2.328	2.645	2.836	2.866	3.246	3.151	2.6924	15.05
120)		2-methylnaphthalene		1.383	1.457	2.794	3.153	2.846	3.354	3.516	2.6431	33.07#
121)		1-methylnaphthalene		1.837	1.735	2.447	2.737	2.488	2.871	3.010	2.4465	20.16

(#) = Out of Range

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231611.D
Acq On : 14 Dec 2014 10:25 am
Operator : AIRPIANO2:AR
Sample : WG748589-1,3,250,250
Misc : WG748589
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Mon Dec 15 07:34:07 2014



AutoFind: Scans 1783, 1784, 1785; Background Corrected with Scan 1774

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.4	37371	PASS
75	95	30	66	51.0	98299	PASS
95	95	100	100	100.0	192661	PASS
96	95	5	9	6.7	12893	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	84.4	162624	PASS
175	174	4	9	7.3	11937	PASS
176	174	93	101	97.4	158421	PASS
177	176	5	9	6.3	10017	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231615.D
Acq On : 14 Dec 2014 2:35 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.2
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:51:04 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.377	49	177119	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 97.51%			
43) 1,4-difluorobenzene	12.549	114	658822	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 101.71%			
67) chlorobenzene-D5	16.888	54	122776	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 99.20%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.241	65	151459	10.259	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.59%			
69) toluene-D8	15.225	98	599018	10.414	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.14%			
90) bromofluorobenzene	18.060	95	276330	9.021	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.21%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.291	51	5890	0.282	ppbV #	89
3) propylene	4.330	41	2790M3	0.278	ppbV	
4) propane	4.360	29	3943M4	0.338	ppbV	
5) dichlorodifluoromethane	4.429	85	8303	0.303	ppbV	92
6) chloromethane	4.655	50	3611	0.310	ppbV #	83
7) Freon-114	4.803	85	10966	0.235	ppbV	94
8) methanol	4.931	31	9521M6	1.610	ppbV	
9) vinyl chloride	4.971	62	3375	0.236	ppbV #	72
10) 1,3-butadiene	5.168	54	2263	0.220	ppbV	93
11) butane	5.247	43	6173M4	0.280	ppbV	
12) acetaldehyde	4.872	29	13192	1.326	ppbV #	82
13) bromomethane	5.550	94	4138	0.255	ppbV	97
14) chloroethane	5.798	64	1729	0.242	ppbV	89
15) ethanol	6.030	31	13941	1.140	ppbV	89
16) dichlorofluoromethane	5.958	67	8877	0.256	ppbV #	94
17) vinyl bromide	6.286	106	3616	0.219	ppbV	90
18) acrolein	6.485	56	1512M2	0.263	ppbV	
19) acetone	6.669	43	28100	1.171	ppbV #	88
20) acetonitrile	6.318	41	3318M3	0.256	ppbV	
21) trichlorofluoromethane	6.853	101	11812	0.226	ppbV	96
22) isopropyl alcohol	7.013	45	6939M3	0.280	ppbV	
23) acrylonitrile	7.285	53	3001M3	0.294	ppbV	
24) pentane	7.317	43	6221M4	0.238	ppbV	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231615.D
Acq On : 14 Dec 2014 2:35 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.2
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:51:04 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.397	31	5538	0.249	ppbV		97
26) 1,1-dichloroethene	7.668	61	6201	0.244	ppbV	#	87
27) tertiary butyl alcohol	7.780	59	7791	0.253	ppbV	#	74
28) methylene chloride	7.836	49	6135	0.338	ppbV		92
29) 3-chloropropene	7.988	41	5248M4	0.254	ppbV		
30) carbon disulfide	8.164	76	10067	0.210	ppbV	#	1
31) Freon 113	8.172	101	8205	0.224	ppbV		98
32) trans-1,2-dichloroethene	8.974	61	4349	0.203	ppbV		96
33) 1,1-dichloroethane	9.215	63	5694	0.224	ppbV		90
34) MTBE	9.318	73	9514	0.225	ppbV		94
35) vinyl acetate	9.427	43	4930	0.244	ppbV		99
36) 2-butanone	9.722	43	7810	0.262	ppbV		95
37) cis-1,2-dichloroethene	10.189	61	4458	0.234	ppbV		90
38) Ethyl Acetate	10.480	61	889	0.194	ppbV	#	28
39) chloroform	10.527	83	7874	0.223	ppbV		89
40) Tetrahydrofuran	11.015	42	3834M6	0.233	ppbV		
41) 2,2-dichloropropane	10.555	77	6702	0.224	ppbV		97
42) 1,2-dichloroethane	11.363	62	5011	0.233	ppbV		96
44) hexane	10.442	57	4439	0.204	ppbV	#	37
45) diisopropyl ether	10.452	87	2725	0.209	ppbV	#	58
46) tert-butyl ethyl ether	11.062	59	9654	0.216	ppbV		95
48) 1,1,1-trichloroethane	11.648	97	10043	0.226	ppbV	#	90
49) 1,1-dichloropropene	12.000	75	5843	0.244	ppbV		98
50) benzene	12.156	78	10124	0.223	ppbV	#	87
51) thiophene	12.301	84	7199	0.220	ppbV		99
52) carbon tetrachloride	12.321	117	8838	0.195	ppbV		98
53) cyclohexane	12.466	56	4923	0.233	ppbV		93
54) tert-amyl methyl ether	12.819	73	9696	0.210	ppbV	#	89
55) dibromomethane	13.036	93	5346	0.227	ppbV		95
56) 1,2-dichloropropane	13.067	63	3555	0.212	ppbV	#	75
57) bromodichloromethane	13.285	83	8677	0.200	ppbV		99
58) 1,4-dioxane	13.368	88	2722	0.241	ppbV	#	61
59) trichloroethene	13.337	130	5362	0.212	ppbV		88
60) 2,2,4-trimethylpentane	13.368	57	15424	0.204	ppbV	#	94
61) methyl methacrylate	13.544	41	4979	0.227	ppbV	#	95
62) heptane	13.647	43	6148M6	0.224	ppbV		
63) cis-1,3-dichloropropene	14.289	75	4659	0.183	ppbV	#	70
64) 4-methyl-2-pentanone	14.352	43	9495	0.240	ppbV	#	85
65) trans-1,3-dichloropropene	14.864	75	6364	0.185	ppbV		89
66) 1,1,2-trichloroethane	15.044	97	6162	0.213	ppbV		93

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231615.D
Acq On : 14 Dec 2014 2:35 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.2
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:51:04 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.325	91	17198	0.217	ppbV		97
70) 2-methylthiophene	15.388	97	14813	0.208	ppbV		92
71) 1,3-dichloropropane	15.343	76	7588	0.213	ppbV		87
72) 2-hexanone	15.587	43	10341	0.214	ppbV		91
73) 3-methylthiophene	15.560	97	15583	0.209	ppbV		97
74) dibromochloromethane	15.731	129	12112	0.181	ppbV		92
75) 1,2-dibromoethane	15.957	107	10071	0.202	ppbV		97
76) butyl acetate	16.147	73	1567	0.196	ppbV		89
77) octane	16.210	85	4626	0.207	ppbV	#	96
78) tetrachloroethene	16.355	166	9208	0.223	ppbV		96
79) 1,1,1,2-tetrachloroethane	16.907	131	6222	0.199	ppbV		99
80) chlorobenzene	16.926	112	10725	0.213	ppbV		90
81) ethylbenzene	17.217	91	16415	0.208	ppbV		97
82) 2-ethylthiophene	17.250	97	12495	0.195	ppbV		97
83) m+p-xylene	17.346	91	24920	0.392	ppbV		91
84) bromoform	17.436	173	7824	0.175	ppbV		94
85) styrene	17.636	104	10080	0.204	ppbV		97
86) 1,1,2,2-tetrachloroethane	17.717	83	8848	0.185	ppbV		93
87) o-xylene	17.717	91	12892	0.195	ppbV		99
88) 1,2,3-trichloropropane	17.817	75	7001	0.203	ppbV		90
89) nonane	17.855	43	8490	0.211	ppbV	#	85
91) isopropylbenzene	18.155	105	16308	0.180	ppbV		96
92) bromobenzene	18.236	77	10129	0.228	ppbV		84
93) 2-chlorotoluene	18.517	126	5321	0.210	ppbV	#	60
94) n-propylbenzene	18.531	120	5127	0.193	ppbV		71
95) 4-chlorotoluene	18.565	91	13917	0.205	ppbV		100
96) 4-ethyl toluene	18.636	105	19507	0.190	ppbV		98
97) 1,3,5-trimethylbenzene	18.684	105	15555	0.198	ppbV		95
98) tert-butylbenzene	18.994	119	17087	0.190	ppbV		97
99) 1,2,4-trimethylbenzene	18.994	105	14962	0.180	ppbV		95
100) decane	19.037	57	7771	0.185	ppbV		93
101) Benzyl Chloride	19.108	91	9984	0.141	ppbV		98
102) 1,3-dichlorobenzene	19.122	146	10194	0.182	ppbV		92
103) 1,4-dichlorobenzene	19.175	146	10715	0.188	ppbV		96
104) sec-butylbenzene	19.194	105	22336	0.188	ppbV		94
105) 1,2,3-trimethylbenzene	19.313	105	14410	0.194	ppbV		97
106) p-isopropyltoluene	19.308	119	20759	0.187	ppbV		96
107) 1,2-dichlorobenzene	19.432	146	9408	0.180	ppbV		92
108) n-butylbenzene	19.622	91	16690	0.176	ppbV		99
109) indan	19.475	117	15186	0.189	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231615.D
Acq On : 14 Dec 2014 2:35 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.2
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:51:04 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

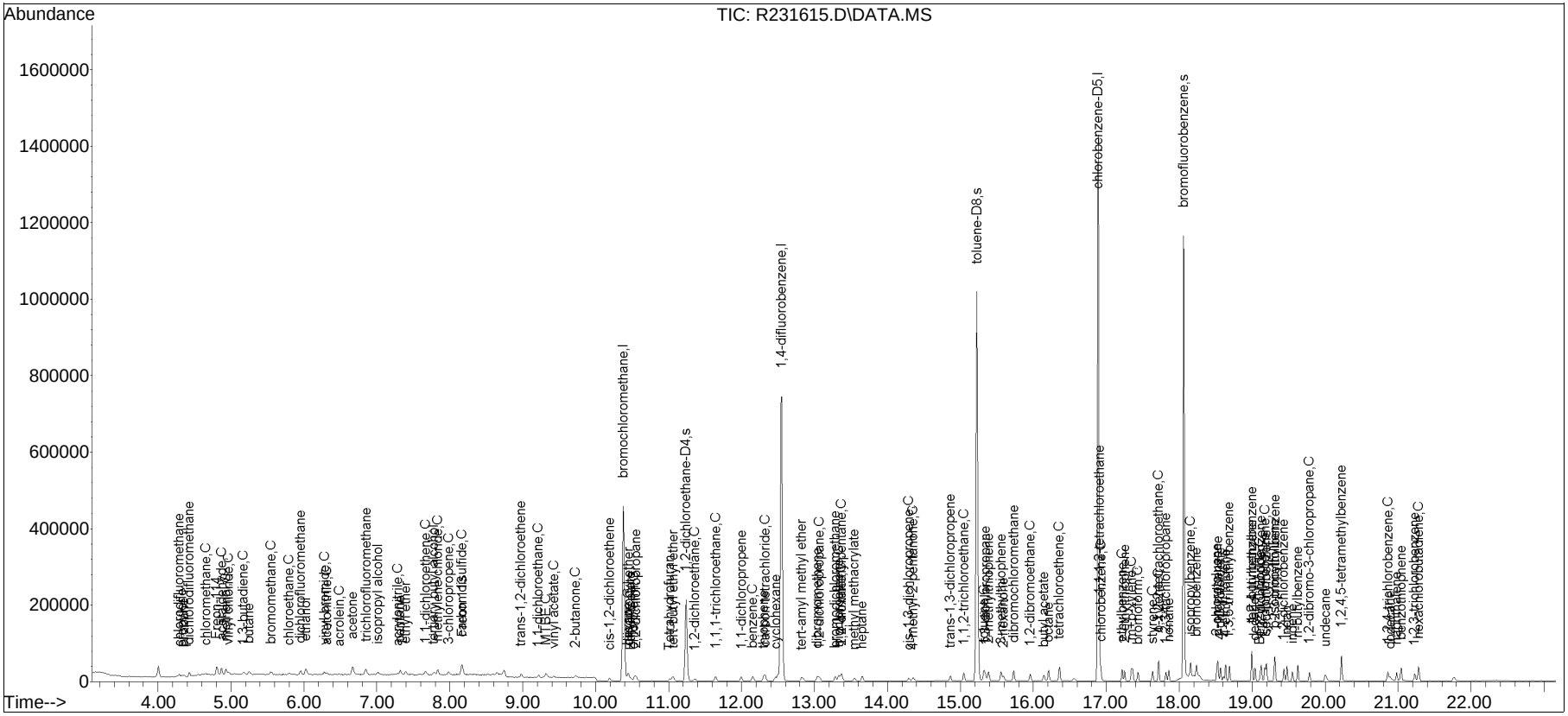
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) indene	19.551	115	9992	0.182	ppbV		93
111) 1,2-dibromo-3-chloropr...	19.784	75	3757	0.158	ppbV		91
112) undecane	20.003	57	7276	0.155	ppbV	#	97
113) 1,2,4,5-tetramethylben...	20.222	119	27849	0.139	ppbV		96
114) dodecane	20.893	57	5408	0.109	ppbV	#	75
115) 1,2,4-trichlorobenzene	20.861	180	7141	0.167	ppbV	#	91
116) naphthalene	20.979	128	14941M6	0.138	ppbV		
117) 1,2,3-trichlorobenzene	21.225	180	5784	0.147	ppbV	#	92
118) benzothiophene	21.043	134	24942	0.137	ppbV		98
119) hexachlorobutadiene	21.279	225	5217	0.150	ppbV		96
120) 2-methylnaphthalene	0.000		0	N.D.	d		
121) 1-methylnaphthalene	22.308		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231615.D
Acq On : 14 Dec 2014 2:35 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.2
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

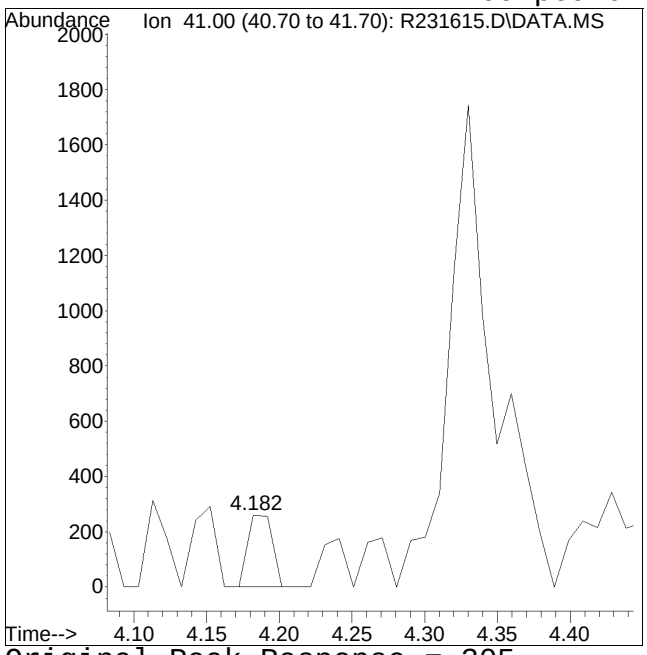
Quant Time: Dec 15 06:51:04 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration



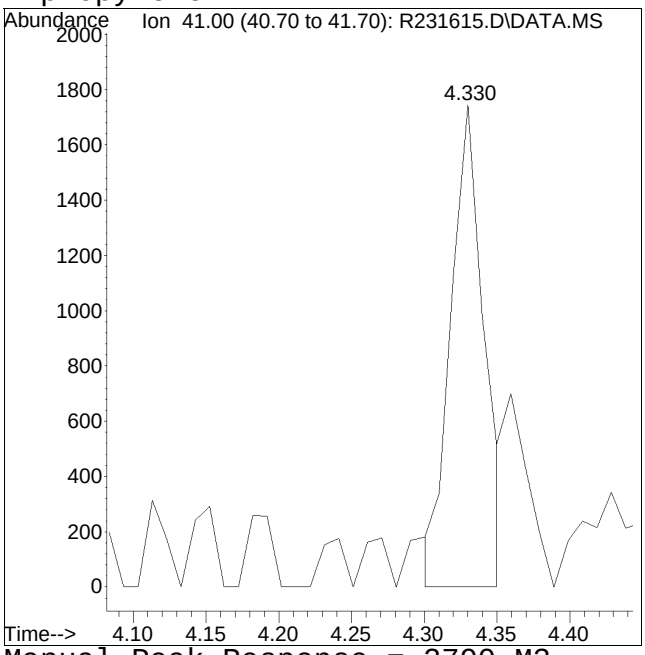
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2
Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #3: propylene



Original Peak Response = 305



Manual Peak Response = 2790 M3

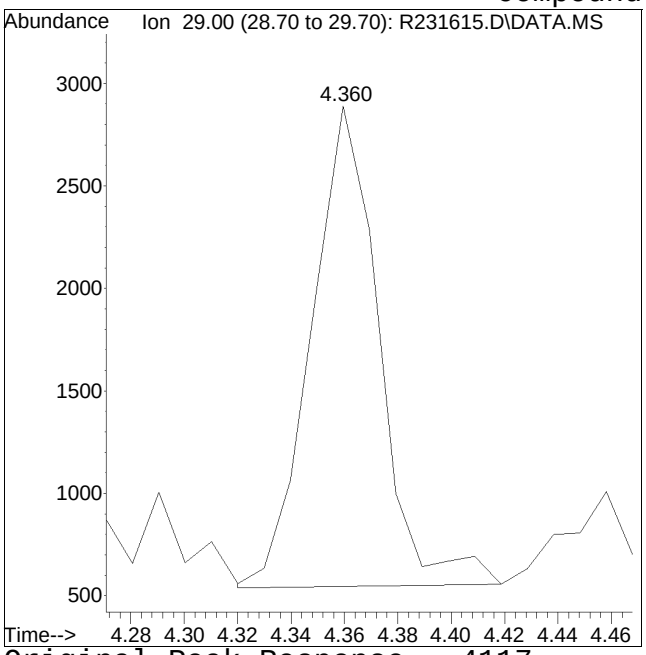
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

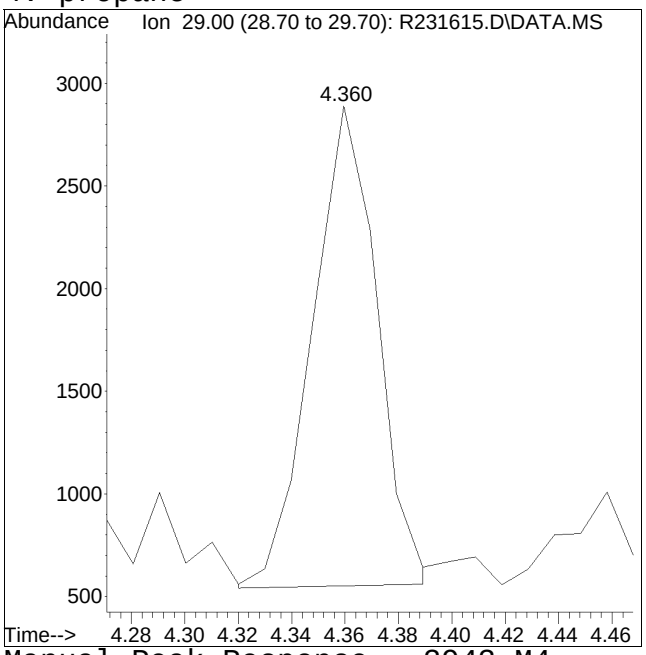
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #4: propane



Original Peak Response = 4117



Manual Peak Response = 3943 M4

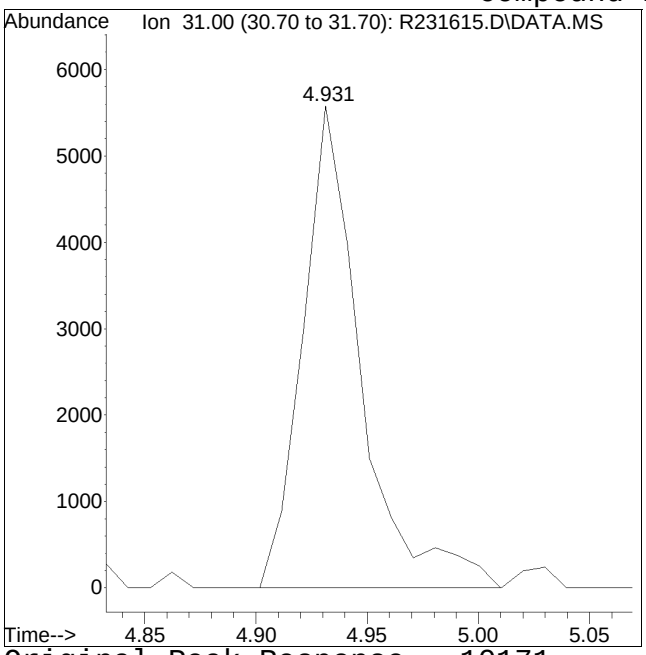
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

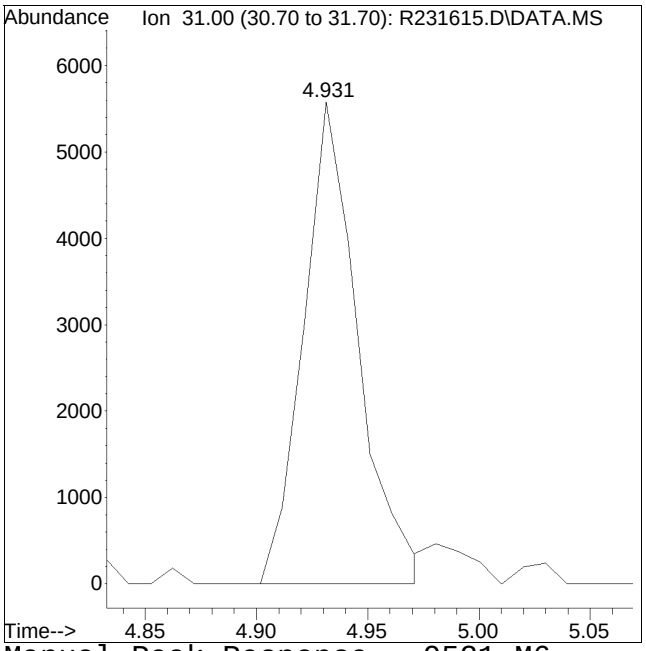
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #8: methanol



Original Peak Response = 10171



Manual Peak Response = 9521 M6

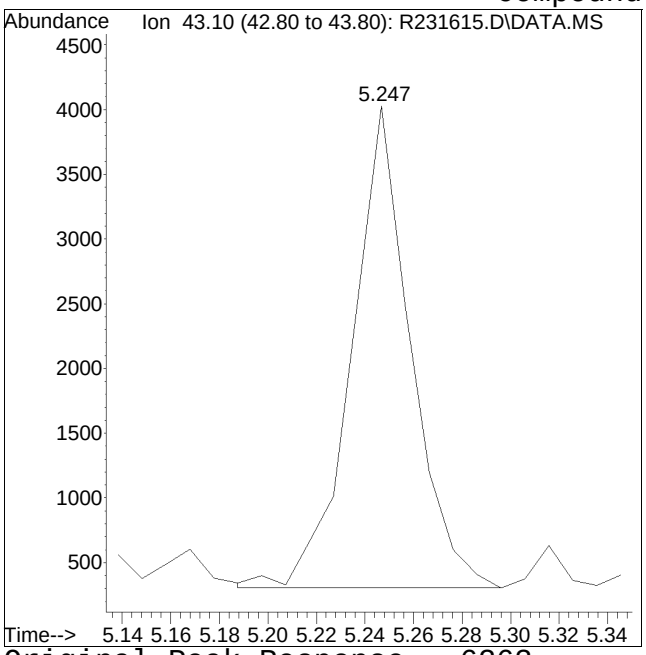
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

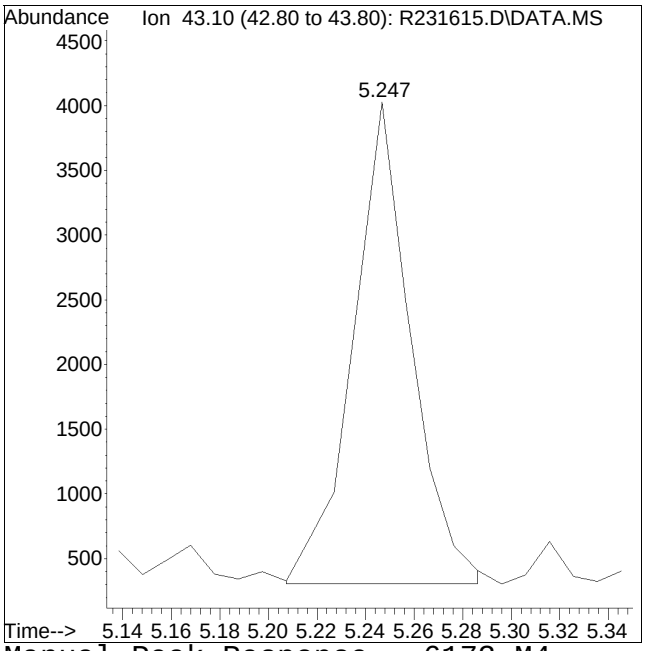
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #11: butane



Original Peak Response = 6263



Manual Peak Response = 6173 M4

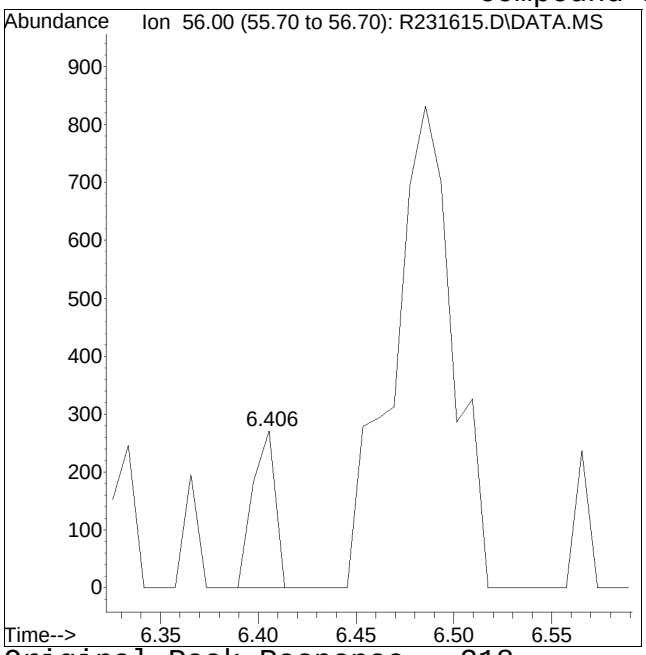
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

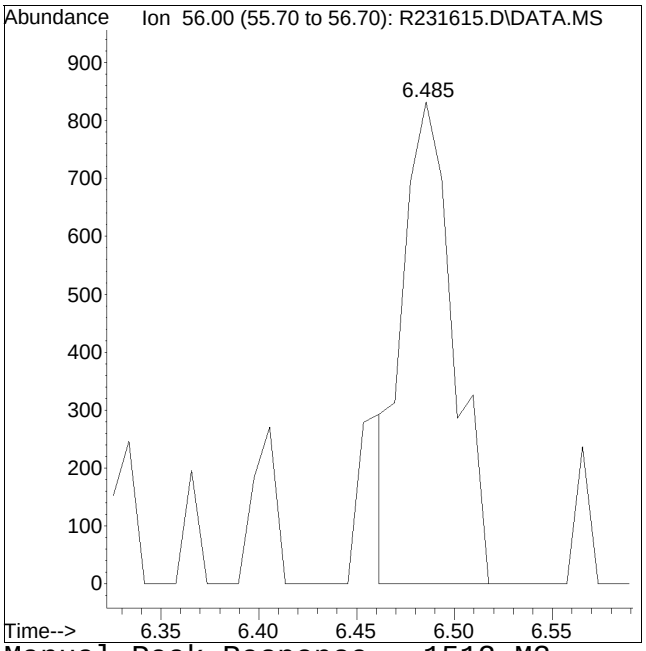
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #18: acrolein



Original Peak Response = 218



Manual Peak Response = 1512 M2

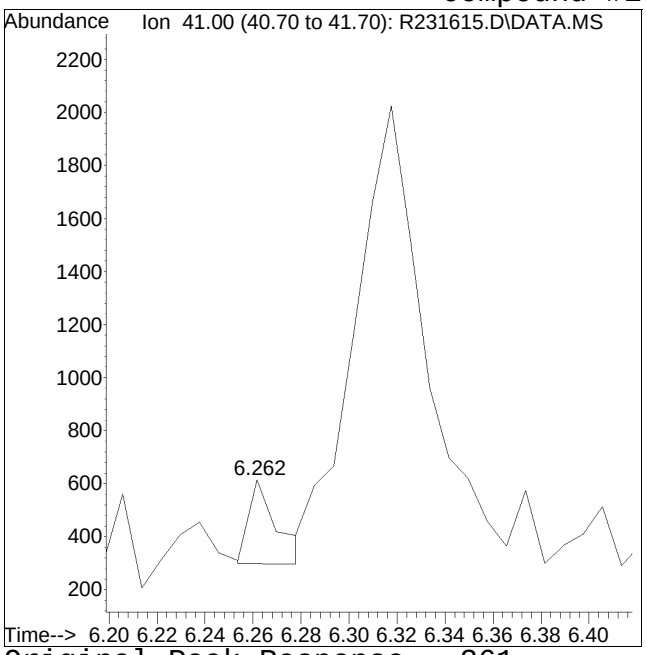
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

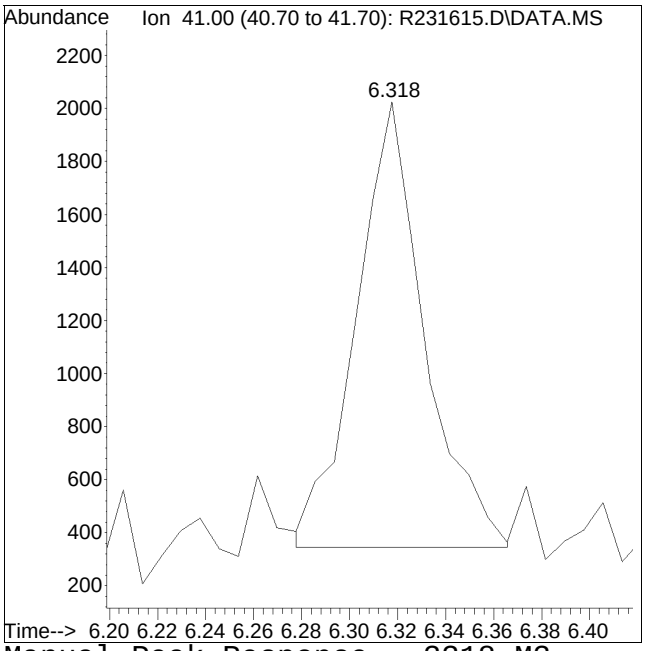
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #20: acetonitrile



Original Peak Response = 261



Manual Peak Response = 3318 M3

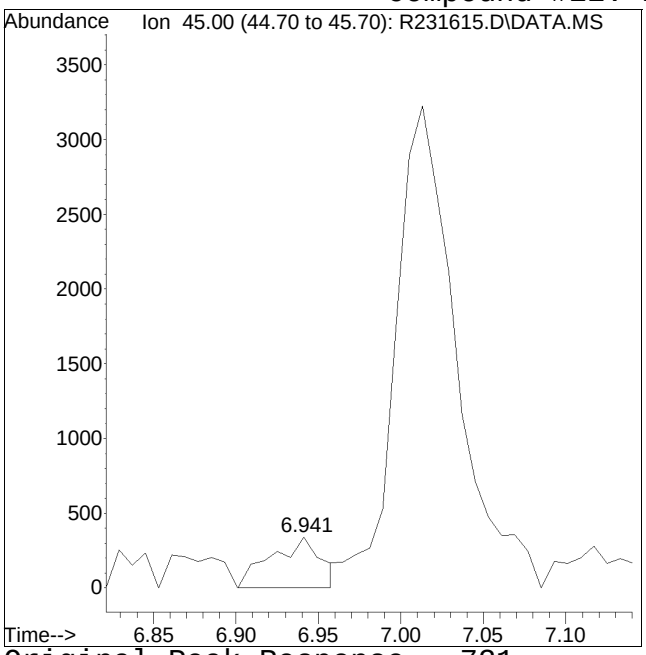
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

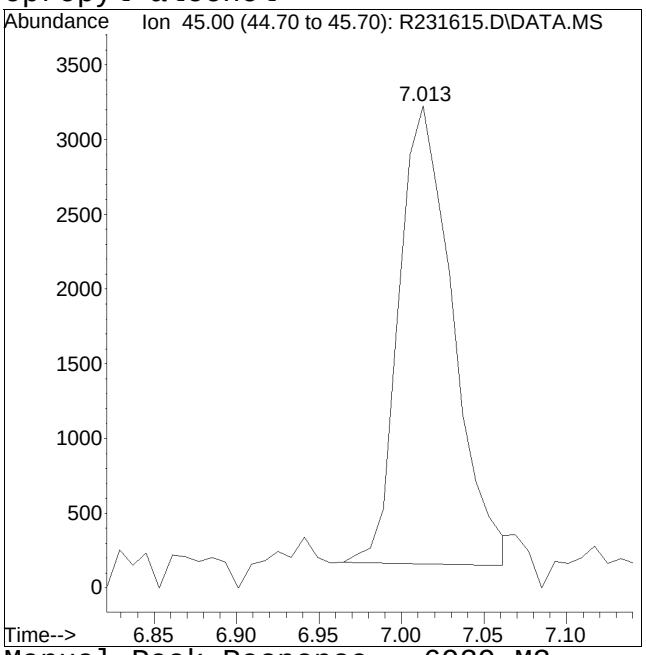
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #22: isopropyl alcohol





Original Peak Response = 721 Manual Peak Response = 6939 M3

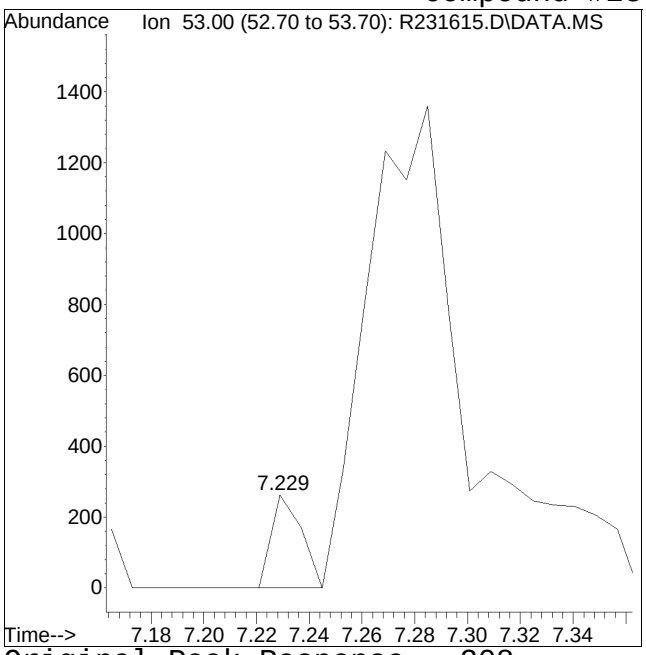
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

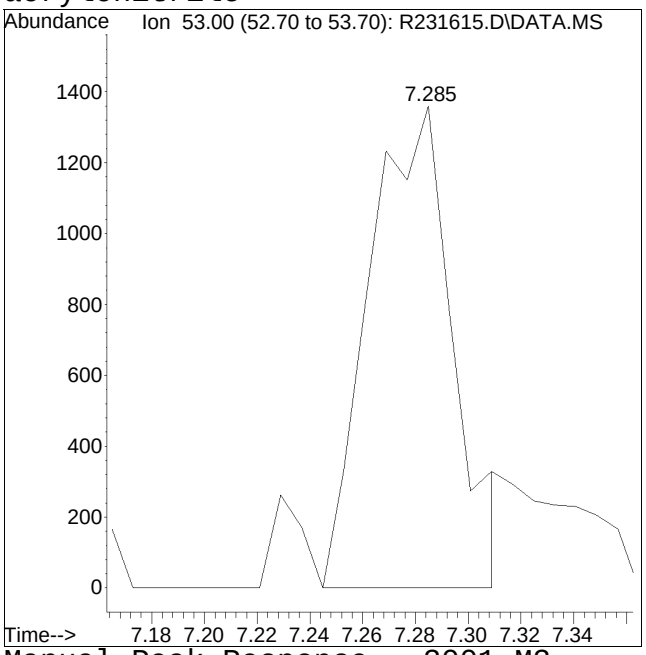
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #23: acrylonitrile



Original Peak Response = 208



Manual Peak Response = 3001 M3

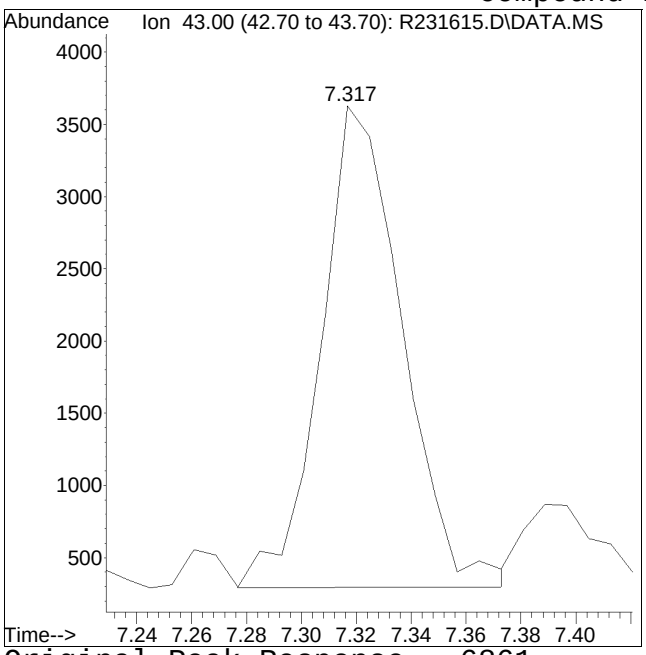
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

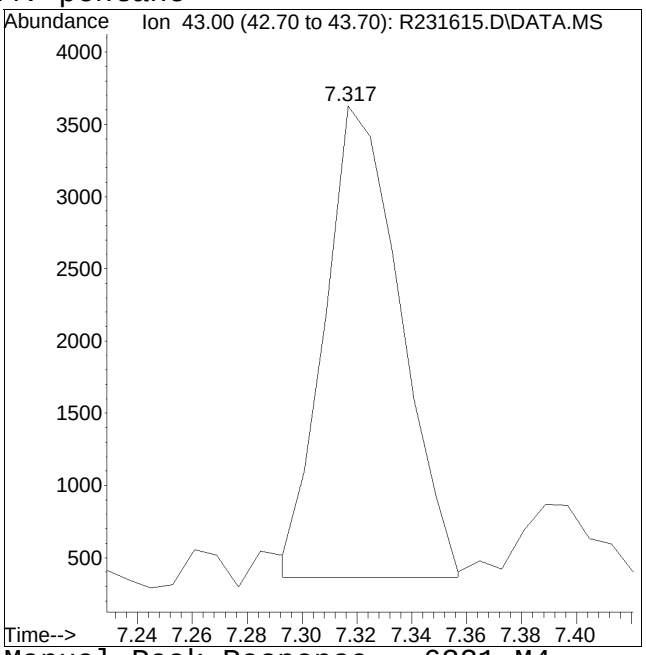
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #24: pentane



Original Peak Response = 6861



Manual Peak Response = 6221 M4

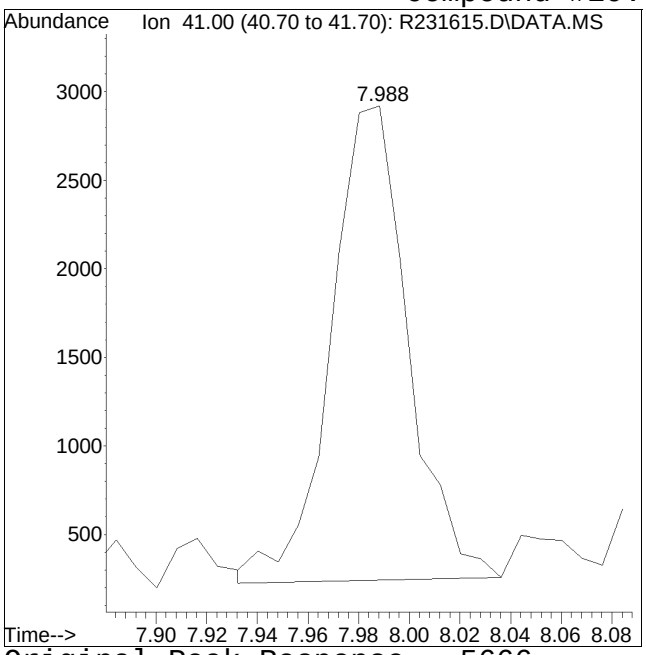
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

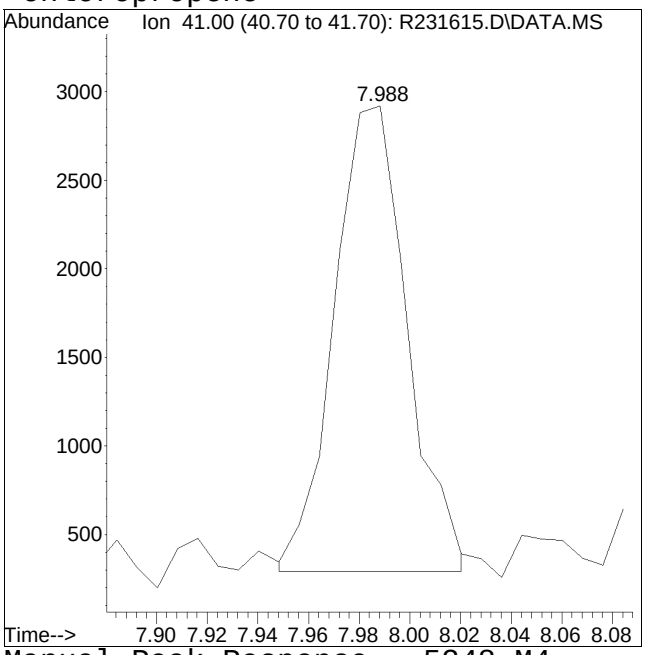
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #29: 3-chloropropene



Original Peak Response = 5666



Manual Peak Response = 5248 M4

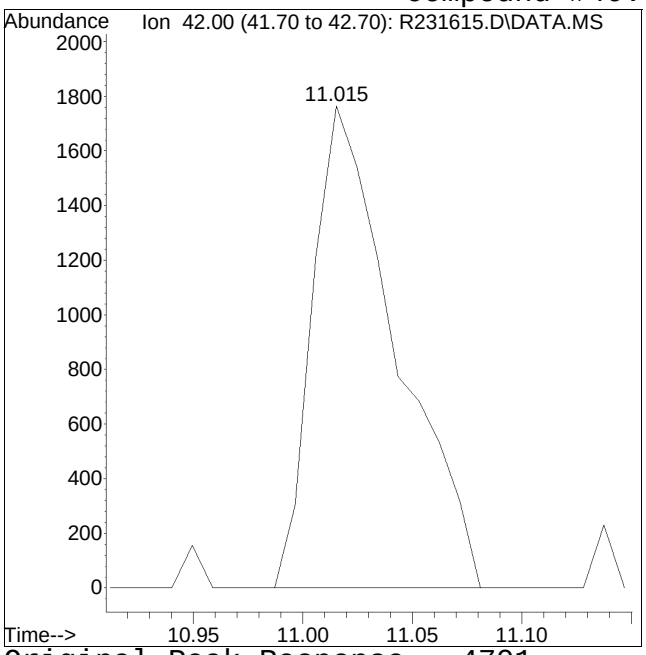
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

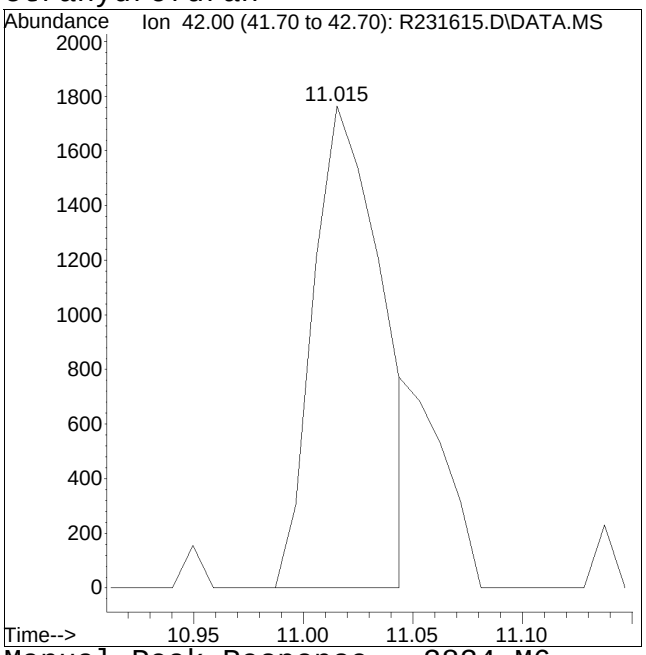
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #40: Tetrahydrofuran



Original Peak Response = 4701



Manual Peak Response = 3834 M6

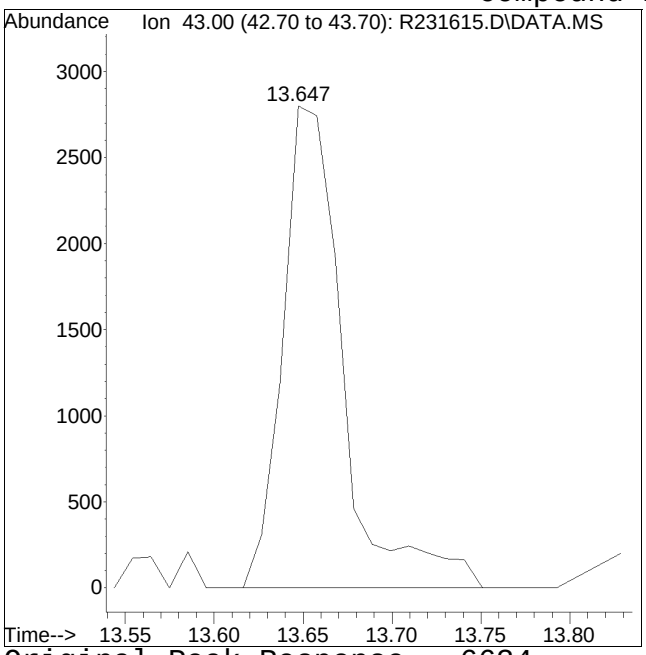
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

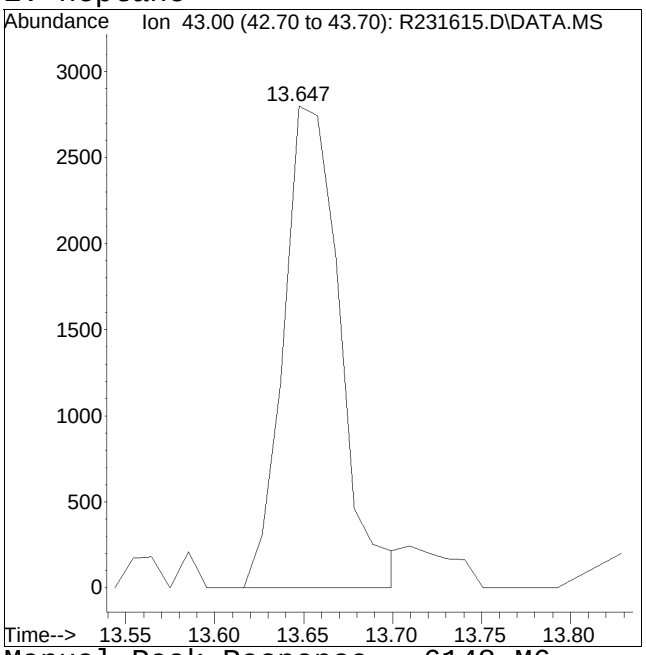
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #62: heptane



Original Peak Response = 6634



Manual Peak Response = 6148 M6

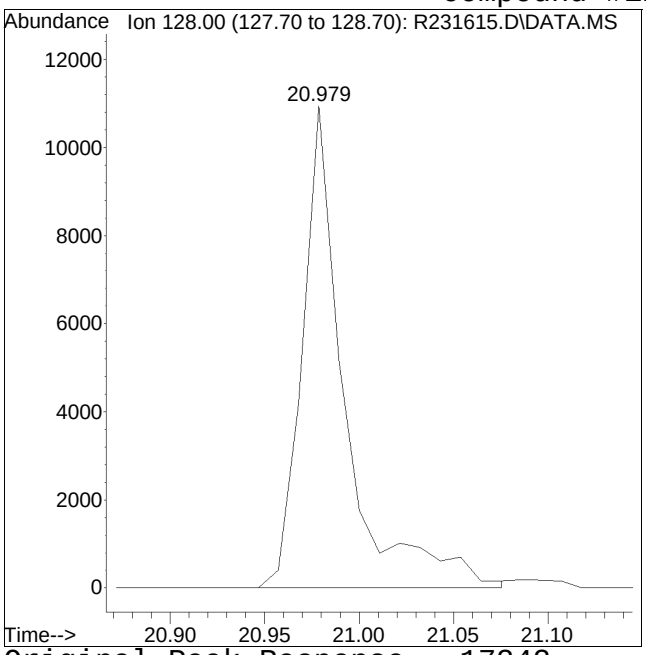
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

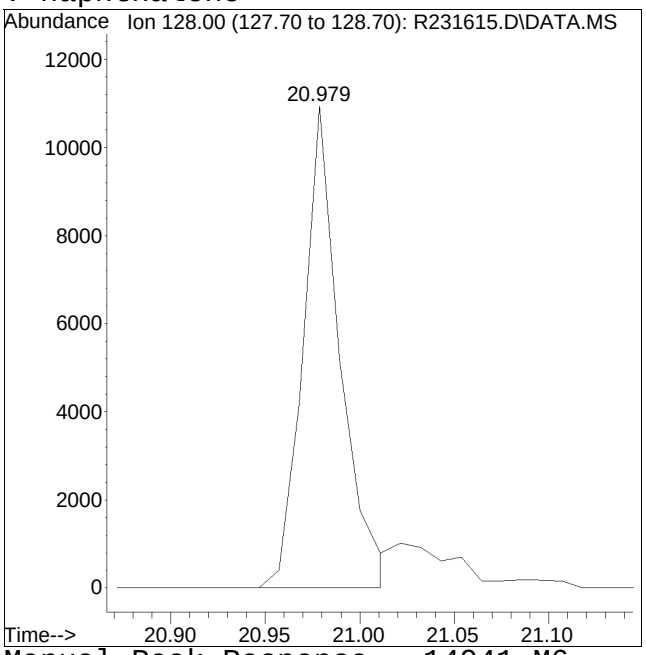
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231615.D
Date Inj'd : 12/14/2014 2:35 pm
Sample : ITO15-SIMSTD0.2

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #116: naphthalene



Original Peak Response = 17242



Manual Peak Response = 14941 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231616.D
Acq On : 14 Dec 2014 3:07 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.5
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:53:14 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	174645	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 96.15%			
43) 1,4-difluorobenzene	12.549	114	644436	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 99.49%			
67) chlorobenzene-D5	16.888	54	121628	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 98.28%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	146845	10.169	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.69%			
69) toluene-D8	15.225	98	596802	10.473	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.73%			
90) bromofluorobenzene	18.060	95	281536	9.278	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.78%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	12006	0.583	ppbV	95
3) propylene	4.330	41	5878M6	0.595	ppbV	
4) propane	4.359	29	8526M4	0.741	ppbV	
5) dichlorodifluoromethane	4.428	85	14121	0.523	ppbV	93
6) chloromethane	4.655	50	7341	0.639	ppbV	93
7) Freon-114	4.803	85	25362	0.551	ppbV	97
8) methanol	4.931	31	19830	3.401	ppbV #	35
9) vinyl chloride	4.971	62	7321	0.519	ppbV	95
10) 1,3-butadiene	5.168	54	5690	0.561	ppbV	94
11) butane	5.247	43	13223	0.608	ppbV	99
12) acetaldehyde	4.862	29	28767	2.934	ppbV	90
13) bromomethane	5.550	94	9268	0.580	ppbV	86
14) chloroethane	5.806	64	4374	0.620	ppbV	98
15) ethanol	6.030	31	33279	2.759	ppbV	94
16) dichlorofluoromethane	5.958	67	19817	0.579	ppbV	98
17) vinyl bromide	6.285	106	8667	0.531	ppbV	83
18) acrolein	6.477	56	3471M3	0.613	ppbV	
19) acetone	6.661	43	69673	2.945	ppbV #	95
20) acetonitrile	6.309	41	7172M4	0.561	ppbV	
21) trichlorofluoromethane	6.853	101	29186	0.566	ppbV	94
22) isopropyl alcohol	7.005	45	17586	0.719	ppbV #	96
23) acrylonitrile	7.277	53	5184M6	0.515	ppbV	
24) pentane	7.325	43	14241M4	0.553	ppbV	

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231616.D
Acq On : 14 Dec 2014 3:07 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.5
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:53:14 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.389	31	12224	0.558	ppbV	97
26) 1,1-dichloroethene	7.676	61	13684	0.547	ppbV	94
27) tertiary butyl alcohol	7.772	59	17710	0.584	ppbV #	88
28) methylene chloride	7.836	49	11350	0.634	ppbV	93
29) 3-chloropropene	7.988	41	11360	0.558	ppbV	95
30) carbon disulfide	8.164	76	24488	0.519	ppbV #	45
31) Freon 113	8.172	101	19861	0.551	ppbV	93
32) trans-1,2-dichloroethene	8.988	61	11005	0.521	ppbV	92
33) 1,1-dichloroethane	9.221	63	13580	0.542	ppbV	99
34) MTBE	9.317	73	22085	0.530	ppbV	93
35) vinyl acetate	9.427	43	8888	0.446	ppbV	96
36) 2-butanone	9.722	43	16543	0.562	ppbV	97
37) cis-1,2-dichloroethene	10.198	61	10191	0.543	ppbV	96
38) Ethyl Acetate	10.480	61	2237	0.495	ppbV #	53
39) chloroform	10.536	83	19319	0.555	ppbV	96
40) Tetrahydrofuran	11.015	42	9315M6	0.575	ppbV	
41) 2,2-dichloropropane	10.564	77	15599	0.528	ppbV	94
42) 1,2-dichloroethane	11.362	62	11425	0.538	ppbV	96
44) hexane	10.452	57	11197	0.527	ppbV #	62
45) diisopropyl ether	10.452	87	6372	0.501	ppbV	87
46) tert-butyl ethyl ether	11.053	59	22838	0.522	ppbV	97
48) 1,1,1-trichloroethane	11.648	97	22385	0.515	ppbV #	97
49) 1,1-dichloropropene	12.000	75	11754	0.502	ppbV #	87
50) benzene	12.166	78	23800	0.536	ppbV	98
51) thiophene	12.311	84	15980	0.499	ppbV	91
52) carbon tetrachloride	12.332	117	20921	0.473	ppbV	87
53) cyclohexane	12.466	56	12021	0.582	ppbV	90
54) tert-amyl methyl ether	12.829	73	22433	0.498	ppbV	99
55) dibromomethane	13.046	93	11726	0.510	ppbV	92
56) 1,2-dichloropropane	13.077	63	7950	0.485	ppbV #	84
57) bromodichloromethane	13.285	83	20912	0.493	ppbV	94
58) 1,4-dioxane	13.357	88	5915	0.535	ppbV #	77
59) trichloroethene	13.336	130	13235	0.534	ppbV	90
60) 2,2,4-trimethylpentane	13.378	57	35470	0.479	ppbV #	94
61) methyl methacrylate	13.544	41	11720	0.547	ppbV	91
62) heptane	13.658	43	14935	0.556	ppbV	90
63) cis-1,3-dichloropropene	14.305	75	12232	0.490	ppbV	95
64) 4-methyl-2-pentanone	14.352	43	19832	0.513	ppbV #	95
65) trans-1,3-dichloropropene	14.863	75	15987	0.475	ppbV	94
66) 1,1,2-trichloroethane	15.053	97	13513	0.477	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231616.D
Acq On : 14 Dec 2014 3:07 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.5
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:53:14 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.324	91	42170	0.537	ppbV		95
70) 2-methylthiophene	15.388	97	36177	0.512	ppbV	#	95
71) 1,3-dichloropropane	15.352	76	18687	0.529	ppbV		98
72) 2-hexanone	15.577	43	25291	0.529	ppbV		88
73) 3-methylthiophene	15.559	97	34788	0.472	ppbV		96
74) dibromochloromethane	15.731	129	29186	0.440	ppbV		91
75) 1,2-dibromoethane	15.957	107	24180	0.490	ppbV		97
76) butyl acetate	16.138	73	4075	0.514	ppbV		79
77) octane	16.210	85	11062	0.500	ppbV	#	89
78) tetrachloroethene	16.364	166	20152	0.493	ppbV		94
79) 1,1,1,2-tetrachloroethane	16.912	131	15167	0.489	ppbV		98
80) chlorobenzene	16.926	112	24983	0.500	ppbV		99
81) ethylbenzene	17.217	91	39279	0.503	ppbV		96
82) 2-ethylthiophene	17.250	97	31679	0.499	ppbV		96
83) m+p-xylene	17.360	91	61872	0.982	ppbV		98
84) bromoform	17.436	173	18343	0.414	ppbV		97
85) styrene	17.636	104	24120	0.493	ppbV		94
86) 1,1,2,2-tetrachloroethane	17.717	83	22071	0.466	ppbV		97
87) o-xylene	17.717	91	31756	0.485	ppbV		96
88) 1,2,3-trichloropropane	17.817	75	16682	0.489	ppbV		96
89) nonane	17.855	43	19425	0.488	ppbV	#	97
91) isopropylbenzene	18.155	105	39052	0.434	ppbV		99
92) bromobenzene	18.236	77	21935	0.498	ppbV		99
93) 2-chlorotoluene	18.517	126	12792	0.510	ppbV	#	53
94) n-propylbenzene	18.531	120	12933	0.492	ppbV		79
95) 4-chlorotoluene	18.564	91	32524	0.485	ppbV		95
96) 4-ethyl toluene	18.636	105	48046	0.472	ppbV		99
97) 1,3,5-trimethylbenzene	18.688	105	37310	0.479	ppbV		97
98) tert-butylbenzene	18.993	119	41016	0.461	ppbV		99
99) 1,2,4-trimethylbenzene	18.993	105	37181	0.451	ppbV		99
100) decane	19.036	57	18775	0.450	ppbV		90
101) Benzyl Chloride	19.108	91	25489	0.364	ppbV		95
102) 1,3-dichlorobenzene	19.122	146	25878	0.468	ppbV		97
103) 1,4-dichlorobenzene	19.174	146	25166	0.445	ppbV		99
104) sec-butylbenzene	19.193	105	54673	0.463	ppbV		99
105) 1,2,3-trimethylbenzene	19.312	105	33494	0.454	ppbV		94
106) p-isopropyltoluene	19.303	119	50474	0.459	ppbV		99
107) 1,2-dichlorobenzene	19.432	146	23476	0.454	ppbV		96
108) n-butylbenzene	19.622	91	42543	0.452	ppbV		98
109) indan	19.474	117	36466	0.457	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231616.D
Acq On : 14 Dec 2014 3:07 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.5
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:53:14 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

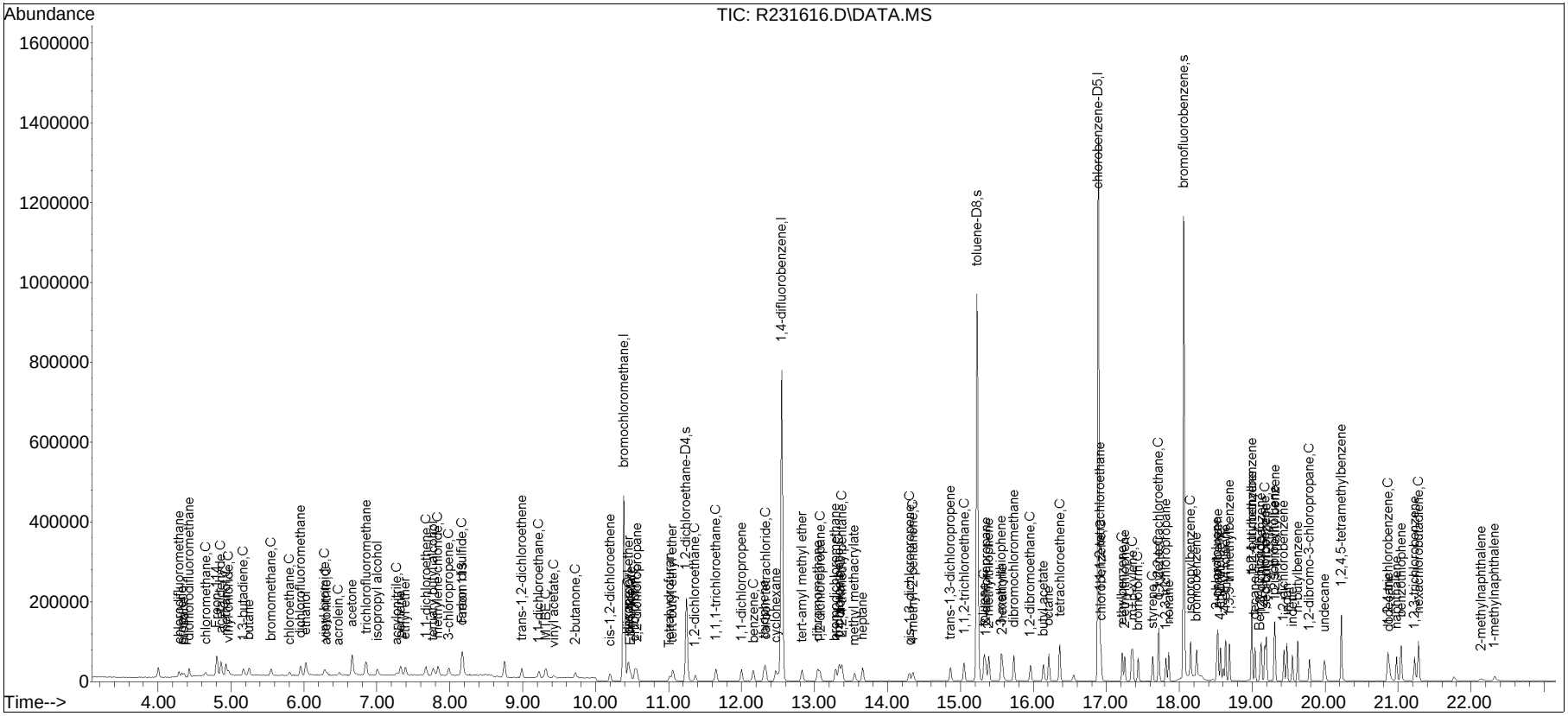
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.551	115	25540	0.468	ppbV	96
111) 1,2-dibromo-3-chloropr...	19.784	75	9538	0.404	ppbV	91
112) undecane	19.989	57	18558	0.398	ppbV #	97
113) 1,2,4,5-tetramethylben...	20.222	119	71397	0.360	ppbV	97
114) dodecane	20.871	57	16295	0.332	ppbV	94
115) 1,2,4-trichlorobenzene	20.861	180	15272	0.360	ppbV	94
116) naphthalene	20.979	128	43144	0.401	ppbV	98
117) 1,2,3-trichlorobenzene	21.225	180	16445	0.422	ppbV	96
118) benzothiophene	21.043	134	66706	0.369	ppbV	98
119) hexachlorobutadiene	21.279	225	14238	0.413	ppbV	92
120) 2-methylnaphthalene	22.136	142	8411	0.219	ppbV	96
121) 1-methylnaphthalene	22.318	142	11174	0.336	ppbV	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231616.D
Acq On : 14 Dec 2014 3:07 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD0.5
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

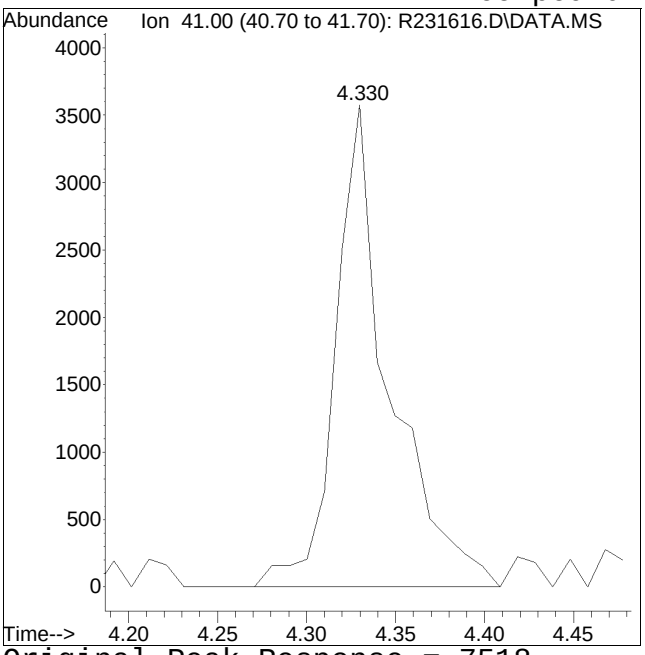
Quant Time: Dec 15 06:53:14 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration



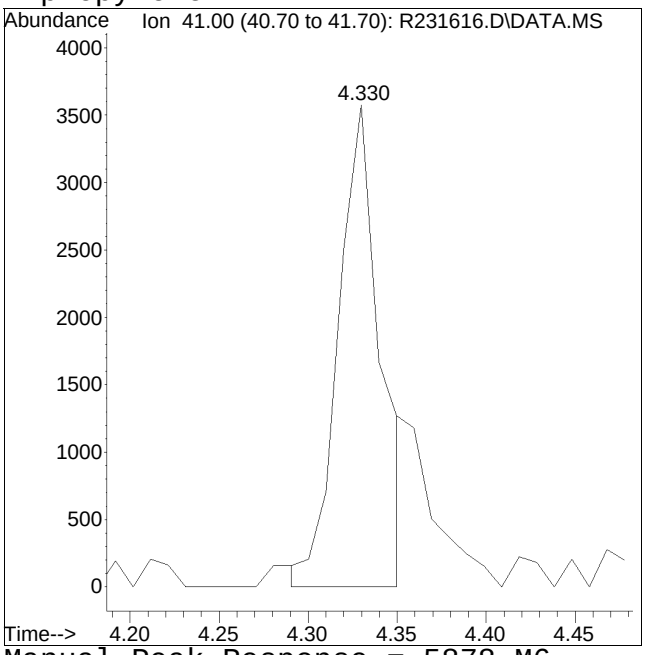
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231616.D
Date Inj'd : 12/14/2014 3:07 pm
Sample : ITO15-SIMSTD0.5
Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #3: propylene



Original Peak Response = 7518



Manual Peak Response = 5878 M6

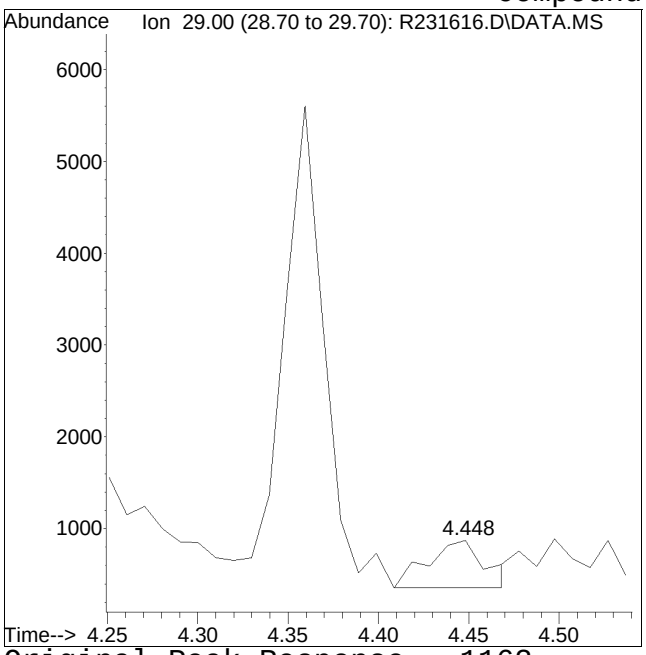
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

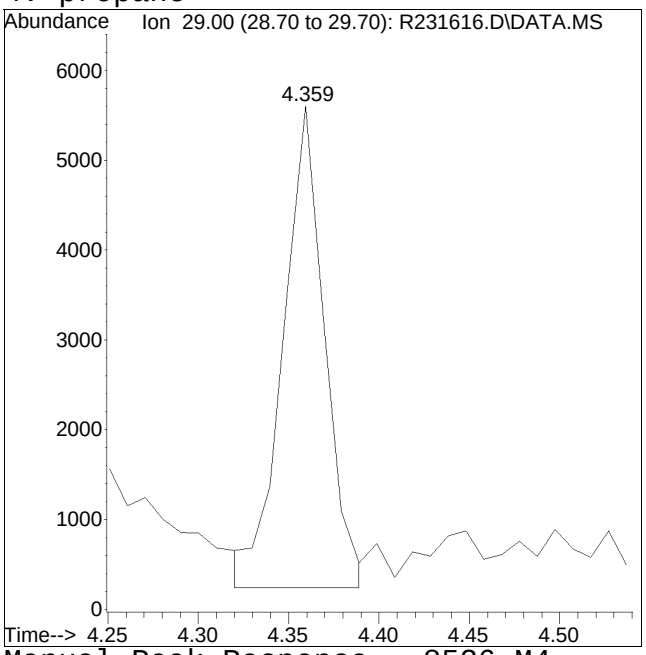
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231616.D
Date Inj'd : 12/14/2014 3:07 pm
Sample : ITO15-SIMSTD0.5

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #4: propane



Original Peak Response = 1162



Manual Peak Response = 8526 M4

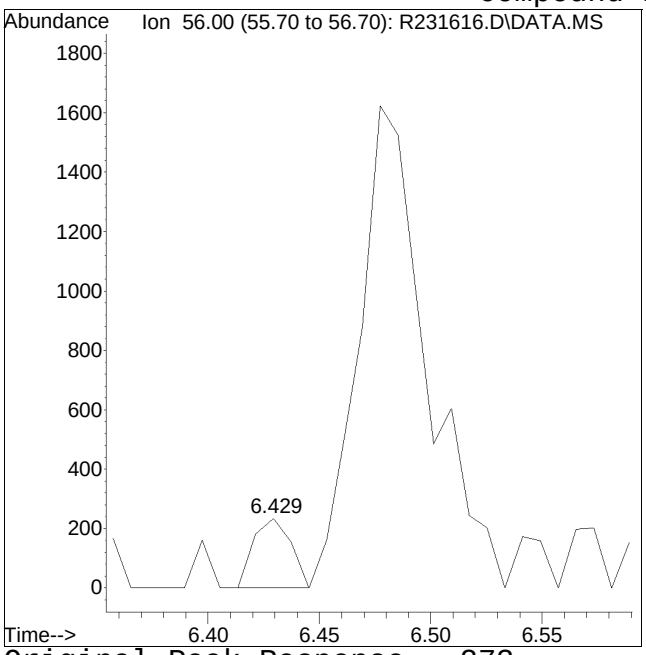
M4 = Poor automated baseline construction.

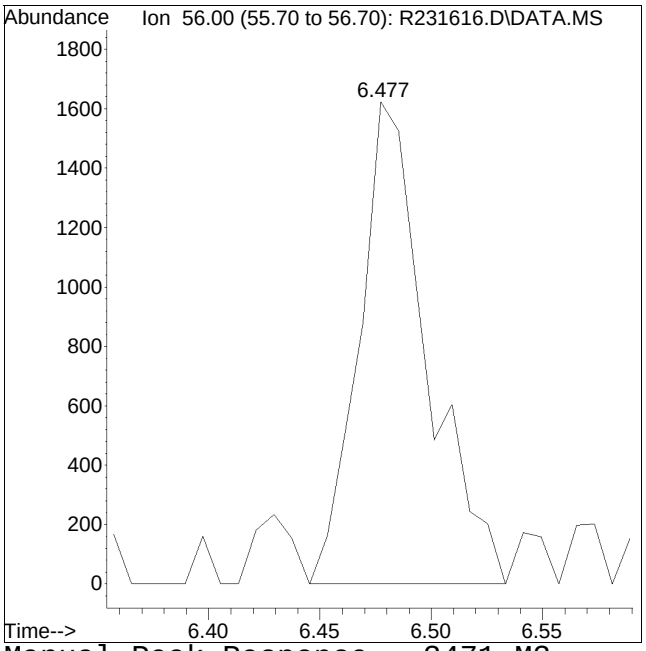
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231616.D
Date Inj'd : 12/14/2014 3:07 pm
Sample : ITO15-SIMSTD0.5

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #18: acrolein





Original Peak Response = 273 Manual Peak Response = 3471 M3

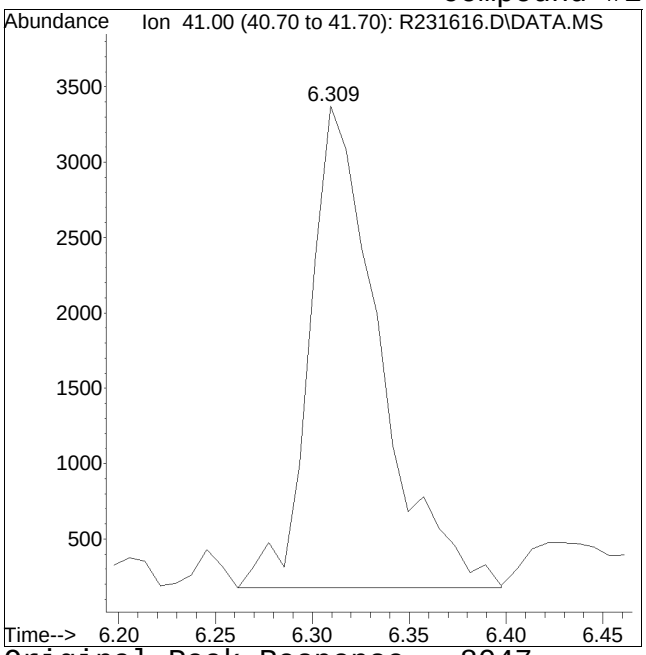
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

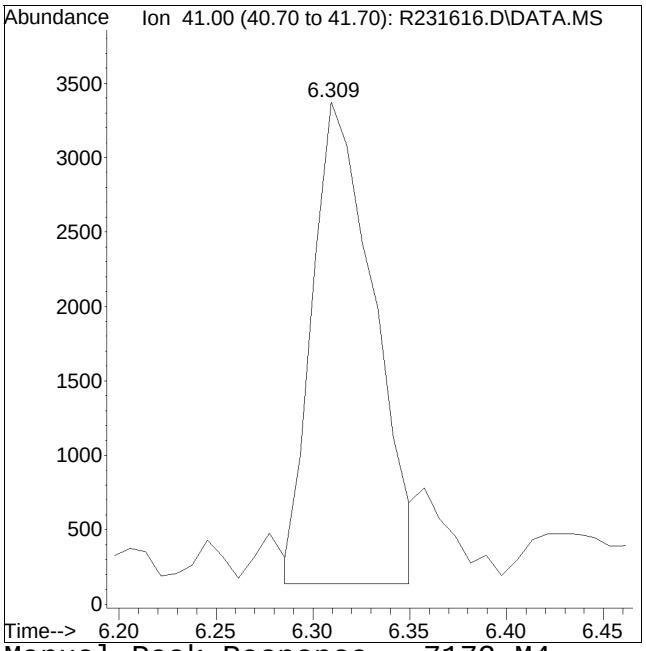
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231616.D
Date Inj'd : 12/14/2014 3:07 pm
Sample : ITO15-SIMSTD0.5

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #20: acetonitrile



Original Peak Response = 8047



Manual Peak Response = 7172 M4

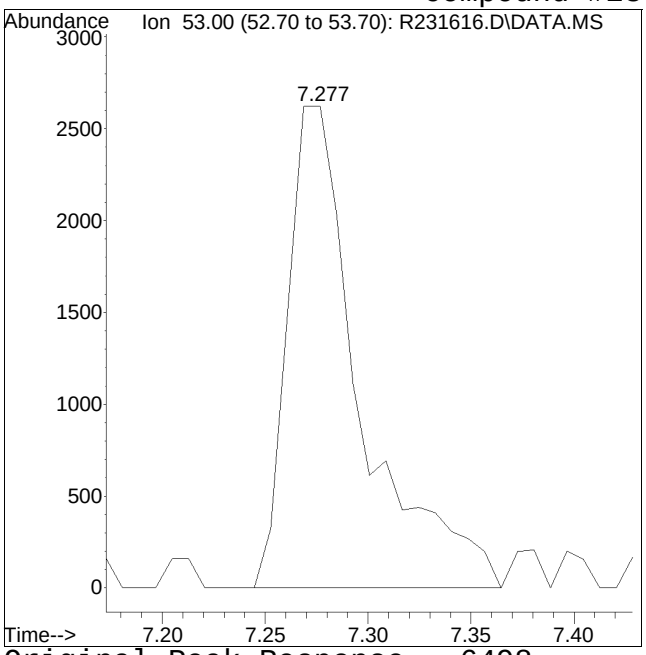
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

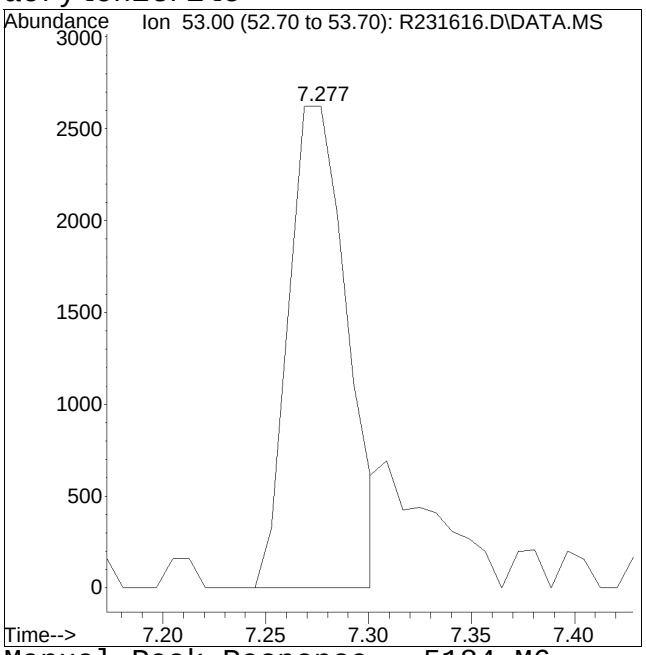
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231616.D
Date Inj'd : 12/14/2014 3:07 pm
Sample : ITO15-SIMSTD0.5

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #23: acrylonitrile



Original Peak Response = 6498



Manual Peak Response = 5184 M6

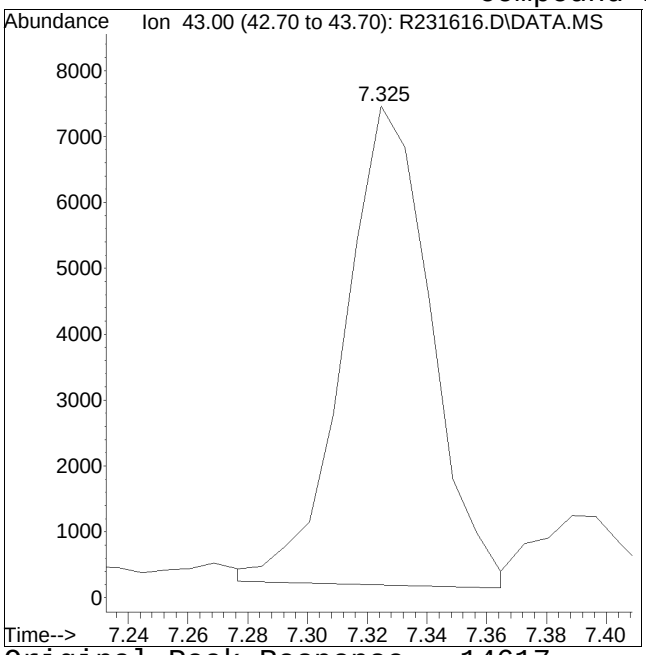
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

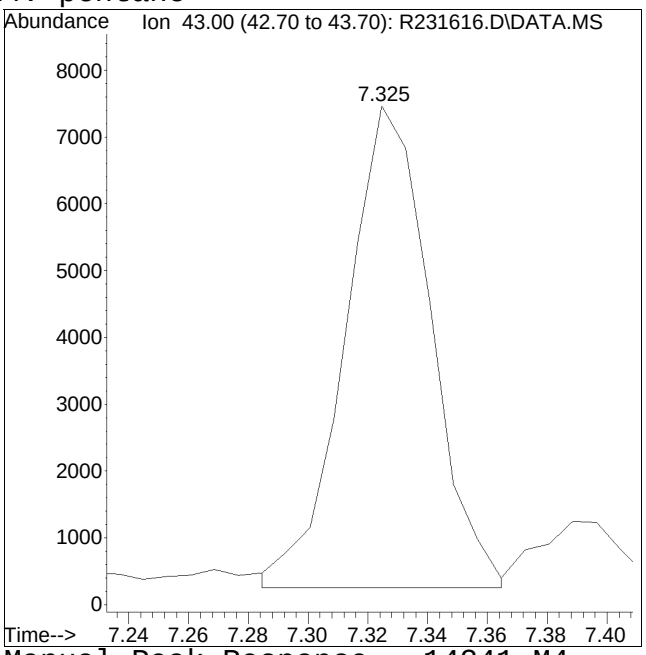
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231616.D
Date Inj'd : 12/14/2014 3:07 pm
Sample : ITO15-SIMSTD0.5

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #24: pentane



Original Peak Response = 14617



Manual Peak Response = 14241 M4

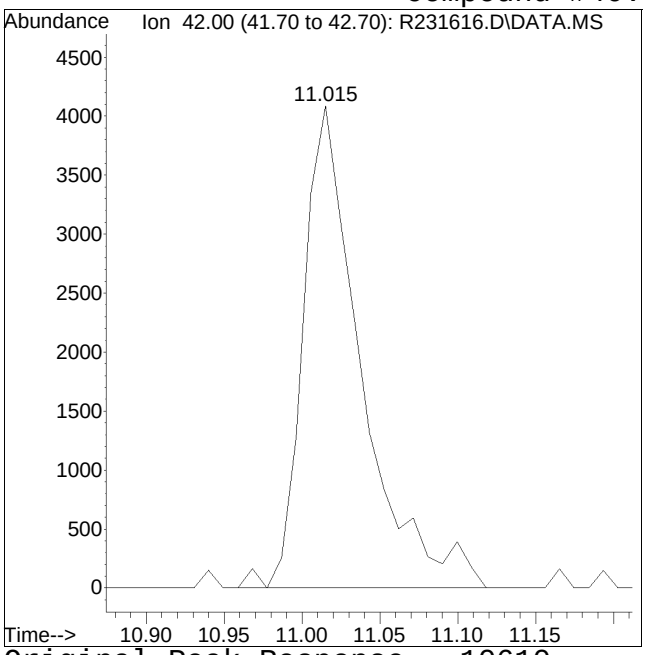
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

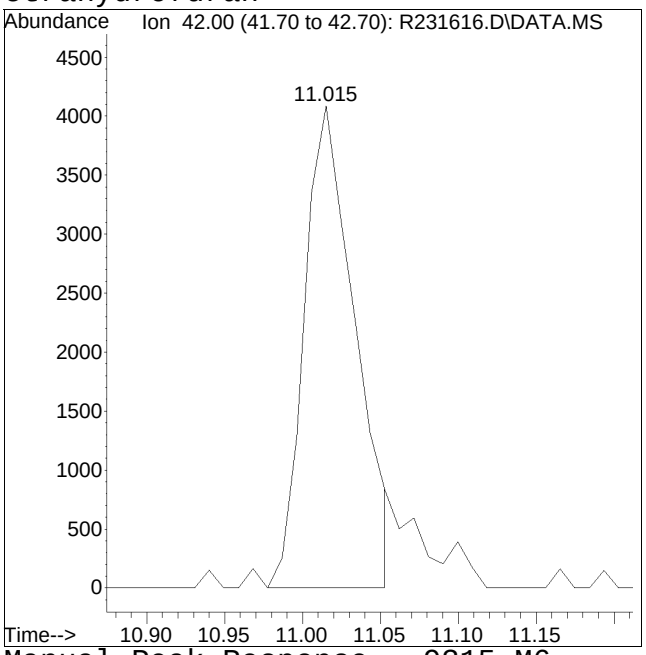
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231616.D
Date Inj'd : 12/14/2014 3:07 pm
Sample : ITO15-SIMSTD0.5

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #40: Tetrahydrofuran



Original Peak Response = 10610



Manual Peak Response = 9315 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231617.D
Acq On : 14 Dec 2014 3:39 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD1.0
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:57:13 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	176226	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 97.02%			
43) 1,4-difluorobenzene	12.549	114	644627	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 99.52%			
67) chlorobenzene-D5	16.888	54	124510	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 100.61%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	146640	10.151	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.51%			
69) toluene-D8	15.225	98	597950	10.250	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.50%			
90) bromofluorobenzene	18.060	95	307458	9.898	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.98%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	22674	1.092	ppbV	100
3) propylene	4.330	41	11055M6	1.108	ppbV	
4) propane	4.359	29	14378	1.239	ppbV	98
5) dichlorodifluoromethane	4.428	85	25303	0.929	ppbV	95
6) chloromethane	4.655	50	12647	1.092	ppbV	96
7) Freon-114	4.803	85	49134	1.058	ppbV	98
8) methanol	4.931	31	37044	6.297	ppbV #	75
9) vinyl chloride	4.970	62	15194	1.067	ppbV	99
10) 1,3-butadiene	5.168	54	10398	1.016	ppbV	84
11) butane	5.247	43	25854	1.178	ppbV	99
12) acetaldehyde	4.852	29	58225	5.884	ppbV	100
13) bromomethane	5.550	94	16967	1.052	ppbV	99
14) chloroethane	5.806	64	7844	1.102	ppbV	99
15) ethanol	6.014	31	63392	5.208	ppbV	95
16) dichlorofluoromethane	5.958	67	39537	1.144	ppbV	97
17) vinyl bromide	6.277	106	17961	1.091	ppbV	88
18) acrolein	6.477	56	6343	1.111	ppbV #	74
19) acetone	6.645	43	130055	5.448	ppbV #	98
20) acetonitrile	6.309	41	13880	1.076	ppbV #	82
21) trichlorofluoromethane	6.853	101	56246	1.082	ppbV	95
22) isopropyl alcohol	6.989	45	32405	1.314	ppbV #	97
23) acrylonitrile	7.269	53	11038M6	1.087	ppbV	
24) pentane	7.325	43	27539	1.060	ppbV #	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231617.D
Acq On : 14 Dec 2014 3:39 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD1.0
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:57:13 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.380	31	23734	1.074	ppbV		96
26) 1,1-dichloroethene	7.676	61	27312	1.082	ppbV		95
27) tertiary butyl alcohol	7.756	59	33849	1.106	ppbV		92
28) methylene chloride	7.836	49	21896	1.212	ppbV		96
29) 3-chloropropene	7.988	41	22270	1.084	ppbV		95
30) carbon disulfide	8.164	76	48707	1.023	ppbV	#	78
31) Freon 113	8.172	101	39000	1.072	ppbV		95
32) trans-1,2-dichloroethene	8.988	61	22509	1.055	ppbV		94
33) 1,1-dichloroethane	9.221	63	26697	1.055	ppbV		96
34) MTBE	9.304	73	44133	1.049	ppbV		99
35) vinyl acetate	9.420	43	14993M4	0.745	ppbV		
36) 2-butanone	9.708	43	32055	1.079	ppbV		97
37) cis-1,2-dichloroethene	10.198	61	20063	1.060	ppbV		96
38) Ethyl Acetate	10.480	61	5011	1.098	ppbV	#	37
39) chloroform	10.536	83	36583	1.041	ppbV		97
40) Tetrahydrofuran	11.006	42	16831M6	1.029	ppbV		
41) 2,2-dichloropropane	10.564	77	30893	1.036	ppbV		97
42) 1,2-dichloroethane	11.362	62	22657	1.058	ppbV		99
44) hexane	10.442	57	20991	0.987	ppbV	#	69
45) diisopropyl ether	10.452	87	13328	1.047	ppbV		99
46) tert-butyl ethyl ether	11.053	59	43367	0.991	ppbV		100
48) 1,1,1-trichloroethane	11.648	97	45685	1.050	ppbV		97
49) 1,1-dichloropropene	12.000	75	23014	0.983	ppbV		93
50) benzene	12.166	78	46869	1.054	ppbV		98
51) thiophene	12.311	84	32882	1.027	ppbV		97
52) carbon tetrachloride	12.332	117	43407	0.981	ppbV		97
53) cyclohexane	12.466	56	22335	1.081	ppbV		96
54) tert-amyl methyl ether	12.818	73	45782	1.015	ppbV		96
55) dibromomethane	13.046	93	21771	0.946	ppbV		98
56) 1,2-dichloropropane	13.077	63	17079	1.042	ppbV		96
57) bromodichloromethane	13.285	83	41450	0.976	ppbV		97
58) 1,4-dioxane	13.347	88	9928	0.898	ppbV	#	79
59) trichloroethene	13.336	130	24024	0.969	ppbV		96
60) 2,2,4-trimethylpentane	13.367	57	70299	0.949	ppbV		99
61) methyl methacrylate	13.544	41	23329	1.088	ppbV		95
62) heptane	13.657	43	28034	1.044	ppbV		99
63) cis-1,3-dichloropropene	14.304	75	23346	0.936	ppbV		96
64) 4-methyl-2-pentanone	14.336	43	39609	1.023	ppbV		95
65) trans-1,3-dichloropropene	14.863	75	31116	0.924	ppbV		96
66) 1,1,2-trichloroethane	15.053	97	27943	0.987	ppbV		91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231617.D
Acq On : 14 Dec 2014 3:39 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD1.0
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:57:13 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.324	91	81244	1.011	ppbV	99
70) 2-methylthiophene	15.388	97	73773	1.020	ppbV	97
71) 1,3-dichloropropane	15.351	76	34936	0.966	ppbV	96
72) 2-hexanone	15.568	43	49422	1.010	ppbV	99
73) 3-methylthiophene	15.559	97	75379	0.998	ppbV	100
74) dibromochloromethane	15.731	129	62480	0.921	ppbV	96
75) 1,2-dibromoethane	15.957	107	47018	0.932	ppbV	91
76) butyl acetate	16.129	73	7889	0.973	ppbV	92
77) octane	16.210	85	22195	0.981	ppbV	95
78) tetrachloroethene	16.364	166	40968	0.978	ppbV	93
79) 1,1,1,2-tetrachloroethane	16.907	131	29969	0.944	ppbV	98
80) chlorobenzene	16.926	112	49119	0.961	ppbV	97
81) ethylbenzene	17.217	91	77679	0.971	ppbV	99
82) 2-ethylthiophene	17.250	97	62486	0.962	ppbV	98
83) m+p-xylene	17.360	91	122793	1.905	ppbV	99
84) bromoform	17.436	173	36440	0.804	ppbV	93
85) styrene	17.636	104	47422	0.947	ppbV	96
86) 1,1,2,2-tetrachloroethane	17.717	83	46296	0.956	ppbV	99
87) o-xylene	17.717	91	62552	0.933	ppbV	98
88) 1,2,3-trichloropropane	17.817	75	33189	0.950	ppbV	96
89) nonane	17.855	43	39415	0.967	ppbV	98
91) isopropylbenzene	18.155	105	88386	0.959	ppbV	100
92) bromobenzene	18.236	77	42243	0.936	ppbV	99
93) 2-chlorotoluene	18.517	126	24014	0.935	ppbV	75
94) n-propylbenzene	18.531	120	25841	0.961	ppbV	75
95) 4-chlorotoluene	18.564	91	63672	0.927	ppbV	99
96) 4-ethyl toluene	18.636	105	95712	0.919	ppbV	98
97) 1,3,5-trimethylbenzene	18.683	105	74773	0.937	ppbV	97
98) tert-butylbenzene	18.993	119	84351	0.925	ppbV	98
99) 1,2,4-trimethylbenzene	18.993	105	73415	0.870	ppbV	99
100) decane	19.036	57	38775	0.908	ppbV	96
101) Benzyl Chloride	19.108	91	54636	0.761	ppbV	95
102) 1,3-dichlorobenzene	19.122	146	52516	0.927	ppbV	94
103) 1,4-dichlorobenzene	19.170	146	53095	0.917	ppbV	97
104) sec-butylbenzene	19.189	105	109729	0.908	ppbV	98
105) 1,2,3-trimethylbenzene	19.312	105	69974	0.927	ppbV	98
106) p-isopropyltoluene	19.303	119	100773	0.896	ppbV	100
107) 1,2-dichlorobenzene	19.431	146	49203	0.930	ppbV	97
108) n-butylbenzene	19.622	91	86703	0.899	ppbV	96
109) indan	19.474	117	75846	0.929	ppbV	99

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231617.D
Acq On : 14 Dec 2014 3:39 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD1.0
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:57:13 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

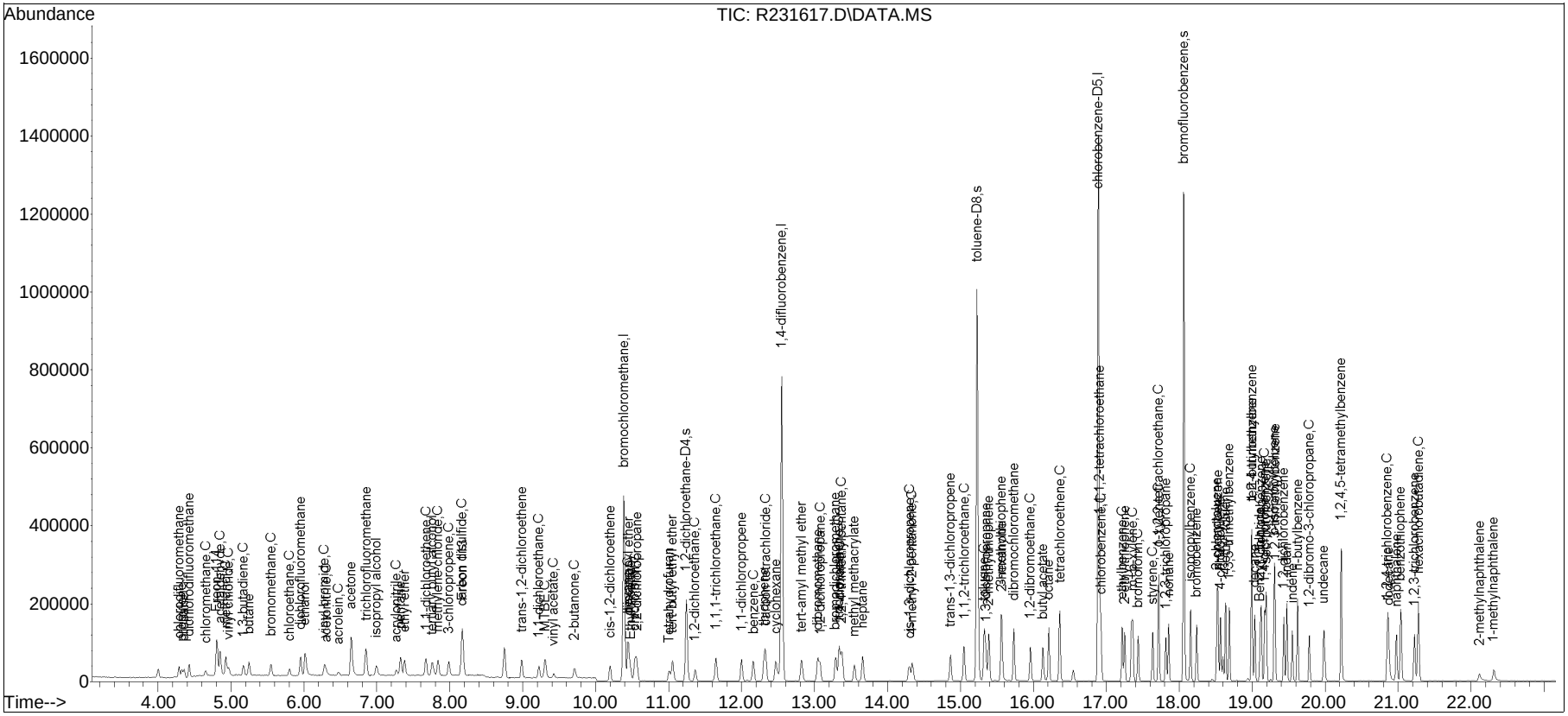
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.550	115	52244	0.936	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.784	75	19789	0.819	ppbV	98
112) undecane	19.979	57	38893	0.816	ppbV	96
113) 1,2,4,5-tetramethylben...	20.217	119	145849	0.719	ppbV	100
114) dodecane	20.871	57	35468	0.706	ppbV	95
115) 1,2,4-trichlorobenzene	20.850	180	35167	0.809	ppbV	97
116) naphthalene	20.978	128	90512	0.822	ppbV	99
117) 1,2,3-trichlorobenzene	21.225	180	33179	0.832	ppbV	97
118) benzothiophene	21.032	134	135325	0.731	ppbV	98
119) hexachlorobutadiene	21.279	225	28989	0.821	ppbV	93
120) 2-methylnaphthalene	22.115	142	18139	0.462	ppbV	91
121) 1-methylnaphthalene	22.308	142	21606M1	0.634	ppbV	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231617.D
Acq On : 14 Dec 2014 3:39 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD1.0
Misc : WG748589
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:57:13 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

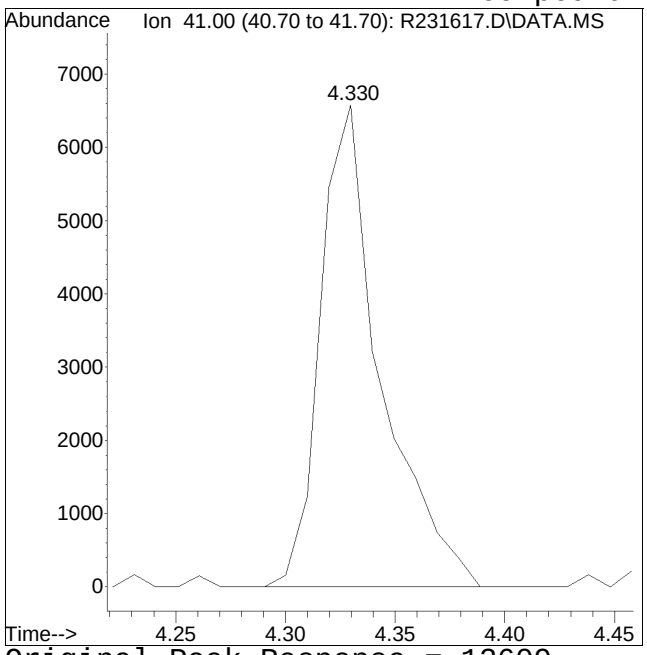


Manual Integration/Negative Proof Report

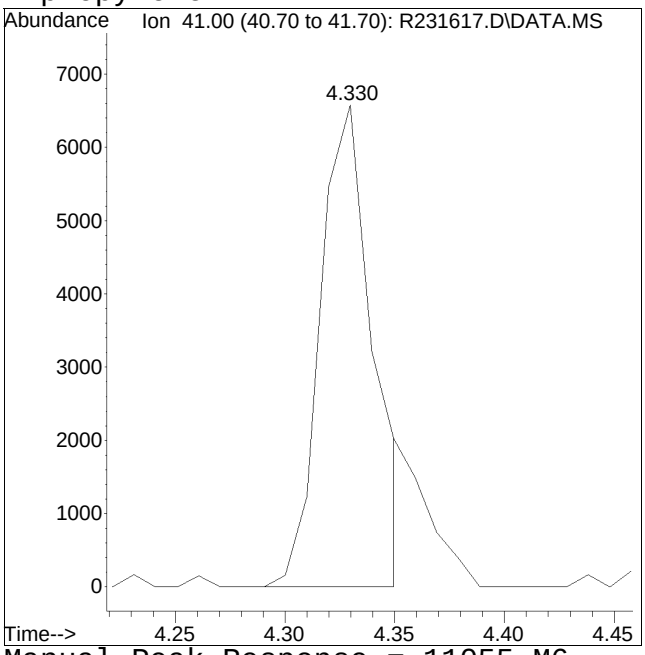
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231617.D
Date Inj'd : 12/14/2014 3:39 pm
Sample : ITO15-SIMSTD1.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #3: propylene



Original Peak Response = 12609



Manual Peak Response = 11055 M6

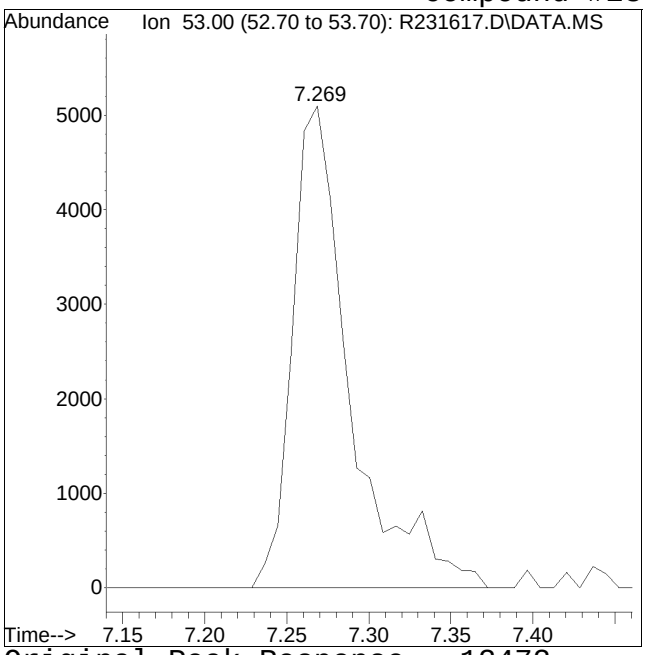
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

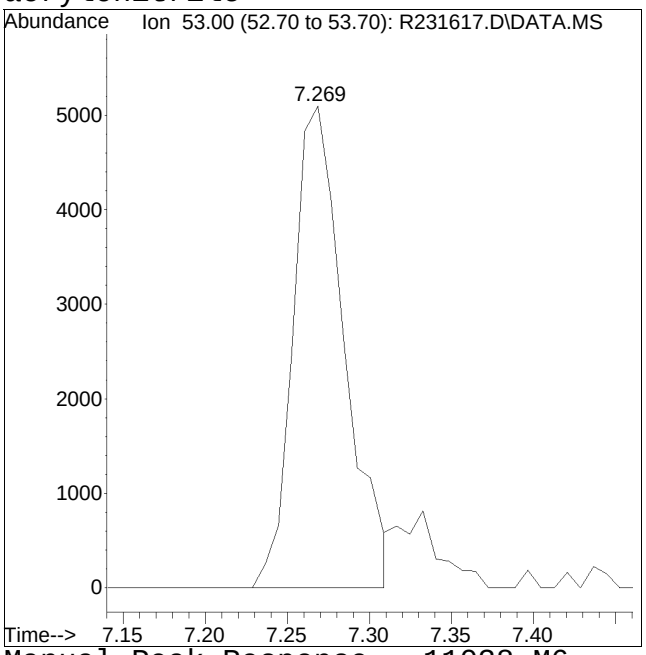
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231617.D
Date Inj'd : 12/14/2014 3:39 pm
Sample : ITO15-SIMSTD1.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #23: acrylonitrile



Original Peak Response = 12472



Manual Peak Response = 11038 M6

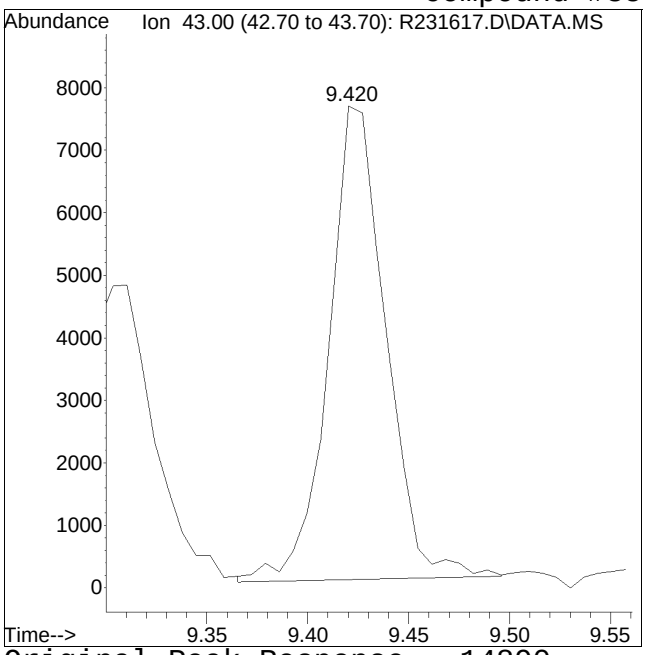
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

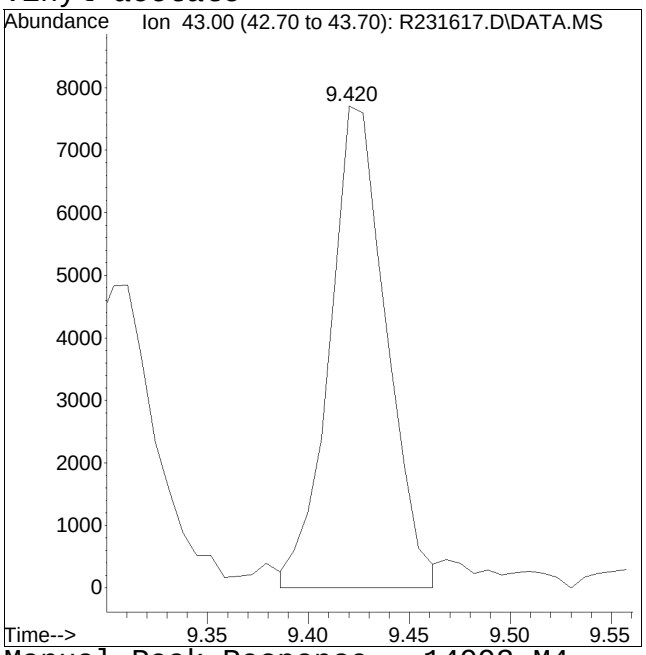
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231617.D
Date Inj'd : 12/14/2014 3:39 pm
Sample : ITO15-SIMSTD1.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #35: vinyl acetate



Original Peak Response = 14890



Manual Peak Response = 14993 M4

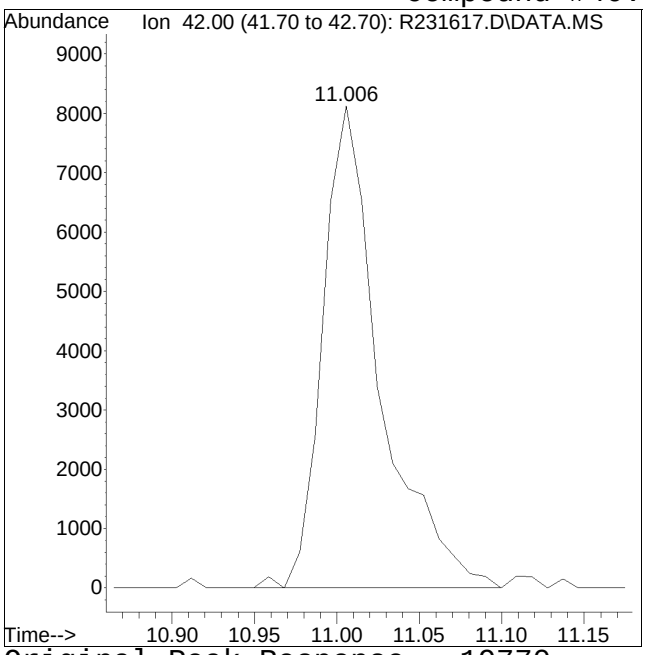
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

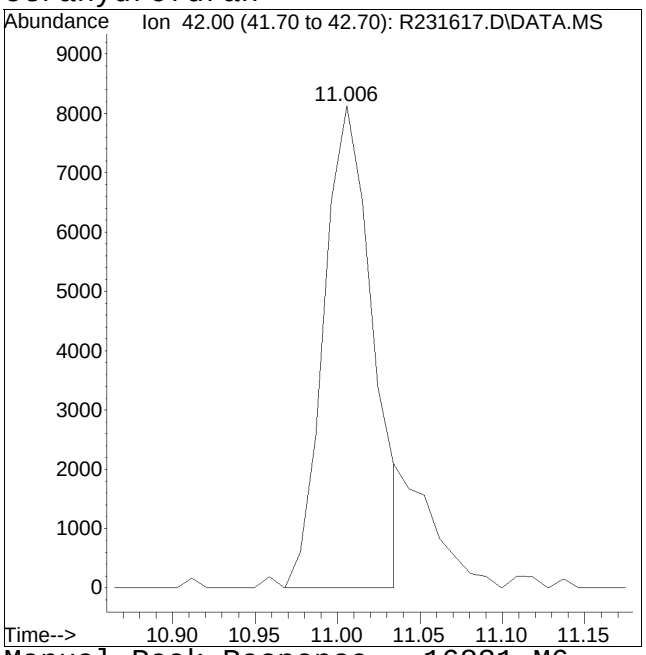
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231617.D
Date Inj'd : 12/14/2014 3:39 pm
Sample : ITO15-SIMSTD1.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #40: Tetrahydrofuran



Original Peak Response = 19770



Manual Peak Response = 16831 M6

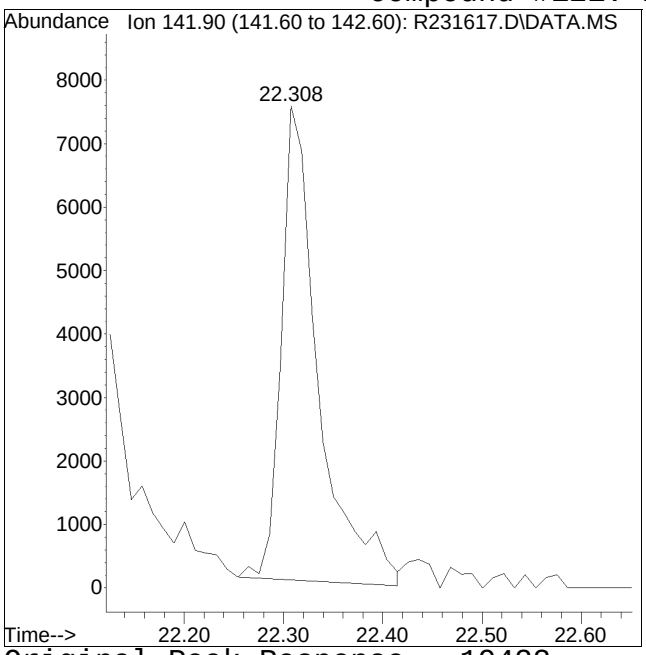
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

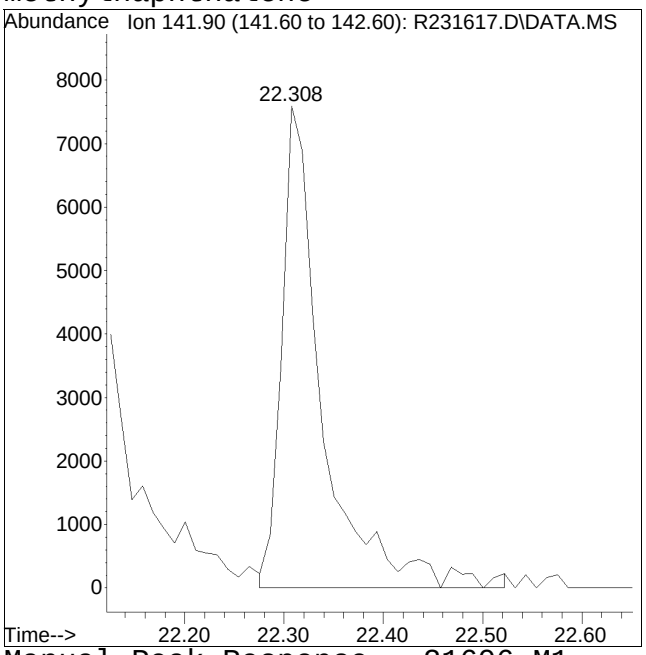
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231617.D
Date Inj'd : 12/14/2014 3:39 pm
Sample : ITO15-SIMSTD1.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #121: 1-methylnaphthalene



Original Peak Response = 19422



Manual Peak Response = 21606 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231618.D
Acq On : 14 Dec 2014 4:10 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD5.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 15 06:58:27 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	177668	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 97.81%			
43) 1,4-difluorobenzene	12.549	114	651910	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 100.64%			
67) chlorobenzene-D5	16.888	54	122841	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 99.26%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	145957	9.991	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.91%			
69) toluene-D8	15.225	98	578375	10.050	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.50%			
90) bromofluorobenzene	18.060	95	327599	10.690	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.90%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	105475	5.038	ppbV	96
3) propylene	4.330	41	50551M6	5.026	ppbV	
4) propane	4.359	29	61272	5.238	ppbV	99
5) dichlorodifluoromethane	4.428	85	123720	4.504	ppbV	96
6) chloromethane	4.655	50	62151	5.321	ppbV	99
7) Freon-114	4.803	85	240759	5.144	ppbV	99
8) methanol	4.921	31	153788	25.931	ppbV	96
9) vinyl chloride	4.971	62	74033	5.158	ppbV	99
10) 1,3-butadiene	5.168	54	54023	5.237	ppbV	90
11) butane	5.247	43	116063	5.245	ppbV	98
12) acetaldehyde	4.833	29	258241	25.886	ppbV	99
13) bromomethane	5.550	94	83882	5.157	ppbV	98
14) chloroethane	5.798	64	36855	5.136	ppbV	99
15) ethanol	5.998	31	321051	26.162	ppbV	98
16) dichlorofluoromethane	5.950	67	183032	5.253	ppbV	98
17) vinyl bromide	6.285	106	87461	5.270	ppbV	99
18) acrolein	6.453	56	28696	4.984	ppbV	94
19) acetone	6.621	43	614465	25.533	ppbV	100
20) acetonitrile	6.285	41	66914	5.144	ppbV	97
21) trichlorofluoromethane	6.853	101	268816	5.128	ppbV	100
22) isopropyl alcohol	6.973	45	130951	5.266	ppbV	99
23) acrylonitrile	7.253	53	53685	5.245	ppbV	100
24) pentane	7.325	43	136978M6	5.229	ppbV	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231618.D
Acq On : 14 Dec 2014 4:10 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD5.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 15 06:58:27 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.365	31	116175	5.213	ppbV		94
26) 1,1-dichloroethene	7.668	61	131210	5.155	ppbV		97
27) tertiary butyl alcohol	7.740	59	161829	5.247	ppbV		97
28) methylene chloride	7.836	49	93149	5.116	ppbV		96
29) 3-chloropropene	7.980	41	105960	5.115	ppbV		98
30) carbon disulfide	8.164	76	243575	5.073	ppbV		97
31) Freon 113	8.172	101	188412	5.136	ppbV		100
32) trans-1,2-dichloroethene	8.981	61	108651	5.052	ppbV		99
33) 1,1-dichloroethane	9.221	63	130724	5.126	ppbV		98
34) MTBE	9.290	73	215774	5.086	ppbV		98
35) vinyl acetate	9.413	43	88213	4.347	ppbV	#	96
36) 2-butanone	9.688	43	150367	5.022	ppbV		99
37) cis-1,2-dichloroethene	10.198	61	94664	4.960	ppbV		96
38) Ethyl Acetate	10.461	61	22502	4.892	ppbV		67
39) chloroform	10.536	83	180759	5.101	ppbV		99
40) Tetrahydrofuran	10.987	42	82044	4.975	ppbV		95
41) 2,2-dichloropropane	10.564	77	154070	5.123	ppbV		98
42) 1,2-dichloroethane	11.363	62	110049	5.097	ppbV		97
44) hexane	10.442	57	105258	4.896	ppbV		79
45) diisopropyl ether	10.442	87	61342	4.765	ppbV		96
46) tert-butyl ethyl ether	11.043	59	219460	4.960	ppbV		98
48) 1,1,1-trichloroethane	11.648	97	218063	4.958	ppbV		98
49) 1,1-dichloropropene	12.000	75	116362	4.913	ppbV		98
50) benzene	12.156	78	225366	5.013	ppbV		99
51) thiophene	12.311	84	159615	4.929	ppbV		97
52) carbon tetrachloride	12.332	117	217191	4.853	ppbV		100
53) cyclohexane	12.466	56	104805	5.016	ppbV		98
54) tert-amyl methyl ether	12.808	73	225489	4.945	ppbV		98
55) dibromomethane	13.046	93	113652	4.882	ppbV		98
56) 1,2-dichloropropane	13.067	63	81942	4.943	ppbV		99
57) bromodichloromethane	13.285	83	209311	4.874	ppbV		98
58) 1,4-dioxane	13.326	88	53903	4.823	ppbV		99
59) trichloroethene	13.336	130	126851	5.062	ppbV		97
60) 2,2,4-trimethylpentane	13.368	57	368517	4.921	ppbV		99
61) methyl methacrylate	13.533	41	109229	5.039	ppbV		100
62) heptane	13.658	43	136797	5.036	ppbV		98
63) cis-1,3-dichloropropene	14.289	75	124184	4.922	ppbV		100
64) 4-methyl-2-pentanone	14.320	43	189991	4.854	ppbV		99
65) trans-1,3-dichloropropene	14.864	75	165339	4.853	ppbV		99
66) 1,1,2-trichloroethane	15.044	97	141051	4.927	ppbV		98

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231618.D
Acq On : 14 Dec 2014 4:10 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD5.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 15 06:58:27 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.324	91	396329	4.999	ppbV	99
70) 2-methylthiophene	15.388	97	358904	5.030	ppbV	97
71) 1,3-dichloropropane	15.343	76	179346	5.025	ppbV	99
72) 2-hexanone	15.550	43	236284	4.894	ppbV	99
73) 3-methylthiophene	15.559	97	376311	5.051	ppbV	99
74) dibromochloromethane	15.731	129	325056	4.856	ppbV	97
75) 1,2-dibromoethane	15.957	107	249748	5.016	ppbV	99
76) butyl acetate	16.120	73	38909	4.863	ppbV	96
77) octane	16.210	85	112537	5.040	ppbV	95
78) tetrachloroethene	16.364	166	205841	4.983	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.907	131	155311	4.958	ppbV	99
80) chlorobenzene	16.926	112	251254	4.983	ppbV	98
81) ethylbenzene	17.217	91	394987	5.005	ppbV	98
82) 2-ethylthiophene	17.250	97	317044	4.945	ppbV	99
83) m+p-xylene	17.360	91	625729	9.838	ppbV	100
84) bromoform	17.436	173	210020	4.698	ppbV	98
85) styrene	17.636	104	243869	4.936	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.712	83	234228	4.901	ppbV	99
87) o-xylene	17.717	91	325121	4.915	ppbV	100
88) 1,2,3-trichloropropane	17.812	75	169165	4.910	ppbV	98
89) nonane	17.850	43	202144	5.026	ppbV	99
91) isopropylbenzene	18.150	105	450041	4.951	ppbV	99
92) bromobenzene	18.236	77	216130	4.854	ppbV	96
93) 2-chlorotoluene	18.517	126	125497	4.951	ppbV	91
94) n-propylbenzene	18.526	120	133044	5.015	ppbV	96
95) 4-chlorotoluene	18.564	91	334122	4.929	ppbV	98
96) 4-ethyl toluene	18.631	105	500705	4.873	ppbV	99
97) 1,3,5-trimethylbenzene	18.683	105	388996	4.942	ppbV	100
98) tert-butylbenzene	18.989	119	434883	4.836	ppbV	99
99) 1,2,4-trimethylbenzene	18.989	105	398105	4.784	ppbV	99
100) decane	19.032	57	200273	4.754	ppbV	94
101) Benzyl Chloride	19.103	91	325409	4.595	ppbV	98
102) 1,3-dichlorobenzene	19.122	146	269971	4.830	ppbV	99
103) 1,4-dichlorobenzene	19.170	146	272520	4.768	ppbV	99
104) sec-butylbenzene	19.189	105	574593	4.821	ppbV	99
105) 1,2,3-trimethylbenzene	19.308	105	360908	4.845	ppbV	98
106) p-isopropyltoluene	19.298	119	534353	4.816	ppbV	100
107) 1,2-dichlorobenzene	19.432	146	253657	4.857	ppbV	98
108) n-butylbenzene	19.617	91	462373	4.859	ppbV	100
109) indan	19.474	117	392743	4.874	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231618.D
Acq On : 14 Dec 2014 4:10 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD5.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 15 06:58:27 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

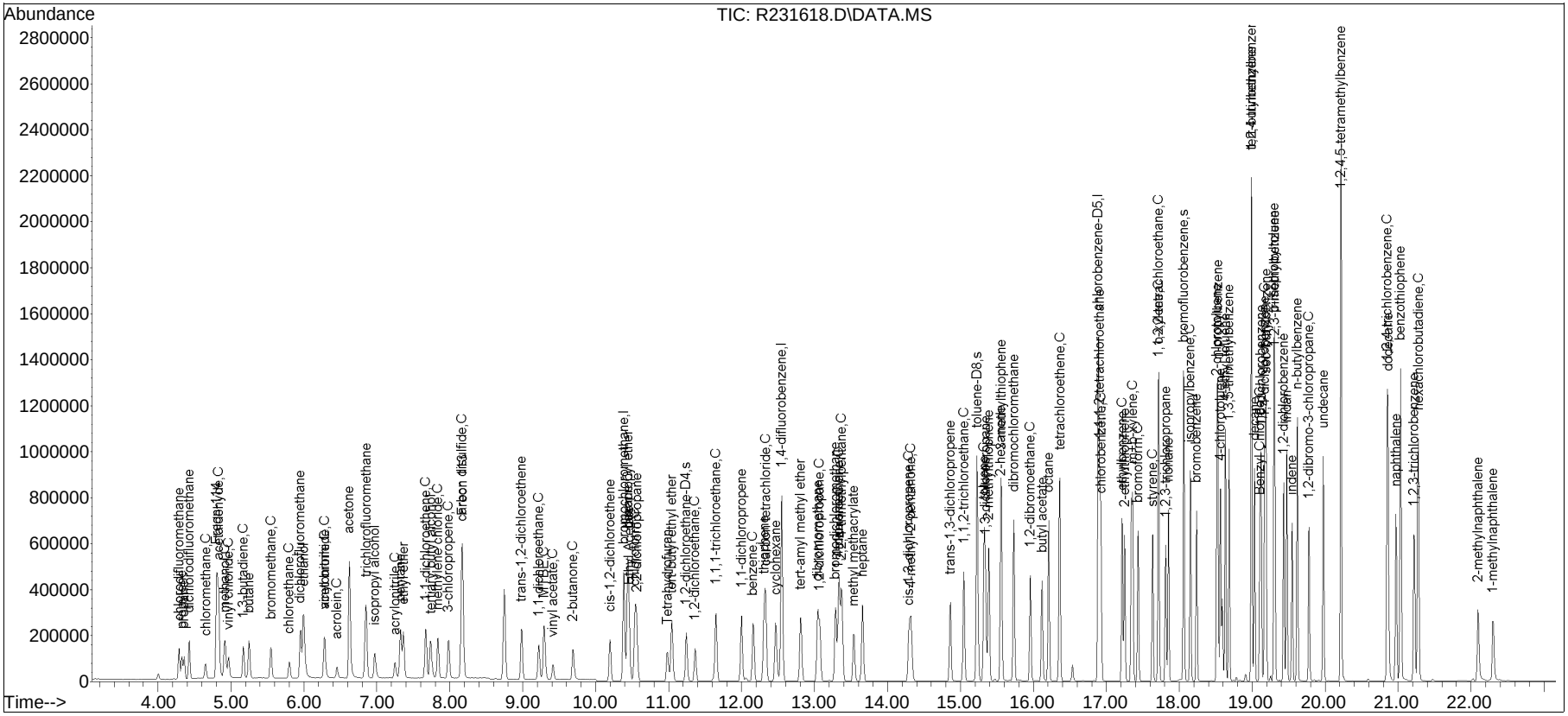
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) indene	19.546	115	270673	4.914	ppbV		99
111) 1,2-dibromo-3-chloropr...	19.779	75	113181	4.746	ppbV		97
112) undecane	19.974	57	225228	4.787	ppbV	#	97
113) 1,2,4,5-tetramethylben...	20.217	119	945423	4.724	ppbV		99
114) dodecane	20.861	57	228538	4.611	ppbV		96
115) 1,2,4-trichlorobenzene	20.850	180	197105	4.597	ppbV		98
116) naphthalene	20.968	128	519526	4.785	ppbV		99
117) 1,2,3-trichlorobenzene	21.214	180	182602	4.639	ppbV		99
118) benzothiophene	21.032	134	849042	4.647	ppbV		99
119) hexachlorobutadiene	21.279	225	162448	4.663	ppbV		97
120) 2-methylnaphthalene	22.093	142	171610	4.431	ppbV		99
121) 1-methylnaphthalene	22.297	142	150304	4.471	ppbV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231618.D
Acq On : 14 Dec 2014 4:10 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD5.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 15 06:58:27 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

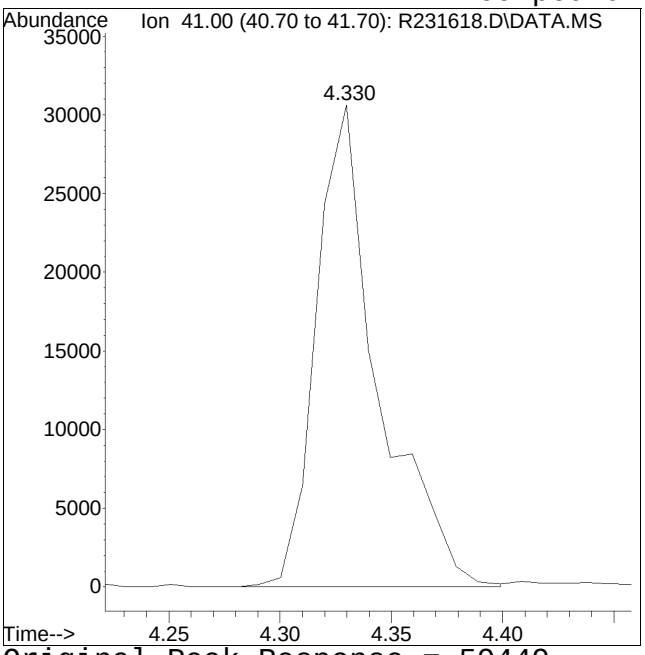


Manual Integration/Negative Proof Report

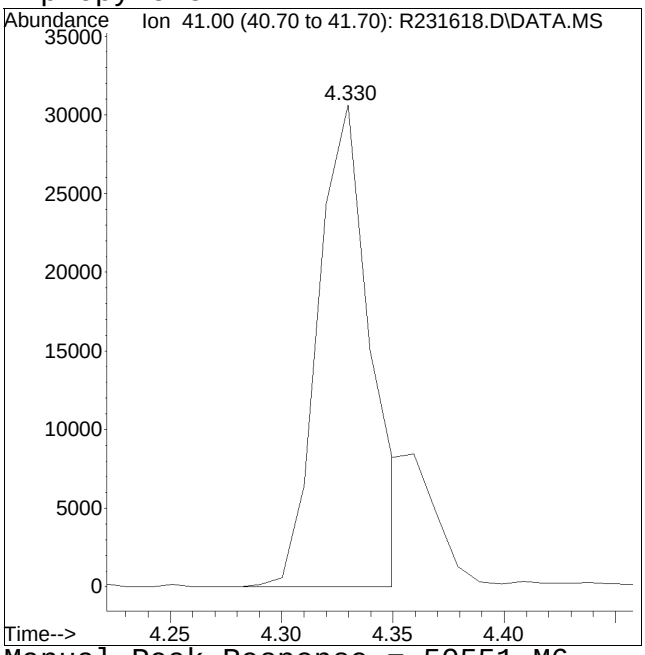
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231618.D
Date Inj'd : 12/14/2014 4:10 pm
Sample : ITO15-SIMSTD5.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #3: propylene



Original Peak Response = 59449



Manual Peak Response = 50551 M6

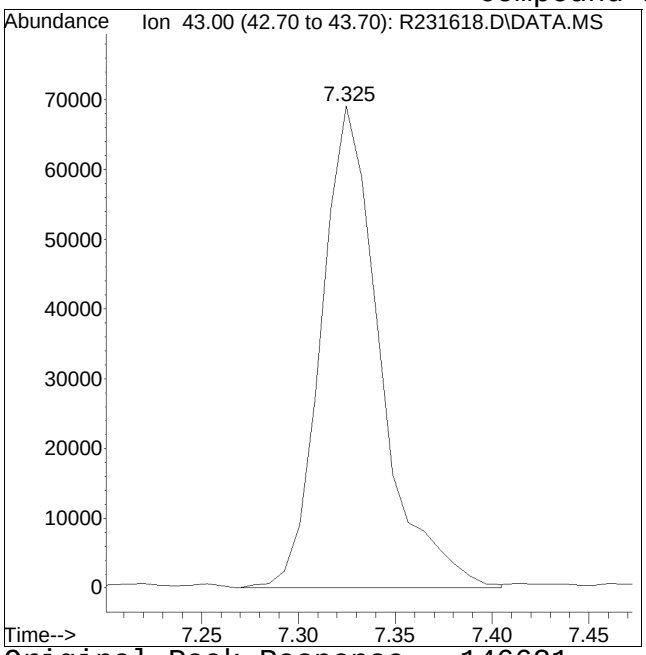
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

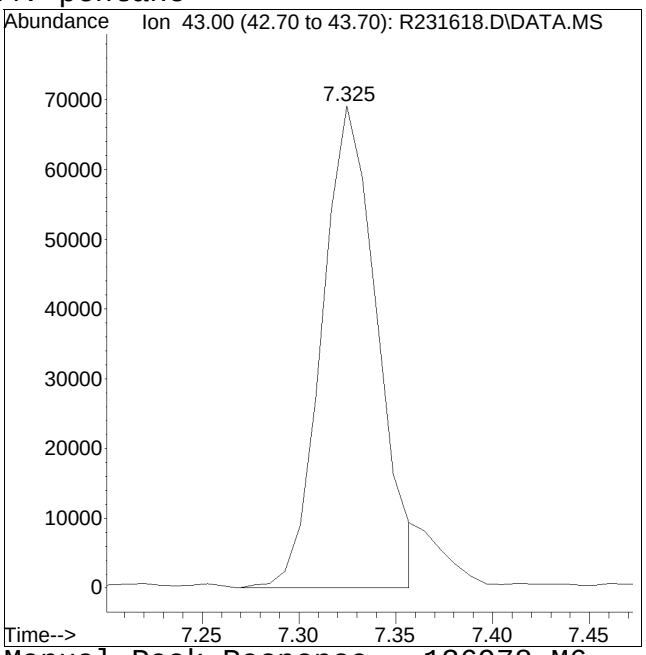
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231618.D
Date Inj'd : 12/14/2014 4:10 pm
Sample : ITO15-SIMSTD5.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #24: pentane



Original Peak Response = 146621



Manual Peak Response = 136978 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231619.D
Acq On : 14 Dec 2014 4:42 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD10.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 21:21:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Oct 22 11:28:41 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	181646	10.000	ppbV	# 0.00
Standard Area = 181646			Recovery = 100.00%			
43) 1,4-difluorobenzene	12.549	114	647736	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 100.00%			
67) chlorobenzene-D5	16.888	54	123760	10.000	ppbV	# 0.00
Standard Area = 123760			Recovery = 100.00%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	145151	7.637	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 76.37%			
69) toluene-D8	15.225	98	579828	14.404	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 144.04%#			
90) bromofluorobenzene	18.060	95	308757	10.587	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.87%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	214066	9.582	ppbV	96
3) propylene	4.330	41	102826M6	9.630	ppbV	
4) propane	4.359	29	119597	9.979	ppbV	95
5) dichlorodifluoromethane	4.428	85	280834	13.999	ppbV	96
6) chloromethane	4.655	50	119410	9.497	ppbV	98
7) Freon-114	4.803	85	478495	12.319	ppbV	95
8) methanol	4.901	31	303175	60.789	ppbV	96
9) vinyl chloride	4.970	62	146733	10.451	ppbV	99
10) 1,3-butadiene	5.168	54	105472	10.269	ppbV	96
11) butane	5.247	43	226255	9.539	ppbV	98
12) acetaldehyde	4.823	29	509966	59.963	ppbV	90
13) bromomethane	5.550	94	166313	12.263	ppbV	98
14) chloroethane	5.798	64	73366	10.379	ppbV	94
15) ethanol	5.990	31	627317	58.521	ppbV	93
16) dichlorofluoromethane	5.950	67	356229	10.314	ppbV	100
17) vinyl bromide	6.277	106	169681	12.284	ppbV	93
18) acrolein	6.445	56	58866	9.606	ppbV	94
19) acetone	6.621	43	1230237	53.020	ppbV	99
20) acetonitrile	6.277	41	133002	10.042	ppbV	96
21) trichlorofluoromethane	6.853	101	535985	13.343	ppbV	99
22) isopropyl alcohol	6.965	45	254225	10.386	ppbV	99
23) acrylonitrile	7.245	53	104648	10.014	ppbV	94
24) pentane	7.325	43	267829M6	9.852	ppbV	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231619.D
Acq On : 14 Dec 2014 4:42 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD10.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 21:21:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Oct 22 11:28:41 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.357	31	227844	11.067	ppbV		92
26) 1,1-dichloroethene	7.668	61	260205	10.562	ppbV		93
27) tertiary butyl alcohol	7.732	59	315322	10.893	ppbV		96
28) methylene chloride	7.836	49	186163	9.936	ppbV		91
29) 3-chloropropene	7.980	41	211811	10.592	ppbV		98
30) carbon disulfide	8.164	76	490869	11.820	ppbV		100
31) Freon 113	8.172	101	375072	12.941	ppbV		98
32) trans-1,2-dichloroethene	8.981	61	219891	7.633	ppbV	#	82
33) 1,1-dichloroethane	9.221	63	260752	10.163	ppbV		97
34) MTBE	9.290	73	433752	10.678	ppbV		98
35) vinyl acetate	9.413	43	207487	8.899	ppbV		97
36) 2-butanone	9.681	43	306116	9.564	ppbV		96
37) cis-1,2-dichloroethene	10.198	61	195143	9.840	ppbV	#	82
38) Ethyl Acetate	10.461	61	47023	9.959	ppbV	#	48
39) chloroform	10.536	83	362291	11.293	ppbV		95
40) Tetrahydrofuran	10.977	42	168606	9.183	ppbV		97
41) 2,2-dichloropropane	10.555	77	307482	10.731	ppbV		94
42) 1,2-dichloroethane	11.362	62	220736	10.134	ppbV		99
44) hexane	10.442	57	213606	7.387	ppbV		82
45) diisopropyl ether	10.433	87	127907	8.902	ppbV		68
46) tert-butyl ethyl ether	11.043	59	439590	7.496	ppbV		92
48) 1,1,1-trichloroethane	11.648	97	437041	10.303	ppbV		92
49) 1,1-dichloropropene	12.000	75	235349	8.051	ppbV		96
50) benzene	12.156	78	446646	7.863	ppbV		95
51) thiophene	12.311	84	321736	8.535	ppbV		89
52) carbon tetrachloride	12.332	117	444695	9.970	ppbV		99
53) cyclohexane	12.466	56	207615	7.024	ppbV		88
54) tert-amyl methyl ether	12.808	73	453040	8.174	ppbV		97
55) dibromomethane	13.046	93	231325	9.196	ppbV		97
56) 1,2-dichloropropane	13.067	63	164700	7.920	ppbV		95
57) bromodichloromethane	13.285	83	426669	9.008	ppbV		99
58) 1,4-dioxane	13.316	88	111044	9.243	ppbV		87
59) trichloroethene	13.336	130	248995	9.799	ppbV		95
60) 2,2,4-trimethylpentane	13.367	57	744082	7.624	ppbV	#	95
61) methyl methacrylate	13.533	41	215398	10.674	ppbV	#	96
62) heptane	13.657	43	269876	7.079	ppbV	#	95
63) cis-1,3-dichloropropene	14.289	75	250672	8.066	ppbV		95
64) 4-methyl-2-pentanone	14.320	43	388905	7.436	ppbV		95
65) trans-1,3-dichloropropene	14.863	75	338504	10.802	ppbV		98
66) 1,1,2-trichloroethane	15.044	97	284456	12.180	ppbV		93

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231619.D
Acq On : 14 Dec 2014 4:42 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD10.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 21:21:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Oct 22 11:28:41 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.324	91	798695	13.947	ppbV		100
70) 2-methylthiophene	15.388	97	718878	13.986	ppbV		97
71) 1,3-dichloropropane	15.342	76	359584	12.768	ppbV		96
72) 2-hexanone	15.550	43	486461	11.893	ppbV	#	96
73) 3-methylthiophene	15.559	97	750585	14.877	ppbV		97
74) dibromochloromethane	15.731	129	674403	17.812	ppbV		99
75) 1,2-dibromoethane	15.957	107	501653	16.104	ppbV		99
76) butyl acetate	16.120	73	80610	14.761	ppbV		73
77) octane	16.210	85	224973	13.541	ppbV		83
78) tetrachloroethene	16.364	166	416197	16.502	ppbV		94
79) 1,1,1,2-tetrachloroethane	16.907	131	315623	12.192	ppbV		98
80) chlorobenzene	16.926	112	507951	11.376	ppbV		92
81) ethylbenzene	17.217	91	795017	10.686	ppbV		98
82) 2-ethylthiophene	17.250	97	645938	11.059	ppbV		98
83) m+p-xylene	17.360	91	1281601	21.600	ppbV		98
84) bromoform	17.436	173	450381	12.851	ppbV		97
85) styrene	17.631	104	497739	11.352	ppbV		96
86) 1,1,2,2-tetrachloroethane	17.712	83	481466	10.836	ppbV		99
87) o-xylene	17.717	91	666462	10.829	ppbV		96
88) 1,2,3-trichloropropane	17.812	75	347103	10.716	ppbV		94
89) nonane	17.850	43	405174	8.656	ppbV		100
91) isopropylbenzene	18.150	105	915711	11.384	ppbV		98
92) bromobenzene	18.236	77	448596	10.012	ppbV		91
93) 2-chlorotoluene	18.517	126	255368	11.932	ppbV		99
94) n-propylbenzene	18.526	120	267251	11.667	ppbV		88
95) 4-chlorotoluene	18.564	91	682991	10.708	ppbV		92
96) 4-ethyl toluene	18.631	105	1035181	11.792	ppbV		97
97) 1,3,5-trimethylbenzene	18.683	105	792948	11.275	ppbV		98
98) tert-butylbenzene	18.989	119	905970	12.350	ppbV		100
99) 1,2,4-trimethylbenzene	18.989	105	838406	12.162	ppbV		99
100) decane	19.032	57	424453	9.271	ppbV	#	98
101) Benzyl Chloride	19.103	91	713411	11.799	ppbV		97
102) 1,3-dichlorobenzene	19.122	146	563173	11.915	ppbV		97
103) 1,4-dichlorobenzene	19.170	146	575829	12.163	ppbV		95
104) sec-butylbenzene	19.189	105	1200790	11.783	ppbV		98
105) 1,2,3-trimethylbenzene	19.308	105	750466	11.557	ppbV		95
106) p-isopropyltoluene	19.298	119	1117930	12.276	ppbV		99
107) 1,2-dichlorobenzene	19.431	146	526151	11.911	ppbV		96
108) n-butylbenzene	19.617	91	958612	11.100	ppbV		96
109) indan	19.474	117	811798	11.858	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231619.D
Acq On : 14 Dec 2014 4:42 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD10.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 21:21:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Oct 22 11:28:41 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

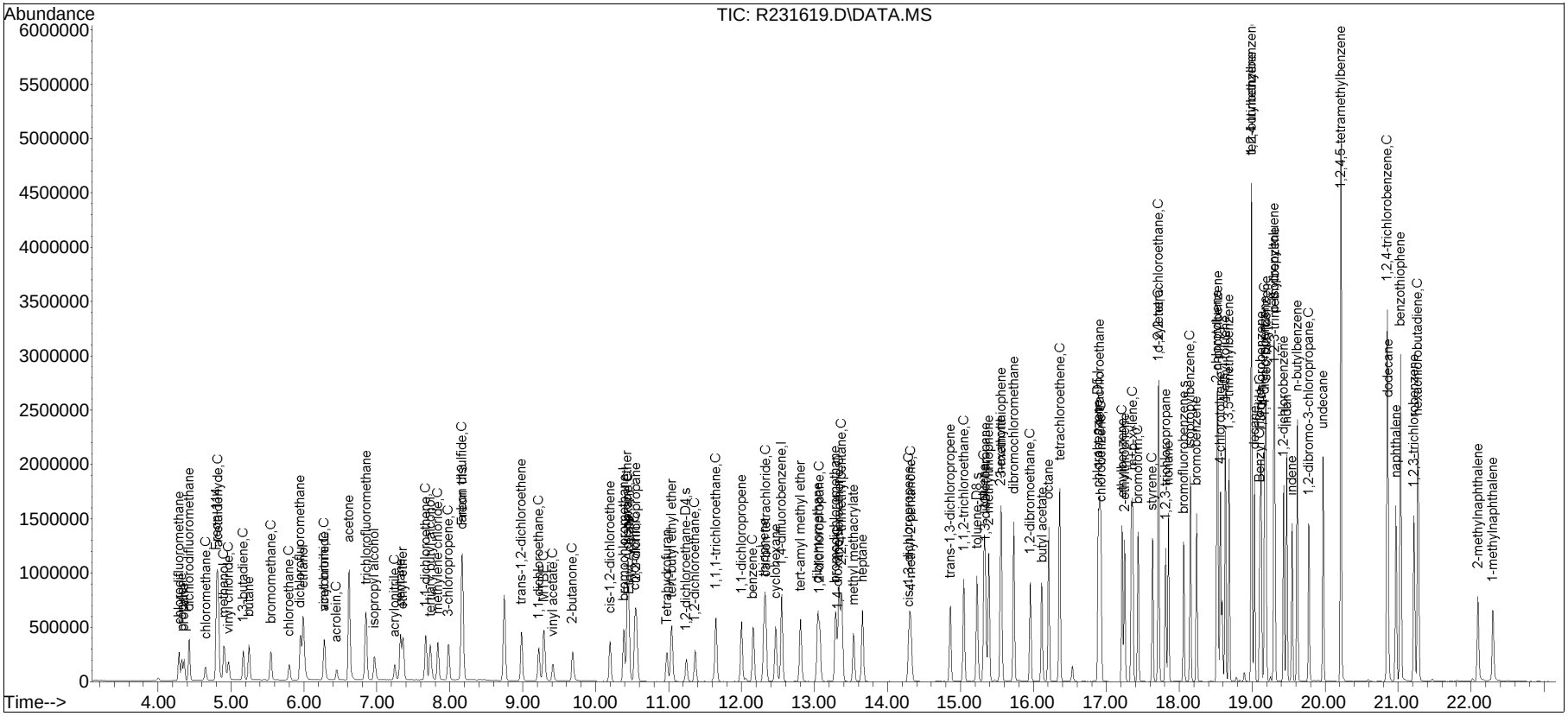
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.546	115	554887	11.652	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.774	75	240274	10.882	ppbV	93
112) undecane	19.969	57	474004	9.368	ppbV	97
113) 1,2,4,5-tetramethylben...	20.217	119	2016170	14.214	ppbV	99
114) dodecane	20.861	57	499372	10.405	ppbV	100
115) 1,2,4-trichlorobenzene	20.850	180	431963	12.020	ppbV	97
116) naphthalene	20.968	128	1093848	12.777	ppbV	99
117) 1,2,3-trichlorobenzene	21.214	180	396542	11.555	ppbV	96
118) benzothiophene	21.032	134	1840805	13.129	ppbV	97
119) hexachlorobutadiene	21.268	225	351001	10.969	ppbV	90
120) 2-methylnaphthalene	22.093	142	390188	10.464	ppbV	96
121) 1-methylnaphthalene	22.297	142	338723	10.158	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231619.D
Acq On : 14 Dec 2014 4:42 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD10.0
Misc : WG748589
ALS Vial : 7 Sample Multiplier: 1

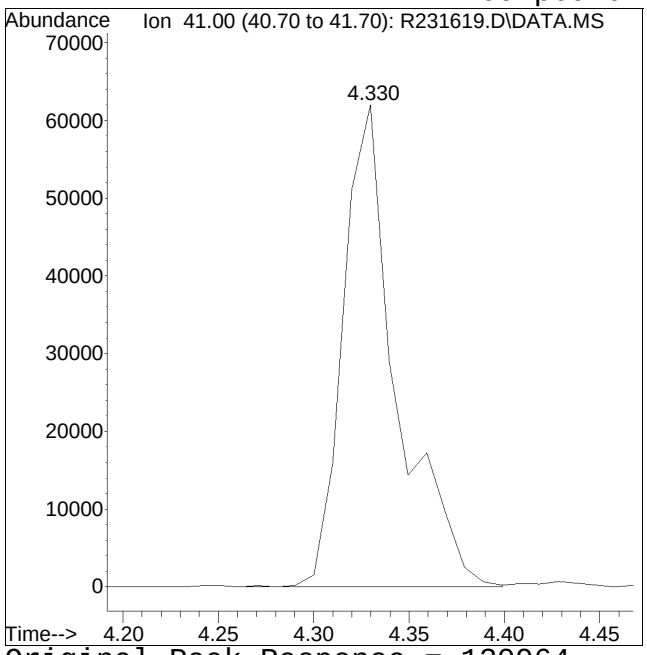
Quant Time: Dec 14 21:21:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Oct 22 11:28:41 2014
Response via : Initial Calibration



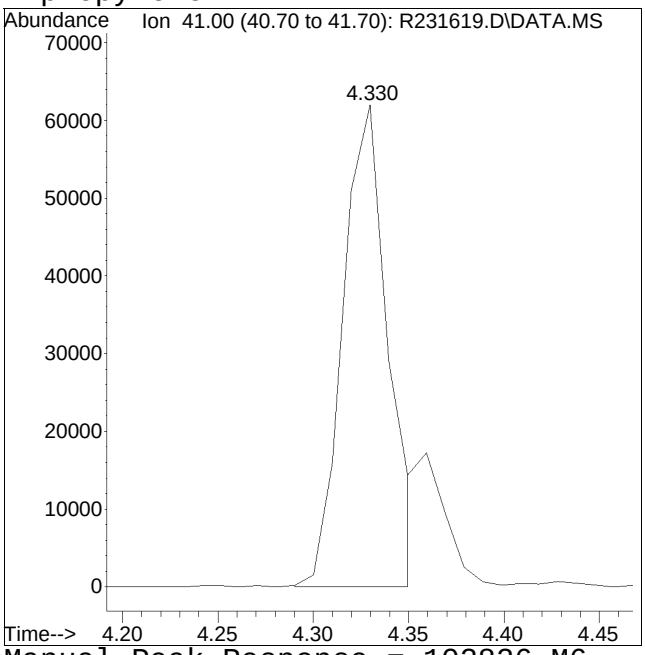
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231619.D
Date Inj'd : 12/14/2014 4:42 pm
Sample : ITO15-SIMSTD10.0
Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:19 pm

Compound #3: propylene



Original Peak Response = 120964



Manual Peak Response = 102826 M6

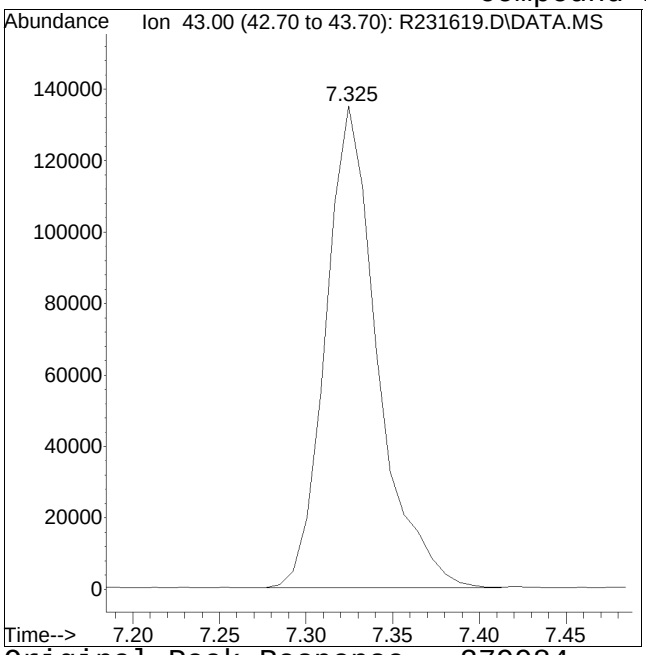
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

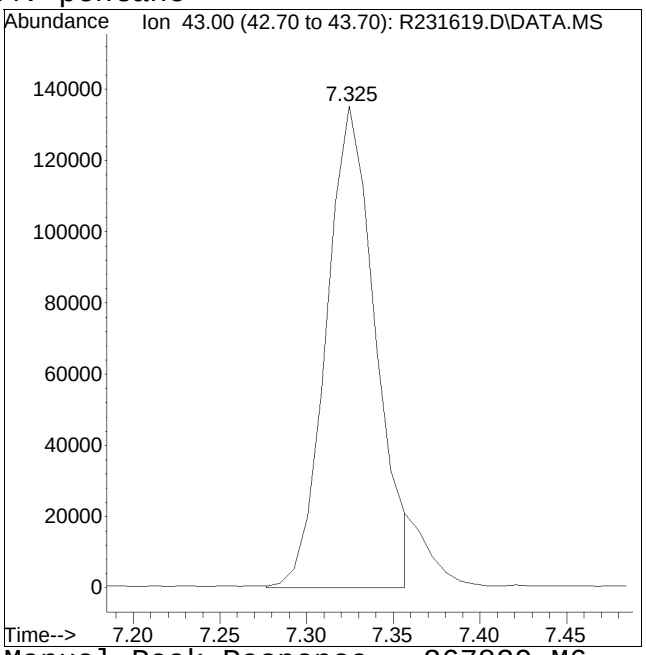
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231619.D
Date Inj'd : 12/14/2014 4:42 pm
Sample : ITO15-SIMSTD10.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:19 pm

Compound #24: pentane



Original Peak Response = 279984



Manual Peak Response = 267829 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231620.D
Acq On : 14 Dec 2014 5:14 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD20.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:28:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	180585	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 99.42%			
43) 1,4-difluorobenzene	12.549	114	649997	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 100.35%			
67) chlorobenzene-D5	16.888	54	124041	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 100.23%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.241	65	143281	9.837	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.37%			
69) toluene-D8	15.225	98	567728	9.769	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.69%			
90) bromofluorobenzene	18.060	95	296879	9.594	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.94%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	402181	18.898	ppbV	99
3) propylene	4.330	41	191594M6	18.742	ppbV	
4) propane	4.359	29	225601	18.974	ppbV	98
5) dichlorodifluoromethane	4.428	85	459028	16.441	ppbV	99
6) chloromethane	4.655	50	226822	19.107	ppbV	97
7) Freon-114	4.803	85	903772	18.999	ppbV	99
8) methanol	4.902	31	521574	86.524	ppbV	95
9) vinyl chloride	4.971	62	278031	19.059	ppbV	97
10) 1,3-butadiene	5.168	54	195744	18.668	ppbV	92
11) butane	5.247	43	437533	19.452	ppbV	99
12) acetaldehyde	4.823	29	956396	94.321	ppbV	98
13) bromomethane	5.550	94	310894	18.803	ppbV	98
14) chloroethane	5.798	64	138348	18.968	ppbV	98
15) ethanol	5.990	31	1202958	96.445	ppbV	100
16) dichlorofluoromethane	5.958	67	681450	19.242	ppbV	97
17) vinyl bromide	6.278	106	324032	19.209	ppbV	98
18) acrolein	6.445	56	113120	19.329	ppbV	94
19) acetone	6.613	43	2336646	95.525	ppbV	99
20) acetonitrile	6.278	41	252996	19.134	ppbV	97
21) trichlorofluoromethane	6.853	101	1006935	18.897	ppbV	99
22) isopropyl alcohol	6.965	45	477922	18.910	ppbV	100
23) acrylonitrile	7.245	53	200515	19.273	ppbV	98
24) pentane	7.325	43	502379M6	18.868	ppbV	

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231620.D
Acq On : 14 Dec 2014 5:14 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD20.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:28:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.357	31	433720	19.148	ppbV		97
26) 1,1-dichloroethene	7.668	61	494711	19.124	ppbV		100
27) tertiary butyl alcohol	7.732	59	617352	19.693	ppbV		98
28) methylene chloride	7.836	49	350615	18.944	ppbV		96
29) 3-chloropropene	7.980	41	349903	16.617	ppbV		96
30) carbon disulfide	8.164	76	885703	18.150	ppbV		98
31) Freon 113	8.172	101	700597	18.789	ppbV		98
32) trans-1,2-dichloroethene	8.981	61	418643	19.151	ppbV		99
33) 1,1-dichloroethane	9.221	63	501509	19.346	ppbV		98
34) MTBE	9.283	73	829766	19.242	ppbV		99
35) vinyl acetate	9.414	43	465249	22.555	ppbV		98
36) 2-butanone	9.681	43	589525	19.371	ppbV		99
37) cis-1,2-dichloroethene	10.198	61	371182	19.133	ppbV		99
38) Ethyl Acetate	10.452	61	91914	19.661	ppbV	#	46
39) chloroform	10.536	83	697558	19.367	ppbV		99
40) Tetrahydrofuran	10.968	42	322789	19.257	ppbV		100
41) 2,2-dichloropropane	10.555	77	603721	19.750	ppbV		99
42) 1,2-dichloroethane	11.363	62	425891	19.407	ppbV		99
44) hexane	10.442	57	415386	19.379	ppbV		85
45) diisopropyl ether	10.433	87	245082	19.094	ppbV		98
46) tert-butyl ethyl ether	11.034	59	846579	19.191	ppbV		99
48) 1,1,1-trichloroethane	11.648	97	819942	18.696	ppbV		98
49) 1,1-dichloropropene	12.000	75	460581	19.502	ppbV		98
50) benzene	12.156	78	858793	19.161	ppbV		100
51) thiophene	12.311	84	625740	19.381	ppbV		100
52) carbon tetrachloride	12.332	117	864782	19.379	ppbV		100
53) cyclohexane	12.466	56	398191	19.113	ppbV		98
54) tert-amyl methyl ether	12.808	73	873508	19.214	ppbV		99
55) dibromomethane	13.047	93	452126	19.477	ppbV		99
56) 1,2-dichloropropane	13.067	63	313562	18.972	ppbV		98
57) bromodichloromethane	13.285	83	823785	19.240	ppbV		100
58) 1,4-dioxane	13.316	88	226278	20.306	ppbV		99
59) trichloroethene	13.337	130	494389	19.786	ppbV		95
60) 2,2,4-trimethylpentane	13.368	57	1388804	18.600	ppbV		99
61) methyl methacrylate	13.533	41	412365	19.078	ppbV		99
62) heptane	13.658	43	514972	19.015	ppbV		99
63) cis-1,3-dichloropropene	14.289	75	495960	19.716	ppbV		100
64) 4-methyl-2-pentanone	14.320	43	750979	19.243	ppbV		98
65) trans-1,3-dichloropropene	14.864	75	673805	19.836	ppbV		96
66) 1,1,2-trichloroethane	15.044	97	533775	18.699	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231620.D
Acq On : 14 Dec 2014 5:14 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD20.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:28:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.325	91	1561089	19.501	ppbV		100
70) 2-methylthiophene	15.388	97	1418213	19.683	ppbV		98
71) 1,3-dichloropropane	15.343	76	711380	19.739	ppbV		99
72) 2-hexanone	15.541	43	947942	19.442	ppbV	#	95
73) 3-methylthiophene	15.560	97	1484129	19.728	ppbV		100
74) dibromochloromethane	15.731	129	1299613	19.227	ppbV		100
75) 1,2-dibromoethane	15.957	107	959209	19.078	ppbV		98
76) butyl acetate	16.111	73	155759	19.279	ppbV		88
77) octane	16.210	85	432075	19.162	ppbV		99
78) tetrachloroethene	16.364	166	803896	19.272	ppbV		96
79) 1,1,1,2-tetrachloroethane	16.907	131	620505	19.615	ppbV		99
80) chlorobenzene	16.926	112	994363	19.532	ppbV		99
81) ethylbenzene	17.217	91	1542475	19.358	ppbV		100
82) 2-ethylthiophene	17.250	97	1268032	19.586	ppbV		99
83) m+p-xylene	17.360	91	2541821	39.576	ppbV		100
84) bromoform	17.436	173	889234	19.699	ppbV		99
85) styrene	17.631	104	970940	19.463	ppbV		99
86) 1,1,2,2-tetrachloroethane	17.712	83	959202	19.877	ppbV		99
87) o-xylene	17.717	91	1326331	19.856	ppbV		98
88) 1,2,3-trichloropropane	17.812	75	679893	19.543	ppbV		99
89) nonane	17.850	43	801599	19.739	ppbV		99
91) isopropylbenzene	18.150	105	1781165	19.407	ppbV		100
92) bromobenzene	18.236	77	886025	19.706	ppbV		99
93) 2-chlorotoluene	18.512	126	505212	19.739	ppbV	#	54
94) n-propylbenzene	18.526	120	537661	20.073	ppbV		95
95) 4-chlorotoluene	18.565	91	1363612	19.920	ppbV		97
96) 4-ethyl toluene	18.631	105	2015288	19.424	ppbV		100
97) 1,3,5-trimethylbenzene	18.684	105	1574055	19.806	ppbV		99
98) tert-butylbenzene	18.989	119	1792652	19.742	ppbV		99
99) 1,2,4-trimethylbenzene	18.989	105	1684716	20.049	ppbV		100
100) decane	19.032	57	844282	19.846	ppbV		100
101) Benzyl Chloride	19.103	91	1506145	21.064	ppbV		100
102) 1,3-dichlorobenzene	19.122	146	1111742	19.696	ppbV		98
103) 1,4-dichlorobenzene	19.170	146	1148883	19.907	ppbV		99
104) sec-butylbenzene	19.189	105	2368544	19.680	ppbV		99
105) 1,2,3-trimethylbenzene	19.308	105	1506939	20.035	ppbV		99
106) p-isopropyltoluene	19.298	119	2201786	19.651	ppbV		99
107) 1,2-dichlorobenzene	19.432	146	1042452	19.768	ppbV		99
108) n-butylbenzene	19.617	91	1911222	19.892	ppbV		100
109) indan	19.474	117	1608196	19.765	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231620.D
Acq On : 14 Dec 2014 5:14 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD20.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:28:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

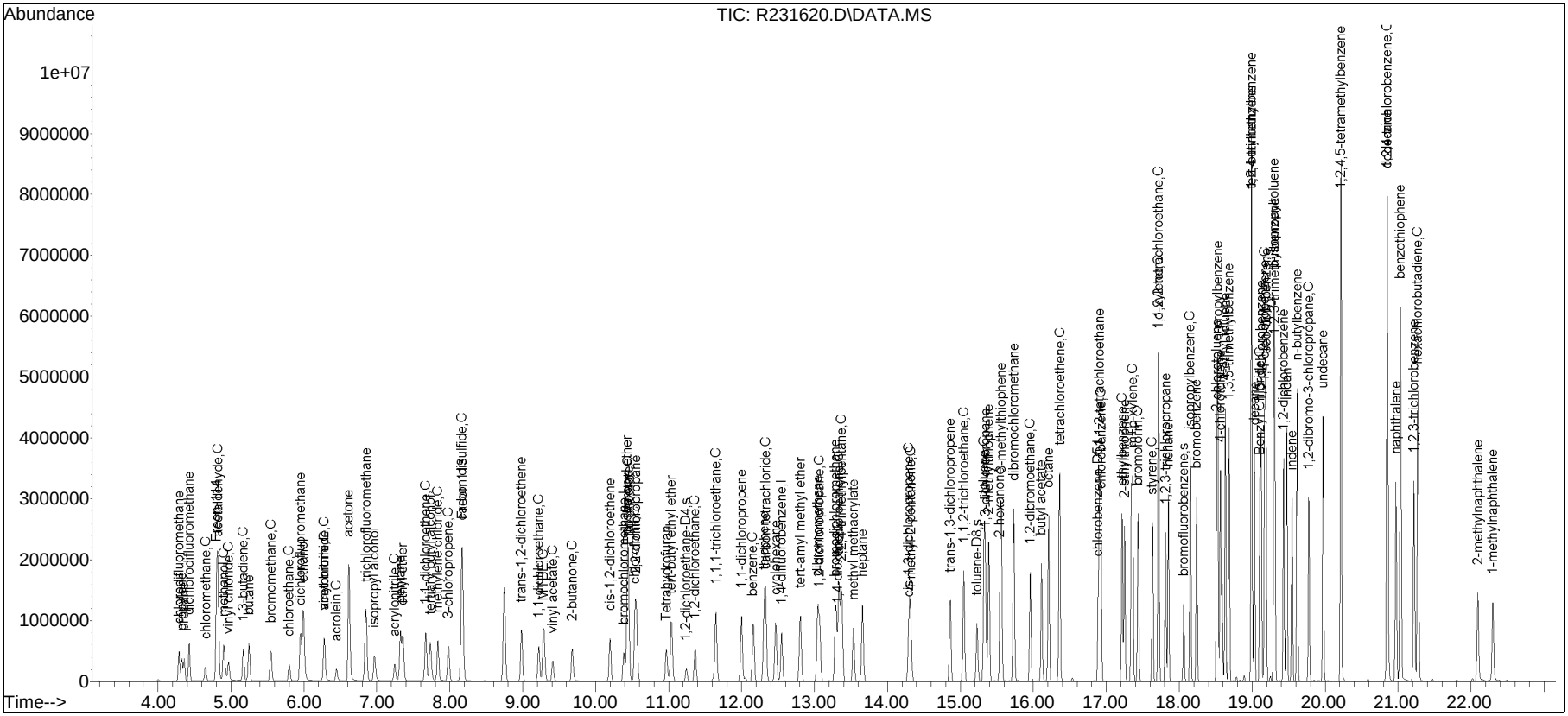
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.546	115	1128464	20.291	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.774	75	500129	20.768	ppbV	97
112) undecane	19.970	57	967036	20.355	ppbV	100
113) 1,2,4,5-tetramethylben...	20.217	119	3434176	16.995	ppbV	99
114) dodecane	20.850	57	1098098	21.940	ppbV	97
115) 1,2,4-trichlorobenzene	20.850	180	887686	20.503	ppbV	99
116) naphthalene	20.968	128	2164667	19.745	ppbV	99
117) 1,2,3-trichlorobenzene	21.214	180	809822	20.376	ppbV	99
118) benzothiophene	21.032	134	3608820	19.560	ppbV	100
119) hexachlorobutadiene	21.268	225	711107	20.214	ppbV	99
120) 2-methylnaphthalene	22.093	142	705925	18.051	ppbV	99
121) 1-methylnaphthalene	22.297	142	617309	18.183	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231620.D
Acq On : 14 Dec 2014 5:14 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD20.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:28:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

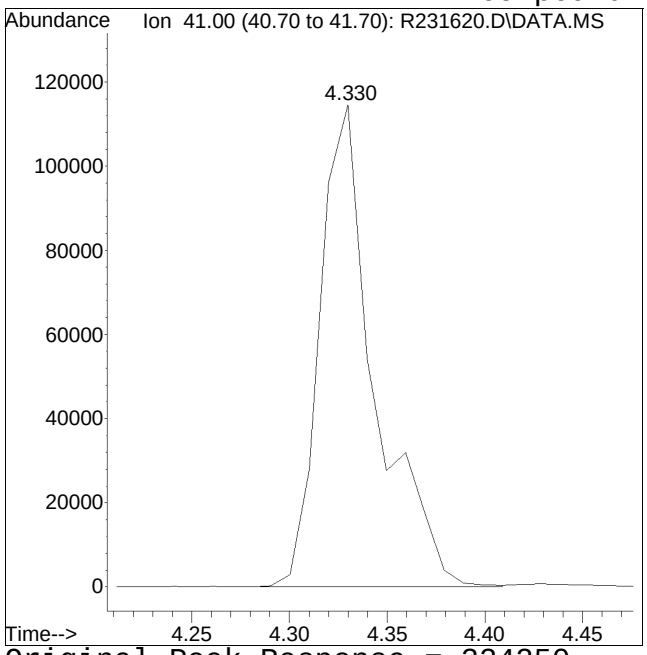


Manual Integration/Negative Proof Report

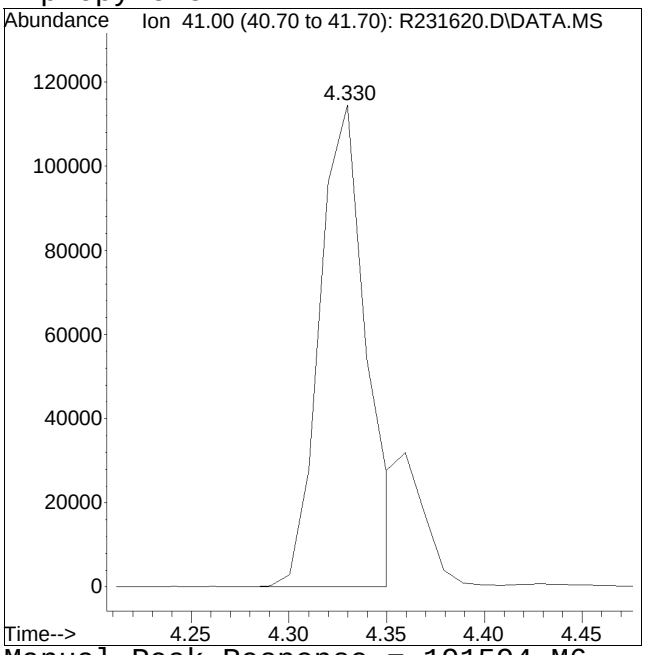
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231620.D
Date Inj'd : 12/14/2014 5:14 pm
Sample : ITO15-SIMSTD20.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #3: propylene



Original Peak Response = 224250



Manual Peak Response = 191594 M6

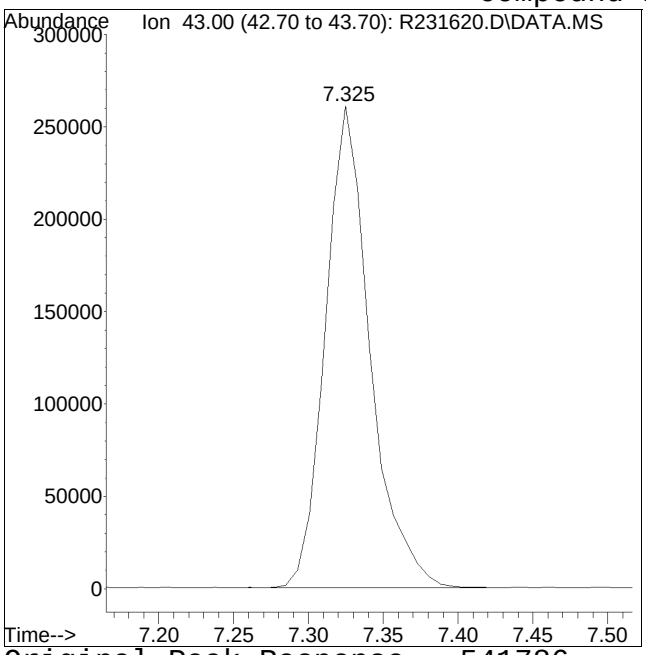
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

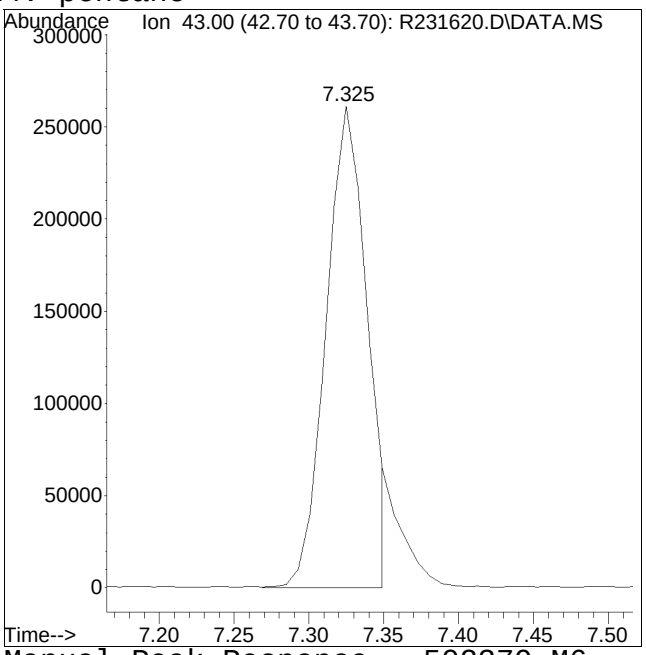
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231620.D
Date Inj'd : 12/14/2014 5:14 pm
Sample : ITO15-SIMSTD20.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #24: pentane



Original Peak Response = 541786



Manual Peak Response = 502379 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231621.D
Acq On : 14 Dec 2014 5:45 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD50.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:30:18 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	186993	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 102.94%			
43) 1,4-difluorobenzene	12.549	114	647843	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 100.02%			
67) chlorobenzene-D5	16.888	54	128562	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 103.88%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	145453	10.019	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.19%			
69) toluene-D8	15.225	98	579530	9.622	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.22%			
90) bromofluorobenzene	18.060	95	308086	9.606	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.06%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	1018107	46.200	ppbV	100
3) propylene	4.330	41	491128M6	46.397	ppbV	
4) propane	4.359	29	587205	47.695	ppbV	99
5) dichlorodifluoromethane	4.428	85	1478024	51.125	ppbV	99
6) chloromethane	4.655	50	571531	46.494	ppbV	97
7) Freon-114	4.803	85	2211511	44.896	ppbV	98
8) methanol	4.902	31	1317726	211.107	ppbV	91
9) vinyl chloride	4.971	62	687984	45.546	ppbV	97
10) 1,3-butadiene	5.168	54	491737	45.289	ppbV	92
11) butane	5.247	43	1091977	46.883	ppbV	99
12) acetaldehyde	4.823	29	2290179	218.122	ppbV	93
13) bromomethane	5.550	94	763957	44.621	ppbV	100
14) chloroethane	5.798	64	341105	45.164	ppbV	100
15) ethanol	6.006	31	3034880	234.977	ppbV	98
16) dichlorofluoromethane	5.958	67	1693214	46.172	ppbV	99
17) vinyl bromide	6.285	106	805033	46.087	ppbV	95
18) acrolein	6.445	56	285328	47.085	ppbV	98
19) acetone	6.621	43	5808984	229.341	ppbV	100
20) acetonitrile	6.277	41	646761	47.237	ppbV	93
21) trichlorofluoromethane	6.853	101	2483456	45.010	ppbV	99
22) isopropyl alcohol	6.973	45	1204942	46.041	ppbV	98
23) acrylonitrile	7.253	53	505024	46.879	ppbV	98
24) pentane	7.325	43	1303672M6	47.284	ppbV	

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231621.D
Acq On : 14 Dec 2014 5:45 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD50.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:30:18 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.357	31	1095647	46.713	ppbV	97
26) 1,1-dichloroethene	7.668	61	1244881	46.474	ppbV	98
27) tertiary butyl alcohol	7.740	59	1543664	47.555	ppbV	97
28) methylene chloride	7.836	49	868266	45.306	ppbV	96
29) 3-chloropropene	7.988	41	1009221	46.285	ppbV	96
30) carbon disulfide	8.164	76	2371964	46.940	ppbV	96
31) Freon 113	8.172	101	1743237	45.148	ppbV	99
32) trans-1,2-dichloroethene	8.981	61	1083389	47.861	ppbV	99
33) 1,1-dichloroethane	9.221	63	1282252	47.769	ppbV	100
34) MTBE	9.283	73	2127454	47.645	ppbV	98
35) vinyl acetate	9.413	43	1371301	64.201	ppbV	99
36) 2-butanone	9.681	43	1466360	46.532	ppbV	99
37) cis-1,2-dichloroethene	10.198	61	958475	47.712	ppbV	97
38) Ethyl Acetate	10.461	61	249502	51.542	ppbV	93
39) chloroform	10.546	83	1817638	48.736	ppbV	98
40) Tetrahydrofuran	10.968	42	821572	47.334	ppbV	99
41) 2,2-dichloropropane	10.564	77	1602914	50.640	ppbV	98
42) 1,2-dichloroethane	11.362	62	1082853	47.654	ppbV	100
44) hexane	10.442	57	1121118	52.477	ppbV	97
45) diisopropyl ether	10.442	87	650622	50.858	ppbV	90
46) tert-butyl ethyl ether	11.043	59	2208138	50.223	ppbV	99
48) 1,1,1-trichloroethane	11.648	97	2109656	48.263	ppbV	99
49) 1,1-dichloropropene	12.000	75	1195726	50.798	ppbV	96
50) benzene	12.166	78	2211438	49.504	ppbV	100
51) thiophene	12.311	84	1639431	50.947	ppbV	98
52) carbon tetrachloride	12.332	117	2288939	51.464	ppbV	99
53) cyclohexane	12.466	56	1043624	50.259	ppbV	98
54) tert-amyl methyl ether	12.808	73	2274815	50.204	ppbV	99
55) dibromomethane	13.046	93	1181118	51.050	ppbV	99
56) 1,2-dichloropropane	13.077	63	840237	51.008	ppbV	97
57) bromodichloromethane	13.295	83	2181100	51.111	ppbV	99
58) 1,4-dioxane	13.316	88	588582	52.996	ppbV	99
59) trichloroethene	13.336	130	1246644	50.059	ppbV	96
60) 2,2,4-trimethylpentane	13.378	57	3698215	49.694	ppbV	97
61) methyl methacrylate	13.533	41	1083505	50.294	ppbV	98
62) heptane	13.658	43	1372631	50.853	ppbV	98
63) cis-1,3-dichloropropene	14.305	75	1327696	52.957	ppbV	90
64) 4-methyl-2-pentanone	14.320	43	1970673	50.664	ppbV	98
65) trans-1,3-dichloropropene	14.863	75	1775179	52.433	ppbV	95
66) 1,1,2-trichloroethane	15.044	97	1408035	49.491	ppbV	98

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231621.D
Acq On : 14 Dec 2014 5:45 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD50.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:30:18 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.324	91	4098939	49.404	ppbV	99
70) 2-methylthiophene	15.397	97	3713439	49.727	ppbV	99
71) 1,3-dichloropropane	15.352	76	1875362	50.206	ppbV	98
72) 2-hexanone	15.550	43	2574087	50.938	ppbV	99
73) 3-methylthiophene	15.559	97	3845293	49.317	ppbV	100
74) dibromochloromethane	15.731	129	3393941	48.445	ppbV	99
75) 1,2-dibromoethane	15.957	107	2500518	47.984	ppbV	97
76) butyl acetate	16.111	73	418957	50.032	ppbV	92
77) octane	16.210	85	1166528	49.915	ppbV	100
78) tetrachloroethene	16.364	166	2073387	47.957	ppbV	96
79) 1,1,1,2-tetrachloroethane	16.912	131	1625532	49.579	ppbV	100
80) chlorobenzene	16.926	112	2639626	50.025	ppbV	96
81) ethylbenzene	17.217	91	4097623	49.616	ppbV	98
82) 2-ethylthiophene	17.255	97	3390194	50.524	ppbV	99
83) m+p-xylene	17.364	91	6758203	101.526	ppbV	100
84) bromoform	17.441	173	2359543	50.433	ppbV	99
85) styrene	17.636	104	2579864	49.896	ppbV	97
86) 1,1,2,2-tetrachloroethane	17.717	83	2586155	51.708	ppbV	99
87) o-xylene	17.722	91	3473404	50.170	ppbV	98
88) 1,2,3-trichloropropane	17.812	75	1855853	51.470	ppbV	95
89) nonane	17.855	43	2211692	52.547	ppbV	98
91) isopropylbenzene	18.155	105	4695251	49.359	ppbV	100
92) bromobenzene	18.241	77	2405828	51.627	ppbV	99
93) 2-chlorotoluene	18.517	126	1313357	49.509	ppbV	78
94) n-propylbenzene	18.531	120	1390797	50.097	ppbV	82
95) 4-chlorotoluene	18.564	91	3594950	50.669	ppbV	96
96) 4-ethyl toluene	18.631	105	5310739	49.386	ppbV	99
97) 1,3,5-trimethylbenzene	18.683	105	4207351	51.078	ppbV	98
98) tert-butylbenzene	18.993	119	4423119	46.998	ppbV	99
99) 1,2,4-trimethylbenzene	18.993	105	4232097	48.592	ppbV	98
100) decane	19.032	57	2413307	54.733	ppbV	98
101) Benzyl Chloride	19.108	91	4294829	57.953	ppbV	100
102) 1,3-dichlorobenzene	19.127	146	2921853	49.944	ppbV	94
103) 1,4-dichlorobenzene	19.174	146	2940282	49.154	ppbV	93
104) sec-butylbenzene	19.189	105	6247575	50.086	ppbV	100
105) 1,2,3-trimethylbenzene	19.312	105	4008181	51.414	ppbV	97
106) p-isopropyltoluene	19.303	119	5619107	48.386	ppbV	99
107) 1,2-dichlorobenzene	19.432	146	2747762	50.273	ppbV	93
108) n-butylbenzene	19.617	91	5106499	51.280	ppbV	99
109) indan	19.474	117	4200280	49.808	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231621.D
Acq On : 14 Dec 2014 5:45 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD50.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:30:18 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

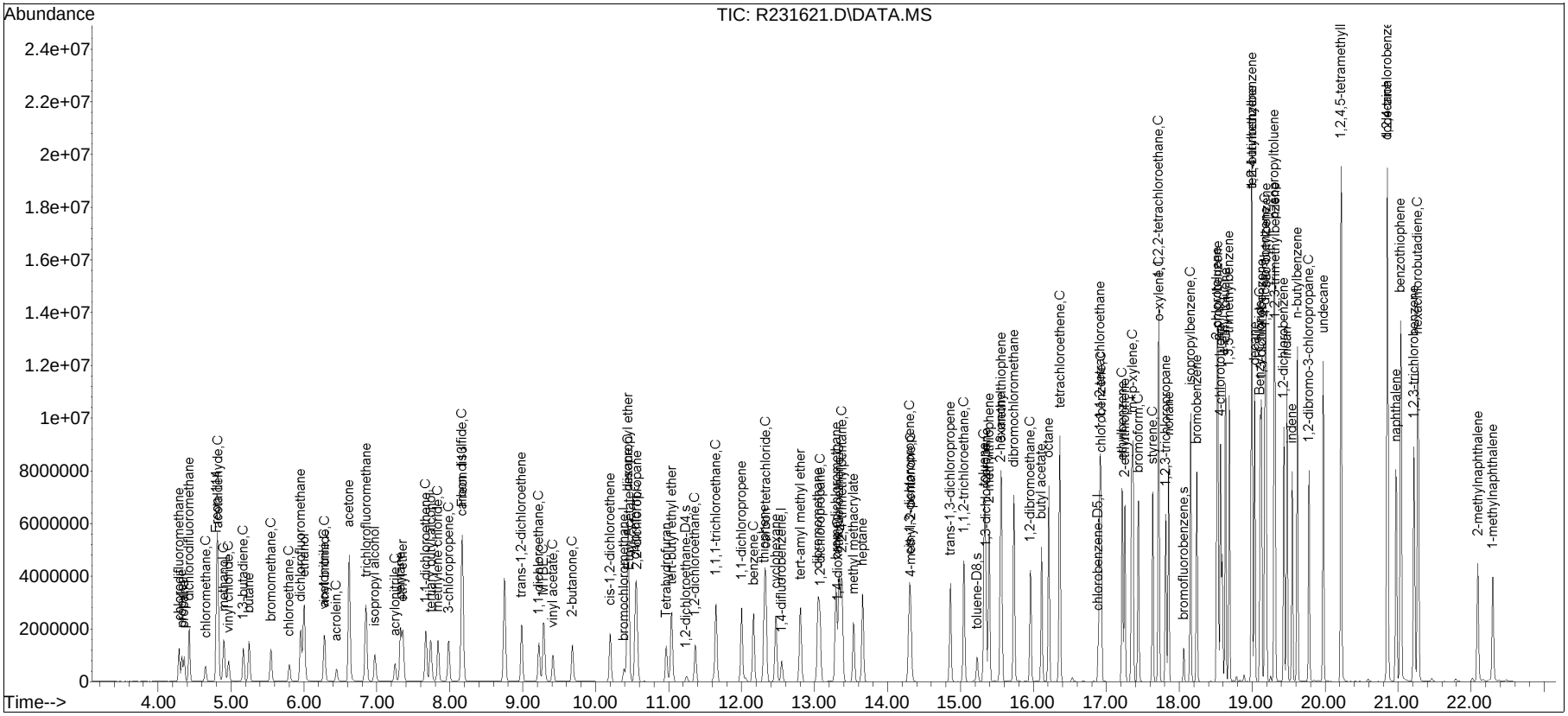
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.546	115	3041834	52.771	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.779	75	1435257	57.503	ppbV	89
112) undecane	19.974	57	2797047	56.805	ppbV	96
113) 1,2,4,5-tetramethylben...	20.217	119	8463535	40.410	ppbV	98
114) dodecane	20.850	57	3052655	58.847	ppbV	94
115) 1,2,4-trichlorobenzene	20.850	180	2396843	53.415	ppbV	95
116) naphthalene	20.968	128	5897718	51.903	ppbV	97
117) 1,2,3-trichlorobenzene	21.214	180	2280686	55.366	ppbV	99
118) benzothiophene	21.032	134	9273122	48.494	ppbV	96
119) hexachlorobutadiene	21.268	225	2086765	57.231	ppbV	92
120) 2-methylnaphthalene	22.093	142	2155917	53.189	ppbV	98
121) 1-methylnaphthalene	22.297	142	1845401	52.446	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231621.D
Acq On : 14 Dec 2014 5:45 pm
Operator : AIRPIANO2:AR
Sample : ITO15-SIMSTD50.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

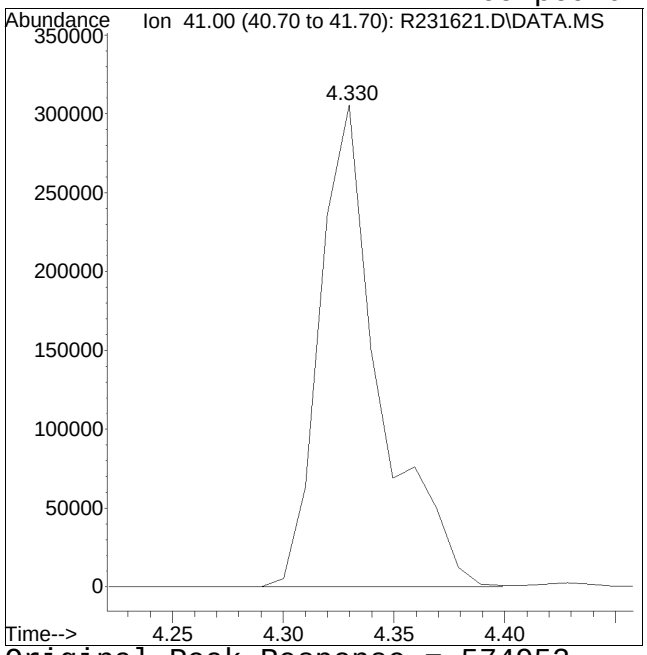
Quant Time: Dec 15 07:30:18 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration



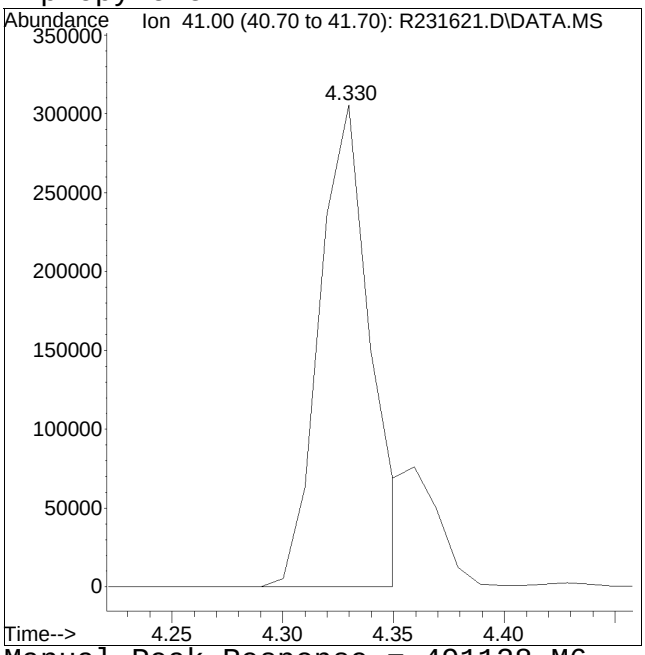
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231621.D
Date Inj'd : 12/14/2014 5:45 pm
Sample : ITO15-SIMSTD50.0
Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #3: propylene



Original Peak Response = 574952



Manual Peak Response = 491128 M6

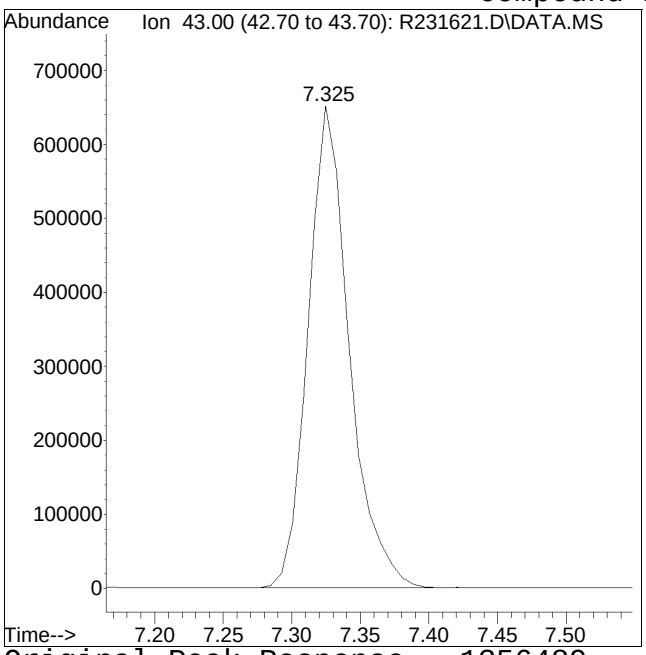
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

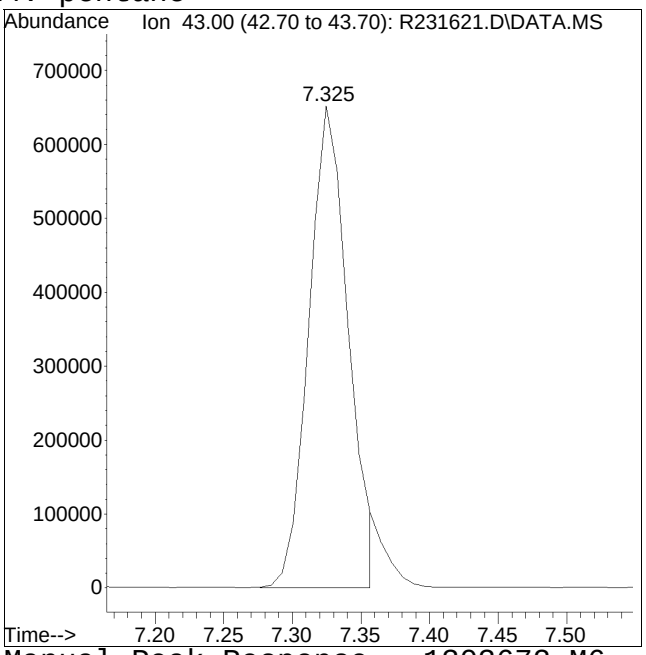
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231621.D
Date Inj'd : 12/14/2014 5:45 pm
Sample : ITO15-SIMSTD50.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:25 pm

Compound #24: pentane



Original Peak Response = 1356489



Manual Peak Response = 1303672 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231622.D
Acq On : 14 Dec 2014 6:17 pm
Operator : AIRPIANO2:AR
Sample : ITO15-LLSTD100.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:32:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.396	49	202551	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 111.51%			
43) 1,4-difluorobenzene	12.549	114	656714	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 101.39%			
67) chlorobenzene-D5	16.893	54	128758	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 104.04%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.250	65	143226	9.732	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.32%			
69) toluene-D8	15.234	98	577048	9.566	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.66%			
90) bromofluorobenzene	18.065	95	272550	8.485	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 84.85%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.291	51	2080042	87.140	ppbV	100
3) propylene	4.330	41	987831M6	86.153	ppbV	
4) propane	4.360	29	1145992	85.932	ppbV	98
5) dichlorodifluoromethane	4.429	85	1967299	62.822	ppbV	100
6) chloromethane	4.655	50	1162524	87.308	ppbV	97
7) Freon-114	4.803	85	4271324	80.053	ppbV	98
8) methanol	4.912	31	2716570	401.781	ppbV	90
9) vinyl chloride	4.971	62	1411358	86.258	ppbV	99
10) 1,3-butadiene	5.168	54	1004441	85.404	ppbV	97
11) butane	5.247	43	2224238	88.161	ppbV	99
12) acetaldehyde	4.823	29	4411358	387.876	ppbV	89
13) bromomethane	5.550	94	1524352	82.196	ppbV	99
14) chloroethane	5.806	64	683229	83.515	ppbV	100
15) ethanol	6.022	31	6064658	433.492	ppbV	97
16) dichlorofluoromethane	5.958	67	3393225	85.423	ppbV	99
17) vinyl bromide	6.286	106	1588147	83.936	ppbV	97
18) acrolein	6.453	56	582564	88.750	ppbV	97
19) acetone	6.629	43	11398655	415.457	ppbV	98
20) acetonitrile	6.286	41	1340932	90.415	ppbV	94
21) trichlorofluoromethane	6.853	101	4793405	80.202	ppbV	99
22) isopropyl alcohol	6.981	45	2441163	86.113	ppbV	100
23) acrylonitrile	7.261	53	1025454	87.877	ppbV	99
24) pentane	7.325	43	2635901M6	88.260	ppbV	

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231622.D
Acq On : 14 Dec 2014 6:17 pm
Operator : AIRPIANO2:AR
Sample : ITO15-LLSTD100.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:32:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.357	31	2205489	86.808	ppbV		97
26) 1,1-dichloroethene	7.676	61	2492485	85.903	ppbV		98
27) tertiary butyl alcohol	7.748	59	3156499	89.772	ppbV		98
28) methylene chloride	7.844	49	1757562	84.666	ppbV		95
29) 3-chloropropene	7.988	41	2054893	87.003	ppbV		95
30) carbon disulfide	8.164	76	4674004	85.392	ppbV		94
31) Freon 113	8.172	101	3289278	78.646	ppbV		96
32) trans-1,2-dichloroethene	8.988	61	2315040	94.415	ppbV		96
33) 1,1-dichloroethane	9.228	63	2698576	92.811	ppbV		100
34) MTBE	9.290	73	4524079	93.536	ppbV		97
35) vinyl acetate	9.420	43	3184296	137.630	ppbV		98
36) 2-butanone	9.688	43	3052565	89.427	ppbV		100
37) cis-1,2-dichloroethene	10.198	61	2005696	92.173	ppbV		95
38) Ethyl Acetate	10.461	61	524804	100.087	ppbV		76
39) chloroform	10.555	83	3719164	92.062	ppbV		98
40) Tetrahydrofuran	10.968	42	1699171	90.376	ppbV		97
41) 2,2-dichloropropane	10.565	77	3349039	97.677	ppbV		96
42) 1,2-dichloroethane	11.372	62	2224101	90.359	ppbV		100
44) hexane	10.442	57	2418966	111.696	ppbV	#	71
45) diisopropyl ether	10.442	87	1349363	104.053	ppbV		90
46) tert-butyl ethyl ether	11.043	59	4640654	104.125	ppbV		98
48) 1,1,1-trichloroethane	11.648	97	4518957	101.985	ppbV		99
49) 1,1-dichloropropene	12.000	75	2506578	105.049	ppbV		93
50) benzene	12.166	78	4572548	100.976	ppbV		99
51) thiophene	12.321	84	3441869	105.516	ppbV		98
52) carbon tetrachloride	12.332	117	4634949	102.803	ppbV		99
53) cyclohexane	12.477	56	2222985	105.609	ppbV		96
54) tert-amyl methyl ether	12.808	73	4823404	105.012	ppbV		98
55) dibromomethane	13.057	93	2399483	102.310	ppbV		99
56) 1,2-dichloropropane	13.078	63	1786433	106.983	ppbV		95
57) bromodichloromethane	13.295	83	4461566	103.138	ppbV		99
58) 1,4-dioxane	13.316	88	1219949	108.360	ppbV		96
59) trichloroethene	13.347	130	2485060	98.439	ppbV		95
60) 2,2,4-trimethylpentane	13.378	57	7930638	105.126	ppbV		96
61) methyl methacrylate	13.544	41	2255809	103.296	ppbV		99
62) heptane	13.668	43	2938301	107.388	ppbV		98
63) cis-1,3-dichloropropene	14.305	75	2842710	111.853	ppbV		100
64) 4-methyl-2-pentanone	14.321	43	4190998	106.291	ppbV		97
65) trans-1,3-dichloropropene	14.864	75	3800807	110.747	ppbV		94
66) 1,1,2-trichloroethane	15.053	97	2888657	100.162	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231622.D
Acq On : 14 Dec 2014 6:17 pm
Operator : AIRPIANO2:AR
Sample : ITO15-LLSTD100.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:32:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.334	91	8368902	100.715	ppbV		98
70) 2-methylthiophene	15.397	97	7565904	101.161	ppbV		99
71) 1,3-dichloropropane	15.352	76	3880869	103.737	ppbV		98
72) 2-hexanone	15.551	43	5394146	106.581	ppbV	#	97
73) 3-methylthiophene	15.569	97	7572080	96.966	ppbV		99
74) dibromochloromethane	15.740	129	6419279	91.490	ppbV		98
75) 1,2-dibromoethane	15.966	107	5025667	96.293	ppbV		99
76) butyl acetate	16.120	73	867247	103.409	ppbV		91
77) octane	16.219	85	2397661	102.439	ppbV		97
78) tetrachloroethene	16.364	166	4053742	93.619	ppbV		97
79) 1,1,1,2-tetrachloroethane	16.917	131	3022515	92.046	ppbV		98
80) chlorobenzene	16.931	112	5214740	98.677	ppbV		95
81) ethylbenzene	17.222	91	8327547	100.681	ppbV		100
82) 2-ethylthiophene	17.255	97	6789124	101.025	ppbV		98
83) m+p-xylene	17.369	91	13379806	200.693	ppbV		100
84) bromoform	17.446	173	4488789	95.798	ppbV		98
85) styrene	17.641	104	5160367	99.652	ppbV		96
86) 1,1,2,2-tetrachloroethane	17.717	83	4716358	94.156	ppbV		99
87) o-xylene	17.726	91	6317930	91.118	ppbV		99
88) 1,2,3-trichloropropane	17.817	75	3879974	107.443	ppbV		92
89) nonane	17.855	43	4594187	108.987	ppbV		96
91) isopropylbenzene	18.160	105	8987874	94.342	ppbV		97
92) bromobenzene	18.241	77	4975026	106.597	ppbV		94
93) 2-chlorotoluene	18.517	126	2537787	95.520	ppbV	#	49
94) n-propylbenzene	18.536	120	2675037	96.209	ppbV	#	46
95) 4-chlorotoluene	18.569	91	7405707	104.222	ppbV		97
96) 4-ethyl toluene	18.636	105	10110561	93.878	ppbV		98
97) 1,3,5-trimethylbenzene	18.688	105	8180088	99.156	ppbV		98
98) tert-butylbenzene	18.994	119	7374251	78.237	ppbV		98
99) 1,2,4-trimethylbenzene	18.998	105	6976524	79.982	ppbV		94
100) decane	19.037	57	4916221	111.329	ppbV		96
101) Benzyl Chloride	19.113	91	8281876	111.582	ppbV		98
102) 1,3-dichlorobenzene	19.132	146	5622894	95.967	ppbV		96
103) 1,4-dichlorobenzene	19.179	146	5465469	91.230	ppbV		97
104) sec-butylbenzene	19.194	105	10751660	86.063	ppbV		93
105) 1,2,3-trimethylbenzene	19.317	105	7162905	91.741	ppbV		99
106) p-isopropyltoluene	19.303	119	9667500	83.120	ppbV		96
107) 1,2-dichlorobenzene	19.436	146	5378406	98.254	ppbV		93
108) n-butylbenzene	19.622	91	9706352	97.324	ppbV		96
109) indan	19.479	117	8069853	95.548	ppbV		96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231622.D
Acq On : 14 Dec 2014 6:17 pm
Operator : AIRPIANO2:AR
Sample : ITO15-LLSTD100.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:32:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default - All compounds listed

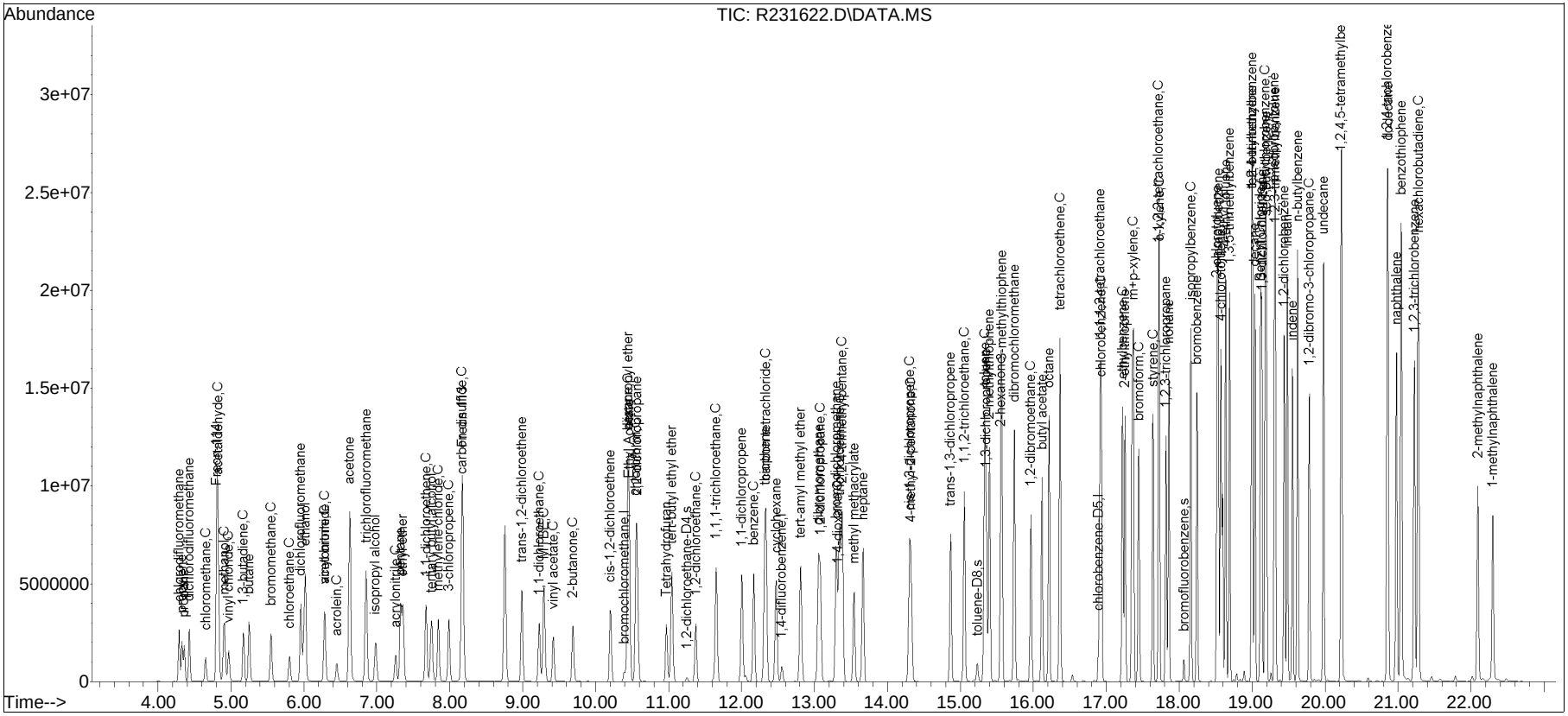
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) indene	19.551	115	6036582	104.567	ppbV		98
111) 1,2-dibromo-3-chloropr...	19.784	75	2943356	117.745	ppbV	#	87
112) undecane	19.979	57	5604648	113.651	ppbV		95
113) 1,2,4,5-tetramethylben...	20.217	119	13757946	65.589	ppbV		95
114) dodecane	20.861	57	5030241	96.821	ppbV		90
115) 1,2,4-trichlorobenzene	20.850	180	3997258	88.945	ppbV		93
116) naphthalene	20.979	128	11415451	100.310	ppbV	#	95
117) 1,2,3-trichlorobenzene	21.225	180	4649915	112.710	ppbV		97
118) benzothiophene	21.043	134	15163340	79.176	ppbV	#	87
119) hexachlorobutadiene	21.279	225	4057565	111.113	ppbV	#	78
120) 2-methylnaphthalene	22.093	142	4526647	111.509	ppbV		98
121) 1-methylnaphthalene	22.297	142	3875000	109.960	ppbV		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1214T_ICAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231622.D
Acq On : 14 Dec 2014 6:17 pm
Operator : AIRPIANO2:AR
Sample : ITO15-LLSTD100.0
Misc : WG748589
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 07:32:20 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sun Dec 14 21:25:15 2014
Response via : Initial Calibration

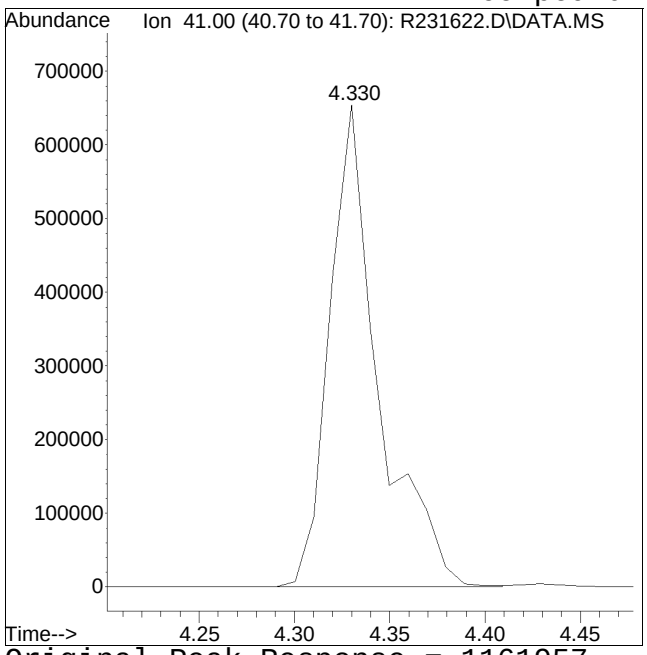


Manual Integration/Negative Proof Report

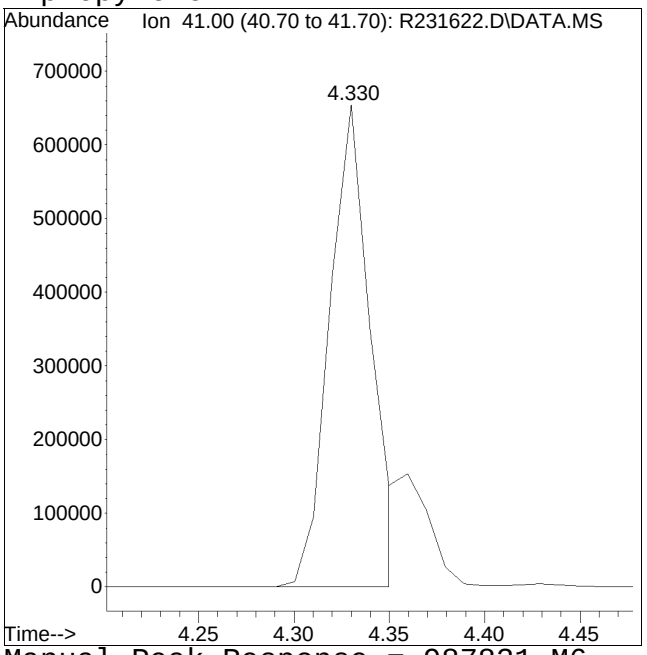
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231622.D
Date Inj'd : 12/14/2014 6:17 pm
Sample : ITO15-LLSTD100.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:26 pm

Compound #3: propylene



Original Peak Response = 1161957



Manual Peak Response = 987831 M6

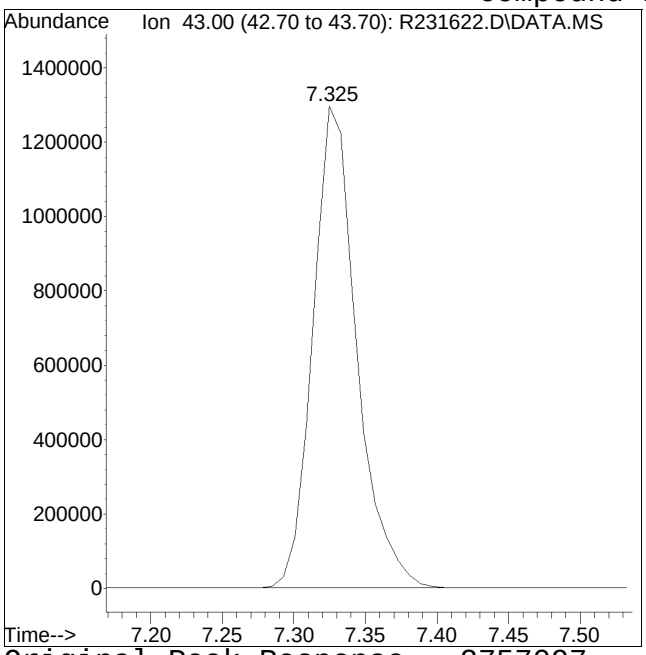
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

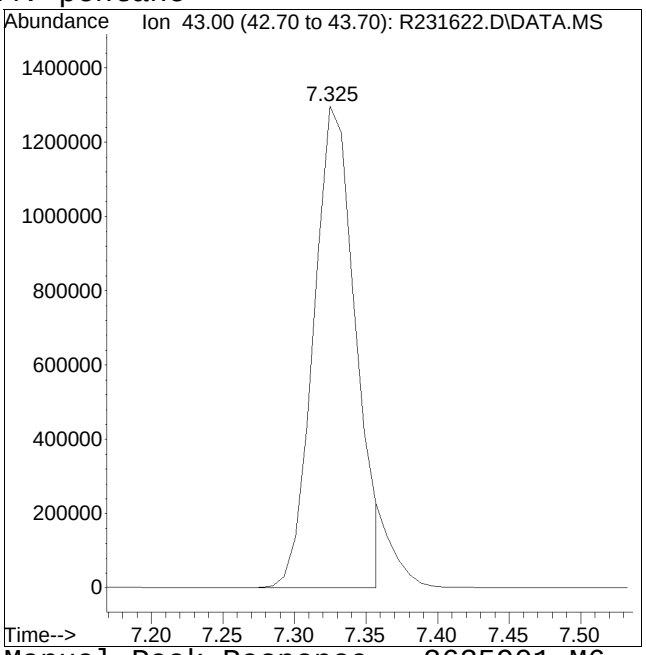
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231622.D
Date Inj'd : 12/14/2014 6:17 pm
Sample : ITO15-LLSTD100.0

Method : TALL141214.M
Operator : AIRPIANO2:AR
Instrument : Air Piano 2
Quant Date : 12/14/2014 9:26 pm

Compound #24: pentane



Original Peak Response = 2757097



Manual Peak Response = 2635901 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	103	0.00
2		chlorodifluoromethane	1.240	1.035	16.5	91	0.00
3		propylene	0.596	0.571	4.2	104	0.00
4		propane	0.759	0.571	24.8	90	0.00
5		dichlorodifluoromethane	1.520	1.686	-10.9	113	0.00
6	C	chloromethane	0.718	0.647	9.9	102	0.00
7		Freon-114	2.639	2.548	3.4	100	0.00
8	C	methanol	0.323	0.267	17.3	83	0.01
9	C	vinyl chloride	0.812	0.774	4.7	99	0.00
10	C	1,3-butadiene	0.579	0.582	-0.5	104	0.00
11		butane	1.344	1.156	14.0	96	0.00
13	C	bromomethane	0.935	0.895	4.3	101	0.00
14	C	chloroethane	0.417	0.395	5.3	101	0.00
15		ethanol	0.687	0.621	9.6	93	0.00
16		dichlorofluoromethane	2.052	1.745	15.0	92	0.00
17	C	vinyl bromide	0.937	0.930	0.7	103	0.00
18	C	acrolein	0.330	0.290	12.1	92	0.00
19		acetone	1.382	1.367	1.1	104	0.00
20	C	acetonitrile	0.761	0.676	11.2	95	0.00
21		trichlorofluoromethane	2.957	2.887	2.4	101	0.00
22		isopropyl alcohol	1.506	1.438	4.5	106	0.00
23	C	acrylonitrile	0.606	0.543	10.4	98	0.00
24		pentane	1.507	1.410	6.4	99	0.00
25		ethyl ether	1.292	1.103	14.6	91	0.00
26	C	1,1-dichloroethene	1.464	1.442	1.5	104	0.00
27		tertiary butyl alcohol	1.775	1.629	8.2	97	0.00
28	C	methylene chloride	1.055	0.994	5.8	100	0.00
29	C	3-chloropropene	1.183	1.231	-4.1	109	0.00
30	C	carbon disulfide	2.644	2.622	0.8	100	0.00
31		Freon 113	2.052	2.043	0.4	102	0.00
32		trans-1,2-dichloroethene	1.207	1.088	9.9	93	0.00
33	C	1,1-dichloroethane	1.460	1.424	2.5	103	0.00
34	C	MTBE	2.418	2.365	2.2	102	0.00
35	C	vinyl acetate	1.215	1.397	-15.0	127	0.00
36	C	2-butanone	1.750	1.635	6.6	100	0.00
37		cis-1,2-dichloroethene	1.093	1.170	-7.0	113	0.00
38		Ethyl Acetate	0.261	0.254	2.7	101	0.00
39	C	chloroform	2.031	2.004	1.3	104	0.00
40		Tetrahydrofuran	0.946	0.884	6.6	99	0.00

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Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.737	1.560	10.2	95	0.00
42	C	1,2-dichloroethane	1.237	1.216	1.7	103	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00
44	C	hexane	0.337	0.316	6.2	100	0.00
45		diisopropyl ether	0.199	0.179	10.1	95	0.00
46		tert-butyl ethyl ether	0.688	0.613	10.9	95	0.00
47	s	1,2-dichloroethane-D4	0.225	0.237	-5.3	111	0.00
48	C	1,1,1-trichloroethane	0.685	0.680	0.7	106	0.00
49		1,1-dichloropropene	0.374	0.354	5.3	102	0.00
50	C	benzene	0.707	0.665	5.9	101	0.00
52	C	carbon tetrachloride	0.678	0.669	1.3	102	-0.01
53		cyclohexane	0.338	0.315	6.8	103	0.00
54		tert-amyl methyl ether	0.705	0.640	9.2	96	0.00
55		dibromomethane	0.361	0.326	9.7	96	0.00
56	C	1,2-dichloropropane	0.257	0.246	4.3	102	0.00
57		bromodichloromethane	0.655	0.650	0.8	104	0.00
58	C	1,4-dioxane	0.178	0.163	8.4	100	0.00
59	C	trichloroethene	0.388	0.382	1.5	104	0.00
60	C	2,2,4-trimethylpentane	1.132	1.025	9.5	94	0.00
61		methyl methacrylate	0.346	0.306	11.6	97	0.00
62		heptane	0.434	0.408	6.0	103	0.00
63	C	cis-1,3-dichloropropene	0.386	0.411	-6.5	111	0.00
64	C	4-methyl-2-pentanone	0.620	0.584	5.8	102	0.00
65		trans-1,3-dichloropropene	0.517	0.475	8.1	95	0.00
66	C	1,1,2-trichloroethane	0.435	0.436	-0.2	104	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	102	0.00
68	C	toluene	6.567	6.569	-0.0	104	0.00
69	s	toluene-D8	4.693	5.140	-9.5	112	0.00
71		1,3-dichloropropane	2.949	2.706	8.2	95	0.00
72		2-hexanone	4.016	3.965	1.3	103	0.00
74		dibromochloromethane	5.124	5.491	-7.2	103	0.00
75	C	1,2-dibromoethane	3.954	4.104	-3.8	104	0.00
76		butyl acetate	0.647	0.616	4.8	97	0.00
77		octane	1.819	1.674	8.0	94	0.00
78	C	tetrachloroethene	3.335	3.422	-2.6	104	0.00
79		1,1,1,2-tetrachloroethane	2.486	2.392	3.8	96	0.00
80	C	chlorobenzene	4.098	4.219	-3.0	105	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	6.412	6.592	-2.8	105	0.00
83	C	m+p-xylene	5.117	5.260	-2.8	104	0.00
84	C	bromoform	3.366	3.627	-7.8	102	0.00
85	C	styrene	3.976	4.069	-2.3	104	0.00
86	C	1,1,2,2-tetrachloroethane	3.776	4.068	-7.7	107	0.00
87	C	o-xylene	5.229	5.579	-6.7	106	0.00
88		1,2,3-trichloropropane	2.807	2.624	6.5	96	0.00
89		nonane	3.328	3.023	9.2	95	0.00
90	s	bromofluorobenzene	2.388	2.509	-5.1	103	0.00
91	C	isopropylbenzene	7.044	7.210	-2.4	100	0.00
92		bromobenzene	3.681	3.416	7.2	97	0.00
93		2-chlorotoluene	2.045	1.943	5.0	97	0.00
94		n-propylbenzene	2.128	2.064	3.0	98	0.00
95		4-chlorotoluene	5.491	5.139	6.4	95	0.00
96		4-ethyl toluene	8.036	7.817	2.7	96	0.00
97		1,3,5-trimethylbenzene	6.307	6.596	-4.6	105	0.00
98		tert-butylbenzene	6.839	6.932	-1.4	97	0.00
99		1,2,4-trimethylbenzene	6.269	7.027	-12.1	106	0.00
100		decane	3.379	3.155	6.6	94	0.00
101	C	Benzyl Chloride	5.362	6.153	-14.8	109	0.00
102		1,3-dichlorobenzene	4.371	4.775	-9.2	108	0.00
103	C	1,4-dichlorobenzene	4.413	4.827	-9.4	106	0.00
104		sec-butylbenzene	9.197	9.097	1.1	96	0.00
106		p-isopropyltoluene	8.463	7.663	9.5	87	0.00
107		1,2-dichlorobenzene	4.085	4.478	-9.6	108	0.00
108		n-butylbenzene	7.402	7.481	-1.1	99	0.00
111	C	1,2-dibromo-3-chloropropane	1.876	1.906	-1.6	101	0.00
112		undecane	3.655	3.622	0.9	97	0.00
114		dodecane	3.571	4.110	-15.1	104	0.00
115	C	1,2,4-trichlorobenzene	3.169	3.956	-24.8	116	0.00
116		naphthalene	8.064	9.141	-13.4	106	0.00
117		1,2,3-trichlorobenzene	3.041	3.366	-10.7	108	0.00
119	C	hexachlorobutadiene	2.692	3.055	-13.5	110	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	187880	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 103.43%			
43) 1,4-difluorobenzene	12.549	114	679883	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 104.96%			
67) chlorobenzene-D5	16.888	54	126819	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 102.47%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.241	65	161270	10.564	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.64%			
69) toluene-D8	15.225	98	651869	10.952	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.52%			
90) bromofluorobenzene	18.060	95	318134	10.505	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.05%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	194397	8.345	ppbV	99
3) propylene	4.330	41	107216M6	9.578	ppbV	
4) propane	4.359	29	107283	7.523	ppbV	99
5) dichlorodifluoromethane	4.428	85	316841	11.096	ppbV	98
6) chloromethane	4.655	50	121638	9.011	ppbV	97
7) Freon-114	4.803	85	478676	9.656	ppbV	100
8) methanol	4.912	31	251082	41.345	ppbV	96
9) vinyl chloride	4.971	62	145445	9.532	ppbV	100
10) 1,3-butadiene	5.168	54	109323	10.047	ppbV	94
11) butane	5.247	43	217271	8.603	ppbV	99
13) bromomethane	5.550	94	168076	9.564	ppbV	99
14) chloroethane	5.798	64	74125	9.455	ppbV	97
15) ethanol	5.990	31	583774	45.225	ppbV	99
16) dichlorofluoromethane	5.950	67	327858	8.505	ppbV	99
17) vinyl bromide	6.278	106	174654	9.924	ppbV	97
18) acrolein	6.445	56	54434	8.778	ppbV	99
19) acetone	6.621	43	1283829	49.434	ppbV	99
20) acetonitrile	6.278	41	126958	8.884	ppbV	97
21) trichlorofluoromethane	6.845	101	542321	9.762	ppbV	98
22) isopropyl alcohol	6.965	45	270137	9.546	ppbV	99
23) acrylonitrile	7.245	53	102092	8.965	ppbV	99
24) pentane	7.325	43	264953	9.360	ppbV	96
25) ethyl ether	7.357	31	207251	8.540	ppbV	96

Quantitation Report (QT Reviewed)

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Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
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Sample : CTO15-LLSTD10
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ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	7.668	61	270897	9.852	ppbV	98
27) tertiary butyl alcohol	7.732	59	305977	9.175	ppbV	98
28) methylene chloride	7.836	49	186748	9.424	ppbV	98
29) 3-chloropropene	7.980	41	231286	10.402	ppbV	98
30) carbon disulfide	8.164	76	492706	9.919	ppbV	100
31) Freon 113	8.172	101	383746	9.953	ppbV	99
32) trans-1,2-dichloroethene	8.981	61	204375	9.009	ppbV	99
33) 1,1-dichloroethane	9.221	63	267472	9.754	ppbV	98
34) MTBE	9.290	73	444272	9.780	ppbV	99
35) vinyl acetate	9.414	43	262541	11.498	ppbV	98
36) 2-butanone	9.681	43	307096	9.338	ppbV	98
37) cis-1,2-dichloroethene	10.189	61	219762	10.698	ppbV	97
38) Ethyl Acetate	10.452	61	47636	9.733	ppbV	60
39) chloroform	10.536	83	376446	9.863	ppbV	99
40) Tetrahydrofuran	10.978	42	166140M6	9.349	ppbV	
41) 2,2-dichloropropane	10.555	77	293106	8.980	ppbV	99
42) 1,2-dichloroethane	11.363	62	228416	9.826	ppbV	99
44) hexane	10.442	57	214546	9.361	ppbV	93
45) diisopropyl ether	10.433	87	121412	8.975	ppbV	95
46) tert-butyl ethyl ether	11.043	59	416511	8.902	ppbV	100
48) 1,1,1-trichloroethane	11.648	97	462510	9.932	ppbV	99
49) 1,1-dichloropropene	12.000	75	240849	9.476	ppbV	94
50) benzene	12.156	78	452026	9.406	ppbV	99
52) carbon tetrachloride	12.321	117	454550	9.861	ppbV	97
53) cyclohexane	12.466	56	214378	9.335	ppbV	98
54) tert-amyl methyl ether	12.808	73	434885	9.070	ppbV	98
55) dibromomethane	13.047	93	221542	9.017	ppbV	97
56) 1,2-dichloropropane	13.067	63	167262	9.555	ppbV	96
57) bromodichloromethane	13.285	83	442085	9.931	ppbV	99
58) 1,4-dioxane	13.316	88	110754	9.161	ppbV	97
59) trichloroethene	13.337	130	259683	9.833	ppbV	98
60) 2,2,4-trimethylpentane	13.368	57	697145M6	9.055	ppbV	
61) methyl methacrylate	13.533	41	207961	8.846	ppbV	99
62) heptane	13.658	43	277057	9.399	ppbV	99
63) cis-1,3-dichloropropene	14.289	75	279221	10.641	ppbV	99
64) 4-methyl-2-pentanone	14.321	43	397231	9.427	ppbV	97
65) trans-1,3-dichloropropene	14.855	75	322803	9.182	ppbV	98
66) 1,1,2-trichloroethane	15.044	97	296366	10.028	ppbV	98
68) toluene	15.325	91	833076	10.003	ppbV	98
71) 1,3-dichloropropane	15.343	76	343213	9.177	ppbV	99

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CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
72) 2-hexanone	15.550	43	502897	9.873	ppbV	#	94
74) dibromochloromethane	15.731	129	696387	10.716	ppbV		97
75) 1,2-dibromoethane	15.957	107	520408	10.378	ppbV		97
76) butyl acetate	16.111	73	78144	9.517	ppbV		99
77) octane	16.210	85	212301	9.202	ppbV		96
78) tetrachloroethene	16.355	166	433917	10.259	ppbV		96
79) 1,1,1,2-tetrachloroethane	16.907	131	303338	9.620	ppbV		99
80) chlorobenzene	16.926	112	535057	10.297	ppbV		99
81) ethylbenzene	17.217	91	835938	10.280	ppbV		98
83) m+p-xylene	17.360	91	1334193	20.558	ppbV		99
84) bromoform	17.436	173	460016	10.776	ppbV		99
85) styrene	17.631	104	516083	10.235	ppbV		99
86) 1,1,2,2-tetrachloroethane	17.712	83	515899	10.774	ppbV		100
87) o-xylene	17.717	91	707468	10.669	ppbV		97
88) 1,2,3-trichloropropane	17.812	75	332762	9.346	ppbV		99
89) nonane	17.850	43	383396	9.085	ppbV		98
91) isopropylbenzene	18.150	105	914387	10.236	ppbV		100
92) bromobenzene	18.236	77	433244	9.281	ppbV		96
93) 2-chlorotoluene	18.512	126	246466	9.506	ppbV	#	60
94) n-propylbenzene	18.526	120	261692	9.697	ppbV		93
95) 4-chlorotoluene	18.565	91	651714	9.359	ppbV		100
96) 4-ethyl toluene	18.631	105	991340M6	9.728	ppbV		
97) 1,3,5-trimethylbenzene	18.684	105	836557	10.458	ppbV		99
98) tert-butylbenzene	18.989	119	879134	10.136	ppbV		100
99) 1,2,4-trimethylbenzene	18.989	105	891193	11.209	ppbV		94
100) decane	19.027	57	400126	9.337	ppbV		99
101) Benzyl Chloride	19.103	91	780254	11.475	ppbV		100
102) 1,3-dichlorobenzene	19.122	146	605522	10.925	ppbV		99
103) 1,4-dichlorobenzene	19.170	146	612185	10.938	ppbV		99
104) sec-butylbenzene	19.189	105	1153710	9.892	ppbV		100
106) p-isopropyltoluene	19.298	119	971815	9.055	ppbV		99
107) 1,2-dichlorobenzene	19.432	146	567844M2	10.962	ppbV		
108) n-butylbenzene	19.617	91	948746	10.107	ppbV		100
111) 1,2-dibromo-3-chloropr...	19.774	75	241732	10.161	ppbV		99
112) undecane	19.974	57	459324	9.910	ppbV		100
114) dodecane	20.861	57	521259	11.510	ppbV		99
115) 1,2,4-trichlorobenzene	20.850	180	501682	12.482	ppbV		100
116) naphthalene	20.968	128	1159237	11.335	ppbV		100
117) 1,2,3-trichlorobenzene	21.214	180	426877	11.070	ppbV		99
119) hexachlorobutadiene	21.268	225	387482	11.348	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

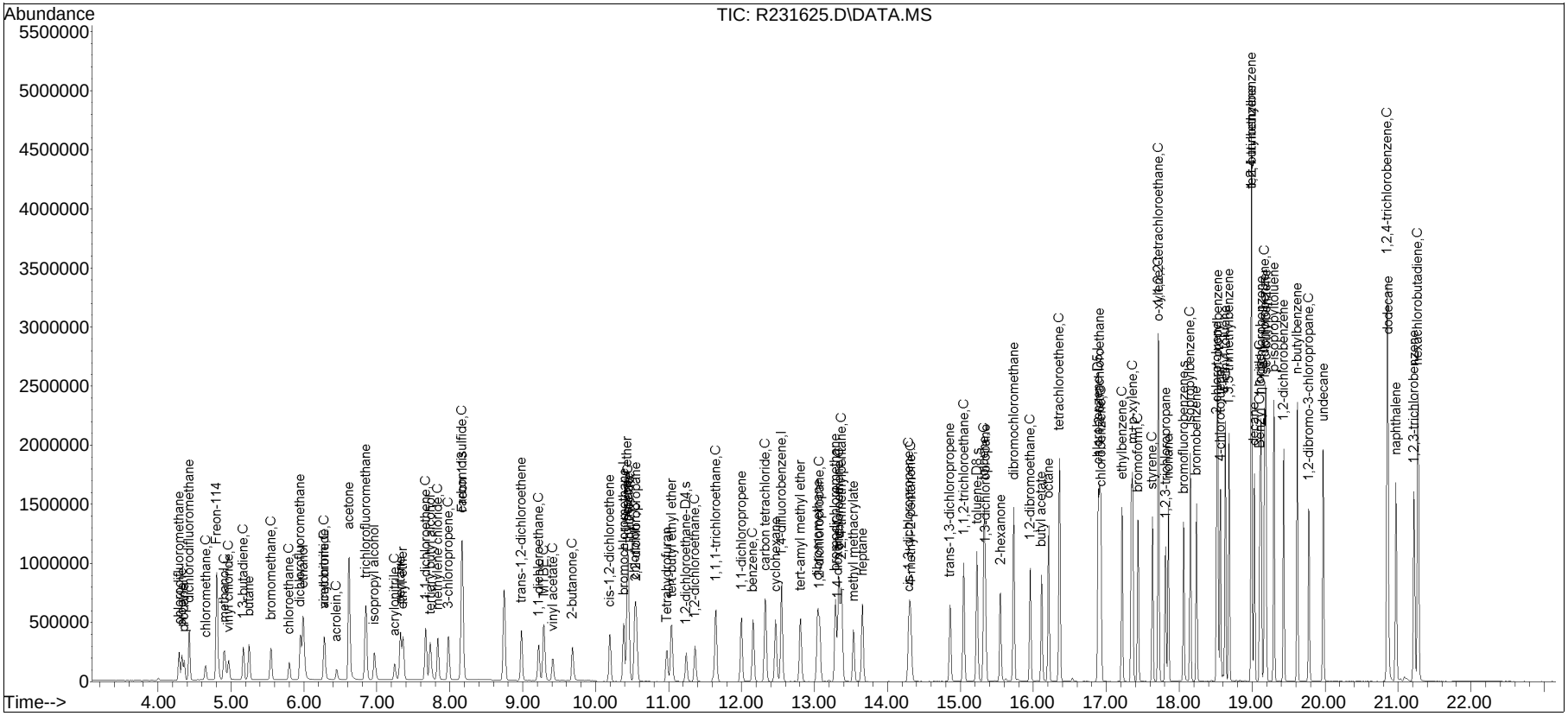
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

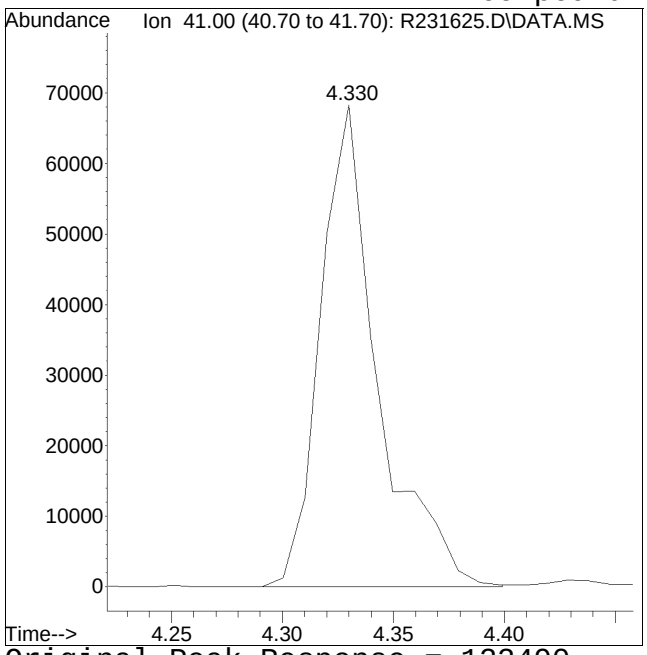


Manual Integration/Negative Proof Report

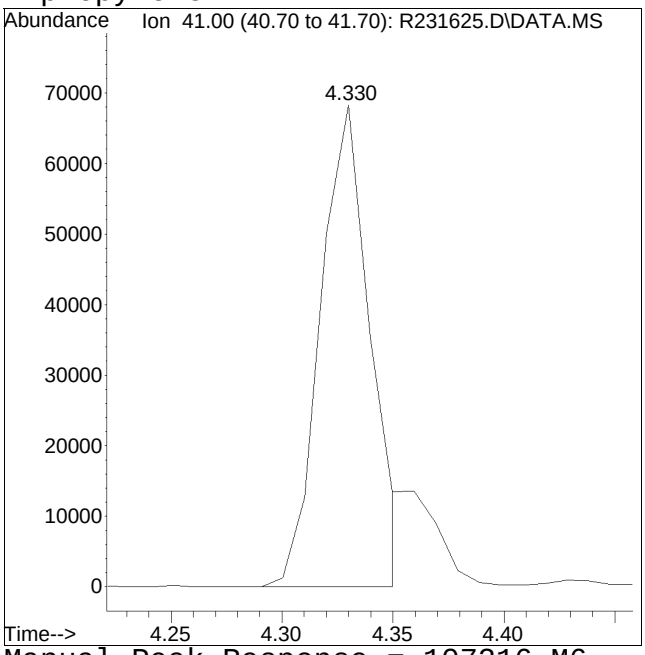
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #3: propylene



Original Peak Response = 122490



Manual Peak Response = 107216 M6

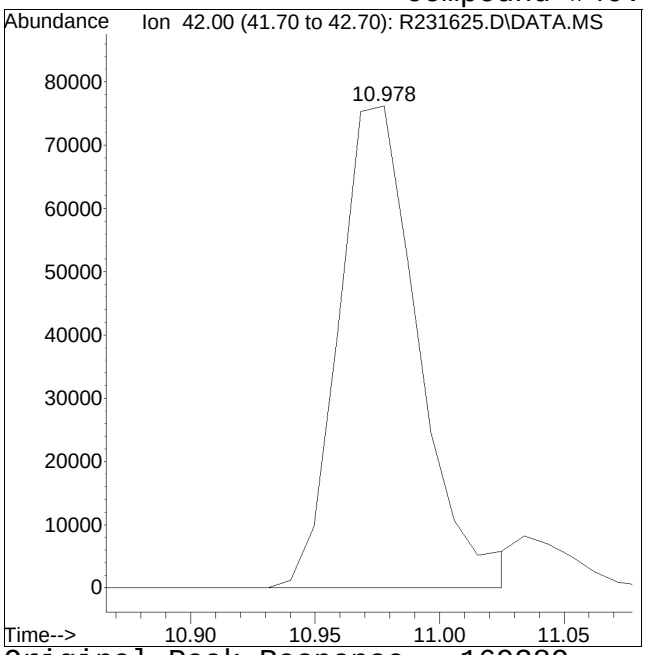
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

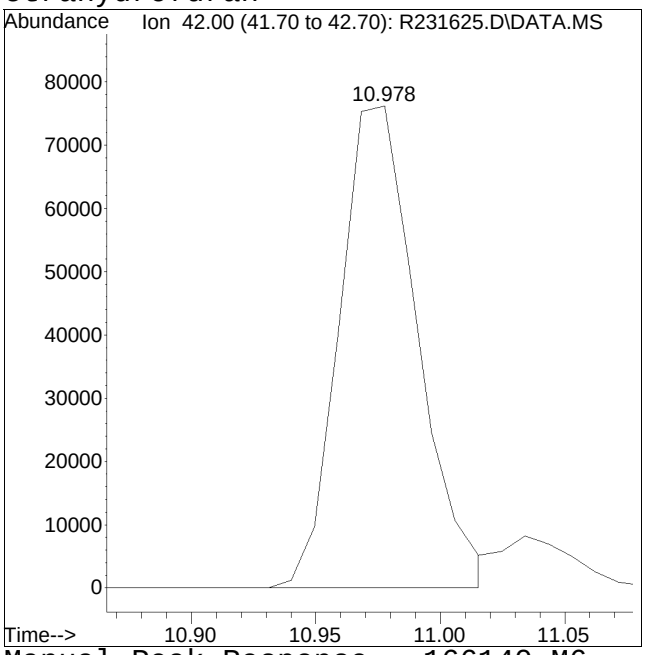
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #40: Tetrahydrofuran



Original Peak Response = 169389



Manual Peak Response = 166140 M6

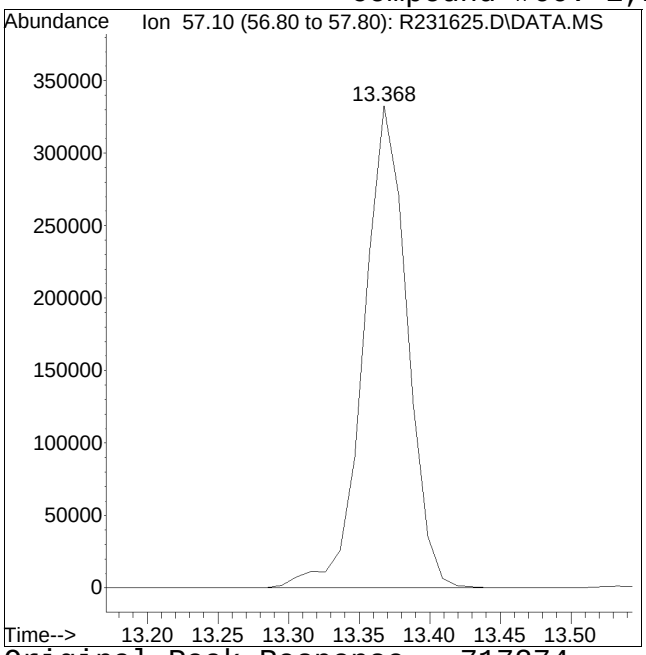
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

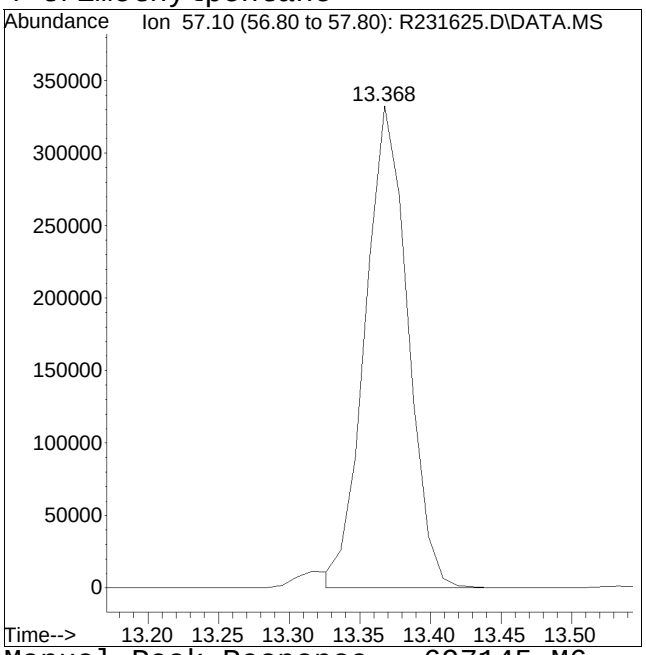
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 717274



Manual Peak Response = 697145 M6

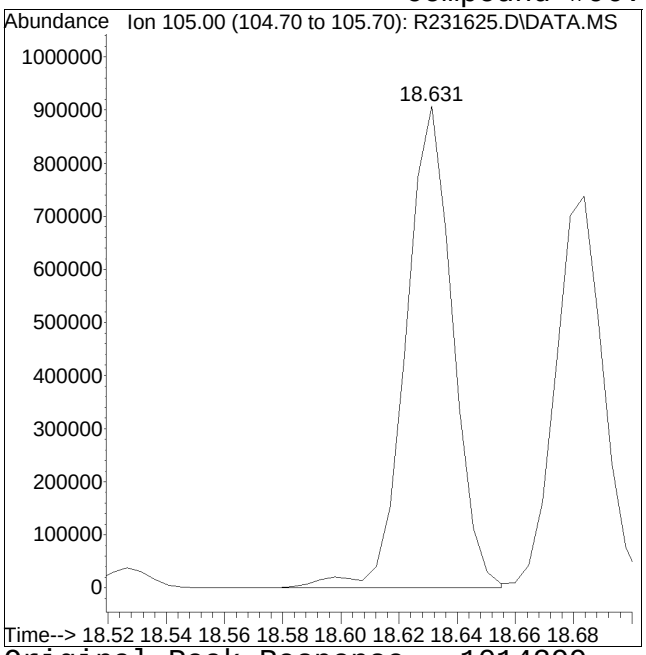
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

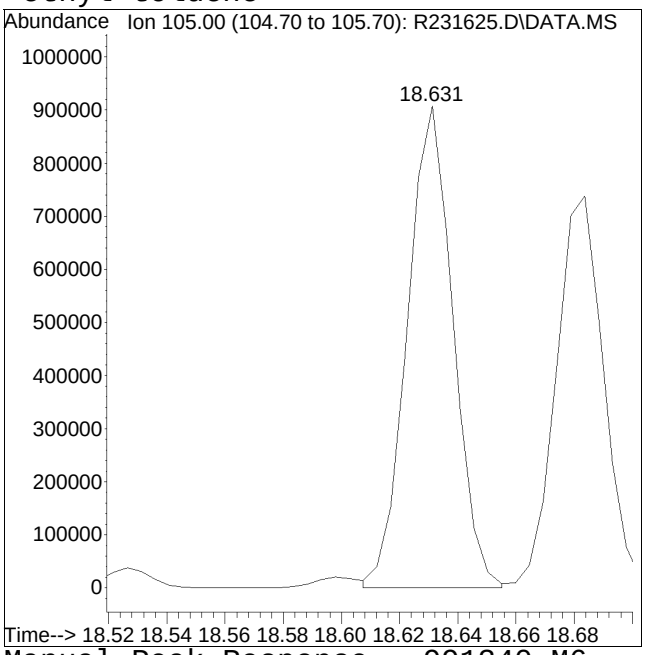
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #96: 4-ethyl toluene



Original Peak Response = 1014299



Manual Peak Response = 991340 M6

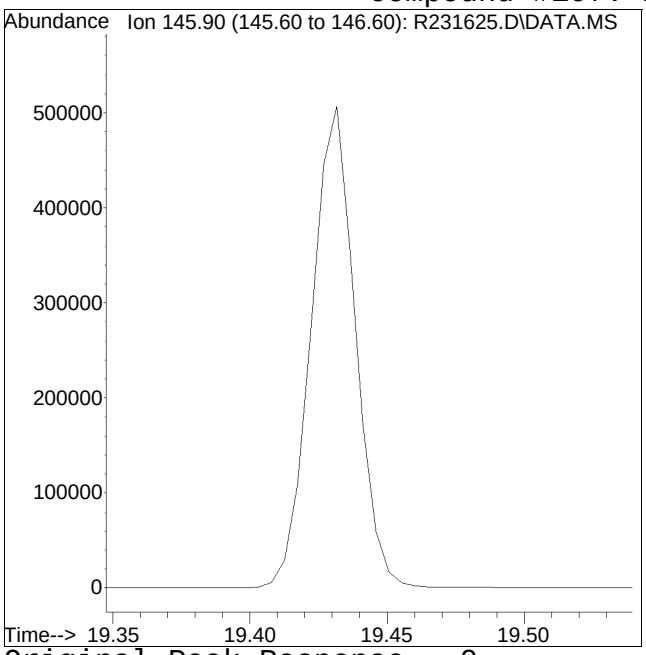
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

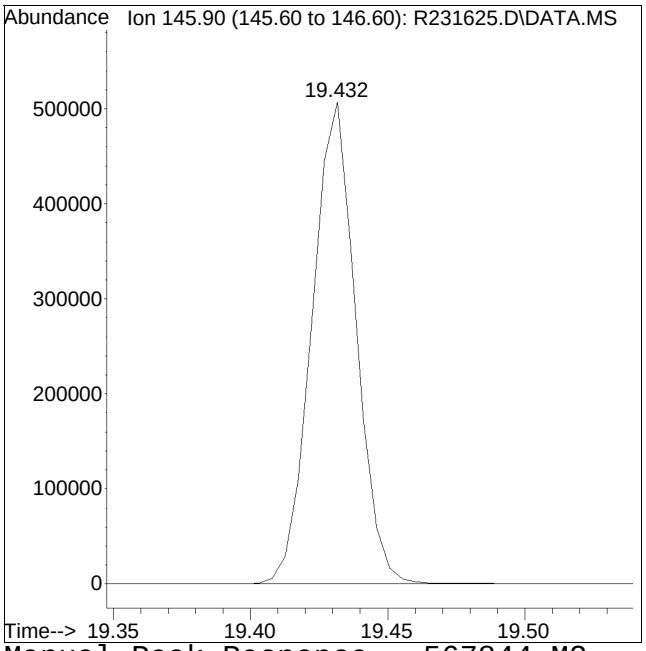
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #107: 1,2-dichlorobenzene



Original Peak Response = 0



Manual Peak Response = 567844 M2

M2 = Peak not found by automatic integration algorithm.

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Instrument ID: AIRPIANO2 Calibration Date: 12/15/2014 Time: 08:05

Lab File ID: R231625 Init. Calib. Date(s): 12/14/14 12/14/14

Sample No: CTO15-LLSTD10 Init. Calib. Times : 14:35 18:17

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	103	0.00
2		chlorodifluoromethane	1.240	1.035	16.5	91	0.00
3		propylene	0.596	0.571	4.2	104	0.00
4		propane	0.759	0.571	24.8	90	0.00
5		dichlorodifluoromethane	1.520	1.686	-10.9	113	0.00
6	C	chloromethane	0.718	0.647	9.9	102	0.00
7		Freon-114	2.639	2.548	3.4	100	0.00
8	C	methanol	0.323	0.267	17.3	83	0.01
9	C	vinyl chloride	0.812	0.774	4.7	99	0.00
10	C	1,3-butadiene	0.579	0.582	-0.5	104	0.00
11		butane	1.344	1.156	14.0	96	0.00
13	C	bromomethane	0.935	0.895	4.3	101	0.00
14	C	chloroethane	0.417	0.395	5.3	101	0.00
15		ethanol	0.687	0.621	9.6	93	0.00
16		dichlorofluoromethane	2.052	1.745	15.0	92	0.00
17	C	vinyl bromide	0.937	0.930	0.7	103	0.00
18	C	acrolein	0.330	0.290	12.1	92	0.00
19		acetone	1.382	1.367	1.1	104	0.00
20	C	acetonitrile	0.761	0.676	11.2	95	0.00
21		trichlorofluoromethane	2.957	2.887	2.4	101	0.00
22		isopropyl alcohol	1.506	1.438	4.5	106	0.00
23	C	acrylonitrile	0.606	0.543	10.4	98	0.00
24		pentane	1.507	1.410	6.4	99	0.00
25		ethyl ether	1.292	1.103	14.6	91	0.00
26	C	1,1-dichloroethene	1.464	1.442	1.5	104	0.00
27		tertiary butyl alcohol	1.775	1.629	8.2	97	0.00
28	C	methylene chloride	1.055	0.994	5.8	100	0.00
29	C	3-chloropropene	1.183	1.231	-4.1	109	0.00
30	C	carbon disulfide	2.644	2.622	0.8	100	0.00
31		Freon 113	2.052	2.043	0.4	102	0.00
32		trans-1,2-dichloroethene	1.207	1.088	9.9	93	0.00
33	C	1,1-dichloroethane	1.460	1.424	2.5	103	0.00
34	C	MTBE	2.418	2.365	2.2	102	0.00
35	C	vinyl acetate	1.215	1.397	-15.0	127	0.00
36	C	2-butanone	1.750	1.635	6.6	100	0.00
37		cis-1,2-dichloroethene	1.093	1.170	-7.0	113	0.00
38		Ethyl Acetate	0.261	0.254	2.7	101	0.00
39	C	chloroform	2.031	2.004	1.3	104	0.00
40		Tetrahydrofuran	0.946	0.884	6.6	99	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.737	1.560	10.2	95	0.00
42	C	1,2-dichloroethane	1.237	1.216	1.7	103	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00
44	C	hexane	0.337	0.316	6.2	100	0.00
45		diisopropyl ether	0.199	0.179	10.1	95	0.00
46		tert-butyl ethyl ether	0.688	0.613	10.9	95	0.00
47	s	1,2-dichloroethane-D4	0.225	0.237	-5.3	111	0.00
48	C	1,1,1-trichloroethane	0.685	0.680	0.7	106	0.00
49		1,1-dichloropropene	0.374	0.354	5.3	102	0.00
50	C	benzene	0.707	0.665	5.9	101	0.00
52	C	carbon tetrachloride	0.678	0.669	1.3	102	-0.01
53		cyclohexane	0.338	0.315	6.8	103	0.00
54		tert-amyl methyl ether	0.705	0.640	9.2	96	0.00
55		dibromomethane	0.361	0.326	9.7	96	0.00
56	C	1,2-dichloropropane	0.257	0.246	4.3	102	0.00
57		bromodichloromethane	0.655	0.650	0.8	104	0.00
58	C	1,4-dioxane	0.178	0.163	8.4	100	0.00
59	C	trichloroethene	0.388	0.382	1.5	104	0.00
60	C	2,2,4-trimethylpentane	1.132	1.025	9.5	94	0.00
61		methyl methacrylate	0.346	0.306	11.6	97	0.00
62		heptane	0.434	0.408	6.0	103	0.00
63	C	cis-1,3-dichloropropene	0.386	0.411	-6.5	111	0.00
64	C	4-methyl-2-pentanone	0.620	0.584	5.8	102	0.00
65		trans-1,3-dichloropropene	0.517	0.475	8.1	95	0.00
66	C	1,1,2-trichloroethane	0.435	0.436	-0.2	104	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	102	0.00
68	C	toluene	6.567	6.569	-0.0	104	0.00
69	s	toluene-D8	4.693	5.140	-9.5	112	0.00
71		1,3-dichloropropane	2.949	2.706	8.2	95	0.00
72		2-hexanone	4.016	3.965	1.3	103	0.00
74		dibromochloromethane	5.124	5.491	-7.2	103	0.00
75	C	1,2-dibromoethane	3.954	4.104	-3.8	104	0.00
76		butyl acetate	0.647	0.616	4.8	97	0.00
77		octane	1.819	1.674	8.0	94	0.00
78	C	tetrachloroethene	3.335	3.422	-2.6	104	0.00
79		1,1,1,2-tetrachloroethane	2.486	2.392	3.8	96	0.00
80	C	chlorobenzene	4.098	4.219	-3.0	105	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	6.412	6.592	-2.8	105	0.00
83	C	m+p-xylene	5.117	5.260	-2.8	104	0.00
84	C	bromoform	3.366	3.627	-7.8	102	0.00
85	C	styrene	3.976	4.069	-2.3	104	0.00
86	C	1,1,2,2-tetrachloroethane	3.776	4.068	-7.7	107	0.00
87	C	o-xylene	5.229	5.579	-6.7	106	0.00
88		1,2,3-trichloropropane	2.807	2.624	6.5	96	0.00
89		nonane	3.328	3.023	9.2	95	0.00
90	s	bromofluorobenzene	2.388	2.509	-5.1	103	0.00
91	C	isopropylbenzene	7.044	7.210	-2.4	100	0.00
92		bromobenzene	3.681	3.416	7.2	97	0.00
93		2-chlorotoluene	2.045	1.943	5.0	97	0.00
94		n-propylbenzene	2.128	2.064	3.0	98	0.00
95		4-chlorotoluene	5.491	5.139	6.4	95	0.00
96		4-ethyl toluene	8.036	7.817	2.7	96	0.00
97		1,3,5-trimethylbenzene	6.307	6.596	-4.6	105	0.00
98		tert-butylbenzene	6.839	6.932	-1.4	97	0.00
99		1,2,4-trimethylbenzene	6.269	7.027	-12.1	106	0.00
100		decane	3.379	3.155	6.6	94	0.00
101	C	Benzyl Chloride	5.362	6.153	-14.8	109	0.00
102		1,3-dichlorobenzene	4.371	4.775	-9.2	108	0.00
103	C	1,4-dichlorobenzene	4.413	4.827	-9.4	106	0.00
104		sec-butylbenzene	9.197	9.097	1.1	96	0.00
106		p-isopropyltoluene	8.463	7.663	9.5	87	0.00
107		1,2-dichlorobenzene	4.085	4.478	-9.6	108	0.00
108		n-butylbenzene	7.402	7.481	-1.1	99	0.00
111	C	1,2-dibromo-3-chloropropane	1.876	1.906	-1.6	101	0.00
112		undecane	3.655	3.622	0.9	97	0.00
114		dodecane	3.571	4.110	-15.1	104	0.00
115	C	1,2,4-trichlorobenzene	3.169	3.956	-24.8	116	0.00
116		naphthalene	8.064	9.141	-13.4	106	0.00
117		1,2,3-trichlorobenzene	3.041	3.366	-10.7	108	0.00
119	C	hexachlorobutadiene	2.692	3.055	-13.5	110	0.00

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	187880	10.000	ppbV	0.00
Standard Area = 181646			Recovery = 103.43%			
43) 1,4-difluorobenzene	12.549	114	679883	10.000	ppbV	0.00
Standard Area = 647736			Recovery = 104.96%			
67) chlorobenzene-D5	16.888	54	126819	10.000	ppbV	0.00
Standard Area = 123760			Recovery = 102.47%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.241	65	161270	10.564	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.64%			
69) toluene-D8	15.225	98	651869	10.952	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.52%			
90) bromofluorobenzene	18.060	95	318134	10.505	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.05%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	194397	8.345	ppbV	99
3) propylene	4.330	41	107216M6	9.578	ppbV	
4) propane	4.359	29	107283	7.523	ppbV	99
5) dichlorodifluoromethane	4.428	85	316841	11.096	ppbV	98
6) chloromethane	4.655	50	121638	9.011	ppbV	97
7) Freon-114	4.803	85	478676	9.656	ppbV	100
8) methanol	4.912	31	251082	41.345	ppbV	96
9) vinyl chloride	4.971	62	145445	9.532	ppbV	100
10) 1,3-butadiene	5.168	54	109323	10.047	ppbV	94
11) butane	5.247	43	217271	8.603	ppbV	99
13) bromomethane	5.550	94	168076	9.564	ppbV	99
14) chloroethane	5.798	64	74125	9.455	ppbV	97
15) ethanol	5.990	31	583774	45.225	ppbV	99
16) dichlorofluoromethane	5.950	67	327858	8.505	ppbV	99
17) vinyl bromide	6.278	106	174654	9.924	ppbV	97
18) acrolein	6.445	56	54434	8.778	ppbV	99
19) acetone	6.621	43	1283829	49.434	ppbV	99
20) acetonitrile	6.278	41	126958	8.884	ppbV	97
21) trichlorofluoromethane	6.845	101	542321	9.762	ppbV	98
22) isopropyl alcohol	6.965	45	270137	9.546	ppbV	99
23) acrylonitrile	7.245	53	102092	8.965	ppbV	99
24) pentane	7.325	43	264953	9.360	ppbV	96
25) ethyl ether	7.357	31	207251	8.540	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	7.668	61	270897	9.852	ppbV	98
27) tertiary butyl alcohol	7.732	59	305977	9.175	ppbV	98
28) methylene chloride	7.836	49	186748	9.424	ppbV	98
29) 3-chloropropene	7.980	41	231286	10.402	ppbV	98
30) carbon disulfide	8.164	76	492706	9.919	ppbV	100
31) Freon 113	8.172	101	383746	9.953	ppbV	99
32) trans-1,2-dichloroethene	8.981	61	204375	9.009	ppbV	99
33) 1,1-dichloroethane	9.221	63	267472	9.754	ppbV	98
34) MTBE	9.290	73	444272	9.780	ppbV	99
35) vinyl acetate	9.414	43	262541	11.498	ppbV	98
36) 2-butanone	9.681	43	307096	9.338	ppbV	98
37) cis-1,2-dichloroethene	10.189	61	219762	10.698	ppbV	97
38) Ethyl Acetate	10.452	61	47636	9.733	ppbV	60
39) chloroform	10.536	83	376446	9.863	ppbV	99
40) Tetrahydrofuran	10.978	42	166140M6	9.349	ppbV	
41) 2,2-dichloropropane	10.555	77	293106	8.980	ppbV	99
42) 1,2-dichloroethane	11.363	62	228416	9.826	ppbV	99
44) hexane	10.442	57	214546	9.361	ppbV	93
45) diisopropyl ether	10.433	87	121412	8.975	ppbV	95
46) tert-butyl ethyl ether	11.043	59	416511	8.902	ppbV	100
48) 1,1,1-trichloroethane	11.648	97	462510	9.932	ppbV	99
49) 1,1-dichloropropene	12.000	75	240849	9.476	ppbV	94
50) benzene	12.156	78	452026	9.406	ppbV	99
52) carbon tetrachloride	12.321	117	454550	9.861	ppbV	97
53) cyclohexane	12.466	56	214378	9.335	ppbV	98
54) tert-amyl methyl ether	12.808	73	434885	9.070	ppbV	98
55) dibromomethane	13.047	93	221542	9.017	ppbV	97
56) 1,2-dichloropropane	13.067	63	167262	9.555	ppbV	96
57) bromodichloromethane	13.285	83	442085	9.931	ppbV	99
58) 1,4-dioxane	13.316	88	110754	9.161	ppbV	97
59) trichloroethene	13.337	130	259683	9.833	ppbV	98
60) 2,2,4-trimethylpentane	13.368	57	697145M6	9.055	ppbV	
61) methyl methacrylate	13.533	41	207961	8.846	ppbV	99
62) heptane	13.658	43	277057	9.399	ppbV	99
63) cis-1,3-dichloropropene	14.289	75	279221	10.641	ppbV	99
64) 4-methyl-2-pentanone	14.321	43	397231	9.427	ppbV	97
65) trans-1,3-dichloropropene	14.855	75	322803	9.182	ppbV	98
66) 1,1,2-trichloroethane	15.044	97	296366	10.028	ppbV	98
68) toluene	15.325	91	833076	10.003	ppbV	98
71) 1,3-dichloropropane	15.343	76	343213	9.177	ppbV	99

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) 2-hexanone	15.550	43	502897	9.873	ppbV #	94
74) dibromochloromethane	15.731	129	696387	10.716	ppbV	97
75) 1,2-dibromoethane	15.957	107	520408	10.378	ppbV	97
76) butyl acetate	16.111	73	78144	9.517	ppbV	99
77) octane	16.210	85	212301	9.202	ppbV	96
78) tetrachloroethene	16.355	166	433917	10.259	ppbV	96
79) 1,1,1,2-tetrachloroethane	16.907	131	303338	9.620	ppbV	99
80) chlorobenzene	16.926	112	535057	10.297	ppbV	99
81) ethylbenzene	17.217	91	835938	10.280	ppbV	98
83) m+p-xylene	17.360	91	1334193	20.558	ppbV	99
84) bromoform	17.436	173	460016	10.776	ppbV	99
85) styrene	17.631	104	516083	10.235	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.712	83	515899	10.774	ppbV	100
87) o-xylene	17.717	91	707468	10.669	ppbV	97
88) 1,2,3-trichloropropane	17.812	75	332762	9.346	ppbV	99
89) nonane	17.850	43	383396	9.085	ppbV	98
91) isopropylbenzene	18.150	105	914387	10.236	ppbV	100
92) bromobenzene	18.236	77	433244	9.281	ppbV	96
93) 2-chlorotoluene	18.512	126	246466	9.506	ppbV #	60
94) n-propylbenzene	18.526	120	261692	9.697	ppbV	93
95) 4-chlorotoluene	18.565	91	651714	9.359	ppbV	100
96) 4-ethyl toluene	18.631	105	991340M6	9.728	ppbV	
97) 1,3,5-trimethylbenzene	18.684	105	836557	10.458	ppbV	99
98) tert-butylbenzene	18.989	119	879134	10.136	ppbV	100
99) 1,2,4-trimethylbenzene	18.989	105	891193	11.209	ppbV	94
100) decane	19.027	57	400126	9.337	ppbV	99
101) Benzyl Chloride	19.103	91	780254	11.475	ppbV	100
102) 1,3-dichlorobenzene	19.122	146	605522	10.925	ppbV	99
103) 1,4-dichlorobenzene	19.170	146	612185	10.938	ppbV	99
104) sec-butylbenzene	19.189	105	1153710	9.892	ppbV	100
106) p-isopropyltoluene	19.298	119	971815	9.055	ppbV	99
107) 1,2-dichlorobenzene	19.432	146	567844M2	10.962	ppbV	
108) n-butylbenzene	19.617	91	948746	10.107	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.774	75	241732	10.161	ppbV	99
112) undecane	19.974	57	459324	9.910	ppbV	100
114) dodecane	20.861	57	521259	11.510	ppbV	99
115) 1,2,4-trichlorobenzene	20.850	180	501682	12.482	ppbV	100
116) naphthalene	20.968	128	1159237	11.335	ppbV	100
117) 1,2,3-trichlorobenzene	21.214	180	426877	11.070	ppbV	99
119) hexachlorobutadiene	21.268	225	387482	11.348	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141214T_ICAL\R231619.D
Sub List : Default-ICV-AP2 - All compounds listed

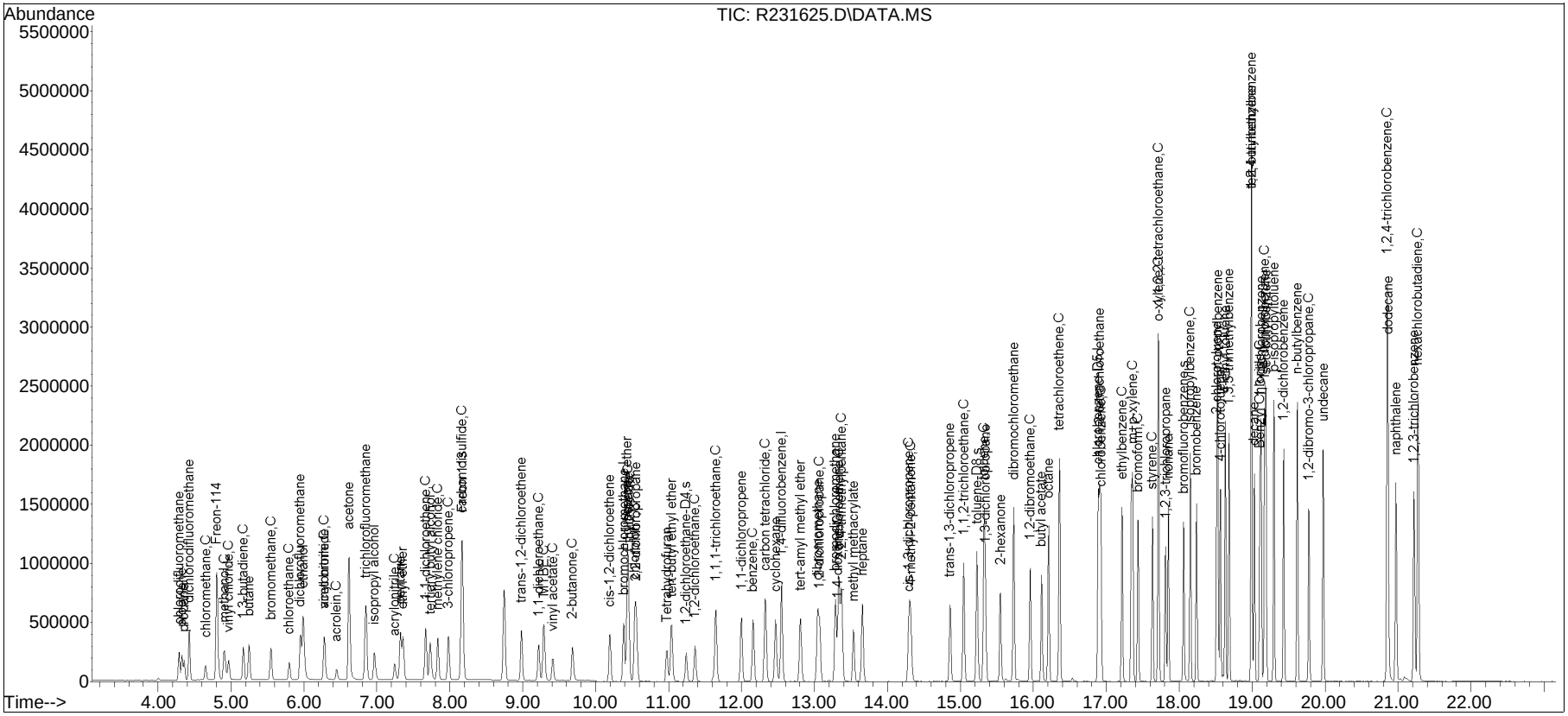
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedAL\R231619.D

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231625.D
Acq On : 15 Dec 2014 8:05 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG748589
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 08:33:45 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

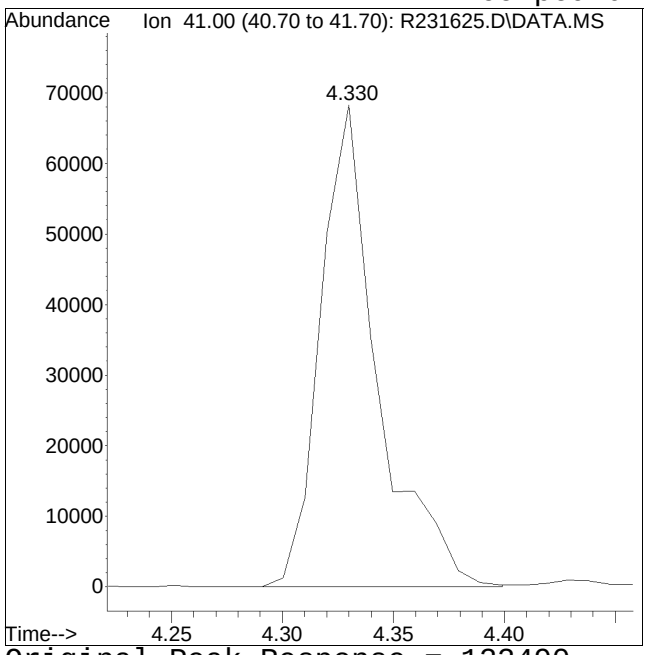


Manual Integration/Negative Proof Report

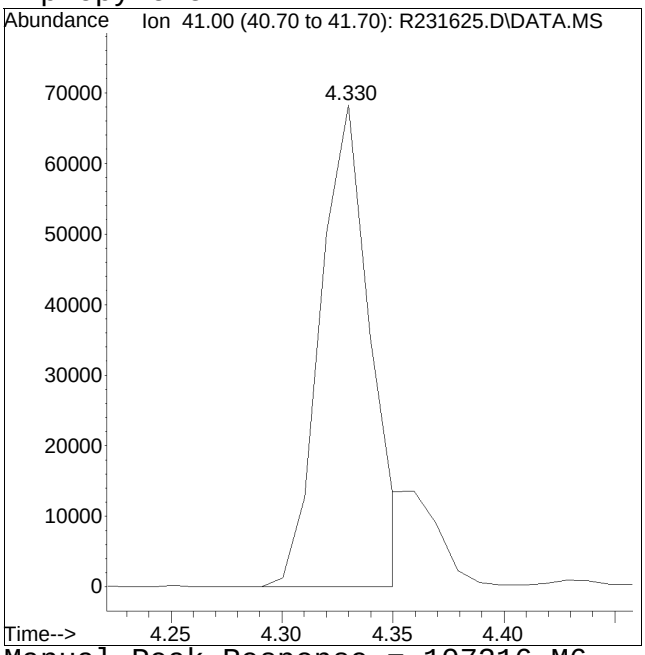
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #3: propylene



Original Peak Response = 122490



Manual Peak Response = 107216 M6

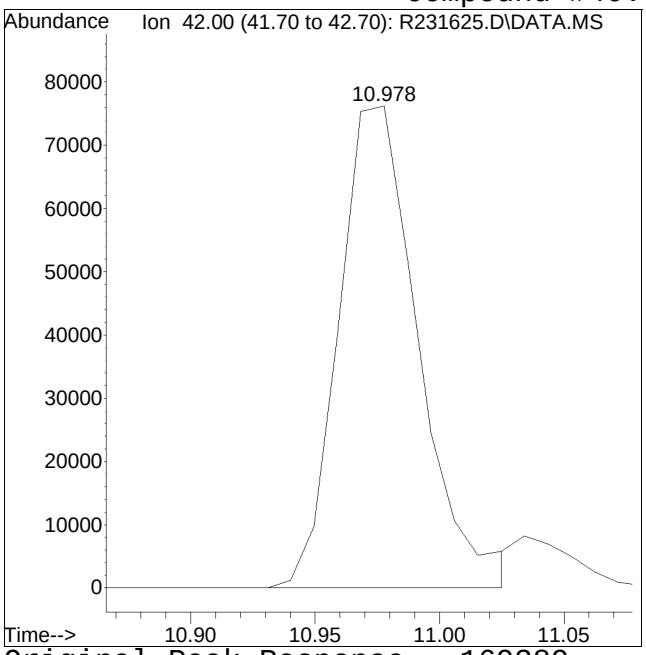
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

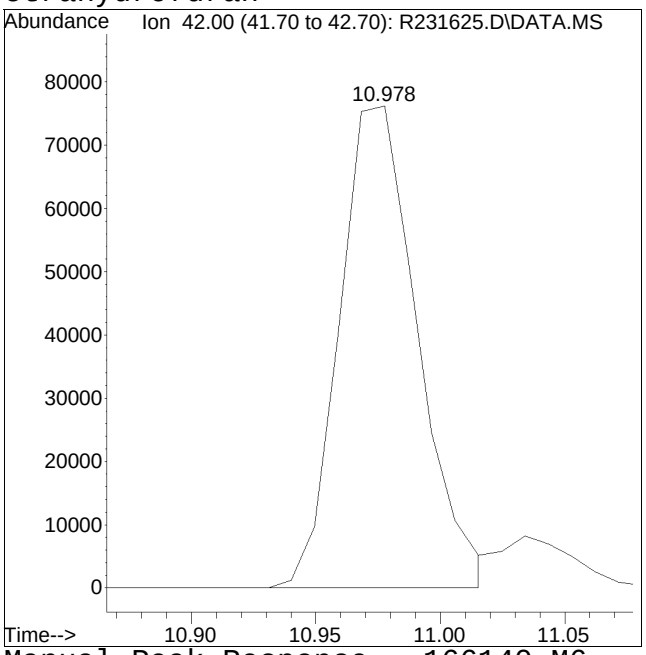
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #40: Tetrahydrofuran



Original Peak Response = 169389



Manual Peak Response = 166140 M6

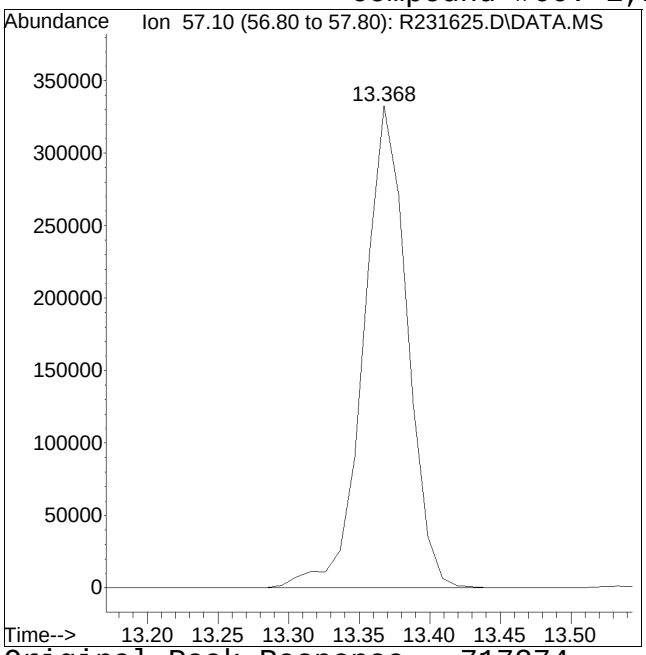
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

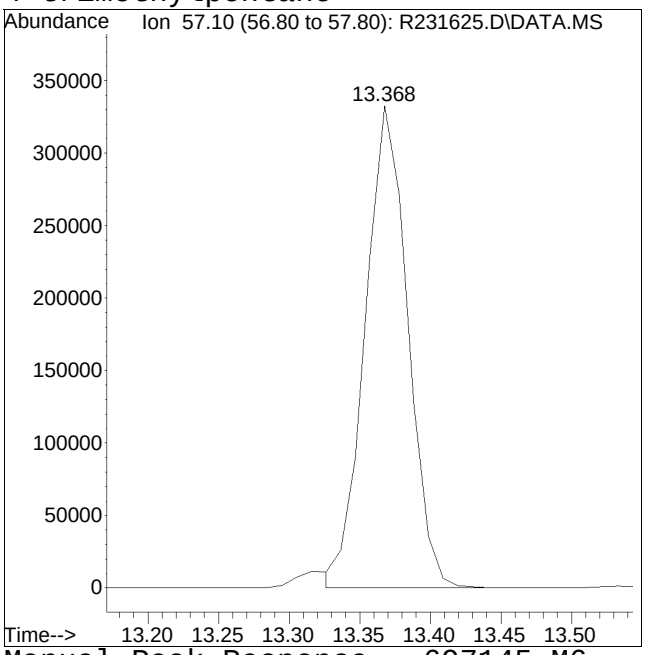
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 717274



Manual Peak Response = 697145 M6

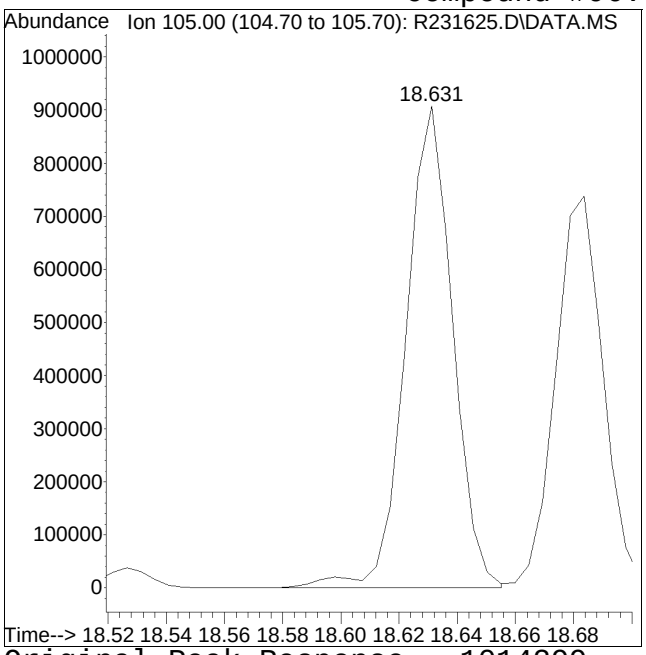
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

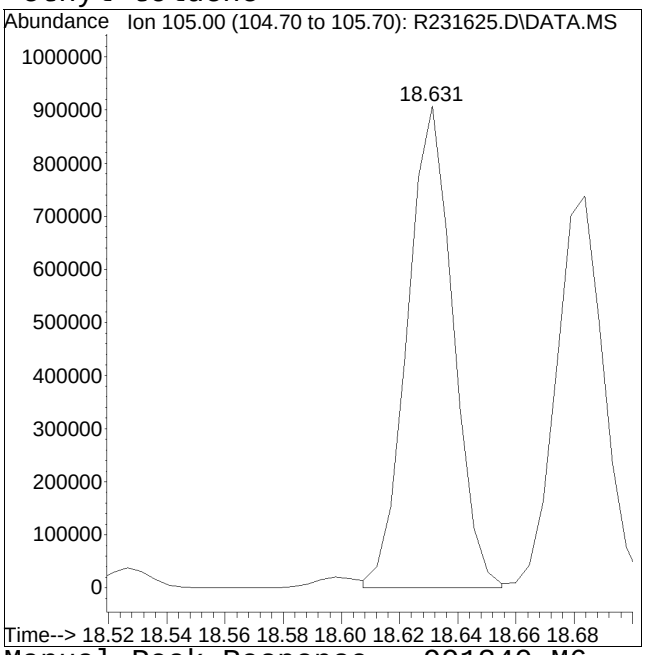
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #96: 4-ethyl toluene



Original Peak Response = 1014299



Manual Peak Response = 991340 M6

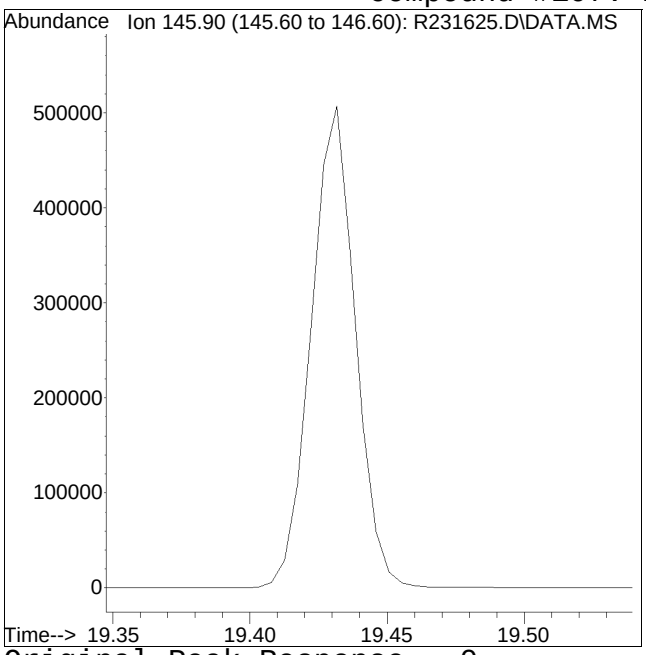
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

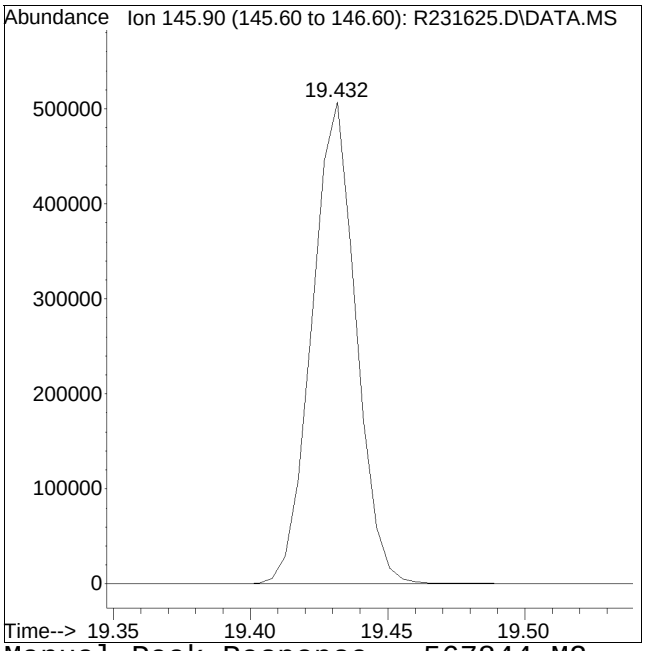
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231625.D
Date Inj'd : 12/15/2014 8:05 am
Sample : CTO15-LLSTD10

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/15/2014 8:32 am

Compound #107: 1,2-dichlorobenzene



Original Peak Response = 0



Manual Peak Response = 567844 M2

M2 = Peak not found by automatic integration algorithm.

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500977

Instrument ID: AIRPIANO2 Calibration Date: 01/16/2015 Time: 13:07

Lab File ID: R232153 Init. Calib. Date(s): 12/14/14 12/14/14

Sample No: WG756340-2,3,25 Init. Calib. Times : 14:35 18:17

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	104	0.00
2		chlorodifluoromethane	1.240	1.109	10.6	97	0.00
3		propylene	0.596	0.568	4.7	104	0.00
4		propane	0.759	0.645	15.0	101	0.00
5		dichlorodifluoromethane	1.520	1.856	-22.1	124	0.00
6	C	chloromethane	0.718	0.586	18.4	92	0.00
7		Freon-114	2.639	2.236	15.3	88	0.01
8	C	methanol	0.323	0.267	17.3	83	0.01
9	C	vinyl chloride	0.812	0.702	13.5	90	0.00
10	C	1,3-butadiene	0.579	0.492	15.0	88	0.01
11		butane	1.344	1.084	19.3	90	0.00
13	C	bromomethane	0.935	0.792	15.3	90	0.00
14	C	chloroethane	0.417	0.355	14.9	91	0.00
15		ethanol	0.687	0.577	16.0	87	0.00
16		dichlorofluoromethane	2.052	1.689	17.7	89	0.00
17	C	vinyl bromide	0.937	0.839	10.5	93	0.00
18	C	acrolein	0.330	0.268	18.8	86	0.00
19		acetone	1.382	1.098	20.5	84	0.00
20	C	acetonitrile	0.761	0.649	14.7	92	0.00
21		trichlorofluoromethane	2.957	2.422	18.1	85	0.00
22		isopropyl alcohol	1.506	1.158	23.1	86	0.00
23	C	acrylonitrile	0.606	0.497	18.0	89	0.00
24		pentane	1.507	1.348	10.6	95	0.00
25		ethyl ether	1.292	1.102	14.7	91	0.00
26	C	1,1-dichloroethene	1.464	1.230	16.0	89	0.00
27		tertiary butyl alcohol	1.775	1.457	17.9	87	0.00
28	C	methylene chloride	1.055	0.864	18.1	87	0.00
29	C	3-chloropropene	1.183	0.987	16.6	88	0.00
30	C	carbon disulfide	2.644	2.369	10.4	91	0.00
31		Freon 113	2.052	1.942	5.4	97	0.00
32		trans-1,2-dichloroethene	1.207	1.199	0.7	103	0.00
33	C	1,1-dichloroethane	1.460	1.480	-1.4	107	0.00
34	C	MTBE	2.418	2.411	0.3	105	0.00
35	C	vinyl acetate	1.215	1.254	-3.2	114	0.00
36	C	2-butanone	1.750	1.685	3.7	104	0.00
37		cis-1,2-dichloroethene	1.093	1.073	1.8	103	0.00
38		Ethyl Acetate	0.261	0.269	-3.1	108	0.00
39	C	chloroform	2.031	1.975	2.8	103	0.00
40		Tetrahydrofuran	0.946	0.970	-2.5	108	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232153.D
Acq On : 16 Jan 2015 1:07 pm
Operator : AIRPIANO2:RY
Sample : WG756340-2,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 16 13:35:17 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.737	1.666	4.1	102	0.00
42	C	1,2-dichloroethane	1.237	1.173	5.2	100	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00
44	C	hexane	0.337	0.316	6.2	107	0.00
45		diisopropyl ether	0.199	0.186	6.5	105	0.00
46		tert-butyl ethyl ether	0.688	0.638	7.3	105	0.00
48	C	1,1,1-trichloroethane	0.685	0.610	10.9	101	0.00
49		1,1-dichloropropene	0.374	0.357	4.5	110	0.00
50	C	benzene	0.707	0.681	3.7	110	0.00
52	C	carbon tetrachloride	0.678	0.613	9.6	100	-0.01
53		cyclohexane	0.338	0.314	7.1	109	0.00
54		tert-amyl methyl ether	0.705	0.667	5.4	106	0.00
55		dibromomethane	0.361	0.321	11.1	100	0.00
56	C	1,2-dichloropropane	0.257	0.240	6.6	105	0.00
57		bromodichloromethane	0.655	0.580	11.5	98	0.00
58	C	1,4-dioxane	0.178	0.164	7.9	107	0.00
59	C	trichloroethene	0.388	0.359	7.5	104	0.00
60	C	2,2,4-trimethylpentane	1.132	1.063	6.1	103	0.00
61		methyl methacrylate	0.346	0.310	10.4	104	0.00
62		heptane	0.434	0.404	6.9	108	0.00
63	C	cis-1,3-dichloropropene	0.386	0.373	3.4	108	0.00
64	C	4-methyl-2-pentanone	0.620	0.558	10.0	104	0.00
65		trans-1,3-dichloropropene	0.517	0.478	7.5	102	0.00
66	C	1,1,2-trichloroethane	0.435	0.415	4.6	105	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	99	0.00
68	C	toluene	6.567	7.139	-8.7	109	0.00
71		1,3-dichloropropane	2.949	3.116	-5.7	106	0.00
72		2-hexanone	4.016	4.066	-1.2	102	0.00
74		dibromochloromethane	5.124	5.336	-4.1	97	0.00
75	C	1,2-dibromoethane	3.954	4.227	-6.9	103	0.00
76		butyl acetate	0.647	0.679	-4.9	103	0.00
77		octane	1.819	1.988	-9.3	108	0.00
78	C	tetrachloroethene	3.335	3.663	-9.8	107	0.00
79		1,1,1,2-tetrachloroethane	2.486	2.642	-6.3	102	0.00
80	C	chlorobenzene	4.098	4.579	-11.7	110	0.00
81	C	ethylbenzene	6.412	7.090	-10.6	109	0.00
83	C	m+p-xylene	5.117	5.690	-11.2	108	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232153.D
Acq On : 16 Jan 2015 1:07 pm
Operator : AIRPIANO2:RY
Sample : WG756340-2,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 16 13:35:17 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.366	3.717	-10.4	101	0.00
85	C	styrene	3.976	4.497	-13.1	110	0.00
86	C	1,1,2,2-tetrachloroethane	3.776	4.246	-12.4	108	0.00
87	C	o-xylene	5.229	5.854	-12.0	107	0.00
88		1,2,3-trichloropropane	2.807	3.133	-11.6	110	0.00
89		nonane	3.328	3.593	-8.0	108	0.00
91	C	isopropylbenzene	7.044	8.213	-16.6	109	0.00
92		bromobenzene	3.681	3.963	-7.7	108	0.00
93		2-chlorotoluene	2.045	2.273	-11.1	109	0.00
94		n-propylbenzene	2.128	2.422	-13.8	111	0.00
95		4-chlorotoluene	5.491	6.057	-10.3	108	0.00
96		4-ethyl toluene	8.036	9.405	-17.0	111	0.00
97		1,3,5-trimethylbenzene	6.307	7.334	-16.3	113	0.00
98		tert-butylbenzene	6.839	7.934	-16.0	107	0.00
99		1,2,4-trimethylbenzene	6.269	7.334	-17.0	107	0.00
100		decane	3.379	3.883	-14.9	112	0.00
101	C	Benzyl Chloride	5.362	6.308	-17.6	108	0.00
102		1,3-dichlorobenzene	4.371	5.106	-16.8	111	0.00
103	C	1,4-dichlorobenzene	4.413	5.351	-21.3	113	0.00
104		sec-butylbenzene	9.197	10.727	-16.6	109	0.00
106		p-isopropyltoluene	8.463	9.997	-18.1	109	0.00
107		1,2-dichlorobenzene	4.085	4.984	-22.0	116	0.00
108		n-butylbenzene	7.402	8.785	-18.7	112	0.00
111	C	1,2-dibromo-3-chloropropane	1.876	2.123	-13.2	108	0.00
112		undecane	3.655	4.446	-21.6	114	0.00
114		dodecane	3.571	4.585	-28.4	112	-0.01
115	C	1,2,4-trichlorobenzene	3.169	4.138	-30.6#	117	0.00
116		naphthalene	8.064	10.193	-26.4	114	0.00
117		1,2,3-trichlorobenzene	3.041	3.896	-28.1	120	0.00
119	C	hexachlorobutadiene	2.692	3.615	-34.3#	126	0.00

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232153.D
Acq On : 16 Jan 2015 1:07 pm
Operator : AIRPIANO2:RY
Sample : WG756340-2,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 16 13:35:17 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.39	49	188101	10.000	ppbV		0.00
43) 1,4-difluorobenzene	12.55	114	721984	10.000	ppbV		0.00
67) chlorobenzene-D5	16.89	54	122028	10.000	ppbV		0.00
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	4.29	51	208677	8.947	ppbV		100
3) propylene	4.33	41	106842M6	9.533	ppbV		
4) propane	4.36	29	121347	8.500	ppbV		97
5) dichlorodifluoromethane	4.43	85	349181	12.214	ppbV		100
6) chloromethane	4.66	50	110142	8.150	ppbV		96
7) Freon-114	4.81	85	420508	8.472	ppbV		95
8) methanol	4.91	31	251127	41.303	ppbV		97
9) vinyl chloride	4.97	62	132017	8.642	ppbV		100
10) 1,3-butadiene	5.18	54	92487	8.490	ppbV		98
11) butane	5.25	43	203946	8.066	ppbV		99
13) bromomethane	5.55	94	148972	8.467	ppbV		97
14) chloroethane	5.80	64	66843	8.516	ppbV		99
15) ethanol	5.99	31	542831	42.004	ppbV		99
16) dichlorofluoromethane	5.96	67	317775	8.234	ppbV		98
17) vinyl bromide	6.29	106	157883	8.961	ppbV		97
18) acrolein	6.45	56	50421	8.121	ppbV		94
19) acetone	6.62	43	1033134	39.735	ppbV		99
20) acetonitrile	6.28	41	122049	8.530	ppbV		97
21) trichlorofluoromethane	6.85	101	455659	8.192	ppbV		100
22) isopropyl alcohol	6.96	45	217806	7.688	ppbV		98
23) acrylonitrile	7.24	53	93507	8.201	ppbV		98
24) pentane	7.32	43	253641	8.950	ppbV		98
25) ethyl ether	7.36	31	207221	8.529	ppbV		99
26) 1,1-dichloroethene	7.67	61	231426	8.406	ppbV		99
27) tertiary butyl alcohol	7.73	59	274086	8.209	ppbV		97
28) methylene chloride	7.84	49	162523	8.192	ppbV		97
29) 3-chloropropene	7.99	41	185704	8.342	ppbV		97
30) carbon disulfide	8.16	76	445699	8.962	ppbV	#	91
31) Freon 113	8.17	101	365374	9.465	ppbV		94
32) trans-1,2-dichloroethene	8.98	61	225447	9.926	ppbV		98
33) 1,1-dichloroethane	9.22	63	278307	10.137	ppbV		99
34) MTBE	9.29	73	453504	9.972	ppbV		95
35) vinyl acetate	9.41	43	235865	10.318	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232153.D
Acq On : 16 Jan 2015 1:07 pm
Operator : AIRPIANO2:RY
Sample : WG756340-2,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 16 13:35:17 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2-butanone	9.68	43	316917	9.625	ppbV		99
37) cis-1,2-dichloroethene	10.20	61	201881	9.816	ppbV		99
38) Ethyl Acetate	10.45	61	50556	10.317	ppbV		83
39) chloroform	10.54	83	371479	9.721	ppbV		98
40) Tetrahydrofuran	10.97	42	182373	10.250	ppbV		100
41) 2,2-dichloropropane	10.56	77	313379	9.590	ppbV		96
42) 1,2-dichloroethane	11.36	62	220619	9.480	ppbV		98
44) hexane	10.44	57	227903	9.364	ppbV		95
45) diisopropyl ether	10.43	87	134126	9.336	ppbV		97
46) tert-butyl ethyl ether	11.03	59	460684	9.272	ppbV		99
48) 1,1,1-trichloroethane	11.65	97	440238	8.903	ppbV		97
49) 1,1-dichloropropene	12.00	75	257876	9.554	ppbV		92
50) benzene	12.16	78	492030	9.642	ppbV		99
52) carbon tetrachloride	12.32	117	442867	9.047	ppbV		99
53) cyclohexane	12.47	56	226409	9.284	ppbV		97
54) tert-amyl methyl ether	12.81	73	481830	9.463	ppbV		96
55) dibromomethane	13.05	93	231496	8.873	ppbV		94
56) 1,2-dichloropropane	13.07	63	173627	9.340	ppbV		94
57) bromodichloromethane	13.28	83	418473	8.853	ppbV		99
58) 1,4-dioxane	13.32	88	118650	9.242	ppbV		94
59) trichloroethene	13.34	130	259440	9.251	ppbV		99
60) 2,2,4-trimethylpentane	13.37	57	767580	9.389	ppbV		94
61) methyl methacrylate	13.53	41	223999	8.972	ppbV		96
62) heptane	13.66	43	291751	9.320	ppbV		98
63) cis-1,3-dichloropropene	14.29	75	269598	9.675	ppbV		90
64) 4-methyl-2-pentanone	14.32	43	402622	8.998	ppbV		98
65) trans-1,3-dichloropropene	14.86	75	344870	9.238	ppbV		92
66) 1,1,2-trichloroethane	15.04	97	299690	9.549	ppbV		96
68) toluene	15.32	91	871206	10.871	ppbV		100
71) 1,3-dichloropropane	15.34	76	380218	10.565	ppbV	#	93
72) 2-hexanone	15.55	43	496153	10.123	ppbV		98
74) dibromochloromethane	15.73	129	651160	10.413	ppbV		100
75) 1,2-dibromoethane	15.96	107	515759	10.689	ppbV		97
76) butyl acetate	16.11	73	82879	10.490	ppbV		91
77) octane	16.21	85	242622	10.929	ppbV		98
78) tetrachloroethene	16.35	166	446940	10.981	ppbV		99
79) 1,1,1,2-tetrachloroethane	16.91	131	322407	10.626	ppbV		98
80) chlorobenzene	16.93	112	558734	11.174	ppbV		98
81) ethylbenzene	17.22	91	865125	11.056	ppbV		99
83) m+p-xylene	17.36	91	1388569	22.236	ppbV		99
84) bromoform	17.44	173	453601	11.043	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232153.D
Acq On : 16 Jan 2015 1:07 pm
Operator : AIRPIANO2:RY
Sample : WG756340-2,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 16 13:35:17 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85) styrene	17.63	104	548773	11.311	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.71	83	518095	11.244	ppbV	99
87) o-xylene	17.72	91	714385	11.196	ppbV	99
88) 1,2,3-trichloropropane	17.81	75	382316	11.160	ppbV	94
89) nonane	17.85	43	438483	10.798	ppbV	98
91) isopropylbenzene	18.15	105	1002194	11.659	ppbV	100
92) bromobenzene	18.24	77	483641	10.768	ppbV	95
93) 2-chlorotoluene	18.51	126	277349	11.117	ppbV	69
94) n-propylbenzene	18.53	120	295558	11.382	ppbV	81
95) 4-chlorotoluene	18.56	91	739183	11.031	ppbV	100
96) 4-ethyl toluene	18.63	105	1147701	11.704	ppbV	99
97) 1,3,5-trimethylbenzene	18.68	105	894970	11.628	ppbV	99
98) tert-butylbenzene	18.99	119	968143	11.601	ppbV	100
99) 1,2,4-trimethylbenzene	18.99	105	894972	11.699	ppbV	97
100) decane	19.03	57	473843	11.492	ppbV	98
101) Benzyl Chloride	19.10	91	769789	11.766	ppbV	98
102) 1,3-dichlorobenzene	19.12	146	623023	11.682	ppbV	98
103) 1,4-dichlorobenzene	19.17	146	652991	12.125	ppbV	98
104) sec-butylbenzene	19.18	105	1309025	11.664	ppbV	98
106) p-isopropyltoluene	19.29	119	1219935	11.813	ppbV	100
107) 1,2-dichlorobenzene	19.43	146	608200	12.202	ppbV	97
108) n-butylbenzene	19.61	91	1072062	11.869	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.77	75	259085	11.318	ppbV	89
112) undecane	19.97	57	542503	12.164	ppbV	98
114) dodecane	20.85	57	559452	12.838	ppbV	96
115) 1,2,4-trichlorobenzene	20.85	180	504974	13.057	ppbV	97
116) naphthalene	20.97	128	1243851	12.640	ppbV	99
117) 1,2,3-trichlorobenzene	21.21	180	475408	12.813	ppbV	95
119) hexachlorobutadiene	21.27	225	441171	13.428	ppbV	88

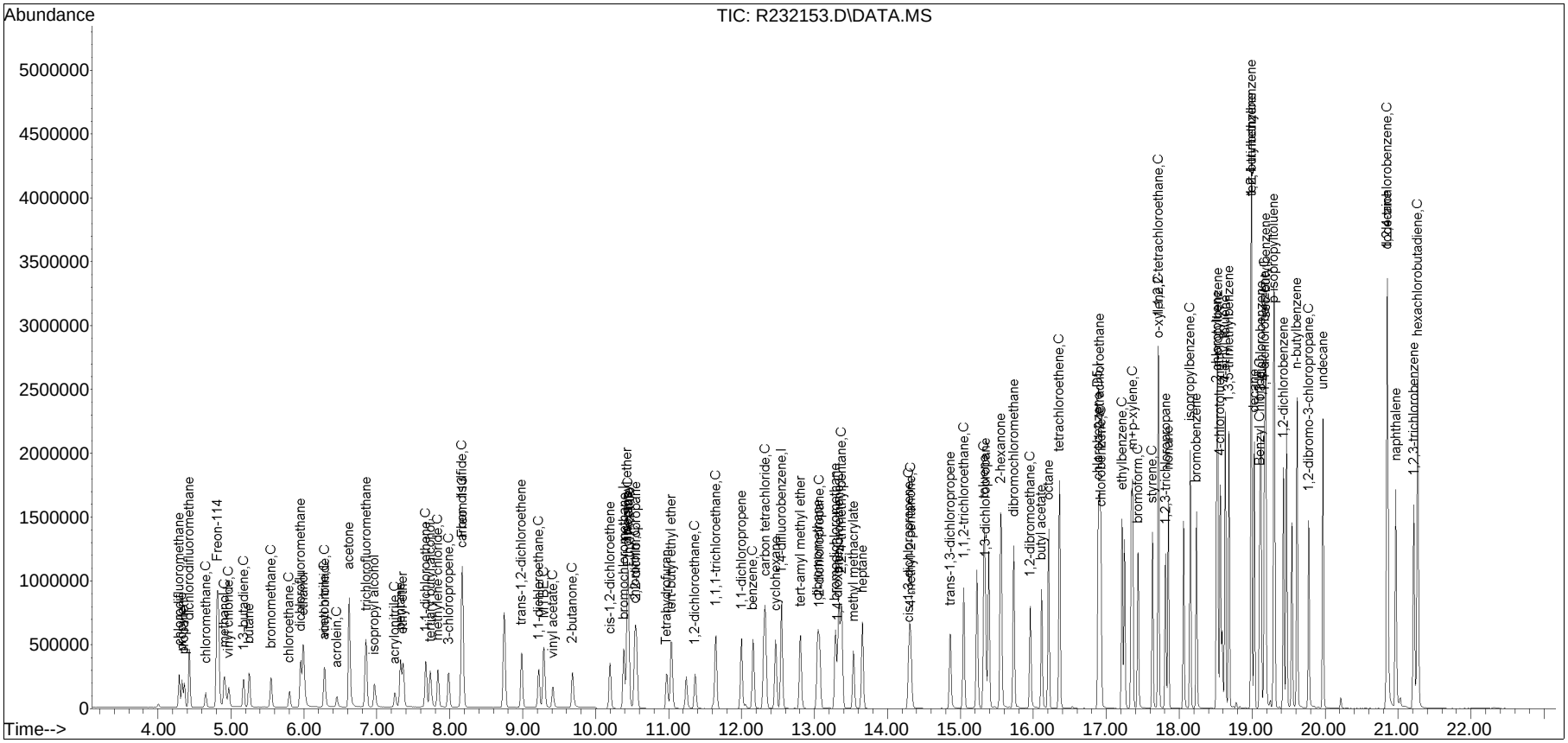
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232153.D
Acq On : 16 Jan 2015 1:07 pm
Operator : AIRPIANO2:RY
Sample : WG756340-2,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 16 13:35:17 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

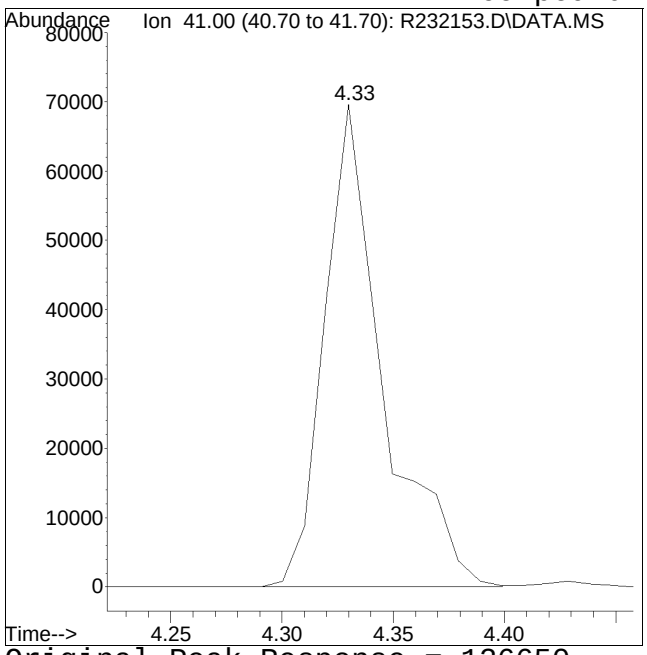


Manual Integration/Negative Proof Report

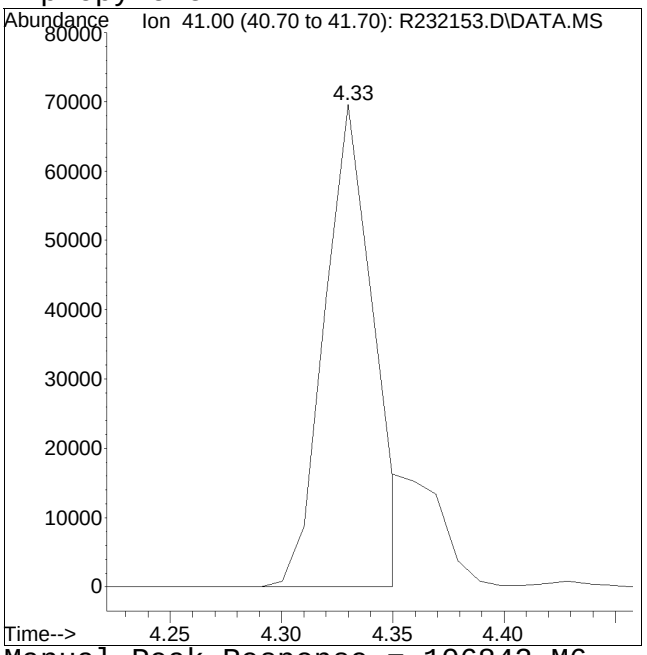
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232153.D
Date Inj'd : 1/16/2015 1:07 pm
Sample : WG756340-2,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/16/2015 1:34 pm

Compound #3: propylene



Original Peak Response = 126650



Manual Peak Response = 106842 M6

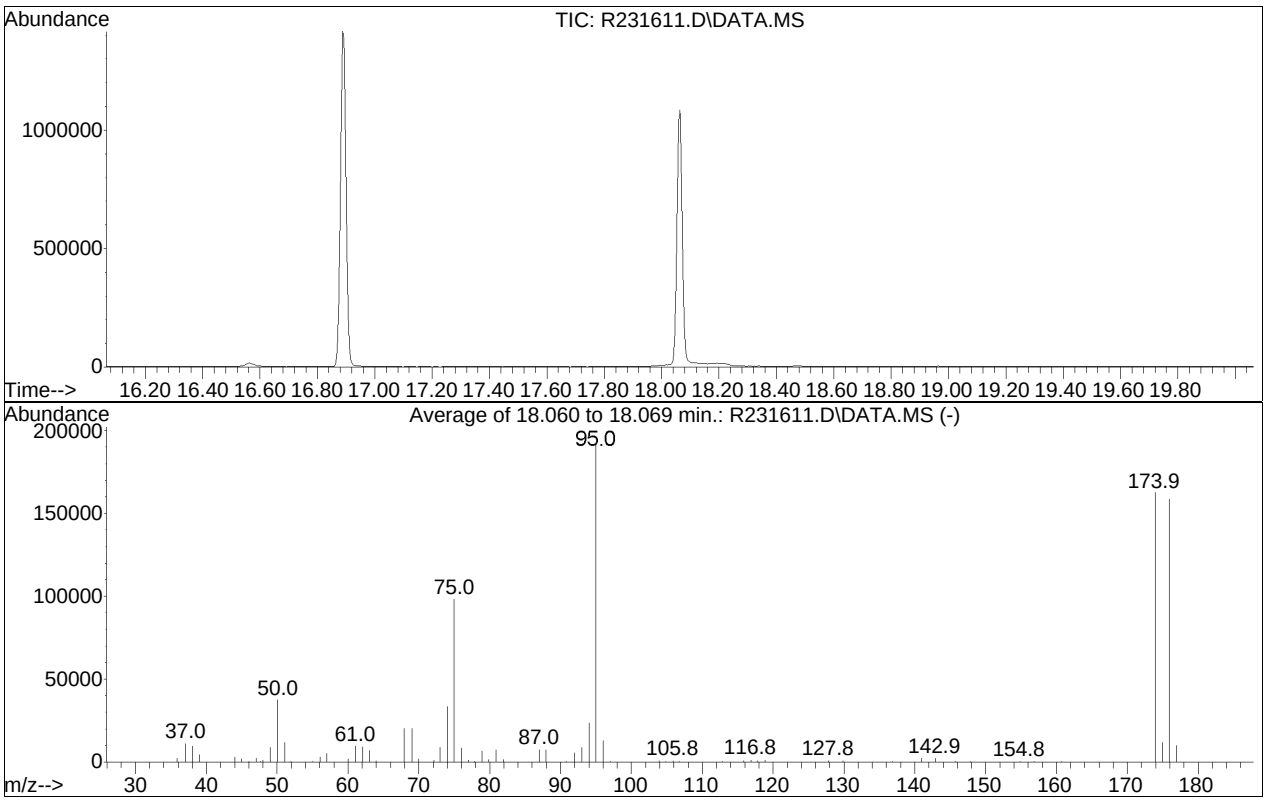
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Raw Quality Control Data

Data Path : O:\Forensics\Data\AIR2\2014\141214T_ICAL\
Data File : R231611.D
Acq On : 14 Dec 2014 10:25 am
Operator : AIRPIANO2:AR
Sample : WG748589-1,3,250,250
Misc : WG748589
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR2\2014\141214T_ICAL\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Mon Dec 15 07:34:07 2014



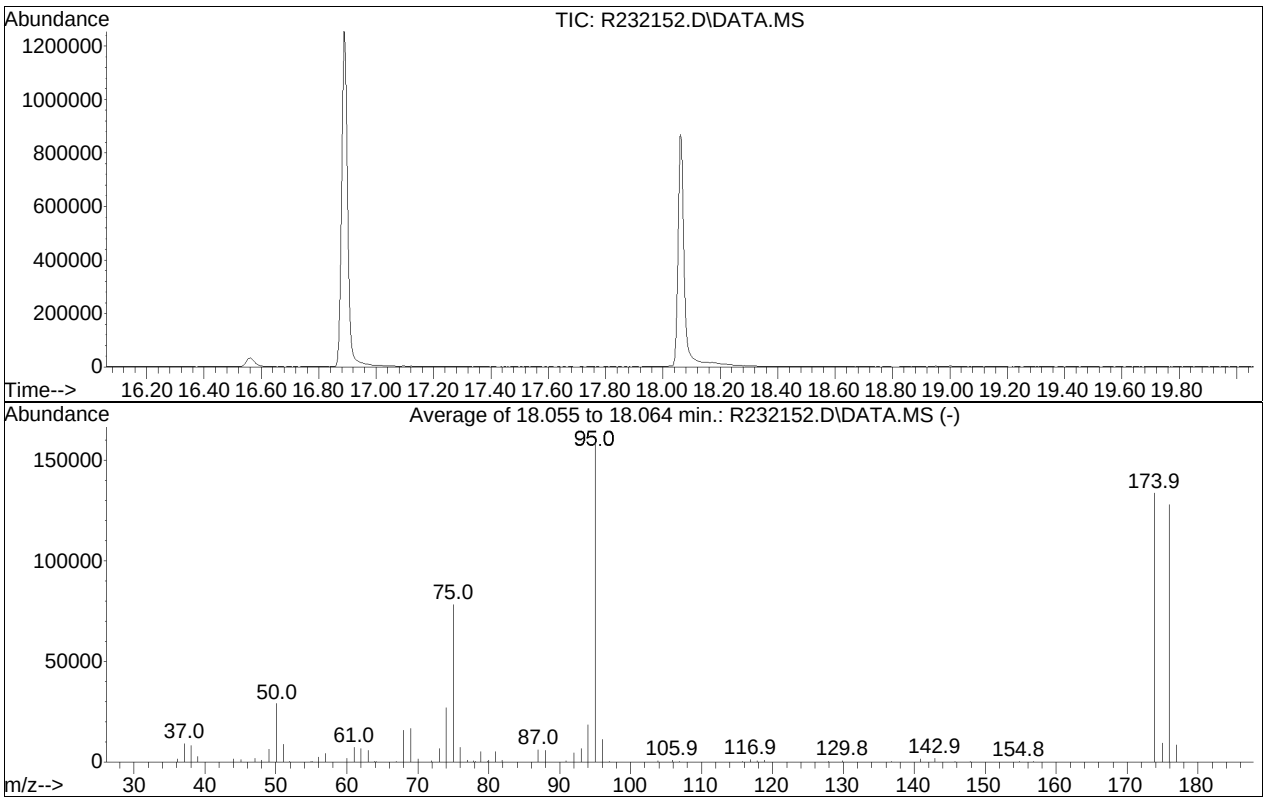
AutoFind: Scans 1783, 1784, 1785; Background Corrected with Scan 1774

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.4	37371	PASS
75	95	30	66	51.0	98299	PASS
95	95	100	100	100.0	192661	PASS
96	95	5	9	6.7	12893	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	84.4	162624	PASS
175	174	4	9	7.3	11937	PASS
176	174	93	101	97.4	158421	PASS
177	176	5	9	6.3	10017	PASS

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232152.D
Acq On : 16 Jan 2015 12:35 pm
Operator : AIRPIANO2:RY
Sample : WG756340-1,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Mon Dec 15 07:34:07 2014



AutoFind: Scans 1782, 1783, 1784; Background Corrected with Scan 1774

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.3	29035	PASS
75	95	30	66	49.3	78253	PASS
95	95	100	100	100.0	158755	PASS
96	95	5	9	7.1	11223	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	84.2	133733	PASS
175	174	4	9	7.2	9591	PASS
176	174	93	101	95.6	127832	PASS
177	176	5	9	6.5	8330	PASS

Blank Data

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-4	Date Collected	: NA
Client ID	: WG756340-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/16/15 15:47
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232157	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.20	--	ND	1.	--	U
74-87-3	Chloromethane	ND	0.20	--	ND	0.4	--	U
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
106-97-8	Butane	ND	0.20	--	ND	0.5	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	ND	2.5	--	ND	5.	--	U
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	ND	1.0	--	ND	2	--	U
75-69-4	Trichlorofluoromethane	ND	0.20	--	ND	1.	--	U
67-63-0	Isopropanol	ND	0.50	--	ND	1.	--	U
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2.	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	ND	0.20	--	ND	0.6	--	U
76-13-1	Freon-113	ND	0.20	--	ND	2.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	ND	0.20	--	ND	0.6	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1.	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-4	Date Collected	: NA
Client ID	: WG756340-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/16/15 15:47
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232157	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U
71-43-2	Benzene	ND	0.20	--	ND	0.6	--	U
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1.	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	ND	0.20	--	ND	1.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	ND	0.20	--	ND	0.8	--	U
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	ND	0.20	--	ND	1.	--	U
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-4	Date Collected	: NA
Client ID	: WG756340-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/16/15 15:47
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232157	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1.	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 16 16:12:54 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	174416	10.000	ppbV	0.00
Standard Area = 188101			Recovery = 92.72%			
43) 1,4-difluorobenzene	12.55	114	672341	10.000	ppbV	0.00
Standard Area = 721984			Recovery = 93.12%			
67) chlorobenzene-D5	16.89	54	107340	10.000	ppbV	0.00
Standard Area = 122028			Recovery = 87.96%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	0.00		0	N.D.		
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
11) butane	5.25		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.05		0	N.D.		
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.71	43	1927M3	0.080	ppbV	
21) trichlorofluoromethane	0.00		0	N.D.		
22) isopropyl alcohol	7.00		0	N.D.		
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	0.00		0	N.D.		
28) methylene chloride	7.84	49	1384	0.075	ppbV #	66
29) 3-chloropropene	7.90		0	N.D.		
30) carbon disulfide	0.00		0	N.D.		
31) Freon 113	0.00		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
36) 2-butanone	9.75		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	0.00		0	N.D.		
40) Tetrahydrofuran	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 16 16:12:54 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) 1,1,1-trichloroethane	0.00		0	N.D.		
50) benzene	0.00		0	N.D.		
52) carbon tetrachloride	0.00		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	13.42		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	0.00		0	N.D.		
61) methyl methacrylate	0.00		0	N.D.		
62) heptane	0.00		0	N.D.		
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	14.45		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	15.32		0	N.D.		
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
78) tetrachloroethene	0.00		0	N.D.		
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	17.22		0	N.D.		
83) m+p-xylene	17.36		0	N.D.		
84) bromoform	0.00		0	N.D.		
85) styrene	17.66		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	17.73		0	N.D.		
93) 2-chlorotoluene	0.00		0	N.D.		
96) 4-ethyl toluene	18.64		0	N.D.		
97) 1,3,5-trimethylbenzene	18.70		0	N.D.		
99) 1,2,4-trimethylbenzene	19.01		0	N.D.		
102) 1,3-dichlorobenzene	19.13		0	N.D.		
103) 1,4-dichlorobenzene	19.18		0	N.D.		
107) 1,2-dichlorobenzene	19.44		0	N.D.		
115) 1,2,4-trichlorobenzene	20.91		0	N.D.		
119) hexachlorobutadiene	21.29		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 16 16:12:54 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : Default-LCS-AP2 - All compounds listed

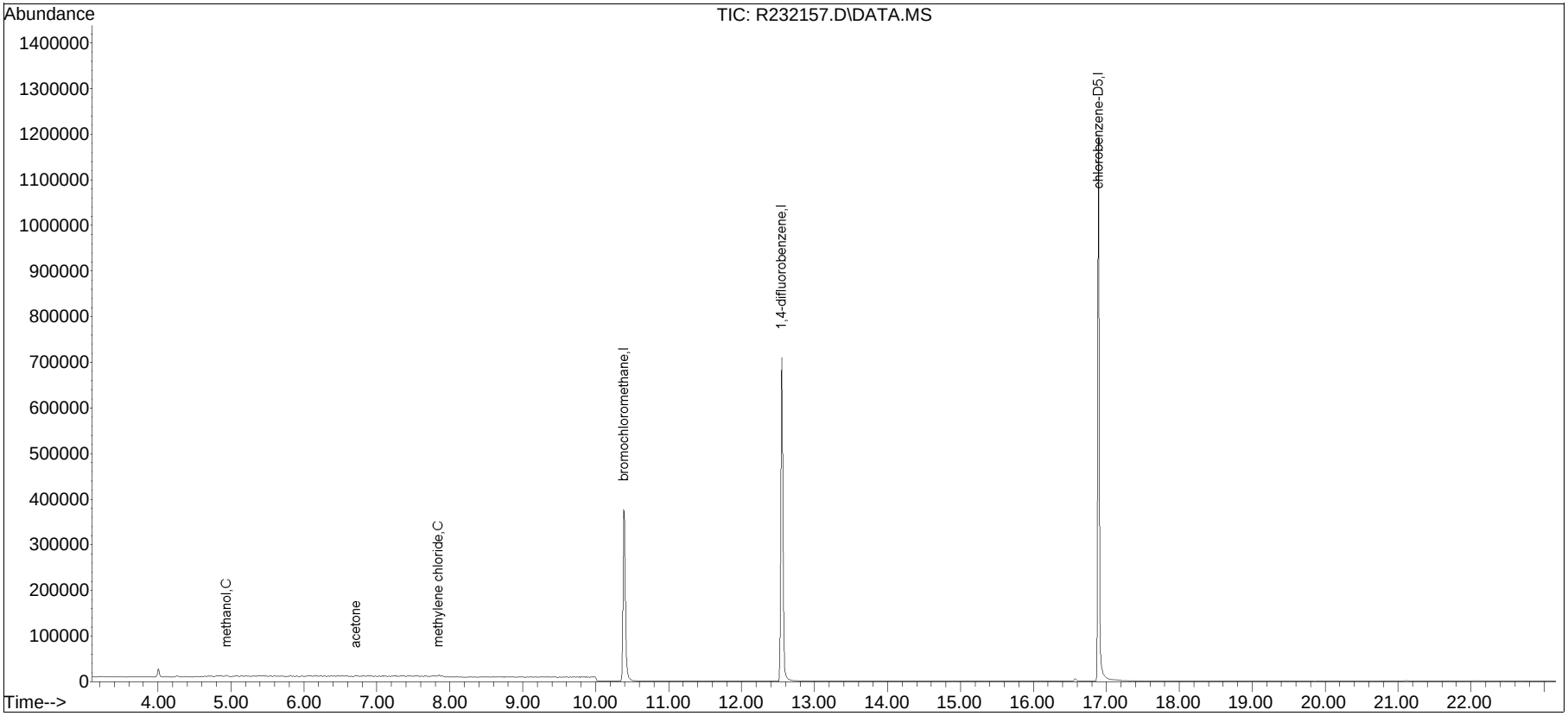
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

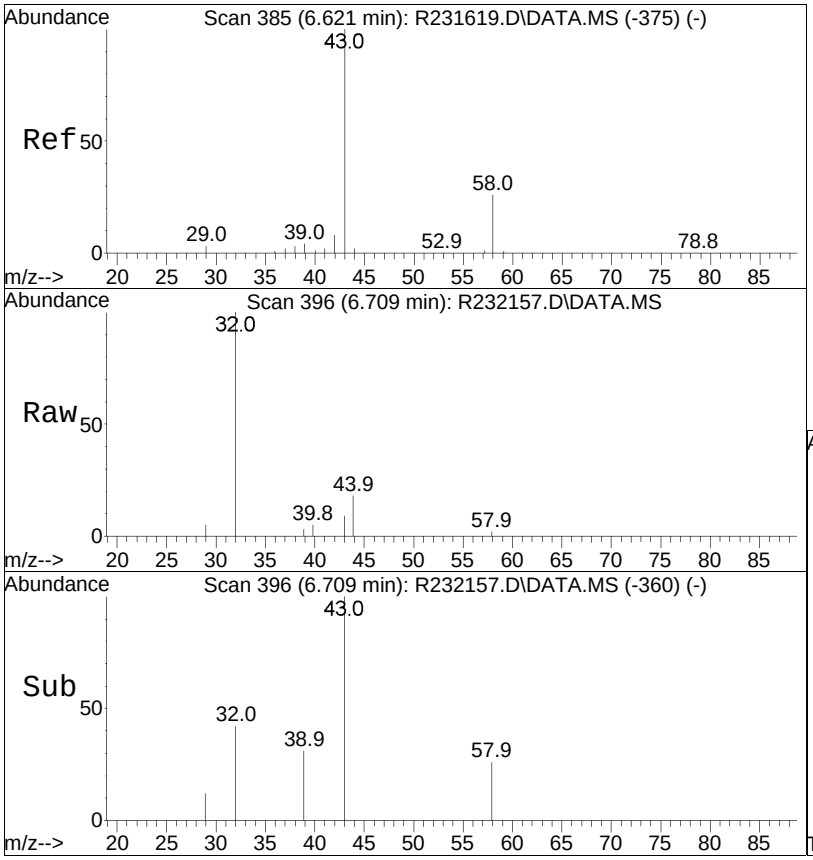
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 16 16:12:54 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed32153.D

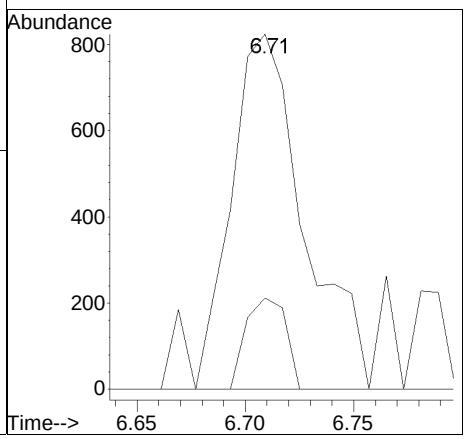


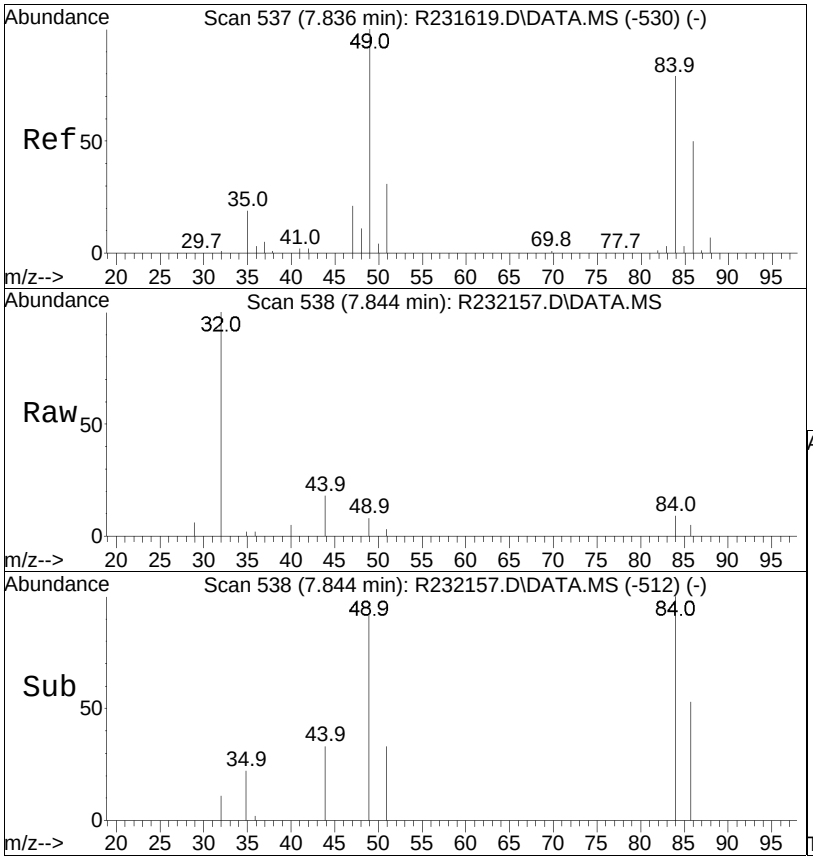


#19
acetone
Concen: 0.08 ppbV m
RT: 6.71 min Scan# 396
Delta R.T. 0.088 min
Lab File: R232157.D
Acq: 16 Jan 2015 3:47 pm

Tgt Ion: 43 Resp: 1927

Ion	Ratio	Lower	Upper
43	100		
58	25.7	20.6	31.0
57	0.0	0.6	1.0#

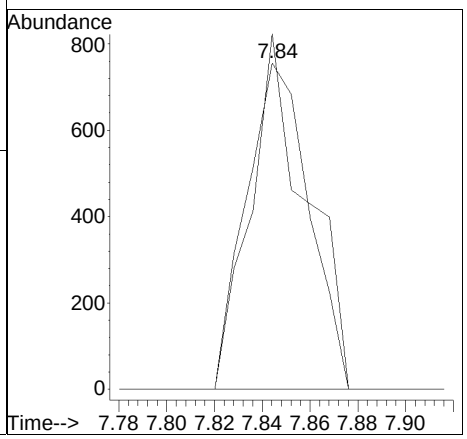




#28
methylene chloride
Concen: 0.08 ppbV
RT: 7.84 min Scan# 538
Delta R.T. 0.008 min
Lab File: R232157.D
Acq: 16 Jan 2015 3:47 pm

Tgt Ion: 49 Resp: 1384

Ion	Ratio	Lower	Upper
49	100		
84	108.9	63.3	94.9#

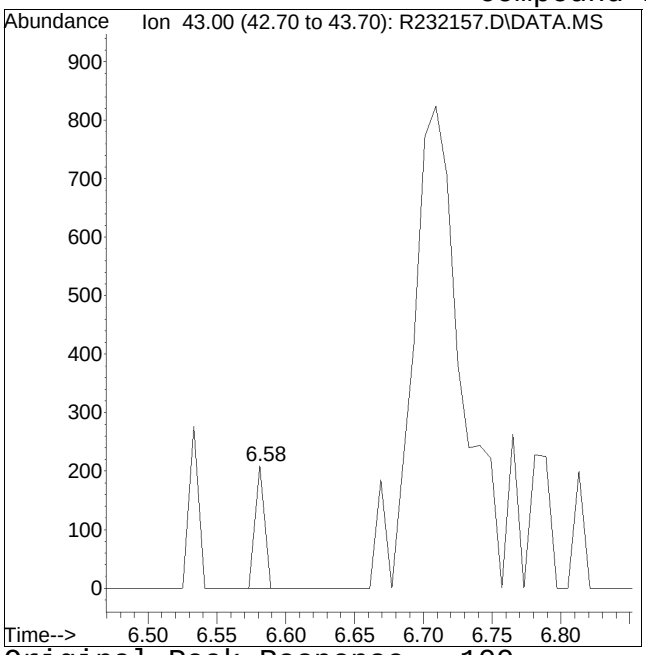


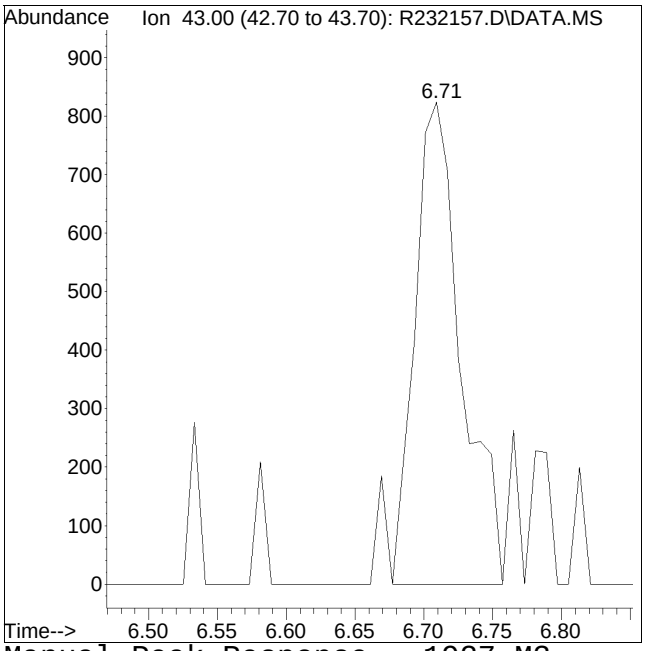
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232157.D
Date Inj'd : 1/16/2015 3:47 pm
Sample : WG756340-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/16/2015 4:11 pm

Compound #19: acetone





Original Peak Response = 100 Manual Peak Response = 1927 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-4	Date Collected	: NA
Client ID	: WG756340-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/16/15 15:47
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232157	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R232157.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.941	186	188	191	rVB2	2615	4797	0.27%	0.118%
2	8.148	573	576	579	rBV	1648	3281	0.18%	0.080%
3	8.412	608	609	612	rBV2	1653	2141	0.12%	0.052%
4	8.940	680	682	684	rBV	1476	1941	0.11%	0.048%
5	9.990	834	835	838	rVB2	9668	13543	0.76%	0.332%
6	10.386	871	876	896	rBV	376827	844073	47.54%	20.687%
7	12.549	1089	1093	1108	rBV	709827	1417720	79.85%	34.746%
8	16.572	1472	1477	1483	rVB	5836	12750	0.72%	0.312%
9	16.893	1530	1538	1564	rBV	1198484	1775469	100.00%	43.513%
10	21.547	2388	2391	2394	rBV2	797	2018	0.11%	0.049%
11	22.447	2472	2475	2479	rVB2	963	2565	0.14%	0.063%

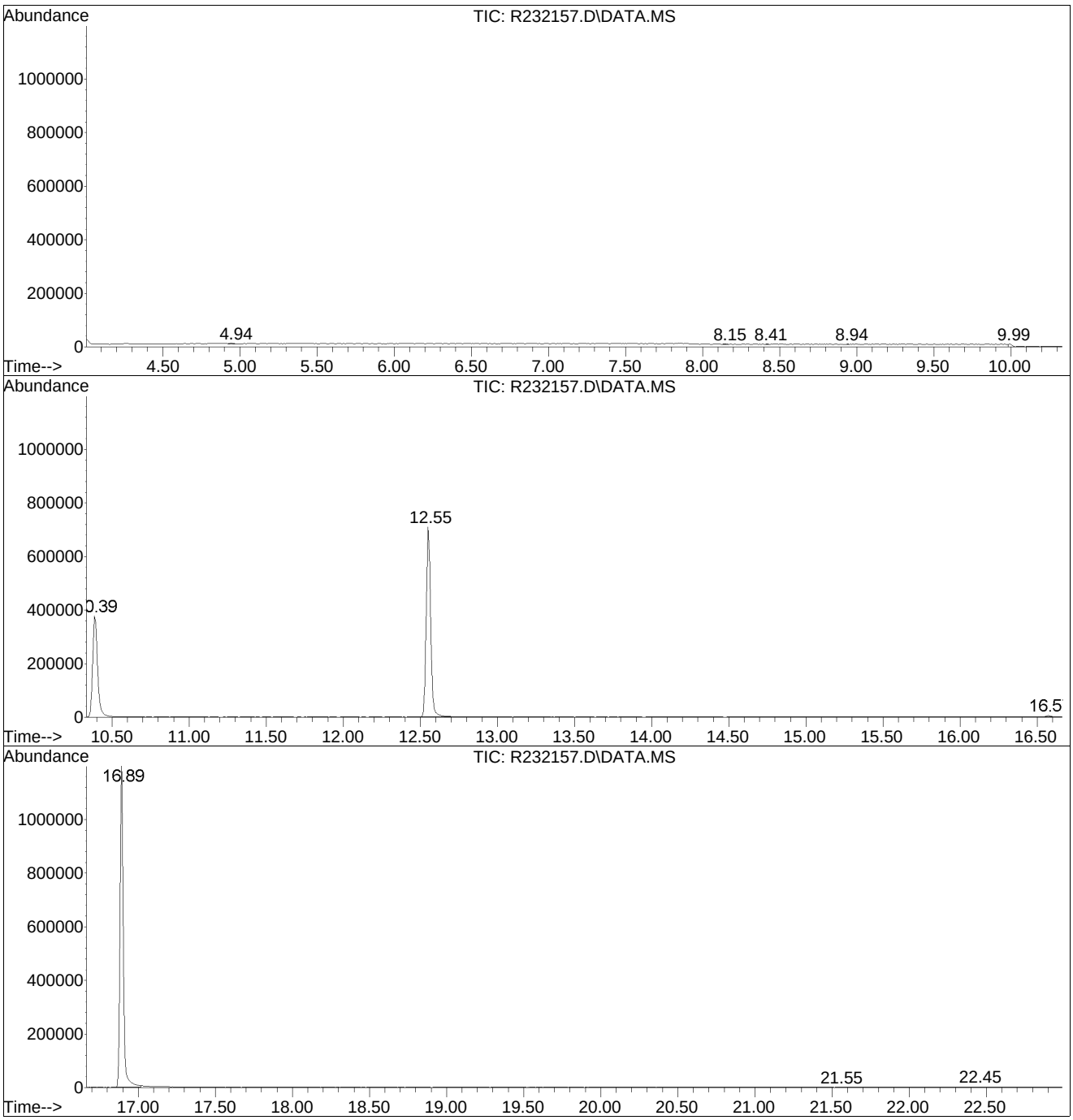
Sum of corrected areas: 4080298

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232157.D
Acq On : 16 Jan 2015 3:47 pm
Operator : AIRPIANO2:RY
Sample : WG756340-4,tic3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-3	Date Collected	:
Client ID	: WG756340-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/16/15 13:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232154	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	8.6	0.20	--	30.	0.71	--	
115-07-1	Propylene	11.	0.50	--	19.	0.86	--	
74-98-6	Propane	8.3	0.20	--	15.	0.36	--	
75-71-8	Dichlorodifluoromethane	12.	0.20	--	59.	0.99	--	
74-87-3	Chloromethane	8.4	0.20	--	17.	0.41	--	
76-14-2	Freon-114	8.7	0.20	--	61.	1.4	--	
67-56-1	Methanol	41.	5.0	--	54.	6.6	--	
75-01-4	Vinyl chloride	8.8	0.20	--	22.	0.51	--	
106-99-0	1,3-Butadiene	9.4	0.20	--	21.	0.44	--	
106-97-8	Butane	8.1	0.20	--	19.	0.48	--	
74-83-9	Bromomethane	8.6	0.20	--	33.	0.78	--	
75-00-3	Chloroethane	8.5	0.20	--	22.	0.53	--	
64-17-5	Ethanol	42.	2.5	--	79.	4.7	--	
75-43-4	Dichlorofluoromethane	7.8	0.20	--	33.	0.84	--	
593-60-2	Vinyl bromide	8.8	0.20	--	38.	0.87	--	
107-02-8	Acrolein	7.9	0.50	--	18.	1.1	--	
67-64-1	Acetone	42.	1.0	--	100	2.4	--	
75-05-8	Acetonitrile	8.4	0.20	--	14.	0.34	--	
75-69-4	Trichlorofluoromethane	8.2	0.20	--	46.	1.1	--	
67-63-0	Isopropanol	8.5	0.50	--	21.	1.2	--	
107-13-1	Acrylonitrile	8.1	0.20	--	18.	0.43	--	
109-66-0	Pentane	8.7	0.20	--	26.	0.59	--	
60-29-7	Ethyl ether	8.1	0.20	--	25.	0.61	--	
75-35-4	1,1-Dichloroethene	8.6	0.20	--	34.	0.79	--	
75-65-0	Tertiary butyl Alcohol	8.3	0.50	--	25.	1.5	--	
75-09-2	Methylene chloride	8.3	0.50	--	29.	1.7	--	
107-05-1	3-Chloropropene	8.9	0.20	--	28.	0.63	--	
75-15-0	Carbon disulfide	9.1	0.20	--	28.	0.62	--	

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-3	Date Collected	:
Client ID	: WG756340-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/16/15 13:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232154	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	9.8	0.20	--	75.	1.5	--	
156-60-5	trans-1,2-Dichloroethene	9.4	0.20	--	37.	0.79	--	
75-34-3	1,1-Dichloroethane	10.	0.20	--	40.	0.81	--	
1634-04-4	Methyl tert butyl ether	10.	0.20	--	36.	0.72	--	
108-05-4	Vinyl acetate	13.	0.20	--	46.	0.70	--	
78-93-3	2-Butanone	9.8	0.20	--	29.	0.59	--	
156-59-2	cis-1,2-Dichloroethene	11.	0.20	--	44.	0.79	--	
141-78-6	Ethyl Acetate	10.	0.50	--	36.	1.8	--	
67-66-3	Chloroform	10.	0.20	--	49.	0.98	--	
109-99-9	Tetrahydrofuran	10.	0.20	--	29.	0.59	--	
594-20-7	2,2-Dichloropropane	9.2	0.20	--	43.	0.92	--	
107-06-2	1,2-Dichloroethane	9.5	0.20	--	38.	0.81	--	
110-54-3	n-Hexane	9.4	0.20	--	33.	0.70	--	
108-20-3	Diisopropyl ether	9.0	0.20	--	38.	0.84	--	
637-92-3	tert-Butyl Ethyl Ether	8.9	0.20	--	37.	0.84	--	
71-55-6	1,1,1-Trichloroethane	9.2	0.20	--	50.	1.1	--	
563-58-6	1,1-Dichloropropene	9.4	0.20	--	43.	0.91	--	
71-43-2	Benzene	9.7	0.20	--	31.	0.64	--	
56-23-5	Carbon tetrachloride	9.2	0.20	--	58.	1.3	--	
110-82-7	Cyclohexane	9.5	0.20	--	33.	0.69	--	
994-05-8	tert-Amyl Methyl Ether	9.0	0.20	--	38.	0.84	--	
74-95-3	Dibromomethane	8.6	0.20	--	61.	1.4	--	
78-87-5	1,2-Dichloropropane	9.7	0.20	--	45.	0.92	--	
75-27-4	Bromodichloromethane	9.1	0.20	--	61.	1.3	--	
123-91-1	1,4-Dioxane	9.7	0.20	--	35.	0.72	--	
79-01-6	Trichloroethene	9.6	0.20	--	52.	1.1	--	
540-84-1	2,2,4-Trimethylpentane	9.5	0.20	--	44.	0.93	--	
80-62-6	Methyl Methacrylate	8.8	0.50	--	36.	2.0	--	

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-3	Date Collected	:
Client ID	: WG756340-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/16/15 13:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232154	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	9.6	0.20	--	39.	0.82	--	
10061-01-5	cis-1,3-Dichloropropene	10.	0.20	--	45.	0.91	--	
108-10-1	4-Methyl-2-pentanone	9.3	0.20	--	38.	0.82	--	
10061-02-6	trans-1,3-Dichloropropene	8.6	0.20	--	39.	0.91	--	
79-00-5	1,1,2-Trichloroethane	10.	0.20	--	55.	1.1	--	
108-88-3	Toluene	11.	0.20	--	41.	0.75	--	
142-28-9	1,3-Dichloropropane	10.	0.20	--	46.	0.92	--	
591-78-6	2-Hexanone	10.	0.20	--	41.	0.82	--	
124-48-1	Dibromochloromethane	10.	0.20	--	85.	1.7	--	
106-93-4	1,2-Dibromoethane	11.	0.20	--	85.	1.5	--	
123-86-4	Butyl acetate	10.	0.50	--	48.	2.4	--	
111-65-9	Octane	10.	0.20	--	47.	0.93	--	
127-18-4	Tetrachloroethene	11.	0.20	--	75.	1.4	--	
630-20-6	1,1,1,2-Tetrachloroethane	10.	0.20	--	69.	1.4	--	
108-90-7	Chlorobenzene	11.	0.20	--	51.	0.92	--	
100-41-4	Ethylbenzene	11.	0.20	--	48.	0.87	--	
179601-23-1	p/m-Xylene	23.	0.40	--	100	1.7	--	
75-25-2	Bromoform	11.	0.20	--	110	2.1	--	
100-42-5	Styrene	11.	0.20	--	47.	0.85	--	
79-34-5	1,1,2,2-Tetrachloroethane	12.	0.20	--	82.	1.4	--	
95-47-6	o-Xylene	12.	0.20	--	52.	0.87	--	
96-18-4	1,2,3-Trichloropropane	11.	0.20	--	66.	1.2	--	
111-84-2	Nonane	10.	0.20	--	52.	1.0	--	
98-82-8	Isopropylbenzene	11.	0.20	--	54.	0.98	--	
108-86-1	Bromobenzene	10.	0.20	--	40.	0.79	--	
95-49-8	2-Chlorotoluene	11.	0.20	--	57.	1.0	--	
103-65-1	n-Propylbenzene	11.	0.20	--	54.	0.98	--	
106-43-4	4-Chlorotoluene	11.	0.20	--	57.	1.0	--	

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-3	Date Collected	:
Client ID	: WG756340-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/16/15 13:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232154	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	11.	0.20	--	54.	0.98	--	
108-67-8	1,3,5-Trimethybenzene	12.	0.20	--	59.	0.98	--	
98-06-6	tert-Butylbenzene	11.	0.20	--	60.	1.1	--	
95-63-6	1,2,4-Trimethylbenzene	12.	0.20	--	59.	0.98	--	
124-18-5	Decane	11.	0.20	--	64.	1.2	--	
100-44-7	Benzyl chloride	12.	0.20	--	62.	1.0	--	
541-73-1	1,3-Dichlorobenzene	12.	0.20	--	72.	1.2	--	
106-46-7	1,4-Dichlorobenzene	12.	0.20	--	72.	1.2	--	
135-98-8	sec-Butylbenzene	11.	0.20	--	60.	1.1	--	
99-87-6	p-Isopropyltoluene	11.	0.20	--	60.	1.1	--	
95-50-1	1,2-Dichlorobenzene	13.	0.20	--	78.	1.2	--	
104-51-8	n-Butylbenzene	12.	0.20	--	66.	1.1	--	
96-12-8	1,2-Dibromo-3-chloropropane	11.	0.20	--	110	1.9	--	
1120-21-4	Undecane	12.	0.20	--	77.	1.3	--	
112-40-3	Dodecane	14.	0.20	--	98.	1.4	--	
120-82-1	1,2,4-Trichlorobenzene	14.	0.20	--	100	1.5	--	
91-20-3	Naphthalene	14.	0.20	--	73.	1.0	--	
87-61-6	1,2,3-Trichlorobenzene	14.	0.20	--	100	1.5	--	
87-68-3	Hexachlorobutadiene	14.	0.20	--	150	2.1	--	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232154.D
Acq On : 16 Jan 2015 1:52 pm
Operator : AIRPIANO2:RY
Sample : WG756340-3,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 16 14:25:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.38	49	185168	10.000	ppbV	0.00
Standard Area = 188101			Recovery = 98.44%			
43) 1,4-difluorobenzene	12.54	114	712186	10.000	ppbV	-0.01
Standard Area = 721984			Recovery = 98.64%			
67) chlorobenzene-D5	16.89	54	122318	10.000	ppbV	0.00
Standard Area = 122028			Recovery = 100.24%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.29	51	198680	8.653	ppbV	100
3) propylene	4.33	41	117663M6	10.665	ppbV	
4) propane	4.36	29	117068	8.330	ppbV	98
5) dichlorodifluoromethane	4.43	85	346652	12.318	ppbV	100
6) chloromethane	4.66	50	112178	8.432	ppbV	97
7) Freon-114	4.80	85	424914	8.697	ppbV	98
8) methanol	4.91	31	247387	41.333	ppbV	95
9) vinyl chloride	4.97	62	131627	8.753	ppbV	95
10) 1,3-butadiene	5.17	54	100576	9.379	ppbV	98
11) butane	5.25	43	202441	8.133	ppbV	96
13) bromomethane	5.55	94	148396	8.568	ppbV	98
14) chloroethane	5.80	64	65868	8.525	ppbV	98
15) ethanol	5.99	31	539036	42.371	ppbV	100
16) dichlorofluoromethane	5.95	67	294759	7.759	ppbV	99
17) vinyl bromide	6.28	106	151946	8.761	ppbV	98
18) acrolein	6.45	56	48106	7.871	ppbV	98
19) acetone	6.61	43	1083861	42.346	ppbV	100
20) acetonitrile	6.28	41	118604	8.421	ppbV	97
21) trichlorofluoromethane	6.84	101	451096	8.239	ppbV	99
22) isopropyl alcohol	6.96	45	237833	8.527	ppbV	100
23) acrylonitrile	7.24	53	90464	8.060	ppbV	99
24) pentane	7.32	43	242319	8.686	ppbV	99
25) ethyl ether	7.36	31	193927	8.108	ppbV	98
26) 1,1-dichloroethene	7.67	61	232012	8.561	ppbV	97
27) tertiary butyl alcohol	7.72	59	272857	8.302	ppbV	97
28) methylene chloride	7.84	49	162218	8.306	ppbV	93
29) 3-chloropropene	7.98	41	194916	8.895	ppbV	94
30) carbon disulfide	8.16	76	444555	9.081	ppbV #	92
31) Freon 113	8.17	101	370504	9.750	ppbV	95

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232154.D
Acq On : 16 Jan 2015 1:52 pm
Operator : AIRPIANO2:RY
Sample : WG756340-3,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 16 14:25:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) trans-1,2-dichloroethene	8.98	61	209942	9.390	ppbV		98
33) 1,1-dichloroethane	9.21	63	276880	10.244	ppbV		100
34) MTBE	9.28	73	454761	10.158	ppbV		96
35) vinyl acetate	9.41	43	284413	12.638	ppbV		97
36) 2-butanone	9.67	43	317121	9.784	ppbV		98
37) cis-1,2-dichloroethene	10.19	61	229028	11.312	ppbV		99
38) Ethyl Acetate	10.45	61	49474	10.256	ppbV		97
39) chloroform	10.53	83	381838	10.151	ppbV		98
40) Tetrahydrofuran	10.97	42	174346	9.954	ppbV		99
41) 2,2-dichloropropane	10.55	77	296730	9.224	ppbV		95
42) 1,2-dichloroethane	11.36	62	218169	9.523	ppbV		99
44) hexane	10.43	57	227067	9.458	ppbV		89
45) diisopropyl ether	10.43	87	127534	9.000	ppbV		98
46) tert-butyl ethyl ether	11.03	59	434570	8.866	ppbV		100
48) 1,1,1-trichloroethane	11.64	97	448630	9.197	ppbV		98
49) 1,1-dichloropropene	11.99	75	250772	9.419	ppbV		93
50) benzene	12.16	78	489942	9.733	ppbV		98
52) carbon tetrachloride	12.32	117	446531	9.248	ppbV		99
53) cyclohexane	12.47	56	228179	9.485	ppbV		95
54) tert-amyl methyl ether	12.80	73	452934	9.018	ppbV		96
55) dibromomethane	13.04	93	220486	8.567	ppbV		94
56) 1,2-dichloropropane	13.07	63	178070	9.711	ppbV		93
57) bromodichloromethane	13.28	83	425398	9.123	ppbV		99
58) 1,4-dioxane	13.32	88	122495	9.673	ppbV		93
59) trichloroethene	13.33	130	266429	9.631	ppbV		94
60) 2,2,4-trimethylpentane	13.37	57	770096	9.549	ppbV		93
61) methyl methacrylate	13.53	41	215863	8.765	ppbV		95
62) heptane	13.65	43	295504	9.570	ppbV		98
63) cis-1,3-dichloropropene	14.29	75	285625	10.391	ppbV		93
64) 4-methyl-2-pentanone	14.30	43	410450	9.299	ppbV		97
65) trans-1,3-dichloropropene	14.85	75	315442	8.566	ppbV		91
66) 1,1,2-trichloroethane	15.04	97	317971	10.271	ppbV		95
68) toluene	15.32	91	881048	10.968	ppbV		99
71) 1,3-dichloropropane	15.34	76	363472	10.076	ppbV		93
72) 2-hexanone	15.54	43	490094	9.976	ppbV	#	96
74) dibromochloromethane	15.73	129	650460	10.377	ppbV		100
75) 1,2-dibromoethane	15.96	107	521173	10.776	ppbV		97
76) butyl acetate	16.11	73	79685	10.061	ppbV		95
77) octane	16.21	85	229846	10.329	ppbV		97
78) tetrachloroethene	16.35	166	451684	11.072	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232154.D
Acq On : 16 Jan 2015 1:52 pm
Operator : AIRPIANO2:RY
Sample : WG756340-3,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 16 14:25:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
79) 1,1,1,2-tetrachloroethane	16.91	131	316417	10.404	ppbV		97
80) chlorobenzene	16.92	112	573552	11.443	ppbV		99
81) ethylbenzene	17.21	91	893805	11.396	ppbV		100
83) m+p-xylene	17.35	91	1414932	22.604	ppbV		98
84) bromoform	17.43	173	456105	11.078	ppbV		98
85) styrene	17.63	104	557006	11.453	ppbV		99
86) 1,1,2,2-tetrachloroethane	17.71	83	535279	11.590	ppbV		98
87) o-xylene	17.72	91	740842	11.583	ppbV		100
88) 1,2,3-trichloropropane	17.81	75	365885	10.655	ppbV		96
89) nonane	17.85	43	416953	10.243	ppbV		99
91) isopropylbenzene	18.15	105	989493	11.484	ppbV		99
92) bromobenzene	18.24	77	463126	10.287	ppbV		94
93) 2-chlorotoluene	18.51	126	270173	10.803	ppbV	#	61
94) n-propylbenzene	18.53	120	285848	10.982	ppbV		82
95) 4-chlorotoluene	18.56	91	722278	10.754	ppbV		99
96) 4-ethyl toluene	18.63	105	1094197	11.132	ppbV		99
97) 1,3,5-trimethylbenzene	18.68	105	913990	11.847	ppbV		100
98) tert-butylbenzene	18.99	119	930415	11.122	ppbV		99
99) 1,2,4-trimethylbenzene	18.99	105	921003	12.011	ppbV		93
100) decane	19.03	57	457806	11.076	ppbV		97
101) Benzyl Chloride	19.10	91	774939	11.816	ppbV		99
102) 1,3-dichlorobenzene	19.12	146	635498	11.887	ppbV		98
103) 1,4-dichlorobenzene	19.17	146	672438	12.457	ppbV		99
104) sec-butylbenzene	19.18	105	1257699	11.180	ppbV		98
106) p-isopropyltoluene	19.30	119	1113992	10.761	ppbV		98
107) 1,2-dichlorobenzene	19.43	146	635626	12.722	ppbV		98
108) n-butylbenzene	19.62	91	1064226	11.754	ppbV		99
111) 1,2-dibromo-3-chloropr...	19.77	75	260495	11.353	ppbV		90
112) undecane	19.97	57	541022	12.102	ppbV		98
114) dodecane	20.86	57	590406	13.517	ppbV		97
115) 1,2,4-trichlorobenzene	20.85	180	548418	14.147	ppbV		95
116) naphthalene	20.97	128	1342668	13.612	ppbV		99
117) 1,2,3-trichlorobenzene	21.21	180	516389	13.884	ppbV		96
119) hexachlorobutadiene	21.27	225	466394	14.162	ppbV	#	88

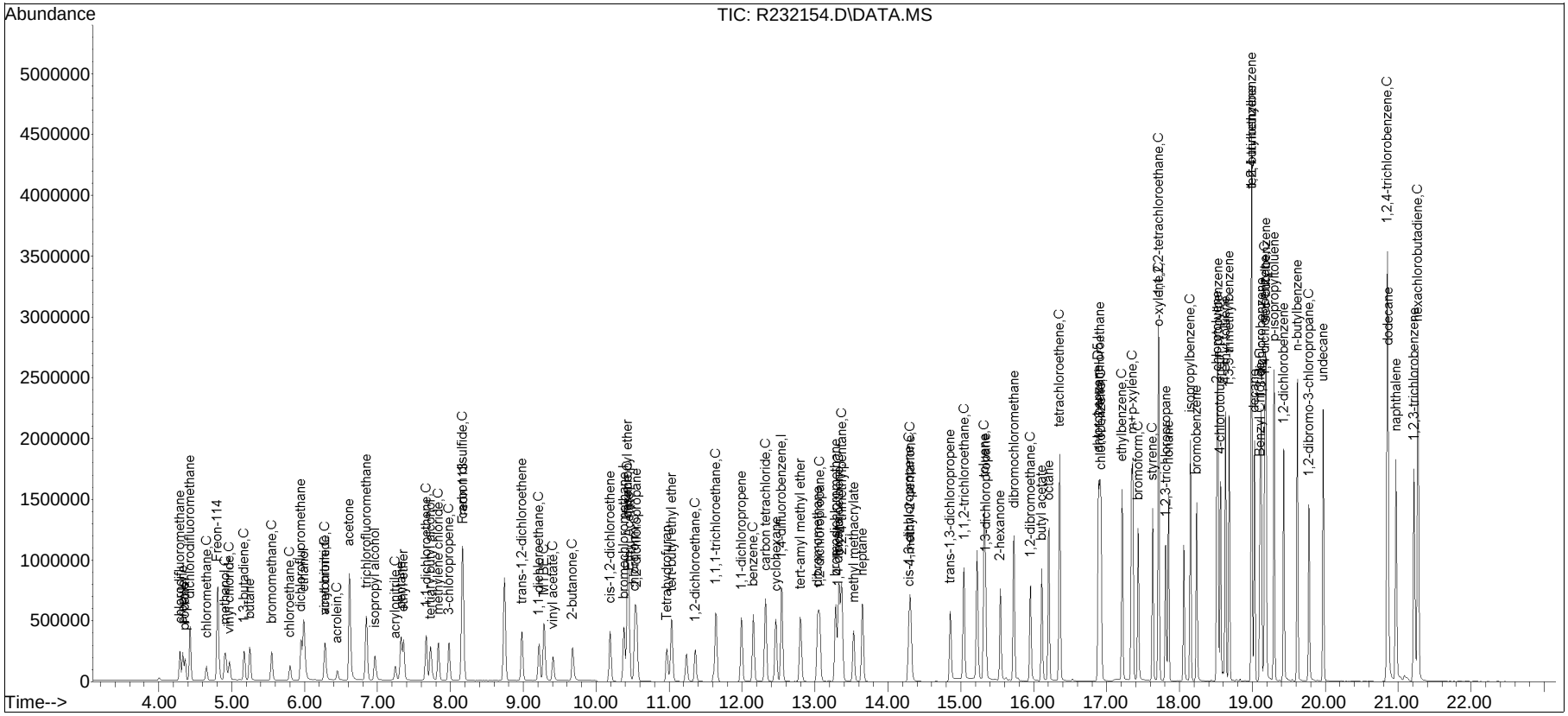
(#) = qualifier out of range (m) = manual integration (+) = signals summed

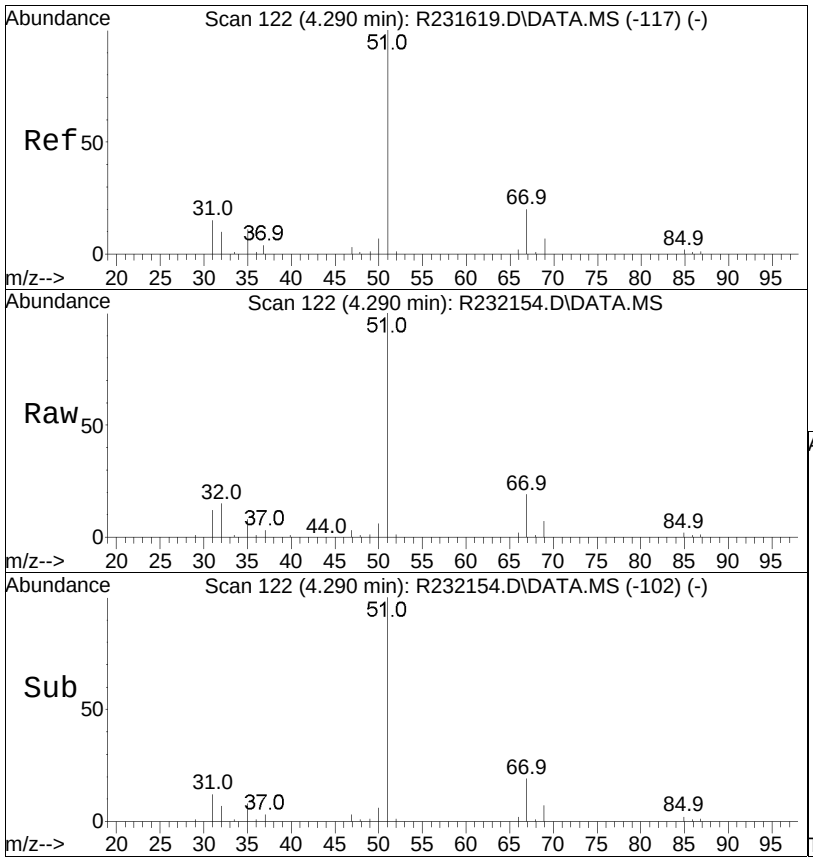
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232154.D
Acq On : 16 Jan 2015 1:52 pm
Operator : AIRPIANO2:RY
Sample : WG756340-3,3,250,250
Misc : WG756340,ICAL10499
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 16 14:25:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed32153.D

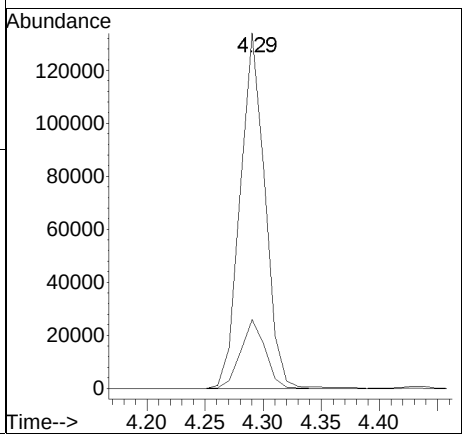


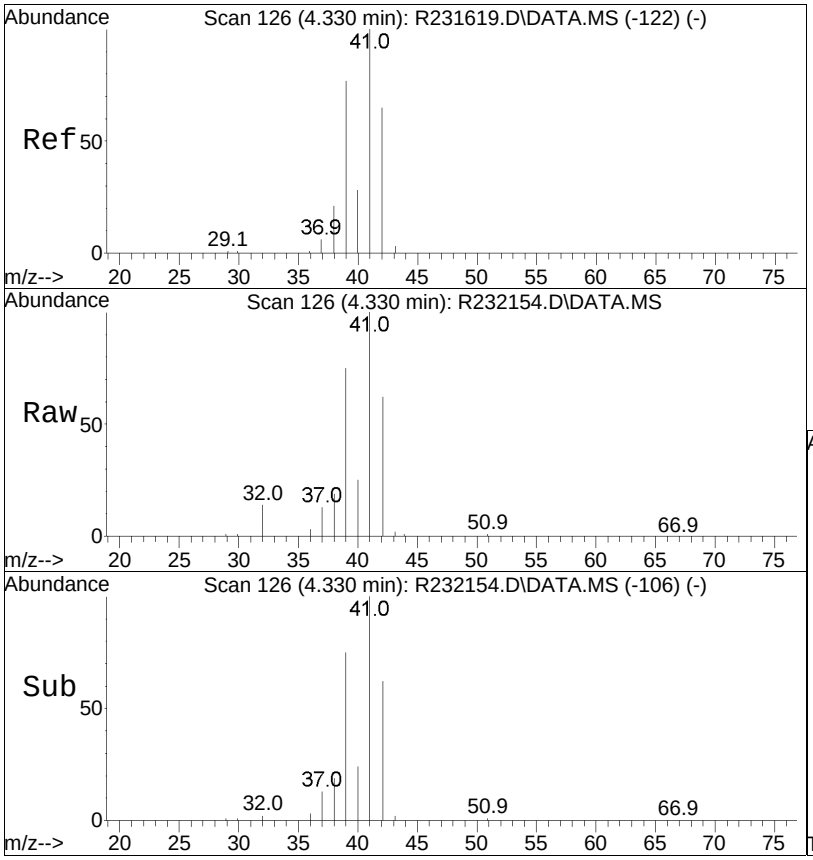


#2
chlorodifluoromethane
Concen: 8.65 ppbV
RT: 4.29 min Scan# 122
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 51 Resp: 198680

Ion	Ratio	Lower	Upper
51	100		
67	19.4	15.6	23.4

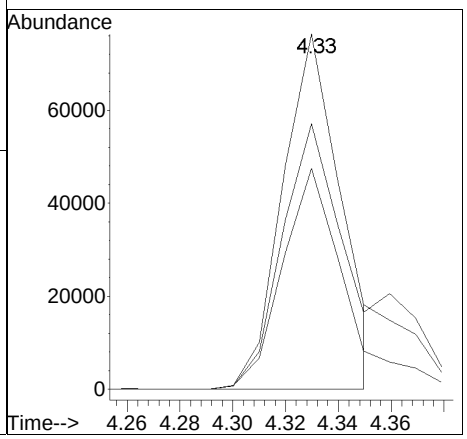


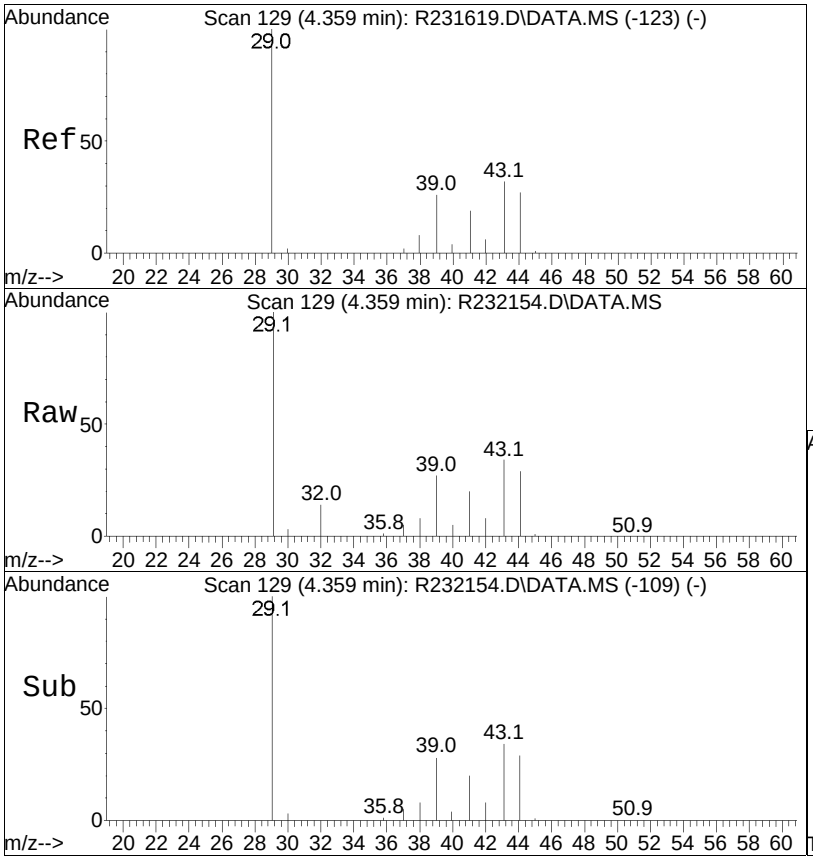


#3
propylene
Concen: 10.66 ppbV m
RT: 4.33 min Scan# 126
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 41 Resp: 117663

Ion	Ratio	Lower	Upper
41	100		
42	62.2	51.5	77.3
39	74.8	61.8	92.6

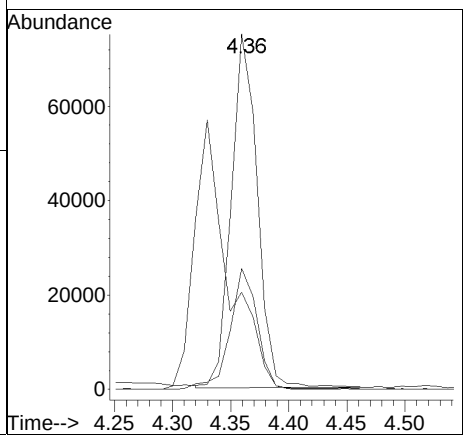


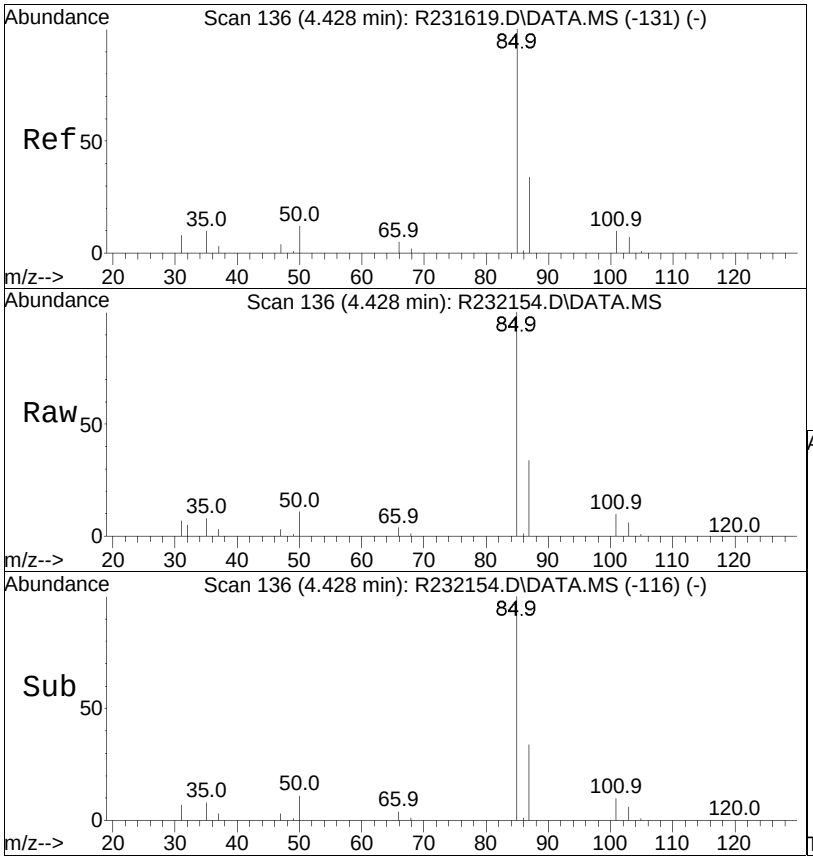


#4
propane
Concen: 8.33 ppbV
RT: 4.36 min Scan# 129
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 29 Resp: 117068

Ion	Ratio	Lower	Upper
29	100		
43	34.0	25.5	38.3
39	27.4	21.7	32.5

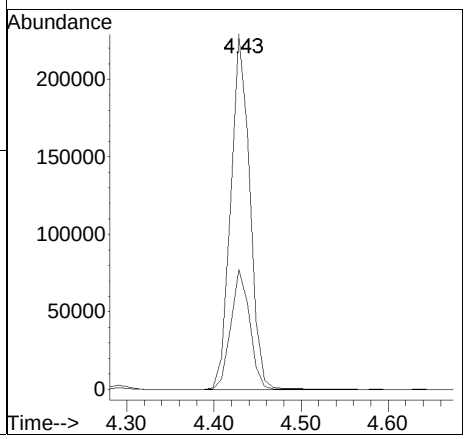


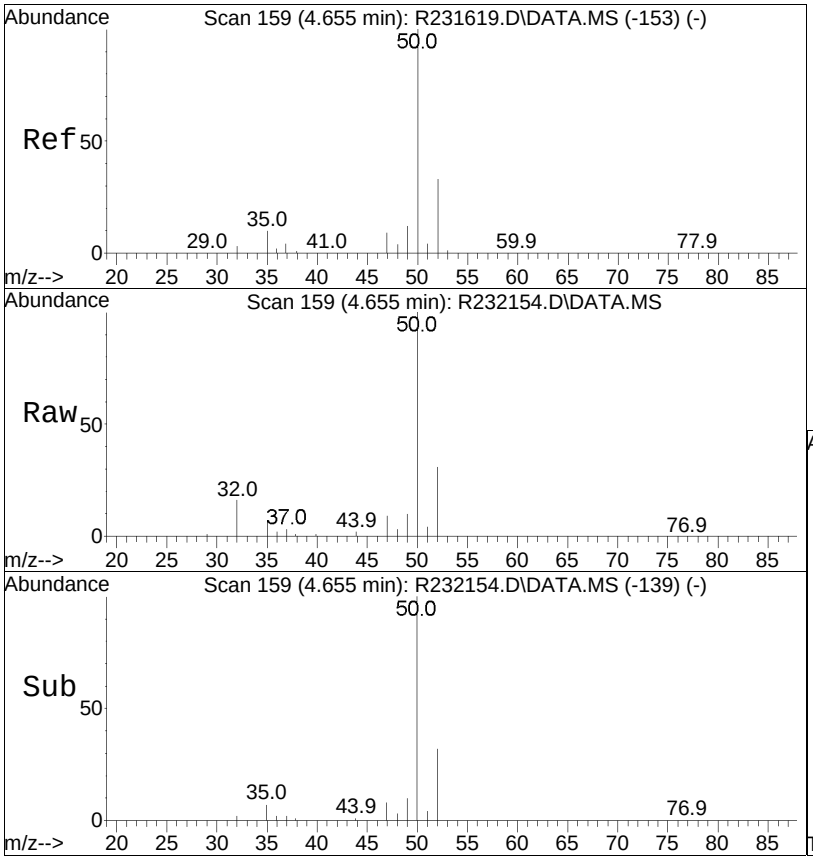


#5
dichlorodifluoromethane
Concen: 12.32 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 85 Resp: 346652

Ion	Ratio	Lower	Upper
85	100		
87	33.8	27.2	40.8

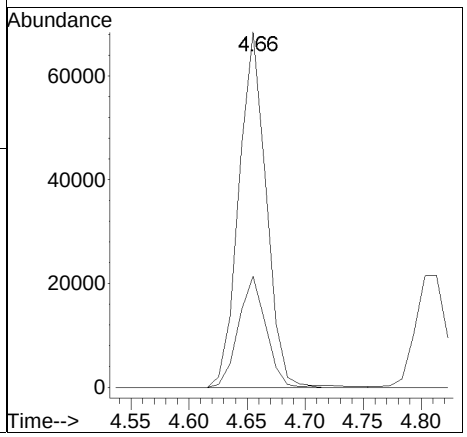


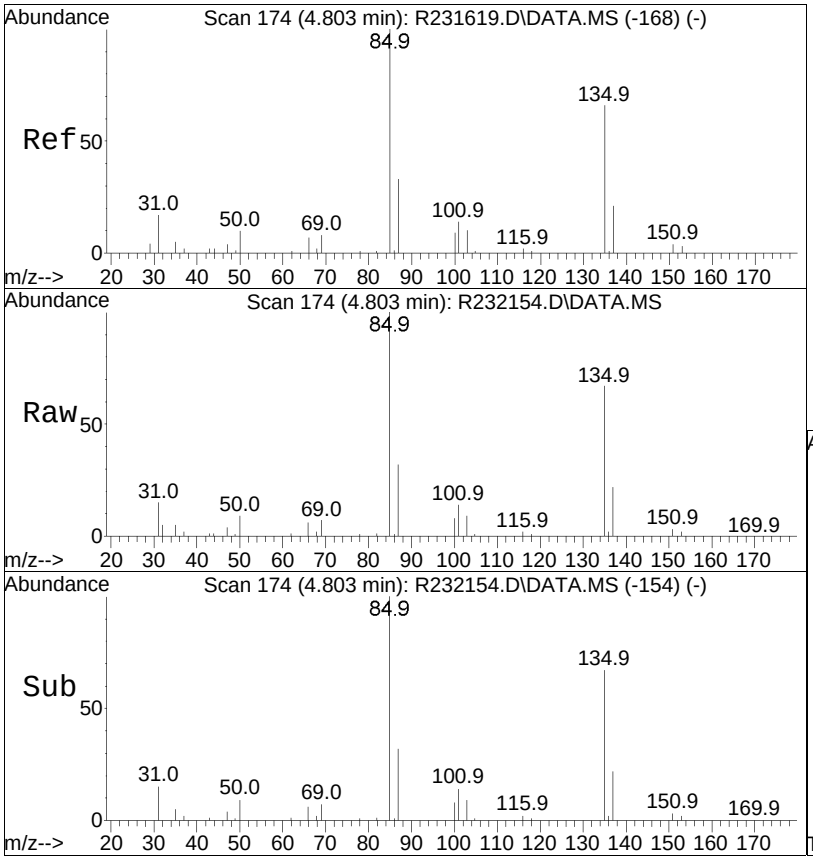


#6
chloromethane
Concen: 8.43 ppbV
RT: 4.66 min Scan# 159
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 50 Resp: 112178

Ion	Ratio	Lower	Upper
50	100		
52	31.3	26.6	39.8

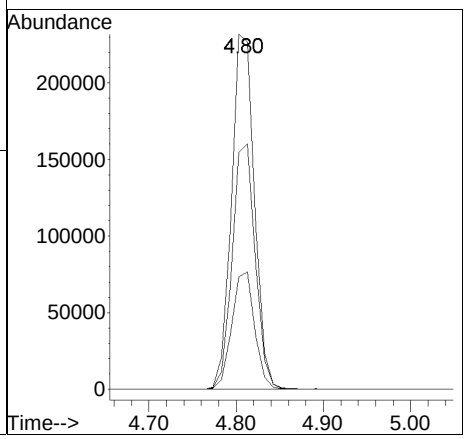


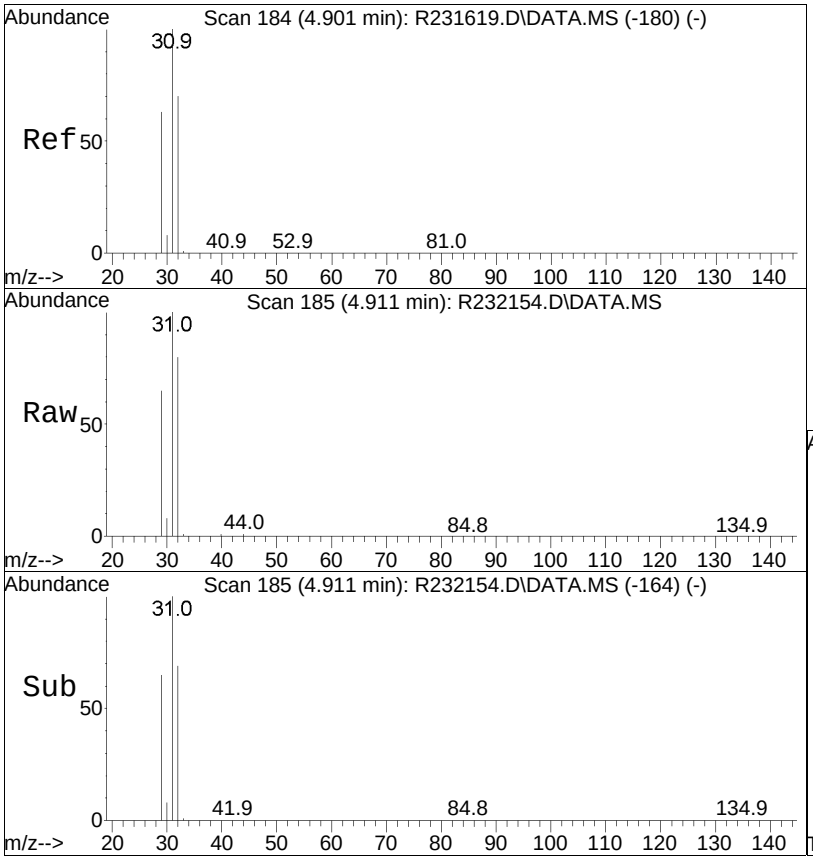


#7
Freon-114
Concen: 8.70 ppbV
RT: 4.80 min Scan# 174
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 85 Resp: 424914

Ion	Ratio	Lower	Upper
85	100		
87	31.6	26.5	39.7
135	66.6	52.4	78.6

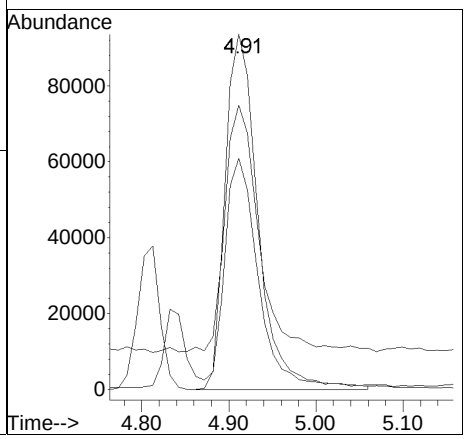


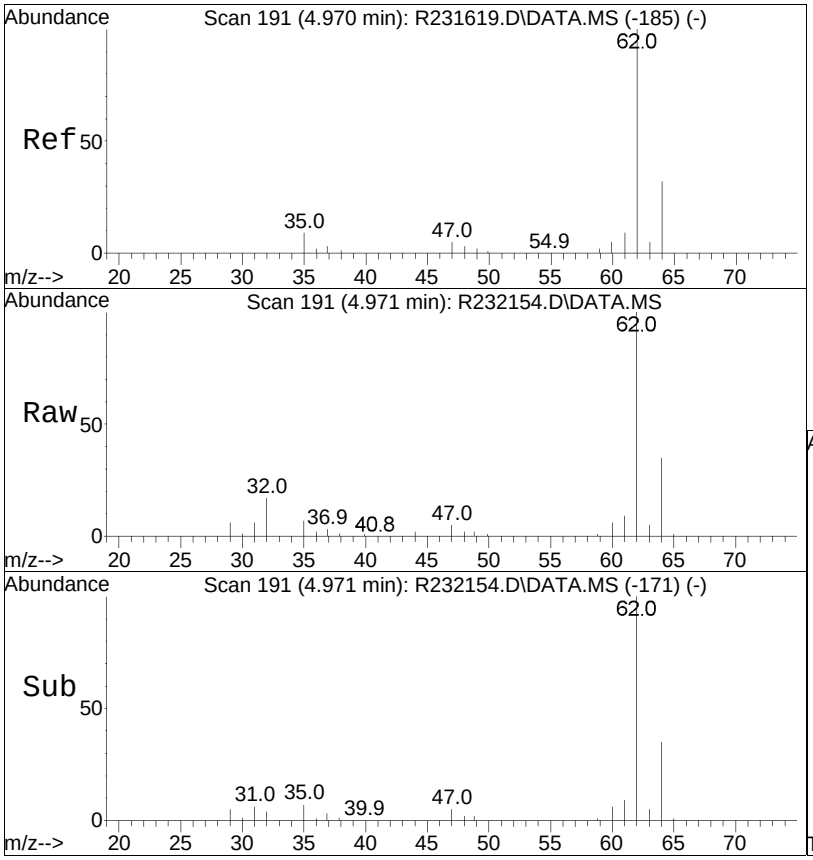


#8
methanol
Concen: 41.33 ppbV
RT: 4.91 min Scan# 185
Delta R.T. 0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 31 Resp: 247387

Ion	Ratio	Lower	Upper
31	100		
32	80.0	63.3	94.9
29	65.1	57.9	86.9

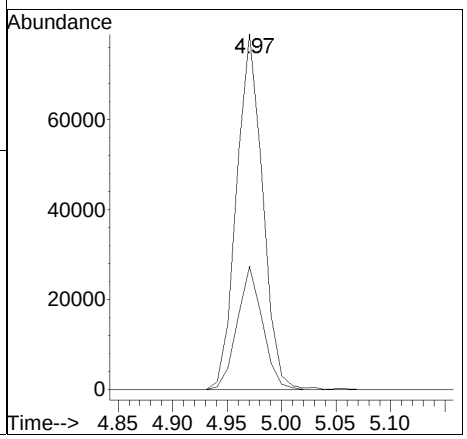


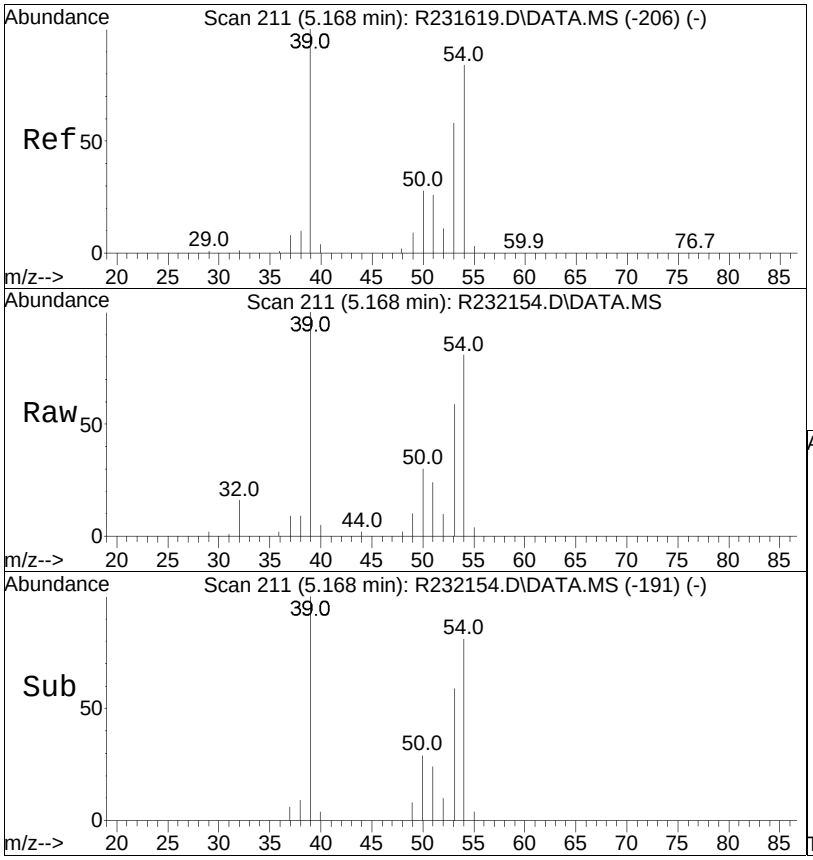


#9
vinyl chloride
Concen: 8.75 ppbV
RT: 4.97 min Scan# 191
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 62 Resp: 131627

Ion	Ratio	Lower	Upper
62	100		
64	34.6	25.6	38.4

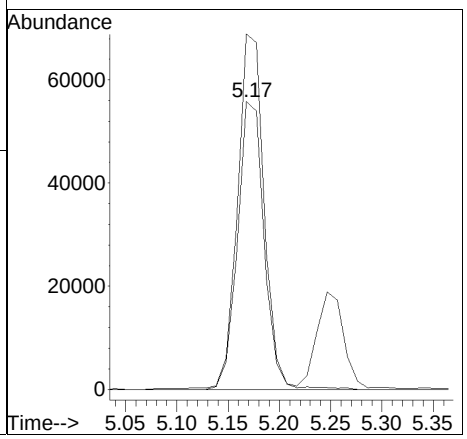


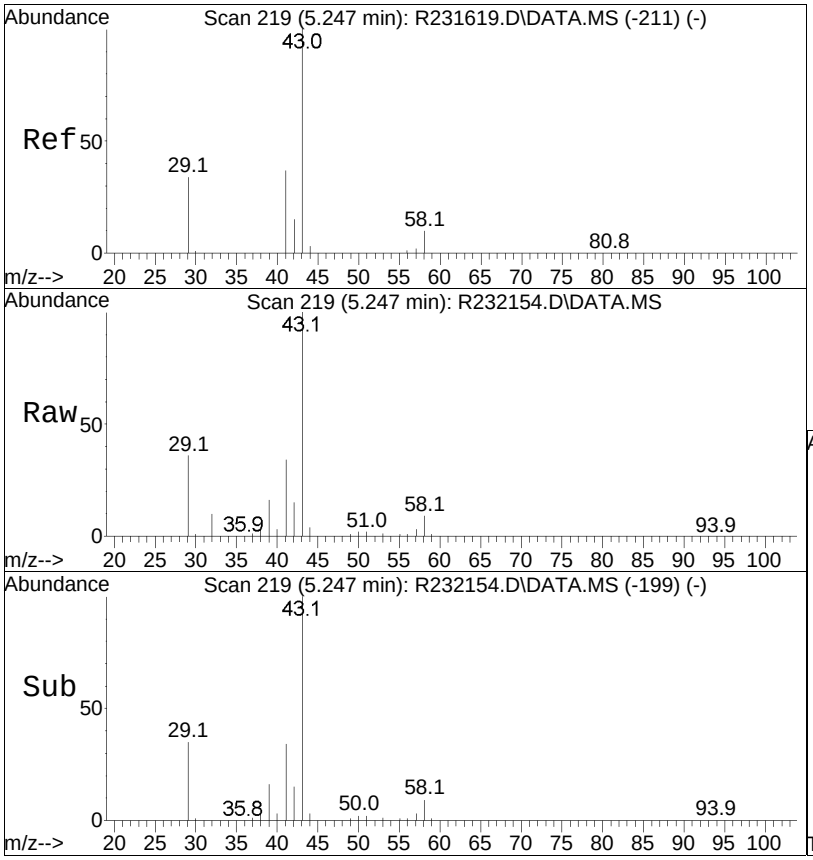


#10
1,3-butadiene
Concen: 9.38 ppbV
RT: 5.17 min Scan# 211
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 54 Resp: 100576

Ion	Ratio	Lower	Upper
54	100		
39	123.3	96.6	144.8

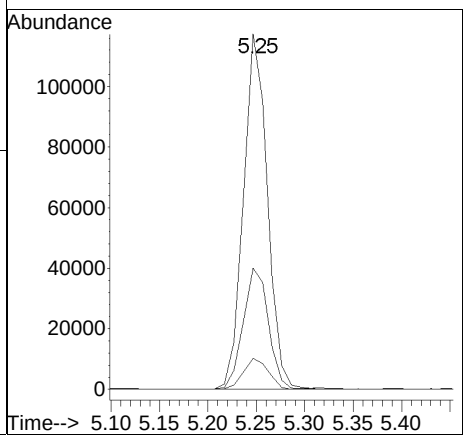


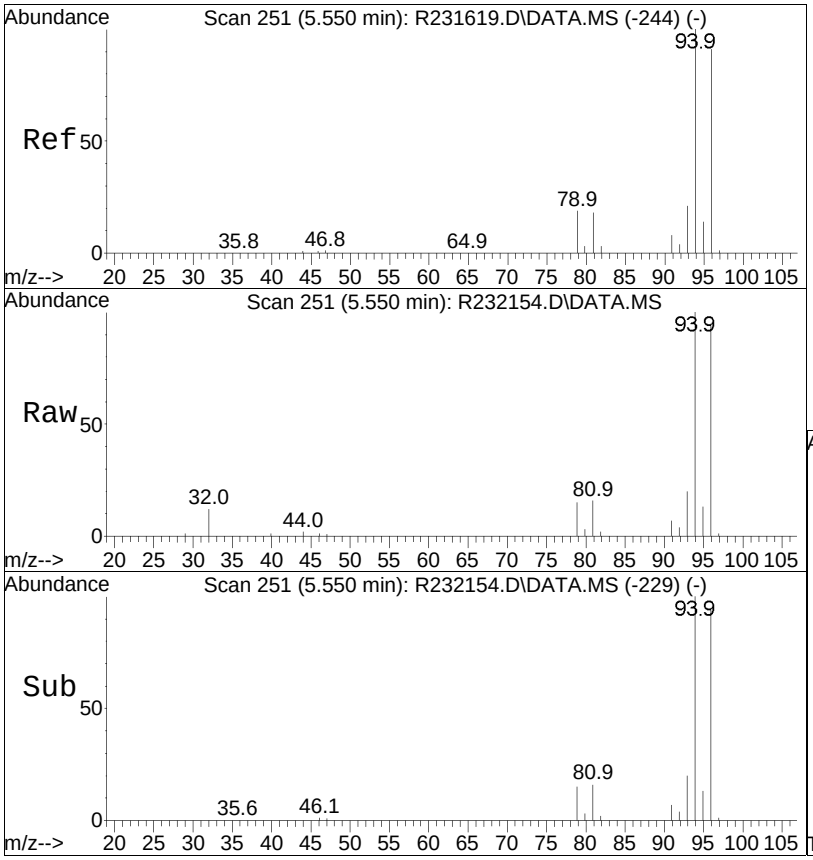


#11
butane
Concen: 8.13 ppbV
RT: 5.25 min Scan# 219
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 202441

Ion	Ratio	Lower	Upper
43	100		
58	8.7	8.0	12.0
41	34.1	29.5	44.3

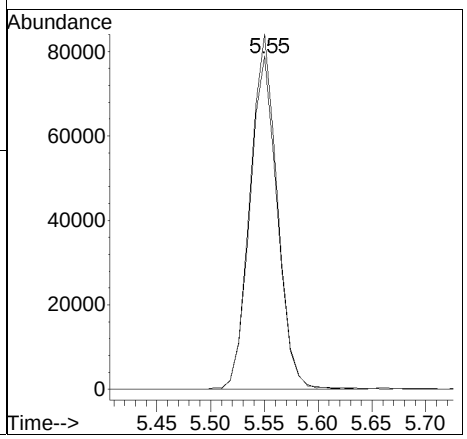


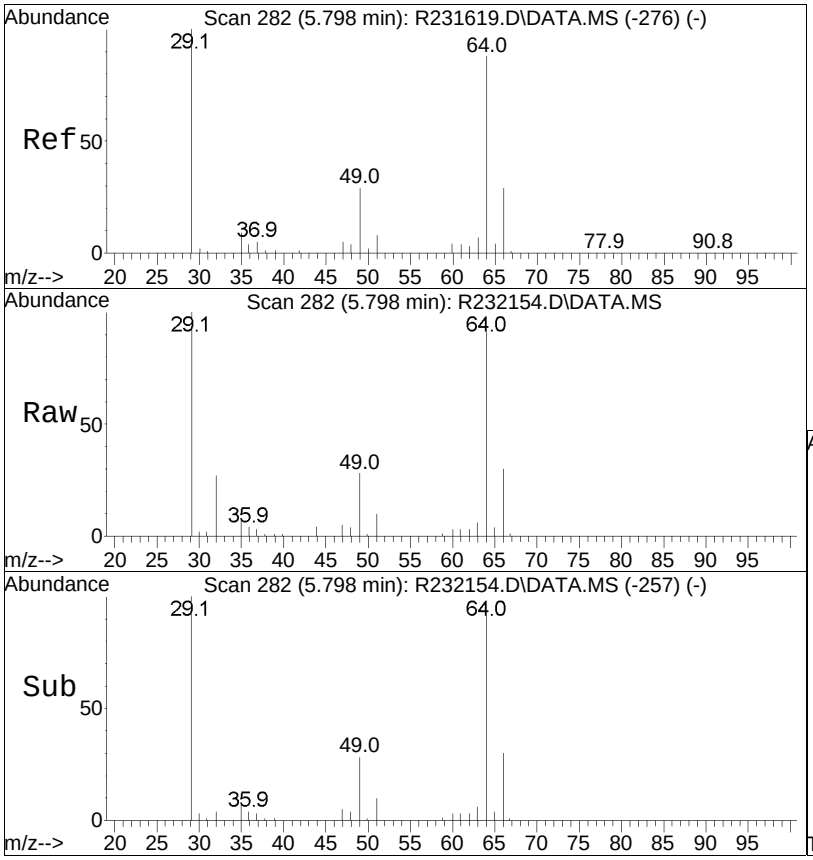


#13
bromomethane
Concen: 8.57 ppbV
RT: 5.55 min Scan# 251
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 94 Resp: 148396

Ion	Ratio	Lower	Upper
94	100		
96	93.8	73.2	109.8

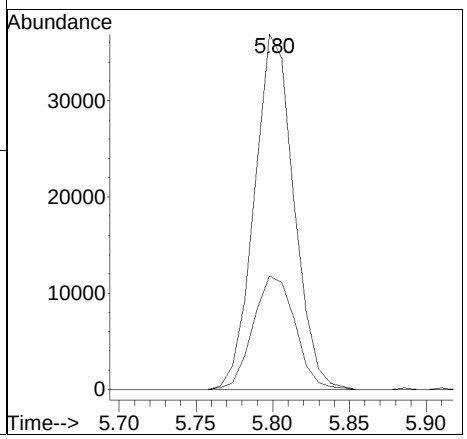


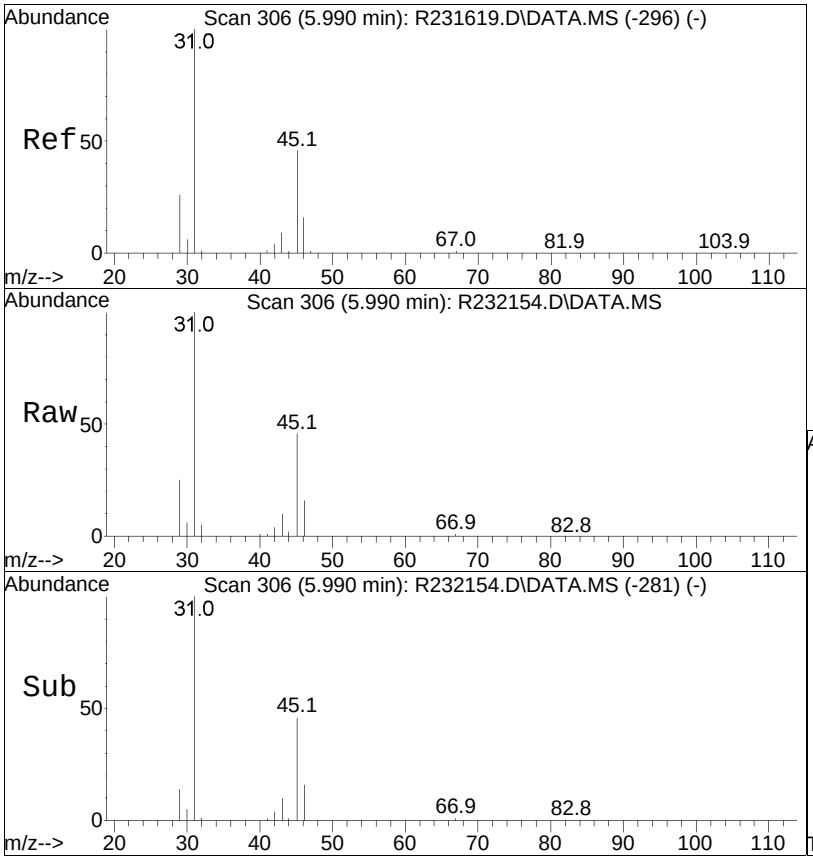


#14
chloroethane
Concen: 8.53 ppbV
RT: 5.80 min Scan# 282
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 64 Resp: 65868

Ion	Ratio	Lower	Upper
64	100		
66	31.9	26.2	39.4

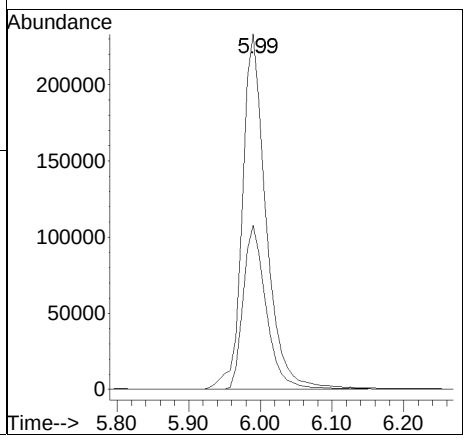


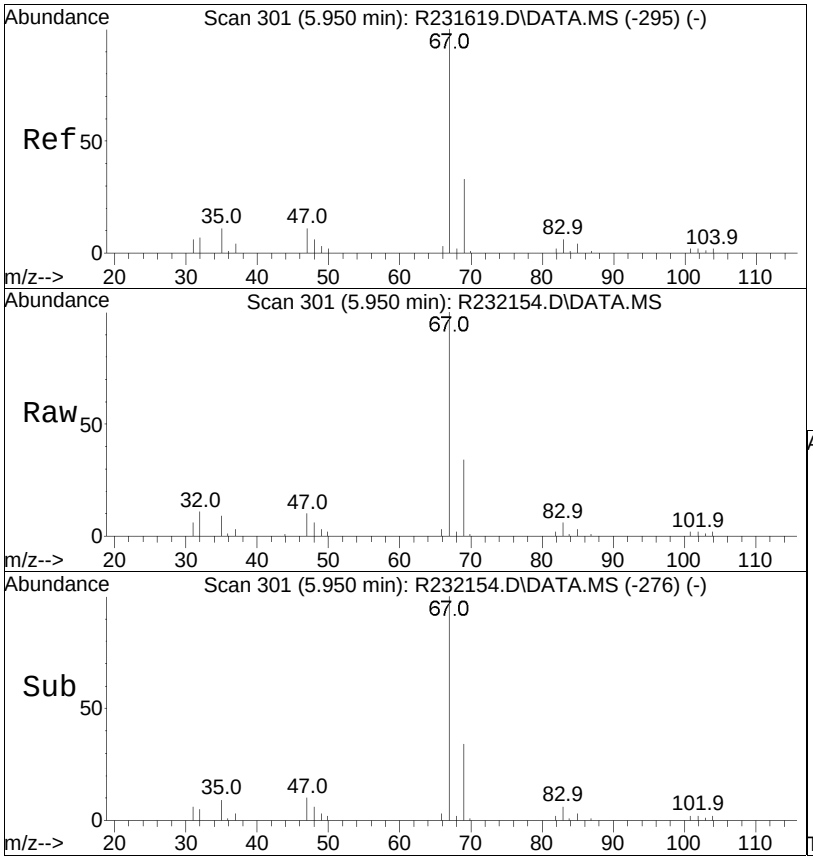


#15
ethanol
Concen: 42.37 ppbV
RT: 5.99 min Scan# 306
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 31 Resp: 539036

Ion	Ratio	Lower	Upper
31	100		
45	46.2	36.8	55.2

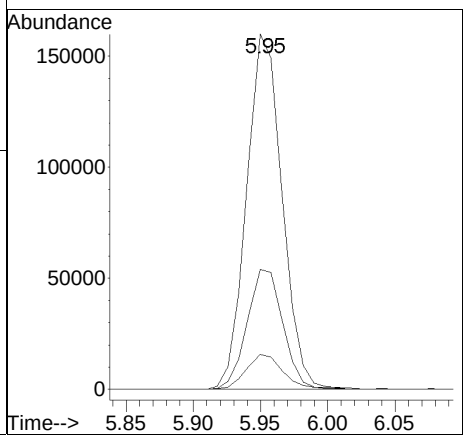


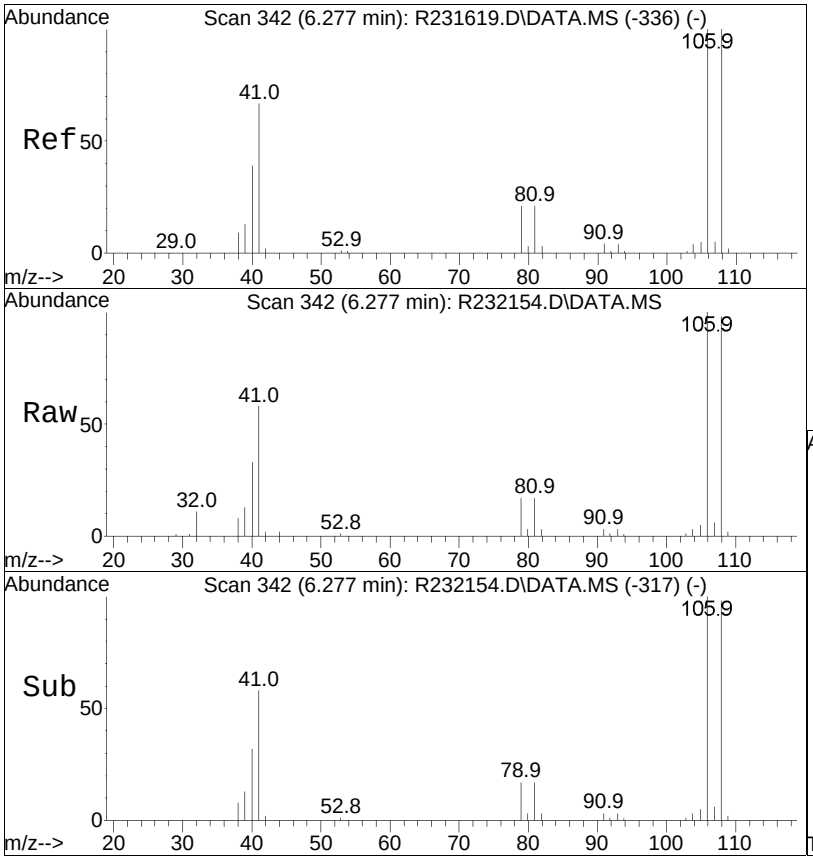


#16
dichlorofluoromethane
Concen: 7.76 ppbV
RT: 5.95 min Scan# 301
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 67 Resp: 294759

Ion	Ratio	Lower	Upper
67	100		
69	33.8	26.7	40.1
47	9.8	9.0	13.4

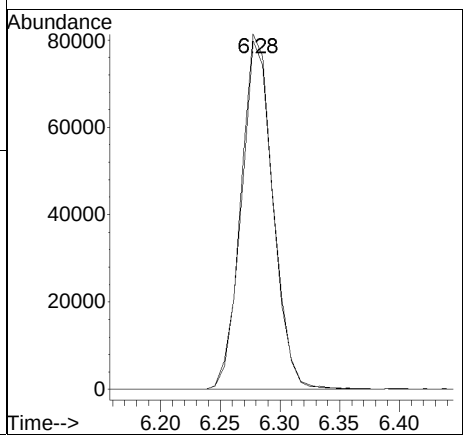


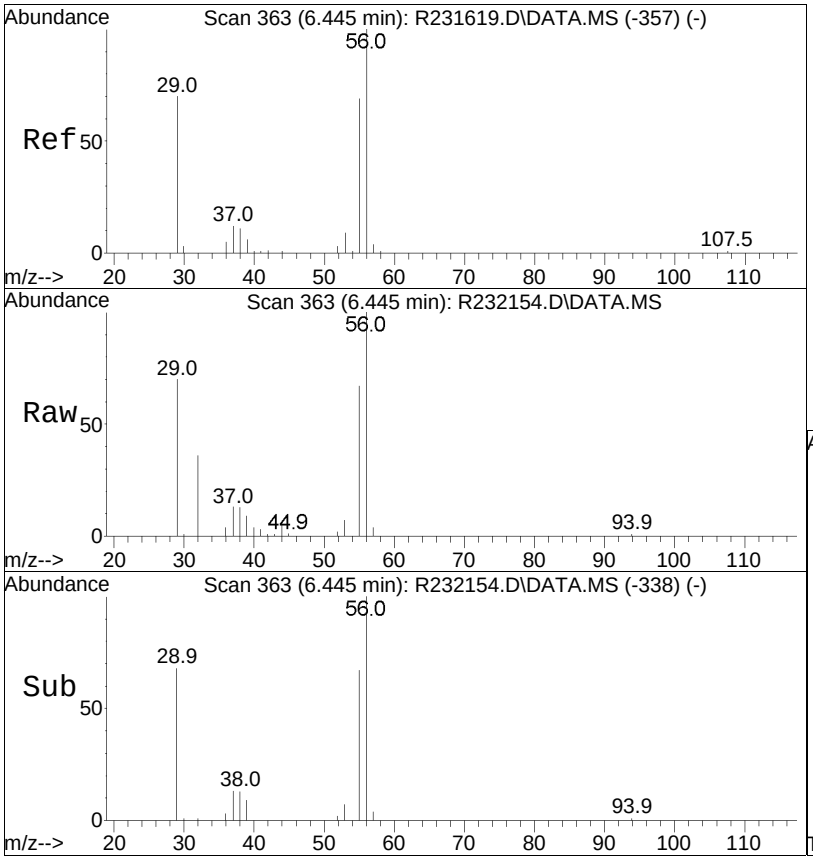


#17
vinyl bromide
Concen: 8.76 ppbV
RT: 6.28 min Scan# 342
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:106 Resp: 151946

Ion	Ratio	Lower	Upper
106	100		
108	98.1	79.9	119.9

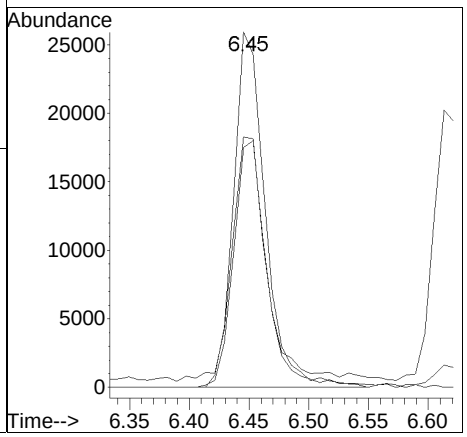


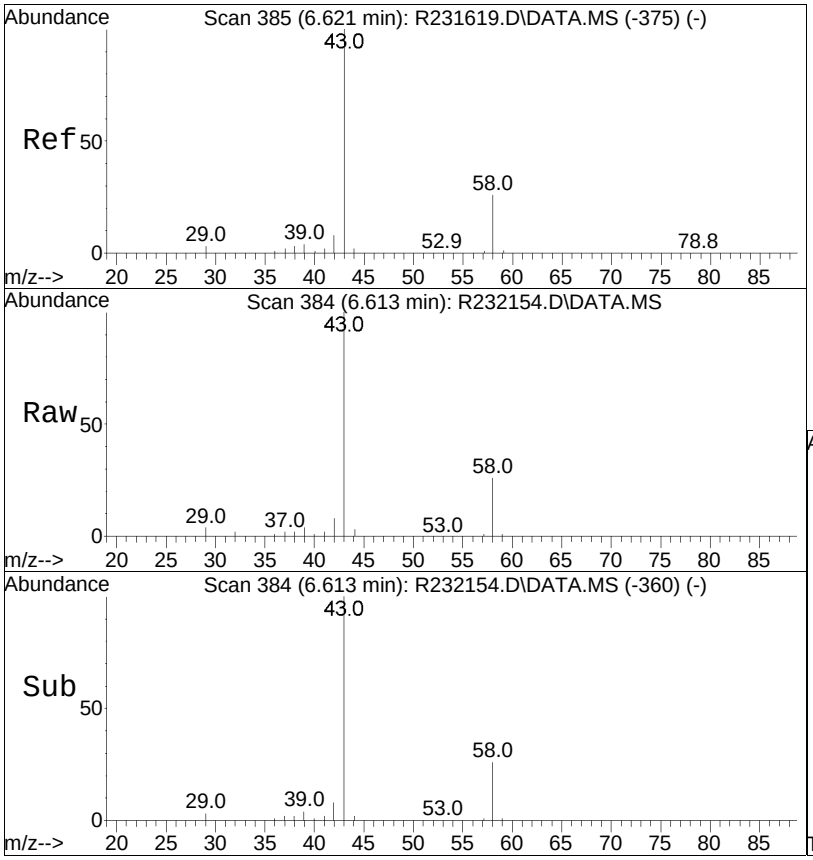


#18
acrolein
Concen: 7.87 ppbV
RT: 6.45 min Scan# 363
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 56 Resp: 48106

Ion	Ratio	Lower	Upper
56	100		
55	67.5	55.4	83.0
29	70.4	57.9	86.9

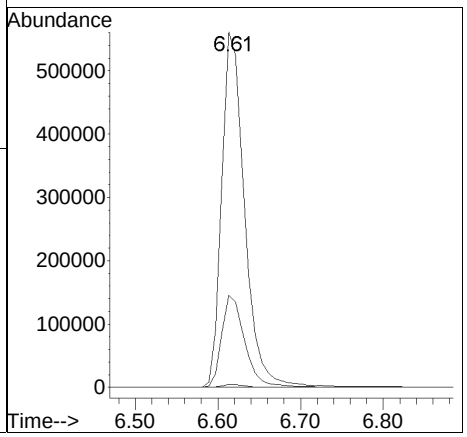


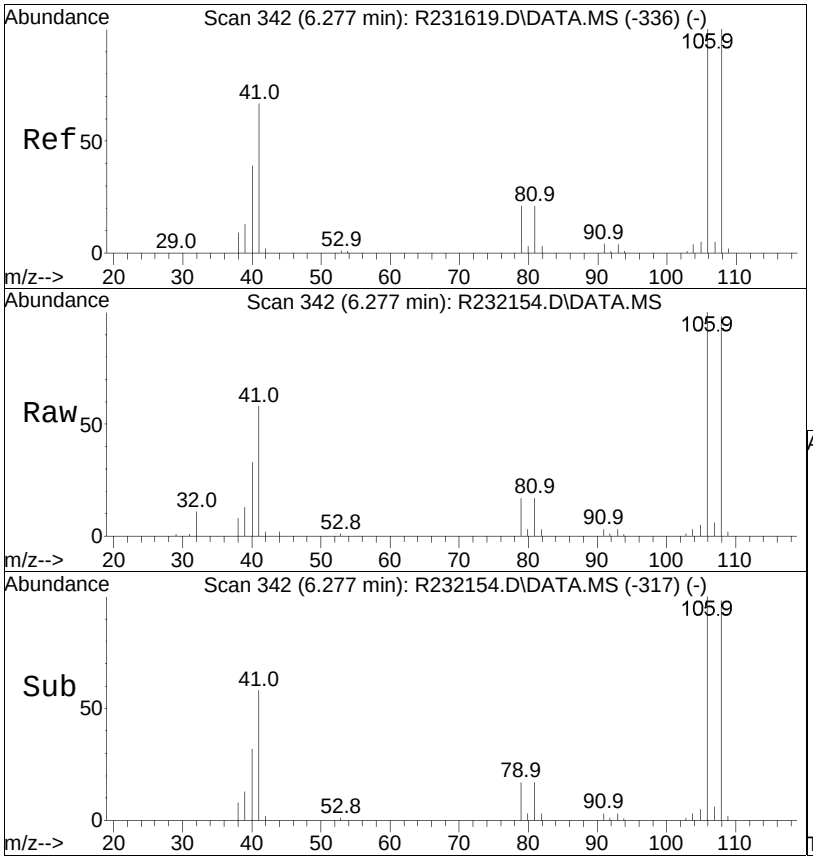


#19
acetone
Concen: 42.35 ppbV
RT: 6.61 min Scan# 384
Delta R.T. -0.008 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 1083861

Ion	Ratio	Lower	Upper
43	100		
58	26.0	20.6	31.0
57	0.9	0.6	1.0

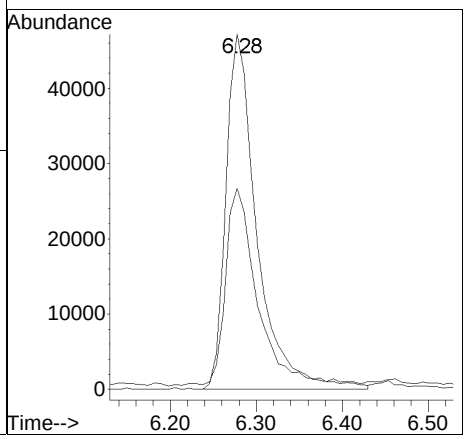


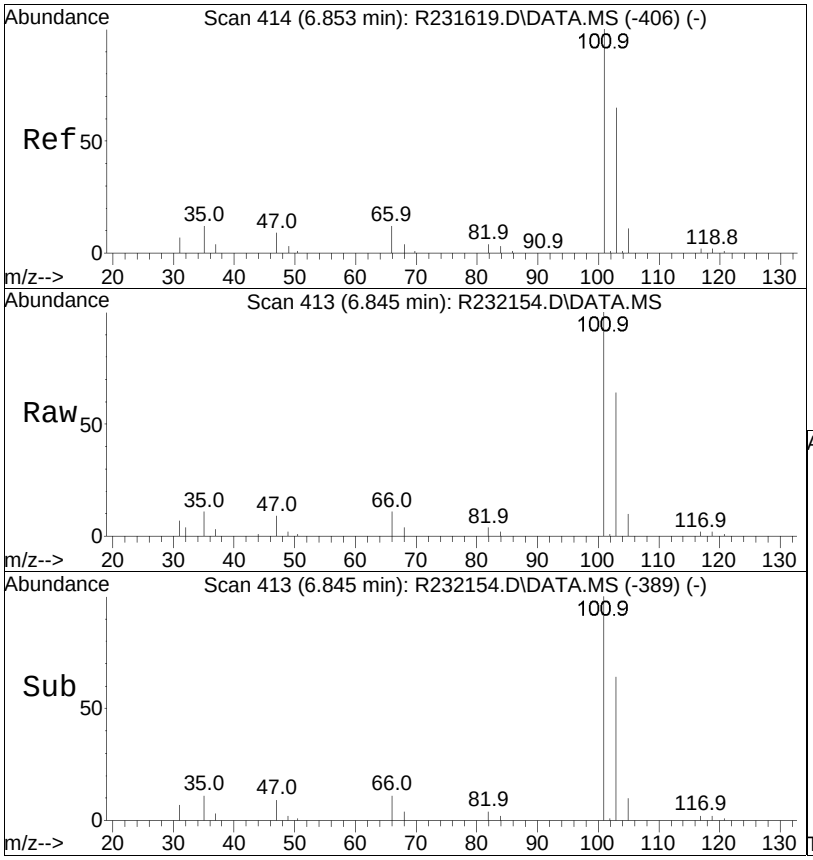


#20
acetonitrile
Concen: 8.42 ppbV
RT: 6.28 min Scan# 342
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 41 Resp: 118604

Ion	Ratio	Lower	Upper
41	100		
40	56.6	46.9	70.3

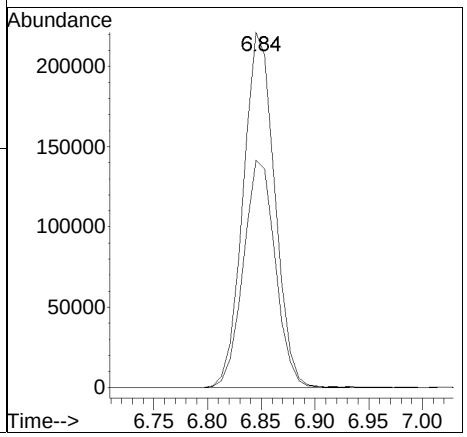


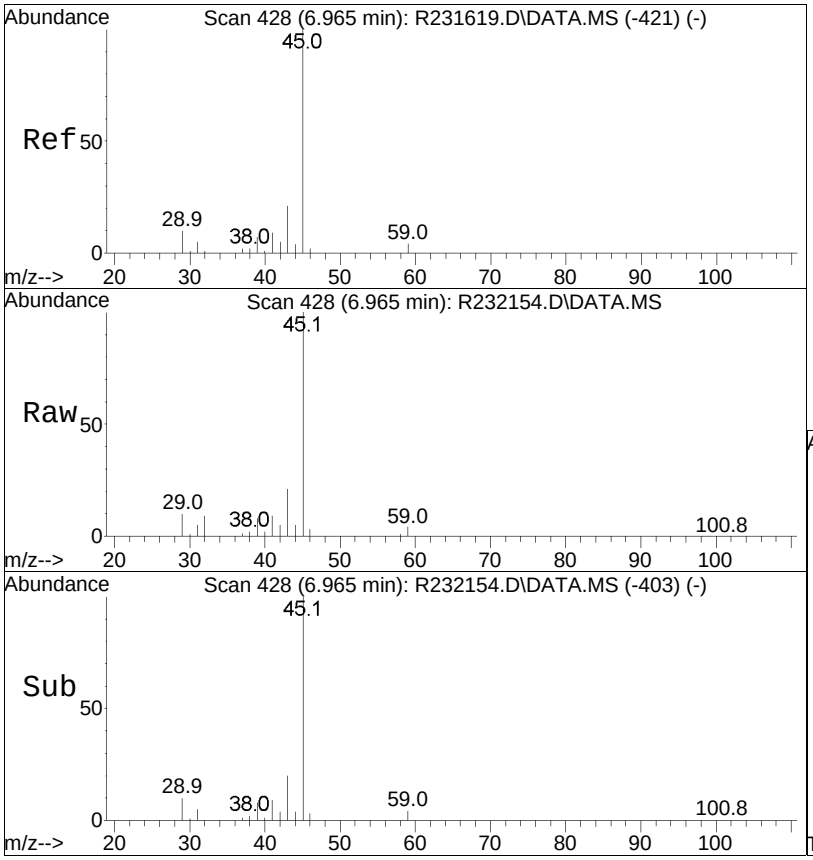


#21
trichlorofluoromethane
Concen: 8.24 ppbV
RT: 6.84 min Scan# 413
Delta R.T. -0.008 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:101 Resp: 451096

Ion	Ratio	Lower	Upper
101	100		
103	63.9	52.1	78.1

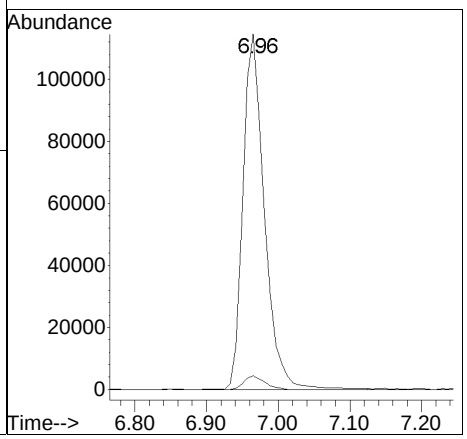


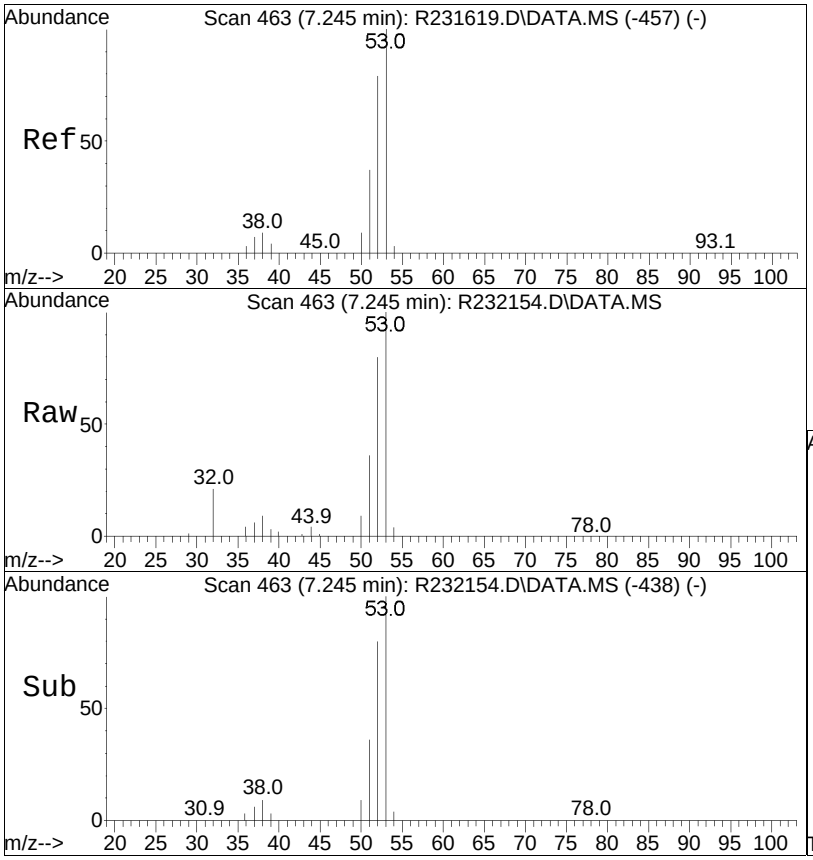


#22
isopropyl alcohol
Concen: 8.53 ppbV
RT: 6.96 min Scan# 428
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 45 Resp: 237833

Ion	Ratio	Lower	Upper
45	100		
59	3.8	3.1	4.7

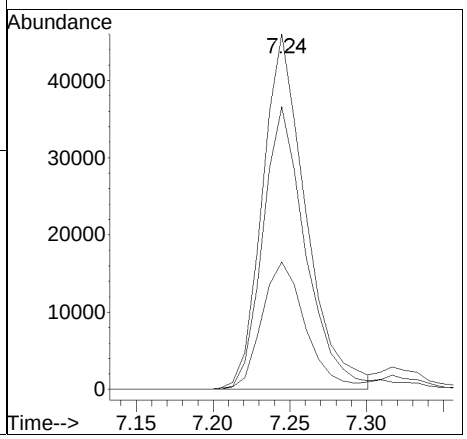


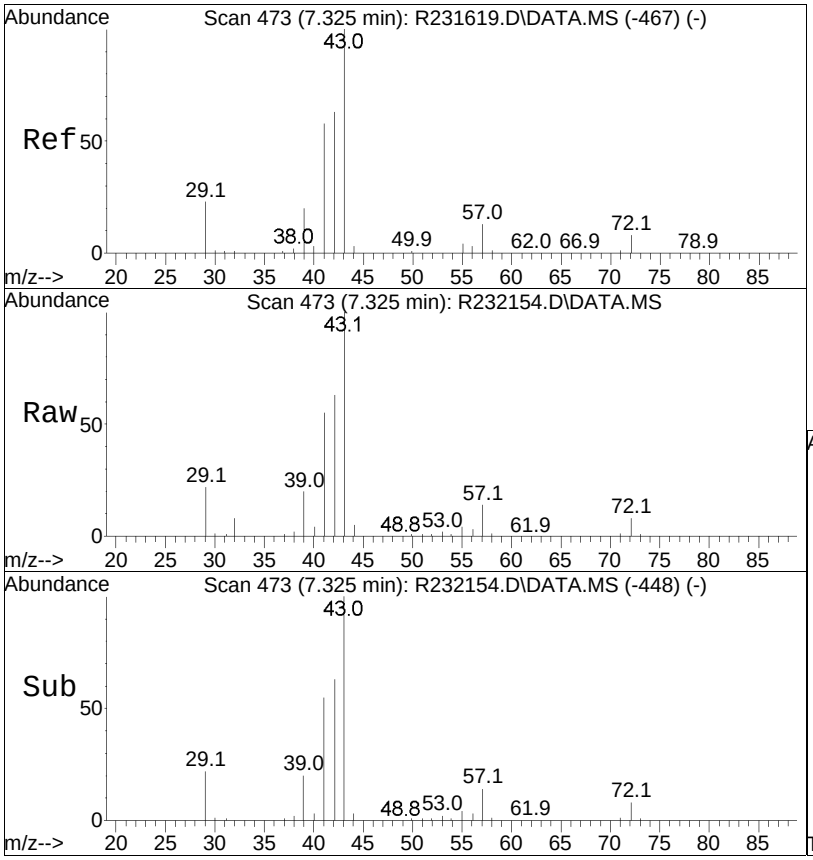


#23
acrylonitrile
Concen: 8.06 ppbV
RT: 7.24 min Scan# 463
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 53 Resp: 90464

Ion	Ratio	Lower	Upper
53	100		
52	79.6	63.2	94.8
51	35.8	29.8	44.6

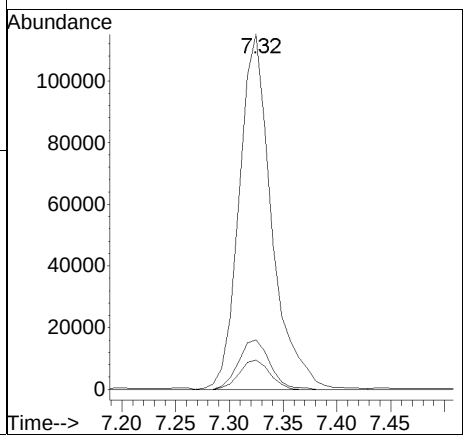


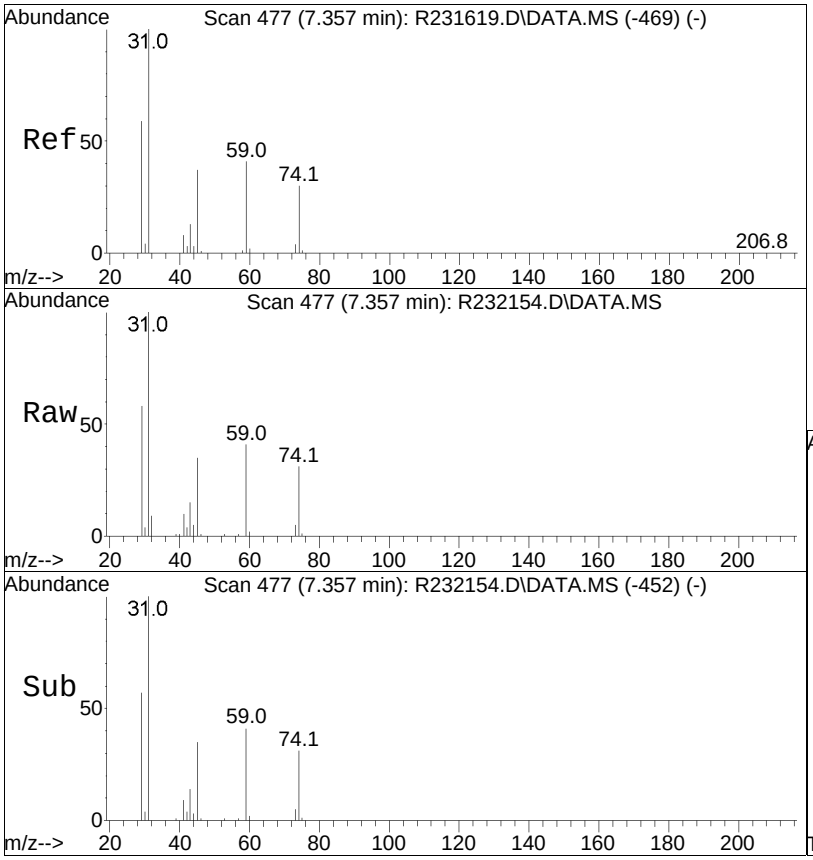


#24
pentane
Concen: 8.69 ppbV
RT: 7.32 min Scan# 473
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 242319

Ion	Ratio	Lower	Upper
43	100		
57	14.0	10.7	16.1
72	8.3	6.6	9.8

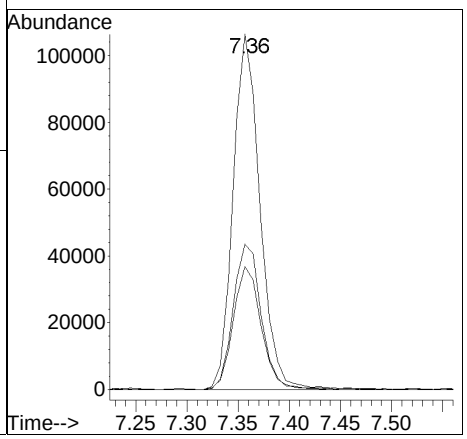


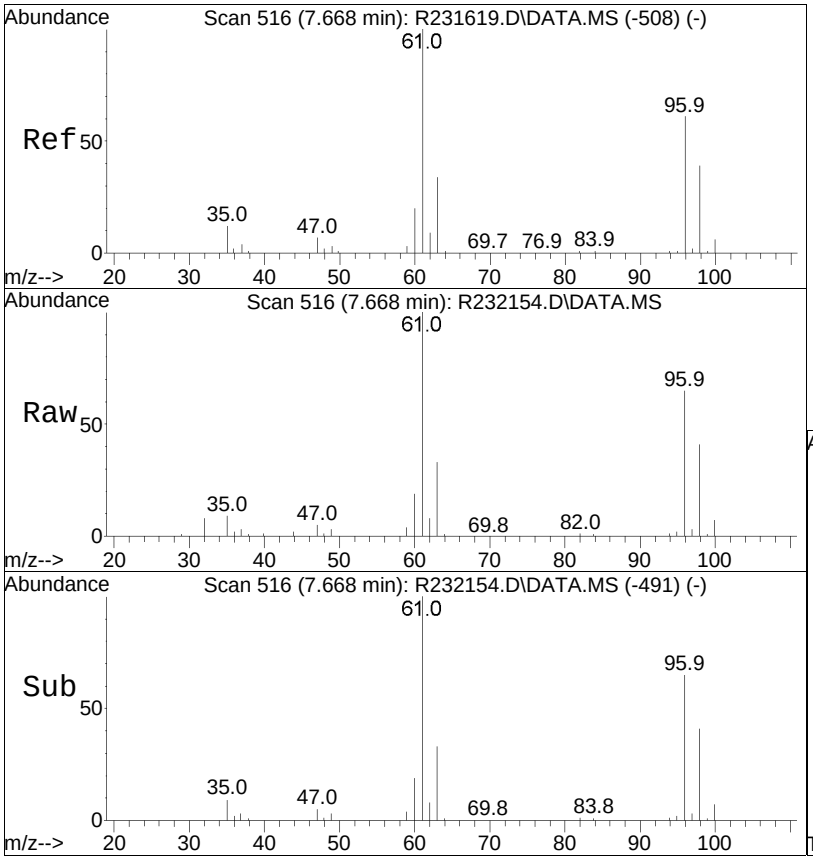


#25
ethyl ether
Concen: 8.11 ppbV
RT: 7.36 min Scan# 477
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 31 Resp: 193927

Ion	Ratio	Lower	Upper
31	100		
59	40.9	32.4	48.6
45	34.6	29.4	44.2

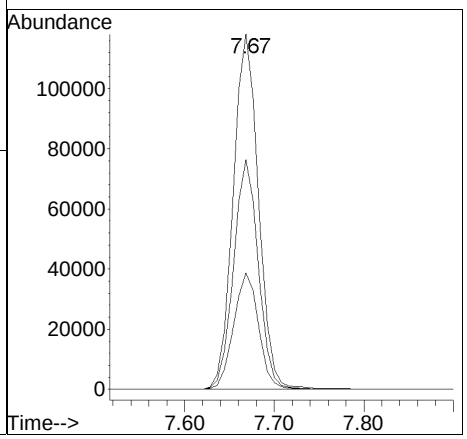


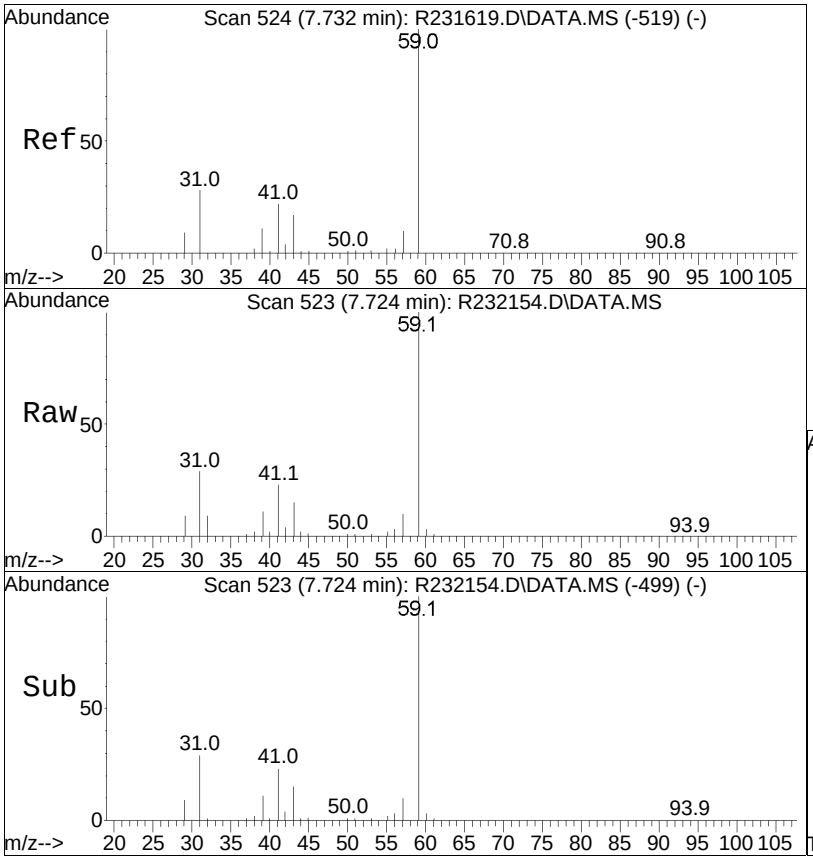


#26
1,1-dichloroethene
Concen: 8.56 ppbV
RT: 7.67 min Scan# 516
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 61 Resp: 232012

Ion	Ratio	Lower	Upper
61	100		
96	64.6	49.0	73.4
63	32.8	27.0	40.4

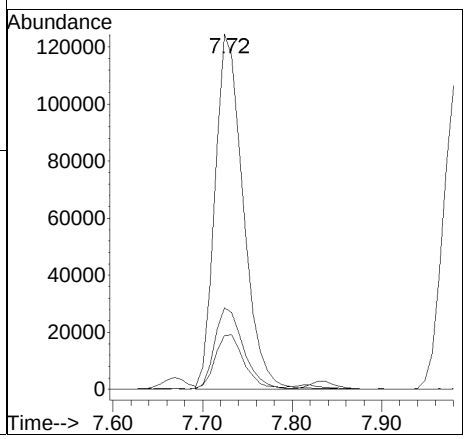


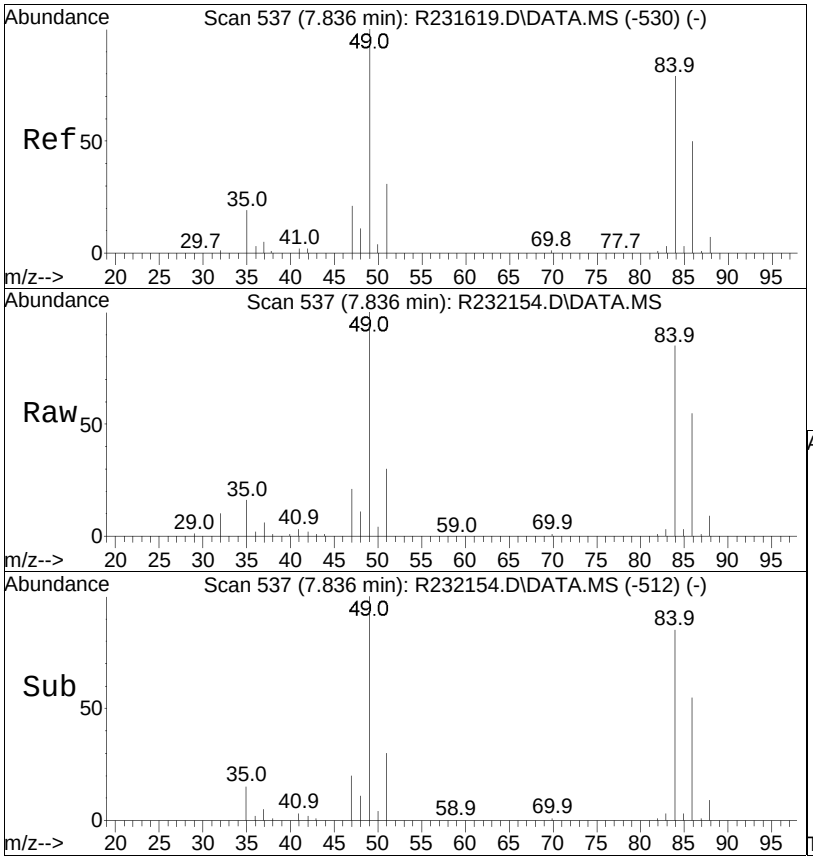


#27
tertiary butyl alcohol
Concen: 8.30 ppbV
RT: 7.72 min Scan# 523
Delta R.T. -0.008 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 59 Resp: 272857

Ion	Ratio	Lower	Upper
59	100		
41	22.9	17.4	26.2
43	15.2	13.8	20.6

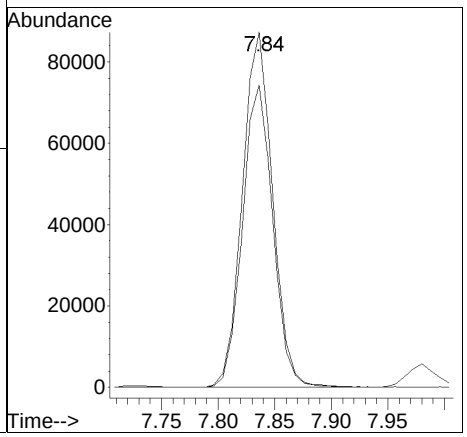


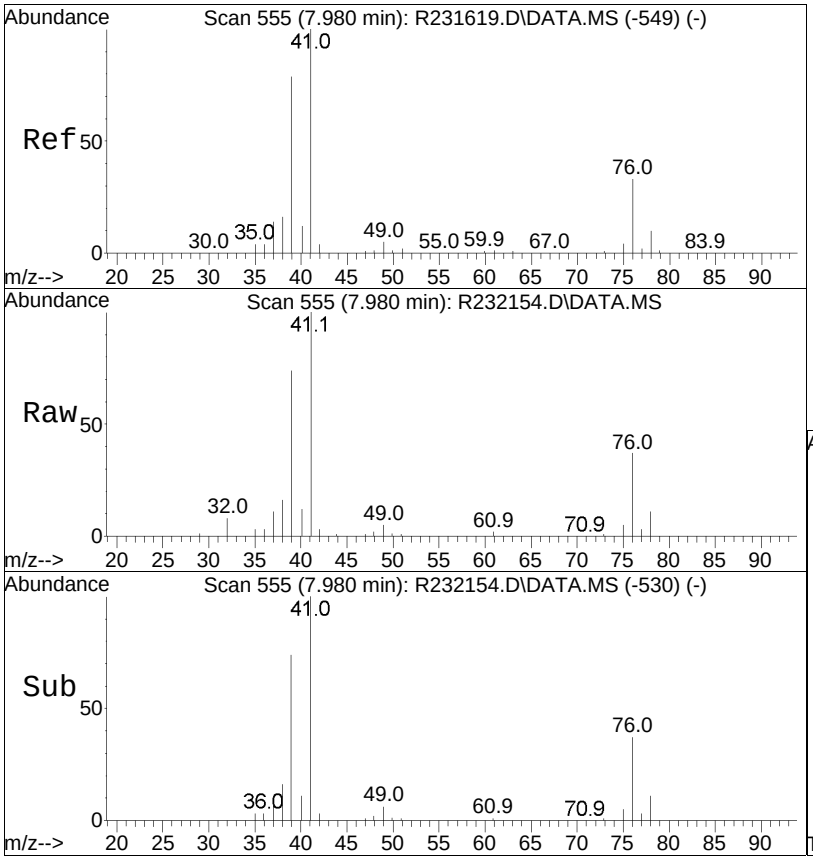


#28
methylene chloride
Concen: 8.31 ppbV
RT: 7.84 min Scan# 537
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 49 Resp: 162218

Ion	Ratio	Lower	Upper
49	100		
84	85.1	63.3	94.9

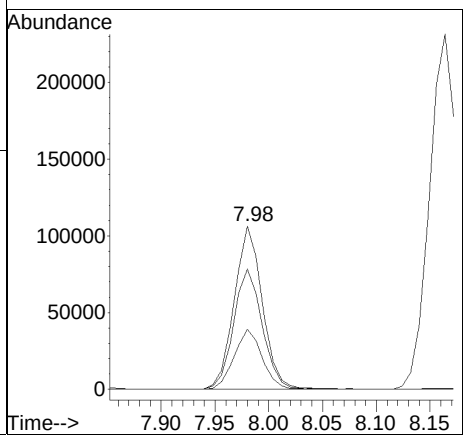


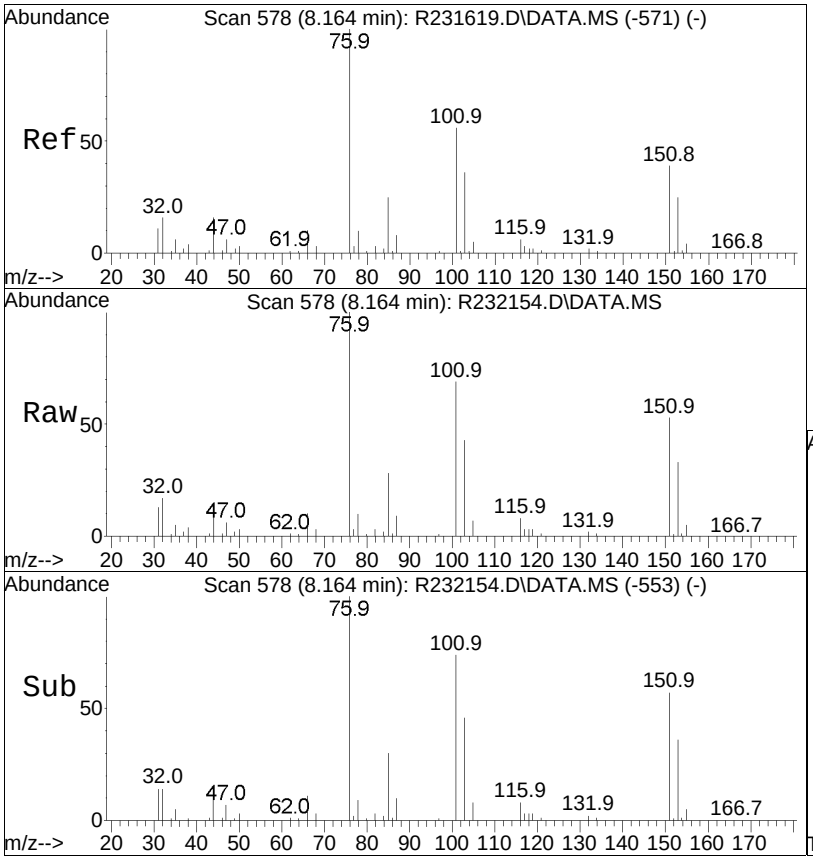


#29
3-chloropropene
Concen: 8.89 ppbV
RT: 7.98 min Scan# 555
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 41 Resp: 194916

Ion	Ratio	Lower	Upper
41	100		
39	73.6	63.0	94.6
76	36.8	26.6	39.8

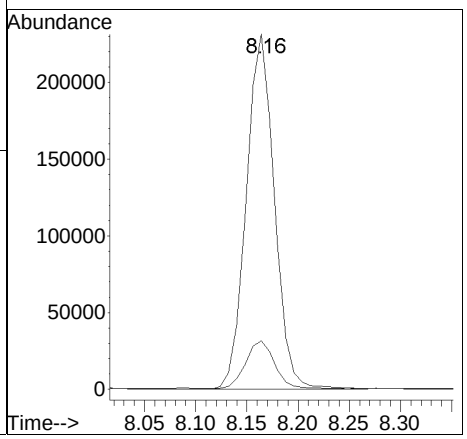


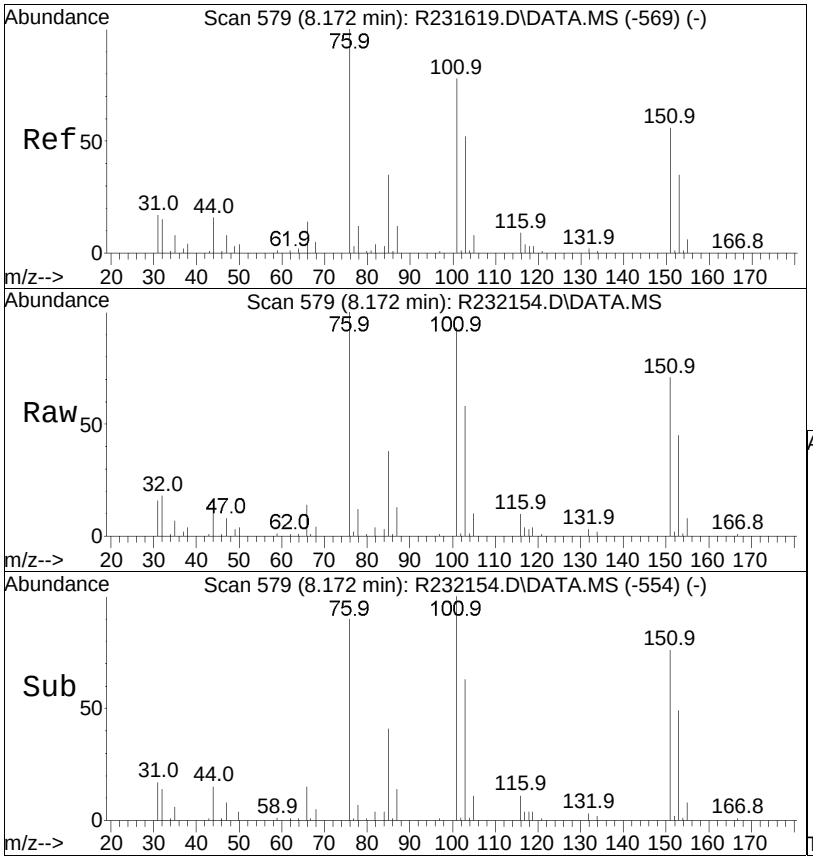


#30
carbon disulfide
Concen: 9.08 ppbV
RT: 8.16 min Scan# 578
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 76 Resp: 444555

Ion	Ratio	Lower	Upper
76	100		
44	13.7	13.9	20.9#

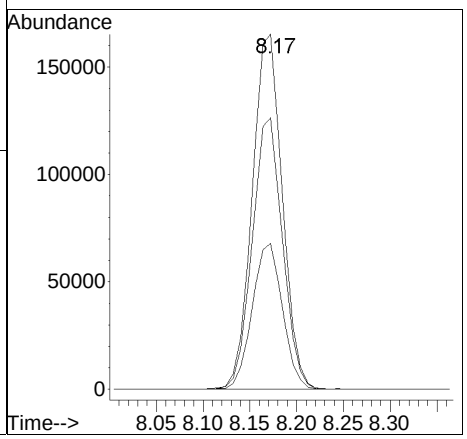


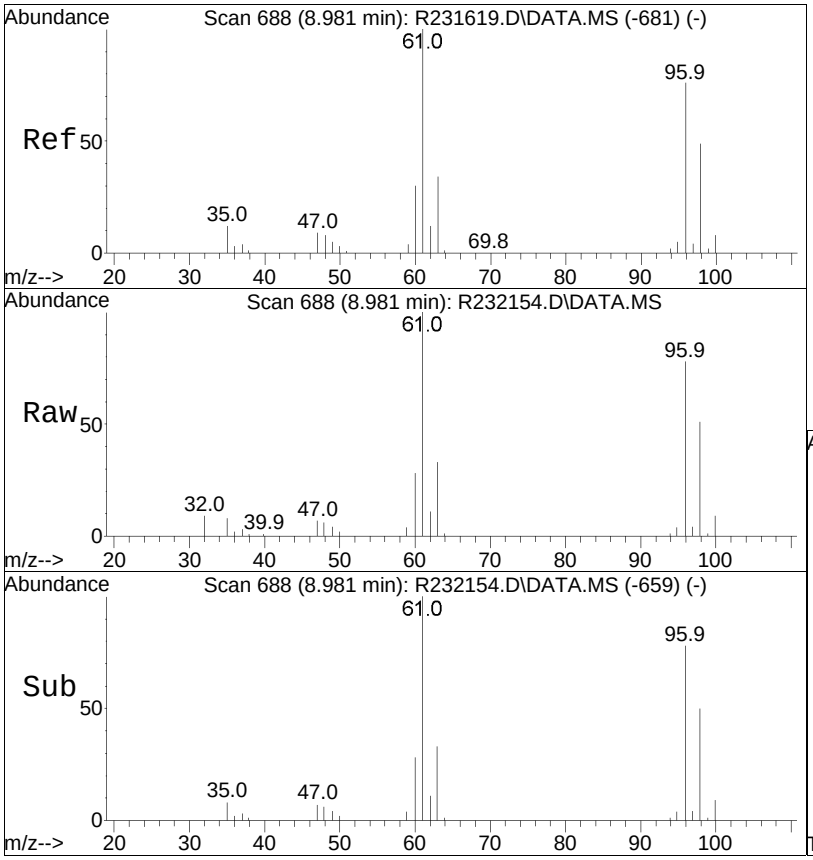


#31
Freon 113
Concen: 9.75 ppbV
RT: 8.17 min Scan# 579
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:101 Resp: 370504

Ion	Ratio	Lower	Upper
101	100		
85	41.1	35.5	53.3
151	76.4	57.6	86.4

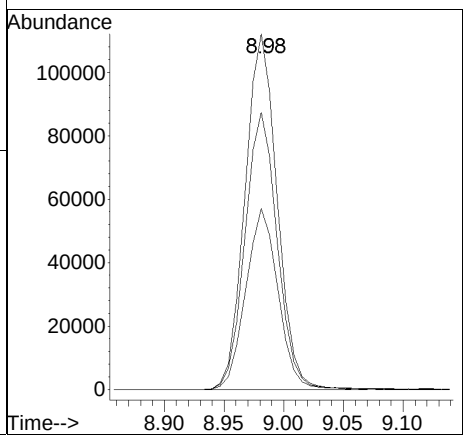


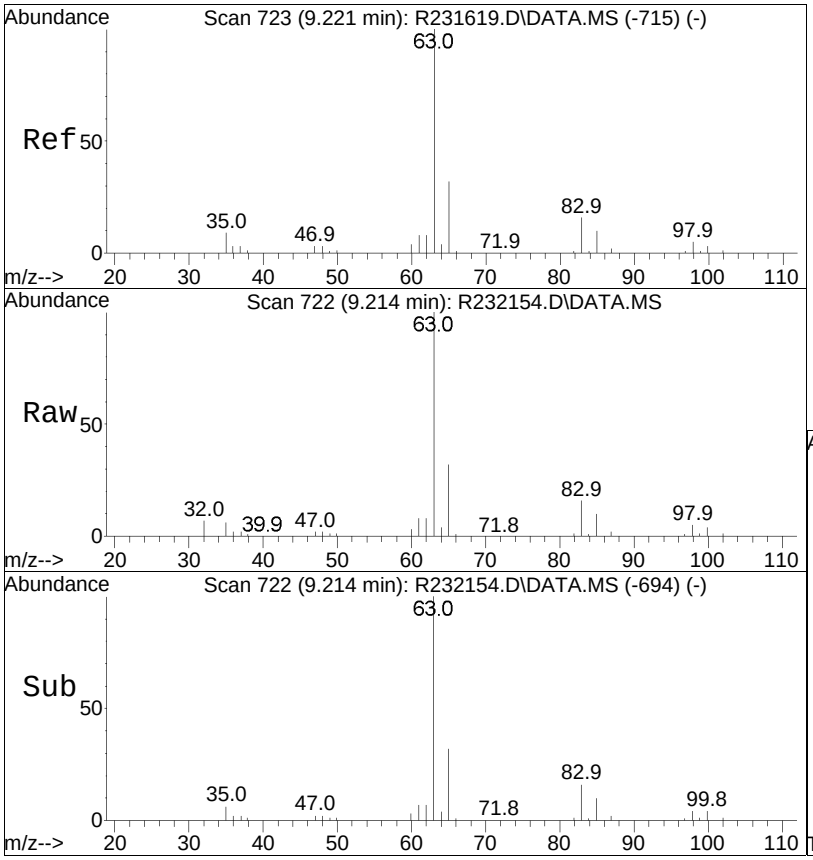


#32
trans-1,2-dichloroethene
Concen: 9.39 ppbV
RT: 8.98 min Scan# 688
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 61 Resp: 209942

Ion	Ratio	Lower	Upper
61	100		
96	78.0	61.2	91.8
98	50.9	39.0	58.6

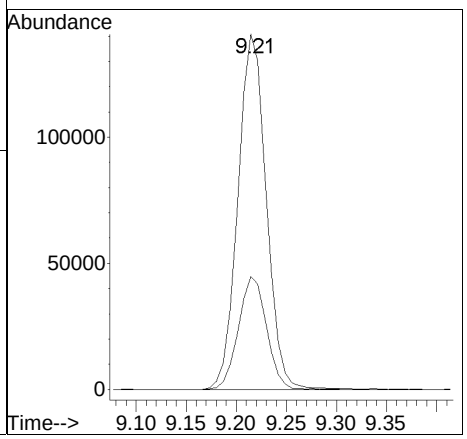


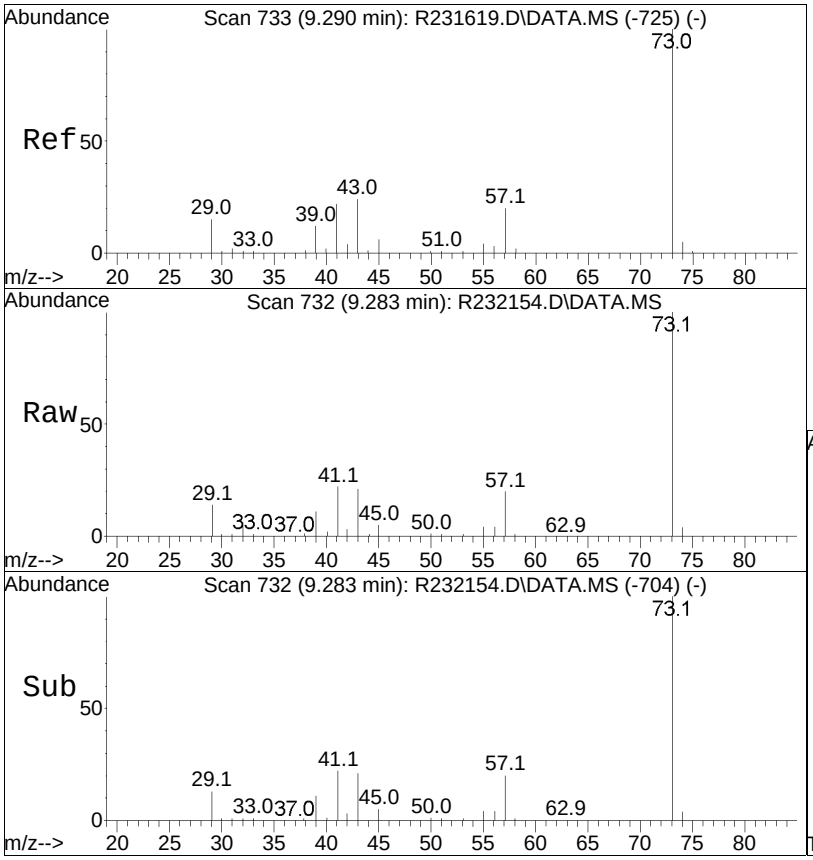


#33
1,1-dichloroethane
Concen: 10.24 ppbV
RT: 9.21 min Scan# 722
Delta R.T. -0.007 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 63 Resp: 276880

Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.2	37.8

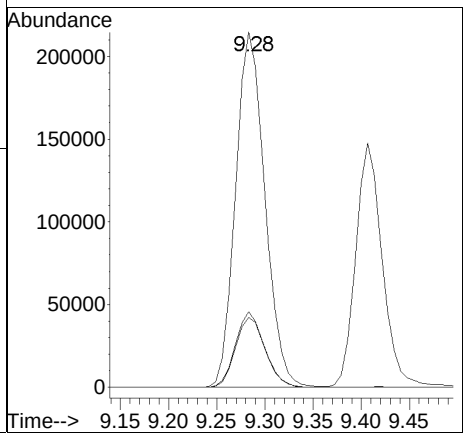


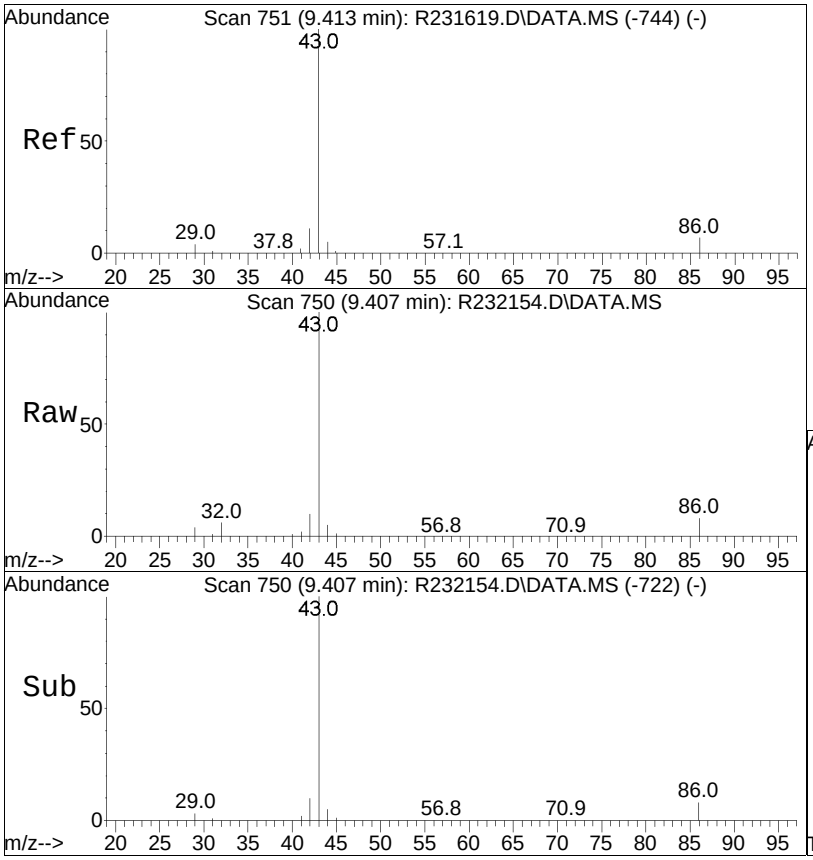


#34
MTBE
Concen: 10.16 ppbV
RT: 9.28 min Scan# 732
Delta R.T. -0.007 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 73 Resp: 454761

Ion	Ratio	Lower	Upper
73	100		
57	19.7	15.7	23.5
43	21.3	19.5	29.3

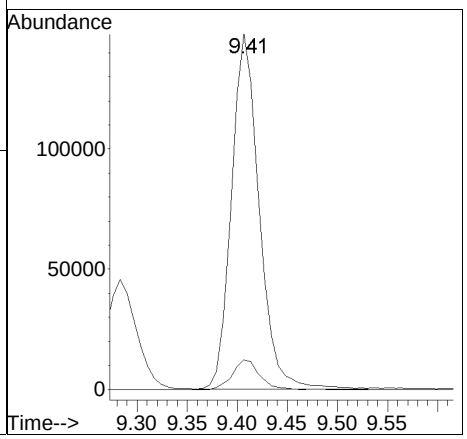


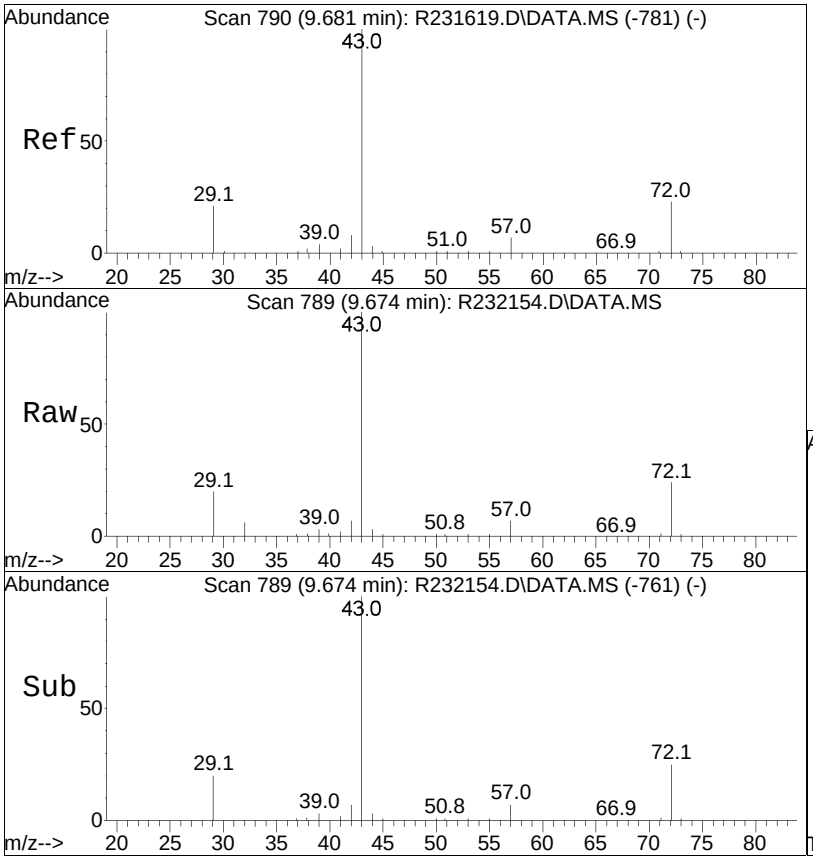


#35
vinyl acetate
Concen: 12.64 ppbV
RT: 9.41 min Scan# 750
Delta R.T. -0.007 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 284413

Ion	Ratio	Lower	Upper
43	100		
86	8.3	5.9	8.9

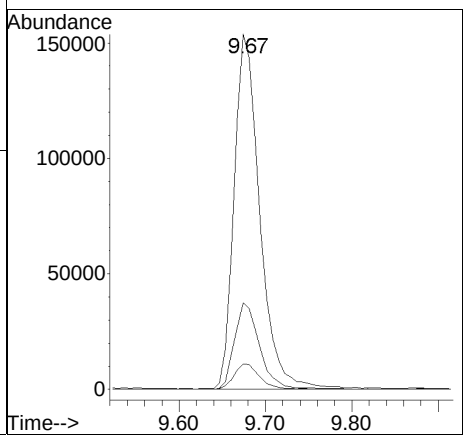


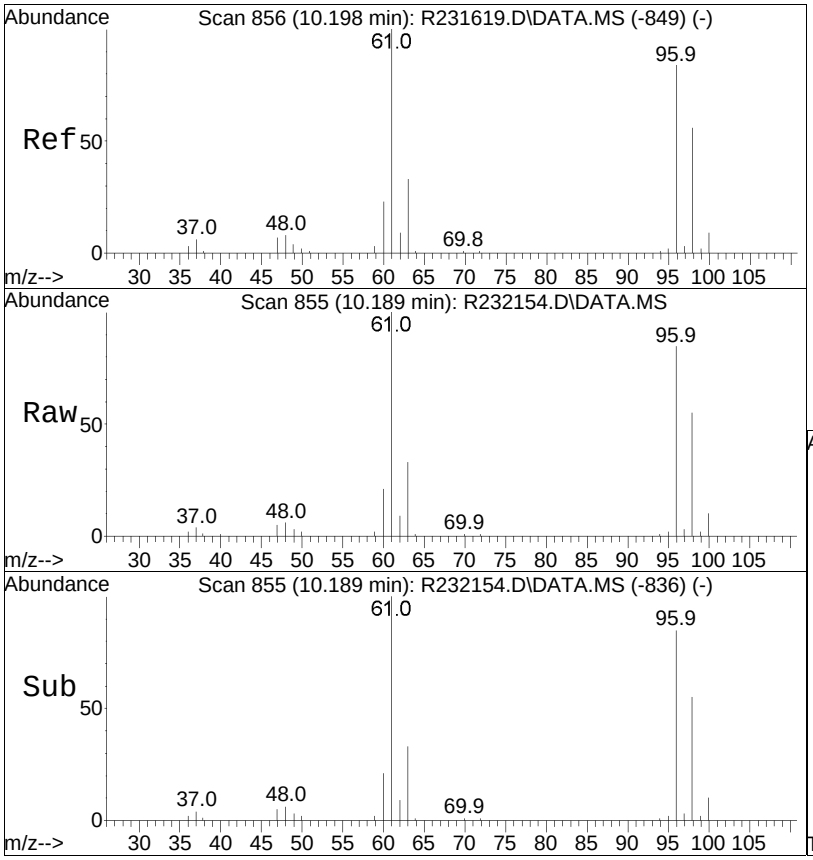


#36
2-butanone
Concen: 9.78 ppbV
RT: 9.67 min Scan# 789
Delta R.T. -0.007 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 317121

Ion	Ratio	Lower	Upper
43	100		
72	24.4	18.5	27.7
57	7.2	5.4	8.2

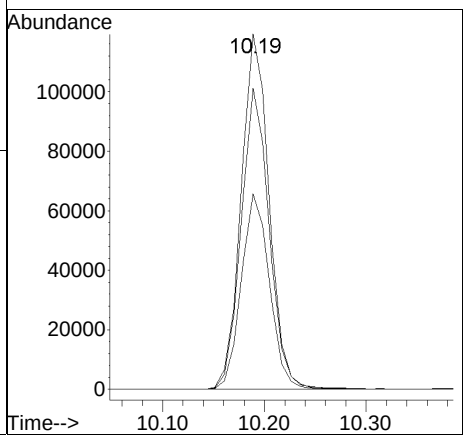


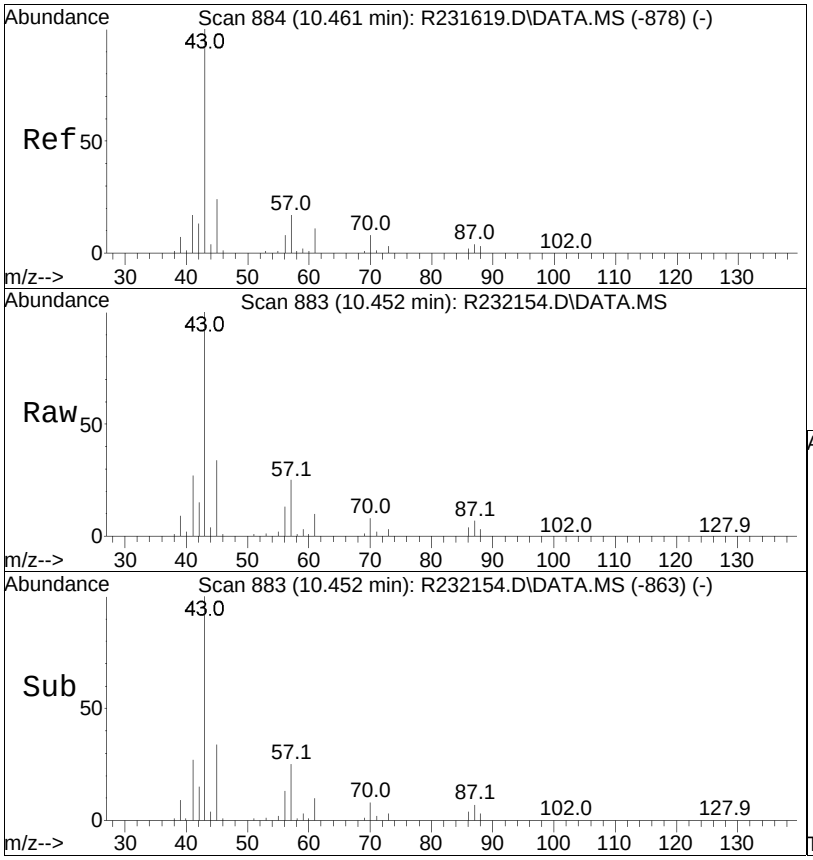


#37
cis-1,2-dichloroethene
Concen: 11.31 ppbV
RT: 10.19 min Scan# 855
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 61 Resp: 229028

Ion	Ratio	Lower	Upper
61	100		
96	84.7	67.1	100.7
98	55.1	45.0	67.6

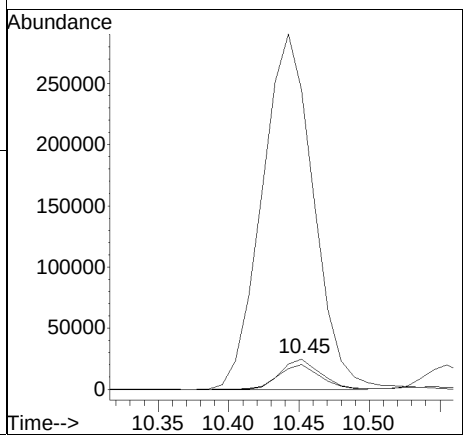


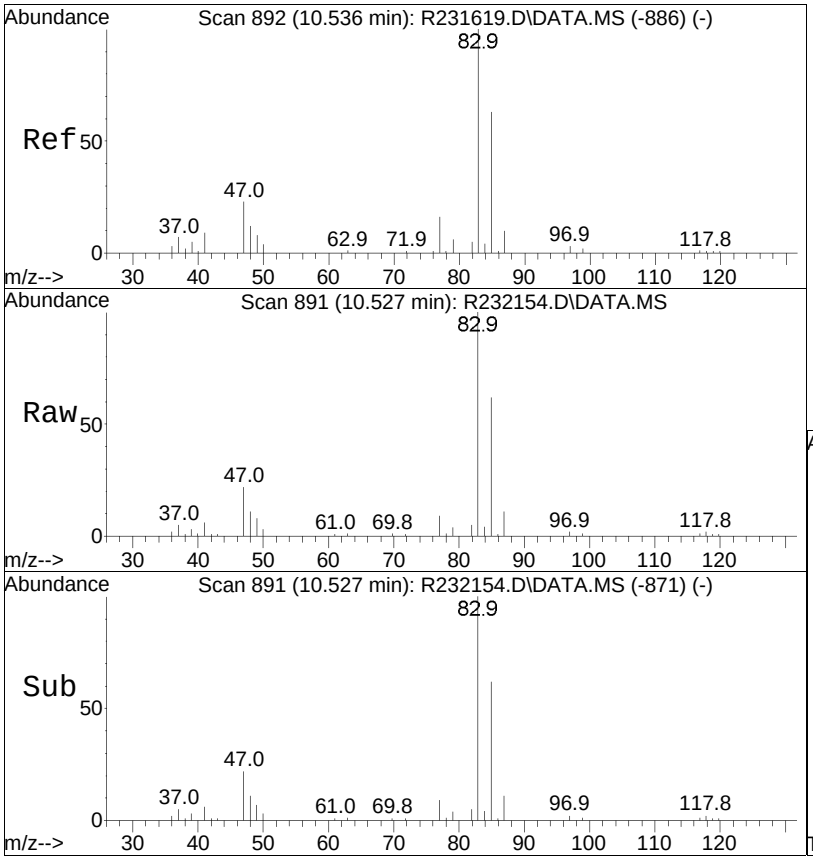


#38
Ethyl Acetate
Concen: 10.26 ppbV
RT: 10.45 min Scan# 883
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 61 Resp: 49474

Ion	Ratio	Lower	Upper
61	100		
70	82.1	62.9	94.3
43	988.9	780.3	1170.5

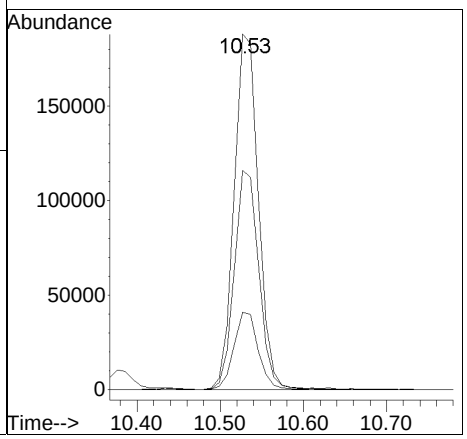


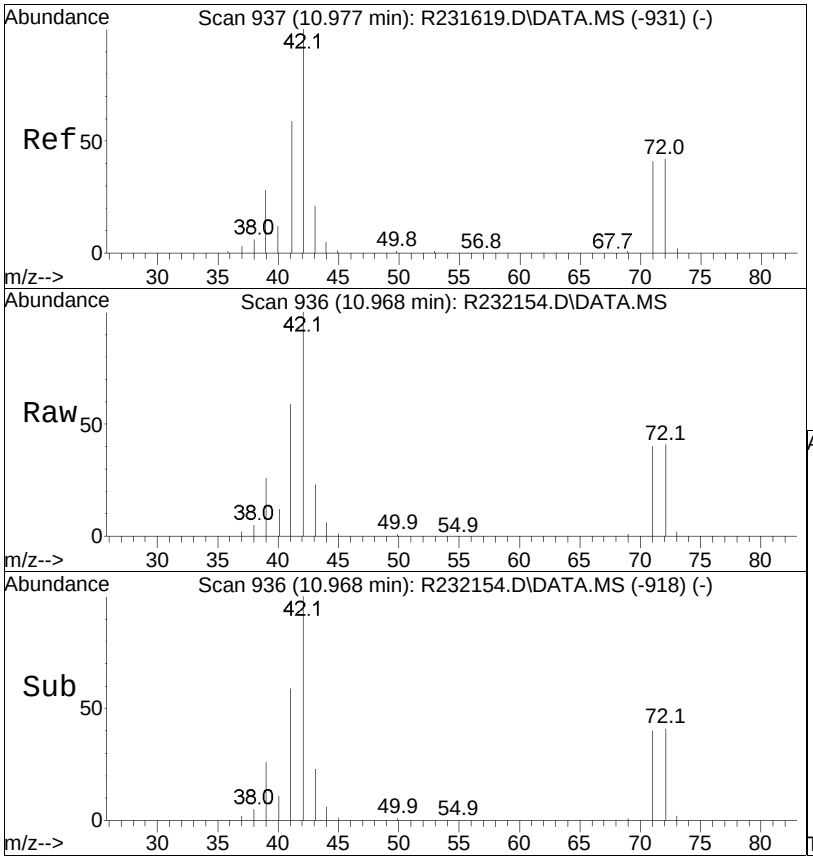


#39
chloroform
Concen: 10.15 ppbV
RT: 10.53 min Scan# 891
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 83 Resp: 381838

Ion	Ratio	Lower	Upper
83	100		
85	61.6	50.6	75.8
47	21.7	18.2	27.4

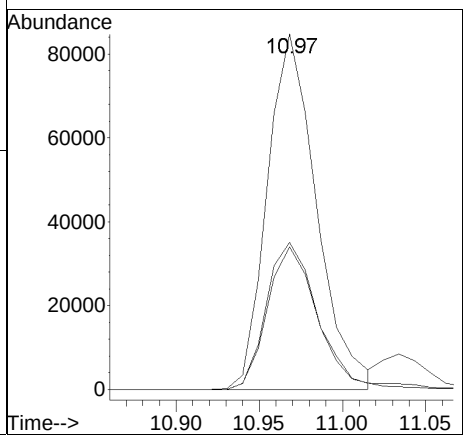


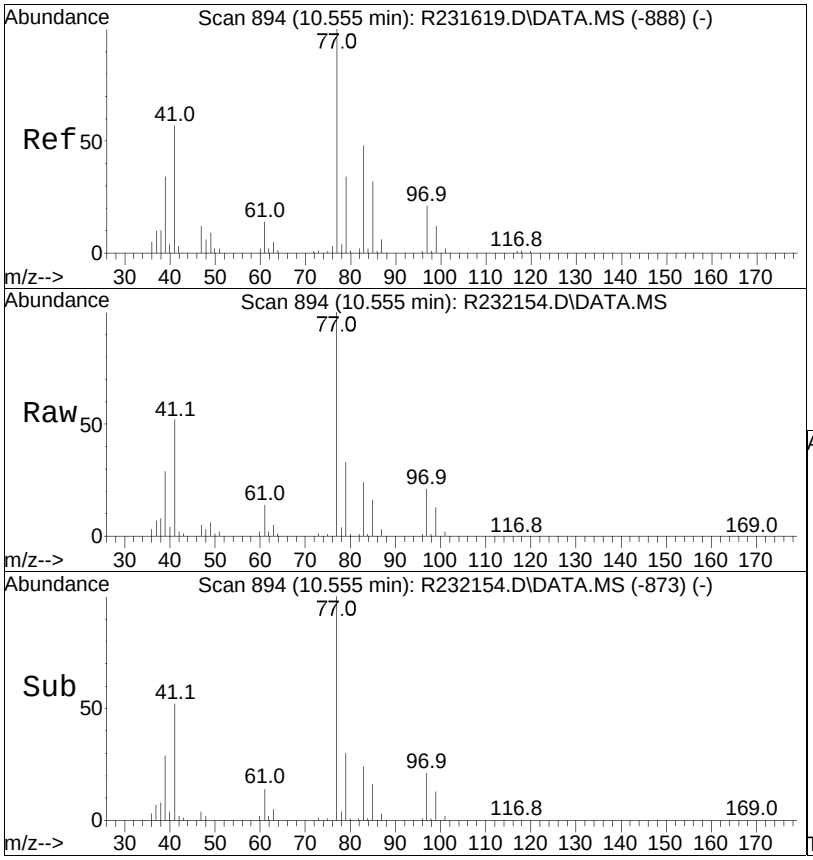


#40
Tetrahydrofuran
Concen: 9.95 ppbV
RT: 10.97 min Scan# 936
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 42 Resp: 174346

Ion	Ratio	Lower	Upper
42	100		
71	40.1	32.7	49.1
72	41.4	33.8	50.8

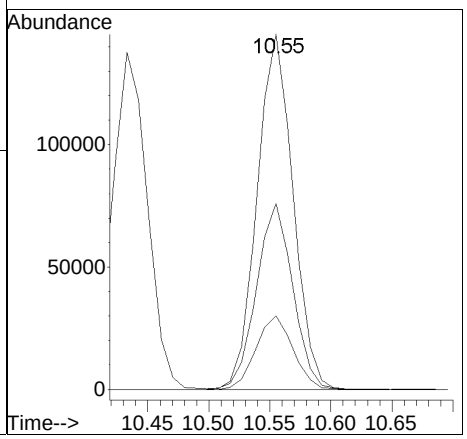


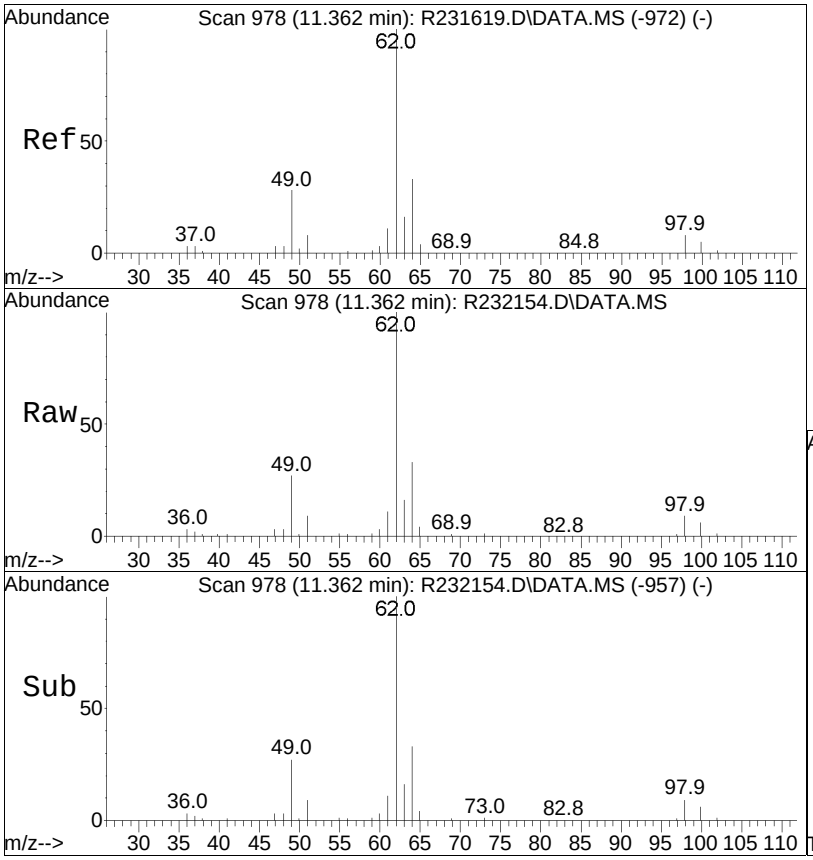


#41
2,2-dichloropropane
Concen: 9.22 ppbV
RT: 10.55 min Scan# 894
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 77 Resp: 296730

Ion	Ratio	Lower	Upper
77	100		
41	52.4	45.8	68.8
97	20.7	16.6	24.8

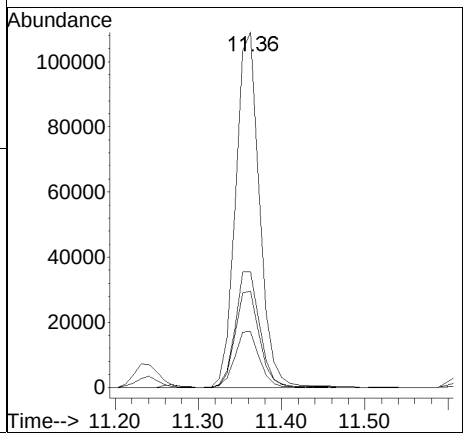


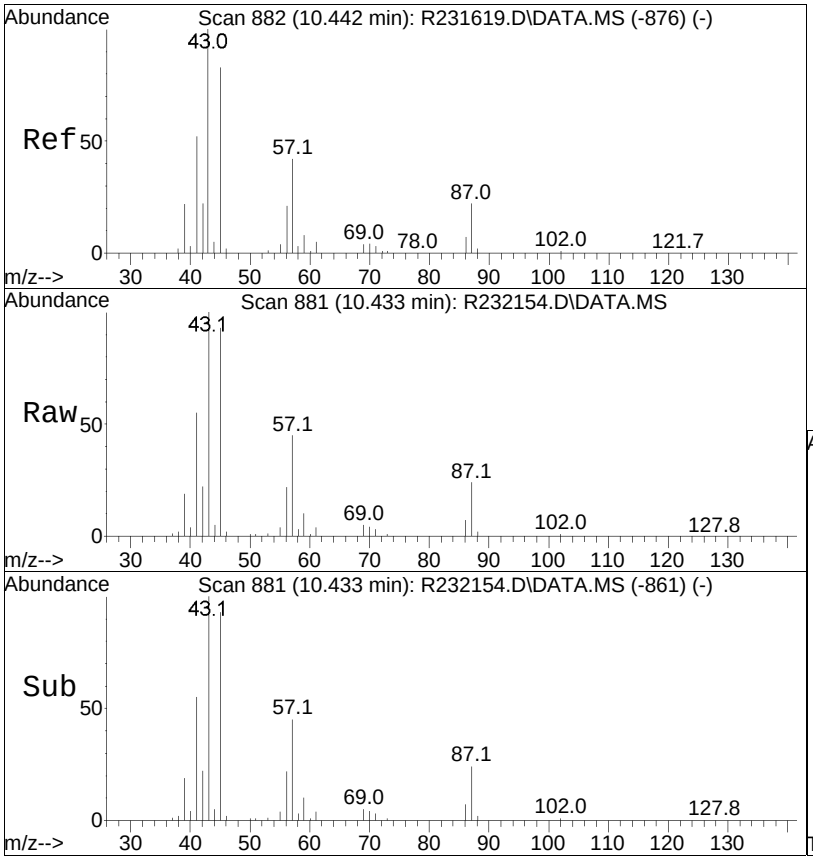


#42
1,2-dichloroethane
Concen: 9.52 ppbV
RT: 11.36 min Scan# 978
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 62 Resp: 218169

Ion	Ratio	Lower	Upper
62	100		
64	32.6	26.7	40.1
49	27.1	22.0	33.0
63	15.7	12.5	18.7

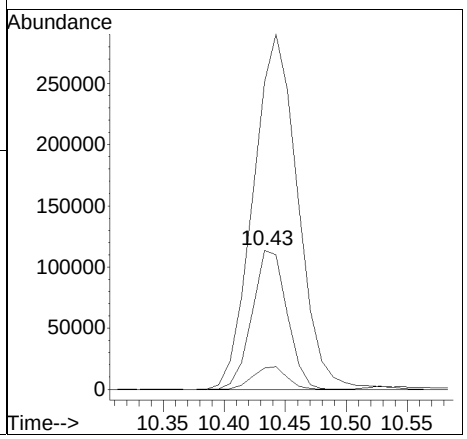


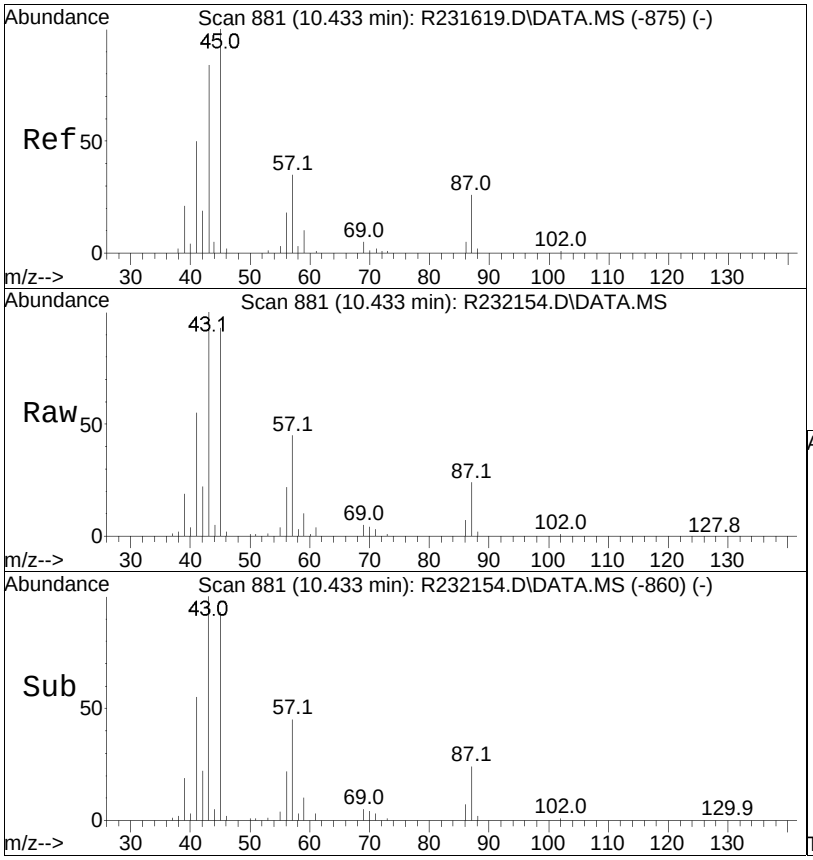


#44
hexane
Concen: 9.46 ppbV
RT: 10.43 min Scan# 881
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 57 Resp: 227067

Ion	Ratio	Lower	Upper
57	100		
43	221.0	192.7	289.1
86	15.4	13.1	19.7

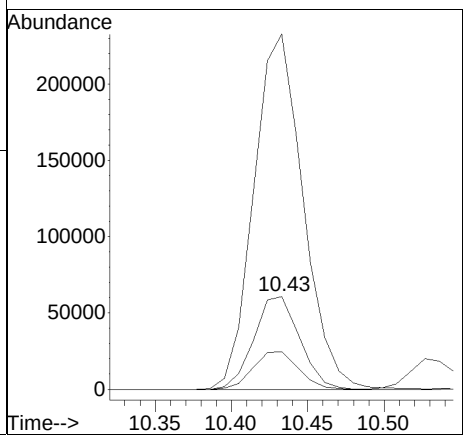


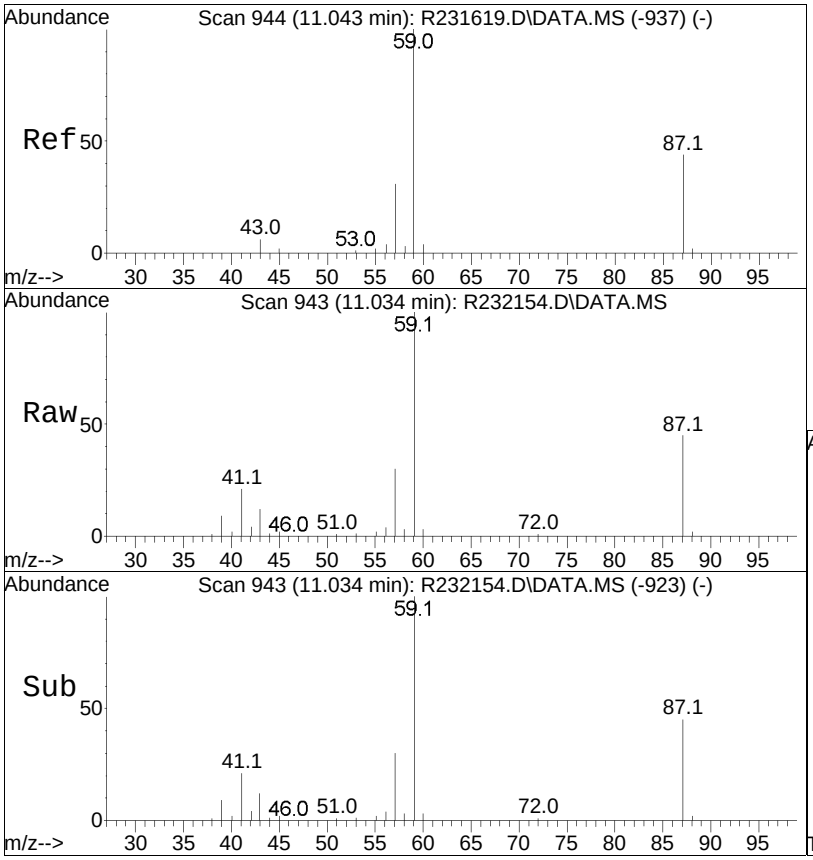


#45
diisopropyl ether
Concen: 9.00 ppbV
RT: 10.43 min Scan# 881
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 87 Resp: 127534

Ion	Ratio	Lower	Upper
87	100		
59	40.7	30.6	46.0
45	382.7	308.9	463.3

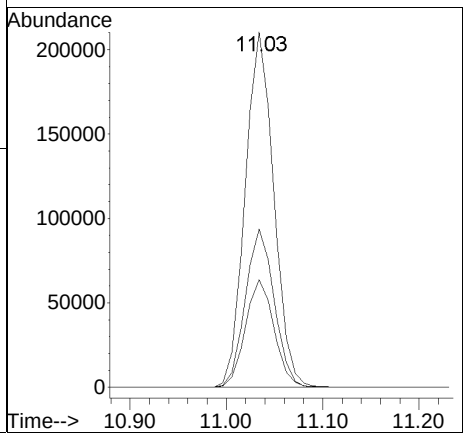


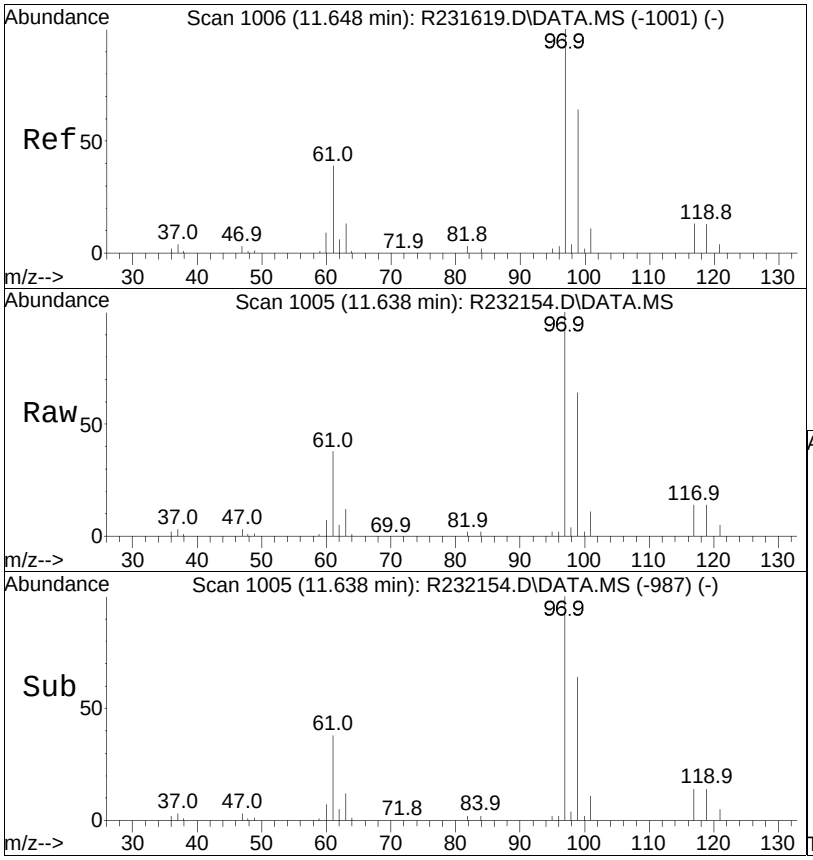


#46
tert-butyl ethyl ether
Concen: 8.87 ppbV
RT: 11.03 min Scan# 943
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 59 Resp: 434570

Ion	Ratio	Lower	Upper
59	100		
87	44.5	35.4	53.2
57	30.3	24.5	36.7

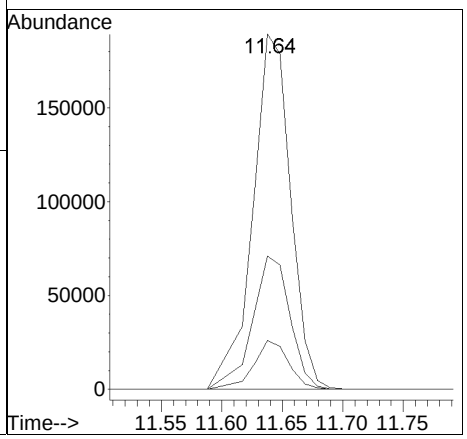


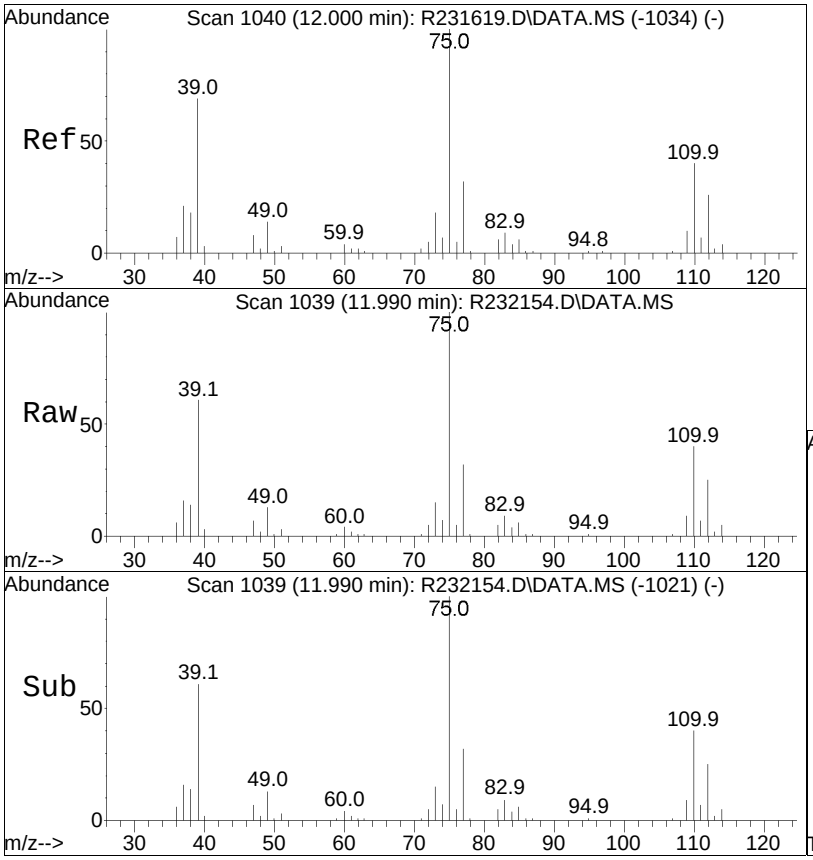


#48
1,1,1-trichloroethane
Concen: 9.20 ppbV
RT: 11.64 min Scan# 1005
Delta R.T. -0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 97 Resp: 448630

Ion	Ratio	Lower	Upper
97	100		
61	37.5	31.0	46.4
119	13.8	10.2	15.2

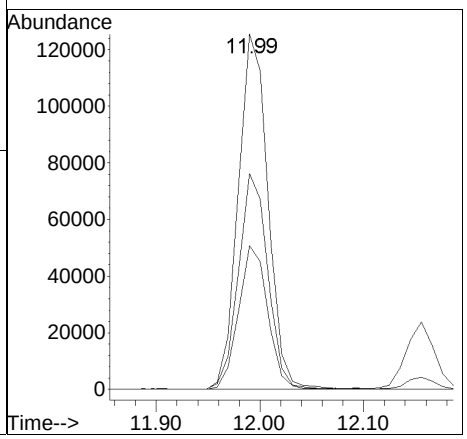


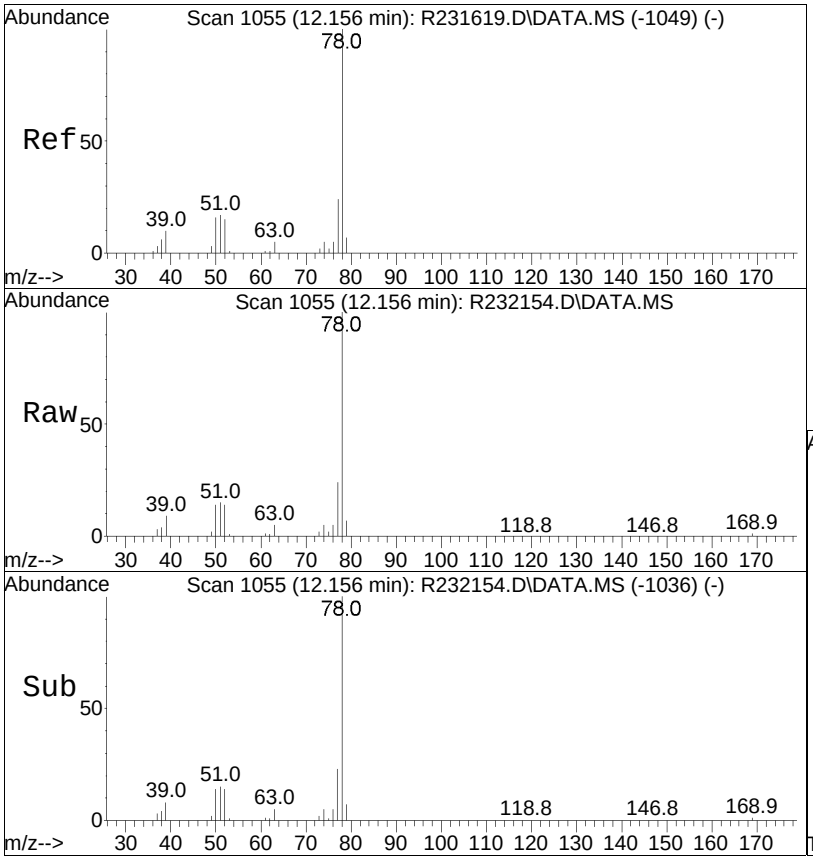


#49
1,1-dichloropropene
Concen: 9.42 ppbV
RT: 11.99 min Scan# 1039
Delta R.T. -0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 75 Resp: 250772

Ion	Ratio	Lower	Upper
75	100		
110	40.4	32.2	48.2
39	60.8	55.4	83.2

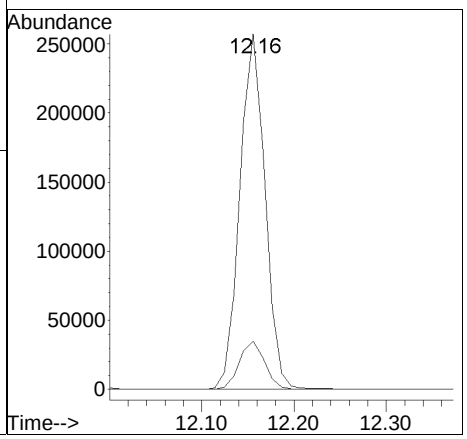


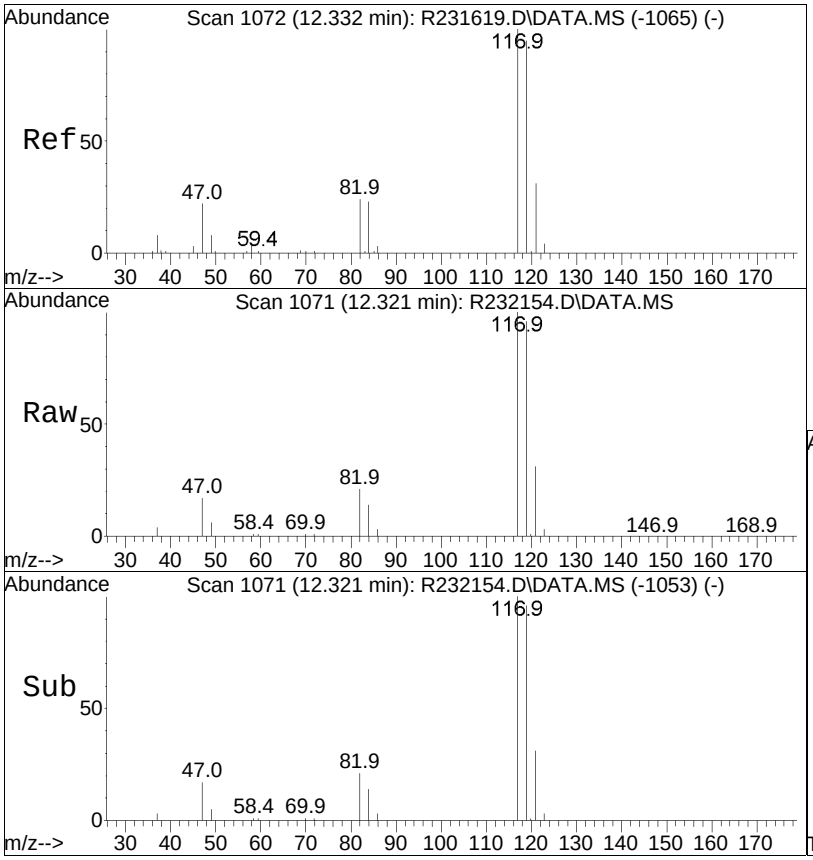


#50
benzene
Concen: 9.73 ppbV
RT: 12.16 min Scan# 1055
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 78 Resp: 489942

Ion	Ratio	Lower	Upper
78	100		
52	13.6	11.6	17.4

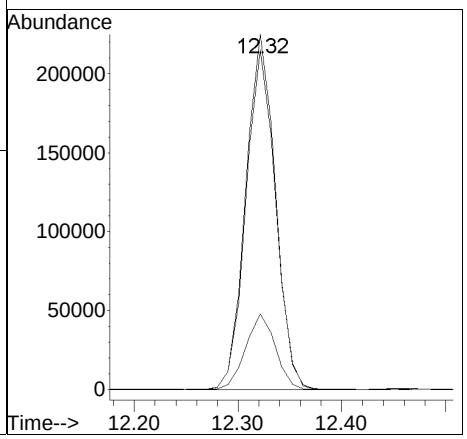


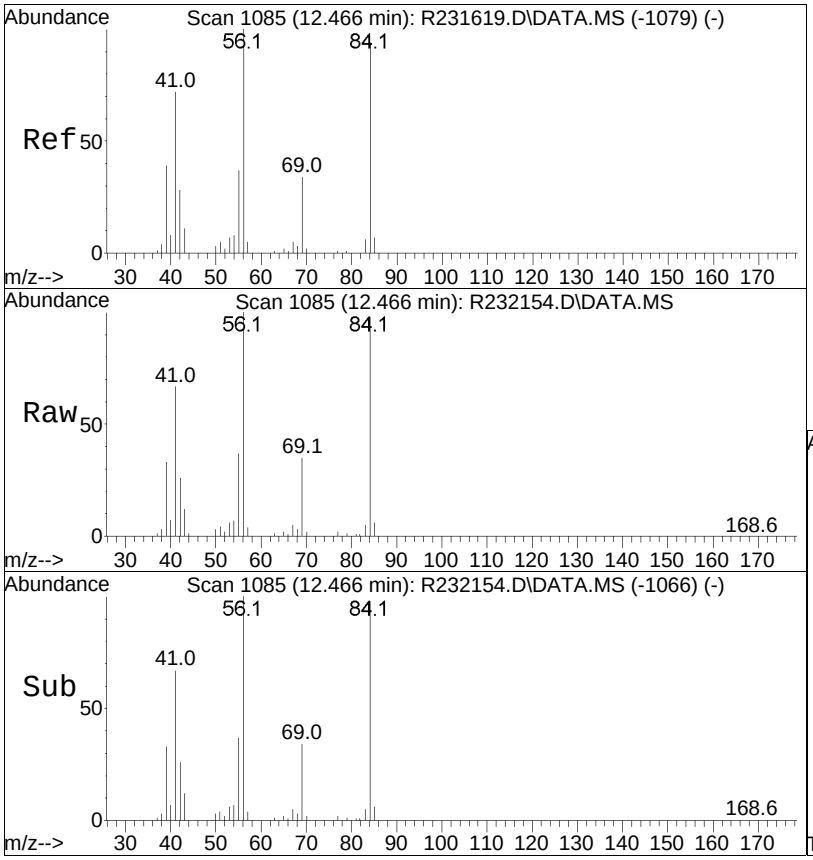


#52
carbon tetrachloride
Concen: 9.25 ppbV
RT: 12.32 min Scan# 1071
Delta R.T. -0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:117 Resp: 446531

Ion	Ratio	Lower	Upper
117	100		
119	95.5	76.2	114.4
82	21.3	19.1	28.7

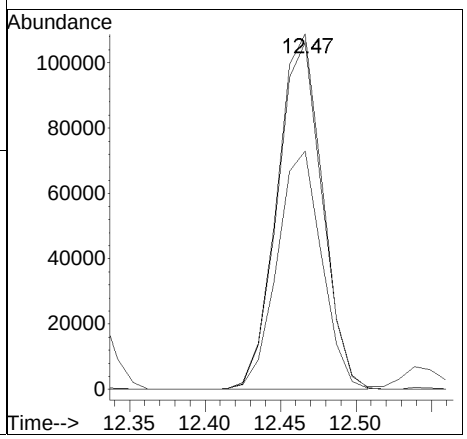


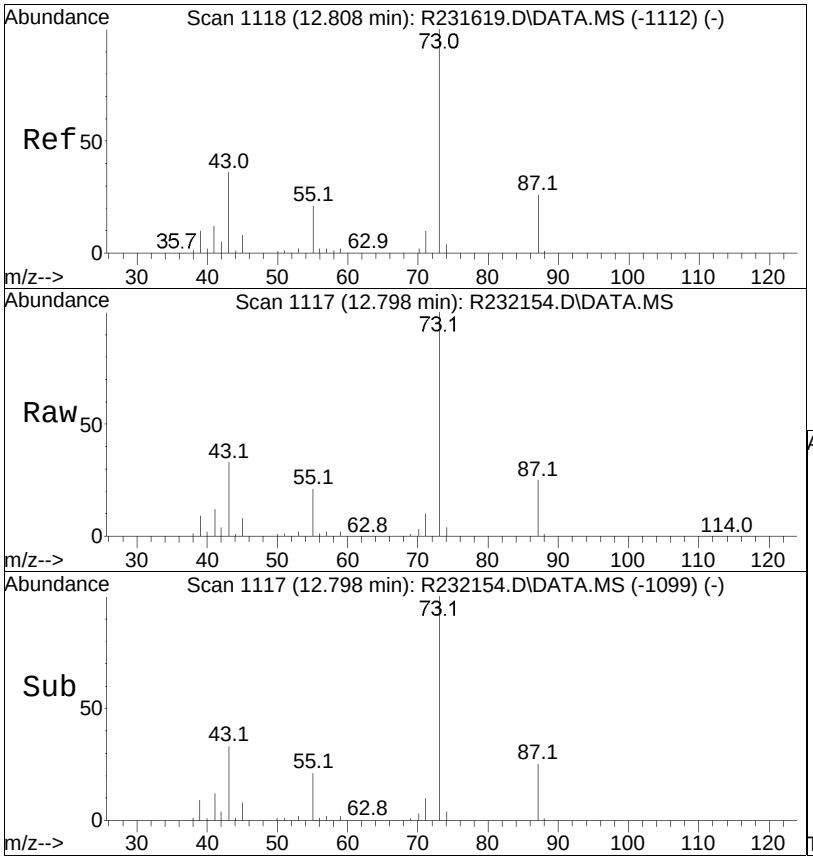


#53
cyclohexane
Concen: 9.49 ppbV
RT: 12.47 min Scan# 1085
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 56 Resp: 228179

Ion	Ratio	Lower	Upper
56	100		
84	97.6	75.0	112.4
41	67.1	57.9	86.9

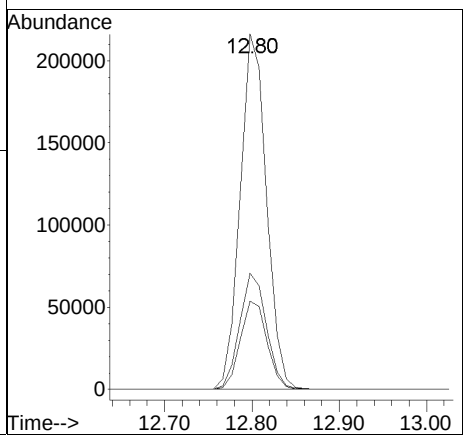


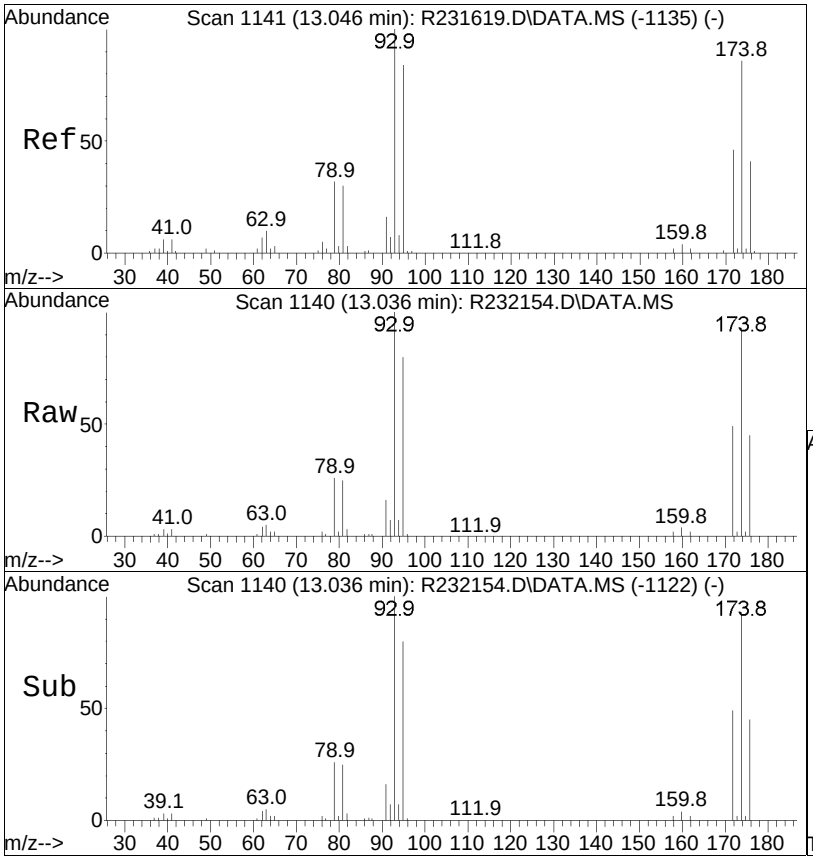


#54
tert-amyl methyl ether
Concen: 9.02 ppbV
RT: 12.80 min Scan# 1117
Delta R.T. -0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 73 Resp: 452934

Ion	Ratio	Lower	Upper
73	100		
43	32.7	29.0	43.4
87	24.8	20.7	31.1

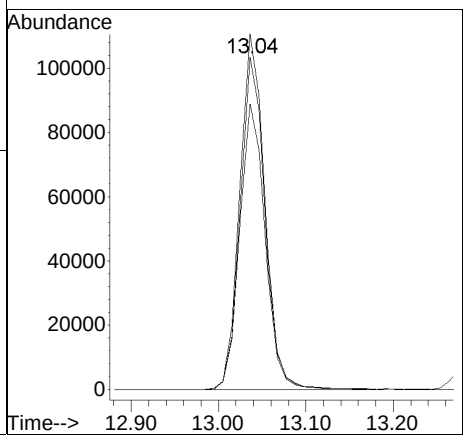


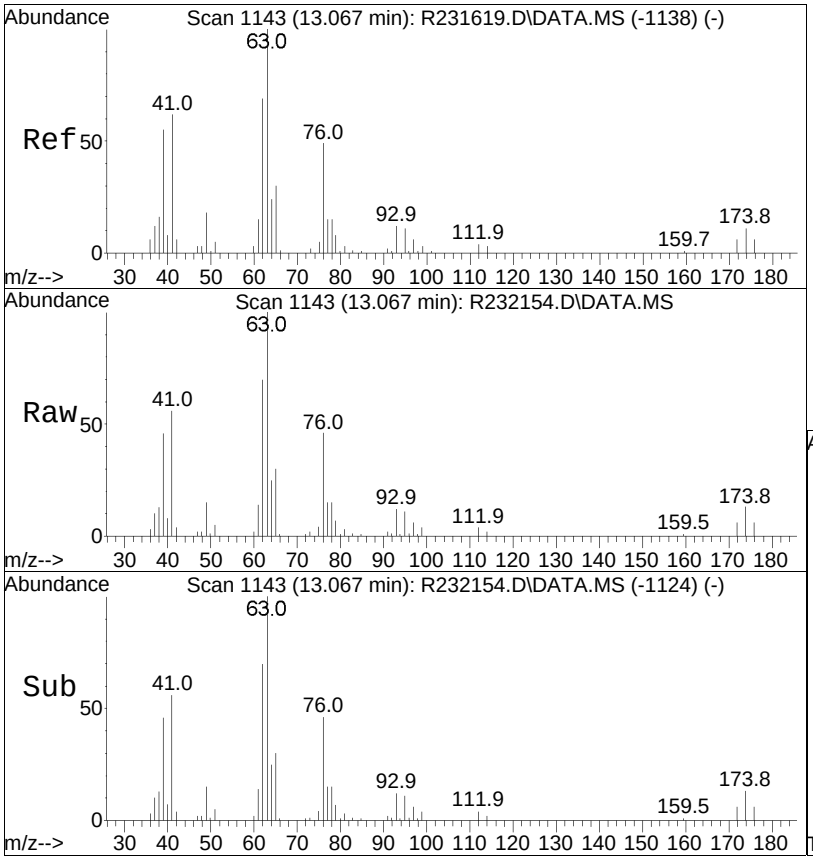


#55
dibromomethane
Concen: 8.57 ppbV
RT: 13.04 min Scan# 1140
Delta R.T. -0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 93 Resp: 220486

Ion	Ratio	Lower	Upper
93	100		
174	93.5	69.1	103.7
95	80.4	66.9	100.3

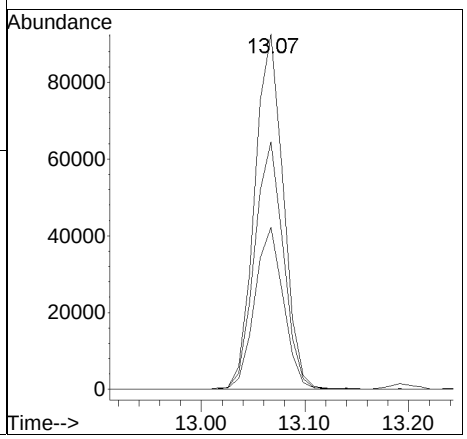


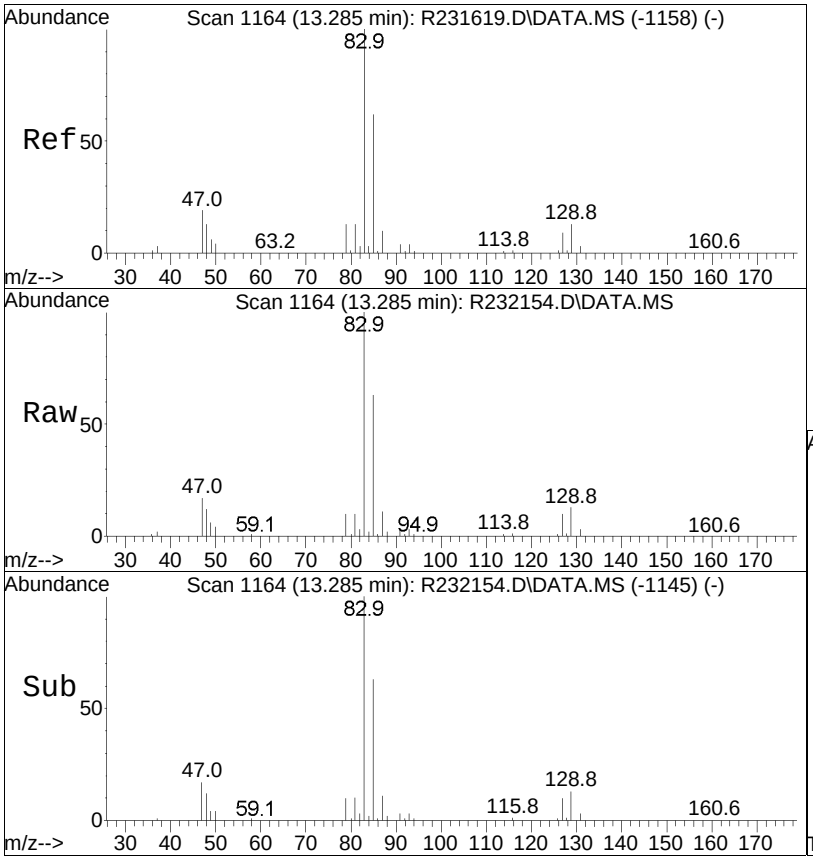


#56
1,2-dichloropropane
Concen: 9.71 ppbV
RT: 13.07 min Scan# 1143
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 63 Resp: 178070

Ion	Ratio	Lower	Upper
63	100		
62	69.7	55.1	82.7
39	45.6	44.3	66.5

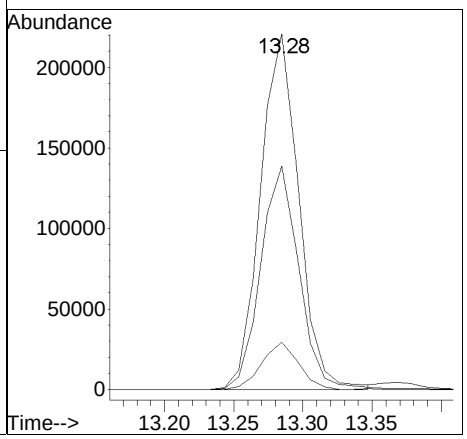


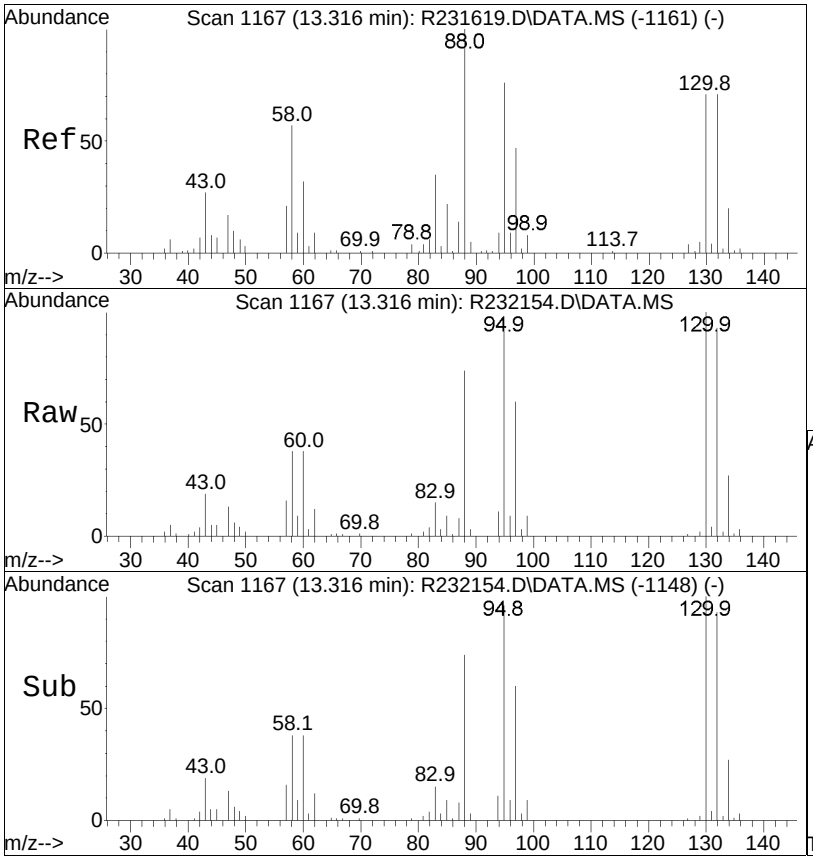


#57
bromodichloromethane
Concen: 9.12 ppbV
RT: 13.28 min Scan# 1164
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 83 Resp: 425398

Ion	Ratio	Lower	Upper
83	100		
85	62.9	49.7	74.5
129	13.3	10.2	15.4

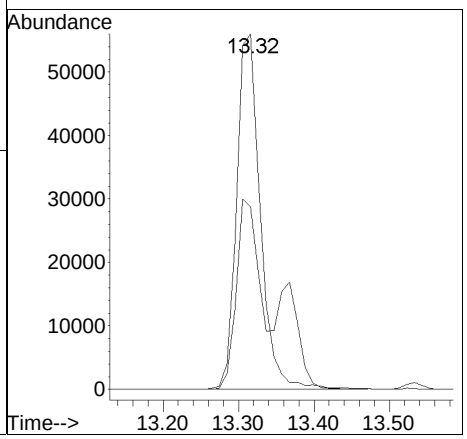


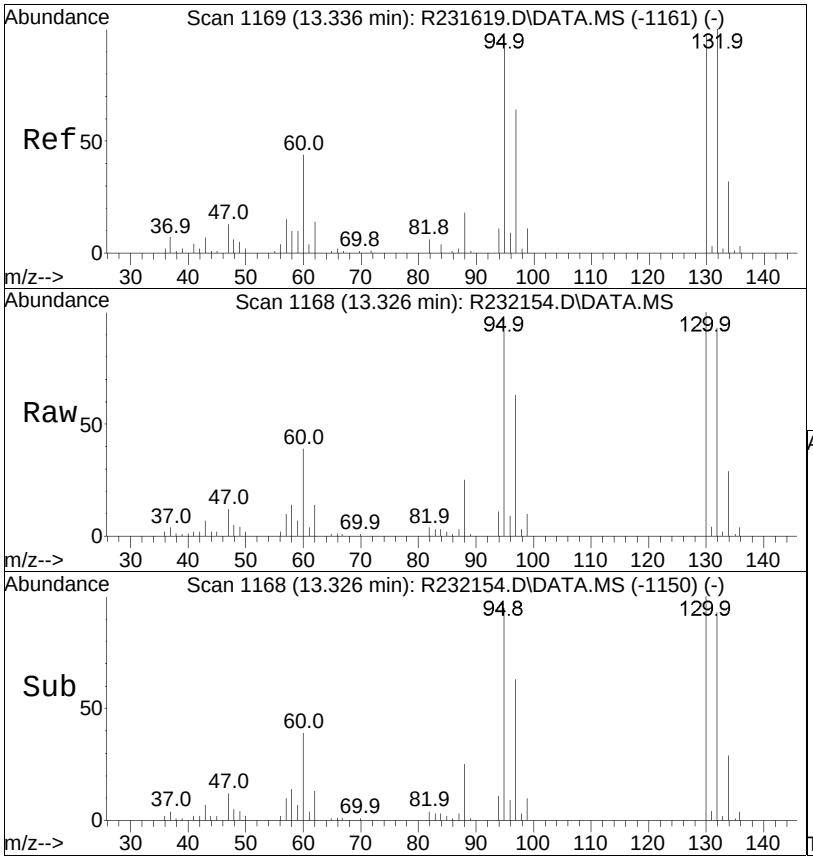


#58
1,4-dioxane
Concen: 9.67 ppbV
RT: 13.32 min Scan# 1167
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 88 Resp: 122495

Ion	Ratio	Lower	Upper
88	100		
58	51.5	45.3	67.9

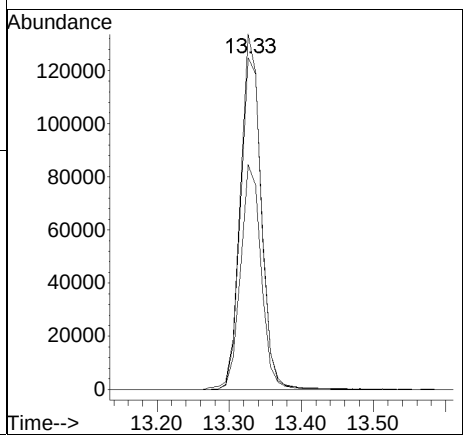


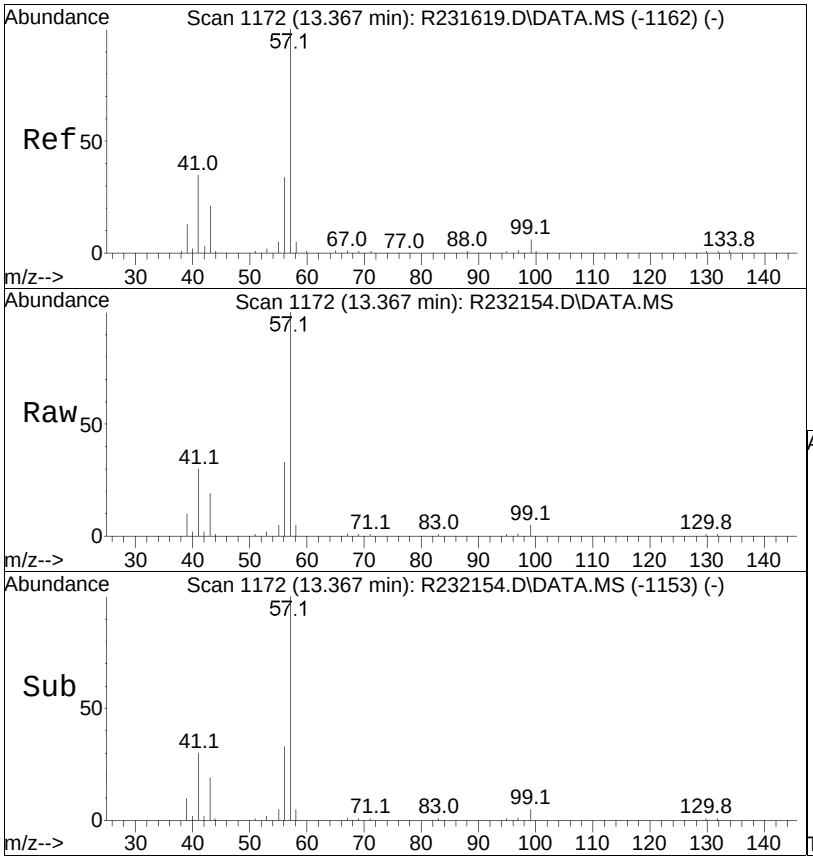


#59
trichloroethene
Concen: 9.63 ppbV
RT: 13.33 min Scan# 1168
Delta R.T. -0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:130 Resp: 266429

Ion	Ratio	Lower	Upper
130	100		
132	93.4	81.7	122.5
97	63.2	52.6	78.8

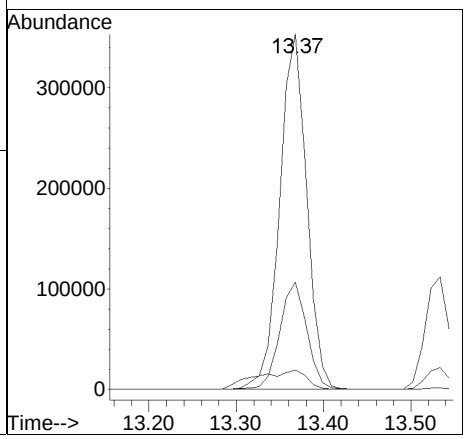


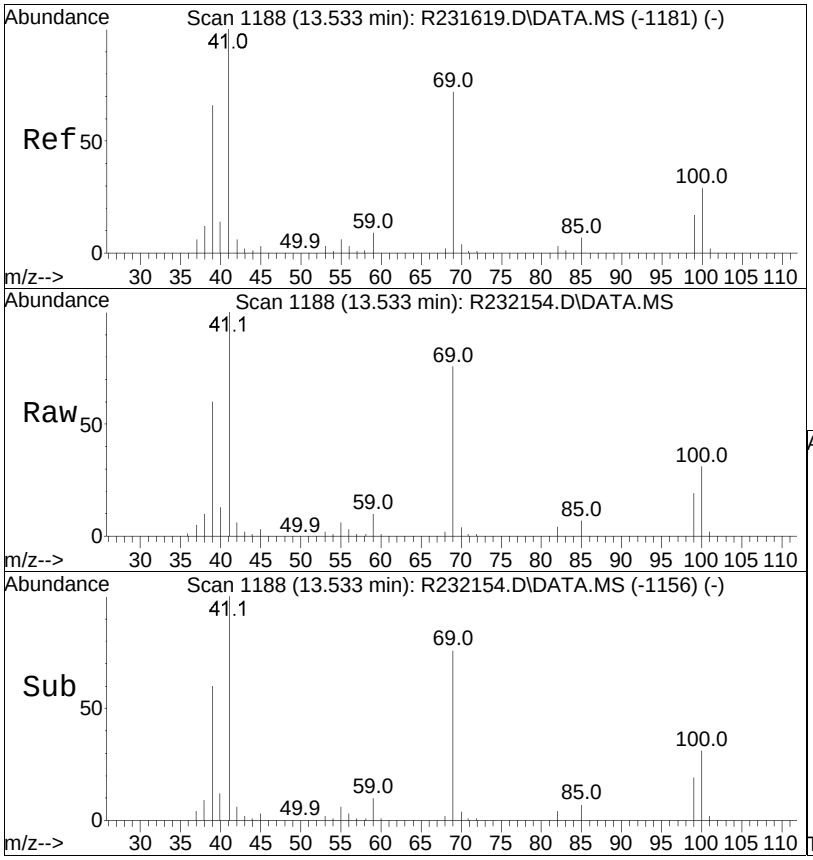


#60
2,2,4-trimethylpentane
Concen: 9.55 ppbV
RT: 13.37 min Scan# 1172
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 57 Resp: 770096

Ion	Ratio	Lower	Upper
57	100		
99	5.4	4.7	7.1
41	30.2	28.0	42.0

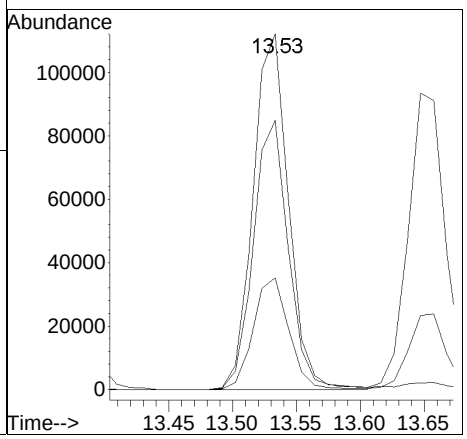


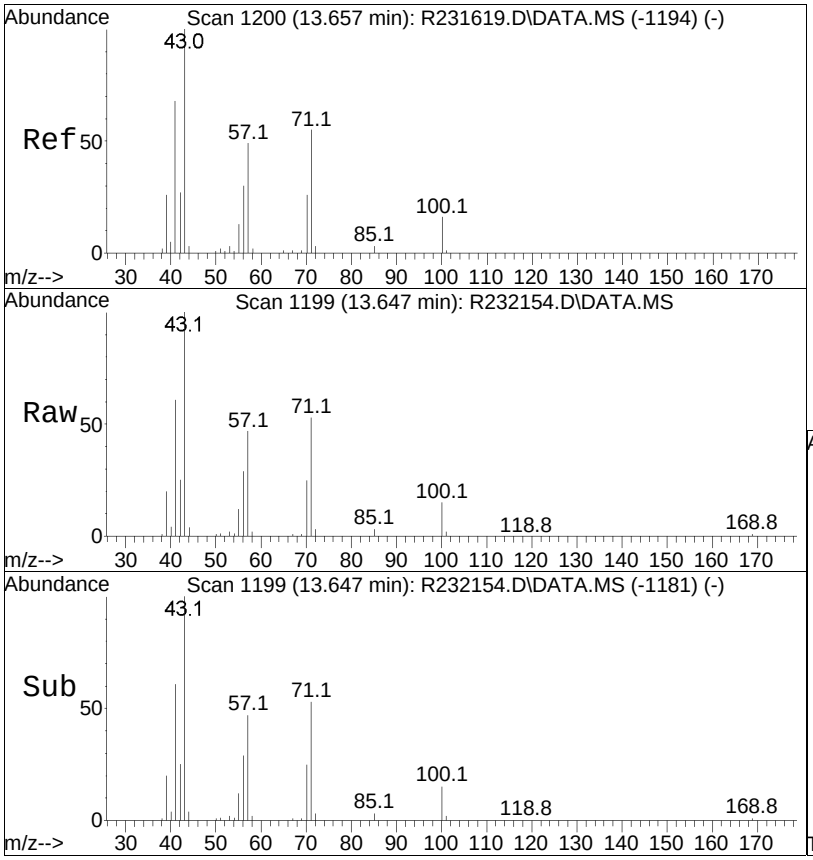


#61
methyl methacrylate
Concen: 8.77 ppbV
RT: 13.53 min Scan# 1188
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 41 Resp: 215863

Ion	Ratio	Lower	Upper
41	100		
69	75.1	56.9	85.3
100	31.6	22.9	34.3

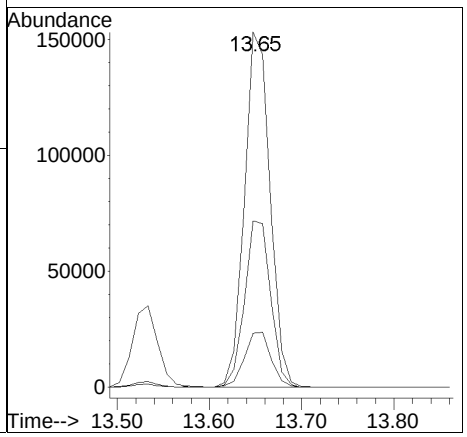


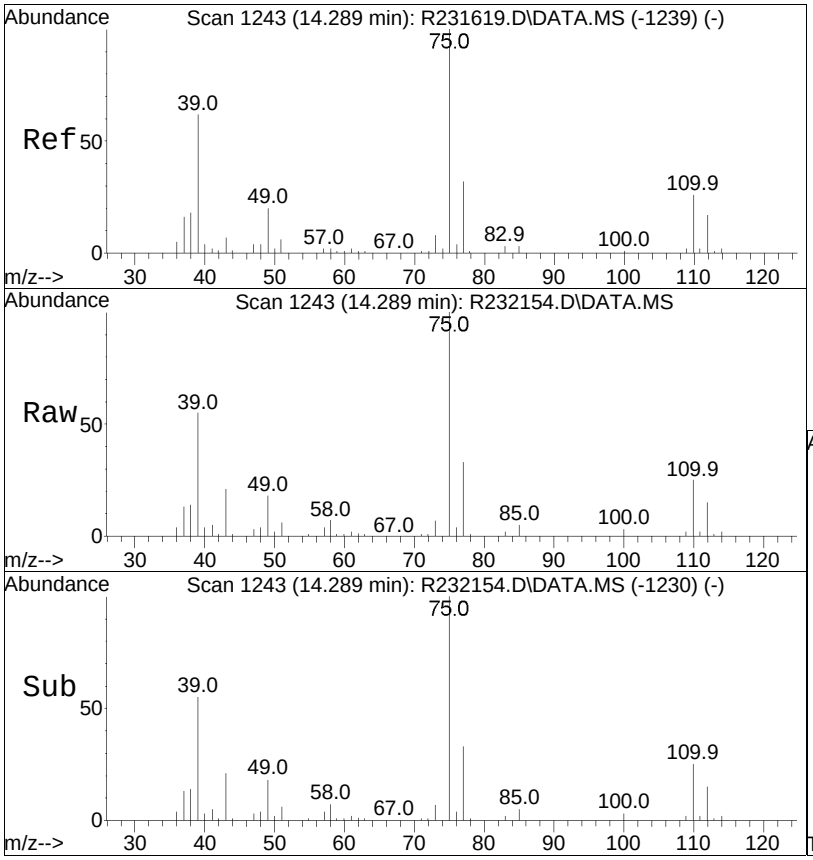


#62
heptane
Concen: 9.57 ppbV
RT: 13.65 min Scan# 1199
Delta R.T. -0.010 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 295504

Ion	Ratio	Lower	Upper
43	100		
57	46.9	38.7	58.1
100	15.2	12.7	19.1

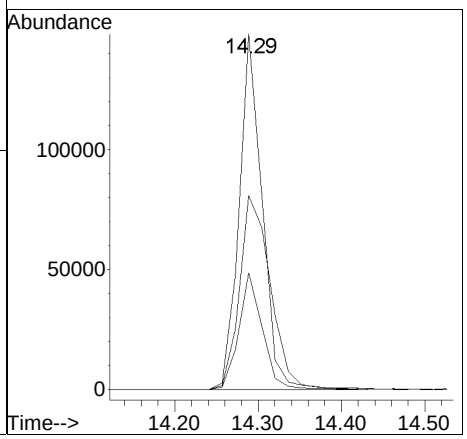


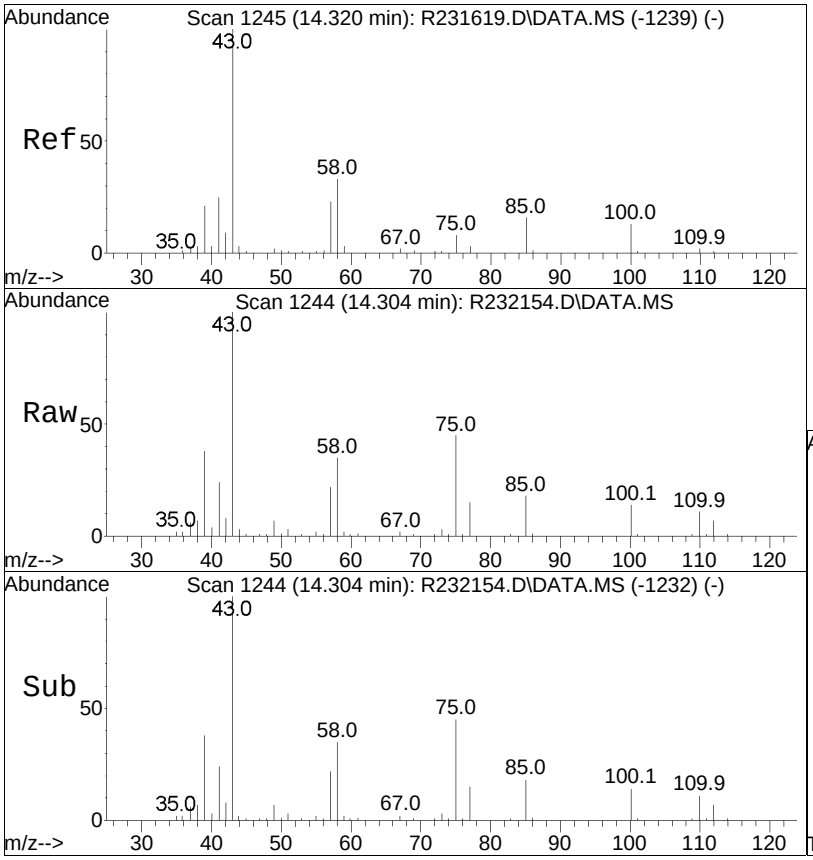


#63
cis-1,3-dichloropropene
Concen: 10.39 ppbV
RT: 14.29 min Scan# 1243
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 75 Resp: 285625

Ion	Ratio	Lower	Upper
75	100		
39	54.5	49.8	74.8
77	32.8	25.8	38.8

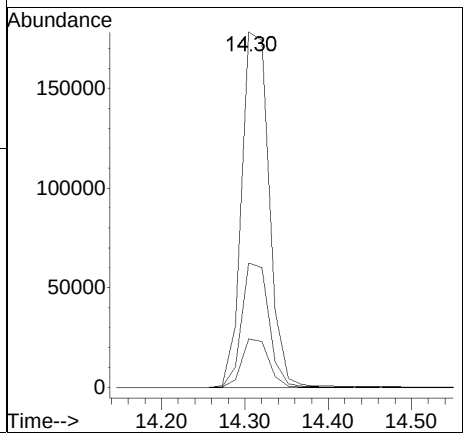


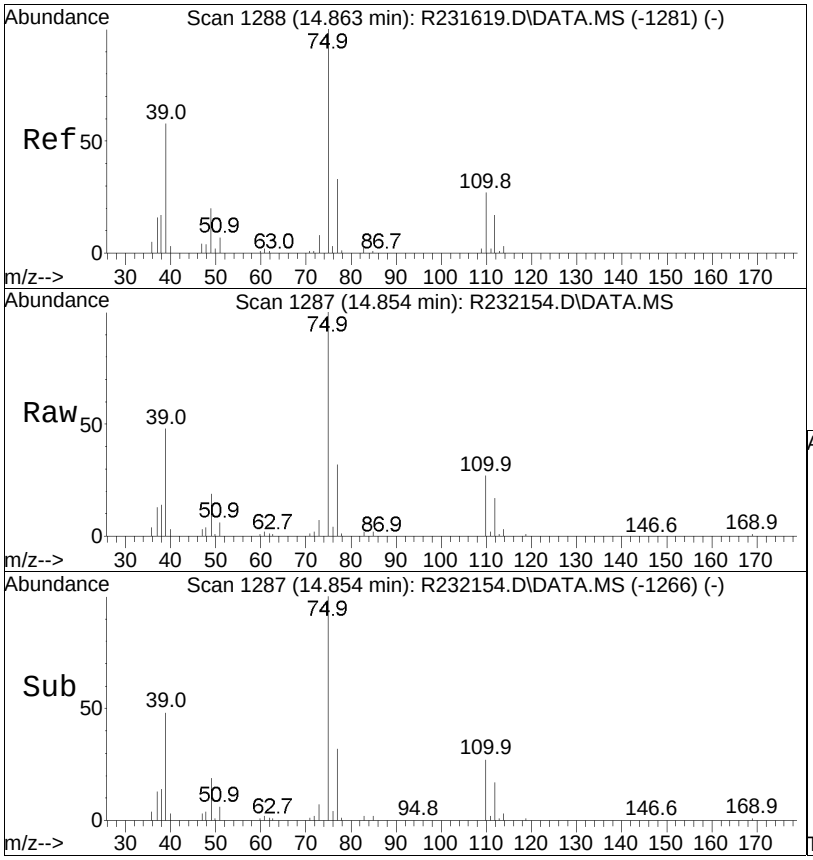


#64
4-methyl-2-pentanone
Concen: 9.30 ppbV
RT: 14.30 min Scan# 1244
Delta R.T. -0.016 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 410450

Ion	Ratio	Lower	Upper
43	100		
58	35.0	26.3	39.5
100	13.7	10.5	15.7

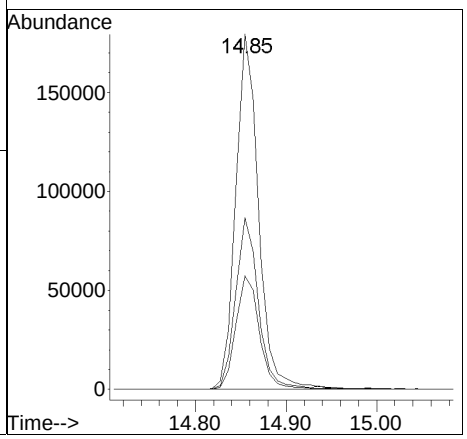


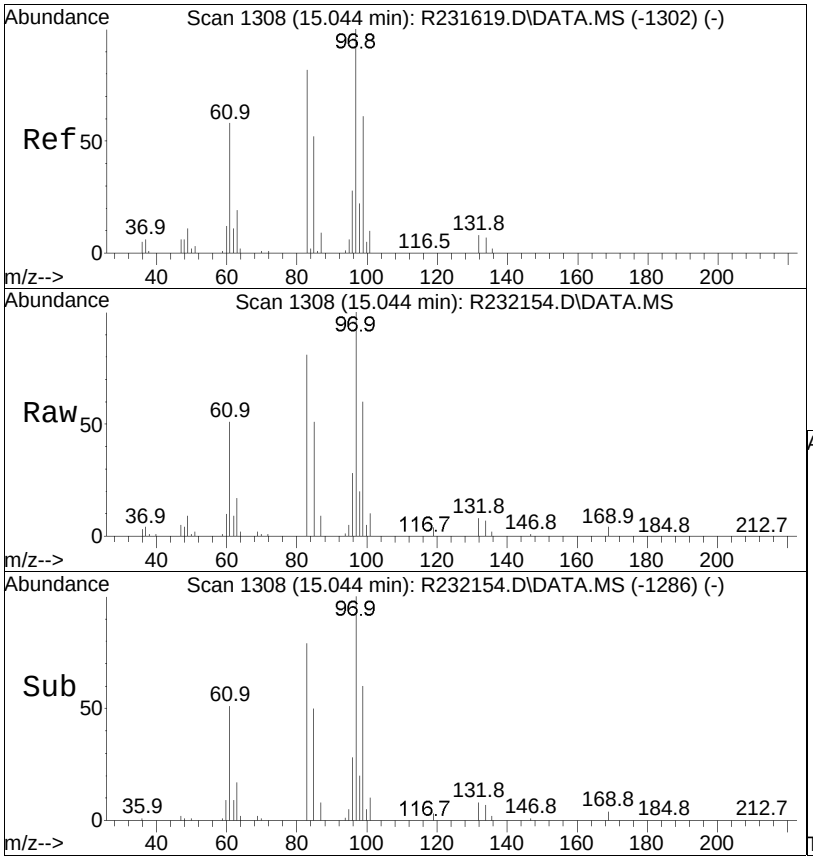


#65
trans-1,3-dichloropropene
Concen: 8.57 ppbV
RT: 14.85 min Scan# 1287
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 75 Resp: 315442

Ion	Ratio	Lower	Upper
75	100		
77	31.9	26.7	40.1
39	48.3	46.6	69.8

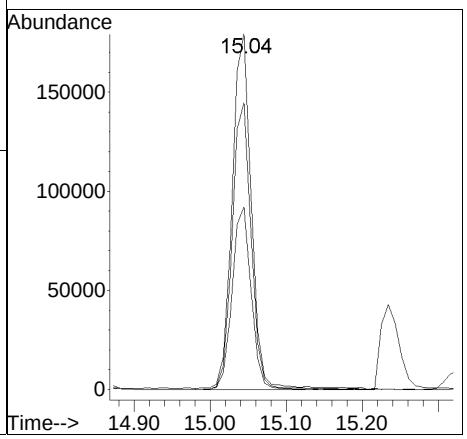


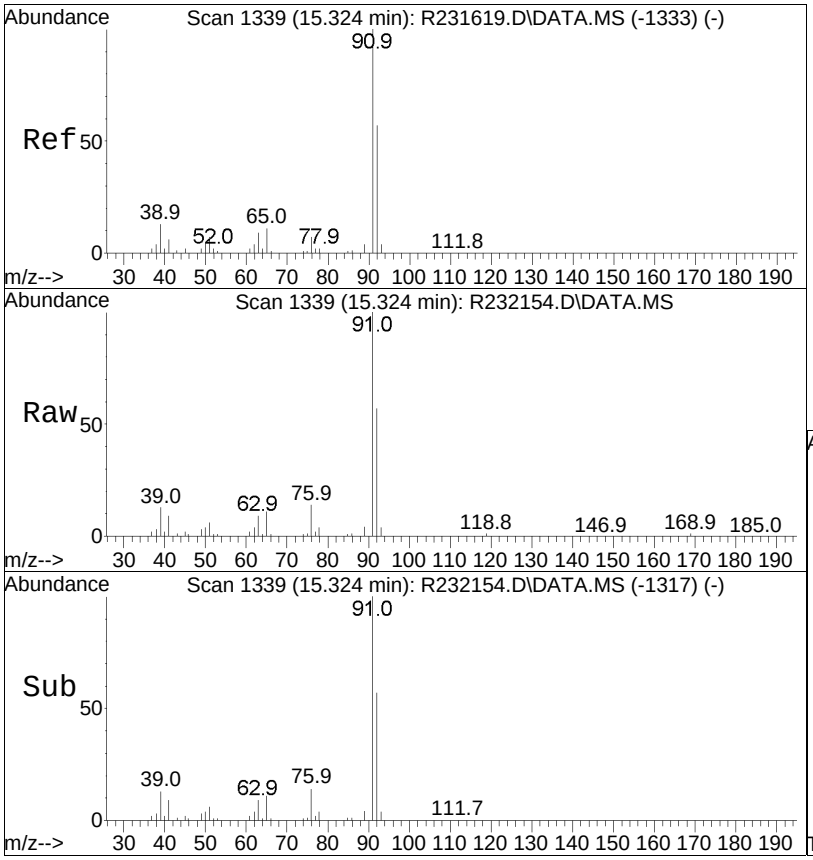


#66
1,1,2-trichloroethane
Concen: 10.27 ppbV
RT: 15.04 min Scan# 1308
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 97 Resp: 317971

Ion	Ratio	Lower	Upper
97	100		
83	80.7	65.6	98.4
61	51.4	46.5	69.7

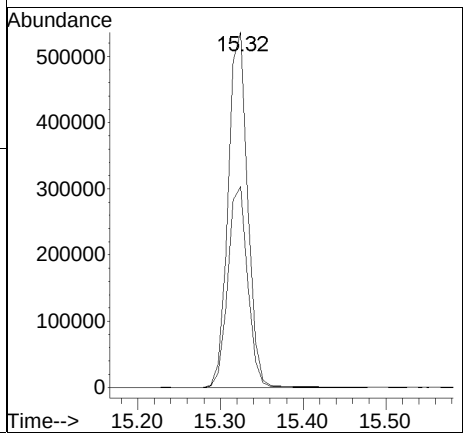


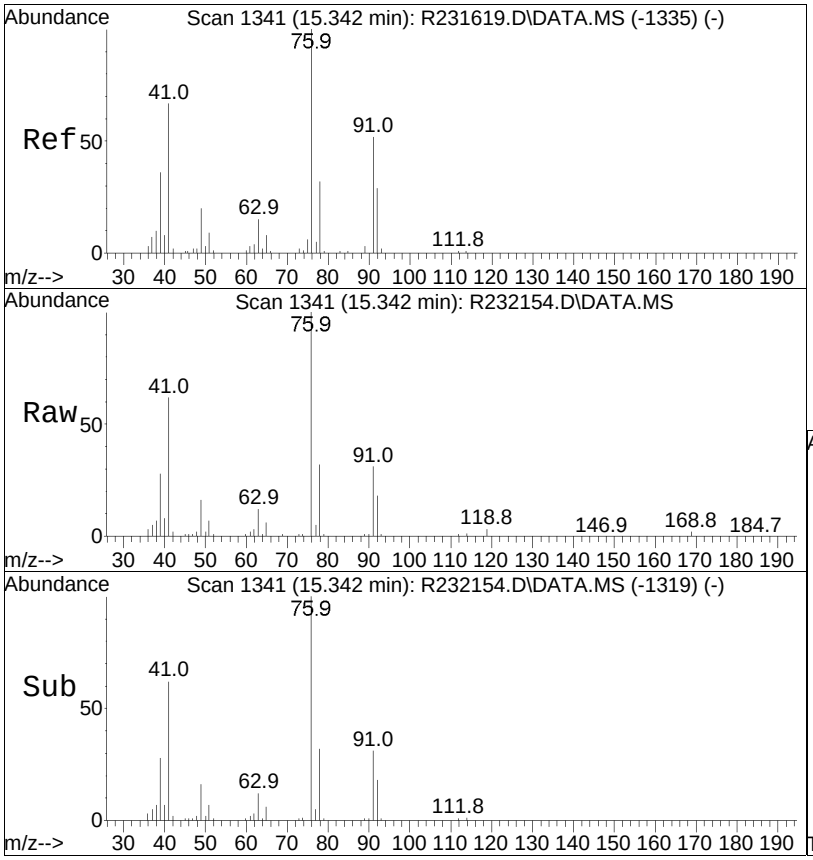


#68
toluene
Concen: 10.97 ppbV
RT: 15.32 min Scan# 1339
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 91 Resp: 881048

Ion	Ratio	Lower	Upper
91	100		
92	56.5	46.0	69.0

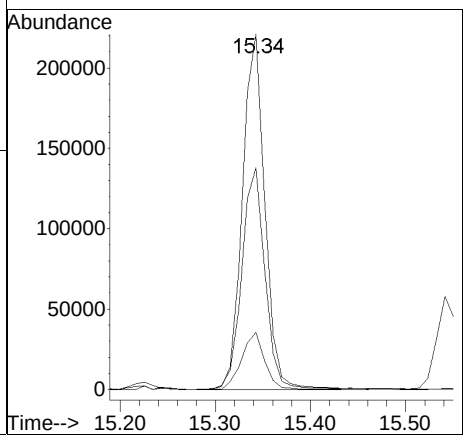


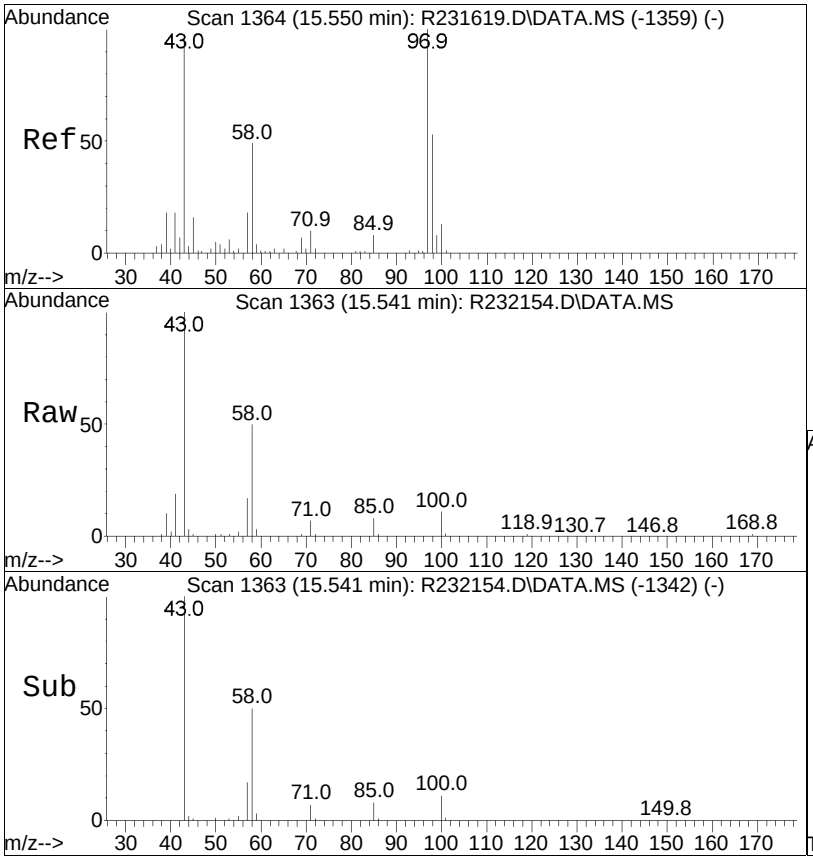


#71
1,3-dichloropropane
Concen: 10.08 ppbV
RT: 15.34 min Scan# 1341
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 76 Resp: 363472

Ion	Ratio	Lower	Upper
76	100		
41	62.4	53.8	80.8
49	16.1	15.9	23.9

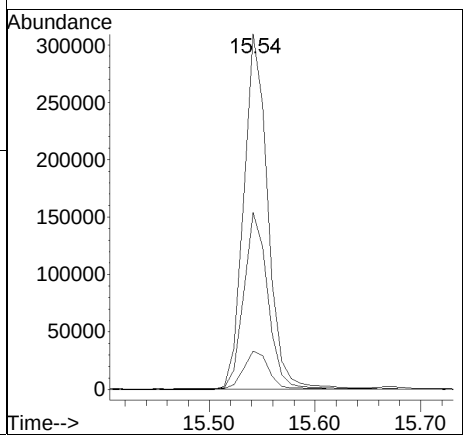


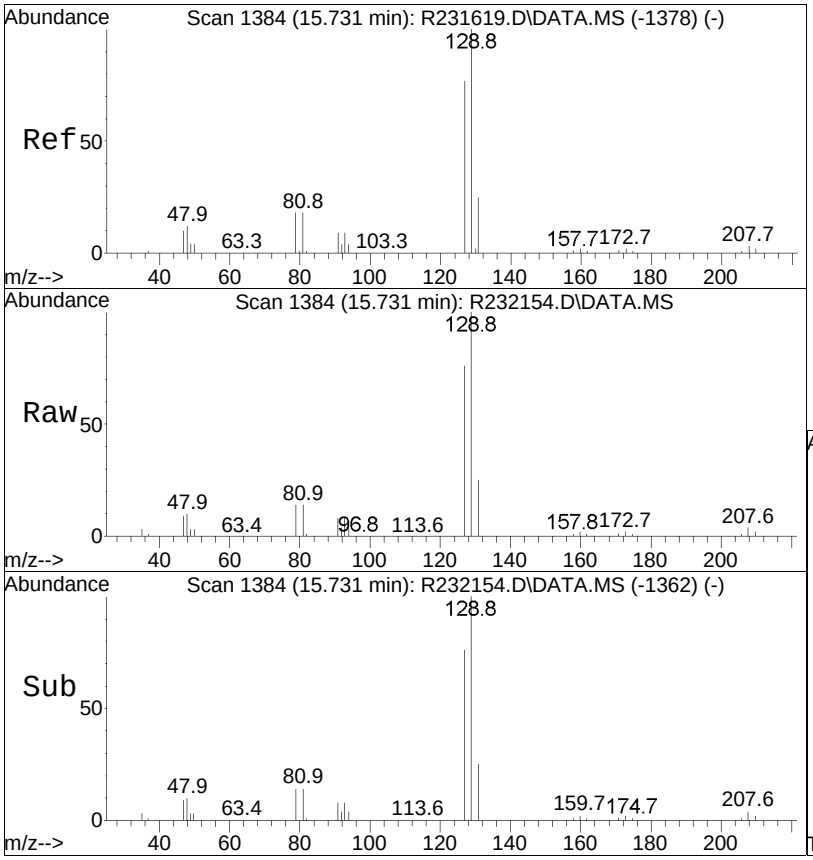


#72
2-hexanone
Concen: 9.98 ppbV
RT: 15.54 min Scan# 1363
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 490094

Ion	Ratio	Lower	Upper
43	100		
58	49.8	41.6	62.4
100	10.8	11.0	16.4#

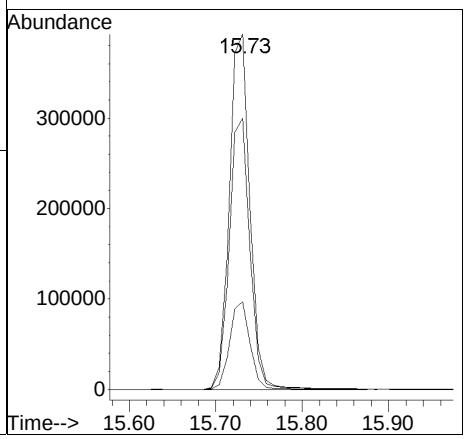


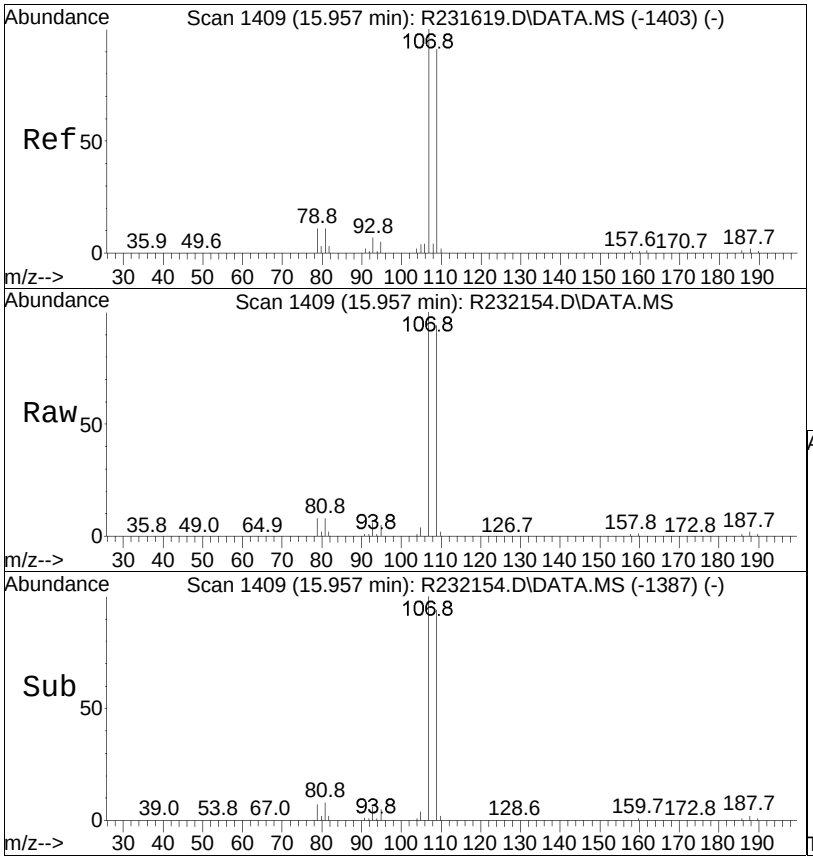


#74
dibromochloromethane
Concen: 10.38 ppbV
RT: 15.73 min Scan# 1384
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:129 Resp: 650460

Ion	Ratio	Lower	Upper
129	100		
127	76.3	61.4	92.2
131	24.7	19.7	29.5

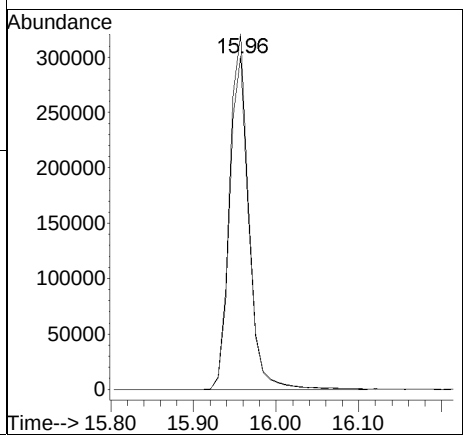


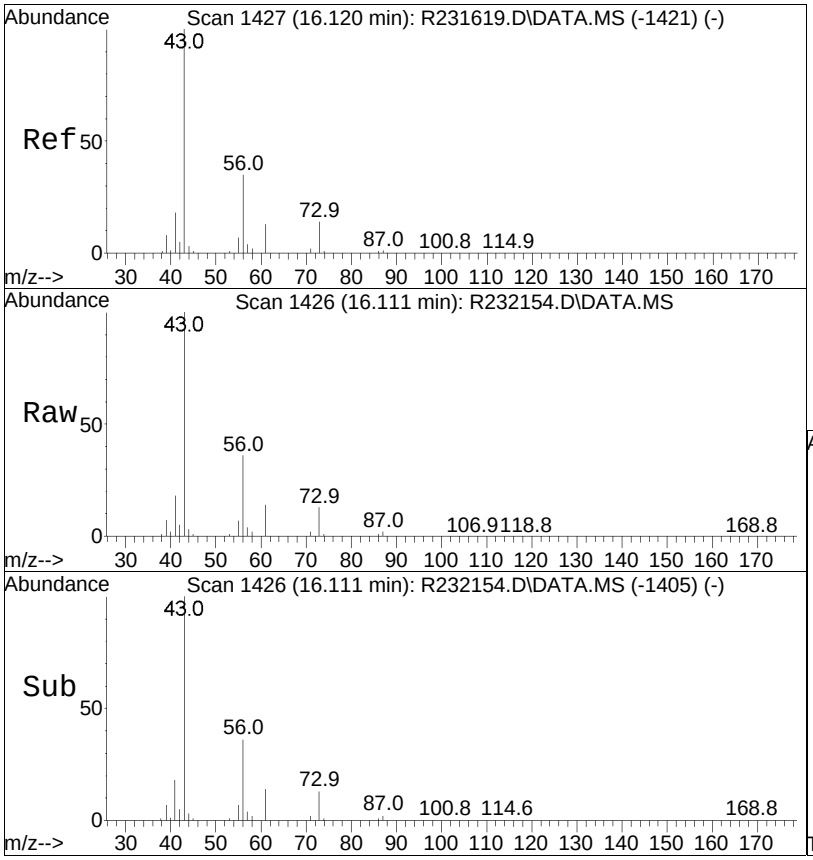


#75
1,2-dibromoethane
Concen: 10.78 ppbV
RT: 15.96 min Scan# 1409
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:107 Resp: 521173

Ion	Ratio	Lower	Upper
107	100		
109	93.8	72.8	109.2

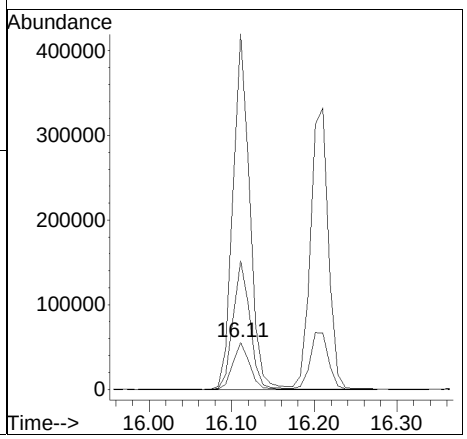


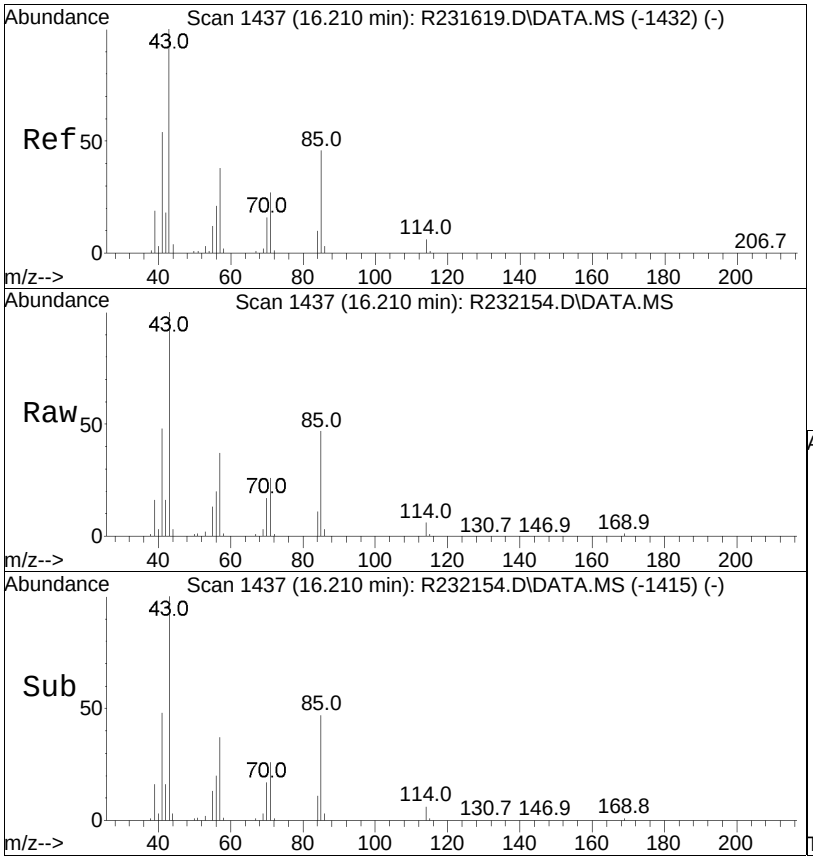


#76
butyl acetate
Concen: 10.06 ppbV
RT: 16.11 min Scan# 1426
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 73 Resp: 79685

Ion	Ratio	Lower	Upper
73	100		
56	274.2	208.8	313.2
43	757.3	592.2	888.4

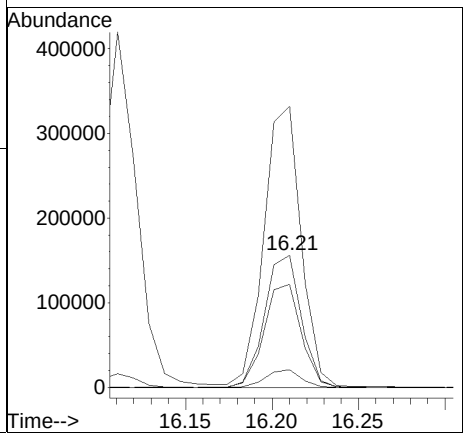


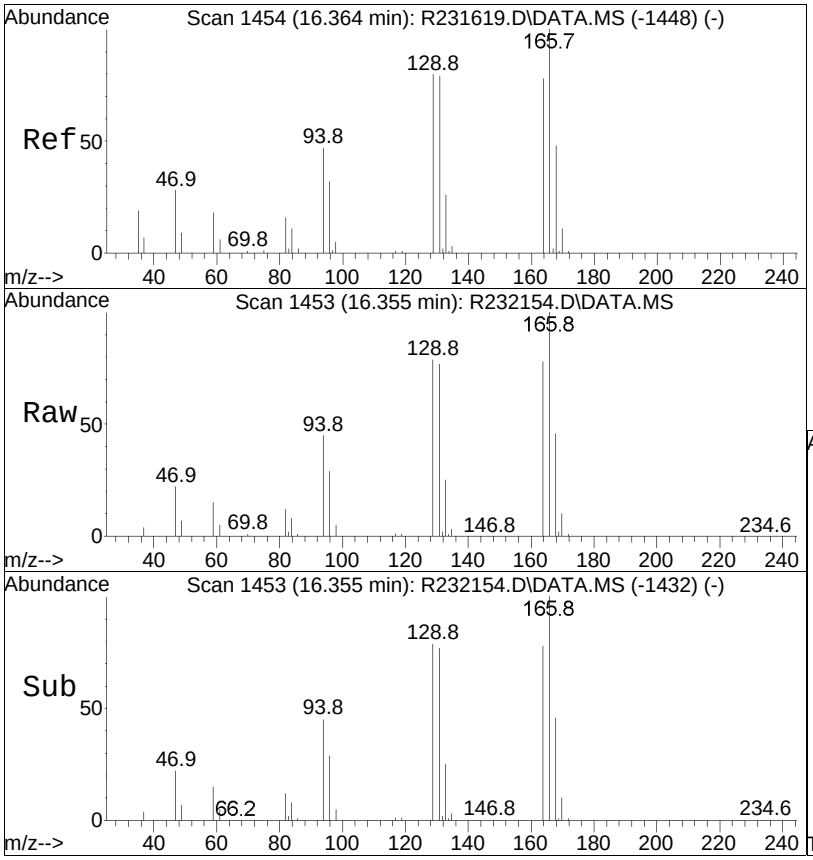


#77
octane
Concen: 10.33 ppbV
RT: 16.21 min Scan# 1437
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 85 Resp: 229846

Ion	Ratio	Lower	Upper
85	100		
57	78.0	65.2	97.8
114	13.4	10.5	15.7
43	213.1	174.9	262.3

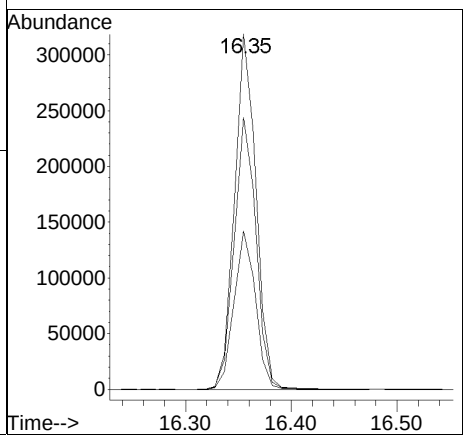


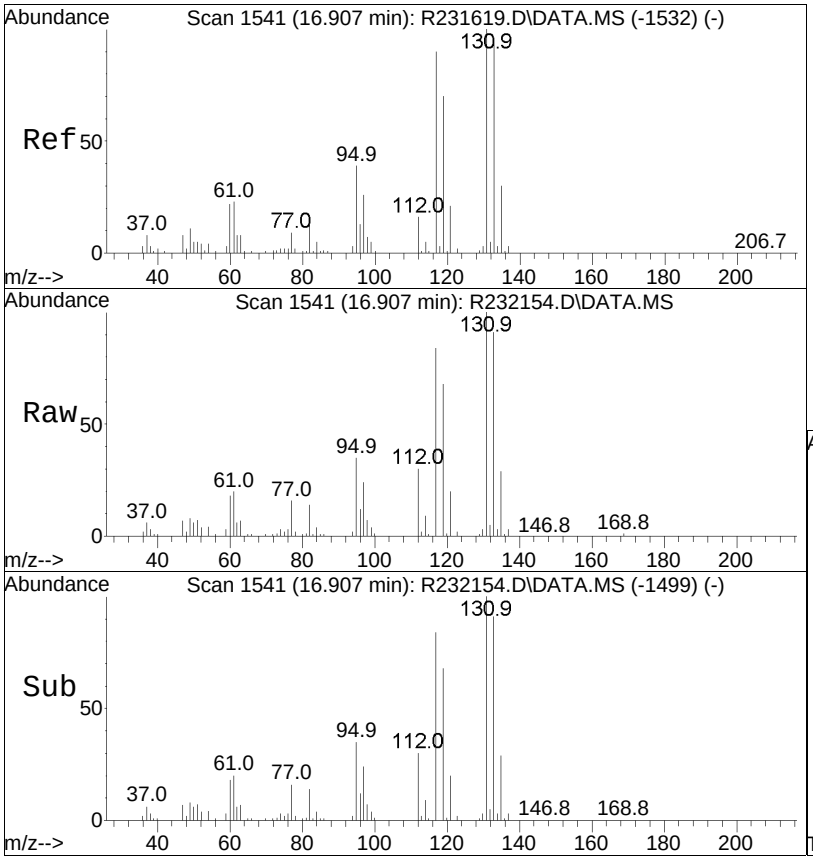


#78
tetrachloroethene
Concen: 11.07 ppbV
RT: 16.35 min Scan# 1453
Delta R.T. -0.009 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:166 Resp: 451684

Ion	Ratio	Lower	Upper
166	100		
131	76.6	63.0	94.6
94	44.6	37.9	56.9

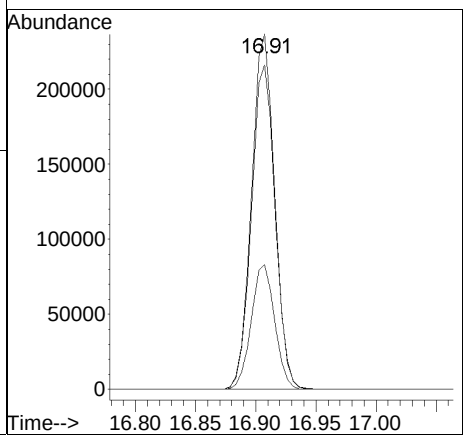


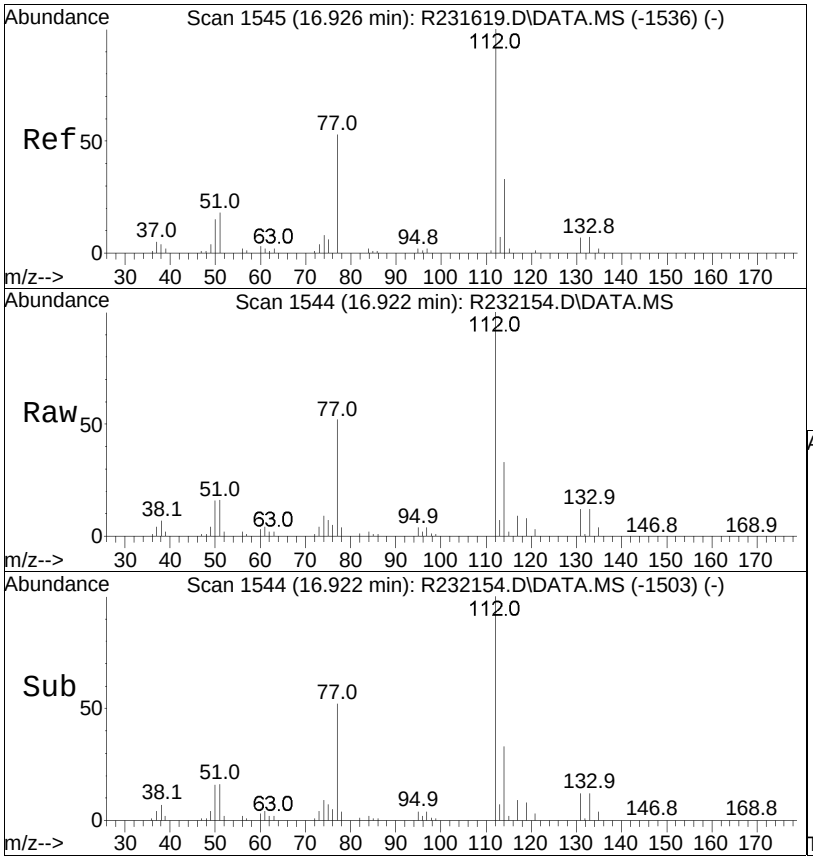


#79
1,1,1,2-tetrachloroethane
Concen: 10.40 ppbV
RT: 16.91 min Scan# 1541
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:131 Resp: 316417

Ion	Ratio	Lower	Upper
131	100		
133	91.4	75.0	112.6
95	35.1	30.9	46.3

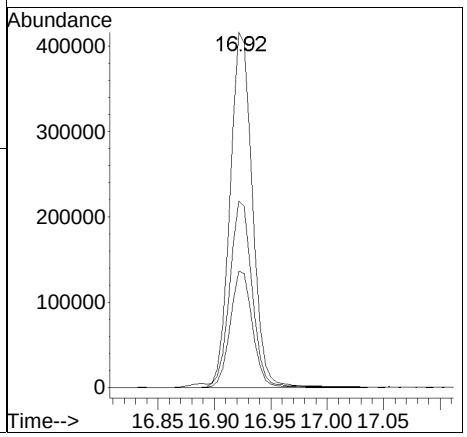


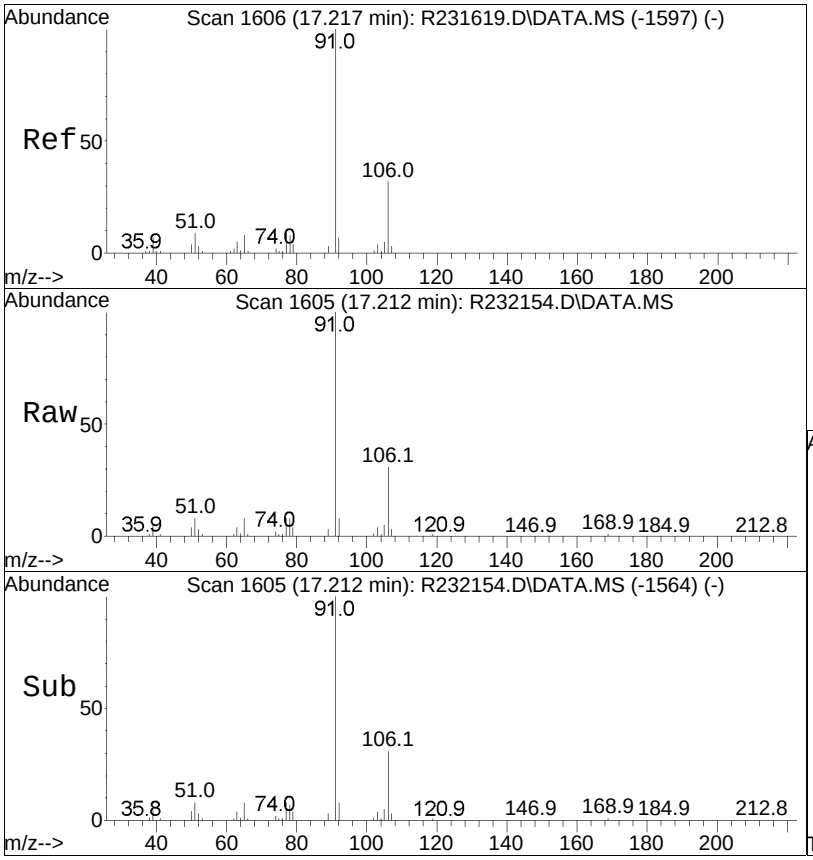


#80
chlorobenzene
Concen: 11.44 ppbV
RT: 16.92 min Scan# 1544
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:112 Resp: 573552

Ion	Ratio	Lower	Upper
112	100		
114	32.7	26.6	39.8
77	52.4	42.8	64.2

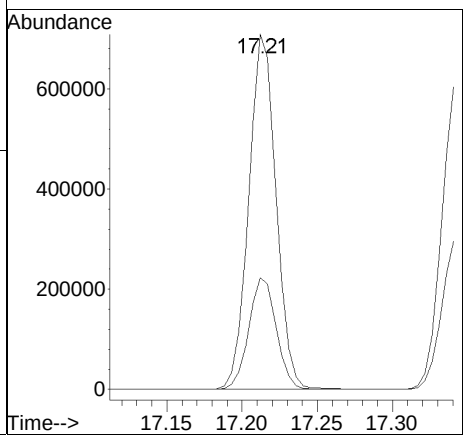


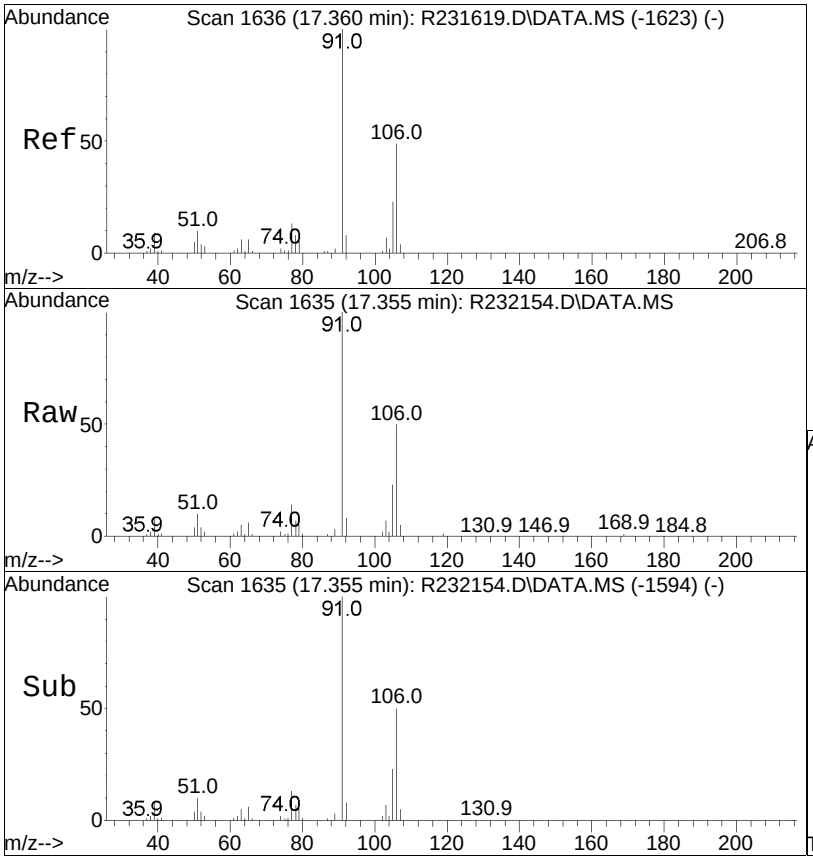


#81
ethylbenzene
Concen: 11.40 ppbV
RT: 17.21 min Scan# 1605
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 91 Resp: 893805

Ion	Ratio	Lower	Upper
91	100		
106	31.5	25.4	38.0

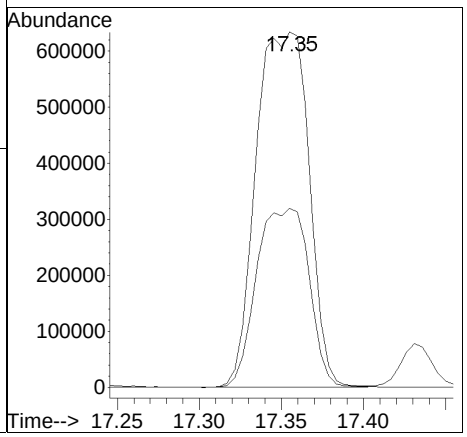


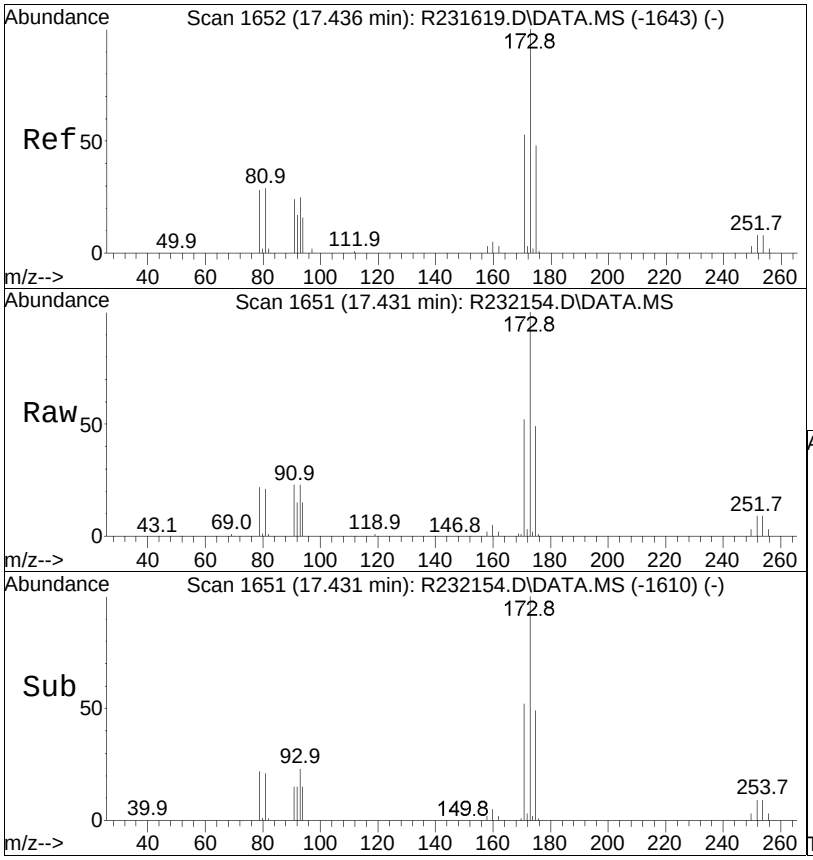


#83
m+p-xylene
Concen: 22.60 ppbV
RT: 17.35 min Scan# 1635
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 91 Resp: 1414932

Ion	Ratio	Lower	Upper
91	100		
106	50.4	39.0	58.4

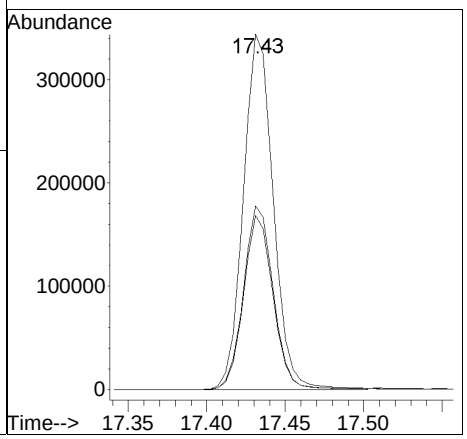


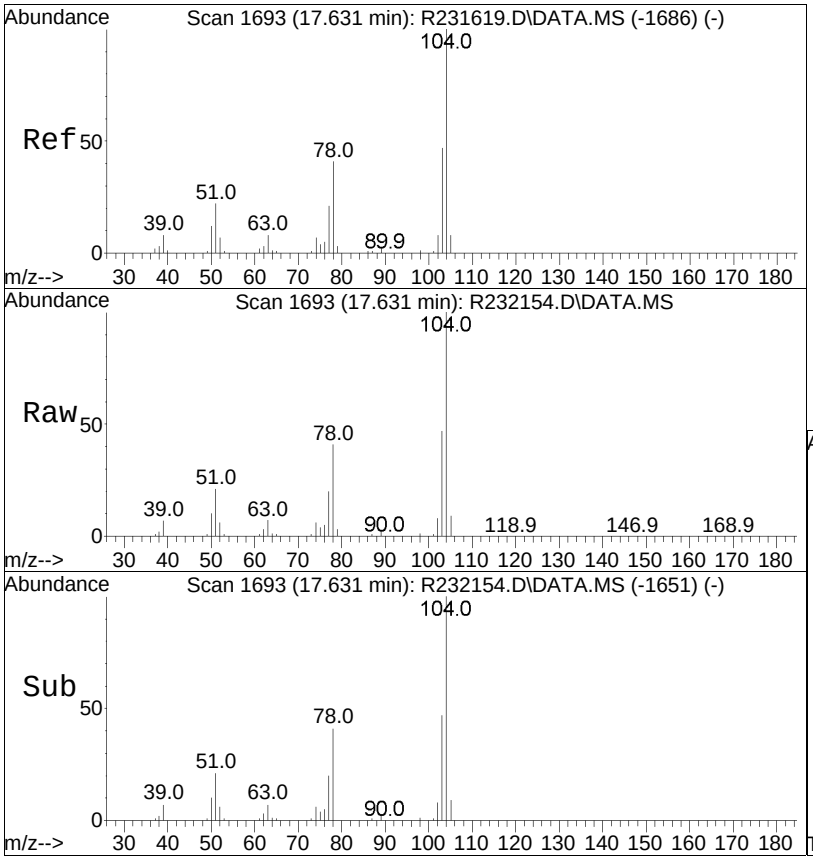


#84
bromoform
Concen: 11.08 ppbV
RT: 17.43 min Scan# 1651
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:173 Resp: 456105

Ion	Ratio	Lower	Upper
173	100		
175	49.0	38.2	57.2
171	51.6	42.1	63.1

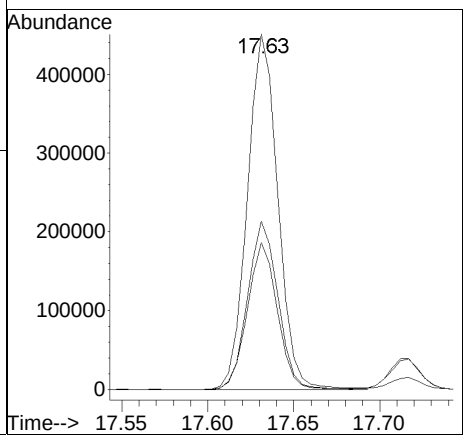


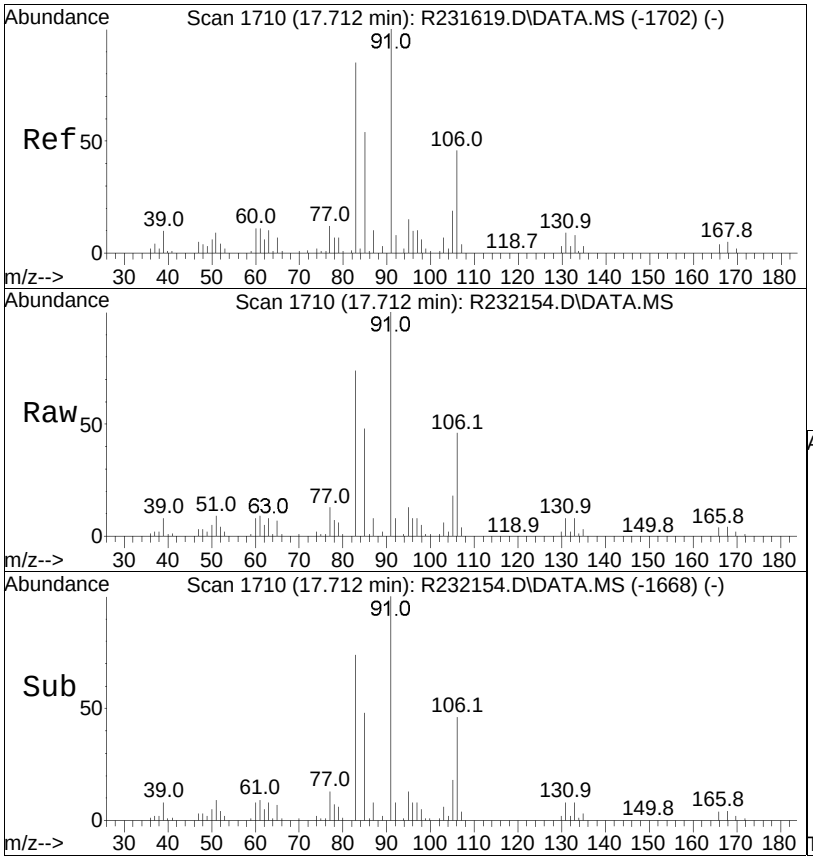


#85
styrene
Concen: 11.45 ppbV
RT: 17.63 min Scan# 1693
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:104 Resp: 557006

Ion	Ratio	Lower	Upper
104	100		
103	47.4	37.4	56.0
78	41.3	33.2	49.8

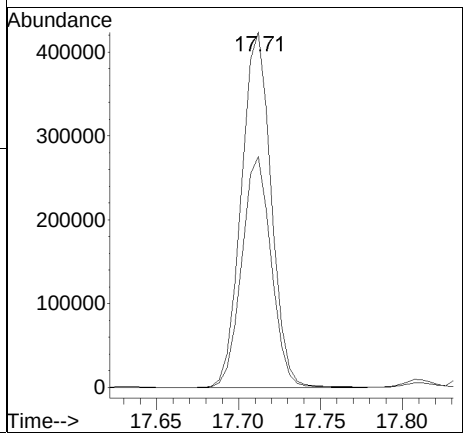


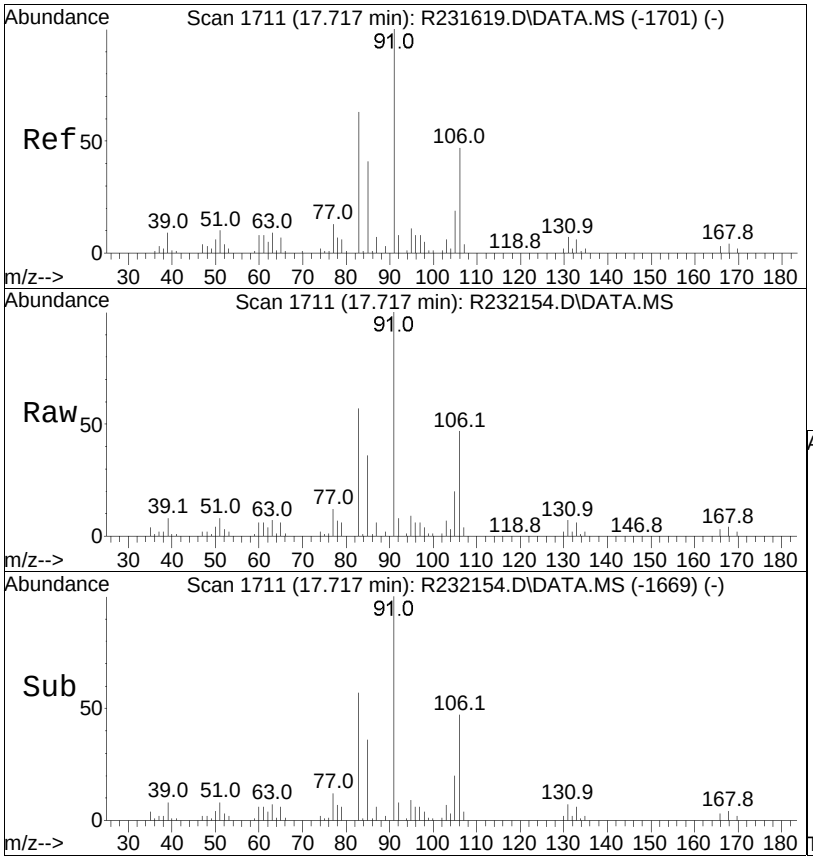


#86
1,1,2,2-tetrachloroethane
Concen: 11.59 ppbV
RT: 17.71 min Scan# 1710
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 83 Resp: 535279

Ion	Ratio	Lower	Upper
83	100		
85	64.9	50.7	76.1

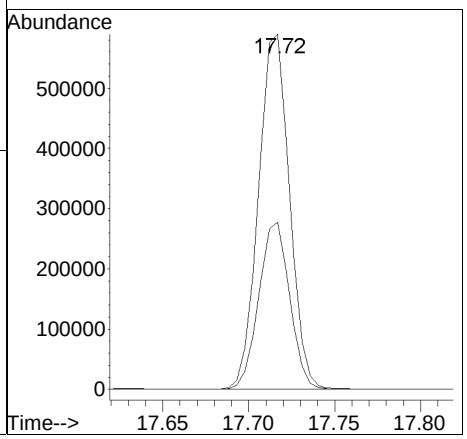


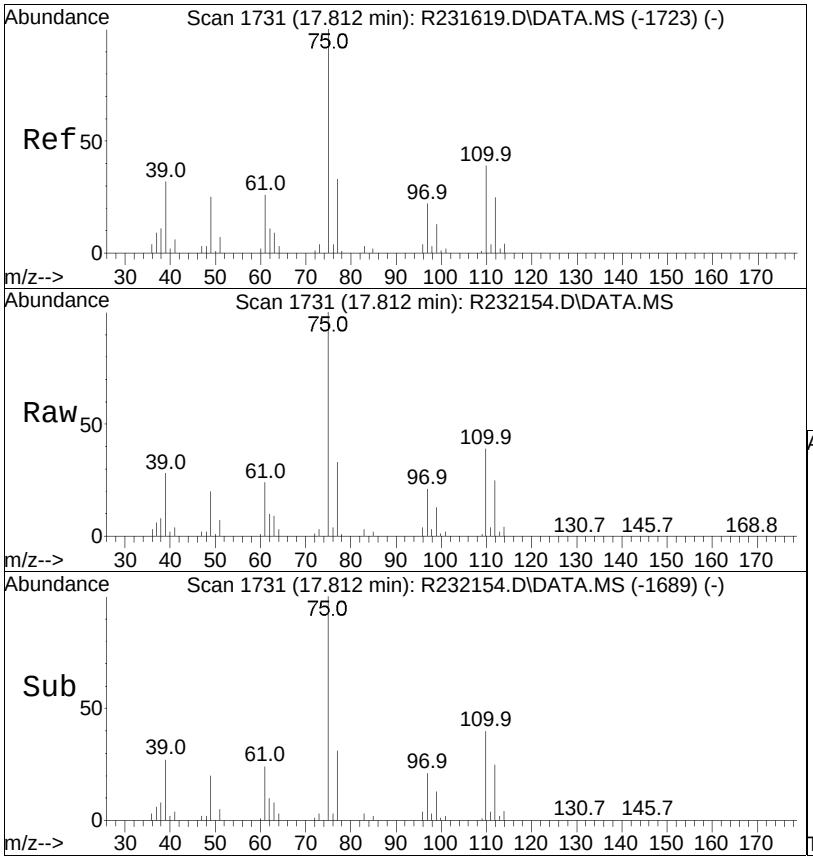


#87
o-xylene
Concen: 11.58 ppbV
RT: 17.72 min Scan# 1711
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 91 Resp: 740842

Ion	Ratio	Lower	Upper
91	100		
106	47.1	37.6	56.4

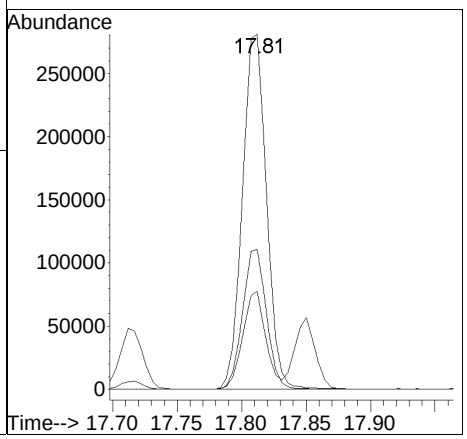


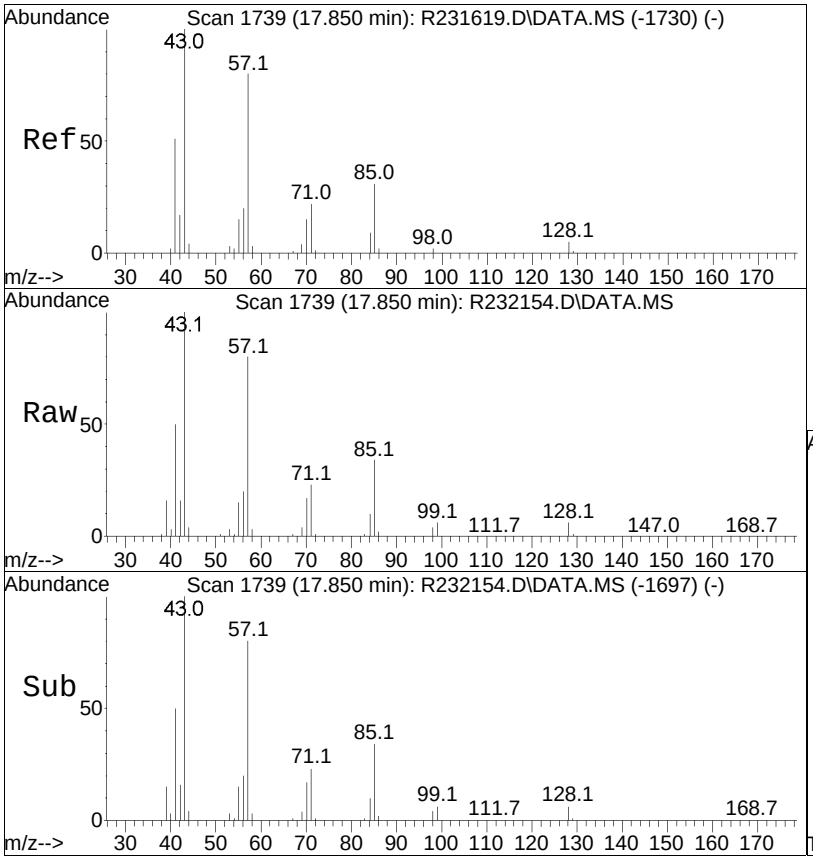


#88
1,2,3-trichloropropane
Concen: 10.65 ppbV
RT: 17.81 min Scan# 1731
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 75 Resp: 365885

Ion	Ratio	Lower	Upper
75	100		
110	39.4	31.5	47.3
39	27.6	25.9	38.9

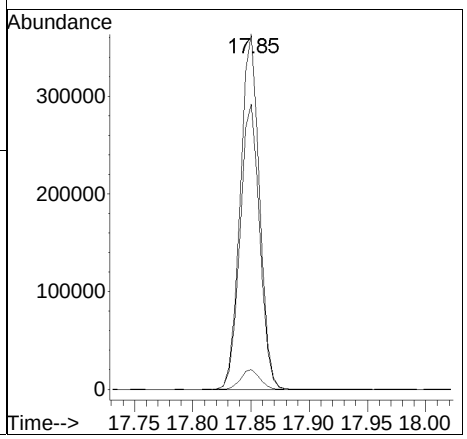


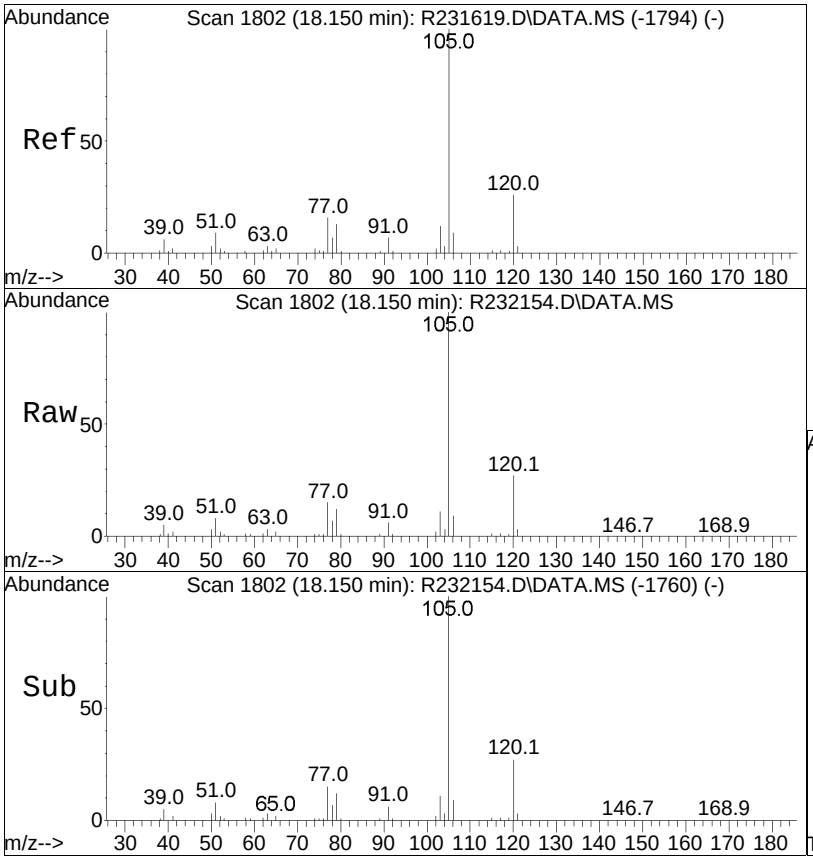


#89
nonane
Concen: 10.24 ppbV
RT: 17.85 min Scan# 1739
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 43 Resp: 416953

Ion	Ratio	Lower	Upper
43	100		
57	80.4	64.0	96.0
128	5.6	3.9	5.9

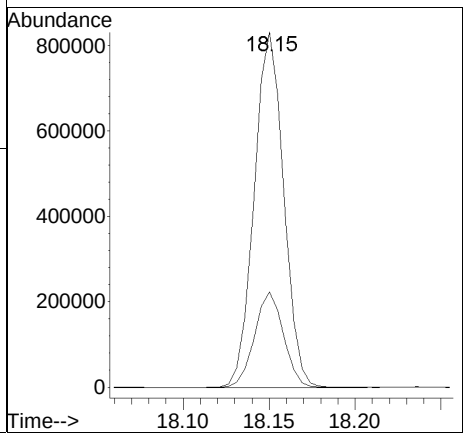


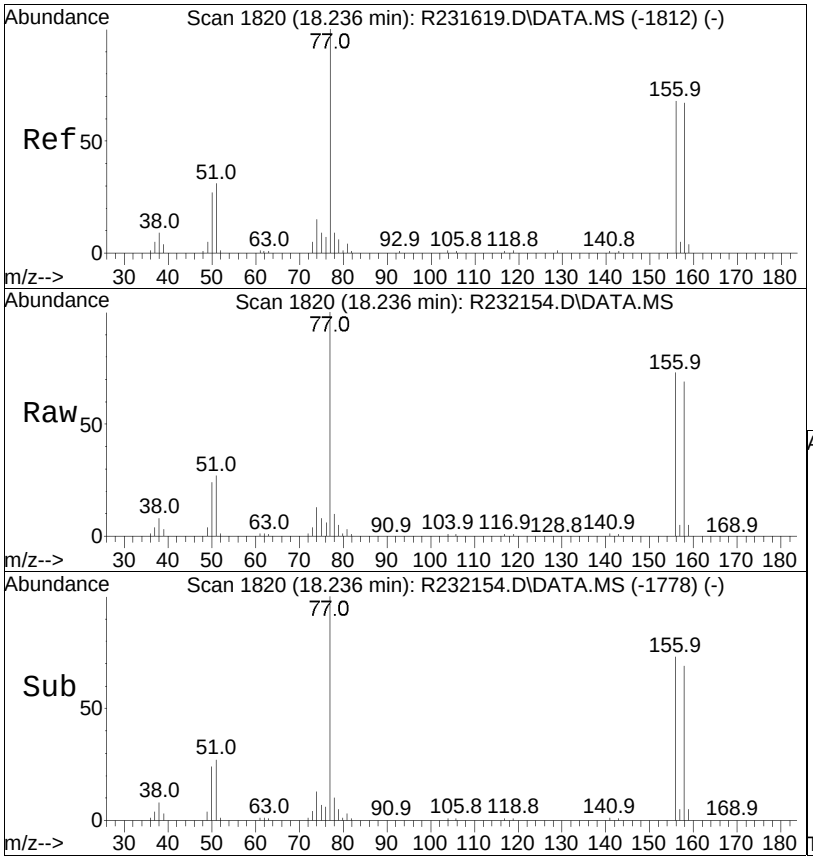


#91
isopropylbenzene
Concen: 11.48 ppbV
RT: 18.15 min Scan# 1802
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:105 Resp: 989493

Ion	Ratio	Lower	Upper
105	100		
120	26.9	21.0	31.6

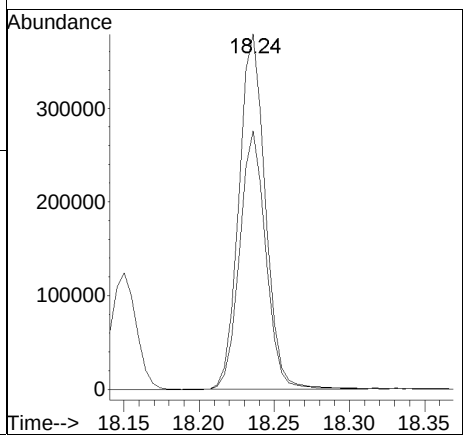


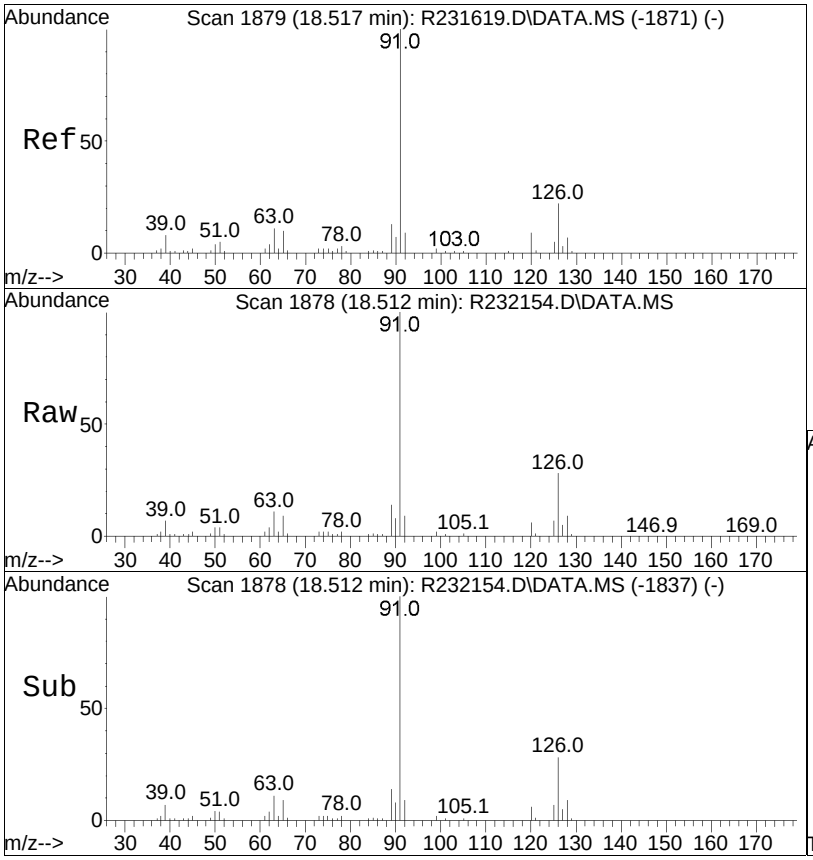


#92
bromobenzene
Concen: 10.29 ppbV
RT: 18.24 min Scan# 1820
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 77 Resp: 463126

Ion	Ratio	Lower	Upper
77	100		
156	72.7	54.5	81.7

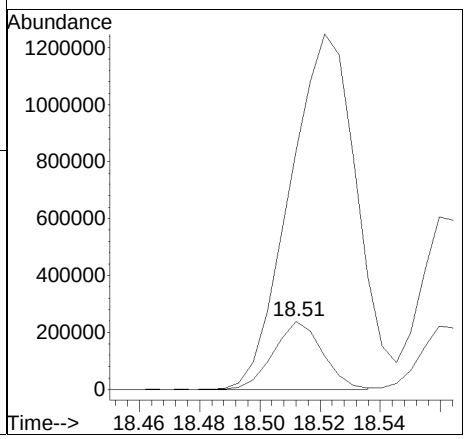


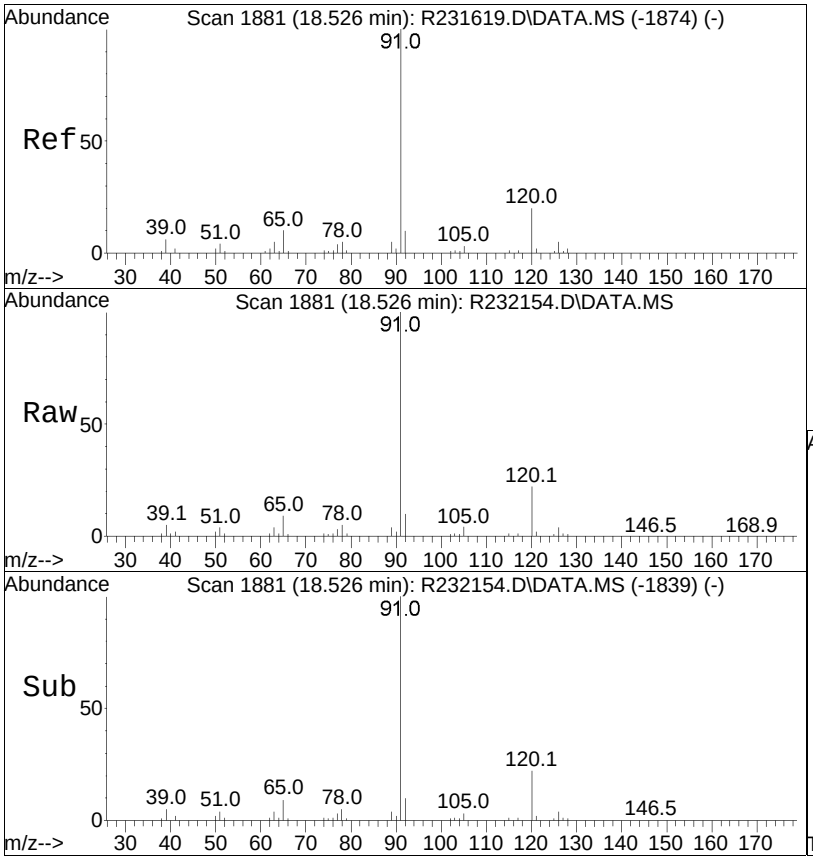


#93
2-chlorotoluene
Concen: 10.80 ppbV
RT: 18.51 min Scan# 1878
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:126 Resp: 270173

Ion	Ratio	Lower	Upper
126	100		
91	351.0	361.6	542.4#

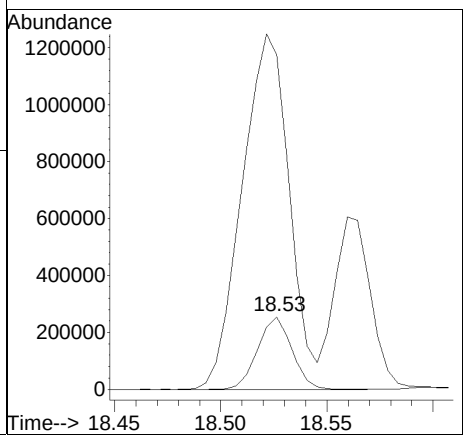


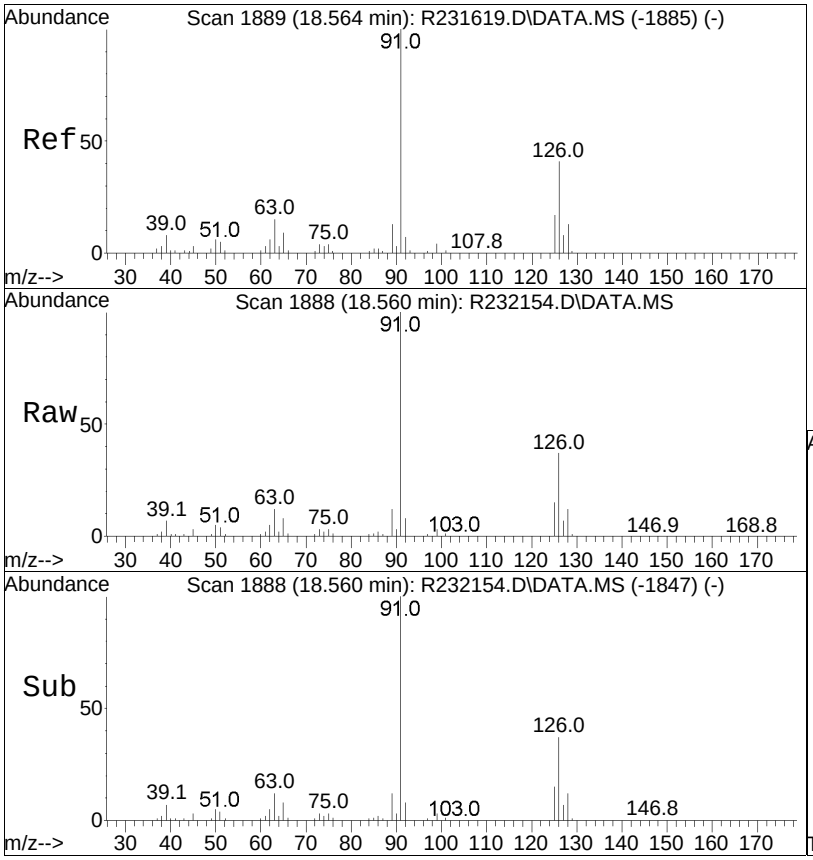


#94
n-propylbenzene
Concen: 10.98 ppbV
RT: 18.53 min Scan# 1881
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:120 Resp: 285848

Ion	Ratio	Lower	Upper
120	100		
91	461.9	410.7	616.1

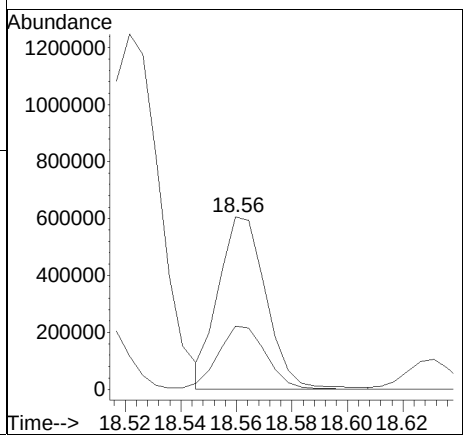


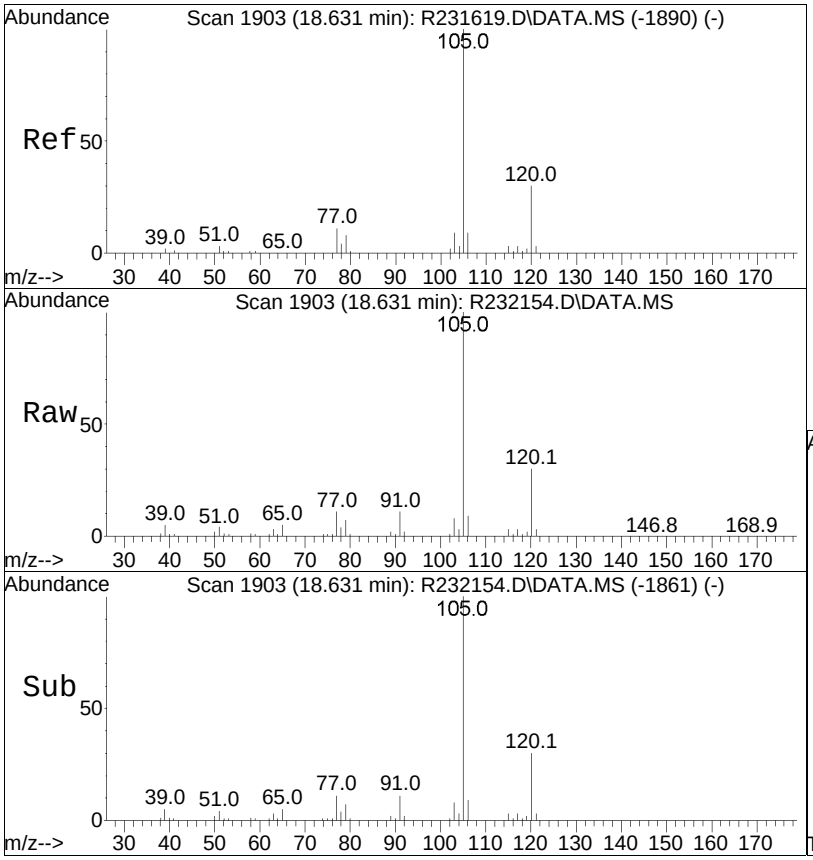


#95
4-chlorotoluene
Concen: 10.75 ppbV
RT: 18.56 min Scan# 1888
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 91 Resp: 722278

Ion	Ratio	Lower	Upper
91	100		
126	36.8	29.8	44.6

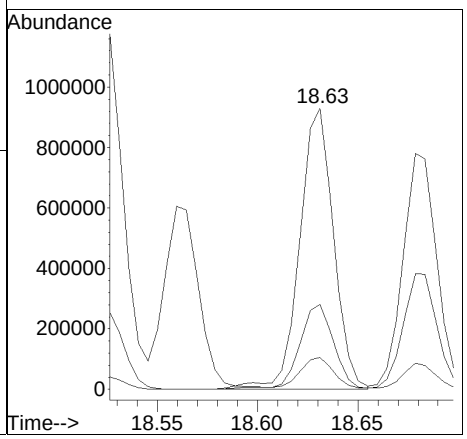


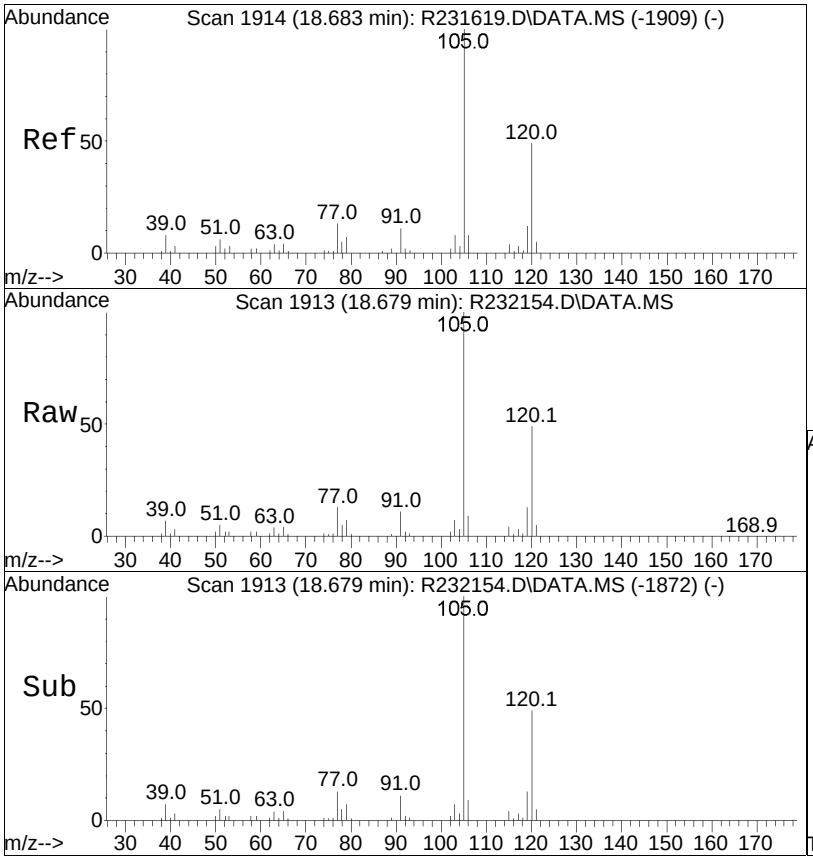


#96
4-ethyl toluene
Concen: 11.13 ppbV
RT: 18.63 min Scan# 1903
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:105 Resp: 1094197

Ion	Ratio	Lower	Upper
105	100		
120	30.2	24.2	36.4
91	11.4	9.8	14.6

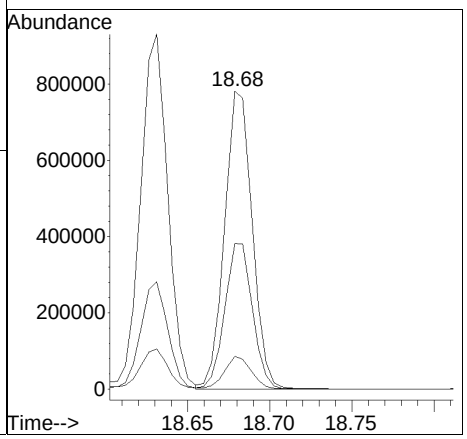


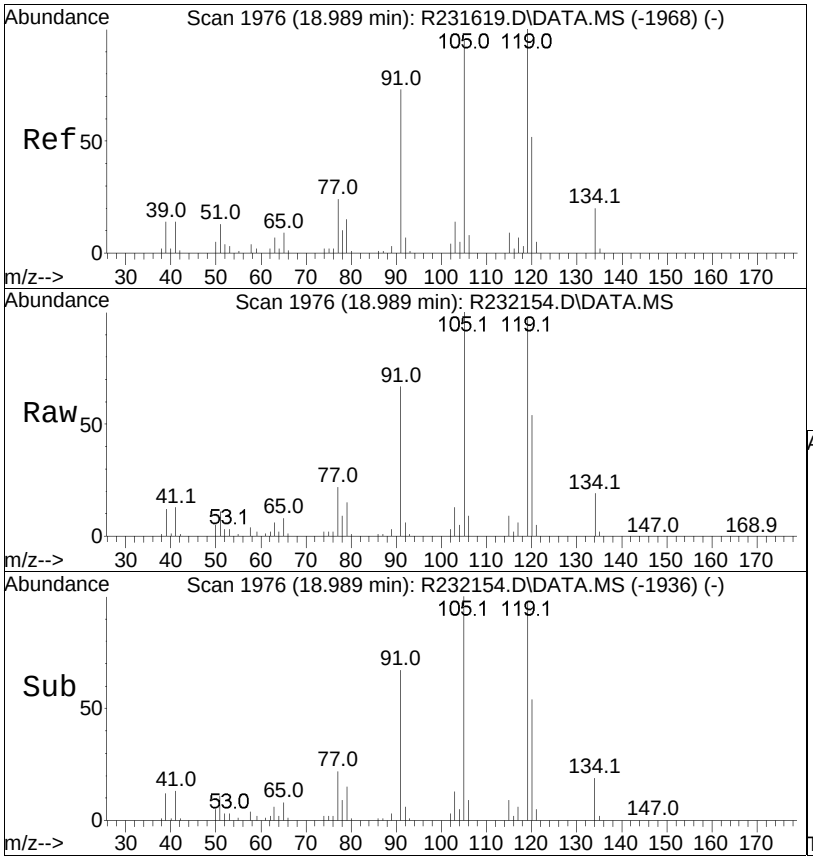


#97
1,3,5-trimethylbenzene
Concen: 11.85 ppbV
RT: 18.68 min Scan# 1913
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:105 Resp: 913990

Ion	Ratio	Lower	Upper
105	100		
120	48.9	39.0	58.6
91	11.1	9.1	13.7

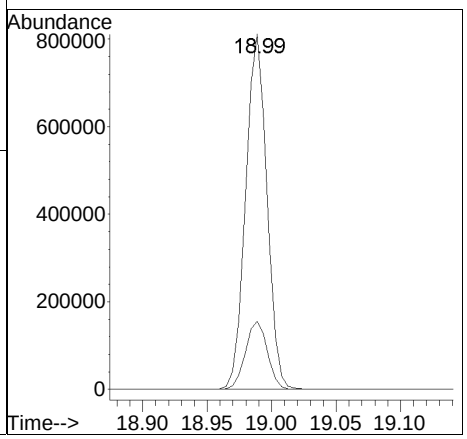


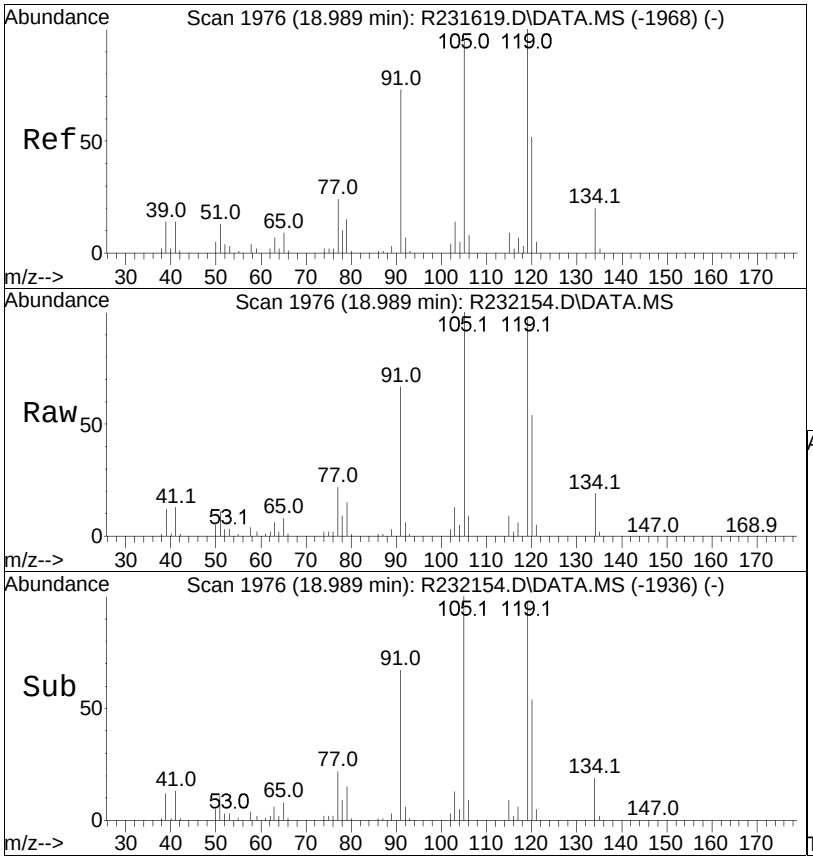


#98
tert-butylbenzene
Concen: 11.12 ppbV
RT: 18.99 min Scan# 1976
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:119 Resp: 930415

Ion	Ratio	Lower	Upper
119	100		
134	19.2	15.7	23.5

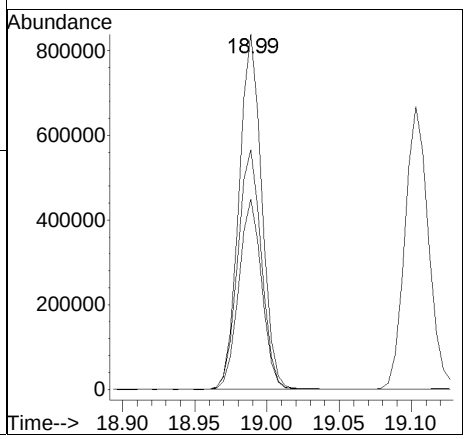


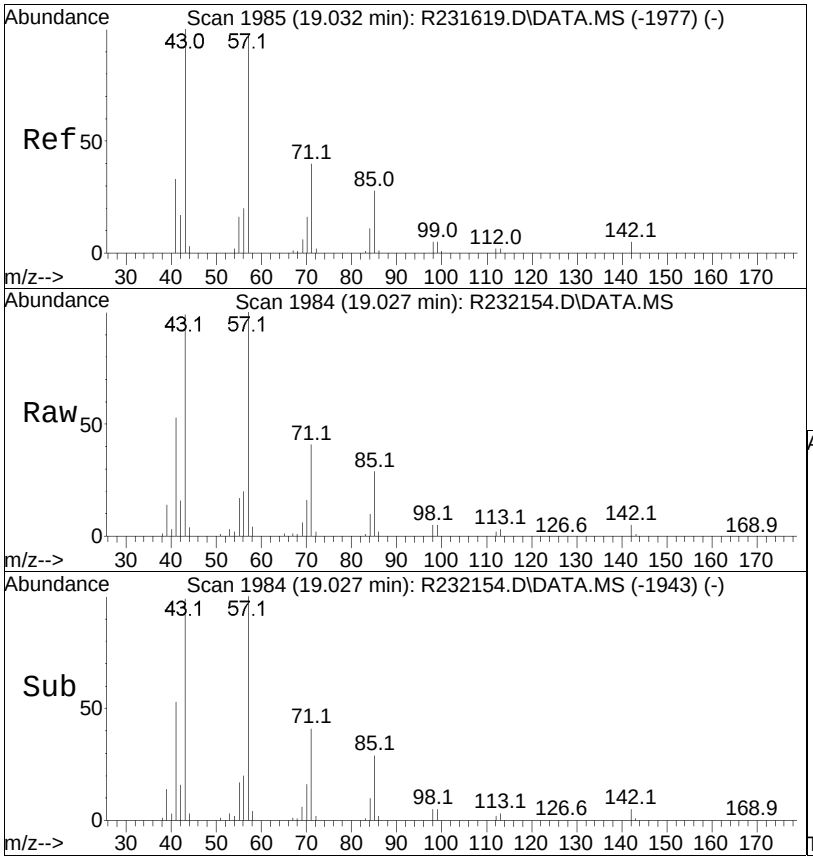


#99
1,2,4-trimethylbenzene
Concen: 12.01 ppbV
RT: 18.99 min Scan# 1976
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:105 Resp: 921003

Ion	Ratio	Lower	Upper
105	100		
120	53.6	43.4	65.0
91	67.5	61.4	92.0

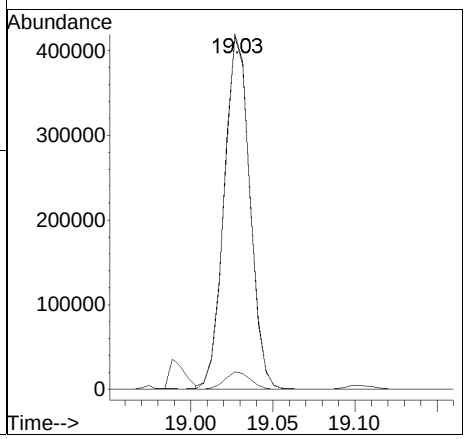


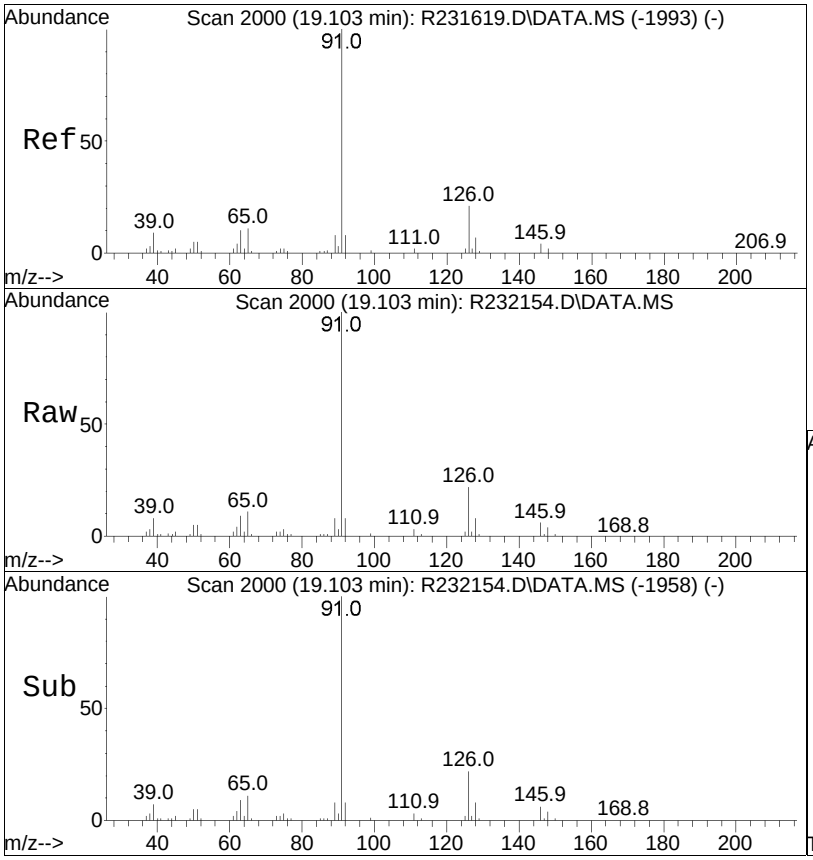


#100
decane
Concen: 11.08 ppbV
RT: 19.03 min Scan# 1984
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 57 Resp: 457806

Ion	Ratio	Lower	Upper
57	100		
43	99.3	81.9	122.9
142	5.0	4.2	6.2

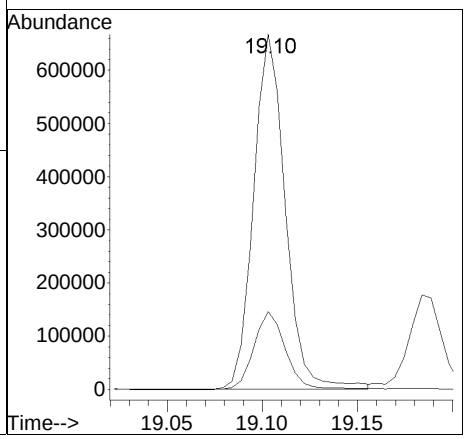


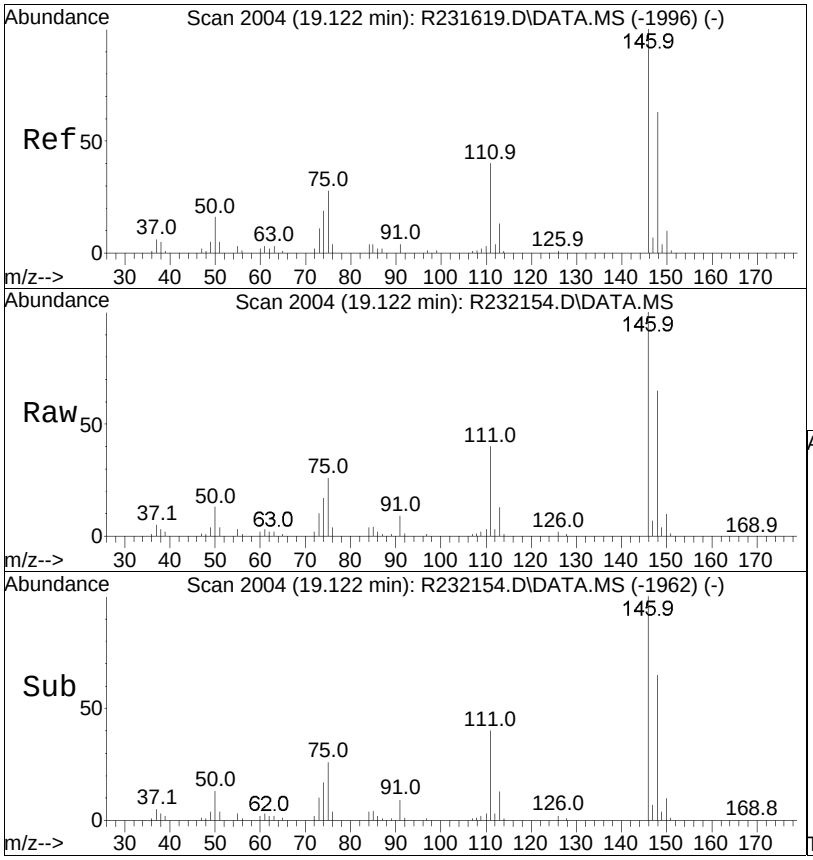


#101
Benzyl Chloride
Concen: 11.82 ppbV
RT: 19.10 min Scan# 2000
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 91 Resp: 774939

Ion	Ratio	Lower	Upper
91	100		
126	21.9	17.0	25.4

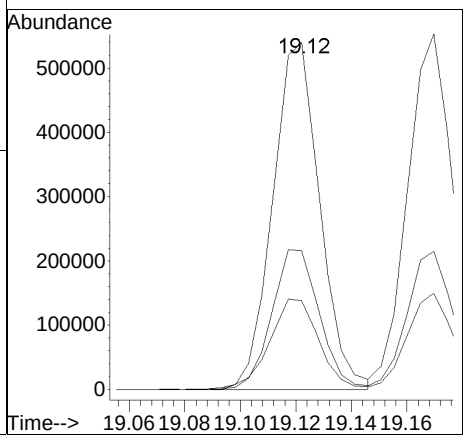


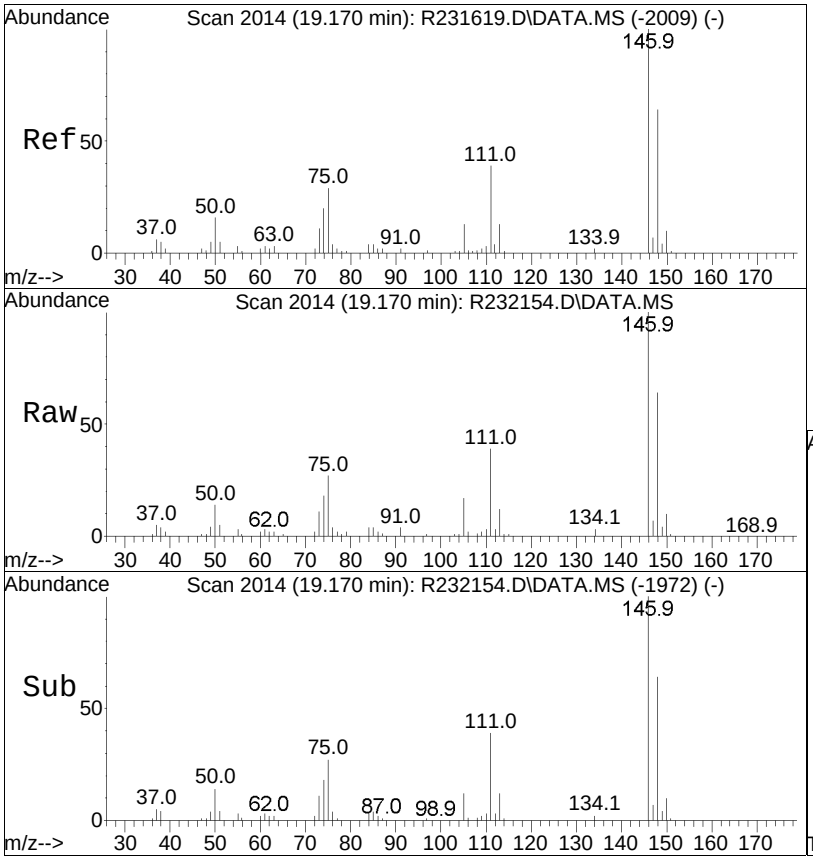


#102
1,3-dichlorobenzene
Concen: 11.89 ppbV
RT: 19.12 min Scan# 2004
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:146 Resp: 635498

Ion	Ratio	Lower	Upper
146	100		
111	39.9	32.2	48.4
75	25.6	22.6	33.8

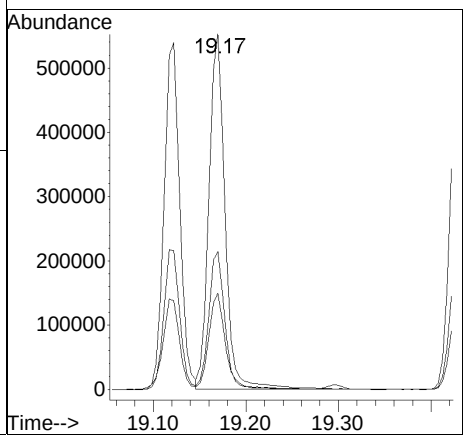


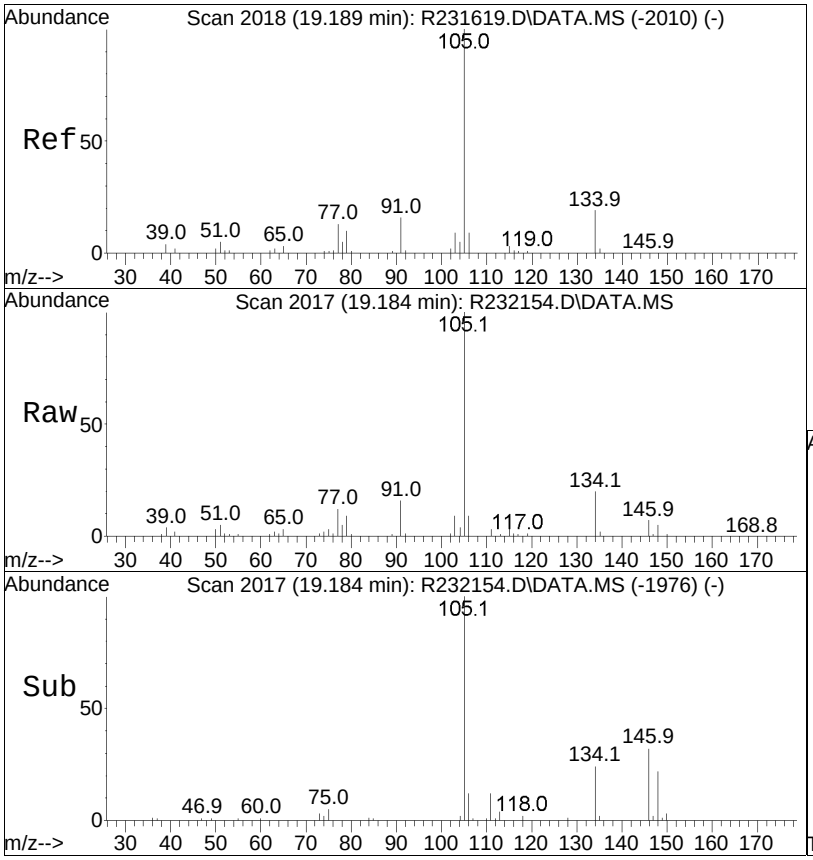


#103
1,4-dichlorobenzene
Concen: 12.46 ppbV
RT: 19.17 min Scan# 2014
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:146 Resp: 672438

Ion	Ratio	Lower	Upper
146	100		
111	38.8	31.0	46.6
75	27.1	23.0	34.6

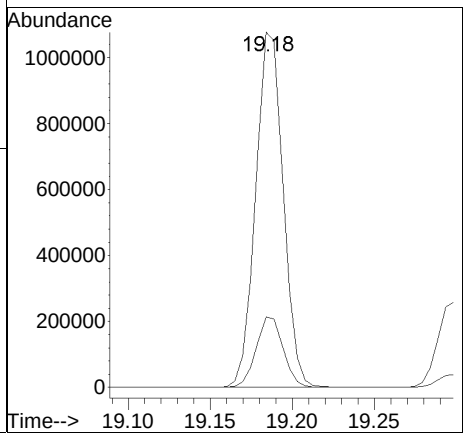


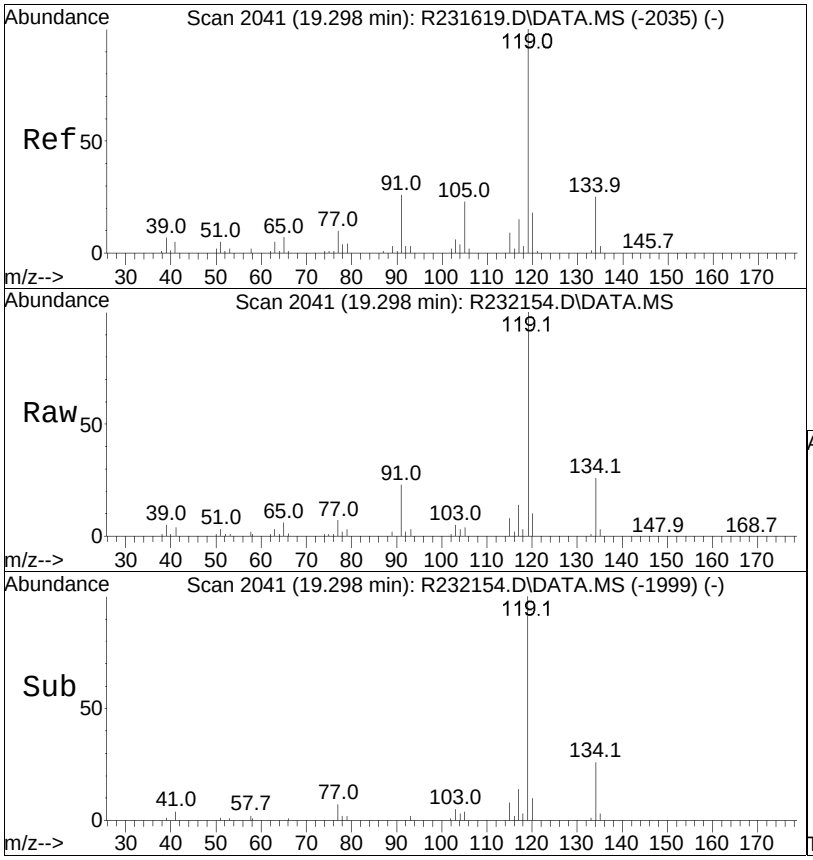


#104
sec-butylbenzene
Concen: 11.18 ppbV
RT: 19.18 min Scan# 2017
Delta R.T. -0.005 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:105 Resp: 1257699

Ion	Ratio	Lower	Upper
105	100		
134	19.8	15.2	22.8

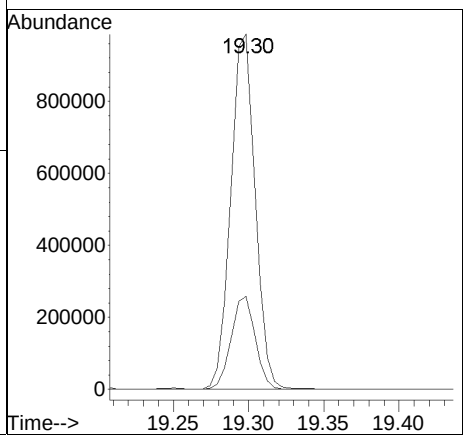


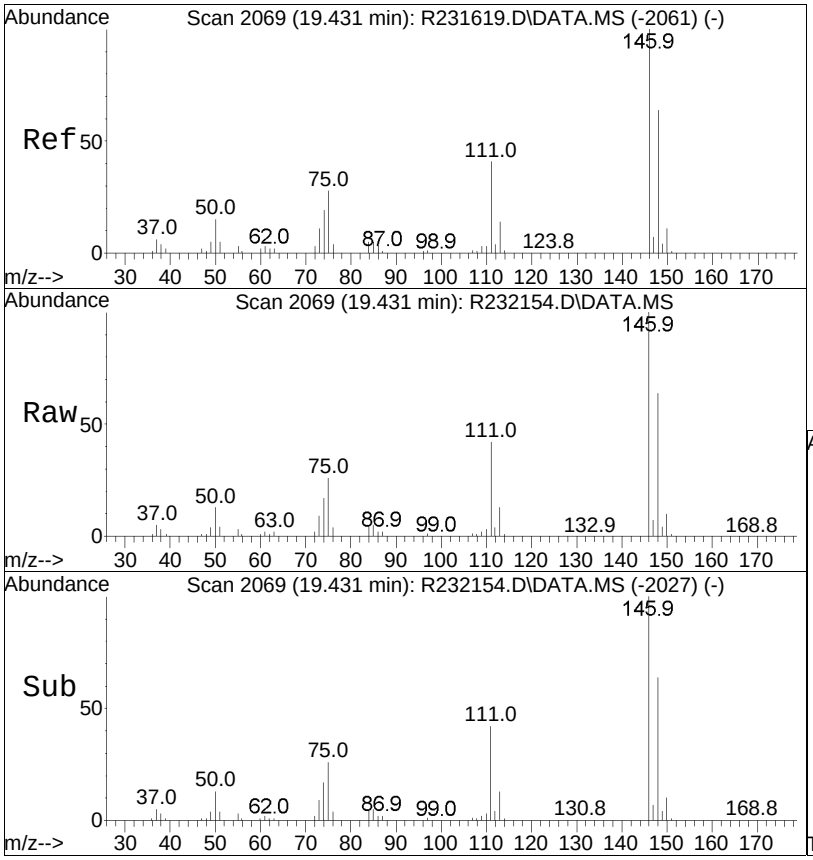


#106
p-isopropyltoluene
Concen: 10.76 ppbV
RT: 19.30 min Scan# 2041
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:119 Resp: 1113992

Ion	Ratio	Lower	Upper
119	100		
134	26.2	20.1	30.1

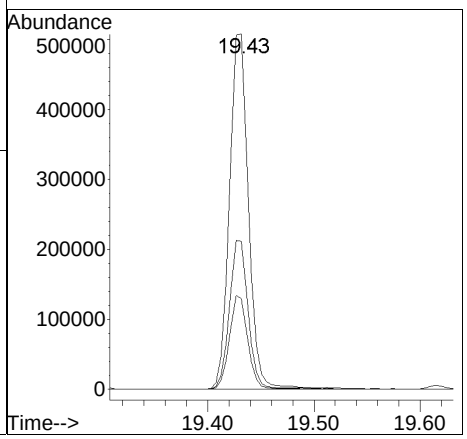


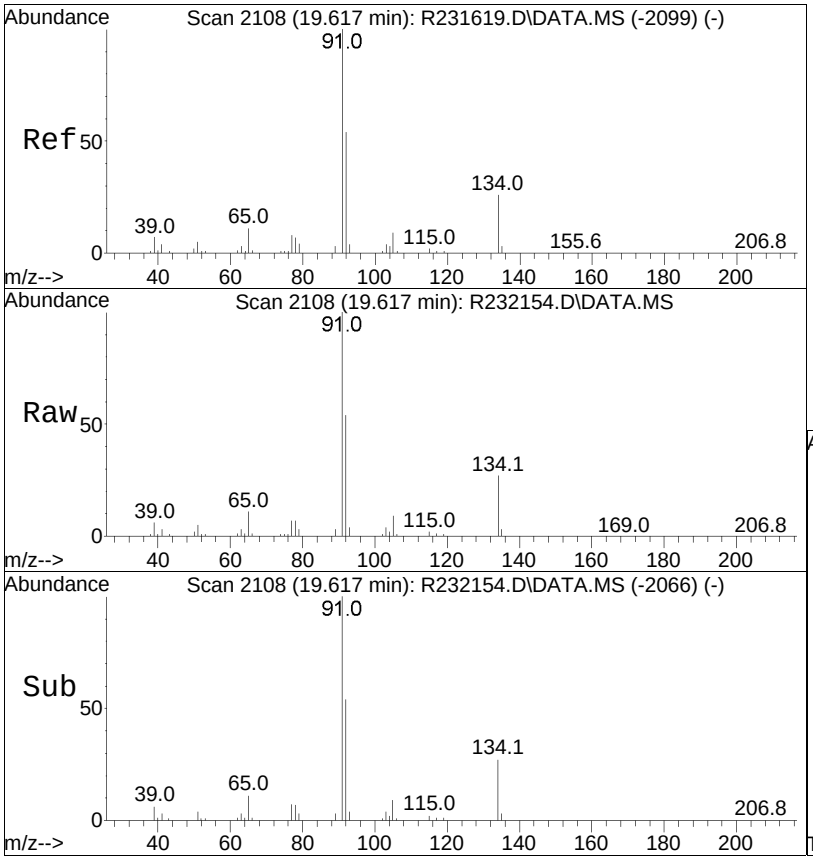


#107
1,2-dichlorobenzene
Concen: 12.72 ppbV
RT: 19.43 min Scan# 2069
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:146 Resp: 635626

Ion	Ratio	Lower	Upper
146	100		
111	41.7	33.0	49.4
75	25.6	22.2	33.2

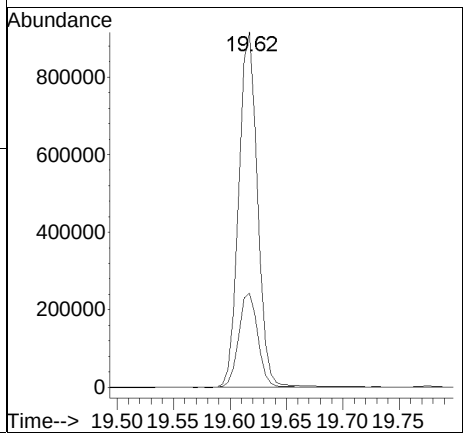


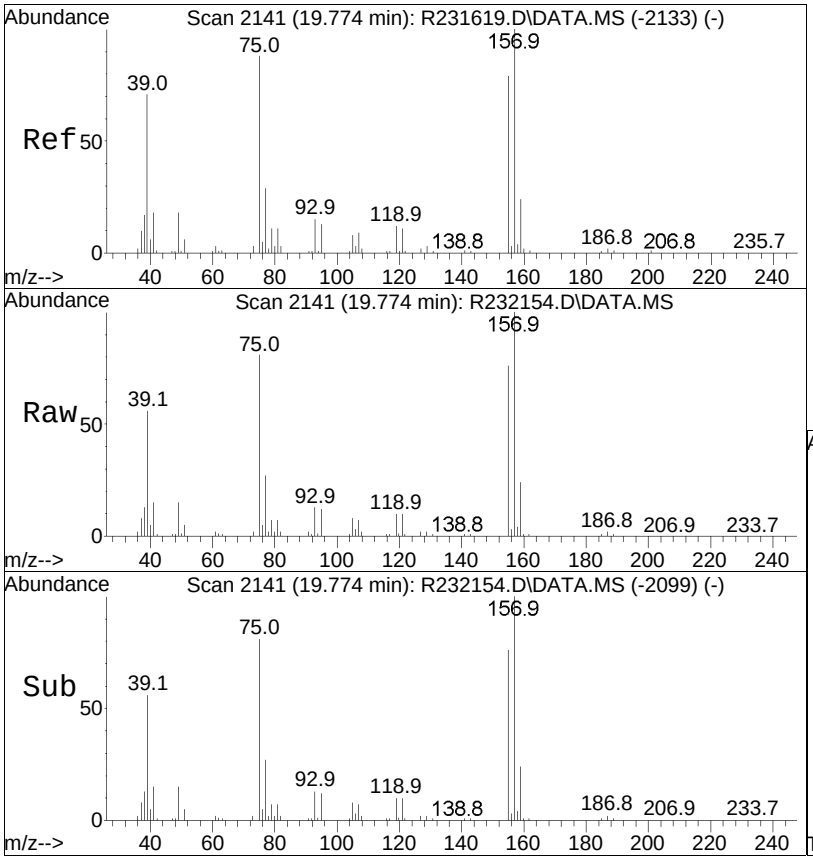


#108
n-butylbenzene
Concen: 11.75 ppbV
RT: 19.62 min Scan# 2108
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 91 Resp: 1064226

Ion	Ratio	Lower	Upper
91	100		
134	26.5	20.8	31.2

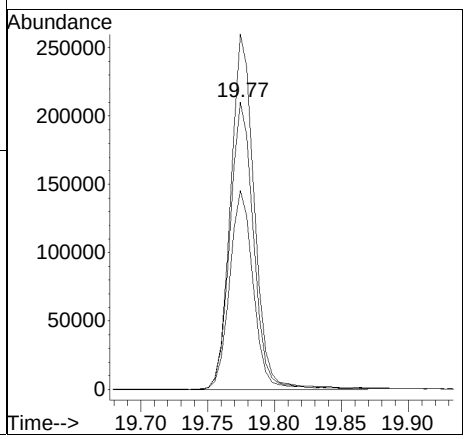


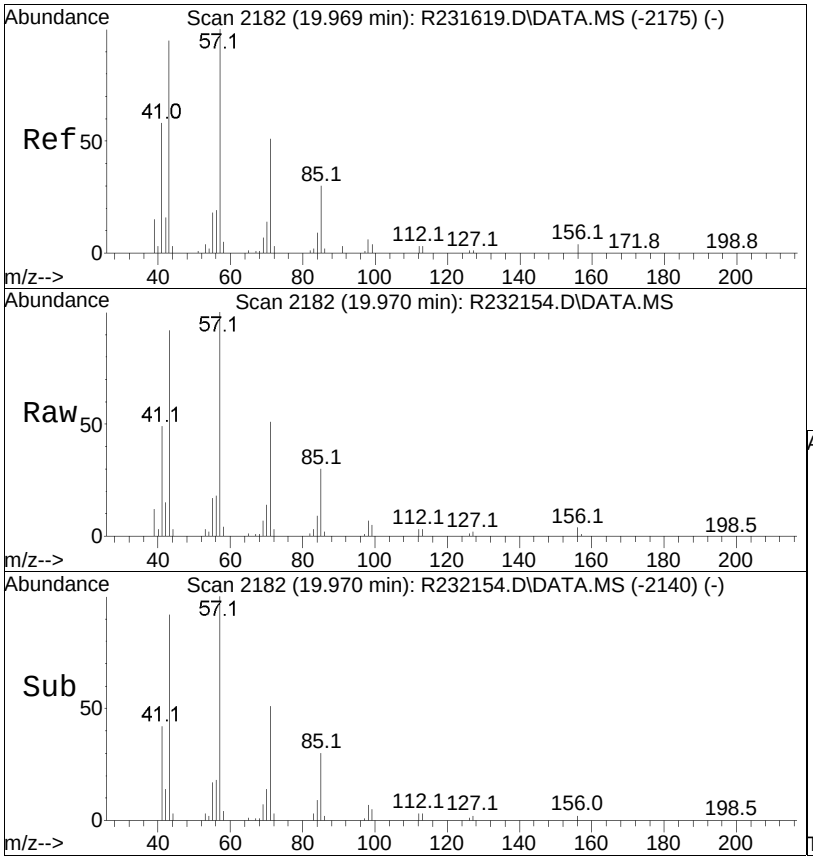


#111
1,2-dibromo-3-chloropropane
Concen: 11.35 ppbV
RT: 19.77 min Scan# 2141
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 75 Resp: 260495

Ion	Ratio	Lower	Upper
75	100		
157	123.7	91.4	137.2
39	69.2	64.6	96.8

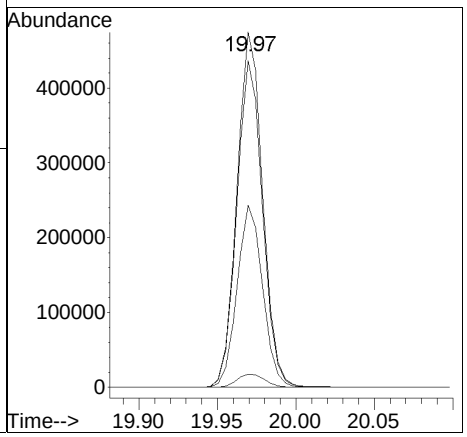


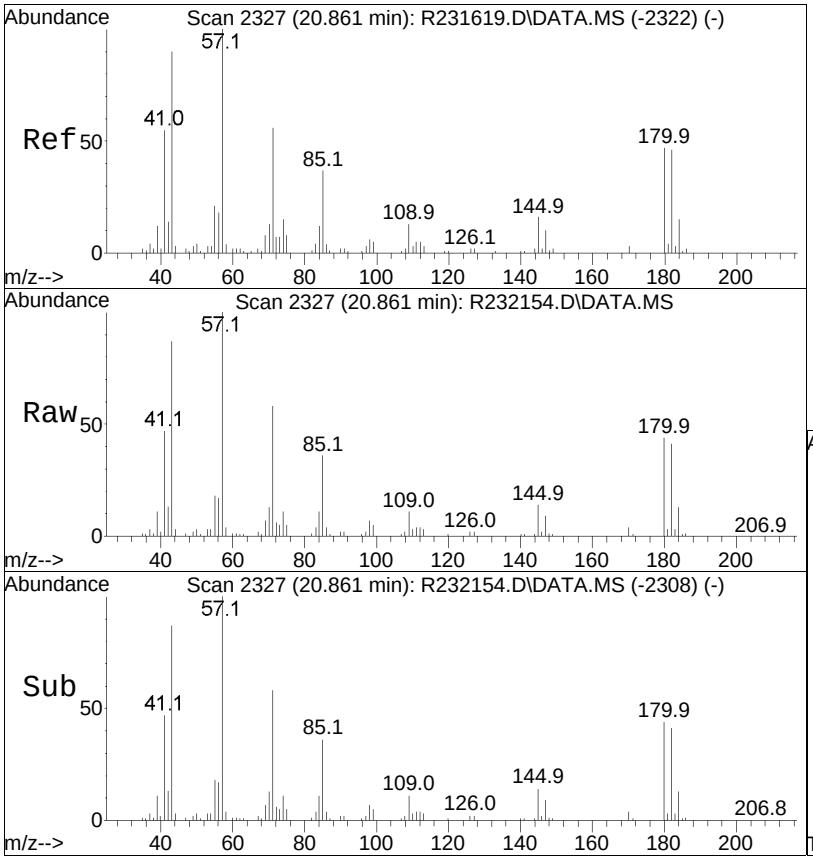


#112
undecane
Concen: 12.10 ppbV
RT: 19.97 min Scan# 2182
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 57 Resp: 541022

Ion	Ratio	Lower	Upper
57	100		
43	91.9	76.4	114.6
71	51.3	41.0	61.4
156	3.7	2.8	4.2

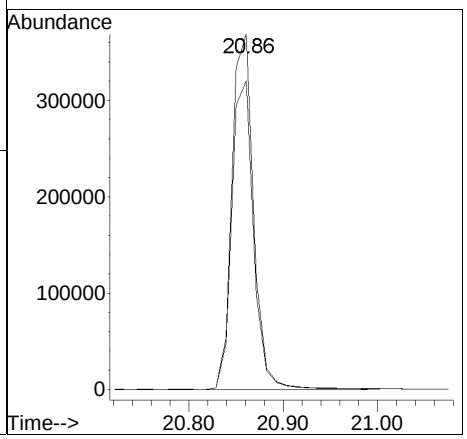


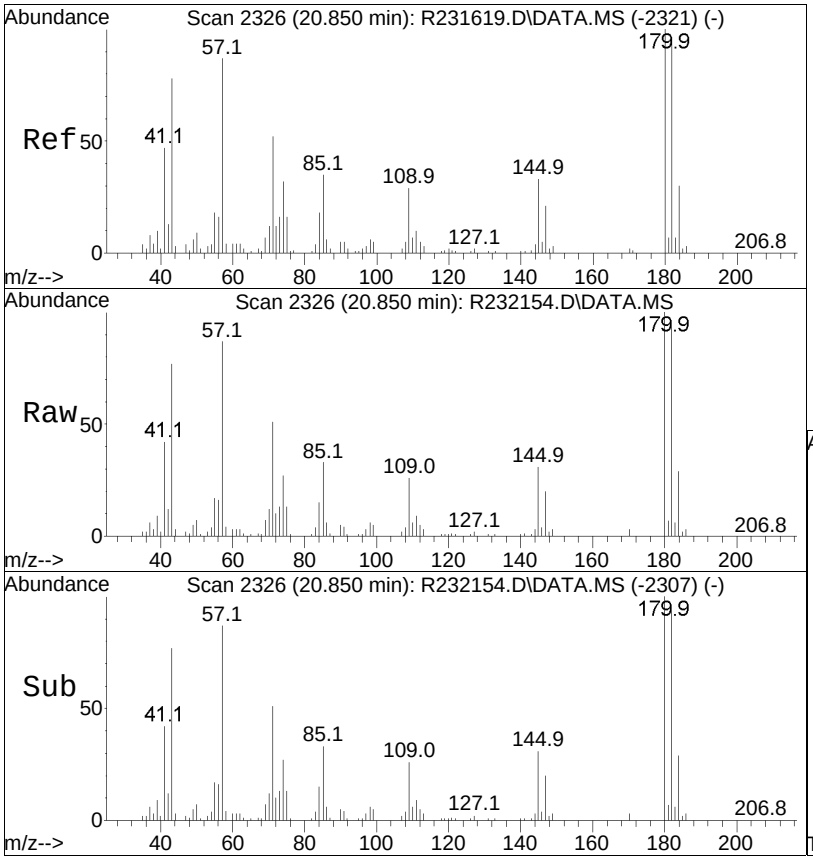


#114
dodecane
Concen: 13.52 ppbV
RT: 20.86 min Scan# 2327
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion: 57 Resp: 590406

Ion	Ratio	Lower	Upper
57	100		
43	86.9	71.9	107.9

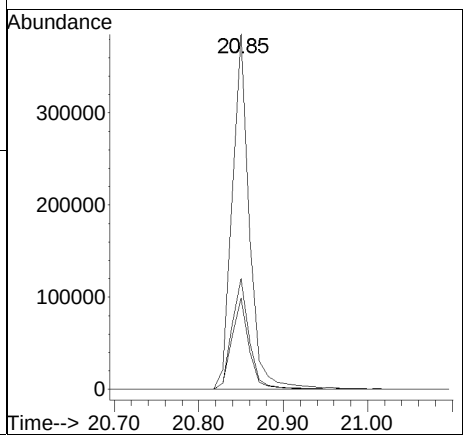


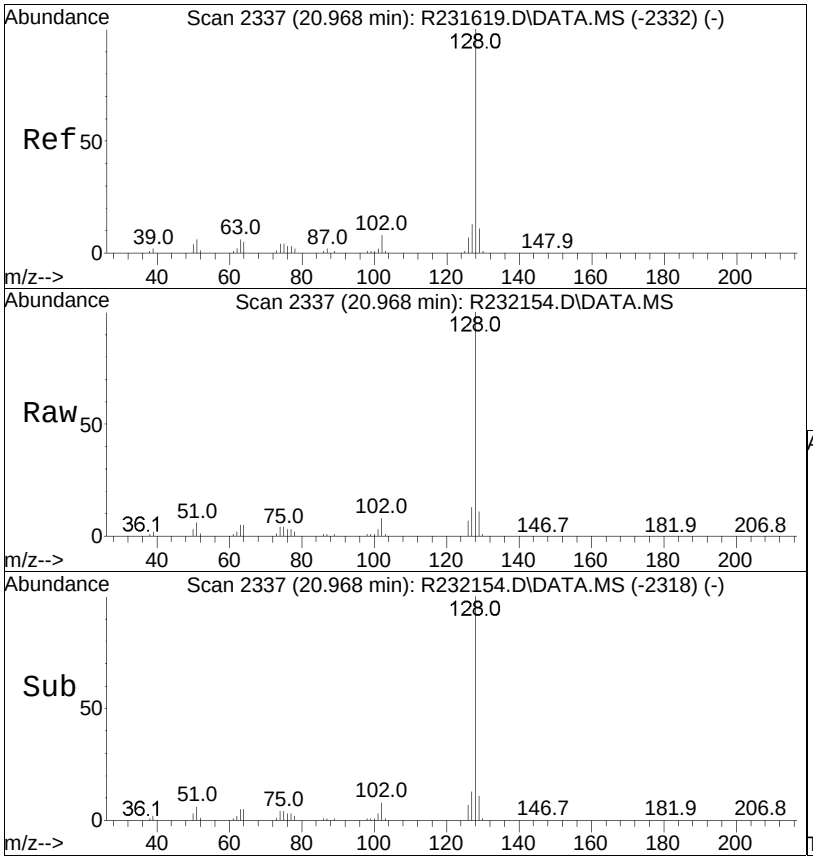


#115
1,2,4-trichlorobenzene
Concen: 14.15 ppbV
RT: 20.85 min Scan# 2326
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:180 Resp: 548418

Ion	Ratio	Lower	Upper
180	100		
145	31.2	26.8	40.2
109	25.7	23.0	34.4

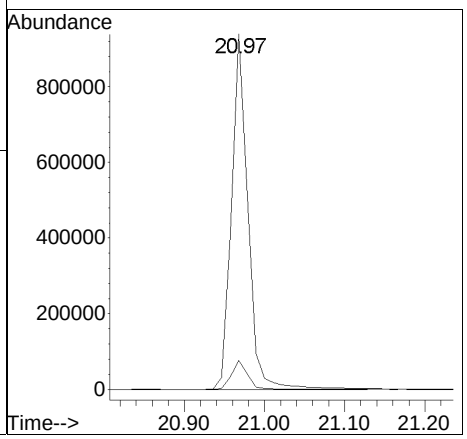


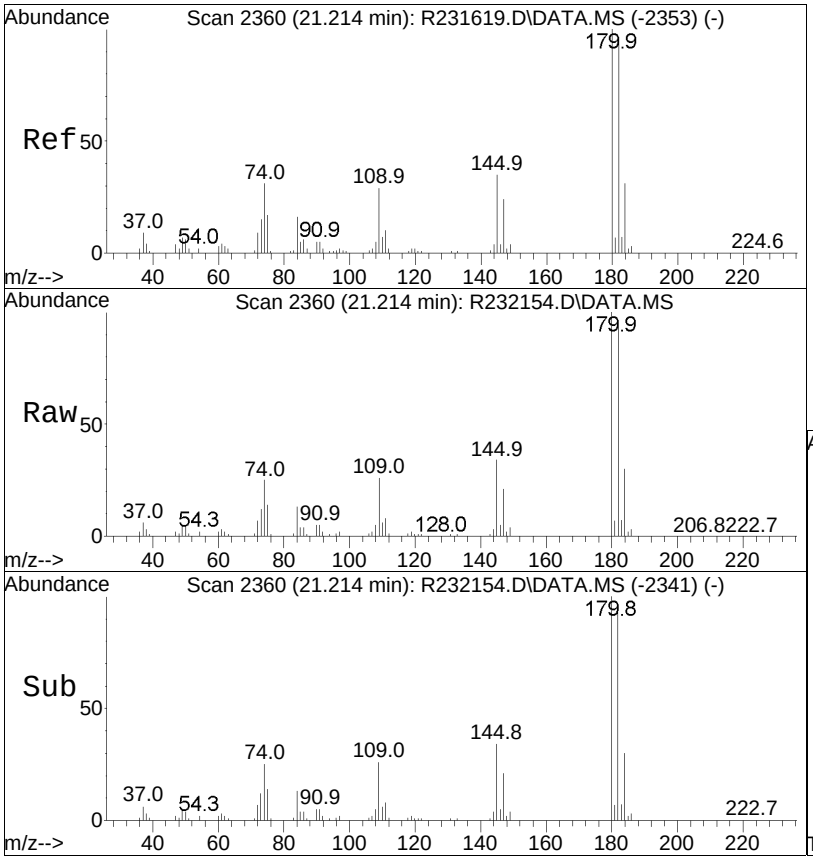


#116
naphthalene
Concen: 13.61 ppbV
RT: 20.97 min Scan# 2337
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:128 Resp: 1342668

Ion	Ratio	Lower	Upper
128	100		
102	8.1	6.7	10.1

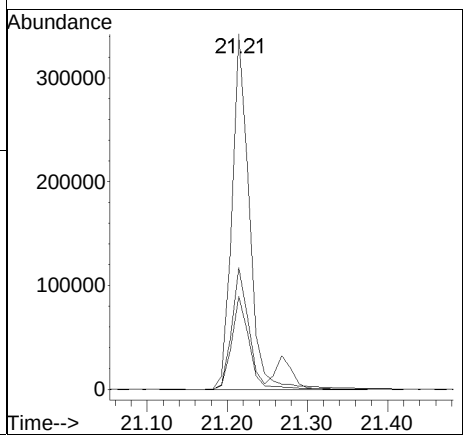


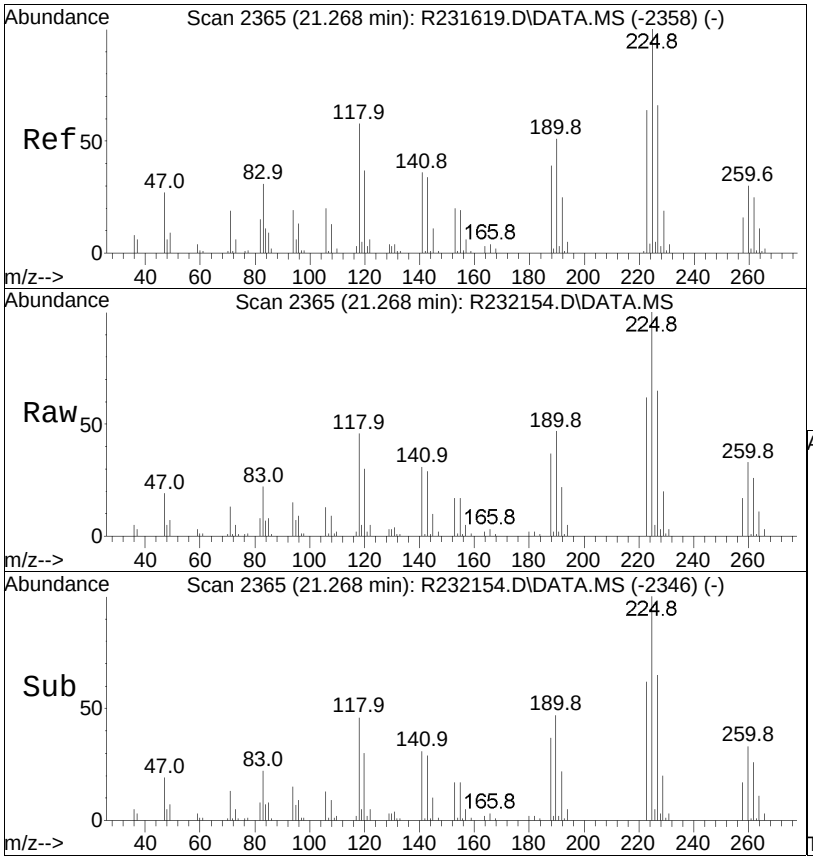


#117
1,2,3-trichlorobenzene
Concen: 13.88 ppbV
RT: 21.21 min Scan# 2360
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:180 Resp: 516389

Ion	Ratio	Lower	Upper
180	100		
145	34.3	28.2	42.4
109	26.2	23.5	35.3

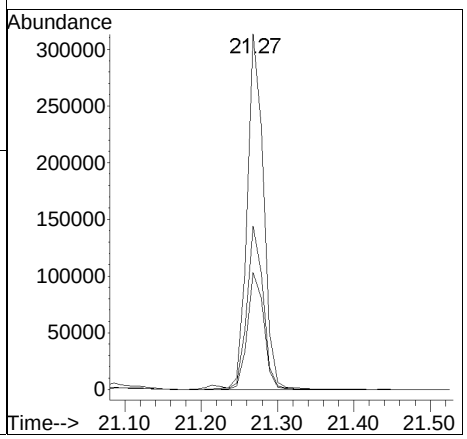




#119
hexachlorobutadiene
Concen: 14.16 ppbV
RT: 21.27 min Scan# 2365
Delta R.T. 0.000 min
Lab File: R232154.D
Acq: 16 Jan 2015 1:52 pm

Tgt Ion:225 Resp: 466394

Ion	Ratio	Lower	Upper
225	100		
260	32.9	24.2	36.4
118	46.0	46.2	69.4#

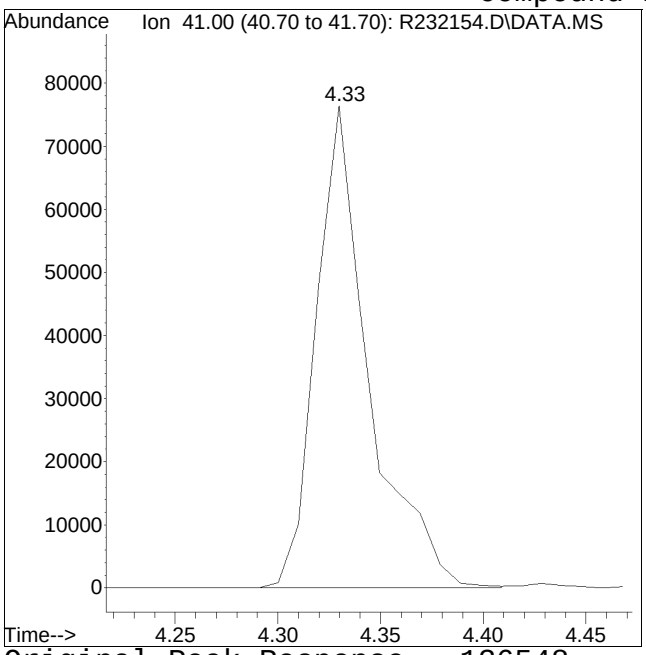


Manual Integration/Negative Proof Report

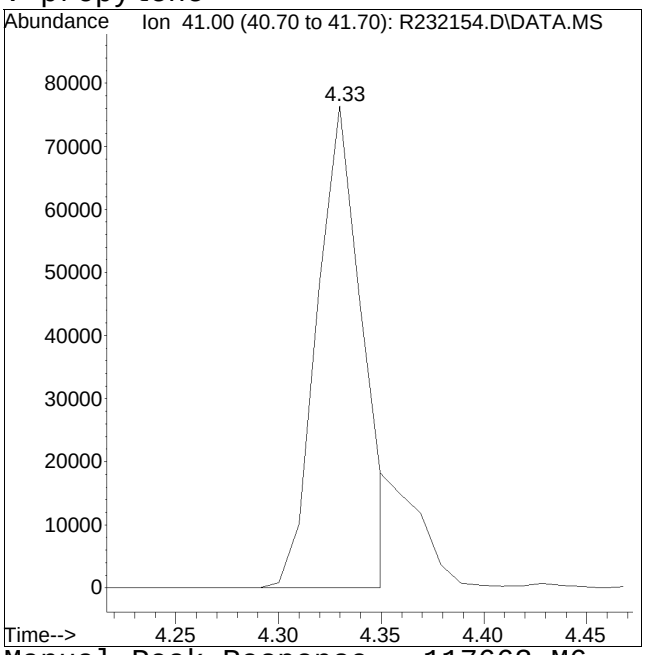
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232154.D
Date Inj'd : 1/16/2015 1:52 pm
Sample : WG756340-3,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/16/2015 2:24 pm

Compound #3: propylene



Original Peak Response = 136548



Manual Peak Response = 117663 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-5DL	Date Collected	: 01/09/15 14:25
Client ID	: 116 LANZA-NS-1DUP	Date Received	: 01/12/15
Sample Location	:	Date Analyzed	: 01/16/15 21:56
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.02
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232168	Instrument ID	: AIRPIANO2
Sample Amount	: 124 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.62	0.40	--	3.	2.	--	
74-87-3	Chloromethane	0.50	0.40	--	1.	0.8	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.40	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.40	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.40	--	ND	0.9	--	U
74-83-9	Bromomethane	ND	0.40	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.40	--	ND	1.	--	U
64-17-5	Ethyl Alcohol	26.	5.0	--	49.	9.4	--	
593-60-2	Vinyl bromide	ND	0.40	--	ND	2.	--	U
67-64-1	Acetone	120	2.0	--	290	4.8	--	
75-69-4	Trichlorofluoromethane	ND	0.40	--	ND	2.	--	U
67-63-0	iso-Propyl Alcohol	32.	1.0	--	79.	2.5	--	
75-35-4	1,1-Dichloroethene	ND	0.40	--	ND	2.	--	U
75-65-0	tert-Butyl Alcohol	ND	1.0	--	ND	3.	--	U
75-09-2	Methylene chloride	ND	1.0	--	ND	3.	--	U
107-05-1	3-Chloropropene	ND	0.40	--	ND	1.	--	U
75-15-0	Carbon disulfide	0.56	0.40	--	2.	1.	--	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.40	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.40	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.40	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.40	--	ND	1.	--	U
78-93-3	2-Butanone	23.	0.40	--	68.	1.2	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.40	--	ND	2.	--	U
67-66-3	Chloroform	1.3	0.40	--	6.	2.	--	
109-99-9	Tetrahydrofuran	ND	0.40	--	ND	1.	--	U
107-06-2	1,2-Dichloroethane	ND	0.40	--	ND	2.	--	U
110-54-3	n-Hexane	0.45	0.40	--	2.	1.	--	
71-55-6	1,1,1-Trichloroethane	ND	0.40	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-5DL	Date Collected	: 01/09/15 14:25
Client ID	: 116 LANZA-NS-1DUP	Date Received	: 01/12/15
Sample Location	:	Date Analyzed	: 01/16/15 21:56
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.02
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232168	Instrument ID	: AIRPIANO2
Sample Amount	: 124 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	0.96	0.40	--	3.	1.	--	
56-23-5	Carbon tetrachloride	ND	0.40	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.40	--	ND	1.	--	U
78-87-5	1,2-Dichloropropane	ND	0.40	--	ND	2.	--	U
75-27-4	Bromodichloromethane	0.52	0.40	--	3.	3.	--	
123-91-1	1,4-Dioxane	ND	0.40	--	ND	1.	--	U
79-01-6	Trichloroethene	1.1	0.40	--	6.	2.	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.40	--	ND	2.	--	U
80-62-6	Methyl methacrylate	ND	1.0	--	ND	4.	--	U
142-82-5	Heptane	0.45	0.40	--	2.	2.	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.40	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	7.5	0.40	--	31.	1.6	--	
10061-02-6	trans-1,3-Dichloropropene	ND	0.40	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.40	--	ND	2.	--	U
108-88-3	Toluene	2.0	0.40	--	8.	2.	--	
124-48-1	Dibromochloromethane	ND	0.40	--	ND	3.	--	U
106-93-4	1,2-Dibromoethane	ND	0.40	--	ND	3.	--	U
127-18-4	Tetrachloroethene	2.3	0.40	--	16.	2.7	--	
108-90-7	Chlorobenzene	ND	0.40	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.40	--	ND	2.	--	U
179601-23-1	p/m-Xylene	1.2	0.81	--	5.	4.	--	
75-25-2	Bromoform	ND	0.40	--	ND	4.	--	U
100-42-5	Styrene	ND	0.40	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.40	--	ND	3.	--	U
95-47-6	o-Xylene	0.48	0.40	--	2.	2.	--	
95-49-8	o-Chlorotoluene	ND	0.40	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.40	--	ND	2.	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.40	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500977
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG756340-5DL	Date Collected	: 01/09/15 14:25
Client ID	: 116 LANZA-NS-1DUP	Date Received	: 01/12/15
Sample Location	:	Date Analyzed	: 01/16/15 21:56
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.02
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232168	Instrument ID	: AIRPIANO2
Sample Amount	: 124 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	0.56	0.40	--	3.	2.	--	
541-73-1	1,3-Dichlorobenzene	ND	0.40	--	ND	2.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.40	--	ND	2.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.40	--	ND	2.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.40	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.40	--	ND	4.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232168.D
Acq On : 16 Jan 2015 9:56 pm
Operator : AIRPIANO2:RY
Sample : WG756340-5D,3,123.7374,250
Misc : WG756340,ICAL10499
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 17 14:05:15 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	171543	10.000	ppbV	0.00
Standard Area = 188101			Recovery = 91.20%			
43) 1,4-difluorobenzene	12.55	114	653147	10.000	ppbV	0.00
Standard Area = 721984			Recovery = 90.47%			
67) chlorobenzene-D5	16.89	54	107711	10.000	ppbV	0.00
Standard Area = 122028			Recovery = 88.27%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.43	85	7958	0.305	ppbV	91
6) chloromethane	4.66	50	3075	0.249	ppbV #	88
7) Freon-114	4.81		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	5.18	54	728	0.073	ppbV	100
13) bromomethane	5.57		0	N.D.		
14) chloroethane	5.80		0	N.D.		
15) ethanol	6.01	31	148896	12.633	ppbV	95
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.62	43	1371739	57.850	ppbV	99
21) trichlorofluoromethane	6.85	101	4781	0.094	ppbV #	82
22) isopropyl alcohol	6.97	45	415964	16.099	ppbV	98
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.75	59	10397	0.341	ppbV #	90
28) methylene chloride	7.84	49	2291	0.127	ppbV	95
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	8.16	76	12580	0.277	ppbV #	80
31) Freon 113	8.18		0	N.D.		
32) trans-1,2-dichloroethene	8.97		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.	d	
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	9.69	43	348942	11.621	ppbV	99
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.54	83	22703	0.651	ppbV	98
40) Tetrahydrofuran	0.00		0	N.D.	d	
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.45	57	4910	0.223	ppbV #	71
48) 1,1,1-trichloroethane	11.65		0	N.D.		
50) benzene	12.16	78	21930	0.475	ppbV #	92

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232168.D
Acq On : 16 Jan 2015 9:56 pm
Operator : AIRPIANO2:RY
Sample : WG756340-5D,3,123.7374,250
Misc : WG756340,ICAL10499
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 17 14:05:15 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150116T\R232153.D
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52)	carbon tetrachloride	12.33		0	N.D.			
53)	cyclohexane	12.47	56	1566	0.071	ppbV	#	62
56)	1,2-dichloropropane	0.00		0	N.D.	d		
57)	bromodichloromethane	13.30	83	10962	0.256	ppbV		99
58)	1,4-dioxane	0.00		0	N.D.			
59)	trichloroethene	13.34	130	13901	0.548	ppbV		96
60)	2,2,4-trimethylpentane	13.39	57	4991	0.067	ppbV	#	92
61)	methyl methacrylate	0.00		0	N.D.	d		
62)	heptane	13.66	43	6318	0.223	ppbV		98
63)	cis-1,3-dichloropropene	0.00		0	N.D.			
64)	4-methyl-2-pentanone	14.34	43	150511	3.718	ppbV		97
65)	trans-1,3-dichloropropene	0.00		0	N.D.			
66)	1,1,2-trichloroethane	0.00		0	N.D.			
68)	toluene	15.32	91	71006	1.004	ppbV		97
74)	dibromochloromethane	15.73	129	4922	0.089	ppbV		97
75)	1,2-dibromoethane	0.00		0	N.D.			
78)	tetrachloroethene	16.36	166	41308	1.150	ppbV		98
80)	chlorobenzene	16.93		0	N.D.			
81)	ethylbenzene	17.22	91	12264	0.178	ppbV		98
83)	m+p-xylene	17.35	91	33183	0.602	ppbV		98
84)	bromoform	17.43		0	N.D.			
85)	styrene	17.65		0	N.D.			
86)	1,1,2,2-tetrachloroethane	17.70		0	N.D.			
87)	o-xylene	17.72	91	13431	0.238	ppbV		96
93)	2-chlorotoluene	18.36		0	N.D.			
96)	4-ethyl toluene	18.63	105	4999	0.058	ppbV		96
97)	1,3,5-trimethylbenzene	18.69	105	5241	0.077	ppbV		98
99)	1,2,4-trimethylbenzene	18.99	105	18920	0.280	ppbV	#	49
102)	1,3-dichlorobenzene	19.17		0	N.D.			
103)	1,4-dichlorobenzene	19.17		0	N.D.			
107)	1,2-dichlorobenzene	0.00		0	N.D.			
115)	1,2,4-trichlorobenzene	0.00		0	N.D.			
119)	hexachlorobutadiene	0.00		0	N.D.			

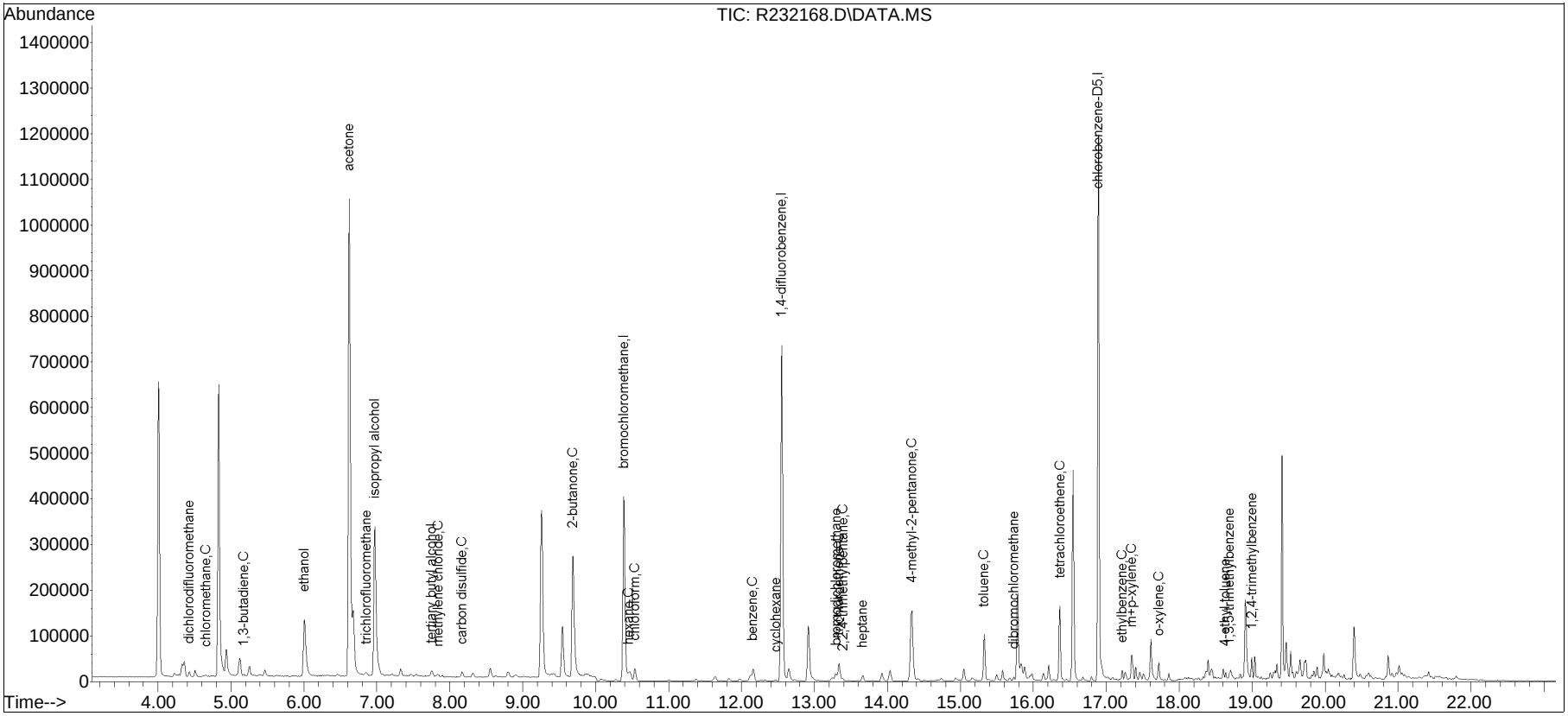
(#) = qualifier out of range (m) = manual integration (+) = signals summed

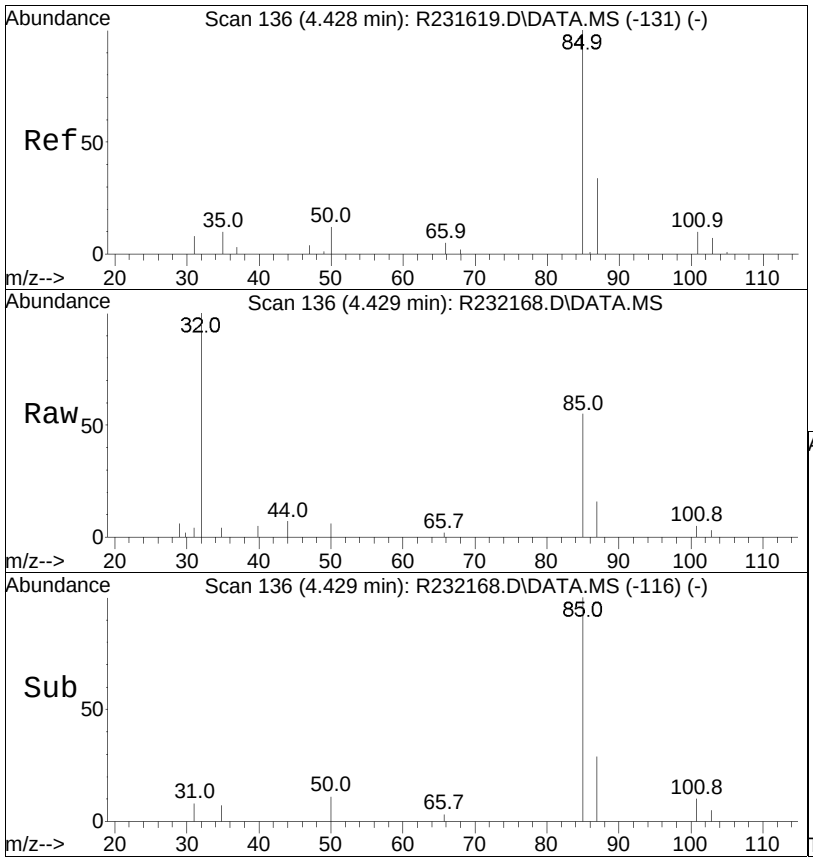
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150116T\
Data File : R232168.D
Acq On : 16 Jan 2015 9:56 pm
Operator : AIRPIANO2:RY
Sample : WG756340-5D,3,123.7374,250
Misc : WG756340,ICAL10499
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 17 14:05:15 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150116T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\AIR2\2015\150116T\R232153.D

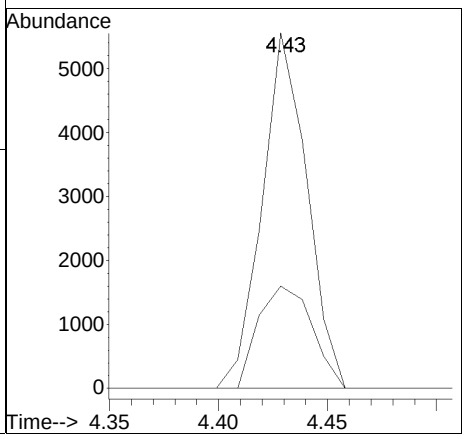


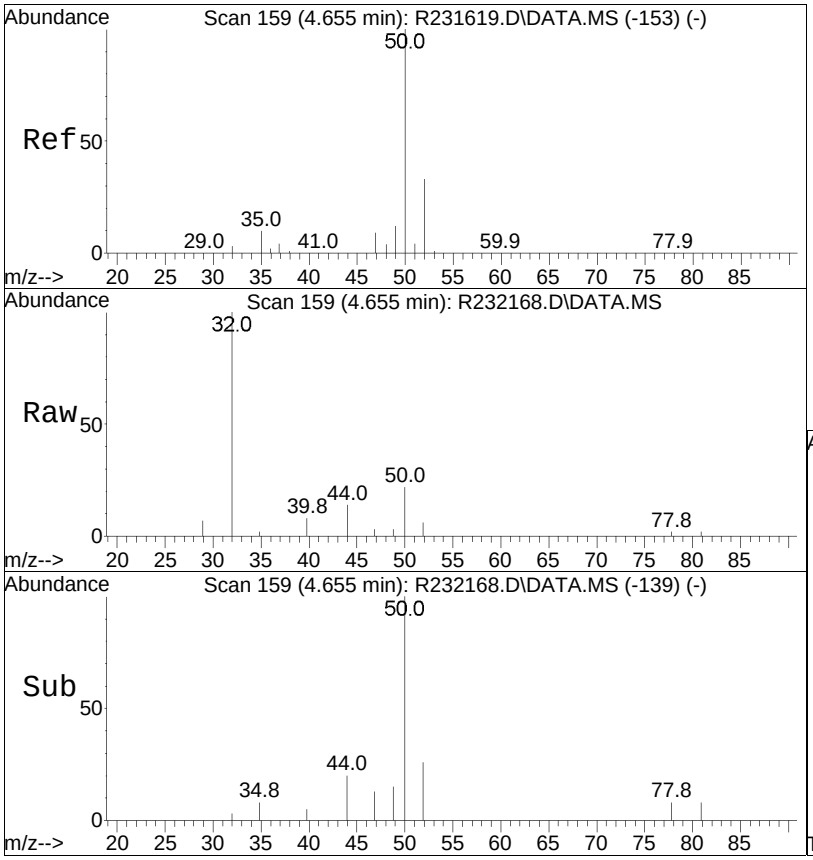


#5
dichlorodifluoromethane
Concen: 0.31 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 85 Resp: 7958

Ion	Ratio	Lower	Upper
85	100		
87	28.8	27.2	40.8

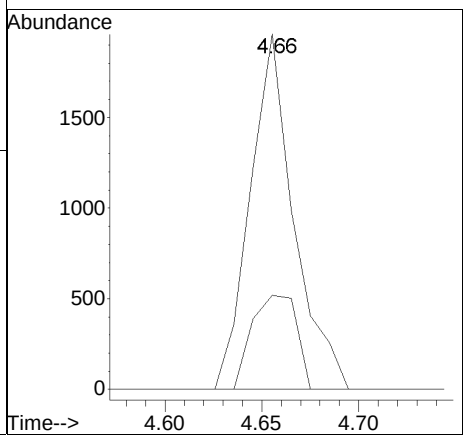


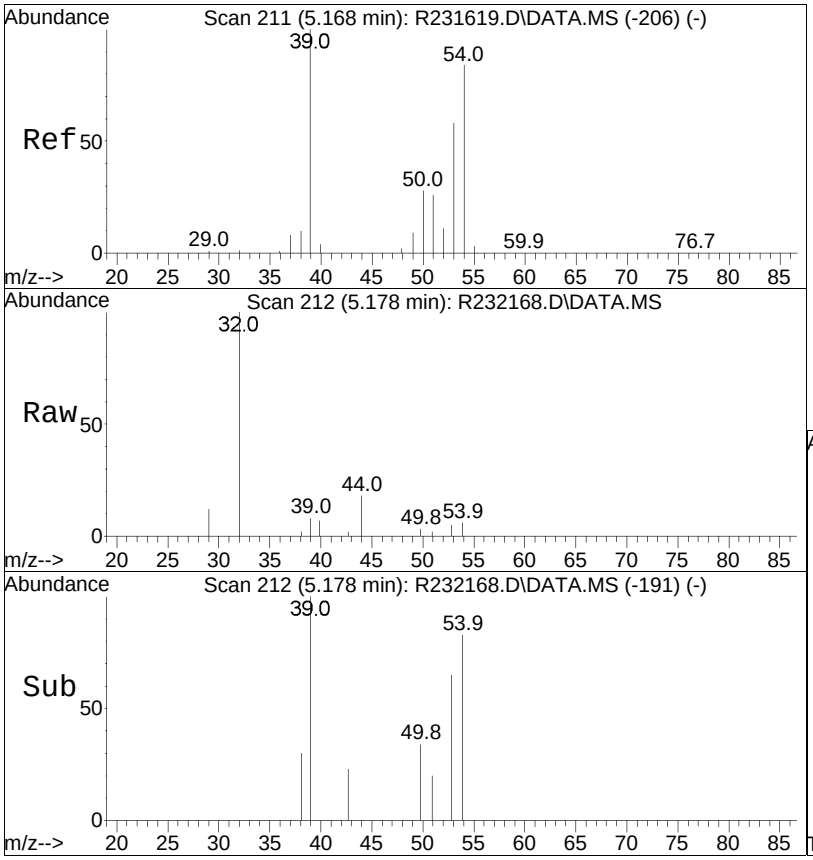


#6
chloromethane
Concen: 0.25 ppbV
RT: 4.66 min Scan# 159
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 50 Resp: 3075

Ion	Ratio	Lower	Upper
50	100		
52	26.5	26.6	39.8#

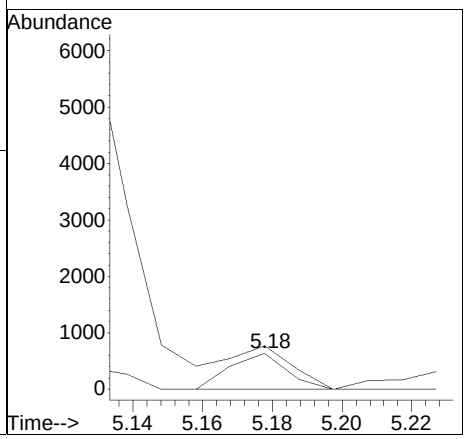


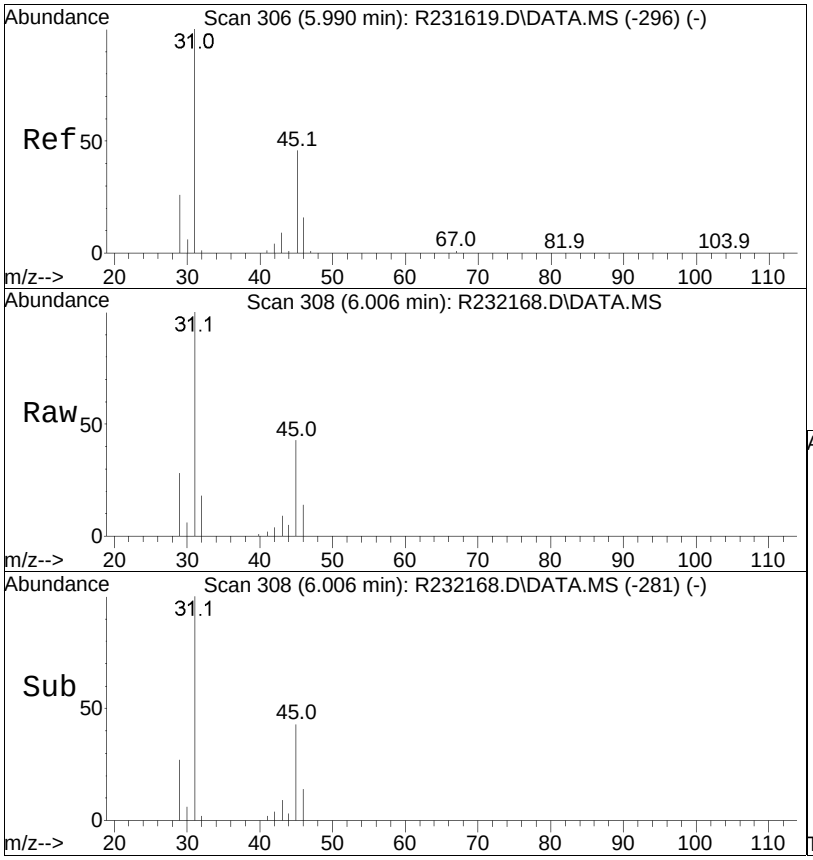


#10
1,3-butadiene
Concen: 0.07 ppbV
RT: 5.18 min Scan# 212
Delta R.T. 0.010 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 54 Resp: 728

Ion	Ratio	Lower	Upper
54	100		
39	120.7	96.6	144.8

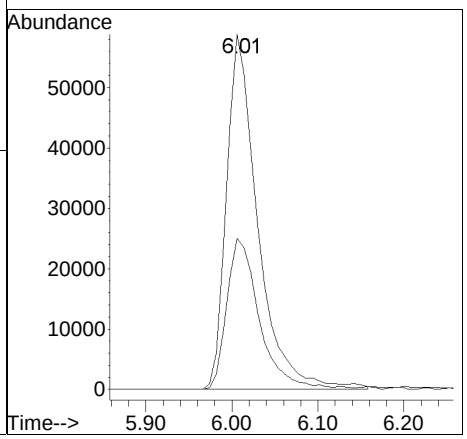


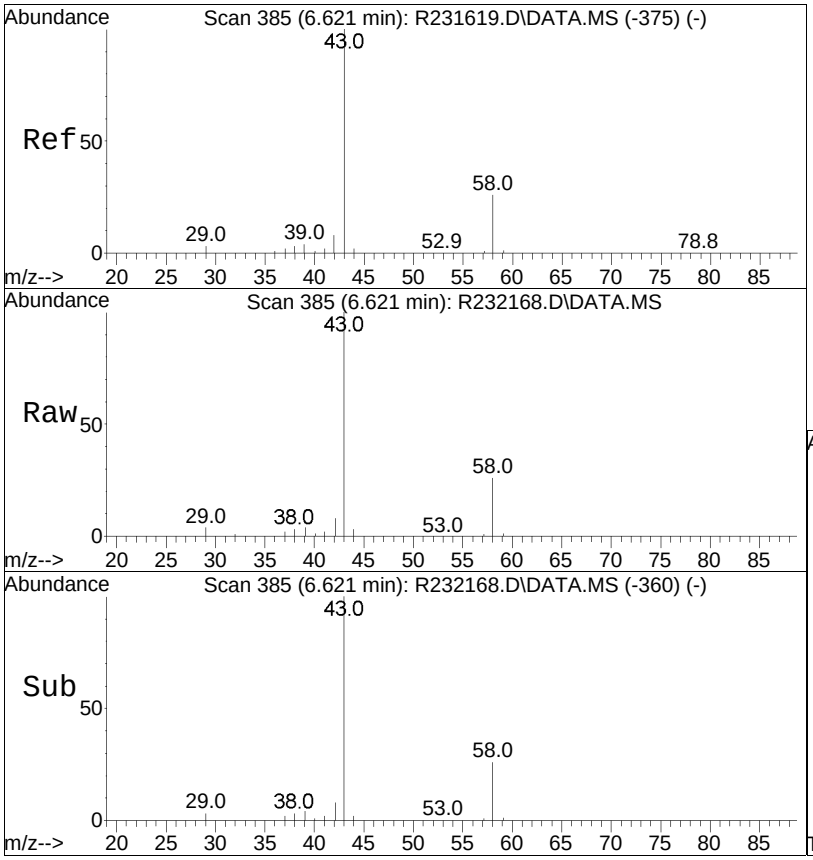


#15
ethanol
Concen: 12.63 ppbV
RT: 6.01 min Scan# 308
Delta R.T. 0.016 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 31 Resp: 148896

Ion	Ratio	Lower	Upper
31	100		
45	42.5	36.8	55.2

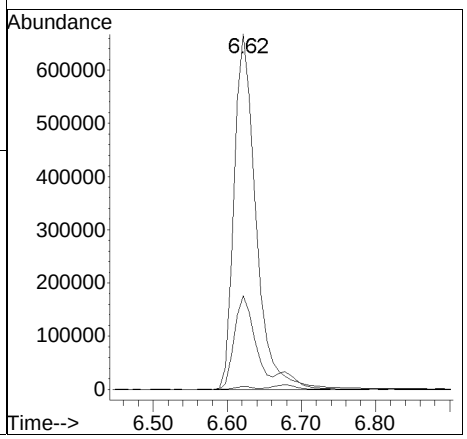


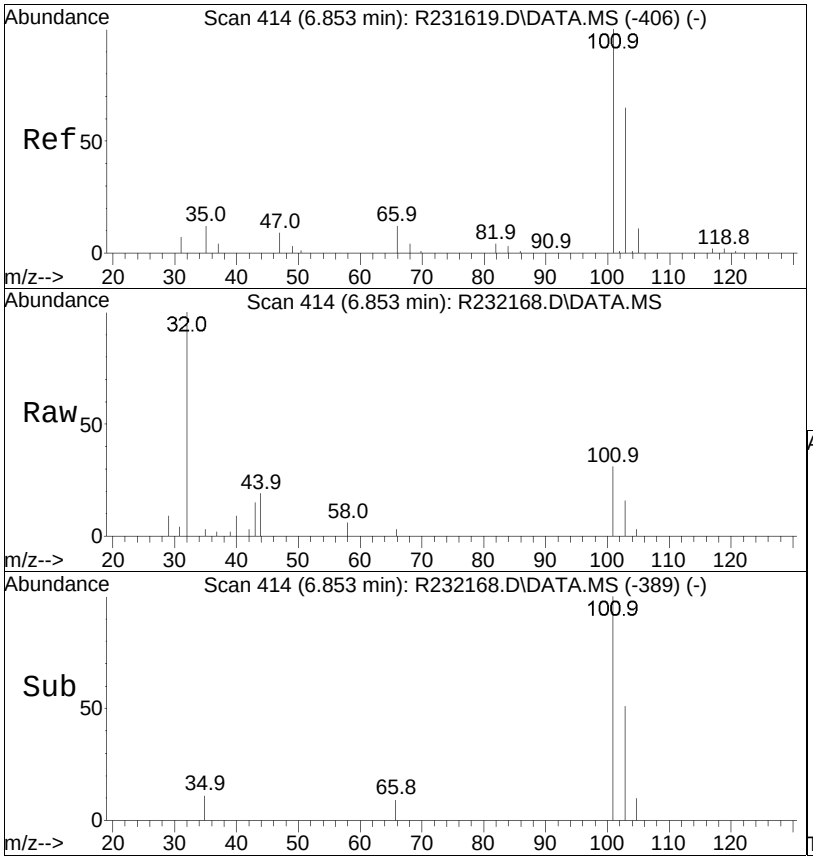


#19
acetone
Concen: 57.85 ppbV
RT: 6.62 min Scan# 385
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 43 Resp: 1371739

Ion	Ratio	Lower	Upper
43	100		
58	26.4	20.6	31.0
57	0.8	0.6	1.0

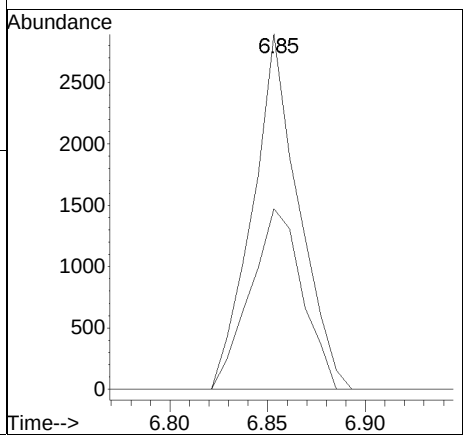


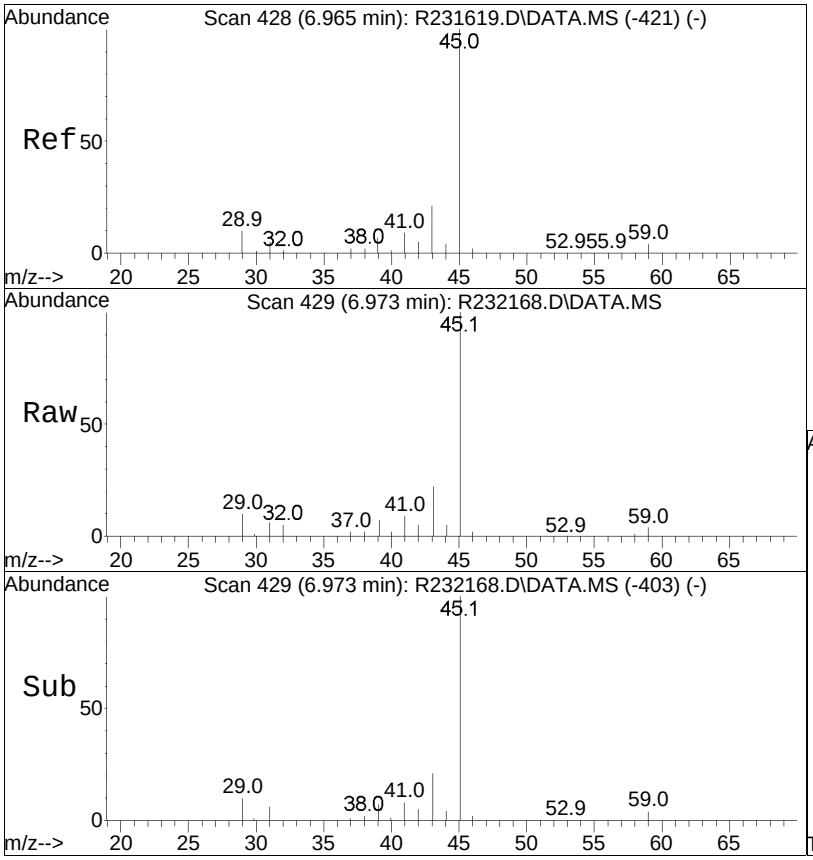


#21
trichlorofluoromethane
Concen: 0.09 ppbV
RT: 6.85 min Scan# 414
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion:101 Resp: 4781

Ion	Ratio	Lower	Upper
101	100		
103	50.8	52.1	78.1#

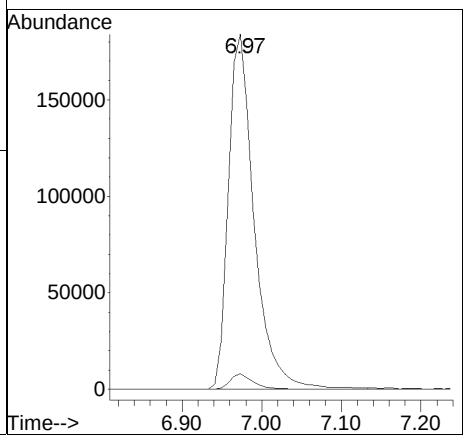


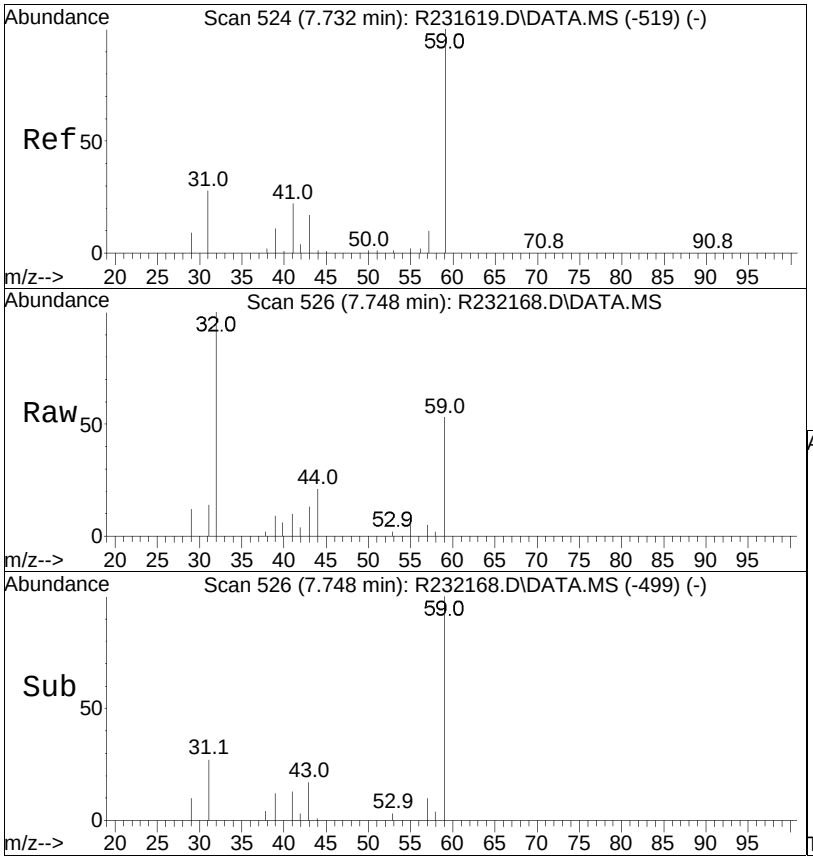


#22
isopropyl alcohol
Concen: 16.10 ppbV
RT: 6.97 min Scan# 429
Delta R.T. 0.008 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 45 Resp: 415964

Ion	Ratio	Lower	Upper
45	100		
59	4.4	3.1	4.7

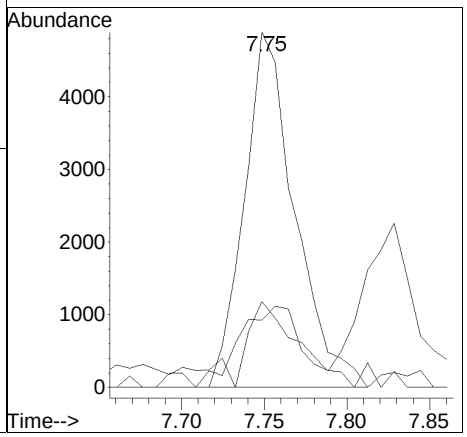


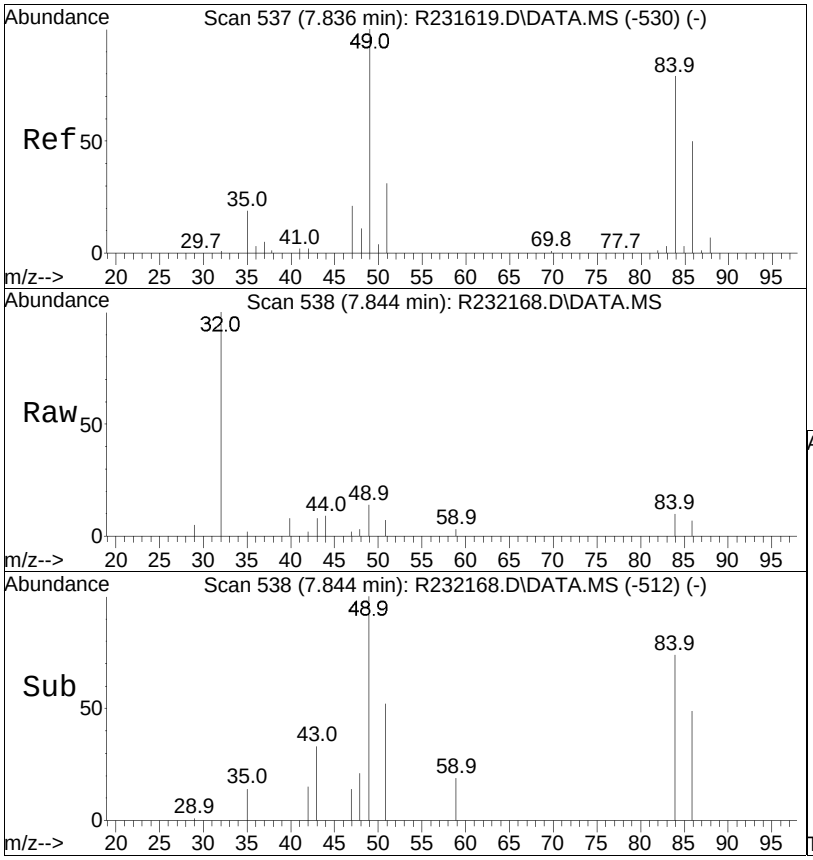


#27
tertiary butyl alcohol
Concen: 0.34 ppbV
RT: 7.75 min Scan# 526
Delta R.T. 0.016 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 59 Resp: 10397

Ion	Ratio	Lower	Upper
59	100		
41	18.9	17.4	26.2
43	24.2	13.8	20.6#

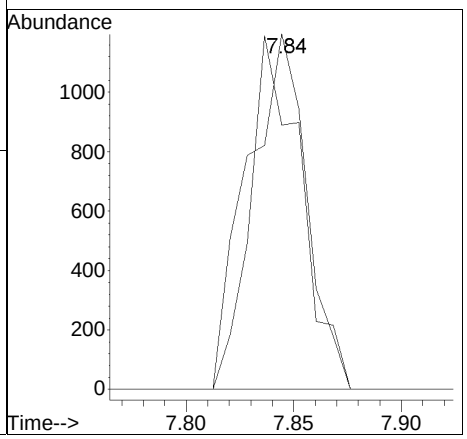


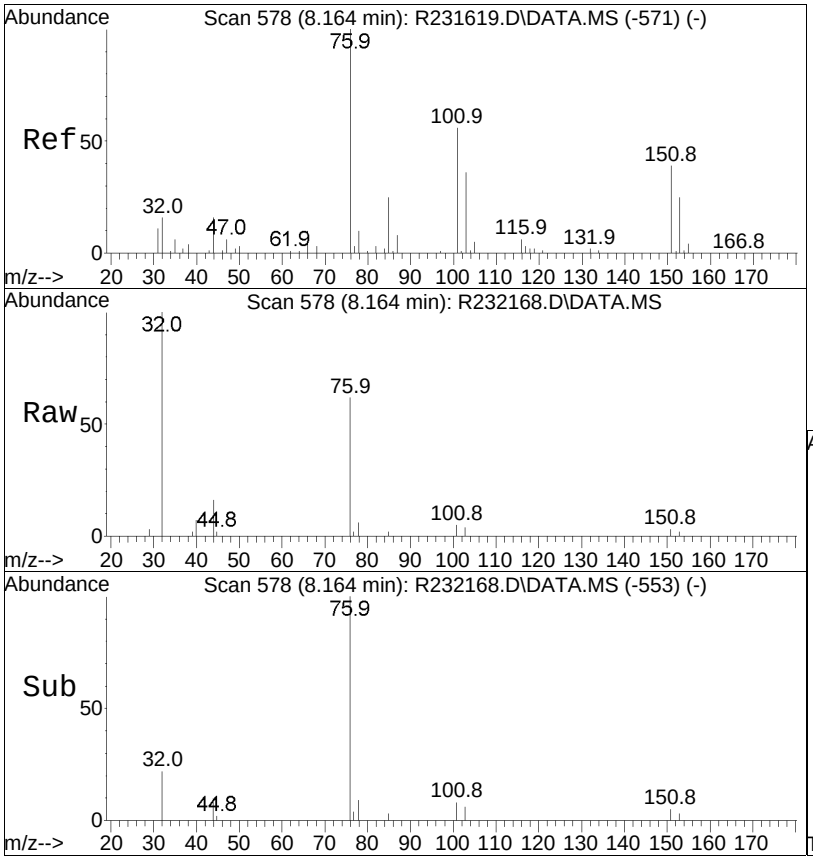


#28
methylene chloride
Concen: 0.13 ppbV
RT: 7.84 min Scan# 538
Delta R.T. 0.008 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 49 Resp: 2291

Ion	Ratio	Lower	Upper
49	100		
84	74.4	63.3	94.9

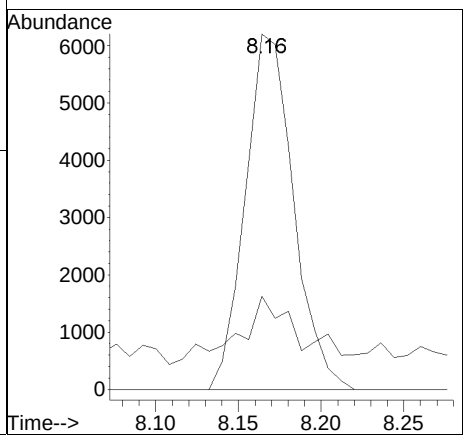


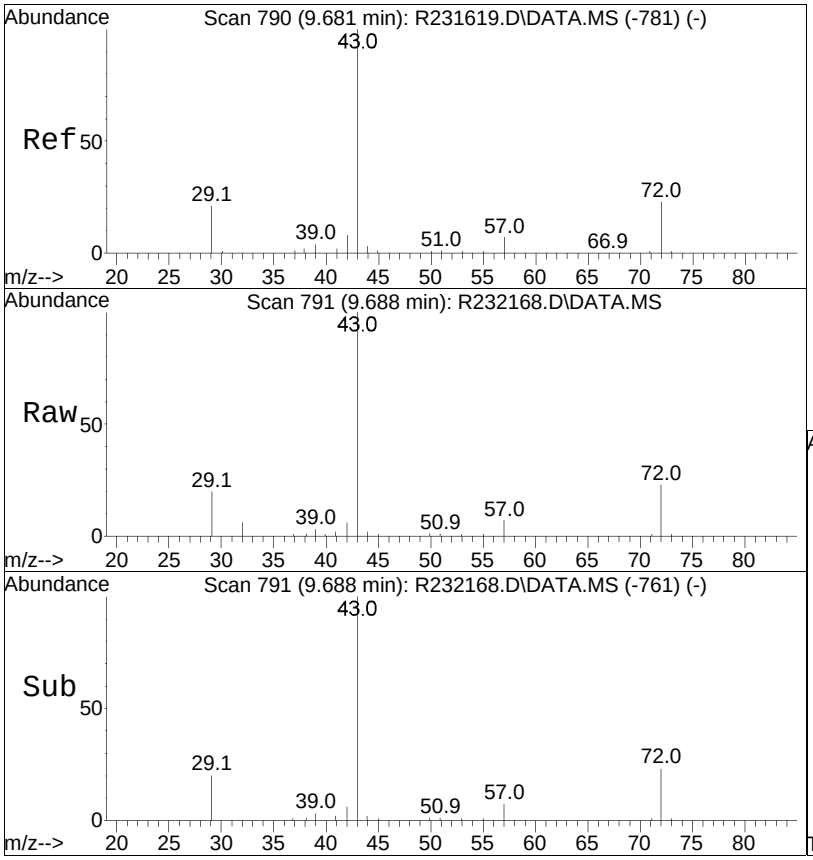


#30
carbon disulfide
Concen: 0.28 ppbV
RT: 8.16 min Scan# 578
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 76 Resp: 12580

Ion	Ratio	Lower	Upper
76	100		
44	26.2	13.9	20.9#

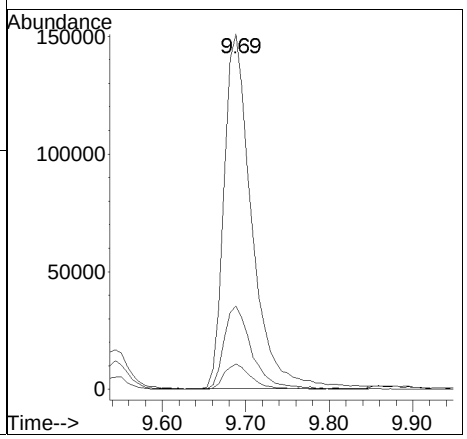


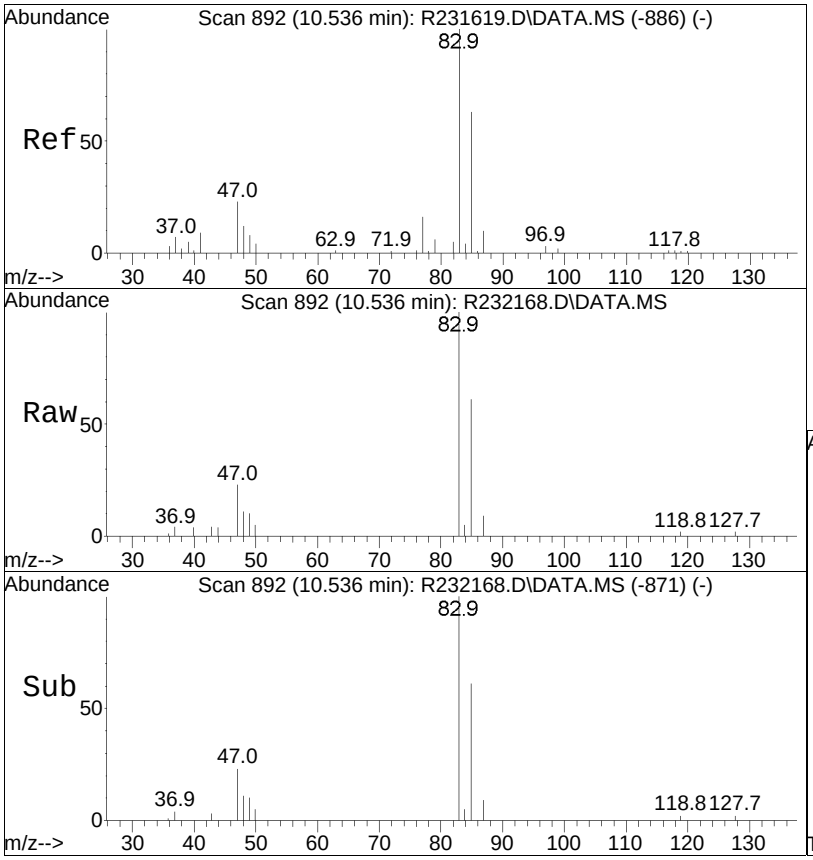


#36
2-butanone
Concen: 11.62 ppbV
RT: 9.69 min Scan# 791
Delta R.T. 0.007 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 43 Resp: 348942

Ion	Ratio	Lower	Upper
43	100		
72	23.4	18.5	27.7
57	7.1	5.4	8.2

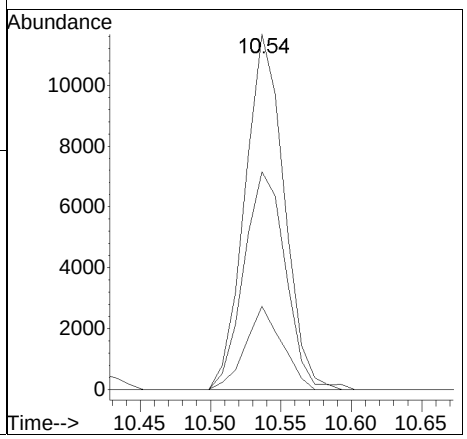


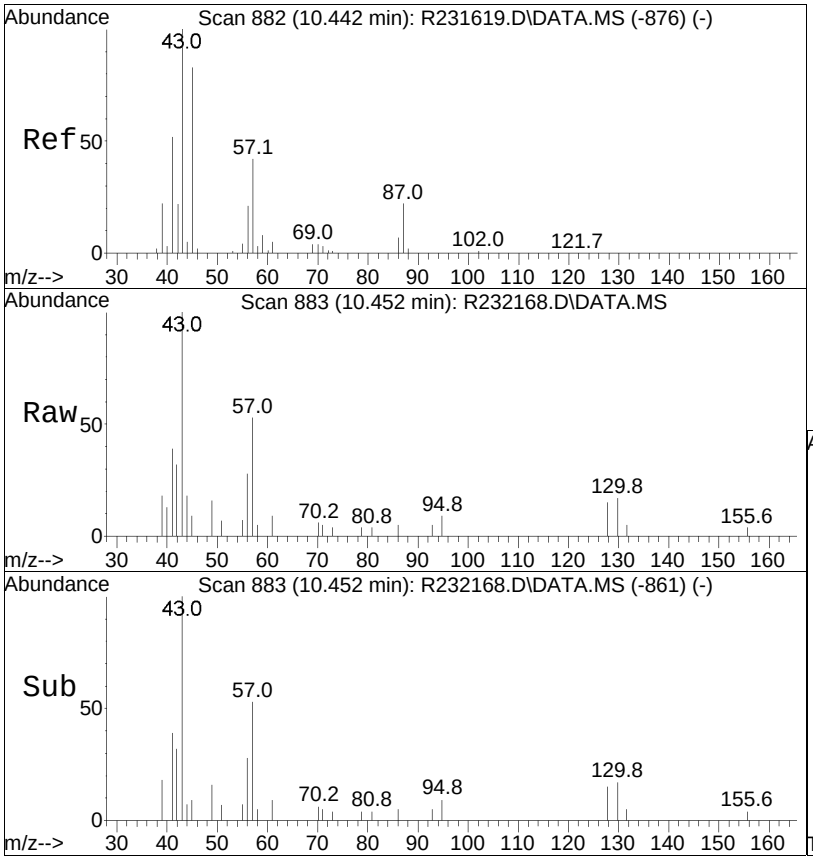


#39
chloroform
Concen: 0.65 ppbV
RT: 10.54 min Scan# 892
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 83 Resp: 22703

Ion	Ratio	Lower	Upper
83	100		
85	61.3	50.6	75.8
47	23.4	18.2	27.4

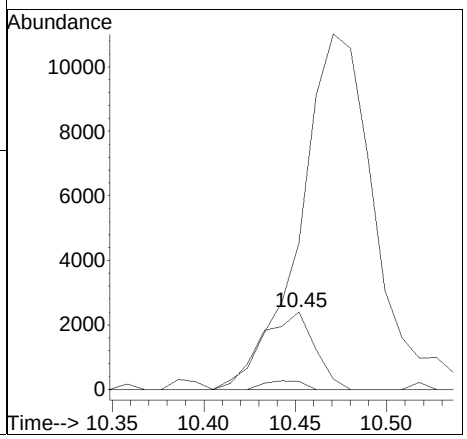


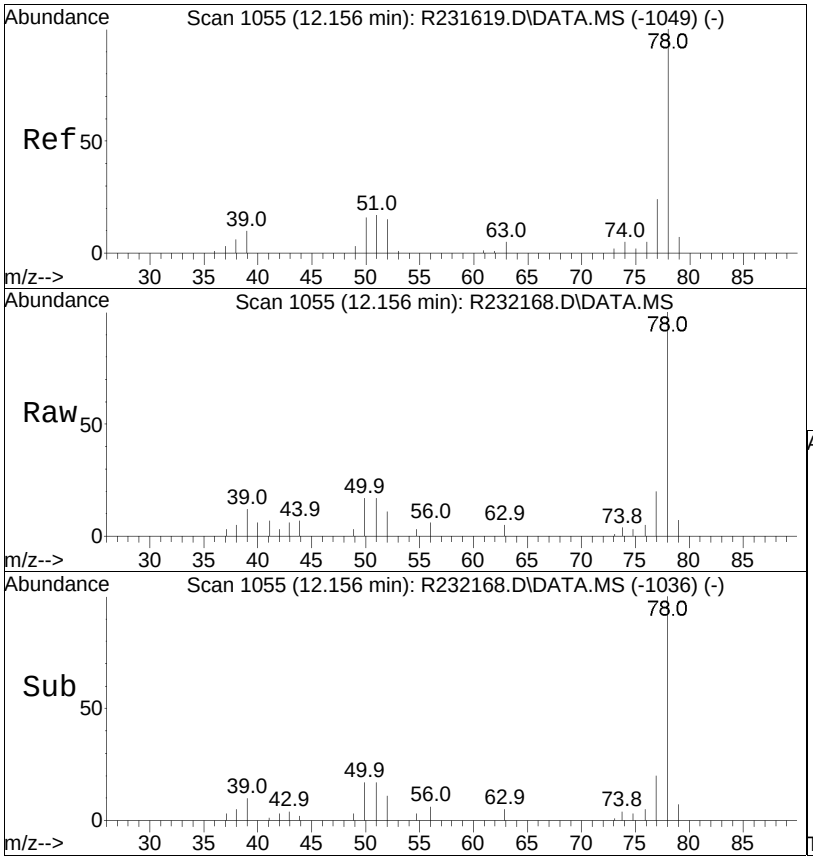


#44
hexane
Concen: 0.22 ppbV
RT: 10.45 min Scan# 883
Delta R.T. 0.010 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 57 Resp: 4910

Ion	Ratio	Lower	Upper
57	100		
43	189.1	192.7	289.1#
86	10.3	13.1	19.7#

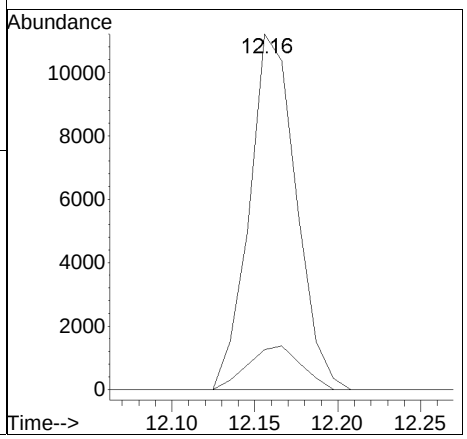


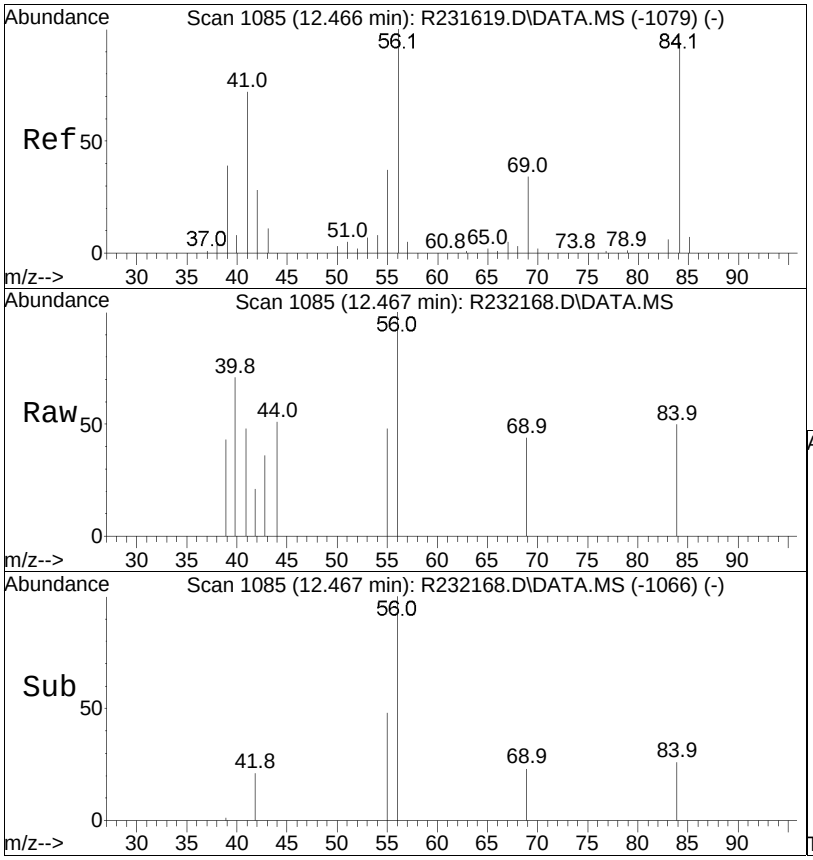


#50
benzene
Concen: 0.48 ppbV
RT: 12.16 min Scan# 1055
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 78 Resp: 21930

Ion	Ratio	Lower	Upper
78	100		
52	11.2	11.6	17.4#

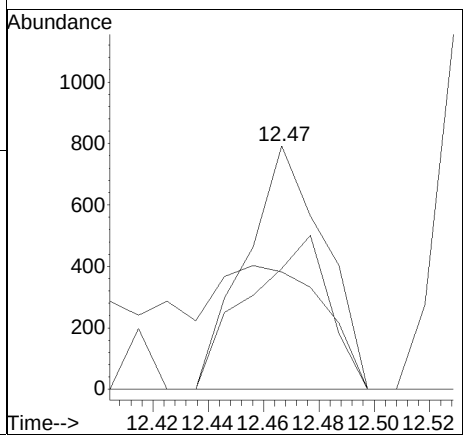


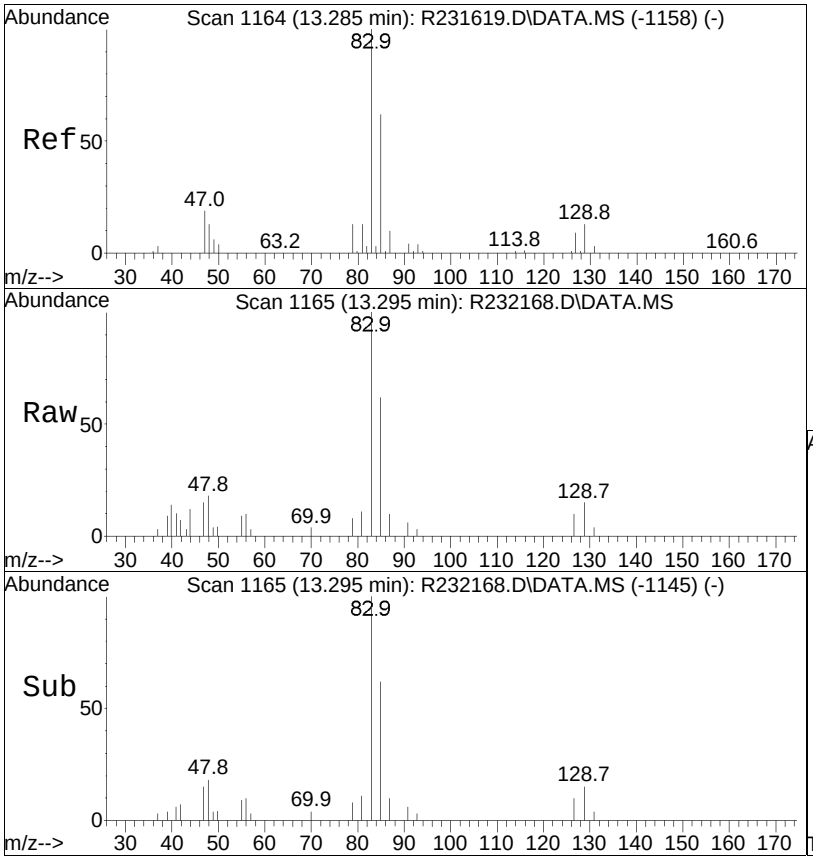


#53
cyclohexane
Concen: 0.07 ppbV
RT: 12.47 min Scan# 1085
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 56 Resp: 1566

Ion	Ratio	Lower	Upper
56	100		
84	49.6	75.0	112.4#
41	48.2	57.9	86.9#

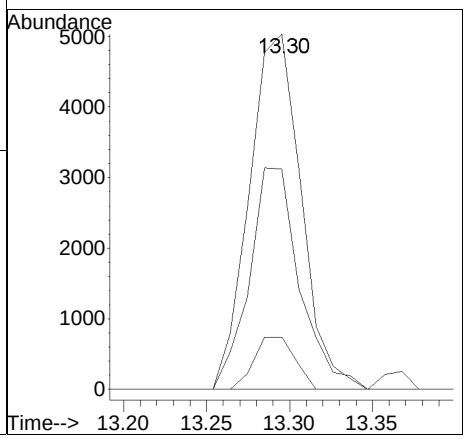


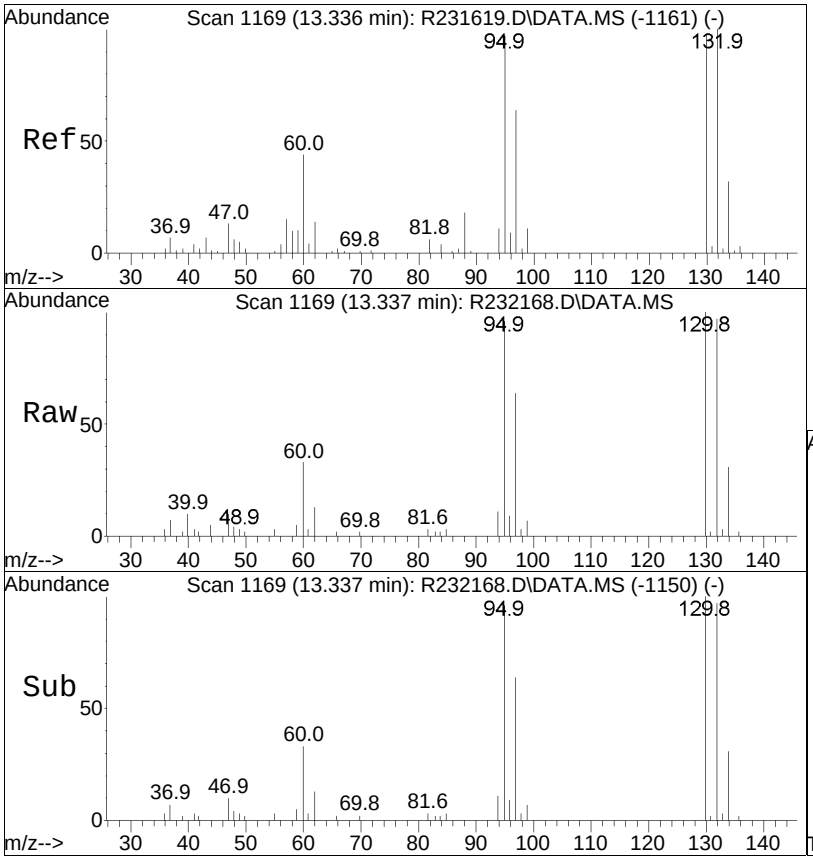


#57
bromodichloromethane
Concen: 0.26 ppbV
RT: 13.30 min Scan# 1165
Delta R.T. 0.011 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 83 Resp: 10962

Ion	Ratio	Lower	Upper
83	100		
85	62.0	49.7	74.5
129	14.8	10.2	15.4

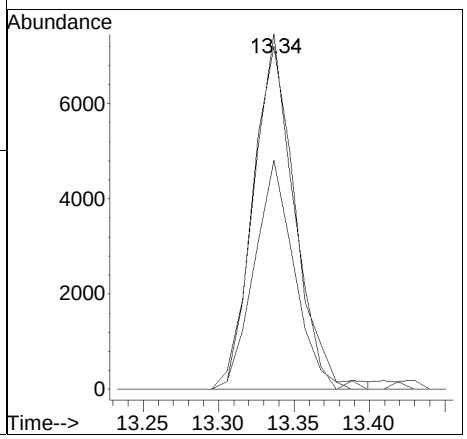


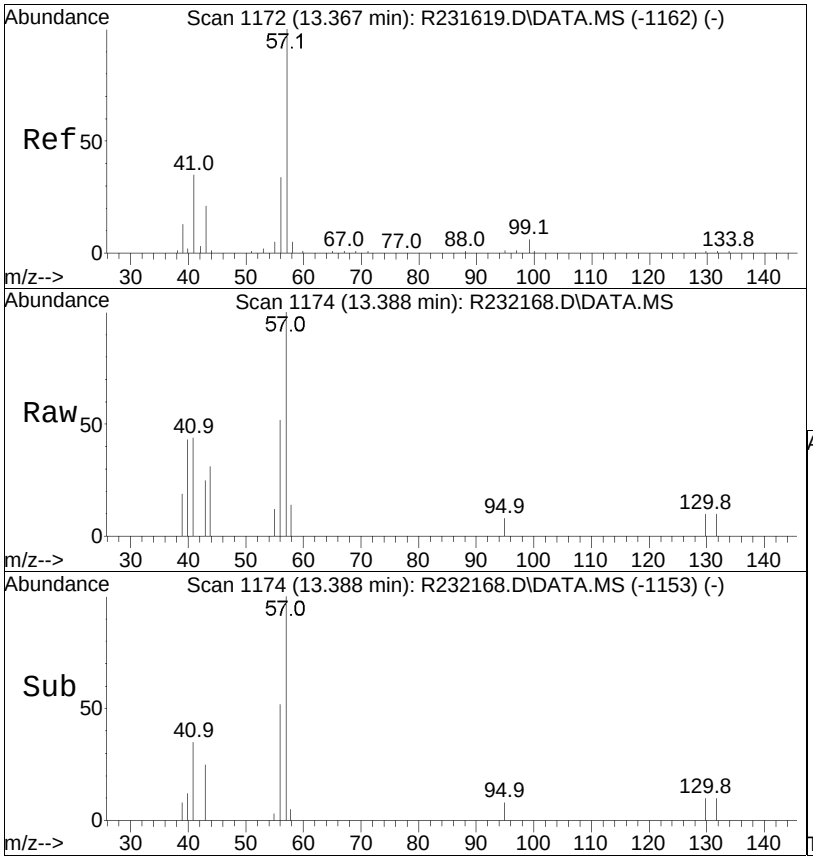


#59
trichloroethene
Concen: 0.55 ppbV
RT: 13.34 min Scan# 1169
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion:130 Resp: 13901

Ion	Ratio	Lower	Upper
130	100		
132	96.6	81.7	122.5
97	64.5	52.6	78.8

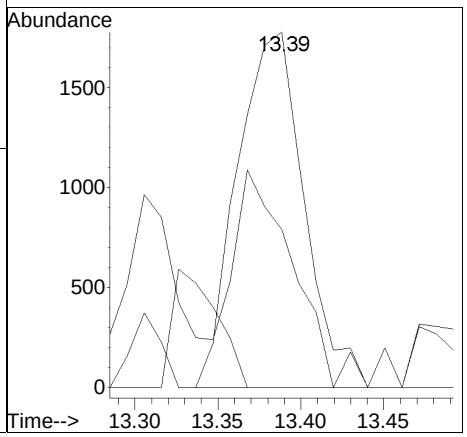


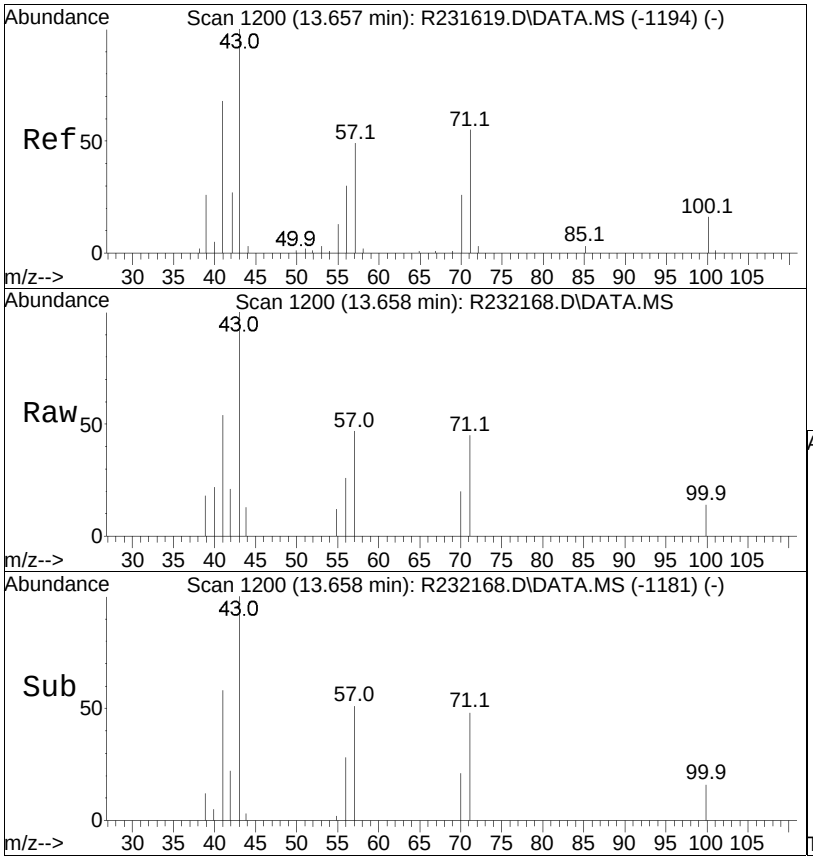


#60
2,2,4-trimethylpentane
Concen: 0.07 ppbV
RT: 13.39 min Scan# 1174
Delta R.T. 0.021 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 57 Resp: 4991

Ion	Ratio	Lower	Upper
57	100		
99	0.0	4.7	7.1#
41	39.0	28.0	42.0

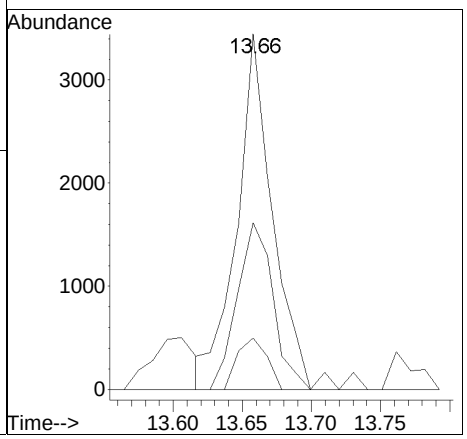


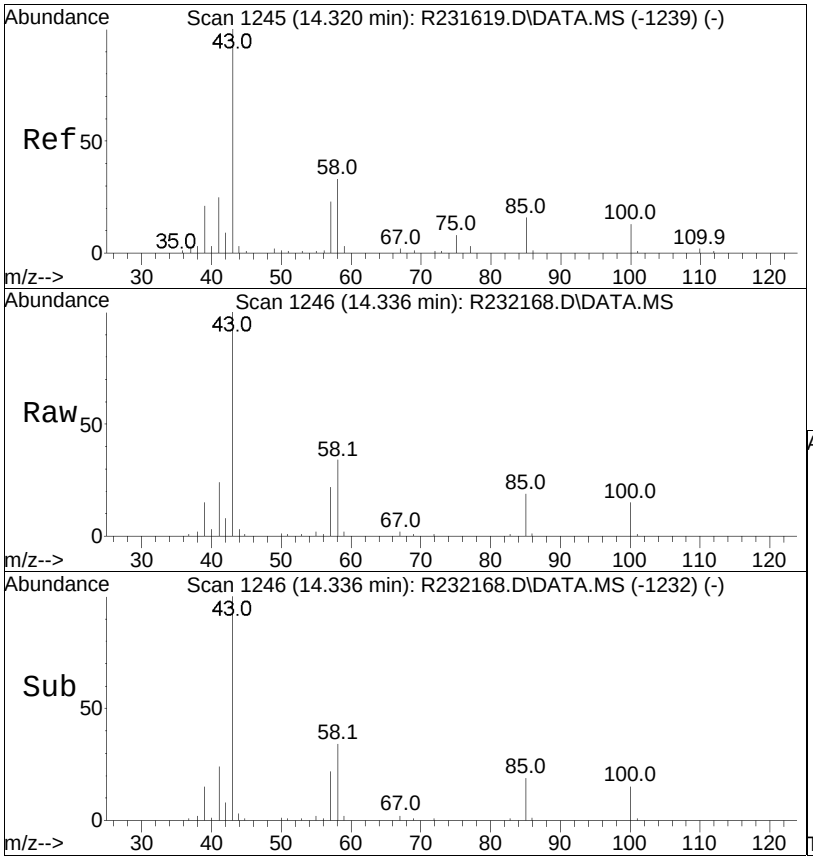


#62
heptane
Concen: 0.22 ppbV
RT: 13.66 min Scan# 1200
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 43 Resp: 6318

Ion	Ratio	Lower	Upper
43	100		
57	46.9	38.7	58.1
100	14.5	12.7	19.1

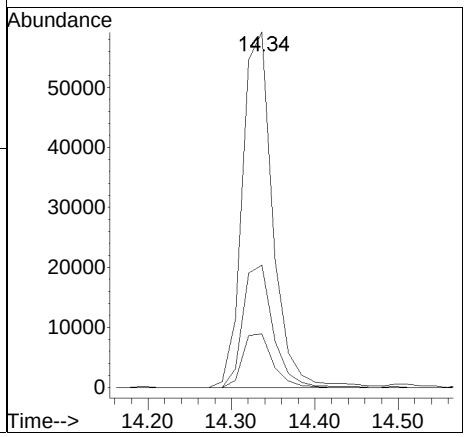


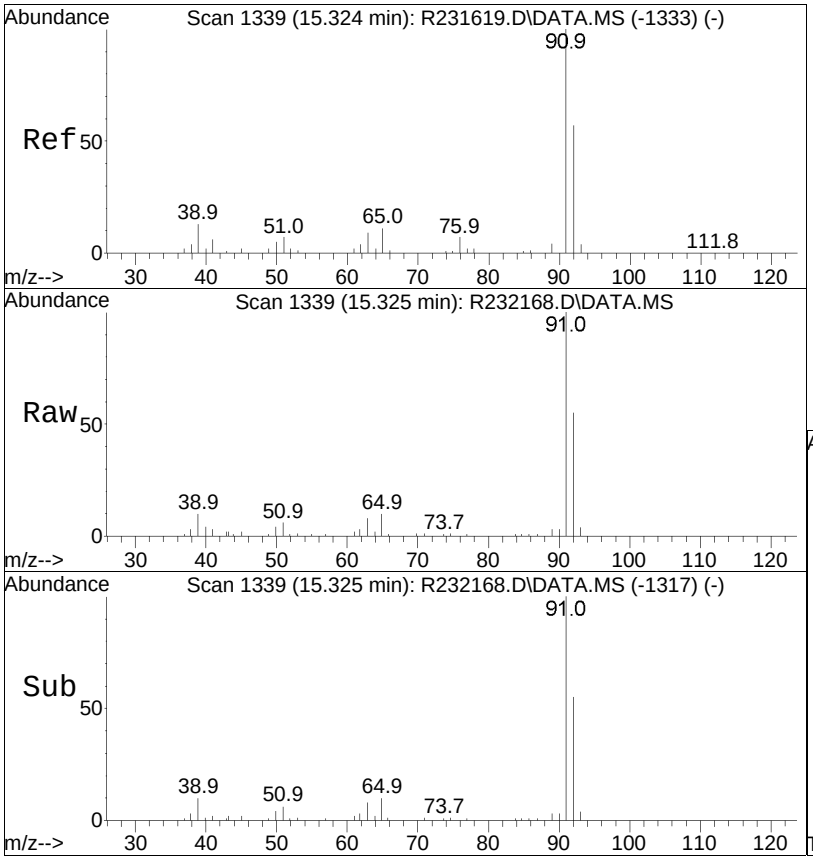


#64
4-methyl-2-pentanone
Concen: 3.72 ppbV
RT: 14.34 min Scan# 1246
Delta R.T. 0.016 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 43 Resp: 150511

Ion	Ratio	Lower	Upper
43	100		
58	34.4	26.3	39.5
100	15.0	10.5	15.7

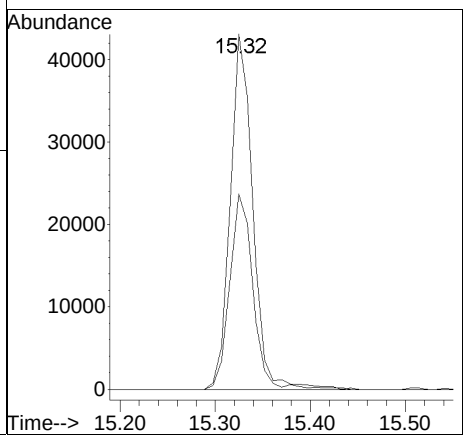


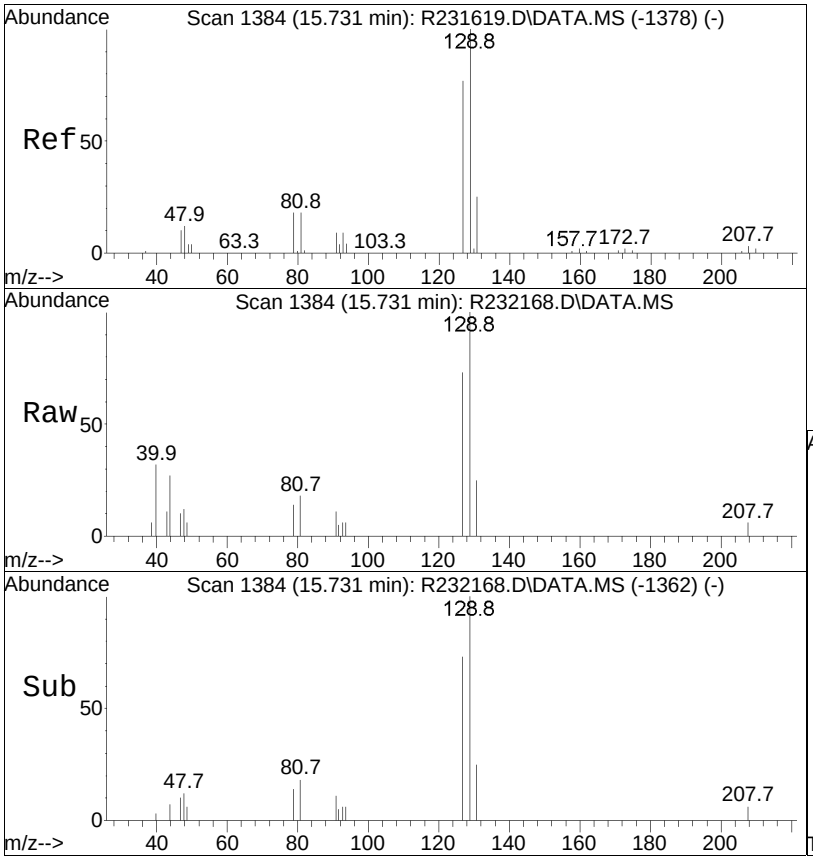


#68
toluene
Concen: 1.00 ppbV
RT: 15.32 min Scan# 1339
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 91 Resp: 71006

Ion	Ratio	Lower	Upper
91	100		
92	55.0	46.0	69.0

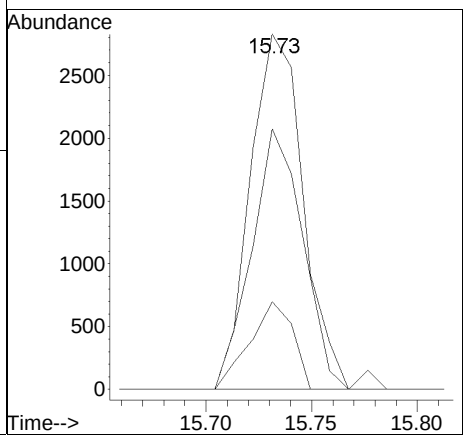


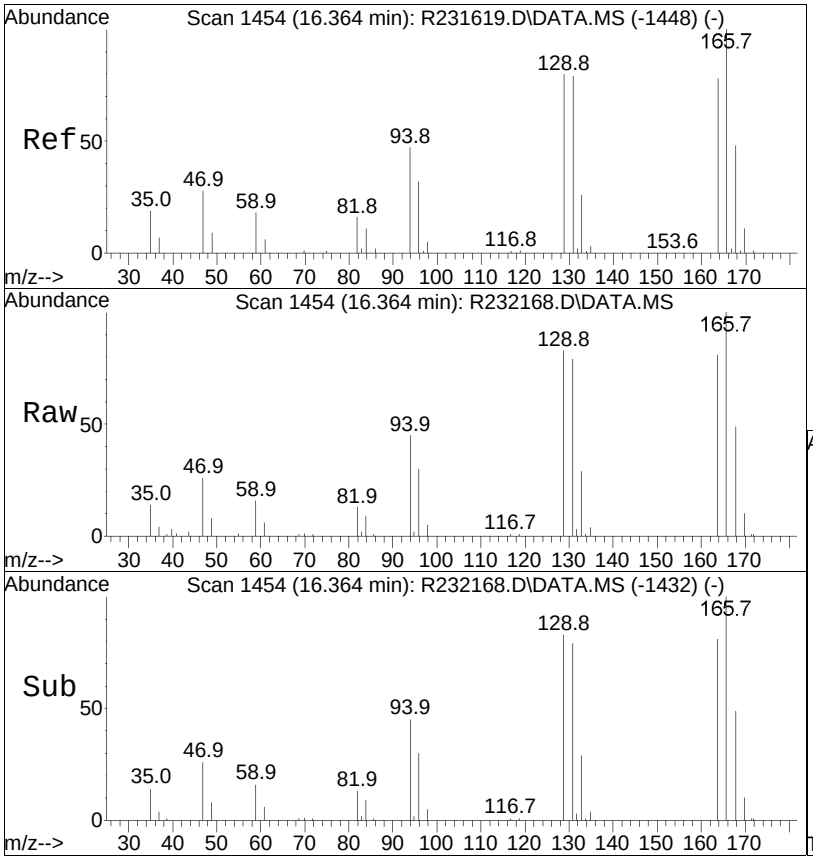


#74
dibromochloromethane
Concen: 0.09 ppbV
RT: 15.73 min Scan# 1384
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion:129 Resp: 4922

Ion	Ratio	Lower	Upper
129	100		
127	73.3	61.4	92.2
131	24.7	19.7	29.5

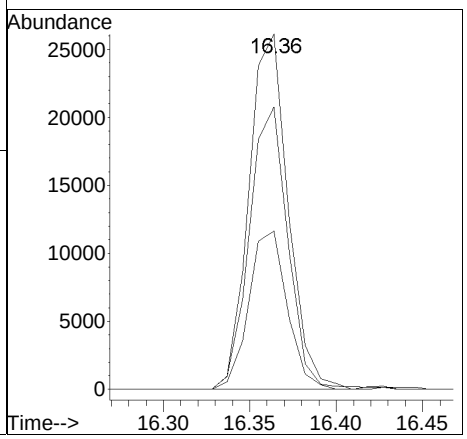


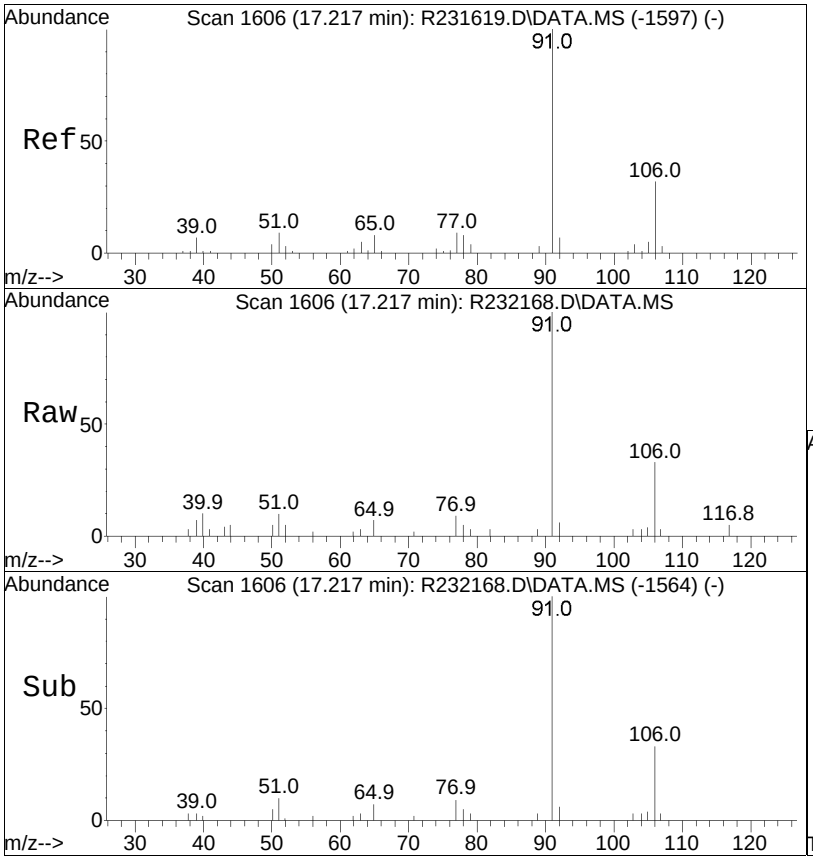


#78
tetrachloroethene
Concen: 1.15 ppbV
RT: 16.36 min Scan# 1454
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion:166 Resp: 41308

Ion	Ratio	Lower	Upper
166	100		
131	79.5	63.0	94.6
94	44.6	37.9	56.9

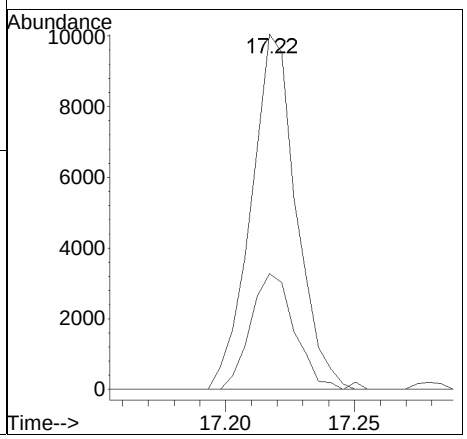


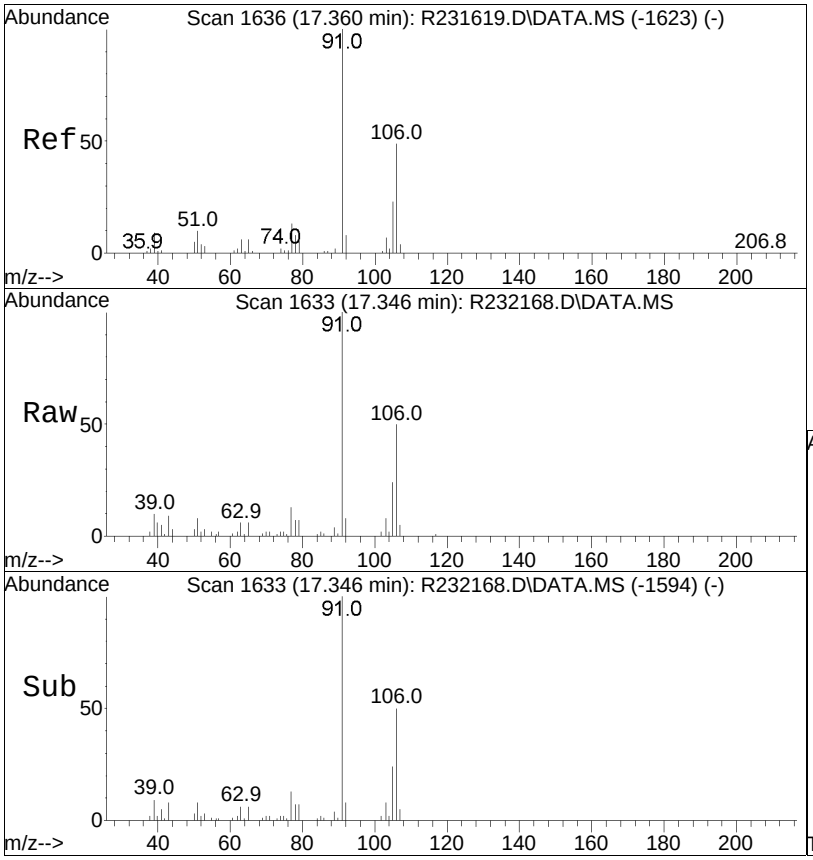


#81
ethylbenzene
Concen: 0.18 ppbV
RT: 17.22 min Scan# 1606
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 91 Resp: 12264

Ion	Ratio	Lower	Upper
91	100		
106	32.5	25.4	38.0

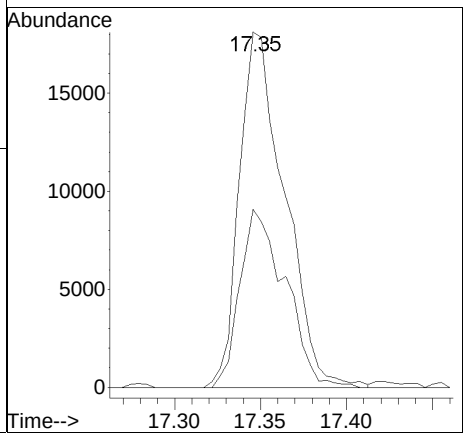


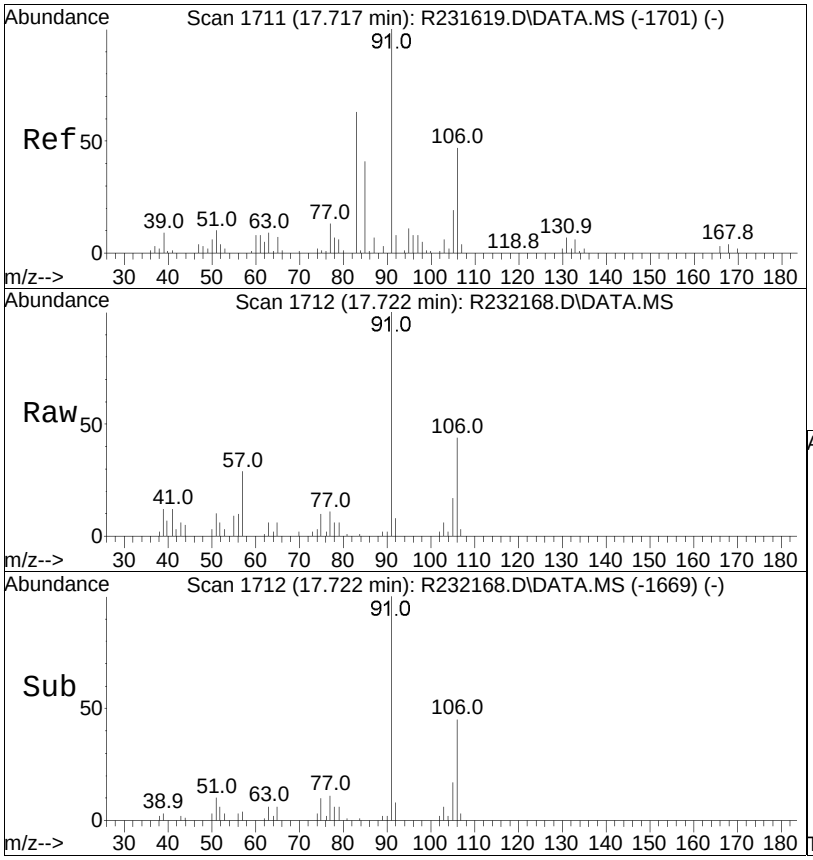


#83
m+p-xylene
Concen: 0.60 ppbV
RT: 17.35 min Scan# 1633
Delta R.T. -0.014 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 91 Resp: 33183

Ion	Ratio	Lower	Upper
91	100		
106	50.1	39.0	58.4

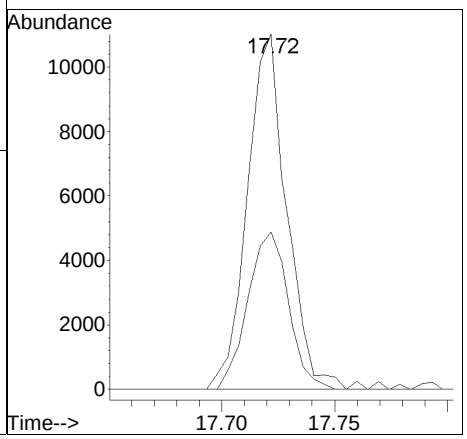


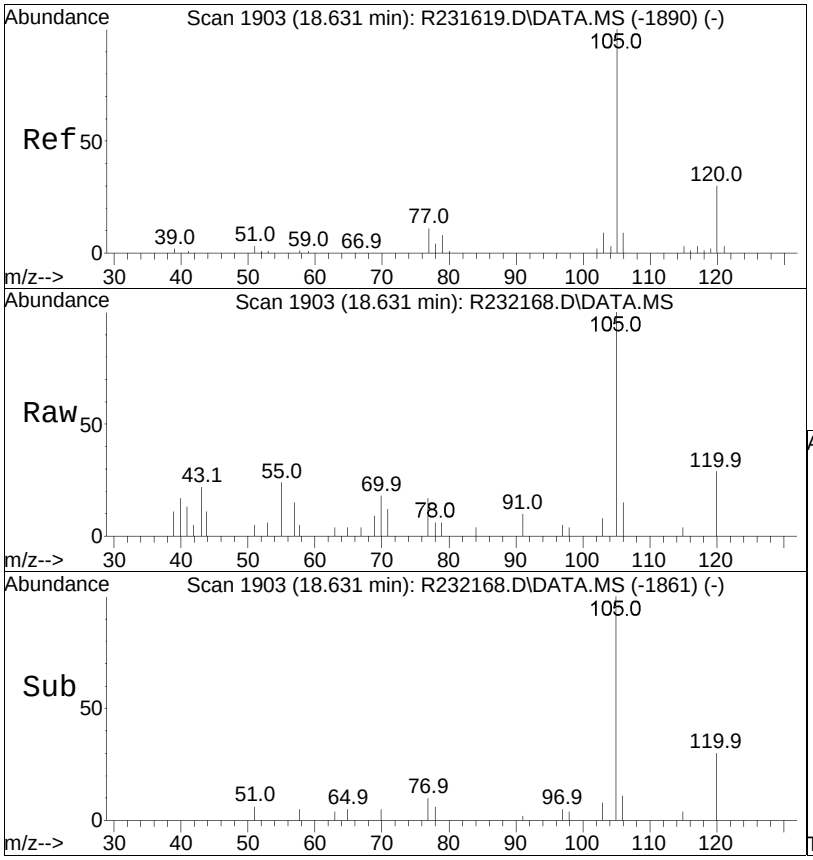


#87
o-xylene
Concen: 0.24 ppbV
RT: 17.72 min Scan# 1712
Delta R.T. 0.005 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion: 91 Resp: 13431

Ion	Ratio	Lower	Upper
91	100		
106	44.3	37.6	56.4

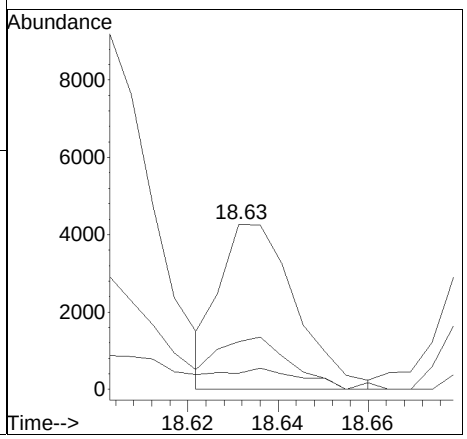


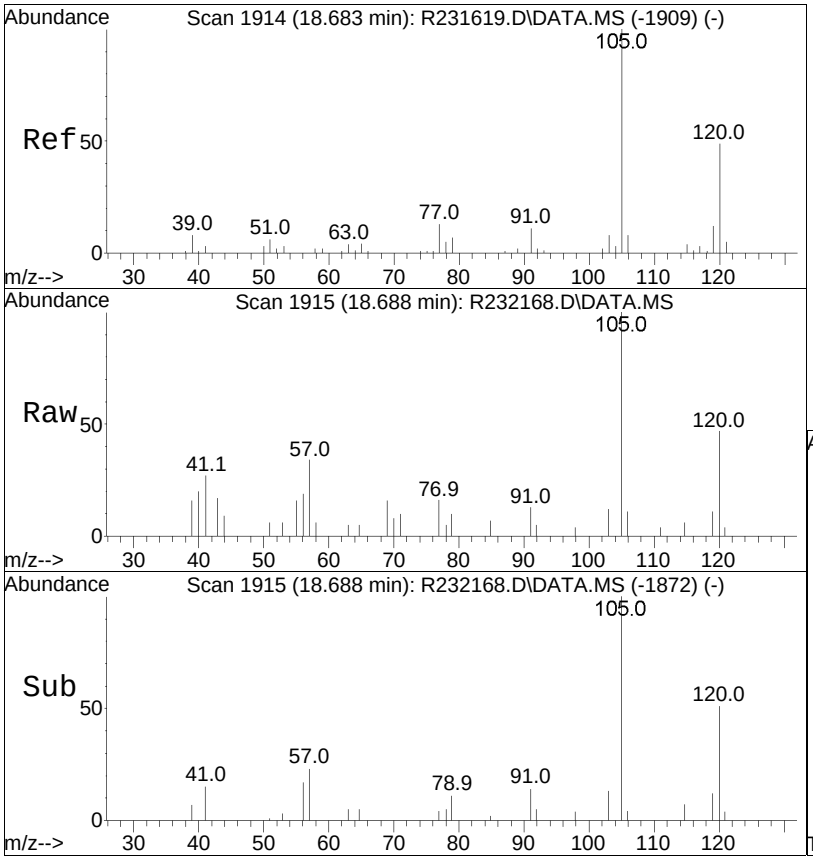


#96
4-ethyl toluene
Concen: 0.06 ppbV
RT: 18.63 min Scan# 1903
Delta R.T. 0.000 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion:105 Resp: 4999

Ion	Ratio	Lower	Upper
105	100		
120	28.9	24.2	36.4
91	9.8	9.8	14.6

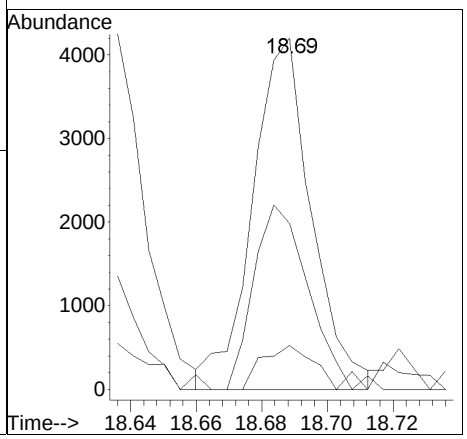


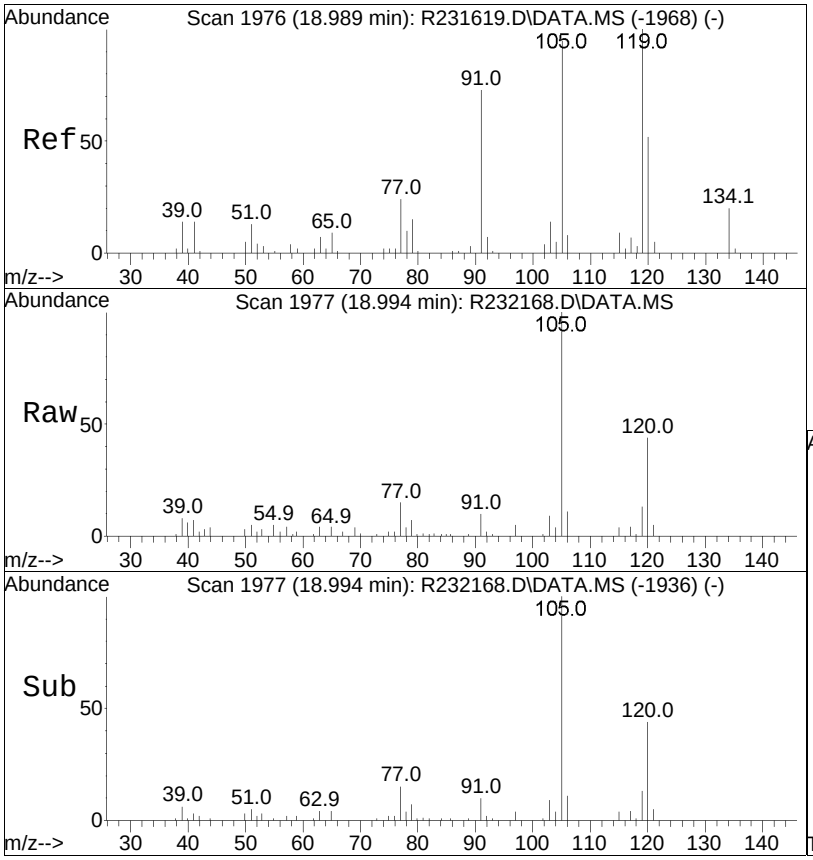


#97
1,3,5-trimethylbenzene
Concen: 0.08 ppbV
RT: 18.69 min Scan# 1915
Delta R.T. 0.005 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion:105 Resp: 5241

Ion	Ratio	Lower	Upper
105	100		
120	47.3	39.0	58.6
91	12.5	9.1	13.7

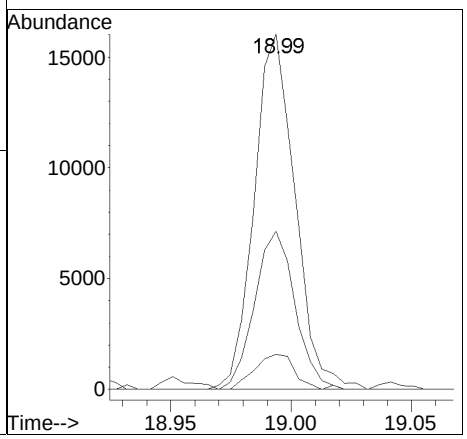




#99
1,2,4-trimethylbenzene
Concen: 0.28 ppbV
RT: 18.99 min Scan# 1977
Delta R.T. 0.005 min
Lab File: R232168.D
Acq: 16 Jan 2015 9:56 pm

Tgt Ion:105 Resp: 18920

Ion	Ratio	Lower	Upper
105	100		
120	44.5	43.4	65.0
91	9.9	61.4	92.0#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2015Q	Method	: TALL141214.M
Data File	: R232168.D	Operator	: AIRPIANO2:RY
Date Inj'd	: 1/16/2015 9:56 pm	Instrument	: Air Piano 2
Sample	: WG756340-5D,3,123.7374,250	Quant Date	: 1/17/2015 8:09 am

There are no manual integrations or false positives in this file.

Clean Canister Certification Data

Quality Control Data Summary

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1431011 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	7.37	74	-	-	-		70-130
Propylene	10	NA	8.87	89	-	-	-		70-130
Propane	10	NA	7.26	73	-	-	-		70-130
Dichlorodifluoromethane	10	NA	7.40	74	-	-	-		70-130
Chloromethane	10	NA	7.85	78	-	-	-		70-130
Freon-114	10	NA	7.98	80	-	-	-		70-130
Methanol	50	NA	40.0	80	-	-	-		70-130
Vinyl chloride	10	NA	8.07	81	-	-	-		70-130
1,3-Butadiene	10	NA	8.68	87	-	-	-		70-130
Butane	10	NA	7.36	74	-	-	-		70-130
Bromomethane	10	NA	7.68	77	-	-	-		70-130
Chloroethane	10	NA	7.93	79	-	-	-		70-130
Ethanol	50	NA	42.5	85	-	-	-		70-130
Dichlorofluoromethane	10	NA	7.12	71	-	-	-		70-130
Vinyl bromide	10	NA	7.89	79	-	-	-		70-130
Acrolein	10	NA	7.47	75	-	-	-		70-130
Acetone	50	NA	42.0	84	-	-	-		70-130
Acetonitrile	10	NA	7.98	80	-	-	-		70-130
Trichlorofluoromethane	10	NA	7.63	76	-	-	-		70-130
Isopropanol	10	NA	8.29	83	-	-	-		70-130
Acrylonitrile	10	NA	7.62	76	-	-	-		70-130
Pentane	10	NA	8.02	80	-	-	-		70-130
Ethyl ether	10	NA	7.78	78	-	-	-		70-130
1,1-Dichloroethene	10	NA	7.94	79	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	7.66	77	-	-	-		70-130
Methylene chloride	10	NA	7.93	79	-	-	-		70-130
3-Chloropropene	10	NA	8.95	90	-	-	-		70-130
Carbon disulfide	10	NA	7.86	79	-	-	-		70-130
Freon-113	10	NA	8.05	80	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	7.95	80	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.56	86	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.44	84	-	-	-		70-130
Vinyl acetate	10	NA	14.1	141 *	-	-	-		70-130
2-Butanone	10	NA	8.60	86	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	9.36	94	-	-	-		70-130
Ethyl Acetate	10	NA	8.78	88	-	-	-		70-130
Chloroform	10	NA	8.46	85	-	-	-		70-130
Tetrahydrofuran	10	NA	8.65	86	-	-	-		70-130
2,2-Dichloropropane	10	NA	7.60	76	-	-	-		70-130
1,2-Dichloroethane	10	NA	8.30	83	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1431011 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	8.30	83	-	-	-		70-130
Diisopropyl Ether	10	NA	7.66	77	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	7.69	77	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	8.15	82	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.24	82	-	-	-		70-130
Benzene	10	NA	8.22	82	-	-	-		70-130
Carbon tetrachloride	10	NA	8.06	81	-	-	-		70-130
Cyclohexane	10	NA	8.43	84	-	-	-		70-130
tert-amyl methyl ether	10	NA	7.78	78	-	-	-		70-130
Dibromomethane	10	NA	7.61	76	-	-	-		70-130
1,2-Dichloropropane	10	NA	8.48	85	-	-	-		70-130
Bromodichloromethane	10	NA	8.30	83	-	-	-		70-130
1,4-Dioxane	10	NA	8.47	85	-	-	-		70-130
Trichloroethene	10	NA	8.21	82	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	8.32	83	-	-	-		70-130
Methyl methacrylate	10	NA	8.01	80	-	-	-		70-130
Heptane	10	NA	8.39	84	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	9.27	93	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	8.48	85	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.04	80	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	8.76	88	-	-	-		70-130
Toluene	10	NA	8.50	85	-	-	-		70-130
1,3-Dichloropropane	10	NA	7.98	80	-	-	-		70-130
2-Hexanone	10	NA	8.60	86	-	-	-		70-130
Dibromochloromethane	10	NA	8.56	86	-	-	-		70-130
1,2-Dibromoethane	10	NA	8.81	88	-	-	-		70-130
Butyl Acetate	10	NA	7.89	79	-	-	-		70-130
Octane	10	NA	8.04	80	-	-	-		70-130
Tetrachloroethene	10	NA	8.47	85	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	8.07	81	-	-	-		70-130
Chlorobenzene	10	NA	8.95	90	-	-	-		70-130
Ethylbenzene	10	NA	8.98	90	-	-	-		70-130
p/m-Xylene	20	NA	18.1	90	-	-	-		70-130
Bromoform	10	NA	8.68	87	-	-	-		70-130
Styrene	10	NA	9.19	92	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.49	95	-	-	-		70-130
o-Xylene	10	NA	9.39	94	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	8.43	84	-	-	-		70-130
Nonane	10	NA	8.24	82	-	-	-		70-130
Isopropylbenzene	10	NA	6.50	65 *	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1431011 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	8.38	84	-	-	-		70-130
2-Chlorotoluene	10	NA	8.24	82	-	-	-		70-130
n-Propylbenzene	10	NA	8.43	84	-	-	-		70-130
4-Chlorotoluene	10	NA	8.32	83	-	-	-		70-130
4-Ethyltoluene	10	NA	8.88	89	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.30	93	-	-	-		70-130
tert-Butylbenzene	10	NA	8.75	88	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.76	98	-	-	-		70-130
Decane	10	NA	8.54	85	-	-	-		70-130
Benzyl chloride	10	NA	9.64	96	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.56	96	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.53	95	-	-	-		70-130
sec-Butylbenzene	10	NA	8.71	87	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.12	81	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	9.71	97	-	-	-		70-130
n-Butylbenzene	10	NA	9.18	92	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.04	90	-	-	-		70-130
Undecane	10	NA	9.16	92	-	-	-		70-130
Dodecane	10	NA	10.4	104	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	10.7	107	-	-	-		70-130
Naphthalene	10	NA	10.3	103	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	9.92	99	-	-	-		70-130
Hexachlorobutadiene	10	NA	9.79	98	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG751505-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Lab File ID: R231819 Lab Sample ID: WG751505-4

Date Analyzed: 12/23/14 Time Analyzed: 14:23

Instrument ID: AIRPIANO2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG751505-3LCS	WG751505-3	R231817	12/23/14 12:54
02	CAN 138 SHELF 1	L1431011-01	R231824	12/23/14 17:33
03	CAN 1899 SHELF 43	L1431011-03	R231826	12/23/14 18:38
04	CAN 738 SHELF 42	L1431011-02	R231841	12/24/14 07:49

COMMENTS: _____

FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	158431	10.000	ppbV	0.00
Standard Area = 179805			Recovery =	88.11%		
43) 1,4-difluorobenzene	12.549	114	553890	10.000	ppbV	0.00
Standard Area = 648252			Recovery =	85.44%		
67) chlorobenzene-D5	16.888	54	103647	10.000	ppbV	0.00
Standard Area = 122515			Recovery =	84.60%		
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	4.350		0	N.D.		
4) propane	4.399		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.941	31	2513	0.491	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.217		0	N.D.		
13) bromomethane	5.534		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.062	31	1609	0.148	ppbV #	85
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	6.509		0	N.D.		
19) acetone	6.709	43	2523M3	0.115	ppbV	
20) acetonitrile	0.000		0	N.D.	d	
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.	d	
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.325		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.844	49	1583	0.095	ppbV	89
29) 3-chloropropene	7.964		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
35) vinyl acetate	9.331		0	N.D.		
36) 2-butanone	9.750		0	N.D.		
37) cis-1,2-dichloroethene	0.000		0	N.D.		
38) Ethyl Acetate	0.000		0	N.D.		
39) chloroform	0.000		0	N.D.		
40) Tetrahydrofuran	0.000		0	N.D.		
41) 2,2-dichloropropane	0.000		0	N.D.		
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	0.000		0	N.D.		
45) diisopropyl ether	0.000		0	N.D.		
46) tert-butyl ethyl ether	0.000		0	N.D.		
48) 1,1,1-trichloroethane	0.000		0	N.D.		
49) 1,1-dichloropropene	0.000		0	N.D.		
50) benzene	12.166		0	N.D.		
52) carbon tetrachloride	0.000		0	N.D.		
53) cyclohexane	0.000		0	N.D.	d	
54) tert-amyl methyl ether	0.000		0	N.D.		
55) dibromomethane	0.000		0	N.D.		
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	0.000		0	N.D.		
61) methyl methacrylate	13.637		0	N.D.		
62) heptane	0.000		0	N.D.		
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	14.416		0	N.D.		
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.334		0	N.D.		
71) 1,3-dichloropropane	0.000		0	N.D.		
72) 2-hexanone	15.514		0	N.D.		
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
76) butyl acetate	0.000		0	N.D.		
77) octane	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0	N.D.		
79) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.222		0	N.D.		
83) m+p-xylene	17.350		0	N.D.		
84) bromoform	0.000		0	N.D.		
85) styrene	17.646		0	N.D.		
86) 1,1,2,2-tetrachloroethane	17.731		0	N.D.		
87) o-xylene	17.727		0	N.D.		
88) 1,2,3-trichloropropane	0.000		0	N.D.		
89) nonane	17.855		0	N.D.		
91) isopropylbenzene	18.160		0	N.D.		
92) bromobenzene	18.246		0	N.D.		
93) 2-chlorotoluene	18.527		0	N.D.		
94) n-propylbenzene	18.536		0	N.D.		
95) 4-chlorotoluene	18.574		0	N.D.		
96) 4-ethyl toluene	18.617		0	N.D.		
97) 1,3,5-trimethylbenzene	18.688		0	N.D.		
98) tert-butylbenzene	18.998		0	N.D.		
99) 1,2,4-trimethylbenzene	19.003		0	N.D.		
100) decane	0.000		0	N.D.		
101) Benzyl Chloride	19.117		0	N.D.		
102) 1,3-dichlorobenzene	19.132		0	N.D.		
103) 1,4-dichlorobenzene	19.175		0	N.D.		
104) sec-butylbenzene	19.203		0	N.D.		
106) p-isopropyltoluene	19.313		0	N.D.		
107) 1,2-dichlorobenzene	19.446		0	N.D.		
108) n-butylbenzene	19.632		0	N.D.		
111) 1,2-dibromo-3-chloropr...	19.789		0	N.D.		
112) undecane	20.036		0	N.D.		
114) dodecane	20.861		0	N.D.		
115) 1,2,4-trichlorobenzene	20.861		0	N.D.		
116) naphthalene	21.032	128	7742M3	0.093	ppbV	
117) 1,2,3-trichlorobenzene	21.257	180	1596	0.051	ppbV #	42
119) hexachlorobutadiene	21.290		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

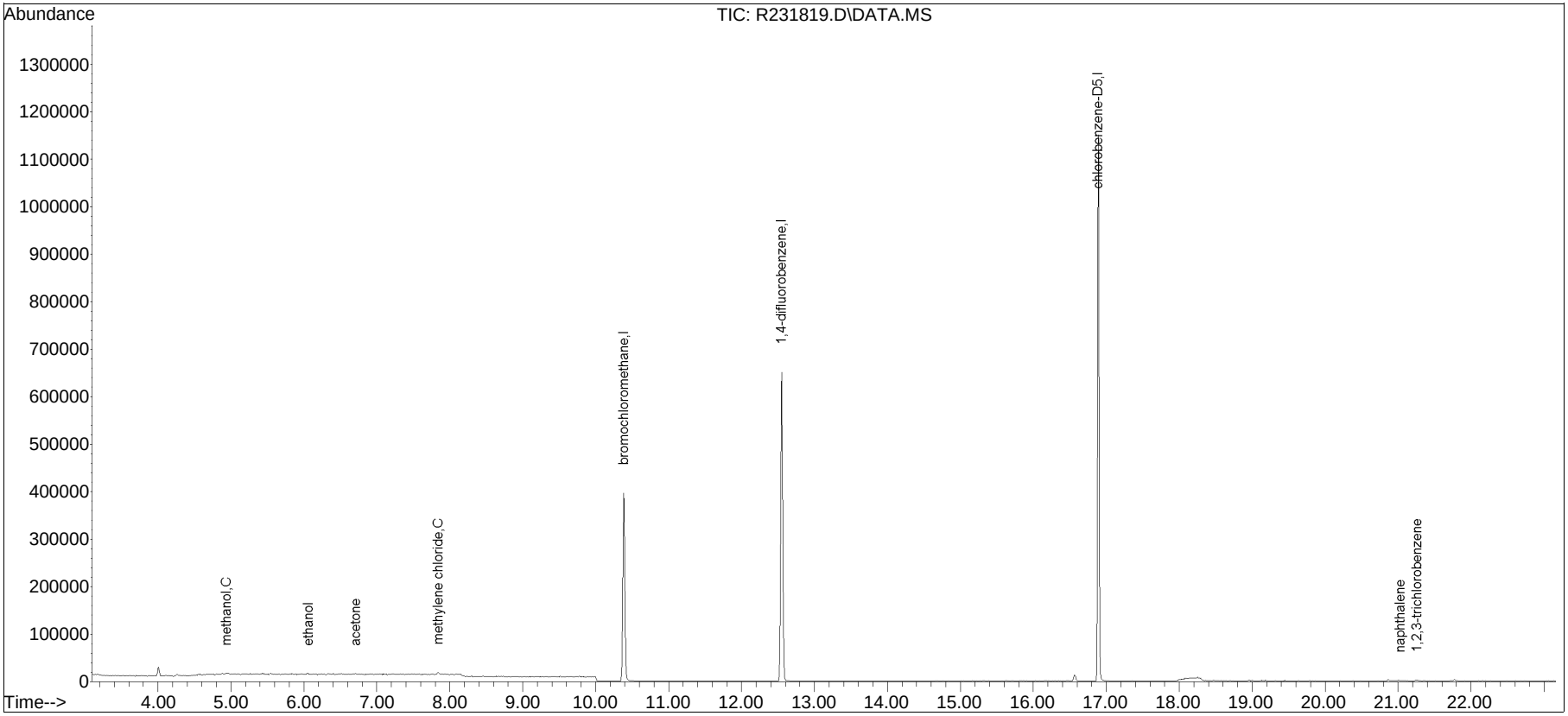
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

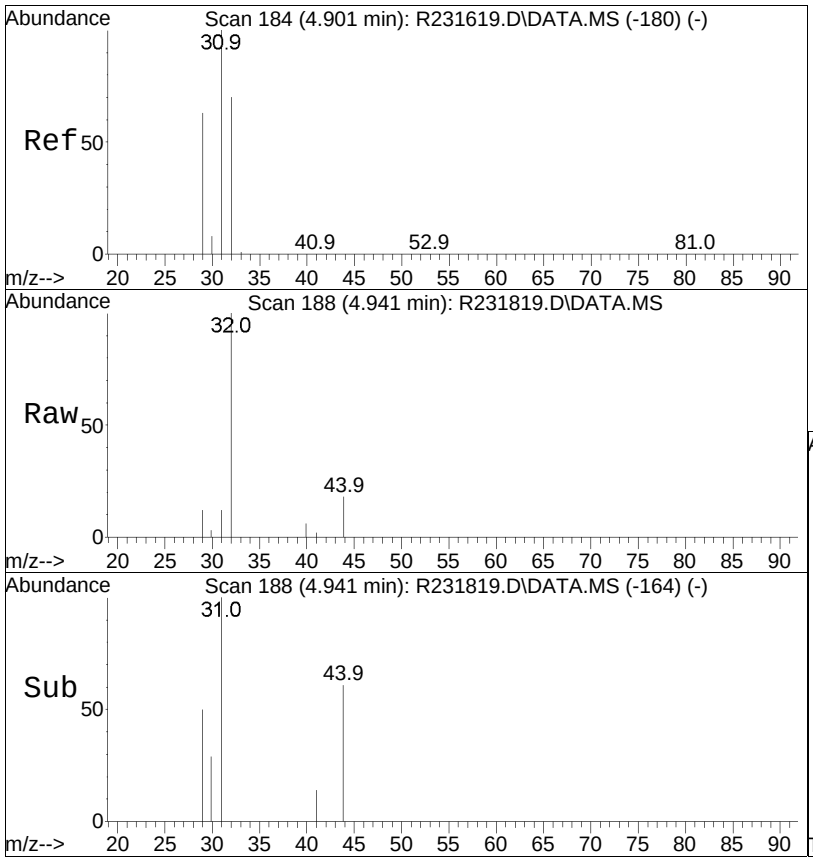
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

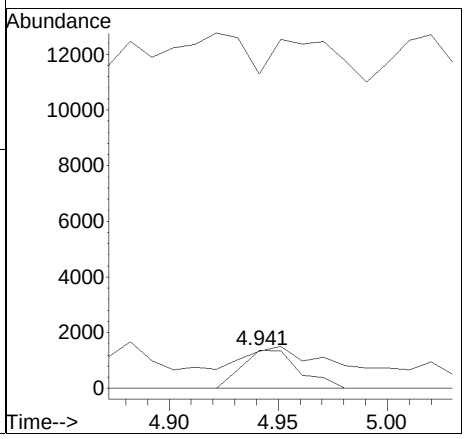


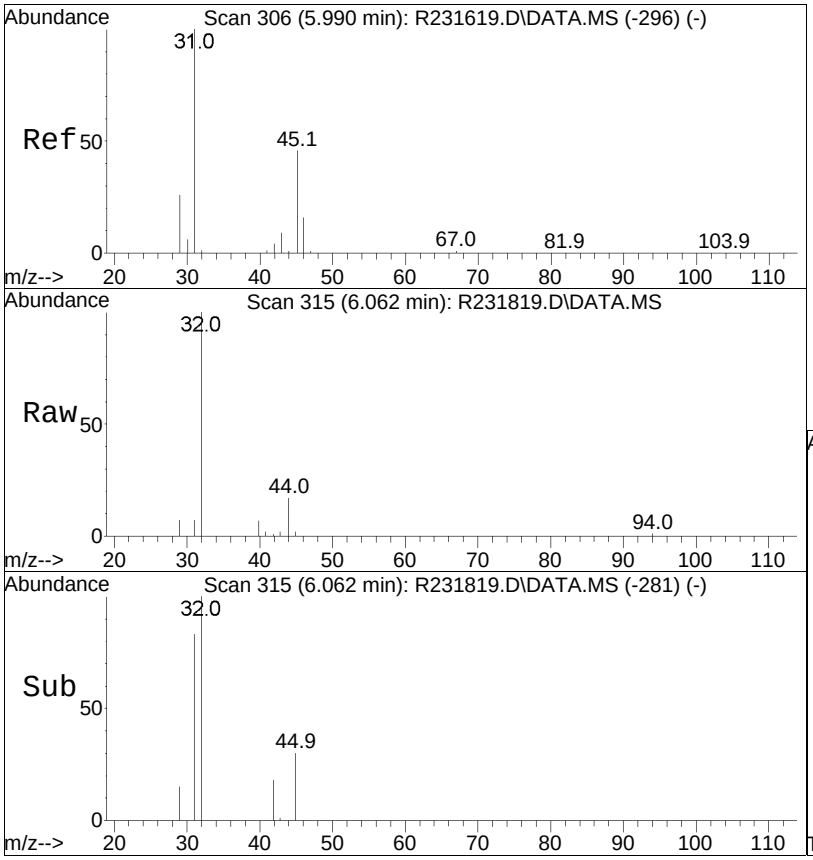


#8
methanol
Concen: 0.49 ppbV
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 31 Resp: 2513

Ion	Ratio	Lower	Upper
31	100		
32	828.9	63.3	94.9#
29	98.1	57.9	86.9#

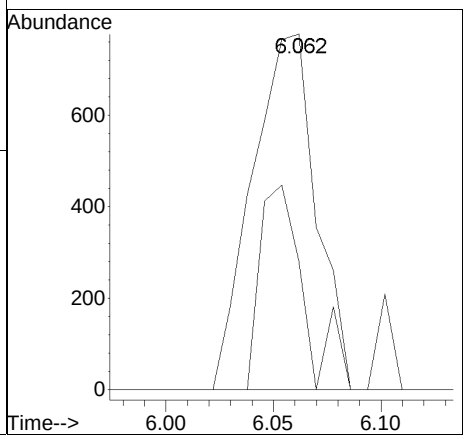


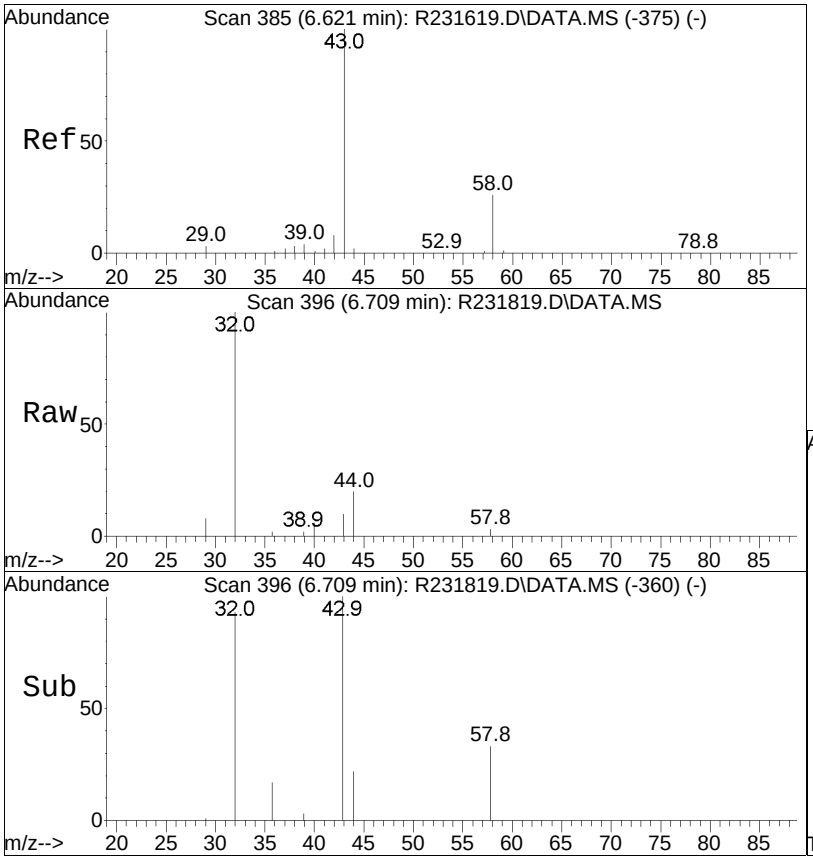


#15
ethanol
Concen: 0.15 ppbV
RT: 6.062 min Scan# 315
Delta R.T. 0.072 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 31 Resp: 1609

Ion	Ratio	Lower	Upper
31	100		
45	36.0	36.8	55.2#

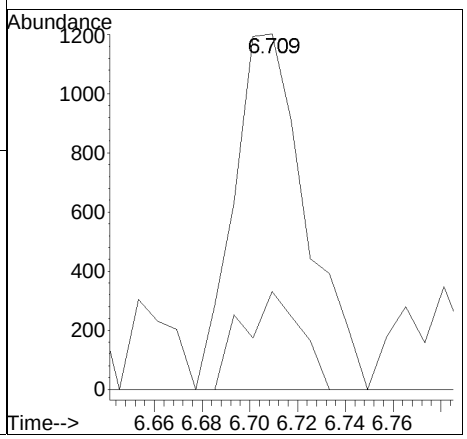


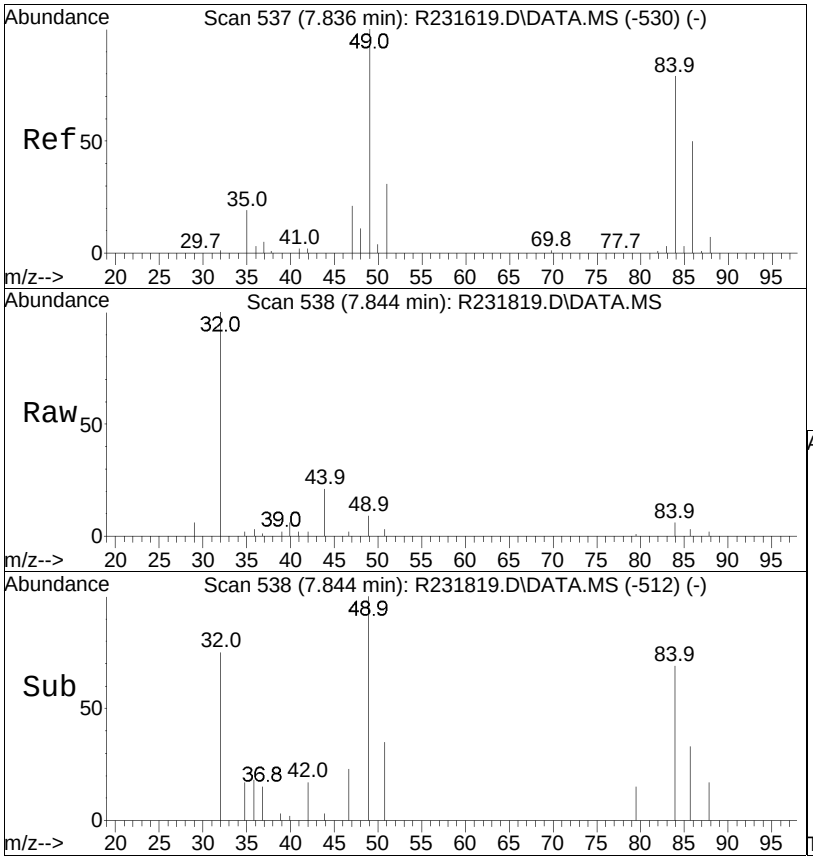


#19
acetone
Concen: 0.12 ppbV m
RT: 6.709 min Scan# 396
Delta R.T. 0.088 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 43 Resp: 2523

Ion	Ratio	Lower	Upper
43	100		
58	27.5	20.6	31.0
57	0.0	0.6	1.0#

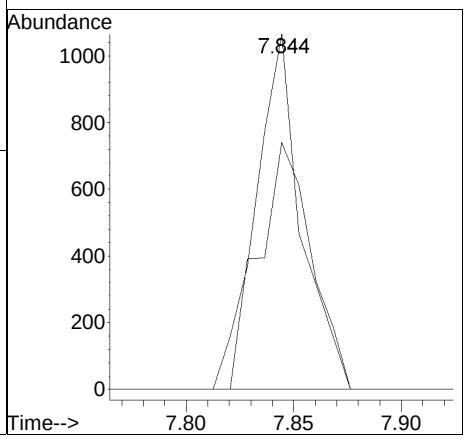


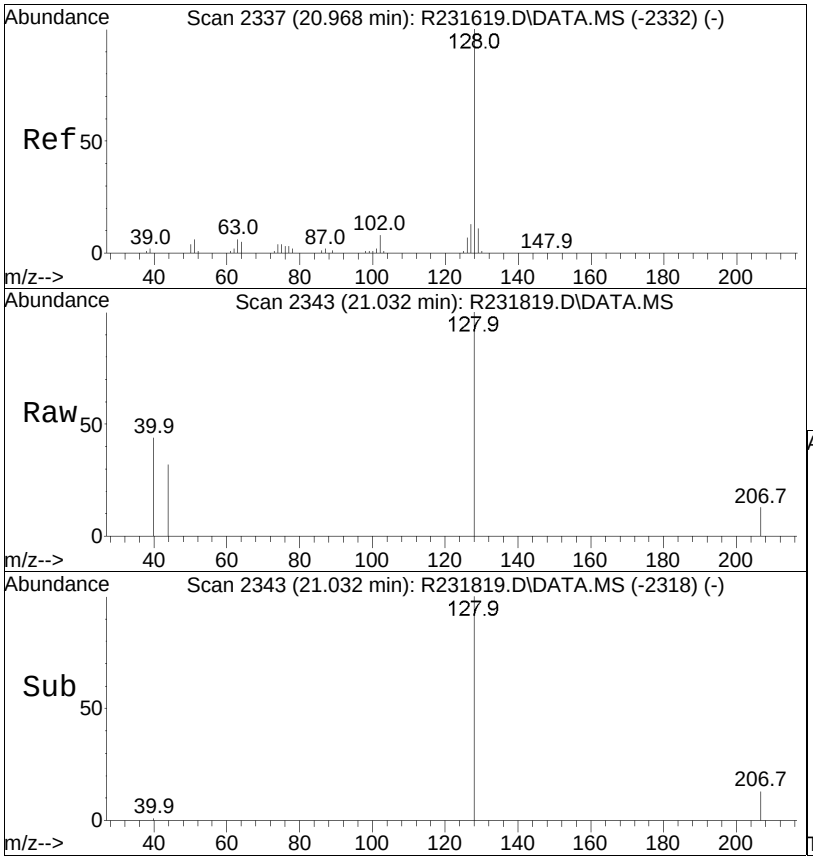


#28
methylene chloride
Concen: 0.09 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 49 Resp: 1583

Ion	Ratio	Lower	Upper
49	100		
84	69.5	63.3	94.9

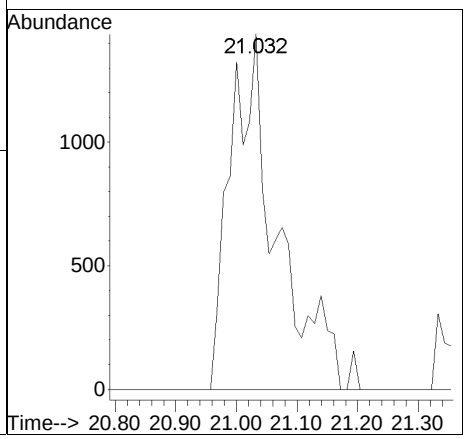


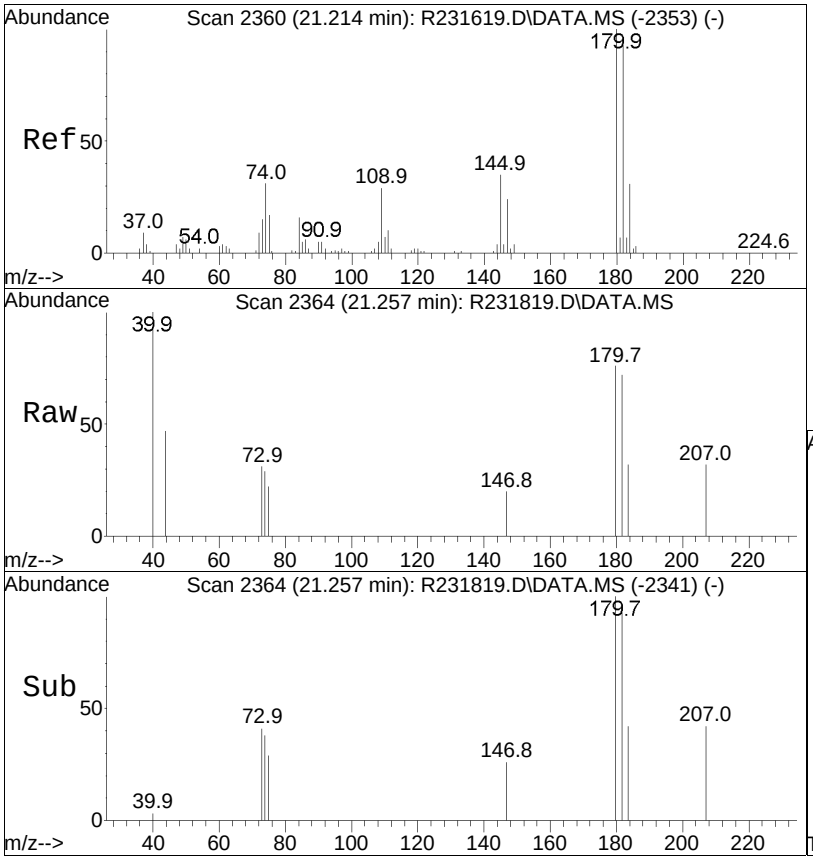


#116
naphthalene
Concen: 0.09 ppbV m
RT: 21.032 min Scan# 2343
Delta R.T. 0.065 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion:128 Resp: 7742

Ion	Ratio	Lower	Upper
128	100		
102	0.0	6.7	10.1#

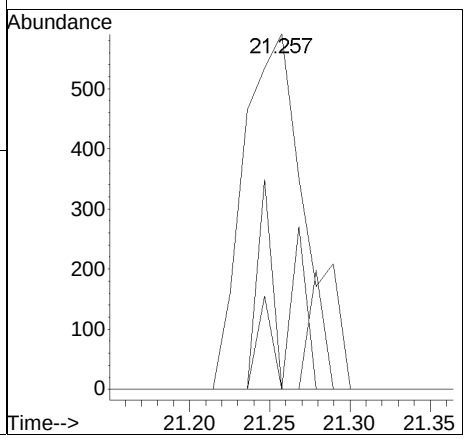




#117
1,2,3-trichlorobenzene
Concen: 0.05 ppbV
RT: 21.257 min Scan# 2364
Delta R.T. 0.043 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion:180 Resp: 1596

Ion	Ratio	Lower	Upper
180	100		
145	0.0	28.2	42.4#
109	0.0	23.5	35.3#

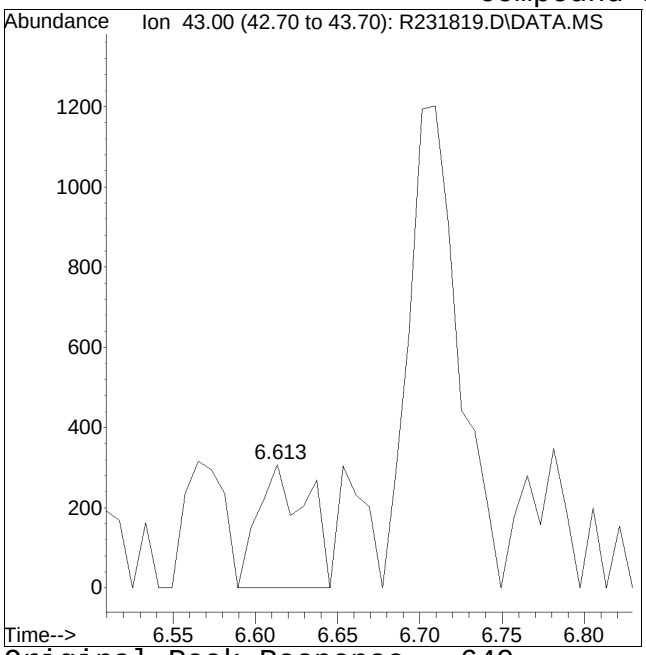


Manual Integration/Negative Proof Report

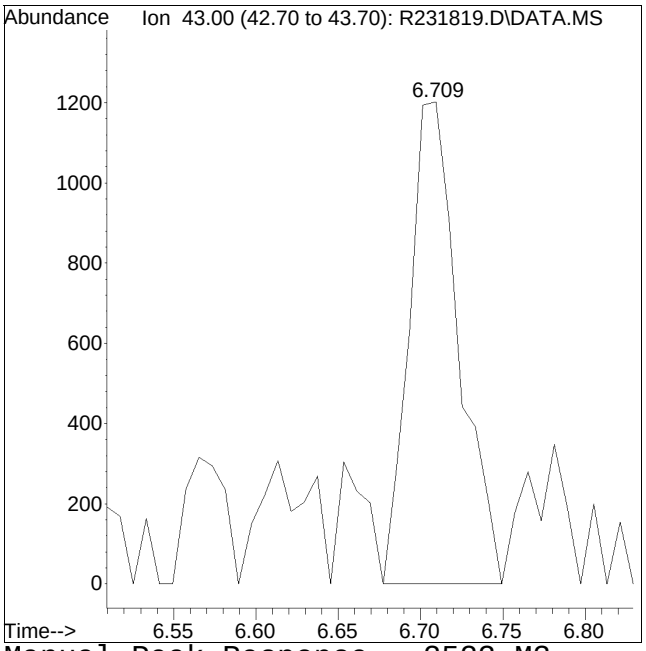
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #19: acetone



Original Peak Response = 640



Manual Peak Response = 2523 M3

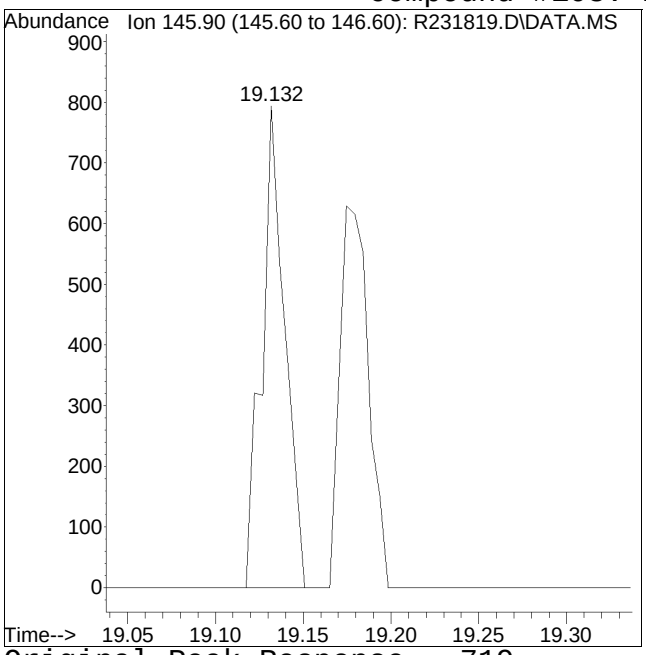
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

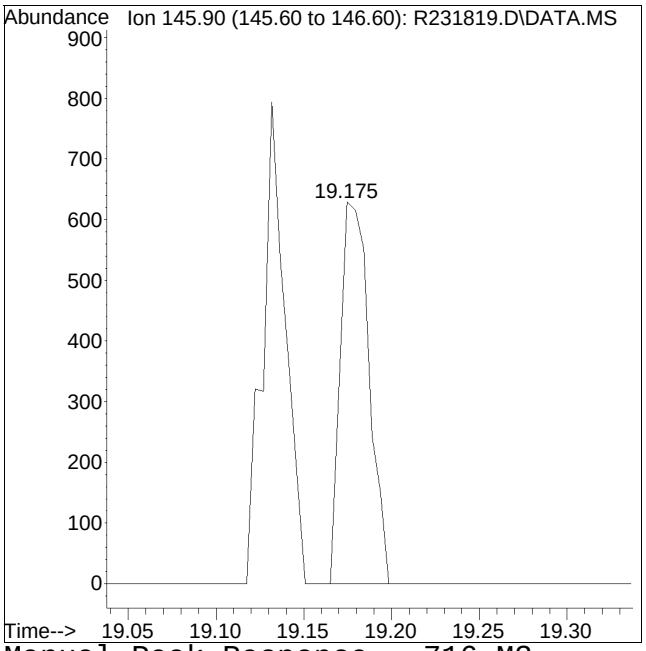
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 719



Manual Peak Response = 716 M3

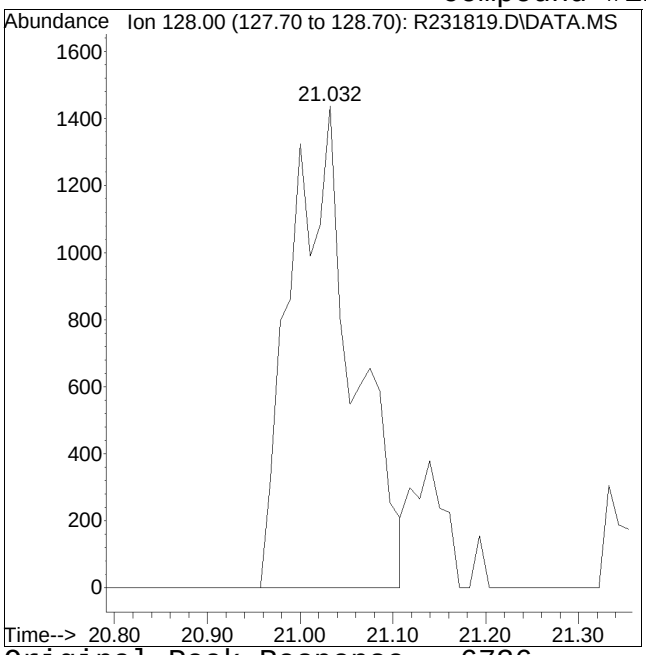
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

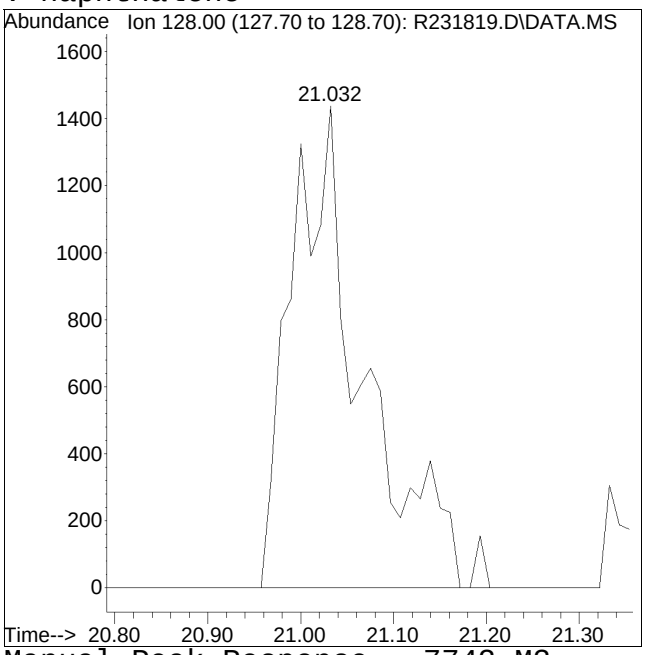
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #116: naphthalene





Original Peak Response = 6736 Manual Peak Response = 7742 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231819.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.261	116	119	122	rBV	4198	8455	0.54%	0.231%
2	4.557	147	149	150	rBV2	2392	3721	0.24%	0.102%
3	4.803	172	174	177	rBV2	2920	4346	0.28%	0.119%
4	4.882	180	182	183	rBV2	3036	2670	0.17%	0.073%
5	7.836	534	537	542	rBV4	4777	9932	0.64%	0.271%
6	8.092	565	569	570	rBV2	2529	3968	0.25%	0.108%
7	9.880	816	819	823	rBV2	1898	3754	0.24%	0.103%
8	10.386	871	876	886	rBV	396270	757003	48.49%	20.680%
9	10.499	886	888	892	rVB2	1164	2164	0.14%	0.059%
10	10.799	918	920	926	rBV2	693	2280	0.15%	0.062%
11	12.549	1088	1093	1106	rVB	650419	1216131	77.91%	33.222%
12	14.665	1263	1266	1268	rBV2	869	2534	0.16%	0.069%
13	15.334	1334	1340	1343	rVB2	908	1838	0.12%	0.050%
14	15.641	1370	1374	1375	rBV2	1178	2055	0.13%	0.056%
15	16.156	1427	1431	1433	rBV2	933	2037	0.13%	0.056%
16	16.563	1473	1476	1481	rVB2	12984	31622	2.03%	0.864%
17	16.888	1530	1537	1554	rBV	1151045	1561039	100.00%	42.644%
18	17.974	1761	1765	1767	rBV	1921	2179	0.14%	0.060%
19	17.998	1767	1770	1771	rBV	2424	1880	0.12%	0.051%
20	18.074	1783	1786	1787	rVV	2300	1976	0.13%	0.054%
21	18.136	1797	1799	1801	rBV2	1575	1593	0.10%	0.044%
22	18.250	1820	1823	1826	rVB4	2165	1690	0.11%	0.046%
23	18.474	1866	1870	1872	rBV	1659	1732	0.11%	0.047%
24	18.956	1962	1969	1970	rBV4	2366	2201	0.14%	0.060%
25	19.003	1974	1979	1983	rBV2	1995	2047	0.13%	0.056%
26	19.132	2003	2006	2011	rVV3	1987	1797	0.12%	0.049%
27	19.175	2013	2015	2025	rVB4	2014	3249	0.21%	0.089%
28	19.446	2069	2072	2076	rVB3	2100	1885	0.12%	0.051%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.861	2324	2327	2329	rBV2	3905	5351	0.34%	0.146%
30	21.000	2336	2340	2342	rBV3	1723	3377	0.22%	0.092%
31	21.247	2360	2363	2370	rVB4	2601	6990	0.45%	0.191%
32	21.772	2409	2412	2419	rVB5	2959	7124	0.46%	0.195%

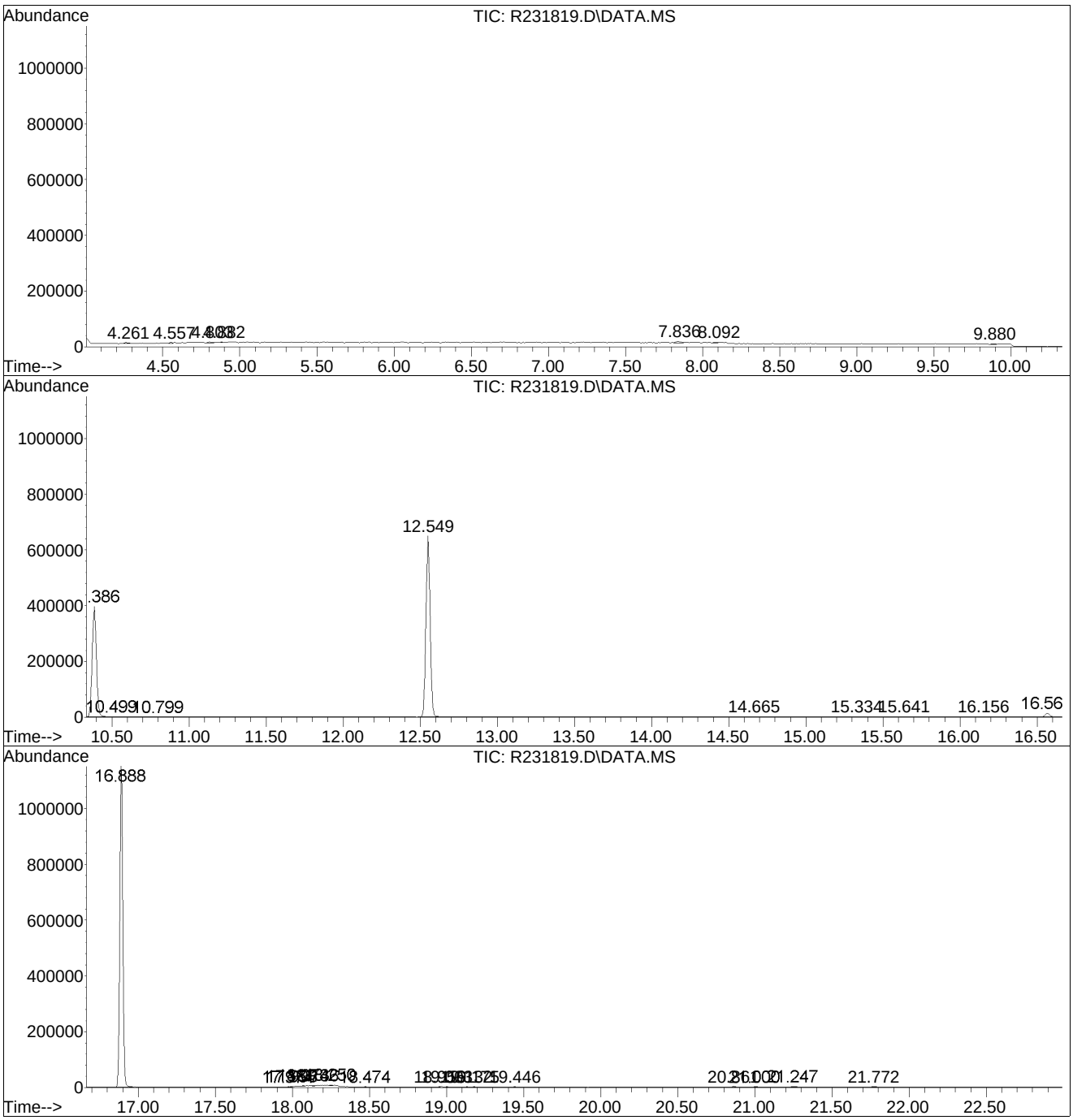
Sum of corrected areas: 3660620

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Lab File ID: R231611_tune BFB Injection Date: 12/14/14

Instrument ID: AIRPIANO2 BFB Injection Time: 10:25

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	19.4
75	30.0 - 66.0% of mass 95	51
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	84.4
175	4.0 - 9.0% of mass 174	6.2 (7.3)1
176	93.0 - 101% of mass 174	82.2 (97.4)1
177	5.0 - 9.0% of mass 176	5.2 (6.3)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R231615	12/14/14	14:35
02	0.5	0.5	R231616	12/14/14	15:07
03	1.0	1.0	R231617	12/14/14	15:39
04	5.0	5.0	R231618	12/14/14	16:10
05	10	10	R231619	12/14/14	16:42
06	20	20	R231620	12/14/14	17:14
07	50	50	R231621	12/14/14	17:45
08	100	100	R231622	12/14/14	18:17
09	ICV Quant	ICV Quant	R231625	12/15/14	08:05

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Lab File ID: R231814_tune BFB Injection Date: 12/23/14

Instrument ID: AIRPIANO2 BFB Injection Time: 10:51

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	20
75	30.0 - 66.0% of mass 95	50.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	79.2
175	4.0 - 9.0% of mass 174	5.8 (7.4)1
176	93.0 - 101% of mass 174	78.1 (98.6)1
177	5.0 - 9.0% of mass 176	5.2 (6.7)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG751505-2	R231816	12/23/14	12:06
02	WG751505-3LCS	WG751505-3	R231817	12/23/14	12:54
03	WG751505-4BLANK	WG751505-4	R231819	12/23/14	14:23
04	CAN 138 SHELF 1	L1431011-01	R231824	12/23/14	17:33
05	CAN 1899 SHELF 4	L1431011-03	R231826	12/23/14	18:38
06	CAN 738 SHELF 42	L1431011-02	R231841	12/24/14	07:49

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Lab File ID (Standard): R231816 Date Analyzed: 12/23/14

Instrument ID : AIRPIANO2 Time Analyzed: 12:06

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	179805	10.38	648252	12.55	122515	16.89
	UPPER LIMIT	251727	10.71	907553	12.88	171521	17.22
	LOWER LIMIT	107883	10.05	388951	12.22	73509	16.56
	EPA SAMPLE NO.						
01	WG751505-3LCS	216073	10.38	777605	12.55	147246	16.89
02	WG751505-4BLANK	158431	10.39	553890	12.55	103647	16.89
03	CAN 138 SHELF 1	160076	10.39	580321	12.55	108452	16.89
04	CAN 1899 SHELF 43	158379	10.39	555847	12.55	104836	16.89
05	CAN 738 SHELF 42	169114	10.39	616430	12.55	113777	16.89

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-01	Date Collected	: 12/22/14 14:27
Client ID	: CAN 138 SHELF 1	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 17:33
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231824	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-01	Date Collected	: 12/22/14 14:27
Client ID	: CAN 138 SHELF 1	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 17:33
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231824	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-01	Date Collected	: 12/22/14 14:27
Client ID	: CAN 138 SHELF 1	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 17:33
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231824	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-01	Date Collected	: 12/22/14 14:27
Client ID	: CAN 138 SHELF 1	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 17:33
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231824	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:35:09 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	160076	10.000	ppbV	0.00
Standard Area = 179805			Recovery =		89.03%	
43) 1,4-difluorobenzene	12.549	114	580321	10.000	ppbV	0.00
Standard Area = 648252			Recovery =		89.52%	
67) chlorobenzene-D5	16.888	54	108452	10.000	ppbV	0.00
Standard Area = 122515			Recovery =		88.52%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	4.330		0	N.D.		
4) propane	0.000		0	N.D.	d	
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.931	31	1847M3	0.357	ppbV	
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.207		0	N.D.		
13) bromomethane	5.558		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.046		0	N.D.		
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.701	43	2005M3	0.091	ppbV	
20) acetonitrile	6.261		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	6.941		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.333		0	N.D.		
25) ethyl ether	7.365		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.836	49	1544	0.091	ppbV	92
29) 3-chloropropene	7.988		0	N.D.		
30) carbon disulfide	8.172		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:35:09 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.427		0		N.D.	
36) 2-butanone	9.647		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	13.046		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	0.000		0		N.D.	
62) heptane	13.658		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	0.000		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.541		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	16.246		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:35:09 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.879		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	0.000		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	0.000		0		N.D.	
96) 4-ethyl toluene	18.493		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
104) sec-butylbenzene	0.000		0		N.D.	
106) p-isopropyltoluene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	0.000		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:35:09 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

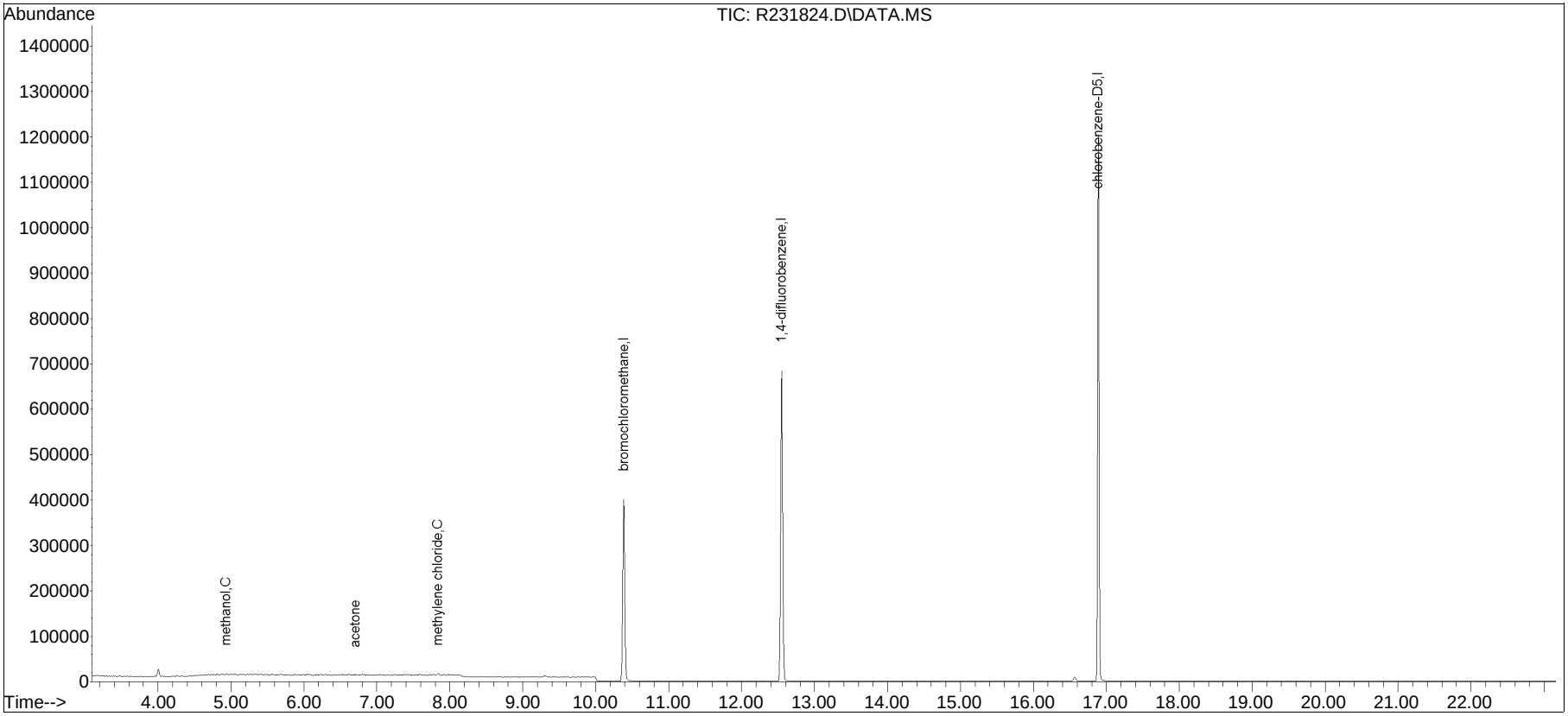
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

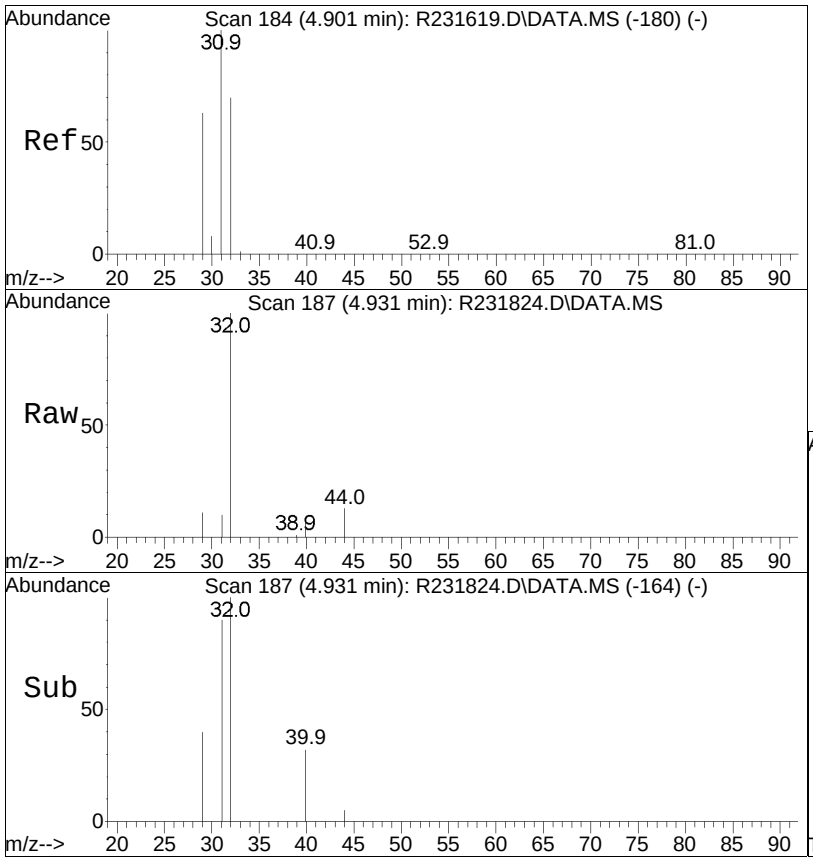
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:35:09 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

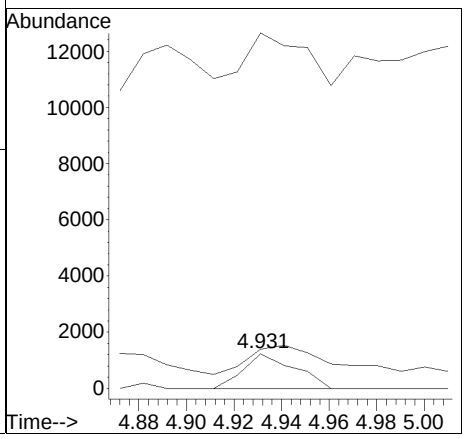


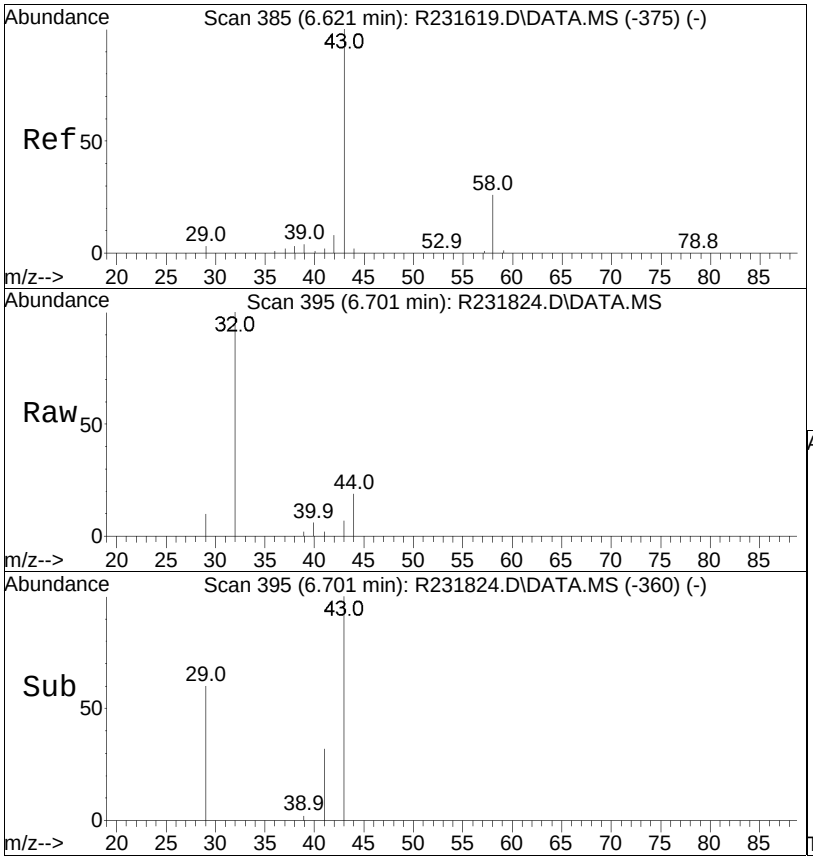


#8
methanol
Concen: 0.36 ppbV m
RT: 4.931 min Scan# 187
Delta R.T. 0.030 min
Lab File: R231824.D
Acq: 23 Dec 2014 5:33 pm

Tgt Ion: 31 Resp: 1847

Ion	Ratio	Lower	Upper
31	100		
32	1027.2	63.3	94.9#
29	113.4	57.9	86.9#

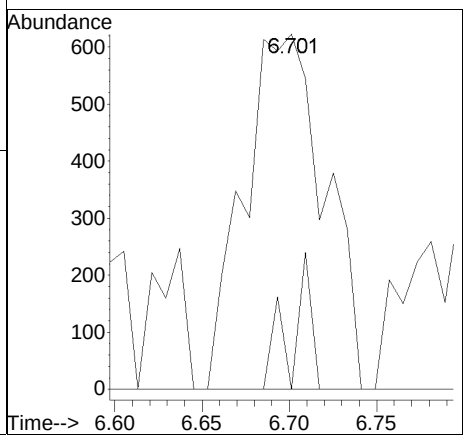


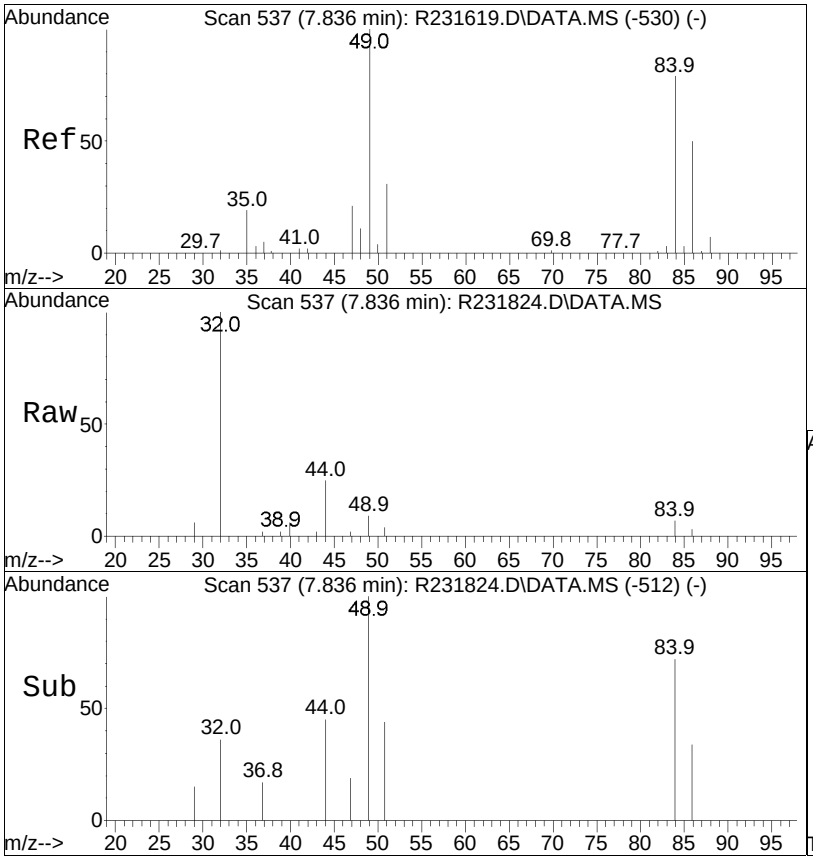


#19
acetone
Concen: 0.09 ppbV m
RT: 6.701 min Scan# 395
Delta R.T. 0.080 min
Lab File: R231824.D
Acq: 23 Dec 2014 5:33 pm

Tgt Ion: 43 Resp: 2005

Ion	Ratio	Lower	Upper
43	100		
58	0.0	20.6	31.0#
57	0.0	0.6	1.0#

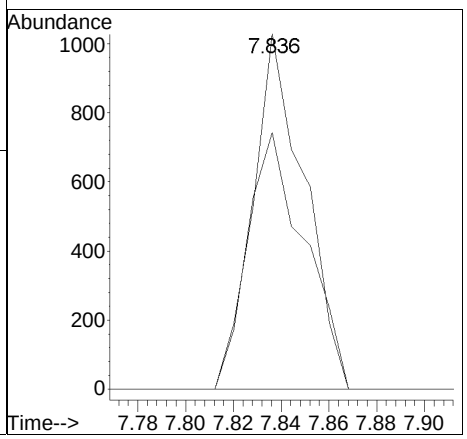




#28
methylene chloride
Concen: 0.09 ppbV
RT: 7.836 min Scan# 537
Delta R.T. 0.000 min
Lab File: R231824.D
Acq: 23 Dec 2014 5:33 pm

Tgt Ion: 49 Resp: 1544

Ion	Ratio	Lower	Upper
49	100		
84	72.3	63.3	94.9

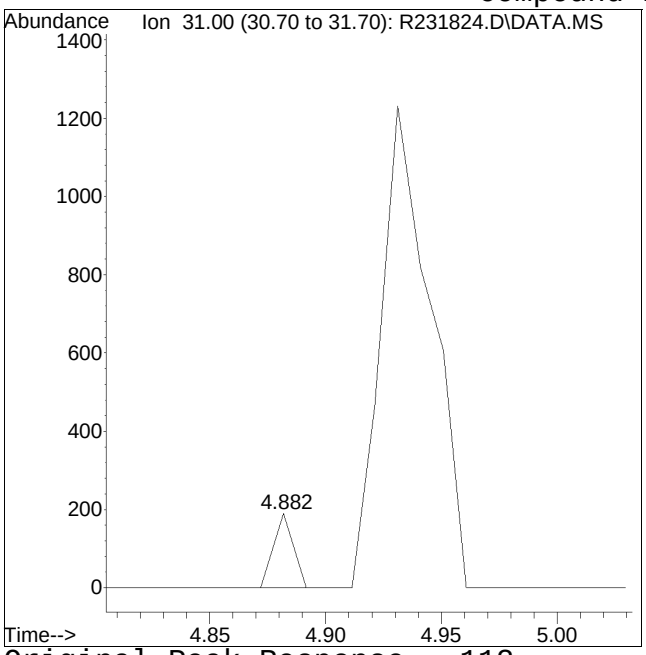


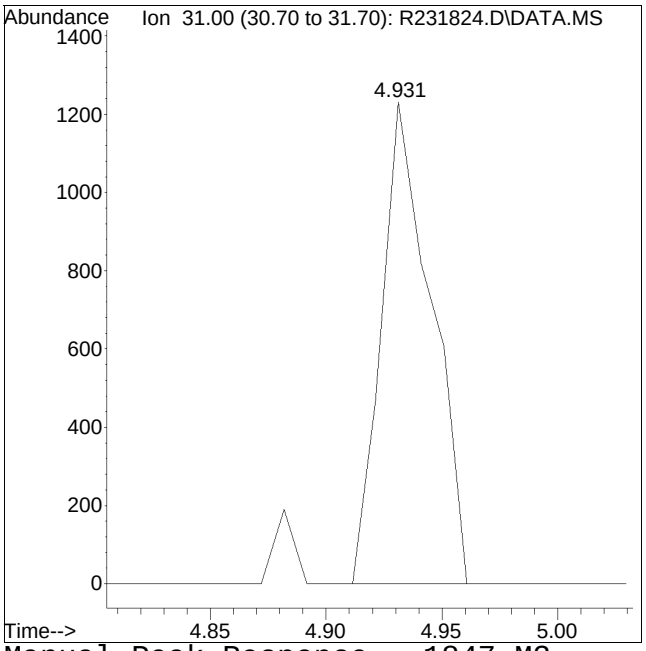
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231824.D
Date Inj'd : 12/23/2014 5:33 pm
Sample : L1431011-01,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:43 am

Compound #8: methanol





Original Peak Response = 112 Manual Peak Response = 1847 M3

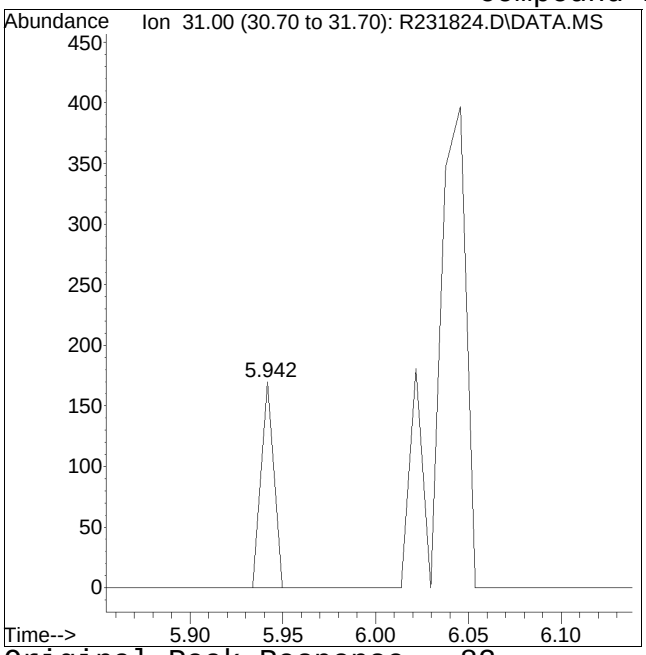
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

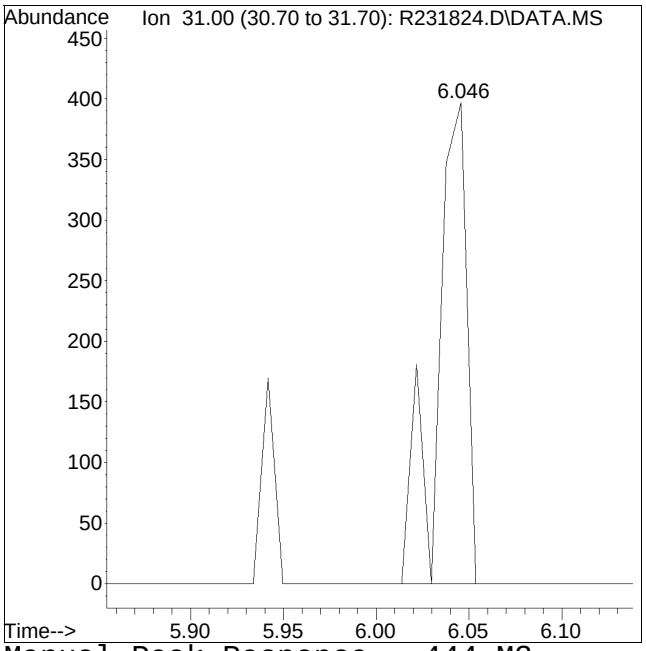
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231824.D
Date Inj'd : 12/23/2014 5:33 pm
Sample : L1431011-01,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:43 am

Compound #15: ethanol





Original Peak Response = 82 Manual Peak Response = 444 M3

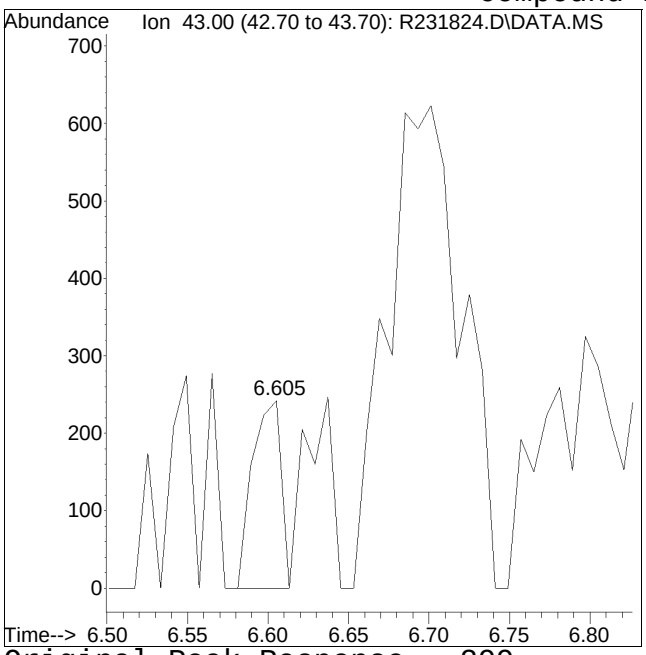
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

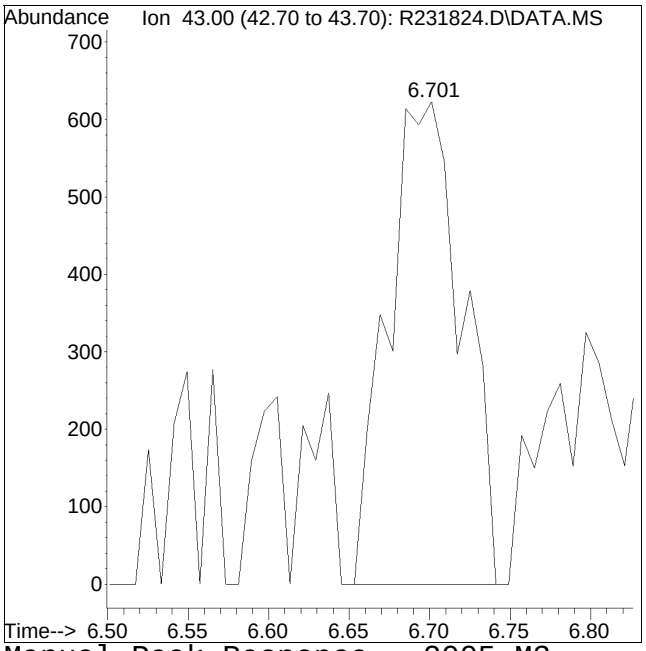
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231824.D
Date Inj'd : 12/23/2014 5:33 pm
Sample : L1431011-01,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:43 am

Compound #19: acetone



Original Peak Response = 299



Manual Peak Response = 2005 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-01	Date Collected	: 12/22/14 14:27
Client ID	: CAN 138 SHELF 1	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 17:33
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231824	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231824.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.261	116	119	123	rBV	3613	7090	0.43%	0.189%
2	4.931	185	187	190	rBV2	3257	5815	0.35%	0.155%
3	5.558	250	252	257	rVB3	4179	7138	0.44%	0.191%
4	6.605	381	383	386	rBV2	2137	2334	0.14%	0.062%
5	6.717	395	397	398	rBV	2240	2703	0.16%	0.072%
6	7.836	535	537	541	rVB	4311	7271	0.44%	0.194%
7	8.452	612	614	615	rBV2	1576	1991	0.12%	0.053%
8	9.290	731	733	734	rBV	2123	1643	0.10%	0.044%
9	10.386	871	876	885	rBV	400380	765023	46.68%	20.433%
10	11.578	996	1001	1003	rBV2	650	2031	0.12%	0.054%
11	12.187	1056	1058	1061	rBV	991	1755	0.11%	0.047%
12	12.549	1088	1093	1100	rBV	684572	1272858	77.66%	33.996%
13	16.563	1472	1476	1482	rVB	9726	23857	1.46%	0.637%
14	16.888	1529	1537	1551	rBV	1204338	1638947	100.00%	43.774%
15	18.960	1965	1970	1975	rBV2	1102	1939	0.12%	0.052%
16	21.514	2384	2388	2390	rBV2	637	1712	0.10%	0.046%

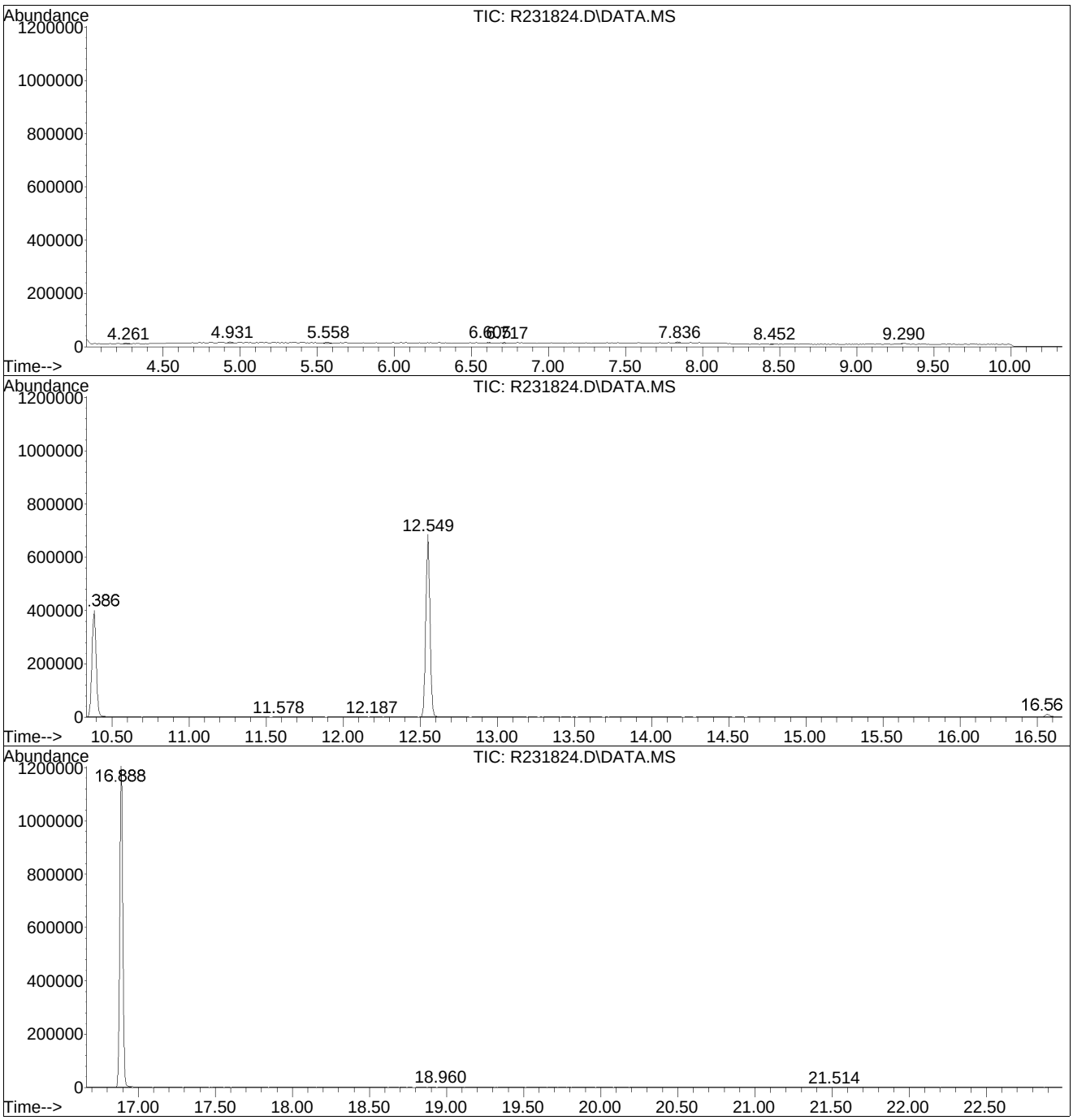
Sum of corrected areas: 3744107

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231824.D
Acq On : 23 Dec 2014 5:33 pm
Operator : AIRPIANO2:MB
Sample : L1431011-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-02	Date Collected	: 12/22/14 14:30
Client ID	: CAN 738 SHELF 42	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/24/14 07:49
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231841	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-02	Date Collected	: 12/22/14 14:30
Client ID	: CAN 738 SHELF 42	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/24/14 07:49
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231841	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-02	Date Collected	: 12/22/14 14:30
Client ID	: CAN 738 SHELF 42	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/24/14 07:49
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231841	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-02	Date Collected	: 12/22/14 14:30
Client ID	: CAN 738 SHELF 42	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/24/14 07:49
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231841	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:37:21 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	169114	10.000	ppbV	0.00
Standard Area = 179805			Recovery = 94.05%			
43) 1,4-difluorobenzene	12.549	114	616430	10.000	ppbV	0.00
Standard Area = 648252			Recovery = 95.09%			
67) chlorobenzene-D5	16.893	54	113777	10.000	ppbV	0.00
Standard Area = 122515			Recovery = 92.87%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	4.448		0	N.D.		
4) propane	4.419		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	4.783		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.931	31	2129	0.389	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.256		0	N.D.		
13) bromomethane	5.518		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.038	31	1178	0.101	ppbV #	81
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.693	43	2055M3	0.088	ppbV	
20) acetonitrile	6.270		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	6.957		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.333		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.836	49	1690	0.095	ppbV	95
29) 3-chloropropene	7.980		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:37:21 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.413		0		N.D.	
36) 2-butanone	9.750		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	13.046		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	0.000		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	14.431		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.333		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.659		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	16.174		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:37:21 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.850		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	0.000		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	0.000		0		N.D.	
96) 4-ethyl toluene	18.479		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
104) sec-butylbenzene	0.000		0		N.D.	
106) p-isopropyltoluene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	0.000		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:37:21 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

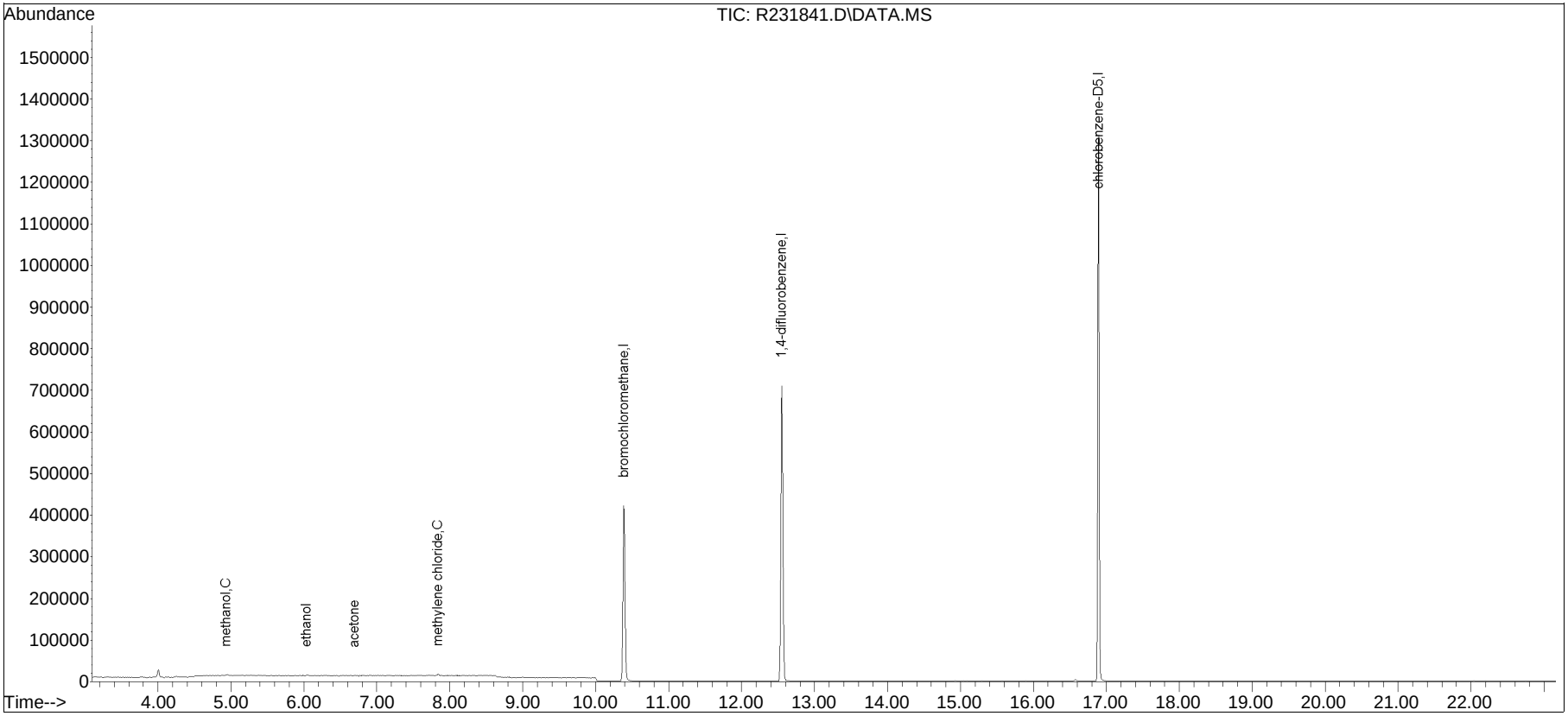
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

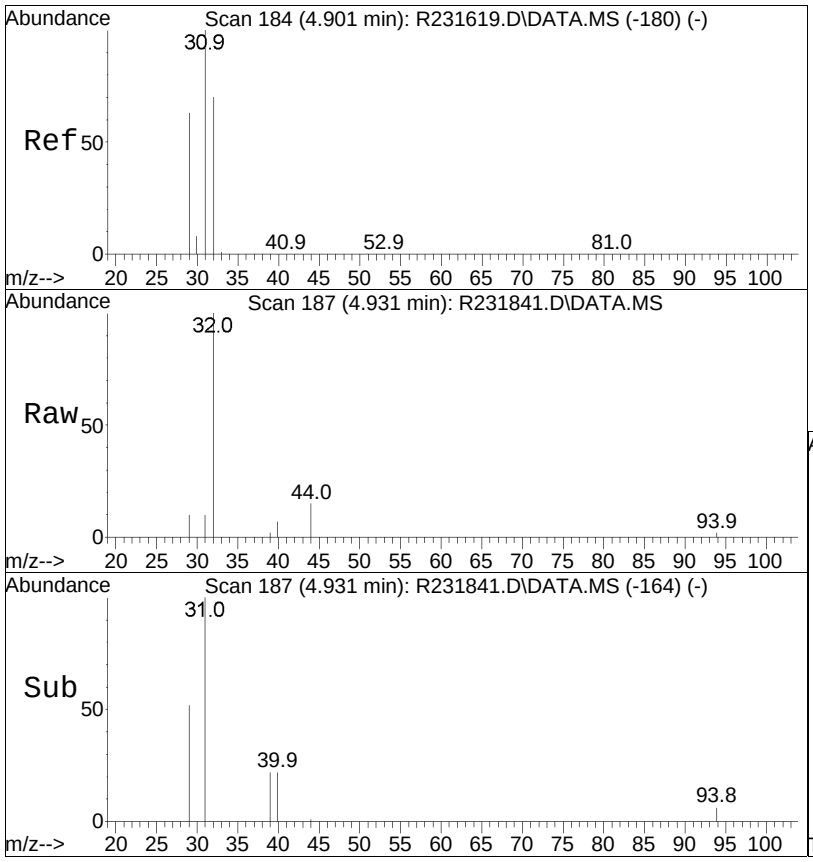
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:37:21 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

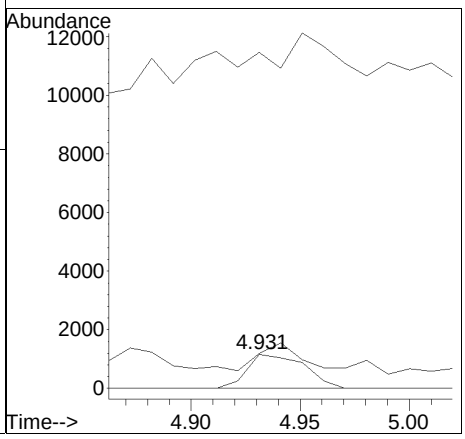


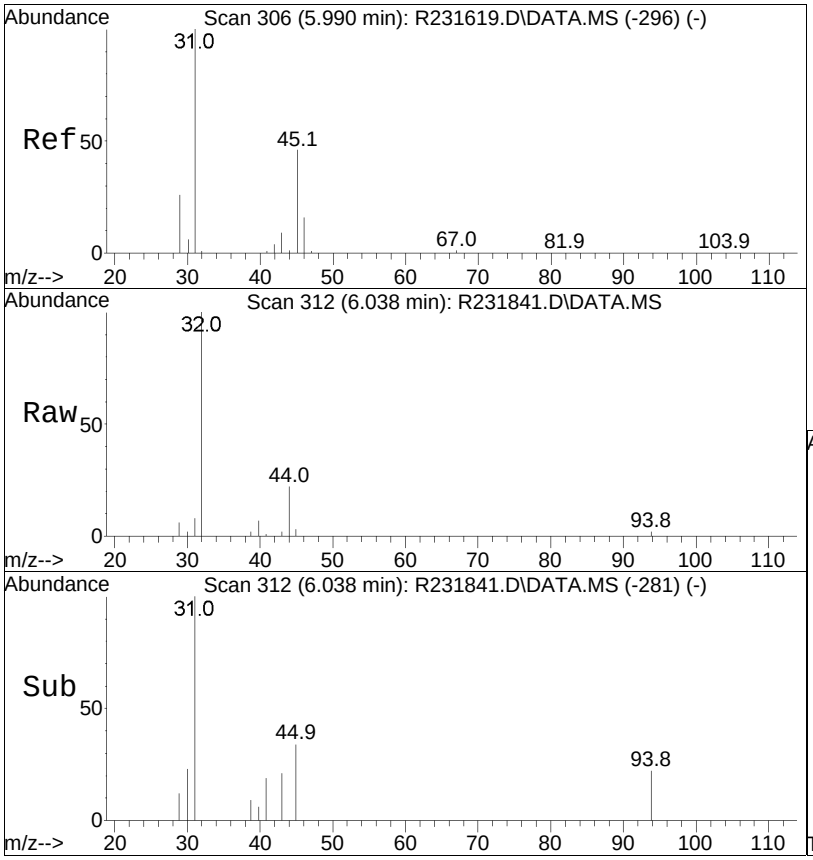


#8
methanol
Concen: 0.39 ppbV
RT: 4.931 min Scan# 187
Delta R.T. 0.030 min
Lab File: R231841.D
Acq: 24 Dec 2014 7:49 am

Tgt Ion: 31 Resp: 2129

Ion	Ratio	Lower	Upper
31	100		
32	989.1	63.3	94.9#
29	102.7	57.9	86.9#

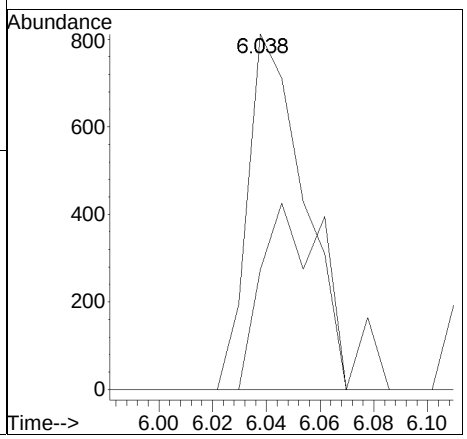


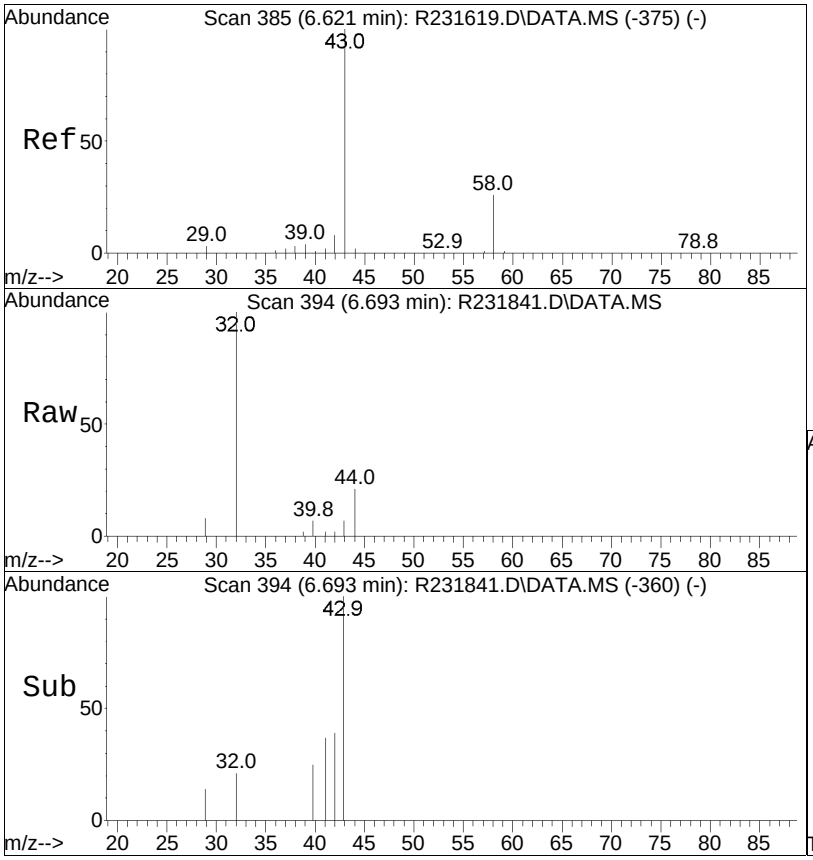


#15
ethanol
Concen: 0.10 ppbV
RT: 6.038 min Scan# 312
Delta R.T. 0.048 min
Lab File: R231841.D
Acq: 24 Dec 2014 7:49 am

Tgt Ion: 31 Resp: 1178

Ion	Ratio	Lower	Upper
31	100		
45	33.6	36.8	55.2#

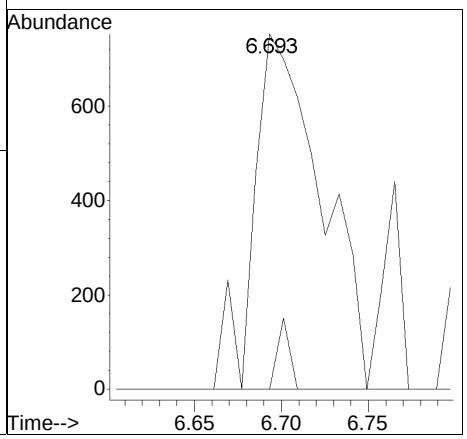




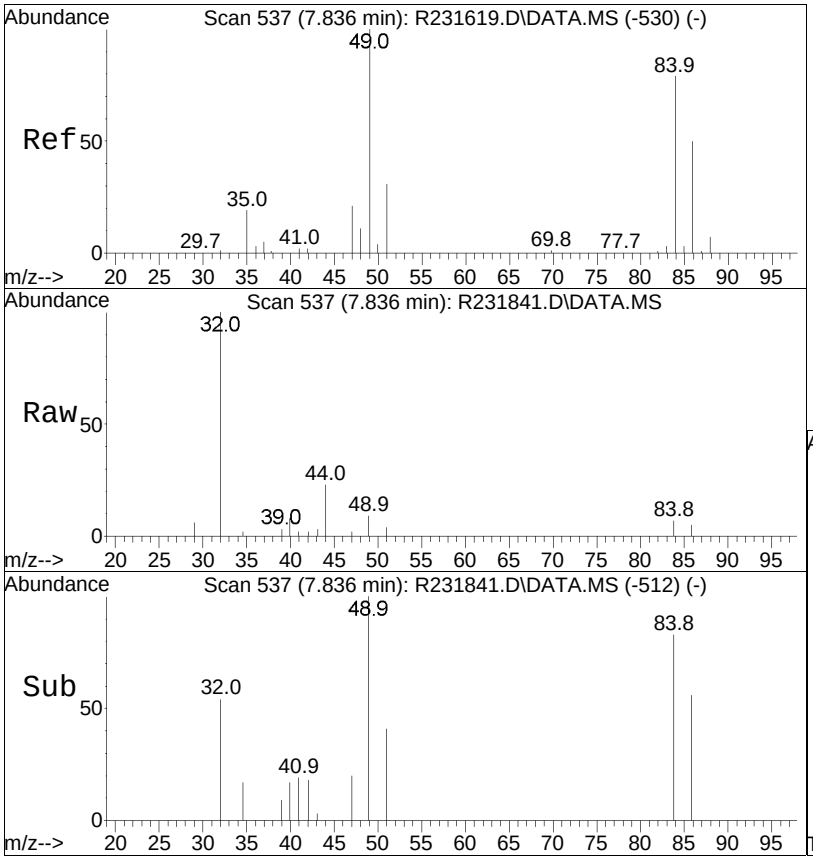
#19
acetone
Concen: 0.09 ppbV m
RT: 6.693 min Scan# 394
Delta R.T. 0.072 min
Lab File: R231841.D
Acq: 24 Dec 2014 7:49 am

Tgt Ion: 43 Resp: 2055

Ion	Ratio	Lower	Upper
43	100		
58	0.0	20.6	31.0#
57	0.0	0.6	1.0#



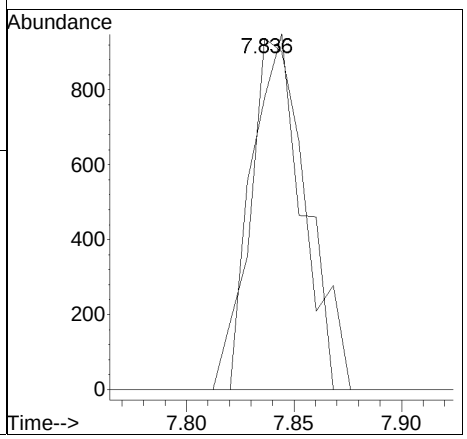
R231841.D TALL141214.M Wed Dec 24 10:20:57 2014 Page 8



#28
methylene chloride
Concen: 0.09 ppbV
RT: 7.836 min Scan# 537
Delta R.T. 0.000 min
Lab File: R231841.D
Acq: 24 Dec 2014 7:49 am

Tgt Ion: 49 Resp: 1690

Ion	Ratio	Lower	Upper
49	100		
84	83.0	63.3	94.9

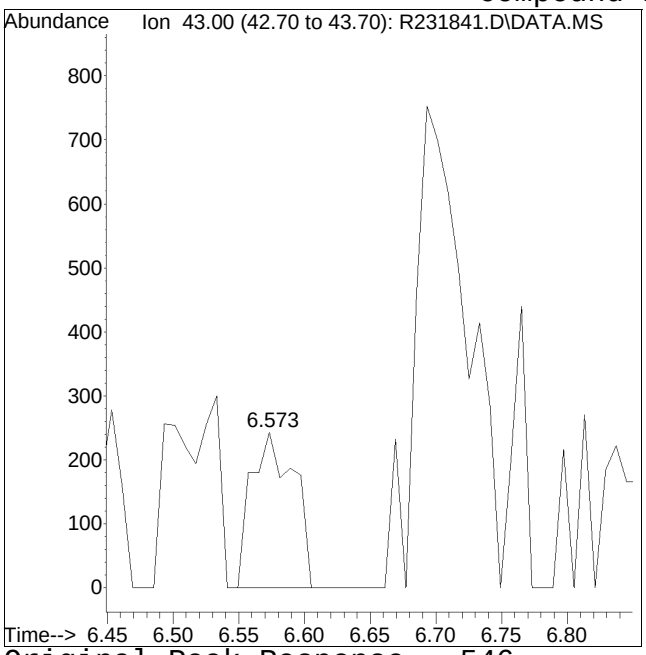


Manual Integration/Negative Proof Report

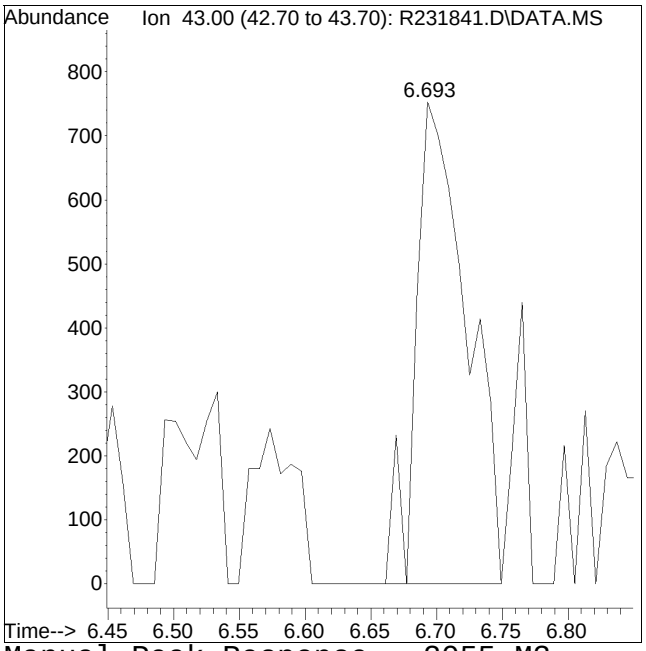
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231841.D
Date Inj'd : 12/24/2014 7:49 am
Sample : L1431011-02,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 8:56 am

Compound #19: acetone



Original Peak Response = 546



Manual Peak Response = 2055 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-02	Date Collected	: 12/22/14 14:30
Client ID	: CAN 738 SHELF 42	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/24/14 07:49
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231841	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231841.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.113	101	104	105	rBV2	2231	4064	0.23%	0.103%
2	4.251	116	118	120	rBV3	3204	3870	0.22%	0.098%
3	4.428	134	136	137	rBV2	2694	3702	0.21%	0.094%
4	4.507	142	144	147	rBV	2735	6287	0.36%	0.160%
5	4.665	158	160	161	rBV2	2957	3415	0.20%	0.087%
6	5.375	231	232	233	rBV	2970	1886	0.11%	0.048%
7	5.990	304	306	310	rBV2	2969	3184	0.18%	0.081%
8	6.038	310	312	314	rBV2	2624	3590	0.21%	0.091%
9	6.765	401	403	405	rBV2	2755	3039	0.17%	0.077%
10	8.260	588	590	593	rBV2	2079	2832	0.16%	0.072%
11	10.386	871	876	892	rBV	422715	805753	46.18%	20.450%
12	12.549	1089	1093	1101	rBV	709126	1339984	76.79%	34.009%
13	16.581	1474	1478	1481	rVB3	3924	9422	0.54%	0.239%
14	16.893	1529	1538	1555	rBV	1313971	1744888	100.00%	44.286%
15	22.190	2450	2451	2455	rVB	1238	2142	0.12%	0.054%
16	22.254	2455	2457	2461	rBV2	781	1994	0.11%	0.051%

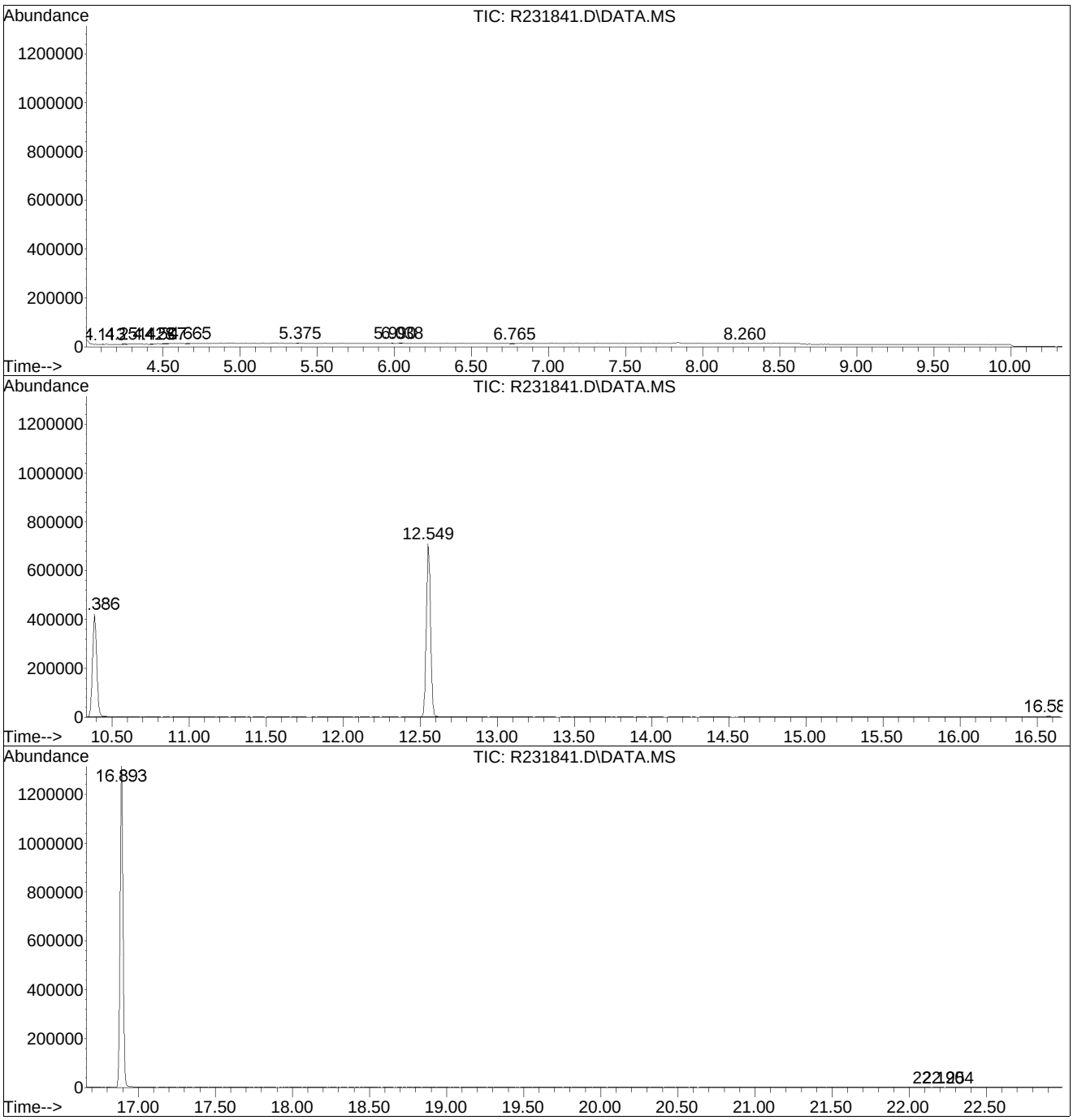
Sum of corrected areas: 3940052

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231841.D
Acq On : 24 Dec 2014 7:49 am
Operator : AIRPIANO2:MB
Sample : L1431011-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-03	Date Collected	: 12/22/14 14:35
Client ID	: CAN 1899 SHELF 43	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231826	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-03	Date Collected	: 12/22/14 14:35
Client ID	: CAN 1899 SHELF 43	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231826	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-03	Date Collected	: 12/22/14 14:35
Client ID	: CAN 1899 SHELF 43	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231826	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-03	Date Collected	: 12/22/14 14:35
Client ID	: CAN 1899 SHELF 43	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231826	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:36:17 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	158379	10.000	ppbV	0.00
Standard Area = 179805			Recovery = 88.08%			
43) 1,4-difluorobenzene	12.549	114	555847	10.000	ppbV	0.00
Standard Area = 648252			Recovery = 85.75%			
67) chlorobenzene-D5	16.893	54	104836	10.000	ppbV	0.00
Standard Area = 122515			Recovery = 85.57%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	4.350		0	N.D.		
4) propane	0.000		0	N.D.	d	
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.941	31	2371	0.463	ppbV	# 1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.247		0	N.D.		
13) bromomethane	5.598		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.054	31	805	0.074	ppbV	# 73
16) dichlorofluoromethane	5.974		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.701	43	1753M3	0.080	ppbV	
20) acetonitrile	6.269		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.053		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.333		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.844	49	1859	0.111	ppbV	# 73
29) 3-chloropropene	7.964		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:36:17 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
35) vinyl acetate	9.475		0	N.D.		
36) 2-butanone	9.757		0	N.D.		
37) cis-1,2-dichloroethene	0.000		0	N.D.		
38) Ethyl Acetate	0.000		0	N.D.		
39) chloroform	0.000		0	N.D.		
40) Tetrahydrofuran	0.000		0	N.D.		
41) 2,2-dichloropropane	0.000		0	N.D.		
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	0.000		0	N.D.		
45) diisopropyl ether	0.000		0	N.D.		
46) tert-butyl ethyl ether	0.000		0	N.D.		
48) 1,1,1-trichloroethane	0.000		0	N.D.		
49) 1,1-dichloropropene	0.000		0	N.D.		
50) benzene	0.000		0	N.D.		
52) carbon tetrachloride	0.000		0	N.D.		
53) cyclohexane	0.000		0	N.D.	d	
54) tert-amyl methyl ether	0.000		0	N.D.		
55) dibromomethane	13.057		0	N.D.		
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	0.000		0	N.D.		
61) methyl methacrylate	0.000		0	N.D.		
62) heptane	0.000		0	N.D.		
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.		
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.333		0	N.D.		
71) 1,3-dichloropropane	0.000		0	N.D.		
72) 2-hexanone	15.568		0	N.D.		
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
76) butyl acetate	0.000		0	N.D.		
77) octane	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:36:17 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.845		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	0.000		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	0.000		0		N.D.	
96) 4-ethyl toluene	0.000		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
104) sec-butylbenzene	0.000		0		N.D.	
106) p-isopropyltoluene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	0.000		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:36:17 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

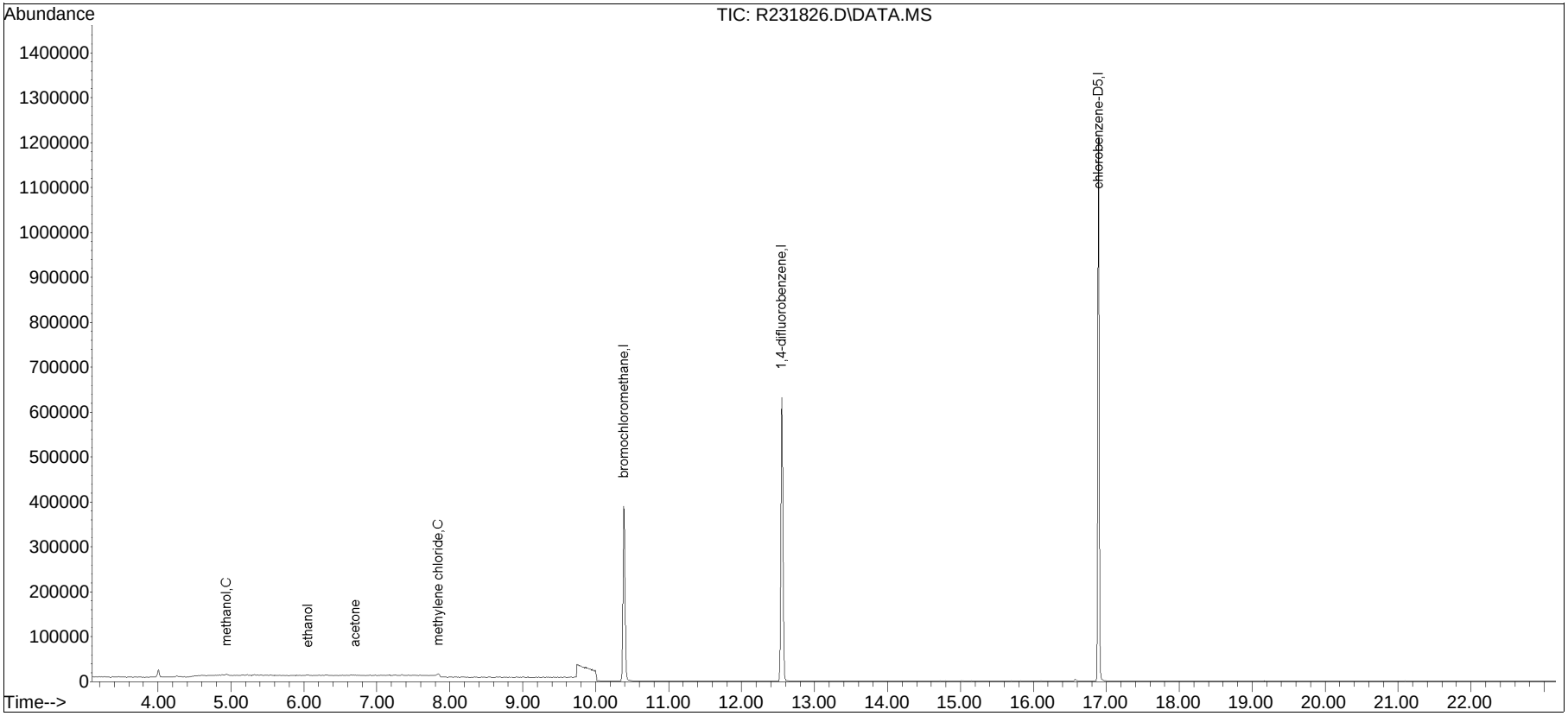
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

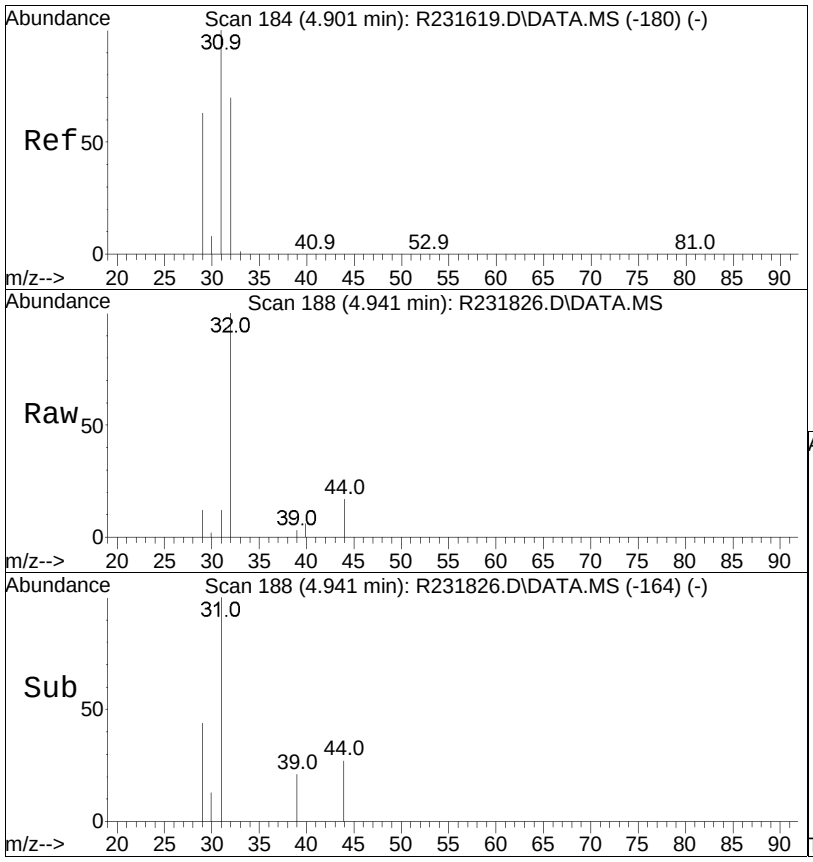
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:36:17 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

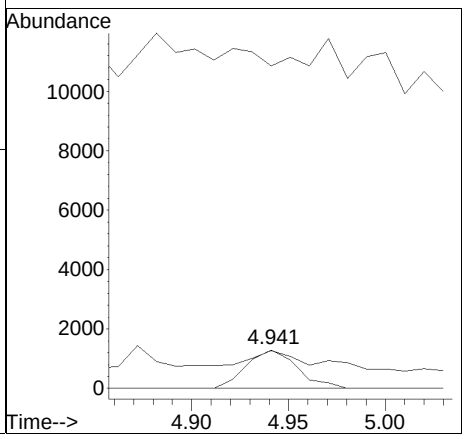


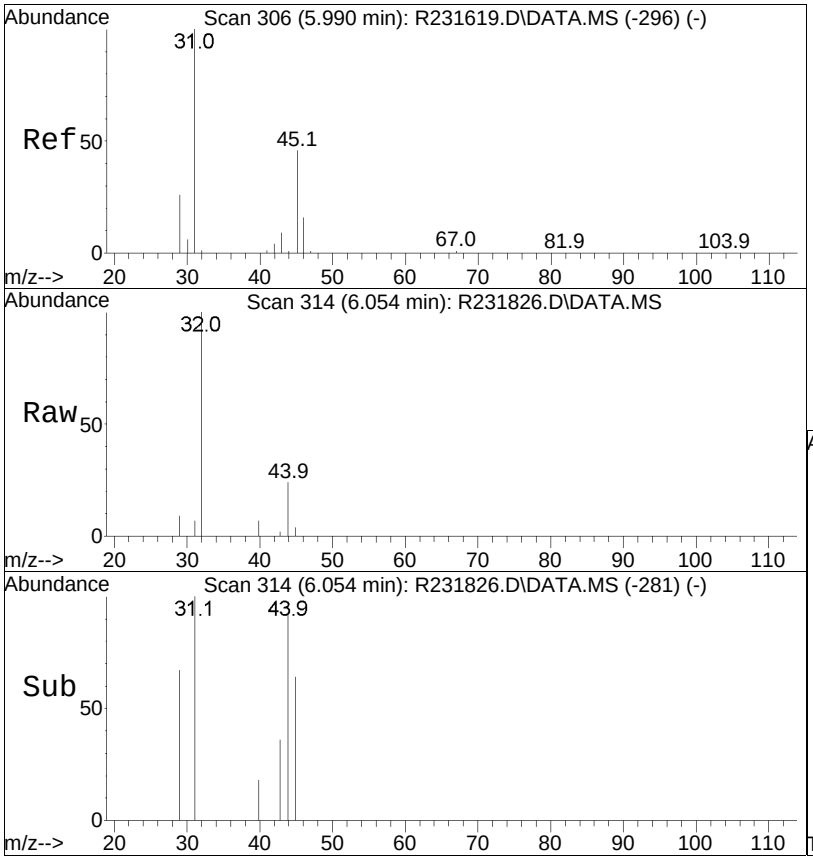


#8
methanol
Concen: 0.46 ppbV
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231826.D
Acq: 23 Dec 2014 6:38 pm

Tgt Ion: 31 Resp: 2371

Ion	Ratio	Lower	Upper
31	100		
32	840.3	63.3	94.9#
29	98.5	57.9	86.9#

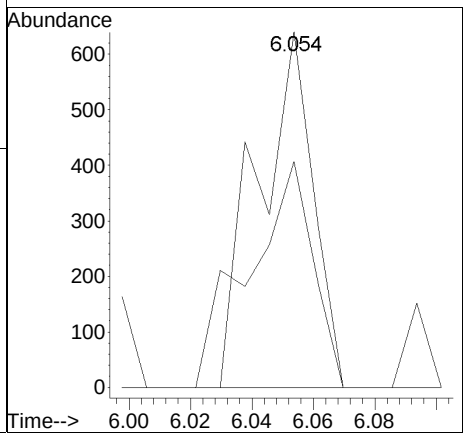


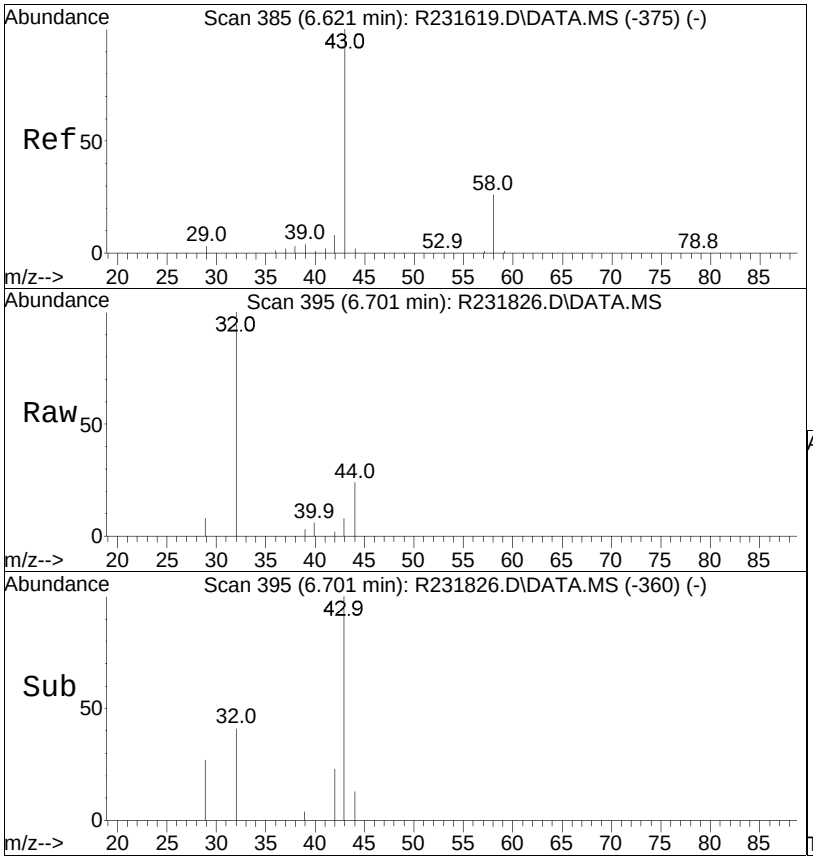


#15
ethanol
Concen: 0.07 ppbV
RT: 6.054 min Scan# 314
Delta R.T. 0.064 min
Lab File: R231826.D
Acq: 23 Dec 2014 6:38 pm

Tgt Ion: 31 Resp: 805

Ion	Ratio	Lower	Upper
31	100		
45	63.6	36.8	55.2#

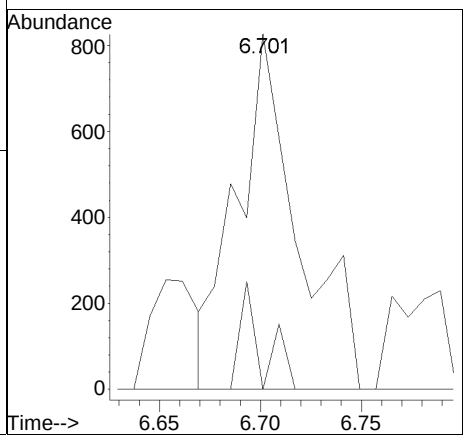


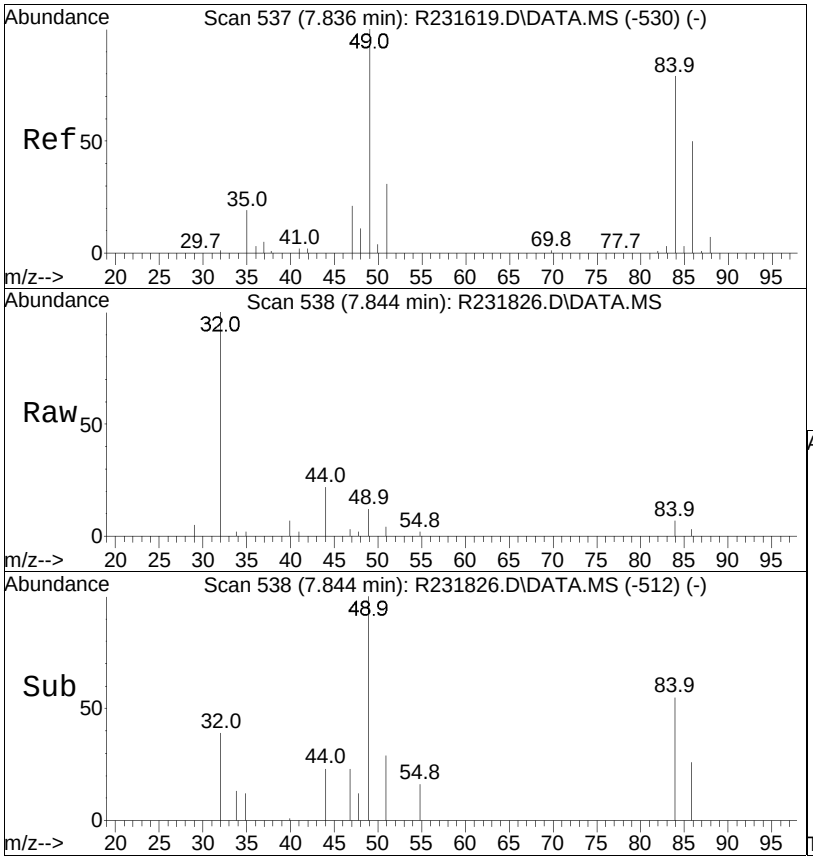


#19
acetone
Concen: 0.08 ppbV m
RT: 6.701 min Scan# 395
Delta R.T. 0.080 min
Lab File: R231826.D
Acq: 23 Dec 2014 6:38 pm

Tgt Ion: 43 Resp: 1753

Ion	Ratio	Lower	Upper
43	100		
58	0.0	20.6	31.0#
57	0.0	0.6	1.0#

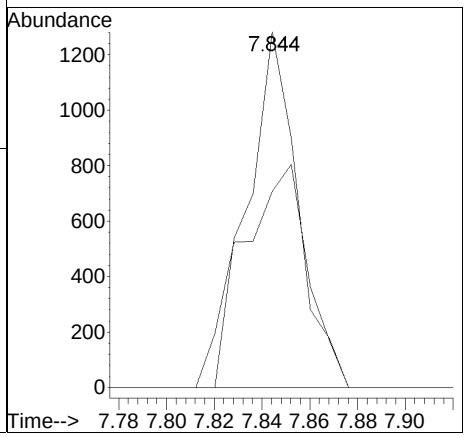




#28
methylene chloride
Concen: 0.11 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231826.D
Acq: 23 Dec 2014 6:38 pm

Tgt Ion: 49 Resp: 1859

Ion	Ratio	Lower	Upper
49	100		
84	55.1	63.3	94.9#

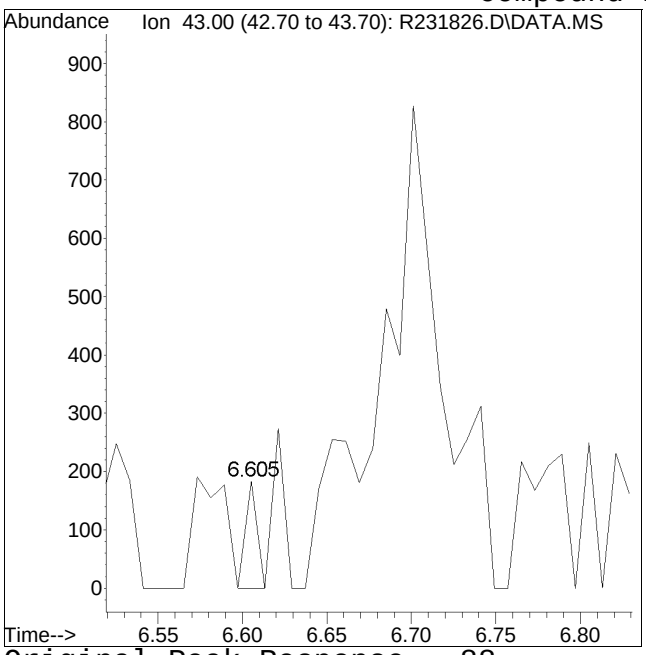


Manual Integration/Negative Proof Report

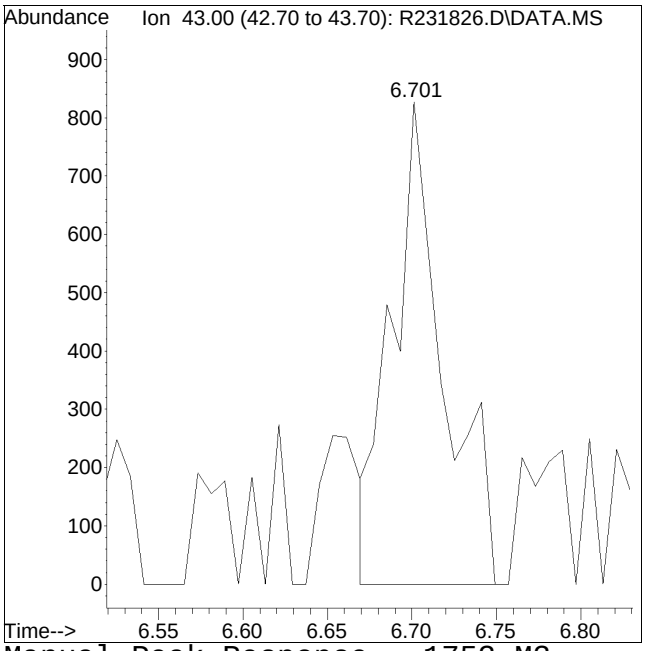
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231826.D
Date Inj'd : 12/23/2014 6:38 pm
Sample : L1431011-03,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:44 am

Compound #19: acetone



Original Peak Response = 88



Manual Peak Response = 1753 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431011
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431011-03	Date Collected	: 12/22/14 14:35
Client ID	: CAN 1899 SHELF 43	Date Received	: 12/23/14
Sample Location	:	Date Analyzed	: 12/23/14 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231826	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231826.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.251	116	118	121	rBV2	2584	4647	0.28%	0.123%
2	5.296	223	224	226	rBV2	2906	3924	0.24%	0.104%
3	8.816	661	664	666	rBV2	1790	2150	0.13%	0.057%
4	9.750	797	800	809	rBV	28047	116275	7.12%	3.070%
5	9.997	834	836	837	rVB	24083	35027	2.14%	0.925%
6	10.048	837	840	845	rVB2	1084	2496	0.15%	0.066%
7	10.386	871	876	892	rBV	389588	752528	46.08%	19.871%
8	12.549	1089	1093	1099	rBV	631960	1222410	74.85%	32.279%
9	16.572	1475	1477	1481	rVB2	4278	8431	0.52%	0.223%
10	16.893	1530	1538	1555	rBV	1217037	1633216	100.00%	43.127%
11	20.657	2306	2308	2311	rVB2	917	1892	0.12%	0.050%
12	20.721	2311	2314	2317	rBV2	772	2090	0.13%	0.055%
13	21.943	2425	2428	2433	rVB3	597	1947	0.12%	0.051%

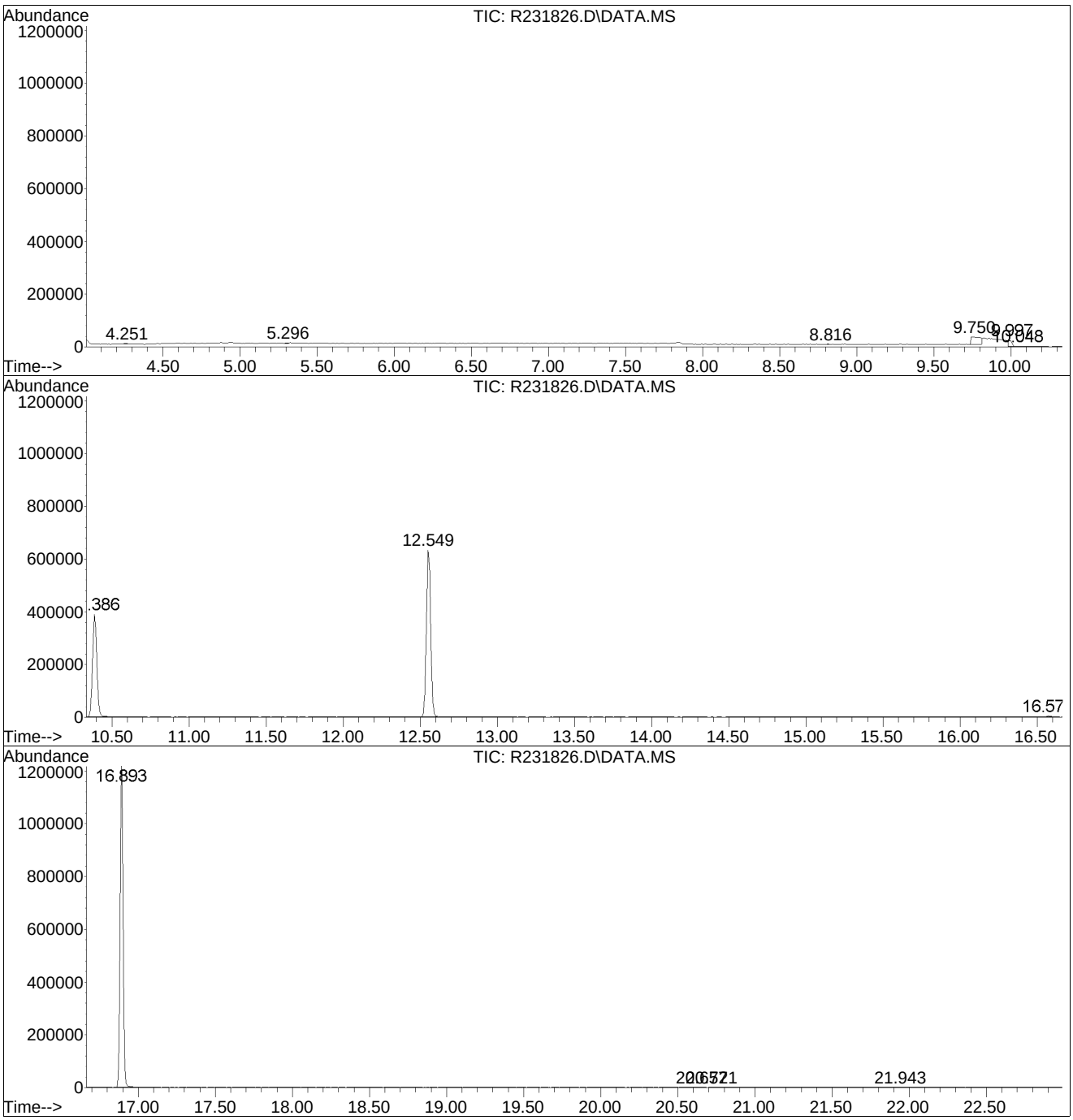
Sum of corrected areas: 3787033

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231826.D
Acq On : 23 Dec 2014 6:38 pm
Operator : AIRPIANO2:MB
Sample : L1431011-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

Calibration Files

0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D

50 =R231621.D 100 =R231622.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.663	1.375	1.287	1.187	1.178	1.114	1.089	1.027	1.2399	16.41
3)		propylene	0.788	0.673	0.627	0.569	0.566	0.530	0.525	0.488	0.5958	16.33
4)		propane	1.113	0.976	0.816	0.690	0.658	0.625	0.628	0.566	0.7590	25.55
5)		dichlorodifluoromethane	2.344	1.617	1.436	1.393	1.546	1.271	1.581	0.971	1.5198	25.83
6)	C	chloromethane	1.019	0.841	0.718	0.700	0.657	0.628	0.611	0.574	0.7185	20.38
7)		Freon-114	3.096	2.904	2.788	2.710	2.634	2.502	2.365	2.109	2.6386	11.82
8)	C	methanol			0.420	0.346	0.334	0.289	0.282	0.268	0.3232	17.50
9)	C	vinyl chloride	0.953	0.838	0.862	0.833	0.808	0.770	0.736	0.697	0.8121	9.80
10)	C	1,3-butadiene	0.639	0.652	0.590	0.608	0.581	0.542	0.526	0.496	0.5791	9.44
11)		butane	1.743	1.514	1.467	1.307	1.246	1.211	1.168	1.098	1.3442	15.98
12)	C	acetaldehyde			0.659	0.661	0.581	0.561	0.530	0.490	0.436	0.5597	14.90
13)	C	bromomethane	1.168	1.061	0.963	0.944	0.916	0.861	0.817	0.753	0.9353	14.24
14)	C	chloroethane	0.488	0.501	0.445	0.415	0.404	0.383	0.365	0.337	0.4173	13.82
15)		ethanol			0.762	0.719	0.723	0.691	0.666	0.649	0.599	0.6870	7.89
16)		dichlorofluoromethane	2.506	2.269	2.244	2.060	1.961	1.887	1.811	1.675	2.0517	13.36
17)	C	vinyl bromide	1.021	0.993	1.019	0.985	0.934	0.897	0.861	0.784	0.9367	9.01
18)	C	acrolein			0.397	0.360	0.323	0.324	0.313	0.305	0.288	0.3301	11.22
19)		acetone	1.587	1.596	1.476	1.383	1.355	1.294	1.243	1.126	1.3823	11.92
20)	C	acetonitrile	0.937	0.821	0.788	0.753	0.732	0.700	0.692	0.662	0.7607	11.58
21)		trichlorofluoromethane	3.334	3.342	3.192	3.026	2.951	2.788	2.656	2.367	2.9570	11.56
22)		isopropyl alcohol			2.014	1.839	1.474	1.400	1.323	1.289	1.205	1.5062	20.14
23)	C	acrylonitrile	0.847	0.594	0.626	0.604	0.576	0.555	0.540	0.506	0.6062	17.25
24)		pentane	1.756	1.631	1.563	1.542	1.474	1.391	1.394	1.301	1.5066	9.76
25)		ethyl ether	1.563	1.400	1.347	1.308	1.254	1.201	1.172	1.089	1.2917	11.48
26)	C	1,1-dichloroethene	1.751	1.567	1.550	1.477	1.432	1.370	1.331	1.231	1.4636	11.02
27)		tertiary butyl alcohol			2.028	1.921	1.822	1.736	1.709	1.651	1.558	1.7750	9.07
28)	C	methylene chloride			1.300	1.242	1.049	1.025	0.971	0.929	0.868	1.0547	15.20
29)	C	3-chloropropene	1.481	1.301	1.264	1.193	1.166	0.969	1.079	1.015	1.1835	14.10
30)	C	carbon disulfide	2.842	2.804	2.764	2.742	2.702	2.452	2.537	2.308	2.6439	7.20
31)		Freon 113	2.316	2.274	2.213	2.121	2.065	1.940	1.864	1.624	2.0522	11.37
32)		trans-1,2-dichloroethene	1.228	1.260	1.277	1.223	1.211	1.159	1.159	1.143	1.2075	4.11
33)	C	1,1-dichloroethane	1.607	1.555	1.515	1.472	1.435	1.389	1.371	1.332	1.4596	6.54
34)	C	MTBE	2.686	2.529	2.504	2.429	2.388	2.297	2.275	2.234	2.4178	6.28
35)	C	vinyl acetate	1.392	1.018	0.851	0.993	1.142	1.288	1.467	1.572	1.2153	20.94
36)	C	2-butanone	2.205	1.894	1.819	1.693	1.685	1.632	1.568	1.507	1.7505	12.70
37)		cis-1,2-dichloroethene	1.258	1.167	1.138	1.066	1.074	1.028	1.025	0.990	1.0934	8.14
38)		Ethyl Acetate	0.251	0.256	0.284	0.253	0.259	0.254	0.267	0.259	0.2605	4.13
39)	C	chloroform	2.223	2.212	2.076	2.035	1.994	1.931	1.944	1.836	2.0315	6.67
40)		Tetrahydrofuran	1.082	1.067	0.955	0.924	0.928	0.894	0.879	0.839	0.9459	9.18
41)		2,2-dichloropropane	1.892	1.786	1.753	1.734	1.693	1.672	1.714	1.653	1.7372	4.38
42)	C	1,2-dichloroethane	1.415	1.308	1.286	1.239	1.215	1.179	1.158	1.098	1.2373	7.99
43)	I	1,4-difluorobenzene	ISTD									

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.337	0.347	0.326	0.323	0.330	0.320	0.346	0.368	0.3371	4.84
45)		diisopropyl ether	0.207	0.198	0.207	0.188	0.197	0.189	0.201	0.205	0.1990	3.78
46)		tert-butyl ethyl ether	0.733	0.709	0.673	0.673	0.679	0.651	0.682	0.707	0.6882	3.77
47)	s	1,2-dichloroethane-D4	0.230	0.228	0.227	0.224	0.224	0.220	0.225	0.218	0.2245	1.74
48)	C	1,1,1-trichloroethane	0.762	0.695	0.709	0.669	0.675	0.631	0.651	0.688	0.6849	5.81
49)		1,1-dichloropropene	0.443	0.365	0.357	0.357	0.363	0.354	0.369	0.382	0.3738	7.88
50)	C	benzene	0.768	0.739	0.727	0.691	0.690	0.661	0.683	0.696	0.7068	4.95
51)		thiophene	0.546	0.496	0.510	0.490	0.497	0.481	0.506	0.524	0.5063	4.11
52)	C	carbon tetrachloride	0.671	0.649	0.673	0.666	0.687	0.665	0.707	0.706	0.6780	2.98
53)		cyclohexane	0.374	0.373	0.346	0.322	0.321	0.306	0.322	0.339	0.3378	7.42
54)		tert-amyl methyl ether	0.736	0.696	0.710	0.692	0.699	0.672	0.702	0.734	0.7053	3.05
55)		dibromomethane	0.406	0.364	0.338	0.349	0.357	0.348	0.365	0.365	0.3614	5.65
56)	C	1,2-dichloropropane	0.270	0.247	0.265	0.251	0.254	0.241	0.259	0.272	0.2575	4.28
57)		bromodichloromethane	0.659	0.649	0.643	0.642	0.659	0.634	0.673	0.679	0.6547	2.42
58)	C	1,4-dioxane	0.207	0.184	0.154	0.165	0.171	0.174	0.182	0.186	0.1778	8.80
59)	C	trichloroethene	0.407	0.411	0.373	0.389	0.384	0.380	0.385	0.378	0.3884	3.49
60)	C	2,2,4-trimethylpentane	1.171	1.101	1.091	1.131	1.149	1.068	1.142	1.208	1.1324	4.00
61)		methyl methacrylate	0.378	0.364	0.362	0.335	0.333	0.317	0.334	0.343	0.3458	5.84
62)		heptane	0.467	0.464	0.435	0.420	0.417	0.396	0.424	0.447	0.4336	5.62
63)	C	cis-1,3-dichloropropene	0.354	0.380	0.362	0.381	0.387	0.382	0.410	0.433	0.3860	6.55
64)	C	4-methyl-2-pentanone	0.721	0.615	0.614	0.583	0.600	0.578	0.608	0.638	0.6198	7.26
65)		trans-1,3-dichloropropene	0.483	0.496	0.483	0.507	0.523	0.518	0.548	0.579	0.5171	6.40
66)	C	1,1,2-trichloroethane	0.468	0.419	0.433	0.433	0.439	0.411	0.435	0.440	0.4347	3.84
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	7.004	6.934	6.525	6.453	6.454	6.293	6.377	6.500	6.5673	3.94
69)	s	toluene-D8	4.879	4.907	4.802	4.708	4.685	4.577	4.508	4.482	4.6935	3.46
70)		2-methylthiophene	6.033	5.949	5.925	5.843	5.809	5.717	5.777	5.876	5.8660	1.73
71)		1,3-dichloropropane	3.090	3.073	2.806	2.920	2.905	2.868	2.917	3.014	2.9492	3.40
72)		2-hexanone	4.211	4.159	3.969	3.847	3.931	3.821	4.004	4.189	4.0165	3.82
73)		3-methylthiophene	6.346	5.720	6.054	6.127	6.065	5.982	5.982	5.881	6.0197	3.03
74)		dibromochloromethane	4.933	4.799	5.018	5.292	5.449	5.239	5.280	4.986	5.1244	4.33
75)	C	1,2-dibromoethane	4.101	3.976	3.776	4.066	4.053	3.866	3.890	3.903	3.9541	2.88
76)		butyl acetate	0.638	0.670	0.634	0.633	0.651	0.628	0.652	0.674	0.6475	2.66
77)		octane	1.884	1.819	1.783	1.832	1.818	1.742	1.815	1.862	1.8193	2.42
78)	C	tetrachloroethene	3.750	3.314	3.290	3.351	3.363	3.240	3.226	3.148	3.3353	5.45
79)		1,1,1,2-tetrachloroethane	2.534	2.494	2.407	2.529	2.550	2.501	2.529	2.347	2.4864	2.88
80)	C	chlorobenzene	4.368	4.108	3.945	4.091	4.104	4.008	4.106	4.050	4.0976	3.01
81)	C	ethylbenzene	6.685	6.459	6.239	6.431	6.424	6.218	6.375	6.468	6.4121	2.28
82)		2-ethylthiophene	5.089	5.209	5.019	5.162	5.219	5.111	5.274	5.273	5.1694	1.77
83)	C	m+p-xylene	5.074	5.087	4.931	5.094	5.178	5.123	5.257	5.196	5.1174	1.92
84)	C	bromoform	3.186	3.016	2.927	3.419	3.639	3.584	3.671	3.486	3.3661	8.55
85)	C	styrene	4.105	3.966	3.809	3.970	4.022	3.914	4.013	4.008	3.9759	2.19
86)	C	1,1,2,2-tetrachloroethane	3.603	3.629	3.718	3.814	3.890	3.866	4.023	3.663	3.7759	3.89
87)	C	o-xylene	5.250	5.222	5.024	5.293	5.385	5.346	5.403	4.907	5.2289	3.38
88)		1,2,3-trichloropropane	2.851	2.743	2.666	2.754	2.805	2.741	2.887	3.013	2.8075	3.86
89)		nonane	3.458	3.194	3.166	3.291	3.274	3.231	3.441	3.568	3.3278	4.33
90)	s	bromofluorobenzene	2.251	2.315	2.469	2.667	2.495	2.393	2.396	2.117	2.3879	6.97

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	6.641	6.422	7.099	7.327	7.399	7.180	7.304	6.980	7.0440	4.94
92)		bromobenzene	4.125	3.607	3.393	3.519	3.625	3.572	3.743	3.864	3.6808	6.20
93)		2-chlorotoluene	2.167	2.103	1.929	2.043	2.063	2.036	2.043	1.971	2.0445	3.59
94)		n-propylbenzene	2.088	2.127	2.075	2.166	2.159	2.167	2.164	2.078	2.1280	1.96
95)		4-chlorotoluene	5.668	5.348	5.114	5.440	5.519	5.497	5.593	5.752	5.4911	3.61
96)		4-ethyl toluene	7.944	7.900	7.687	8.152	8.364	8.123	8.262	7.852	8.0357	2.83
97)		1,3,5-trimethylbenzene	6.335	6.135	6.005	6.333	6.407	6.345	6.545	6.353	6.3074	2.63
98)		tert-butylbenzene	6.959	6.744	6.775	7.080	7.320	7.226	6.881	5.727	6.8391	7.22
99)		1,2,4-trimethylbenzene	6.093	6.114	5.896	6.482	6.774	6.791	6.584	5.418	6.2691	7.60
100)		decane	3.165	3.087	3.114	3.261	3.430	3.403	3.754	3.818	3.3790	8.31
101)	C	Benzyl Chloride	4.066	4.191	4.388	5.298	5.764	6.071	6.681	6.432	5.3616	19.37
102)		1,3-dichlorobenzene	4.151	4.255	4.218	4.395	4.551	4.481	4.545	4.367	4.3705	3.46
103)	C	1,4-dichlorobenzene	4.364	4.138	4.264	4.437	4.653	4.631	4.574	4.245	4.4132	4.37
104)		sec-butylbenzene	9.096	8.990	8.813	9.355	9.703	9.547	9.719	8.350	9.1967	5.19
105)		1,2,3-trimethylbenzene	5.868	5.508	5.620	5.876	6.064	6.074	6.235	5.563	5.8511	4.56
106)		p-isopropyltoluene	8.454	8.300	8.094	8.700	9.033	8.875	8.741	7.508	8.4632	5.83
107)		1,2-dichlorobenzene	3.831	3.860	3.952	4.130	4.251	4.202	4.275	4.177	4.0848	4.34
108)		n-butylbenzene	6.797	6.996	6.964	7.528	7.746	7.704	7.944	7.538	7.4020	5.73
109)		indan	6.184	5.996	6.092	6.394	6.559	6.483	6.534	6.267	6.3138	3.35
110)		indene	4.069	4.200	4.196	4.407	4.484	4.549	4.732	4.688	4.4156	5.49
111)	C	1,2-dibromo-3-chloropropane	1.530	1.568	1.589	1.843	1.941	2.016	2.233	2.286	1.8758	15.83
112)		undecane	2.963	3.052	3.124	3.667	3.830	3.898	4.351	4.353	3.6547	15.29
113)		1,2,4,5-tetramethylbenzene	1.134	1.174	1.171	1.539	1.629	1.384	1.317	1.069	1.3022	15.53
114)		dodecane	2.202	2.679	2.849	3.721	4.035	4.426	4.749	3.907	3.5710	25.18
115)	C	1,2,4-trichlorobenzene	2.908	2.511	2.824	3.209	3.490	3.578	3.729	3.104	3.1693	13.11
116)		naphthalene	6.085	7.094	7.269	8.459	8.838	8.726	9.175	8.866	8.0640	13.71
117)		1,2,3-trichlorobenzene	2.356	2.704	2.665	2.973	3.204	3.264	3.548	3.611	3.0407	14.65
118)		benzothiophene		1.097	1.087	1.382	1.487	1.455	1.443	1.178	1.3041	13.56
119)	C	hexachlorobutadiene	2.125	2.341	2.328	2.645	2.836	2.866	3.246	3.151	2.6924	15.05
120)		2-methylnaphthalene		1.383	1.457	2.794	3.153	2.846	3.354	3.516	2.6431	33.07#
121)		1-methylnaphthalene		1.837	1.735	2.447	2.737	2.488	2.871	3.010	2.4465	20.16

FORM VI-TO15-LL

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1431011

Instrument ID: AIRPIANO2 Calibration Date: 12/23/2014 Time: 12:06

Lab File ID: R231816 Init. Calib. Date(s): 12/14/14 12/14/14

Sample No: WG751505-2,3,25 Init. Calib. Times : 14:35 18:17

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	99	0.00
2		chlorodifluoromethane	1.240	1.168	5.8	98	0.00
3		propylene	0.596	0.592	0.7	103	0.00
4		propane	0.759	0.665	12.4	100	0.00
5		dichlorodifluoromethane	1.520	1.446	4.9	93	0.00
6	C	chloromethane	0.718	0.647	9.9	97	0.00
7		Freon-114	2.639	2.437	7.7	92	0.00
8	C	methanol	0.323	0.334	-3.4	99	0.00
9	C	vinyl chloride	0.812	0.766	5.7	94	0.00
10	C	1,3-butadiene	0.579	0.559	3.5	95	0.00
11		butane	1.344	1.208	10.1	96	0.00
13	C	bromomethane	0.935	0.847	9.4	92	0.00
14	C	chloroethane	0.417	0.379	9.1	93	0.00
15		ethanol	0.687	0.684	0.4	98	0.00
16		dichlorofluoromethane	2.052	1.853	9.7	94	0.00
17	C	vinyl bromide	0.937	0.887	5.3	94	0.00
18	C	acrolein	0.330	0.305	7.6	93	0.00
19		acetone	1.382	1.311	5.1	96	0.00
20	C	acetonitrile	0.761	0.734	3.5	99	0.00
21		trichlorofluoromethane	2.957	2.697	8.8	90	0.00
22		isopropyl alcohol	1.506	1.373	8.8	97	0.00
23	C	acrylonitrile	0.606	0.566	6.6	97	0.00
24		pentane	1.507	1.550	-2.9	104	0.00
25		ethyl ether	1.292	1.301	-0.7	103	0.00
26	C	1,1-dichloroethene	1.464	1.360	7.1	94	0.00
27		tertiary butyl alcohol	1.775	1.621	8.7	92	0.00
28	C	methylene chloride	1.055	0.981	7.0	95	0.00
29	C	3-chloropropene	1.183	1.135	4.1	96	0.00
30	C	carbon disulfide	2.644	2.496	5.6	91	0.00
31		Freon 113	2.052	1.953	4.8	94	0.00
32		trans-1,2-dichloroethene	1.207	1.209	-0.2	99	0.00
33	C	1,1-dichloroethane	1.460	1.449	0.8	100	0.00
34	C	MTBE	2.418	2.353	2.7	98	0.00
35	C	vinyl acetate	1.215	1.705	-40.3#	148#	0.00
36	C	2-butanone	1.750	1.741	0.5	102	0.00
37		cis-1,2-dichloroethene	1.093	1.095	-0.2	101	0.00
38		Ethyl Acetate	0.261	0.267	-2.3	102	0.00
39	C	chloroform	2.031	1.990	2.0	99	0.00
40		Tetrahydrofuran	0.946	0.964	-1.9	103	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231816.D
Acq On : 23 Dec 2014 12:06 pm
Operator : AIRPIANO2:RY
Sample : WG751505-2,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 12:31:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.737	1.692	2.6	99	0.00
42	C	1,2-dichloroethane	1.237	1.216	1.7	99	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00
44	C	hexane	0.337	0.335	0.6	102	0.00
45		diisopropyl ether	0.199	0.195	2.0	99	0.00
46		tert-butyl ethyl ether	0.688	0.670	2.6	99	0.00
48	C	1,1,1-trichloroethane	0.685	0.638	6.9	95	0.00
49		1,1-dichloropropene	0.374	0.365	2.4	101	-0.01
50	C	benzene	0.707	0.693	2.0	101	0.00
52	C	carbon tetrachloride	0.678	0.648	4.4	94	-0.01
53		cyclohexane	0.338	0.328	3.0	102	0.00
54		tert-amyl methyl ether	0.705	0.689	2.3	99	0.00
55		dibromomethane	0.361	0.346	4.2	97	-0.01
56	C	1,2-dichloropropane	0.257	0.251	2.3	99	0.00
57		bromodichloromethane	0.655	0.629	4.0	96	0.00
58	C	1,4-dioxane	0.178	0.167	6.2	98	0.00
59	C	trichloroethene	0.388	0.370	4.6	96	-0.01
60	C	2,2,4-trimethylpentane	1.132	1.111	1.9	97	0.00
61		methyl methacrylate	0.346	0.340	1.7	102	0.00
62		heptane	0.434	0.429	1.2	103	0.00
63	C	cis-1,3-dichloropropene	0.386	0.393	-1.8	102	0.00
64	C	4-methyl-2-pentanone	0.620	0.615	0.8	103	0.00
65		trans-1,3-dichloropropene	0.517	0.524	-1.4	100	0.00
66	C	1,1,2-trichloroethane	0.435	0.428	1.6	98	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	99	0.00
68	C	toluene	6.567	6.493	1.1	100	0.00
71		1,3-dichloropropane	2.949	2.992	-1.5	102	0.00
72		2-hexanone	4.016	4.006	0.2	101	0.00
74		dibromochloromethane	5.124	5.104	0.4	93	0.00
75	C	1,2-dibromoethane	3.954	4.024	-1.8	98	0.00
76		butyl acetate	0.647	0.671	-3.7	102	0.00
77		octane	1.819	1.864	-2.5	102	0.00
78	C	tetrachloroethene	3.335	3.288	1.4	97	0.00
79		1,1,1,2-tetrachloroethane	2.486	2.469	0.7	96	0.00
80	C	chlorobenzene	4.098	4.171	-1.8	101	0.00
81	C	ethylbenzene	6.412	6.616	-3.2	102	0.00
83	C	m+p-xylene	5.117	5.334	-4.2	102	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231816.D
Acq On : 23 Dec 2014 12:06 pm
Operator : AIRPIANO2:RY
Sample : WG751505-2,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 12:31:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.366	3.401	-1.0	93	0.00
85	C	styrene	3.976	4.187	-5.3	103	0.00
86	C	1,1,2,2-tetrachloroethane	3.776	4.068	-7.7	104	0.00
87	C	o-xylene	5.229	5.541	-6.0	102	0.00
88		1,2,3-trichloropropane	2.807	2.930	-4.4	103	0.00
89		nonane	3.328	3.453	-3.8	104	0.00
91	C	isopropylbenzene	7.044	7.630	-8.3	102	0.00
92		bromobenzene	3.681	3.758	-2.1	103	0.00
93		2-chlorotoluene	2.045	2.084	-1.9	100	0.00
94		n-propylbenzene	2.128	2.248	-5.6	103	0.00
95		4-chlorotoluene	5.491	5.712	-4.0	102	0.00
96		4-ethyl toluene	8.036	8.561	-6.5	101	0.00
97		1,3,5-trimethylbenzene	6.307	6.767	-7.3	105	0.00
98		tert-butylbenzene	6.839	7.452	-9.0	101	0.00
99		1,2,4-trimethylbenzene	6.269	6.926	-10.5	101	0.00
100		decane	3.379	3.598	-6.5	104	0.00
101	C	Benzyl Chloride	5.362	5.962	-11.2	102	0.00
102		1,3-dichlorobenzene	4.371	4.657	-6.5	101	0.00
103	C	1,4-dichlorobenzene	4.413	4.698	-6.5	100	0.00
104		sec-butylbenzene	9.197	9.912	-7.8	101	0.00
106		p-isopropyltoluene	8.463	9.237	-9.1	101	0.00
107		1,2-dichlorobenzene	4.085	4.433	-8.5	103	0.00
108		n-butylbenzene	7.402	8.120	-9.7	104	0.00
111	C	1,2-dibromo-3-chloropropane	1.876	2.000	-6.6	102	0.00
112		undecane	3.655	4.032	-10.3	104	0.00
114		dodecane	3.571	4.116	-15.3	101	-0.01
115	C	1,2,4-trichlorobenzene	3.169	3.439	-8.5	98	0.00
116		naphthalene	8.064	8.859	-9.9	99	0.00
117		1,2,3-trichlorobenzene	3.041	3.167	-4.1	98	0.00
119	C	hexachlorobutadiene	2.692	2.839	-5.5	99	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Quality Control Data Summary

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1431240 Matrix: Air
Lab Control Sample: WG753125-3LCS Injected: 01/03/15 13:06 Lab File ID: R138827

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	8.62	86	-	-	-		70-130
Propylene	10	NA	10.1	101	-	-	-		70-130
Propane	10	NA	8.12	81	-	-	-		70-130
Dichlorodifluoromethane	10	NA	7.91	79	-	-	-		70-130
Chloromethane	10	NA	8.90	89	-	-	-		70-130
Freon-114	10	NA	9.43	94	-	-	-		70-130
Methanol	50	NA	47.9	96	-	-	-		70-130
Vinyl chloride	10	NA	9.64	96	-	-	-		70-130
1,3-Butadiene	10	NA	9.40	94	-	-	-		70-130
Butane	10	NA	8.61	86	-	-	-		70-130
Bromomethane	10	NA	8.36	84	-	-	-		70-130
Chloroethane	10	NA	9.03	90	-	-	-		70-130
Ethanol	50	NA	47.1	94	-	-	-		70-130
Dichlorofluoromethane	10	NA	8.68	87	-	-	-		70-130
Vinyl bromide	10	NA	9.87	99	-	-	-		70-130
Acrolein	10	NA	7.96	80	-	-	-		70-130
Acetone	50	NA	49.5	99	-	-	-		70-130
Acetonitrile	10	NA	8.50	85	-	-	-		70-130
Trichlorofluoromethane	10	NA	9.47	95	-	-	-		70-130
Isopropanol	10	NA	10.0	100	-	-	-		70-130
Acrylonitrile	10	NA	8.39	84	-	-	-		70-130
Pentane	10	NA	8.55	86	-	-	-		70-130
Ethyl ether	10	NA	7.97	80	-	-	-		70-130
1,1-Dichloroethene	10	NA	9.70	97	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	9.54	95	-	-	-		70-130
Methylene chloride	10	NA	9.54	95	-	-	-		70-130
3-Chloropropene	10	NA	9.06	91	-	-	-		70-130
Carbon disulfide	10	NA	9.59	96	-	-	-		70-130
Freon-113	10	NA	9.72	97	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	8.97	90	-	-	-		70-130
1,1-Dichloroethane	10	NA	9.54	95	-	-	-		70-130
Methyl tert butyl ether	10	NA	9.45	94	-	-	-		70-130
Vinyl acetate	10	NA	12.4	124	-	-	-		70-130
2-Butanone	10	NA	9.81	98	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	11.2	112	-	-	-		70-130
Ethyl Acetate	10	NA	9.46	95	-	-	-		70-130
Chloroform	10	NA	9.53	95	-	-	-		70-130
Tetrahydrofuran	10	NA	8.51	85	-	-	-		70-130
2,2-Dichloropropane	10	NA	8.75	88	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.82	98	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1431240 Matrix: Air
Lab Control Sample: WG753125-3LCS Injected: 01/03/15 13:06 Lab File ID: R138827

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	8.84	88	-	-	-		70-130
Diisopropyl Ether	10	NA	8.60	86	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.57	86	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	9.39	94	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.97	90	-	-	-		70-130
Benzene	10	NA	9.12	91	-	-	-		70-130
Carbon tetrachloride	10	NA	9.34	93	-	-	-		70-130
Cyclohexane	10	NA	8.97	90	-	-	-		70-130
tert-amyl methyl ether	10	NA	8.71	87	-	-	-		70-130
Dibromomethane	10	NA	8.77	88	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.44	94	-	-	-		70-130
Bromodichloromethane	10	NA	9.25	92	-	-	-		70-130
1,4-Dioxane	10	NA	9.57	96	-	-	-		70-130
Trichloroethene	10	NA	9.14	91	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	9.10	91	-	-	-		70-130
Methyl methacrylate	10	NA	8.87	89	-	-	-		70-130
Heptane	10	NA	8.26	83	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	10.1	101	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	9.03	90	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.68	87	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.27	93	-	-	-		70-130
Toluene	10	NA	9.32	93	-	-	-		70-130
1,3-Dichloropropane	10	NA	8.97	90	-	-	-		70-130
2-Hexanone	10	NA	10.2	102	-	-	-		70-130
Dibromochloromethane	10	NA	9.41	94	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.56	96	-	-	-		70-130
Butyl Acetate	10	NA	9.22	92	-	-	-		70-130
Octane	10	NA	8.60	86	-	-	-		70-130
Tetrachloroethene	10	NA	9.19	92	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	9.05	90	-	-	-		70-130
Chlorobenzene	10	NA	9.53	95	-	-	-		70-130
Ethylbenzene	10	NA	9.46	95	-	-	-		70-130
p/m-Xylene	20	NA	18.9	94	-	-	-		70-130
Bromoform	10	NA	9.44	94	-	-	-		70-130
Styrene	10	NA	9.58	96	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.63	96	-	-	-		70-130
o-Xylene	10	NA	9.49	95	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	9.10	91	-	-	-		70-130
Nonane	10	NA	8.35	84	-	-	-		70-130
Isopropylbenzene	10	NA	9.22	92	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1431240 Matrix: Air
Lab Control Sample: WG753125-3LCS Injected: 01/03/15 13:06 Lab File ID: R138827

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	9.08	91	-	-	-		70-130
2-Chlorotoluene	10	NA	8.80	88	-	-	-		70-130
n-Propylbenzene	10	NA	9.17	92	-	-	-		70-130
4-Chlorotoluene	10	NA	8.83	88	-	-	-		70-130
4-Ethyltoluene	10	NA	8.75	88	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.42	94	-	-	-		70-130
tert-Butylbenzene	10	NA	9.04	90	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.74	97	-	-	-		70-130
Decane	10	NA	8.80	88	-	-	-		70-130
Benzyl chloride	10	NA	9.78	98	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.59	96	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.59	96	-	-	-		70-130
sec-Butylbenzene	10	NA	8.97	90	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.28	83	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	9.66	97	-	-	-		70-130
n-Butylbenzene	10	NA	9.53	95	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.42	94	-	-	-		70-130
Undecane	10	NA	9.54	95	-	-	-		70-130
Dodecane	10	NA	10.4	104	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	10.7	107	-	-	-		70-130
Naphthalene	10	NA	9.71	97	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	10.3	103	-	-	-		70-130
Hexachlorobutadiene	10	NA	10.5	105	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG753125-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Lab File ID: R138831 Lab Sample ID: WG753125-4

Date Analyzed: 01/03/15 Time Analyzed: 16:16

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG753125-3LCS	WG753125-3	R138827	01/03/15 13:06
02	CAN 1999 SHELF 46	L1431240-02	R138832	01/03/15 17:38
03	CAN 1038 SHELF 51	L1431240-03	R138833	01/03/15 18:10
04	CAN 794 SHELF 9	L1431240-01	R138834	01/03/15 18:42

COMMENTS: _____

_____

FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG753125-4	Date Collected	: NA
Client ID	: WG753125-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/03/15 16:16
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138831	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG753125-4	Date Collected	: NA
Client ID	: WG753125-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/03/15 16:16
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138831	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG753125-4	Date Collected	: NA
Client ID	: WG753125-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/03/15 16:16
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138831	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG753125-4	Date Collected	: NA
Client ID	: WG753125-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/03/15 16:16
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138831	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:RY
Sample : WG753125-4,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 16:45:38 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.225	49	129499	10.000	ppbV	0.00
Standard Area = 133562			Recovery =		96.96%	
43) 1,4-difluorobenzene	12.506	114	273496	10.000	ppbV	0.00
Standard Area = 286390			Recovery =		95.50%	
67) chlorobenzene-D5	16.966	54	60524	10.000	ppbV	0.00
Standard Area = 62388			Recovery =		97.01%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	3.748		0	N.D.		
3) propylene	3.778		0	N.D.		
4) propane	0.000		0	N.D.	d	
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	4.152		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.350	31	1661	0.571	ppbV #	1
9) vinyl chloride	4.271		0	N.D.		
10) 1,3-butadiene	4.557		0	N.D.		
11) butane	0.000		0	N.D.	d	
13) bromomethane	5.014		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.518	31	1451	0.225	ppbV	96
16) dichlorofluoromethane	5.566		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.	d	
19) acetone	6.221	43	2032M3	0.156	ppbV	
20) acetonitrile	0.000		0	N.D.	d	
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.	d	
23) acrylonitrile	6.893		0	N.D.		
24) pentane	0.000		0	N.D.	d	
25) ethyl ether	7.021		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.492	49	875	0.079	ppbV	84
29) 3-chloropropene	7.628		0	N.D.		
30) carbon disulfide	7.828		0	N.D.		

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:RY
Sample : WG753125-4,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 16:45:38 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	9.193		0	N.D.		
35) vinyl acetate	0.000		0	N.D.	d	
36) 2-butanone	0.000		0	N.D.	d	
37) cis-1,2-dichloroethene	0.000		0	N.D.		
38) Ethyl Acetate	0.000		0	N.D.		
39) chloroform	0.000		0	N.D.		
40) Tetrahydrofuran	10.836		0	N.D.		
41) 2,2-dichloropropane	10.451		0	N.D.		
42) 1,2-dichloroethane	11.296		0	N.D.		
44) hexane	10.291		0	N.D.		
45) diisopropyl ether	0.000		0	N.D.		
46) tert-butyl ethyl ether	0.000		0	N.D.		
48) 1,1,1-trichloroethane	11.530		0	N.D.		
49) 1,1-dichloropropene	0.000		0	N.D.		
50) benzene	0.000		0	N.D.		
52) carbon tetrachloride	0.000		0	N.D.		
53) cyclohexane	0.000		0	N.D.	d	
54) tert-amyl methyl ether	0.000		0	N.D.		
55) dibromomethane	0.000		0	N.D.		
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	13.272		0	N.D.		
61) methyl methacrylate	0.000		0	N.D.	d	
62) heptane	0.000		0	N.D.	d	
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.	d	
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.379		0	N.D.		
71) 1,3-dichloropropane	0.000		0	N.D.		
72) 2-hexanone	15.605		0	N.D.		
74) dibromochloromethane	15.822		0	N.D.		
75) 1,2-dibromoethane	16.111		0	N.D.		
76) butyl acetate	16.075		0	N.D.		
77) octane	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:RY
Sample : WG753125-4,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 16:45:38 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	17.410		0		N.D.	
83) m+p-xylene	17.410		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.931		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	18.348		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	18.666		0		N.D.	
96) 4-ethyl toluene	18.578		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	19.097		0		N.D.	
100) decane	19.025		0		N.D.	
101) Benzyl Chloride	19.220		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
104) sec-butylbenzene	19.392		0		N.D.	
106) p-isopropyltoluene	19.525		0		N.D.	
107) 1,2-dichlorobenzene	19.544		0		N.D.	
108) n-butylbenzene	19.749		0		N.D.	
111) 1,2-dibromo-3-chloropr...	19.811		0		N.D.	
112) undecane	20.077		0		N.D.	
114) dodecane	21.057		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	21.143		0		N.D.	
117) 1,2,3-trichlorobenzene	21.400		0		N.D.	
119) hexachlorobutadiene	21.454		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:RY
Sample : WG753125-4,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 16:45:38 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

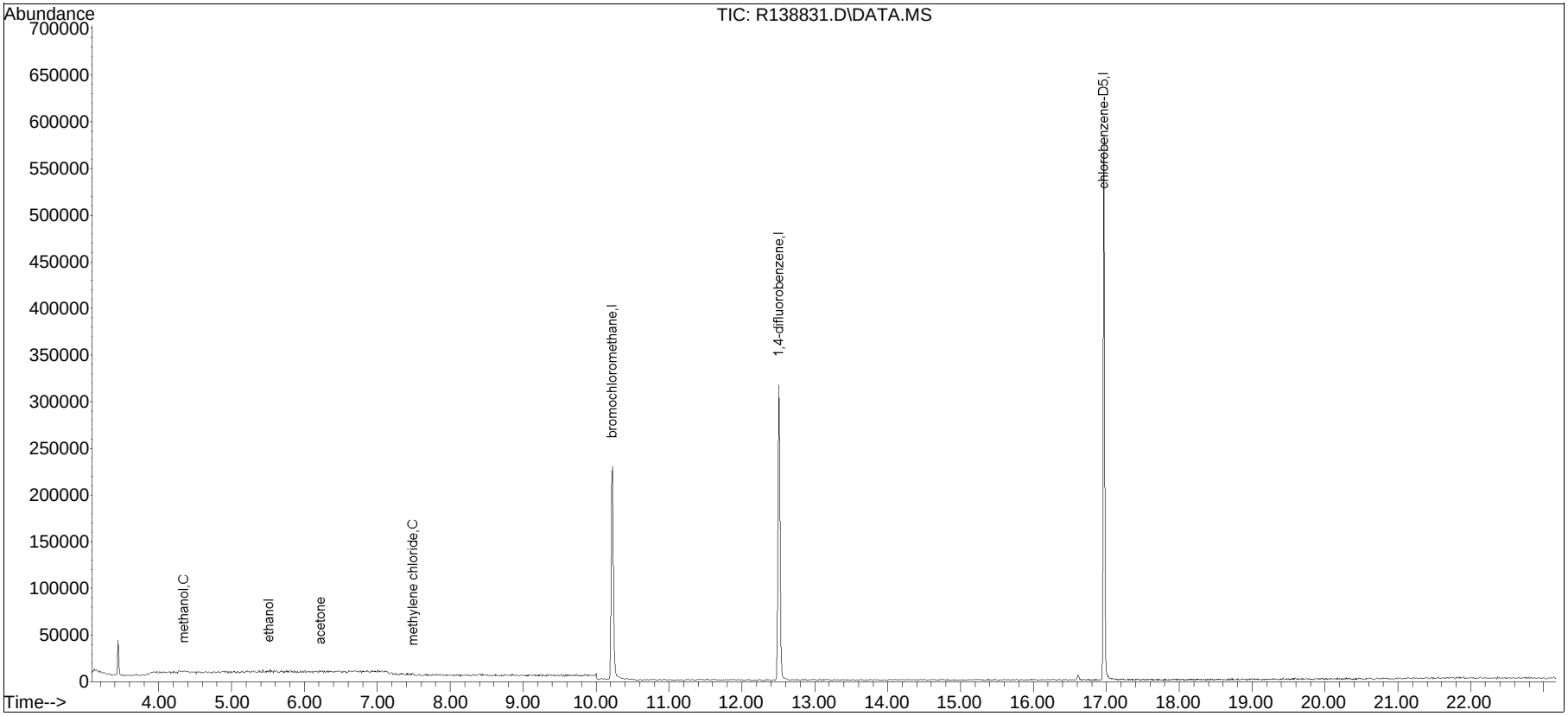
CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

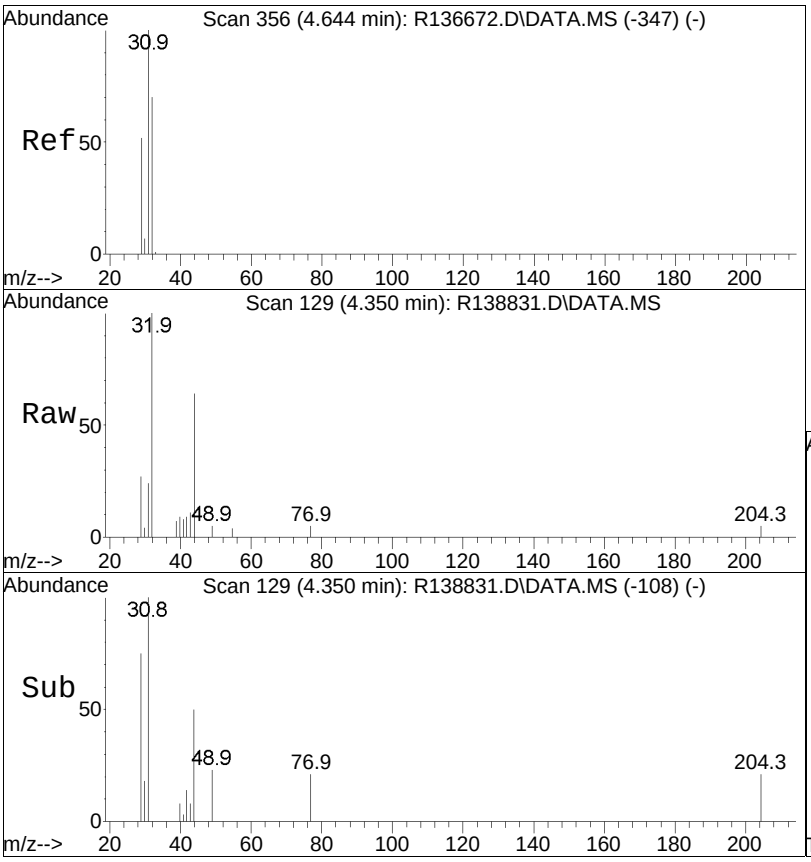
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed38827.D

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:RY
Sample : WG753125-4,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 16:45:38 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

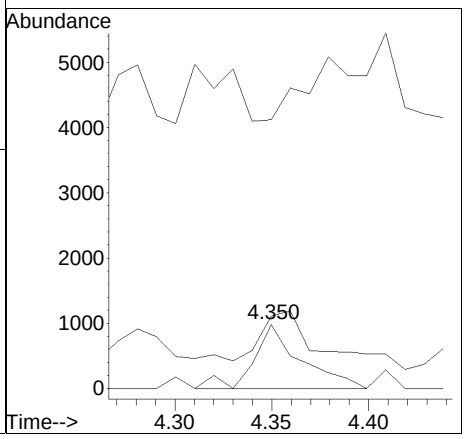


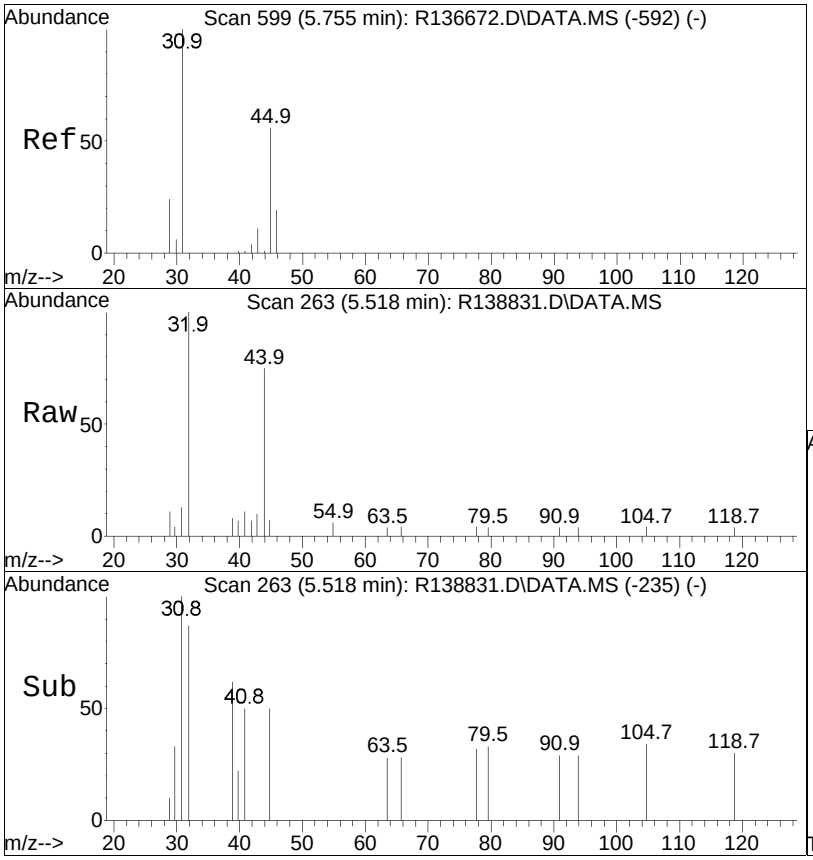


#8
methanol
Concen: 0.57 ppbV
RT: 4.350 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138831.D
Acq: 3 Jan 2015 4:16 pm

Tgt Ion: 31 Resp: 1661

Ion	Ratio	Lower	Upper
31	100		
32	421.5	59.9	89.9#
29	113.4	50.3	75.5#

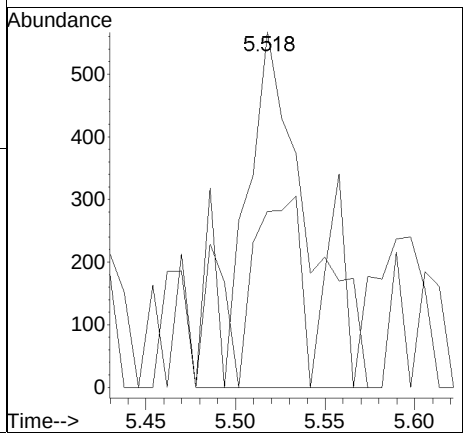


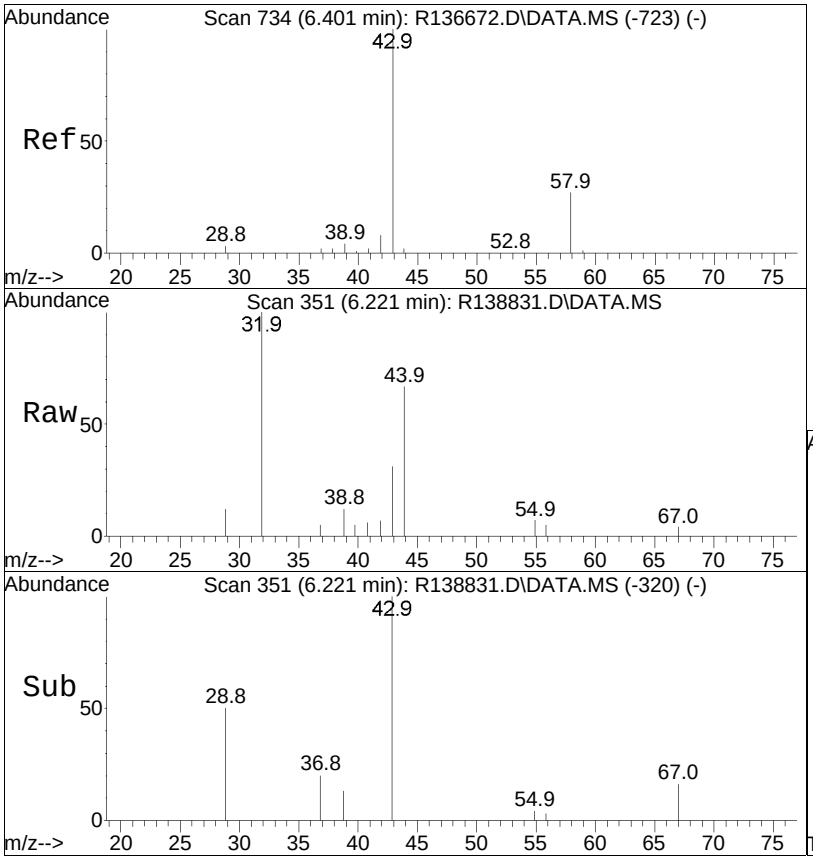


#15
ethanol
Concen: 0.23 ppbV
RT: 5.518 min Scan# 263
Delta R.T. 0.024 min
Lab File: R138831.D
Acq: 3 Jan 2015 4:16 pm

Tgt Ion: 31 Resp: 1451

Ion	Ratio	Lower	Upper
31	100		
45	49.6	42.0	63.0

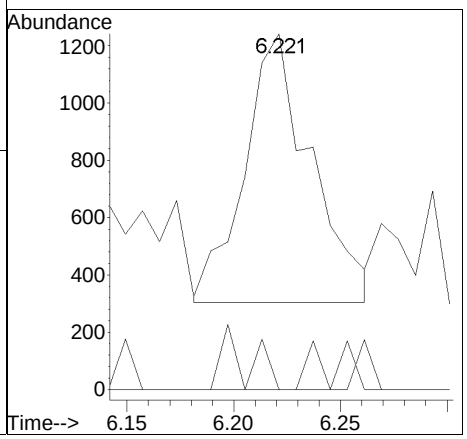


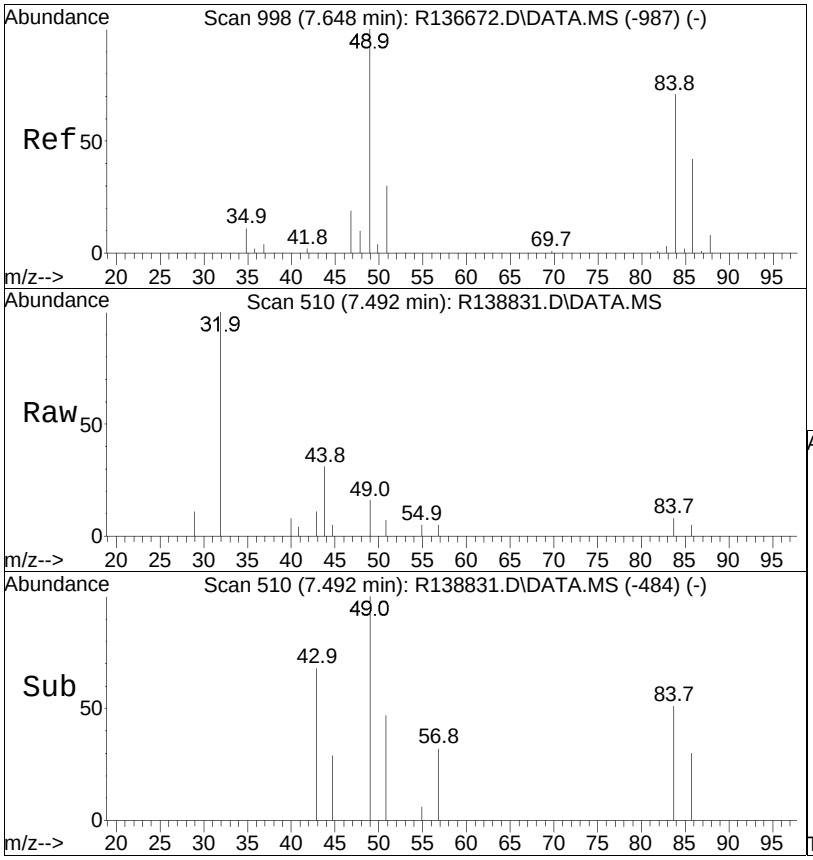


#19
acetone
Concen: 0.16 ppbV m
RT: 6.221 min Scan# 351
Delta R.T. 0.048 min
Lab File: R138831.D
Acq: 3 Jan 2015 4:16 pm

Tgt Ion: 43 Resp: 2032

Ion	Ratio	Lower	Upper
43	100		
58	0.0	19.9	29.9#
57	0.0	0.6	0.8#

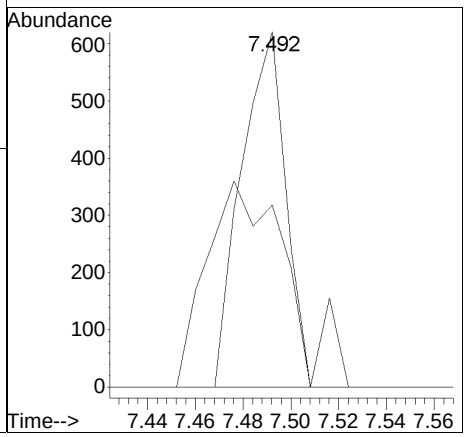




#28
methylene chloride
Concen: 0.08 ppbV
RT: 7.492 min Scan# 510
Delta R.T. 0.008 min
Lab File: R138831.D
Acq: 3 Jan 2015 4:16 pm

Tgt Ion: 49 Resp: 875

Ion	Ratio	Lower	Upper
49	100		
84	51.3	50.8	76.2

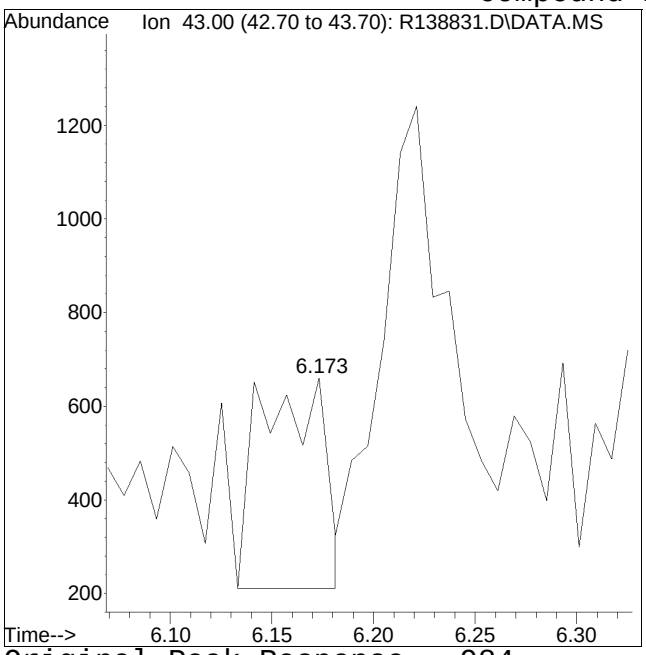


Manual Integration/Negative Proof Report

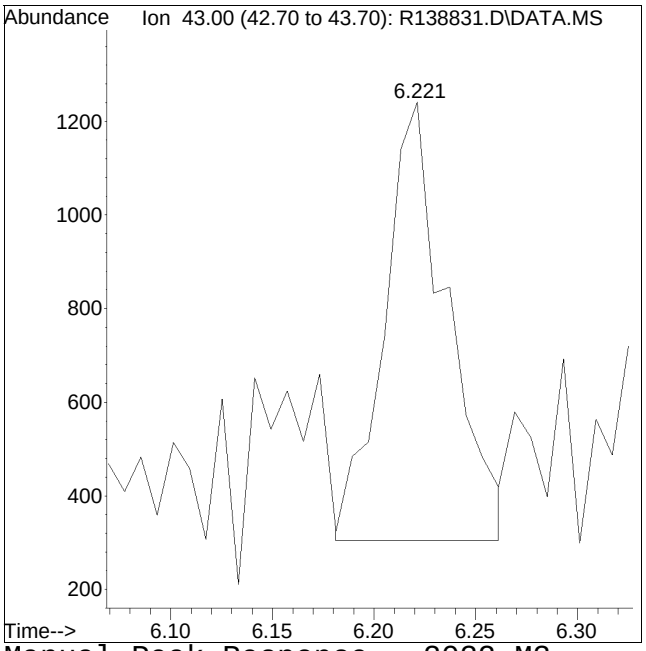
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138831.D
Date Inj'd : 1/3/2015 4:16 pm
Sample : WG753125-4,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 1/3/2015 4:44 pm

Compound #19: acetone



Original Peak Response = 984



Manual Peak Response = 2032 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG753125-4	Date Collected	: NA
Client ID	: WG753125-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/03/15 16:16
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138831	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:MB
Sample : WG753125-4,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138831.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.281	120	122	127	rBV4	3701	10142	1.27%	0.487%
2	5.430	251	252	255	rBV3	3413	2633	0.33%	0.127%
3	7.404	497	499	500	rBV	2363	1389	0.17%	0.067%
4	8.445	632	634	635	rBV2	2137	1575	0.20%	0.076%
5	8.850	692	693	695	rBV2	2374	1985	0.25%	0.095%
6	9.556	794	796	798	rVB2	1784	1401	0.18%	0.067%
7	9.584	798	800	801	rBV2	2517	1642	0.21%	0.079%
8	9.625	804	806	809	rBV2	1911	1974	0.25%	0.095%
9	10.002	859	861	863	rVB2	5860	4531	0.57%	0.218%
10	10.066	866	868	871	rBV3	1358	2404	0.30%	0.116%
11	10.225	880	885	899	rBV2	228296	478771	59.91%	23.009%
12	10.610	922	926	928	rBV2	1039	2226	0.28%	0.107%
13	10.873	951	954	957	rVB2	1033	1767	0.22%	0.085%
14	10.930	957	960	962	rVV	789	1816	0.23%	0.087%
15	11.005	966	968	971	rVB2	785	1440	0.18%	0.069%
16	11.249	989	994	996	rBV2	1263	2984	0.37%	0.143%
17	11.314	999	1001	1005	rBV3	970	1969	0.25%	0.095%
18	11.399	1005	1010	1011	rBV2	1370	2545	0.32%	0.122%
19	11.596	1028	1031	1032	rBV2	1048	1657	0.21%	0.080%
20	11.843	1053	1055	1057	rBV3	852	1865	0.23%	0.090%
21	11.884	1057	1059	1063	rVB2	1382	2784	0.35%	0.134%
22	11.936	1063	1064	1067	rBV	927	1687	0.21%	0.081%
23	12.236	1091	1093	1098	rVB3	1554	3176	0.40%	0.153%
24	12.433	1109	1112	1115	rBV2	1127	2443	0.31%	0.117%
25	12.506	1115	1119	1127	rVV	316291	615789	77.06%	29.594%
26	12.868	1152	1154	1157	rBV	1561	2045	0.26%	0.098%
27	13.075	1171	1174	1175	rBV2	1620	2267	0.28%	0.109%
28	13.148	1179	1181	1182	rBV	1887	2631	0.33%	0.126%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:MB
Sample : WG753125-4,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	13.521	1213	1217	1219	rVB2	977	2691	0.34%	0.129%
30	13.635	1224	1228	1229	rBV2	811	1617	0.20%	0.078%
31	13.759	1236	1240	1244	rBV2	1253	3715	0.46%	0.179%
32	14.604	1294	1295	1299	rBV	910	2367	0.30%	0.114%
33	14.882	1322	1325	1328	rBV	949	1672	0.21%	0.080%
34	15.307	1370	1372	1375	rVB2	1386	1815	0.23%	0.087%
35	15.605	1401	1405	1408	rVB	962	2359	0.30%	0.113%
36	15.650	1408	1410	1414	rBV3	1026	1931	0.24%	0.093%
37	15.767	1421	1423	1428	rBV3	1318	2144	0.27%	0.103%
38	16.337	1483	1486	1493	rBV2	1128	3433	0.43%	0.165%
39	16.612	1512	1517	1523	rBV	5554	11515	1.44%	0.553%
40	16.689	1534	1538	1540	rBV	1299	920	0.12%	0.044%
41	16.741	1548	1552	1554	rBV3	1196	871	0.11%	0.042%
42	16.763	1557	1558	1564	rVB2	1311	1149	0.14%	0.055%
43	16.793	1564	1566	1569	rBV2	1024	879	0.11%	0.042%
44	16.881	1588	1590	1593	rBV2	936	853	0.11%	0.041%
45	16.966	1604	1613	1628	rBV	583833	799142	100.00%	38.405%
46	17.351	1715	1717	1720	rVB	1309	800	0.10%	0.038%
47	17.587	1779	1781	1785	rBV3	1425	1358	0.17%	0.065%
48	17.801	1836	1839	1840	rBV2	1811	906	0.11%	0.044%
49	17.990	1888	1890	1894	rVB2	1614	1283	0.16%	0.062%
50	18.093	1912	1918	1920	rBV2	1116	1386	0.17%	0.067%
51	18.134	1924	1929	1930	rBV2	1366	1010	0.13%	0.049%
52	18.241	1955	1958	1960	rBV2	1203	822	0.10%	0.040%
53	18.304	1973	1975	1976	rBV2	1501	804	0.10%	0.039%
54	18.382	1992	1996	1998	rBV2	1679	1336	0.17%	0.064%
55	18.677	2074	2076	2079	rVB2	1474	819	0.10%	0.039%
56	18.722	2086	2088	2092	rVB2	2078	1041	0.13%	0.050%
57	18.803	2107	2110	2114	rVB2	1725	1448	0.18%	0.070%
58	18.987	2147	2149	2152	rVB3	1221	1173	0.15%	0.056%
59	19.016	2154	2155	2158	rVV	1201	833	0.10%	0.040%
60	19.068	2161	2166	2167	rVB2	1232	1197	0.15%	0.058%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:MB
Sample : WG753125-4,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	19.097	2170	2172	2177	rVB	992	903	0.11%	0.043%
62	19.149	2180	2183	2185	rBV	1701	1417	0.18%	0.068%
63	19.177	2187	2189	2191	rBV2	1388	911	0.11%	0.044%
64	19.258	2204	2206	2209	rBV2	950	815	0.10%	0.039%
65	19.425	2238	2241	2245	rBV3	2042	1818	0.23%	0.087%
66	19.592	2272	2276	2280	rBV6	2008	2505	0.31%	0.120%
67	19.639	2284	2286	2289	rVV	1037	812	0.10%	0.039%
68	19.677	2289	2294	2295	rVB	1284	1240	0.16%	0.060%
69	19.963	2352	2354	2357	rVB2	2266	1830	0.23%	0.088%
70	20.006	2361	2363	2368	rBV2	1533	1856	0.23%	0.089%
71	20.234	2410	2411	2414	rBV	1235	956	0.12%	0.046%
72	20.268	2417	2418	2421	rBV3	1224	838	0.10%	0.040%
73	20.320	2428	2429	2432	rVB2	1416	828	0.10%	0.040%
74	20.344	2432	2434	2438	rBV3	1274	962	0.12%	0.046%
75	20.396	2443	2445	2448	rBV2	1264	1509	0.19%	0.073%
76	20.444	2452	2455	2457	rBV3	1369	1050	0.13%	0.050%
77	20.575	2474	2475	2476	rBV	1466	1672	0.21%	0.080%
78	20.972	2509	2512	2513	rBV2	1406	2122	0.27%	0.102%
79	20.993	2513	2514	2516	rBV2	1437	2112	0.26%	0.101%
80	21.143	2525	2528	2533	rVB4	1742	4984	0.62%	0.240%
81	21.218	2533	2535	2536	rBV2	2107	2844	0.36%	0.137%
82	21.250	2536	2538	2541	rVB3	1688	2130	0.27%	0.102%
83	21.379	2548	2550	2555	rVB5	1815	4283	0.54%	0.206%
84	21.465	2556	2558	2559	rVB	1709	1651	0.21%	0.079%
85	21.550	2565	2566	2569	rVB2	1895	1739	0.22%	0.084%
86	21.679	2576	2578	2580	rBV3	1541	2837	0.36%	0.136%
87	21.722	2580	2582	2583	rBV2	1666	1961	0.25%	0.094%
88	21.797	2588	2589	2592	rBV2	2066	4032	0.50%	0.194%
89	21.861	2594	2595	2596	rBV	1530	1656	0.21%	0.080%
90	22.183	2623	2625	2628	rBV4	1178	2631	0.33%	0.126%
91	22.365	2641	2642	2643	rBV	2317	2066	0.26%	0.099%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:MB
Sample : WG753125-4,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

92	22.515	2654	2656	2659	rBV3	1492	2860	0.36%	0.137%
93	22.794	2679	2682	2683	rVB2	1605	2292	0.29%	0.110%
94	22.826	2683	2685	2686	rBV2	1667	1862	0.23%	0.089%

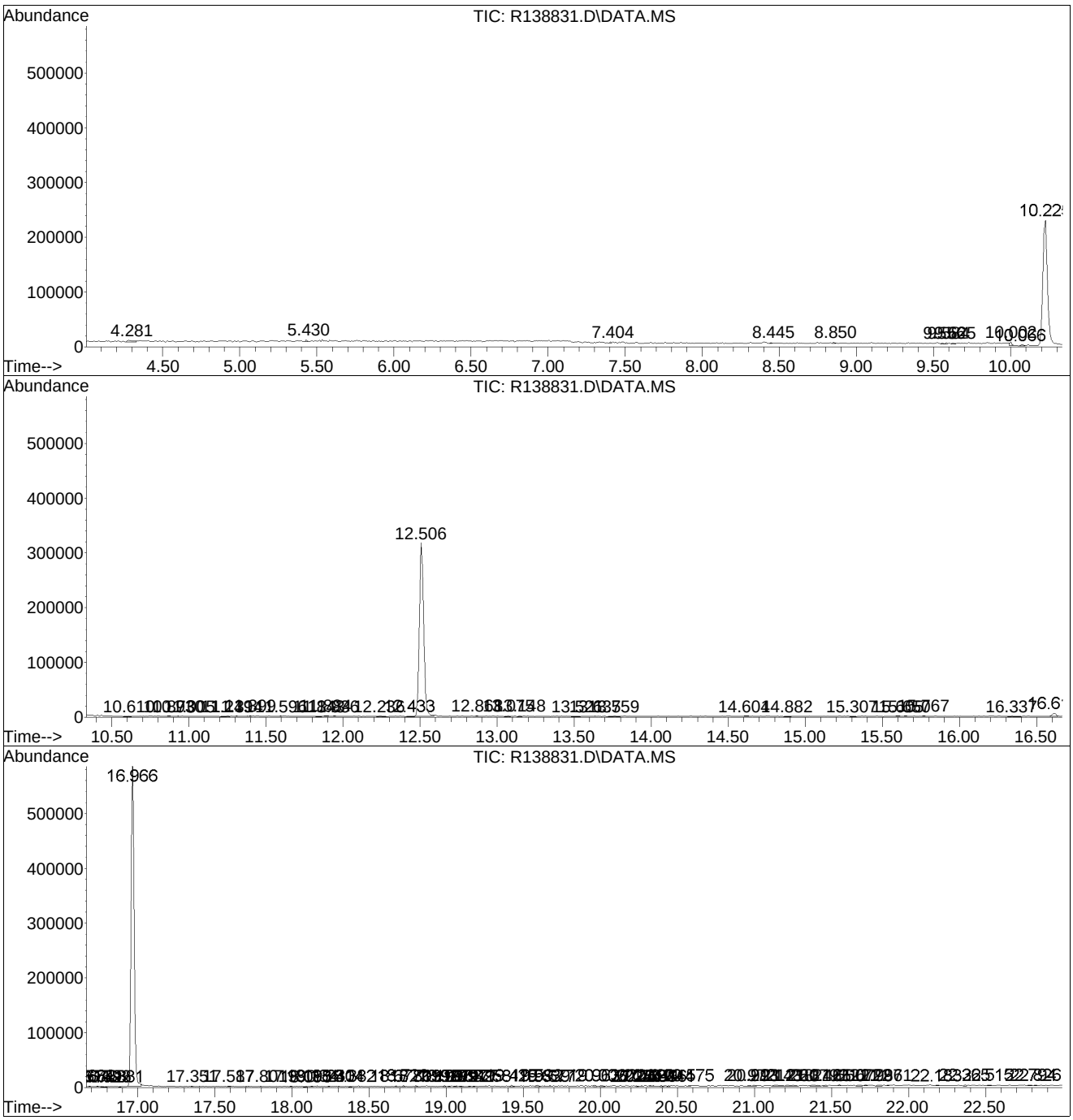
Sum of corrected areas: 2080811

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:MB
Sample : WG753125-4,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:MB
Sample : WG753125-4,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138831.D
Acq On : 3 Jan 2015 4:16 pm
Operator : AIRPIANO1:MB
Sample : WG753125-4,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Lab File ID: R138809_tune BFB Injection Date: 01/02/15

Instrument ID: AIRPIANO1 BFB Injection Time: 18:33

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	20.6
75	30.0 - 66.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	86.3
175	4.0 - 9.0% of mass 174	6.8 (7.8)1
176	93.0 - 101% of mass 174	82.9 (96.1)1
177	5.0 - 9.0% of mass 176	5.4 (6.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R138813	01/02/15	20:57
02	0.5	0.5	R138814	01/02/15	21:29
03	1.0	1.0	R138815	01/02/15	22:02
04	5.0	5.0	R138816	01/02/15	22:34
05	10	10	R138817	01/02/15	23:08
06	20	20	R138818	01/02/15	23:39
07	50.0	50.0	R138819	01/03/15	00:11
08	100.0	100.0	R138820	01/03/15	00:45
09	ICV QUANT REPORT	ICV QUANT REPO	R138823	01/03/15	09:14

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Lab File ID: R138825_tune BFB Injection Date: 01/03/15

Instrument ID: AIRPIANO1 BFB Injection Time: 12:01

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	20
75	30.0 - 66.0% of mass 95	46.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	88.7
175	4.0 - 9.0% of mass 174	6.9 (7.8)1
176	93.0 - 101% of mass 174	84.6 (95.4)1
177	5.0 - 9.0% of mass 176	5.5 (6.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG753125-2	R138827	01/03/15	13:06
02	WG753125-3LCS	WG753125-3	R138827	01/03/15	13:06
03	WG753125-4BLANK	WG753125-4	R138831	01/03/15	16:16
04	CAN 1999 SHELF 4	L1431240-02	R138832	01/03/15	17:38
05	CAN 1038 SHELF 5	L1431240-03	R138833	01/03/15	18:10
06	CAN 794 SHELF 9	L1431240-01	R138834	01/03/15	18:42

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Lab File ID (Standard): R138827 Date Analyzed: 01/03/15

Instrument ID : AIRPIANO1 Time Analyzed: 13:06

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	133562	10.22	286390	12.51	62388	16.96
	UPPER LIMIT	186987	10.55	400946	12.84	87343	17.29
	LOWER LIMIT	80137	9.89	171834	12.18	37433	16.63
	EPA SAMPLE NO.						
01	WG753125-3LCS	133562	10.22	286390	12.51	62388	16.96
02	WG753125-4BLANK	129499	10.23	273496	12.51	60524	16.97
03	CAN 1999 SHELF 46	131526	10.23	276851	12.52	58891	16.97
04	CAN 1038 SHELF 51	129141	10.22	273048	12.51	57549	16.96
05	CAN 794 SHELF 9	121597	10.22	259299	12.51	57608	16.96

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-01	Date Collected	: 12/29/14 15:48
Client ID	: CAN 794 SHELF 9	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138834	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-01	Date Collected	: 12/29/14 15:48
Client ID	: CAN 794 SHELF 9	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138834	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-01	Date Collected	: 12/29/14 15:48
Client ID	: CAN 794 SHELF 9	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138834	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-01	Date Collected	: 12/29/14 15:48
Client ID	: CAN 794 SHELF 9	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138834	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 04 16:50:12 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.216	49	121597	10.000	ppbV		0.00
Standard Area = 133562			Recovery = 91.04%				
43) 1,4-difluorobenzene	12.506	114	259299	10.000	ppbV		0.00
Standard Area = 286390			Recovery = 90.54%				
67) chlorobenzene-D5	16.963	54	57608	10.000	ppbV		0.00
Standard Area = 62388			Recovery = 92.34%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	3.738		0	N.D.			
3) propylene	3.788		0	N.D.			
4) propane	0.000		0	N.D.		d	
5) dichlorodifluoromethane	3.778		0	N.D.			
6) chloromethane	4.093		0	N.D.			
7) Freon-114	0.000		0	N.D.			
8) methanol	4.350	31	1244	0.455	ppbV	#	1
9) vinyl chloride	0.000		0	N.D.			
10) 1,3-butadiene	4.626		0	N.D.			
11) butane	0.000		0	N.D.		d	
13) bromomethane	5.022		0	N.D.			
14) chloroethane	5.334		0	N.D.			
15) ethanol	5.518	31	724	0.120	ppbV	#	58
16) dichlorofluoromethane	5.478		0	N.D.			
17) vinyl bromide	0.000		0	N.D.			
18) acrolein	5.965		0	N.D.			
19) acetone	6.221	43	1287M3	0.105	ppbV		
20) acetonitrile	5.814		0	N.D.			
21) trichlorofluoromethane	0.000		0	N.D.			
22) isopropyl alcohol	0.000		0	N.D.		d	
23) acrylonitrile	6.845		0	N.D.			
24) pentane	6.909		0	N.D.			
25) ethyl ether	7.021		0	N.D.			
26) 1,1-dichloroethene	0.000		0	N.D.			
27) tertiary butyl alcohol	7.452	59	2574	0.164	ppbV	#	56
28) methylene chloride	7.484	49	925	0.089	ppbV		85
29) 3-chloropropene	7.620		0	N.D.			
30) carbon disulfide	7.812		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 04 16:50:12 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	8.960		0		N.D.	
34) MTBE	9.062		0		N.D.	
35) vinyl acetate	9.186		0		N.D.	
36) 2-butanone	9.502		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	10.826		0		N.D.	
41) 2,2-dichloropropane	10.357		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	11.061		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	0.000		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	13.386		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	13.314		0		N.D.	
61) methyl methacrylate	13.531		0		N.D.	
62) heptane	13.666		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	d
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	15.207		0		N.D.	
68) toluene	0.000		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.569		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	15.966		0		N.D.	
76) butyl acetate	16.237		0		N.D.	
77) octane	16.400		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 04 16:50:12 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	16.977		0		N.D.	
81) ethylbenzene	17.325		0		N.D.	
83) m+p-xylene	17.476		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	17.820		0		N.D.	
87) o-xylene	17.787		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.935		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	18.289		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	18.592		0		N.D.	
96) 4-ethyl toluene	18.696		0		N.D.	
97) 1,3,5-trimethylbenzene	18.788		0		N.D.	
98) tert-butylbenzene	19.092		0		N.D.	
99) 1,2,4-trimethylbenzene	19.101		0		N.D.	
100) decane	19.135		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
104) sec-butylbenzene	19.425		0		N.D.	
106) p-isopropyltoluene	19.411		0		N.D.	
107) 1,2-dichlorobenzene	19.554		0		N.D.	
108) n-butylbenzene	19.573		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	20.115		0		N.D.	
114) dodecane	21.025		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	21.143		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 04 16:50:12 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

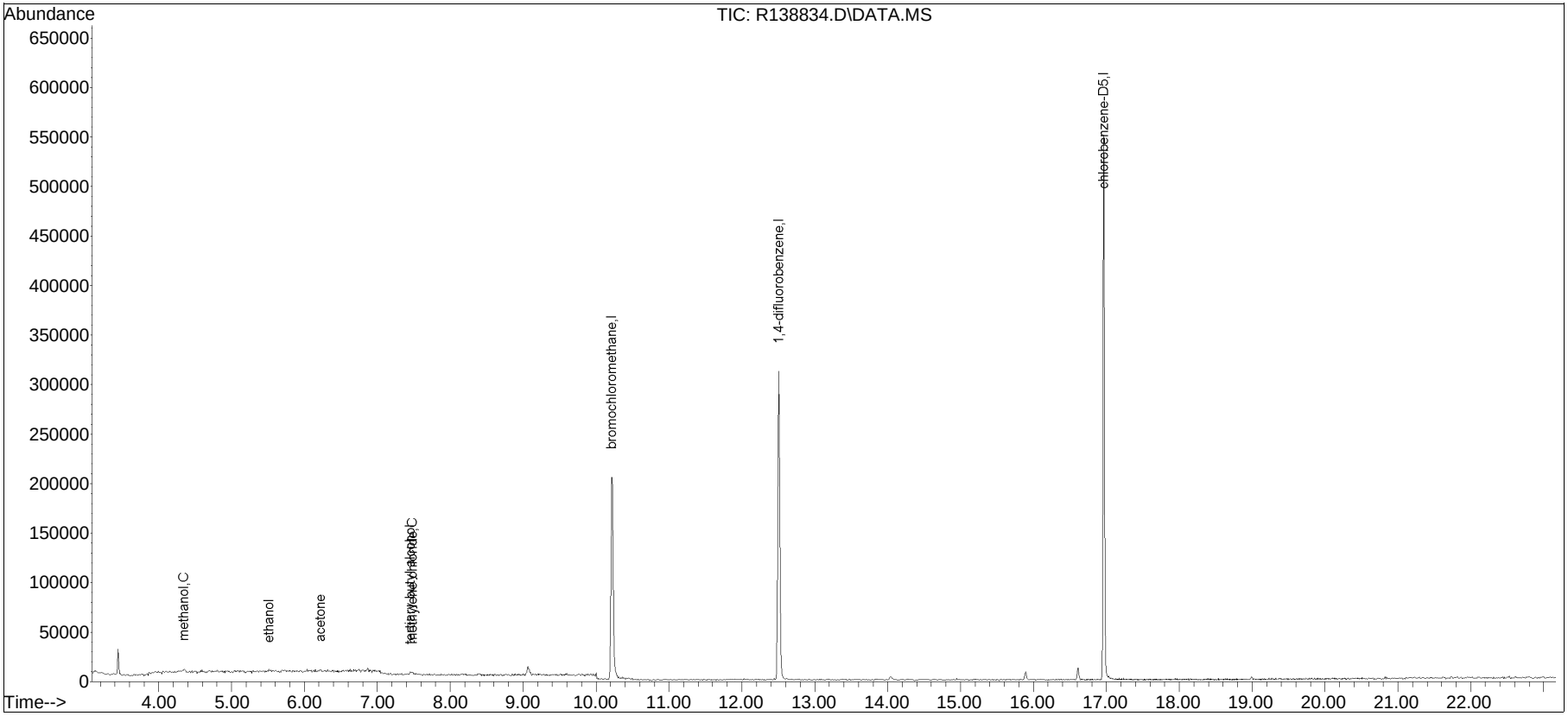
CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

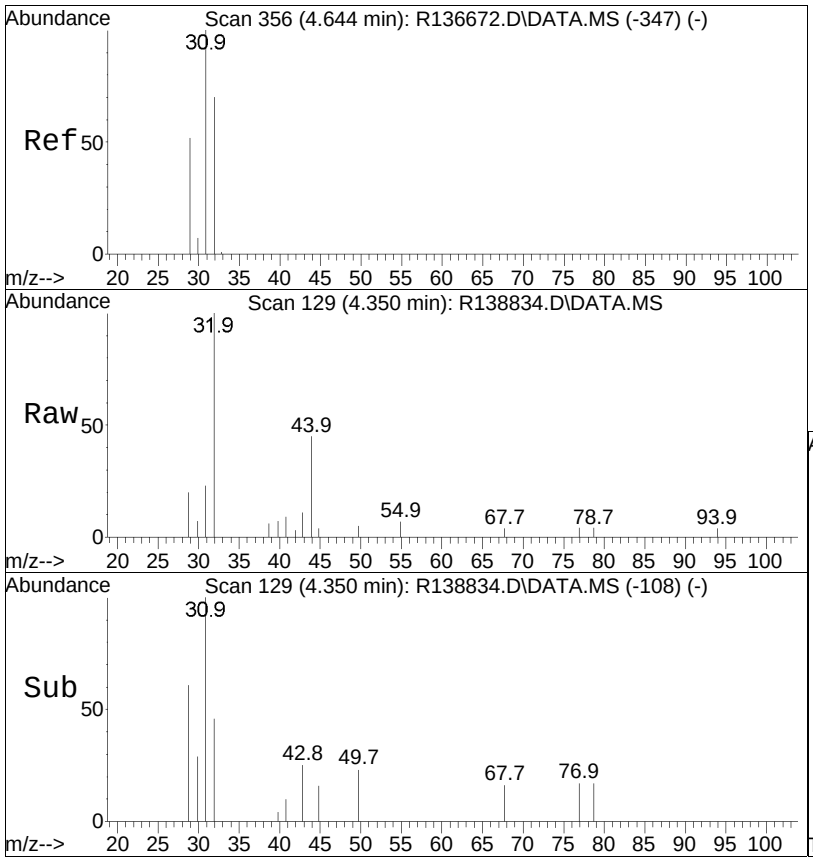
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed38827.D

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 04 16:50:12 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

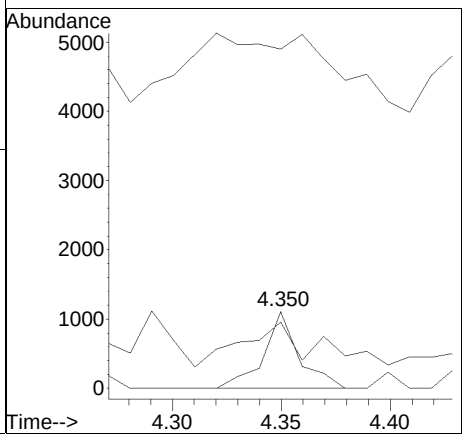


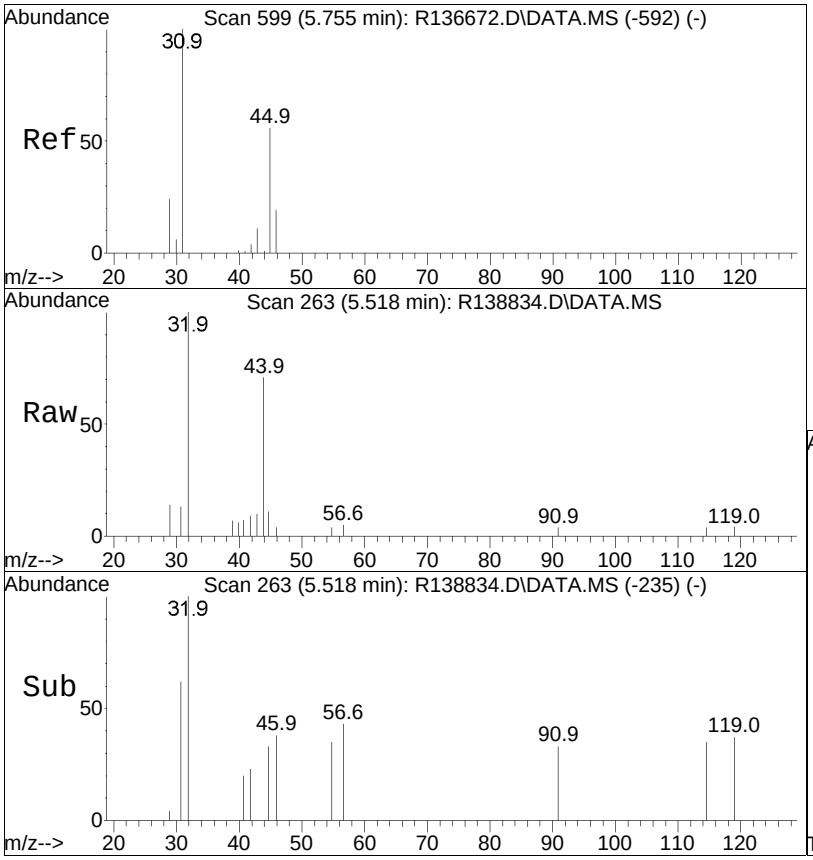


#8
methanol
Concen: 0.46 ppbV
RT: 4.350 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138834.D
Acq: 3 Jan 2015 6:42 pm

Tgt Ion: 31 Resp: 1244

Ion	Ratio	Lower	Upper
31	100		
32	442.6	59.9	89.9#
29	86.4	50.3	75.5#

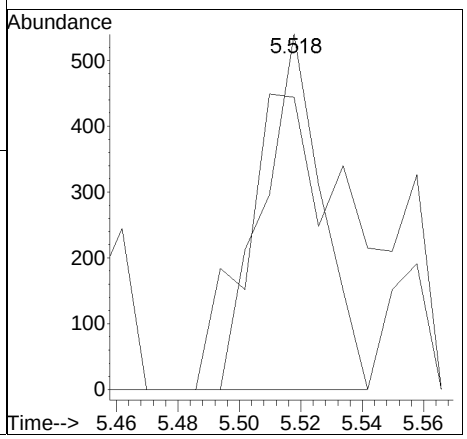


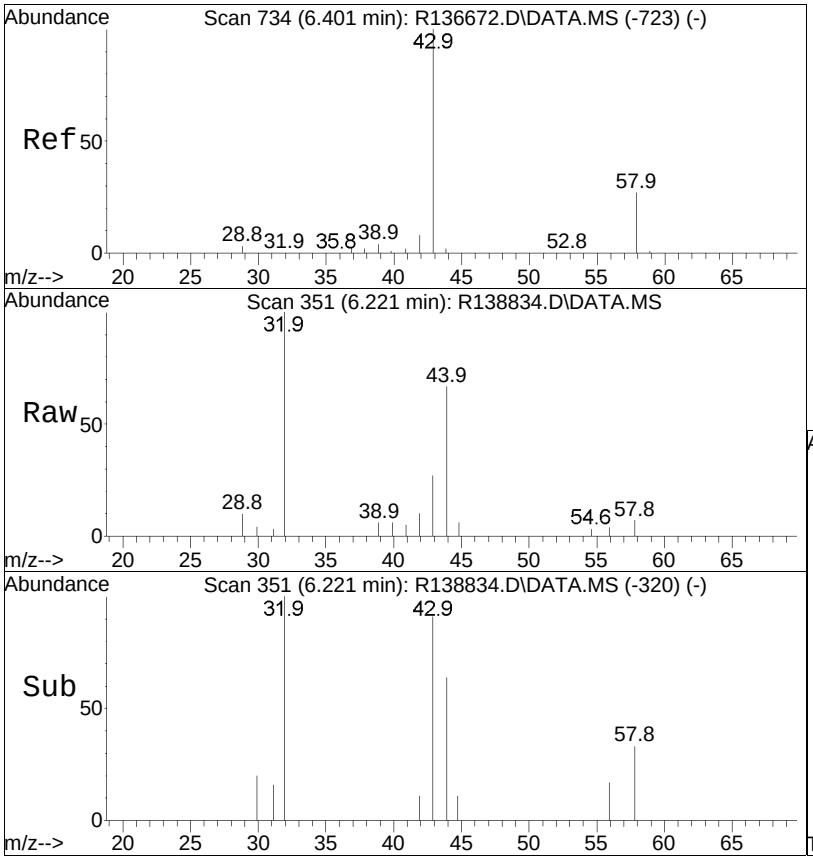


#15
ethanol
Concen: 0.12 ppbV
RT: 5.518 min Scan# 263
Delta R.T. 0.024 min
Lab File: R138834.D
Acq: 3 Jan 2015 6:42 pm

Tgt Ion: 31 Resp: 724

Ion	Ratio	Lower	Upper
31	100		
45	82.2	42.0	63.0#

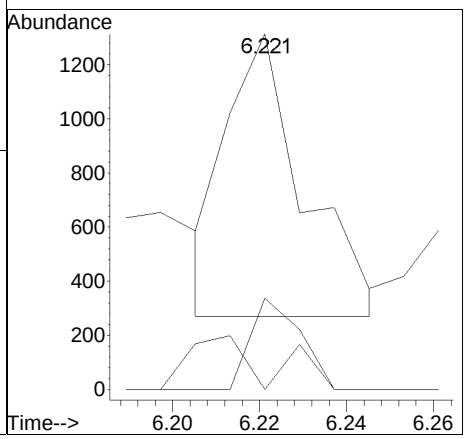


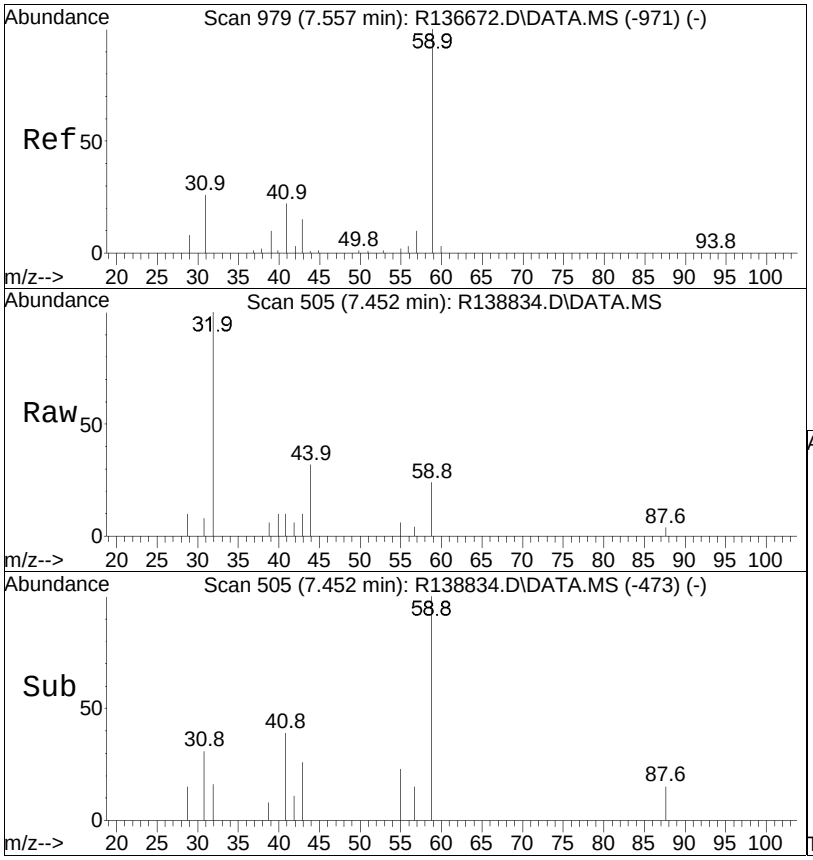


#19
acetone
Concen: 0.10 ppbV m
RT: 6.221 min Scan# 351
Delta R.T. 0.048 min
Lab File: R138834.D
Acq: 3 Jan 2015 6:42 pm

Tgt Ion: 43 Resp: 1287

Ion	Ratio	Lower	Upper
43	100		
58	25.7	19.9	29.9
57	0.0	0.6	0.8#

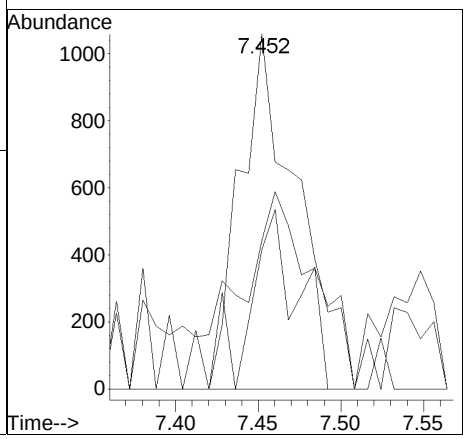


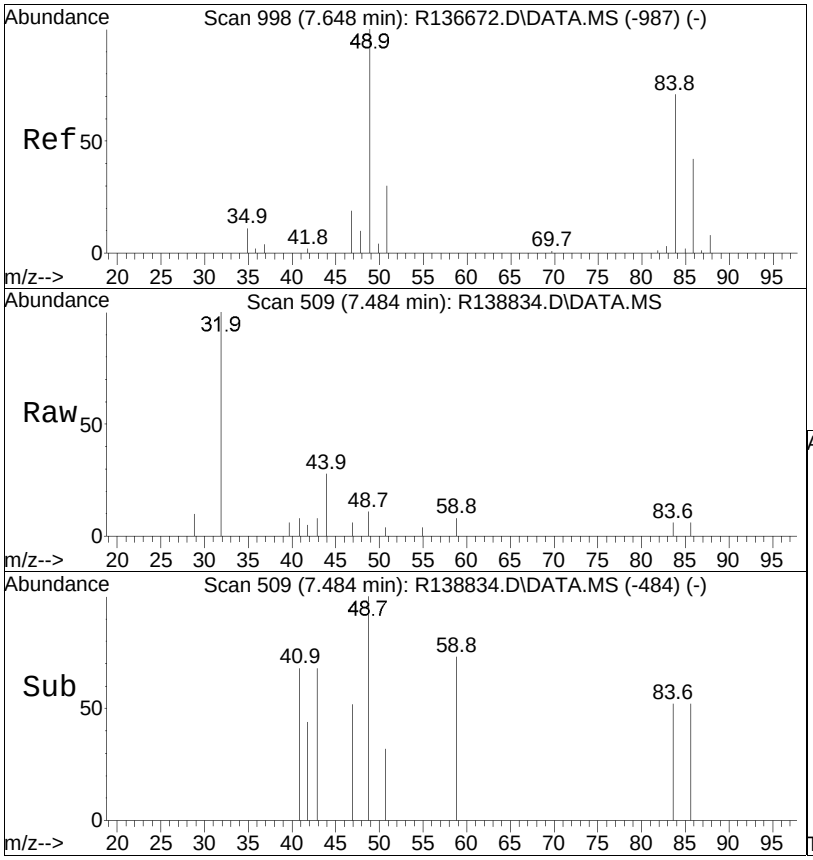


#27
tertiary butyl alcohol
Concen: 0.16 ppbV
RT: 7.452 min Scan# 505
Delta R.T. 0.056 min
Lab File: R138834.D
Acq: 3 Jan 2015 6:42 pm

Tgt Ion: 59 Resp: 2574

Ion	Ratio	Lower	Upper
59	100		
41	39.4	17.8	26.6#
43	41.9	14.2	21.2#

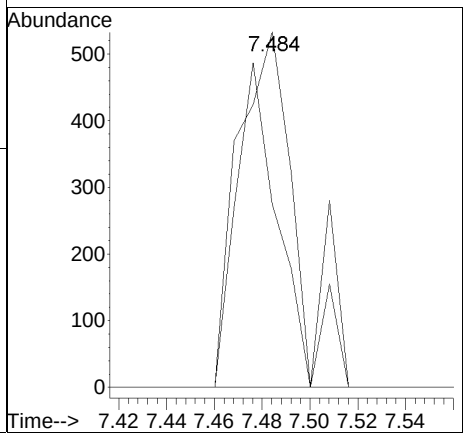




#28
methylene chloride
Concen: 0.09 ppbV
RT: 7.484 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138834.D
Acq: 3 Jan 2015 6:42 pm

Tgt Ion: 49 Resp: 925

Ion	Ratio	Lower	Upper
49	100		
84	51.6	50.8	76.2

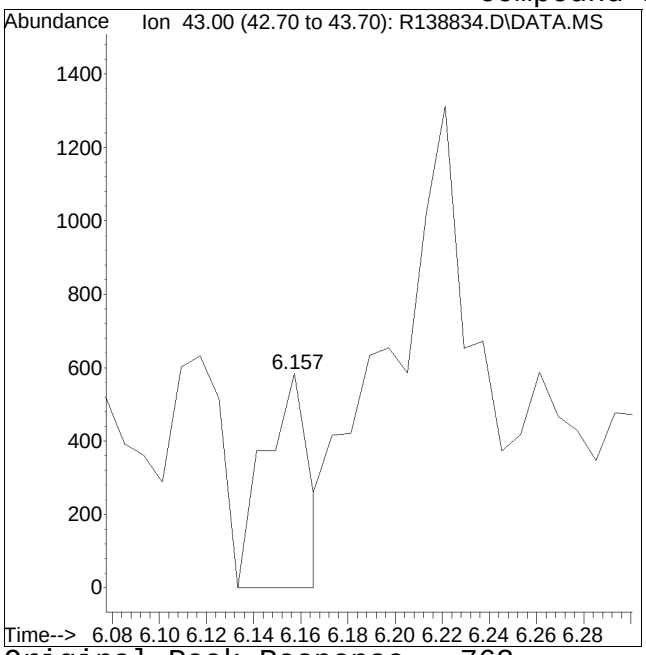


Manual Integration/Negative Proof Report

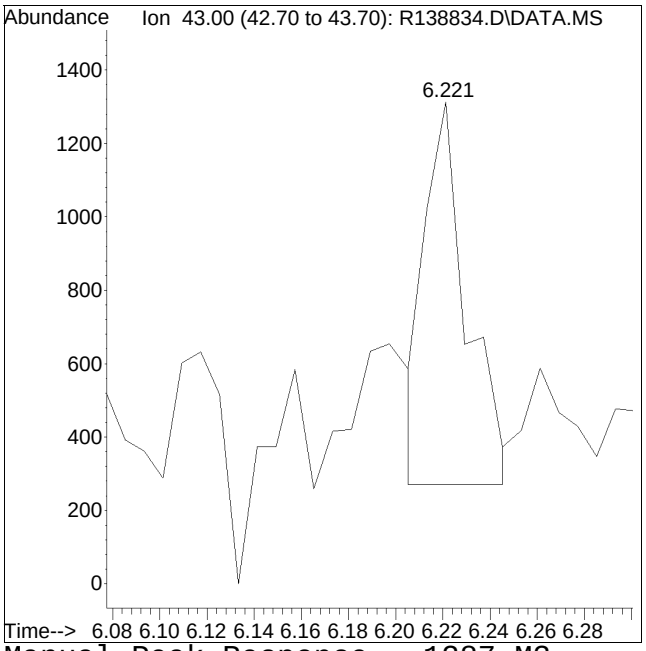
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138834.D
Date Inj'd : 1/3/2015 6:42 pm
Sample : L1431240-01,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 1/4/2015 9:10 am

Compound #19: acetone



Original Peak Response = 763



Manual Peak Response = 1287 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1431240
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1431240-01	Date Collected	:	12/29/14 15:48
Client ID	:	CAN 794 SHELF 9	Date Received	:	12/30/14
Sample Location	:		Date Analyzed	:	01/03/15 18:42
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138834	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138834.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.850	691	693	695	rBV	2533	2647	0.35%	0.130%
2	9.062	719	724	732	rBV2	9261	22629	2.96%	1.113%
3	10.002	859	861	864	rVB2	6873	6609	0.86%	0.325%
4	10.075	867	869	870	rBV	1185	1359	0.18%	0.067%
5	10.122	872	874	876	rVB2	1530	1733	0.23%	0.085%
6	10.216	879	884	893	rBV2	204154	436962	57.11%	21.492%
7	10.347	896	898	899	rBV	1257	1597	0.21%	0.079%
8	10.488	912	913	915	rVB	1931	2107	0.28%	0.104%
9	10.714	935	937	939	rVB2	1127	1716	0.22%	0.084%
10	10.779	943	944	948	rBV2	881	1384	0.18%	0.068%
11	11.136	979	982	985	rVB2	819	1921	0.25%	0.094%
12	11.202	988	989	995	rBV2	920	2504	0.33%	0.123%
13	11.474	1016	1018	1023	rBV2	1069	1800	0.24%	0.089%
14	11.636	1032	1035	1036	rVB	1096	1587	0.21%	0.078%
15	12.195	1086	1089	1092	rBV2	1026	2490	0.33%	0.122%
16	12.444	1111	1113	1115	rBV	1527	1630	0.21%	0.080%
17	12.506	1115	1119	1127	rVV	311766	596320	77.94%	29.330%
18	12.609	1127	1129	1133	rVV2	1490	3825	0.50%	0.188%
19	12.682	1135	1136	1139	rVB2	1251	1536	0.20%	0.076%
20	12.920	1157	1159	1163	rVB2	1751	2407	0.31%	0.118%
21	13.003	1163	1167	1168	rBV2	913	1990	0.26%	0.098%
22	13.086	1172	1175	1177	rBV2	1329	2204	0.29%	0.108%
23	13.179	1179	1184	1188	rVB2	1159	3075	0.40%	0.151%
24	13.376	1202	1203	1207	rBV3	719	1703	0.22%	0.084%
25	13.858	1245	1248	1249	rBV2	1455	4614	0.60%	0.227%
26	14.033	1257	1259	1266	rVB2	3276	10011	1.31%	0.492%
27	14.207	1266	1270	1272	rVB3	1277	3270	0.43%	0.161%
28	14.271	1272	1274	1276	rBV2	1213	3953	0.52%	0.194%

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	14.461	1280	1286	1287	rBV2	1157	4493	0.59%	0.221%
30	14.638	1294	1298	1300	rBV2	940	2499	0.33%	0.123%
31	14.945	1330	1332	1335	rBV3	1804	2424	0.32%	0.119%
32	15.081	1346	1347	1350	rVB	1220	1461	0.19%	0.072%
33	15.189	1356	1359	1360	rBV2	1370	1972	0.26%	0.097%
34	15.496	1392	1393	1397	rVB2	1285	1815	0.24%	0.089%
35	15.560	1397	1400	1402	rBV2	1388	2588	0.34%	0.127%
36	15.587	1402	1403	1406	rVB2	927	1397	0.18%	0.069%
37	15.822	1427	1429	1430	rBV2	1349	1348	0.18%	0.066%
38	15.894	1433	1437	1442	rVB2	8208	15064	1.97%	0.741%
39	16.011	1448	1450	1452	rVB3	1284	1684	0.22%	0.083%
40	16.048	1452	1454	1456	rBV3	1105	1936	0.25%	0.095%
41	16.138	1461	1464	1467	rVB2	828	1854	0.24%	0.091%
42	16.436	1496	1497	1500	rBV	876	1339	0.18%	0.066%
43	16.612	1512	1517	1526	rBV	12567	22240	2.91%	1.094%
44	16.730	1546	1549	1551	rBV2	1488	947	0.12%	0.047%
45	16.782	1562	1563	1566	rBV2	1221	865	0.11%	0.043%
46	16.963	1603	1612	1628	rBV	550919	765111	100.00%	37.632%
47	17.177	1669	1670	1674	rBV2	1914	1092	0.14%	0.054%
48	17.587	1778	1781	1783	rBV	1132	873	0.11%	0.043%
49	17.680	1803	1806	1809	rBV	1267	998	0.13%	0.049%
50	17.901	1863	1866	1870	rBV2	1178	1350	0.18%	0.066%
51	18.068	1909	1911	1915	rVV3	1293	786	0.10%	0.039%
52	18.123	1925	1926	1929	rVB2	1876	789	0.10%	0.039%
53	18.153	1929	1934	1935	rBV2	1860	1403	0.18%	0.069%
54	18.441	2008	2012	2015	rBV3	1238	1172	0.15%	0.058%
55	18.467	2015	2019	2021	rVB2	1139	972	0.13%	0.048%
56	18.618	2057	2060	2063	rBV	1310	1350	0.18%	0.066%
57	18.882	2124	2127	2128	rBV2	1379	1153	0.15%	0.057%
58	18.963	2141	2144	2146	rBV2	1053	1198	0.16%	0.059%
59	18.992	2146	2150	2154	rVB3	2988	3980	0.52%	0.196%
60	19.477	2251	2252	2255	rVB2	1692	1143	0.15%	0.056%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	19.496	2255	2256	2258	rBV	1558	798	0.10%	0.039%
62	19.520	2258	2261	2265	rBV3	1244	1507	0.20%	0.074%
63	19.668	2289	2292	2293	rBV	1408	849	0.11%	0.042%
64	19.739	2304	2307	2310	rVB3	1333	996	0.13%	0.049%
65	19.815	2321	2323	2326	rVB	1080	796	0.10%	0.039%
66	19.854	2329	2331	2336	rVB2	1481	1441	0.19%	0.071%
67	19.892	2336	2339	2340	rBV2	989	858	0.11%	0.042%
68	20.058	2372	2374	2376	rVB2	1254	1024	0.13%	0.050%
69	20.082	2376	2379	2380	rBV	1146	966	0.13%	0.048%
70	20.101	2381	2383	2386	rVB3	1524	1206	0.16%	0.059%
71	20.196	2401	2403	2409	rVB2	935	801	0.10%	0.039%
72	20.306	2423	2426	2427	rBV	1111	885	0.12%	0.044%
73	20.315	2427	2428	2432	rVB3	1796	1083	0.14%	0.053%
74	20.349	2432	2435	2436	rBV2	1277	848	0.11%	0.042%
75	20.511	2468	2469	2471	rBV2	1537	1384	0.18%	0.068%
76	20.596	2475	2477	2480	rBV2	1323	2513	0.33%	0.124%
77	20.661	2481	2483	2484	rVB	1691	1910	0.25%	0.094%
78	20.725	2486	2489	2490	rBV2	1174	1598	0.21%	0.079%
79	20.822	2496	2498	2499	rVB2	2430	1818	0.24%	0.089%
80	20.918	2505	2507	2509	rBV2	832	1887	0.25%	0.093%
81	21.111	2524	2525	2528	rBV2	1826	3174	0.41%	0.156%
82	21.293	2539	2542	2544	rBV3	1686	2272	0.30%	0.112%
83	21.336	2544	2546	2550	rVV3	1259	2390	0.31%	0.118%
84	21.400	2550	2552	2555	rVB3	1027	1951	0.25%	0.096%
85	21.465	2555	2558	2559	rBV2	1407	2642	0.35%	0.130%
86	21.615	2570	2572	2574	rBV3	1508	2197	0.29%	0.108%
87	21.668	2576	2577	2579	rBV2	1148	2095	0.27%	0.103%
88	21.733	2581	2583	2585	rBV3	2226	3887	0.51%	0.191%
89	21.861	2593	2595	2597	rVB	1545	2128	0.28%	0.105%
90	22.097	2616	2617	2620	rVB3	1606	2159	0.28%	0.106%
91	22.504	2653	2655	2656	rBV2	1415	1836	0.24%	0.090%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

92	22.612	2663	2665	2668	rBV3	2319	3260	0.43%	0.160%
93	22.890	2687	2691	2693	rBV3	1477	3110	0.41%	0.153%

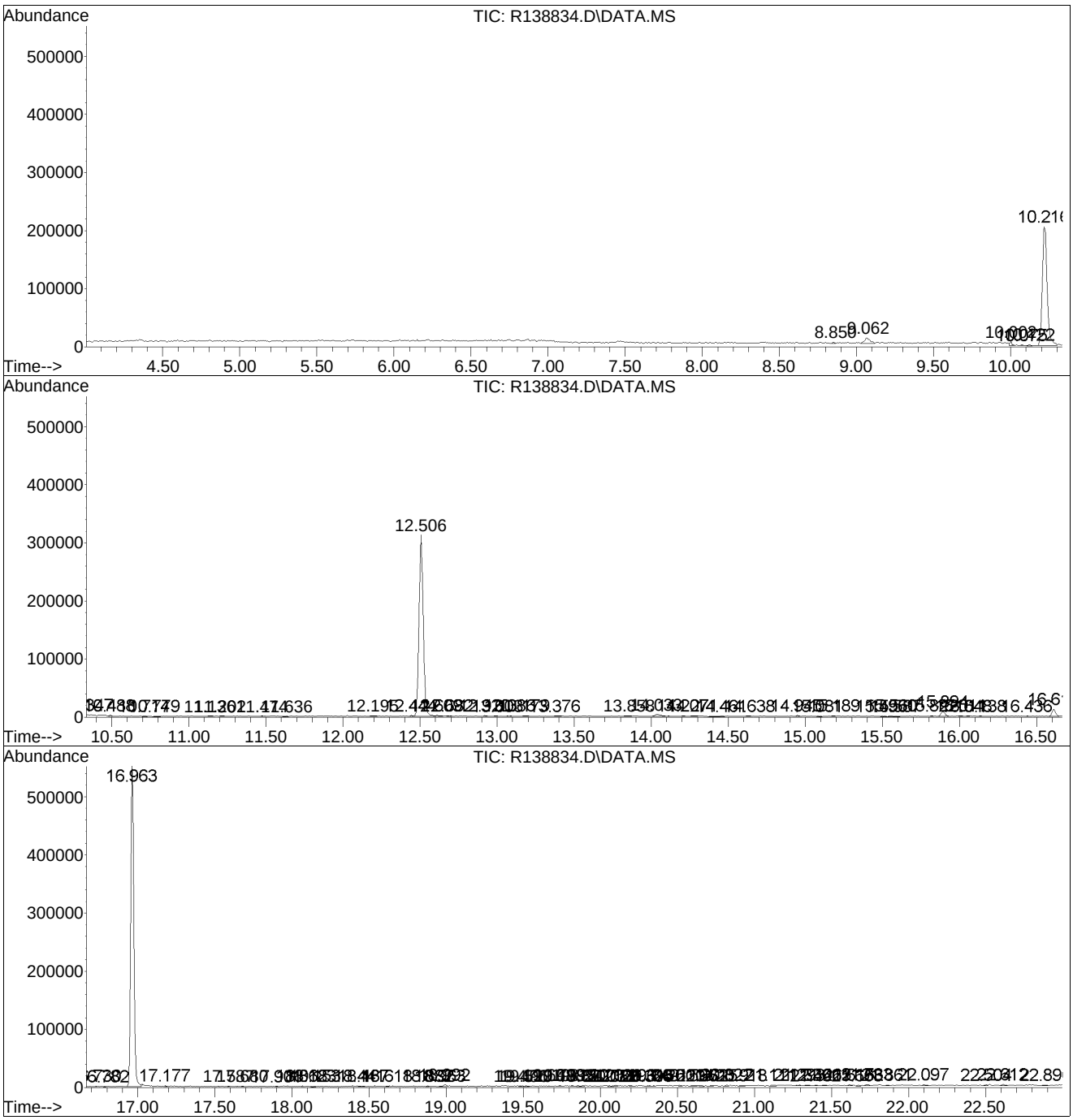
Sum of corrected areas: 2033148

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138834.D
Acq On : 3 Jan 2015 6:42 pm
Operator : AIRPIANO1:MB
Sample : L1431240-01,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-02	Date Collected	: 12/29/14 16:08
Client ID	: CAN 1999 SHELF 46	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 17:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138832	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-02	Date Collected	: 12/29/14 16:08
Client ID	: CAN 1999 SHELF 46	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 17:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138832	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-02	Date Collected	: 12/29/14 16:08
Client ID	: CAN 1999 SHELF 46	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 17:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138832	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-02	Date Collected	: 12/29/14 16:08
Client ID	: CAN 1999 SHELF 46	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 17:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138832	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:47:09 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.225	49	131526	10.000	ppbV		0.00
Standard Area = 133562			Recovery = 98.48%				
43) 1,4-difluorobenzene	12.516	114	276851	10.000	ppbV		0.01
Standard Area = 286390			Recovery = 96.67%				
67) chlorobenzene-D5	16.970	54	58891	10.000	ppbV		0.00
Standard Area = 62388			Recovery = 94.39%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.000		0	N.D.			
3) propylene	0.000		0	N.D.	d		
4) propane	0.000		0	N.D.	d		
5) dichlorodifluoromethane	0.000		0	N.D.			
6) chloromethane	4.152		0	N.D.			
7) Freon-114	0.000		0	N.D.			
8) methanol	0.000		0	N.D.	d		
9) vinyl chloride	0.000		0	N.D.			
10) 1,3-butadiene	4.665		0	N.D.			
11) butane	4.695		0	N.D.			
13) bromomethane	5.030		0	N.D.			
14) chloroethane	5.230		0	N.D.			
15) ethanol	5.518	31	698	0.107	ppbV	#	55
16) dichlorofluoromethane	5.478		0	N.D.			
17) vinyl bromide	0.000		0	N.D.			
18) acrolein	0.000		0	N.D.	d		
19) acetone	0.000		0	N.D.	d		
20) acetonitrile	0.000		0	N.D.	d		
21) trichlorofluoromethane	6.485		0	N.D.			
22) isopropyl alcohol	6.621	45	1638M3	0.104	ppbV		
23) acrylonitrile	6.877		0	N.D.			
24) pentane	6.925		0	N.D.			
25) ethyl ether	6.965		0	N.D.			
26) 1,1-dichloroethene	0.000		0	N.D.			
27) tertiary butyl alcohol	0.000		0	N.D.			
28) methylene chloride	7.484	49	1164	0.104	ppbV		96
29) 3-chloropropene	7.652		0	N.D.			
30) carbon disulfide	7.836		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:47:09 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	8.870		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.207		0		N.D.	
36) 2-butanone	9.488		0		N.D.	
37) cis-1,2-dichloroethene	9.913		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	10.854		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	10.272		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	12.102		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	12.744		0		N.D.	
55) dibromomethane	0.000		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	13.552		0		N.D.	
62) heptane	13.666		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	d
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	0.000		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.605		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	0.000		0		N.D.	d
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:47:09 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	17.314		0		N.D.	
83) m+p-xylene	17.428		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	17.746		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.938		0		N.D.	
91) isopropylbenzene	18.300		0		N.D.	
92) bromobenzene	18.437		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	18.803		0		N.D.	
96) 4-ethyl toluene	0.000		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
100) decane	19.092		0		N.D.	
101) Benzyl Chloride	19.139		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
104) sec-butylbenzene	19.297		0		N.D.	
106) p-isopropyltoluene	19.430		0		N.D.	
107) 1,2-dichlorobenzene	19.549		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	20.063		0		N.D.	
114) dodecane	21.047		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	21.154		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:47:09 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

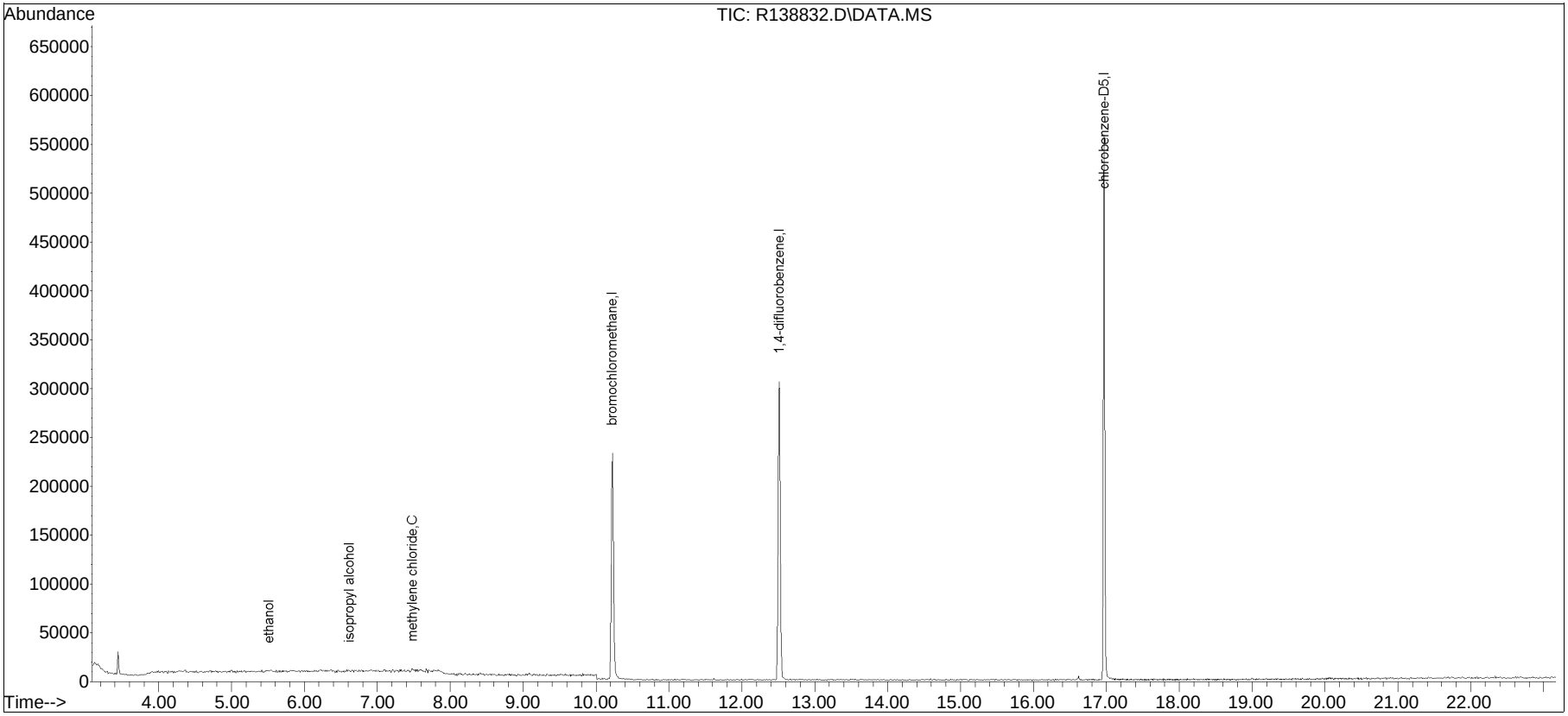
CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

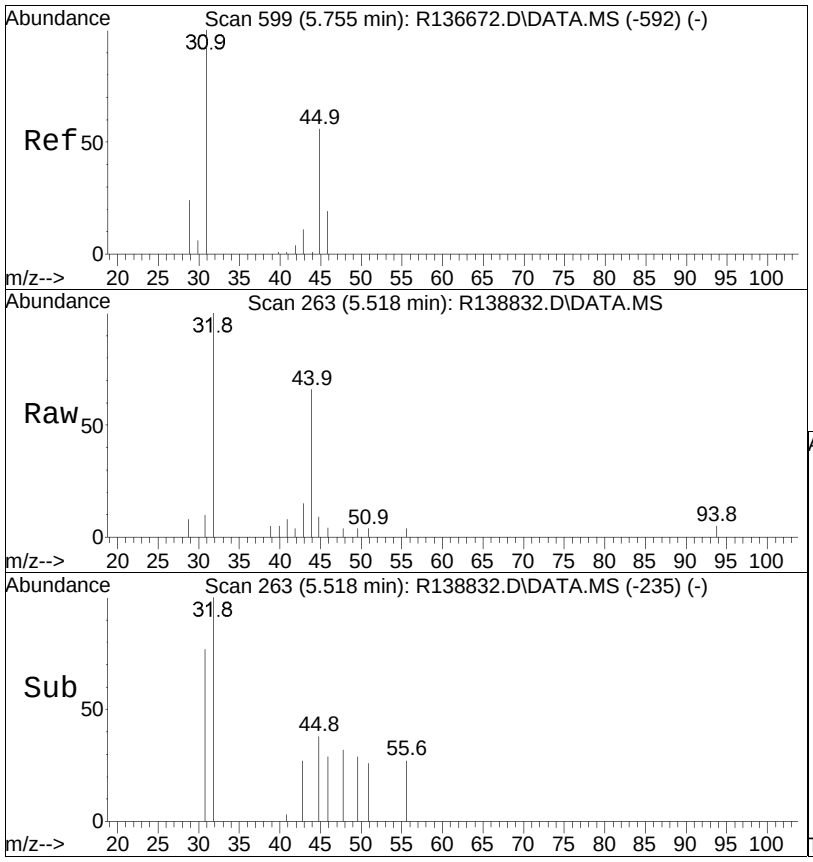
Sub List : Default-LCS-AP2 - All compounds listed38827.D

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:47:09 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration



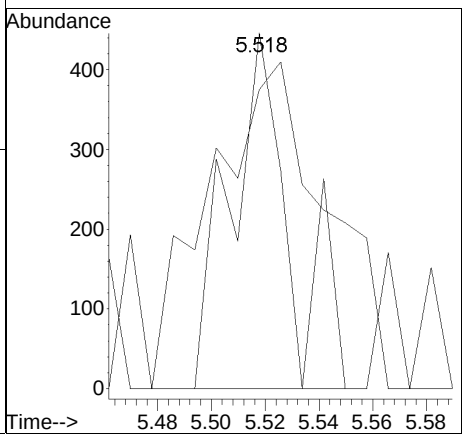
TALL150102.M Sun Jan 04 16:47:31 2015 Page 5

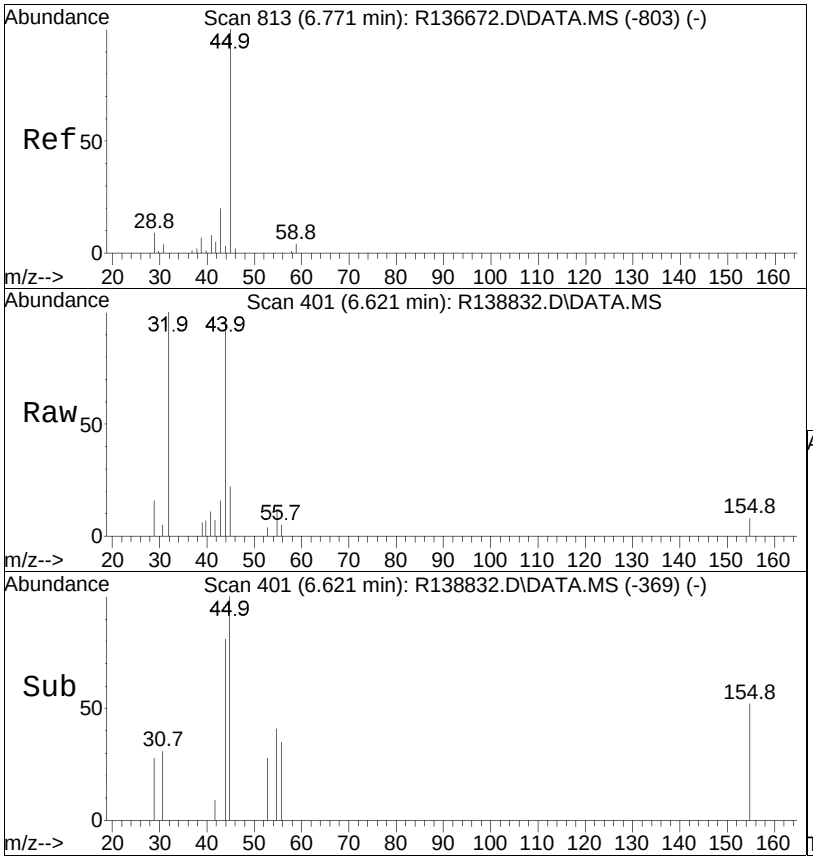


#15
ethanol
Concen: 0.11 ppbV
RT: 5.518 min Scan# 263
Delta R.T. 0.024 min
Lab File: R138832.D
Acq: 3 Jan 2015 5:38 pm

Tgt Ion: 31 Resp: 698

Ion	Ratio	Lower	Upper
31	100		
45	84.1	42.0	63.0#

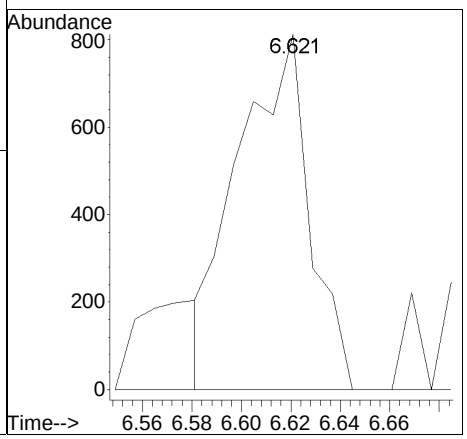


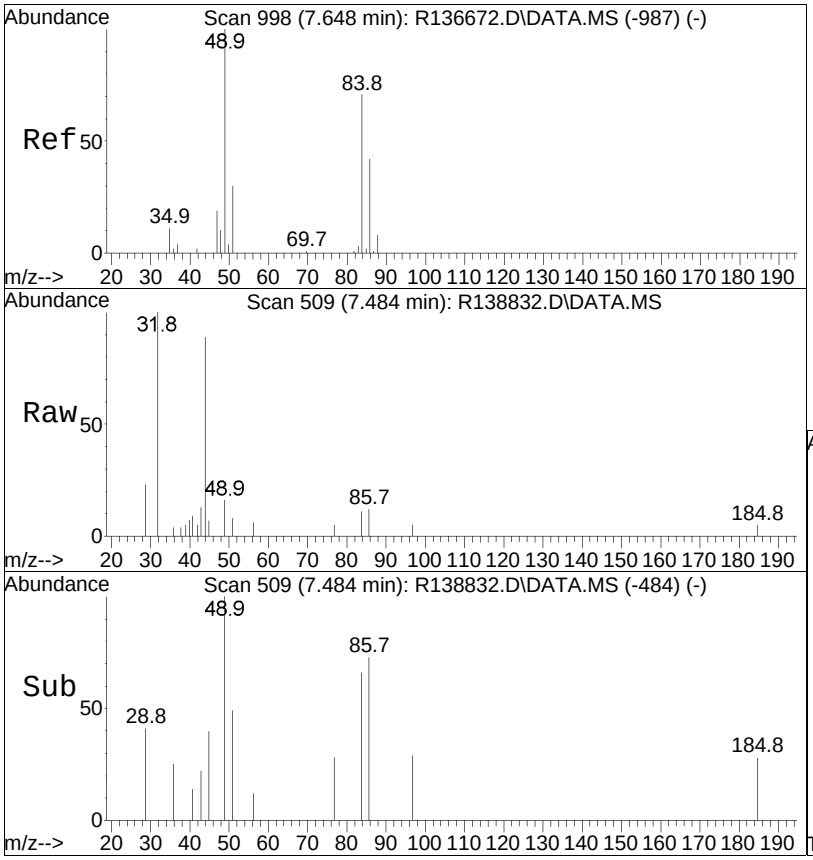


#22
isopropyl alcohol
Concen: 0.10 ppbV m
RT: 6.621 min Scan# 401
Delta R.T. 0.056 min
Lab File: R138832.D
Acq: 3 Jan 2015 5:38 pm

Tgt Ion: 45 Resp: 1638

Ion	Ratio	Lower	Upper
45	100		
59	0.0	2.5	3.7#

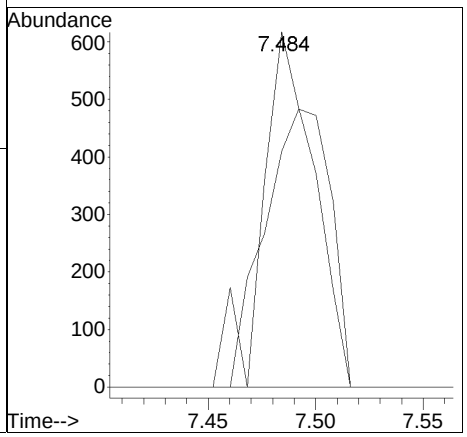




#28
methylene chloride
Concen: 0.10 ppbV
RT: 7.484 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138832.D
Acq: 3 Jan 2015 5:38 pm

Tgt Ion: 49 Resp: 1164

Ion	Ratio	Lower	Upper
49	100		
84	66.5	50.8	76.2

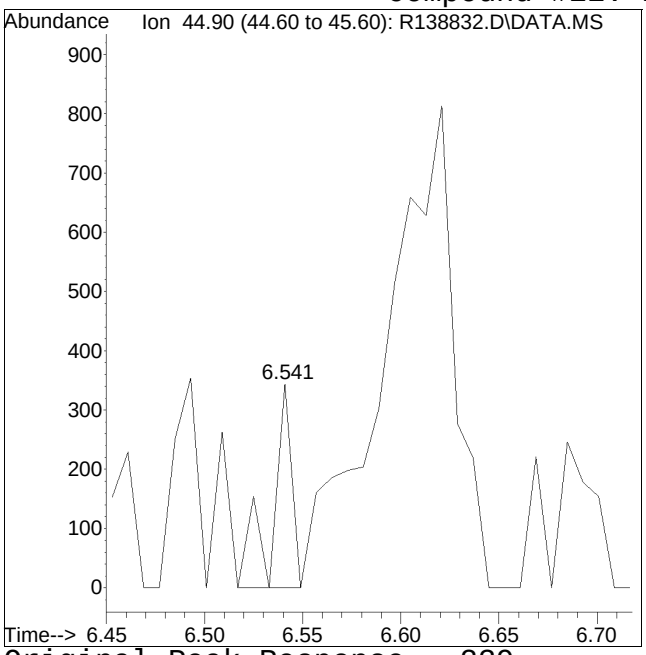


Manual Integration/Negative Proof Report

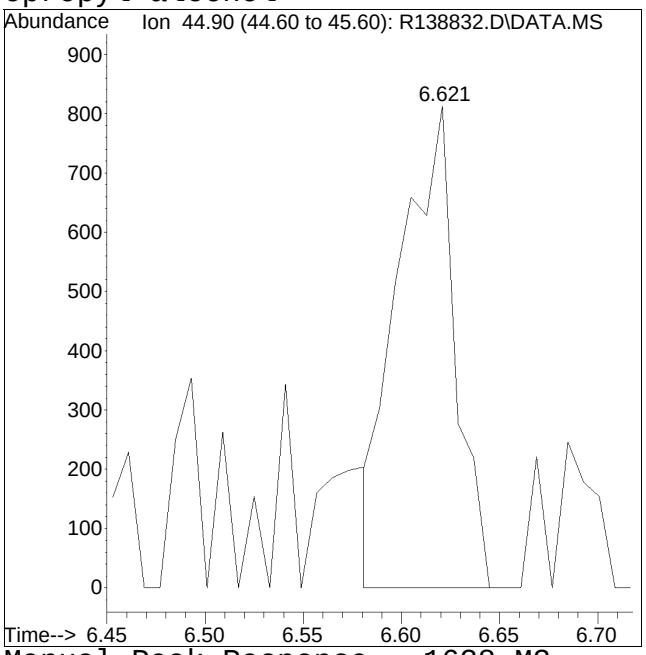
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138832.D
Date Inj'd : 1/3/2015 5:38 pm
Sample : L1431240-02,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 1/4/2015 9:10 am

Compound #22: isopropyl alcohol



Original Peak Response = 239



Manual Peak Response = 1638 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1431240
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1431240-02	Date Collected	:	12/29/14 16:08
Client ID	:	CAN 1999 SHELF 46	Date Received	:	12/30/14
Sample Location	:		Date Analyzed	:	01/03/15 17:38
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138832	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138832.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.668	531	532	535	rVB2	4534	5061	0.65%	0.249%
2	8.108	585	587	588	rBV2	2458	2328	0.30%	0.115%
3	8.747	676	678	679	rBV	1787	1103	0.14%	0.054%
4	8.925	702	704	707	rBV3	1921	3111	0.40%	0.153%
5	9.323	760	762	766	rBV3	2145	3053	0.39%	0.150%
6	9.577	797	799	800	rVB	2116	1070	0.14%	0.053%
7	9.817	833	834	835	rBV	2554	1332	0.17%	0.066%
8	10.047	862	866	868	rVB2	967	1589	0.20%	0.078%
9	10.113	871	873	875	rBV2	1190	1632	0.21%	0.080%
10	10.169	877	879	880	rBV	1724	1625	0.21%	0.080%
11	10.225	880	885	895	rBV	230973	473060	60.65%	23.288%
12	10.488	910	913	916	rVB	1238	2425	0.31%	0.119%
13	10.695	933	935	938	rBV	1203	1857	0.24%	0.091%
14	11.183	984	987	990	rBV	1266	2567	0.33%	0.126%
15	11.615	1031	1033	1036	rVB2	1839	1796	0.23%	0.088%
16	11.998	1067	1070	1071	rVB2	1548	1809	0.23%	0.089%
17	12.040	1071	1074	1077	rBV2	979	2024	0.26%	0.100%
18	12.102	1077	1080	1081	rBV2	1097	1823	0.23%	0.090%
19	12.516	1115	1120	1125	rBV	305452	623207	79.90%	30.680%
20	12.661	1132	1134	1136	rVB2	1464	2195	0.28%	0.108%
21	12.796	1144	1147	1149	rBV3	838	1972	0.25%	0.097%
22	13.179	1183	1184	1186	rBV	1294	1537	0.20%	0.076%
23	13.303	1194	1196	1199	rBV	867	2087	0.27%	0.103%
24	13.552	1219	1220	1225	rBV2	1129	1867	0.24%	0.092%
25	13.624	1225	1227	1230	rBV2	918	1786	0.23%	0.088%
26	14.477	1283	1287	1289	rBV	643	2828	0.36%	0.139%
27	14.638	1295	1298	1299	rBV2	1448	2015	0.26%	0.099%
28	14.701	1302	1305	1306	rBV2	911	1343	0.17%	0.066%

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	14.963	1330	1334	1335	rBV2	1177	1652	0.21%	0.081%
30	15.126	1351	1352	1354	rBV	1251	1647	0.21%	0.081%
31	15.478	1390	1391	1395	rBV	1535	2353	0.30%	0.116%
32	15.551	1398	1399	1403	rVV	925	1701	0.22%	0.084%
33	15.605	1403	1405	1408	rVB3	955	1510	0.19%	0.074%
34	15.659	1408	1411	1413	rBV	936	1588	0.20%	0.078%
35	15.804	1425	1427	1429	rBV2	904	1378	0.18%	0.068%
36	16.002	1447	1449	1450	rBV	1156	1504	0.19%	0.074%
37	16.111	1459	1461	1464	rBV	882	1840	0.24%	0.091%
38	16.201	1470	1471	1476	rBV	1194	1893	0.24%	0.093%
39	16.274	1476	1479	1480	rVB	1054	1406	0.18%	0.069%
40	16.301	1480	1482	1484	rBV2	1656	1357	0.17%	0.067%
41	16.472	1498	1501	1502	rBV3	1114	1743	0.22%	0.086%
42	16.619	1512	1519	1522	rBV3	4349	6920	0.89%	0.341%
43	16.815	1569	1572	1576	rVB2	1467	984	0.13%	0.048%
44	16.966	1604	1613	1629	rBV	557940	780015	100.00%	38.400%
45	17.092	1645	1647	1650	rVB2	1573	1003	0.13%	0.049%
46	17.225	1679	1683	1685	rVV3	1648	1186	0.15%	0.058%
47	17.251	1687	1690	1694	rVB2	944	909	0.12%	0.045%
48	17.362	1717	1720	1723	rVB2	1253	806	0.10%	0.040%
49	17.517	1760	1762	1764	rVB	1829	928	0.12%	0.046%
50	17.535	1764	1767	1770	rBV	2133	1825	0.23%	0.090%
51	17.768	1828	1830	1834	rVB2	1556	992	0.13%	0.049%
52	17.787	1834	1835	1842	rBV2	2063	1983	0.25%	0.098%
53	17.842	1848	1850	1853	rBV2	1194	797	0.10%	0.039%
54	18.271	1964	1966	1969	rVB2	1322	786	0.10%	0.039%
55	18.997	2145	2151	2152	rBV2	2092	2803	0.36%	0.138%
56	19.097	2170	2172	2175	rBV2	1413	1161	0.15%	0.057%
57	19.197	2189	2193	2194	rVB3	1159	1089	0.14%	0.054%
58	19.230	2197	2200	2203	rVB3	938	1177	0.15%	0.058%
59	19.268	2206	2208	2210	rBV2	1203	852	0.11%	0.042%
60	19.354	2224	2226	2230	rVB	1074	807	0.10%	0.040%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	19.430	2240	2242	2245	rVB4	1219	822	0.11%	0.040%
62	19.492	2252	2255	2258	rVB3	1047	1150	0.15%	0.057%
63	19.516	2258	2260	2261	rBV2	1426	831	0.11%	0.041%
64	19.554	2266	2268	2272	rBV3	1773	2071	0.27%	0.102%
65	19.687	2294	2296	2301	rVB4	1597	1836	0.24%	0.090%
66	19.758	2308	2311	2312	rBV2	1424	966	0.12%	0.048%
67	19.787	2316	2317	2322	rBV3	1136	1036	0.13%	0.051%
68	19.977	2355	2357	2359	rVV2	1605	1108	0.14%	0.055%
69	20.011	2362	2364	2366	rVV2	1468	1116	0.14%	0.055%
70	20.025	2366	2367	2370	rVV2	1531	1303	0.17%	0.064%
71	20.058	2372	2374	2377	rVV2	2144	2399	0.31%	0.118%
72	20.106	2379	2384	2385	rVB3	1712	1845	0.24%	0.091%
73	20.187	2400	2401	2404	rBV3	1190	1116	0.14%	0.055%
74	20.430	2449	2452	2454	rBV2	1124	979	0.13%	0.048%
75	20.492	2461	2465	2466	rVB3	1706	1636	0.21%	0.081%
76	20.532	2469	2471	2472	rVV	1388	2151	0.28%	0.106%
77	20.564	2472	2474	2475	rVB	1904	2000	0.26%	0.098%
78	20.854	2500	2501	2504	rBV	1303	2689	0.34%	0.132%
79	20.897	2504	2505	2507	rVV2	1553	1697	0.22%	0.084%
80	21.047	2517	2519	2520	rVB2	1649	1644	0.21%	0.081%
81	21.175	2529	2531	2532	rBV	2334	2876	0.37%	0.142%
82	21.261	2537	2539	2543	rVV3	1029	2509	0.32%	0.124%
83	21.411	2552	2553	2555	rBV2	1499	2184	0.28%	0.108%
84	21.636	2572	2574	2576	rBV	1192	1586	0.20%	0.078%
85	21.733	2581	2583	2588	rVB3	1471	3849	0.49%	0.189%
86	21.883	2595	2597	2602	rVB3	2091	3383	0.43%	0.167%
87	21.958	2602	2604	2605	rBV2	943	1677	0.21%	0.083%
88	22.086	2614	2616	2617	rVB	1805	1959	0.25%	0.096%
89	22.504	2653	2655	2657	rBV3	1001	2198	0.28%	0.108%

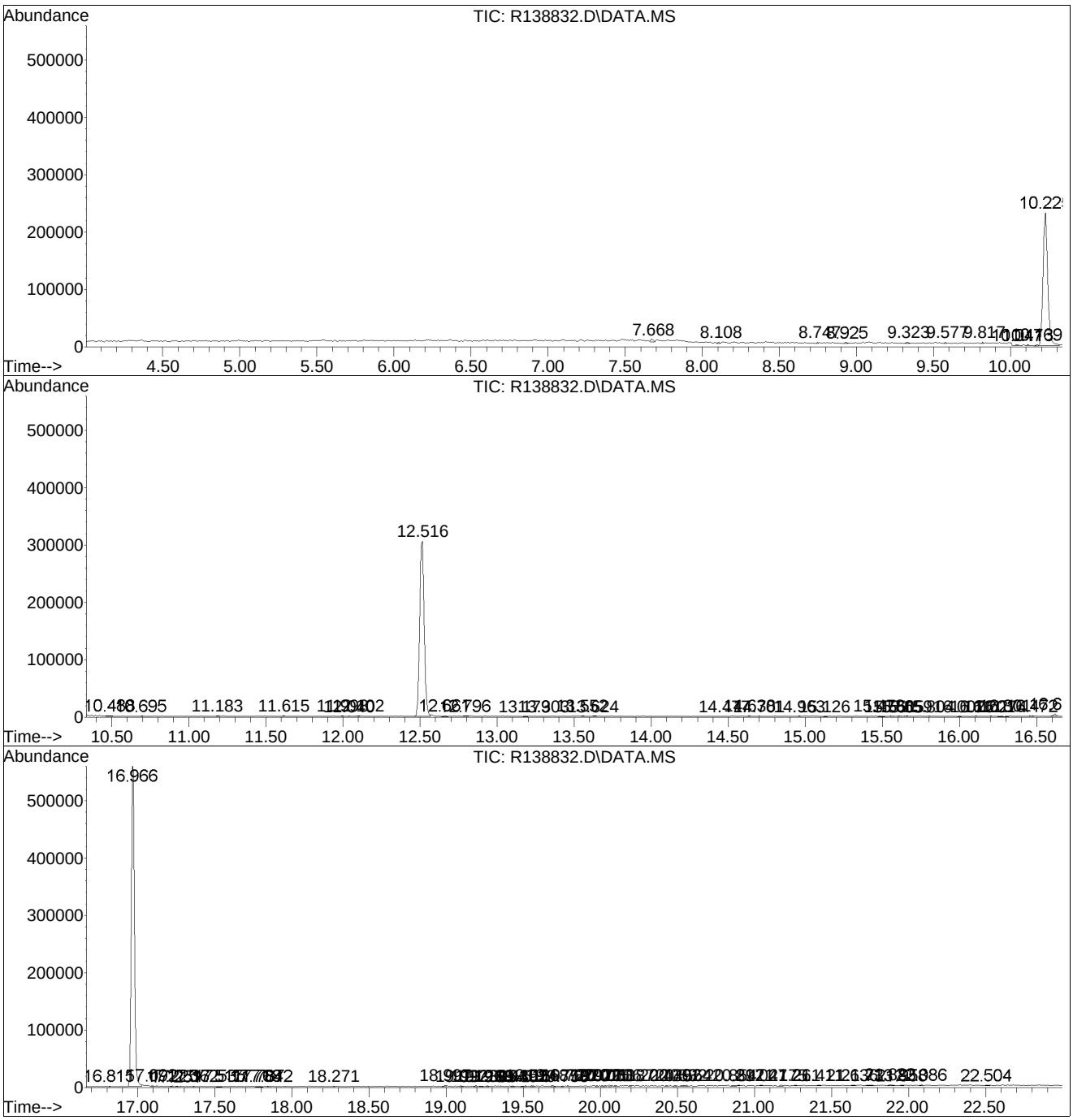
Sum of corrected areas: 2031313

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138832.D
Acq On : 3 Jan 2015 5:38 pm
Operator : AIRPIANO1:MB
Sample : L1431240-02,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-03	Date Collected	: 12/29/14 16:12
Client ID	: CAN 1038 SHELF 51	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138833	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-03	Date Collected	: 12/29/14 16:12
Client ID	: CAN 1038 SHELF 51	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138833	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
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Client ID	: CAN 1038 SHELF 51	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138833	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-03	Date Collected	: 12/29/14 16:12
Client ID	: CAN 1038 SHELF 51	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138833	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:48:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.216	49	129141	10.000	ppbV		0.00
Standard Area = 133562			Recovery = 96.69%				
43) 1,4-difluorobenzene	12.506	114	273048	10.000	ppbV		0.00
Standard Area = 286390			Recovery = 95.34%				
67) chlorobenzene-D5	16.964	54	57549	10.000	ppbV		0.00
Standard Area = 62388			Recovery = 92.24%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.000		0	N.D.			
3) propylene	3.768		0	N.D.			
4) propane	3.797		0	N.D.			
5) dichlorodifluoromethane	3.738		0	N.D.			
6) chloromethane	4.103		0	N.D.			
7) Freon-114	0.000		0	N.D.			
8) methanol	4.349	31	1517	0.523	ppbV	#	1
9) vinyl chloride	0.000		0	N.D.			
10) 1,3-butadiene	4.557		0	N.D.			
11) butane	4.635		0	N.D.			
13) bromomethane	0.000		0	N.D.	d		
14) chloroethane	5.182		0	N.D.			
15) ethanol	5.510	31	1121	0.175	ppbV		91
16) dichlorofluoromethane	5.446		0	N.D.			
17) vinyl bromide	0.000		0	N.D.			
18) acrolein	5.925		0	N.D.			
19) acetone	6.213	43	799M3	0.061	ppbV		
20) acetonitrile	0.000		0	N.D.	d		
21) trichlorofluoromethane	0.000		0	N.D.			
22) isopropyl alcohol	6.557		0	N.D.			
23) acrylonitrile	6.837		0	N.D.			
24) pentane	0.000		0	N.D.	d		
25) ethyl ether	6.916		0	N.D.			
26) 1,1-dichloroethene	0.000		0	N.D.			
27) tertiary butyl alcohol	7.460		0	N.D.			
28) methylene chloride	7.484	49	960	0.087	ppbV	#	50
29) 3-chloropropene	7.628		0	N.D.			
30) carbon disulfide	7.812		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:48:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.193		0		N.D.	
36) 2-butanone	9.474		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	10.375		0		N.D.	
40) Tetrahydrofuran	10.864		0		N.D.	
41) 2,2-dichloropropane	10.460		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	10.216		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	12.858		0		N.D.	
55) dibromomethane	0.000		0		N.D.	
56) 1,2-dichloropropane	13.137		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	13.386		0		N.D.	
61) methyl methacrylate	13.562		0		N.D.	
62) heptane	13.624		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	d
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.388		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.632		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	16.255		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:48:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0	N.D.		
79) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.267		0	N.D.		
83) m+p-xylene	17.563		0	N.D.		
84) bromoform	0.000		0	N.D.		
85) styrene	17.858		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87) o-xylene	17.692		0	N.D.		
88) 1,2,3-trichloropropane	0.000		0	N.D.		
89) nonane	17.940		0	N.D.		
91) isopropylbenzene	0.000		0	N.D.		
92) bromobenzene	0.000		0	N.D.		
93) 2-chlorotoluene	0.000		0	N.D.		
94) n-propylbenzene	0.000		0	N.D.		
95) 4-chlorotoluene	18.694		0	N.D.		
96) 4-ethyl toluene	0.000		0	N.D.		
97) 1,3,5-trimethylbenzene	0.000		0	N.D.		
98) tert-butylbenzene	19.190		0	N.D.		
99) 1,2,4-trimethylbenzene	0.000		0	N.D.		
100) decane	19.256		0	N.D.		
101) Benzyl Chloride	0.000		0	N.D.		
102) 1,3-dichlorobenzene	0.000		0	N.D.		
103) 1,4-dichlorobenzene	0.000		0	N.D.		
104) sec-butylbenzene	0.000		0	N.D.		
106) p-isopropyltoluene	19.404		0	N.D.		
107) 1,2-dichlorobenzene	19.590		0	N.D.		
108) n-butylbenzene	19.737		0	N.D.		
111) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
112) undecane	20.113		0	N.D.		
114) dodecane	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
116) naphthalene	21.146		0	N.D.		
117) 1,2,3-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:48:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

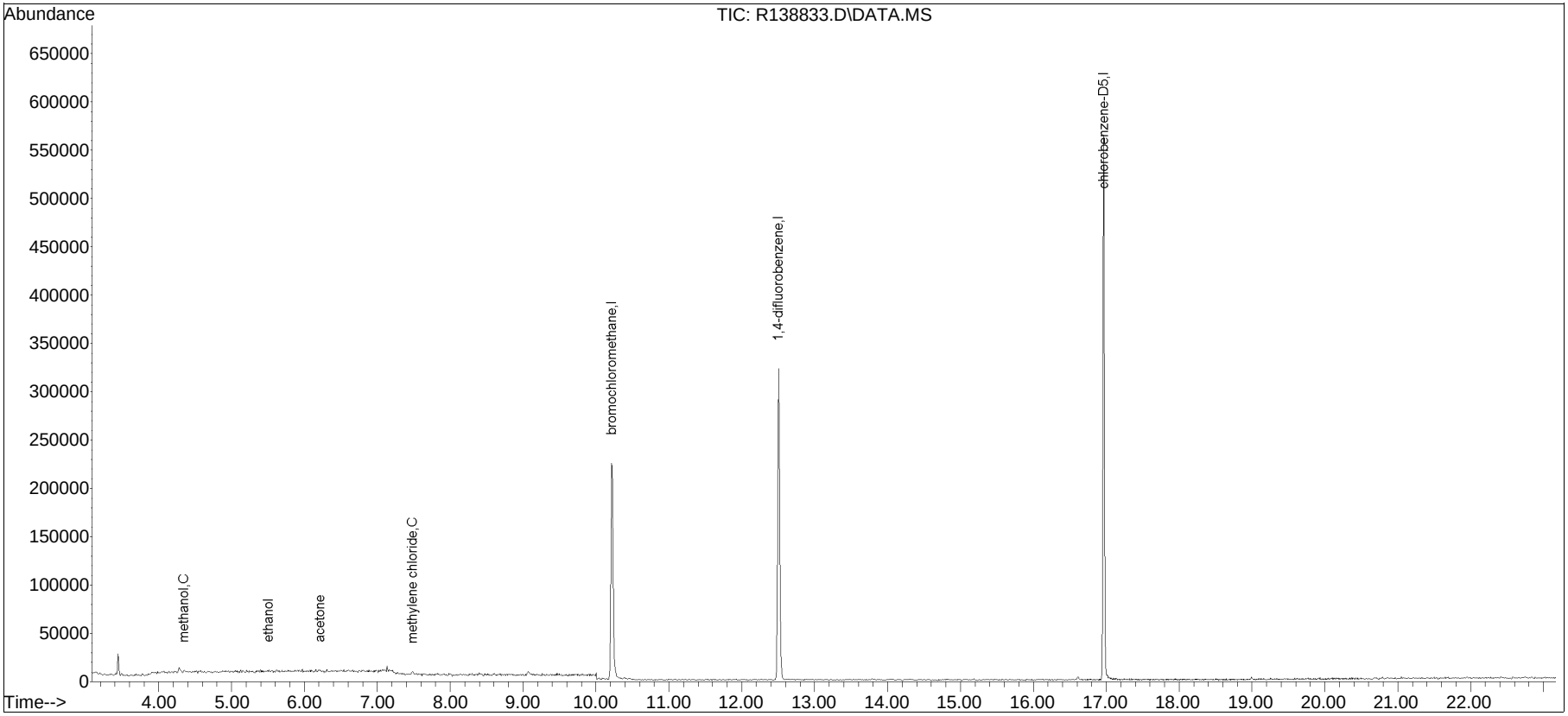
CCAL FILE : O:\Forensics\Data\AIR1\2015\150103T\R138827.D
Sub List : Default-LCS-AP2 - All compounds listed

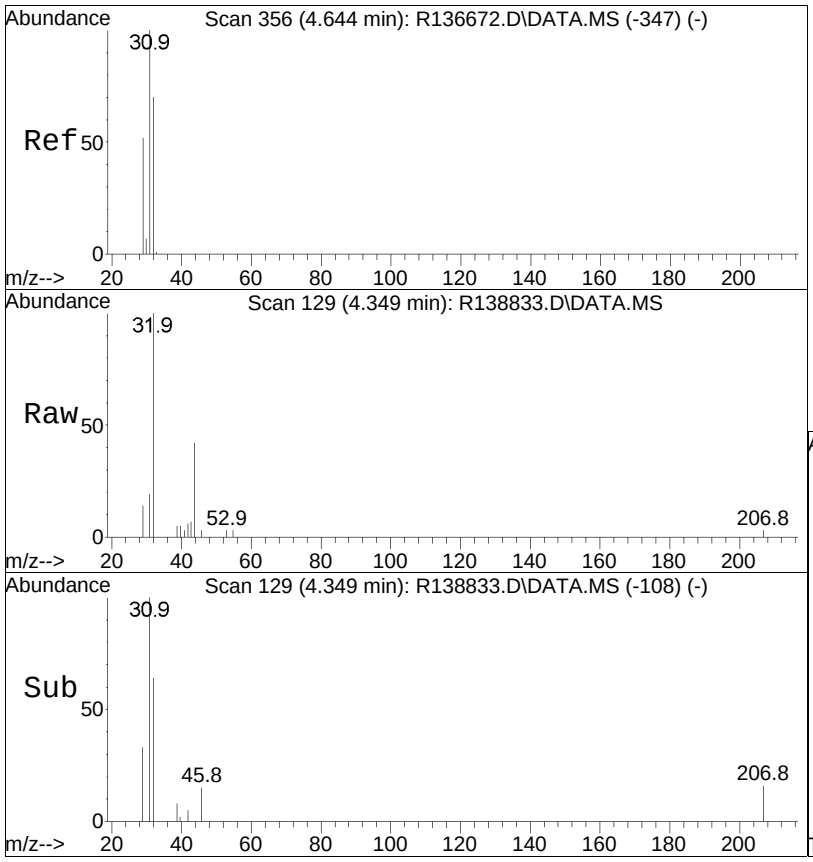
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed38827.D

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 04 16:48:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

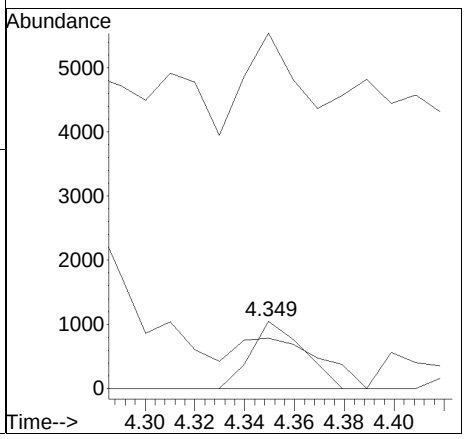


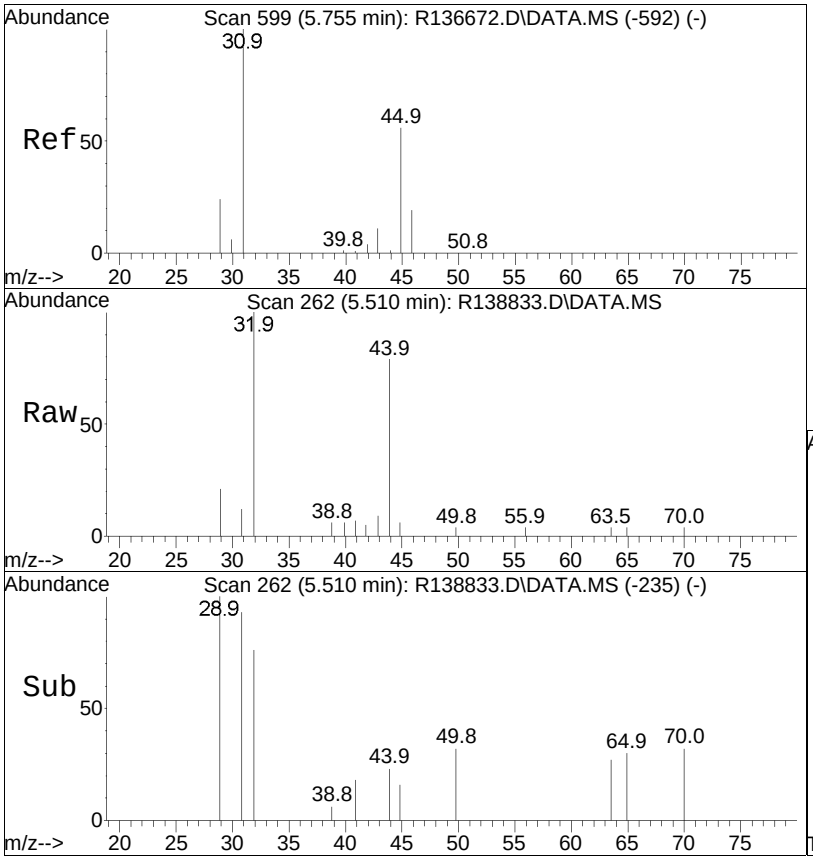


#8
methanol
Concen: 0.52 ppbV
RT: 4.349 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138833.D
Acq: 3 Jan 2015 6:10 pm

Tgt Ion: 31 Resp: 1517

Ion	Ratio	Lower	Upper
31	100		
32	530.3	59.9	89.9#
29	75.0	50.3	75.5

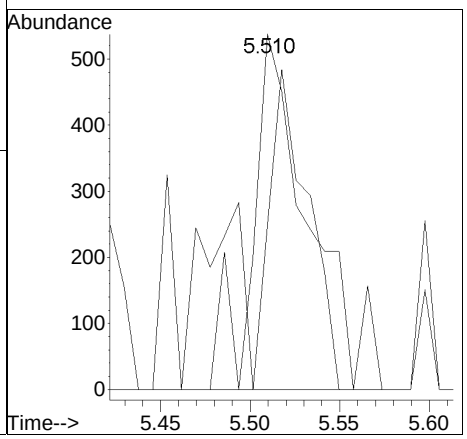




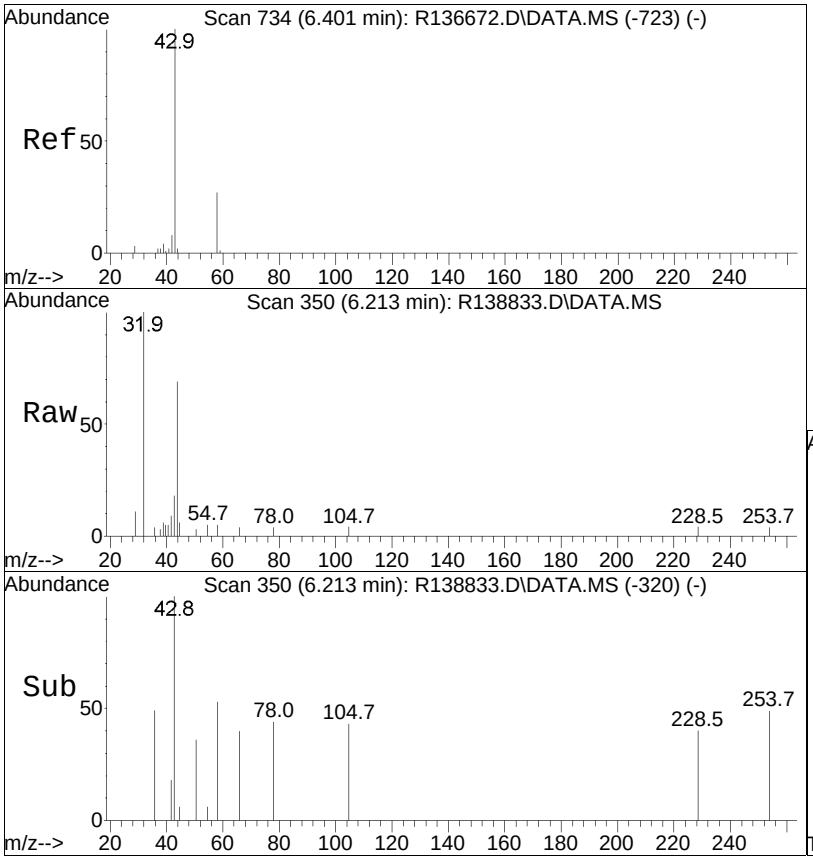
#15
ethanol
Concen: 0.17 ppbV
RT: 5.510 min Scan# 262
Delta R.T. 0.016 min
Lab File: R138833.D
Acq: 3 Jan 2015 6:10 pm

Tgt Ion: 31 Resp: 1121

Ion	Ratio	Lower	Upper
31	100		
45	46.1	42.0	63.0



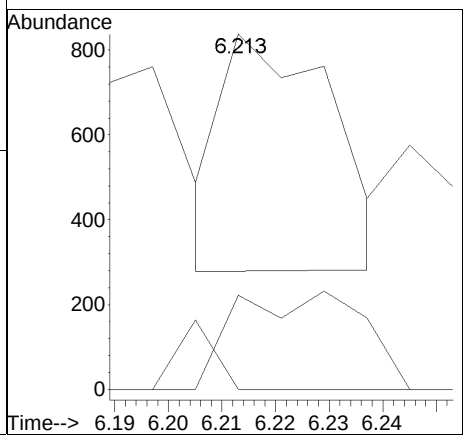
R138833.D TALL150102.M Sun Jan 04 16:48:58 2015 Page 7

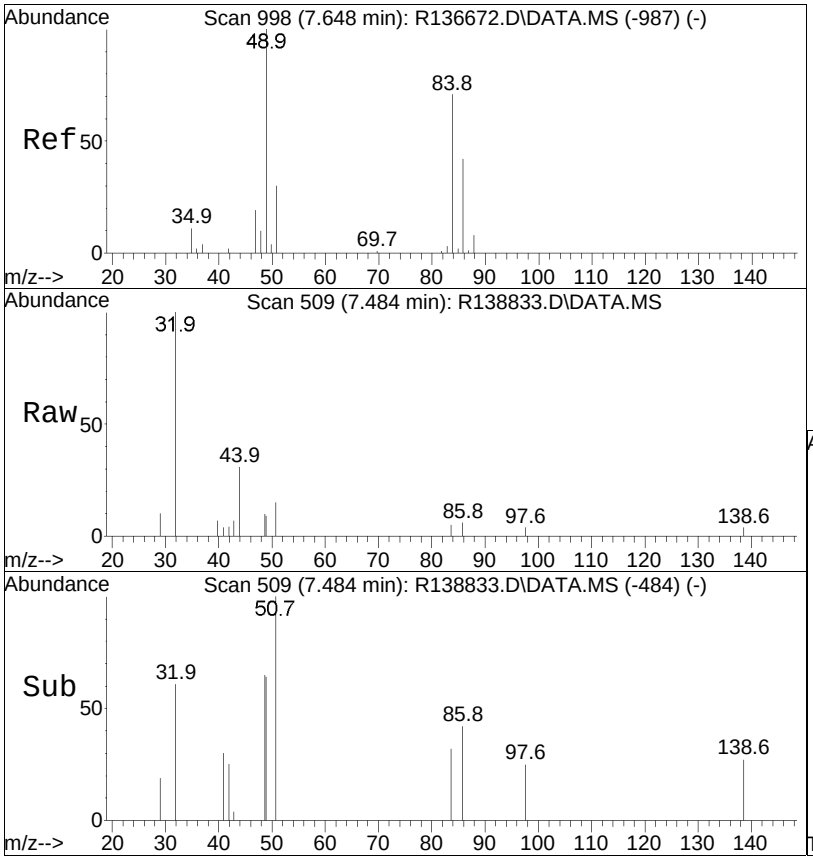


#19
acetone
Concen: 0.06 ppbV m
RT: 6.213 min Scan# 350
Delta R.T. 0.040 min
Lab File: R138833.D
Acq: 3 Jan 2015 6:10 pm

Tgt Ion: 43 Resp: 799

Ion	Ratio	Lower	Upper
43	100		
58	26.5	19.9	29.9
57	0.0	0.6	0.8#

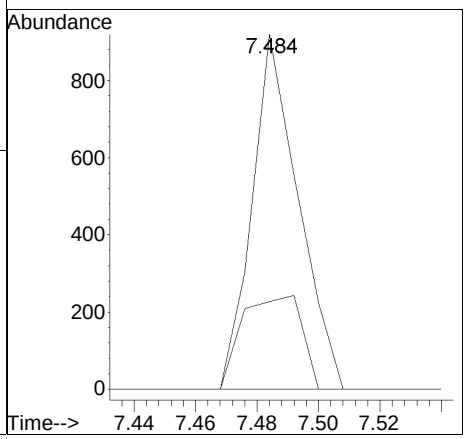




#28
methylene chloride
Concen: 0.09 ppbV
RT: 7.484 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138833.D
Acq: 3 Jan 2015 6:10 pm

Tgt Ion: 49 Resp: 960

Ion	Ratio	Lower	Upper
49	100		
84	24.7	50.8	76.2#

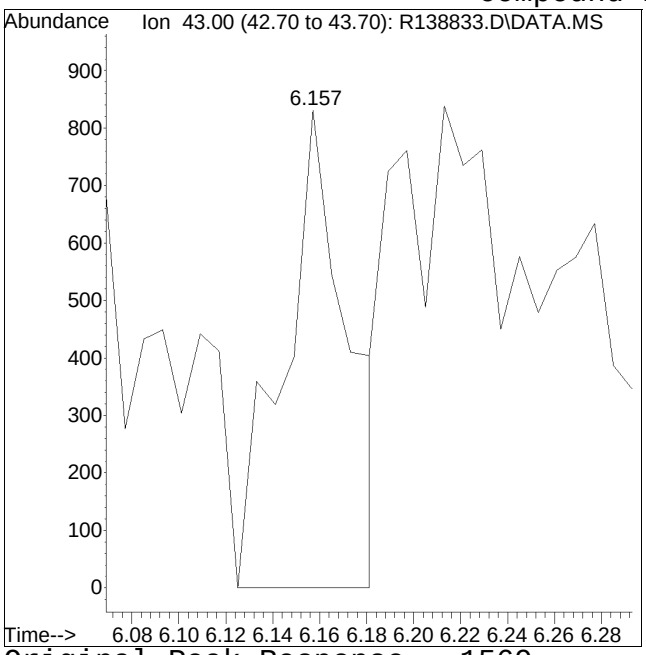


Manual Integration/Negative Proof Report

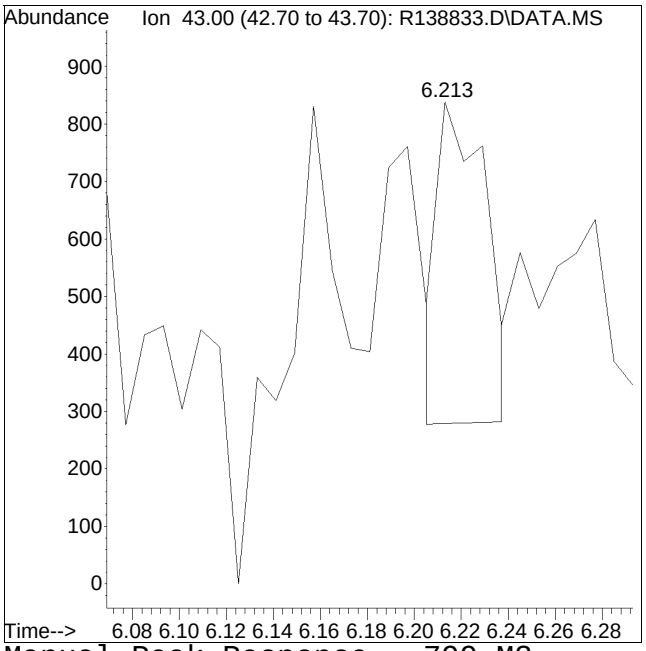
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138833.D
Date Inj'd : 1/3/2015 6:10 pm
Sample : L1431240-03,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 1/4/2015 9:10 am

Compound #19: acetone



Original Peak Response = 1569



Manual Peak Response = 799 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1431240
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1431240-03	Date Collected	: 12/29/14 16:12
Client ID	: CAN 1038 SHELF 51	Date Received	: 12/30/14
Sample Location	:	Date Analyzed	: 01/03/15 18:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138833	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138833.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.281	119	122	127	rBV3	5667	11883	1.55%	0.570%
2	7.132	464	465	467	rBV	6340	4918	0.64%	0.236%
3	7.628	525	527	529	rBV2	2373	4050	0.53%	0.194%
4	7.980	570	571	572	rBV	2199	1668	0.22%	0.080%
5	8.472	636	638	641	rBV4	2397	3117	0.41%	0.149%
6	9.069	721	725	731	rBV4	3928	9546	1.25%	0.458%
7	9.632	805	807	808	rBV2	1893	1597	0.21%	0.077%
8	10.002	860	861	862	rVB	7671	3157	0.41%	0.151%
9	10.047	862	866	869	rBV3	1959	4542	0.59%	0.218%
10	10.084	869	870	874	rBV	1492	2500	0.33%	0.120%
11	10.216	879	884	894	rBV	224368	476786	62.31%	22.858%
12	10.385	900	902	904	rBV2	1497	2209	0.29%	0.106%
13	10.573	921	922	927	rBV2	754	1547	0.20%	0.074%
14	10.666	930	932	935	rBV2	1169	1716	0.22%	0.082%
15	11.089	973	977	980	rVB2	1058	2451	0.32%	0.118%
16	11.183	985	987	990	rBV	1149	2174	0.28%	0.104%
17	11.220	990	991	994	rVB3	1392	1700	0.22%	0.082%
18	11.277	994	997	1000	rBV3	1399	2698	0.35%	0.129%
19	11.342	1000	1004	1006	rVB	1189	2808	0.37%	0.135%
20	11.399	1006	1010	1011	rBV	1028	1744	0.23%	0.084%
21	11.530	1022	1024	1027	rVB3	1279	1768	0.23%	0.085%
22	11.687	1038	1040	1043	rVB2	770	1558	0.20%	0.075%
23	11.739	1043	1045	1049	rBV2	1002	1976	0.26%	0.095%
24	11.832	1053	1054	1057	rVB2	1262	1658	0.22%	0.079%
25	11.874	1057	1058	1061	rBV	1096	2140	0.28%	0.103%
26	12.039	1071	1074	1078	rVB3	1433	4534	0.59%	0.217%
27	12.112	1078	1081	1082	rBV2	1540	2444	0.32%	0.117%
28	12.174	1086	1087	1091	rVV2	1545	2567	0.34%	0.123%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	12.267	1094	1096	1098	rBV2	1207	1873	0.24%	0.090%
30	12.371	1104	1106	1108	rBV	877	1615	0.21%	0.077%
31	12.506	1115	1119	1128	rVB	321693	613284	80.14%	29.403%
32	12.765	1141	1144	1146	rBV2	1313	2409	0.31%	0.115%
33	12.878	1154	1155	1157	rBV	1141	1795	0.23%	0.086%
34	13.220	1186	1188	1191	rBV	1114	1743	0.23%	0.084%
35	13.531	1216	1218	1220	rBV2	1281	1610	0.21%	0.077%
36	13.790	1240	1243	1244	rBV	1324	2129	0.28%	0.102%
37	14.144	1263	1266	1270	rVB3	1104	4559	0.60%	0.219%
38	14.255	1270	1273	1274	rBV2	1209	3872	0.51%	0.186%
39	14.302	1274	1276	1282	rVV2	1620	6970	0.91%	0.334%
40	14.461	1282	1286	1287	rVV2	1061	3459	0.45%	0.166%
41	14.572	1290	1293	1295	rVB	1357	3354	0.44%	0.161%
42	14.936	1329	1331	1333	rVB2	1195	1549	0.20%	0.074%
43	14.963	1333	1334	1335	rBV	1510	1411	0.18%	0.068%
44	15.044	1341	1343	1344	rBV	1295	1568	0.20%	0.075%
45	15.252	1364	1366	1369	rBV2	1100	1878	0.25%	0.090%
46	15.469	1388	1390	1392	rBV2	1246	1884	0.25%	0.090%
47	15.532	1396	1397	1400	rBV2	1188	1382	0.18%	0.066%
48	15.577	1400	1402	1404	rBV	1268	1639	0.21%	0.079%
49	15.623	1404	1407	1410	rVB2	1063	1700	0.22%	0.082%
50	15.677	1410	1413	1415	rBV	1561	1703	0.22%	0.082%
51	15.840	1429	1431	1435	rBV	906	1513	0.20%	0.073%
52	15.903	1437	1438	1442	rBV	1513	2870	0.38%	0.138%
53	16.038	1452	1453	1456	rBV2	779	1491	0.19%	0.071%
54	16.129	1461	1463	1465	rVB	1607	1528	0.20%	0.073%
55	16.255	1475	1477	1479	rVB	1888	1713	0.22%	0.082%
56	16.282	1479	1480	1483	rBV2	1113	1888	0.25%	0.091%
57	16.328	1483	1485	1487	rBV2	1514	1537	0.20%	0.074%
58	16.499	1500	1504	1505	rBV	1137	1707	0.22%	0.082%
59	16.545	1505	1509	1510	rVV2	1339	1980	0.26%	0.095%
60	16.581	1510	1513	1514	rVV2	1007	1748	0.23%	0.084%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	16.608	1514	1516	1526	rVB2	3242	4795	0.63%	0.230%
62	16.964	1601	1611	1623	rBV	564459	765244	100.00%	36.688%
63	17.345	1712	1714	1718	rBV2	2052	1302	0.17%	0.062%
64	17.648	1794	1796	1800	rBV	1318	1070	0.14%	0.051%
65	18.354	1982	1987	1988	rBV2	1479	1228	0.16%	0.059%
66	18.549	2038	2040	2042	rBV	1609	1053	0.14%	0.050%
67	18.990	2144	2148	2154	rBV5	3123	3597	0.47%	0.172%
68	19.056	2159	2162	2164	rBV	1307	1057	0.14%	0.051%
69	19.118	2174	2175	2178	rBV2	1475	1369	0.18%	0.066%
70	19.161	2182	2184	2188	rVV	1329	1132	0.15%	0.054%
71	19.494	2253	2254	2257	rBV2	1373	1051	0.14%	0.050%
72	19.585	2270	2273	2276	rBV2	1920	1461	0.19%	0.070%
73	19.770	2310	2312	2314	rVB	1908	1055	0.14%	0.051%
74	19.932	2344	2346	2350	rVB4	2308	1746	0.23%	0.084%
75	19.961	2350	2352	2355	rBV3	1228	1103	0.14%	0.053%
76	20.366	2436	2437	2439	rVB2	1895	1060	0.14%	0.051%
77	20.385	2439	2441	2443	rBV2	1493	1322	0.17%	0.063%
78	20.418	2447	2448	2452	rVV2	1609	1470	0.19%	0.070%
79	20.451	2452	2455	2456	rVB2	1834	1148	0.15%	0.055%
80	20.494	2460	2464	2465	rVB2	1468	1368	0.18%	0.066%
81	20.685	2481	2484	2485	rBV3	1474	2555	0.33%	0.122%
82	20.749	2489	2490	2491	rBV	1796	1703	0.22%	0.082%
83	20.856	2498	2500	2502	rBV2	993	1858	0.24%	0.089%
84	21.049	2516	2518	2519	rBV2	2048	1741	0.23%	0.083%
85	21.210	2531	2533	2535	rBV2	1265	1921	0.25%	0.092%
86	21.328	2543	2544	2547	rVB2	1549	1597	0.21%	0.077%
87	21.499	2558	2560	2561	rVB2	1782	1844	0.24%	0.088%
88	21.531	2561	2563	2565	rVB2	1826	2342	0.31%	0.112%
89	21.585	2565	2568	2571	rBV2	1609	3722	0.49%	0.178%
90	21.692	2575	2578	2579	rVB2	2015	2625	0.34%	0.126%
91	21.950	2600	2602	2604	rVB2	1636	2085	0.27%	0.100%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

92	21.992	2604	2606	2607	rBV	1431	1644	0.21%	0.079%
93	22.164	2619	2622	2624	rBV2	1010	2127	0.28%	0.102%
94	22.239	2627	2629	2631	rVV3	1426	2193	0.29%	0.105%
95	22.271	2631	2632	2635	rVB2	1549	1702	0.22%	0.082%
96	22.410	2644	2645	2650	rBV4	1292	2884	0.38%	0.138%
97	22.571	2659	2660	2664	rBV3	2234	5099	0.67%	0.244%
98	22.743	2674	2676	2680	rVB3	1353	3011	0.39%	0.144%
99	22.839	2683	2685	2688	rVB3	1972	3319	0.43%	0.159%
100	22.882	2688	2689	2692	rBV3	1981	2399	0.31%	0.115%

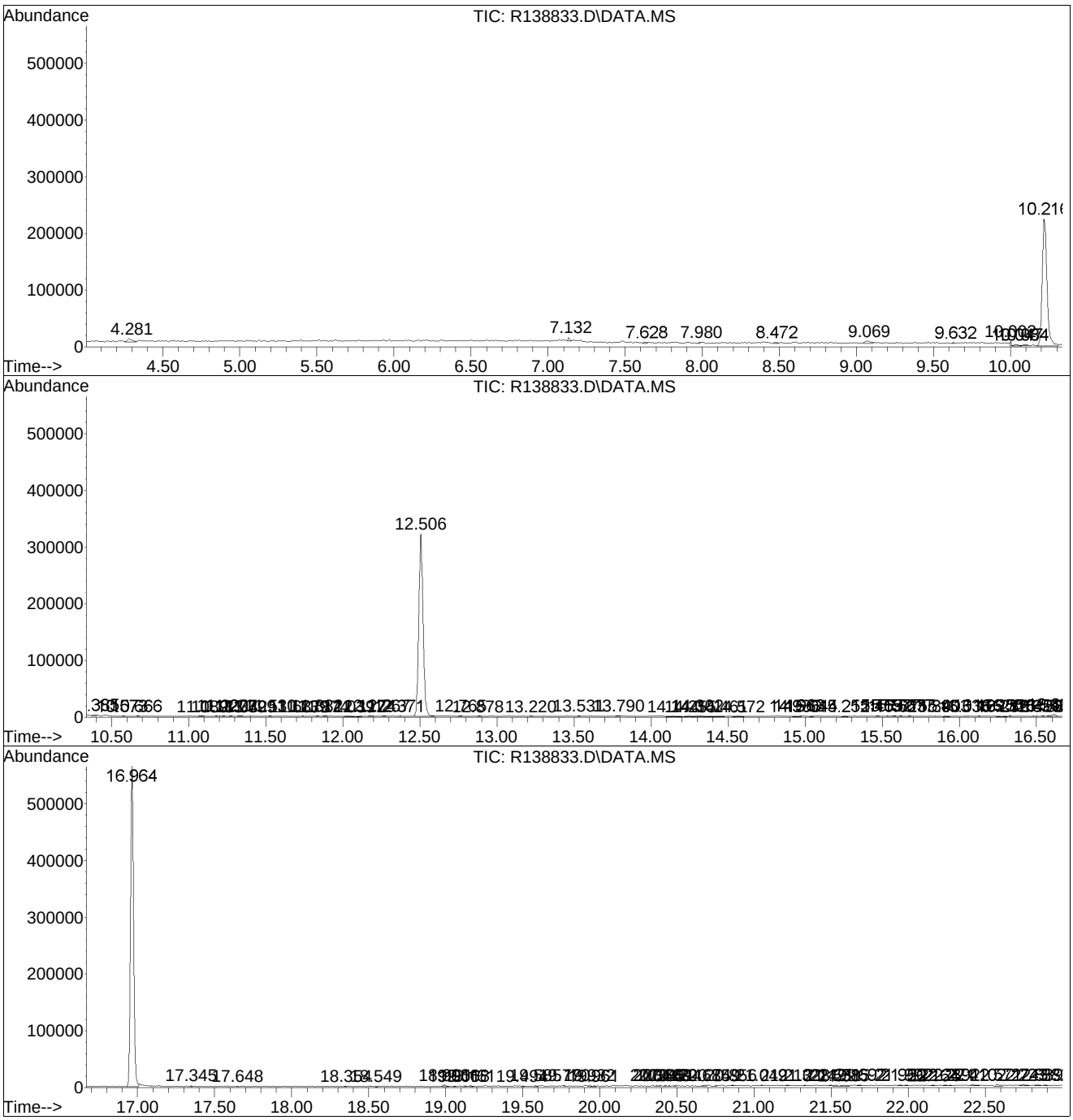
Sum of corrected areas: 2085819

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138833.D
Acq On : 3 Jan 2015 6:10 pm
Operator : AIRPIANO1:MB
Sample : L1431240-03,TIC3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Instrument ID: AIRPIANO1 Calibration Date(s): 01/02/15 01/03/15

Calibration Times: 20:57 00:45

Calibration Files

0.2 =R138813.D 0.5 =R138814.D 1.0 =R138815.D 5.0 =R138816.D 10 =R138817.D 20 =R138818.D

50 =R138819.D 100 =R138820.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.293	1.124	1.101	1.066	1.028	1.045	0.935	0.861	1.0566	12.21
3)		propylene		0.563	0.594	0.563	0.529	0.526	0.452	0.420	0.5210	12.13
4)		propane		0.803	0.758	0.654	0.594	0.634	0.551	0.474	0.6383	17.88
5)		dichlorodifluoromethane	1.507	1.292	1.300	1.184	0.849	1.189	0.850	0.681	1.1066	25.53
6)	C	chloromethane	0.838	0.682	0.599	0.566	0.555	0.552	0.490	0.457	0.5924	20.24
7)		Freon-114	1.926	1.782	1.772	1.685	1.583	1.612	1.368	1.139	1.6085	15.64
8)	C	methanol			0.276	0.243	0.235	0.224	0.195	0.176	0.2248	15.85
9)	C	vinyl chloride	0.730	0.573	0.599	0.602	0.600	0.600	0.536	0.487	0.5908	11.74
10)	C	1,3-butadiene	0.571	0.583	0.503	0.449	0.466	0.452	0.410	0.365	0.4748	15.79
11)		butane	1.172	1.236	1.149	1.014	1.002	0.973	0.903	0.798	1.0309	14.23
12)	C	acetaldehyde	0.540	0.438	0.415	0.390	0.383	0.370	0.329	0.285	0.3938	19.33
13)	C	bromomethane	0.921	0.773	0.729	0.595	0.582	0.602	0.530	0.489	0.6526	22.05
14)	C	chloroethane	0.439	0.309	0.263	0.270	0.287	0.280	0.255	0.229	0.2915	21.93
15)		ethanol		0.605	0.556	0.516	0.491	0.502	0.438	0.371	0.4971	15.36
16)		dichlorofluoromethane	1.526	1.404	1.314	1.294	1.281	1.284	1.151	1.053	1.2884	11.16
17)	C	vinyl bromide	0.744	0.652	0.665	0.630	0.622	0.644	0.571	0.523	0.6312	10.34
18)	C	acrolein	0.435	0.368	0.302	0.282	0.256	0.262	0.239	0.216	0.2949	24.68
19)		acetone	1.355	1.157	0.998	0.986	0.987	0.971	0.858	0.761	1.0091	17.90
20)	C	acetonitrile	0.794	0.808	0.763	0.605	0.594	0.581	0.528	0.472	0.6432	19.91
21)		trichlorofluoromethane	1.797	1.713	1.646	1.612	1.573	1.531	1.384	1.299	1.5694	10.46
22)		isopropyl alcohol		1.534	1.334	1.185	1.194	1.149	1.028	0.925	1.1926	16.66
23)	C	acrylonitrile	0.644	0.626	0.537	0.490	0.456	0.495	0.421	0.388	0.5071	18.05
24)		pentane	1.580	1.321	1.244	1.207	1.160	1.210	1.038	0.947	1.2135	15.62
25)		ethyl ether	1.331	1.235	0.961	0.963	0.903	0.992	0.885	0.713	0.9978	19.78
26)	C	1,1-dichloroethene	1.186	1.119	1.090	1.027	1.019	1.046	0.944	0.869	1.0374	9.59
27)		tertiary butyl alcohol		1.341	1.361	1.365	1.328	1.334	1.210	1.108	1.2926	7.49
28)	C	methylene chloride		1.021	0.943	0.878	0.850	0.821	0.752	0.695	0.8513	12.98
29)	C	3-chloropropene	1.698	1.314	1.130	0.956	0.941	0.972	0.860	0.788	1.0825	27.48
30)	C	carbon disulfide	1.984	1.880	1.840	1.791	1.735	1.790	1.596	1.504	1.7648	8.72
31)		Freon 113	1.457	1.417	1.326	1.309	1.268	1.297	1.183	1.104	1.2953	8.85
32)		trans-1,2-dichloroethene	1.043	0.980	1.037	1.012	1.001	0.999	0.910	0.836	0.9773	7.19
33)	C	1,1-dichloroethane	1.447	1.211	1.136	1.154	1.121	1.144	1.014	0.949	1.1470	12.85
34)	C	MTBE	1.971	1.907	1.837	1.727	1.695	1.700	1.542	1.438	1.7271	10.35
35)	C	vinyl acetate	1.076	1.577	1.590	1.724	1.741	1.775	1.639	1.510	1.5789	14.11
36)	C	2-butanone	1.451	1.553	1.508	1.514	1.582	1.561	1.434	1.285	1.4860	6.49
37)		cis-1,2-dichloroethene	1.236	1.129	1.035	1.067	1.049	1.034	0.972	0.900	1.0528	9.50
38)		Ethyl Acetate	0.281	0.281	0.257	0.267	0.270	0.270	0.251	0.230	0.2634	6.41
39)	C	chloroform	1.910	1.690	1.676	1.642	1.567	1.607	1.441	1.343	1.6096	10.59
40)		Tetrahydrofuran	1.640	1.083	1.033	0.968	0.900	0.913	0.818	0.752	1.0133	27.13
41)		2,2-dichloropropane	1.699	1.511	1.467	1.446	1.400	1.399	1.266	1.177	1.4207	11.05
42)	C	1,2-dichloroethane	0.878	0.897	0.906	0.902	0.923	0.925	0.822	0.754	0.8759	6.74
43)	I	1,4-difluorobenzene	ISTD									

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Instrument ID: AIRPIANO1 Calibration Date(s): 01/02/15 01/03/15

Calibration Times: 20:57 00:45

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.823	0.753	0.666	0.624	0.631	0.622	0.564	0.561	0.6555	13.85
45)		diisopropyl ether	0.361	0.293	0.315	0.289	0.301	0.299	0.278	0.277	0.3015	8.94
46)		tert-butyl ethyl ether	1.204	0.981	1.021	1.010	1.028	1.012	0.929	0.911	1.0121	8.79
47)	s	1,2-dichloroethane-D4	0.304	0.288	0.296	0.298	0.305	0.290	0.297	0.293	0.2963	2.07
48)	C	1,1,1-trichloroethane	0.745	0.663	0.658	0.666	0.667	0.667	0.609	0.618	0.6616	6.18
49)		1,1-dichloropropene	0.523	0.517	0.452	0.488	0.473	0.481	0.438	0.432	0.4755	7.06
50)	C	benzene	1.030	0.910	0.842	0.921	0.907	0.909	0.834	0.821	0.8969	7.48
51)		thiophene	0.774	0.704	0.645	0.605	0.614	0.625	0.576	0.566	0.6385	10.89
52)	C	carbon tetrachloride	0.801	0.731	0.696	0.691	0.700	0.707	0.645	0.649	0.7027	7.00
53)		cyclohexane	0.679	0.570	0.566	0.538	0.538	0.517	0.476	0.474	0.5447	11.99
54)		tert-amyl methyl ether	1.034	0.871	0.924	0.901	0.896	0.909	0.832	0.820	0.8982	7.35
55)		dibromomethane	0.393	0.374	0.370	0.372	0.380	0.381	0.359	0.352	0.3727	3.43
56)	C	1,2-dichloropropane	0.363	0.356	0.361	0.350	0.356	0.357	0.329	0.322	0.3492	4.36
57)		bromodichloromethane	0.778	0.760	0.765	0.722	0.756	0.743	0.685	0.679	0.7359	5.05
58)	C	1,4-dioxane	0.142	0.208	0.206	0.231	0.220	0.229	0.214	0.209	0.2072	13.57
59)	C	trichloroethene	0.513	0.440	0.455	0.455	0.473	0.471	0.439	0.435	0.4602	5.60
60)	C	2,2,4-trimethylpentane	1.968	1.699	1.759	1.685	1.681	1.677	1.546	1.497	1.6890	8.39
61)		methyl methacrylate	0.527	0.484	0.458	0.511	0.522	0.540	0.503	0.483	0.5035	5.42
62)		heptane	1.133	0.954	0.826	0.705	0.705	0.716	0.645	0.618	0.7877	22.31
63)	C	cis-1,3-dichloropropene	0.505	0.473	0.455	0.512	0.519	0.518	0.487	0.474	0.4930	4.91
64)	C	4-methyl-2-pentanone	1.237	0.885	0.989	0.990	0.959	0.965	0.870	0.849	0.9681	12.61
65)		trans-1,3-dichloropropene	0.367	0.444	0.499	0.517	0.520	0.525	0.501	0.497	0.4838	11.07
66)	C	1,1,2-trichloroethane	0.455	0.436	0.439	0.395	0.406	0.410	0.367	0.366	0.4093	7.95
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	6.110	5.507	5.224	5.073	4.972	5.091	4.784	4.641	5.1753	8.90
69)	s	toluene-D8	3.586	3.588	3.620	3.633	3.527	3.481	3.570	3.563	3.5708	1.37
70)		2-methylthiophene	5.086	4.776	5.011	4.860	4.603	4.818	4.505	4.402	4.7576	5.02
71)		1,3-dichloropropane	2.358	2.529	2.275	2.261	2.218	2.350	2.186	2.119	2.2870	5.52
72)		2-hexanone	3.448	3.261	4.046	4.168	3.925	4.141	3.772	3.596	3.7946	8.82
73)		3-methylthiophene	4.841	4.833	4.423	4.535	4.241	4.650	4.272	4.134	4.4911	6.01
74)		dibromochloromethane	3.928	3.637	3.608	3.810	3.621	3.885	3.648	3.640	3.7220	3.50
75)	C	1,2-dibromoethane	3.208	2.879	3.049	3.076	2.956	3.117	2.918	2.873	3.0096	4.05
76)		butyl acetate	0.540	0.506	0.500	0.569	0.538	0.568	0.500	0.504	0.5282	5.65
77)		octane	1.844	1.730	1.574	1.560	1.464	1.530	1.414	1.386	1.5627	10.02
78)	C	tetrachloroethene	3.315	2.829	2.785	2.730	2.525	2.659	2.515	2.528	2.7358	9.66
79)		1,1,1,2-tetrachloroethane	2.731	2.482	2.508	2.499	2.448	2.586	2.429	2.411	2.5118	4.14
80)	C	chlorobenzene	4.804	4.219	4.332	4.484	4.342	4.544	4.248	4.180	4.3942	4.73
81)	C	ethylbenzene	7.421	6.860	6.678	6.913	6.596	6.859	6.354	6.226	6.7383	5.50
82)		2-ethylthiophene	6.156	5.438	5.371	5.387	5.123	5.528	5.071	5.023	5.3872	6.72
83)	C	m+p-xylene	5.980	5.328	5.314	5.469	5.144	5.403	4.999	4.856	5.3116	6.42
84)	C	bromoform	3.556	3.564	3.509	3.747	3.615	3.878	3.692	3.666	3.6534	3.28
85)	C	styrene	4.217	3.966	4.214	4.287	4.143	4.359	4.085	4.048	4.1646	3.11
86)	C	1,1,2,2-tetrachloroethane	4.574	4.174	4.106	4.207	3.963	4.193	3.923	3.796	4.1169	5.74
87)	C	o-xylene	6.183	5.532	5.454	5.633	5.363	5.566	5.202	5.017	5.4939	6.28
88)		1,2,3-trichloropropane	3.230	3.296	3.118	3.236	3.062	3.170	2.977	2.930	3.1275	4.16
89)		nonane	6.384	5.375	4.888	4.935	4.619	4.816	4.373	4.106	4.9369	14.14
90)	s	bromofluorobenzene	2.647	2.652	2.666	2.711	2.644	2.686	2.666	2.687	2.6699	0.87

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Instrument ID: AIRPIANO1 Calibration Date(s): 01/02/15 01/03/15

Calibration Times: 20:57 00:45

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	7.983	7.506	7.579	7.657	7.429	7.768	7.257	7.196	7.5468	3.45
92)		bromobenzene	4.390	3.904	3.895	3.982	3.773	3.887	3.659	3.606	3.8869	6.20
93)		2-chlorotoluene	2.577	2.200	2.269	2.319	2.204	2.289	2.163	2.147	2.2710	6.07
94)		n-propylbenzene	2.512	2.303	2.391	2.442	2.311	2.395	2.325	2.308	2.3734	3.19
95)		4-chlorotoluene	6.250	6.152	5.891	5.926	5.674	5.922	5.546	5.397	5.8450	4.98
96)		4-ethyl toluene	8.656	7.940	8.420	8.781	8.341	8.608	8.179	8.093	8.3770	3.52
97)		1,3,5-trimethylbenzene	7.925	7.114	7.217	7.680	6.973	7.460	7.238	6.961	7.3209	4.69
98)		tert-butylbenzene	8.521	7.641	7.775	7.971	7.642	7.876	7.505	7.162	7.7617	5.08
99)		1,2,4-trimethylbenzene	7.056	6.585	6.493	6.831	6.564	6.806	6.450	6.199	6.6232	4.02
100)		decane	5.530	4.630	4.658	4.864	4.549	4.619	4.328	4.122	4.6623	8.93
101)	C	Benzyl Chloride	5.722	5.607	5.706	6.278	6.101	6.364	6.225	6.292	6.0371	5.10
102)		1,3-dichlorobenzene	5.428	4.903	4.937	5.268	5.009	5.150	4.974	4.850	5.0649	3.95
103)	C	1,4-dichlorobenzene	5.265	5.101	4.989	5.347	5.086	5.256	5.012	4.876	5.1166	3.14
104)		sec-butylbenzene	1.061	1.009	0.980	1.029	0.961	1.002	0.958	0.896	0.9870	5.10
105)		1,2,3-trimethylbenzene	6.616	5.906	6.077	5.948	5.645	5.805	5.631	5.535	5.8955	5.83
106)		p-isopropyltoluene	1.023	0.963	0.941	0.992	0.943	0.964	0.923	0.897	0.9556	4.12
107)		1,2-dichlorobenzene	5.022	4.790	4.725	5.018	4.808	4.816	4.661	4.666	4.8133	2.92
108)		n-butylbenzene	8.016	7.701	7.888	8.495	7.930	7.877	7.585	7.481	7.8715	3.95
109)		indan	7.201	6.439	6.573	6.705	6.372	6.578	6.415	6.359	6.5804	4.22
110)		indene	4.811	4.877	4.669	4.583	4.357	4.705	4.549	4.509	4.6324	3.64
111)	C	1,2-dibromo-3-chloropropane	2.109	2.125	2.086	2.235	2.161	2.072	2.090	2.061	2.1172	2.71
112)		undecane	5.525	5.473	5.280	5.866	5.474	4.863	4.862	4.761	5.2630	7.51
113)		1,2,4,5-tetramethylbenzene	1.204	1.198	1.189	1.389	1.370	1.154	1.190	1.190	1.2355	7.30
114)		dodecane	6.083	4.669	5.061	6.271	6.218	4.505	4.478	4.349	5.2040	16.23
115)	C	1,2,4-trichlorobenzene	3.682	4.040	3.737	4.583	4.680	3.649	3.921	4.145	4.0546	9.78
116)		naphthalene	1.373	0.962	0.946	1.131	1.064	0.824	0.873	0.947	1.0150	17.18
117)		1,2,3-trichlorobenzene	3.769	3.455	3.946	4.533	4.337	3.192	3.438	3.828	3.8122	12.01
118)		benzothiophene	7.684	7.577	8.222	9.370	9.011	7.270	7.875	8.606	8.2017	9.00
119)	C	hexachlorobutadiene	2.892	2.853	3.098	3.459	3.451	2.727	2.926	3.146	3.0689	8.88
120)		2-methylnaphthalene			2.424	3.786	4.041	2.437	2.634	3.037	3.0600	22.94
121)		1-methylnaphthalene		2.358	2.650	3.532	3.694	2.490	2.599	2.980	2.9003	18.09

FORM VI-TO15-LL

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1431240

Instrument ID: AIRPIANO1 Calibration Date: 01/03/2015 Time: 13:06

Lab File ID: R138827 Init. Calib. Date(s): 01/02/15 01/03/15

Sample No: WG753125-2,3,25 Init. Calib. Times : 20:57 00:45

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	98	0.00
2		chlorodifluoromethane	1.057	0.911	13.8	87	0.00
3		propylene	0.521	0.528	-1.3	98	0.00
4		propane	0.638	0.518	18.8	85	0.00
5		dichlorodifluoromethane	1.107	0.875	21.0	101	0.00
6	C	chloromethane	0.592	0.527	11.0	93	0.00
7		Freon-114	1.609	1.516	5.8	94	0.00
8	C	methanol	0.225	0.215	4.4	90	0.00
9	C	vinyl chloride	0.591	0.569	3.7	93	0.00
10	C	1,3-butadiene	0.475	0.446	6.1	94	0.00
11		butane	1.031	0.887	14.0	87	0.00
13	C	bromomethane	0.653	0.546	16.4	92	0.00
14	C	chloroethane	0.291	0.263	9.6	90	0.00
15		ethanol	0.497	0.468	5.8	93	0.00
16		dichlorofluoromethane	1.288	1.119	13.1	85	0.00
17	C	vinyl bromide	0.631	0.623	1.3	98	0.00
18	C	acrolein	0.295	0.235	20.3	90	0.00
19		acetone	1.009	0.999	1.0	99	0.00
20	C	acetonitrile	0.643	0.547	14.9	90	0.00
21		trichlorofluoromethane	1.569	1.486	5.3	92	0.00
22		isopropyl alcohol	1.193	1.193	0.0	98	0.00
23	C	acrylonitrile	0.507	0.426	16.0	91	0.00
24		pentane	1.214	1.038	14.5	88	0.00
25		ethyl ether	0.998	0.795	20.3	86	0.00
26	C	1,1-dichloroethene	1.037	1.006	3.0	97	0.00
27		tertiary butyl alcohol	1.293	1.234	4.6	91	0.00
28	C	methylene chloride	0.851	0.812	4.6	94	0.00
29	C	3-chloropropene	1.082	0.981	9.3	102	0.00
30	C	carbon disulfide	1.765	1.692	4.1	95	0.00
31		Freon 113	1.295	1.259	2.8	97	0.00
32		trans-1,2-dichloroethene	0.977	0.876	10.3	86	0.00
33	C	1,1-dichloroethane	1.147	1.094	4.6	96	0.00
34	C	MTBE	1.727	1.633	5.4	94	0.00
35	C	vinyl acetate	1.579	1.954	-23.7	110	0.00
36	C	2-butanone	1.486	1.458	1.9	90	0.00
37		cis-1,2-dichloroethene	1.053	1.176	-11.7	110	0.00
38		Ethyl Acetate	0.263	0.249	5.3	90	0.00
39	C	chloroform	1.610	1.534	4.7	96	0.00
40		Tetrahydrofuran	1.013	0.862	14.9	94	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138827.D
Acq On : 3 Jan 2015 1:06 pm
Operator : AIRPIANO1:RY
Sample : WG753125-2,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 03 13:33:12 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.421	1.243	12.5	87	0.00
42	C	1,2-dichloroethane	0.876	0.860	1.8	91	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00
44	C	hexane	0.656	0.579	11.7	94	0.00
45		diisopropyl ether	0.301	0.259	14.0	88	0.00
46		tert-butyl ethyl ether	1.012	0.868	14.2	87	0.00
48	C	1,1,1-trichloroethane	0.662	0.621	6.2	96	0.00
49		1,1-dichloropropene	0.476	0.427	10.3	92	0.00
50	C	benzene	0.897	0.818	8.8	93	0.00
52	C	carbon tetrachloride	0.703	0.657	6.5	96	-0.01
53		cyclohexane	0.545	0.489	10.3	93	-0.01
54		tert-amyl methyl ether	0.898	0.782	12.9	90	-0.01
55		dibromomethane	0.373	0.327	12.3	88	0.00
56	C	1,2-dichloropropane	0.349	0.330	5.4	95	0.00
57		bromodichloromethane	0.736	0.681	7.5	92	0.00
58	C	1,4-dioxane	0.207	0.198	4.3	93	-0.01
59	C	trichloroethene	0.460	0.420	8.7	91	0.00
60	C	2,2,4-trimethylpentane	1.689	1.536	9.1	94	0.00
61		methyl methacrylate	0.503	0.446	11.3	88	0.00
62		heptane	0.788	0.651	17.4	95	0.00
63	C	cis-1,3-dichloropropene	0.493	0.499	-1.2	99	0.00
64	C	4-methyl-2-pentanone	0.968	0.874	9.7	94	0.00
65		trans-1,3-dichloropropene	0.484	0.420	13.2	83	0.00
66	C	1,1,2-trichloroethane	0.409	0.379	7.3	96	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	96	0.00
68	C	toluene	5.175	4.825	6.8	93	0.00
71		1,3-dichloropropane	2.287	2.051	10.3	89	0.00
72		2-hexanone	3.795	3.880	-2.2	95	0.00
74		dibromochloromethane	3.722	3.503	5.9	93	0.00
75	C	1,2-dibromoethane	3.010	2.876	4.5	93	0.00
76		butyl acetate	0.528	0.487	7.8	87	0.00
77		octane	1.563	1.345	13.9	88	0.00
78	C	tetrachloroethene	2.736	2.515	8.1	96	0.00
79		1,1,1,2-tetrachloroethane	2.512	2.273	9.5	89	0.00
80	C	chlorobenzene	4.394	4.189	4.7	93	0.00
81	C	ethylbenzene	6.738	6.374	5.4	93	0.00
83	C	m+p-xylene	5.312	5.022	5.5	94	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150103T\
Data File : R138827.D
Acq On : 3 Jan 2015 1:06 pm
Operator : AIRPIANO1:RY
Sample : WG753125-2,3,250,250
Misc : WG753125,ICAL10564
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 03 13:33:12 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150103T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.653	3.448	5.6	92	0.00
85	C	styrene	4.165	3.988	4.2	92	0.00
86	C	1,1,2,2-tetrachloroethane	4.117	3.966	3.7	96	0.00
87	C	o-xylene	5.494	5.216	5.1	93	0.00
88		1,2,3-trichloropropane	3.128	2.848	9.0	89	0.00
89		nonane	4.937	4.120	16.5	86	0.00
91	C	isopropylbenzene	7.547	6.956	7.8	90	0.00
92		bromobenzene	3.887	3.529	9.2	90	0.00
93		2-chlorotoluene	2.271	1.998	12.0	87	0.00
94		n-propylbenzene	2.373	2.176	8.3	90	0.00
95		4-chlorotoluene	5.845	5.161	11.7	87	0.00
96		4-ethyl toluene	8.377	7.333	12.5	84	0.00
97		1,3,5-trimethylbenzene	7.321	6.899	5.8	95	0.00
98		tert-butylbenzene	7.762	7.014	9.6	88	0.00
99		1,2,4-trimethylbenzene	6.623	6.448	2.6	94	0.00
100		decane	4.662	4.105	11.9	87	0.00
101	C	Benzyl Chloride	6.037	5.902	2.2	93	0.00
102		1,3-dichlorobenzene	5.065	4.859	4.1	93	0.00
103	C	1,4-dichlorobenzene	5.117	4.906	4.1	93	0.00
104		sec-butylbenzene	9.870	8.852	10.3	88	0.00
106		p-isopropyltoluene	9.556	7.917	17.2	81	0.00
107		1,2-dichlorobenzene	4.813	4.648	3.4	93	0.00
108		n-butylbenzene	7.872	7.504	4.7	91	0.00
111	C	1,2-dibromo-3-chloropropane	2.117	1.995	5.8	89	0.00
112		undecane	5.263	5.019	4.6	88	0.00
114		dodecane	5.204	5.422	-4.2	84	0.00
115	C	1,2,4-trichlorobenzene	4.055	4.353	-7.3	89	0.00
116		naphthalene	10.150	9.857	2.9	89	0.00
117		1,2,3-trichlorobenzene	3.812	3.929	-3.1	87	0.00
119	C	hexachlorobutadiene	3.069	3.229	-5.2	90	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Quality Control Data Summary

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1430876 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	7.37	74	-	-	-		70-130
Propylene	10	NA	8.87	89	-	-	-		70-130
Propane	10	NA	7.26	73	-	-	-		70-130
Dichlorodifluoromethane	10	NA	7.40	74	-	-	-		70-130
Chloromethane	10	NA	7.85	78	-	-	-		70-130
Freon-114	10	NA	7.98	80	-	-	-		70-130
Methanol	50	NA	40.0	80	-	-	-		70-130
Vinyl chloride	10	NA	8.07	81	-	-	-		70-130
1,3-Butadiene	10	NA	8.68	87	-	-	-		70-130
Butane	10	NA	7.36	74	-	-	-		70-130
Bromomethane	10	NA	7.68	77	-	-	-		70-130
Chloroethane	10	NA	7.93	79	-	-	-		70-130
Ethanol	50	NA	42.5	85	-	-	-		70-130
Dichlorofluoromethane	10	NA	7.12	71	-	-	-		70-130
Vinyl bromide	10	NA	7.89	79	-	-	-		70-130
Acrolein	10	NA	7.47	75	-	-	-		70-130
Acetone	50	NA	42.0	84	-	-	-		70-130
Acetonitrile	10	NA	7.98	80	-	-	-		70-130
Trichlorofluoromethane	10	NA	7.63	76	-	-	-		70-130
Isopropanol	10	NA	8.29	83	-	-	-		70-130
Acrylonitrile	10	NA	7.62	76	-	-	-		70-130
Pentane	10	NA	8.02	80	-	-	-		70-130
Ethyl ether	10	NA	7.78	78	-	-	-		70-130
1,1-Dichloroethene	10	NA	7.94	79	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	7.66	77	-	-	-		70-130
Methylene chloride	10	NA	7.93	79	-	-	-		70-130
3-Chloropropene	10	NA	8.95	90	-	-	-		70-130
Carbon disulfide	10	NA	7.86	79	-	-	-		70-130
Freon-113	10	NA	8.05	80	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	7.95	80	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.56	86	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.44	84	-	-	-		70-130
Vinyl acetate	10	NA	14.1	141 *	-	-	-		70-130
2-Butanone	10	NA	8.60	86	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	9.36	94	-	-	-		70-130
Ethyl Acetate	10	NA	8.78	88	-	-	-		70-130
Chloroform	10	NA	8.46	85	-	-	-		70-130
Tetrahydrofuran	10	NA	8.65	86	-	-	-		70-130
2,2-Dichloropropane	10	NA	7.60	76	-	-	-		70-130
1,2-Dichloroethane	10	NA	8.30	83	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1430876 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	8.30	83	-	-	-		70-130
Diisopropyl Ether	10	NA	7.66	77	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	7.69	77	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	8.15	82	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.24	82	-	-	-		70-130
Benzene	10	NA	8.22	82	-	-	-		70-130
Carbon tetrachloride	10	NA	8.06	81	-	-	-		70-130
Cyclohexane	10	NA	8.43	84	-	-	-		70-130
tert-amyl methyl ether	10	NA	7.78	78	-	-	-		70-130
Dibromomethane	10	NA	7.61	76	-	-	-		70-130
1,2-Dichloropropane	10	NA	8.48	85	-	-	-		70-130
Bromodichloromethane	10	NA	8.30	83	-	-	-		70-130
1,4-Dioxane	10	NA	8.47	85	-	-	-		70-130
Trichloroethene	10	NA	8.21	82	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	8.32	83	-	-	-		70-130
Methyl methacrylate	10	NA	8.01	80	-	-	-		70-130
Heptane	10	NA	8.39	84	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	9.27	93	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	8.48	85	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.04	80	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	8.76	88	-	-	-		70-130
Toluene	10	NA	8.50	85	-	-	-		70-130
1,3-Dichloropropane	10	NA	7.98	80	-	-	-		70-130
2-Hexanone	10	NA	8.60	86	-	-	-		70-130
Dibromochloromethane	10	NA	8.56	86	-	-	-		70-130
1,2-Dibromoethane	10	NA	8.81	88	-	-	-		70-130
Butyl Acetate	10	NA	7.89	79	-	-	-		70-130
Octane	10	NA	8.04	80	-	-	-		70-130
Tetrachloroethene	10	NA	8.47	85	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	8.07	81	-	-	-		70-130
Chlorobenzene	10	NA	8.95	90	-	-	-		70-130
Ethylbenzene	10	NA	8.98	90	-	-	-		70-130
p/m-Xylene	20	NA	18.1	90	-	-	-		70-130
Bromoform	10	NA	8.68	87	-	-	-		70-130
Styrene	10	NA	9.19	92	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.49	95	-	-	-		70-130
o-Xylene	10	NA	9.39	94	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	8.43	84	-	-	-		70-130
Nonane	10	NA	8.24	82	-	-	-		70-130
Isopropylbenzene	10	NA	6.50	65 *	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1430876 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	8.38	84	-	-	-		70-130
2-Chlorotoluene	10	NA	8.24	82	-	-	-		70-130
n-Propylbenzene	10	NA	8.43	84	-	-	-		70-130
4-Chlorotoluene	10	NA	8.32	83	-	-	-		70-130
4-Ethyltoluene	10	NA	8.88	89	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.30	93	-	-	-		70-130
tert-Butylbenzene	10	NA	8.75	88	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.76	98	-	-	-		70-130
Decane	10	NA	8.54	85	-	-	-		70-130
Benzyl chloride	10	NA	9.64	96	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.56	96	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.53	95	-	-	-		70-130
sec-Butylbenzene	10	NA	8.71	87	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.12	81	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	9.71	97	-	-	-		70-130
n-Butylbenzene	10	NA	9.18	92	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.04	90	-	-	-		70-130
Undecane	10	NA	9.16	92	-	-	-		70-130
Dodecane	10	NA	10.4	104	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	10.7	107	-	-	-		70-130
Naphthalene	10	NA	10.3	103	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	9.92	99	-	-	-		70-130
Hexachlorobutadiene	10	NA	9.79	98	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG751505-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID: R231819 Lab Sample ID: WG751505-4

Date Analyzed: 12/23/14 Time Analyzed: 14:23

Instrument ID: AIRPIANO2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG751505-3LCS	WG751505-3	R231817	12/23/14 12:54
02	CAN 858 SHELF 14	L1430876-01	R231821	12/23/14 15:38
03	CAN 1590 SHELF 40	L1430876-02	R231822	12/23/14 16:10
04	CAN 966 SHELF 41	L1430876-03	R231823	12/23/14 16:42

COMMENTS: _____

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FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.386	49	158431	10.000	ppbV		0.00
Standard Area = 179805			Recovery = 88.11%				
43) 1,4-difluorobenzene	12.549	114	553890	10.000	ppbV		0.00
Standard Area = 648252			Recovery = 85.44%				
67) chlorobenzene-D5	16.888	54	103647	10.000	ppbV		0.00
Standard Area = 122515			Recovery = 84.60%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.000		0	N.D.			
3) propylene	4.350		0	N.D.			
4) propane	4.399		0	N.D.			
5) dichlorodifluoromethane	0.000		0	N.D.			
6) chloromethane	0.000		0	N.D.			
7) Freon-114	0.000		0	N.D.			
8) methanol	4.941	31	2513	0.491	ppbV	#	1
9) vinyl chloride	0.000		0	N.D.			
10) 1,3-butadiene	0.000		0	N.D.			
11) butane	5.217		0	N.D.			
13) bromomethane	5.534		0	N.D.			
14) chloroethane	0.000		0	N.D.			
15) ethanol	6.062	31	1609	0.148	ppbV	#	85
16) dichlorofluoromethane	0.000		0	N.D.			
17) vinyl bromide	0.000		0	N.D.			
18) acrolein	6.509		0	N.D.			
19) acetone	6.709	43	2523M3	0.115	ppbV		
20) acetonitrile	0.000		0	N.D.	d		
21) trichlorofluoromethane	0.000		0	N.D.			
22) isopropyl alcohol	0.000		0	N.D.	d		
23) acrylonitrile	0.000		0	N.D.			
24) pentane	7.325		0	N.D.			
25) ethyl ether	0.000		0	N.D.			
26) 1,1-dichloroethene	0.000		0	N.D.			
27) tertiary butyl alcohol	0.000		0	N.D.			
28) methylene chloride	7.844	49	1583	0.095	ppbV		89
29) 3-chloropropene	7.964		0	N.D.			
30) carbon disulfide	0.000		0	N.D.			

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.331		0		N.D.	
36) 2-butanone	9.750		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	12.166		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	0.000		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	13.637		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	14.416		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.334		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.514		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	0.000		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0	N.D.		
79) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.222		0	N.D.		
83) m+p-xylene	17.350		0	N.D.		
84) bromoform	0.000		0	N.D.		
85) styrene	17.646		0	N.D.		
86) 1,1,2,2-tetrachloroethane	17.731		0	N.D.		
87) o-xylene	17.727		0	N.D.		
88) 1,2,3-trichloropropane	0.000		0	N.D.		
89) nonane	17.855		0	N.D.		
91) isopropylbenzene	18.160		0	N.D.		
92) bromobenzene	18.246		0	N.D.		
93) 2-chlorotoluene	18.527		0	N.D.		
94) n-propylbenzene	18.536		0	N.D.		
95) 4-chlorotoluene	18.574		0	N.D.		
96) 4-ethyl toluene	18.617		0	N.D.		
97) 1,3,5-trimethylbenzene	18.688		0	N.D.		
98) tert-butylbenzene	18.998		0	N.D.		
99) 1,2,4-trimethylbenzene	19.003		0	N.D.		
100) decane	0.000		0	N.D.		
101) Benzyl Chloride	19.117		0	N.D.		
102) 1,3-dichlorobenzene	19.132		0	N.D.		
103) 1,4-dichlorobenzene	19.175		0	N.D.		
104) sec-butylbenzene	19.203		0	N.D.		
106) p-isopropyltoluene	19.313		0	N.D.		
107) 1,2-dichlorobenzene	19.446		0	N.D.		
108) n-butylbenzene	19.632		0	N.D.		
111) 1,2-dibromo-3-chloropr...	19.789		0	N.D.		
112) undecane	20.036		0	N.D.		
114) dodecane	20.861		0	N.D.		
115) 1,2,4-trichlorobenzene	20.861		0	N.D.		
116) naphthalene	21.032	128	7742M3	0.093	ppbV	
117) 1,2,3-trichlorobenzene	21.257	180	1596	0.051	ppbV #	42
119) hexachlorobutadiene	21.290		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

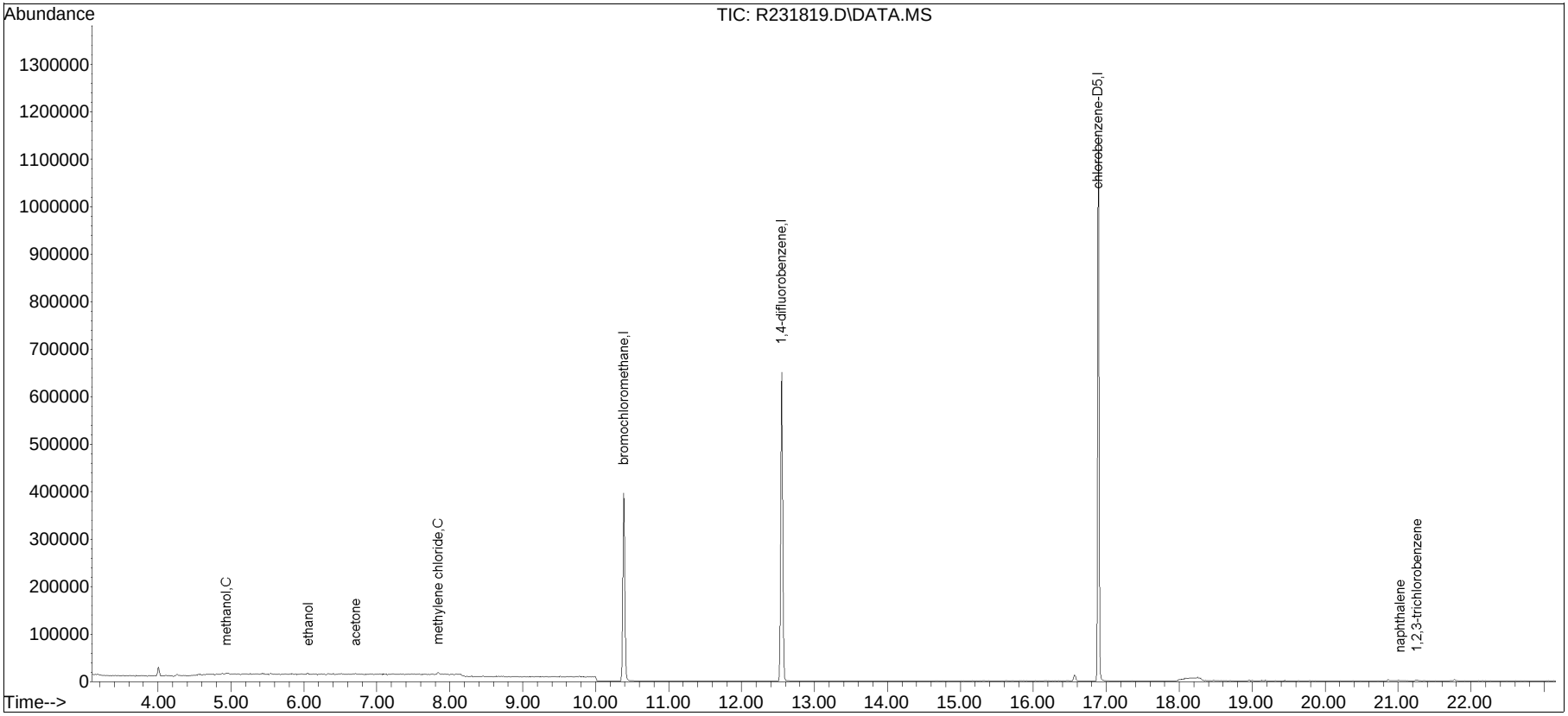
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

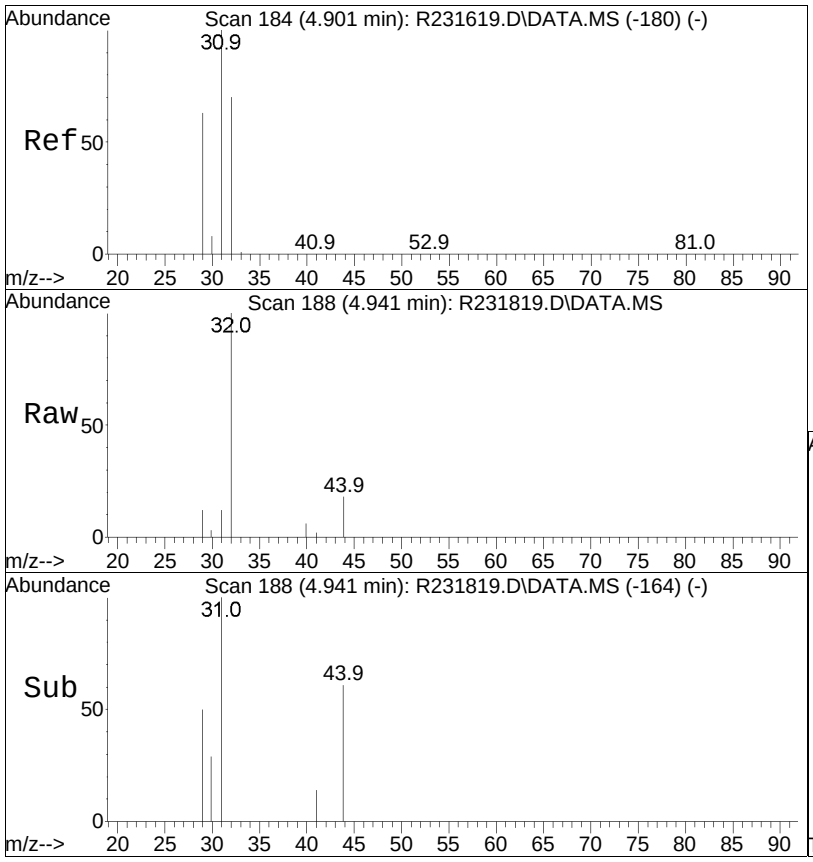
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

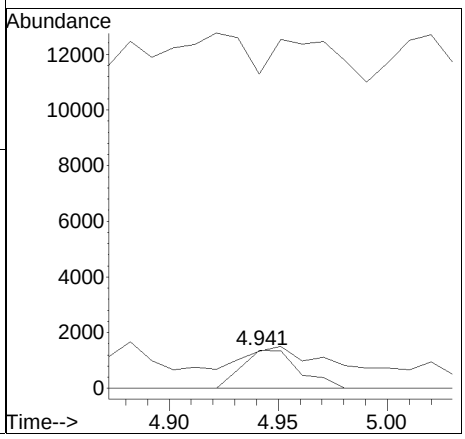


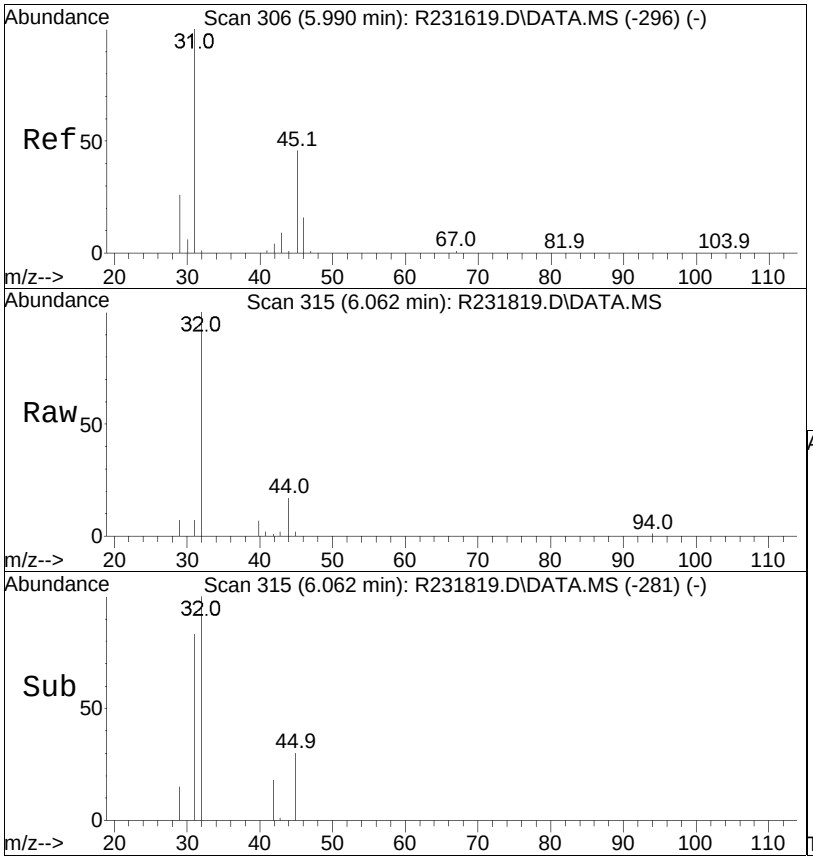


#8
methanol
Concen: 0.49 ppbV
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 31 Resp: 2513

Ion	Ratio	Lower	Upper
31	100		
32	828.9	63.3	94.9#
29	98.1	57.9	86.9#

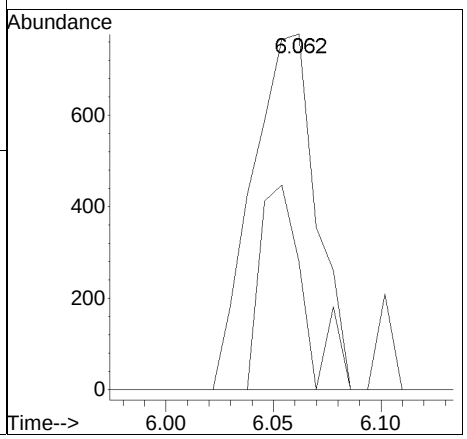


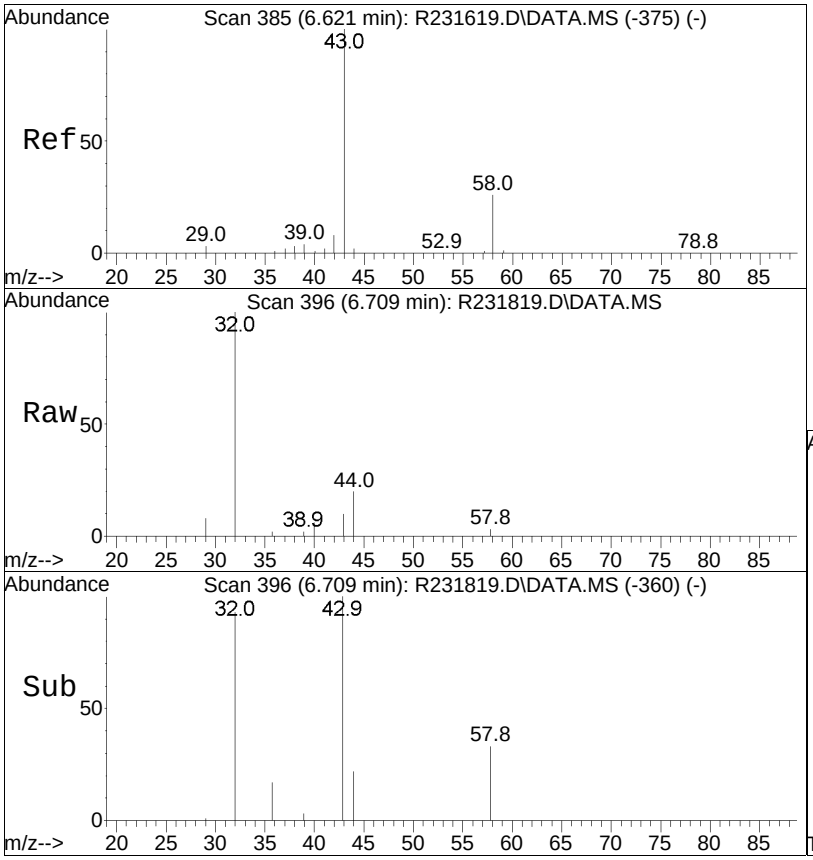


#15
ethanol
Concen: 0.15 ppbV
RT: 6.062 min Scan# 315
Delta R.T. 0.072 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 31 Resp: 1609

Ion	Ratio	Lower	Upper
31	100		
45	36.0	36.8	55.2#

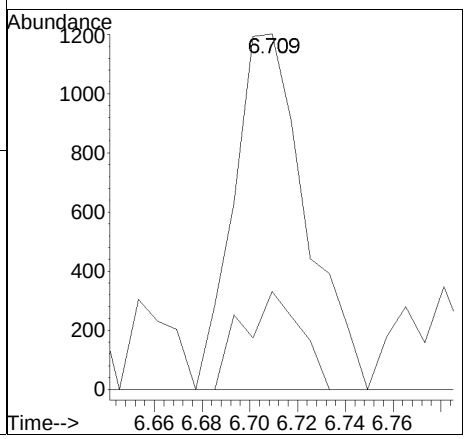


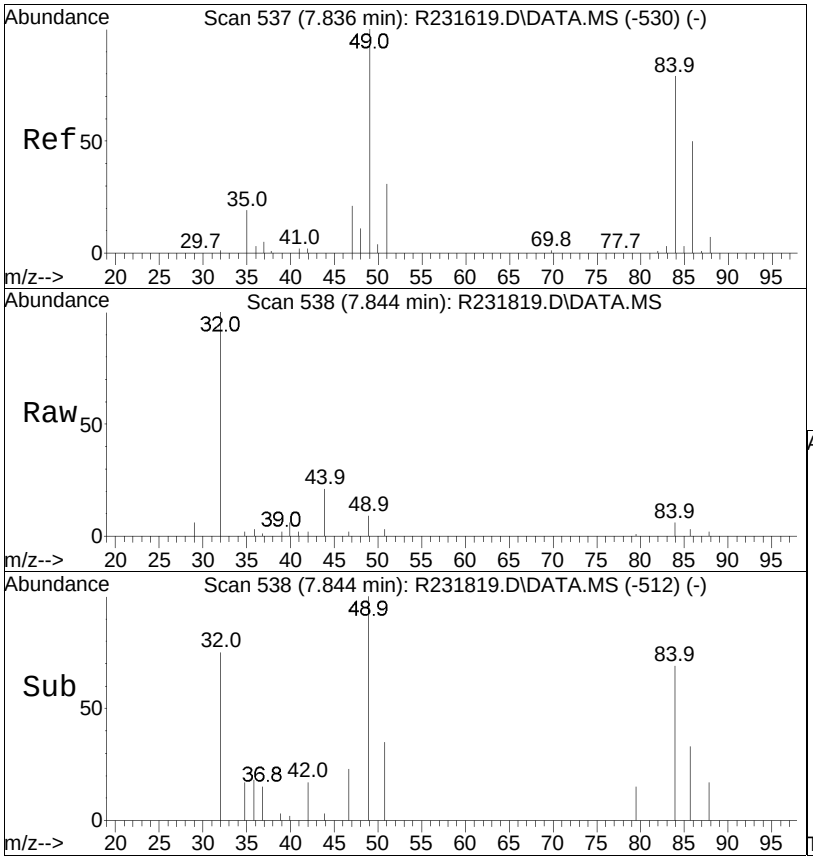


#19
acetone
Concen: 0.12 ppbV m
RT: 6.709 min Scan# 396
Delta R.T. 0.088 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 43 Resp: 2523

Ion	Ratio	Lower	Upper
43	100		
58	27.5	20.6	31.0
57	0.0	0.6	1.0#

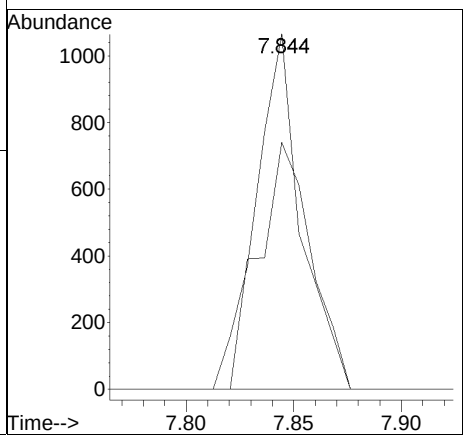


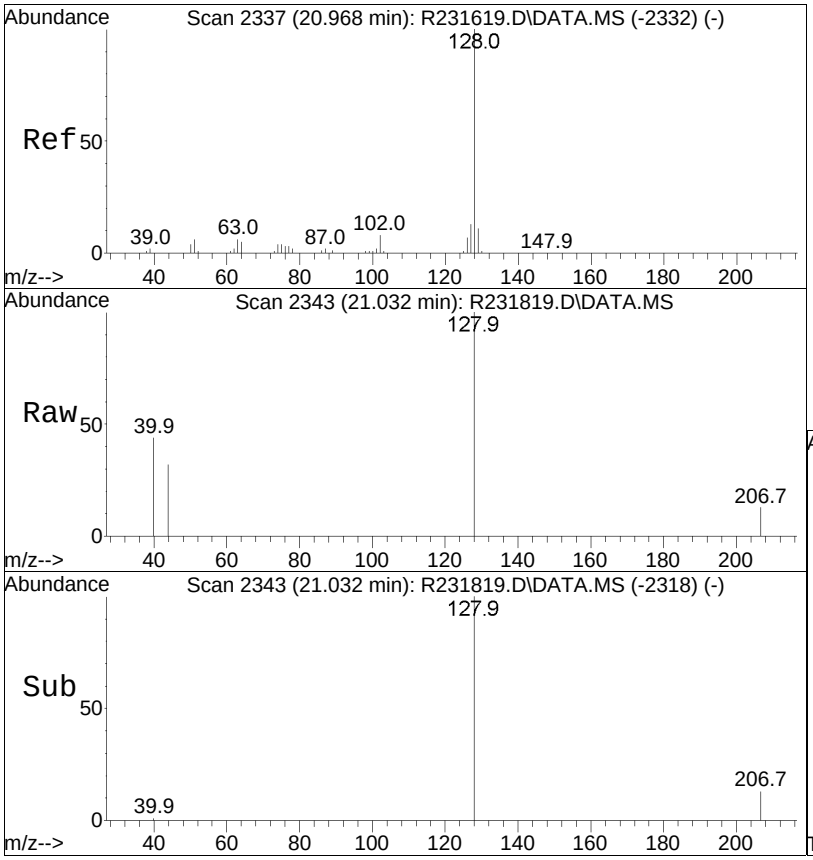


#28
methylene chloride
Concen: 0.09 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 49 Resp: 1583

Ion	Ratio	Lower	Upper
49	100		
84	69.5	63.3	94.9

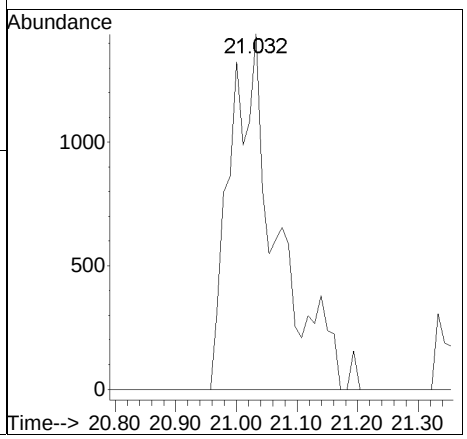


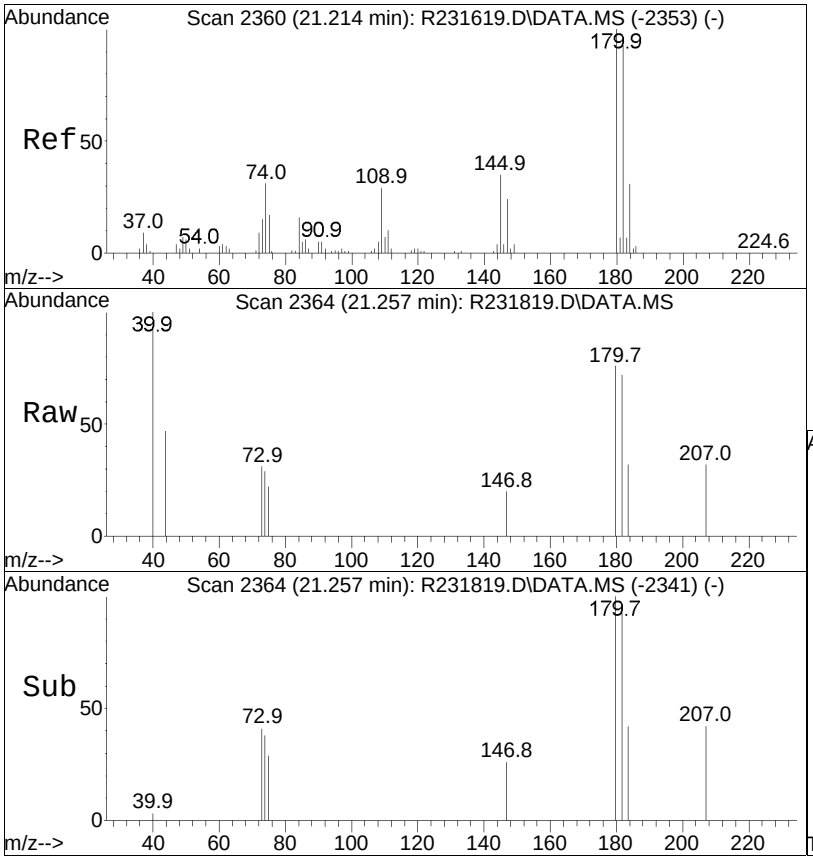


#116
naphthalene
Concen: 0.09 ppbV m
RT: 21.032 min Scan# 2343
Delta R.T. 0.065 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion:128 Resp: 7742

Ion	Ratio	Lower	Upper
128	100		
102	0.0	6.7	10.1#

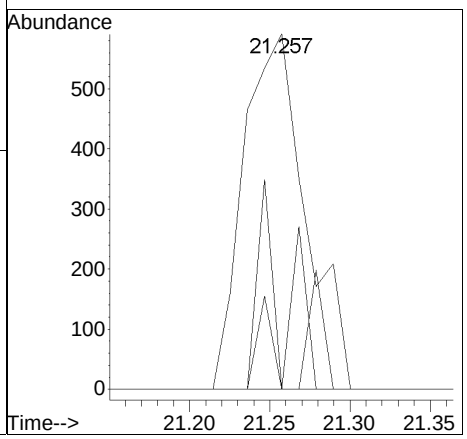




#117
1,2,3-trichlorobenzene
Concen: 0.05 ppbV
RT: 21.257 min Scan# 2364
Delta R.T. 0.043 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion:180 Resp: 1596

Ion	Ratio	Lower	Upper
180	100		
145	0.0	28.2	42.4#
109	0.0	23.5	35.3#

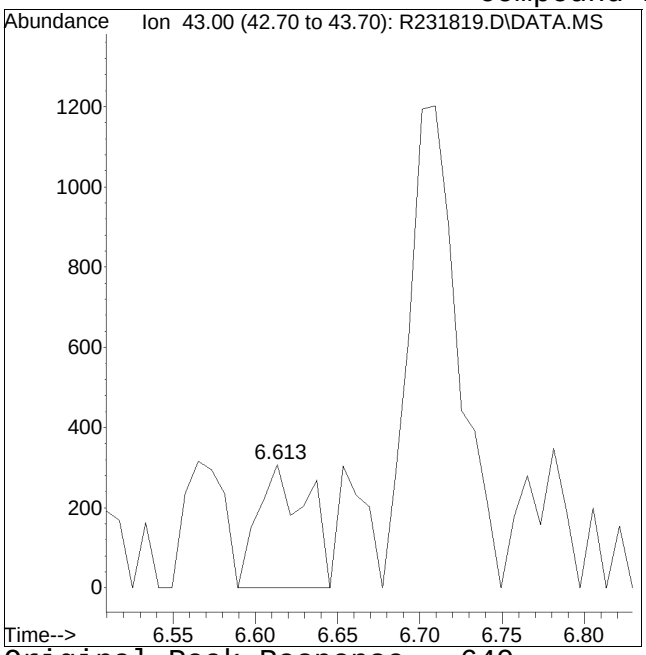


Manual Integration/Negative Proof Report

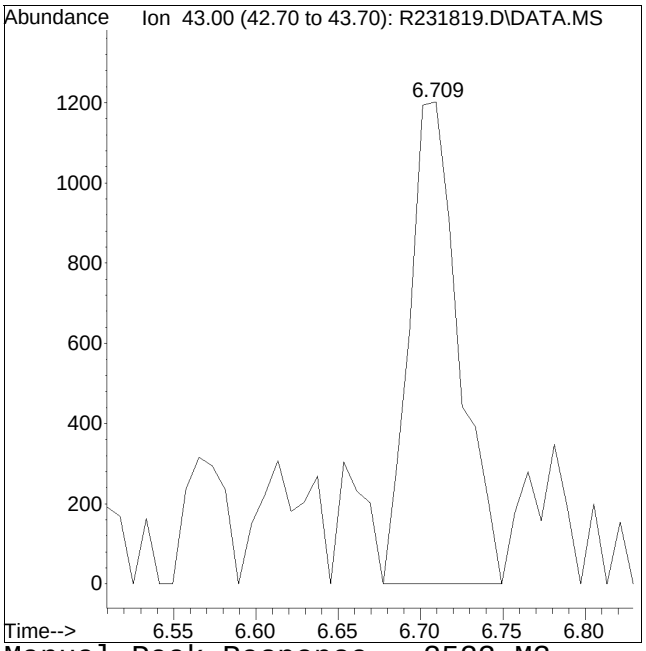
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #19: acetone



Original Peak Response = 640



Manual Peak Response = 2523 M3

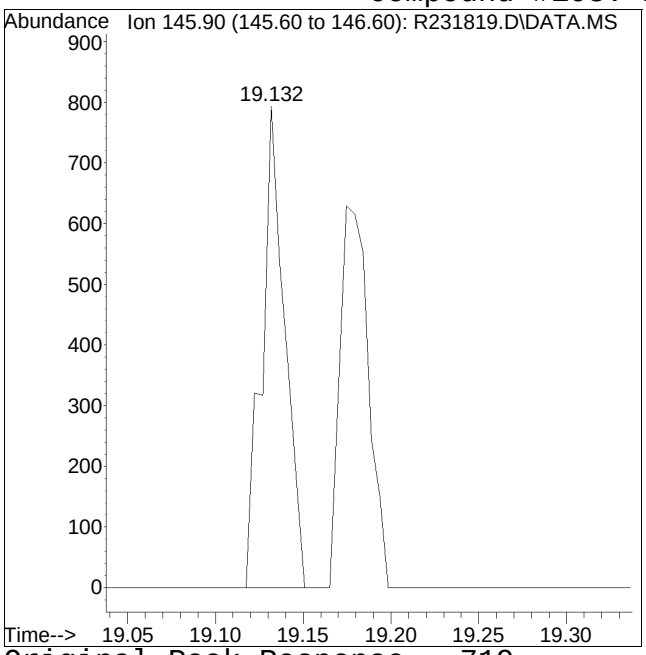
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

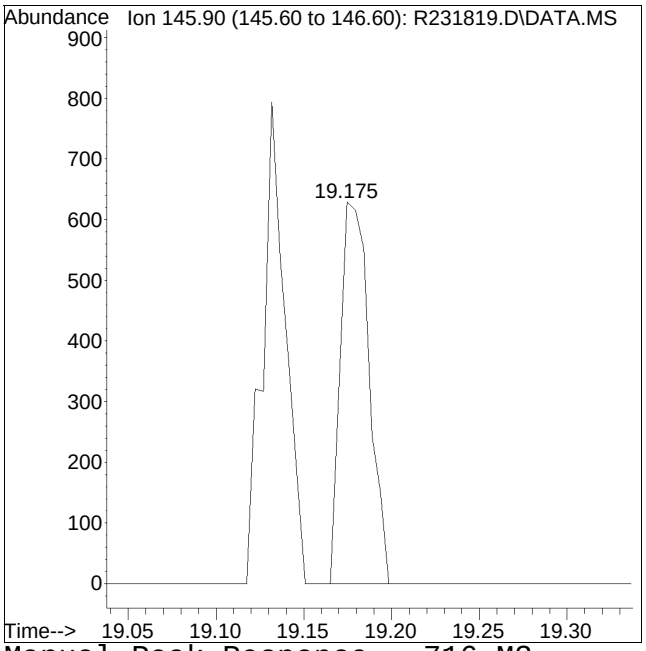
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 719



Manual Peak Response = 716 M3

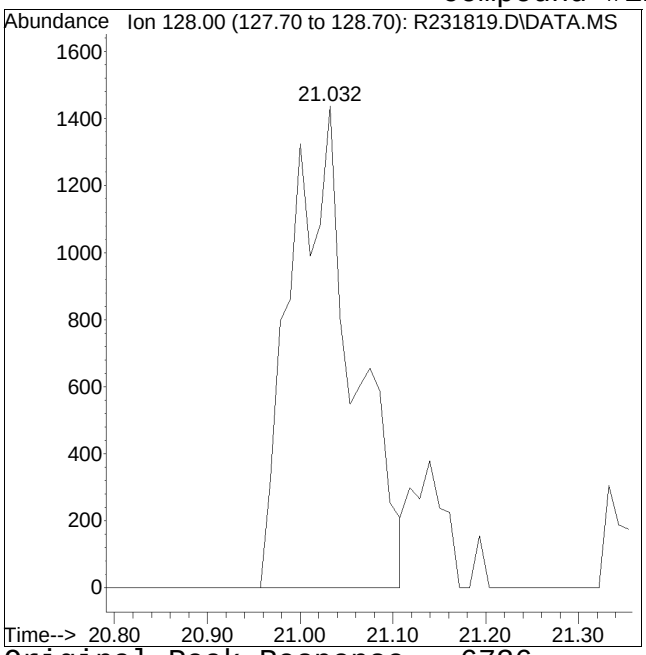
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

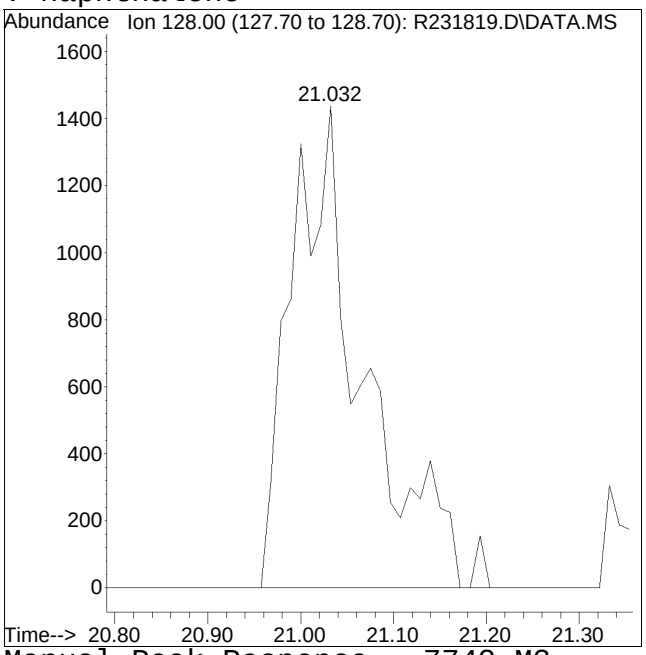
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #116: naphthalene





Original Peak Response = 6736 Manual Peak Response = 7742 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231819.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.261	116	119	122	rBV	4198	8455	0.54%	0.231%
2	4.557	147	149	150	rBV2	2392	3721	0.24%	0.102%
3	4.803	172	174	177	rBV2	2920	4346	0.28%	0.119%
4	4.882	180	182	183	rBV2	3036	2670	0.17%	0.073%
5	7.836	534	537	542	rBV4	4777	9932	0.64%	0.271%
6	8.092	565	569	570	rBV2	2529	3968	0.25%	0.108%
7	9.880	816	819	823	rBV2	1898	3754	0.24%	0.103%
8	10.386	871	876	886	rBV	396270	757003	48.49%	20.680%
9	10.499	886	888	892	rVB2	1164	2164	0.14%	0.059%
10	10.799	918	920	926	rBV2	693	2280	0.15%	0.062%
11	12.549	1088	1093	1106	rVB	650419	1216131	77.91%	33.222%
12	14.665	1263	1266	1268	rBV2	869	2534	0.16%	0.069%
13	15.334	1334	1340	1343	rVB2	908	1838	0.12%	0.050%
14	15.641	1370	1374	1375	rBV2	1178	2055	0.13%	0.056%
15	16.156	1427	1431	1433	rBV2	933	2037	0.13%	0.056%
16	16.563	1473	1476	1481	rVB2	12984	31622	2.03%	0.864%
17	16.888	1530	1537	1554	rBV	1151045	1561039	100.00%	42.644%
18	17.974	1761	1765	1767	rBV	1921	2179	0.14%	0.060%
19	17.998	1767	1770	1771	rBV	2424	1880	0.12%	0.051%
20	18.074	1783	1786	1787	rVV	2300	1976	0.13%	0.054%
21	18.136	1797	1799	1801	rBV2	1575	1593	0.10%	0.044%
22	18.250	1820	1823	1826	rVB4	2165	1690	0.11%	0.046%
23	18.474	1866	1870	1872	rBV	1659	1732	0.11%	0.047%
24	18.956	1962	1969	1970	rBV4	2366	2201	0.14%	0.060%
25	19.003	1974	1979	1983	rBV2	1995	2047	0.13%	0.056%
26	19.132	2003	2006	2011	rVV3	1987	1797	0.12%	0.049%
27	19.175	2013	2015	2025	rVB4	2014	3249	0.21%	0.089%
28	19.446	2069	2072	2076	rVB3	2100	1885	0.12%	0.051%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.861	2324	2327	2329	rBV2	3905	5351	0.34%	0.146%
30	21.000	2336	2340	2342	rBV3	1723	3377	0.22%	0.092%
31	21.247	2360	2363	2370	rVB4	2601	6990	0.45%	0.191%
32	21.772	2409	2412	2419	rVB5	2959	7124	0.46%	0.195%

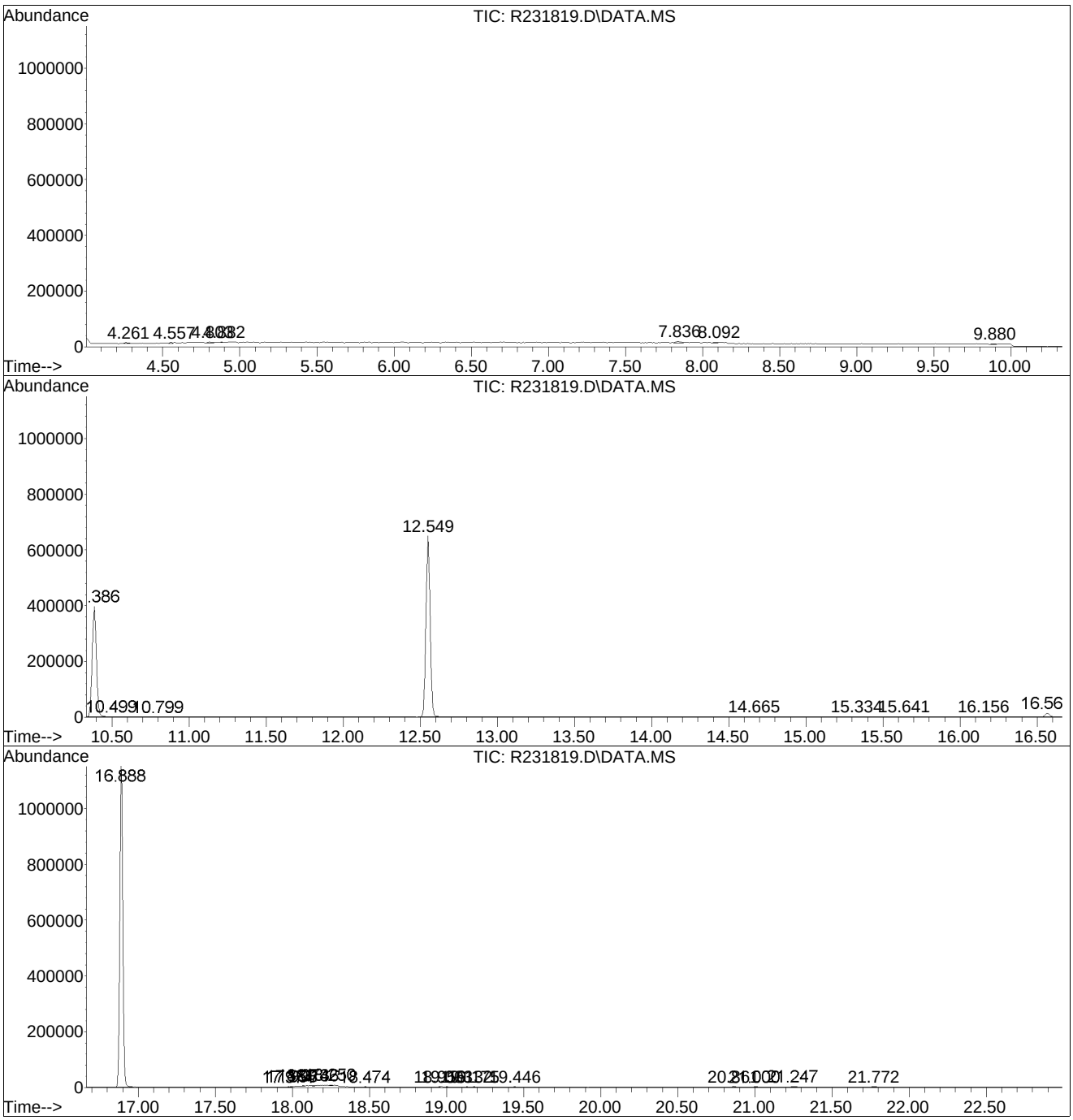
Sum of corrected areas: 3660620

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID: R231611_tune BFB Injection Date: 12/14/14

Instrument ID: AIRPIANO2 BFB Injection Time: 10:25

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	19.4
75	30.0 - 66.0% of mass 95	51
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	84.4
175	4.0 - 9.0% of mass 174	6.2 (7.3)1
176	93.0 - 101% of mass 174	82.2 (97.4)1
177	5.0 - 9.0% of mass 176	5.2 (6.3)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R231615	12/14/14	14:35
02	0.5	0.5	R231616	12/14/14	15:07
03	1.0	1.0	R231617	12/14/14	15:39
04	5.0	5.0	R231618	12/14/14	16:10
05	10	10	R231619	12/14/14	16:42
06	20	20	R231620	12/14/14	17:14
07	50	50	R231621	12/14/14	17:45
08	100	100	R231622	12/14/14	18:17
09	ICV Quant	ICV Quant	R231625	12/15/14	08:05

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID: R231814_tune BFB Injection Date: 12/23/14

Instrument ID: AIRPIANO2 BFB Injection Time: 10:51

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	20
75	30.0 - 66.0% of mass 95	50.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	79.2
175	4.0 - 9.0% of mass 174	5.8 (7.4)1
176	93.0 - 101% of mass 174	78.1 (98.6)1
177	5.0 - 9.0% of mass 176	5.2 (6.7)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG751505-2	R231816	12/23/14	12:06
02	WG751505-3LCS	WG751505-3	R231817	12/23/14	12:54
03	WG751505-4BLANK	WG751505-4	R231819	12/23/14	14:23
04	CAN 858 SHELF 14	L1430876-01	R231821	12/23/14	15:38
05	CAN 1590 SHELF 4	L1430876-02	R231822	12/23/14	16:10
06	CAN 966 SHELF 41	L1430876-03	R231823	12/23/14	16:42

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID (Standard): R231816 Date Analyzed: 12/23/14

Instrument ID : AIRPIANO2 Time Analyzed: 12:06

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	179805	10.38	648252	12.55	122515	16.89
	UPPER LIMIT	251727	10.71	907553	12.88	171521	17.22
	LOWER LIMIT	107883	10.05	388951	12.22	73509	16.56
	EPA SAMPLE NO.						
01	WG751505-3LCS	216073	10.38	777605	12.55	147246	16.89
02	WG751505-4BLANK	158431	10.39	553890	12.55	103647	16.89
03	CAN 858 SHELF 14	166118	10.39	593782	12.55	110360	16.89
04	CAN 1590 SHELF 40	160187	10.39	583030	12.55	108212	16.89
05	CAN 966 SHELF 41	159525	10.39	564007	12.55	104680	16.89

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	166118	10.000	ppbV	0.00
Standard Area = 179805			Recovery =		92.39%	
43) 1,4-difluorobenzene	12.549	114	593782	10.000	ppbV	0.00
Standard Area = 648252			Recovery =		91.60%	
67) chlorobenzene-D5	16.893	54	110360	10.000	ppbV	0.00
Standard Area = 122515			Recovery =		90.08%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.300		0	N.D.		
3) propylene	4.330		0	N.D.		
4) propane	0.000		0	N.D.	d	
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.941	31	2552	0.475	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.247		0	N.D.		
13) bromomethane	5.534		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.054	31	1428	0.125	ppbV	90
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.709	43	2563M3	0.112	ppbV	
20) acetonitrile	6.261		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.037		0	N.D.		
23) acrylonitrile	7.269		0	N.D.		
24) pentane	7.317		0	N.D.		
25) ethyl ether	7.493		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.836	49	1712	0.098	ppbV	100
29) 3-chloropropene	8.004		0	N.D.		
30) carbon disulfide	8.164		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.420		0		N.D.	
36) 2-butanone	9.715		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	12.145		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	13.046		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	0.000		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.324		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.568		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	0.000		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.869		0		N.D.	
91) isopropylbenzene	18.141		0		N.D.	
92) bromobenzene	18.241		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	18.579		0		N.D.	
96) 4-ethyl toluene	18.507		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	19.008		0		N.D.	
99) 1,2,4-trimethylbenzene	19.013		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	19.117		0		N.D.	
102) 1,3-dichlorobenzene	19.127		0		N.D.	
103) 1,4-dichlorobenzene	19.179		0		N.D.	
104) sec-butylbenzene	19.322		0		N.D.	
106) p-isopropyltoluene	19.313		0		N.D.	
107) 1,2-dichlorobenzene	19.446		0		N.D.	
108) n-butylbenzene	19.641		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	21.075		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

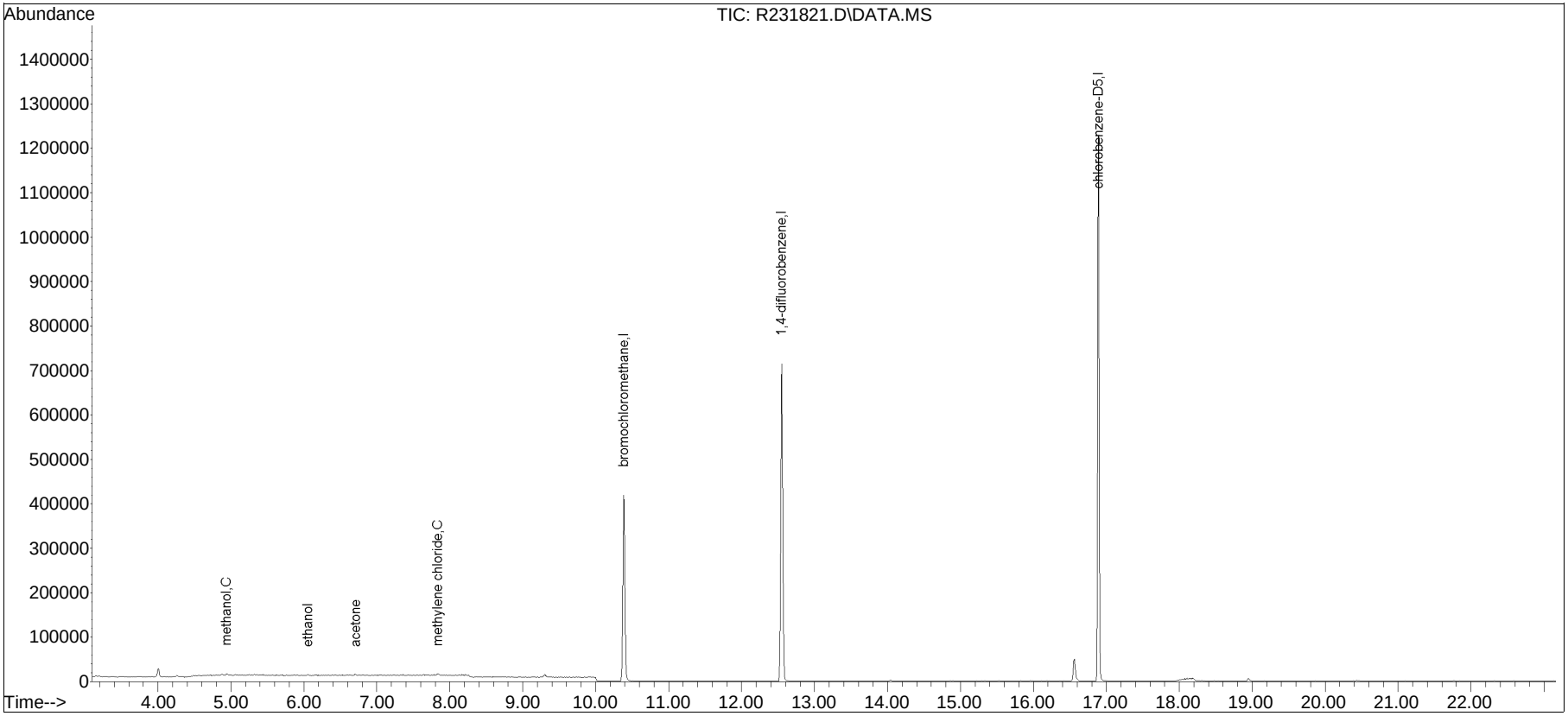
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

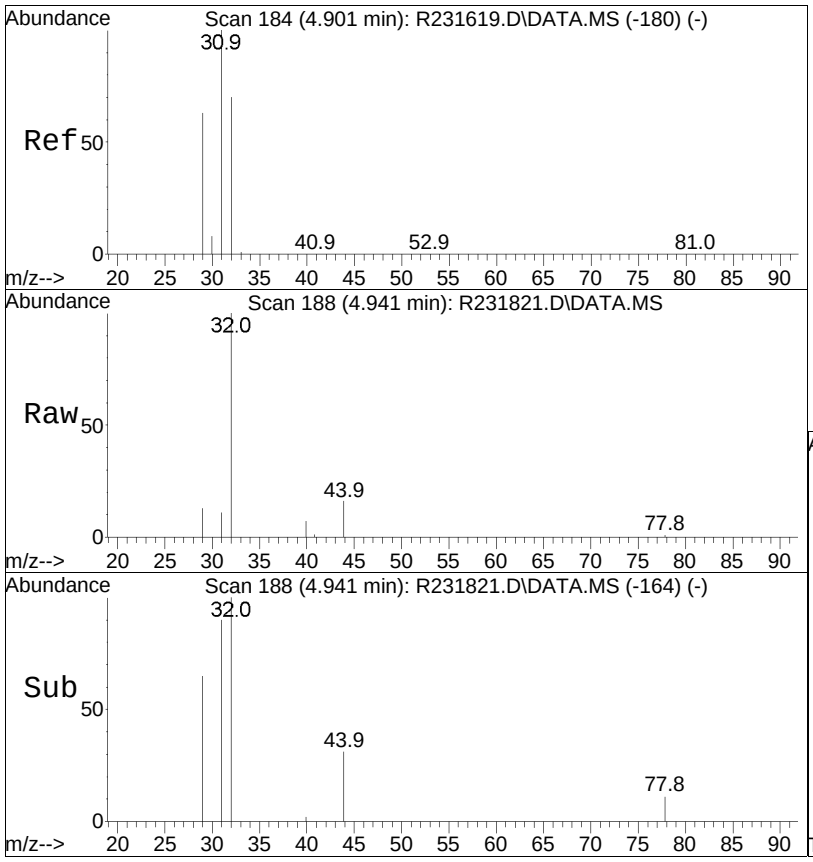
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

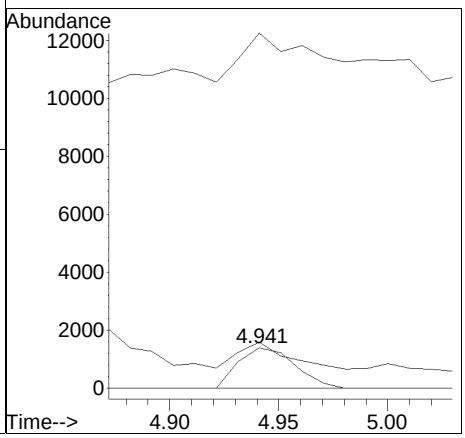


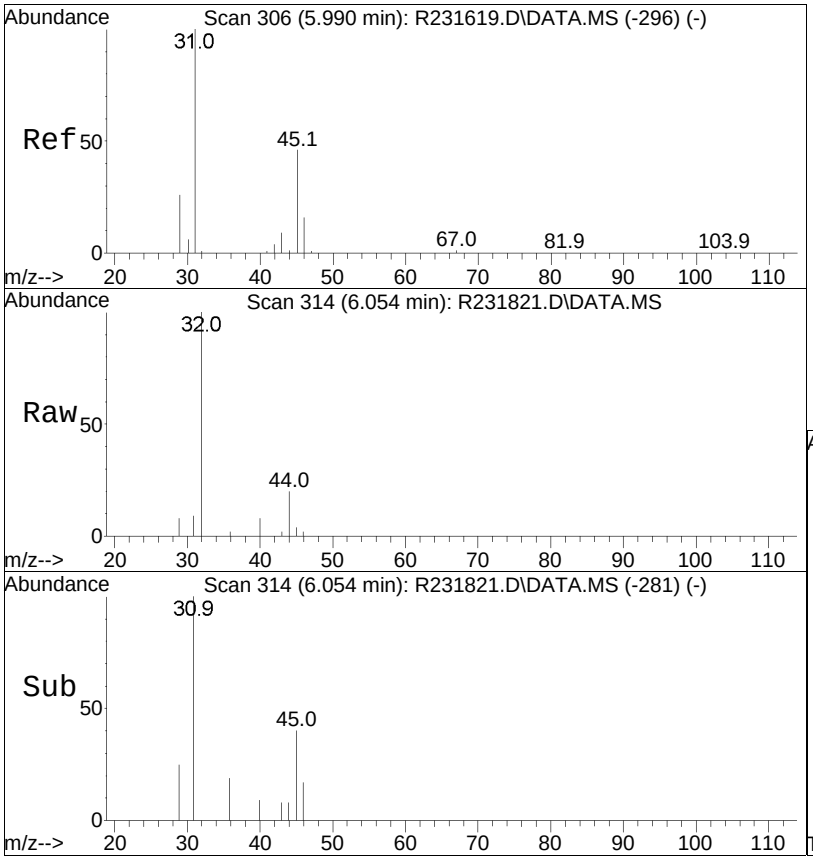


#8
methanol
Concen: 0.48 ppbV
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 31 Resp: 2552

Ion	Ratio	Lower	Upper
31	100		
32	876.1	63.3	94.9#
29	114.2	57.9	86.9#

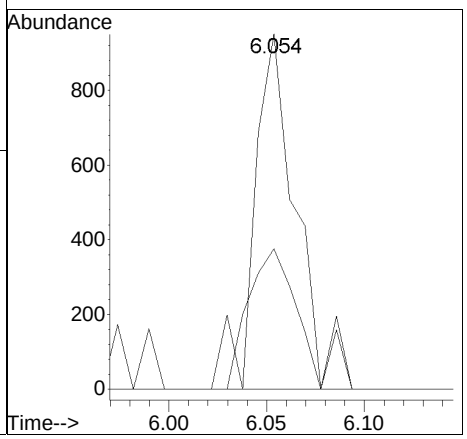


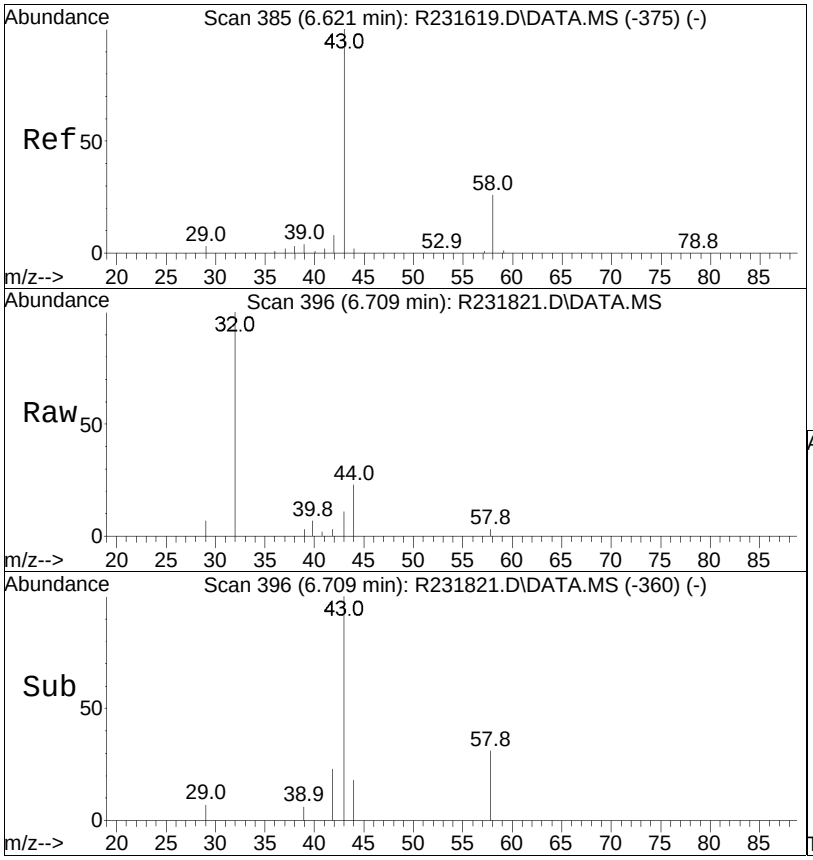


#15
ethanol
Concen: 0.13 ppbV
RT: 6.054 min Scan# 314
Delta R.T. 0.064 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 31 Resp: 1428

Ion	Ratio	Lower	Upper
31	100		
45	39.5	36.8	55.2

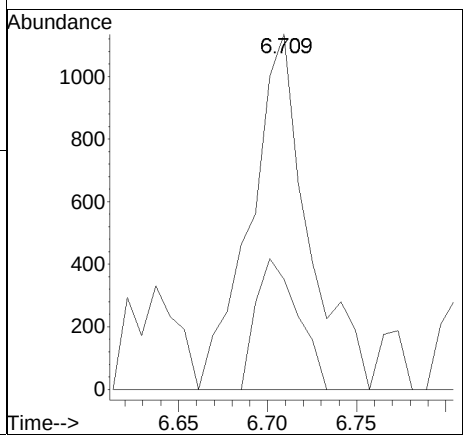


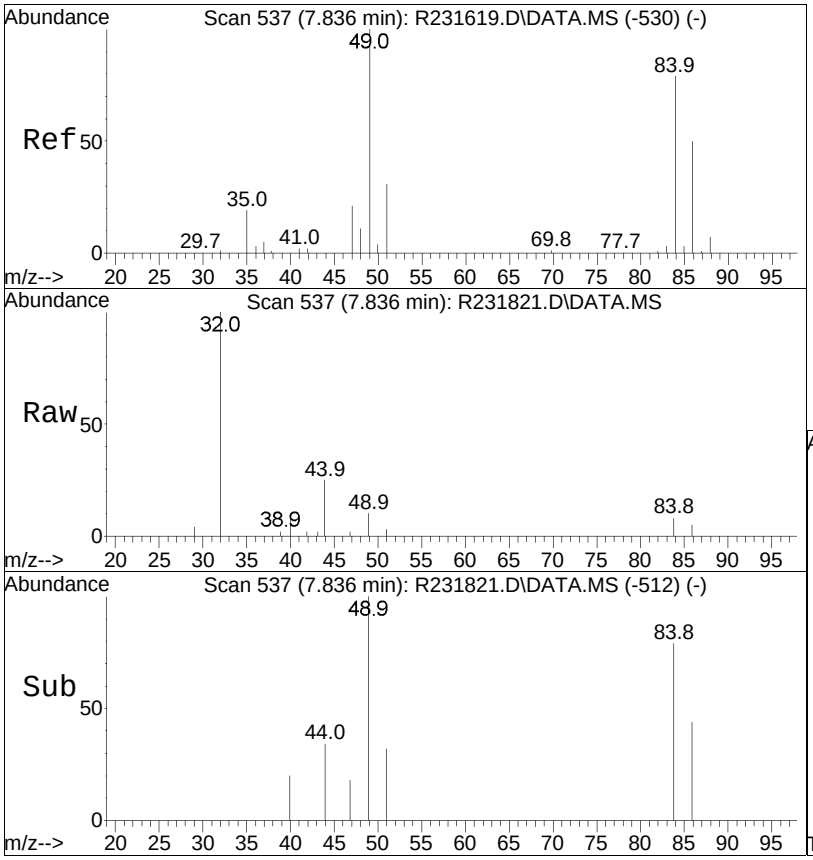


#19
acetone
Concen: 0.11 ppbV m
RT: 6.709 min Scan# 396
Delta R.T. 0.088 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 43 Resp: 2563

Ion	Ratio	Lower	Upper
43	100		
58	31.0	20.6	31.0#
57	0.0	0.6	1.0#

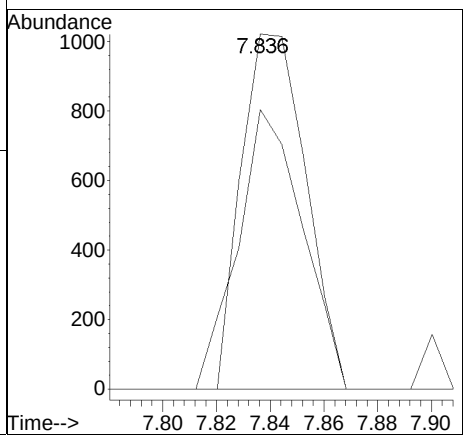




#28
methylene chloride
Concen: 0.10 ppbV
RT: 7.836 min Scan# 537
Delta R.T. 0.000 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 49 Resp: 1712

Ion	Ratio	Lower	Upper
49	100		
84	78.7	63.3	94.9

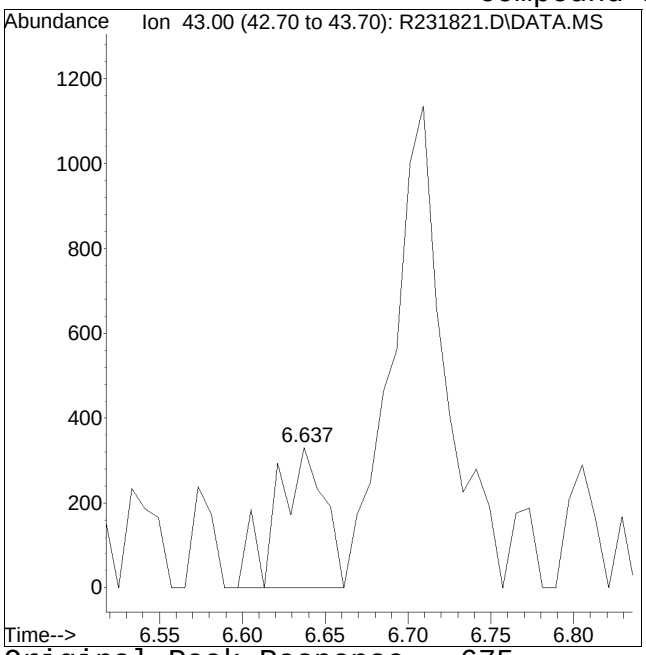


Manual Integration/Negative Proof Report

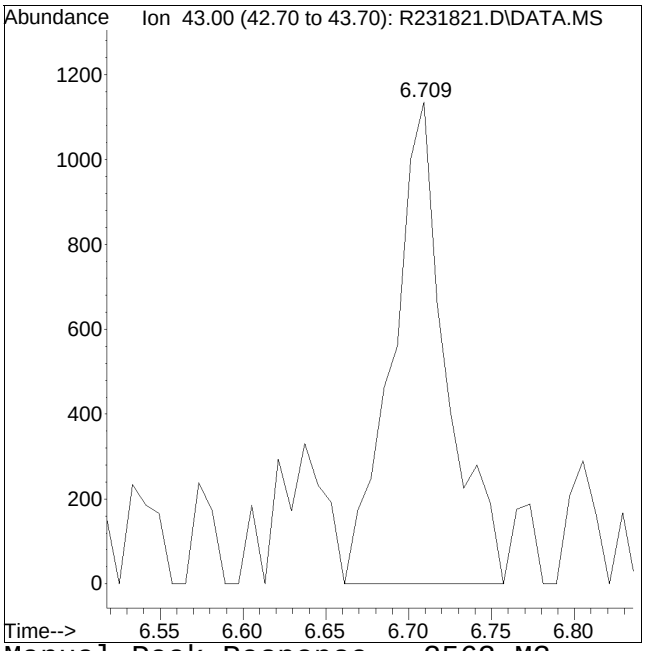
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231821.D
Date Inj'd : 12/23/2014 3:38 pm
Sample : L1430876-01,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:42 am

Compound #19: acetone



Original Peak Response = 675



Manual Peak Response = 2563 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231821.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.261	117	119	122	rVB	2563	3089	0.18%	0.078%
2	4.616	153	155	160	rBV3	2130	5206	0.31%	0.131%
3	4.941	186	188	192	rBV	4309	7587	0.45%	0.190%
4	6.054	312	314	317	rVB3	2512	3149	0.19%	0.079%
5	6.701	393	395	399	rVB2	2928	4181	0.25%	0.105%
6	8.212	582	584	588	rVB2	2555	3071	0.18%	0.077%
7	9.304	730	735	742	rVB2	6214	12643	0.75%	0.317%
8	10.386	871	876	887	rBV	419182	794326	47.11%	19.936%
9	12.549	1088	1093	1100	rBV	714112	1315364	78.02%	33.013%
10	14.035	1222	1227	1229	rBV2	2347	6597	0.39%	0.166%
11	16.563	1471	1476	1482	rVB	49643	111987	6.64%	2.811%
12	16.893	1530	1538	1549	rBV	1229743	1685977	100.00%	42.315%
13	18.041	1775	1779	1780	rBV3	1732	1813	0.11%	0.046%
14	18.107	1790	1793	1794	rBV3	2569	1894	0.11%	0.048%
15	18.946	1963	1967	1977	rVB5	6287	11769	0.70%	0.295%
16	20.436	2273	2280	2285	rBV3	1836	3604	0.21%	0.090%
17	21.096	2345	2349	2353	rBV2	996	3032	0.18%	0.076%
18	21.322	2367	2370	2374	rBV2	663	1783	0.11%	0.045%
19	21.761	2409	2411	2414	rVB	1814	3013	0.18%	0.076%
20	21.836	2414	2418	2421	rBV	957	2266	0.13%	0.057%
21	22.586	2485	2488	2491	rBV2	1159	2041	0.12%	0.051%

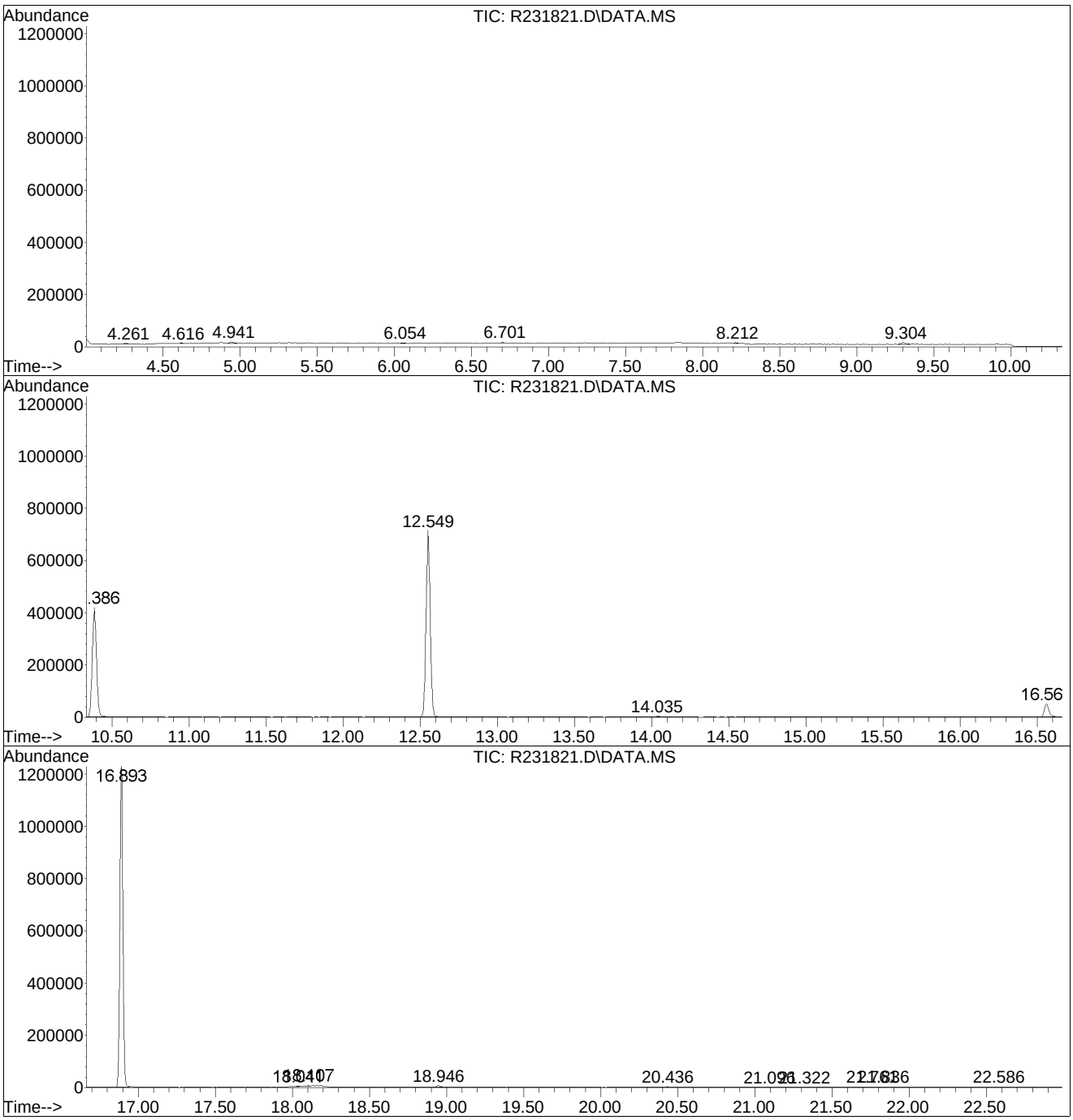
Sum of corrected areas: 3984392

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	160187	10.000	ppbV	0.00
Standard Area = 179805			Recovery =		89.09%	
43) 1,4-difluorobenzene	12.549	114	583030	10.000	ppbV	0.00
Standard Area = 648252			Recovery =		89.94%	
67) chlorobenzene-D5	16.893	54	108212	10.000	ppbV	0.00
Standard Area = 122515			Recovery =		88.33%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	4.350		0	N.D.		
4) propane	0.000		0	N.D.	d	
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.941	31	2491M3	0.481	ppbV	
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.266		0	N.D.		
13) bromomethane	5.558		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.038	31	644	0.059	ppbV #	80
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.701	43	1949M3	0.088	ppbV	
20) acetonitrile	6.278		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.053		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.333		0	N.D.		
25) ethyl ether	7.245		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.844	49	2435	0.144	ppbV #	65
29) 3-chloropropene	7.980		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
35) vinyl acetate	9.427		0	N.D.		
36) 2-butanone	9.640		0	N.D.		
37) cis-1,2-dichloroethene	0.000		0	N.D.		
38) Ethyl Acetate	0.000		0	N.D.		
39) chloroform	0.000		0	N.D.		
40) Tetrahydrofuran	0.000		0	N.D.		
41) 2,2-dichloropropane	0.000		0	N.D.		
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	0.000		0	N.D.		
45) diisopropyl ether	0.000		0	N.D.		
46) tert-butyl ethyl ether	0.000		0	N.D.		
48) 1,1,1-trichloroethane	0.000		0	N.D.		
49) 1,1-dichloropropene	0.000		0	N.D.		
50) benzene	0.000		0	N.D.		
52) carbon tetrachloride	0.000		0	N.D.		
53) cyclohexane	0.000		0	N.D.	d	
54) tert-amyl methyl ether	0.000		0	N.D.		
55) dibromomethane	13.047		0	N.D.		
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	0.000		0	N.D.		
61) methyl methacrylate	13.399		0	N.D.		
62) heptane	0.000		0	N.D.		
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	14.336		0	N.D.		
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.334		0	N.D.		
71) 1,3-dichloropropane	0.000		0	N.D.		
72) 2-hexanone	15.668		0	N.D.		
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
76) butyl acetate	0.000		0	N.D.		
77) octane	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.846		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	0.000		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	0.000		0		N.D.	
96) 4-ethyl toluene	18.484		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	18.956		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	19.141		0		N.D.	
103) 1,4-dichlorobenzene	19.141		0		N.D.	
104) sec-butylbenzene	0.000		0		N.D.	
106) p-isopropyltoluene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	0.000		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

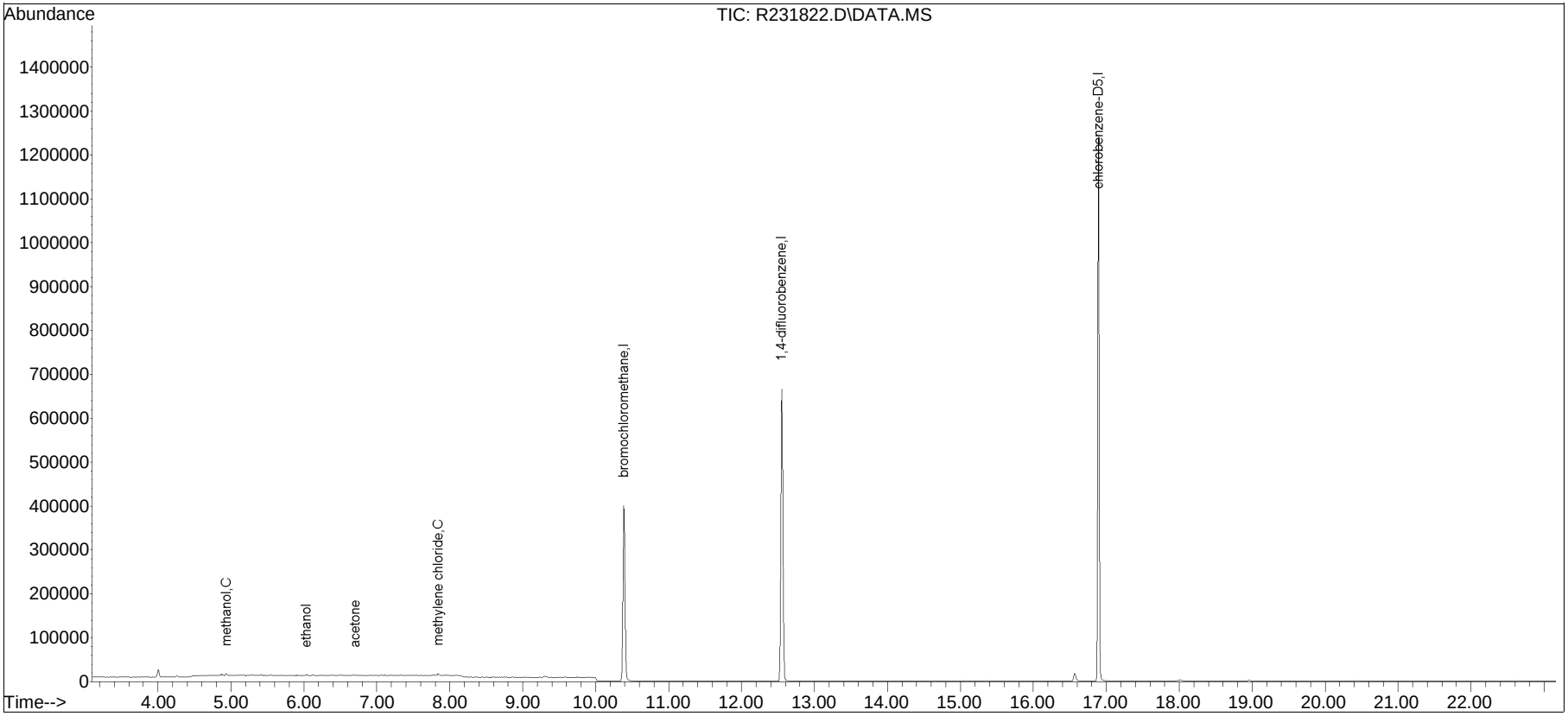
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

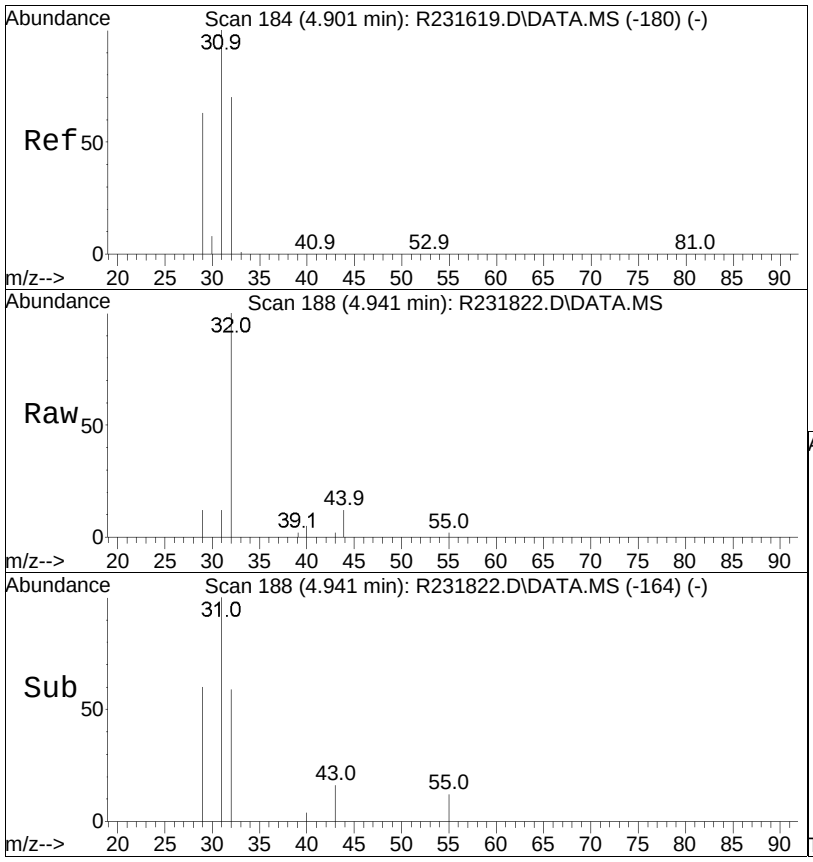
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

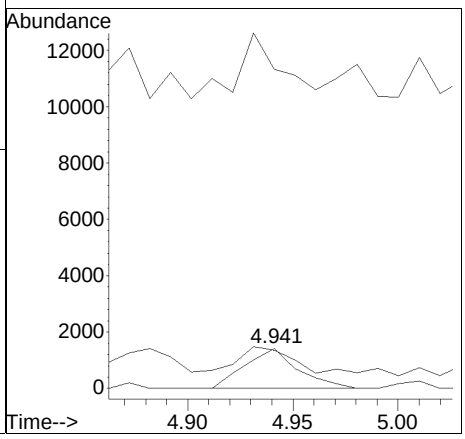


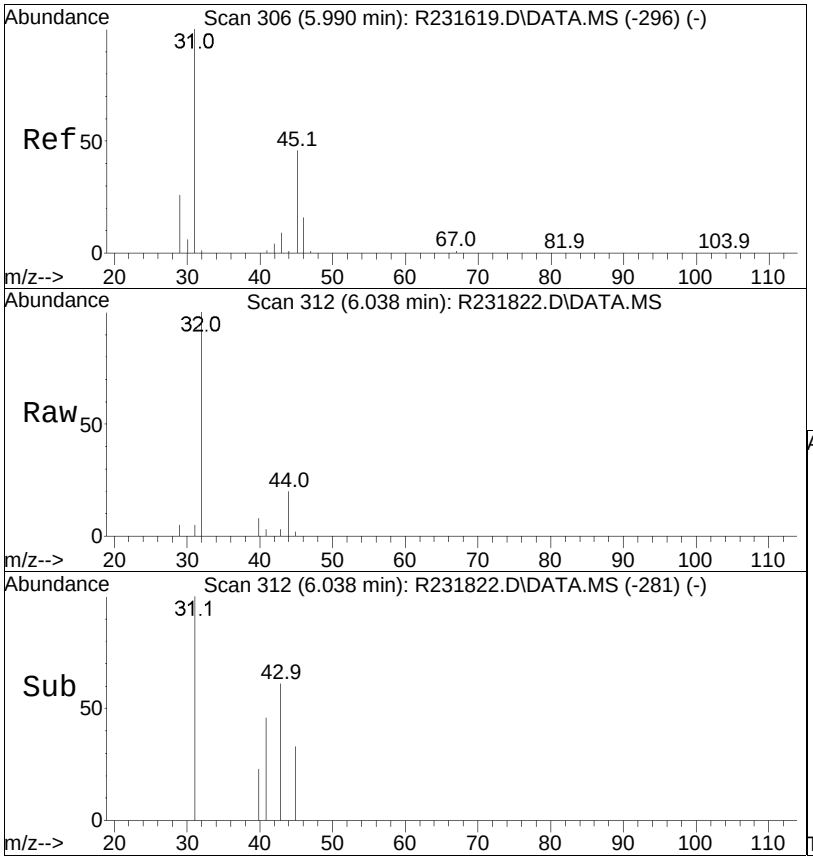


#8
methanol
Concen: 0.48 ppbV m
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 31 Resp: 2491

Ion	Ratio	Lower	Upper
31	100		
32	801.5	63.3	94.9#
29	95.9	57.9	86.9#

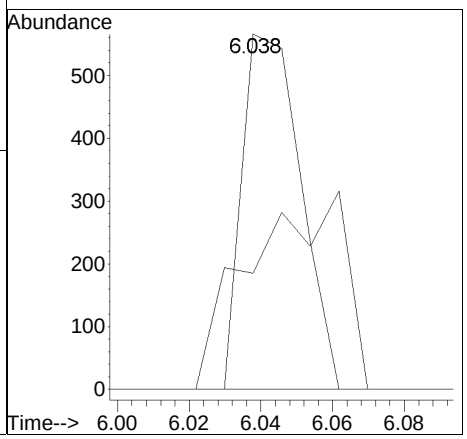


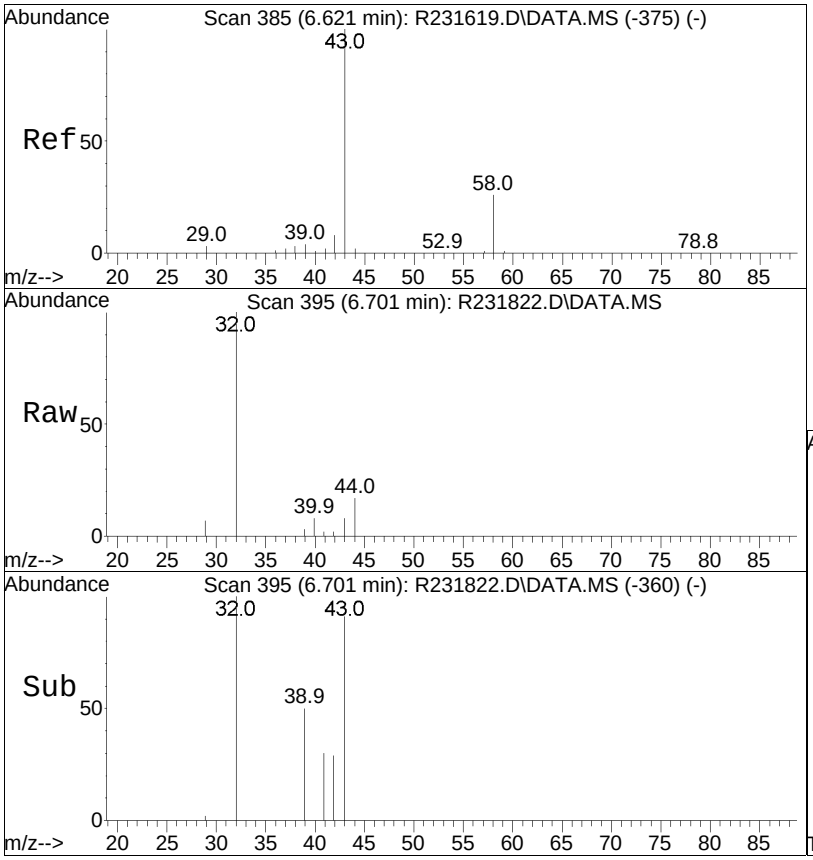


#15
ethanol
Concen: 0.06 ppbV
RT: 6.038 min Scan# 312
Delta R.T. 0.048 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 31 Resp: 644

Ion	Ratio	Lower	Upper
31	100		
45	32.7	36.8	55.2#

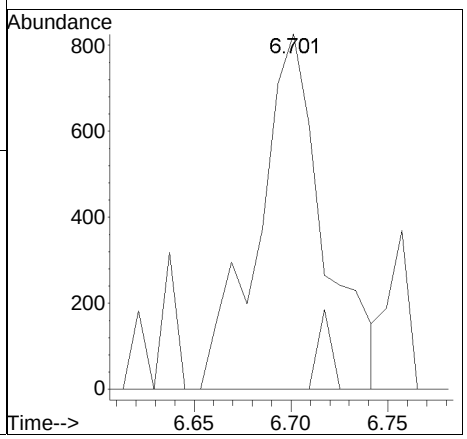


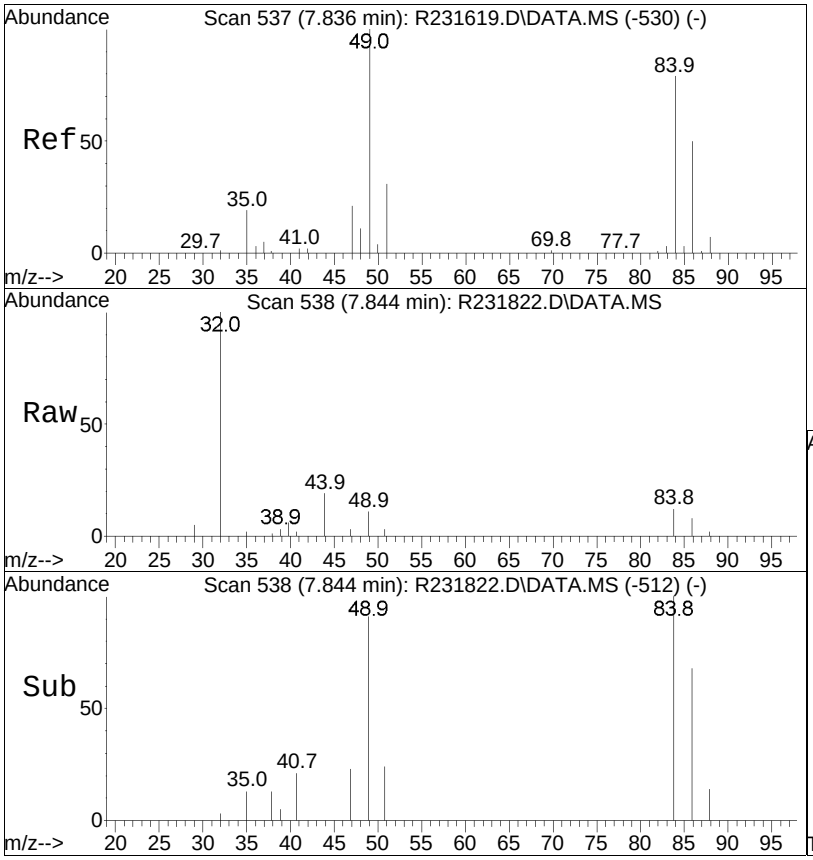


#19
acetone
Concen: 0.09 ppbV m
RT: 6.701 min Scan# 395
Delta R.T. 0.080 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 43 Resp: 1949

Ion	Ratio	Lower	Upper
43	100		
58	0.0	20.6	31.0#
57	0.0	0.6	1.0#

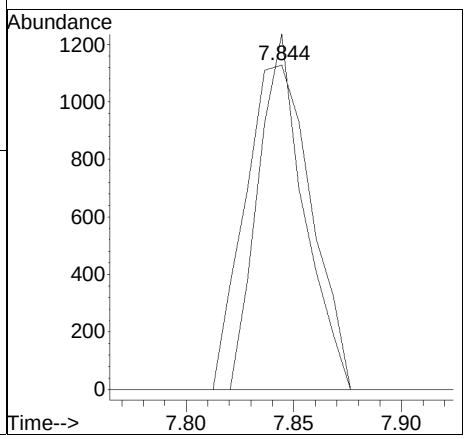




#28
methylene chloride
Concen: 0.14 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 49 Resp: 2435

Ion	Ratio	Lower	Upper
49	100		
84	109.6	63.3	94.9#

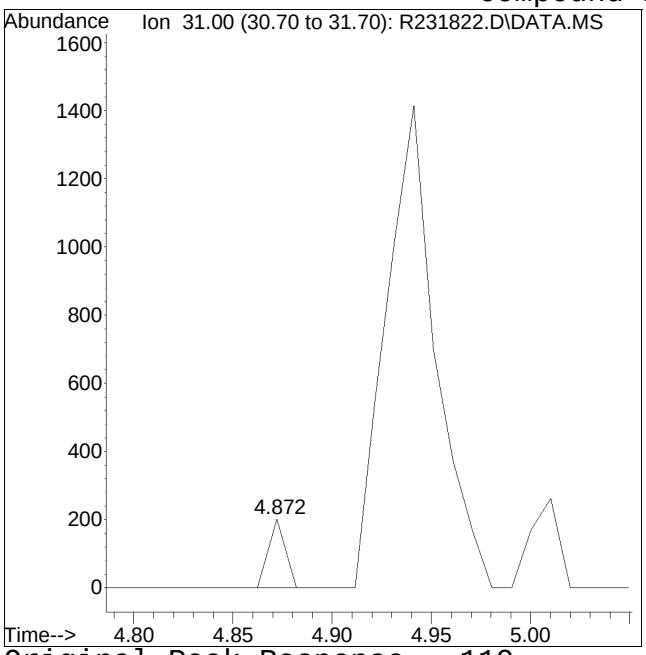


Manual Integration/Negative Proof Report

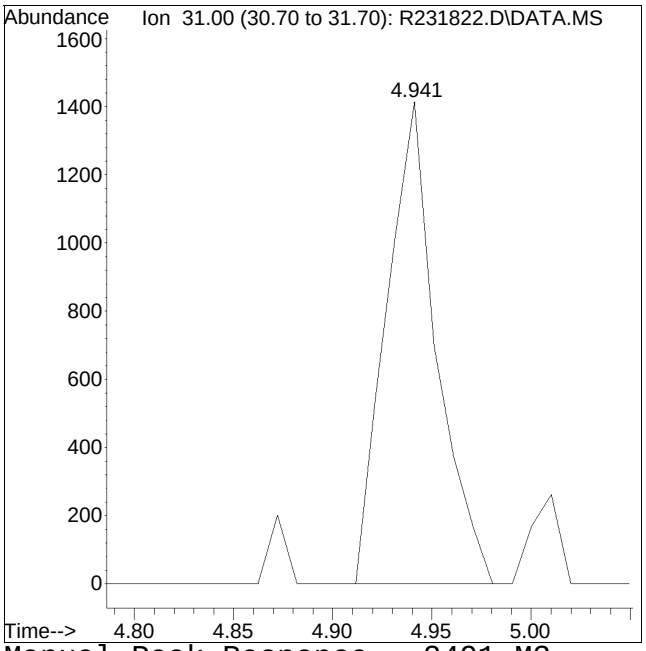
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231822.D
Date Inj'd : 12/23/2014 4:10 pm
Sample : L1430876-02,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:42 am

Compound #8: methanol



Original Peak Response = 119



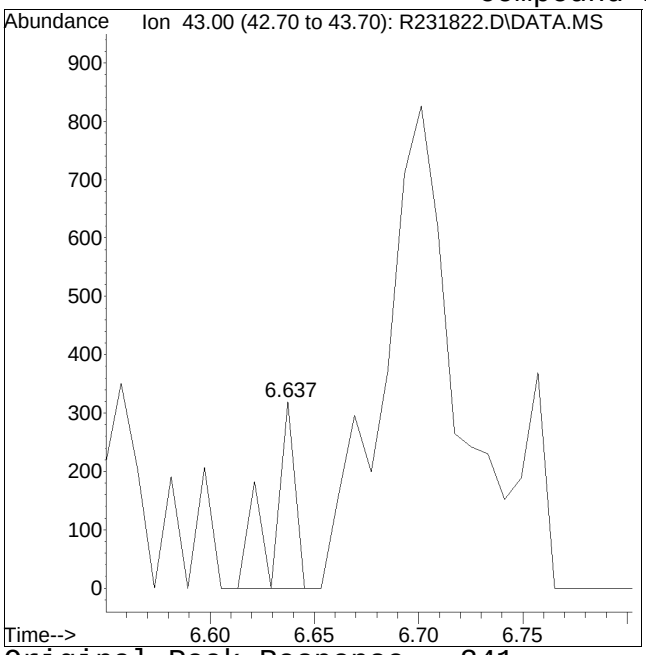
Manual Peak Response = 2491 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

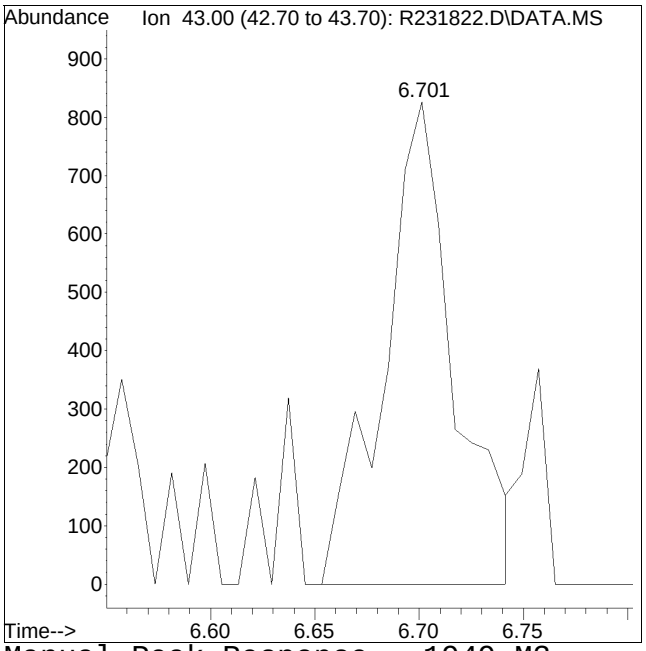
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014QMethod : TALL141214.M
Data File : R231822.D Operator : AIRPIANO2:MB
Date Inj'd : 12/23/2014 4:10 pm Instrument : Air Piano 2
Sample : L1430876-02,3,250,250 Quant Date : 12/24/2014 6:42 am

Compound #19: acetone



Original Peak Response = 241



Manual Peak Response = 1949 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231822.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.093	100	102	103	rBV	1653	1757	0.11%	0.046%
2	4.261	116	119	121	rBV2	2528	4823	0.29%	0.127%
3	4.931	186	187	190	rBV3	3755	4284	0.26%	0.113%
4	6.118	319	322	328	rBV4	2527	6272	0.38%	0.165%
5	7.836	533	537	543	rBV3	4739	10706	0.65%	0.282%
6	9.228	723	724	728	rBV	2306	2753	0.17%	0.072%
7	9.304	732	735	738	rVB2	2911	4236	0.26%	0.112%
8	9.585	772	776	779	rBV3	1979	4092	0.25%	0.108%
9	10.386	871	876	886	rBV	400169	759954	46.05%	20.009%
10	12.549	1089	1093	1104	rBV	665198	1275839	77.30%	33.591%
11	14.241	1237	1240	1243	rBV2	786	2787	0.17%	0.073%
12	16.563	1470	1476	1482	rVB	18760	43601	2.64%	1.148%
13	16.893	1530	1538	1554	rBV	1245019	1650443	100.00%	43.454%
14	18.012	1767	1773	1782	rVB2	2974	7014	0.42%	0.185%
15	18.951	1962	1968	1977	rBV5	3364	6457	0.39%	0.170%
16	20.431	2276	2279	2285	rVB3	1279	1715	0.10%	0.045%
17	21.214	2356	2360	2363	rBV3	809	2087	0.13%	0.055%
18	21.386	2375	2376	2380	rVB	1132	2074	0.13%	0.055%
19	21.943	2425	2428	2431	rBV2	833	1731	0.10%	0.046%
20	22.126	2442	2445	2448	rBV2	799	1685	0.10%	0.044%
21	22.276	2456	2459	2461	rBV2	812	1722	0.10%	0.045%
22	22.854	2509	2513	2516	rBV3	598	2097	0.13%	0.055%

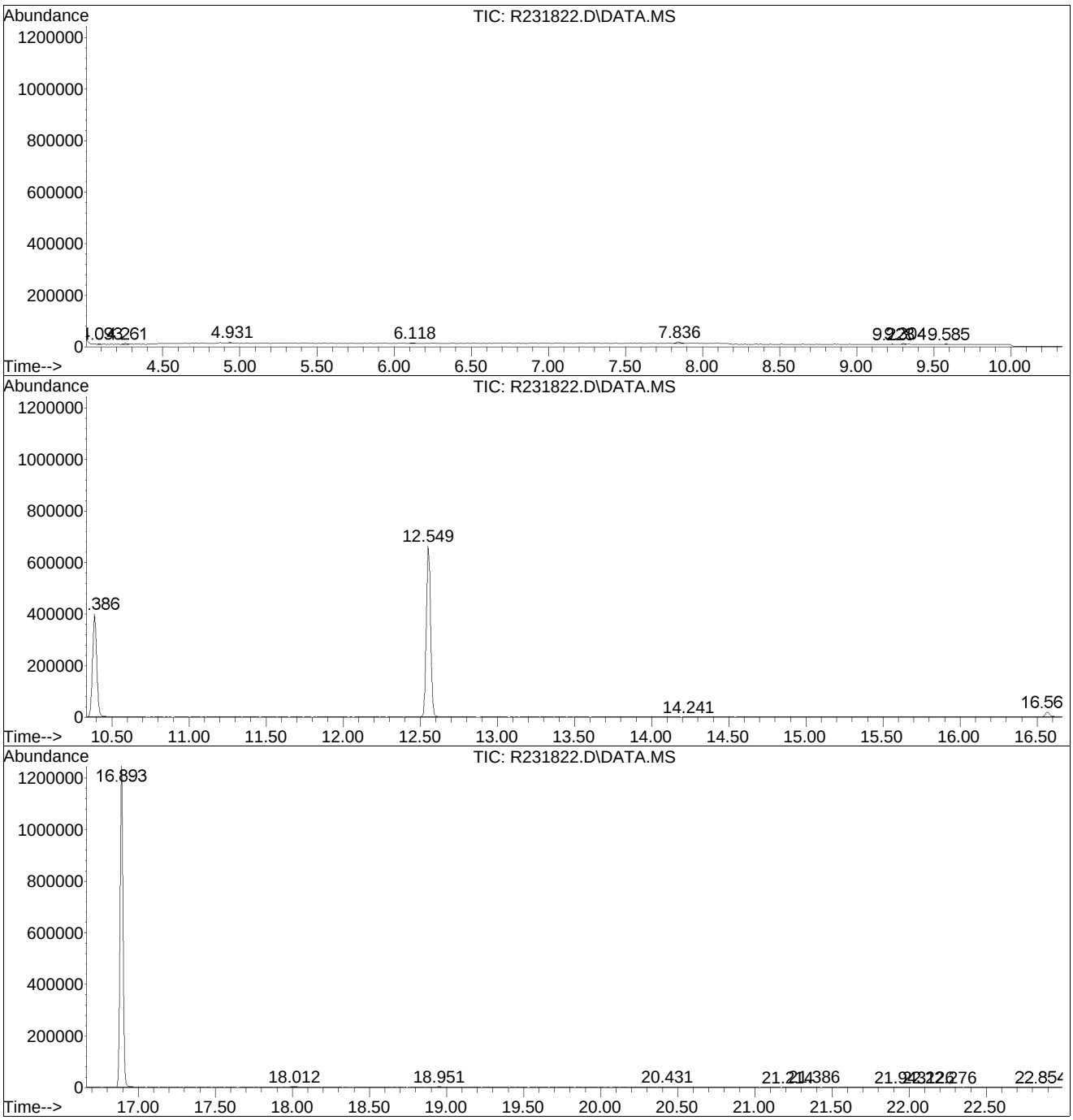
Sum of corrected areas: 3798129

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	159525	10.000	ppbV	0.00
Standard Area = 179805			Recovery = 88.72%			
43) 1,4-difluorobenzene	12.549	114	564007	10.000	ppbV	0.00
Standard Area = 648252			Recovery = 87.00%			
67) chlorobenzene-D5	16.893	54	104680	10.000	ppbV	0.00
Standard Area = 122515			Recovery = 85.44%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290		0	N.D.		
3) propylene	4.478		0	N.D.		
4) propane	4.349		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.931	31	4175	0.810	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.247		0	N.D.		
13) bromomethane	5.550		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.054	31	923	0.084	ppbV #	86
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.709	43	1359M3	0.062	ppbV	
20) acetonitrile	6.253		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.037		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.309		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.844	49	2584	0.154	ppbV	90
29) 3-chloropropene	7.996		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
35) vinyl acetate	9.427		0	N.D.		
36) 2-butanone	0.000		0	N.D.		
37) cis-1,2-dichloroethene	0.000		0	N.D.		
38) Ethyl Acetate	0.000		0	N.D.		
39) chloroform	10.395		0	N.D.		
40) Tetrahydrofuran	0.000		0	N.D.		
41) 2,2-dichloropropane	0.000		0	N.D.		
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	0.000		0	N.D.		
45) diisopropyl ether	0.000		0	N.D.		
46) tert-butyl ethyl ether	0.000		0	N.D.		
48) 1,1,1-trichloroethane	0.000		0	N.D.		
49) 1,1-dichloropropene	0.000		0	N.D.		
50) benzene	0.000		0	N.D.		
52) carbon tetrachloride	0.000		0	N.D.		
53) cyclohexane	0.000		0	N.D.		d
54) tert-amyl methyl ether	0.000		0	N.D.		
55) dibromomethane	13.057		0	N.D.		
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	0.000		0	N.D.		
61) methyl methacrylate	0.000		0	N.D.		
62) heptane	0.000		0	N.D.		
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.		
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.324		0	N.D.		
71) 1,3-dichloropropane	0.000		0	N.D.		
72) 2-hexanone	15.523		0	N.D.		
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
76) butyl acetate	16.065		0	N.D.		
77) octane	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.817		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	0.000		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	18.541		0		N.D.	
96) 4-ethyl toluene	0.000		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	19.013		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	19.193		0		N.D.	
103) 1,4-dichlorobenzene	19.193		0		N.D.	
104) sec-butylbenzene	19.203		0		N.D.	
106) p-isopropyltoluene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	0.000		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

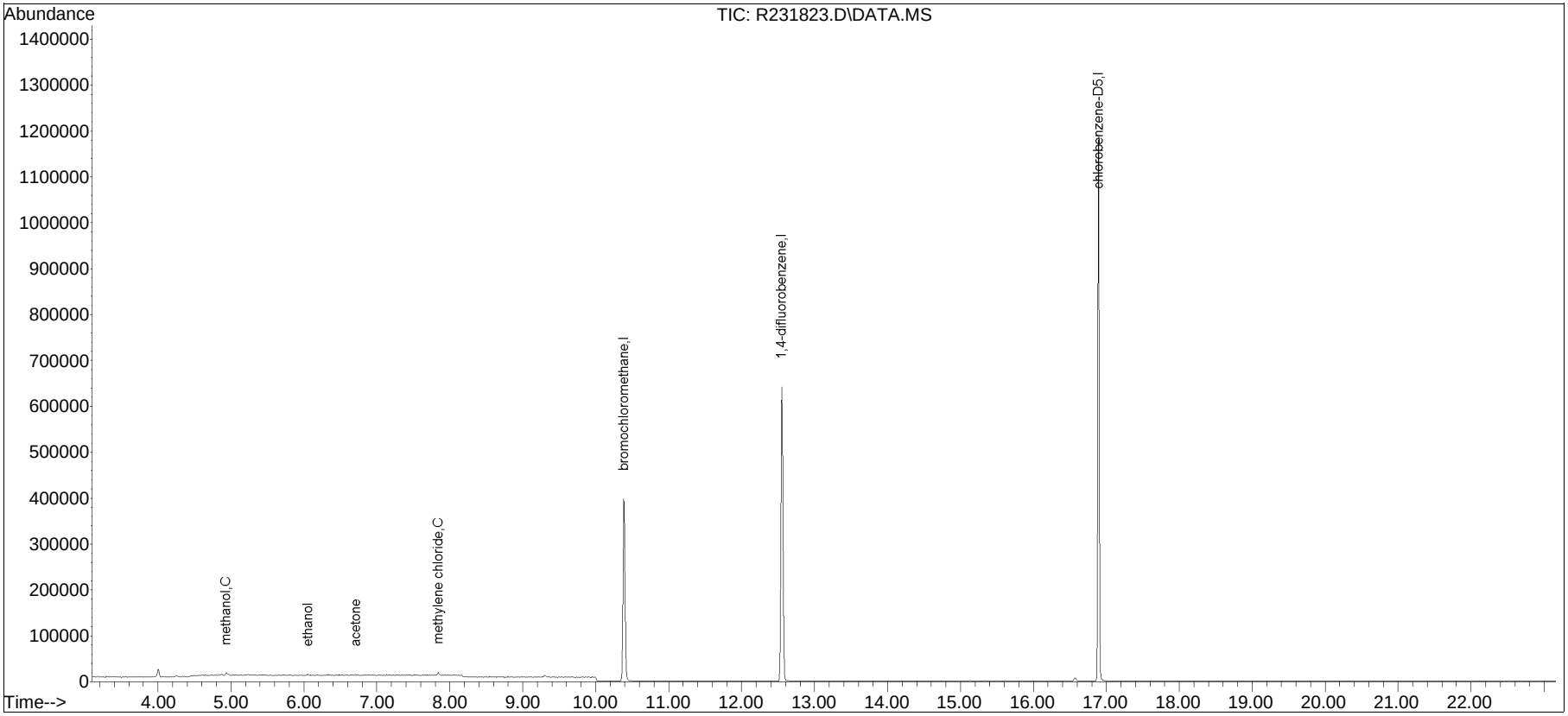
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

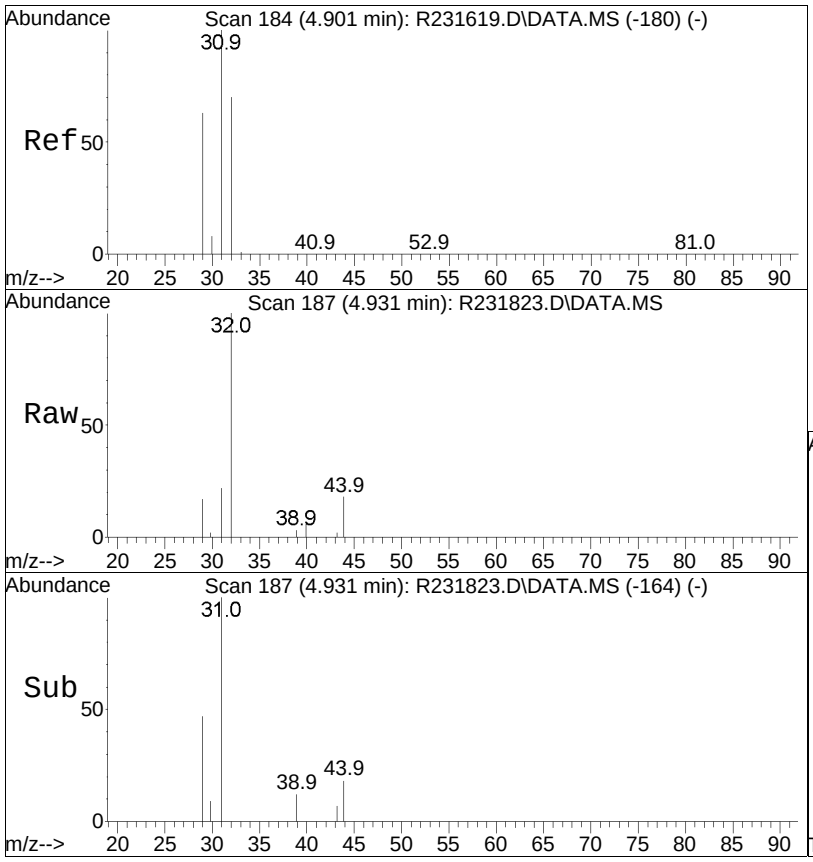
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

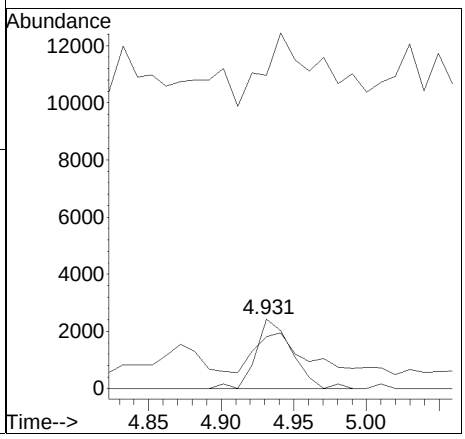


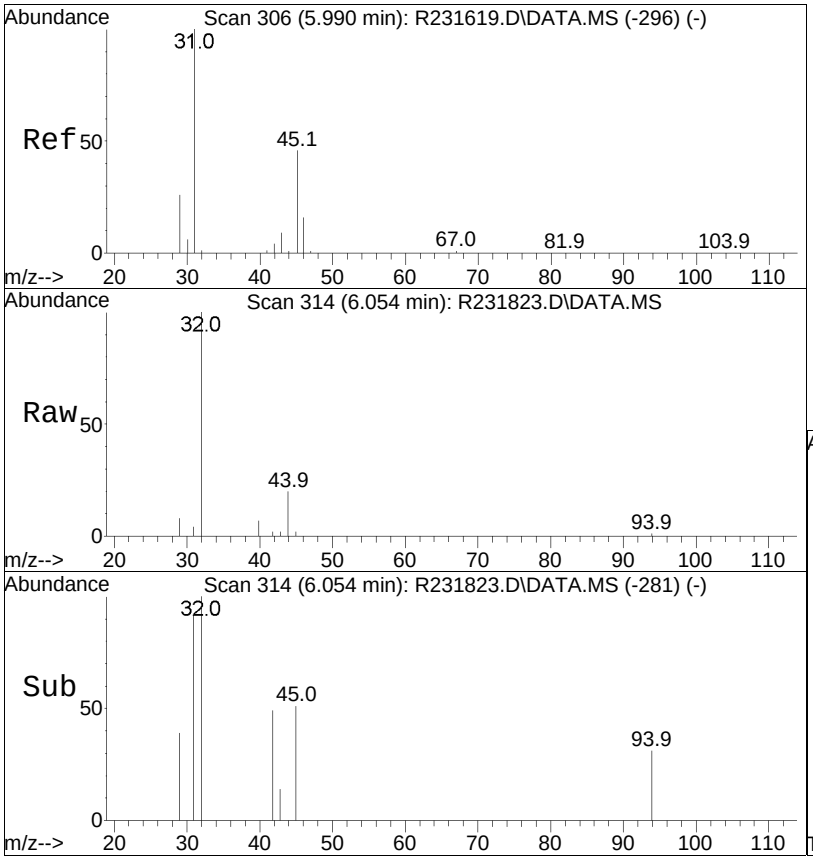


#8
methanol
Concen: 0.81 ppbV
RT: 4.931 min Scan# 187
Delta R.T. 0.030 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 31 Resp: 4175

Ion	Ratio	Lower	Upper
31	100		
32	452.3	63.3	94.9#
29	74.8	57.9	86.9

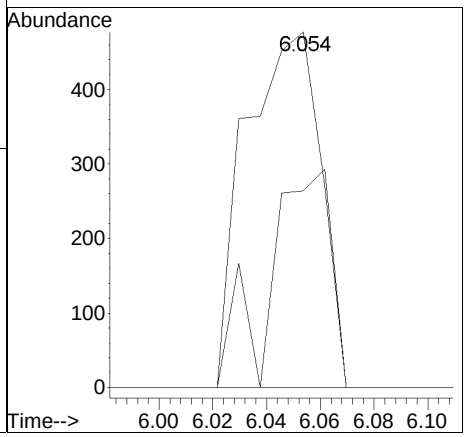


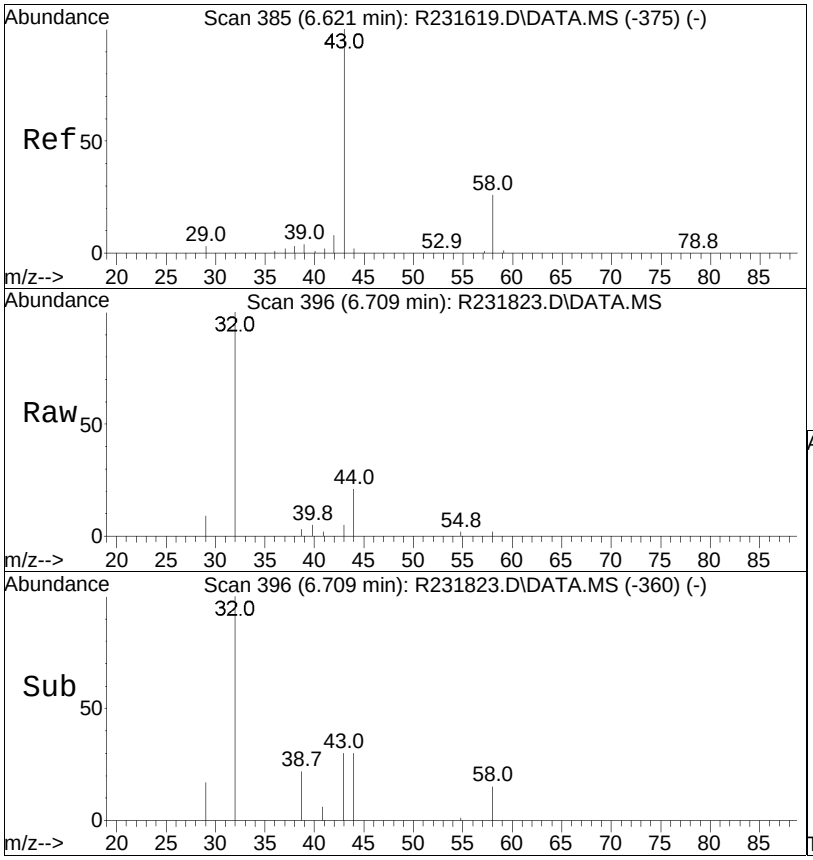


#15
ethanol
Concen: 0.08 ppbV
RT: 6.054 min Scan# 314
Delta R.T. 0.064 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 31 Resp: 923

Ion	Ratio	Lower	Upper
31	100		
45	55.3	36.8	55.2#

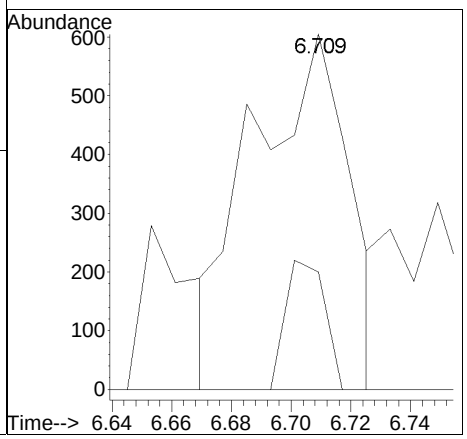


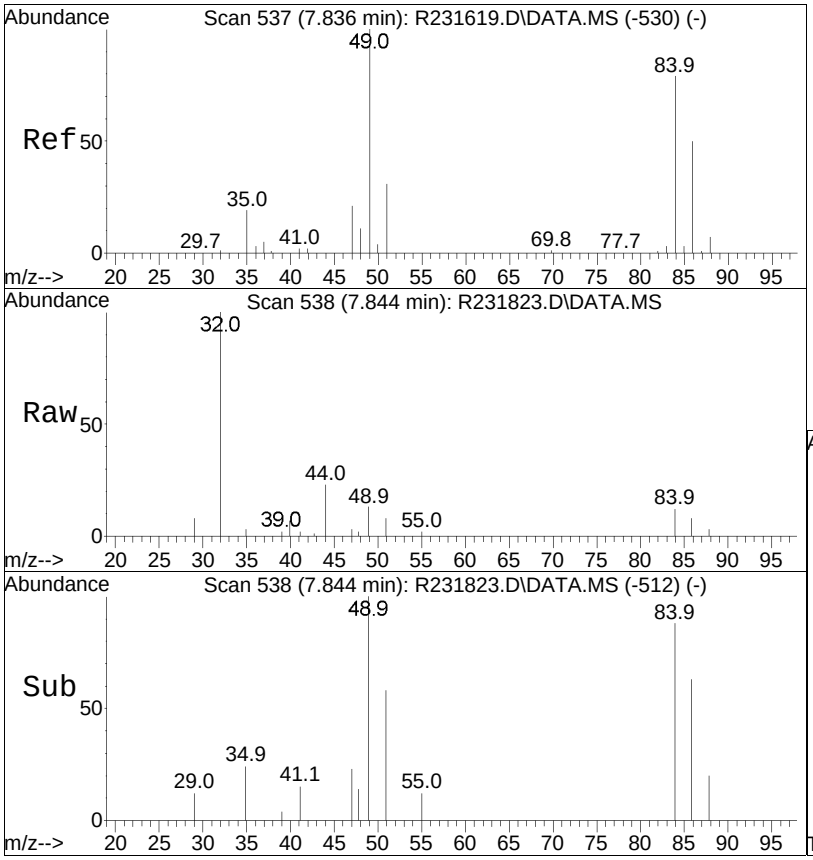


#19
acetone
Concen: 0.06 ppbV m
RT: 6.709 min Scan# 396
Delta R.T. 0.088 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 43 Resp: 1359

Ion	Ratio	Lower	Upper
43	100		
58	33.1	20.6	31.0#
57	0.0	0.6	1.0#

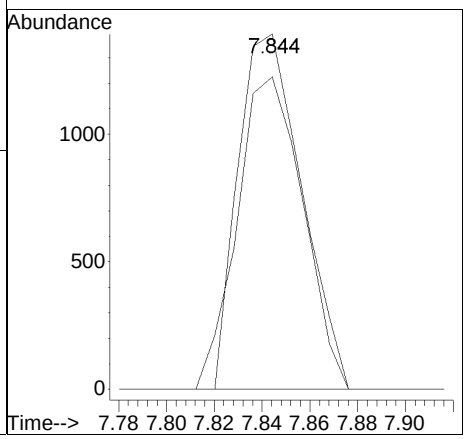




#28
methylene chloride
Concen: 0.15 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 49 Resp: 2584

Ion	Ratio	Lower	Upper
49	100		
84	87.9	63.3	94.9

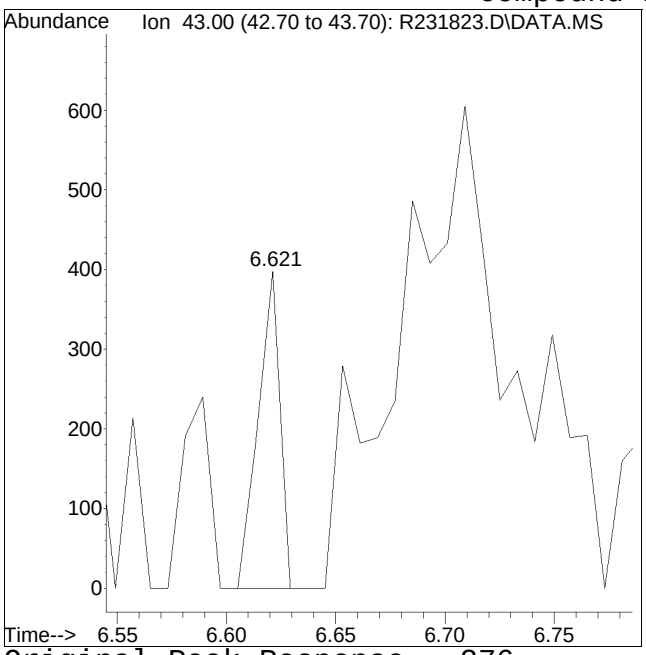


Manual Integration/Negative Proof Report

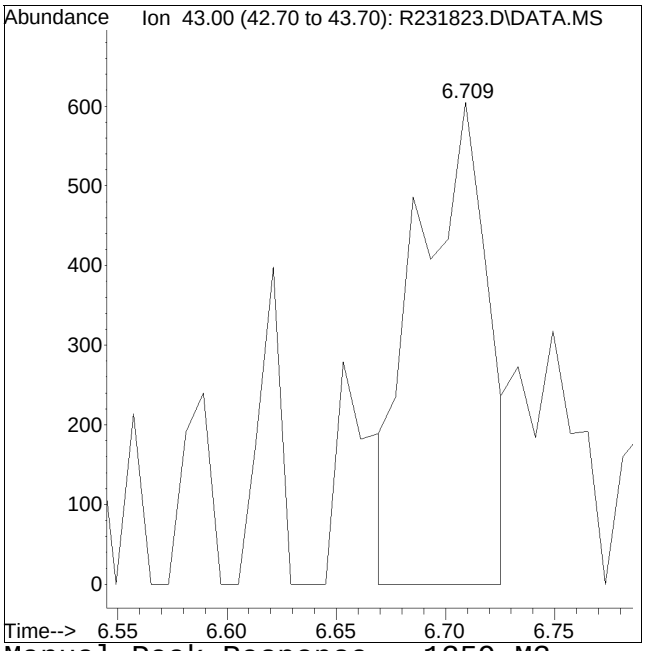
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231823.D
Date Inj'd : 12/23/2014 4:42 pm
Sample : L1430876-03,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:43 am

Compound #19: acetone



Original Peak Response = 276



Manual Peak Response = 1359 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231823.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.251	116	118	121	rBV2	2310	3492	0.22%	0.096%
2	4.833	175	177	178	rBV	2438	2276	0.14%	0.062%
3	4.941	185	188	190	rBV	6460	11900	0.75%	0.326%
4	6.054	312	314	316	rVB2	3215	3075	0.19%	0.084%
5	6.805	406	408	410	rBV	2109	2297	0.15%	0.063%
6	7.844	535	538	544	rVB2	7007	11720	0.74%	0.321%
7	7.908	544	546	547	rBV	2112	1693	0.11%	0.046%
8	8.796	659	661	665	rVB2	1861	2007	0.13%	0.055%
9	9.496	762	763	765	rVB	2759	1676	0.11%	0.046%
10	9.523	765	767	768	rBV2	1608	1785	0.11%	0.049%
11	9.997	835	836	838	rVB	9424	7655	0.48%	0.209%
12	10.386	871	876	887	rBV	397688	755127	47.80%	20.664%
13	12.549	1089	1093	1099	rBV	641583	1241244	78.58%	33.967%
14	15.135	1314	1318	1320	rBV	1767	1984	0.13%	0.054%
15	15.342	1338	1341	1343	rBV	1126	1842	0.12%	0.050%
16	16.572	1473	1477	1483	rVB2	6605	17712	1.12%	0.485%
17	16.893	1530	1538	1556	rBV	1191092	1579667	100.00%	43.228%
18	20.978	2335	2338	2341	rVB3	716	1951	0.12%	0.053%
19	21.321	2367	2370	2373	rBV2	677	1746	0.11%	0.048%
20	22.286	2457	2460	2463	rVB3	808	1784	0.11%	0.049%
21	22.361	2463	2467	2469	rBV2	668	1612	0.10%	0.044%

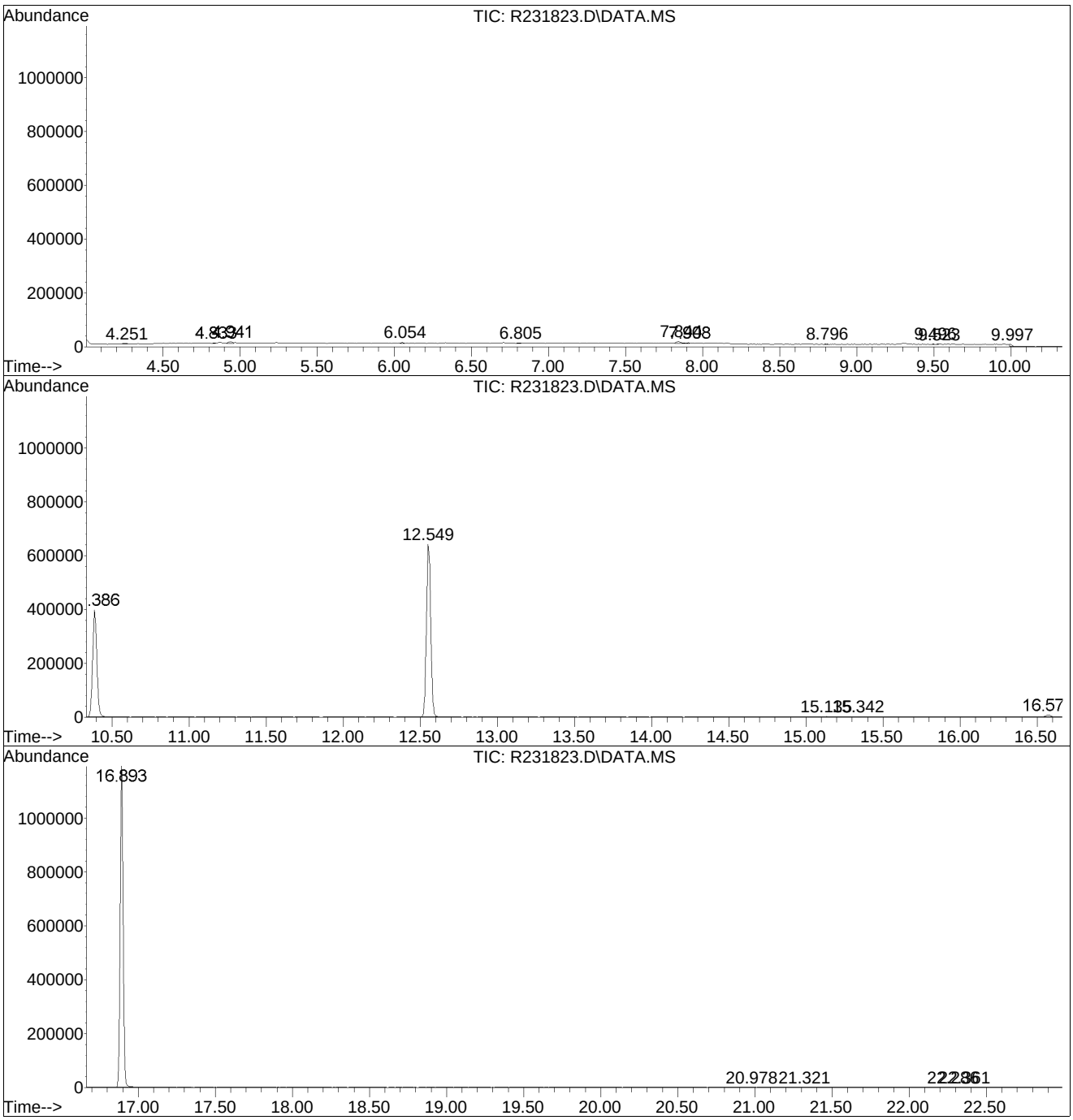
Sum of corrected areas: 3654245

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

Calibration Files

0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D

50 =R231621.D 100 =R231622.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.663	1.375	1.287	1.187	1.178	1.114	1.089	1.027	1.2399	16.41
3)		propylene	0.788	0.673	0.627	0.569	0.566	0.530	0.525	0.488	0.5958	16.33
4)		propane	1.113	0.976	0.816	0.690	0.658	0.625	0.628	0.566	0.7590	25.55
5)		dichlorodifluoromethane	2.344	1.617	1.436	1.393	1.546	1.271	1.581	0.971	1.5198	25.83
6)	C	chloromethane	1.019	0.841	0.718	0.700	0.657	0.628	0.611	0.574	0.7185	20.38
7)		Freon-114	3.096	2.904	2.788	2.710	2.634	2.502	2.365	2.109	2.6386	11.82
8)	C	methanol			0.420	0.346	0.334	0.289	0.282	0.268	0.3232	17.50
9)	C	vinyl chloride	0.953	0.838	0.862	0.833	0.808	0.770	0.736	0.697	0.8121	9.80
10)	C	1,3-butadiene	0.639	0.652	0.590	0.608	0.581	0.542	0.526	0.496	0.5791	9.44
11)		butane	1.743	1.514	1.467	1.307	1.246	1.211	1.168	1.098	1.3442	15.98
12)	C	acetaldehyde			0.659	0.661	0.581	0.561	0.530	0.490	0.436	0.5597	14.90
13)	C	bromomethane	1.168	1.061	0.963	0.944	0.916	0.861	0.817	0.753	0.9353	14.24
14)	C	chloroethane	0.488	0.501	0.445	0.415	0.404	0.383	0.365	0.337	0.4173	13.82
15)		ethanol			0.762	0.719	0.723	0.691	0.666	0.649	0.599	0.6870	7.89
16)		dichlorofluoromethane	2.506	2.269	2.244	2.060	1.961	1.887	1.811	1.675	2.0517	13.36
17)	C	vinyl bromide	1.021	0.993	1.019	0.985	0.934	0.897	0.861	0.784	0.9367	9.01
18)	C	acrolein			0.397	0.360	0.323	0.324	0.313	0.305	0.288	0.3301	11.22
19)		acetone	1.587	1.596	1.476	1.383	1.355	1.294	1.243	1.126	1.3823	11.92
20)	C	acetonitrile	0.937	0.821	0.788	0.753	0.732	0.700	0.692	0.662	0.7607	11.58
21)		trichlorofluoromethane	3.334	3.342	3.192	3.026	2.951	2.788	2.656	2.367	2.9570	11.56
22)		isopropyl alcohol			2.014	1.839	1.474	1.400	1.323	1.289	1.205	1.5062	20.14
23)	C	acrylonitrile	0.847	0.594	0.626	0.604	0.576	0.555	0.540	0.506	0.6062	17.25
24)		pentane	1.756	1.631	1.563	1.542	1.474	1.391	1.394	1.301	1.5066	9.76
25)		ethyl ether	1.563	1.400	1.347	1.308	1.254	1.201	1.172	1.089	1.2917	11.48
26)	C	1,1-dichloroethene	1.751	1.567	1.550	1.477	1.432	1.370	1.331	1.231	1.4636	11.02
27)		tertiary butyl alcohol			2.028	1.921	1.822	1.736	1.709	1.651	1.558	1.7750	9.07
28)	C	methylene chloride			1.300	1.242	1.049	1.025	0.971	0.929	0.868	1.0547	15.20
29)	C	3-chloropropene	1.481	1.301	1.264	1.193	1.166	0.969	1.079	1.015	1.1835	14.10
30)	C	carbon disulfide	2.842	2.804	2.764	2.742	2.702	2.452	2.537	2.308	2.6439	7.20
31)		Freon 113	2.316	2.274	2.213	2.121	2.065	1.940	1.864	1.624	2.0522	11.37
32)		trans-1,2-dichloroethene	1.228	1.260	1.277	1.223	1.211	1.159	1.159	1.143	1.2075	4.11
33)	C	1,1-dichloroethane	1.607	1.555	1.515	1.472	1.435	1.389	1.371	1.332	1.4596	6.54
34)	C	MTBE	2.686	2.529	2.504	2.429	2.388	2.297	2.275	2.234	2.4178	6.28
35)	C	vinyl acetate	1.392	1.018	0.851	0.993	1.142	1.288	1.467	1.572	1.2153	20.94
36)	C	2-butanone	2.205	1.894	1.819	1.693	1.685	1.632	1.568	1.507	1.7505	12.70
37)		cis-1,2-dichloroethene	1.258	1.167	1.138	1.066	1.074	1.028	1.025	0.990	1.0934	8.14
38)		Ethyl Acetate	0.251	0.256	0.284	0.253	0.259	0.254	0.267	0.259	0.2605	4.13
39)	C	chloroform	2.223	2.212	2.076	2.035	1.994	1.931	1.944	1.836	2.0315	6.67
40)		Tetrahydrofuran	1.082	1.067	0.955	0.924	0.928	0.894	0.879	0.839	0.9459	9.18
41)		2,2-dichloropropane	1.892	1.786	1.753	1.734	1.693	1.672	1.714	1.653	1.7372	4.38
42)	C	1,2-dichloroethane	1.415	1.308	1.286	1.239	1.215	1.179	1.158	1.098	1.2373	7.99
43)	I	1,4-difluorobenzene	ISTD									

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.337	0.347	0.326	0.323	0.330	0.320	0.346	0.368	0.3371	4.84
45)		diisopropyl ether	0.207	0.198	0.207	0.188	0.197	0.189	0.201	0.205	0.1990	3.78
46)		tert-butyl ethyl ether	0.733	0.709	0.673	0.673	0.679	0.651	0.682	0.707	0.6882	3.77
47)	s	1,2-dichloroethane-D4	0.230	0.228	0.227	0.224	0.224	0.220	0.225	0.218	0.2245	1.74
48)	C	1,1,1-trichloroethane	0.762	0.695	0.709	0.669	0.675	0.631	0.651	0.688	0.6849	5.81
49)		1,1-dichloropropene	0.443	0.365	0.357	0.357	0.363	0.354	0.369	0.382	0.3738	7.88
50)	C	benzene	0.768	0.739	0.727	0.691	0.690	0.661	0.683	0.696	0.7068	4.95
51)		thiophene	0.546	0.496	0.510	0.490	0.497	0.481	0.506	0.524	0.5063	4.11
52)	C	carbon tetrachloride	0.671	0.649	0.673	0.666	0.687	0.665	0.707	0.706	0.6780	2.98
53)		cyclohexane	0.374	0.373	0.346	0.322	0.321	0.306	0.322	0.339	0.3378	7.42
54)		tert-amyl methyl ether	0.736	0.696	0.710	0.692	0.699	0.672	0.702	0.734	0.7053	3.05
55)		dibromomethane	0.406	0.364	0.338	0.349	0.357	0.348	0.365	0.365	0.3614	5.65
56)	C	1,2-dichloropropane	0.270	0.247	0.265	0.251	0.254	0.241	0.259	0.272	0.2575	4.28
57)		bromodichloromethane	0.659	0.649	0.643	0.642	0.659	0.634	0.673	0.679	0.6547	2.42
58)	C	1,4-dioxane	0.207	0.184	0.154	0.165	0.171	0.174	0.182	0.186	0.1778	8.80
59)	C	trichloroethene	0.407	0.411	0.373	0.389	0.384	0.380	0.385	0.378	0.3884	3.49
60)	C	2,2,4-trimethylpentane	1.171	1.101	1.091	1.131	1.149	1.068	1.142	1.208	1.1324	4.00
61)		methyl methacrylate	0.378	0.364	0.362	0.335	0.333	0.317	0.334	0.343	0.3458	5.84
62)		heptane	0.467	0.464	0.435	0.420	0.417	0.396	0.424	0.447	0.4336	5.62
63)	C	cis-1,3-dichloropropene	0.354	0.380	0.362	0.381	0.387	0.382	0.410	0.433	0.3860	6.55
64)	C	4-methyl-2-pentanone	0.721	0.615	0.614	0.583	0.600	0.578	0.608	0.638	0.6198	7.26
65)		trans-1,3-dichloropropene	0.483	0.496	0.483	0.507	0.523	0.518	0.548	0.579	0.5171	6.40
66)	C	1,1,2-trichloroethane	0.468	0.419	0.433	0.433	0.439	0.411	0.435	0.440	0.4347	3.84
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	7.004	6.934	6.525	6.453	6.454	6.293	6.377	6.500	6.5673	3.94
69)	s	toluene-D8	4.879	4.907	4.802	4.708	4.685	4.577	4.508	4.482	4.6935	3.46
70)		2-methylthiophene	6.033	5.949	5.925	5.843	5.809	5.717	5.777	5.876	5.8660	1.73
71)		1,3-dichloropropane	3.090	3.073	2.806	2.920	2.905	2.868	2.917	3.014	2.9492	3.40
72)		2-hexanone	4.211	4.159	3.969	3.847	3.931	3.821	4.004	4.189	4.0165	3.82
73)		3-methylthiophene	6.346	5.720	6.054	6.127	6.065	5.982	5.982	5.881	6.0197	3.03
74)		dibromochloromethane	4.933	4.799	5.018	5.292	5.449	5.239	5.280	4.986	5.1244	4.33
75)	C	1,2-dibromoethane	4.101	3.976	3.776	4.066	4.053	3.866	3.890	3.903	3.9541	2.88
76)		butyl acetate	0.638	0.670	0.634	0.633	0.651	0.628	0.652	0.674	0.6475	2.66
77)		octane	1.884	1.819	1.783	1.832	1.818	1.742	1.815	1.862	1.8193	2.42
78)	C	tetrachloroethene	3.750	3.314	3.290	3.351	3.363	3.240	3.226	3.148	3.3353	5.45
79)		1,1,1,2-tetrachloroethane	2.534	2.494	2.407	2.529	2.550	2.501	2.529	2.347	2.4864	2.88
80)	C	chlorobenzene	4.368	4.108	3.945	4.091	4.104	4.008	4.106	4.050	4.0976	3.01
81)	C	ethylbenzene	6.685	6.459	6.239	6.431	6.424	6.218	6.375	6.468	6.4121	2.28
82)		2-ethylthiophene	5.089	5.209	5.019	5.162	5.219	5.111	5.274	5.273	5.1694	1.77
83)	C	m+p-xylene	5.074	5.087	4.931	5.094	5.178	5.123	5.257	5.196	5.1174	1.92
84)	C	bromoform	3.186	3.016	2.927	3.419	3.639	3.584	3.671	3.486	3.3661	8.55
85)	C	styrene	4.105	3.966	3.809	3.970	4.022	3.914	4.013	4.008	3.9759	2.19
86)	C	1,1,2,2-tetrachloroethane	3.603	3.629	3.718	3.814	3.890	3.866	4.023	3.663	3.7759	3.89
87)	C	o-xylene	5.250	5.222	5.024	5.293	5.385	5.346	5.403	4.907	5.2289	3.38
88)		1,2,3-trichloropropane	2.851	2.743	2.666	2.754	2.805	2.741	2.887	3.013	2.8075	3.86
89)		nonane	3.458	3.194	3.166	3.291	3.274	3.231	3.441	3.568	3.3278	4.33
90)	s	bromofluorobenzene	2.251	2.315	2.469	2.667	2.495	2.393	2.396	2.117	2.3879	6.97

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	6.641	6.422	7.099	7.327	7.399	7.180	7.304	6.980	7.0440	4.94
92)		bromobenzene	4.125	3.607	3.393	3.519	3.625	3.572	3.743	3.864	3.6808	6.20
93)		2-chlorotoluene	2.167	2.103	1.929	2.043	2.063	2.036	2.043	1.971	2.0445	3.59
94)		n-propylbenzene	2.088	2.127	2.075	2.166	2.159	2.167	2.164	2.078	2.1280	1.96
95)		4-chlorotoluene	5.668	5.348	5.114	5.440	5.519	5.497	5.593	5.752	5.4911	3.61
96)		4-ethyl toluene	7.944	7.900	7.687	8.152	8.364	8.123	8.262	7.852	8.0357	2.83
97)		1,3,5-trimethylbenzene	6.335	6.135	6.005	6.333	6.407	6.345	6.545	6.353	6.3074	2.63
98)		tert-butylbenzene	6.959	6.744	6.775	7.080	7.320	7.226	6.881	5.727	6.8391	7.22
99)		1,2,4-trimethylbenzene	6.093	6.114	5.896	6.482	6.774	6.791	6.584	5.418	6.2691	7.60
100)		decane	3.165	3.087	3.114	3.261	3.430	3.403	3.754	3.818	3.3790	8.31
101)	C	Benzyl Chloride	4.066	4.191	4.388	5.298	5.764	6.071	6.681	6.432	5.3616	19.37
102)		1,3-dichlorobenzene	4.151	4.255	4.218	4.395	4.551	4.481	4.545	4.367	4.3705	3.46
103)	C	1,4-dichlorobenzene	4.364	4.138	4.264	4.437	4.653	4.631	4.574	4.245	4.4132	4.37
104)		sec-butylbenzene	9.096	8.990	8.813	9.355	9.703	9.547	9.719	8.350	9.1967	5.19
105)		1,2,3-trimethylbenzene	5.868	5.508	5.620	5.876	6.064	6.074	6.235	5.563	5.8511	4.56
106)		p-isopropyltoluene	8.454	8.300	8.094	8.700	9.033	8.875	8.741	7.508	8.4632	5.83
107)		1,2-dichlorobenzene	3.831	3.860	3.952	4.130	4.251	4.202	4.275	4.177	4.0848	4.34
108)		n-butylbenzene	6.797	6.996	6.964	7.528	7.746	7.704	7.944	7.538	7.4020	5.73
109)		indan	6.184	5.996	6.092	6.394	6.559	6.483	6.534	6.267	6.3138	3.35
110)		indene	4.069	4.200	4.196	4.407	4.484	4.549	4.732	4.688	4.4156	5.49
111)	C	1,2-dibromo-3-chloropropane	1.530	1.568	1.589	1.843	1.941	2.016	2.233	2.286	1.8758	15.83
112)		undecane	2.963	3.052	3.124	3.667	3.830	3.898	4.351	4.353	3.6547	15.29
113)		1,2,4,5-tetramethylbenzene	1.134	1.174	1.171	1.539	1.629	1.384	1.317	1.069	1.3022	15.53
114)		dodecane	2.202	2.679	2.849	3.721	4.035	4.426	4.749	3.907	3.5710	25.18
115)	C	1,2,4-trichlorobenzene	2.908	2.511	2.824	3.209	3.490	3.578	3.729	3.104	3.1693	13.11
116)		naphthalene	6.085	7.094	7.269	8.459	8.838	8.726	9.175	8.866	8.0640	13.71
117)		1,2,3-trichlorobenzene	2.356	2.704	2.665	2.973	3.204	3.264	3.548	3.611	3.0407	14.65
118)		benzothiophene		1.097	1.087	1.382	1.487	1.455	1.443	1.178	1.3041	13.56
119)	C	hexachlorobutadiene	2.125	2.341	2.328	2.645	2.836	2.866	3.246	3.151	2.6924	15.05
120)		2-methylnaphthalene		1.383	1.457	2.794	3.153	2.846	3.354	3.516	2.6431	33.07#
121)		1-methylnaphthalene		1.837	1.735	2.447	2.737	2.488	2.871	3.010	2.4465	20.16

FORM VI-TO15-LL

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date: 12/23/2014 Time: 12:06

Lab File ID: R231816 Init. Calib. Date(s): 12/14/14 12/14/14

Sample No: WG751505-2,3,25 Init. Calib. Times : 14:35 18:17

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	99	0.00
2		chlorodifluoromethane	1.240	1.168	5.8	98	0.00
3		propylene	0.596	0.592	0.7	103	0.00
4		propane	0.759	0.665	12.4	100	0.00
5		dichlorodifluoromethane	1.520	1.446	4.9	93	0.00
6	C	chloromethane	0.718	0.647	9.9	97	0.00
7		Freon-114	2.639	2.437	7.7	92	0.00
8	C	methanol	0.323	0.334	-3.4	99	0.00
9	C	vinyl chloride	0.812	0.766	5.7	94	0.00
10	C	1,3-butadiene	0.579	0.559	3.5	95	0.00
11		butane	1.344	1.208	10.1	96	0.00
13	C	bromomethane	0.935	0.847	9.4	92	0.00
14	C	chloroethane	0.417	0.379	9.1	93	0.00
15		ethanol	0.687	0.684	0.4	98	0.00
16		dichlorofluoromethane	2.052	1.853	9.7	94	0.00
17	C	vinyl bromide	0.937	0.887	5.3	94	0.00
18	C	acrolein	0.330	0.305	7.6	93	0.00
19		acetone	1.382	1.311	5.1	96	0.00
20	C	acetonitrile	0.761	0.734	3.5	99	0.00
21		trichlorofluoromethane	2.957	2.697	8.8	90	0.00
22		isopropyl alcohol	1.506	1.373	8.8	97	0.00
23	C	acrylonitrile	0.606	0.566	6.6	97	0.00
24		pentane	1.507	1.550	-2.9	104	0.00
25		ethyl ether	1.292	1.301	-0.7	103	0.00
26	C	1,1-dichloroethene	1.464	1.360	7.1	94	0.00
27		tertiary butyl alcohol	1.775	1.621	8.7	92	0.00
28	C	methylene chloride	1.055	0.981	7.0	95	0.00
29	C	3-chloropropene	1.183	1.135	4.1	96	0.00
30	C	carbon disulfide	2.644	2.496	5.6	91	0.00
31		Freon 113	2.052	1.953	4.8	94	0.00
32		trans-1,2-dichloroethene	1.207	1.209	-0.2	99	0.00
33	C	1,1-dichloroethane	1.460	1.449	0.8	100	0.00
34	C	MTBE	2.418	2.353	2.7	98	0.00
35	C	vinyl acetate	1.215	1.705	-40.3#	148#	0.00
36	C	2-butanone	1.750	1.741	0.5	102	0.00
37		cis-1,2-dichloroethene	1.093	1.095	-0.2	101	0.00
38		Ethyl Acetate	0.261	0.267	-2.3	102	0.00
39	C	chloroform	2.031	1.990	2.0	99	0.00
40		Tetrahydrofuran	0.946	0.964	-1.9	103	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231816.D
Acq On : 23 Dec 2014 12:06 pm
Operator : AIRPIANO2:RY
Sample : WG751505-2,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 12:31:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.737	1.692	2.6	99	0.00
42	C	1,2-dichloroethane	1.237	1.216	1.7	99	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00
44	C	hexane	0.337	0.335	0.6	102	0.00
45		diisopropyl ether	0.199	0.195	2.0	99	0.00
46		tert-butyl ethyl ether	0.688	0.670	2.6	99	0.00
48	C	1,1,1-trichloroethane	0.685	0.638	6.9	95	0.00
49		1,1-dichloropropene	0.374	0.365	2.4	101	-0.01
50	C	benzene	0.707	0.693	2.0	101	0.00
52	C	carbon tetrachloride	0.678	0.648	4.4	94	-0.01
53		cyclohexane	0.338	0.328	3.0	102	0.00
54		tert-amyl methyl ether	0.705	0.689	2.3	99	0.00
55		dibromomethane	0.361	0.346	4.2	97	-0.01
56	C	1,2-dichloropropane	0.257	0.251	2.3	99	0.00
57		bromodichloromethane	0.655	0.629	4.0	96	0.00
58	C	1,4-dioxane	0.178	0.167	6.2	98	0.00
59	C	trichloroethene	0.388	0.370	4.6	96	-0.01
60	C	2,2,4-trimethylpentane	1.132	1.111	1.9	97	0.00
61		methyl methacrylate	0.346	0.340	1.7	102	0.00
62		heptane	0.434	0.429	1.2	103	0.00
63	C	cis-1,3-dichloropropene	0.386	0.393	-1.8	102	0.00
64	C	4-methyl-2-pentanone	0.620	0.615	0.8	103	0.00
65		trans-1,3-dichloropropene	0.517	0.524	-1.4	100	0.00
66	C	1,1,2-trichloroethane	0.435	0.428	1.6	98	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	99	0.00
68	C	toluene	6.567	6.493	1.1	100	0.00
71		1,3-dichloropropane	2.949	2.992	-1.5	102	0.00
72		2-hexanone	4.016	4.006	0.2	101	0.00
74		dibromochloromethane	5.124	5.104	0.4	93	0.00
75	C	1,2-dibromoethane	3.954	4.024	-1.8	98	0.00
76		butyl acetate	0.647	0.671	-3.7	102	0.00
77		octane	1.819	1.864	-2.5	102	0.00
78	C	tetrachloroethene	3.335	3.288	1.4	97	0.00
79		1,1,1,2-tetrachloroethane	2.486	2.469	0.7	96	0.00
80	C	chlorobenzene	4.098	4.171	-1.8	101	0.00
81	C	ethylbenzene	6.412	6.616	-3.2	102	0.00
83	C	m+p-xylene	5.117	5.334	-4.2	102	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231816.D
Acq On : 23 Dec 2014 12:06 pm
Operator : AIRPIANO2:RY
Sample : WG751505-2,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 12:31:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.366	3.401	-1.0	93	0.00
85	C	styrene	3.976	4.187	-5.3	103	0.00
86	C	1,1,2,2-tetrachloroethane	3.776	4.068	-7.7	104	0.00
87	C	o-xylene	5.229	5.541	-6.0	102	0.00
88		1,2,3-trichloropropane	2.807	2.930	-4.4	103	0.00
89		nonane	3.328	3.453	-3.8	104	0.00
91	C	isopropylbenzene	7.044	7.630	-8.3	102	0.00
92		bromobenzene	3.681	3.758	-2.1	103	0.00
93		2-chlorotoluene	2.045	2.084	-1.9	100	0.00
94		n-propylbenzene	2.128	2.248	-5.6	103	0.00
95		4-chlorotoluene	5.491	5.712	-4.0	102	0.00
96		4-ethyl toluene	8.036	8.561	-6.5	101	0.00
97		1,3,5-trimethylbenzene	6.307	6.767	-7.3	105	0.00
98		tert-butylbenzene	6.839	7.452	-9.0	101	0.00
99		1,2,4-trimethylbenzene	6.269	6.926	-10.5	101	0.00
100		decane	3.379	3.598	-6.5	104	0.00
101	C	Benzyl Chloride	5.362	5.962	-11.2	102	0.00
102		1,3-dichlorobenzene	4.371	4.657	-6.5	101	0.00
103	C	1,4-dichlorobenzene	4.413	4.698	-6.5	100	0.00
104		sec-butylbenzene	9.197	9.912	-7.8	101	0.00
106		p-isopropyltoluene	8.463	9.237	-9.1	101	0.00
107		1,2-dichlorobenzene	4.085	4.433	-8.5	103	0.00
108		n-butylbenzene	7.402	8.120	-9.7	104	0.00
111	C	1,2-dibromo-3-chloropropane	1.876	2.000	-6.6	102	0.00
112		undecane	3.655	4.032	-10.3	104	0.00
114		dodecane	3.571	4.116	-15.3	101	-0.01
115	C	1,2,4-trichlorobenzene	3.169	3.439	-8.5	98	0.00
116		naphthalene	8.064	8.859	-9.9	99	0.00
117		1,2,3-trichlorobenzene	3.041	3.167	-4.1	98	0.00
119	C	hexachlorobutadiene	2.692	2.839	-5.5	99	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Quality Control Data Summary

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500219 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	8.08	81	-	-	-		70-130
Propylene	10	NA	9.92	99	-	-	-		70-130
Propane	10	NA	7.58	76	-	-	-		70-130
Dichlorodifluoromethane	10	NA	8.02	80	-	-	-		70-130
Chloromethane	10	NA	8.63	86	-	-	-		70-130
Freon-114	10	NA	9.32	93	-	-	-		70-130
Methanol	50	NA	44.0	88	-	-	-		70-130
Vinyl chloride	10	NA	9.17	92	-	-	-		70-130
1,3-Butadiene	10	NA	9.30	93	-	-	-		70-130
Butane	10	NA	8.54	85	-	-	-		70-130
Bromomethane	10	NA	8.36	84	-	-	-		70-130
Chloroethane	10	NA	8.99	90	-	-	-		70-130
Ethanol	50	NA	43.9	88	-	-	-		70-130
Dichlorofluoromethane	10	NA	8.24	82	-	-	-		70-130
Vinyl bromide	10	NA	8.93	89	-	-	-		70-130
Acrolein	10	NA	7.33	73	-	-	-		70-130
Acetone	50	NA	46.7	93	-	-	-		70-130
Acetonitrile	10	NA	8.06	81	-	-	-		70-130
Trichlorofluoromethane	10	NA	8.94	89	-	-	-		70-130
Isopropanol	10	NA	9.16	92	-	-	-		70-130
Acrylonitrile	10	NA	8.55	86	-	-	-		70-130
Pentane	10	NA	8.37	84	-	-	-		70-130
Ethyl ether	10	NA	8.44	84	-	-	-		70-130
1,1-Dichloroethene	10	NA	9.00	90	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	8.72	87	-	-	-		70-130
Methylene chloride	10	NA	8.92	89	-	-	-		70-130
3-Chloropropene	10	NA	8.65	86	-	-	-		70-130
Carbon disulfide	10	NA	8.93	89	-	-	-		70-130
Freon-113	10	NA	8.93	89	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	8.54	85	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.99	90	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.90	89	-	-	-		70-130
Vinyl acetate	10	NA	11.5	115	-	-	-		70-130
2-Butanone	10	NA	9.22	92	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	10.4	104	-	-	-		70-130
Ethyl Acetate	10	NA	9.18	92	-	-	-		70-130
Chloroform	10	NA	9.18	92	-	-	-		70-130
Tetrahydrofuran	10	NA	8.09	81	-	-	-		70-130
2,2-Dichloropropane	10	NA	8.31	83	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.36	94	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500219 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	8.85	88	-	-	-		70-130
Diisopropyl Ether	10	NA	8.86	89	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.49	85	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	8.96	90	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.87	89	-	-	-		70-130
Benzene	10	NA	9.36	94	-	-	-		70-130
Carbon tetrachloride	10	NA	8.63	86	-	-	-		70-130
Cyclohexane	10	NA	8.74	87	-	-	-		70-130
tert-amyl methyl ether	10	NA	8.69	87	-	-	-		70-130
Dibromomethane	10	NA	8.82	88	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.55	96	-	-	-		70-130
Bromodichloromethane	10	NA	9.10	91	-	-	-		70-130
1,4-Dioxane	10	NA	9.68	97	-	-	-		70-130
Trichloroethene	10	NA	9.36	94	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	9.27	93	-	-	-		70-130
Methyl methacrylate	10	NA	8.75	88	-	-	-		70-130
Heptane	10	NA	8.29	83	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	9.99	100	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	8.96	90	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.49	85	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.18	92	-	-	-		70-130
Toluene	10	NA	9.38	94	-	-	-		70-130
1,3-Dichloropropane	10	NA	9.06	91	-	-	-		70-130
2-Hexanone	10	NA	10.1	101	-	-	-		70-130
Dibromochloromethane	10	NA	9.11	91	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.52	95	-	-	-		70-130
Butyl Acetate	10	NA	9.30	93	-	-	-		70-130
Octane	10	NA	8.53	85	-	-	-		70-130
Tetrachloroethene	10	NA	9.20	92	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	8.81	88	-	-	-		70-130
Chlorobenzene	10	NA	9.48	95	-	-	-		70-130
Ethylbenzene	10	NA	9.51	95	-	-	-		70-130
p/m-Xylene	20	NA	18.9	94	-	-	-		70-130
Bromoform	10	NA	9.03	90	-	-	-		70-130
Styrene	10	NA	9.62	96	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.76	98	-	-	-		70-130
o-Xylene	10	NA	9.68	97	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	9.07	91	-	-	-		70-130
Nonane	10	NA	8.65	86	-	-	-		70-130
Isopropylbenzene	10	NA	9.30	93	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500219 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	8.99	90	-	-	-		70-130
2-Chlorotoluene	10	NA	8.90	89	-	-	-		70-130
n-Propylbenzene	10	NA	9.26	93	-	-	-		70-130
4-Chlorotoluene	10	NA	8.92	89	-	-	-		70-130
4-Ethyltoluene	10	NA	9.16	92	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.74	97	-	-	-		70-130
tert-Butylbenzene	10	NA	9.03	90	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.85	98	-	-	-		70-130
Decane	10	NA	9.07	91	-	-	-		70-130
Benzyl chloride	10	NA	9.51	95	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.84	98	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.82	98	-	-	-		70-130
sec-Butylbenzene	10	NA	9.17	92	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.41	84	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	10.1	101	-	-	-		70-130
n-Butylbenzene	10	NA	9.92	99	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.09	91	-	-	-		70-130
Undecane	10	NA	9.75	98	-	-	-		70-130
Dodecane	10	NA	10.3	103	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	11.1	111	-	-	-		70-130
Naphthalene	10	NA	9.73	97	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	10.8	108	-	-	-		70-130
Hexachlorobutadiene	10	NA	10.5	105	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG754063-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID: R138914 Lab Sample ID: WG754063-4

Date Analyzed: 01/07/15 Time Analyzed: 14:21

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG754063-3LCS	WG754063-3	R138913	01/07/15 13:12
02	CAN 1809 SHELF 40	L1500219-01	R138920	01/07/15 18:38
03	CAN 634 SHELF 41	L1500219-02	R138921	01/07/15 19:10
04	SG-3DUP	WG754063-5D	R138929	01/07/15 23:26

COMMENTS: _____

_____

FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.23	49	112283	10.000	ppbV		0.00
Standard Area = 121341			Recovery = 92.54%				
43) 1,4-difluorobenzene	12.52	114	237190	10.000	ppbV		0.01
Standard Area = 247444			Recovery = 95.86%				
67) chlorobenzene-D5	16.97	54	50117	10.000	ppbV		0.00
Standard Area = 53179			Recovery = 94.24%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.00		0	N.D.			
3) propylene	0.00		0	N.D.	d		
4) propane	0.00		0	N.D.	d		
5) dichlorodifluoromethane	3.97		0	N.D.			
6) chloromethane	4.09		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	707	0.280	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.48		0	N.D.			
11) butane	4.69		0	N.D.			
13) bromomethane	0.00		0	N.D.	d		
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.49		0	N.D.			
16) dichlorofluoromethane	0.00		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	5.93		0	N.D.			
19) acetone	6.23	43	2556M3	0.226	ppbV		
20) acetonitrile	5.81	41	441	0.061	ppbV	#	36
21) trichlorofluoromethane	0.00		0	N.D.			
22) isopropyl alcohol	6.59		0	N.D.			
23) acrylonitrile	6.84		0	N.D.			
24) pentane	0.00		0	N.D.	d		
25) ethyl ether	7.11		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	7.47		0	N.D.			
28) methylene chloride	7.48	49	811	0.085	ppbV		92
29) 3-chloropropene	7.68		0	N.D.			
30) carbon disulfide	7.84		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
34) MTBE	0.00		0		N.D.	
35) vinyl acetate	9.21		0		N.D.	
36) 2-butanone	9.45		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	
38) Ethyl Acetate	0.00		0		N.D.	
39) chloroform	10.50		0		N.D.	
40) Tetrahydrofuran	10.78		0		N.D.	
41) 2,2-dichloropropane	0.00		0		N.D.	
42) 1,2-dichloroethane	0.00		0		N.D.	
44) hexane	0.00		0		N.D.	
45) diisopropyl ether	0.00		0		N.D.	
46) tert-butyl ethyl ether	0.00		0		N.D.	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
49) 1,1-dichloropropene	0.00		0		N.D.	
50) benzene	0.00		0		N.D.	
52) carbon tetrachloride	0.00		0		N.D.	
53) cyclohexane	0.00		0		N.D.	d
54) tert-amyl methyl ether	0.00		0		N.D.	
55) dibromomethane	0.00		0		N.D.	
56) 1,2-dichloropropane	0.00		0		N.D.	
57) bromodichloromethane	0.00		0		N.D.	
58) 1,4-dioxane	13.40		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
60) 2,2,4-trimethylpentane	0.00		0		N.D.	
61) methyl methacrylate	13.58		0		N.D.	
62) heptane	13.69		0		N.D.	
63) cis-1,3-dichloropropene	0.00		0		N.D.	
64) 4-methyl-2-pentanone	14.32		0		N.D.	
65) trans-1,3-dichloropropene	0.00		0		N.D.	
66) 1,1,2-trichloroethane	0.00		0		N.D.	
68) toluene	15.37		0		N.D.	
71) 1,3-dichloropropane	0.00		0		N.D.	
72) 2-hexanone	15.64		0		N.D.	
74) dibromochloromethane	15.78		0		N.D.	
75) 1,2-dibromoethane	0.00		0		N.D.	
76) butyl acetate	0.00		0		N.D.	
77) octane	0.00		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0	N.D.		
79) 1,1,1,2-tetrachloroethane	0.00		0	N.D.		
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	0.00		0	N.D.		
83) m+p-xylene	17.47		0	N.D.		
84) bromoform	0.00		0	N.D.		
85) styrene	17.75		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	17.81		0	N.D.		
88) 1,2,3-trichloropropane	0.00		0	N.D.		
89) nonane	17.93		0	N.D.		
91) isopropylbenzene	18.25		0	N.D.		
92) bromobenzene	18.36		0	N.D.		
93) 2-chlorotoluene	0.00		0	N.D.		
94) n-propylbenzene	18.75		0	N.D.		
95) 4-chlorotoluene	18.67		0	N.D.		
96) 4-ethyl toluene	18.74		0	N.D.		
97) 1,3,5-trimethylbenzene	18.79		0	N.D.		
98) tert-butylbenzene	19.10		0	N.D.		
99) 1,2,4-trimethylbenzene	19.10		0	N.D.		
100) decane	19.14		0	N.D.		
101) Benzyl Chloride	19.23		0	N.D.		
102) 1,3-dichlorobenzene	19.24		0	N.D.		
103) 1,4-dichlorobenzene	19.29		0	N.D.		
104) sec-butylbenzene	19.30		0	N.D.		
106) p-isopropyltoluene	19.41		0	N.D.		
107) 1,2-dichlorobenzene	19.55		0	N.D.		
108) n-butylbenzene	19.75		0	N.D.		
111) 1,2-dibromo-3-chloropr...	19.90		0	N.D.		
112) undecane	20.12		0	N.D.		
114) dodecane	21.04		0	N.D.		
115) 1,2,4-trichlorobenzene	21.04	180	1553	0.076	ppbV #	75
116) naphthalene	21.15	128	5560	0.109	ppbV #	92
117) 1,2,3-trichlorobenzene	21.41	180	1238	0.065	ppbV #	65
119) hexachlorobutadiene	21.48		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

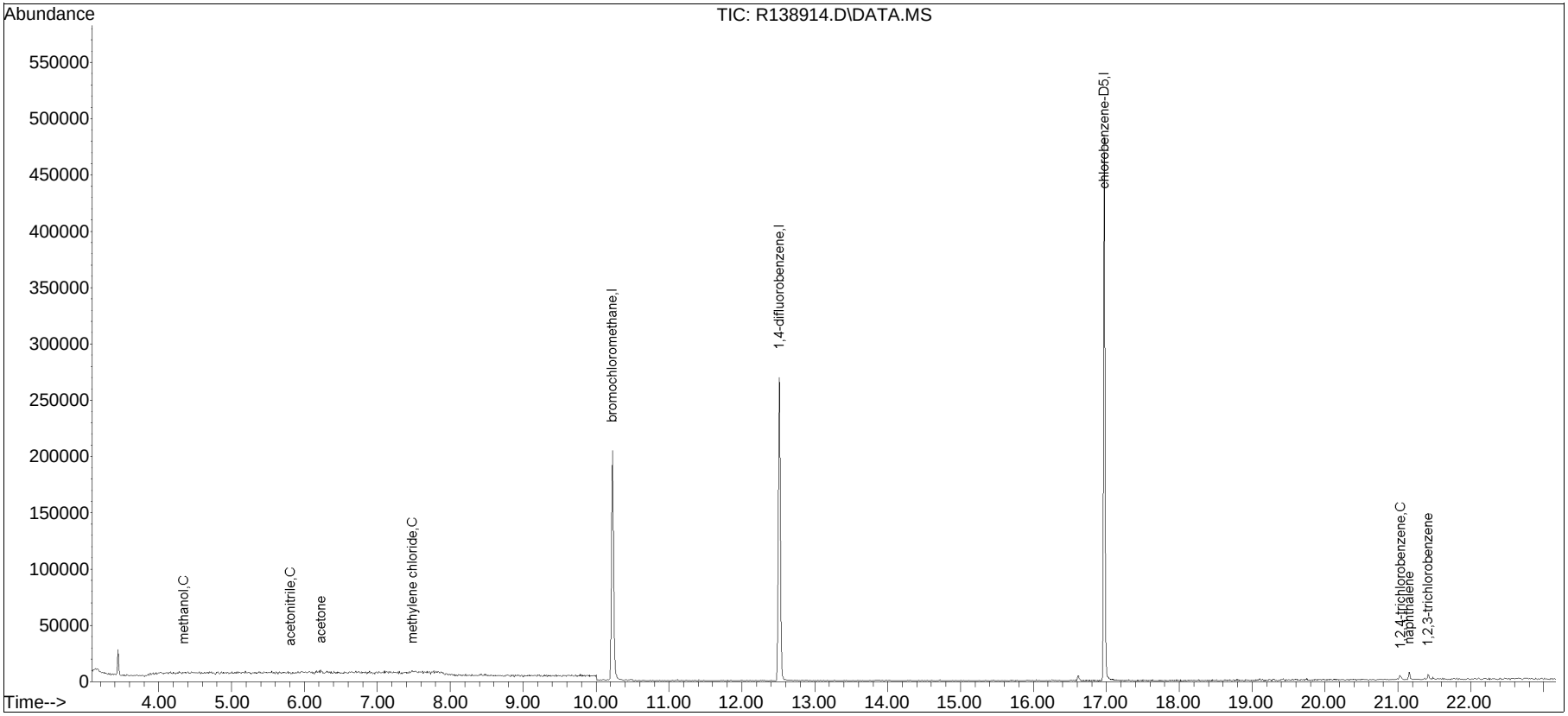
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

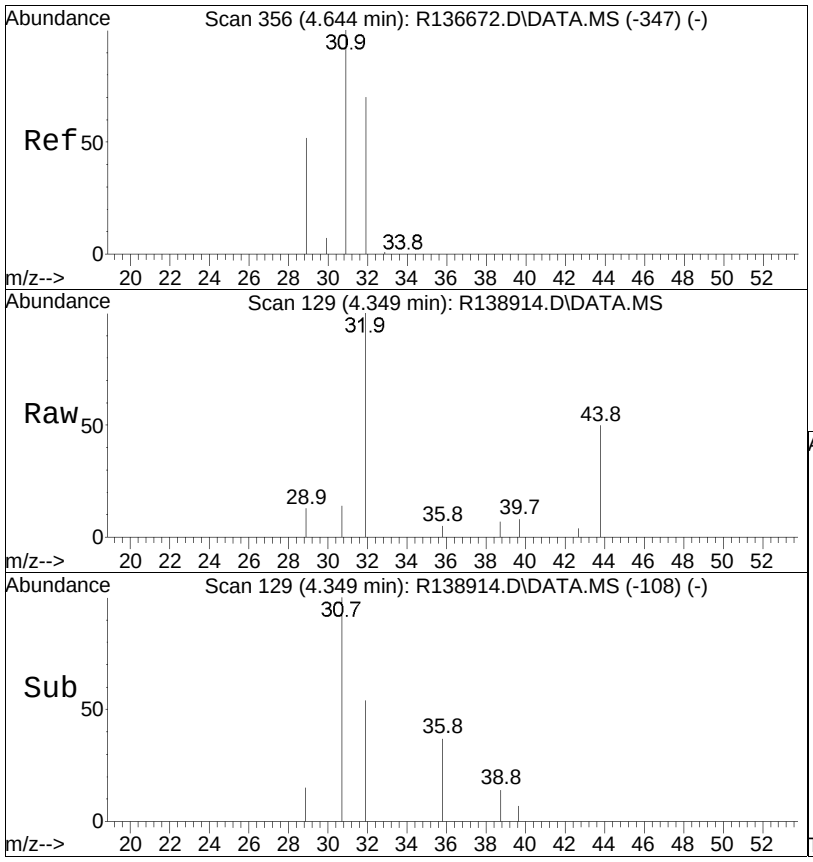
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38913.D

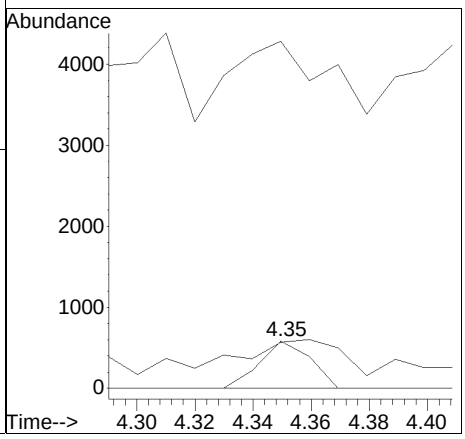


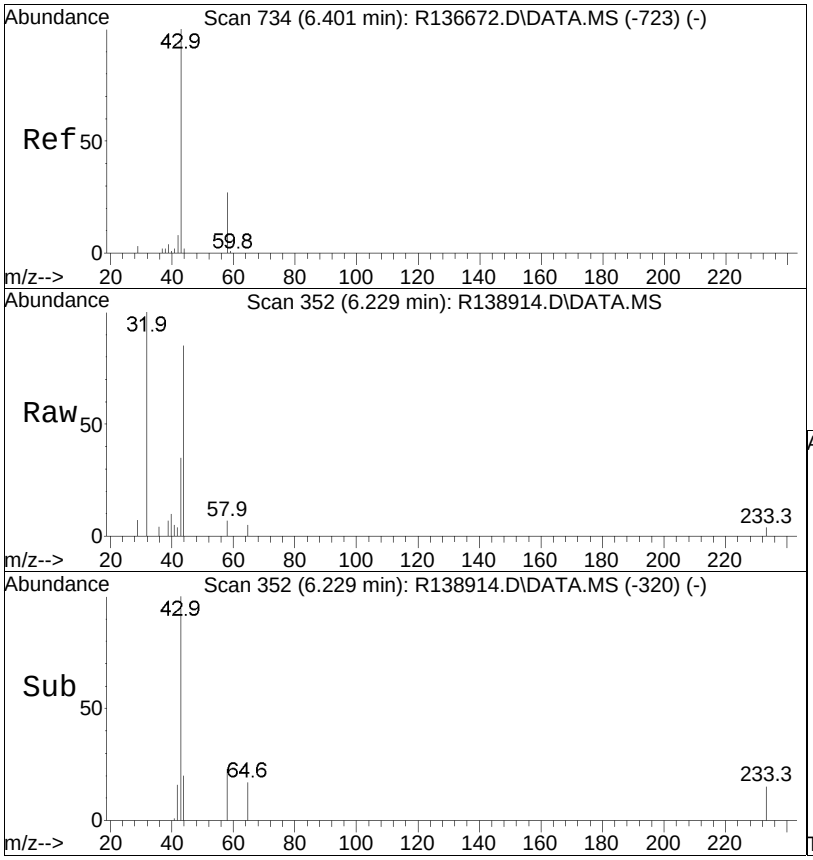


#8
methanol
Concen: 0.28 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 31 Resp: 707

Ion	Ratio	Lower	Upper
31	100		
32	734.6	59.9	89.9#
29	97.4	50.3	75.5#

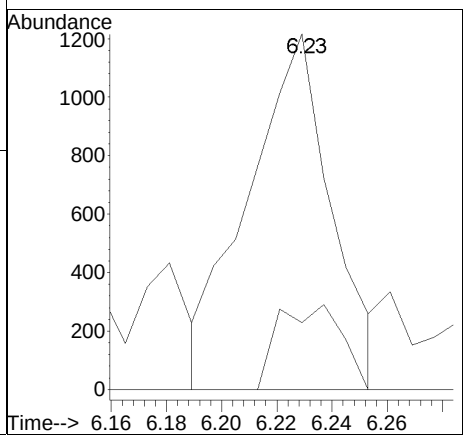


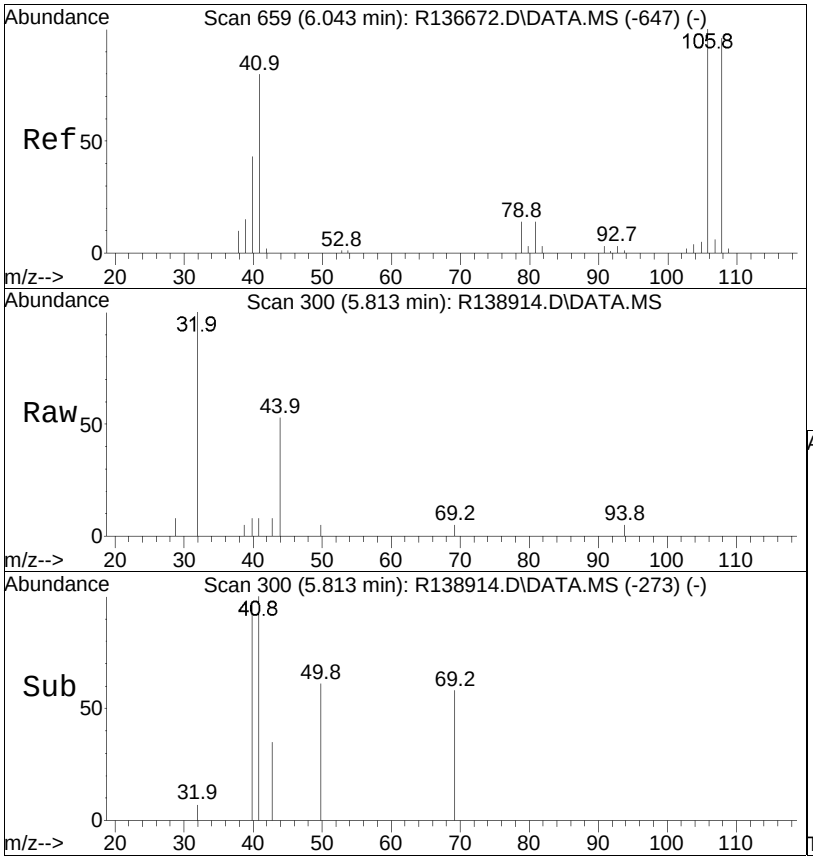


#19
acetone
Concen: 0.23 ppbV m
RT: 6.23 min Scan# 352
Delta R.T. 0.056 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 43 Resp: 2556

Ion	Ratio	Lower	Upper
43	100		
58	18.8	19.9	29.9#
57	0.0	0.6	0.8#

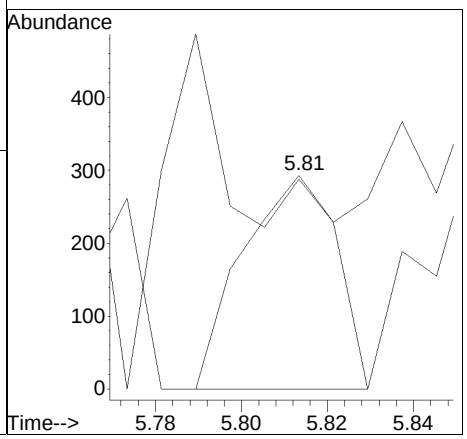




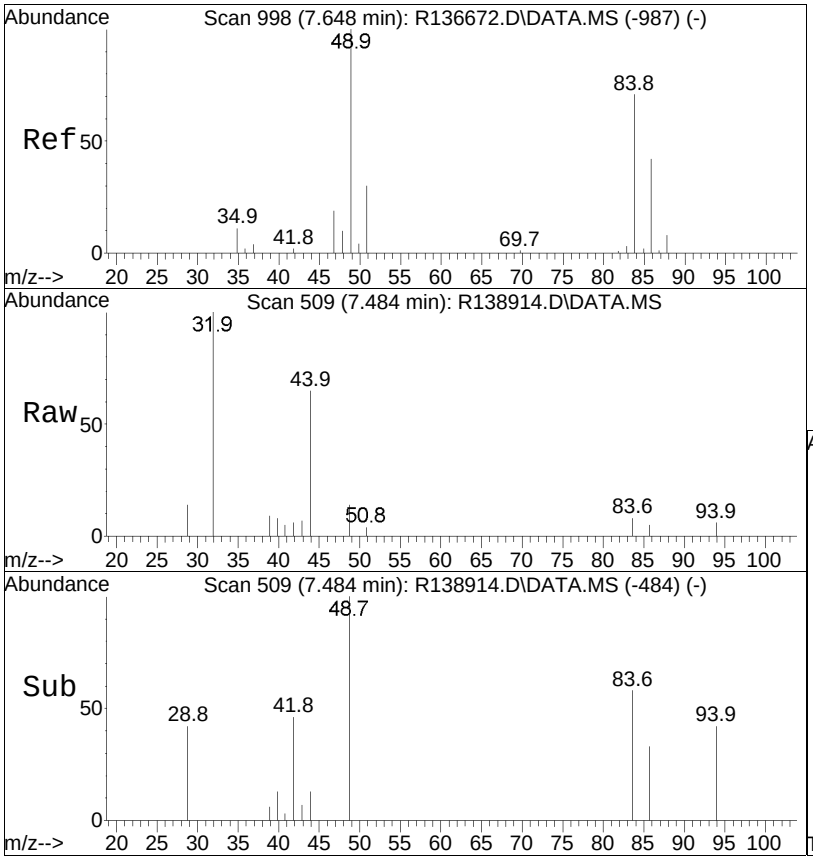
#20
acetonitrile
Concen: 0.06 ppbV
RT: 5.81 min Scan# 300
Delta R.T. 0.016 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 41 Resp: 441

Ion	Ratio	Lower	Upper
41	100		
40	98.3	42.2	63.4#



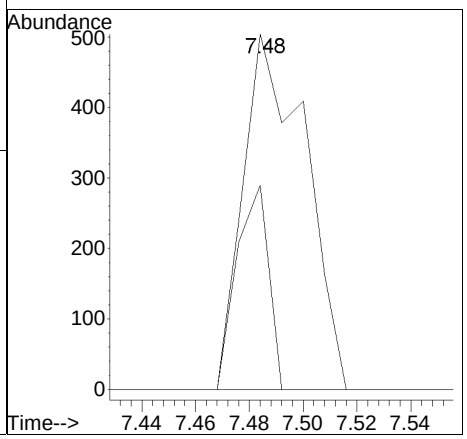
R138914.D TALL150102.M Thu Jan 08 09:11:23 2015 Page 8

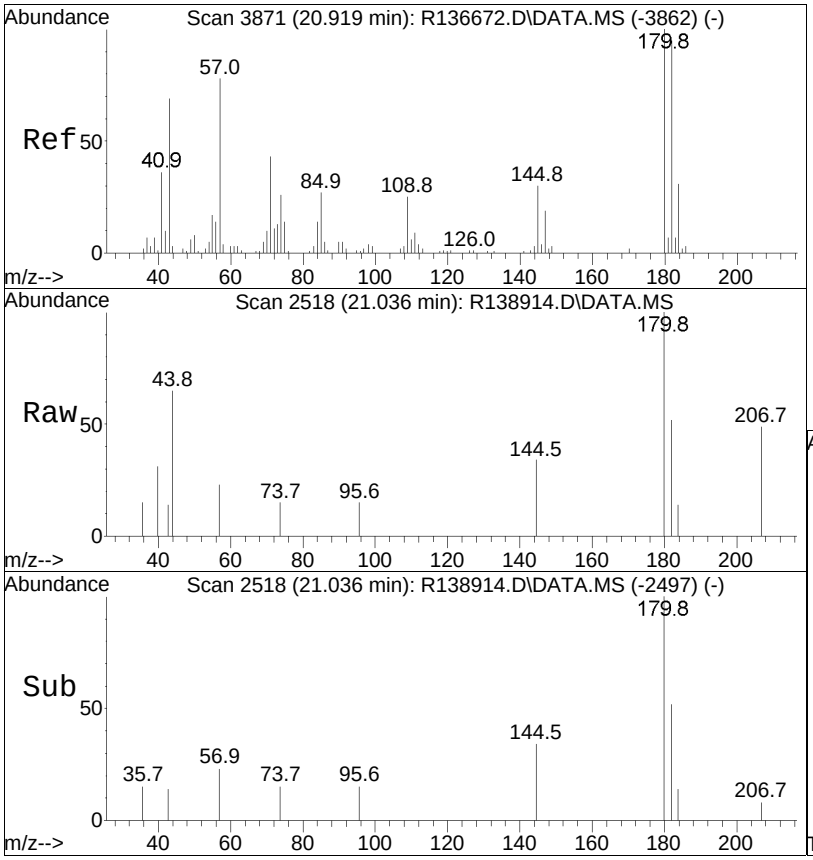


#28
methylene chloride
Concen: 0.08 ppbV
RT: 7.48 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 49 Resp: 811

Ion	Ratio	Lower	Upper
49	100		
84	57.5	50.8	76.2

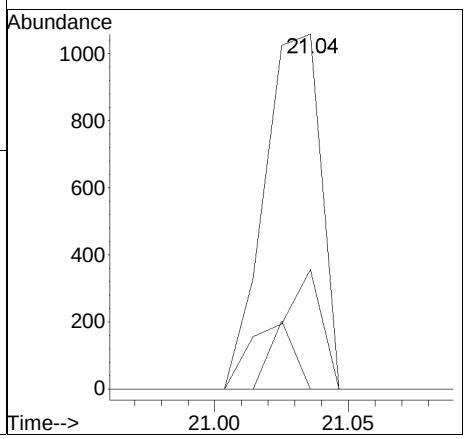


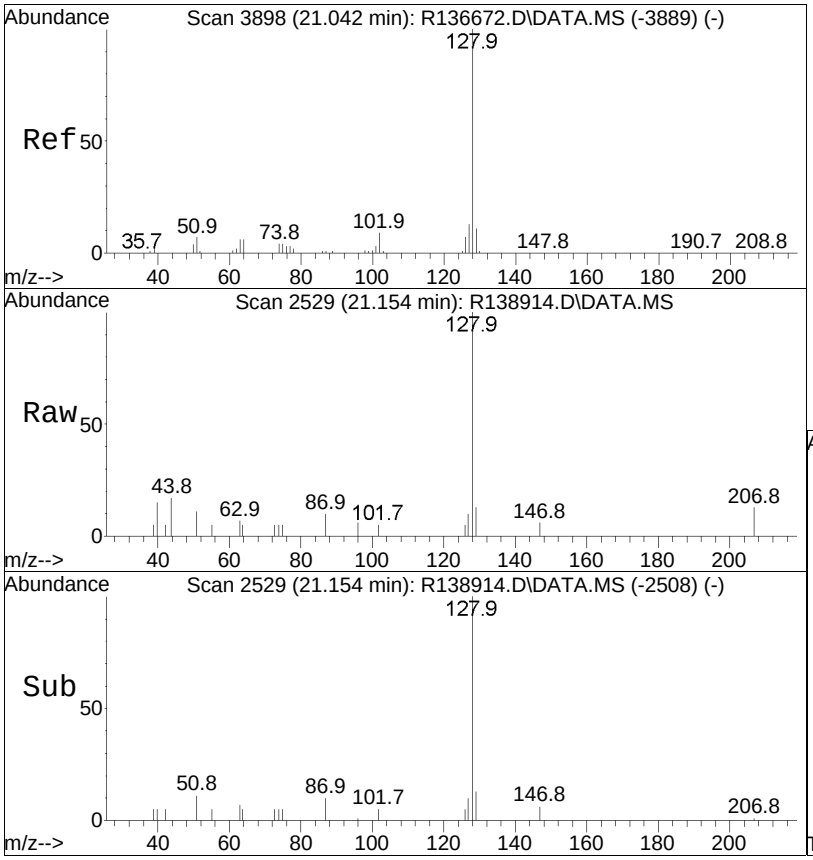


#115
1,2,4-trichlorobenzene
Concen: 0.08 ppbV
RT: 21.04 min Scan# 2518
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:180 Resp: 1553

Ion	Ratio	Lower	Upper
180	100		
145	33.7	23.7	35.5
109	0.0	18.3	27.5#

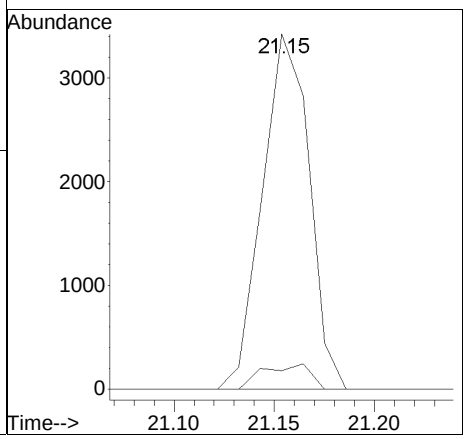


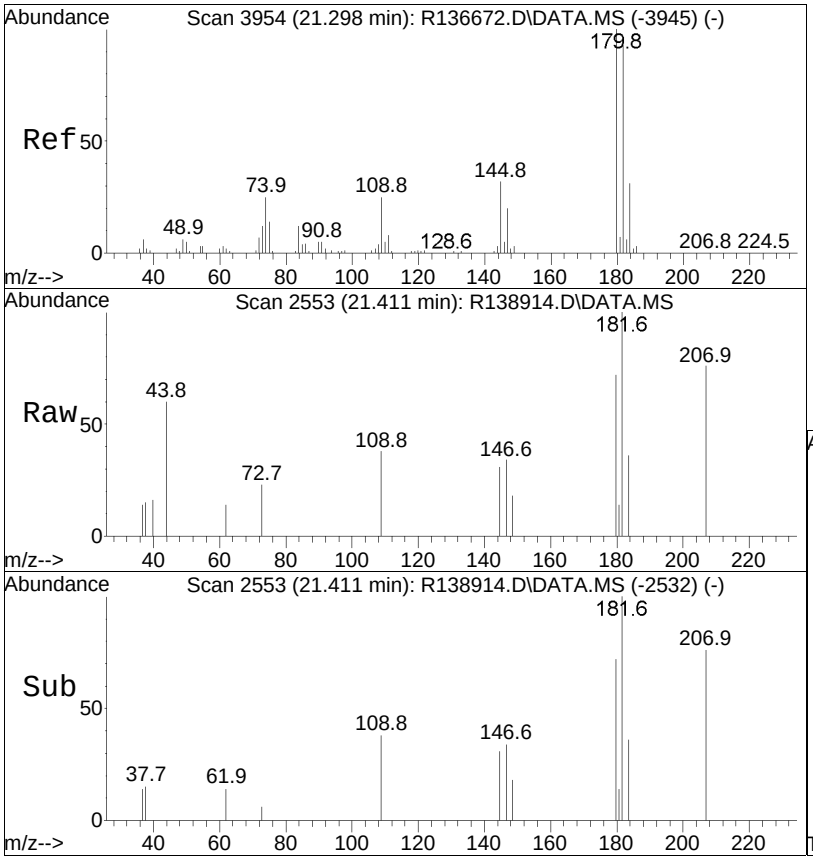


#116
naphthalene
Concen: 0.11 ppbV
RT: 21.15 min Scan# 2529
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:128 Resp: 5560

Ion	Ratio	Lower	Upper
128	100		
102	5.3	6.5	9.7#

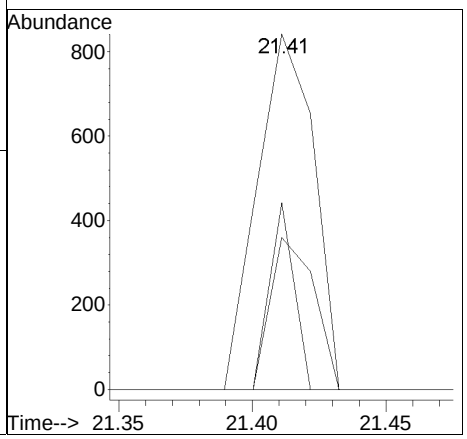




#117
1,2,3-trichlorobenzene
Concen: 0.06 ppbV
RT: 21.41 min Scan# 2553
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:180 Resp: 1238

Ion	Ratio	Lower	Upper
180	100		
145	42.8	26.2	39.2#
109	52.5	19.0	28.4#

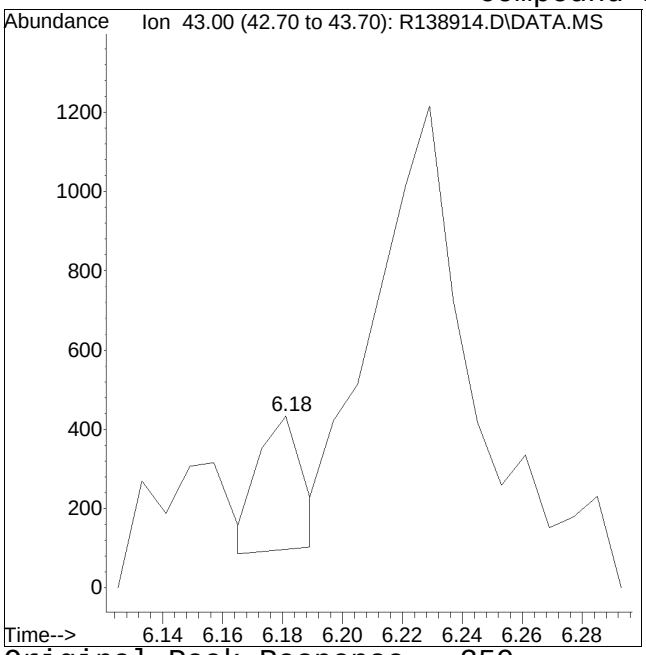


Manual Integration/Negative Proof Report

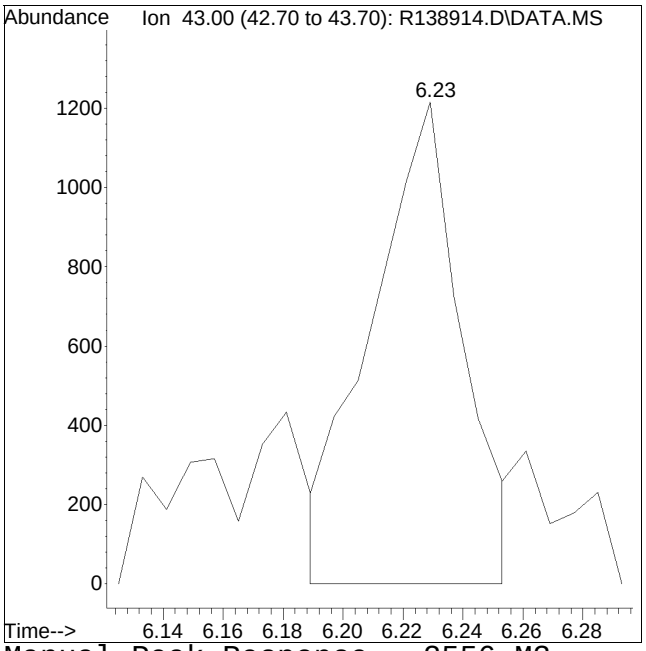
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138914.D
Date Inj'd : 1/7/2015 2:21 pm
Sample : WG754063-4,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 1/7/2015 2:53 pm

Compound #19: acetone



Original Peak Response = 350



Manual Peak Response = 2556 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138914.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.294	610	612	616	rBV2	1723	1478	0.22%	0.087%
2	8.836	689	691	692	rBV	1665	1096	0.16%	0.065%
3	8.891	697	699	700	rBV	1967	1370	0.20%	0.081%
4	9.344	763	765	768	rBV2	1585	1681	0.25%	0.099%
5	10.002	860	861	862	rVB2	4890	2015	0.30%	0.119%
6	10.094	869	871	874	rVB	840	1259	0.19%	0.074%
7	10.225	880	885	895	rBV	203554	398128	59.20%	23.494%
8	10.404	902	904	907	rBV2	1087	1651	0.25%	0.097%
9	10.469	907	911	913	rBV	891	1949	0.29%	0.115%
10	10.638	928	929	933	rVB	819	1364	0.20%	0.080%
11	11.408	1009	1011	1014	rBV2	1041	1220	0.18%	0.072%
12	11.577	1025	1029	1032	rVB2	465	1354	0.20%	0.080%
13	12.008	1067	1071	1072	rBV2	706	1407	0.21%	0.083%
14	12.516	1115	1120	1127	rBV	269249	527459	78.43%	31.126%
15	14.719	1302	1307	1308	rVB	864	1287	0.19%	0.076%
16	15.460	1386	1389	1391	rBV2	766	1241	0.18%	0.073%
17	15.605	1403	1405	1411	rVB2	762	2082	0.31%	0.123%
18	15.776	1421	1424	1427	rBV2	689	1350	0.20%	0.080%
19	16.508	1501	1505	1508	rBV2	540	1188	0.18%	0.070%
20	16.608	1514	1516	1517	rBV	4584	4426	0.66%	0.261%
21	16.855	1579	1583	1586	rBV2	635	692	0.10%	0.041%
22	16.970	1602	1614	1629	rBV	485147	672495	100.00%	39.684%
23	17.088	1644	1646	1650	rVB	1417	819	0.12%	0.048%
24	17.225	1680	1683	1686	rVB	979	678	0.10%	0.040%
25	18.267	1959	1965	1966	rBV2	852	808	0.12%	0.048%
26	18.747	2090	2095	2099	rVB2	977	1047	0.16%	0.062%
27	18.825	2114	2115	2119	rBV2	963	885	0.13%	0.052%
28	19.001	2147	2152	2154	rBV	854	1008	0.15%	0.059%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	19.101	2170	2173	2178	rVB2	2167	2260	0.34%	0.133%
30	19.139	2178	2181	2186	rBV	1310	1347	0.20%	0.079%
31	19.234	2198	2201	2209	rVB4	1453	2657	0.40%	0.157%
32	19.287	2209	2212	2219	rVV2	1951	3270	0.49%	0.193%
33	19.425	2238	2241	2245	rVB3	1636	1753	0.26%	0.103%
34	19.468	2248	2250	2252	rBV	950	809	0.12%	0.048%
35	19.549	2265	2267	2271	rVB3	1272	1409	0.21%	0.083%
36	19.592	2271	2276	2277	rBV	1100	1256	0.19%	0.074%
37	19.672	2290	2293	2296	rBV2	901	839	0.12%	0.050%
38	19.739	2303	2307	2308	rBV	1219	1410	0.21%	0.083%
39	19.749	2308	2309	2312	rVB3	1973	1235	0.18%	0.073%
40	19.825	2322	2325	2326	rVB2	1128	688	0.10%	0.041%
41	19.844	2326	2329	2332	rBV	1160	1195	0.18%	0.071%
42	19.863	2332	2333	2338	rBV	1037	1217	0.18%	0.072%
43	19.906	2341	2342	2347	rBV	915	1088	0.16%	0.064%
44	19.968	2351	2355	2357	rBV	1028	1037	0.15%	0.061%
45	20.068	2373	2376	2377	rBV3	1121	750	0.11%	0.044%
46	20.301	2421	2425	2426	rBV2	875	913	0.14%	0.054%
47	20.993	2511	2514	2515	rBV3	1187	2018	0.30%	0.119%
48	21.025	2515	2517	2523	rVB4	3764	7477	1.11%	0.441%
49	21.154	2527	2529	2532	rBV2	6675	9678	1.44%	0.571%
50	21.411	2551	2553	2558	rVB2	4560	7388	1.10%	0.436%
51	21.475	2558	2559	2564	rBV3	2096	2690	0.40%	0.159%
52	22.108	2616	2618	2621	rVB2	1117	1690	0.25%	0.100%
53	22.268	2632	2633	2635	rBV	1098	1443	0.21%	0.085%
54	22.558	2658	2660	2661	rBV	1368	2074	0.31%	0.122%
55	22.729	2674	2676	2677	rBV	1169	1586	0.24%	0.094%

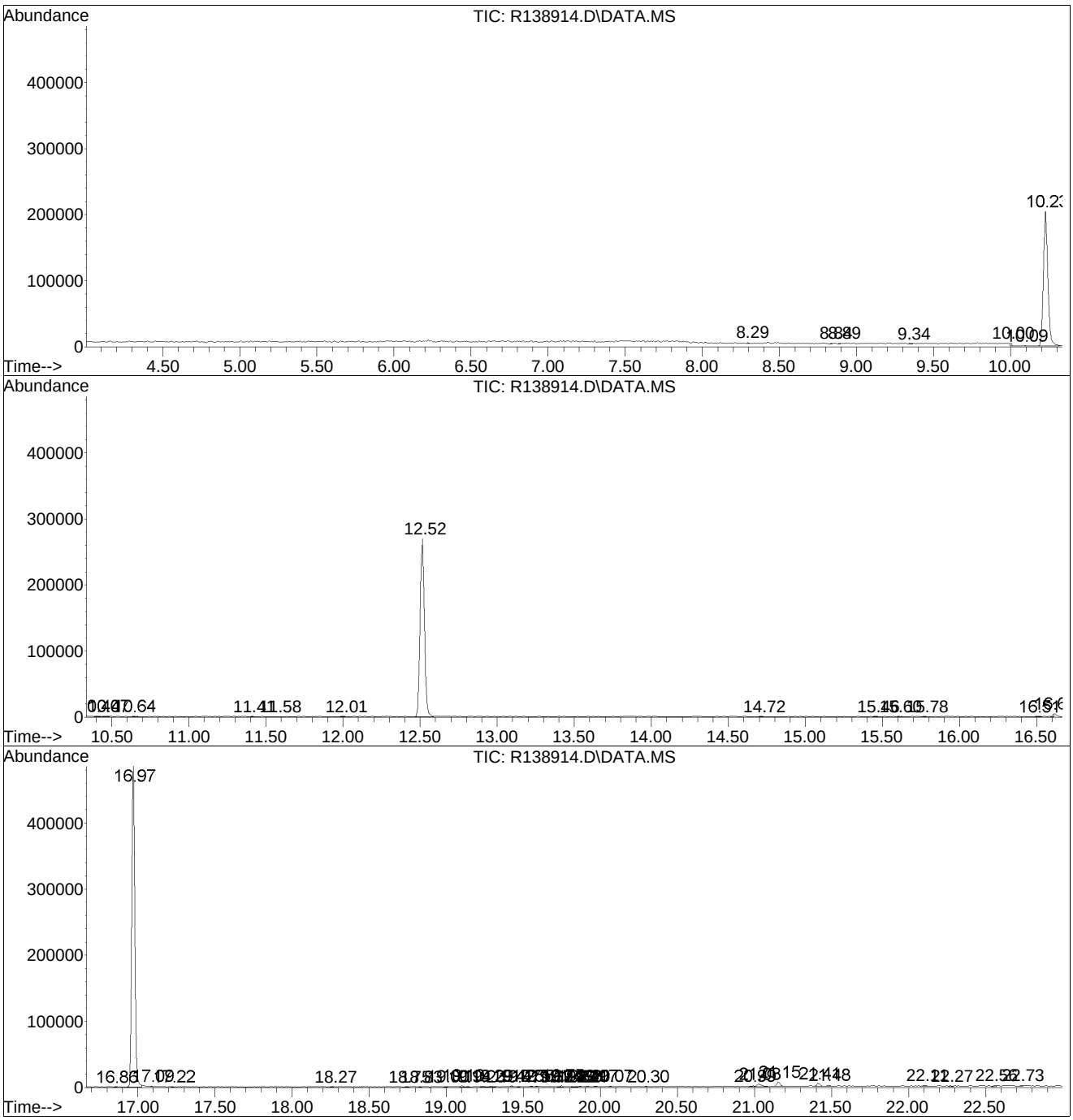
Sum of corrected areas: 1694614

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID: R138797_tune BFB Injection Date: 01/01/15

Instrument ID: AIRPIANO1 BFB Injection Time: 18:23

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	91.3
175	4.0 - 9.0% of mass 174	7.1 (7.8)1
176	93.0 - 101% of mass 174	87.7 (96)1
177	5.0 - 9.0% of mass 176	5.5 (6.2)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.4	0.4	R138798	01/01/15	20:43
02	0.8	0.8	R138799	01/01/15	21:16
03	2.0	2.0	R138800	01/01/15	21:48
04	10	10	R138801	01/01/15	22:19
05	20	20	R138802	01/01/15	22:52
06	50	50	R138803	01/01/15	23:24
07	100.0	100.0	R138804	01/01/15	23:57
08	ICV QUANT REPORT	ICV QUANT REPO	R138807	01/02/15	09:08

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID: R138909_tune BFB Injection Date: 01/07/15

Instrument ID: AIRPIANO1 BFB Injection Time: 11:01

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	19.9
75	30.0 - 66.0% of mass 95	45
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	90.5
175	4.0 - 9.0% of mass 174	6.4 (7.1)1
176	93.0 - 101% of mass 174	84.7 (93.6)1
177	5.0 - 9.0% of mass 176	6.5 (7.7)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG754063-2	R138913	01/07/15	13:12
02	WG754063-3LCS	WG754063-3	R138913	01/07/15	13:12
03	WG754063-4BLANK	WG754063-4	R138914	01/07/15	14:21
04	CAN 1809 SHELF 4	L1500219-01	R138920	01/07/15	18:38
05	CAN 634 SHELF 41	L1500219-02	R138921	01/07/15	19:10
06	Duplicate Sample	WG754063-5D	R138929	01/07/15	23:26

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID (Standard): R138913 Date Analyzed: 01/07/15

Instrument ID : AIRPIANO1 Time Analyzed: 13:12

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	121341	10.22	247444	12.51	53179	16.97
	UPPER LIMIT	169877	10.55	346422	12.84	74451	17.30
	LOWER LIMIT	72805	9.89	148466	12.18	31907	16.64
	EPA SAMPLE NO.						
01	WG754063-3LCS	121341	10.22	247444	12.51	53179	16.97
02	WG754063-4BLANK	112283	10.23	237190	12.52	50117	16.97
03	CAN 1809 SHELF 40	114716	10.23	233256	12.52	52377	16.97
04	CAN 634 SHELF 41	105977	10.22	229609	12.51	50248	16.97
05	WG754063-5DUP	92428	10.22	194655	12.51	47195	16.97

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.23	49	114716	10.000	ppbV		0.00
Standard Area = 118855			Recovery = 96.52%				
43) 1,4-difluorobenzene	12.52	114	233256	10.000	ppbV		0.01
Standard Area = 249633			Recovery = 93.44%				
67) chlorobenzene-D5	16.97	54	52377	10.000	ppbV		0.00
Standard Area = 54542			Recovery = 96.03%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.00		0	N.D.			
3) propylene	3.91		0	N.D.			
4) propane	0.00		0	N.D.		d	
5) dichlorodifluoromethane	0.00		0	N.D.			
6) chloromethane	4.10		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	627	0.243	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.56		0	N.D.			
11) butane	4.72		0	N.D.			
13) bromomethane	4.99		0	N.D.			
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.53		0	N.D.			
16) dichlorofluoromethane	5.56		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	5.95		0	N.D.			
19) acetone	0.00		0	N.D.		d	
20) acetonitrile	5.81		0	N.D.			
21) trichlorofluoromethane	6.32		0	N.D.			
22) isopropyl alcohol	6.60		0	N.D.			
23) acrylonitrile	7.02		0	N.D.			
24) pentane	6.92		0	N.D.			
25) ethyl ether	0.00		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	0.00		0	N.D.			
28) methylene chloride	7.50	49	690	0.071	ppbV		93
29) 3-chloropropene	7.61		0	N.D.			
30) carbon disulfide	7.84		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
34) MTBE	0.00		0		N.D.	
35) vinyl acetate	9.20		0		N.D.	
36) 2-butanone	9.52		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	
38) Ethyl Acetate	0.00		0		N.D.	
39) chloroform	10.24		0		N.D.	
40) Tetrahydrofuran	0.00		0		N.D.	
41) 2,2-dichloropropane	0.00		0		N.D.	
42) 1,2-dichloroethane	0.00		0		N.D.	
44) hexane	0.00		0		N.D.	
45) diisopropyl ether	0.00		0		N.D.	
46) tert-butyl ethyl ether	0.00		0		N.D.	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
49) 1,1-dichloropropene	0.00		0		N.D.	
50) benzene	0.00		0		N.D.	
52) carbon tetrachloride	0.00		0		N.D.	
53) cyclohexane	0.00		0		N.D.	d
54) tert-amyl methyl ether	0.00		0		N.D.	
55) dibromomethane	0.00		0		N.D.	
56) 1,2-dichloropropane	0.00		0		N.D.	
57) bromodichloromethane	0.00		0		N.D.	
58) 1,4-dioxane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
60) 2,2,4-trimethylpentane	0.00		0		N.D.	
61) methyl methacrylate	0.00		0		N.D.	
62) heptane	13.73		0		N.D.	
63) cis-1,3-dichloropropene	0.00		0		N.D.	
64) 4-methyl-2-pentanone	14.30		0		N.D.	
65) trans-1,3-dichloropropene	0.00		0		N.D.	
66) 1,1,2-trichloroethane	0.00		0		N.D.	
68) toluene	0.00		0		N.D.	
71) 1,3-dichloropropane	0.00		0		N.D.	
72) 2-hexanone	15.64		0		N.D.	
74) dibromochloromethane	0.00		0		N.D.	
75) 1,2-dibromoethane	0.00		0		N.D.	
76) butyl acetate	0.00		0		N.D.	
77) octane	0.00		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.00		0		N.D.	
80) chlorobenzene	0.00		0		N.D.	
81) ethylbenzene	17.20		0		N.D.	
83) m+p-xylene	17.58		0		N.D.	
84) bromoform	17.38		0		N.D.	
85) styrene	0.00		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0		N.D.	
87) o-xylene	0.00		0		N.D.	
88) 1,2,3-trichloropropane	0.00		0		N.D.	
89) nonane	17.94		0		N.D.	
91) isopropylbenzene	0.00		0		N.D.	
92) bromobenzene	0.00		0		N.D.	
93) 2-chlorotoluene	0.00		0		N.D.	
94) n-propylbenzene	0.00		0		N.D.	
95) 4-chlorotoluene	0.00		0		N.D.	
96) 4-ethyl toluene	0.00		0		N.D.	
97) 1,3,5-trimethylbenzene	0.00		0		N.D.	
98) tert-butylbenzene	0.00		0		N.D.	
99) 1,2,4-trimethylbenzene	0.00		0		N.D.	
100) decane	19.03		0		N.D.	
101) Benzyl Chloride	19.17		0		N.D.	
102) 1,3-dichlorobenzene	0.00		0		N.D.	
103) 1,4-dichlorobenzene	0.00		0		N.D.	
104) sec-butylbenzene	0.00		0		N.D.	
106) p-isopropyltoluene	0.00		0		N.D.	
107) 1,2-dichlorobenzene	0.00		0		N.D.	
108) n-butylbenzene	0.00		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.00		0		N.D.	
112) undecane	0.00		0		N.D.	
114) dodecane	0.00		0		N.D.	
115) 1,2,4-trichlorobenzene	0.00		0		N.D.	
116) naphthalene	21.15		0		N.D.	
117) 1,2,3-trichlorobenzene	0.00		0		N.D.	
119) hexachlorobutadiene	0.00		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

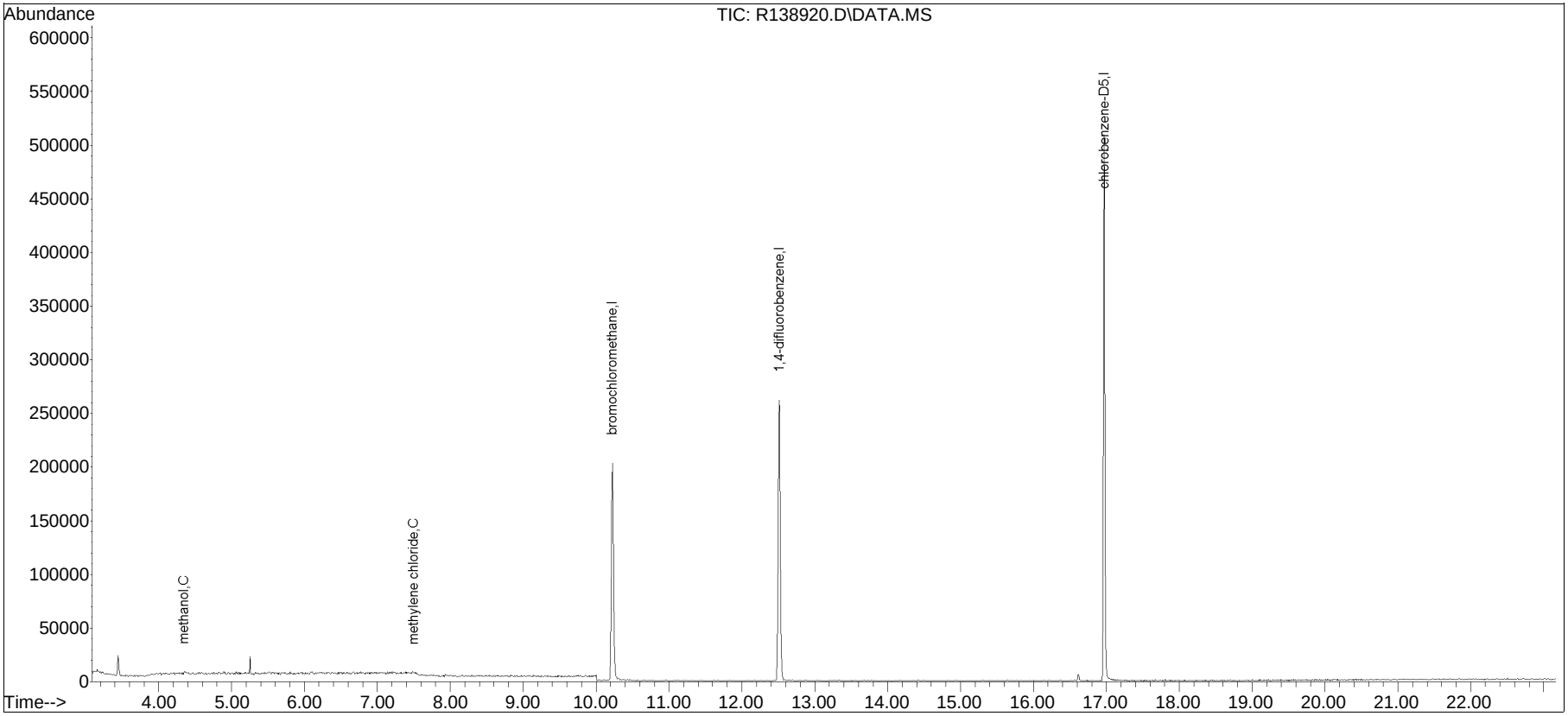
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

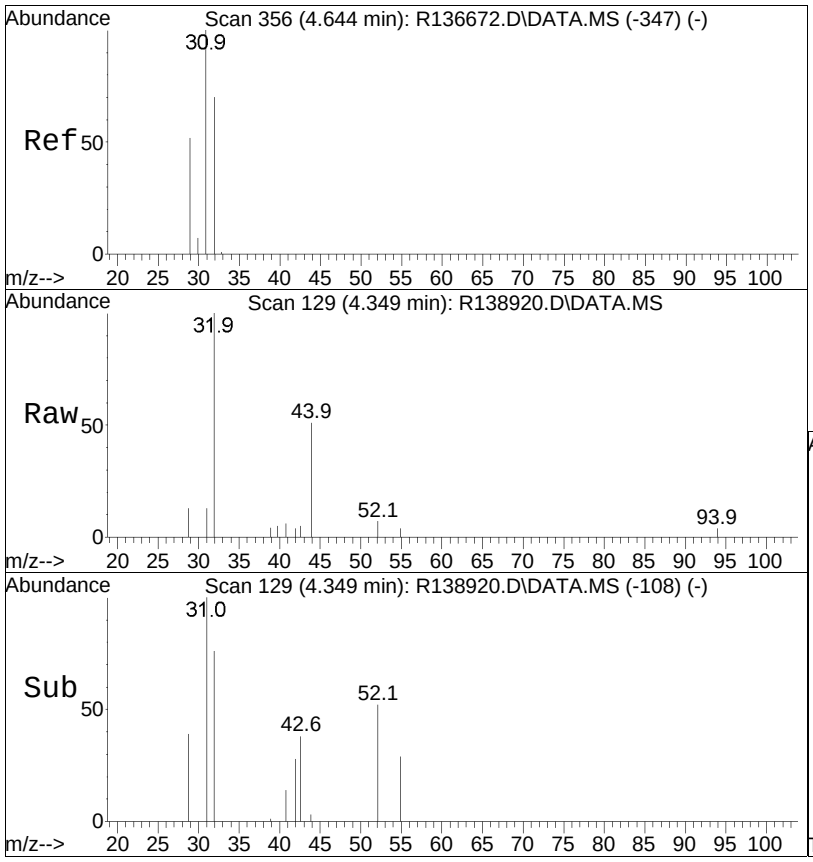
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38911.D

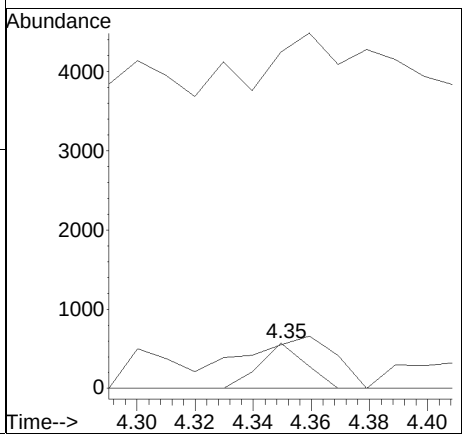


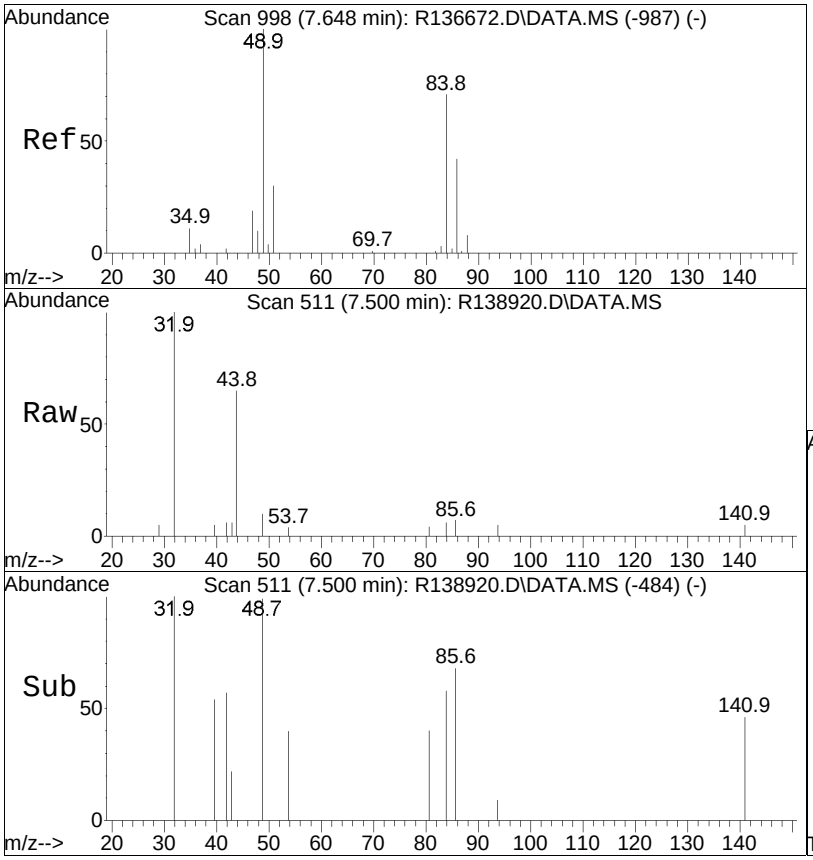


#8
methanol
Concen: 0.24 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138920.D
Acq: 7 Jan 2015 6:38 pm

Tgt Ion: 31 Resp: 627

Ion	Ratio	Lower	Upper
31	100		
32	740.8	59.9	89.9#
29	96.0	50.3	75.5#

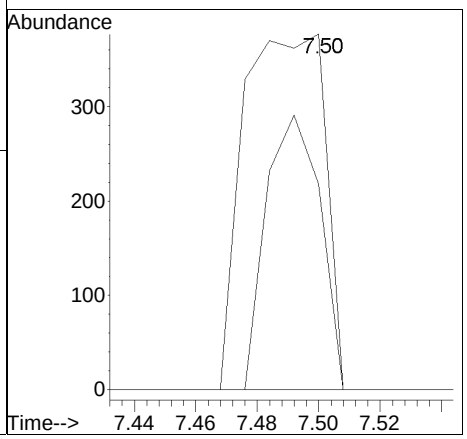




#28
methylene chloride
Concen: 0.07 ppbV
RT: 7.50 min Scan# 511
Delta R.T. 0.016 min
Lab File: R138920.D
Acq: 7 Jan 2015 6:38 pm

Tgt Ion: 49 Resp: 690

Ion	Ratio	Lower	Upper
49	100		
84	57.8	50.8	76.2



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150102.M
Data File	: R138920.D	Operator	: AIRPIANO1:RY
Date Inj'd	: 1/7/2015 6:38 pm	Instrument	: Air Piano 1
Sample	: L1500219-01,3,250,250	Quant Date	: 1/8/2015 5:59 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1500219
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1500219-01	Date Collected	:	01/06/15 13:08
Client ID	:	CAN 1809 SHELF 40	Date Received	:	01/06/15
Sample Location	:		Date Analyzed	:	01/07/15 18:38
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138920	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138920.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.359	128	130	132	rBV3	2927	5177	0.74%	0.303%
2	4.823	175	177	180	rBV3	2428	4380	0.63%	0.256%
3	5.062	205	206	209	rBV2	2509	2148	0.31%	0.126%
4	5.254	228	230	232	rBV	16559	8894	1.27%	0.520%
5	5.685	282	284	286	rBV	2193	3232	0.46%	0.189%
6	5.805	298	299	300	rBV	2554	1332	0.19%	0.078%
7	7.932	563	565	566	rBV2	2472	2449	0.35%	0.143%
8	8.829	688	690	695	rBV2	1880	3072	0.44%	0.180%
9	10.047	862	866	869	rVB	1022	1802	0.26%	0.105%
10	10.225	880	885	892	rBV	202431	410200	58.54%	23.998%
11	10.911	956	958	961	rBV2	753	1270	0.18%	0.074%
12	11.615	1031	1033	1036	rBV2	880	1408	0.20%	0.082%
13	12.516	1115	1120	1126	rBV	261836	524840	74.90%	30.705%
14	12.588	1126	1127	1130	rVB	1397	1434	0.20%	0.084%
15	12.640	1130	1132	1135	rBV	763	1554	0.22%	0.091%
16	14.927	1326	1330	1331	rBV	551	1282	0.18%	0.075%
17	15.126	1349	1352	1357	rVB	550	1592	0.23%	0.093%
18	16.364	1488	1489	1492	rBV	761	1217	0.17%	0.071%
19	16.615	1514	1518	1527	rVB3	6322	9748	1.39%	0.570%
20	16.970	1605	1614	1631	rBV	509004	700722	100.00%	40.995%
21	18.437	2005	2011	2015	rBV2	772	1018	0.15%	0.060%
22	19.220	2195	2198	2200	rVB2	1329	722	0.10%	0.042%
23	19.544	2264	2266	2270	rBV	694	742	0.11%	0.043%
24	19.830	2323	2326	2330	rVB	1391	1229	0.18%	0.072%
25	19.853	2330	2331	2333	rBV	1199	878	0.13%	0.051%
26	19.877	2335	2336	2339	rVV2	1265	787	0.11%	0.046%
27	20.034	2368	2369	2372	rBV2	1226	869	0.12%	0.051%
28	20.082	2377	2379	2380	rBV	1133	846	0.12%	0.049%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

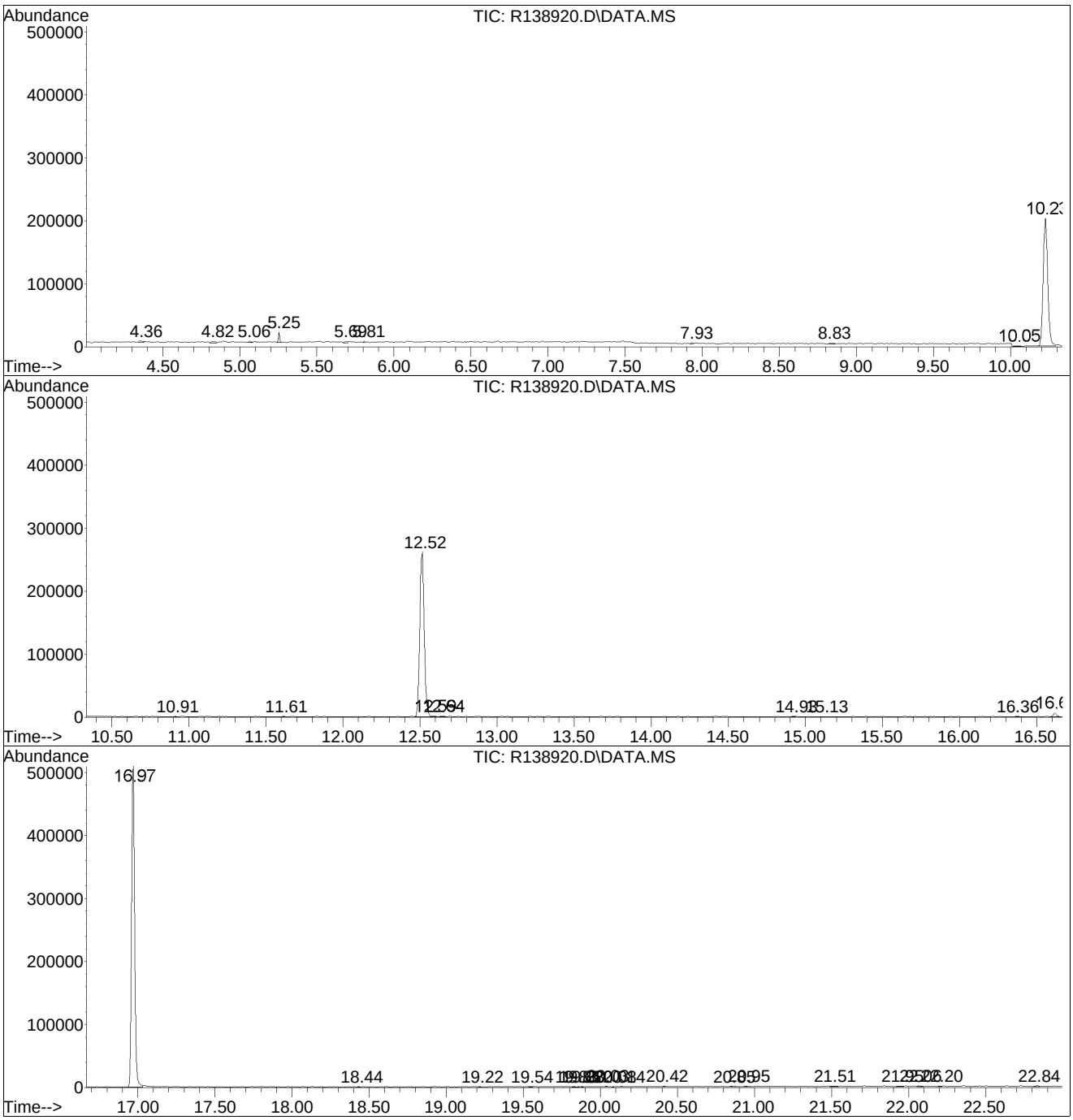
29	20.139	2389	2391	2394	rVB3	929	711	0.10%	0.042%
30	20.420	2446	2450	2453	rVB2	1140	1242	0.18%	0.073%
31	20.853	2499	2501	2504	rVB2	865	1736	0.25%	0.102%
32	20.950	2507	2510	2513	rVB3	859	1838	0.26%	0.108%
33	21.507	2560	2562	2566	rVB2	744	1520	0.22%	0.089%
34	21.947	2599	2603	2605	rBV	883	2002	0.29%	0.117%
35	22.065	2613	2614	2617	rVB2	1239	1691	0.24%	0.099%
36	22.204	2625	2627	2628	rBV	1041	1647	0.24%	0.096%
37	22.837	2683	2686	2687	rBV	1280	2072	0.30%	0.121%

Sum of corrected areas: 1709303

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.22	49	105977	10.000	ppbV		0.00
Standard Area = 118855			Recovery = 89.16%				
43) 1,4-difluorobenzene	12.51	114	229609	10.000	ppbV		0.00
Standard Area = 249633			Recovery = 91.98%				
67) chlorobenzene-D5	16.97	54	50248	10.000	ppbV		0.00
Standard Area = 54542			Recovery = 92.13%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.00		0	N.D.			
3) propylene	3.88		0	N.D.			
4) propane	0.00		0	N.D.		d	
5) dichlorodifluoromethane	0.00		0	N.D.			
6) chloromethane	4.18		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	1058	0.444	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.50		0	N.D.			
11) butane	0.00		0	N.D.		d	
13) bromomethane	5.00		0	N.D.			
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.51	31	429	0.081	ppbV	#	26
16) dichlorofluoromethane	0.00		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	6.01		0	N.D.			
19) acetone	0.00		0	N.D.		d	
20) acetonitrile	0.00		0	N.D.		d	
21) trichlorofluoromethane	0.00		0	N.D.			
22) isopropyl alcohol	6.54		0	N.D.			
23) acrylonitrile	6.77		0	N.D.			
24) pentane	0.00		0	N.D.		d	
25) ethyl ether	6.85		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	0.00		0	N.D.			
28) methylene chloride	7.48	49	918	0.102	ppbV		94
29) 3-chloropropene	7.60		0	N.D.			
30) carbon disulfide	7.81		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
34) MTBE	0.00		0		N.D.	
35) vinyl acetate	9.21		0		N.D.	
36) 2-butanone	9.33		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	
38) Ethyl Acetate	0.00		0		N.D.	
39) chloroform	0.00		0		N.D.	
40) Tetrahydrofuran	0.00		0		N.D.	
41) 2,2-dichloropropane	0.00		0		N.D.	
42) 1,2-dichloroethane	0.00		0		N.D.	
44) hexane	10.19		0		N.D.	
45) diisopropyl ether	0.00		0		N.D.	
46) tert-butyl ethyl ether	10.97		0		N.D.	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
49) 1,1-dichloropropene	0.00		0		N.D.	
50) benzene	0.00		0		N.D.	
52) carbon tetrachloride	0.00		0		N.D.	
53) cyclohexane	0.00		0		N.D.	d
54) tert-amyl methyl ether	0.00		0		N.D.	
55) dibromomethane	0.00		0		N.D.	
56) 1,2-dichloropropane	0.00		0		N.D.	
57) bromodichloromethane	0.00		0		N.D.	
58) 1,4-dioxane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
60) 2,2,4-trimethylpentane	0.00		0		N.D.	
61) methyl methacrylate	13.62		0		N.D.	
62) heptane	0.00		0		N.D.	
63) cis-1,3-dichloropropene	0.00		0		N.D.	
64) 4-methyl-2-pentanone	14.43		0		N.D.	
65) trans-1,3-dichloropropene	0.00		0		N.D.	
66) 1,1,2-trichloroethane	0.00		0		N.D.	
68) toluene	0.00		0		N.D.	
71) 1,3-dichloropropane	0.00		0		N.D.	
72) 2-hexanone	15.75		0		N.D.	
74) dibromochloromethane	0.00		0		N.D.	
75) 1,2-dibromoethane	0.00		0		N.D.	
76) butyl acetate	0.00		0		N.D.	
77) octane	0.00		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.00		0		N.D.	
80) chlorobenzene	0.00		0		N.D.	
81) ethylbenzene	0.00		0		N.D.	
83) m+p-xylene	0.00		0		N.D.	
84) bromoform	0.00		0		N.D.	
85) styrene	0.00		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0		N.D.	
87) o-xylene	0.00		0		N.D.	
88) 1,2,3-trichloropropane	17.92		0		N.D.	
89) nonane	17.95		0		N.D.	
91) isopropylbenzene	0.00		0		N.D.	
92) bromobenzene	0.00		0		N.D.	
93) 2-chlorotoluene	18.46		0		N.D.	
94) n-propylbenzene	0.00		0		N.D.	
95) 4-chlorotoluene	18.67		0		N.D.	
96) 4-ethyl toluene	0.00		0		N.D.	
97) 1,3,5-trimethylbenzene	0.00		0		N.D.	
98) tert-butylbenzene	0.00		0		N.D.	
99) 1,2,4-trimethylbenzene	0.00		0		N.D.	
100) decane	19.10		0		N.D.	
101) Benzyl Chloride	0.00		0		N.D.	
102) 1,3-dichlorobenzene	0.00		0		N.D.	
103) 1,4-dichlorobenzene	0.00		0		N.D.	
104) sec-butylbenzene	0.00		0		N.D.	
106) p-isopropyltoluene	0.00		0		N.D.	
107) 1,2-dichlorobenzene	19.56		0		N.D.	
108) n-butylbenzene	19.74		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.00		0		N.D.	
112) undecane	20.10		0		N.D.	
114) dodecane	0.00		0		N.D.	
115) 1,2,4-trichlorobenzene	0.00		0		N.D.	
116) naphthalene	0.00		0		N.D.	
117) 1,2,3-trichlorobenzene	0.00		0		N.D.	
119) hexachlorobutadiene	0.00		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

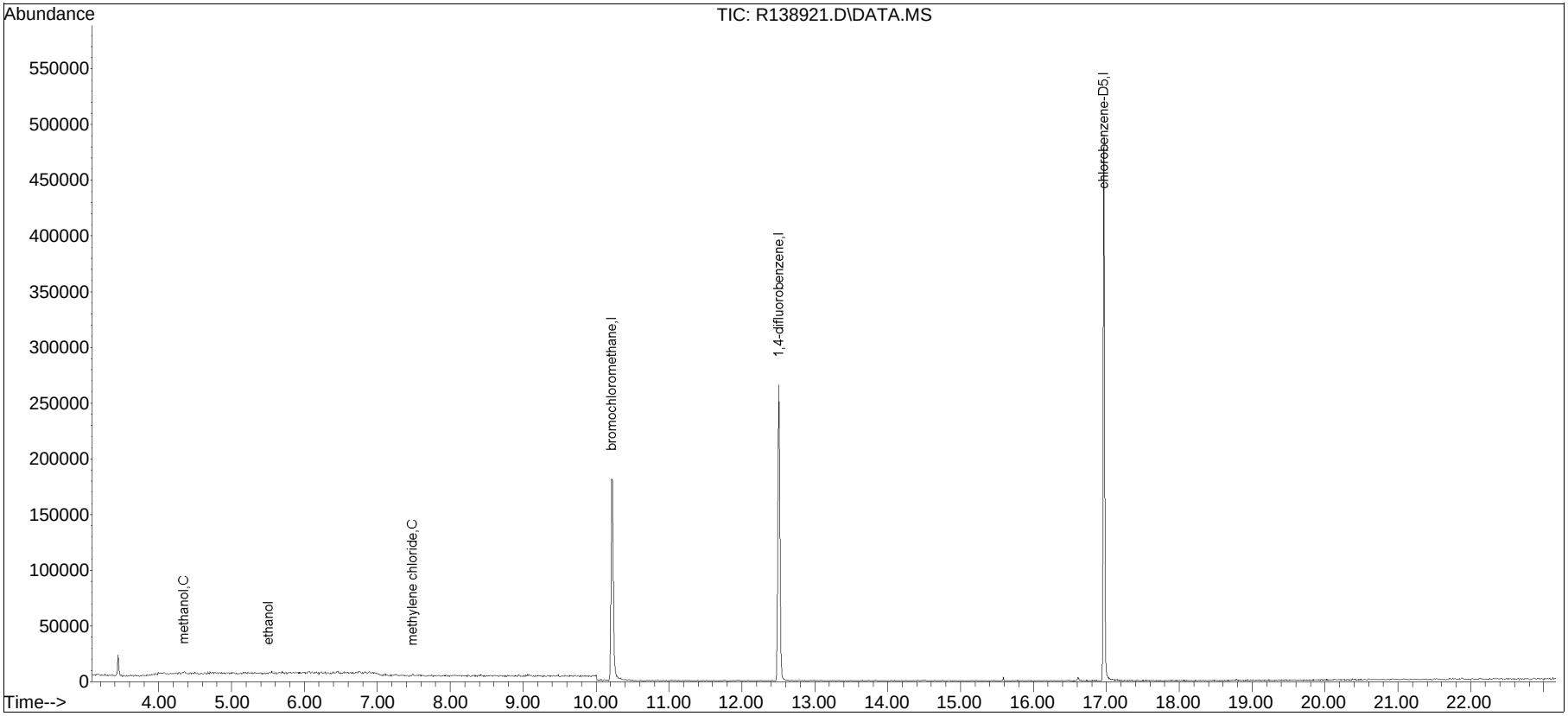
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

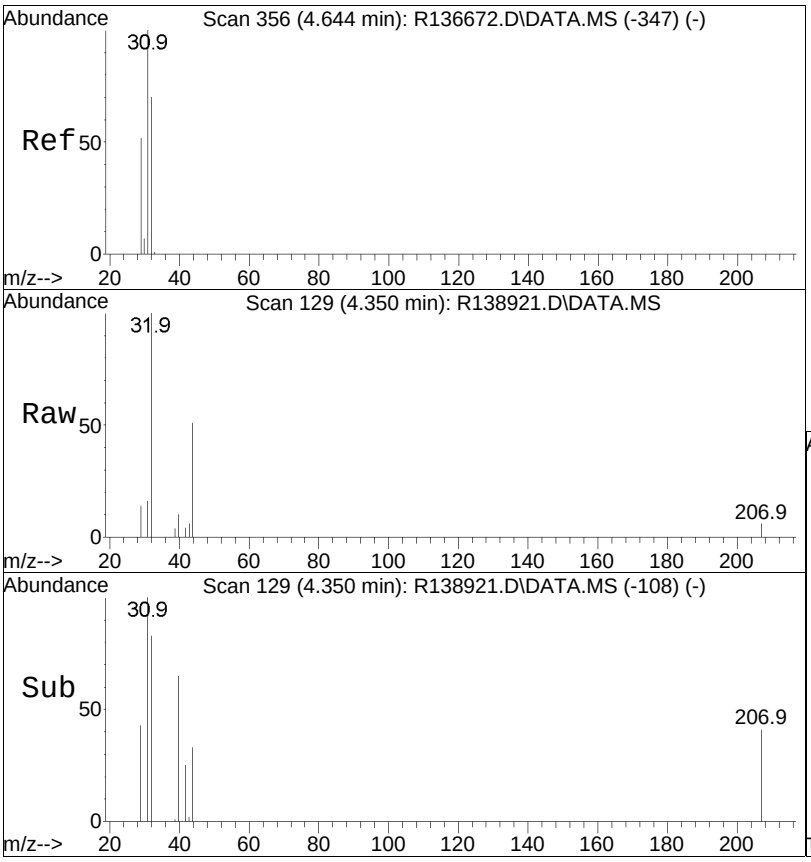
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38911.D

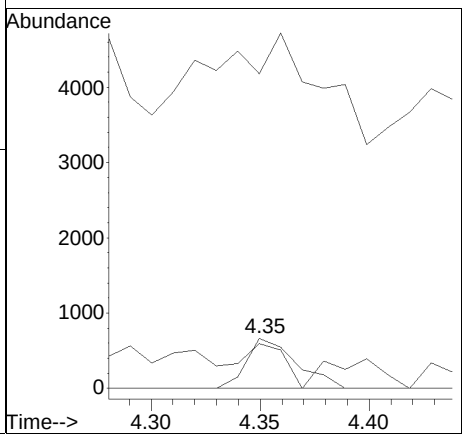


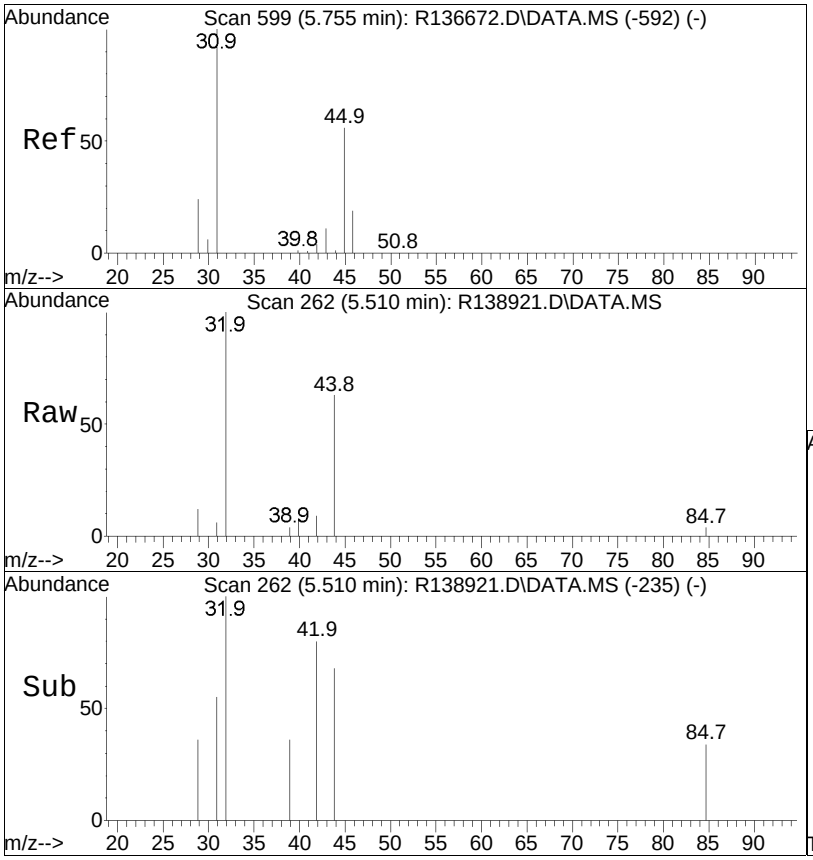


#8
methanol
Concen: 0.44 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138921.D
Acq: 7 Jan 2015 7:10 pm

Tgt Ion: 31 Resp: 1058

Ion	Ratio	Lower	Upper
31	100		
32	630.2	59.9	89.9#
29	89.6	50.3	75.5#

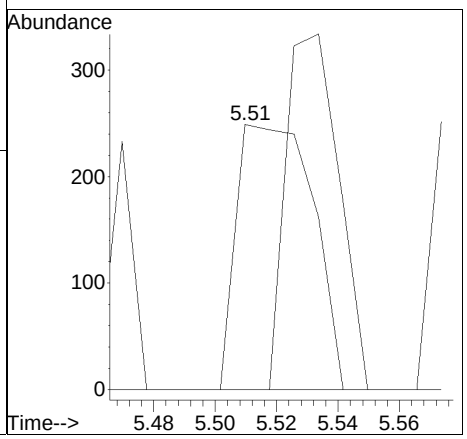


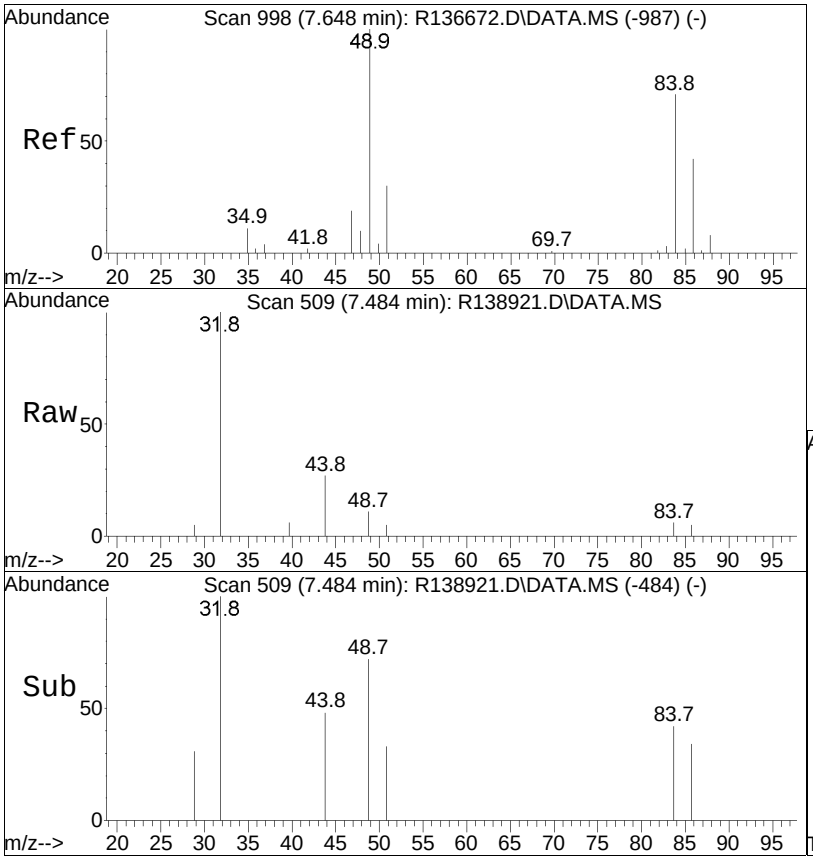


#15
ethanol
Concen: 0.08 ppbV
RT: 5.51 min Scan# 262
Delta R.T. 0.016 min
Lab File: R138921.D
Acq: 7 Jan 2015 7:10 pm

Tgt Ion: 31 Resp: 429

Ion	Ratio	Lower	Upper
31	100		
45	0.0	42.0	63.0#

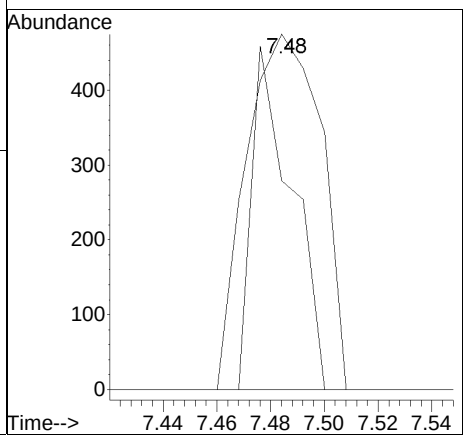




#28
methylene chloride
Concen: 0.10 ppbV
RT: 7.48 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138921.D
Acq: 7 Jan 2015 7:10 pm

Tgt Ion: 49 Resp: 918

Ion	Ratio	Lower	Upper
49	100		
84	58.7	50.8	76.2



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150102.M
Data File	: R138921.D	Operator	: AIRPIANO1:RY
Date Inj'd	: 1/7/2015 7:10 pm	Instrument	: Air Piano 1
Sample	: L1500219-02,3,250,250	Quant Date	: 1/8/2015 5:59 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1500219
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1500219-02	Date Collected	:	01/06/15 13:09
Client ID	:	CAN 634 SHELF 41	Date Received	:	01/06/15
Sample Location	:		Date Analyzed	:	01/07/15 19:10
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138921	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138921.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.281	120	122	124	rVB2	2383	3187	0.47%	0.188%
2	4.675	161	162	164	rBV2	2170	1909	0.28%	0.113%
3	8.004	572	574	576	rBV	1469	1681	0.25%	0.099%
4	8.246	603	605	609	rBV3	1905	2536	0.38%	0.150%
5	9.035	718	720	722	rBV	1777	1306	0.19%	0.077%
6	9.062	722	724	725	rBV	1794	1193	0.18%	0.070%
7	9.275	753	755	757	rBV2	1453	1199	0.18%	0.071%
8	10.002	859	861	862	rVB	5105	3643	0.54%	0.215%
9	10.066	867	868	870	rVB	1215	1277	0.19%	0.075%
10	10.113	870	873	876	rBV	938	2337	0.35%	0.138%
11	10.216	879	884	895	rBV2	181093	398428	58.96%	23.521%
12	10.338	895	897	902	rVV	2180	4322	0.64%	0.255%
13	10.404	902	904	907	rVB	1007	1422	0.21%	0.084%
14	10.610	924	926	930	rVB	877	1798	0.27%	0.106%
15	11.023	967	970	974	rBV2	597	1268	0.19%	0.075%
16	11.389	1007	1009	1011	rBV	983	1287	0.19%	0.076%
17	11.615	1030	1033	1036	rVB	781	1412	0.21%	0.083%
18	11.760	1044	1047	1051	rVB2	771	2100	0.31%	0.124%
19	12.081	1074	1078	1081	rBV	932	2104	0.31%	0.124%
20	12.506	1115	1119	1129	rBV	265450	520337	77.00%	30.717%
21	12.785	1144	1146	1149	rBV2	1063	1537	0.23%	0.091%
22	13.096	1173	1176	1177	rVB2	1040	1421	0.21%	0.084%
23	13.843	1243	1247	1249	rVB2	732	2511	0.37%	0.148%
24	14.493	1285	1288	1291	rVB	855	2360	0.35%	0.139%
25	15.587	1401	1403	1405	rVB	3766	2326	0.34%	0.137%
26	15.704	1414	1416	1420	rBV2	878	2041	0.30%	0.120%
27	15.993	1446	1448	1450	rBV	744	1157	0.17%	0.068%
28	16.490	1500	1503	1506	rVB2	767	1352	0.20%	0.080%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	16.612	1513	1517	1519	rBV	3090	3838	0.57%	0.227%
30	16.966	1604	1613	1628	rBV	490139	675795	100.00%	39.895%
31	17.535	1764	1767	1770	rBV	1086	764	0.11%	0.045%
32	18.784	2100	2105	2108	rBV	1021	928	0.14%	0.055%
33	18.939	2136	2139	2143	rBV	1478	1222	0.18%	0.072%
34	18.982	2146	2148	2152	rVV	903	1228	0.18%	0.072%
35	19.011	2152	2154	2157	rVB	1094	702	0.10%	0.041%
36	19.139	2179	2181	2183	rBV	841	684	0.10%	0.040%
37	19.454	2243	2247	2248	rBV3	1043	863	0.13%	0.051%
38	19.687	2293	2296	2299	rVB	599	699	0.10%	0.041%
39	19.944	2348	2350	2351	rBV	906	702	0.10%	0.041%
40	20.006	2359	2363	2365	rBV2	1010	899	0.13%	0.053%
41	20.120	2384	2387	2388	rBV2	897	719	0.11%	0.042%
42	20.543	2470	2472	2475	rVB2	1135	1869	0.28%	0.110%
43	20.596	2475	2477	2478	rBV2	1571	1739	0.26%	0.103%
44	20.896	2504	2505	2507	rBV	1043	1507	0.22%	0.089%
45	21.079	2518	2522	2526	rBV3	1000	2214	0.33%	0.131%
46	21.186	2529	2532	2533	rBV	1006	1929	0.29%	0.114%
47	21.432	2554	2555	2558	rVB	1168	1952	0.29%	0.115%
48	21.497	2558	2561	2562	rBV2	1410	2467	0.37%	0.146%
49	21.700	2578	2580	2584	rBV2	815	1795	0.27%	0.106%
50	21.872	2594	2596	2601	rBV3	1708	3929	0.58%	0.232%
51	22.022	2608	2610	2612	rBV3	1545	2703	0.40%	0.160%
52	22.118	2617	2619	2622	rBV	1368	3470	0.51%	0.205%
53	22.258	2631	2632	2635	rVB3	1290	1567	0.23%	0.093%
54	22.461	2649	2651	2652	rBV	939	1556	0.23%	0.092%
55	22.654	2667	2669	2670	rVB2	1488	1839	0.27%	0.109%
56	22.687	2670	2672	2676	rBV3	1089	3201	0.47%	0.189%
57	22.762	2676	2679	2680	rBV2	1130	1717	0.25%	0.101%

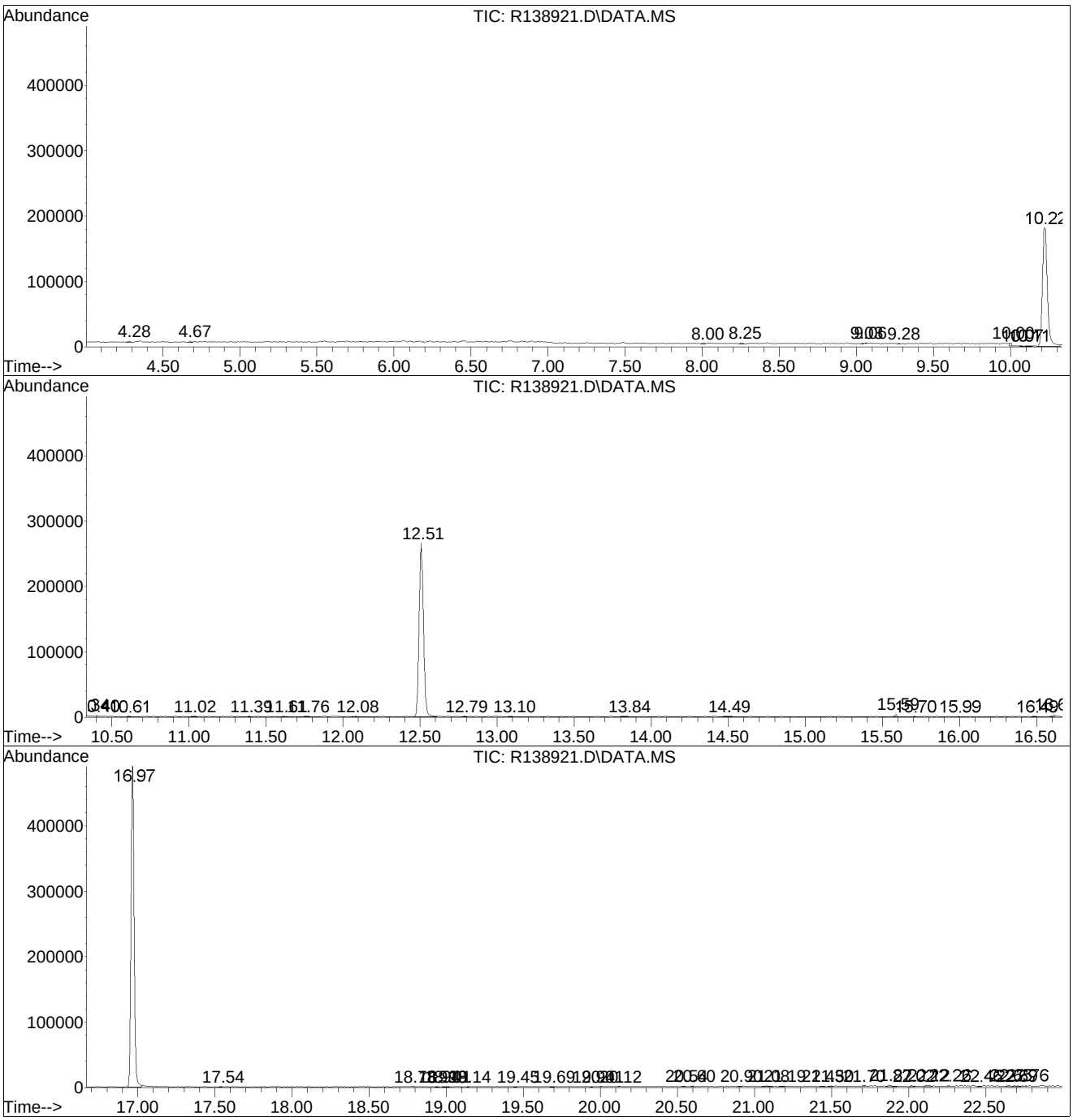
Sum of corrected areas: 1693948

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Instrument ID: AIRPIANO1 Calibration Date(s): 01/01/15 01/01/15

Calibration Times: 20:43 23:57

Calibration Files
0.4 =R138798.D 0.8 =R138799.D 2.0 =R138800.D 10 =R138801.D 20 =R138802.D 50 =R138803.D
100 =R138804.D

		Compound	0.4	0.8	2.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD								
2)	T	1,3-butadiene	0.477	0.463	0.487	0.393	0.390	0.408	0.390	0.4298	10.23
3)		isopentane	3.718	3.546	3.254	2.481	2.482	2.587	2.451	2.9312	18.97
4)	T	methyl tert butyl ether	1.015	0.969	1.067	0.891	0.846	0.906	0.870	0.9379	8.68
5)		hexane	4.622	3.720	3.730	2.890	2.820	3.042	2.902	3.3894	19.71
6)		cyclohexane	2.904	2.881	3.102	2.635	2.467	2.669	2.547	2.7437	8.23
7)	I	1,4-difluorobenzene	ISTD								
8)		2,3-dimethylpentane	0.763	0.714	0.758	0.650	0.583	0.633	0.628	0.6755	10.34
9)	T	benzene	0.284	0.282	0.326	0.256	0.247	0.267	0.260	0.2748	9.57
10)		heptane	0.658	0.664	0.783	0.628	0.587	0.629	0.606	0.6506	9.85
11)	H	C5-C8 Aliphatics Total	0.787	0.735	0.815	0.653	0.608	0.653	0.632	0.6976	11.64
12)	I	chlorobenzene-D5	ISTD								
13)		toluene	1.495	1.368	1.502	1.232	1.191	1.279	1.257	1.3321	9.44
14)		n-octane	3.497	3.281	3.669	2.971	2.900	3.080	2.931	3.1899	9.43
15)		2,3-dimethylheptane	3.926	3.754	4.091	3.253	3.255	3.435	3.228	3.5632	10.03
16)	T	ethyl benzene	1.599	1.527	1.707	1.426	1.413	1.527	1.470	1.5240	6.77
17)	T	m+p-xylene	1.314	1.233	1.328	1.122	1.076	1.189	1.145	1.2010	7.97
18)		n-nonane	3.751	3.484	3.797	3.171	3.132	3.318	3.122	3.3964	8.46
19)	T	o-xylene	1.281	1.262	1.393	1.130	1.130	1.223	1.176	1.2279	7.66
20)		decane	3.729	3.658	4.128	3.293	3.367	3.546	3.325	3.5780	8.25
21)		butylcyclohexane	4.220	4.233	4.479	3.642	3.639	4.110	3.650	3.9962	8.70
22)		n-undecane	3.527	3.318	4.118	3.528	3.534	3.657	3.477	3.5941	7.00
23)	T	naphthalene	1.564	1.604	1.770	1.569	1.647	1.869	1.808	1.6901	7.33
24)		n-dodecane	2.957	2.775	3.414	3.302	3.485	3.818	3.571	3.3316	10.80
25)	H	C9-C12 Aliphatics Total	3.653	3.505	3.988	3.370	3.413	3.656	3.409	3.5705	6.09
27)		C9-C10 Aromatics Total	0.599	0.555	0.631	0.527	0.520	0.572	0.555	0.5655	6.90
28)	s	bromochloromethane (TIC)	7.878	6.772	7.291	7.118	7.151	6.887	6.747	7.1206	5.50
29)	s	1,4-difluorobenzene (TIC)	1.062	1.041	0.988	0.980	1.027	1.013	0.998	1.0156	2.92
30)	s	chlorobenzene-D5 (TIC)	1.331	1.329	1.319	1.298	1.324	1.325	1.341	1.3240	1.01
31)	s	1,2-dichloroethane-D4 (TIC)	3.696	3.855	3.858	3.440	3.612	3.642	3.705	3.6867	3.94
32)	s	toluene-D8 (TIC)	1.016	1.071	1.075	1.115	1.133	1.237	1.229	1.1252	7.33
33)	s	bromofluorobenzene (TIC)	1.280	1.312	1.265	1.269	1.291	1.300	1.287	1.2865	1.31

FORM VI-TO15-LL

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Instrument ID: AIRPIANO1 Calibration Date: 01/07/2015 Time: 13:12

Lab File ID: R138913 Init. Calib. Date(s): 01/01/15 01/01/15

Sample No: WG754063-2,3,25 Init. Calib. Times : 20:43 23:57

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	89	0.00
2		chlorodifluoromethane	1.057	0.854	19.2	74	0.00
3		propylene	0.521	0.517	0.8	87	0.00
4		propane	0.638	0.484	24.1	72	0.00
5		dichlorodifluoromethane	1.107	0.887	19.9	93	0.00
6	C	chloromethane	0.592	0.511	13.7	82	0.00
7		Freon-114	1.609	1.498	6.9	84	0.00
8	C	methanol	0.225	0.198	12.0	75	0.00
9	C	vinyl chloride	0.591	0.542	8.3	80	0.00
10	C	1,3-butadiene	0.475	0.442	6.9	84	0.00
11		butane	1.031	0.880	14.6	78	0.00
13	C	bromomethane	0.653	0.546	16.4	83	0.00
14	C	chloroethane	0.291	0.262	10.0	81	0.00
15		ethanol	0.497	0.436	12.3	79	0.00
16		dichlorofluoromethane	1.288	1.061	17.6	74	0.00
17	C	vinyl bromide	0.631	0.564	10.6	81	0.00
18	C	acrolein	0.295	0.216	26.8	75	0.00
19		acetone	1.009	0.942	6.6	85	0.00
20	C	acetonitrile	0.643	0.518	19.4	78	0.00
21		trichlorofluoromethane	1.569	1.404	10.5	79	0.00
22		isopropyl alcohol	1.193	1.092	8.5	81	0.00
23	C	acrylonitrile	0.507	0.434	14.4	85	0.00
24		pentane	1.214	1.016	16.3	78	0.00
25		ethyl ether	0.998	0.842	15.6	83	0.00
26	C	1,1-dichloroethene	1.037	0.934	9.9	82	0.00
27		tertiary butyl alcohol	1.293	1.127	12.8	75	0.00
28	C	methylene chloride	0.851	0.760	10.7	80	0.00
29	C	3-chloropropene	1.082	0.937	13.4	88	0.00
30	C	carbon disulfide	1.765	1.577	10.7	81	0.00
31		Freon 113	1.295	1.157	10.7	81	0.00
32		trans-1,2-dichloroethene	0.977	0.834	14.6	74	0.00
33	C	1,1-dichloroethane	1.147	1.031	10.1	82	0.00
34	C	MTBE	1.727	1.538	10.9	81	0.00
35	C	vinyl acetate	1.579	1.816	-15.0	93	0.00
36	C	2-butanone	1.486	1.370	7.8	77	0.00
37		cis-1,2-dichloroethene	1.053	1.095	-4.0	93	0.00
38		Ethyl Acetate	0.263	0.242	8.0	80	0.00
39	C	chloroform	1.610	1.478	8.2	84	0.00
40		Tetrahydrofuran	1.013	0.820	19.1	81	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138913.D
Acq On : 7 Jan 2015 1:12 pm
Operator : AIRPIANO1:RY
Sample : WG754063-2,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 07 13:34:37 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.421	1.181	16.9	75	0.00
42	C	1,2-dichloroethane	0.876	0.820	6.4	79	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	89	0.00
44	C	hexane	0.656	0.580	11.6	82	0.00
45		diisopropyl ether	0.301	0.267	11.3	79	0.00
46		tert-butyl ethyl ether	1.012	0.859	15.1	74	0.00
48	C	1,1,1-trichloroethane	0.662	0.593	10.4	79	0.00
49		1,1-dichloropropene	0.476	0.422	11.3	79	0.00
50	C	benzene	0.897	0.840	6.4	82	0.00
52	C	carbon tetrachloride	0.703	0.607	13.7	77	0.00
53		cyclohexane	0.545	0.476	12.7	78	0.00
54		tert-amyl methyl ether	0.898	0.780	13.1	77	0.00
55		dibromomethane	0.373	0.329	11.8	77	0.00
56	C	1,2-dichloropropane	0.349	0.334	4.3	83	0.00
57		bromodichloromethane	0.736	0.669	9.1	79	0.00
58	C	1,4-dioxane	0.207	0.201	2.9	81	0.00
59	C	trichloroethene	0.460	0.431	6.3	81	0.01
60	C	2,2,4-trimethylpentane	1.689	1.565	7.3	83	0.00
61		methyl methacrylate	0.503	0.441	12.3	75	0.00
62		heptane	0.788	0.653	17.1	82	0.00
63	C	cis-1,3-dichloropropene	0.493	0.492	0.2	84	0.00
64	C	4-methyl-2-pentanone	0.968	0.868	10.3	80	0.00
65		trans-1,3-dichloropropene	0.484	0.411	15.1	70	0.00
66	C	1,1,2-trichloroethane	0.409	0.376	8.1	82	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	82	0.00
68	C	toluene	5.175	4.853	6.2	80	0.00
71		1,3-dichloropropane	2.287	2.071	9.4	76	0.00
72		2-hexanone	3.795	3.839	-1.2	80	0.00
74		dibromochloromethane	3.722	3.390	8.9	77	0.00
75	C	1,2-dibromoethane	3.010	2.866	4.8	79	0.00
76		butyl acetate	0.528	0.491	7.0	75	0.00
77		octane	1.563	1.333	14.7	74	0.00
78	C	tetrachloroethene	2.736	2.516	8.0	81	0.00
79		1,1,1,2-tetrachloroethane	2.512	2.212	11.9	74	0.00
80	C	chlorobenzene	4.394	4.167	5.2	78	0.00
81	C	ethylbenzene	6.738	6.410	4.9	79	0.00
83	C	m+p-xylene	5.312	5.010	5.7	80	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138913.D
Acq On : 7 Jan 2015 1:12 pm
Operator : AIRPIANO1:RY
Sample : WG754063-2,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 07 13:34:37 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.653	3.300	9.7	75	0.00
85	C	styrene	4.165	4.008	3.8	79	0.00
86	C	1,1,2,2-tetrachloroethane	4.117	4.017	2.4	83	0.00
87	C	o-xylene	5.494	5.318	3.2	81	0.00
88		1,2,3-trichloropropane	3.128	2.838	9.3	76	0.00
89		nonane	4.937	4.271	13.5	76	0.00
91	C	isopropylbenzene	7.547	7.023	6.9	77	0.00
92		bromobenzene	3.887	3.493	10.1	76	0.00
93		2-chlorotoluene	2.271	2.020	11.1	75	0.00
94		n-propylbenzene	2.373	2.198	7.4	78	0.00
95		4-chlorotoluene	5.845	5.214	10.8	75	0.00
96		4-ethyl toluene	8.377	7.673	8.4	75	0.00
97		1,3,5-trimethylbenzene	7.321	7.131	2.6	84	0.00
98		tert-butylbenzene	7.762	7.012	9.7	75	0.00
99		1,2,4-trimethylbenzene	6.623	6.525	1.5	81	0.00
100		decane	4.662	4.228	9.3	76	0.00
101	C	Benzyl Chloride	6.037	5.740	4.9	77	0.00
102		1,3-dichlorobenzene	5.065	4.983	1.6	81	0.00
103	C	1,4-dichlorobenzene	5.117	5.026	1.8	81	0.00
104		sec-butylbenzene	9.870	9.055	8.3	77	0.00
106		p-isopropyltoluene	9.556	8.040	15.9	70	0.00
107		1,2-dichlorobenzene	4.813	4.853	-0.8	83	0.00
108		n-butylbenzene	7.872	7.807	0.8	81	0.00
111	C	1,2-dibromo-3-chloropropane	2.117	1.925	9.1	73	0.00
112		undecane	5.263	5.130	2.5	77	0.00
114		dodecane	5.204	5.358	-3.0	70	0.01
115	C	1,2,4-trichlorobenzene	4.055	4.518	-11.4	79	0.00
116		naphthalene	10.150	9.873	2.7	76	0.01
117		1,2,3-trichlorobenzene	3.812	4.125	-8.2	78	0.01
119	C	hexachlorobutadiene	3.069	3.230	-5.2	77	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Sample Preparation

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS12-019

Date: 01/16/15

Internal Standard/Surrogate Volume: NA

Analyst Initials: RY

Sequence File Name: 150116.S

SIM ICAL# 10504 Full Scan ICAL#10499 TO-12 ICAL# APH ICAL# 10493

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ Sublist	Leak Check Pass ? Y/N
1	TA2011601	TO15_SFS	R232152	250mL	TUNE		NA
2	CA2011601	TO15_SFS	R232153	250ml SS14-040F 10.0	LL CC		NA
		Pause					NA
3	CTO15-LLSTD10	TO15_SFS	R232154	250ml SS14-038A 10.0	LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R232155	125ml SS14-038A 5.0	SIM LCS		NA
1	BA2011601	TO15_SFS	R232156	250mL	BLANK FAILED		NA
1	BA2011602	TO15_SFS	R232157	250mL	BLANK		NA
2	L1500304-03,3,250,250	TO15_SFS	R232158	WG756340,ICAL10499		NJ_NEW	Y
3	L1500416-03,3,250,250	TO15_SFS	R232159	WG756340,ICAL10499		NJ_NEW	Y
4	L1500304-01,3,250,250	TO15_SFS	R232160	WG756340,ICAL10499		NJ_NEW	Y
5	L1500304-02,3,250,250	TO15_SFS	R232161	WG756340,ICAL10499		NJ_NEW	Y
6	L1500416-01,3,250,250	TO15_SFS	R232162	WG756340,ICAL10499		NJ_NEW	Y
7	L1500416-02,3,250,250	TO15_SFS	R232163	WG756340,ICAL10499		NJ_NEW	Y
8	L1500977-01D,3,75,250	TO15_SFS	R232164	WG756340,ICAL10499		NJ_NEW	Y
9	L1500977-02,3,250,250	TO15_SFS	R232165	WG756340,ICAL10499		NJ_NEW	Y
10	L1500977-03,3,250,250	TO15_SFS	R232166	WG756340,ICAL10499		NJ_NEW	Y
11	L1500604-01D,3,123.7374,250	TO15_SFS	R232167	WG756340,ICAL10499		NJ_NEW	Y
11	L1500604-01DDUP,3,123.7374,250	TO15_SFS	R232168	WG756340,ICAL10499	NJ-TO15 DUP	NJ_NEW	Y
12	L1500304-04D,3,116.1616,250	TO15_SFS	R232169	WG756340,ICAL10499		NJ_NEW	Y
13	L1500304-05D,3,112.8763,250	TO15_SFS	R232170	WG756340,ICAL10499		NJ_NEW	Y
14	L1500416-04D,3,116.5541,250	TO15_SFS	R232171	WG756340,ICAL10499		NJ_NEW	Y

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Instrument Run Log

15	L1500416-05D,3,112.4161,250	TO15_SFS	R232172	WG756340,ICAL10499		NJ_NEW	Y

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS12-019

Date: 12/23/14

Internal Standard/Surrogate Volume: NA

Analyst Initials: RY

Sequence File Name: 141223.S

SIM ICAL# 10504 Full Scan ICAL#10499 TO-12 ICAL# APH ICAL# 10493

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ Sublist	Leak Check Pass ? Y/N
1	TA2122301	TO15_SFS	R231814	250mL	TUNE		NA
2	CA2122301	TO15_SFS	R231815	250ml SS14-027B1 10.0	CC FAILED		NA
		Pause					NA
2	CA2122302	TO15_SFS	R231816	250ml SS14-027F 10.0	CC		NA
		Pause					NA
3	CTO15-LLSTD10	TO15_SFS	R231817	250ml SS14-034E 10.0	LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R231818	250ml SS14-034E 10.0	SIM LCS		NA
		Pause					NA
1	BA2122301	TO15_SFS	R231819	250mL	LL BLANK; SIM FAILED		NA
1	BA2122302	TO15_SFS	R231820	250mL	SIM BLANK		NA
5	L1430876-01,3,250,250	TO15_SFS	R231821	WG751505,ICAL10499		LL, SIM	NA
6	L1430876-02,3,250,250	TO15_SFS	R231822	WG751505,ICAL10499		LL, SIM	NA
7	L1430876-03,3,250,250	TO15_SFS	R231823	WG751505,ICAL10499		LL, SIM	NA
5	L1431011-01,3,250,250	TO15_SFS	R231824	WG751505,ICAL10499		LL, SIM	NA
6	L1431011-02,3,250,250	TO15_SFS	R231825	WG751505,ICAL10499		LL, SIM	NA
7	L1431011-03,3,250,250	TO15_SFS	R231826	WG751505,ICAL10499		LL, SIM	NA
8	L1430642-05,3,250,250	TO15_SFS	R231827	WG751482,ICAL10499		NJ-NEW	Y
9	L1430642-01,3,250,250	TO15_SFS	R231828	WG751482,ICAL10499		NJ-NEW	Y
10	L1430642-02,3,250,250	TO15_SFS	R231829	WG751482,ICAL10499		NJ-NEW	Y
11	L1430642-03,3,250,250	TO15_SFS	R231830	WG751482,ICAL10499		NJ-NEW	Y
12	L1430642-04,3,250,250	TO15_SFS	R231831	WG751482,ICAL10499		NJ-NEW	Y
13	L1430278-01D,3,99.3266,250	TO15_SFS	R231832	WG751482,ICAL10499		NJ-NEW	Y

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Instrument Run Log

13	L1430278-01DDUP,3,99.3266,250	TO15_SFS	R231833	WG751482,ICAL10499	NJ-TO15 DUP	NJ-NEW	Y
14	L1430278-02D,3,120.4013,250	TO15_SFS	R231834	WG751482,ICAL10499		NJ-NEW	Y
15	L1430278-03D,3,106.0606,250	TO15_SFS	R231835	WG751482,ICAL10499		NJ-NEW	Y
16	L1430278-04D,3,119.0878,250	TO15_SFS	R231836	WG751482,ICAL10499		NJ-NEW	Y
1	L1430278-05D,3,98.1544,250	TO15_SFS	R231837	WG751482,ICAL10499		NJ-NEW	Y
2	L1430278-06D,3,95.6376,250	TO15_SFS	R231838	WG751482,ICAL10499		NJ-NEW	Y
3	L1430278-07D,3,92.0608,250	TO15_SFS	R231839	WG751482,ICAL10499		NJ-NEW	Y
5	BA2122303	TO15_SFS	R231840	250mL			NA
6	L1431011-02,3,250,250	TO15_SFS	R231841	WG751505,ICAL10499		LL, SIM	NA

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 1

Internal Standard/Surrogate IDs: CSS13-005 / CSS12-019

Date: 01/03/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: RY

Sequence File Name: 150103.S

SIM ICAL# 10565 Full Scan ICAL# 10564 APH ICAL# 10563

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	TA1010301	TO15_SFS	R138825	250ml	TUNE		NA
2	CAPH-10STD10	TO15_SFS	R138826	SS14-039B2 125ML 10.0	APH CC		NA
3	CTO15-LLSTD10.0	TO15_SFS	R138827	SS14-038B 250ML 10.0	APH / LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R138828	SS14-038B 125ML 5.0	SIM LCS		NA
1	BA1010301	TO15_SFS	R138829	250ml	BLANK FAILED		NA
1	BA1010302	TO15_SFS	R138830	250ml	BLANK FAILED PUMPDOWN AND REFILL		NA
1	BA1010303	TO15_SFS	R138831	250ml	BLANK		NA
1	L1431240-02,3,250,250	TO15_SFS	R138832	WG753124,ICAL10563		APH, LL, SIM	NA
1	L1431240-03,3,250,250	TO15_SFS	R138833	WG753124,ICAL10563		APH, LL, SIM	NA
2	L1431240-01,3,250,250	TO15_SFS	R138834	WG753124,ICAL10563		APH, LL, SIM	NA
3	L1431340-01,3,250,250	TO15_SFS	R138835	WG753124,ICAL10563		APH, LL, SIM	NA
4	L1430714-01,3,250,250	TO15_SFS	R138836	WG753124,ICAL10563		APH, MCP SIM	Y
4	L1430714-01DUP,3,250,250	TO15_SFS	R138837	WG753124,ICAL10563	APH/ MCP-TO15-SIM DUP	APH, MCP SIM	Y
5	L1430716-01,3,250,250	TO15_SFS	R138838	WG753124,ICAL10563		APH, MCP SIM	Y
6	L1430716-02,3,250,250	TO15_SFS	R138839	WG753124,ICAL10563		APH, MCP SIM	Y
7	L1430772-01,3,250,250	TO15_SFS	R138840	WG753124,ICAL10563		APH, MCP SIM	Y
8	L1430772-02,3,250,250	TO15_SFS	R138841	WG753124,ICAL10563		APH, MCP SIM	Y
9	L1430772-03,3,250,250	TO15_SFS	R138842	WG753124,ICAL10563		APH, MCP SIM	Y
10	L1430772-04,3,250,250	TO15_SFS	R138843	WG753124,ICAL10563		APH, MCP SIM	Y
11	L1430592-02,3,250,250	TO15_SFS	R138844	WG752320,ICAL10565		APH, MCP SIM	Y
12	L1430592-03D,3,125,250	TO15_SFS	R138845	WG752320,ICAL10565		APH, MCP SIM	Y
13	L1430837-01D,3,110.6419,250	TO15_SFS	R138846	WG753126,ICAL10565		IBM-FULL	Y

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Instrument Run Log

13	L1430837-01DDUP,3,110.6419,250	TO15_SFS	R138847	WG753126,ICAL10565	TO15-SIM DUP	IBM-FULL	Y
14	L1430837-02D,3,108.2215,250	TO15_SFS	R138848	WG753126,ICAL10565		IBM-FULL	Y
15	L1430837-03D,3,108.2215,250	TO15_SFS	R138849	WG753126,ICAL10565		IBM-FULL	Y
16	L1430775-01D,3,125,250	TO15_SFS	R138850	WG753124,ICAL10563		APH, MCP	Y
16	L1430775-01DDUP,3,125,250	TO15_SFS	R138851	WG753124,ICAL10563	MCP TO15 DUP	APH, MCP	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) } L1301234-01,3,250,2

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS12-019

Date: 12/23/14

Internal Standard/Surrogate Volume: NA

Analyst Initials: RY

Sequence File Name: 141223.S

SIM ICAL# 10504 Full Scan ICAL#10499 TO-12 ICAL# APH ICAL# 10493

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ Sublist	Leak Check Pass ? Y/N
1	TA2122301	TO15_SFS	R231814	250mL	TUNE		NA
2	CA2122301	TO15_SFS	R231815	250ml SS14-027B1 10.0	CC FAILED		NA
		Pause					NA
2	CA2122302	TO15_SFS	R231816	250ml SS14-027F 10.0	CC		NA
		Pause					NA
3	CTO15-LLSTD10	TO15_SFS	R231817	250ml SS14-034E 10.0	LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R231818	250ml SS14-034E 10.0	SIM LCS		NA
		Pause					NA
1	BA2122301	TO15_SFS	R231819	250mL	LL BLANK; SIM FAILED		NA
1	BA2122302	TO15_SFS	R231820	250mL	SIM BLANK		NA
5	L1430876-01,3,250,250	TO15_SFS	R231821	WG751505,ICAL10499		LL, SIM	NA
6	L1430876-02,3,250,250	TO15_SFS	R231822	WG751505,ICAL10499		LL, SIM	NA
7	L1430876-03,3,250,250	TO15_SFS	R231823	WG751505,ICAL10499		LL, SIM	NA
5	L1431011-01,3,250,250	TO15_SFS	R231824	WG751505,ICAL10499		LL, SIM	NA
6	L1431011-02,3,250,250	TO15_SFS	R231825	WG751505,ICAL10499		LL, SIM	NA
7	L1431011-03,3,250,250	TO15_SFS	R231826	WG751505,ICAL10499		LL, SIM	NA
8	L1430642-05,3,250,250	TO15_SFS	R231827	WG751482,ICAL10499		NJ-NEW	Y
9	L1430642-01,3,250,250	TO15_SFS	R231828	WG751482,ICAL10499		NJ-NEW	Y
10	L1430642-02,3,250,250	TO15_SFS	R231829	WG751482,ICAL10499		NJ-NEW	Y
11	L1430642-03,3,250,250	TO15_SFS	R231830	WG751482,ICAL10499		NJ-NEW	Y
12	L1430642-04,3,250,250	TO15_SFS	R231831	WG751482,ICAL10499		NJ-NEW	Y
13	L1430278-01D,3,99.3266,250	TO15_SFS	R231832	WG751482,ICAL10499		NJ-NEW	Y

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Instrument Run Log

13	L1430278-01DDUP,3,99.3266,250	TO15_SFS	R231833	WG751482,ICAL10499	NJ-TO15 DUP	NJ-NEW	Y
14	L1430278-02D,3,120.4013,250	TO15_SFS	R231834	WG751482,ICAL10499		NJ-NEW	Y
15	L1430278-03D,3,106.0606,250	TO15_SFS	R231835	WG751482,ICAL10499		NJ-NEW	Y
16	L1430278-04D,3,119.0878,250	TO15_SFS	R231836	WG751482,ICAL10499		NJ-NEW	Y
1	L1430278-05D,3,98.1544,250	TO15_SFS	R231837	WG751482,ICAL10499		NJ-NEW	Y
2	L1430278-06D,3,95.6376,250	TO15_SFS	R231838	WG751482,ICAL10499		NJ-NEW	Y
3	L1430278-07D,3,92.0608,250	TO15_SFS	R231839	WG751482,ICAL10499		NJ-NEW	Y
5	BA2122303	TO15_SFS	R231840	250mL			NA
6	L1431011-02,3,250,250	TO15_SFS	R231841	WG751505,ICAL10499		LL, SIM	NA

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 1

Internal Standard/Surrogate IDs: CSS13-005 / CSS12-019

Date: 01/07/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: RY

Sequence File Name: 150107.S

SIM ICAL# 10565 Full Scan ICAL# 10564 APH ICAL# 10563

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	TA1010701	TO15_SFS	R138909	250ml	TUNE		NA
2	CAPH-10STD10	TO15_SFS	R138910	SS14-039B2 125ML 10.0	APH CC		NA
3	CTO15-LLSTD10.0	TO15_SFS	R138911	SS14-038G 250ML 10.0	APH / LL LCS FAILED		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R138912	SS14-038G 125ML 5.0	SIM LCS		NA
3	CTO15-LLSTD10.0	TO15_SFS	R138913	SS14-038G 250ML 10.0	APH / LL LCS		NA
		Pause					NA
1	BA1010701	TO15_SFS	R138914	250ml	LL BLANK, SIM BLANK FAILED		NA
1	BA1010702	TO15_SFS	R138915	250ml	SIM BLANK		NA
1	L1500103-03,3,250,250	TO15_SFS	R138916	WG754063,ICAL10564		APH, LL, SIM	Y
2	L1500103-04,3,250,250	TO15_SFS	R138917	WG754063,ICAL10564		APH, LL, SIM	Y
3	L1500103-01,3,250,250	TO15_SFS	R138918	WG754063,ICAL10564		APH, LL, SIM	Y
4	L1500103-02,3,250,250	TO15_SFS	R138919	WG754063,ICAL10564		APH, LL, SIM	Y
5	L1500219-01,3,250,250	TO15_SFS	R138920	WG754063,ICAL10564		APH, LL, SIM	Y
6	L1500219-02,3,250,250	TO15_SFS	R138921	WG754063,ICAL10564		APH, LL, SIM	Y
7	L1500262-01,3,250,250	TO15_SFS	R138922	WG754063,ICAL10564		APH, LL, SIM	Y
8	L1500262-02,3,250,250	TO15_SFS	R138923	WG754063,ICAL10564		APH, LL, SIM	Y
9	L1500262-03,3,250,250	TO15_SFS	R138924	WG754063,ICAL10564		APH, LL, SIM	Y
10	L1431291-01,3,250,250	TO15_SFS	R138925	WG754063,ICAL10564		HDR_ FS/ SIM	Y
10	L1431291-01DUP,3,250,250	TO15_SFS	R138926	WG754063,ICAL10564	TO15-SIM DUP	HDR_ FS/ SIM	Y
11	L1431291-02,3,250,250	TO15_SFS	R138927	WG754063,ICAL10564		HDR_ FS/ SIM	Y
12	L1431172-01D,3,100,250	TO15_SFS	R138928	WG754063,ICAL10564		STD+ NAP	Y
12	L1431172-01DDUP,3,100,250	TO15_SFS	R138929	WG754063,ICAL10564	TO15-LL DUP	STD+ NAP	Y

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13	L1431172-02D,3,25,250	TO15_SFS	R138930	WG754063,ICAL10564	OVERDILUTED	STD+ NAP	Y
14	L1431360-01D,3,50,250	TO15_SFS	R138931	WG754063,ICAL10564		NY	Y
15	L1431282-02D,3,113.7124,250	TO15_SFS	R138932	WG754064,ICAL10563		APH/ MCP	Y
16	L1431282-03D,3,113.2550,250	TO15_SFS	R138933	WG754064,ICAL10563		APH/ MCP	Y
1	L1431282-01D,3,58.5017,250	TO15_SFS	R138934	WG754064,ICAL10563		APH/ MCP	Y
1	L1431282-01DDUP,3,58.5017,250	TO15_SFS	R138935	WG754064,ICAL10563	APH / MCP-TO15 DUP	APH/ MCP	Y
13	L1431172-02D,3,50,250	TO15_SFS	R138936	WG754063,ICAL10564		STD+ NAP	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,2 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Project Name: FORMER LEC

Project Number: 117-0507600

Lab Number: L1500977

Report Date: 01/19/15

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1500977-01	CR011515-SS-B3	0591	#30 SV	01/12/15	113468		-	-	-	Pass	156	170	9
L1500977-01	CR011515-SS-B3	1899	6.0L Can	01/12/15	113468	L1431011-03	Pass	-30.0	-1.3	-	-	-	-
L1500977-02	CR011515-SS-B6	0247	#90 SV	01/12/15	113468		-	-	-	Pass	156	221	34
L1500977-02	CR011515-SS-B6	1999	6.0L Can	01/12/15	113468	L1431240-02	Pass	-29.8	-0.5	-	-	-	-
L1500977-03	CR011515-SS-DUP	0049	#90 SV	01/12/15	113468		-	-	-	Pass	157	164	4
L1500977-03	CR011515-SS-DUP	966	6.0L Can	01/12/15	113468	L1430876-03	Pass	-30.0	-4.4	-	-	-	-
L1500977-04	CAN 634	0353	#90 SV	01/12/15	113468		-	-	-	Pass	159	174	9
L1500977-04	CAN 634	634	6.0L Can	01/12/15	113468	L1500219-02	Pass	-30.0	-29.2	-	-	-	-
L1500977-05	CAN 738	0328	#16 AMB	01/12/15	113468		-	-	-	Pass	3.0	3.0	0
L1500977-05	CAN 738	738	6.0L Can	01/12/15	113468	L1431011-02	Pass	-30.0	-29.3	-	-	-	-

Screening Data

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1500977\
Data File : R513368.D
Acq On : 16 Jan 2015 12:20 pm
Operator : AIRLAB5:RY
Sample : L1500977-01S,3,25,250
Misc : WG756340
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 16 14:00:09 2015
Quant Method : O:\Organics\DATA\VOA4\2014\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Fri Dec 05 17:37:48 2014
Response via : Initial Calibration

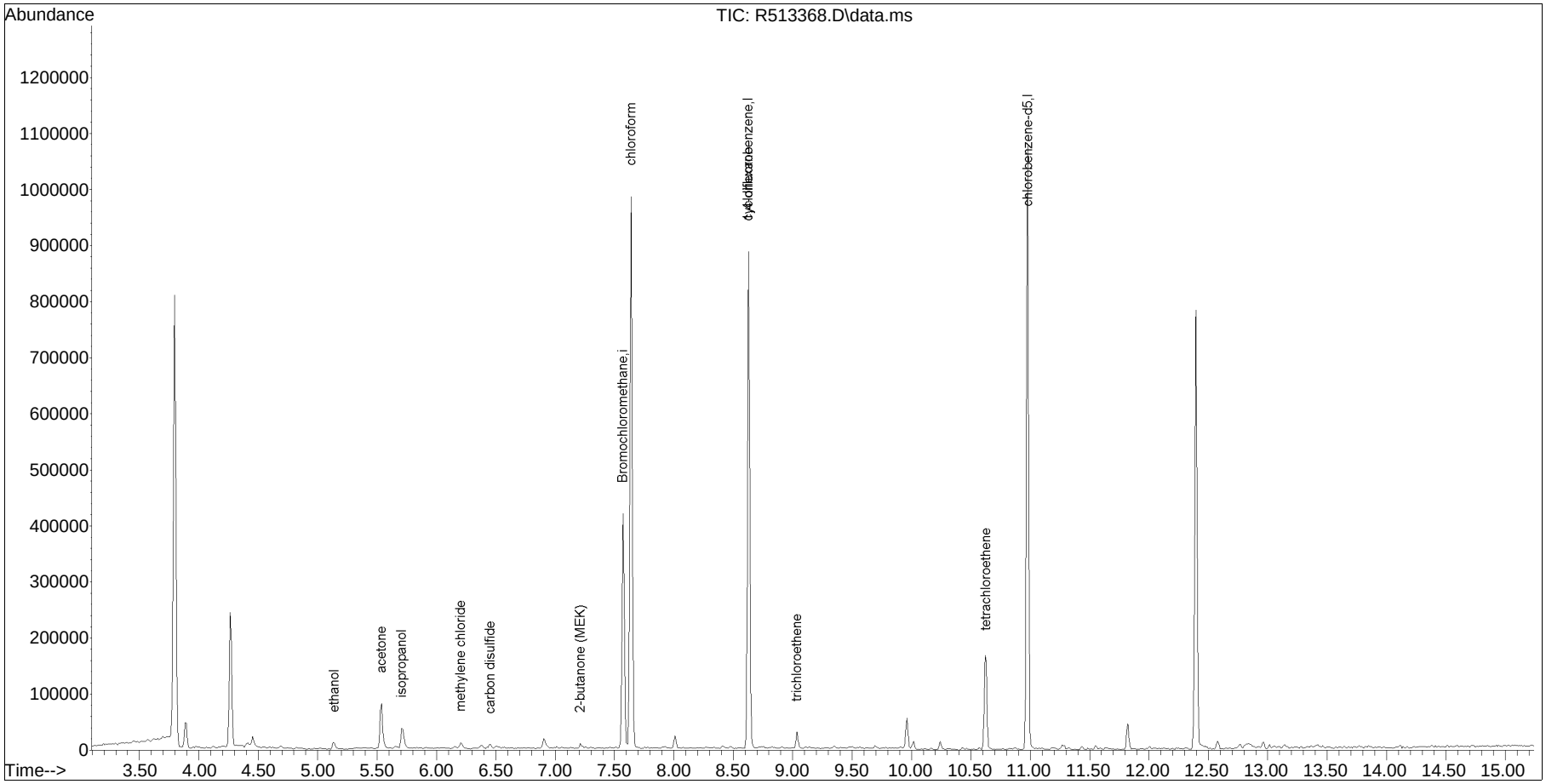
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.570	49	101455	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.627	114	499545	10.00	ppbV		-0.01
48) chlorobenzene-d5	10.978	54	93871	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV		
49) toluene-d8	0.000	98	0	0.00	ppbV		
Target Compounds							Qvalue
10) ethanol	5.139	31	6796	1.35	ppbV		84
13) acetone	5.538	43	72612	5.16	ppbV		98
15) isopropanol	5.707	45	36787	2.41	ppbV		100
17) methylene chloride	6.205	49	4089	0.35	ppbV	#	82
19) carbon disulfide	6.454	76	6969	0.30	ppbV	#	91
25) 2-butanone (MEK)	7.212	43	4661	0.22	ppbV	#	82
28) chloroform	7.640	83	514707	28.76	ppbV		98
37) cyclohexane	8.627	56	8486	0.24	ppbV	#	25
43) trichloroethene	9.035	130	5561	0.25	ppbV		95
54) tetrachloroethene	10.629	166	6986	0.32	ppbV		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1500977\
Data File : R513368.D
Acq On : 16 Jan 2015 12:20 pm
Operator : AIRLAB5:RY
Sample : L1500977-01S,3,25,250
Misc : WG756340
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 16 14:00:09 2015
Quant Method : O:\Organics\DATA\VOA4\2014\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Fri Dec 05 17:37:48 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1500977\
Data File : R513369.D
Acq On : 16 Jan 2015 12:48 pm
Operator : AIRLAB5:RY
Sample : L1500977-02S,3,25,250
Misc : WG756340
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 16 14:00:31 2015
Quant Method : O:\Organics\DATA\VOA4\2014\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Fri Dec 05 17:37:48 2014
Response via : Initial Calibration

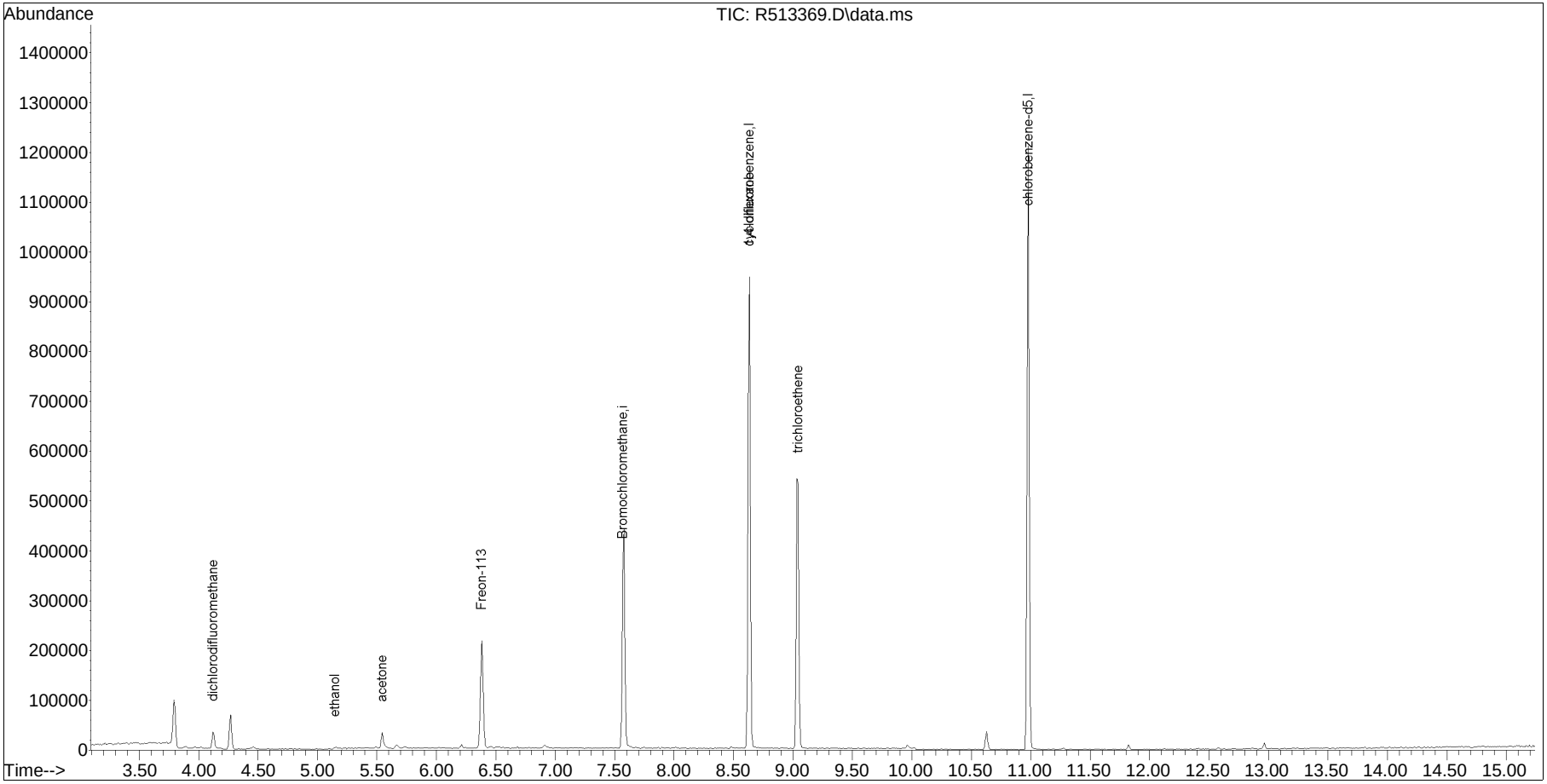
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.568	49	116423	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.634	114	564588	10.00	ppbV		0.00
48) chlorobenzene-d5	10.978	54	100859	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	8.126	65	93	0.01	ppbV		0.12
49) toluene-d8	10.095	98	112	0.00	ppbV		0.13
Target Compounds							Qvalue
3) dichlorodifluoromethane	4.120	85	23830	1.01	ppbV		99
10) ethanol	5.147	31	1908	0.33	ppbV	#	69
13) acetone	5.545	43	26841	1.66	ppbV		98
20) Freon-113	6.382	101	67985	3.50	ppbV		97
37) cyclohexane	8.634	56	9664	0.24	ppbV	#	24
43) trichloroethene	9.042	130	148442	5.81	ppbV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1500977\
Data File : R513369.D
Acq On : 16 Jan 2015 12:48 pm
Operator : AIRLAB5:RY
Sample : L1500977-02S,3,25,250
Misc : WG756340
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 16 14:00:31 2015
Quant Method : O:\Organics\DATA\VOA4\2014\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Fri Dec 05 17:37:48 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1500977\
Data File : R513370.D
Acq On : 16 Jan 2015 1:16 pm
Operator : AIRLAB5:RY
Sample : L1500977-03S,3,25,250
Misc : WG756340
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 16 14:00:44 2015
Quant Method : O:\Organics\DATA\VOA4\2014\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Fri Dec 05 17:37:48 2014
Response via : Initial Calibration

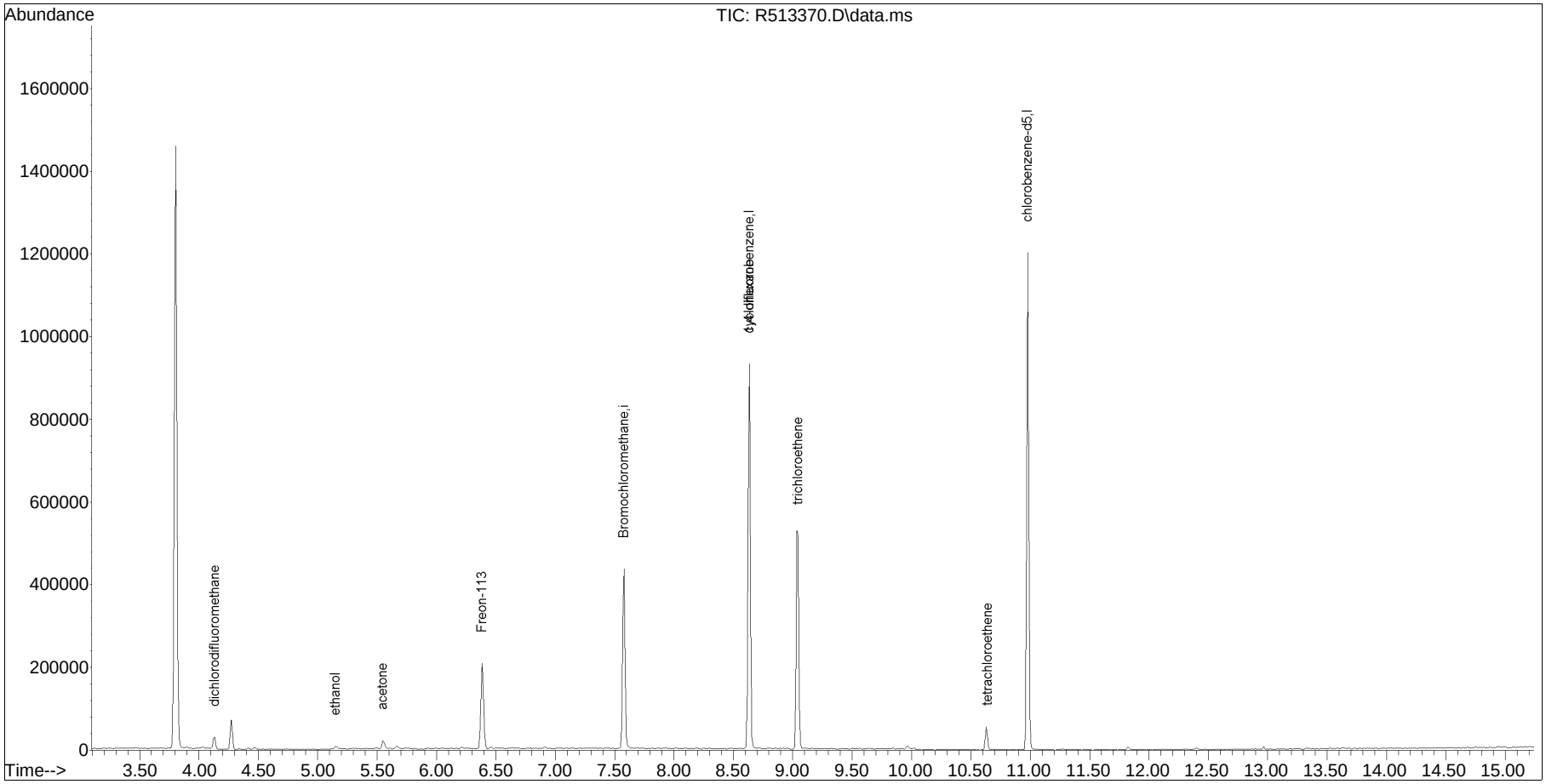
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.580	49	113535	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.636	114	547046	10.00	ppbV		0.00
48) chlorobenzene-d5	10.978	54	98852	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV		
49) toluene-d8	0.000	98	0	0.00	ppbV		
Target Compounds							Qvalue
3) dichlorodifluoromethane	4.132	85	21104	0.91	ppbV		90
10) ethanol	5.149	31	3696	0.66	ppbV		94
13) acetone	5.547	43	18806	1.19	ppbV		96
20) Freon-113	6.384	101	64913	3.43	ppbV		95
37) cyclohexane	8.636	56	9270	0.24	ppbV	#	25
43) trichloroethene	9.045	130	148062	5.98	ppbV		96
54) tetrachloroethene	10.639	166	7171	0.31	ppbV		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1500977\
Data File : R513370.D
Acq On : 16 Jan 2015 1:16 pm
Operator : AIRLAB5:RY
Sample : L1500977-03S,3,25,250
Misc : WG756340
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 16 14:00:44 2015
Quant Method : O:\Organics\DATA\VOA4\2014\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Fri Dec 05 17:37:48 2014
Response via : Initial Calibration



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Lab Number: L1500978

Client: Tetra Tech GEO

ATTN: Steve Feldmann

Project Name: FORMER LEC

Project Number: 117-0507600

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

ANALYTICAL DATA PACKAGE FOR THE
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
TRENTON NEW JERSEY 08625

Agency/Division:	**Bureau/Office:**
Project No: 117-0507600	**Contract No:**
Laboratory: Alpha Analytical	**Laboratory Location:** Mansfield, Ma
SDG No: L1500978	**NJDEP Certification #:** MA015
Date of First Sample Receipt: 01/15/2015	**Date of Last Sample Receipt:** 01/15/2015

Agency Sample Number	Laboratory Sample Number	Sample Location	Date/Time of Collection
CR011415-AMB-01	L1500978-01	FORMER LEC	01/15/2015 09:28
CR011415-IA-B3	L1500978-02	FORMER LEC	01/15/2015 09:50
CR011415-IA-B6	L1500978-03	FORMER LEC	01/15/2015 10:13

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on disk or electronically has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Laboratory Manager (Typed)	Arin Jones	02/10/15
Laboratory Manager (Signature)	Arin Jones	
Quality Assurance Officer (Typed)	James Todaro	02/11/15
Quality Assurance Officer (Signature)	James C Todaro	

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AIR Chain-of-Custody - NJ

Alpha Analytical
320 Forbes Blvd
Mansfield, MA 02048-1806
Tel: 508-822-9300
Fax: 508-822-3288

Date Rec'd in Lab | **ALPHA Job#** L1500978

Client Contact Information

Company: TETRATECH
Address: 295 RT 22 E
City/State/Zip: WHITEHOUSE STN NJ
Phone: (908) 534 2303
FAX:
Email:
Site Contact: K MCDERMOTT
Site Contact Phone: (908) 534 2303

Project Information

Project Name: FORMER LEC
Project No: 117-0507600
Site/Location: N. PLAINFIELD
Project Manager: S. FELDMANN

Analysis Turn-Around Time

Standard (Specify)
Rush (Specify)

NJ DEP Information

Bureau: Division: Contract No:

Report Information - Data Deliverables:

☐ FAX: FULL NJ LAB DELIVERABLES
☐ ADEx ☐ Criteria Checker:
☐ EMail (standard pdf report)

Billing Information

☐ Same as Client Info PO #:

____ of ____ COCs

ALPHA LAB ID (Lab Use Only)	Sample Identification	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field (Hg) (Start)	Canister Pressure in Field (Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Outgoing Canister Pressure (Hg) (Note1)	Incoming Canister Pressure (Hg) (Note 2)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min) (Note1)	Batch Cert ID (Note 1)	Analysis: TO-15	EPA 3C	EPA LL TO-15			Matrix: Indoor /Ambient Air	Soil Gas		
1	CR011415-AMB-01	1/14/15-1/15/15	0950	0928	-30.77	-5.69	36.1	37.8			0099	1540	6					H						
2	CR011415-14-B3	1/14/15-1/15/15	1008	0950	-29.89	-7.09	51.2	57.5			0286	687	6					H						
3	CR011415-1A-B6	1/14/15-1/15/15	1025	013	-30.09	-6.23	56.6	57.5			0616	1809	6					H						

Custody Seals:
Outgoing Seal No: 577,579 (refer to crate seal)
Incoming Seal No: ——— (if applicable)

Temperature (Fahrenheit)

	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (inches of Hg)

	Ambient	Maximum	Minimum	
Start				
Stop				

Individual Preparing Canister/Containers and Laboratory Canister Certification
Name: Kevin Garcia
Signature: Kevin Garcia

Footnotes:
(1) Refer to equipment tags for these readings.
(2) Readings provided in data deliverable package.

Special Instructions/QC Requirements & Comments: H = HOLD ANALYSIS

NJDKQP

#471

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time:
Samples Relinquished by: (TT)	Date/Time: 1/15/15 1445	Received by: AAL	Date/Time: 1/15/15 14:45
Relinquished by:	Date/Time: 1/15/15 1840	Received by: Tom Tobin	Date/Time: 1-15-15 1840
Tom Tobin 1-15-15 0100			1/16/15 0100

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until all ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Note: Combined External Chain of Custody and NJDEP Field Test Data Sheet

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1500978-01A	Can-6	INTACT	21-JAN-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Michael Boyd	A2-CUSTODY	A2-AIR-CUSTODY	Michael Boyd
L1500978-01A	Can-6	INTACT	21-JAN-15	A2-AIR	A2-AIR-CUSTODY	Michael Boyd	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Michael Boyd
L1500978-01A	Can-6	INTACT	16-JAN-15	A2-LOGIN	A2-LOGIN	Sharon Hoffman	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Sharon Hoffman
L1500978-02A	Can-6	INTACT	05-FEB-15	A2-AIR	A2-AIR-CUSTODY	Michael Boyd	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Michael Boyd
L1500978-02A	Can-6	INTACT	16-JAN-15	A2-LOGIN	A2-LOGIN	Sharon Hoffman	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Sharon Hoffman
L1500978-03A	Can-6	INTACT	21-JAN-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Michael Boyd	A2-CUSTODY	A2-AIR-CUSTODY	Michael Boyd
L1500978-03A	Can-6	INTACT	21-JAN-15	A2-AIR	A2-AIR-CUSTODY	Michael Boyd	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Michael Boyd
L1500978-03A	Can-6	INTACT	16-JAN-15	A2-LOGIN	A2-LOGIN	Sharon Hoffman	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Sharon Hoffman

Shipping Documentation

Sample Delivery Group Form

Laboratory Job number: L1500978

Project Number: 117-0507600

Project Name: FORMER LEC **Received:** 01/15/2015 14:45

Client Account: Tetra Tech GEO **Received by:** TWM

Samples Delivered by: COURIER **Call Tracker #**

Bill Of Laden N/A **Trackingnum**

Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt **Are samples Properly Preserved?** Yes

Initial pH **preserved in house with** **Final pH**

Other Issues

Chlorine Check N/A

Are VOA/VPH Vials Present? No

Aqueous: Do Vials Contain Head Space? N/A

Soils: Is MeOHCovering the Soil? N/A

Reagent H2O Preserved vials Frozen on N/A

Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
N/A	Present/Intact	No	No	-	No	No

Project Manager: Chris Anderson **Review Date:** 02/04/2015

STANDARD NAME:	TO15 ICAL STD	**Primary Standard ID#s :**	**1)**	**CSS14-011**	**Conc. 1.0 ppmV**
ROOT STANDARD ID#	SS14-040		**2)**	**CSS14-013**	**Conc. 1.0 ppmV**
Prepared by:	RY		**3)**	**CSS14-014**	**Conc. 1.0 ppmV**
Date Prepared:	12/24/2014		**4)**	**PS14-021(BAG)**	**Conc. 50.0 ppmV**
Expiration Date:	3/26/2015		**5)**		**Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	894	3000 mL	50 mL/ min for 60 min	15	2	30	100 ppbV
B1 & B2	1684/1681	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
C	1682	300 mL of can A	NA	15	2	30	1.0 ppbV
D	1803	30 mL of can A	NA	15	2	30	0.1 ppbV
E (NJ CC)	703	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
F (NJ CC)	914	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV

Notes: BAG INJ (PS14-021) A=60mL B,E,+F=6mL SOLID PHASE INJECTIONS -- SEE TABLE 3B IN SOP

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM N2

Lot #: BULK TANK

STANDARD NAME:	TO15-LCS STD	**Primary Standard ID#s :**	**1)**	**CSS14-003**	**Conc. 1.0 ppmV**
ROOT STANDARD ID#	SS14-038		**2)**	**CSS14-004**	**Conc. 1.0 ppmV**
Prepared by:	RY		**3)**	**CSS14-006**	**Conc. 1.0 ppmV**
Date Prepared:	12/05/14		**4)**	**PS14-020(BAG)**	**Conc. 50.0 ppmV**
Expiration Date:	03/05/15		**5)**		**Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	916	300 mL	50mL/ MIN FOR 6 MINS.	15	2.0	30.0	10 ppbV
B	591	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
C	912	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
D	606	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
E	1501	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
F	893	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
G	913	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV

Notes: 6mLs OF BAG STD. (PS14-020) ADDED VIA DIRECT INJECTION

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM N2

Lot #: BULK TANK

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T014 1 Cyl
CS514-011
Rec 9/8/14
Recount of CS513-010

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256057
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1200 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Freon-12	75-71-8	1.00 ppm	1.05 ppm
Chloromethane	74-87-3	1.00 ppm	1.04 ppm
Freon-114	76-14-2	1.00 ppm	1.03 ppm
Vinyl Chloride	75-01-4	1.00 ppm	1.03 ppm
Bromomethane	74-83-9	1.00 ppm	1.03 ppm
Chloroethane	75-00-3	1.00 ppm	1.03 ppm
Freon-11	75-69-4	1.00 ppm	1.07 ppm
1,1-Dichloroethene	75-35-4	1.00 ppm	0.99 ppm
Methylene Chloride	75-09-2	1.00 ppm	1.00 ppm
Freon-113	76-13-1	1.00 ppm	1.01 ppm
1,1-Dichloroethane	75-34-3	1.00 ppm	0.99 ppm
Cis-1,2-Dichloroethylene	156-59-2	1.00 ppm	1.02 ppm
Chloroform	67-66-3	1.00 ppm	1.03 ppm
1,2-Dichloroethane	107-06-2	1.00 ppm	1.00 ppm
1,1,1-Trichloroethane	71-55-6	1.00 ppm	1.01 ppm
Benzene	71-43-2	1.00 ppm	1.01 ppm
Carbon Tetrachloride	56-23-5	1.00 ppm	1.03 ppm
1,2-Dichloropropane	78-87-5	1.00 ppm	1.02 ppm
Trichloroethylene	79-01-6	1.00 ppm	1.05 ppm
Cis-1,3-Dichloropropene	10061-01-5	1.00 ppm	1.01 ppm
Trans-1,3-Dichloropropene	10061-02-6	1.00 ppm	1.05 ppm
1,1,2-Trichloroethane	79-00-5	1.00 ppm	1.02 ppm
Toluene	108-88-3	1.00 ppm	1.02 ppm
1,2-Dibromoethane	106-93-4	1.00 ppm	1.02 ppm
Tetrachloroethylene	127-18-4	1.00 ppm	1.00 ppm
Chlorobenzene	108-90-7	1.00 ppm	1.01 ppm
Ethylbenzene	100-41-4	1.00 ppm	1.02 ppm
P-Xylene	106-42-3	1.00 ppm	1.02 ppm

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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256057
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1200 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
M-Xylene	108-38-3	1.00 ppm	1.02 ppm
Styrene	100-42-5	1.00 ppm	1.01 ppm
O-Xylene	95-47-6	1.00 ppm	1.02 ppm
1,1,2,2-Tetrachloroethane	79-34-5	1.00 ppm	1.01 ppm
4-Ethyltoluene	622-96-8	1.00 ppm	1.04 ppm
1,2,4-Trimethylbenzene	95-63-6	1.00 ppm	1.02 ppm
1,3-Dichlorobenzene	541-73-1	1.00 ppm	1.02 ppm
1,4-Dichlorobenzene	106-46-7	1.00 ppm	1.03 ppm
1,2-Dichlorobenzene	95-50-1	1.00 ppm	1.00 ppm
1,2,4-Trichlorobenzene	120-82-1	1.00 ppm	0.98 ppm
Hexachloro-1,3-Butadiene	87-68-3	1.00 ppm	0.99 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: _____
Matthew Jackson

DATE: Aug-21-2014

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CS514-013
REC 9/8/14
RECONT OF CS513-011

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256101
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1600 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	3200 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propylene	115-07-1	1.00 ppm	0.97 ppm
1,3-Butadiene	106-99-0	1.00 ppm	0.96 ppm
Vinyl Bromide	593-60-2	1.00 ppm	1.04 ppm
Acetone	67-64-1	1.00 ppm	1.03 ppm
Isopropyl Alcohol	67-63-0	1.00 ppm	0.96 ppm
Carbon Disulfide (Analytical Accuracy ± 10%)	75-15-0	1.00 ppm	1.05 ppm
Allyl Chloride	107-05-1	1.00 ppm	0.99 ppm
Trans-1,2-Dichloroethene	156-60-5	1.00 ppm	1.08 ppm
Methyl Tert-Butyl Ether	1634-04-4	1.00 ppm	1.01 ppm
Vinyl Acetate	108-05-4	1.00 ppm	0.95 ppm
Methyl Ethyl Ketone	78-93-3	1.00 ppm	1.04 ppm
n-Hexane	110-54-3	1.00 ppm	1.02 ppm
Ethyl Acetate	141-78-6	1.00 ppm	1.03 ppm
Tetrahydrofuran	109-99-9	1.00 ppm	1.04 ppm
Cyclohexane	110-82-7	1.00 ppm	1.02 ppm
Bromodichloromethane	75-27-4	1.00 ppm	1.03 ppm
1,4-Dioxane	123-91-1	1.00 ppm	1.03 ppm
2,2,4-Trimethylpentane	540-84-1	1.00 ppm	1.03 ppm
n-Heptane	142-82-5	1.00 ppm	1.03 ppm
Methyl Isobutyl Ketone	108-10-1	1.00 ppm	1.02 ppm
Methyl Butyl Ketone	591-78-6	1.00 ppm	1.02 ppm
Dibromochloromethane	124-48-1	1.00 ppm	1.03 ppm
Bromoform	75-25-2	1.00 ppm	1.02 ppm

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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256101
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1600 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	3200 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Ethyltoluene	622-96-8	1.00 ppm	1.04 ppm
Benzyl Chloride (Analytical Accuracy ± 10%)	100-44-7	1.00 ppm	1.01 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Justin Kutz

DATE: Aug-21-2014

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PAGE: 1 of 2

TO15 CUSTOMICAL
CS514-014
REC 9/8/14
RECEIPT OF
CS514-005

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-197190
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Aug-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propane	74-98-6	1.00 ppm	1.02 ppm
Chlorodifluoromethane	75-45-6	1.00 ppm	1.07 ppm
Methanol (No Stability Guarantee)	67-56-1	5.00 ppm	5.24 ppm
n-Butane	106-97-8	1.00 ppm	1.12 ppm
Dichlorofluoromethane	75-43-4	1.00 ppm	1.06 ppm
Ethanol (Analytical Accuracy +/- 10%)	64-17-5	5.00 ppm	4.91 ppm
Acetonitrile (No Stability Guarantee)	75-05-8	1.00 ppm	1.01 ppm
Acrolein	107-02-8	1.00 ppm	1.13 ppm
n-Pentane	109-66-0	1.00 ppm	1.01 ppm
Acrylonitrile	107-13-1	1.00 ppm	1.01 ppm
Ethyl Ether	60-29-7	1.00 ppm	1.08 ppm
Tert Butyl Alcohol	75-65-0	1.00 ppm	1.11 ppm
2,2-Dichloropropane	594-20-7	1.00 ppm	1.07 ppm
Di-isopropyl Ether	108-20-3	1.00 ppm	1.07 ppm
Ethyl Tert-Butyl Ether	637-92-3	1.00 ppm	1.06 ppm
1,1-Dichloropropene	563-58-6	1.00 ppm	1.06 ppm
Tert Amyl Methyl Ether	994-05-8	1.00 ppm	1.07 ppm
Dibromomethane	74-95-3	1.00 ppm	1.05 ppm
1,3-Dichloropropane	142-28-9	1.00 ppm	1.07 ppm
n-Butyl Acetate	123-86-4	1.00 ppm	1.12 ppm
n-Octane	111-65-9	1.00 ppm	1.07 ppm
1,1,1,2-Tetrachloroethane	630-20-6	1.00 ppm	1.08 ppm
1,2,3-Trichloropropane	96-18-4	1.00 ppm	1.05 ppm
Nonane	111-84-2	1.00 ppm	1.07 ppm
Isopropylbenzene	98-82-8	1.00 ppm	1.04 ppm
Bromobenzene	108-86-1	1.00 ppm	0.98 ppm
o-Chlorotoluene	95-49-8	1.00 ppm	1.08 ppm
n-Propylbenzene	103-65-1	1.00 ppm	1.04 ppm



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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-197190
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Aug-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Chlorotoluene	106-43-4	1.00 ppm	1.04 ppm
Tert-Butyl Benzene	98-06-6	1.00 ppm	1.06 ppm
n-Decane	124-18-5	1.00 ppm	1.06 ppm
Sec-Butyl Benzene	135-98-8	1.00 ppm	1.06 ppm
p-Cymene	99-87-6	1.00 ppm	1.04 ppm
n-Butyl Benzene	104-51-8	1.00 ppm	1.09 ppm
1,2-Dibromo-3-Chloropropane	96-12-8	1.00 ppm	1.03 ppm
n-Undecane	1120-21-4	1.00 ppm	1.02 ppm
Naphthalene (No Stability Guarantee)	91-20-3	1.00 ppm	0.99 ppm
n-Dodecane	112-40-3	1.00 ppm	0.99 ppm
1,2,3-Trichlorobenzene	87-61-6	1.00 ppm	1.08 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

Lou Lorenzetti

DATE: Aug-15-2014

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CS512-017

CERTIFICATE OF ANALYSIS

Sales#:	110967849	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2905150	**Cylinder # :**	CC-349592
Certification Date:	Dec-09-2013	**Cylinder Pressure:**	1200 psig
P.O.# :	R8320	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liter
Expiration Date:	Dec-09-2014	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propylene	115-07-1	1.00 ppm	1.02 ppm
1,3-Butadiene	106-99-0	1.00 ppm	1.00 ppm
Vinyl Bromide	593-60-2	1.00 ppm	1.00 ppm
Acetone	67-64-1	1.00 ppm	1.01 ppm
Isopropyl Alcohol	67-63-0	1.00 ppm	1.02 ppm
Carbon Disulfide (Analytical Accuracy +/- 10%)	75-15-0	1.00 ppm	1.03 ppm
Allyl Chloride	107-05-1	1.00 ppm	1.04 ppm
Trans-1,2-Dichloroethene	156-60-5	1.00 ppm	0.99 ppm
Methyl Tert-Butyl Ether	1634-04-4	1.00 ppm	1.07 ppm
Vinyl Acetate	108-05-4	1.00 ppm	1.03 ppm
Methyl Ethyl Ketone	78-93-3	1.00 ppm	1.01 ppm
n-Hexane	110-54-3	1.00 ppm	1.00 ppm
Ethyl Acetate	141-78-6	1.00 ppm	1.01 ppm
Tetrahydrofuran	109-99-9	1.00 ppm	1.00 ppm
Cyclohexane	110-82-7	1.00 ppm	1.02 ppm
Bromodichloromethane	75-27-4	1.00 ppm	1.03 ppm
1,4-Dioxane	123-91-1	1.00 ppm	1.03 ppm
2,2,4-Trimethylpentane	540-84-1	1.00 ppm	1.02 ppm
n-Heptane	142-82-5	1.00 ppm	1.02 ppm
Methyl Isobutyl Ketone	108-10-1	1.00 ppm	1.03 ppm
Methyl Butyl Ketone	591-78-6	1.00 ppm	1.02 ppm
Dibromochloromethane	124-48-1	1.00 ppm	0.99 ppm
Bromoform	75-25-2	1.00 ppm	0.99 ppm

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PAGE: **2 of 2**

CERTIFICATE OF ANALYSIS

Sales#:	110967849	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2905150	**Cylinder # :**	CC-349592
Certification Date:	Dec-09-2013	**Cylinder Pressure:**	1200 psig
P.O.# :	R8320	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liter
Expiration Date:	Dec-09-2014	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Ethyltoluene	622-96-8	1.00 ppm	1.01 ppm
Benzyl Chloride (Analytical Accuracy +/- 10%)	100-44-7	1.00 ppm	1.03 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: Dec-09-2013

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NJ ICAL STD
CSS14-010
REC 9/8/14
REPLACEMENT OF
CSS13-008

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CERTIFICATE OF ANALYSIS

Sales#:	111826905
Production#:	2957830
Certification Date:	Aug-15-2014
P.O.# :	R9194
Blend Type:	CERTIFIED
Material#:	14004551
Traceability:	NIST by weight
Expiration Date:	Aug-15-2015
Do NOT use under:	150 psig

Cylinder Size:	2A (8" X 47.5")
Cylinder # :	CC-267374
Cylinder Pressure:	2000 psig
Cylinder Valve:	CGA 350 / Steel
Cylinder Volume:	29.5 Liter
Cylinder Material:	Aluminum
Gas Volume:	4000 Liters
Blend Tolerance:	10% Relative
Analytical Accuracy:	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
n-Butane	106-97-8	1.00 ppm	1.01 ppm
Ethanol	64-17-5	1.00 ppm	0.79 ppm
Tert-Butanol	75-65-0	1.00 ppm	1.02 ppm
Methyl Methacrylate	80-62-6	1.00 ppm	1.00 ppm
2-Chlorotoluene	95-49-8	1.00 ppm	1.04 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: _____
Lou Lorenzetti

DATE: Aug-15-2014

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NS-TO15 LCS
CSS14-012
Rec 9/8/14
REPORT OF CSS13-004

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PAGE: 1 of 1

CERTIFICATE OF ANALYSIS

Sales#:	111826905
Production#:	2957830
Certification Date:	Aug-15-2014
P.O.# :	R9194
Blend Type:	CERTIFIED
Material#:	14004551
Traceability:	NIST by weight
Expiration Date:	Aug-15-2015
Do NOT use under:	150 psig

Cylinder Size:	2A (8" X 47.5")
Cylinder # :	CC-267249
Cylinder Pressure:	2000 psig
Cylinder Valve:	CGA 350 / Steel
Cylinder Volume:	29.5 Liter
Cylinder Material:	Aluminum
Gas Volume:	4000 Liters
Blend Tolerance:	10% Relative
Analytical Accuracy:	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
n-Butane	106-97-8	1.00 ppm	1.06 ppm
Ethanol	64-17-5	1.00 ppm	0.89 ppm
Tert-Butanol	75-65-0	1.00 ppm	1.03 ppm
Methyl Methacrylate	80-62-6	1.00 ppm	1.00 ppm
2-Chlorotoluene	95-49-8	1.00 ppm	1.05 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: Aug-15-2014

Linde Gas North America LLC

(908) 329-9700 Main (908) 329-9740 Fax
www.Lindeus.com

Methodology Summary NJDEP Form A-4 - NJDEP-LLTO-15 Method-3/2007

Laboratory:	Alpha Analytical	**Project No:**	117-0507600
Location:	FORMER LEC	**SDG No:**	L1500978

Name	Required Methodology	Indicate Method
Volatile Organics	NJDEP-LLTO-15	NJDEP-LLTO-15

NJ DEP
Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	YES
5b	Were these reporting limits met?	YES
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Case Narrative Documentation

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted.

Results contained within this Data Deliverable Package relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this Data Deliverable Package is organized by parameter (i.e. VOC, SVOC, etc.). If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted.

The performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC tables. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Customer Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Customer Services at 800-624-9220 with any questions.

FINAL REPORT REPLACING PARTIAL

This final report replaces the partial report issued on January 21, 2015 and includes the results of all requested analyses.

NJDEP Volatile Organics in Air

Canisters were released from the laboratory on January 12, 2015. The canister certification results are provided as an addendum.

Case Narrative (continued)

Any Manual integrations that were performed on L1500978 as well as its associated quality control samples and are noted on the individual quantitation reports. A listing of all manual integrations performed and the integration code definitions are provided in manual integration documentation section of the data package.

Please note, dilution analysis due to exceedance of the calibration range is not required for Ethanol or Isopropyl Alcohol.

GC column and trap information utilized for the analysis of this sample delivery group is detailed below:
Column Type: Restek RTX-1
Column Length: 60 Meters
Internal diameter: 0.52 mm
Film thickness: 1.00 um
Trap 1: Entech Cold Trap - no packing material
Trap 2: Entech Tenax - 20 cm packing material

Gaseous calibration standards were utilized for system calibration and quality control standards associated with this sample delivery group. These standards were purchased from Linde (formerly Spectra Gases).

Laboratory standard procedure for QC (i.e. method blanks, LCS) and sample analysis is to withdraw a 250 mL aliquot from the canister as the "1X" analysis. For some calibration levels and samples, subsequent dilutions will be performed as needed by decreasing aliquot volumes via the instrumentation, or performing a dilution using a second canister. Make-up air is not routinely added to canisters prior to sample analysis.

DKQP Related Narratives
In reference to question 6:
At the client's request, the sample designated CR011415-IA-B3 (L1500978-02) was not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer readable data submitted on CD/diskette and by electronic mail has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Authorized Signature: 

Title: Technical Director/Representative Date: 02/11/15

Manual Integration Summary

Sample Type	Lab Id	Analyte	Manual Integration Code
Field Sample	WG757004-2	propylene	M6
Field Sample	WG757004-2	2,2,4-trimethylpentane	M6
Field Sample	WG757004-2	octane	M4
Field Sample	WG757004-2	4-ethyl toluene	M6
Field Sample	WG757004-2	1,3,5-trimethylbenzene	M4
Field Sample	WG757004-2	1,4-dichlorobenzene	M4
Field Sample	WG757004-3	propylene	M6
Field Sample	WG757004-3	2,2,4-trimethylpentane	M6
Field Sample	WG757004-3	4-ethyl toluene	M6
Field Sample	WG757004-3	1,3,5-trimethylbenzene	M4
Field Sample	WG757004-3	1,4-dichlorobenzene	M4
Field Sample	WG757004-4	acetone	M3
Field Sample	WG757004-4	isopropyl alcohol	M3
Field Sample	L1500978-01	2-butanone	M3
Field Sample	L1500978-03	chloromethane	M6
Field Sample	L1500994-01	heptane	M4
Field Sample	L1500994-01	4-methyl-2-pentanone	M6
Field Sample	L1500994-02	acetone	M6
Field Sample	L1500994-02	isopropyl alcohol	M4
Field Sample	L1500996-01	2-butanone	M3
Field Sample	L1500996-01	Tetrahydrofuran	M3
Field Sample	L1500996-01	4-ethyl toluene	M3
Field Sample	L1500996-02	acetone	M6
Field Sample	L1500996-02	isopropyl alcohol	M4
Field Sample	L1500996-02	4-ethyl toluene	M3
Field Sample	L1500996-03	isopropyl alcohol	M3
Field Sample	L1500996-03	2-butanone	M3
Field Sample	L1500998-01	isopropyl alcohol	M4
Field Sample	L1500998-01	2-butanone	M4
Field Sample	L1500998-01	heptane	M6
Field Sample	L1500998-01	4-ethyl toluene	M3
Field Sample	L1500998-02	isopropyl alcohol	M4
Field Sample	L1500998-03	isopropyl alcohol	M4

Sample Type	Lab Id	Analyte	Manual Integration Code
Field Sample	L1500998-03	2-butanone	M4
Field Sample	L1500998-03	heptane	M4
Field Sample	L1500998-04	acetone	M6
Field Sample	L1500998-04	isopropyl alcohol	M4
Field Sample	WG757004-5D	2-butanone	M4
Field Sample	WG757004-5D	Tetrahydrofuran	M3
Field Sample	L1500998-05D	heptane	M4

M1 - Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 - Peak not found by automatic integration algorithm.
M3 - Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 - Poor automated baseline construction.
M5 - Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 - Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 - A qualifier ion was manually integrated (only for GC/MS data).
M8 - Integration of individual analyte eluting on top of an unresolved complex.
M9 - Other- Explain on chromatogram

Manual Integration Summary

Sample Type	Lab Id	Analyte	Manual Integration Code
Field Sample	WG760633-2	bromomethane	M6
Field Sample	WG760633-2	1,3-dichlorobenzene	M3
Field Sample	WG760633-3	bromomethane	M6
Field Sample	WG760633-3	1,3-dichlorobenzene	M3
Field Sample	L1502073-01	cyclohexane	M6
Field Sample	L1502073-01	4-ethyl toluene	M6
Field Sample	L1502073-02	acetone	M6
Field Sample	L1502073-02	cyclohexane	M6
Field Sample	L1502073-02	4-ethyl toluene	M6
Field Sample	L1502073-03	acetone	M6
Field Sample	L1502073-03	cyclohexane	M6
Field Sample	L1502073-03	4-ethyl toluene	M6
Field Sample	L1502073-04	acetone	M6
Field Sample	L1502073-04	cyclohexane	M6
Field Sample	L1502073-04	heptane	M6
Field Sample	L1502073-04	4-ethyl toluene	M6
Field Sample	L1502074-04	acetone	M6
Field Sample	L1502074-04	cyclohexane	M6
Field Sample	L1502074-04	4-ethyl toluene	M6
Field Sample	L1502074-01	cyclohexane	M6
Field Sample	L1502074-01	heptane	M6
Field Sample	L1502074-01	4-methyl-2-pentanone	M6
Field Sample	L1502074-01	4-ethyl toluene	M6
Field Sample	WG760633-5	cyclohexane	M6
Field Sample	WG760633-5	heptane	M6
Field Sample	WG760633-5	4-ethyl toluene	M6
Field Sample	L1502074-02	1,3-butadiene	M6
Field Sample	L1502074-02	acetone	M6
Field Sample	L1502074-02	2,2,4-trimethylpentane	M6
Field Sample	L1502074-02	heptane	M6
Field Sample	L1502074-02	4-methyl-2-pentanone	M6
Field Sample	L1502074-02	4-ethyl toluene	M6
Field Sample	L1502074-03	acetone	M6
Field Sample	L1502074-03	heptane	M6
Field Sample	L1502074-03	4-ethyl toluene	M6

Sample Type	Lab Id	Analyte	Manual Integration Code
Field Sample	L1500978-02	chloromethane	M6
Field Sample	L1500978-02	1,3-butadiene	M6
Field Sample	L1500978-02	acetone	M6
Field Sample	L1500978-02	2,2,4-trimethylpentane	M6
Field Sample	L1500978-02	4-ethyl toluene	M3

M1 - Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 - Peak not found by automatic integration algorithm.
M3 - Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 - Poor automated baseline construction.
M5 - Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 - Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 - A qualifier ion was manually integrated (only for GC/MS data).
M8 - Integration of individual analyte eluting on top of an unresolved complex.
M9 - Other- Explain on chromatogram

Manual Integration Codes

Flag	Reason
M1	Split or tailing peak, auto integration stopped early resulting in false low area count.
M2	Peak not found by automatic integration algorithm.
M3	Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4	Poor automated baseline construction.
M5	Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6	Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7	A qualifier ion was manually integrated (only for GC/MS data).
M8	Integration of individual analyte eluting on top of an unresolved complex.
M9	Other- Explain on chromatogram

Project: 117-0507600
Field ID Number: CR011415-AMB-01
Laboratory ID Number: L1500978-01

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/20/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.42		2			
Chloromethane	74-87-3	50.5	0.53		1			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	2.5	U	5			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	1.6		4			
Trichlorofluoromethane	75-69-4	137.4	0.23		1			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.20	U	0.6			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.20		0.6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.23		0.7			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.33		1			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Cyclotrisiloxane, Hexamethyl-	541-05-9		1.4	NJ		16.55		
unknown siloxane			3.1	J		18.9		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Chloroform	67-66-3	119.4	0.54		3			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.36		2			
Chloromethane	74-87-3	50.5	0.28		0.6			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	26		49			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	4.3		10			
Trichlorofluoromethane	75-69-4	137.4	0.24		1			
Isopropanol	67-63-0	60.1	3.5		9			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.20	U	0.6			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.29		0.9			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.26		0.8			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.45		2			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Propane	74-98-6		1.1	NJ		4.36		
Acetaldehyde	75-07-0		1.1	NJ		4.85		
Methyl Alcohol	67-56-1		4.5	NJ		4.92		
Butane	106-97-8		1.1	NJ		5.25		
unknown siloxane			2.4	J		18.9		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.20	U	1			
Chloromethane	74-87-3	50.5	0.20	U	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Butane	106-97-8	58.1	0.20	U	0.5			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	2.5	U	5			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	1.0	U	2			
Trichlorofluoromethane	75-69-4	137.4	0.20	U	1			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.20	U	0.6			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.20	U	0.6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.20	U	0.8			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

TARGET ANALYTES
AIR RESULTS

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
No Tentatively Identified Compounds	NONE			U				

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.20	U	1			
Chloromethane	74-87-3	50.5	0.20	U	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	2.5	U	5			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	1.0	U	2			
Trichlorofluoromethane	75-69-4	137.4	0.20	U	1			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.21		0.7			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.20	U	0.6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.20	U	0.8			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

TARGET ANALYTES
AIR RESULTS

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
No Tentatively Identified Compounds	NONE			U				

DATA QUALIFIERS

CODE	DESCRIPTION
A	Spectra identified as "Aldol Condensation Product".
B	The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
C	Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
DL	Sample was re-analyzed at a dilution. Qualifier applied to sample number.
E	Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	The lower value for the two columns has been reported due to obvious interference.
J	Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
M	Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
ND	Not detected at the reporting limit (RL) for the sample.
NJ	Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
P	The RPD between the results for the two columns exceeds the method-specified criteria.
Q	The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
R	Analytical results are from sample re-analysis.
RE	Analytical results are from sample re-extraction.

v.091814

Method Detection Limit Studies

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Approved

Page 1 of 5	
Analyst:	AR
Date:	3/13, 3/19/14
Instrument ID:	Airlab 14
Column ID:	RTX-1

Method: EPA TO-15 Full Scan **2014**

GC/MS **Volatile Organic Compounds** **Air**

Initial Weight/Volume: N/A
Final Volume: N/A

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
1	chlorodifluoromethane	0.10	0.130	0.115	0.120	0.108	0.123	0.123	0.120	0.120	120%	0.0069	0.0217	0.20	
2	propylene	0.10	0.093	0.089	0.030	0.066	0.068	0.061	0.075	0.0689	69%	0.0208	0.0655	0.50	
3	propane	0.10	0.116	0.077	0.065	0.114	0.067	0.038	0.034	0.0730	73%	0.0326	0.103	0.50	
4	dichlorodifluoromethane	0.10	0.134	0.123	0.114	0.134	0.124	0.118	0.131	0.125	125%	0.0079	0.0247	0.20	
5	chloromethane	0.20	0.218	0.220	0.222	0.210	0.214	0.239	0.226	0.221	111%	0.0094	0.0295	0.20	3/20/2014
6	Freon-114	0.10	0.130	0.124	0.121	0.132	0.125	0.123	0.121	0.125	125%	0.0043	0.0135	0.20	
7	methanol	2.50	2.48	2.56	2.77	2.64	2.56	2.78	2.77	2.65	106%	0.123	0.387	5.0	4/1/2014
8	vinyl chloride	0.10	0.083	0.071	0.118	0.080	0.069	0.071	0.086	0.0826	83%	0.0170	0.0533	0.20	
9	butane	0.10	0.144	0.125	0.132	0.137	0.129	0.128	0.137	0.133	133%	0.0066	0.0206	0.20	
10	acetaldehyde	2.50	3.34	3.29	3.42	3.39	3.21	3.45	3.30	3.34	134%	0.0832	0.262	2.5	4/1/2014
11	bromomethane	0.10	0.107	0.125	0.122	0.106	0.106	0.100	0.115	0.112	112%	0.0093	0.0292	0.20	
12	chloroethane	0.20	0.205	0.197	0.219	0.185	0.201	0.213	0.205	0.204	102%	0.0110	0.0346	0.20	3/20/2014
13	ethanol	0.50	0.605	0.607	0.569	0.735	0.551	0.540	0.595	0.600	120%	0.0649	0.204	1.0	
14	dichlorofluoromethane	0.10	0.108	0.104	0.118	0.106	0.116	0.113	0.114	0.111	111%	0.0053	0.0167	0.20	
15	vinyl bromide	0.10	0.079	0.084	0.100	0.051	0.072	0.081	0.078	0.0779	78%	0.0147	0.0462	0.20	
16	acrolein	0.20	0.193	0.183	0.145	0.178	0.154	0.136	0.197	0.169	85%	0.0242	0.0762	0.50	3/20/2014
17	acetone	2.50	2.73	2.95	2.91	2.74	2.88	2.85	2.89	2.85	114%	0.0857	0.269	1.0	4/1/2014
18	acetonitrile	0.20	0.203	0.186	0.191	0.207	0.194	0.210	0.219	0.201	101%	0.0117	0.0367	0.20	3/20/2014
19	trichlorofluoromethane	0.10	0.132	0.128	0.124	0.121	0.122	0.124	0.132	0.126	126%	0.0046	0.0143	0.20	
20	isopropyl alcohol	0.50	0.518	0.541	0.505	0.460	0.446	0.475	0.453	0.485	97%	0.0363	0.114	0.50	4/1/2014
21	acrylonitrile	0.10	0.028	0.078	0.048	0.045	0.050	0.020	0.029	0.0426	43%	0.0194	0.0609	0.20	
22	pentane	0.10	0.114	0.106	0.098	0.104	0.100	0.123	0.105	0.107	107%	0.0086	0.0272	0.20	
23	ethyl ether	0.20	0.215	0.222	0.205	0.222	0.204	0.225	0.217	0.216	108%	0.0084	0.0263	0.20	3/20/2014
24	1,1-dichloroethene	0.10	0.099	0.097	0.099	0.101	0.091	0.081	0.101	0.0956	96%	0.0073	0.0229	0.20	
25	tertiary butyl alcohol	0.10	0.108	0.093	0.104	0.083	0.102	0.100	0.092	0.0974	97%	0.0086	0.0269	0.20	
26	methylene chloride	0.50	0.512	0.706	0.642	0.630	0.645	0.646	0.668	0.636	127%	0.0599	0.188	1.0	4/1/2014
27	3-chloropropene	0.10	0.064	0.079	0.053	0.016	0.072	0.055	0.040	0.0541	54%	0.0212	0.0666	0.20	
28	carbon disulfide	0.10	0.081	0.076	0.088	0.077	0.075	0.079	0.085	0.0801	80%	0.0048	0.0152	0.20	
29	Freon 113	0.10	0.114	0.103	0.118	0.120	0.112	0.101	0.108	0.111	111%	0.0072	0.0227	0.20	
30	trans-1,2-dichloroethene	0.10	0.087	0.088	0.109	0.092	0.084	0.080	0.072	0.0874	87%	0.0115	0.0361	0.20	

Comments:

Technical Director: _____ Date Effective: 4/9/14

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Approved

Page 2 of 5	
Analyst:	AR
Date:	3/13, 3/19/14
Instrument ID:	Airlab 14
Column ID:	RTX-1

Method: EPA TO-15 Full Scan **2014**

GC/MS **Volatile Organic Compounds** **Air**

Initial Weight/Volume: N/A
Final Volume: N/A

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
31	1,1-dichloroethane	0.10	0.097	0.086	0.093	0.085	0.097	0.083	0.089	0.0900	90%	0.0057	0.0181	0.20	
32	MTBE	0.10	0.079	0.086	0.080	0.085	0.081	0.078	0.070	0.0799	80%	0.0053	0.0166	0.20	
33	vinyl acetate	0.10	0.063	0.071	0.054	0.059	0.062	0.062	0.047	0.0597	60%	0.0076	0.0238	0.20	
34	2-butanone	0.10	0.102	0.102	0.095	0.097	0.090	0.084	0.080	0.0929	93%	0.0086	0.0269	0.20	
35	cis-1,2-dichloroethene	0.10	0.096	0.080	0.085	0.084	0.084	0.075	0.071	0.0821	82%	0.0080	0.0252	0.20	
36	Ethyl Acetate	0.20	0.132	0.169	0.167	0.164	0.141	0.112	0.125	0.144	72%	0.0227	0.0713	0.50	3/20/2014
37	chloroform	0.10	0.106	0.112	0.107	0.102	0.103	0.107	0.092	0.104	104%	0.0063	0.0197	0.20	
38	Tetrahydrofuran	0.10	0.083	0.059	0.071	0.057	0.029	0.043	0.033	0.0536	54%	0.0198	0.0622	0.20	
39	2,2-dichloropropane	0.10	0.089	0.073	0.081	0.074	0.093	0.074	0.074	0.0797	80%	0.0082	0.0259	0.20	
40	1,2-dichloroethane	0.10	0.105	0.109	0.107	0.110	0.101	0.102	0.113	0.107	107%	0.0043	0.0137	0.20	
41	hexane	0.10	0.062	0.066	0.059	0.083	0.054	0.039	0.048	0.0587	59%	0.0140	0.0441	0.20	
42	diisopropyl ether	0.20	0.181	0.206	0.177	0.202	0.202	0.212	0.195	0.196	98%	0.0130	0.0409	0.20	3/20/2014
43	tert-butyl ethyl ether	0.10	0.091	0.073	0.072	0.078	0.081	0.072	0.077	0.0777	78%	0.0068	0.0213	0.20	
44	1,1,1-trichloroethane	0.10	0.080	0.114	0.113	0.122	0.111	0.112	0.105	0.108	108%	0.0134	0.0421	0.20	
45	1,1-dichloropropene	0.10	0.090	0.078	0.097	0.075	0.064	0.053	0.093	0.0786	79%	0.0161	0.0506	0.20	
46	benzene	0.10	0.112	0.115	0.106	0.126	0.108	0.107	0.115	0.113	113%	0.0069	0.0218	0.20	
47	thiophene	0.10	0.071	0.082	0.047	0.073	0.079	0.076	0.060	0.0697	70%	0.0122	0.0385	0.20	
48	carbon tetrachloride	0.10	0.099	0.089	0.093	0.086	0.087	0.097	0.079	0.0900	90%	0.0069	0.0217	0.20	
49	cyclohexane	0.10	0.059	0.058	0.052	0.041	0.039	0.057	0.038	0.0520	52%	0.0124	0.0388	0.20	
50	tert-amyl methyl ether	0.10	0.089	0.096	0.082	0.084	0.076	0.078	0.075	0.0829	83%	0.0076	0.0238	0.20	
51	dibromomethane	0.10	0.098	0.122	0.104	0.103	0.103	0.094	0.098	0.103	103%	0.0091	0.0285	0.20	
52	1,2-dichloropropane	0.10	0.098	0.065	0.071	0.080	0.067	0.082	0.082	0.0779	78%	0.0114	0.0357	0.20	
53	bromodichloromethane	0.10	0.081	0.065	0.070	0.062	0.077	0.070	0.063	0.0697	70%	0.0072	0.0225	0.20	
54	1,4-dioxane	0.20	0.196	0.181	0.174	0.185	0.201	0.179	0.200	0.188	94%	0.0109	0.0342	0.20	3/20/2014
55	trichloroethene	0.10	0.091	0.104	0.085	0.085	0.083	0.067	0.097	0.0874	87%	0.0117	0.0369	0.20	
56	2,2,4-trimethylpentane	0.10	0.086	0.079	0.085	0.083	0.088	0.077	0.079	0.0824	82%	0.0042	0.0131	0.20	
57	methyl methacrylate	0.10	0.062	0.052	0.049	0.051	0.026	0.041	0.044	0.0464	46%	0.0112	0.0352	0.20	
58	heptane	0.10	0.073	0.069	0.069	0.053	0.052	0.059	0.053	0.0611	61%	0.0090	0.0283	0.50	
59	cis-1,3-dichloropropene	0.10	0.054	0.054	0.045	0.026	0.049	0.037	0.010	0.0393	39%	0.0163	0.0513	0.20	

Comments:

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Approved

Page 3 of 5	
Analyst:	AR
Date:	3/13, 3/19/14
Instrument ID:	Airlab 14
Column ID:	RTX-1

Method: EPA TO-15 Full Scan **2014**

GC/MS **Volatile Organic Compounds** **Air**

Initial Weight/Volume: N/A
Final Volume: N/A

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
60	4-methyl-2-pentanone	0.10	0.090	0.092	0.086	0.077	0.079	0.079	0.061	0.0806	81%	0.0104	0.0327	0.20	
61	trans-1,3-dichloropropene	0.10	0.046	0.035	0.038	0.039	0.046	0.050	0.037	0.0416	42%	0.0057	0.0179	0.50	
62	1,1,2-trichloroethane	0.10	0.092	0.079	0.079	0.095	0.081	0.084	0.068	0.0854	85%	0.0064	0.0201	0.20	
63	toluene	0.10	0.096	0.094	0.095	0.104	0.095	0.095	0.083	0.0946	95%	0.0061	0.0193	0.20	
64	2-methylthiophene	0.10	0.072	0.076	0.075	0.073	0.063	0.069	0.065	0.0704	70%	0.0050	0.0156	0.20	
65	1,3-dichloropropane	0.10	0.099	0.093	0.091	0.087	0.096	0.093	0.086	0.0921	92%	0.0046	0.0146	0.20	
66	2-hexanone	0.10	0.080	0.084	0.075	0.084	0.074	0.078	0.063	0.0769	77%	0.0073	0.0228	0.20	
67	3-methylthiophene	0.10	0.071	0.071	0.070	0.063	0.062	0.063	0.059	0.0656	66%	0.0050	0.0156	0.20	
68	dibromochloromethane	0.10	0.059	0.055	0.054	0.064	0.048	0.056	0.046	0.0546	55%	0.0062	0.0194	0.20	
69	1,2-dibromoethane	0.10	0.085	0.079	0.084	0.078	0.069	0.066	0.073	0.0763	76%	0.0073	0.0228	0.20	
70	butyl acetate	0.20	0.140	0.130	0.126	0.130	0.125	0.139	0.113	0.129	65%	0.0092	0.0288	0.20	3/20/2014
71	octane	0.10	0.045	0.058	0.053	0.041	0.042	0.039	0.040	0.0454	45%	0.0073	0.0229	0.50	
72	tetrachloroethene	0.10	0.104	0.104	0.096	0.110	0.105	0.097	0.091	0.101	101%	0.0065	0.0205	0.20	
73	1,1,1,2-tetrachloroethane	0.10	0.071	0.068	0.056	0.072	0.062	0.056	0.061	0.0637	64%	0.0067	0.0211	0.20	
74	chlorobenzene	0.10	0.102	0.104	0.109	0.110	0.105	0.100	0.097	0.104	104%	0.0047	0.0147	0.20	
75	ethylbenzene	0.10	0.071	0.070	0.071	0.073	0.068	0.066	0.064	0.0690	69%	0.0032	0.00994	0.20	
76	2-ethylthiophene	0.10	0.061	0.060	0.060	0.056	0.055	0.051	0.051	0.0563	56%	0.0042	0.0133	0.20	
77	m+p-xylene	0.20	0.133	0.131	0.128	0.137	0.122	0.117	0.120	0.127	63%	0.0074	0.0232	0.40	
78	bromoform	0.10	0.044	0.048	0.047	0.050	0.039	0.042	0.041	0.0444	44%	0.0040	0.0127	0.20	
79	1,1,2,2-tetrachloroethane	0.10	0.091	0.094	0.092	0.098	0.092	0.090	0.082	0.0913	91%	0.0049	0.0153	0.20	
80	o-xylene	0.10	0.071	0.067	0.074	0.066	0.064	0.059	0.063	0.0663	66%	0.0050	0.0158	0.20	
81	1,2,3-trichloropropane	0.10	0.098	0.094	0.113	0.088	0.074	0.103	0.110	0.0971	97%	0.0134	0.0422	0.20	
82	nonane	0.10	0.053	0.056	0.054	0.057	0.054	0.042	0.051	0.0524	52%	0.0050	0.0157	0.20	
83	isopropylbenzene	0.10	0.091	0.083	0.088	0.088	0.079	0.079	0.080	0.0840	84%	0.0050	0.0156	0.20	
84	bromobenzene	0.10	0.099	0.096	0.102	0.099	0.091	0.084	0.087	0.0940	94%	0.0068	0.0213	0.20	
85	2-chlorotoluene	0.10	0.073	0.082	0.077	0.075	0.070	0.061	0.060	0.0711	71%	0.0082	0.0256	0.20	
86	n-propylbenzene	0.10	0.066	0.068	0.062	0.071	0.061	0.059	0.059	0.0637	64%	0.0047	0.0147	0.20	
87	4-chlorotoluene	0.10	0.074	0.080	0.072	0.075	0.073	0.070	0.066	0.0729	73%	0.0043	0.0136	0.20	
88	4-ethyl toluene	0.10	0.064	0.063	0.066	0.066	0.062	0.062	0.056	0.0627	63%	0.0034	0.0107	0.20	
89	1,3,5-trimethylbenzene	0.10	0.065	0.066	0.067	0.063	0.059	0.060	0.055	0.0621	62%	0.0043	0.0136	0.20	
90	tert-butylbenzene	0.10	0.073	0.077	0.075	0.069	0.066	0.064	0.061	0.0693	69%	0.0060	0.0187	0.20	

Comments: _____

Technical Director: _____ Date Effective: 4/9/14

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Approved

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Analyst:	AR
Date:	3/13, 3/19/14
Instrument ID:	Airlab 14
Column ID:	RTX-1

Method: EPA TO-15 Full Scan **2014**

GC/MS **Volatile Organic Compounds** **Air**

Initial Weight/Volume: N/A
Final Volume: N/A

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
91	1,2,4-trimethylbenzene	0.10	0.059	0.057	0.061	0.064	0.059	0.058	0.054	0.0589	59%	0.0031	0.00984	0.20	
92	decane	0.10	0.058	0.062	0.057	0.065	0.061	0.057	0.054	0.0591	59%	0.0037	0.0117	0.20	
93	1,3-dichlorobenzene	0.10	0.089	0.094	0.093	0.096	0.087	0.084	0.084	0.0896	90%	0.0049	0.0153	0.20	
94	1,4-dichlorobenzene	0.10	0.081	0.077	0.081	0.088	0.078	0.072	0.071	0.0783	78%	0.0058	0.0183	0.20	
95	sec-butylbenzene	0.10	0.072	0.076	0.073	0.074	0.068	0.065	0.064	0.0703	70%	0.0046	0.0146	0.20	
96	1,2,3-trimethylbenzene	0.10	0.064	0.064	0.064	0.064	0.058	0.056	0.055	0.0607	61%	0.0042	0.0132	0.20	
97	p-isopropyltoluene	0.10	0.068	0.069	0.066	0.070	0.065	0.064	0.057	0.0656	66%	0.0044	0.0137	0.20	
98	1,2-dichlorobenzene	0.10	0.092	0.098	0.094	0.099	0.100	0.097	0.086	0.0951	95%	0.0049	0.0154	0.20	
99	n-butylbenzene	0.10	0.071	0.074	0.076	0.074	0.065	0.069	0.061	0.0700	70%	0.0054	0.0170	0.20	
100	indan	0.10	0.061	0.068	0.064	0.062	0.058	0.057	0.051	0.0601	60%	0.0055	0.0172	0.20	
101	1,2-dibromo-3-chloropropane	0.20	0.175	0.183	0.163	0.170	0.166	0.167	0.166	0.170	85%	0.0069	0.0216	0.20	3/20/2014
102	undecane	0.20	0.205	0.224	0.196	0.206	0.217	0.191	0.226	0.209	105%	0.0135	0.0425	0.20	3/20/2014
103	dodecane	0.20	0.180	0.184	0.170	0.181	0.163	0.168	0.166	0.173	87%	0.0083	0.0262	0.20	3/20/2014
104	1,2,4-trichlorobenzene	0.20	0.200	0.224	0.214	0.217	0.215	0.201	0.222	0.213	107%	0.0094	0.0297	0.20	3/20/2014
105	naphthalene	0.20	0.220	0.252	0.238	0.232	0.244	0.226	0.258	0.239	119%	0.0137	0.0432	0.20	3/20/2014
106	1,2,3-trichlorobenzene	0.20	0.285	0.295	0.279	0.289	0.270	0.268	0.277	0.280	140%	0.0099	0.0310	0.20	3/20/2014
107	benzothiophene	0.20	0.234	0.263	0.245	0.251	0.256	0.236	0.262	0.250	125%	0.0117	0.0369	0.20	3/20/2014
108	hexachlorobutadiene	0.20	0.329	0.358	0.348	0.349	0.343	0.333	0.370	0.347	174%	0.0141	0.0443	0.20	3/20/2014
109	2-methylnaphthalene *	1.00	0.225	0.219	0.142	0.167	0.188	0.267	0.210	0.203	20%	0.0411	0.1291	1.0	4/9/2014
110	1-methylnaphthalene *	1.00	0.323	0.318	0.208	0.251	0.275	0.386	0.318	0.297	30%	0.0577	0.1815	1.0	4/9/2014

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 2.896					
		Date Analyzed	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	4/9/2014	4/9/2014						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
111	1,3-butadiene	0.20	0.211	0.211	0.197	0.207	0.204	0.205	0.198	0.203	0.165	0.200	100%	0.0140	0.0407	0.20	3/20/2014
112	styrene	0.10	0.047	0.048	0.050	0.051	0.052	0.049	0.045	0.057	0.059	0.0509	51%	0.00457	0.0132	0.20	
113	Benzyl Chloride	0.10	0.038	0.036	0.037	0.039	0.038	0.036	0.036	0.041	0.026	0.0363	36%	0.00421	0.0122	0.20	
114	indene	0.10	0.053	0.052	0.049	0.054	0.049	0.048	0.051	0.053	0.067	0.0529	53%	0.00569	0.0165	0.20	
115	1,2,4,5-tetramethylbenzene	0.10	0.066	0.065	0.068	0.069	0.062	0.064	0.064	0.071	0.077	0.0673	67%	0.00458	0.0133	0.20	

Comments: _____

Technical Director: AR Date Effective: 4/9/14

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Approved

Page 5 of 5	
Analyst:	AR
Date:	3/13, 3/19/14
Instrument ID:	Airlab 14
Column ID:	RTX-1

Method: EPA TO-15 Full Scan **2014**
GC/MS **Volatile Organic Compounds** **Air**

Initial Weight/Volume: N/A
Final Volume: N/A

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 2.896					
		Date Analyzed	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	4/9/2014	4/9/2014						
No.	Surrogates	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
	1,2-dichloroethane-D4	10.0	11.5	11.6	11.7	12.1	11.7	11.8	12.1	12.2	12.9	11.9	119%				0.1 Reps
	toluene-D8	10.0	9.12	9.27	9.08	9.14	9.15	8.84	8.92	11.5	11.1	9.56	96%				0.1 Reps
	bromofluorobenzene	10.0	9.25	8.64	9.20	9.11	8.79	8.59	8.67	10.6	11.0	9.31	93%				0.1 Reps

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 2.896					
		Date Analyzed	3/20/2014	3/20/2014	3/20/2014	3/20/2014	3/20/2014	3/20/2014	3/20/2014	4/9/2014	4/9/2014						
No.	Surrogates	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
	1,2-dichloroethane-D4	10.0	10.4	10.3	10.4	10.5	10.5	10.5	10.7	12.0	12.2	10.8	108%				0.2 Reps
	toluene-D8	10.0	9.52	9.44	9.32	9.35	9.30	9.15	9.26	8.30	8.51	9.13	91%				0.2 Reps
	bromofluorobenzene	10.0	9.95	10.0	9.64	9.76	9.98	9.60	10.0	8.53	8.91	9.60	96%				0.2 Reps

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 2.896					
		Date Analyzed	4/1/2014	4/1/2014	4/1/2014	4/1/2014	4/2/2014	4/2/2014	4/2/2014						
No.	Surrogates	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
	1,2-dichloroethane-D4	10.0	10.1	10.6	10.7	10.6	10.7	10.9	11.0	10.7	107%				0.5 Reps
	toluene-D8	10.0	9.45	9.80	10.1	9.70	9.72	9.55	9.63	9.70	97%				0.5 Reps
	bromofluorobenzene	10.0	9.13	9.09	9.17	9.26	9.28	9.20	9.06	9.17	92%				0.5 Reps

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 2.896					
		Date Analyzed	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014	3/13/2014						
No.	Surrogates	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
	1,2-dichloroethane-D4	10.0	11.7	12.0	11.8	12.0	12.9	12.7	12.5	12.2	122%				1.0 Reps
	toluene-D8	10.0	7.73	8.39	8.20	8.34	9.04	8.93	8.83	8.49	85%				1.0 Reps
	bromofluorobenzene	10.0	8.16	8.58	8.28	8.36	9.09	10.15	9.08	8.81	88%				1.0 Reps

Comments: * Difficult compounds

Form No.: 08-66 1/4/2013

Page 5 of 5

Technical Director: _____ Date Effective: 4/9/14

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Approved

Page 1 of 4	
Analyst:	AR
Date:	3/13, 4/18, 4/19/14
Instrument ID:	Airlab14
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2014**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
1	carbon disulfide	0.0345	0.069	0.138	0.1	Verified - JRH	0.2	
2	tert-butylbenzene	0.0402	0.080	0.161	0.1	Verified - JRH	0.2	
3	trichlorofluoromethane	0.0416	0.083	0.166	0.1	Verified - JRH	0.2	
4	1,4-dichlorobenzene	0.0418	0.084	0.167	0.1	Verified - JRH	0.2	
5	Freon-114	0.0419	0.084	0.168	0.1	Verified - JRH	0.2	
6	octane	0.0421	0.084	0.168	0.1	Verified - JRH	0.2	
7	isopropylbenzene	0.0430	0.086	0.172	0.1	Verified - JRH	0.2	
8	1,2,3-trichlorobenzene	0.0431	0.086	0.172	0.1	Verified - JRH	0.2	
9	naphthalene	0.0432	0.086	0.173	0.1	Verified - JRH	0.2	
10	MTBE	0.0452	0.090	0.181	0.1	Verified - JRH	0.2	
11	chloroform	0.0452	0.090	0.181	0.1	Verified - JRH	0.2	
12	dichlorodifluoromethane	0.0466	0.093	0.186	0.1	Verified - JRH	0.2	
13	benzothiophene	0.0468	0.094	0.187	0.1	Verified - JRH	0.2	
14	carbon tetrachloride	0.0471	0.094	0.188	0.1	Verified - JRH	0.2	
15	pentane	0.0475	0.095	0.190	0.1	Verified - JRH	0.2	
16	dibromomethane	0.0476	0.095	0.190	0.1	Verified - JRH	0.2	
17	2-chlorotoluene	0.0487	0.097	0.195	0.1	Verified - JRH	0.2	
18	Freon 113	0.0511	0.102	0.200	0.1	Verified - JRH	0.2	
19	tert-butyl ethyl ether	0.0515	0.103	0.200	0.1	Verified - JRH	0.2	
20	hexane	0.0518	0.104	0.200	0.1	Verified - JRH	0.2	
21	2-butanone	0.0522	0.104	0.200	0.1	Verified - JRH	0.2	
22	bromoform	0.0523	0.105	0.200	0.1	Verified - JRH	0.2	
23	thiophene	0.0528	0.106	0.200	0.1	Verified - JRH	0.2	
24	vinyl chloride	0.0533	0.107	0.200	0.1	Verified - JRH	0.2	
25	benzene	0.0537	0.107	0.200	0.1	Verified - JRH	0.2	
26	1,1,1,2-tetrachloroethane	0.0547	0.109	0.200	0.1	Verified - JRH	0.2	
27	1,1,2,2-tetrachloroethane	0.0548	0.110	0.200	0.1	Verified - JRH	0.2	
28	1,2-dichloroethane	0.0552	0.110	0.200	0.1	Verified - JRH	0.2	
29	heptane	0.0553	0.111	0.200	0.1	Verified - JRH	0.2	
30	ethylbenzene	0.0555	0.111	0.200	0.1	Verified - JRH	0.2	
31	n-propylbenzene	0.0559	0.112	0.200	0.1	Verified - JRH	0.2	
32	1,1-dichloroethene	0.0566	0.113	0.200	0.1	Verified - JRH	0.2	
33	vinyl acetate	0.0567	0.113	0.200	0.1	Verified - JRH	0.2	
34	1,1,1-trichloroethane	0.0570	0.114	0.200	0.1	Verified - JRH	0.2	
35	2-Ethylthiophene	0.0571	0.114	0.200	0.1	Verified - JRH	0.2	

Comments: * Airpiano 1 '09, Airpiano2 '09, Airlab11 '12, Airlab7 '13, Airlab14 '14 - Highest MDL

Form No.: 08-105
Rev. 1 4/20/2011

QA Review:

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	AR
Date:	3/13, 4/18, 4/19/14
Instrument ID:	Airlab14
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2014**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
36	dichlorofluoromethane	0.0572	0.114	0.200	0.1	Verified - JRH	0.2	
37	2,2-dichloropropane	0.0581	0.116	0.200	0.1	Verified - JRH	0.2	
38	1,3,5-trimethylbenzene	0.0584	0.117	0.200	0.1	Verified - JRH	0.2	
39	cis-1,2-dichloroethene	0.0587	0.117	0.200	0.1	Verified - JRH	0.2	
40	ethyl ether	0.0591	0.118	0.200	0.1	Verified - JRH	0.2	
41	2-hexanone	0.0604	0.121	0.200	0.1	Verified - JRH	0.2	
42	4-methyl-2-pentanone	0.0607	0.121	0.200	0.1	Verified - JRH	0.2	
43	p-isopropyltoluene	0.0608	0.122	0.200	0.1	Verified - JRH	0.2	
44	indene	0.0608	0.122	0.200	0.1	Verified - JRH	0.2	
45	1,2,4-trichlorobenzene	0.0611	0.122	0.200	0.1	Verified - JRH	0.2	
46	1,2-dichlorobenzene	0.0614	0.123	0.200	0.1	Verified - JRH	0.2	
47	tetrahydrofuran	0.0622	0.124	0.200	0.1	Verified - JRH	0.2	
48	chlorodifluoromethane	0.0626	0.125	0.200	0.1	Verified - JRH	0.2	
49	toluene	0.0628	0.126	0.200	0.1	Verified - JRH	0.2	
50	o-xylene	0.0631	0.126	0.200	0.1	Verified - JRH	0.2	
51	1,3-dichlorobenzene	0.0637	0.127	0.200	0.1	Verified - JRH	0.2	
52	n-butylbenzene	0.0639	0.128	0.200	0.1	Verified - JRH	0.2	
53	benzyl chloride	0.0645	0.129	0.200	0.1	Verified - JRH	0.2	
54	bromodichloromethane	0.0656	0.131	0.200	0.1	Verified - JRH	0.2	
55	cyclohexane	0.0656	0.131	0.200	0.1	Verified - JRH	0.2	
56	diisopropyl ether	0.0656	0.131	0.200	0.2	Verified - JRH	0.2	
57	2,2,4-trimethylpentane	0.0659	0.132	0.200	0.1	Verified - JRH	0.2	
58	1,1,2-trichloroethane	0.0667	0.133	0.200	0.1	Verified - JRH	0.2	
59	3-methylthiophene	0.0669	0.134	0.200	0.1	Verified - JRH	0.2	
60	trans-1,3-dichloropropene	0.0693	0.139	0.200	0.1	Verified - JRH	0.2	
61	1,2,4-trimethylbenzene	0.0694	0.139	0.200	0.1	Verified - JRH	0.2	
62	bromomethane	0.0696	0.139	0.200	0.1	Verified - JRH	0.2	
63	1,2-dichloropropane	0.0697	0.139	0.200	0.1	Verified - JRH	0.2	
64	vinyl bromide	0.0699	0.140	0.200	0.1	Verified - JRH	0.2	
65	trichloroethene	0.0710	0.142	0.200	0.1	Verified - JRH	0.2	
66	1,1-dichloropropene	0.0715	0.143	0.200	0.1	Verified - JRH	0.2	
67	sec-butylbenzene	0.0731	0.146	0.200	0.1	Verified - JRH	0.2	
68	hexachlorobutadiene	0.0732	0.146	0.200	0.1	Verified - JRH	0.2	
69	trans-1,2-dichloroethene	0.0740	0.148	0.200	0.1	Verified - JRH	0.2	
70	1,2-dibromo-3-chloropropane	0.0744	0.149	0.200	0.1	Verified - JRH	0.2	

Comments: * Airpiano 1 '09, Airpiano2 '09, Airlab11 '12, Airlab7 '13, Airlab14 '14 - Highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 3 of 4	
Analyst:	AR
Date:	3/13, 4/18, 4/19/14
Instrument ID:	Airlab14
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2014**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
71	cis-1,3-dichloropropene	0.0745	0.149	0.200	0.1	Verified - JRH	0.2	
72	dibromochloromethane	0.0747	0.149	0.200	0.1	Verified - JRH	0.2	
73	1,2,3-Trimethylbenzene	0.0751	0.150	0.200	0.1	Verified - JRH	0.2	
74	tetrachloroethene	0.0758	0.152	0.200	0.1	Verified - JRH	0.2	
75	acetonitrile	0.0761	0.152	0.200	0.1	Verified - JRH	0.2	
76	4-chlorotoluene	0.0764	0.153	0.200	0.1	Verified - JRH	0.2	
77	1,2,3-trichloropropane	0.0767	0.153	0.200	0.1	Verified - JRH	0.2	
78	chloroethane	0.0767	0.153	0.200	0.2	Verified - JRH	0.2	
79	1,1-dichloroethane	0.0771	0.154	0.200	0.1	Verified - JRH	0.2	
80	1,3-dichloropropane	0.0776	0.155	0.200	0.1	Verified - JRH	0.2	
81	4-ethyl toluene	0.0776	0.155	0.200	0.1	Verified - JRH	0.2	
82	1,2-dibromoethane	0.0779	0.156	0.200	0.1	Verified - JRH	0.2	
83	1,4-dioxane	0.0780	0.156	0.200	0.1	Verified - JRH	0.2	
84	chlorobenzene	0.0789	0.158	0.200	0.1	Verified - JRH	0.2	
85	2-methylthiophene	0.0789	0.158	0.200	0.1	Verified - JRH	0.2	
86	acrylonitrile	0.0790	0.158	0.200	0.1	Verified - JRH	0.2	
87	bromobenzene	0.0790	0.158	0.200	0.1	Verified - JRH	0.2	
88	1,2,4,5-Tetramethylbenzene	0.0795	0.159	0.200	0.1	Verified - JRH	0.2	
89	tert-amyl methyl ether	0.0795	0.159	0.200	0.1	Verified - JRH	0.2	
90	indan	0.0795	0.159	0.200	0.1	Verified - JRH	0.2	
91	styrene	0.0799	0.160	0.200	0.1	Verified - JRH	0.2	
92	1,3-butadiene	0.0799	0.160	0.200	0.1	Verified - JRH	0.2	
93	3-chloropropene	0.0812	0.162	0.200	0.1	Verified - JRH	0.2	
94	propylene	0.0929	0.186	0.372	0.1	Verified - JRH	0.5	
95	chloromethane	0.0958	0.192	0.200	0.1	Verified - JRH	0.2	
96	propane	0.114	0.227	0.200	0.2	Verified - JRH	0.2	
97	acrolein	0.114	0.228	0.455	0.2	Verified - JRH	0.5	
98	isopropyl alcohol	0.114	0.228	0.456	0.2	Verified - JRH	0.5	
99	ethyl acetate	0.131	0.262	0.500	0.5	Verified - JRH	0.5	
100	m+p-xylene	0.139	0.278	0.400	0.2	Verified - JRH	0.4	
101	Methyl Methacrylate*	0.147	0.295	0.500	0.2	Verified - JRH	0.5	
102	methylene chloride	0.188	0.377	0.500	0.2	Verified - JRH	0.5	
103	acetone	0.269	0.539	1.00	0.5	Verified - JRH	1	
104	2-methylnaphthalene	0.272	0.545	1.00	0.5	Verified - JRH	1	
105	1-methylnaphthalene	0.286	0.572	1.00	1	Verified - JRH	1	

Comments: * Airpiano 1 '09, Airpiano2 '09, Airlab11 '12, Airlab7 '13, Airlab14 '14 - Highest MDL

Form No.: 08-105
Rev. 1 4/20/2011

QA Review:

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	AR
Date:	3/13, 4/18, 4/19/14
Instrument ID:	Airlab14
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2014**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
106	ethanol	0.5416	1.08	2.17	1	Verified - JRH	2.5	
107	acetaldehyde	0.5466	1.09	2.19	1	Verified - JRH	5	
108	methanol	0.7359	1.47	2.94	1	Verified - JRH	5	
	Additional Analytes							
1	undecane	0.0528	0.106	0.200	0.1	Verified - JRH	0.2	
2	dodecane	0.0564	0.113	0.200	0.1	Verified - JRH	0.2	
3	decane	0.0484	0.097	0.194	0.1	Verified - JRH	0.2	
4	nonane	0.0644	0.129	0.200	0.1	Verified - JRH	0.2	
5	butane	0.0442	0.088	0.177	0.1	Verified - JRH	0.2	
6	Tertiary butyl Alcohol	0.0599	0.120	0.200	0.1	Verified - JRH	0.2	
7	butyl acetate	0.114	0.228	0.455	0.2	Verified - JRH	0.5	

Comments: * Airpiano 1 '09, Airpiano2 '09, Airlab11 '12, Airlab7 '13, Airlab14 '14 - Highest MDL

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Approved

Page 1 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS **Toxic Organic Air Pollutants**

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean Accuracy	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv			ppbv	ppbv	
1	chlorodifluoromethane	0.2	0.241	0.217	0.215	0.236	0.217	0.182	0.202	0.216	108%	0.020	0.06	0.2	
2	propylene	0.2	0.247	0.17	0.254	0.248	0.219	0.209	0.215	0.223	112%	0.030	0.09	0.5	6/23/2009
3	propane	0.2	0.217	0.244	0.169	0.211	0.277	0.262	0.244	0.232	116%	0.036	0.11	0.5	6/23/2009
4	dichlorodifluoromethane	0.2	0.242	0.222	0.232	0.223	0.215	0.237	0.259	0.233	116%	0.015	0.05	0.2	
5	chloromethane	0.2	0.244	0.268	0.286	0.261	0.269	0.239	0.33	0.271	136%	0.030	0.10	0.5	
6	Freon-114	0.2	0.183	0.205	0.175	0.19	0.188	0.19	0.176	0.187	93%	0.010	0.03	0.2	
7	methanol	5	5.0799	4.5532	4.6465	5.174	5.0552	5.02	4.9599	4.927	99%	0.234	0.74	5	7/6-7/2009
8	vinyl chloride	0.2	0.174	0.177	0.175	0.191	0.179	0.18	0.18	0.179	90%	0.006	0.02	0.2	
9	1,3-butadiene	0.2	0.174	0.215	0.188	0.157	0.197	0.195	0.141	0.181	91%	0.025	0.08	0.2	
10	butane	0.2	0.219	0.198	0.202	0.193	0.198	0.172	0.196	0.197	98%	0.014	0.04	0.2	6/23/2009
11	bromomethane	0.2	0.272	0.26	0.24	0.247	0.256	0.235	0.3	0.259	129%	0.022	0.07	0.2	6/23/2009
12	chloroethane	0.5	0.407	0.444	0.443	0.491	0.449	0.449	0.45	0.448	90%	0.024	0.08	0.2	
13	dichlorofluoromethane	0.2	0.197	0.215	0.197	0.163	0.168	0.196	0.185	0.189	94%	0.018	0.06	0.2	
14	ethanol	1	1.284	1.451	1.362	1.318	1.501	1.359	1.79	1.438	144%	0.172	0.54	2	
15	acetonitrile	0.2	0.192	0.243	0.221	0.207	0.225	0.223	0.205	0.217	108%	0.017	0.05	0.2	
16	vinyl bromide	0.2	0.177	0.165	0.197	0.16	0.142	0.152	0.13	0.160	80%	0.022	0.07	0.2	
17	acrolein	0.2	0.199	0.265	0.181	0.204	0.192	0.204	0.229	0.211	105%	0.028	0.09	0.5	6/23/2009
18	acetone	0.4051	0.348	0.372	0.367	0.365	0.379	0.355	0.413	0.371	92%	0.021	0.07	0.5	7/6-7/2009
19	trichlorofluoromethane	0.2	0.205	0.211	0.203	0.178	0.195	0.2	0.18	0.196	98%	0.013	0.04	0.2	
20	isopropyl alcohol	0.2	0.278	0.299	0.278	0.265	0.298	0.292	0.302	0.287	144%	0.014	0.04	0.2	
21	acrylonitrile	0.2	0.193	0.199	0.252	0.238	0.245	0.197	0.209	0.219	110%	0.025	0.08	0.2	6/23/2009
22	pentane	0.2	0.205	0.211	0.229	0.203	0.229	0.214	0.226	0.217	108%	0.011	0.04	0.2	
23	ethyl ether	0.2	0.207	0.215	0.246	0.208	0.235	0.239	0.197	0.221	111%	0.019	0.06	0.2	
24	1,1-dichloroethene	0.2	0.174	0.187	0.193	0.167	0.178	0.193	0.142	0.176	88%	0.018	0.06	0.2	
25	Tertiary butyl Alcohol	0.2	0.198	0.178	0.221	0.229	0.19	0.218	0.22	0.208	104%	0.019	0.06	0.2	6/23/2009
26	methylene chloride	0.2	0.226	0.262	0.246	0.263	0.227	0.236	0.257	0.245	123%	0.016	0.05	0.2	6/23/2009
27	3-chloropropene	0.2	0.159	0.214	0.2	0.159	0.208	0.164	0.157	0.180	90%	0.026	0.08	0.2	
28	carbon disulfide	0.2	0.205	0.212	0.209	0.186	0.203	0.201	0.205	0.203	102%	0.008	0.03	0.2	
29	Freon 113	0.2	0.199	0.177	0.167	0.181	0.205	0.191	0.161	0.183	92%	0.016	0.05	0.2	
30	trans-1,2-dichloroethene	0.2	0.195	0.177	0.158	0.171	0.162	0.212	0.142	0.174	87%	0.024	0.07	0.2	
31	1,1-dichloroethane	0.2	0.172	0.234	0.192	0.2	0.216	0.195	0.162	0.196	98%	0.025	0.08	0.2	
32	MTBE	0.2	0.207	0.223	0.22	0.227	0.229	0.227	0.208	0.220	110%	0.009	0.03	0.2	
33	vinyl acetate	0.2	0.217	0.22	0.236	0.224	0.24	0.241	0.222	0.229	114%	0.010	0.03	0.2	
34	2-butanone	0.2	0.218	0.228	0.237	0.231	0.255	0.239	0.251	0.237	119%	0.013	0.04	0.2	
35	cis-1,2-dichloroethene	0.2	0.168	0.186	0.198	0.196	0.209	0.199	0.157	0.188	94%	0.019	0.06	0.2	
36	chloroform	0.2	0.175	0.193	0.193	0.184	0.18	0.187	0.175	0.184	92%	0.008	0.02	0.2	
37	1,2-dichloroethane	0.2	0.202	0.224	0.205	0.187	0.238	0.2	0.196	0.207	104%	0.018	0.06	0.2	
38	hexane	0.2	0.19	0.221	0.21	0.219	0.182	0.213	0.186	0.203	102%	0.016	0.05	0.2	
39	diisopropyl ether	0.2	0.222	0.277	0.229	0.23	0.214	0.244	0.247	0.238	119%	0.021	0.07	0.2	6/23/2009
40	ethyl acetate	0.2	0.17	0.284	0.194	0.197	0.198	0.151	0.194	0.198	99%	0.042	0.13	0.5	6/23/2009
41	2,2-dichloropropane	0.2	0.167	0.186	0.155	0.198	0.198	0.198	0.164	0.181	90%	0.018	0.06	0.2	
42	tetrahydrofuran	0.2	0.193	0.186	0.173	0.201	0.165	0.178	0.211	0.187	93%	0.016	0.05	0.2	6/23/2009
43	tert-butyl ethyl ether	0.2	0.199	0.198	0.192	0.196	0.224	0.215	0.173	0.200	100%	0.016	0.05	0.2	
44	1,1,1-trichloroethane	0.2	0.17	0.197	0.199	0.18	0.198	0.219	0.169	0.190	95%	0.018	0.06	0.2	
45	1,1-dichloropropene	0.2	0.181	0.217	0.18	0.145	0.158	0.17	0.184	0.176	88%	0.023	0.07	0.2	6/23/2009
46	benzene	0.2	0.18	0.217	0.201	0.213	0.23	0.227	0.205	0.210	105%	0.017	0.05	0.2	

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Page 2 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS **Toxic Organic Air Pollutants**

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean Accuracy	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv			ppbv	ppbv	
47	carbon tetrachloride	0.2	0.171	0.212	0.192	0.186	0.183	0.178	0.167	0.184	92%	0.015	0.05	0.2	
48	cyclohexane	0.2	0.168	0.174	0.152	0.208	0.188	0.191	0.152	0.176	88%	0.021	0.07	0.2	
49	tert-amyl methyl ether	0.2	0.171	0.224	0.245	0.202	0.204	0.228	0.188	0.209	104%	0.025	0.08	0.2	
50	dibromomethane	0.2	0.189	0.194	0.217	0.193	0.212	0.203	0.172	0.197	99%	0.015	0.05	0.2	
51	1,2-dichloropropane	0.2	0.16	0.203	0.174	0.219	0.207	0.183	0.168	0.188	94%	0.022	0.07	0.2	6/23/2009
52	bromodichloromethane	0.2	0.174	0.183	0.155	0.185	0.18	0.189	0.131	0.171	86%	0.021	0.07	0.2	
53	trichloroethene	0.2	0.165	0.201	0.208	0.165	0.149	0.196	0.195	0.183	91%	0.023	0.07	0.2	
54	1,4-dioxane	0.2	0.181	0.208	0.141	0.153	0.202	0.193	0.177	0.179	90%	0.025	0.08	0.2	6/23/2009
55	2,2,4-trimethylpentane	0.2	0.169	0.218	0.182	0.202	0.213	0.18	0.166	0.190	95%	0.021	0.07	0.2	
56	heptane	0.2	0.165	0.212	0.171	0.207	0.199	0.191	0.186	0.190	95%	0.018	0.06	0.2	
57	cis-1,3-dichloropropene	0.2	0.166	0.201	0.173	0.182	0.217	0.224	0.169	0.190	95%	0.024	0.07	0.2	
58	4-methyl-2-pentanone	0.2	0.21	0.228	0.181	0.198	0.219	0.207	0.175	0.203	101%	0.019	0.06	0.2	
59	trans-1,3-dichloropropene	0.2	0.141	0.186	0.194	0.183	0.193	0.188	0.148	0.176	88%	0.022	0.07	0.2	
60	1,1,2-trichloroethane	0.2	0.193	0.23	0.212	0.212	0.229	0.217	0.17	0.209	105%	0.021	0.07	0.2	
61	toluene	0.2	0.212	0.23	0.228	0.226	0.271	0.233	0.211	0.230	115%	0.020	0.06	0.2	
62	1,3-dichloropropane	0.2	0.178	0.203	0.14	0.197	0.186	0.16	0.146	0.173	86%	0.025	0.08	0.2	
63	2-hexanone	0.2	0.198	0.189	0.203	0.178	0.205	0.215	0.158	0.192	96%	0.019	0.06	0.2	
64	dibromochloromethane	0.2	0.166	0.175	0.163	0.177	0.225	0.183	0.15	0.177	89%	0.024	0.07	0.2	
65	1,2-dibromoethane	0.2	0.172	0.215	0.193	0.178	0.211	0.205	0.146	0.189	94%	0.025	0.08	0.2	
66	butyl acetate	0.2	0.235	0.206	0.228	0.254	0.223	0.186	0.191	0.218	109%	0.025	0.08	0.2	6/23/2009
67	octane	0.2	0.172	0.196	0.169	0.186	0.193	0.198	0.167	0.183	92%	0.013	0.04	0.2	6/23/2009
68	tetrachloroethene	0.2	0.188	0.188	0.177	0.236	0.19	0.182	0.231	0.199	99%	0.024	0.08	0.2	
69	1,1,1,2-tetrachloroethane	0.2	0.193	0.207	0.171	0.201	0.192	0.199	0.159	0.189	94%	0.017	0.05	0.2	
70	chlorobenzene	0.2	0.198	0.219	0.211	0.226	0.23	0.214	0.156	0.208	104%	0.025	0.08	0.2	
71	ethylbenzene	0.2	0.194	0.204	0.203	0.203	0.232	0.204	0.172	0.202	101%	0.018	0.06	0.2	
72	m+p-xylene	0.4	0.327	0.418	0.424	0.397	0.442	0.403	0.336	0.392	98%	0.044	0.14	0.4	
73	bromoform	0.2	0.172	0.159	0.155	0.193	0.178	0.18	0.145	0.169	84%	0.017	0.05	0.2	
74	styrene	0.2	0.141	0.172	0.182	0.179	0.207	0.202	0.145	0.175	88%	0.025	0.08	0.2	
75	1,1,2,2-tetrachloroethane	0.2	0.168	0.18	0.187	0.194	0.209	0.16	0.166	0.181	90%	0.017	0.05	0.2	
76	o-xylene	0.2	0.159	0.2	0.192	0.188	0.214	0.201	0.164	0.188	94%	0.020	0.06	0.2	
77	1,2,3-trichloropropane	0.2	0.171	0.203	0.192	0.22	0.198	0.197	0.145	0.189	95%	0.024	0.08	0.2	
78	nonane	0.2	0.186	0.191	0.215	0.201	0.211	0.193	0.185	0.197	99%	0.012	0.04	0.2	
79	isopropylbenzene	0.2	0.163	0.183	0.159	0.169	0.147	0.183	0.162	0.167	83%	0.013	0.04	0.2	6/23/2009
80	bromobenzene	0.2	0.175	0.212	0.21	0.182	0.201	0.195	0.14	0.188	94%	0.025	0.08	0.2	
81	2-chlorotoluene	0.2	0.16	0.205	0.161	0.166	0.167	0.177	0.175	0.173	87%	0.016	0.05	0.2	6/23/2009
82	n-propylbenzene	0.2	0.189	0.173	0.159	0.171	0.134	0.16	0.155	0.163	82%	0.017	0.05	0.2	
83	4-chlorotoluene	0.2	0.177	0.193	0.2	0.168	0.211	0.219	0.151	0.188	94%	0.024	0.08	0.2	
84	4-ethyl toluene	0.2	0.166	0.187	0.186	0.169	0.219	0.181	0.138	0.178	89%	0.025	0.08	0.2	
85	1,3,5-trimethylbenzene	0.2	0.16	0.179	0.179	0.179	0.185	0.185	0.134	0.172	86%	0.019	0.06	0.2	
86	tert-butylbenzene	0.2	0.16	0.164	0.155	0.163	0.176	0.157	0.144	0.160	80%	0.010	0.03	0.2	
87	1,2,4-trimethylbenzene	0.2	0.144	0.183	0.177	0.192	0.189	0.187	0.139	0.173	87%	0.022	0.07	0.2	
88	decane	0.2	0.155	0.179	0.174	0.169	0.2	0.172	0.155	0.172	86%	0.015	0.05	0.2	
89	benzyl chloride	0.2	0.164	0.166	0.191	0.157	0.196	0.18	0.137	0.170	85%	0.021	0.06	0.2	
90	1,3-dichlorobenzene	0.2	0.163	0.191	0.177	0.148	0.194	0.197	0.153	0.175	87%	0.020	0.06	0.2	
91	1,4-dichlorobenzene	0.2	0.173	0.171	0.194	0.178	0.17	0.19	0.168	0.178	89%	0.010	0.03	0.2	
92	sec-butylbenzene	0.2	0.149	0.171	0.191	0.157	0.206	0.169	0.14	0.169	85%	0.023	0.07	0.2	

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Page 3 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
93	p-isopropyltoluene	0.2	0.178	0.177	0.161	0.160	0.191	0.166	0.130	0.166	83%	0.019	0.06	0.2	
94	1,2-dichlorobenzene	0.2	0.148	0.152	0.175	0.180	0.166	0.152	0.122	0.156	78%	0.020	0.06	0.2	
95	n-butylbenzene	0.2	0.148	0.173	0.178	0.145	0.155	0.177	0.123	0.157	79%	0.020	0.06	0.2	
96	1,2-dibromo-3-chloropropane	0.2	0.156	0.181	0.160	0.113	0.139	0.175	0.137	0.152	76%	0.024	0.07	0.2	
97	undecane	0.2	0.153	0.169	0.176	0.143	0.179	0.184	0.189	0.170	85%	0.017	0.05	0.2	
98	dodecane	0.2	0.128	0.152	0.132	0.128	0.116	0.125	0.132	0.130	65%	0.011	0.03	0.2	6/23/2009
99	1,2,4-trichlorobenzene	0.2	0.151	0.145	0.122	0.121	0.123	0.092	0.135	0.127	64%	0.019	0.06	0.2	6/23/2009
100	naphthalene	0.2	0.131	0.155	0.123	0.132	0.110	0.128	0.126	0.129	65%	0.014	0.04	0.2	
101	1,2,3-trichlorobenzene	0.2	0.129	0.132	0.111	0.150	0.112	0.120	0.128	0.126	63%	0.013	0.04	0.2	
102	hexachlorobutadiene	0.2	0.156	0.208	0.179	0.156	0.155	0.137	0.179	0.167	84%	0.023	0.07	0.2	6/23/2009
103	thiophene	0.2	0.146	0.190	0.159	0.160	0.157	0.179	0.144	0.162	81%	0.017	0.05	0.2	
104	2-methylthiophene	0.2	0.198	0.229	0.202	0.207	0.221	0.215	0.208	0.211	106%	0.011	0.03	0.2	
105	3-methylthiophene	0.2	0.179	0.200	0.171	0.178	0.148	0.165	0.167	0.173	86%	0.016	0.05	0.2	
106	indan	0.2	0.187	0.204	0.157	0.184	0.127	0.187	0.177	0.175	87%	0.025	0.08	0.2	6/23/2009
107	indene	0.2	0.158	0.187	0.135	0.172	0.132	0.155	0.160	0.157	79%	0.019	0.06	0.2	6/23/2009
108	benzothiophene	0.2	0.113	0.147	0.119	0.129	0.135	0.121	0.153	0.131	66%	0.015	0.05	2.5	
109	2-methylnaphthalene	1	0.742	0.744	0.649	0.651	0.533	0.791	0.726	0.691	69%	0.087	0.27	2.5	7/6-7/2009
110	1-methylnaphthalene	1	0.877	0.851	0.785	0.750	0.640	0.834	0.809	0.792	79%	0.079	0.25	2.5	7/6-7/2009
	Surrogates														
1	1,2-dichloroethane-D4	10	9.435	9.458	9.978	10.052	11.192	9.292	10.425	9.976	100%				
2	toluene-D8	10	9.879	10.102	10.321	10.258	12.64	9.302	10.222	10.389	104%				
3	bromofluorobenzene	10	9.18	9.343	8.91	8.73	10.452	7.691	9.39	9.099	91%				

Comments: _____

Approved

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 1 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2013**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
1	methyl methacrylate	0.0221	0.065	0.130	0.1	Verified - JRH	0.5	
2	tert-butlybenzene	0.0307	0.069	0.138	0.1	Verified - JRH	0.2	
3	carbon disulfide	0.0345	0.076	0.151	0.1	Verified - JRH	0.2	
4	1,4-dichlorobenzene	0.0361	0.076	0.152	0.1	Verified - JRH	0.2	
5	vinyl chloride	0.0378	0.078	0.156	0.1	Verified - JRH	0.2	
6	isopropylbenzene	0.0410	0.083	0.166	0.1	Verified - JRH	0.2	
7	trichlorofluoromethane	0.0416	0.084	0.168	0.1	Verified - JRH	0.2	
8	Freon-114	0.0419	0.084	0.168	0.1	Verified - JRH	0.2	
9	octane	0.0421	0.088	0.177	0.1	Verified - JRH	0.2	
10	naphthalene	0.0425	0.090	0.181	0.1	Verified - JRH	0.2	
11	1,2,3-trichlorobenzene	0.0436	0.093	0.185	0.1	Verified - JRH	0.2	
12	dichlorodifluoromethane	0.0466	0.093	0.186	0.1	Verified - JRH	0.2	
13	benzothiophene	0.0468	0.094	0.187	0.1	Verified - JRH	0.5	
14	carbon tetrachloride	0.0471	0.094	0.188	0.1	Verified - JRH	0.2	
15	2-butanone	0.0472	0.095	0.190	0.1	Verified - JRH	0.2	
16	pentane	0.0475	0.097	0.193	0.1	Verified - JRH	0.2	
17	dibromomethane	0.0476	0.097	0.195	0.1	Verified - JRH	0.2	
18	2-chlorotoluene	0.0487	0.101	0.200	0.2	Verified - JRH	0.2	
19	Freon 113	0.0511	0.102	0.200	0.2	Verified - JRH	0.2	
20	tert-butyl ethyl ether	0.0515	0.103	0.200	0.2	Verified - JRH	0.2	
21	hexane	0.0518	0.104	0.200	0.2	Verified - JRH	0.2	
22	bromoform	0.0523	0.105	0.200	0.2	Verified - JRH	0.2	
23	isopropyl alcohol	0.0525	0.106	0.211	0.2	Verified - JRH	0.5	
24	thiophene	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
25	MTBE	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
26	chloroform	0.0531	0.108	0.200	0.2	Verified - JRH	0.2	
27	benzene	0.0537	0.109	0.200	0.2	Verified - JRH	0.2	
28	n-propylbenzene	0.0540	0.109	0.200	0.2	Verified - JRH	0.2	
29	1,1,1,2-tetrachloroethane	0.0547	0.110	0.200	0.2	Verified - JRH	0.2	
30	1,1,2,2-tetrachloroethane	0.0548	0.110	0.200	0.2	Verified - JRH	0.2	
31	1,2-dichloroethane	0.0552	0.111	0.200	0.2	Verified - JRH	0.2	
32	heptane	0.0553	0.111	0.200	0.2	Verified - JRH	0.2	
33	ethylbenzene	0.0555	0.113	0.200	0.2	Verified - JRH	0.2	
34	1,1-dichloroethene	0.0566	0.113	0.200	0.2	Verified - JRH	0.2	
35	vinyl acetate	0.0567	0.114	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
36	1,1,1-trichloroethane	0.0570	0.114	0.200	0.2	Verified - JRH	0.2	
37	2-Ethylthiophene	0.0571	0.114	0.200	0.2	Verified - JRH	0.2	
38	dichlorofluoromethane	0.0572	0.116	0.200	0.2	Verified - JRH	0.2	
39	2,2-dichloropropane	0.0581	0.117	0.200	0.2	Verified - JRH	0.2	
40	1,3,5-trimethylbenzene	0.0584	0.117	0.200	0.2	Verified - JRH	0.2	
41	cis-1,2-dichloroethene	0.0587	0.121	0.200	0.2	Verified - JRH	0.2	
42	ethyl ether	0.0591	0.122	0.200	0.2	Verified - JRH	0.2	
43	2-hexanone	0.0604	0.122	0.200	0.2	Verified - JRH	0.2	
44	4-methyl-2-pentanone	0.0607	0.122	0.200	0.2	Verified - JRH	0.2	
45	tetrahydrofuran	0.0608	0.122	0.200	0.2	Verified - JRH	0.2	
46	p-isopropyltoluene	0.0608	0.123	0.200	0.2	Verified - JRH	0.2	
47	indene	0.0608	0.125	0.200	0.2	Verified - JRH	0.2	
48	1,2,4-trichlorobenzene	0.0611	0.126	0.200	0.2	Verified - JRH	0.2	
49	1,2-dichlorobenzene	0.0614	0.126	0.200	0.2	Verified - JRH	0.2	
50	chlorodifluoromethane	0.0626	0.127	0.200	0.2	Verified - JRH	0.2	
51	toluene	0.0628	0.127	0.200	0.2	Verified - JRH	0.2	
52	o-xylene	0.0631	0.128	0.200	0.2	Verified - JRH	0.2	
53	1,3-dichlorobenzene	0.0637	0.129	0.200	0.2	Verified - JRH	0.2	
54	n-butylbenzene	0.0639	0.131	0.200	0.2	Verified - JRH	0.2	
55	benzyl chloride	0.0645	0.131	0.200	0.2	Verified - JRH	0.2	
56	bromodichloromethane	0.0656	0.131	0.200	0.2	Verified - JRH	0.2	
57	cyclohexane	0.0656	0.132	0.200	0.2	Verified - JRH	0.2	
58	diisopropyl ether	0.0656	0.133	0.200	0.2	Verified - JRH	0.2	
59	2,2,4-trimethylpentane	0.0659	0.133	0.200	0.2	Verified - JRH	0.2	
60	1,1,2-trichloroethane	0.0667	0.134	0.200	0.2	Verified - JRH	0.2	
61	3-methylthiophene	0.0669	0.139	0.200	0.2	Verified - JRH	0.2	
62	trans-1,3-dichloropropene	0.0693	0.139	0.200	0.2	Verified - JRH	0.2	
63	1,2,4-trimethylbenzene	0.0694	0.139	0.200	0.2	Verified - JRH	0.2	
64	bromomethane	0.0696	0.139	0.200	0.2	Verified - JRH	0.2	
65	1,2-dichloropropane	0.0697	0.140	0.200	0.2	Verified - JRH	0.2	
66	vinyl bromide	0.0699	0.142	0.200	0.2	Verified - JRH	0.2	
67	trichloroethene	0.0710	0.143	0.200	0.2	Verified - JRH	0.2	
68	1,1-dichloropropene	0.0715	0.146	0.200	0.2	Verified - JRH	0.2	
69	sec-butylbenzene	0.0731	0.146	0.200	0.2	Verified - JRH	0.2	
70	hexachlorobutadiene	0.0732	0.148	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 3 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2013**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
71	trans-1,2-dichloroethene	0.0740	0.149	0.200	0.2	Verified - JRH	0.2	
72	1,2-dibromo-3-chloropropane	0.0744	0.149	0.200	0.2	Verified - JRH	0.2	
73	cis-1,3-dichloropropene	0.0745	0.149	0.200	0.2	Verified - JRH	0.2	
74	dibromochloromethane	0.0747	0.150	0.200	0.2	Verified - JRH	0.2	
75	1,2,3-Trimethylbenzene	0.0751	0.152	0.200	0.2	Verified - JRH	0.2	
76	tetrachloroethene	0.0758	0.152	0.200	0.2	Verified - JRH	0.2	
77	acetonitrile	0.0761	0.153	0.200	0.2	Verified - JRH	0.2	
78	4-chlorotoluene	0.0764	0.153	0.200	0.2	Verified - JRH	0.2	
79	1,2,3-trichloropropane	0.0767	0.153	0.200	0.2	Verified - JRH	0.2	
80	chloroethane	0.0767	0.154	0.200	0.2	Verified - JRH	0.2	
81	1,1-dichloroethane	0.0771	0.155	0.200	0.2	Verified - JRH	0.2	
82	1,3-dichloropropane	0.0776	0.155	0.200	0.2	Verified - JRH	0.2	
83	4-ethyl toluene	0.0776	0.156	0.200	0.2	Verified - JRH	0.2	
84	1,2-dibromoethane	0.0779	0.156	0.200	0.2	Verified - JRH	0.2	
85	1,4-dioxane	0.0780	0.158	0.200	0.2	Verified - JRH	0.2	
86	chlorobenzene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
87	2-methylthiophene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
88	acrylonitrile	0.0790	0.158	0.200	0.2	Verified - JRH	0.2	
89	bromobenzene	0.0790	0.159	0.200	0.2	Verified - JRH	0.2	
90	1,2,4,5-Tetramethylbenzene	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
91	tert-amyl methyl ether	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
92	indan	0.0795	0.160	0.200	0.2	Verified - JRH	0.2	
93	styrene	0.0799	0.160	0.200	0.2	Verified - JRH	0.2	
94	1,3-butadiene	0.0799	0.162	0.200	0.2	Verified - JRH	0.2	
95	3-chloropropene	0.0812	0.186	0.200	0.2	Verified - JRH	0.2	
96	propylene	0.0929	0.192	0.383	0.2	Verified - JRH	0.5	
97	chloromethane	0.0958	0.227	0.200	0.2	Verified - JRH	0.2	
98	propane	0.1137	0.228	0.200	0.2	Verified - JRH	0.2	
99	acrolein	0.1138	0.262	0.500	0.5	Verified - JRH	0.5	
100	ethyl acetate	0.1310	0.278	0.500	0.5	Verified - JRH	0.5	
101	m+p-xylene	0.1388	0.295	0.400	0.4	Verified - JRH	0.4	
102	acetone	0.1649	0.330	0.660	0.5	Verified - JRH	1.0	
103	1-methylnaphthalene	0.2495	0.499	0.998	1	Verified - JRH	1.0	
104	2-methylnaphthalene	0.2725	0.545	1.000	1	Verified - JRH	1.0	
105	methylene chloride	0.2991	0.598	1.000	1	Verified - JRH	1.0	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
106	ethanol	0.5416	1.08	2.17	1	Verified - JRH	2.5	
107	acetaldehyde	0.5466	1.09	2.19	1	Verified - JRH	5.0	
108	methanol	0.7359	1.47	2.94	2.5	Verified - JRH	5.0	
	Additional Analytes							
1	undecane	0.0528	0.106	0.200	0.2	Verified - JRH	0.2	
2	dodecane	0.0478	0.127	0.200	0.2	Verified - JRH	0.2	
3	decane	0.0484	0.097	0.194	0.1	Verified - JRH	0.2	
4	nonane	0.0625	0.075	0.150	0.1	Verified - JRH	0.2	
5	butane	0.0442	0.088	0.177	0.1	Verified - JRH	0.2	
6	Tertiary butyl Alcohol	0.0599	0.120	0.239	0.2	Verified - JRH	0.5	
7	butyl acetate	0.1139	0.228	0.455	0.2	Verified - JRH	0.5	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Determination of Method Detection Limits

Alpha Analytical, Inc.
Mansfield, MA

Approved

Page 1 of 3	
Analyst:	AJ
Date:	5/5/2009
Instrument	Airpiano 2
Column ID:	RTX-1

Method: TO-15 (TALL) 2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
1	chlorodifluoromethane	0.2	0.157	0.167	0.155	0.157	0.147	0.163	0.148	0.156	78%	0.007	0.02	0.2	
2	propylene	0.2	0.236	0.248	0.251	0.254	0.236	0.263	0.249	0.248	124%	0.010	0.03	0.2	
3	propane	0.2	0.225	0.234	0.218	0.221	0.22	0.229	0.218	0.224	112%	0.006	0.02	0.5	
4	dichlorodifluoromethane	0.2	0.212	0.202	0.222	0.215	0.205	0.218	0.211	0.212	106%	0.007	0.02	0.2	
5	chloromethane	0.2	0.243	0.217	0.242	0.243	0.191	0.237	0.221	0.228	114%	0.019	0.06	0.2	
6	Freon-114	0.2	0.208	0.2	0.195	0.201	0.189	0.203	0.195	0.199	99%	0.006	0.02	0.2	
7	methanol	1	1.271	1.239	1.19	1.135	1.18	1.157	1.193	1.195	120%	0.047	0.15	5.0	
8	vinyl chloride	0.2	0.201	0.201	0.194	0.19	0.185	0.208	0.191	0.196	98%	0.008	0.02	0.2	
9	1,3-butadiene	0.2	0.202	0.208	0.201	0.181	0.189	0.219	0.199	0.200	100%	0.012	0.04	0.2	
10	butane	0.2	0.254	0.219	0.249	0.244	0.231	0.249	0.244	0.241	121%	0.012	0.04	0.2	
11	acetaldehyde	2.1398	1.782	1.969	1.568	1.615	2.033	1.889	1.867	1.818	85%	0.174	0.55	5.0	
12	bromomethane	0.2	0.218	0.217	0.212	0.207	0.199	0.208	0.203	0.209	105%	0.007	0.02	0.2	
13	chloroethane	0.2	0.188	0.174	0.175	0.183	0.186	0.181	0.182	0.181	91%	0.005	0.02	0.2	
14	ethanol	1	1.247	1.202	1.18	1.179	1.134	1.186	1.213	1.192	119%	0.035	0.11	2.5	
15	dichlorofluoromethane	0.2	0.196	0.203	0.196	0.191	0.194	0.184	0.19	0.193	97%	0.006	0.02	0.2	
16	vinyl bromide	0.2	0.201	0.202	0.193	0.193	0.200	0.200	0.189	0.197	98%	0.005	0.02	0.2	
17	acrolein	0.2	0.233	0.232	0.268	0.179	0.228	0.242	0.165	0.221	111%	0.036	0.11	0.5	
18	acetone	0.6761	0.592	0.611	0.55	0.61	0.594	0.611	0.619	0.598	88%	0.023	0.07	0.5	
19	acetonitrile	0.2	0.200	0.196	0.243	0.184	0.223	0.233	0.244	0.218	109%	0.024	0.08	0.2	
20	trichlorofluoromethane	0.2	0.226	0.214	0.229	0.217	0.206	0.215	0.209	0.217	108%	0.008	0.03	0.5	
21	isopropyl alcohol	0.4334	0.421	0.424	0.391	0.408	0.397	0.415	0.421	0.411	95%	0.013	0.04	0.2	
22	acrylonitrile	0.2	0.146	0.157	0.154	0.154	0.135	0.162	0.168	0.154	77%	0.011	0.03	0.2	
23	pentane	0.2	0.244	0.22	0.223	0.225	0.203	0.241	0.234	0.227	114%	0.014	0.04	0.2	
24	ethyl ether	0.2	0.173	0.186	0.177	0.17	0.155	0.174	0.17	0.172	86%	0.009	0.03	0.2	
25	1,1-dichloroethene	0.2	0.206	0.207	0.204	0.202	0.191	0.193	0.188	0.199	99%	0.008	0.02	0.5	
26	Tertiary butyl Alcohol	0.2	0.198	0.19	0.197	0.188	0.199	0.18	0.201	0.193	97%	0.008	0.02	0.5	
27	methylene chloride	0.2	0.263	0.257	0.257	0.262	0.261	0.25	0.236	0.255	128%	0.010	0.03	0.2	
28	3-chloropropene	0.2	0.22	0.234	0.23	0.202	0.222	0.235	0.203	0.221	110%	0.014	0.04	0.2	
29	carbon disulfide	0.2	0.229	0.211	0.225	0.225	0.204	0.229	0.21	0.219	110%	0.010	0.03	0.2	
30	Freon 113	0.2	0.203	0.215	0.203	0.201	0.193	0.210	0.203	0.204	102%	0.007	0.02	0.2	
31	trans-1,2-dichloroethene	0.2	0.204	0.193	0.184	0.200	0.197	0.190	0.188	0.194	97%	0.007	0.02	0.2	
32	1,1-dichloroethane	0.2	0.193	0.205	0.195	0.195	0.198	0.196	0.172	0.193	97%	0.010	0.03	0.2	
33	MTBE	0.2	0.171	0.169	0.159	0.176	0.173	0.161	0.176	0.169	85%	0.007	0.02	0.2	
34	vinyl acetate	0.2	0.191	0.182	0.163	0.175	0.165	0.16	0.172	0.173	86%	0.011	0.03	0.2	
35	2-butanone	0.2	0.190	0.191	0.181	0.185	0.178	0.182	0.188	0.185	93%	0.005	0.02	0.2	
36	cis-1,2-dichloroethene	0.2	0.173	0.185	0.183	0.187	0.173	0.181	0.187	0.181	91%	0.006	0.02	0.2	
37	ethyl acetate	0.2	0.169	0.223	0.205	0.179	0.202	0.223	0.17	0.196	98%	0.023	0.07	0.2	
38	chloroform	0.2	0.202	0.193	0.178	0.172	0.183	0.183	0.181	0.185	92%	0.010	0.03	0.2	
39	tetrahydrofuran	0.2	0.169	0.164	0.149	0.154	0.154	0.164	0.156	0.159	79%	0.007	0.02	0.2	
40	2,2-dichloropropane	0.2	0.187	0.185	0.190	0.173	0.18	0.171	0.178	0.181	90%	0.007	0.02	0.5	
41	1,2-dichloroethane	0.2	0.176	0.177	0.161	0.177	0.184	0.169	0.153	0.171	86%	0.011	0.03	0.2	
42	hexane	0.2	0.207	0.185	0.205	0.182	0.176	0.191	0.194	0.191	96%	0.012	0.04	0.2	
43	diisopropyl ether	0.2	0.186	0.21	0.19	0.201	0.167	0.210	0.185	0.193	96%	0.015	0.05	0.2	
44	tert-butyl ethyl ether	0.2	0.159	0.159	0.146	0.152	0.156	0.156	0.16	0.155	78%	0.005	0.02	0.2	

Determination of Method Detection Limits

Alpha Analytical, Inc.
Mansfield, MA

Approved

Page 2 of 3	
Analyst:	AJ
Date:	5/5/2009
Instrument	Airpiano 2
Column ID:	RTX-1

Method: TO-15 (TALL) 2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
45	1,1,1-trichloroethane	0.2	0.204	0.182	0.188	0.184	0.180	0.183	0.192	0.188	94%	0.008	0.03	0.2	
46	1,1-dichloropropene	0.2	0.190	0.176	0.175	0.176	0.175	0.174	0.164	0.176	88%	0.008	0.02	0.2	
47	benzene	0.2	0.224	0.203	0.206	0.194	0.211	0.207	0.195	0.206	103%	0.010	0.03	0.2	
48	thiophehe	0.2	0.197	0.177	0.162	0.170	0.171	0.183	0.168	0.175	88%	0.012	0.04	0.2	
49	carbon tetrachloride	0.2	0.193	0.177	0.172	0.182	0.161	0.183	0.176	0.178	89%	0.010	0.03	0.2	
50	cyclohexane	0.2	0.211	0.198	0.197	0.195	0.197	0.188	0.196	0.197	99%	0.007	0.02	0.2	
51	tert-amyl methyl ether	0.2	0.161	0.156	0.145	0.135	0.135	0.155	0.156	0.149	75%	0.011	0.03	0.2	
52	dibromomethane	0.2	0.199	0.171	0.173	0.168	0.183	0.164	0.165	0.175	87%	0.012	0.04	0.2	
53	1,2-dichloropropane	0.2	0.168	0.146	0.146	0.149	0.131	0.157	0.163	0.151	76%	0.012	0.04	0.2	
54	bromodichloromethane	0.2	0.171	0.164	0.165	0.157	0.170	0.168	0.17	0.166	83%	0.005	0.02	0.2	
55	1,4-dioxane	0.4345	0.352	0.320	0.335	0.308	0.319	0.308	0.304	0.321	74%	0.017	0.05	0.2	
56	trichloroethene	0.2	0.185	0.192	0.191	0.178	0.177	0.183	0.186	0.185	92%	0.006	0.02	0.2	
57	2,2,4-trimethylpentane	0.2	0.195	0.189	0.184	0.177	0.176	0.193	0.189	0.186	93%	0.007	0.02	0.2	
58	heptane	0.2	0.186	0.170	0.175	0.167	0.169	0.172	0.175	0.173	87%	0.006	0.02	0.2	
59	2,4,4-trimethyl-1-pentene	0.2	0.181	0.177	0.173	0.172	0.168	0.164	0.165	0.171	86%	0.006	0.02	0.2	
60	cis-1,3-dichloropropene	0.2	0.157	0.150	0.140	0.148	0.141	0.156	0.141	0.148	74%	0.007	0.02	0.2	
61	4-methyl-2-pentanone	0.2	0.175	0.169	0.156	0.161	0.157	0.167	0.177	0.166	83%	0.008	0.03	0.2	
62	2,4,4-trimethyl-2-pentene	0.2	0.174	0.183	0.178	0.182	0.164	0.173	0.163	0.174	87%	0.008	0.03	0.2	
63	trans-1,3-dichloropropene	0.2	0.146	0.142	0.133	0.125	0.128	0.125	0.135	0.133	67%	0.008	0.03	0.2	
64	1,1,2-trichloroethane	0.2	0.146	0.16	0.141	0.159	0.131	0.149	0.135	0.146	73%	0.011	0.04	0.2	
65	toluene	0.2	0.176	0.181	0.17	0.161	0.161	0.164	0.163	0.168	84%	0.008	0.02	0.2	
66	2-methylthiophene	0.2	0.123	0.149	0.156	0.107	0.125	0.177	0.116	0.136	68%	0.025	0.08	0.2	
67	1,3-dichloropropane	0.2	0.147	0.149	0.143	0.145	0.135	0.132	0.138	0.141	71%	0.006	0.02	0.2	
68	2-hexanone	0.2	0.177	0.170	0.168	0.16	0.165	0.151	0.162	0.165	82%	0.008	0.03	0.2	
69	3-methylthiophene	0.2	0.153	0.158	0.156	0.152	0.155	0.155	0.150	0.154	77%	0.003	0.01	0.2	
70	dibromochloromethane	0.2	0.161	0.154	0.163	0.162	0.152	0.152	0.156	0.157	79%	0.005	0.02	0.2	
71	1,2-dibromoethane	0.2	0.159	0.155	0.150	0.155	0.151	0.149	0.156	0.154	77%	0.004	0.01	0.2	
72	butyl acetate	0.2	0.206	0.213	0.242	0.23	0.202	0.181	0.22	0.213	107%	0.020	0.06	0.2	
73	octane	0.2	0.167	0.171	0.168	0.162	0.164	0.162	0.167	0.166	83%	0.003	0.01	0.2	
74	tetrachloroethene	0.2	0.186	0.173	0.182	0.179	0.179	0.18	0.178	0.180	90%	0.004	0.01	0.4	
75	1,1,1,2-tetrachloroethane	0.2	0.155	0.163	0.154	0.15	0.137	0.158	0.147	0.152	76%	0.008	0.03	0.2	
76	chlorobenzene	0.2	0.160	0.147	0.161	0.153	0.152	0.157	0.151	0.154	77%	0.005	0.02	0.2	
77	ethylbenzene	0.2	0.152	0.146	0.141	0.141	0.144	0.148	0.159	0.147	74%	0.006	0.02	0.2	
78	2-ethylthiophene	0.2	0.149	0.134	0.125	0.132	0.126	0.128	0.132	0.132	66%	0.008	0.03	0.2	
79	m+p-xylene	0.4	0.308	0.287	0.273	0.276	0.277	0.289	0.31	0.289	72%	0.015	0.05	0.2	
80	bromoform	0.2	0.144	0.137	0.131	0.135	0.128	0.132	0.126	0.133	67%	0.006	0.02	0.2	
81	styrene	0.2	0.148	0.149	0.136	0.137	0.152	0.138	0.151	0.144	72%	0.007	0.02	0.2	
82	1,1,2,2-tetrachloroethane	0.2	0.144	0.144	0.142	0.147	0.139	0.138	0.151	0.144	72%	0.005	0.01	0.2	
83	o-xylene	0.2	0.157	0.145	0.14	0.151	0.14	0.146	0.149	0.147	73%	0.006	0.02	0.2	
84	1,2,3-trichloropropane	0.2	0.140	0.156	0.151	0.133	0.160	0.136	0.146	0.146	73%	0.010	0.03	0.2	
85	nonane	0.2	0.151	0.141	0.15	0.126	0.134	0.157	0.138	0.142	71%	0.011	0.03	0.2	
86	isopropylbenzene	0.2	0.164	0.153	0.143	0.144	0.154	0.153	0.155	0.152	76%	0.007	0.02	0.2	
87	bromobenzene	0.2	0.154	0.139	0.142	0.142	0.138	0.141	0.149	0.144	72%	0.006	0.02	0.20	
88	2-chlorotoluene	0.2	0.148	0.142	0.135	0.134	0.129	0.136	0.153	0.140	70%	0.009	0.03	0.20	
89	n-propylbenzene	0.2	0.168	0.153	0.133	0.141	0.145	0.14	0.154	0.148	74%	0.012	0.04	0.20	
90	4-chlorotoluene	0.2	0.158	0.147	0.139	0.149	0.149	0.143	0.161	0.149	75%	0.008	0.02	0.20	
91	4-ethyl toluene	0.2	0.161	0.151	0.145	0.148	0.149	0.15	0.163	0.152	76%	0.007	0.02	0.20	
92	1,3,5-trimethylbenzene	0.2	0.154	0.151	0.14	0.142	0.15	0.151	0.153	0.149	74%	0.005	0.02	0.20	

Determination of Method Detection Limits

Alpha Analytical, Inc.
Mansfield, MA

Approved

Page 3 of 3	
Analyst:	AJ
Date:	5/5/2009
Instrument	Airpiano 2
Column ID:	RTX-1

Method: TO-15 (TALL) 2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
93	tert-butlybenzene	0.2	0.148	0.148	0.141	0.141	0.132	0.143	0.145	0.143	71%	0.006	0.02	0.20	
94	1,2,4-trimethylbenzene	0.2	0.161	0.15	0.144	0.145	0.149	0.155	0.164	0.153	76%	0.008	0.02	0.20	
95	decane	0.2	0.149	0.143	0.133	0.136	0.139	0.147	0.15	0.142	71%	0.007	0.02	0.20	
96	benzyl chloride	0.2	0.15	0.145	0.132	0.142	0.143	0.142	0.153	0.144	72%	0.007	0.02	0.20	
97	1,3-dichlorobenzene	0.2	0.155	0.144	0.145	0.151	0.141	0.148	0.150	0.148	74%	0.005	0.01	0.20	
98	1,4-dichlorobenzene	0.2	0.170	0.151	0.156	0.157	0.144	0.164	0.152	0.156	78%	0.009	0.03	0.20	
99	sec-butylbenzene	0.2	0.155	0.149	0.143	0.146	0.15	0.149	0.157	0.150	75%	0.005	0.02	0.20	
100	1,2,3-trimethylbenzene	0.2	0.144	0.135	0.133	0.132	0.127	0.129	0.135	0.134	67%	0.005	0.02	0.20	
101	p-isopropyltoluene	0.2	0.151	0.146	0.142	0.146	0.143	0.147	0.157	0.147	74%	0.005	0.02	0.20	
102	1,2-dichlorobenzene	0.2	0.151	0.138	0.146	0.148	0.141	0.146	0.147	0.145	73%	0.004	0.01	0.20	
103	n-butylbenzene	0.2	0.156	0.149	0.144	0.148	0.143	0.142	0.158	0.149	74%	0.006	0.02	0.20	
104	indan	0.2	0.135	0.126	0.133	0.129	0.130	0.126	0.140	0.131	66%	0.005	0.02	0.20	
105	indene	0.2	0.134	0.122	0.124	0.123	0.123	0.123	0.128	0.125	63%	0.004	0.01	0.20	
106	1,2-dibromo-3-chloropropane	0.2	0.161	0.143	0.142	0.153	0.134	0.144	0.153	0.147	74%	0.009	0.03	0.20	
107	undecane	0.2	0.141	0.145	0.126	0.135	0.138	0.132	0.139	0.137	68%	0.006	0.02	0.20	
108	1,2,4,5-tetramethylbenzene	0.5	0.236	0.298	0.287	0.25	0.236	0.259	0.283	0.264	53%	0.025	0.08	2.50	
109	dodecane	0.2	0.159	0.16	0.139	0.152	0.15	0.155	0.156	0.153	77%	0.007	0.02	0.50	
110	1,2,4-trichlorobenzene	0.2	0.159	0.156	0.167	0.153	0.149	0.143	0.173	0.157	79%	0.010	0.03	0.20	
111	naphthalene	0.2	0.159	0.133	0.138	0.139	0.139	0.139	0.150	0.142	71%	0.009	0.03	0.20	
112	1,2,3-trichlorobenzene	0.2	0.158	0.138	0.139	0.136	0.141	0.151	0.155	0.145	73%	0.009	0.03	0.20	
113	benzothiophene	0.2	0.144	0.127	0.126	0.128	0.126	0.128	0.144	0.132	66%	0.008	0.03	0.20	
114	hexachlorobutadiene	0.2	0.149	0.139	0.134	0.139	0.146	0.143	0.150	0.143	71%	0.006	0.02	0.20	
115	2-methylnaphthalene	0.2	0.150	0.128	0.134	0.132	0.130	0.139	0.155	0.138	69%	0.010	0.03	2.50	
116	1-methylnaphthalene	0.2	0.147	0.133	0.141	0.139	0.140	0.128	0.148	0.139	70%	0.007	0.02	2.50	
	Surrogates														
1	1,2-dichloroethane-D4	10	9.491	10.266	10.171	9.732	10.291	9.622	10.271	9.978	100%				
2	toluene-D8	10	8.922	10.279	10.213	9.916	9.957	9.729	10.237	9.893	99%				
3	bromofluorobenzene	10	8.823	9.833	9.556	9.759	9.476	9.497	9.728	9.525	95%				

Comments: _____

Approved

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 1 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2013**

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
1	methyl methacrylate	0.0221	0.065	0.130	0.1	Verified - JRH	0.5	
2	tert-butlybenzene	0.0307	0.069	0.138	0.1	Verified - JRH	0.2	
3	carbon disulfide	0.0345	0.076	0.151	0.1	Verified - JRH	0.2	
4	1,4-dichlorobenzene	0.0361	0.076	0.152	0.1	Verified - JRH	0.2	
5	vinyl chloride	0.0378	0.078	0.156	0.1	Verified - JRH	0.2	
6	isopropylbenzene	0.0410	0.083	0.166	0.1	Verified - JRH	0.2	
7	trichlorofluoromethane	0.0416	0.084	0.168	0.1	Verified - JRH	0.2	
8	Freon-114	0.0419	0.084	0.168	0.1	Verified - JRH	0.2	
9	octane	0.0421	0.088	0.177	0.1	Verified - JRH	0.2	
10	naphthalene	0.0425	0.090	0.181	0.1	Verified - JRH	0.2	
11	1,2,3-trichlorobenzene	0.0436	0.093	0.185	0.1	Verified - JRH	0.2	
12	dichlorodifluoromethane	0.0466	0.093	0.186	0.1	Verified - JRH	0.2	
13	benzothiophene	0.0468	0.094	0.187	0.1	Verified - JRH	0.5	
14	carbon tetrachloride	0.0471	0.094	0.188	0.1	Verified - JRH	0.2	
15	2-butanone	0.0472	0.095	0.190	0.1	Verified - JRH	0.2	
16	pentane	0.0475	0.097	0.193	0.1	Verified - JRH	0.2	
17	dibromomethane	0.0476	0.097	0.195	0.1	Verified - JRH	0.2	
18	2-chlorotoluene	0.0487	0.101	0.200	0.2	Verified - JRH	0.2	
19	Freon 113	0.0511	0.102	0.200	0.2	Verified - JRH	0.2	
20	tert-butyl ethyl ether	0.0515	0.103	0.200	0.2	Verified - JRH	0.2	
21	hexane	0.0518	0.104	0.200	0.2	Verified - JRH	0.2	
22	bromoform	0.0523	0.105	0.200	0.2	Verified - JRH	0.2	
23	isopropyl alcohol	0.0525	0.106	0.211	0.2	Verified - JRH	0.5	
24	thiophene	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
25	MTBE	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
26	chloroform	0.0531	0.108	0.200	0.2	Verified - JRH	0.2	
27	benzene	0.0537	0.109	0.200	0.2	Verified - JRH	0.2	
28	n-propylbenzene	0.0540	0.109	0.200	0.2	Verified - JRH	0.2	
29	1,1,1,2-tetrachloroethane	0.0547	0.110	0.200	0.2	Verified - JRH	0.2	
30	1,1,2,2-tetrachloroethane	0.0548	0.110	0.200	0.2	Verified - JRH	0.2	
31	1,2-dichloroethane	0.0552	0.111	0.200	0.2	Verified - JRH	0.2	
32	heptane	0.0553	0.111	0.200	0.2	Verified - JRH	0.2	
33	ethylbenzene	0.0555	0.113	0.200	0.2	Verified - JRH	0.2	
34	1,1-dichloroethene	0.0566	0.113	0.200	0.2	Verified - JRH	0.2	
35	vinyl acetate	0.0567	0.114	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
36	1,1,1-trichloroethane	0.0570	0.114	0.200	0.2	Verified - JRH	0.2	
37	2-Ethylthiophene	0.0571	0.114	0.200	0.2	Verified - JRH	0.2	
38	dichlorofluoromethane	0.0572	0.116	0.200	0.2	Verified - JRH	0.2	
39	2,2-dichloropropane	0.0581	0.117	0.200	0.2	Verified - JRH	0.2	
40	1,3,5-trimethylbenzene	0.0584	0.117	0.200	0.2	Verified - JRH	0.2	
41	cis-1,2-dichloroethene	0.0587	0.121	0.200	0.2	Verified - JRH	0.2	
42	ethyl ether	0.0591	0.122	0.200	0.2	Verified - JRH	0.2	
43	2-hexanone	0.0604	0.122	0.200	0.2	Verified - JRH	0.2	
44	4-methyl-2-pentanone	0.0607	0.122	0.200	0.2	Verified - JRH	0.2	
45	tetrahydrofuran	0.0608	0.122	0.200	0.2	Verified - JRH	0.2	
46	p-isopropyltoluene	0.0608	0.123	0.200	0.2	Verified - JRH	0.2	
47	indene	0.0608	0.125	0.200	0.2	Verified - JRH	0.2	
48	1,2,4-trichlorobenzene	0.0611	0.126	0.200	0.2	Verified - JRH	0.2	
49	1,2-dichlorobenzene	0.0614	0.126	0.200	0.2	Verified - JRH	0.2	
50	chlorodifluoromethane	0.0626	0.127	0.200	0.2	Verified - JRH	0.2	
51	toluene	0.0628	0.127	0.200	0.2	Verified - JRH	0.2	
52	o-xylene	0.0631	0.128	0.200	0.2	Verified - JRH	0.2	
53	1,3-dichlorobenzene	0.0637	0.129	0.200	0.2	Verified - JRH	0.2	
54	n-butylbenzene	0.0639	0.131	0.200	0.2	Verified - JRH	0.2	
55	benzyl chloride	0.0645	0.131	0.200	0.2	Verified - JRH	0.2	
56	bromodichloromethane	0.0656	0.131	0.200	0.2	Verified - JRH	0.2	
57	cyclohexane	0.0656	0.132	0.200	0.2	Verified - JRH	0.2	
58	diisopropyl ether	0.0656	0.133	0.200	0.2	Verified - JRH	0.2	
59	2,2,4-trimethylpentane	0.0659	0.133	0.200	0.2	Verified - JRH	0.2	
60	1,1,2-trichloroethane	0.0667	0.134	0.200	0.2	Verified - JRH	0.2	
61	3-methylthiophene	0.0669	0.139	0.200	0.2	Verified - JRH	0.2	
62	trans-1,3-dichloropropene	0.0693	0.139	0.200	0.2	Verified - JRH	0.2	
63	1,2,4-trimethylbenzene	0.0694	0.139	0.200	0.2	Verified - JRH	0.2	
64	bromomethane	0.0696	0.139	0.200	0.2	Verified - JRH	0.2	
65	1,2-dichloropropane	0.0697	0.140	0.200	0.2	Verified - JRH	0.2	
66	vinyl bromide	0.0699	0.142	0.200	0.2	Verified - JRH	0.2	
67	trichloroethene	0.0710	0.143	0.200	0.2	Verified - JRH	0.2	
68	1,1-dichloropropene	0.0715	0.146	0.200	0.2	Verified - JRH	0.2	
69	sec-butylbenzene	0.0731	0.146	0.200	0.2	Verified - JRH	0.2	
70	hexachlorobutadiene	0.0732	0.148	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 3 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
71	trans-1,2-dichloroethene	0.0740	0.149	0.200	0.2	Verified - JRH	0.2	
72	1,2-dibromo-3-chloropropane	0.0744	0.149	0.200	0.2	Verified - JRH	0.2	
73	cis-1,3-dichloropropene	0.0745	0.149	0.200	0.2	Verified - JRH	0.2	
74	dibromochloromethane	0.0747	0.150	0.200	0.2	Verified - JRH	0.2	
75	1,2,3-Trimethylbenzene	0.0751	0.152	0.200	0.2	Verified - JRH	0.2	
76	tetrachloroethene	0.0758	0.152	0.200	0.2	Verified - JRH	0.2	
77	acetonitrile	0.0761	0.153	0.200	0.2	Verified - JRH	0.2	
78	4-chlorotoluene	0.0764	0.153	0.200	0.2	Verified - JRH	0.2	
79	1,2,3-trichloropropane	0.0767	0.153	0.200	0.2	Verified - JRH	0.2	
80	chloroethane	0.0767	0.154	0.200	0.2	Verified - JRH	0.2	
81	1,1-dichloroethane	0.0771	0.155	0.200	0.2	Verified - JRH	0.2	
82	1,3-dichloropropane	0.0776	0.155	0.200	0.2	Verified - JRH	0.2	
83	4-ethyl toluene	0.0776	0.156	0.200	0.2	Verified - JRH	0.2	
84	1,2-dibromoethane	0.0779	0.156	0.200	0.2	Verified - JRH	0.2	
85	1,4-dioxane	0.0780	0.158	0.200	0.2	Verified - JRH	0.2	
86	chlorobenzene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
87	2-methylthiophene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
88	acrylonitrile	0.0790	0.158	0.200	0.2	Verified - JRH	0.2	
89	bromobenzene	0.0790	0.159	0.200	0.2	Verified - JRH	0.2	
90	1,2,4,5-Tetramethylbenzene	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
91	tert-amyl methyl ether	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
92	indan	0.0795	0.160	0.200	0.2	Verified - JRH	0.2	
93	styrene	0.0799	0.160	0.200	0.2	Verified - JRH	0.2	
94	1,3-butadiene	0.0799	0.162	0.200	0.2	Verified - JRH	0.2	
95	3-chloropropene	0.0812	0.186	0.200	0.2	Verified - JRH	0.2	
96	propylene	0.0929	0.192	0.383	0.2	Verified - JRH	0.5	
97	chloromethane	0.0958	0.227	0.200	0.2	Verified - JRH	0.2	
98	propane	0.1137	0.228	0.200	0.2	Verified - JRH	0.2	
99	acrolein	0.1138	0.262	0.500	0.5	Verified - JRH	0.5	
100	ethyl acetate	0.1310	0.278	0.500	0.5	Verified - JRH	0.5	
101	m+p-xylene	0.1388	0.295	0.400	0.4	Verified - JRH	0.4	
102	acetone	0.1649	0.330	0.660	0.5	Verified - JRH	1.0	
103	1-methylnaphthalene	0.2495	0.499	0.998	1	Verified - JRH	1.0	
104	2-methylnaphthalene	0.2725	0.545	1.000	1	Verified - JRH	1.0	
105	methylene chloride	0.2991	0.598	1.000	1	Verified - JRH	1.0	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	MB
Date:	2/17/2013
Instrument ID:	Airpiano2
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
106	ethanol	0.5416	1.08	2.17	1	Verified - JRH	2.5	
107	acetaldehyde	0.5466	1.09	2.19	1	Verified - JRH	5.0	
108	methanol	0.7359	1.47	2.94	2.5	Verified - JRH	5.0	
	Additional Analytes							
1	undecane	0.0528	0.106	0.200	0.2	Verified - JRH	0.2	
2	dodecane	0.0478	0.127	0.200	0.2	Verified - JRH	0.2	
3	decane	0.0484	0.097	0.194	0.1	Verified - JRH	0.2	
4	nonane	0.0625	0.075	0.150	0.1	Verified - JRH	0.2	
5	butane	0.0442	0.088	0.177	0.1	Verified - JRH	0.2	
6	Tertiary butyl Alcohol	0.0599	0.120	0.239	0.2	Verified - JRH	0.5	
7	butyl acetate	0.1139	0.228	0.455	0.2	Verified - JRH	0.5	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Organics

New Jersey TO-15 Methods

Quality Control Data Summary

3

LAB DUPLICATE

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1500978 Matrix: Air

Lab Sample ID : WG757004-5 Injected: 01/20/15 23:14 Lab File ID: R232224

Client Sample ID : SS-219 B-1

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
Dichlorodifluoromethane	ND	0.48	NC	25
Chloromethane	ND	ND	NC	25
Freon-114	ND	ND	NC	25
Vinyl chloride	ND	ND	NC	25
1,3-Butadiene	ND	ND	NC	25
Bromomethane	ND	ND	NC	25
Chloroethane	ND	ND	NC	25
Ethanol	7.0	7.0	0	25
Vinyl bromide	ND	ND	NC	25
Acetone	8.7	8.6	1	25
Trichlorofluoromethane	ND	ND	NC	25
Isopropanol	ND	ND	NC	25
1,1-Dichloroethene	ND	ND	NC	25
Tertiary butyl Alcohol	ND	ND	NC	25
Methylene chloride	ND	ND	NC	25
3-Chloropropene	ND	ND	NC	25
Carbon disulfide	0.67	0.70	4	25
Freon-113	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
Methyl tert butyl ether	ND	ND	NC	25
2-Butanone	1.4	1.4	0	25
cis-1,2-Dichloroethene	ND	ND	NC	25
Chloroform	ND	ND	NC	25
Tetrahydrofuran	ND	ND	NC	25
1,2-Dichloroethane	ND	ND	NC	25
n-Hexane	0.69	0.72	4	25
1,1,1-Trichloroethane	ND	ND	NC	25
Benzene	ND	ND	NC	25
Carbon tetrachloride	ND	ND	NC	25
Cyclohexane	ND	ND	NC	25
1,2-Dichloropropane	ND	ND	NC	25
Bromodichloromethane	ND	ND	NC	25
1,4-Dioxane	ND	ND	NC	25
Trichloroethene	ND	ND	NC	25
2,2,4-Trimethylpentane	ND	ND	NC	25
Methyl methacrylate	ND	ND	NC	25
Heptane	0.78	0.84	7	25
cis-1,3-Dichloropropene	ND	ND	NC	25
4-Methyl-2-pentanone	ND	ND	NC	25

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NJ-TO15

3

LAB DUPLICATE

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1500978 Matrix: Air

Lab Sample ID : WG757004-5 Injected: 01/20/15 23:14 Lab File ID: R232224

Client Sample ID : SS-219 B-1

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
trans-1,3-Dichloropropen	ND	ND	NC	25
1,1,2-Trichloroethane	ND	ND	NC	25
Toluene	0.79	0.80	1	25
Dibromochloromethane	ND	ND	NC	25
1,2-Dibromoethane	ND	ND	NC	25
Tetrachloroethene	0.46	0.48	4	25
Chlorobenzene	ND	ND	NC	25
Ethylbenzene	ND	ND	NC	25
p/m-Xylene	1.0	0.99	1	25
Bromoform	ND	ND	NC	25
Styrene	ND	ND	NC	25
1,1,2,2-Tetrachloroethan	ND	ND	NC	25
o-Xylene	ND	ND	NC	25
2-Chlorotoluene	ND	ND	NC	25
4-Ethyltoluene	ND	ND	NC	25
1,3,5-Trimethybenzene	ND	ND	NC	25
1,2,4-Trimethylbenzene	0.53	0.53	0	25
1,3-Dichlorobenzene	ND	ND	NC	25
1,4-Dichlorobenzene	ND	ND	NC	25
1,2-Dichlorobenzene	ND	ND	NC	25
1,2,4-Trichlorobenzene	ND	ND	NC	25
Hexachlorobutadiene	ND	ND	NC	25

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500978 Matrix: Air
Lab Control Sample: WG757004-3LCS Injected: 01/20/15 11:12 Lab File ID: R232207

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	8.5	85	-	-	-		70-130
Propylene	10	NA	9.5	95	-	-	-		70-130
Dichlorodifluoromethane	10	NA	9.7	97	-	-	-		40-160
Chloromethane	10	NA	9.2	92	-	-	-		70-130
Freon-114	10	NA	9.8	98	-	-	-		70-130
Methanol	50	NA	47	94	-	-	-		70-130
Vinyl chloride	10	NA	9.6	96	-	-	-		70-130
1,3-Butadiene	10	NA	9.2	92	-	-	-		70-130
Butane	10	NA	8.7	87	-	-	-		70-130
Bromomethane	10	NA	9.6	96	-	-	-		70-130
Chloroethane	10	NA	9.6	96	-	-	-		70-130
Ethanol	50	NA	49	98	-	-	-		70-130
Dichlorofluoromethane	10	NA	8.6	86	-	-	-		70-130
Vinyl bromide	10	NA	9.8	98	-	-	-		70-130
Acrolein	10	NA	9.4	94	-	-	-		70-130
Acetone	50	NA	53	106	-	-	-		40-160
Acetonitrile	10	NA	8.6	86	-	-	-		70-130
Trichlorofluoromethane	10	NA	10	100	-	-	-		70-130
Isopropanol	10	NA	10	100	-	-	-		70-130
Acrylonitrile	10	NA	8.6	86	-	-	-		70-130
Pentane	10	NA	9.2	92	-	-	-		70-130
Ethyl ether	10	NA	8.6	86	-	-	-		70-130
1,1-Dichloroethene	10	NA	9.7	97	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	9.7	97	-	-	-		70-130
Methylene chloride	10	NA	9.6	96	-	-	-		70-130
3-Chloropropene	10	NA	10	100	-	-	-		70-130
Carbon disulfide	10	NA	9.3	93	-	-	-		70-130
Freon-113	10	NA	9.2	92	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	8.7	87	-	-	-		70-130
1,1-Dichloroethane	10	NA	9.4	94	-	-	-		70-130
Methyl tert butyl ether	10	NA	9.4	94	-	-	-		70-130
Vinyl acetate	10	NA	11	110	-	-	-		70-130
2-Butanone	10	NA	9.3	93	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	10	100	-	-	-		70-130
Ethyl Acetate	10	NA	10	100	-	-	-		70-130
Chloroform	10	NA	9.7	97	-	-	-		70-130
Tetrahydrofuran	10	NA	9.2	92	-	-	-		70-130
2,2-Dichloropropane	10	NA	8.9	89	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.5	95	-	-	-		70-130
n-Hexane	10	NA	8.5	85	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500978 Matrix: Air
Lab Control Sample: WG757004-3LCS Injected: 01/20/15 11:12 Lab File ID: R232207

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Diisopropyl Ether	10	NA	8.6	86	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.5	85	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	9.0	90	-	-	-		70-130
1,1-Dichloropropene	10	NA	9.1	91	-	-	-		70-130
Benzene	10	NA	8.8	88	-	-	-		70-130
Carbon tetrachloride	10	NA	9.4	94	-	-	-		70-130
Cyclohexane	10	NA	8.7	87	-	-	-		70-130
tert-amyl methyl ether	10	NA	8.5	85	-	-	-		70-130
Dibromomethane	10	NA	8.7	87	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.1	91	-	-	-		70-130
Bromodichloromethane	10	NA	9.3	93	-	-	-		70-130
1,4-Dioxane	10	NA	9.3	93	-	-	-		40-160
Trichloroethene	10	NA	9.6	96	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	8.7	87	-	-	-		70-130
Methyl methacrylate	10	NA	8.5	85	-	-	-		70-130
Heptane	10	NA	8.8	88	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	10	100	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	9.2	92	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.4	84	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.5	95	-	-	-		70-130
Toluene	10	NA	9.3	93	-	-	-		70-130
1,3-Dichloropropane	10	NA	8.9	89	-	-	-		70-130
2-Hexanone	10	NA	9.3	93	-	-	-		70-130
Dibromochloromethane	10	NA	9.9	99	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.6	96	-	-	-		70-130
Butyl Acetate	10	NA	8.6	86	-	-	-		70-130
Octane	10	NA	8.7	87	-	-	-		70-130
Tetrachloroethene	10	NA	9.8	98	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	9.2	92	-	-	-		70-130
Chlorobenzene	10	NA	9.9	99	-	-	-		70-130
Ethylbenzene	10	NA	9.5	95	-	-	-		70-130
p/m-Xylene	20	NA	19	95	-	-	-		70-130
Bromoform	10	NA	9.9	99	-	-	-		70-130
Styrene	10	NA	9.6	96	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	10	100	-	-	-		70-130
o-Xylene	10	NA	9.8	98	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	9.1	91	-	-	-		70-130
Nonane	10	NA	8.7	87	-	-	-		70-130
Isopropylbenzene	10	NA	7.2	72	-	-	-		70-130
Bromobenzene	10	NA	7.8	78	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500978 Matrix: Air
Lab Control Sample: WG757004-3LCS Injected: 01/20/15 11:12 Lab File ID: R232207

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
2-Chlorotoluene	10	NA	9.3	93	-	-	-		70-130
n-Propylbenzene	10	NA	9.3	93	-	-	-		70-130
4-Chlorotoluene	10	NA	8.8	88	-	-	-		70-130
4-Ethyltoluene	10	NA	9.2	92	-	-	-		70-130
1,3,5-Trimethybenzene	10	NA	9.5	95	-	-	-		70-130
tert-Butylbenzene	10	NA	9.5	95	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	10	100	-	-	-		70-130
Decane	10	NA	9.0	90	-	-	-		70-130
Benzyl chloride	10	NA	10	100	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	10	100	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	10	100	-	-	-		70-130
sec-Butylbenzene	10	NA	9.2	92	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.8	88	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	10	100	-	-	-		70-130
n-Butylbenzene	10	NA	9.8	98	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.6	96	-	-	-		70-130
Undecane	10	NA	9.4	94	-	-	-		70-130
Dodecane	10	NA	10	100	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	11	110	-	-	-		40-160
Naphthalene	10	NA	10	100	-	-	-		40-160
1,2,3-Trichlorobenzene	10	NA	11	110	-	-	-		70-130
Hexachlorobutadiene	10	NA	10	100	-	-	-		40-160

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

3

LAB DUPLICATE

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1500978 Matrix: Air

Lab Sample ID : WG760633-5 Injected: 02/05/15 01:11 Lab File ID: R141379

Client Sample ID : 112 LANZA IA-1

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
Dichlorodifluoromethane	0.51	0.50	2	25
Chloromethane	0.58	0.58	0	25
Freon-114	ND	ND	NC	25
Vinyl chloride	ND	ND	NC	25
1,3-Butadiene	ND	0.27	NC	25
Bromomethane	ND	ND	NC	25
Chloroethane	ND	ND	NC	25
Ethanol	140	140	0	25
Vinyl bromide	ND	ND	NC	25
Acetone	7.5	7.6	1	25
Trichlorofluoromethane	0.22	0.22	0	25
Isopropanol	12.	12	0	25
1,1-Dichloroethene	ND	ND	NC	25
Tertiary butyl Alcohol	ND	ND	NC	25
Methylene chloride	0.97	0.96	1	25
3-Chloropropene	ND	ND	NC	25
Carbon disulfide	ND	ND	NC	25
Freon-113	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
Methyl tert butyl ether	ND	ND	NC	25
2-Butanone	0.44	0.44	0	25
cis-1,2-Dichloroethene	ND	ND	NC	25
Chloroform	ND	ND	NC	25
Tetrahydrofuran	ND	ND	NC	25
1,2-Dichloroethane	ND	ND	NC	25
n-Hexane	ND	ND	NC	25
1,1,1-Trichloroethane	ND	ND	NC	25
Benzene	0.34	0.38	11	25
Carbon tetrachloride	ND	ND	NC	25
Cyclohexane	ND	ND	NC	25
1,2-Dichloropropane	ND	ND	NC	25
Bromodichloromethane	ND	ND	NC	25
1,4-Dioxane	ND	ND	NC	25
Trichloroethene	ND	ND	NC	25
2,2,4-Trimethylpentane	ND	ND	NC	25
Methyl methacrylate	ND	ND	NC	25
Heptane	ND	ND	NC	25
cis-1,3-Dichloropropene	ND	ND	NC	25
4-Methyl-2-pentanone	ND	ND	NC	25

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

3

LAB DUPLICATE

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1500978 Matrix: Air

Lab Sample ID : WG760633-5 Injected: 02/05/15 01:11 Lab File ID: R141379

Client Sample ID : 112 LANZA IA-1

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
trans-1,3-Dichloropropen	ND	ND	NC	25
1,1,2-Trichloroethane	ND	ND	NC	25
Toluene	0.70	0.70	0	25
Dibromochloromethane	ND	ND	NC	25
1,2-Dibromoethane	ND	ND	NC	25
Tetrachloroethene	ND	ND	NC	25
Chlorobenzene	ND	ND	NC	25
Ethylbenzene	ND	ND	NC	25
p/m-Xylene	ND	ND	NC	25
Bromoform	ND	ND	NC	25
Styrene	ND	ND	NC	25
1,1,2,2-Tetrachloroethan	ND	ND	NC	25
o-Xylene	ND	ND	NC	25
2-Chlorotoluene	ND	ND	NC	25
4-Ethyltoluene	ND	ND	NC	25
1,3,5-Trimethybenzene	ND	ND	NC	25
1,2,4-Trimethylbenzene	ND	ND	NC	25
1,3-Dichlorobenzene	ND	ND	NC	25
1,4-Dichlorobenzene	ND	ND	NC	25
1,2-Dichlorobenzene	ND	ND	NC	25
1,2,4-Trichlorobenzene	ND	ND	NC	25
Hexachlorobutadiene	ND	ND	NC	25

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500978 Matrix: Air
Lab Control Sample: WG760633-3LCS Injected: 02/04/15 16:52 Lab File ID: R141369

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	10	NA	9.9	99	-	-	-		40-160
Chloromethane	10	NA	9.9	99	-	-	-		70-130
Freon-114	10	NA	10	100	-	-	-		70-130
Vinyl chloride	10	NA	9.9	99	-	-	-		70-130
1,3-Butadiene	10	NA	10	100	-	-	-		70-130
Bromomethane	10	NA	9.4	94	-	-	-		70-130
Chloroethane	10	NA	10	100	-	-	-		70-130
Ethanol	50	NA	50	100	-	-	-		70-130
Vinyl bromide	10	NA	10	100	-	-	-		70-130
Acetone	50	NA	51	102	-	-	-		40-160
Trichlorofluoromethane	10	NA	9.9	99	-	-	-		70-130
Isopropanol	10	NA	10	100	-	-	-		70-130
1,1-Dichloroethene	10	NA	9.7	97	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	9.6	96	-	-	-		70-130
Methylene chloride	10	NA	9.4	94	-	-	-		70-130
3-Chloropropene	10	NA	10	100	-	-	-		70-130
Carbon disulfide	10	NA	8.9	89	-	-	-		70-130
Freon-113	10	NA	9.9	99	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	8.9	89	-	-	-		70-130
1,1-Dichloroethane	10	NA	9.7	97	-	-	-		70-130
Methyl tert butyl ether	10	NA	9.7	97	-	-	-		70-130
2-Butanone	10	NA	9.2	92	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	11	110	-	-	-		70-130
Chloroform	10	NA	9.9	99	-	-	-		70-130
Tetrahydrofuran	10	NA	8.9	89	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.6	96	-	-	-		70-130
n-Hexane	10	NA	10	100	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	11	110	-	-	-		70-130
Benzene	10	NA	9.2	92	-	-	-		70-130
Carbon tetrachloride	10	NA	10	100	-	-	-		70-130
Cyclohexane	10	NA	8.6	86	-	-	-		70-130
1,2-Dichloropropane	10	NA	11	110	-	-	-		70-130
Bromodichloromethane	10	NA	11	110	-	-	-		70-130
1,4-Dioxane	10	NA	10	100	-	-	-		40-160
Trichloroethene	10	NA	11	110	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	11	110	-	-	-		70-130
Methyl methacrylate	10	NA	10	100	-	-	-		70-130
Heptane	10	NA	10	100	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	12	120	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	11	110	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500978 Matrix: Air
Lab Control Sample: WG760633-3LCS Injected: 02/04/15 16:52 Lab File ID: R141369

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
trans-1,3-Dichloropropen	10	NA	10	100	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	11	110	-	-	-		70-130
Toluene	10	NA	9.8	98	-	-	-		70-130
Dibromochloromethane	10	NA	10	100	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.8	98	-	-	-		70-130
Tetrachloroethene	10	NA	9.6	96	-	-	-		70-130
Chlorobenzene	10	NA	9.9	99	-	-	-		70-130
Ethylbenzene	10	NA	10	100	-	-	-		70-130
p/m-Xylene	20	NA	20	100	-	-	-		70-130
Bromoform	10	NA	10	100	-	-	-		70-130
Styrene	10	NA	10	100	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	10	100	-	-	-		70-130
o-Xylene	10	NA	11	110	-	-	-		70-130
2-Chlorotoluene	10	NA	9.9	99	-	-	-		70-130
4-Ethyltoluene	10	NA	11	110	-	-	-		70-130
1,3,5-Trimethybenzene	10	NA	10	100	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	11	110	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	11	110	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	11	110	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	11	110	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	12	120	-	-	-		40-160
Hexachlorobutadiene	10	NA	11	110	-	-	-		40-160

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG757004-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID: R232211 Lab Sample ID: WG757004-4

Date Analyzed: 01/20/15 Time Analyzed: 15:01

Instrument ID: AIRPIANO2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG757004-3LCS	WG757004-3	R232207	01/20/15 11:12
02	CR011415-AMB-01	L1500978-01	R232212	01/20/15 16:53
03	CR011415-IA-B6	L1500978-03	R232213	01/20/15 17:24
04	SS-219 B-1DUP	WG757004-5D	R232224	01/20/15 23:14

COMMENTS: _____

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FORM IV NJ-TO15 LOW

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG760633-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID: R141371 Lab Sample ID: WG760633-4

Date Analyzed: 02/04/15 Time Analyzed: 18:51

Instrument ID: AIRLAB14

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG760633-3LCS	WG760633-3	R141369	02/04/15 16:52
02	112 LANZA IA-1DUP	WG760633-5	R141379	02/05/15 01:11
03	CR011415-IA-B3	L1500978-02	R141382	02/05/15 03:27

COMMENTS: _____

FORM IV NJ-TO15 LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID: R141333_tune BFB Injection Date: 01/20/15

Instrument ID: AIRLAB14 BFB Injection Time: 18:33

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	16.5
75	30.0 - 60.0% of mass 95	46.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.9 (.9)1
174	Greater than 50.0 of mass 95	99.3
175	5.0 - 9.0% of mass 174	7.4 (7.4)1
176	95.0 - 101% of mass 174	96.7 (97.4)1
177	5.0 - 9.0% of mass 176	6.3 (6.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R141337	01/20/15	22:11
02	0.5	0.5	R141338	01/20/15	23:00
03	1.0	1.0	R141339	01/20/15	23:55
04	5.0	5.0	R141340	01/21/15	00:43
05	10	10	R141341	01/21/15	01:38
06	20	20	R141342	01/21/15	02:26
07	50	50	R141343	01/21/15	03:15
08	100	100	R141344	01/21/15	04:10
09	ICV Quant	ICV Quant	R141347	01/21/15	10:01

FORM V NJ-TO15

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID: R232189_tune BFB Injection Date: 01/19/15

Instrument ID: AIRPIANO2 BFB Injection Time: 21:30

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.8
75	30.0 - 60.0% of mass 95	48.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	76.6
175	5.0 - 9.0% of mass 174	5.8 (7.6)1
176	95.0 - 101% of mass 174	73.9 (96.5)1
177	5.0 - 9.0% of mass 176	4.8 (6.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R232193	01/19/15	23:55
02	0.5	0.5	R232194	01/20/15	00:27
03	1.0	1.0	R232195	01/20/15	00:59
04	5.0	5.0	R232196	01/20/15	01:30
05	10	10	R232197	01/20/15	02:02
06	20	20	R232198	01/20/15	02:34
07	50.0	50.0	R232199	01/20/15	03:05
08	100.0	100.0	R232200	01/20/15	03:37
09	ICV Quant	ICV Quant	R232203	01/20/15	08:39

FORM V NJ-TO15

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID: R232205_tune BFB Injection Date: 01/20/15

Instrument ID: AIRPIANO2 BFB Injection Time: 09:58

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	23
75	30.0 - 60.0% of mass 95	51
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	77.3
175	5.0 - 9.0% of mass 174	4.5 (5.8)1
176	95.0 - 101% of mass 174	75.4 (97.4)1
177	5.0 - 9.0% of mass 176	5 (6.6)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG757004-2	R232206	01/20/15	10:30
02	WG757004-3LCS	WG757004-3	R232207	01/20/15	11:12
03	WG757004-4BLANK	WG757004-4	R232211	01/20/15	15:01
04	CR011415-AMB-01	L1500978-01	R232212	01/20/15	16:53
05	CR011415-IA-B6	L1500978-03	R232213	01/20/15	17:24
06	Duplicate Sample	WG757004-5D	R232224	01/20/15	23:14

FORM V NJ-TO15

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID: R141366_tune BFB Injection Date: 02/04/15

Instrument ID: AIRLAB14 BFB Injection Time: 13:32

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	15.9
75	30.0 - 60.0% of mass 95	45.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1 (.9)1
174	Greater than 50.0 of mass 95	100.7
175	5.0 - 9.0% of mass 174	7.3 (7.3)1
176	95.0 - 101% of mass 174	98.4 (97.7)1
177	5.0 - 9.0% of mass 176	6.5 (6.6)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG760633-2	R141368	02/04/15	15:48
02	WG760633-3LCS	WG760633-3	R141369	02/04/15	16:52
03	WG760633-4BLANK	WG760633-4	R141371	02/04/15	18:51
04	112 LANZA IA-1DU	WG760633-5	R141379	02/05/15	01:11
05	CR011415-IA-B3	L1500978-02	R141382	02/05/15	03:27

FORM V NJ-TO15

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID (Standard): R232206 Date Analyzed: 01/20/15

Instrument ID : AIRPIANO2 Time Analyzed: 10:30

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	180187	10.39	480871	12.55	114070	16.89
	UPPER LIMIT	252262	10.72	673219	12.88	159698	17.22
	LOWER LIMIT	108112	10.06	288523	12.22	68442	16.56
	EPA SAMPLE NO.						
01	WG757004-3LCS	177651	10.39	474155	12.55	112397	16.89
02	WG757004-4BLANK	164165	10.39	431784	12.55	95398	16.89
03	CR011415-AMB-01	164591	10.39	431457	12.55	95119	16.89
04	CR011415-IA-B6	158896	10.39	415592	12.55	95081	16.89
05	WG757004-5DUP	167913	10.39	446535	12.55	104537	16.89

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Lab File ID (Standard): R141368 Date Analyzed: 02/04/15

Instrument ID : AIRLAB14 Time Analyzed: 15:48

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	146829	10.93	519450	13.11	108386	17.36
	UPPER LIMIT	205561	11.26	727230	13.44	151740	17.69
	LOWER LIMIT	88097	10.60	311670	12.78	65032	17.03
	EPA SAMPLE NO.						
01	WG760633-3LCS	148305	10.94	519572	13.11	109592	17.37
02	WG760633-4BLANK	143584	10.93	579327	13.11	102597	17.36
03	WG760633-5DUP	135067	10.93	538594	13.11	93394	17.37
04	CR011415-IA-B3	130859	10.94	510374	13.12	89556	17.37

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-01	Date Collected	: 01/15/15 09:28
Client ID	: CR011415-AMB-01	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 16:53
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232212	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.42	0.20	--	2	1	--	
74-87-3	Chloromethane	0.53	0.20	--	1	0.4	--	
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	ND	2.5	--	ND	5	--	U
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	1.6	1.0	--	4	2	--	
75-69-4	Trichlorofluoromethane	0.23	0.20	--	1	1	--	
67-63-0	Isopropanol	ND	0.50	--	ND	1	--	U
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2.	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	ND	0.20	--	ND	0.6	--	U
76-13-1	Freon-113	ND	0.20	--	ND	2	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	0.20	0.20	--	0.6	0.6	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1.	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-01	Date Collected	: 01/15/15 09:28
Client ID	: CR011415-AMB-01	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 16:53
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232212	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	0.23	0.20	--	0.7	0.6	--	
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	ND	0.20	--	ND	1.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	0.33	0.20	--	1	0.8	--	
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	ND	0.20	--	ND	1.	--	U
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-01	Date Collected	: 01/15/15 09:28
Client ID	: CR011415-AMB-01	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 16:53
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232212	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1.	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 09:16:22 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	164591	10.000	ppbV	0.00
Standard Area = 180187			Recovery =		91.34%	
43) 1,4-difluorobenzene	12.55	114	431457	10.000	ppbV	0.00
Standard Area = 480871			Recovery =		89.72%	
67) chlorobenzene-D5	16.89	54	95119	10.000	ppbV	0.00
Standard Area = 114070			Recovery =		83.39%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.43	85	10537	0.424	ppbV	94
6) chloromethane	4.66	50	5945	0.529	ppbV	90
7) Freon-114	4.81		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	5.17		0	N.D.		
13) bromomethane	5.55		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.03	31	20217	2.448	ppbV	98
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.67	43	27780	1.557	ppbV #	91
21) trichlorofluoromethane	6.85	101	6466	0.227	ppbV	97
22) isopropyl alcohol	7.01	45	9371	0.450	ppbV #	90
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.80		0	N.D.		
28) methylene chloride	7.84	49	3624	0.235	ppbV #	76
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	8.16		0	N.D.		
31) Freon 113	8.17	101	1402	0.060	ppbV #	92
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	9.28		0	N.D.		
36) 2-butanone	9.74	43	5610M3	0.200	ppbV	
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.52		0	N.D.		
40) Tetrahydrofuran	11.04		0	N.D.		
42) 1,2-dichloroethane	11.37		0	N.D.		
44) hexane	10.43	57	1795	0.087	ppbV #	8
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 09:16:22 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) benzene	12.16	78	8271	0.228	ppbV	#	91
52) carbon tetrachloride	12.32	117	2004	0.073	ppbV	#	78
53) cyclohexane	12.46		0	N.D.			
56) 1,2-dichloropropane	0.00		0	N.D.			
57) bromodichloromethane	0.00		0	N.D.			
58) 1,4-dioxane	0.00		0	N.D.			
59) trichloroethene	0.00		0	N.D.			
60) 2,2,4-trimethylpentane	13.37	57	3472	0.053	ppbV	#	86
61) methyl methacrylate	0.00		0	N.D.	d		
62) heptane	13.66	43	2746	0.105	ppbV	#	89
63) cis-1,3-dichloropropene	0.00		0	N.D.			
64) 4-methyl-2-pentanone	0.00		0	N.D.	d		
65) trans-1,3-dichloropropene	0.00		0	N.D.			
66) 1,1,2-trichloroethane	0.00		0	N.D.			
68) toluene	15.32	91	17357	0.327	ppbV		100
74) dibromochloromethane	0.00		0	N.D.			
75) 1,2-dibromoethane	0.00		0	N.D.			
78) tetrachloroethene	16.35		0	N.D.			
80) chlorobenzene	0.00		0	N.D.			
81) ethylbenzene	17.22		0	N.D.			
83) m+p-xylene	17.35	91	5103	0.123	ppbV		98
84) bromoform	0.00		0	N.D.			
85) styrene	17.64		0	N.D.			
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.			
87) o-xylene	17.72		0	N.D.			
93) 2-chlorotoluene	0.00		0	N.D.			
96) 4-ethyl toluene	18.64		0	N.D.			
97) 1,3,5-trimethylbenzene	18.69		0	N.D.			
99) 1,2,4-trimethylbenzene	18.99		0	N.D.			
102) 1,3-dichlorobenzene	19.13		0	N.D.			
103) 1,4-dichlorobenzene	19.17		0	N.D.			
107) 1,2-dichlorobenzene	19.43		0	N.D.			
115) 1,2,4-trichlorobenzene	20.86		0	N.D.			
119) hexachlorobutadiene	0.00		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 09:16:22 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

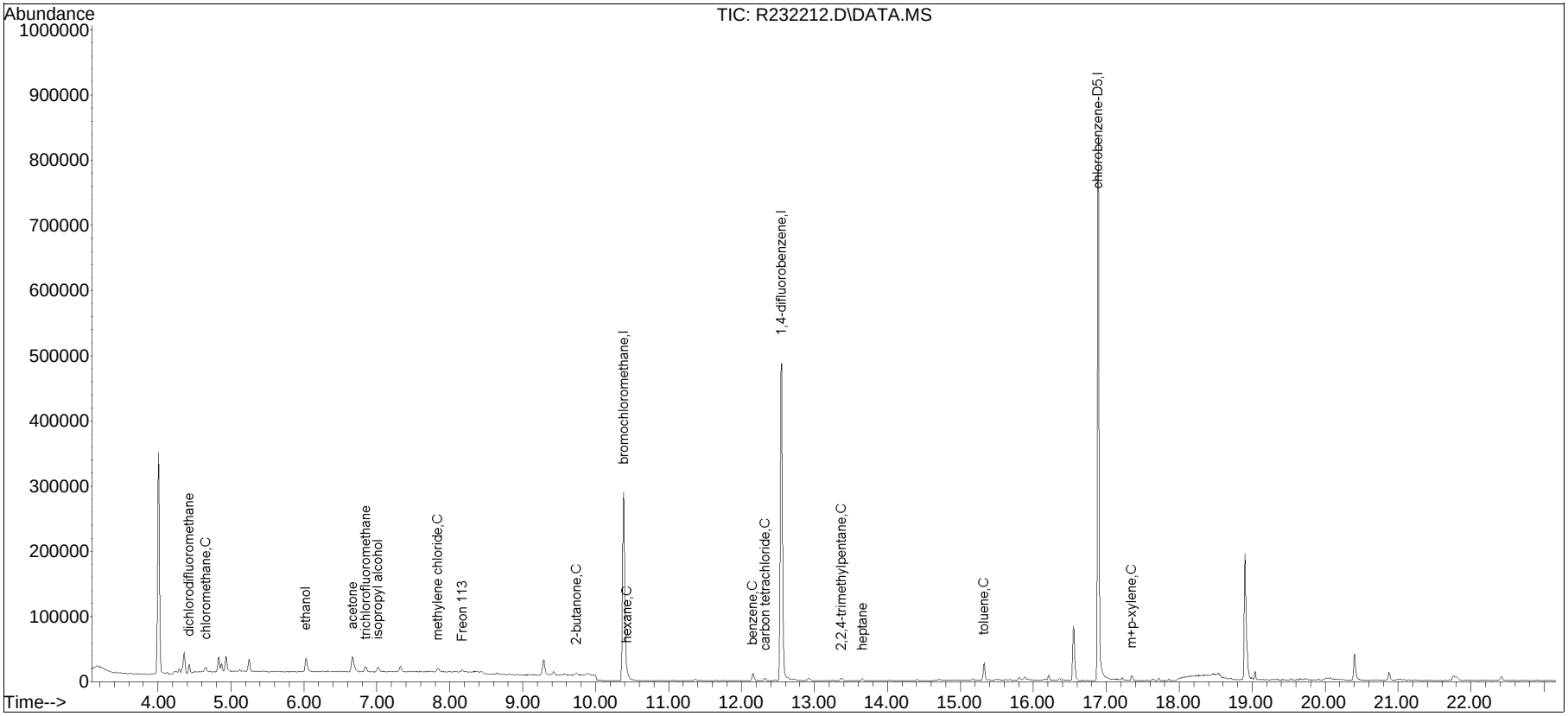
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

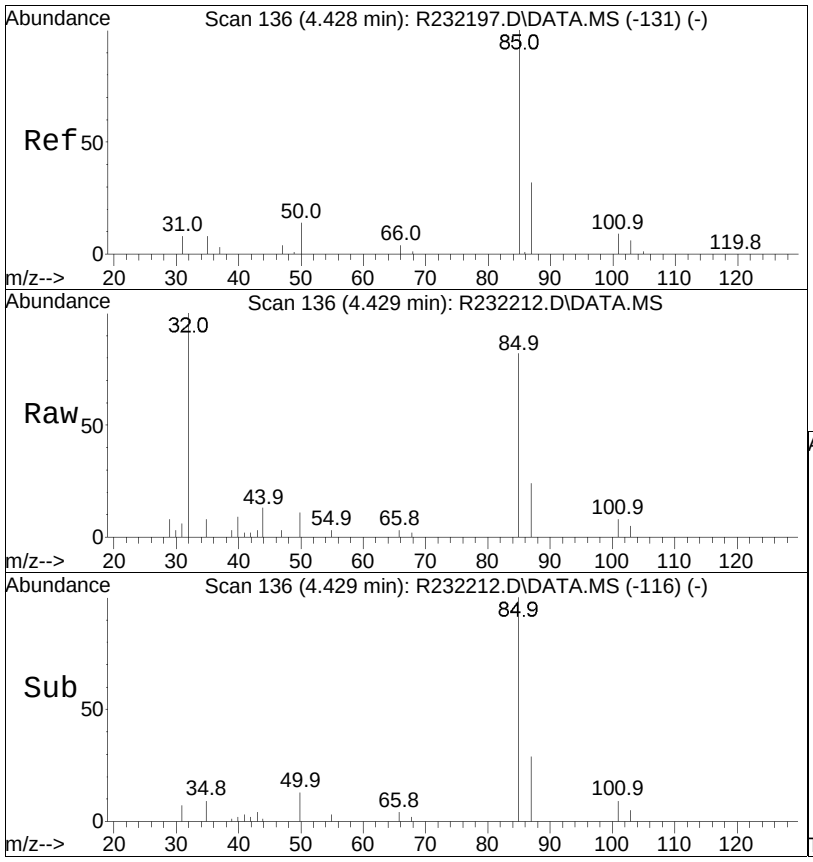
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 09:16:22 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\AIR2\2015\150120T\R232206.D

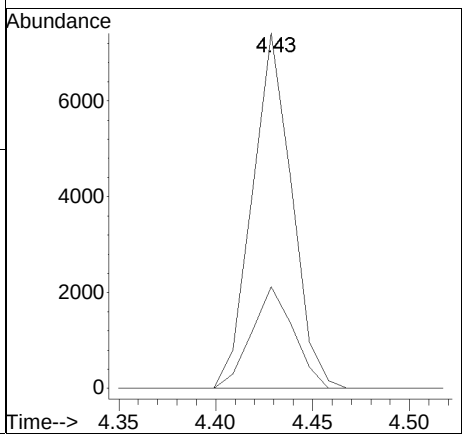


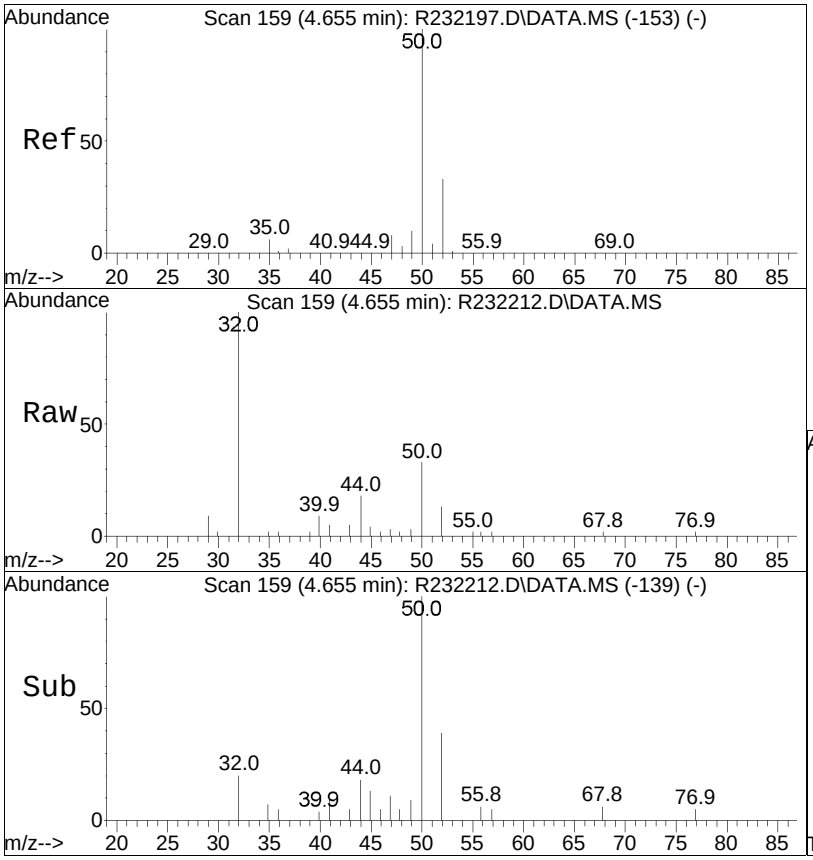


#5
dichlorodifluoromethane
Concen: 0.42 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 85 Resp: 10537

Ion	Ratio	Lower	Upper
85	100		
87	28.6	25.5	38.3

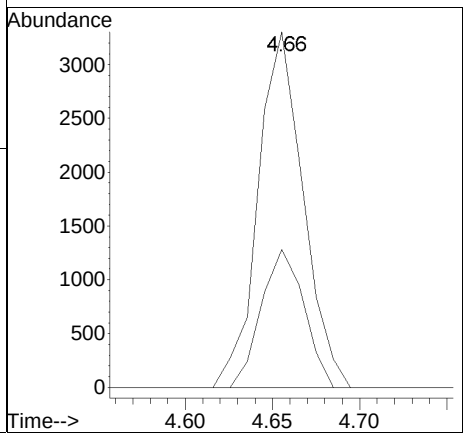


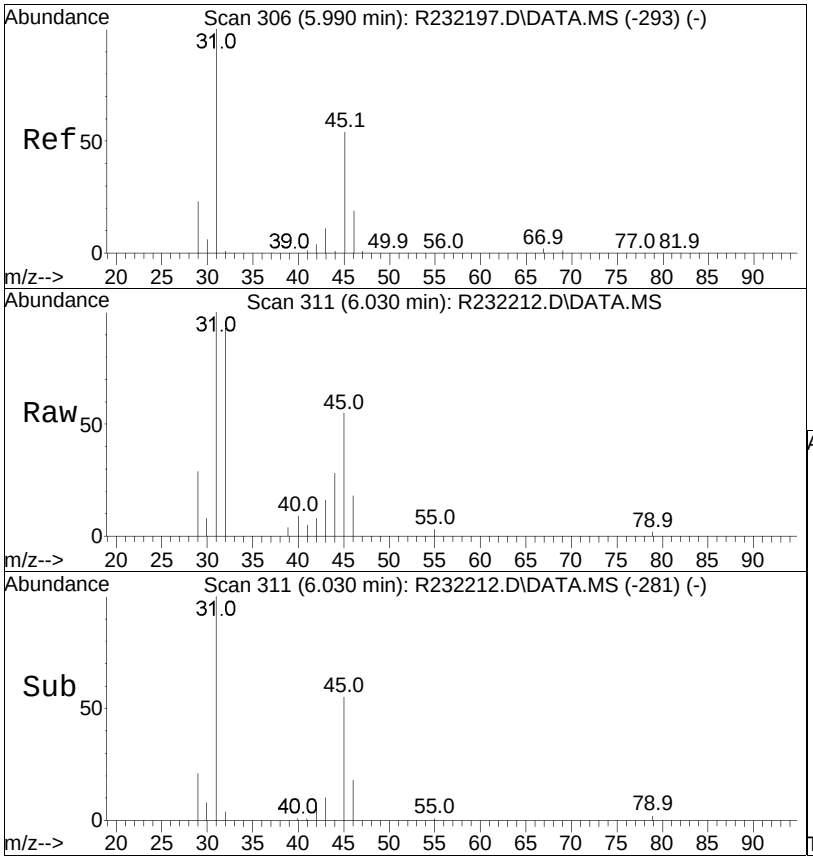


#6
chloromethane
Concen: 0.53 ppbV
RT: 4.66 min Scan# 159
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 50 Resp: 5945

Ion	Ratio	Lower	Upper
50	100		
52	38.8	26.5	39.7

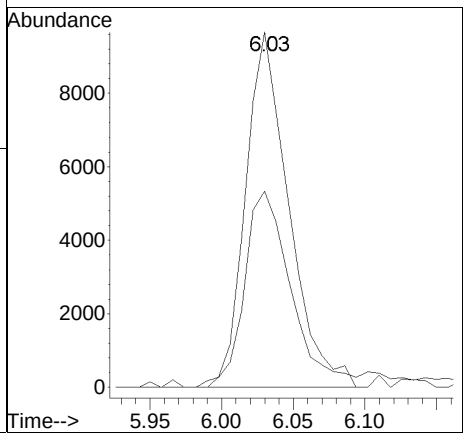


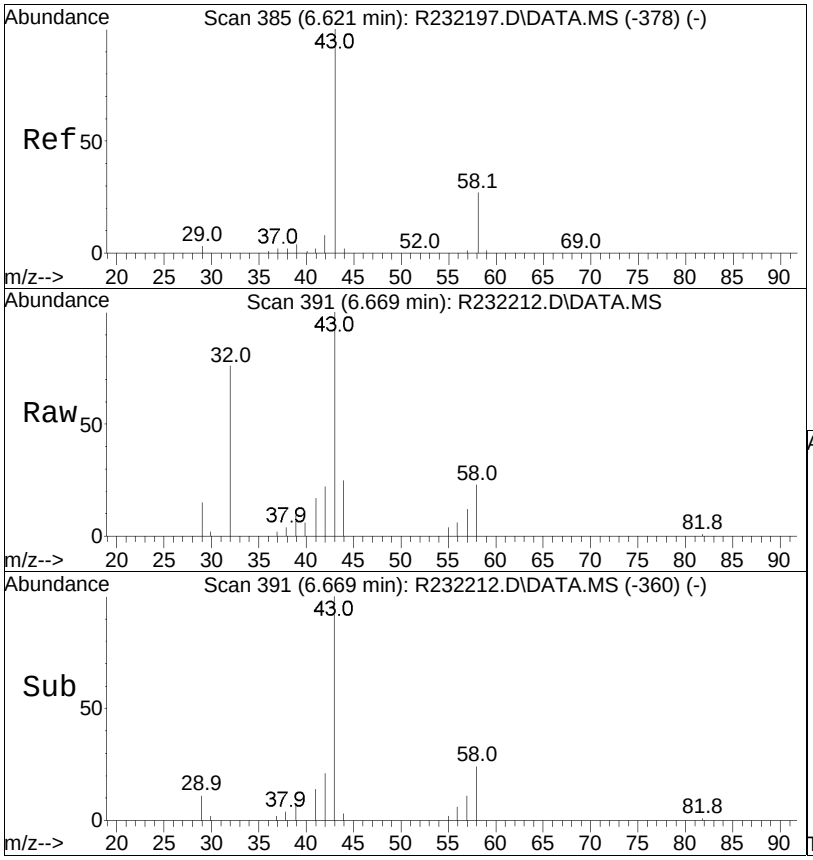


#15
ethanol
Concen: 2.45 ppbV
RT: 6.03 min Scan# 311
Delta R.T. 0.040 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 31 Resp: 20217

Ion	Ratio	Lower	Upper
31	100		
45	55.2	43.2	64.8

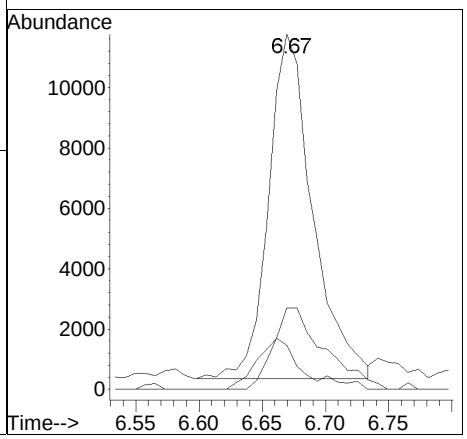


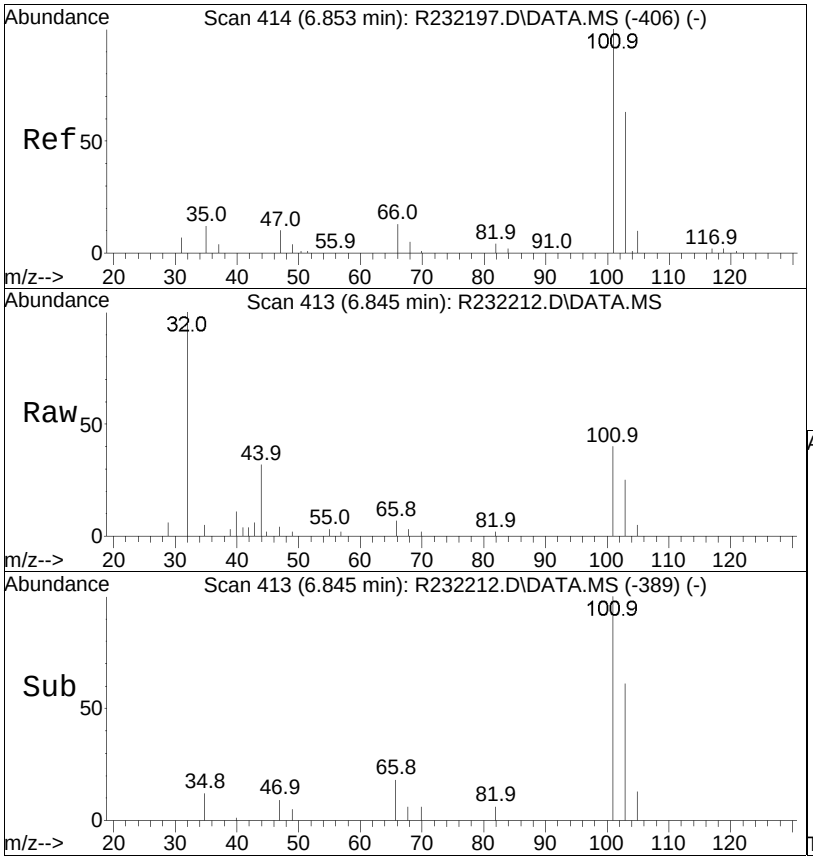


#19
acetone
Concen: 1.56 ppbV
RT: 6.67 min Scan# 391
Delta R.T. 0.048 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 43 Resp: 27780

Ion	Ratio	Lower	Upper
43	100		
58	22.9	21.8	32.8
57	12.4	0.7	1.1#

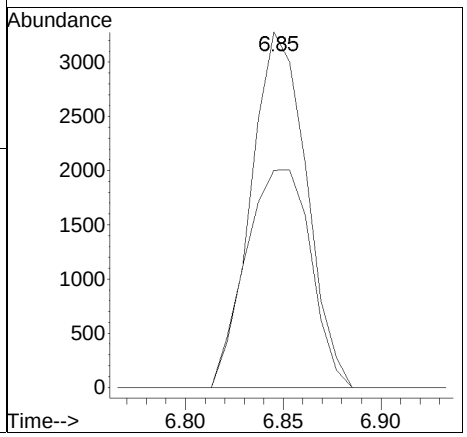


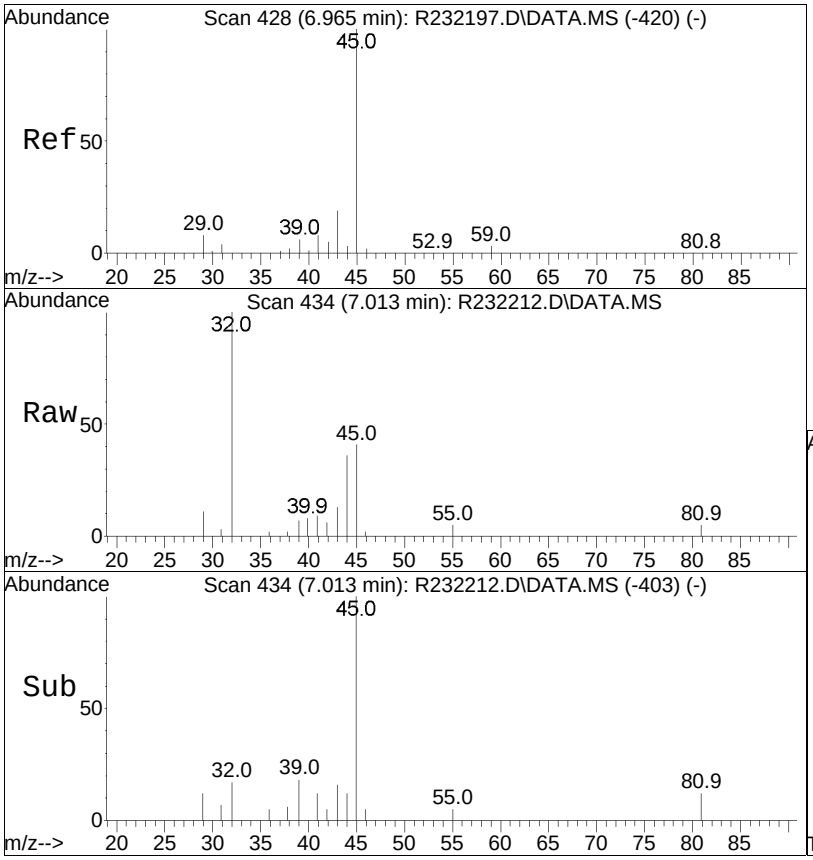


#21
trichlorofluoromethane
Concen: 0.23 ppbV
RT: 6.85 min Scan# 413
Delta R.T. -0.008 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion:101 Resp: 6466

Ion	Ratio	Lower	Upper
101	100		
103	61.1	50.7	76.1

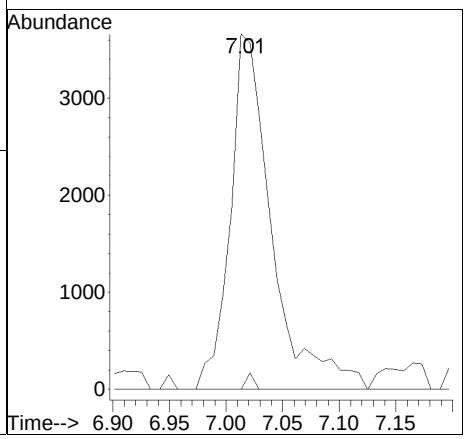


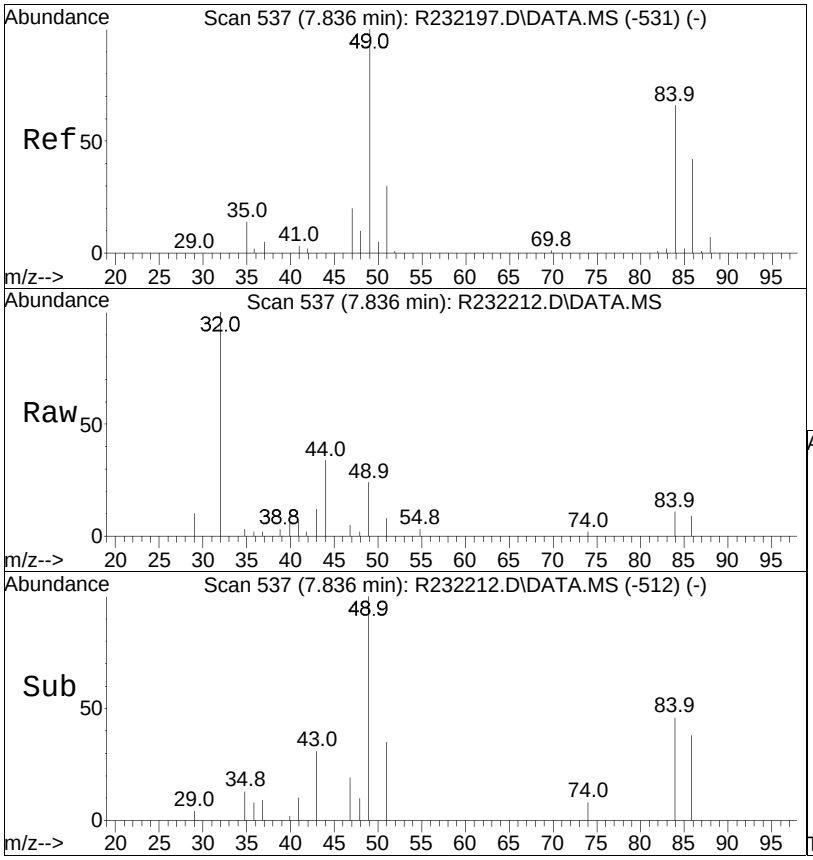


#22
isopropyl alcohol
Concen: 0.45 ppbV
RT: 7.01 min Scan# 434
Delta R.T. 0.048 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 45 Resp: 9371

Ion	Ratio	Lower	Upper
45	100		
59	0.0	2.7	4.1#

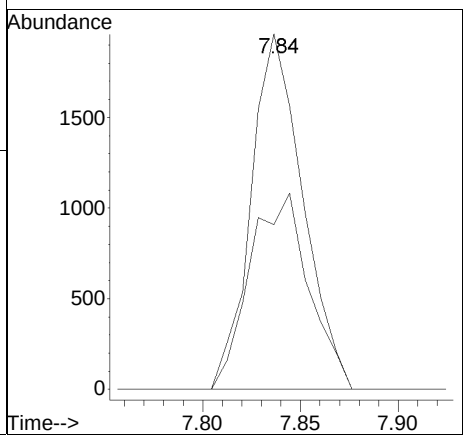


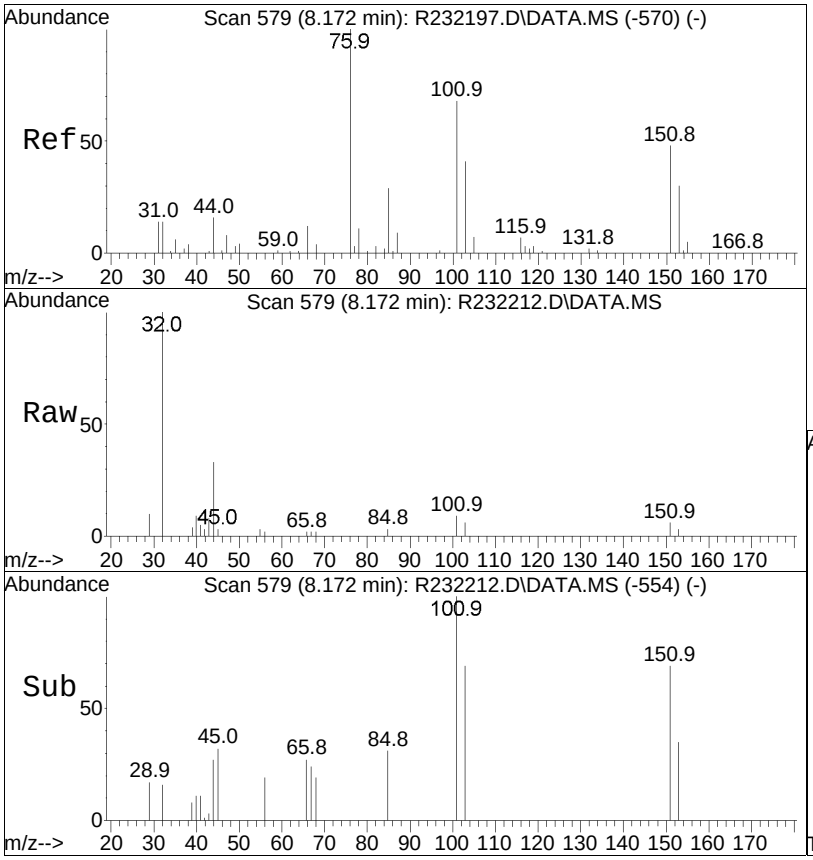


#28
methylene chloride
Concen: 0.24 ppbV
RT: 7.84 min Scan# 537
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 49 Resp: 3624

Ion	Ratio	Lower	Upper
49	100		
84	46.4	52.4	78.6#

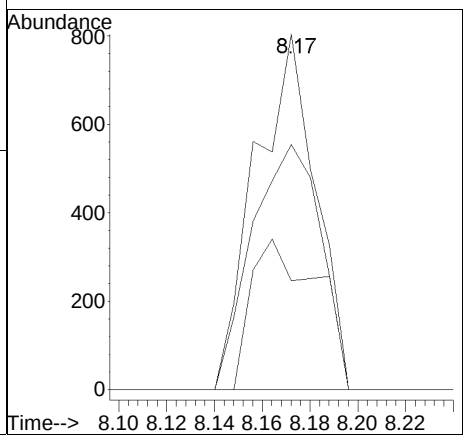


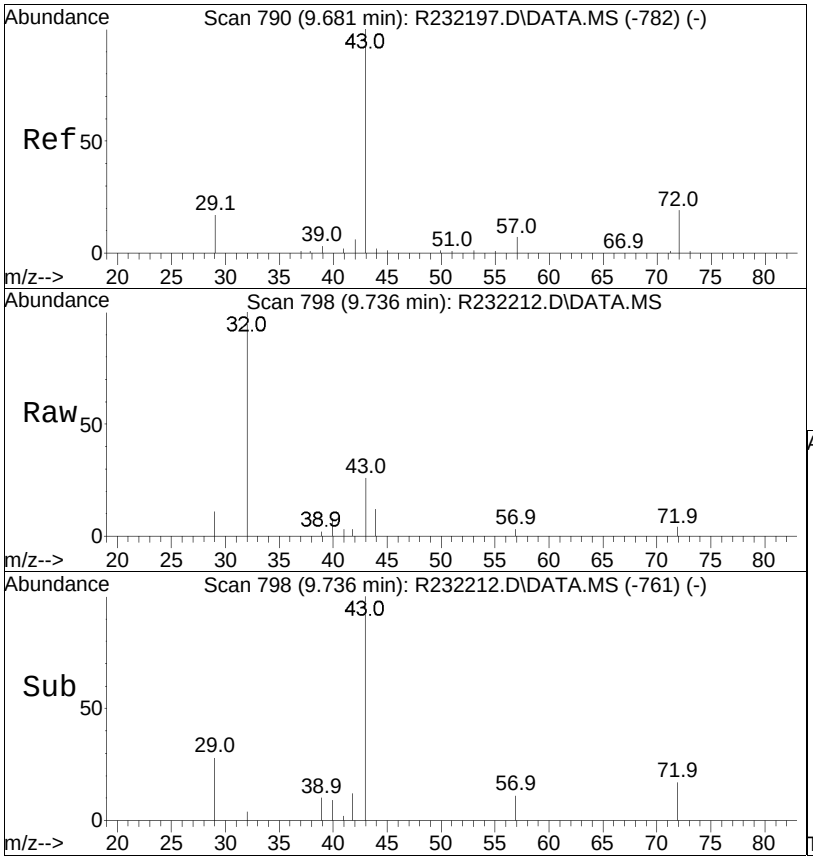


#31
Freon 113
Concen: 0.06 ppbV
RT: 8.17 min Scan# 579
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion:101 Resp: 1402

Ion	Ratio	Lower	Upper
101	100		
85	30.6	34.3	51.5#
151	68.9	56.0	84.0

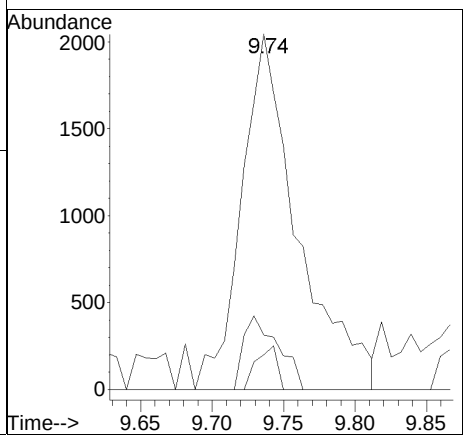


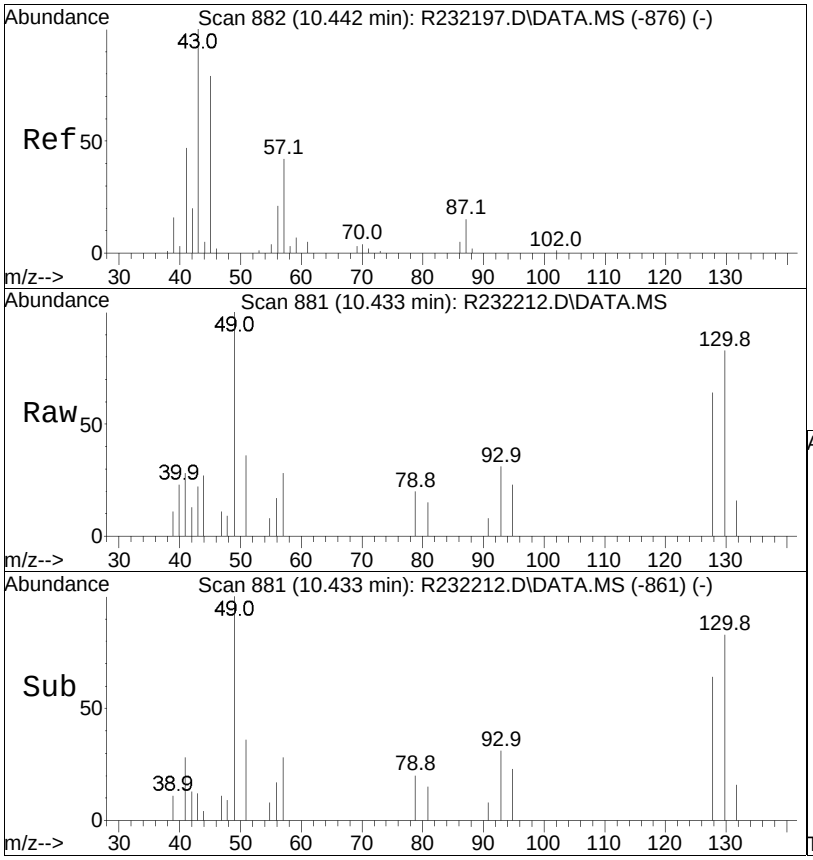


#36
2-butanone
Concen: 0.20 ppbV m
RT: 9.74 min Scan# 798
Delta R.T. 0.055 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 43 Resp: 5610

Ion	Ratio	Lower	Upper
43	100		
72	15.3	15.5	23.3#
57	9.8	5.4	8.0#

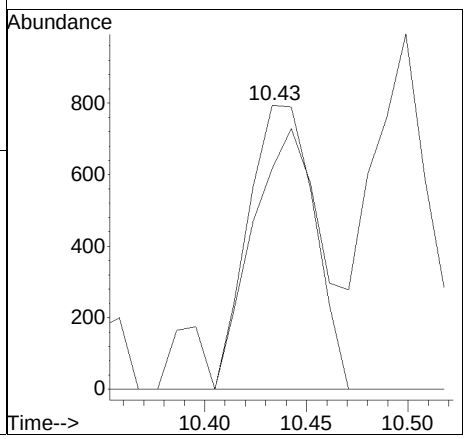


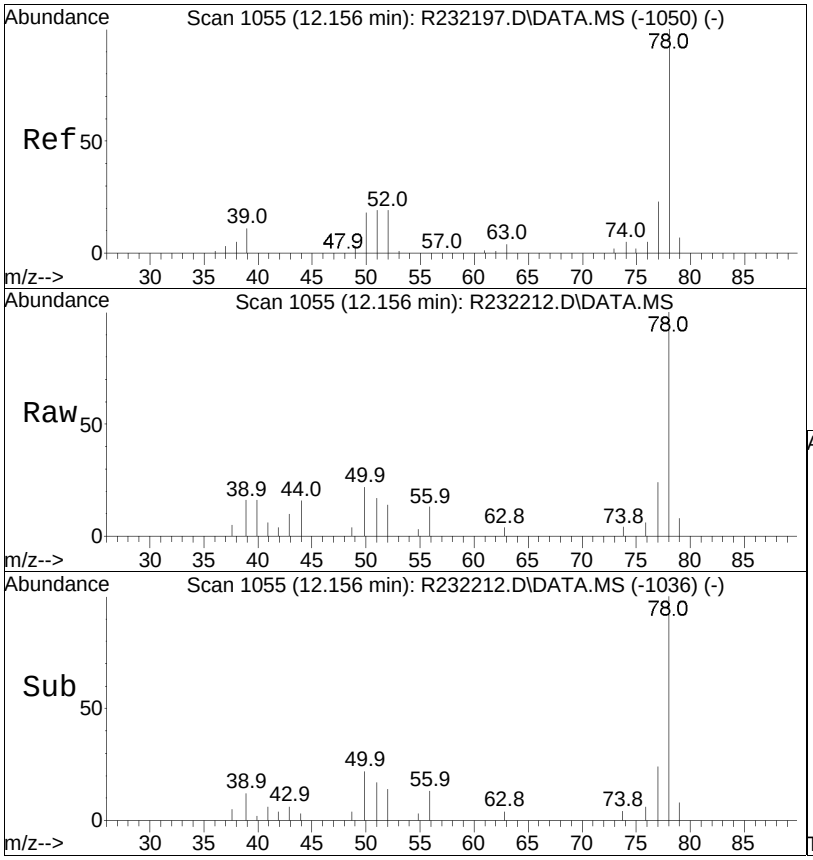


#44
hexane
Concen: 0.09 ppbV
RT: 10.43 min Scan# 881
Delta R.T. -0.009 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 57 Resp: 1795

Ion	Ratio	Lower	Upper
57	100		
43	77.7	191.0	286.4#
86	0.0	9.4	14.0#

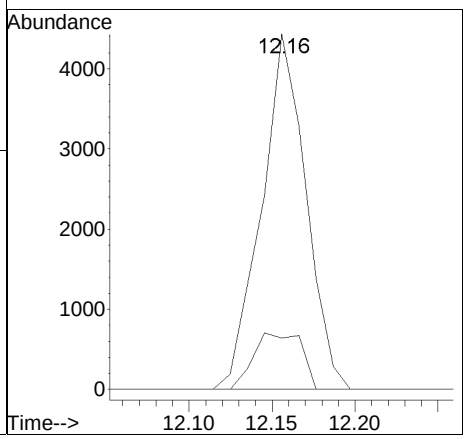


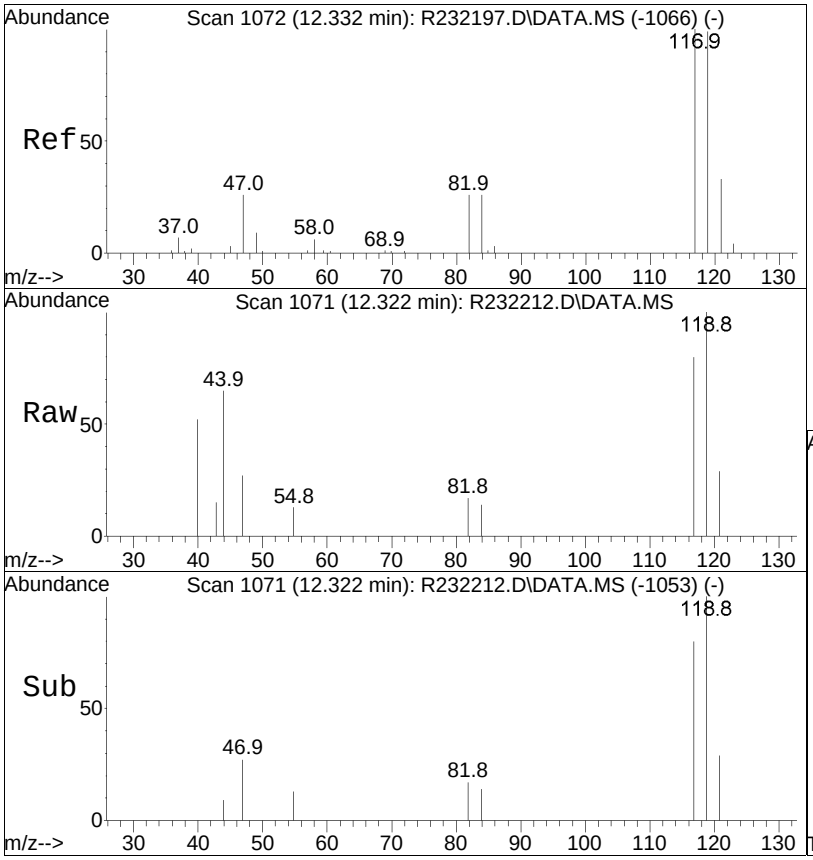


#50
benzene
Concen: 0.23 ppbV
RT: 12.16 min Scan# 1055
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 78 Resp: 8271

Ion	Ratio	Lower	Upper
78	100		
52	14.5	14.9	22.3#

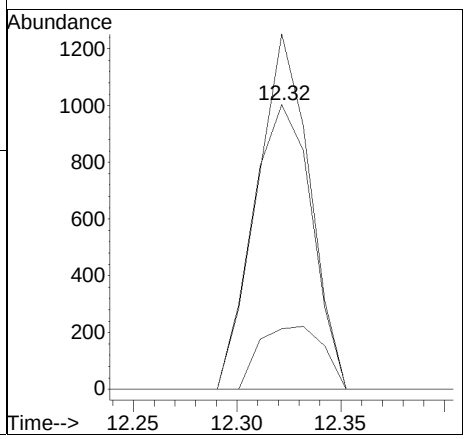


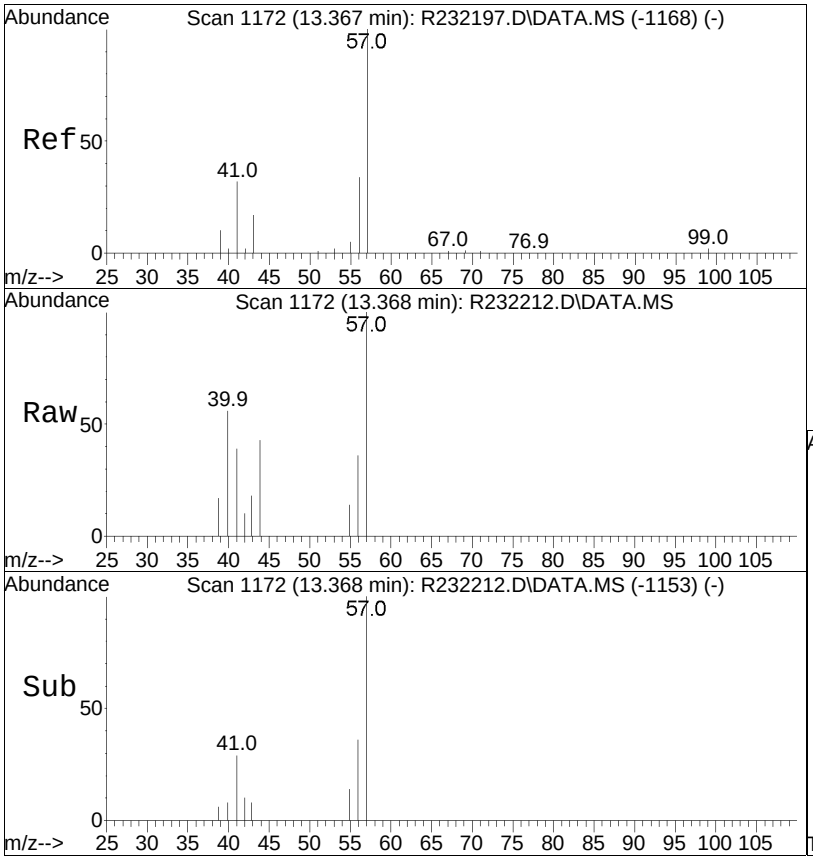


#52
carbon tetrachloride
Concen: 0.07 ppbV
RT: 12.32 min Scan# 1071
Delta R.T. -0.010 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion:117 Resp: 2004

Ion	Ratio	Lower	Upper
117	100		
119	124.8	79.2	118.8#
82	21.2	20.5	30.7

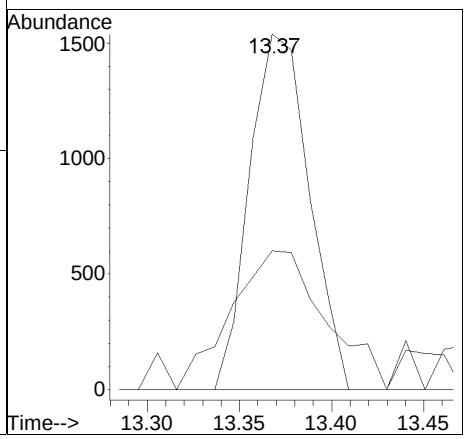


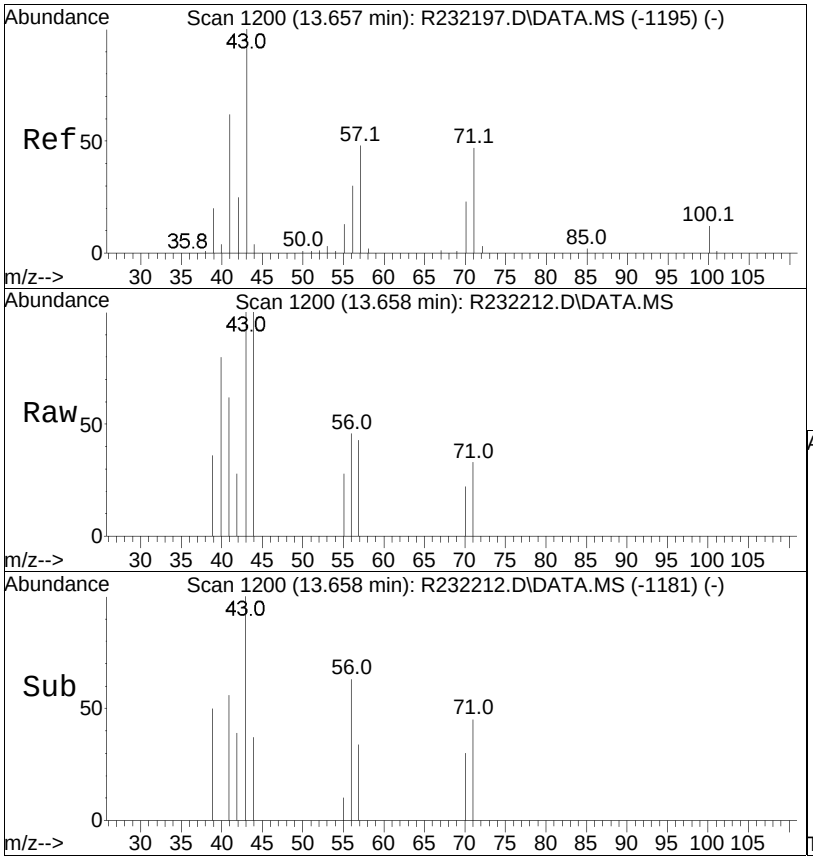


#60
2,2,4-trimethylpentane
Concen: 0.05 ppbV
RT: 13.37 min Scan# 1172
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 57 Resp: 3472

Ion	Ratio	Lower	Upper
57	100		
99	0.0	3.8	5.8#
41	39.0	24.9	37.3#

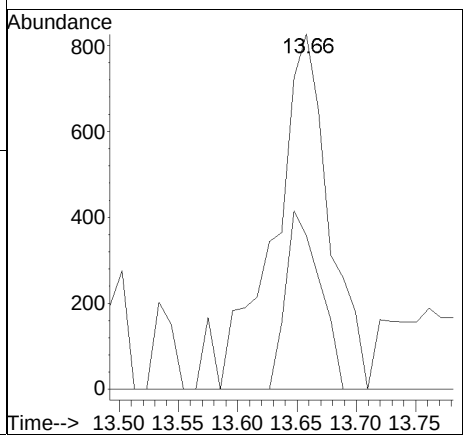


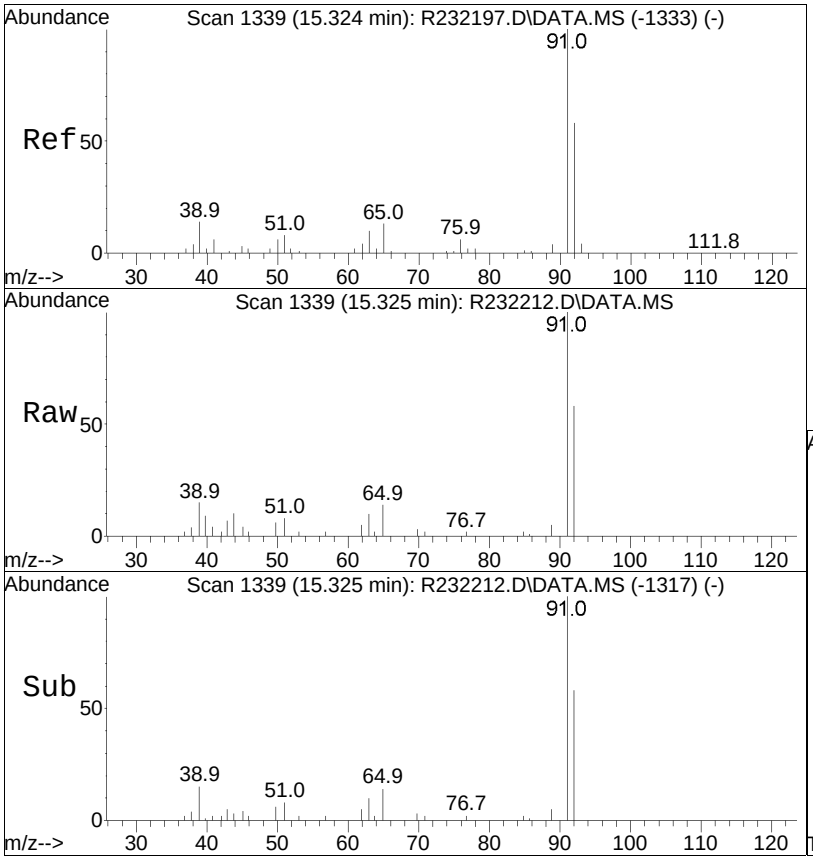


#62
heptane
Concen: 0.10 ppbV
RT: 13.66 min Scan# 1200
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 43 Resp: 2746

Ion	Ratio	Lower	Upper
43	100		
57	43.3	38.0	57.0
100	0.0	9.8	14.8#

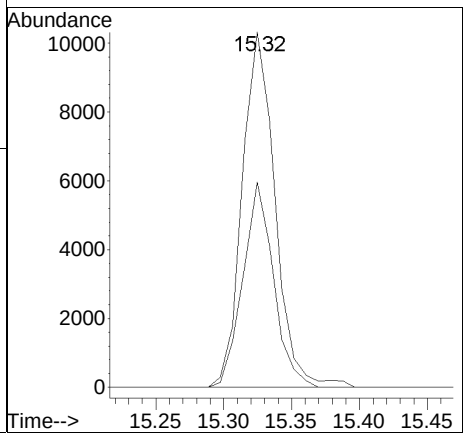


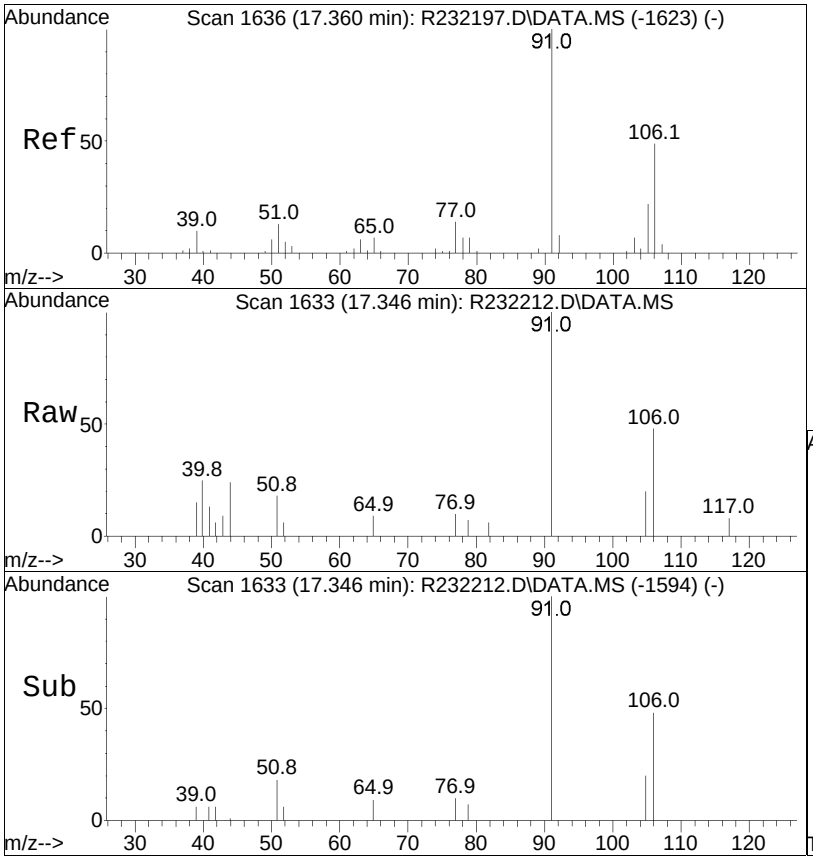


#68
toluene
Concen: 0.33 ppbV
RT: 15.32 min Scan# 1339
Delta R.T. 0.000 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 91 Resp: 17357

Ion	Ratio	Lower	Upper
91	100		
92	57.8	46.5	69.7

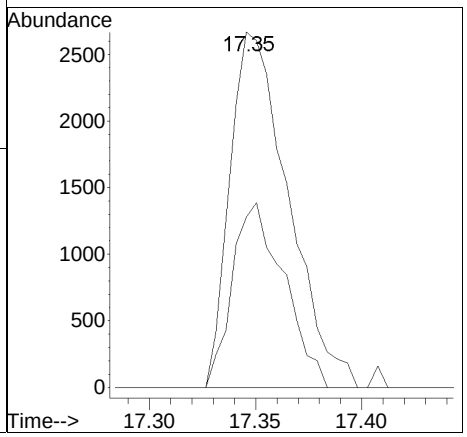




#83
m+p-xylene
Concen: 0.12 ppbV
RT: 17.35 min Scan# 1633
Delta R.T. -0.014 min
Lab File: R232212.D
Acq: 20 Jan 2015 4:53 pm

Tgt Ion: 91 Resp: 5103

Ion	Ratio	Lower	Upper
91	100		
106	47.9	39.4	59.2

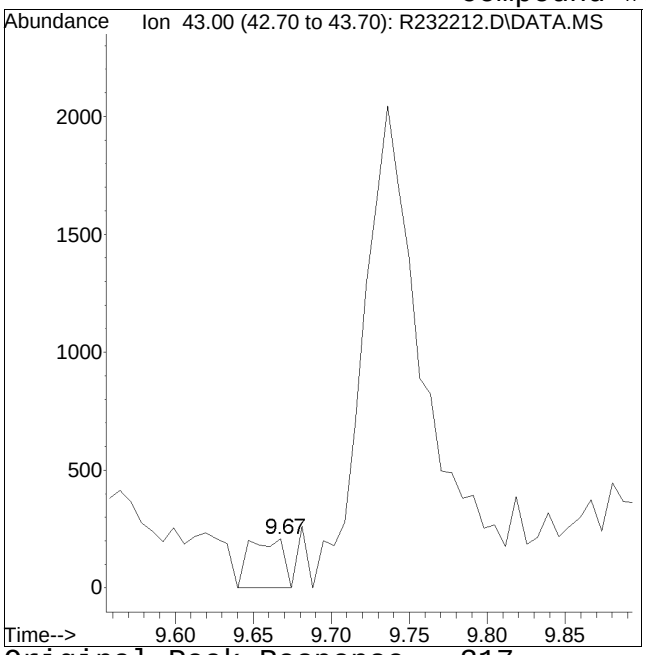


Manual Integration/Negative Proof Report

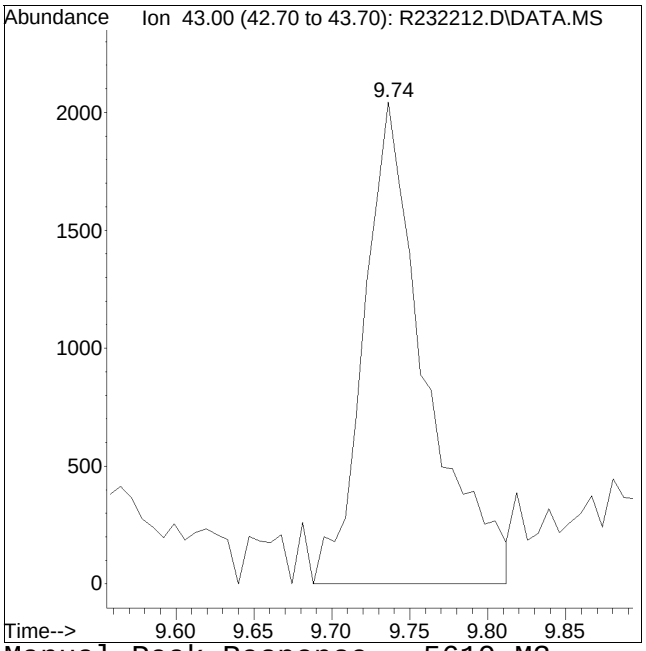
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232212.D
Date Inj'd : 1/20/2015 4:53 pm
Sample : L1500978-01,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/21/2015 6:21 am

Compound #36: 2-butanone



Original Peak Response = 317



Manual Peak Response = 5610 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-01	Date Collected	: 01/15/15 09:28
Client ID	: CR011415-AMB-01	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 16:53
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232212	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 2 **Concentration Units: ppbV**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.55	1.4	NJ
	unknown siloxane	18.90	3.1	J
	Total TIC Compounds		4.5	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R232212.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.231	113	116	117	rBV	3338	5270	0.43%	0.120%
2	4.291	120	122	124	rVV	7023	10126	0.82%	0.230%
3	4.360	124	129	133	rVB2	33441	61555	4.99%	1.397%
4	4.429	133	136	139	rBV	13805	20443	1.66%	0.464%
5	4.655	156	159	163	rVB3	7526	15017	1.22%	0.341%
6	4.833	173	177	179	rBV	23512	42417	3.44%	0.963%
7	4.872	179	181	184	rVV	13570	19297	1.57%	0.438%
8	4.931	184	187	194	rVB	23159	43377	3.52%	0.985%
9	5.247	215	219	223	rBV	19262	33839	2.75%	0.768%
10	6.030	307	311	320	rVB2	21410	47003	3.81%	1.067%
11	6.318	345	347	349	rBV2	2506	2354	0.19%	0.053%
12	6.669	386	391	401	rBV3	22977	59748	4.85%	1.356%
13	6.853	410	414	419	rVB2	7279	15830	1.28%	0.359%
14	7.013	431	434	439	rVB	6542	12594	1.02%	0.286%
15	7.325	469	473	479	rVB	8635	16990	1.38%	0.386%
16	8.172	576	579	582	rVB5	4187	6664	0.54%	0.151%
17	9.290	725	733	743	rBV2	24510	61228	4.97%	1.390%
18	9.420	748	752	758	rVB4	5339	11493	0.93%	0.261%
19	9.565	771	773	775	rBV2	1739	1696	0.14%	0.038%
20	9.736	793	798	803	rVB4	3581	7471	0.61%	0.170%
21	9.997	834	836	837	rVB	8235	11911	0.97%	0.270%
22	10.386	870	876	887	rBV	288387	644022	52.25%	14.618%
23	11.025	939	942	944	rBV2	813	1436	0.12%	0.033%
24	11.372	973	979	983	rBV3	2643	5455	0.44%	0.124%
25	11.648	1004	1006	1013	rVB3	634	1774	0.14%	0.040%
26	11.969	1034	1037	1039	rBV2	747	1511	0.12%	0.034%
27	12.156	1051	1055	1059	rBV2	11300	21257	1.72%	0.482%
28	12.322	1068	1071	1077	rVB	3871	8444	0.69%	0.192%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	12.467	1080	1085	1088	rVB4	2100	4466	0.36%	0.101%
30	12.549	1088	1093	1099	rBV	487676	1009325	81.88%	22.910%
31	12.922	1126	1129	1133	rVV3	3709	8722	0.71%	0.198%
32	12.984	1133	1135	1139	rVV3	891	1556	0.13%	0.035%
33	13.243	1158	1160	1167	rVB4	1053	2984	0.24%	0.068%
34	13.368	1167	1172	1178	rVB3	3692	10178	0.83%	0.231%
35	13.658	1197	1200	1204	rVB2	3405	6666	0.54%	0.151%
36	13.972	1219	1223	1224	rBV2	617	2067	0.17%	0.047%
37	14.035	1224	1227	1231	rVB3	1605	4622	0.37%	0.105%
38	14.289	1239	1243	1245	rBV2	622	1668	0.14%	0.038%
39	14.416	1249	1251	1253	rVB2	1998	3404	0.28%	0.077%
40	14.656	1263	1265	1267	rBV3	972	2616	0.21%	0.059%
41	14.701	1267	1270	1278	rVB3	1633	5888	0.48%	0.134%
42	14.936	1293	1296	1300	rBV3	985	2051	0.17%	0.047%
43	15.171	1317	1322	1326	rBV4	2682	5166	0.42%	0.117%
44	15.325	1334	1339	1344	rBV	27254	46036	3.73%	1.045%
45	15.388	1344	1346	1348	rVB3	1288	1954	0.16%	0.044%
46	15.487	1352	1357	1361	rBV2	2215	4642	0.38%	0.105%
47	15.677	1374	1378	1383	rVB3	2075	4157	0.34%	0.094%
48	15.767	1383	1388	1389	rBV3	935	2154	0.17%	0.049%
49	15.804	1389	1392	1397	rVV3	4550	9967	0.81%	0.226%
50	15.885	1397	1401	1407	rVV2	5723	14157	1.15%	0.321%
51	16.174	1426	1433	1434	rBV4	1564	3944	0.32%	0.090%
52	16.210	1434	1437	1440	rVB	7969	11619	0.94%	0.264%
53	16.355	1450	1453	1456	rBV4	2613	3888	0.32%	0.088%
54	16.400	1456	1458	1463	rVB4	1089	1476	0.12%	0.034%
55	16.554	1470	1475	1483	rVB	84024	170738	13.85%	3.875%
56	16.679	1491	1493	1499	rVV3	974	1408	0.11%	0.032%
57	16.888	1528	1537	1556	rBV	837886	1232622	100.00%	27.978%
58	17.217	1601	1606	1611	rVB	4207	5017	0.41%	0.114%
59	17.350	1629	1634	1644	rVB2	8441	14466	1.17%	0.328%
60	17.479	1656	1661	1664	rBV3	1360	1573	0.13%	0.036%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	17.641	1690	1695	1702	rBV4	2696	4215	0.34%	0.096%
62	17.722	1705	1712	1716	rBV3	3836	5507	0.45%	0.125%
63	17.793	1724	1727	1734	rBV3	1202	1468	0.12%	0.033%
64	17.855	1734	1740	1746	rBV3	2896	4658	0.38%	0.106%
65	18.007	1766	1772	1773	rVV4	2067	2950	0.24%	0.067%
66	18.022	1773	1775	1777	rVV2	1613	1403	0.11%	0.032%
67	18.269	1825	1827	1830	rBV5	2577	1992	0.16%	0.045%
68	18.336	1839	1841	1844	rBV2	2145	1453	0.12%	0.033%
69	18.641	1902	1905	1909	rVB6	2894	3129	0.25%	0.071%
70	18.717	1919	1921	1924	rVB5	2491	1911	0.16%	0.043%
71	18.746	1924	1927	1931	rBV4	1463	2240	0.18%	0.051%
72	18.898	1949	1957	1973	rVV2	193908	380477	30.87%	8.636%
73	18.994	1974	1977	1982	rVV6	3965	4660	0.38%	0.106%
74	19.041	1982	1987	1992	rVB	12240	14316	1.16%	0.325%
75	19.260	2028	2033	2038	rBV3	949	2058	0.17%	0.047%
76	19.303	2038	2042	2047	rVV4	1280	2627	0.21%	0.060%
77	19.346	2047	2051	2055	rVB2	2092	2562	0.21%	0.058%
78	19.413	2062	2065	2068	rBV2	1990	1629	0.13%	0.037%
79	19.527	2086	2089	2095	rVV3	2648	3099	0.25%	0.070%
80	19.660	2114	2117	2121	rVV2	2023	2269	0.18%	0.052%
81	19.717	2126	2129	2131	rVV3	2586	2856	0.23%	0.065%
82	19.741	2133	2134	2140	rVV3	2911	3247	0.26%	0.074%
83	20.013	2182	2191	2194	rBV7	3156	6571	0.53%	0.149%
84	20.113	2210	2212	2215	rVB3	1621	1499	0.12%	0.034%
85	20.403	2265	2273	2284	rVV	39549	77096	6.25%	1.750%
86	20.636	2304	2306	2308	rBV2	1021	1649	0.13%	0.037%
87	20.872	2324	2328	2335	rVB	12569	22533	1.83%	0.511%
88	20.979	2335	2338	2339	rBV2	1304	2000	0.16%	0.045%
89	21.011	2339	2341	2346	rVV3	1702	5590	0.45%	0.127%
90	21.086	2346	2348	2352	rVB2	961	1960	0.16%	0.044%
91	21.236	2360	2362	2365	rVB2	918	1599	0.13%	0.036%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

92	21.290	2365	2367	2370	rVB2	898	1678	0.14%	0.038%
93	21.375	2370	2375	2376	rBV3	1128	2265	0.18%	0.051%
94	21.708	2404	2406	2408	rBV3	1234	2236	0.18%	0.051%
95	21.761	2408	2411	2413	rBV	6981	16435	1.33%	0.373%
96	21.943	2424	2428	2429	rVB3	904	1501	0.12%	0.034%
97	22.340	2461	2465	2467	rBV4	830	1886	0.15%	0.043%
98	22.415	2467	2472	2477	rVB2	6019	13189	1.07%	0.299%
99	22.844	2509	2512	2515	rBV3	992	2190	0.18%	0.050%
100	22.887	2515	2516	2520	rBV	718	1625	0.13%	0.037%

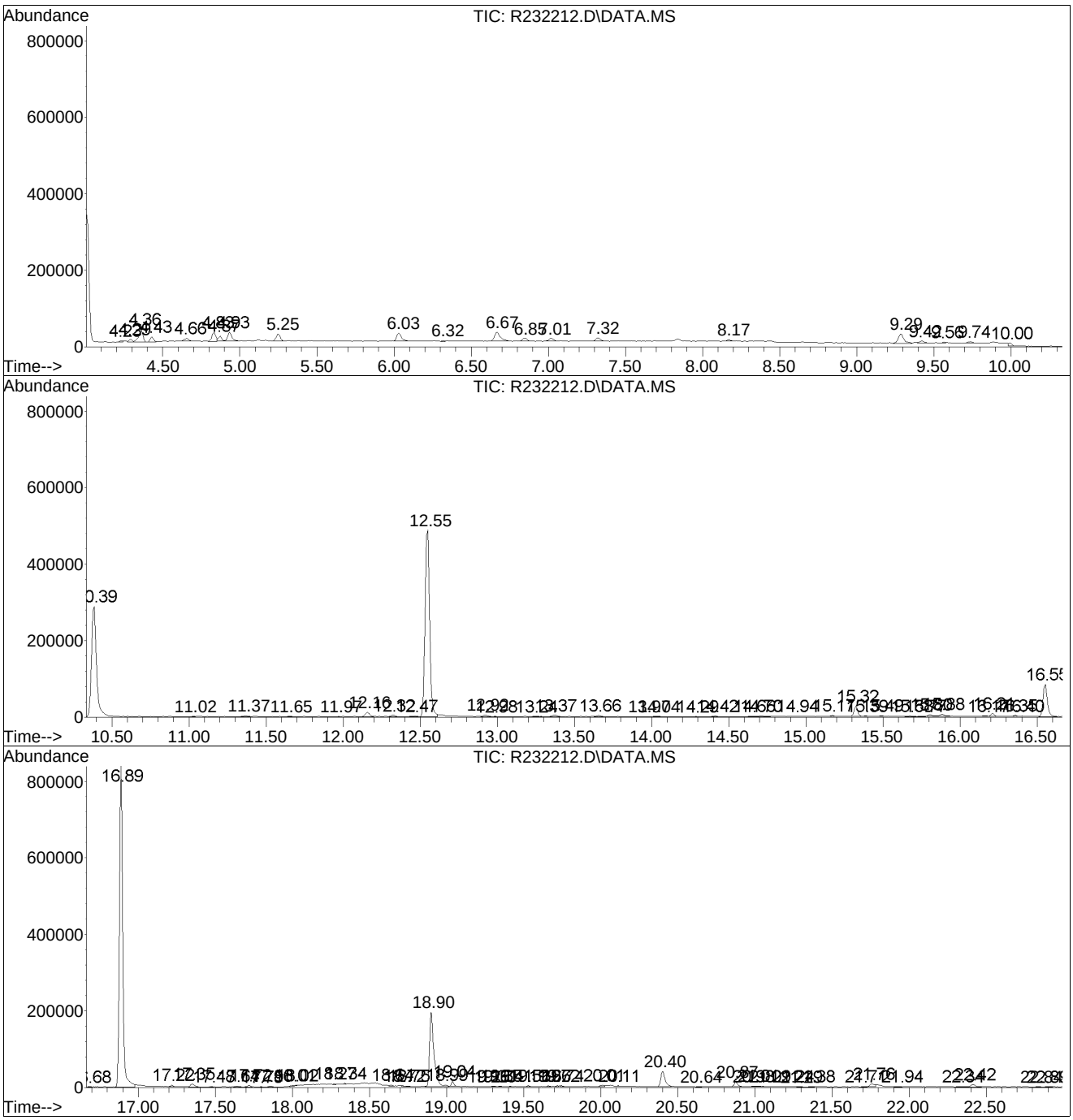
Sum of corrected areas: 4405647

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

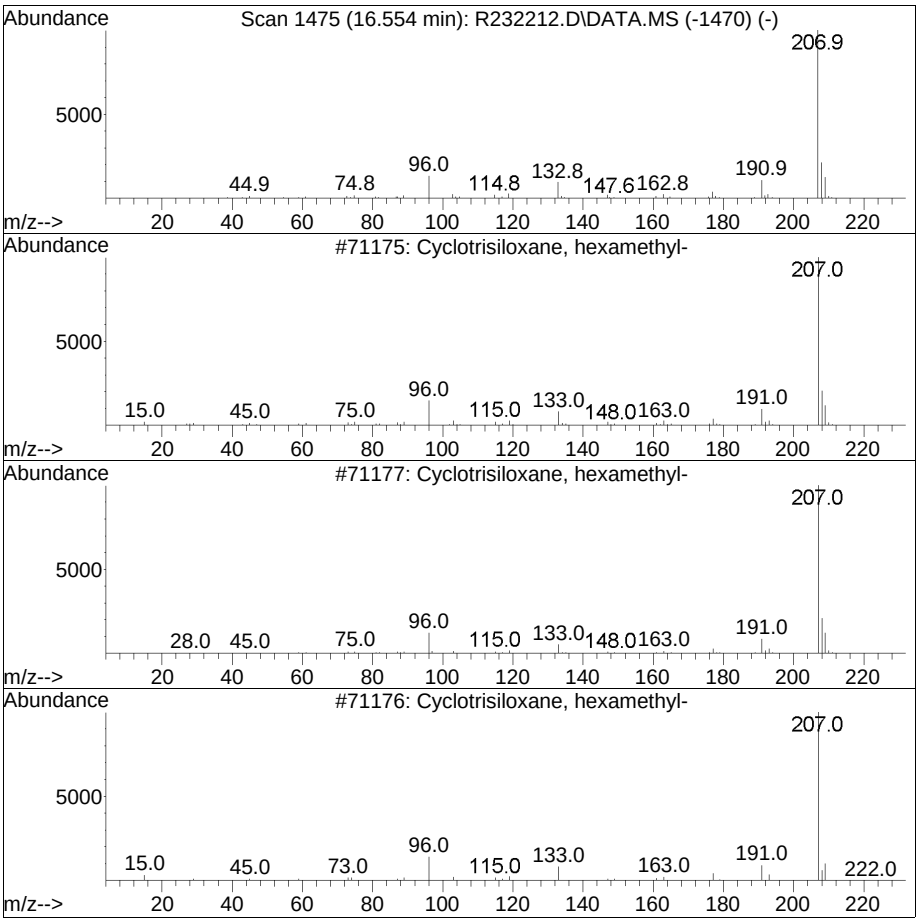
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

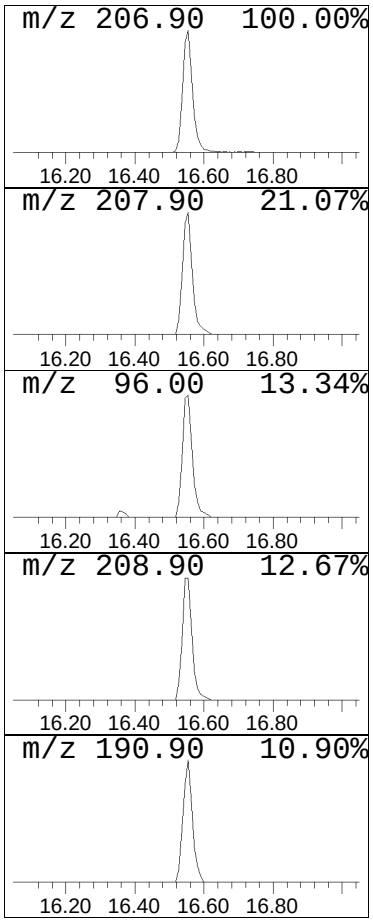
****

Peak Number 1 Cyclotrisiloxane, hexamethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.55	1.39 ppbV	170738	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	2-Ethylacridine	207	C15H13N	055751-83-2	42
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	38





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

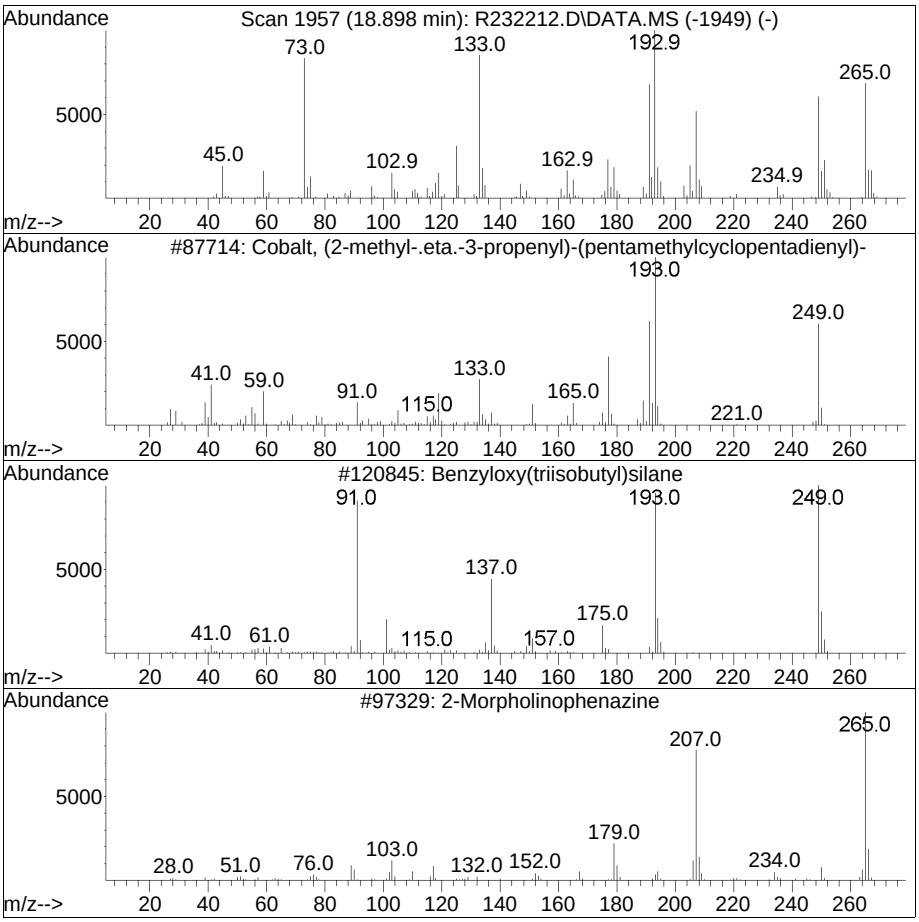
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

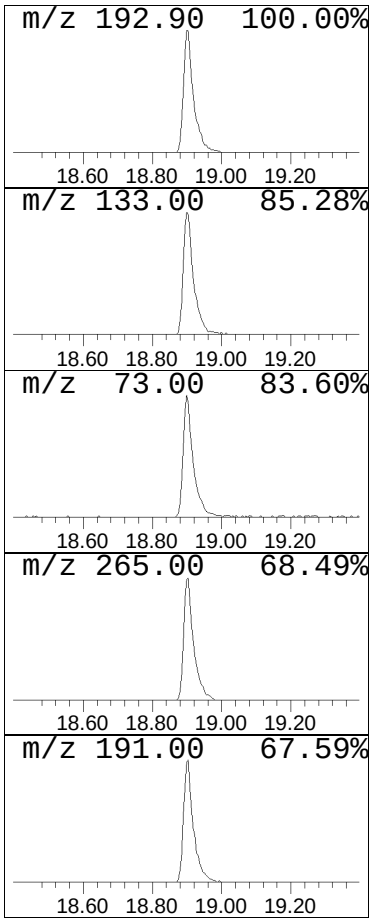
****

Peak Number 2 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.90	3.09 ppbV	380477	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cobalt, (2-methyl-.eta.-3-propen...	249	C14H22Co	1000157-04-3	50
2	Benzyloxy(triisobutyl)silane	306	C19H34OSi	1000282-18-0	22
3	2-Morpholinophenazine	265	C16H15N3O	022316-93-4	15
4	Trisiloxane, 1,1,3,3,5,5-hexamet...	208	C6H20O2Si3	001189-93-1	14
5	6-Methylphenanthridine	193	C14H11N	003955-65-5	11





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232212.D
Acq On : 20 Jan 2015 4:53 pm
Operator : AIRPIANO2:RY
Sample : L1500978-01,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Cyclotrisiloxan...	16.55	1.4	ppbV	170738	3	16.89	1232620	10.0
unknown siloxane	18.90	3.1	ppbV	380477	3	16.89	1232620	10.0

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-02	Date Collected	: 01/15/15 09:50
Client ID	: CR011415-IA-B3	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 02/05/15 03:27
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141382	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
67-66-3	Chloroform	0.54	0.20	--	3	1	--	

Quantitation Report (LSC Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141382.D
Acq On : 05 Feb 2015 03:27 am
Operator : AIRLAB14:MB
Sample : L1500978-02,TIC3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 05 08:17:48 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : Chloroform - .

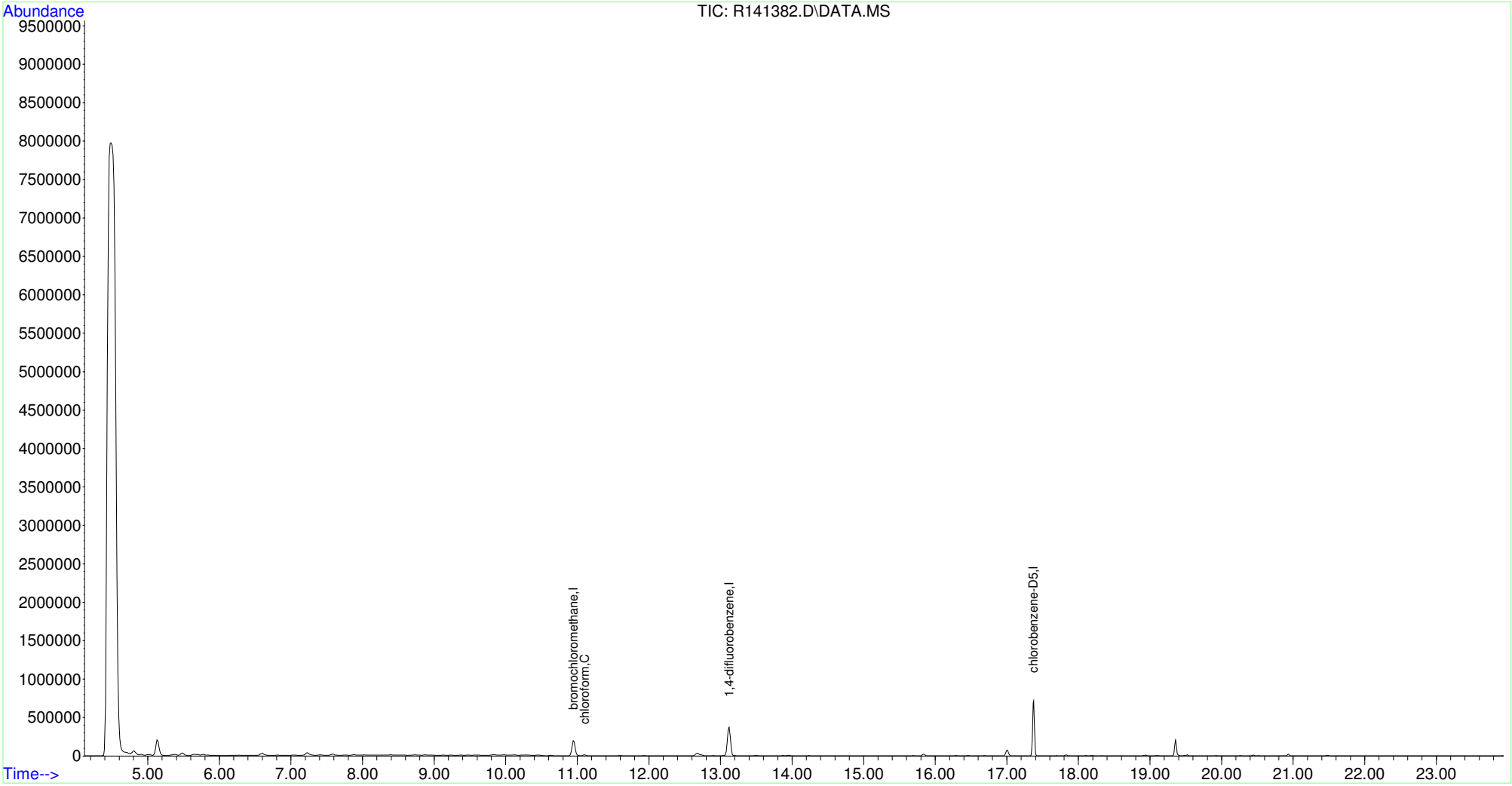
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.94	49	130859	10.000	ppbV	-0.02
Standard Area = 146829			Recovery = 89.12%			
43) 1,4-difluorobenzene	13.12	114	510374	10.000	ppbV	0.00
Standard Area = 519450			Recovery = 98.25%			
67) chlorobenzene-D5	17.37	54	89556	10.000	ppbV	-0.02
Standard Area = 108386			Recovery = 82.63%			
System Monitoring Compounds						
69) toluene-D8	0.00	98	0	0.000	ppbV	
Spiked Amount 10.000	Range 70 - 130		Recovery = 0.00%#			
90) bromofluorobenzene	18.55	95	852	0.029	ppbV	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 0.29%#			
Target Compounds						Qvalue
39) chloroform	11.10	83	16020	0.543	ppbV	99

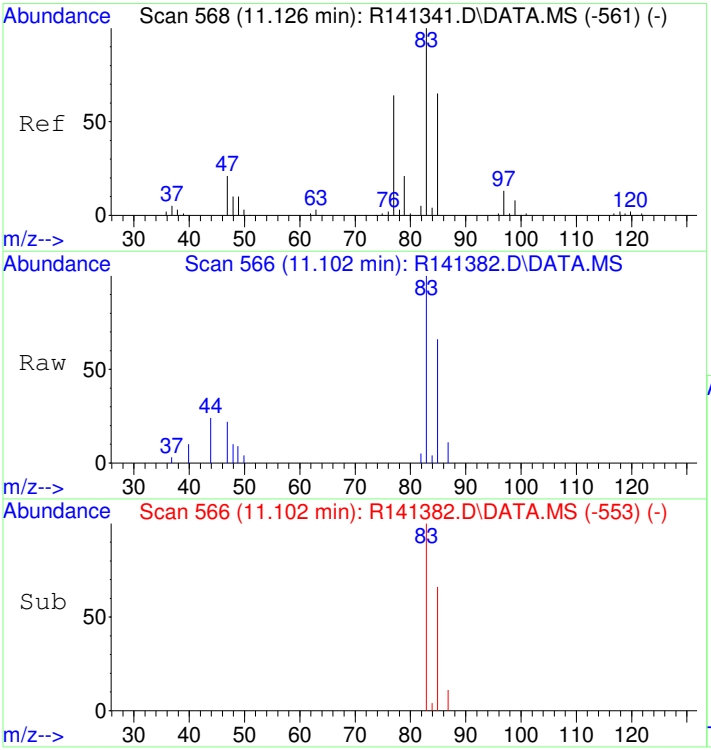
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Chloroform - .ata\Airlab14\2015\150204T\R141368.Dəd)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141382.D
Acq On : 05 Feb 2015 03:27 am
Operator : AIRLAB14:MB
Sample : L1500978-02,TIC3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 05 08:17:48 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

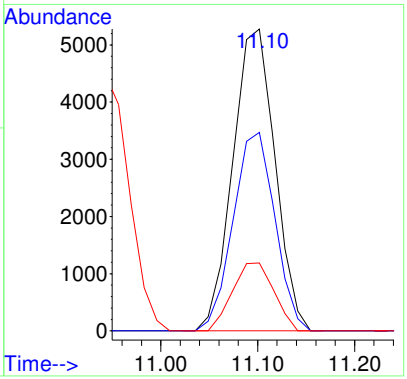




#39
chloroform
Concen: 0.54 ppbV
RT: 11.10 min Scan# 566
Delta R.T. -0.024 min
Lab File: R141382.D
Acq: 05 Feb 2015 03:27 am

Tgt Ion: 83 Resp: 16020

Ion	Ratio	Lower	Upper
83	100		
85	65.7	52.2	78.2
47	22.5	17.2	25.8



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\Airlab14\2015\150204\	QMethod	: TALL150120.M
Data File	: R141382.D	Operator	: AIRLAB14:MB
Date Inj'd	: 2/5/2015 3:27 am	Instrument	: Airlab 14
Sample	: L1500978-02,TIC3,250,250	Quant Date	: 2/5/2015 7:32 am

There are no manual integrations or false positives in this file.

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-03	Date Collected	: 01/15/15 10:13
Client ID	: CR011415-IA-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 17:24
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232213	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.36	0.20	--	2	1	--	
74-87-3	Chloromethane	0.28	0.20	--	0.6	0.4	--	
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	26	2.5	--	49	4.7	--	
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	4.3	1.0	--	10	2.4	--	
75-69-4	Trichlorofluoromethane	0.24	0.20	--	1	1	--	
67-63-0	Isopropanol	3.5	0.50	--	9	1	--	
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	ND	0.20	--	ND	0.6	--	U
76-13-1	Freon-113	ND	0.20	--	ND	2	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	0.29	0.20	--	0.9	0.6	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1.	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-03	Date Collected	: 01/15/15 10:13
Client ID	: CR011415-IA-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 17:24
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232213	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	0.26	0.20	--	0.8	0.6	--	
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	ND	0.20	--	ND	1.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	0.45	0.20	--	2	0.8	--	
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	ND	0.20	--	ND	1.	--	U
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-03	Date Collected	: 01/15/15 10:13
Client ID	: CR011415-IA-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 17:24
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232213	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 21 09:17:39 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	158896	10.000	ppbV	0.00
Standard Area = 180187			Recovery =		88.18%	
43) 1,4-difluorobenzene	12.55	114	415592	10.000	ppbV	0.00
Standard Area = 480871			Recovery =		86.42%	
67) chlorobenzene-D5	16.89	54	95081	10.000	ppbV	0.00
Standard Area = 114070			Recovery =		83.35%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.43	85	8671	0.362	ppbV	99
6) chloromethane	4.66	50	3094M6	0.285	ppbV	
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	5.18	54	1441	0.154	ppbV	80
13) bromomethane	5.54		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.01	31	210908	26.454	ppbV	99
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.65	43	73651	4.275	ppbV #	94
21) trichlorofluoromethane	6.85	101	6510	0.236	ppbV	93
22) isopropyl alcohol	6.99	45	70037	3.484	ppbV	99
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.79	59	1328	0.055	ppbV #	1
28) methylene chloride	7.84	49	3486	0.234	ppbV	86
29) 3-chloropropene	7.99		0	N.D.		
30) carbon disulfide	8.17		0	N.D.		
31) Freon 113	8.17	101	2017	0.089	ppbV #	84
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
36) 2-butanone	9.73	43	7845	0.290	ppbV	95
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.53		0	N.D.		
40) Tetrahydrofuran	0.00		0	N.D.	d	
42) 1,2-dichloroethane	11.36		0	N.D.		
44) hexane	10.44	57	2472	0.124	ppbV #	4
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 21 09:17:39 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50)	benzene	12.16	78	9100	0.260	ppbV		93
52)	carbon tetrachloride	12.33	117	2095	0.079	ppbV		92
53)	cyclohexane	12.47	56	3899	0.194	ppbV	#	86
56)	1,2-dichloropropane	0.00		0	N.D.			
57)	bromodichloromethane	0.00		0	N.D.			
58)	1,4-dioxane	0.00		0	N.D.			
59)	trichloroethene	0.00		0	N.D.			
60)	2,2,4-trimethylpentane	13.38	57	11930	0.188	ppbV	#	98
61)	methyl methacrylate	0.00		0	N.D.	d		
62)	heptane	13.66	43	2761	0.110	ppbV	#	89
63)	cis-1,3-dichloropropene	0.00		0	N.D.			
64)	4-methyl-2-pentanone	14.29		0	N.D.			
65)	trans-1,3-dichloropropene	0.00		0	N.D.			
66)	1,1,2-trichloroethane	0.00		0	N.D.			
68)	toluene	15.32	91	23742	0.447	ppbV		92
74)	dibromochloromethane	0.00		0	N.D.			
75)	1,2-dibromoethane	0.00		0	N.D.			
78)	tetrachloroethene	16.36		0	N.D.			
80)	chlorobenzene	0.00		0	N.D.			
81)	ethylbenzene	17.22	91	4836	0.092	ppbV		98
83)	m+p-xylene	17.35	91	12186	0.293	ppbV		97
84)	bromoform	0.00		0	N.D.			
85)	styrene	17.64		0	N.D.			
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.			
87)	o-xylene	17.72	91	5024	0.119	ppbV		96
93)	2-chlorotoluene	0.00		0	N.D.			
96)	4-ethyl toluene	18.64		0	N.D.			
97)	1,3,5-trimethylbenzene	18.69		0	N.D.			
99)	1,2,4-trimethylbenzene	19.00	105	3883	0.081	ppbV	#	47
102)	1,3-dichlorobenzene	0.00		0	N.D.	d		
103)	1,4-dichlorobenzene	19.18		0	N.D.			
107)	1,2-dichlorobenzene	0.00		0	N.D.			
115)	1,2,4-trichlorobenzene	0.00		0	N.D.			
119)	hexachlorobutadiene	0.00		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 21 09:17:39 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

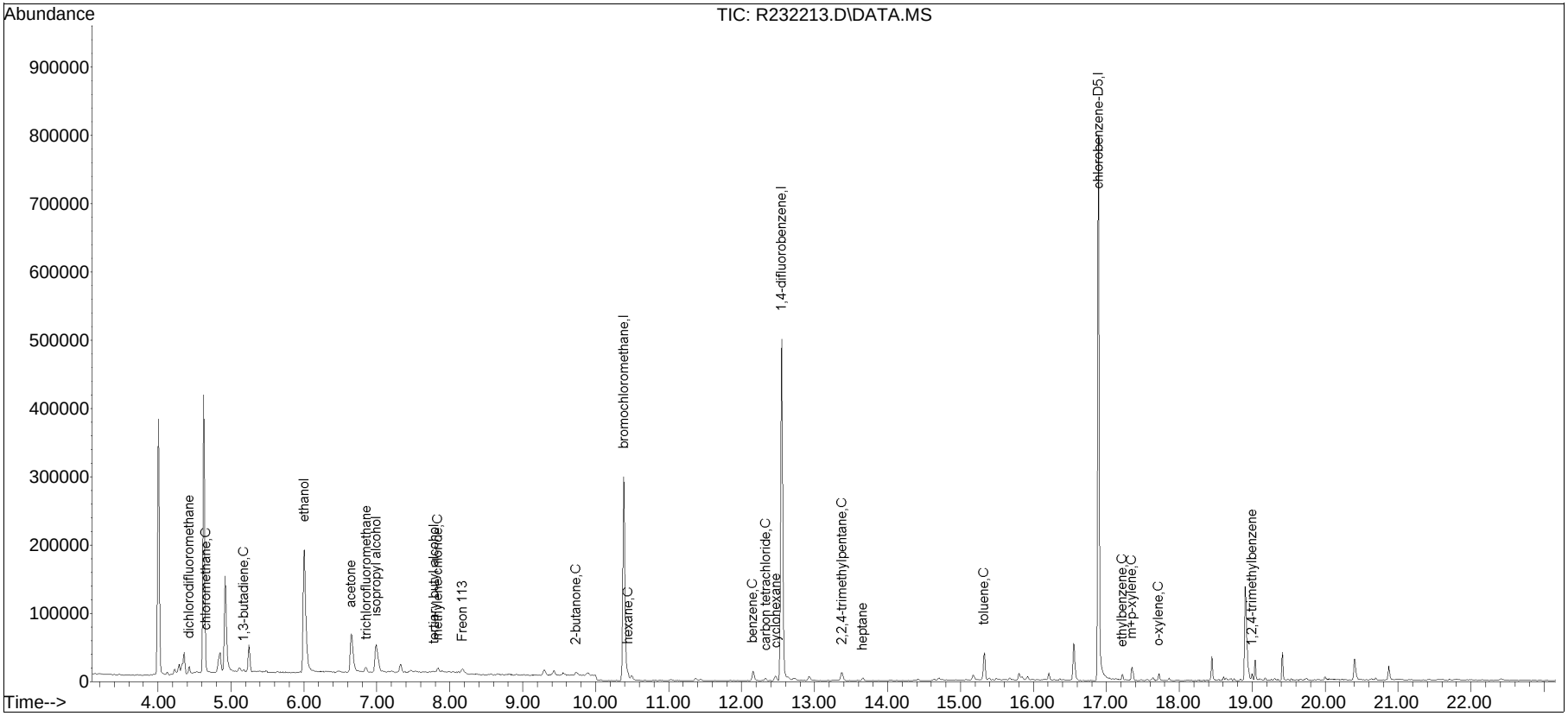
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

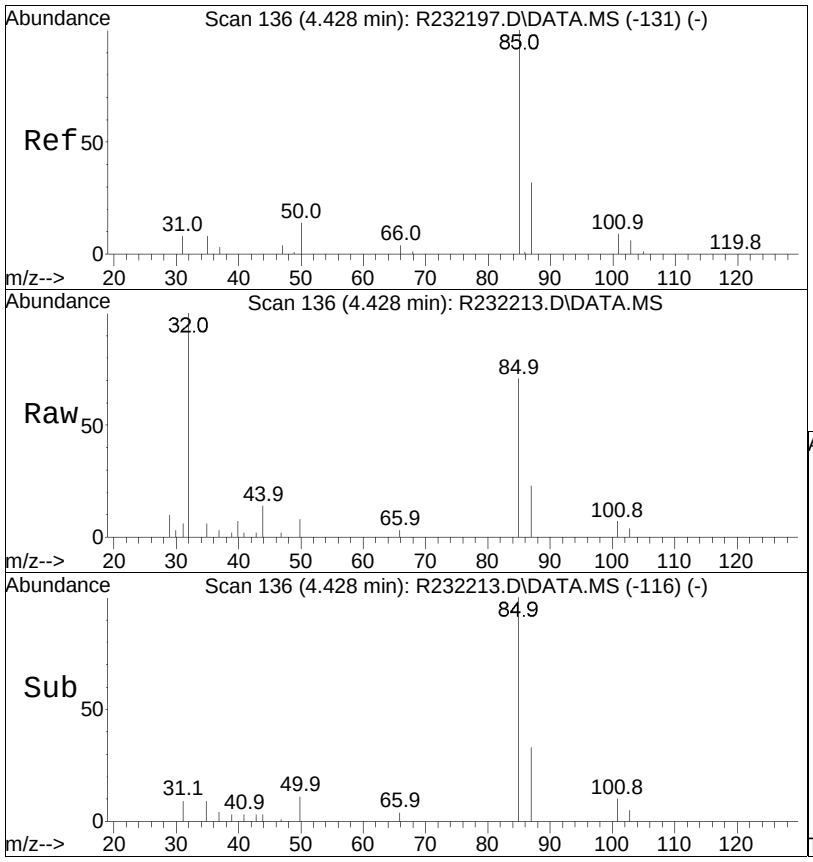
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 21 09:17:39 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\AIR2\2015\150120T\R232206.D

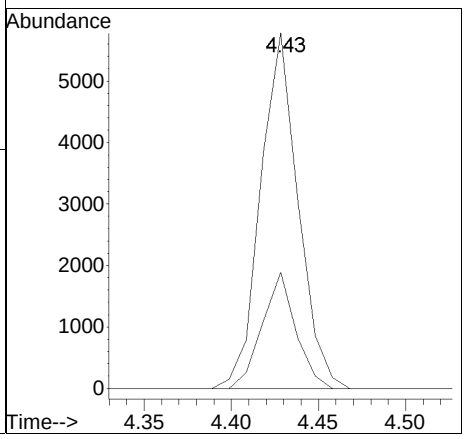


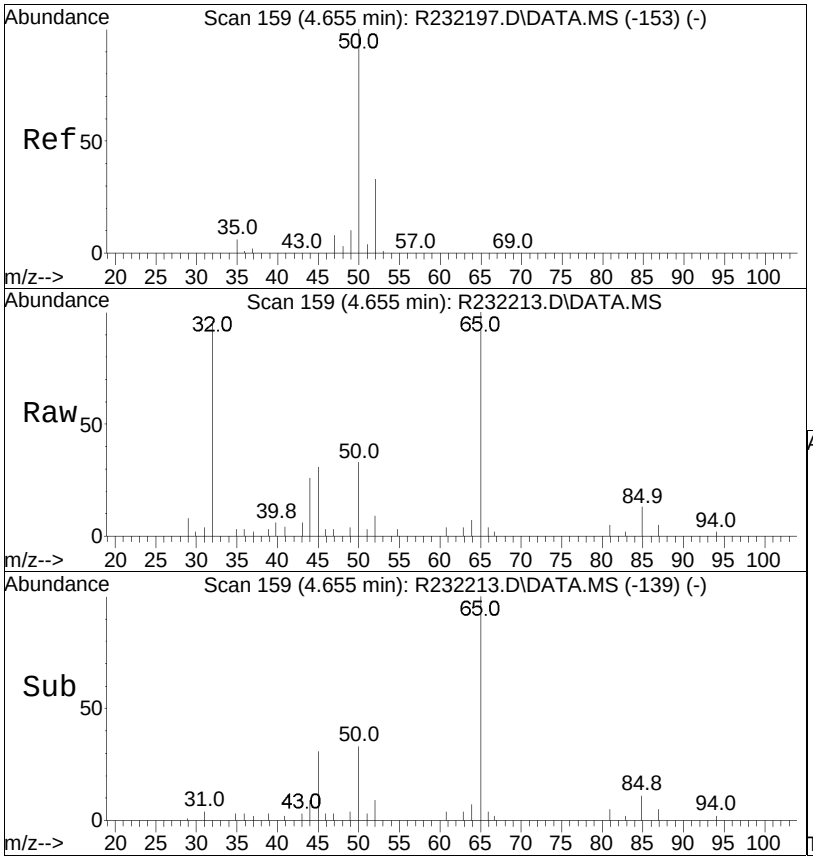


#5
dichlorodifluoromethane
Concen: 0.36 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 85 Resp: 8671

Ion	Ratio	Lower	Upper
85	100		
87	32.7	25.5	38.3

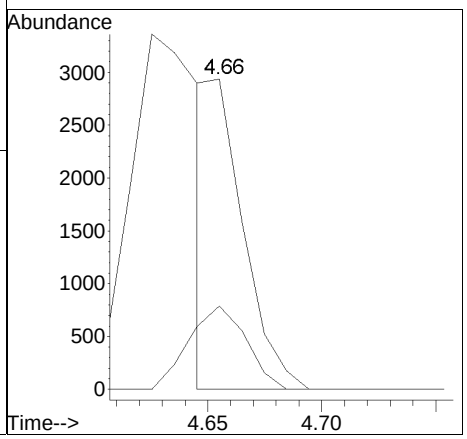


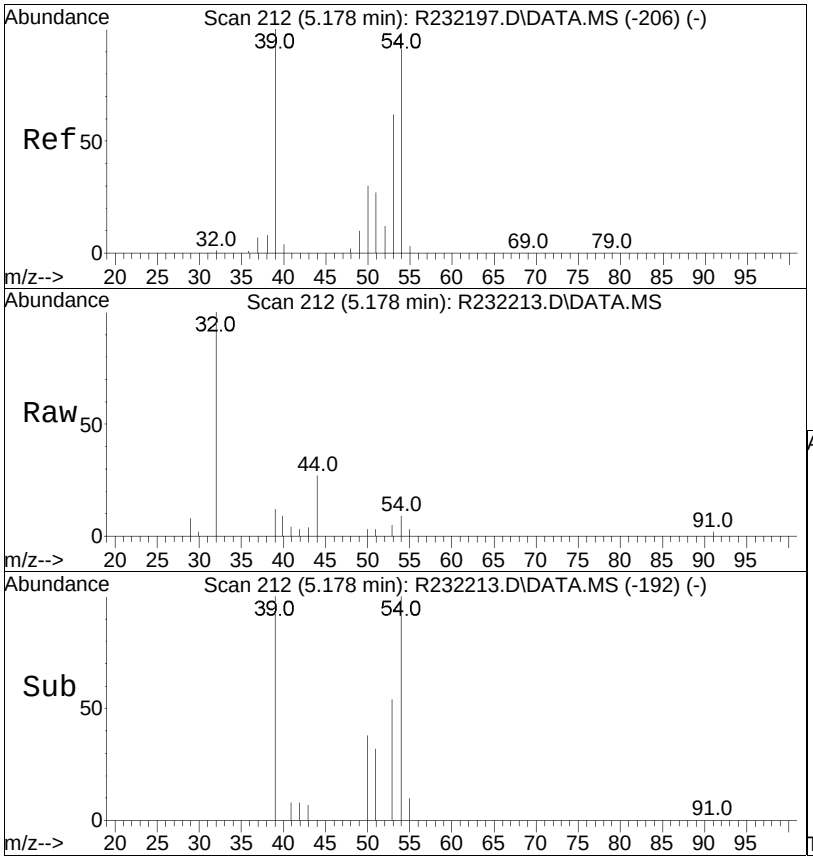


#6
chloromethane
Concen: 0.29 ppbV m
RT: 4.66 min Scan# 159
Delta R.T. -0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 50 Resp: 3094

Ion	Ratio	Lower	Upper
50	100		
52	26.9	26.5	39.7

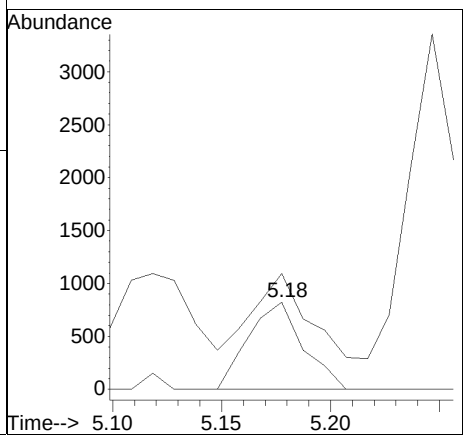


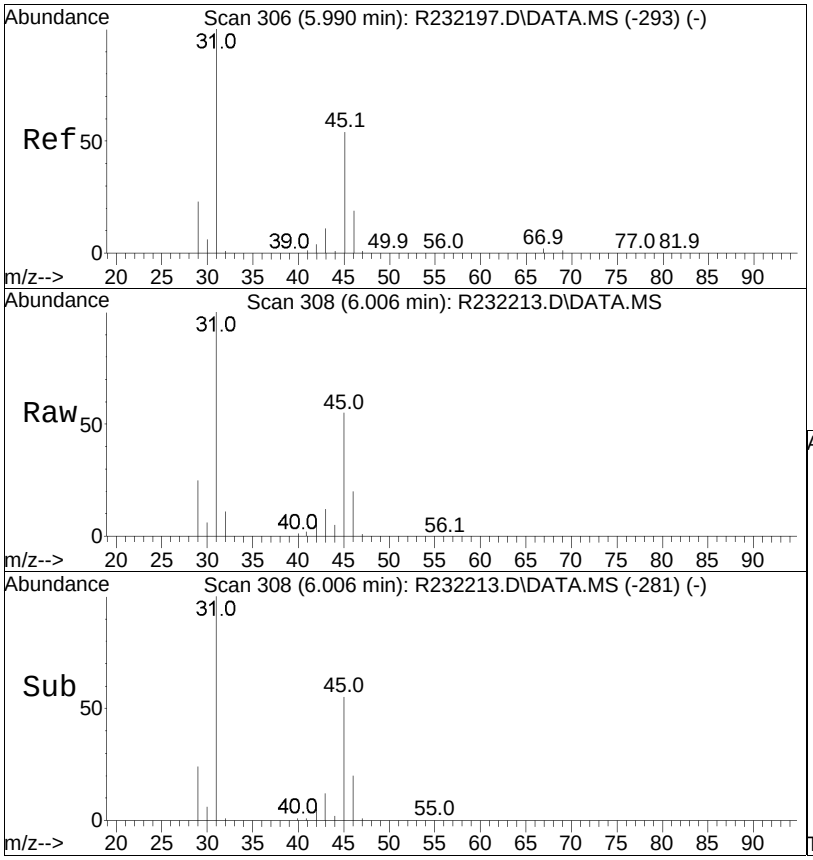


#10
1,3-butadiene
Concen: 0.15 ppbV
RT: 5.18 min Scan# 212
Delta R.T. 0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 54 Resp: 1441

Ion	Ratio	Lower	Upper
54	100		
39	132.9	89.6	134.4

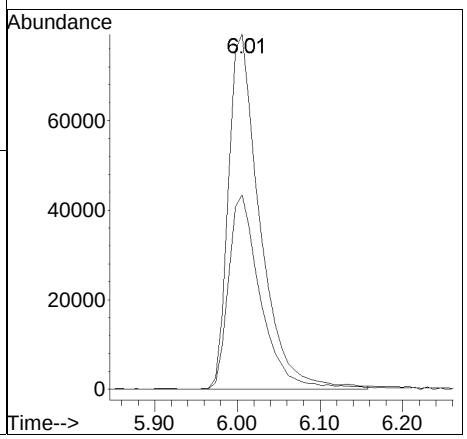


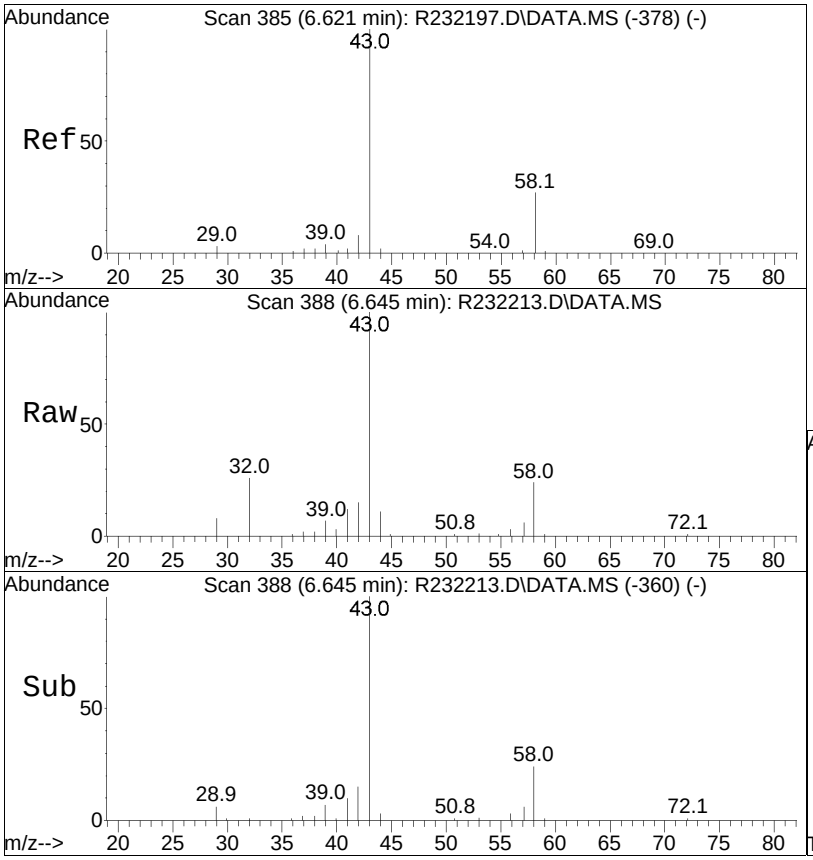


#15
ethanol
Concen: 26.45 ppbV
RT: 6.01 min Scan# 308
Delta R.T. 0.016 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 31 Resp: 210908

Ion	Ratio	Lower	Upper
31	100		
45	54.8	43.2	64.8

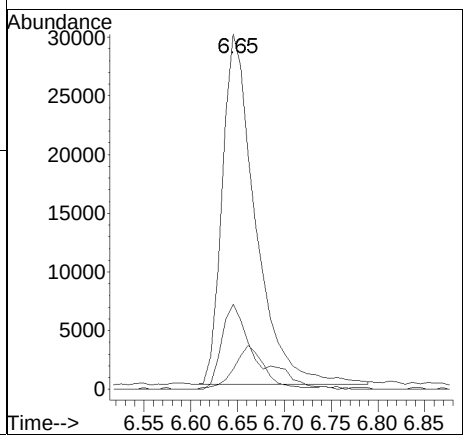


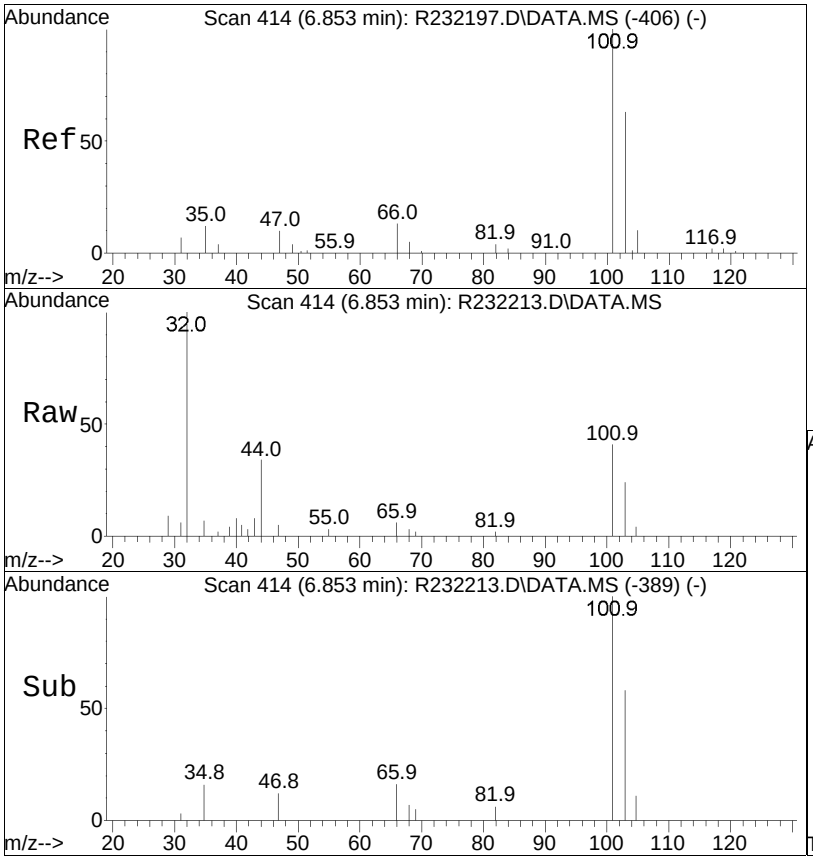


#19
acetone
Concen: 4.27 ppbV
RT: 6.65 min Scan# 388
Delta R.T. 0.024 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 43 Resp: 73651

Ion	Ratio	Lower	Upper
43	100		
58	24.0	21.8	32.8
57	5.7	0.7	1.1#

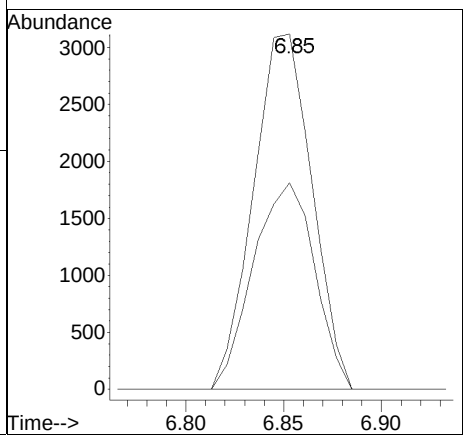


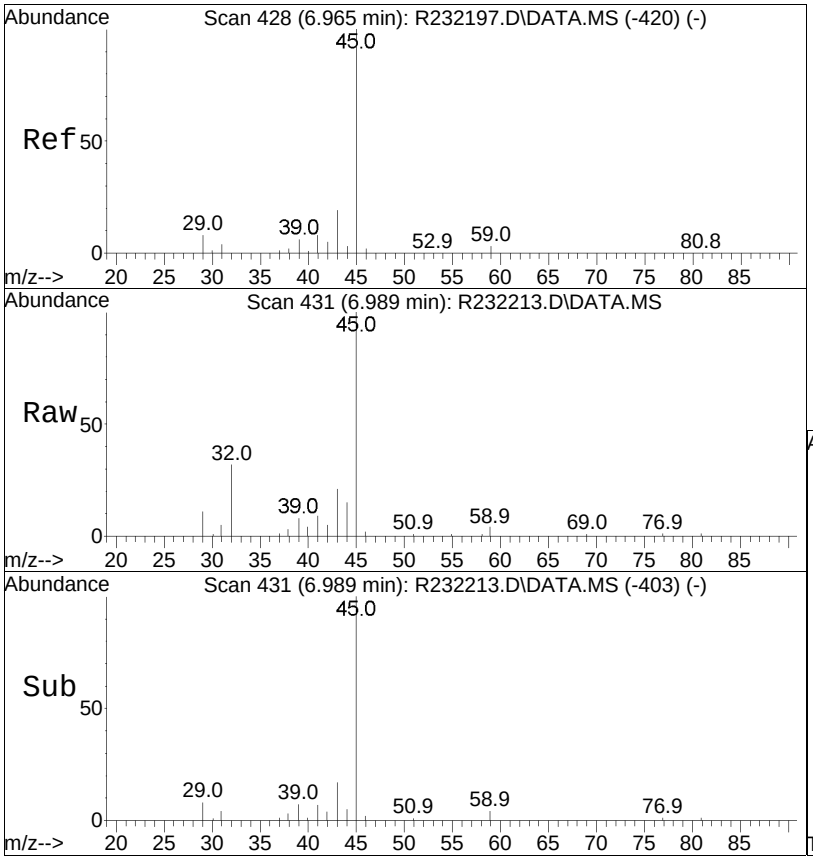


#21
trichlorofluoromethane
Concen: 0.24 ppbV
RT: 6.85 min Scan# 414
Delta R.T. 0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion:101 Resp: 6510

Ion	Ratio	Lower	Upper
101	100		
103	58.1	50.7	76.1

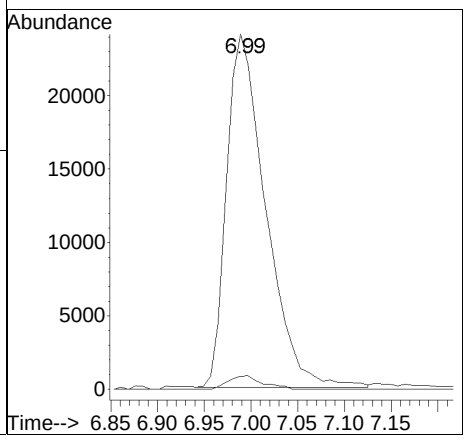


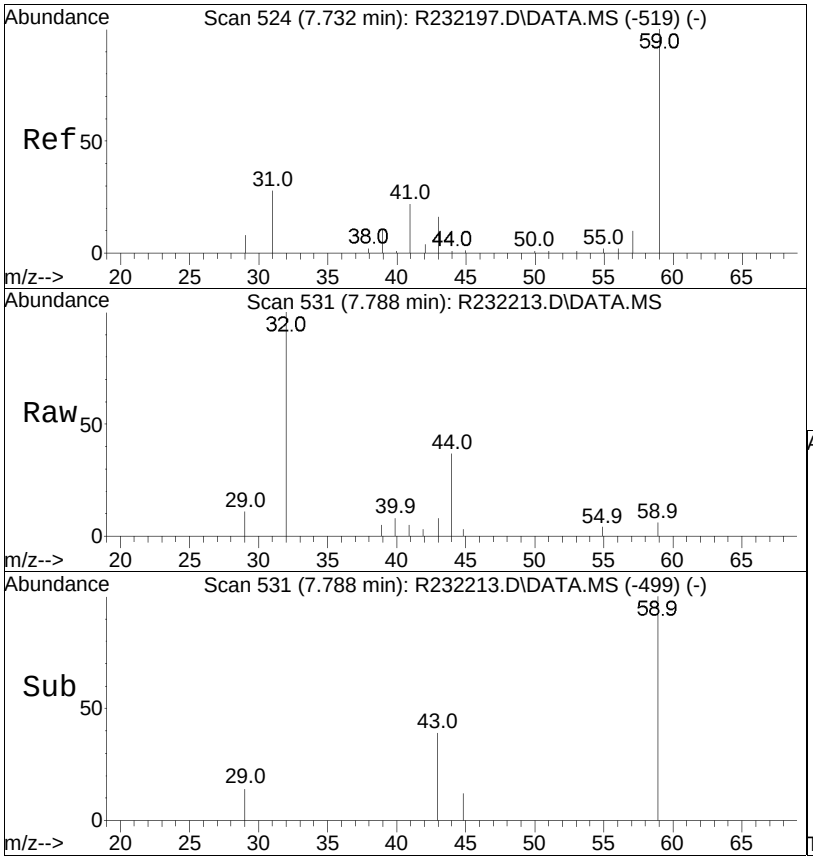


#22
isopropyl alcohol
Concen: 3.48 ppbV
RT: 6.99 min Scan# 431
Delta R.T. 0.024 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 45 Resp: 70037

Ion	Ratio	Lower	Upper
45	100		
59	3.7	2.7	4.1

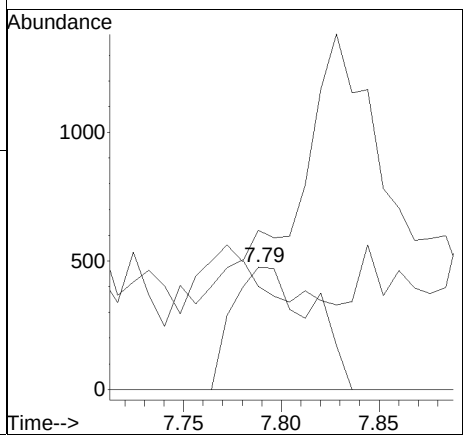


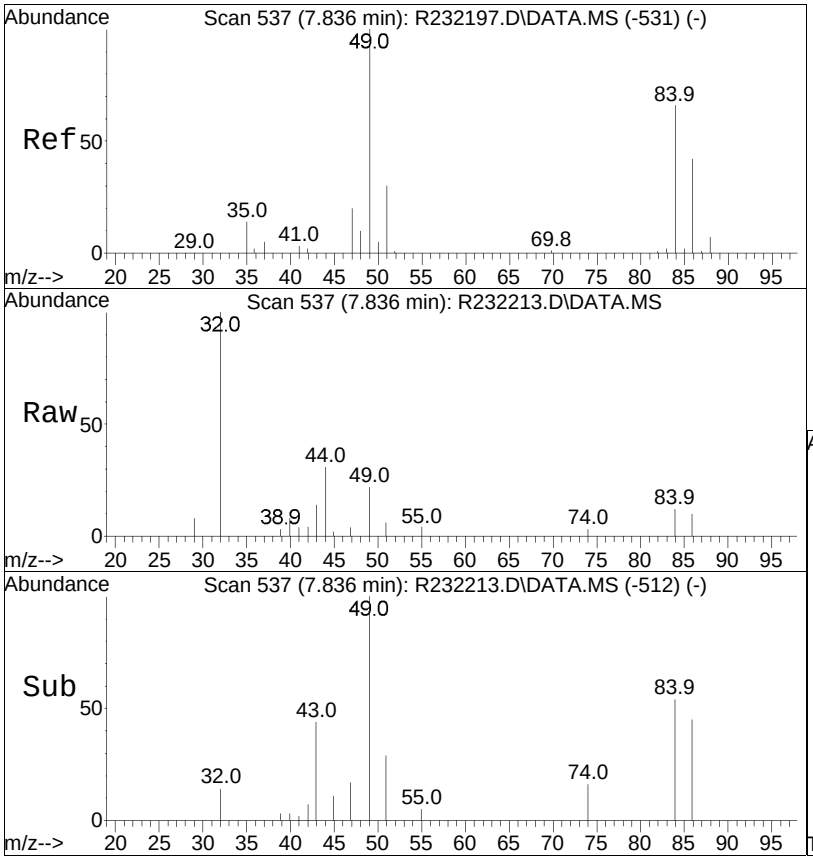


#27
tertiary butyl alcohol
Concen: 0.06 ppbV
RT: 7.79 min Scan# 531
Delta R.T. 0.056 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 59 Resp: 1328

Ion	Ratio	Lower	Upper
59	100		
41	84.4	17.4	26.2#
43	130.3	13.2	19.8#

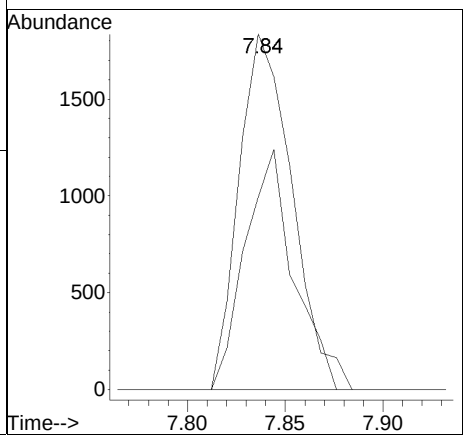


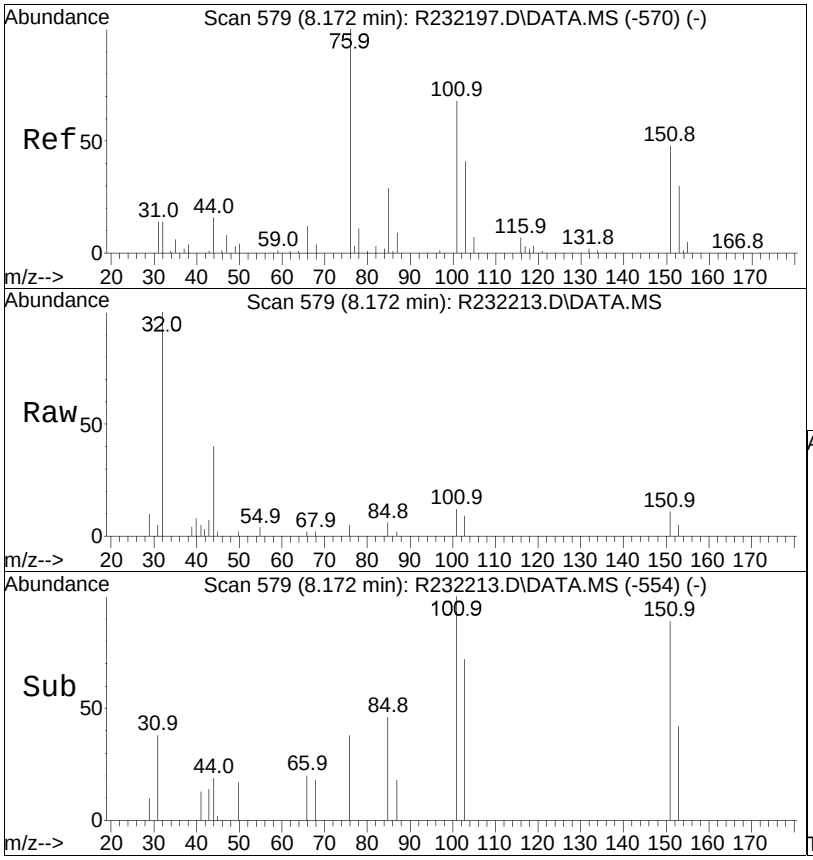


#28
methylene chloride
Concen: 0.23 ppbV
RT: 7.84 min Scan# 537
Delta R.T. -0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 49 Resp: 3486

Ion	Ratio	Lower	Upper
49	100		
84	54.2	52.4	78.6

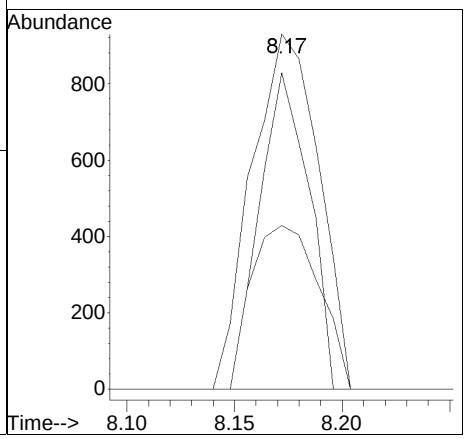


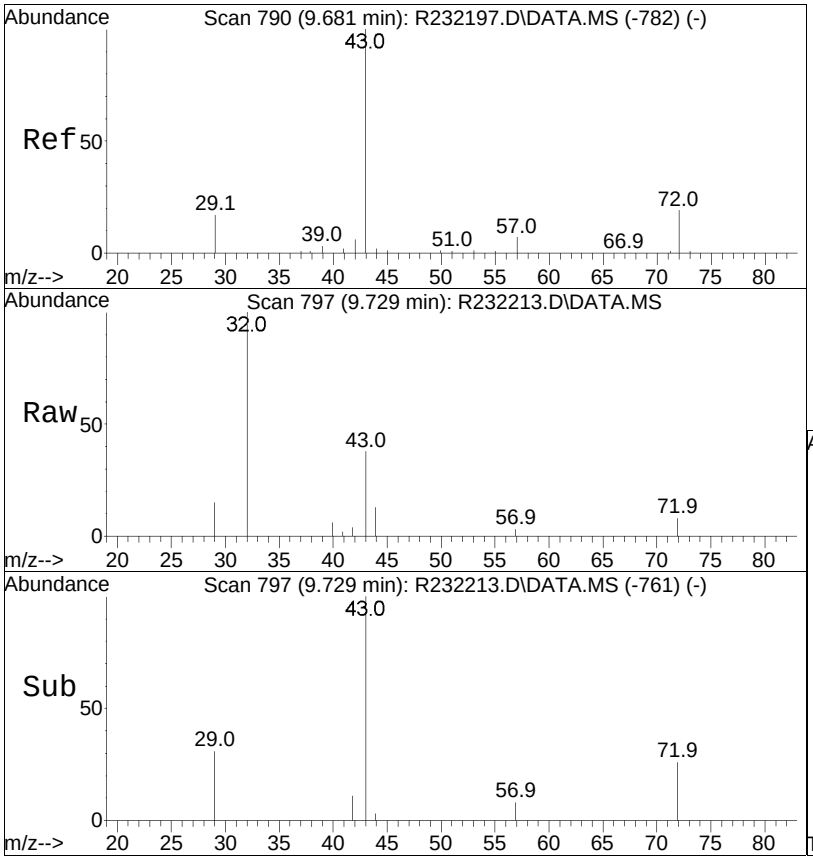


#31
Freon 113
Concen: 0.09 ppbV
RT: 8.17 min Scan# 579
Delta R.T. -0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion:101 Resp: 2017

Ion	Ratio	Lower	Upper
101	100		
85	46.1	34.3	51.5
151	89.0	56.0	84.0#

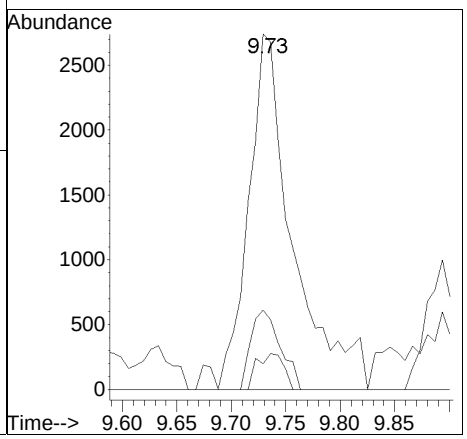


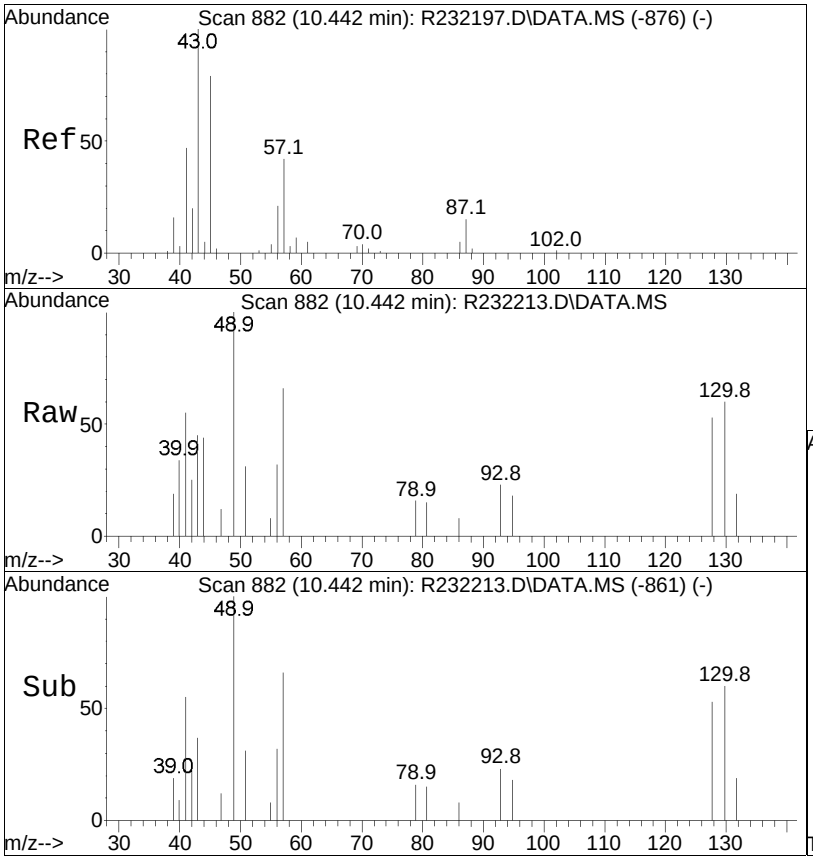


#36
2-butanone
Concen: 0.29 ppbV
RT: 9.73 min Scan# 797
Delta R.T. 0.048 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 43 Resp: 7845

Ion	Ratio	Lower	Upper
43	100		
72	22.4	15.5	23.3
57	7.3	5.4	8.0

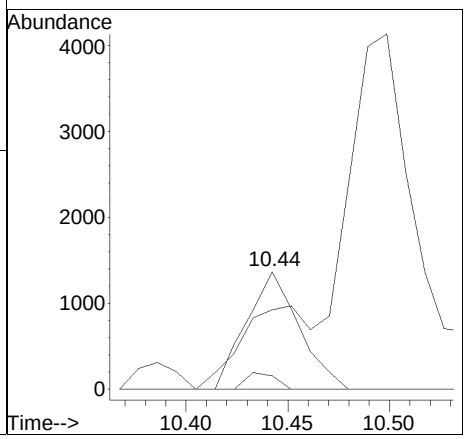


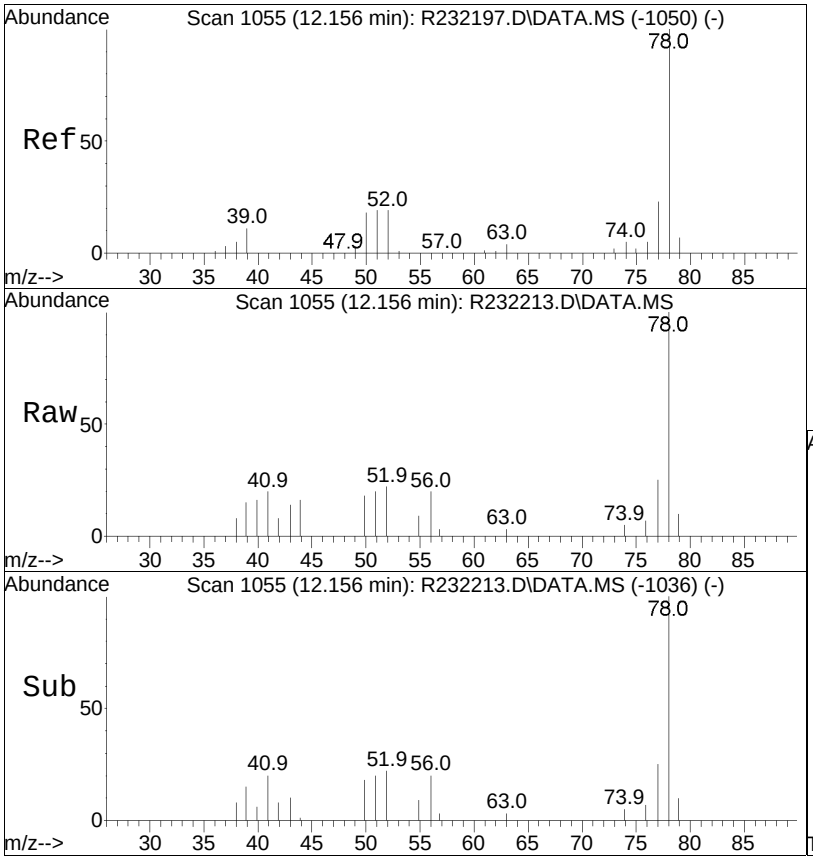


#44
hexane
Concen: 0.12 ppbV
RT: 10.44 min Scan# 882
Delta R.T. -0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 57 Resp: 2472

Ion	Ratio	Lower	Upper
57	100		
43	67.8	191.0	286.4#
86	11.6	9.4	14.0

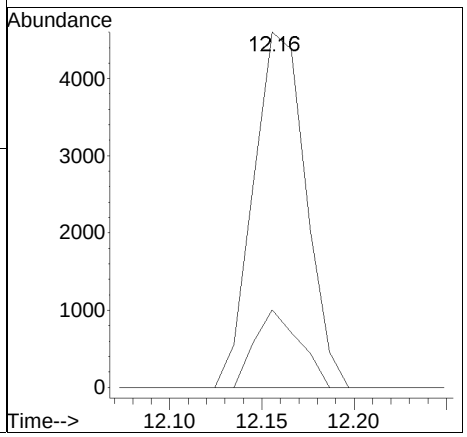


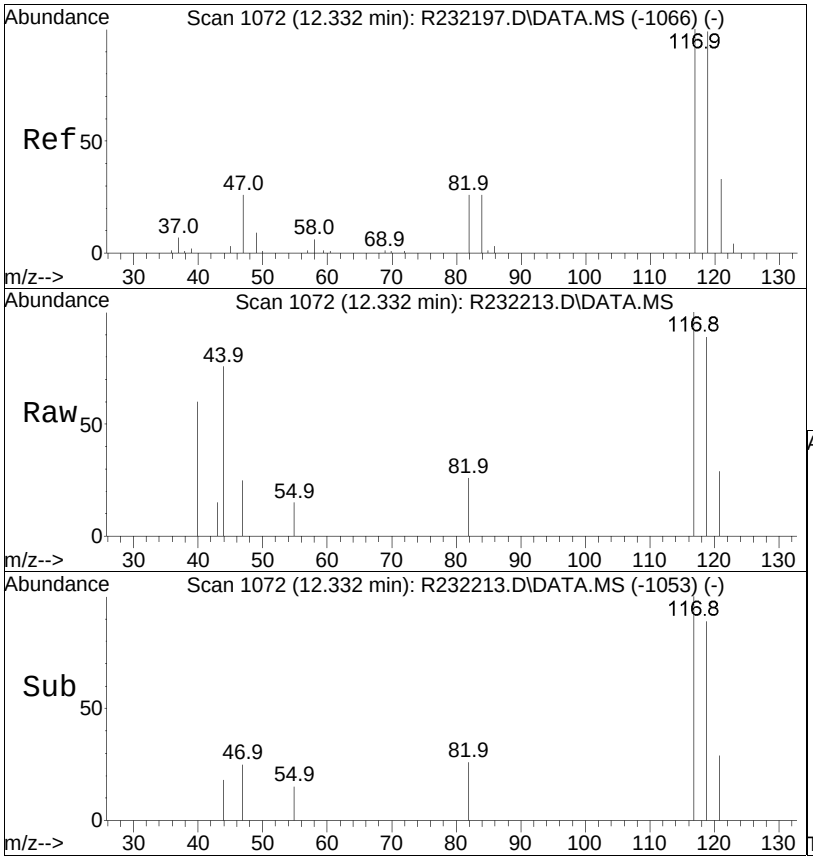


#50
benzene
Concen: 0.26 ppbV
RT: 12.16 min Scan# 1055
Delta R.T. 0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 78 Resp: 9100

Ion	Ratio	Lower	Upper
78	100		
52	21.8	14.9	22.3

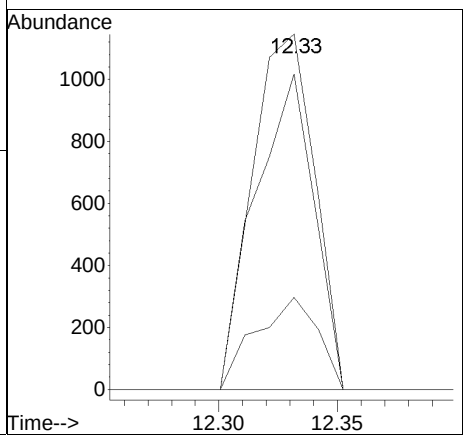


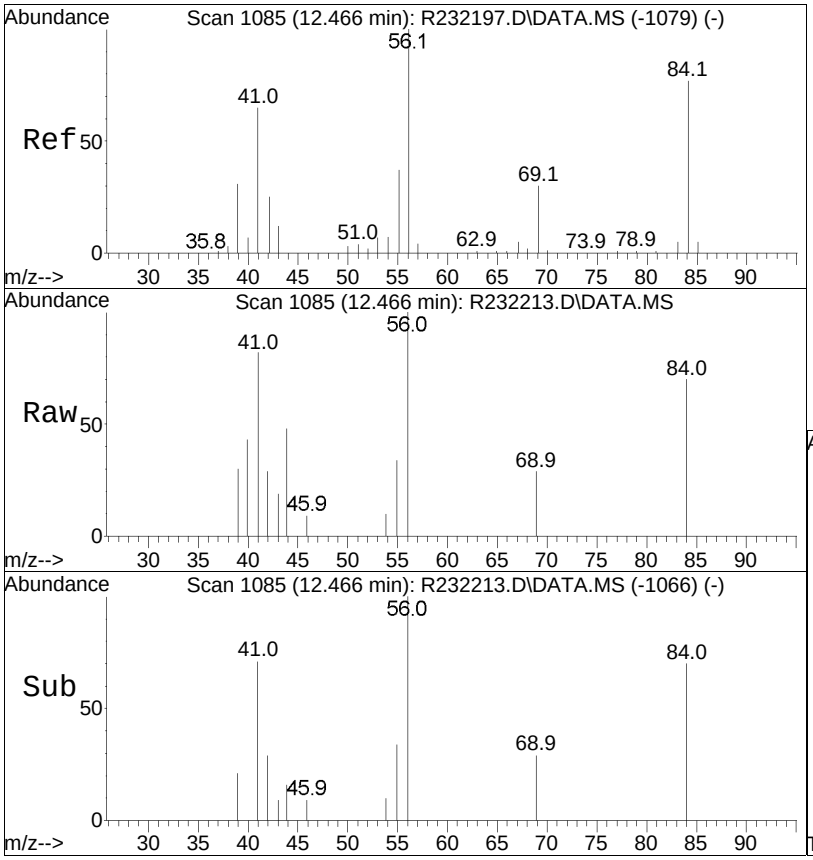


#52
carbon tetrachloride
Concen: 0.08 ppbV
RT: 12.33 min Scan# 1072
Delta R.T. -0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion:117 Resp: 2095

Ion	Ratio	Lower	Upper
117	100		
119	88.7	79.2	118.8
82	25.9	20.5	30.7

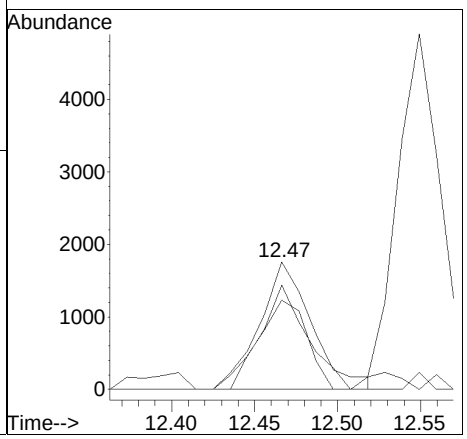


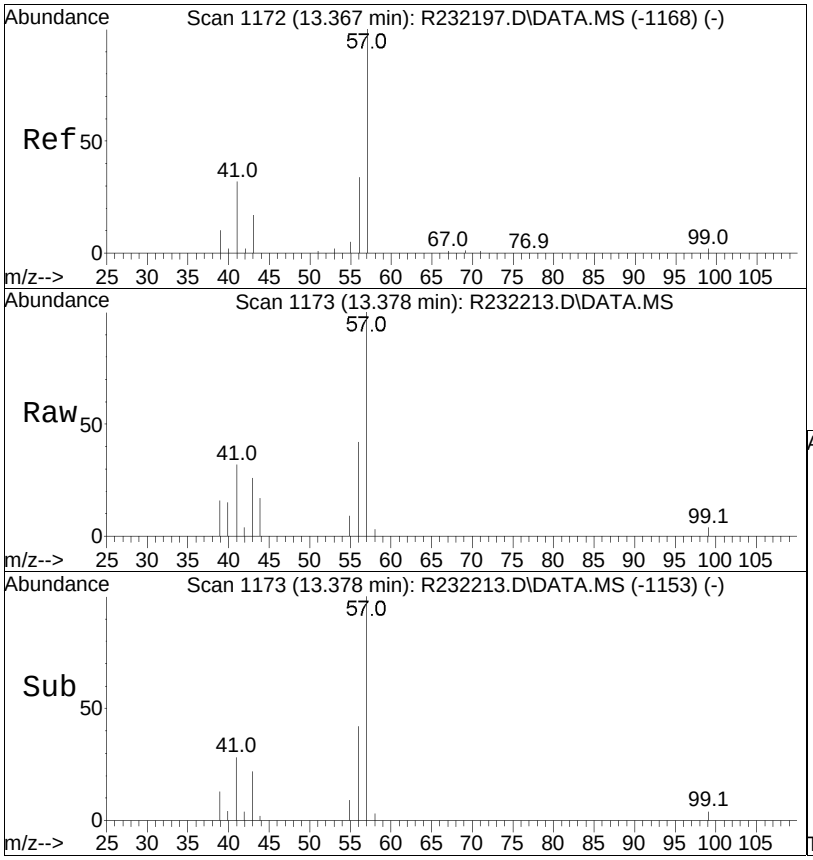


#53
cyclohexane
Concen: 0.19 ppbV
RT: 12.47 min Scan# 1085
Delta R.T. 0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 56 Resp: 3899

Ion	Ratio	Lower	Upper
56	100		
84	70.0	61.5	92.3
41	81.8	52.0	78.0#

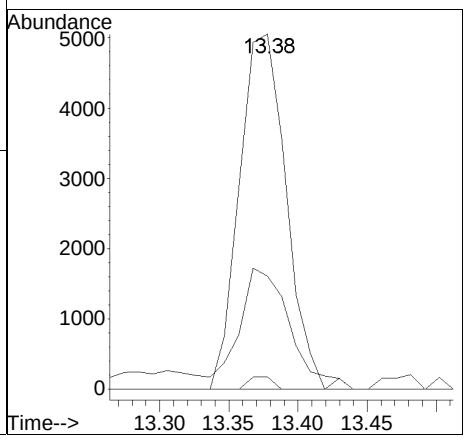


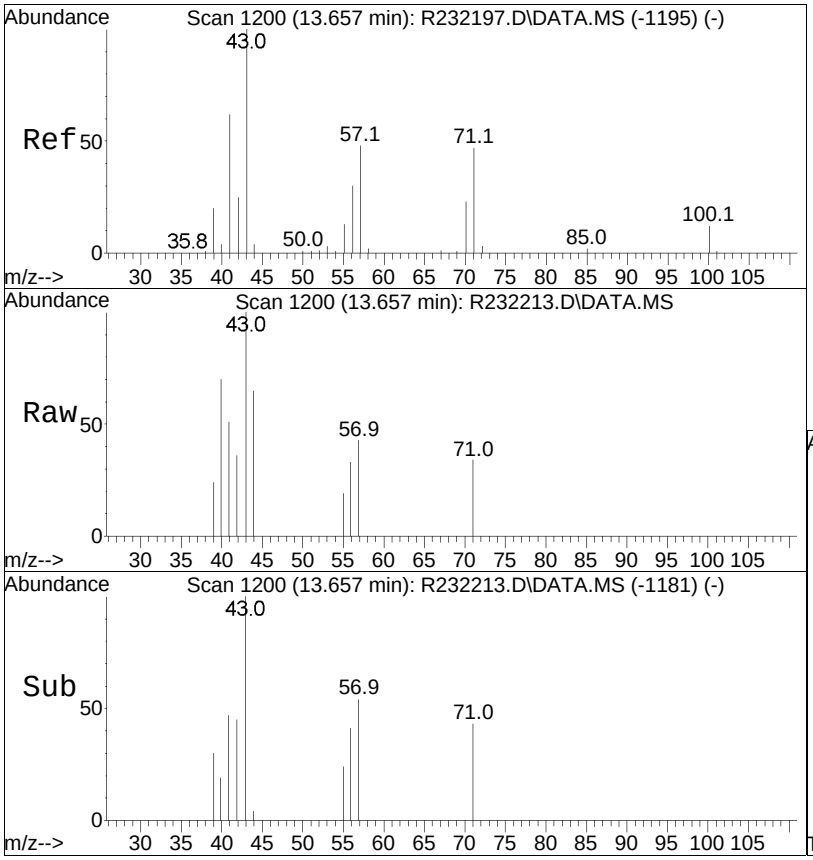


#60
2,2,4-trimethylpentane
Concen: 0.19 ppbV
RT: 13.38 min Scan# 1173
Delta R.T. 0.010 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 57 Resp: 11930

Ion	Ratio	Lower	Upper
57	100		
99	3.6	3.8	5.8#
41	31.9	24.9	37.3

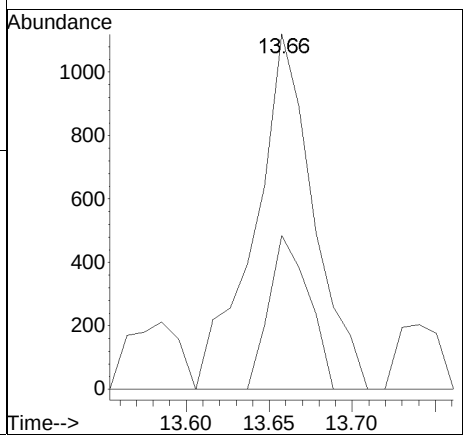


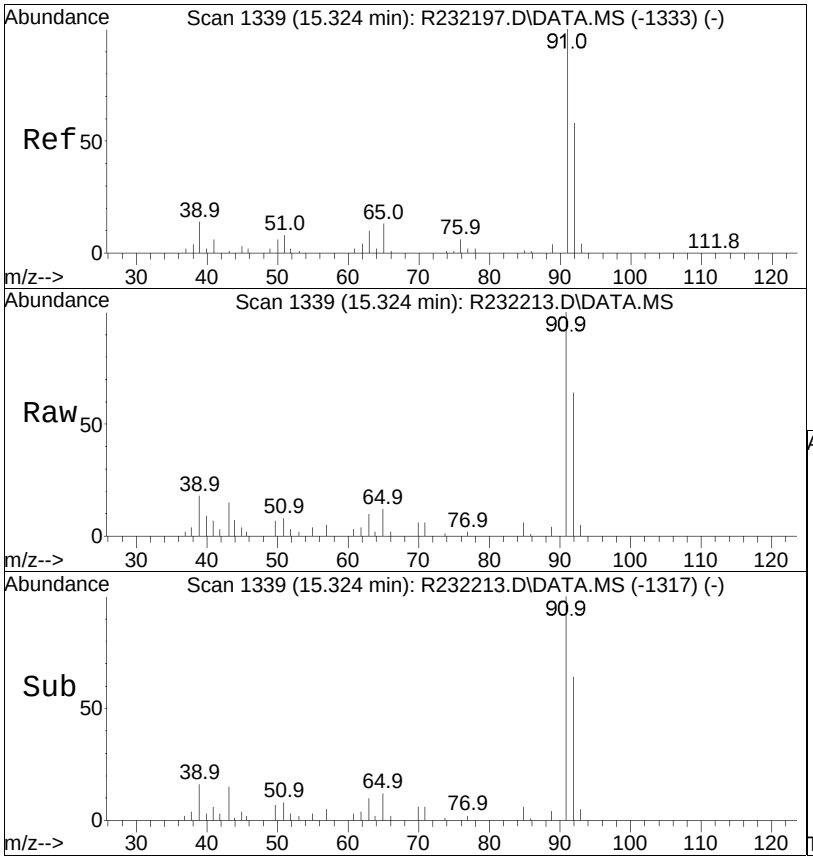


#62
heptane
Concen: 0.11 ppbV
RT: 13.66 min Scan# 1200
Delta R.T. 0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 43 Resp: 2761

Ion	Ratio	Lower	Upper
43	100		
57	43.3	38.0	57.0
100	0.0	9.8	14.8#

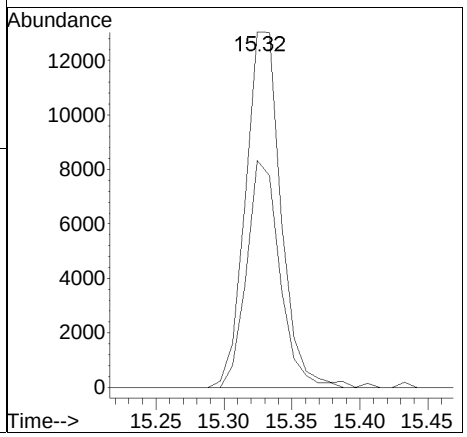


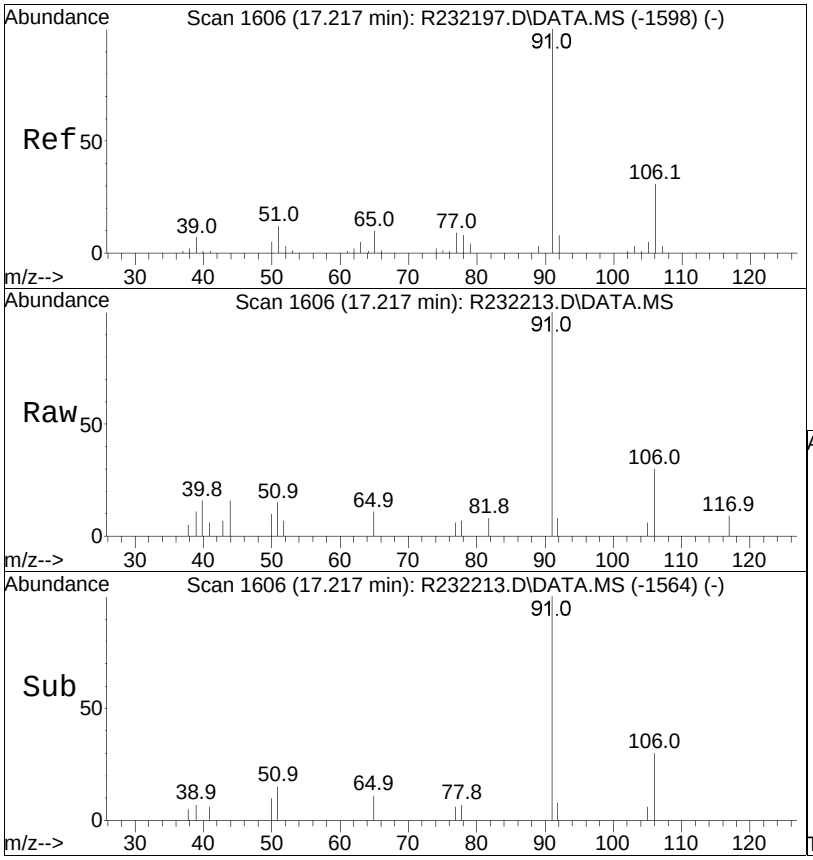


#68
toluene
Concen: 0.45 ppbV
RT: 15.32 min Scan# 1339
Delta R.T. 0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 91 Resp: 23742

Ion	Ratio	Lower	Upper
91	100		
92	63.9	46.5	69.7

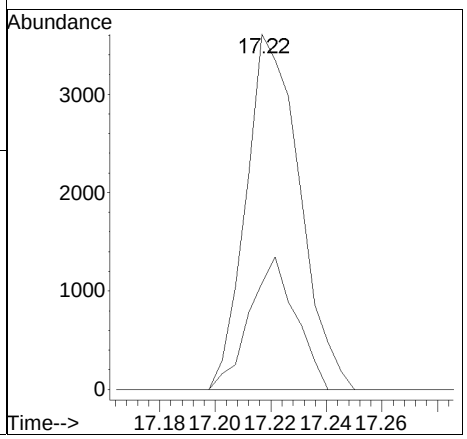


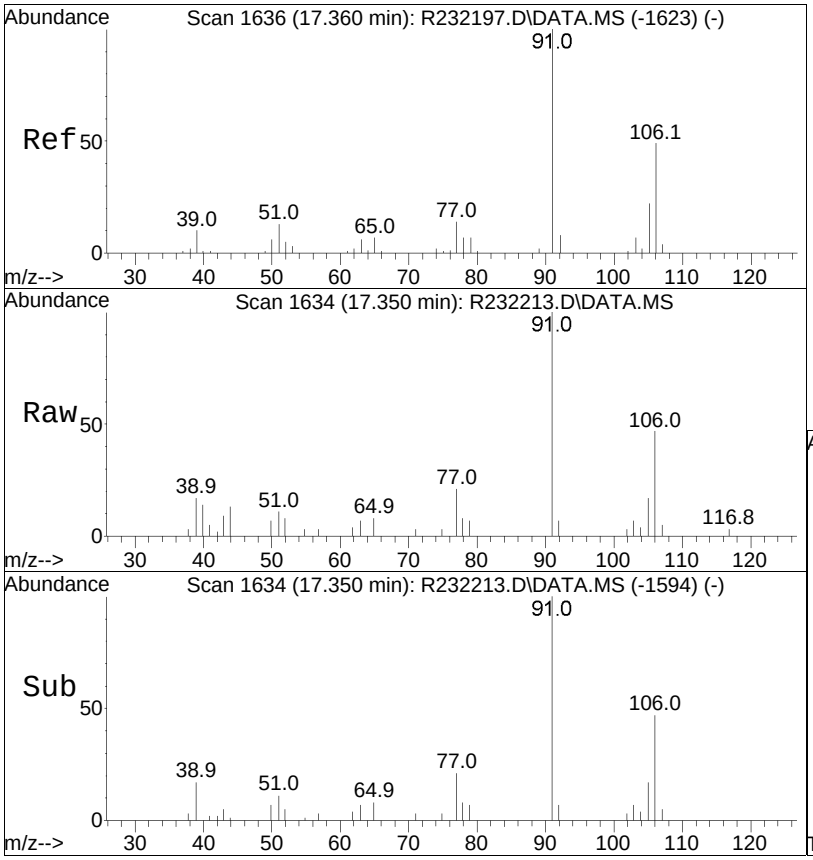


#81
ethylbenzene
Concen: 0.09 ppbV
RT: 17.22 min Scan# 1606
Delta R.T. -0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 91 Resp: 4836

Ion	Ratio	Lower	Upper
91	100		
106	29.9	25.0	37.6

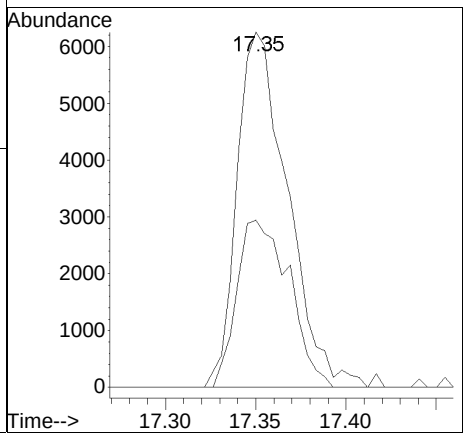


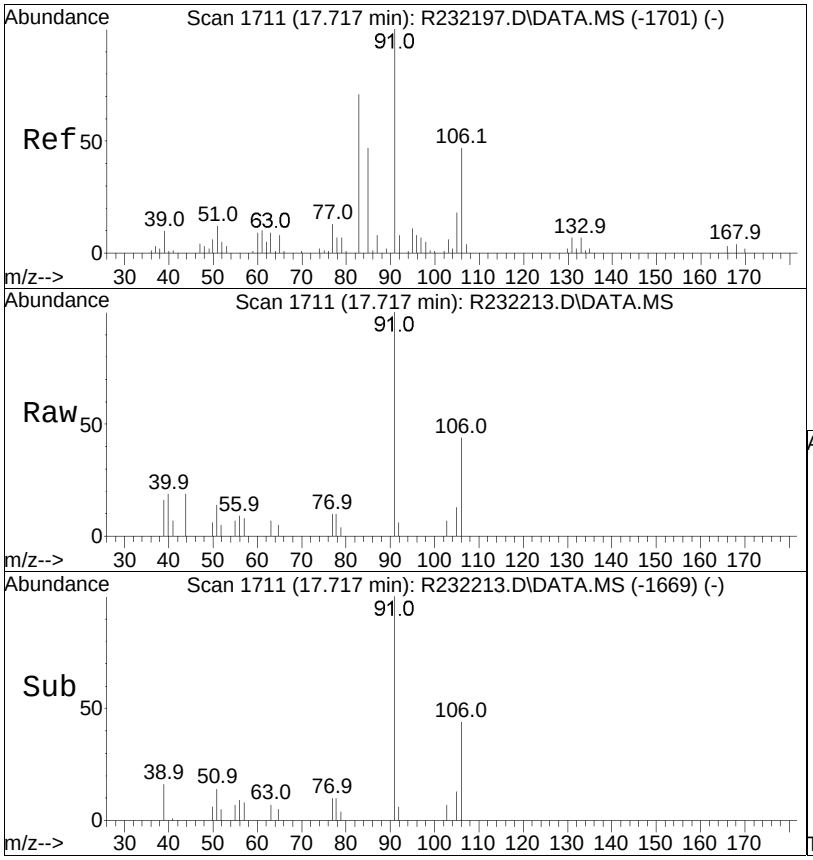


#83
m+p-xylene
Concen: 0.29 ppbV
RT: 17.35 min Scan# 1634
Delta R.T. -0.010 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 91 Resp: 12186

Ion	Ratio	Lower	Upper
91	100		
106	47.1	39.4	59.2

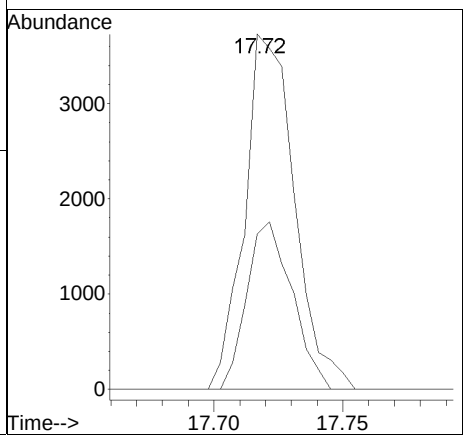


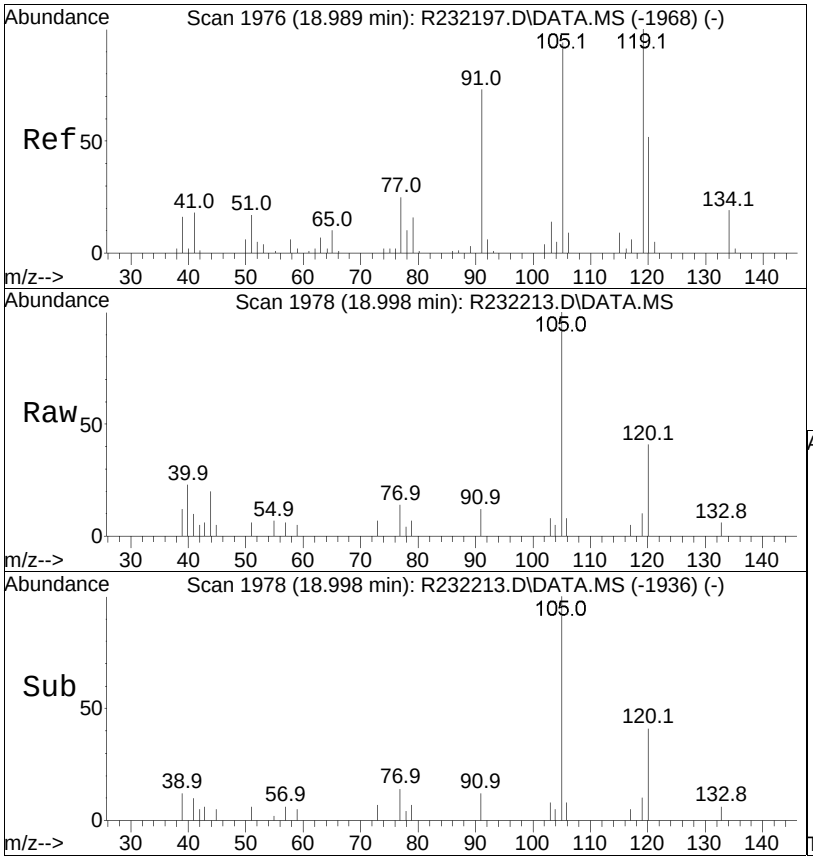


#87
o-xylene
Concen: 0.12 ppbV
RT: 17.72 min Scan# 1711
Delta R.T. -0.000 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion: 91 Resp: 5024

Ion	Ratio	Lower	Upper
91	100		
106	43.7	37.3	55.9

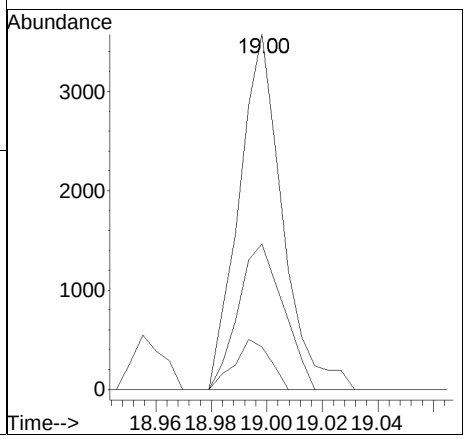




#99
1,2,4-trimethylbenzene
Concen: 0.08 ppbV
RT: 19.00 min Scan# 1978
Delta R.T. 0.010 min
Lab File: R232213.D
Acq: 20 Jan 2015 5:24 pm

Tgt Ion:105 Resp: 3883

Ion	Ratio	Lower	Upper
105	100		
120	41.0	44.3	66.5#
91	12.0	62.4	93.6#

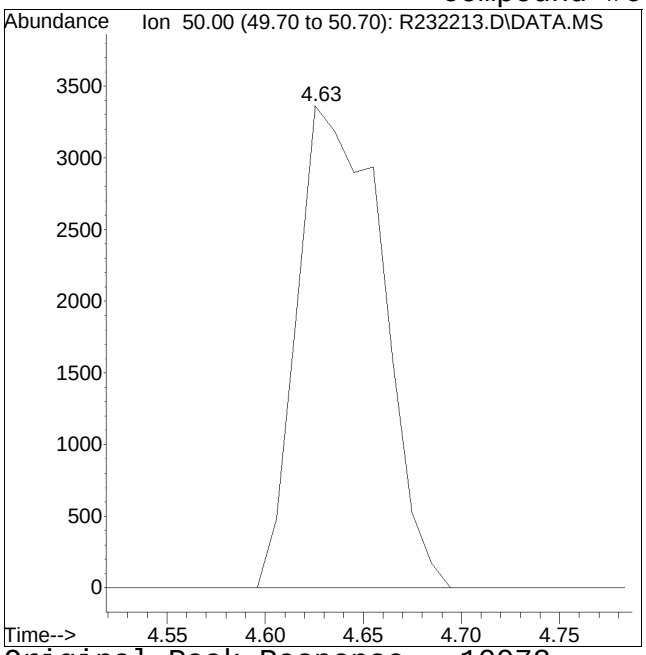


Manual Integration/Negative Proof Report

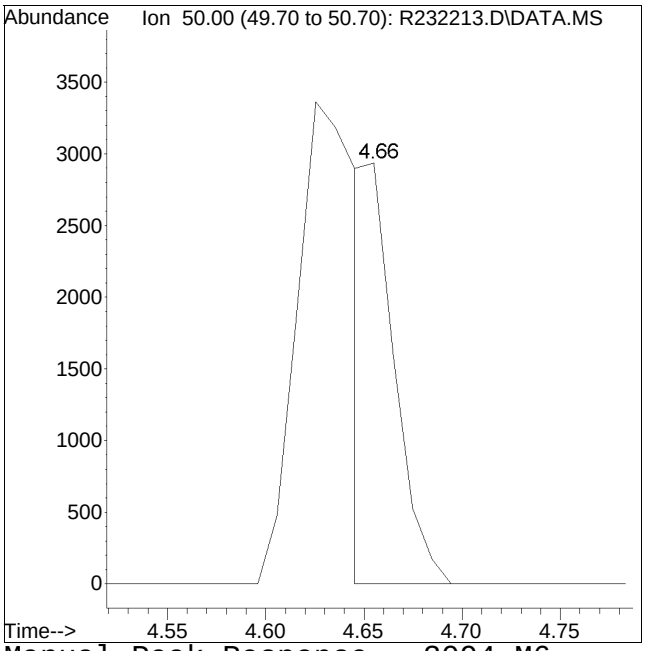
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232213.D
Date Inj'd : 1/20/2015 5:24 pm
Sample : L1500978-03,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/21/2015 6:21 am

Compound #6: chloromethane



Original Peak Response = 10072



Manual Peak Response = 3094 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: L1500978-03	Date Collected	: 01/15/15 10:13
Client ID	: CR011415-IA-B6	Date Received	: 01/15/15
Sample Location	: N. PLAINFIELD	Date Analyzed	: 01/20/15 17:24
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232213	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 5 **Concentration Units: ppbV**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000074-98-6	Propane	4.36	1.1	NJ
000075-07-0	Acetaldehyde	4.85	1.1	NJ
000067-56-1	Methyl Alcohol	4.92	4.5	NJ
000106-97-8	Butane	5.25	1.1	NJ
	unknown siloxane	18.90	2.4	J
	Total TIC Compounds		10.2	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R232213.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.123	103	105	108	rVB4	3960	5998	0.50%	0.099%
2	4.231	113	116	118	rVV3	7836	13972	1.17%	0.232%
3	4.290	118	122	124	rVV2	14637	27383	2.29%	0.454%
4	4.359	124	129	132	rVB3	31551	69770	5.83%	1.157%
5	4.428	133	136	141	rBV2	10916	18565	1.55%	0.308%
6	4.625	152	156	163	rBV	406906	660791	55.19%	10.953%
7	4.852	173	179	182	rBV2	28286	70216	5.86%	1.164%
8	4.921	182	186	194	rVV	138175	278531	23.26%	4.617%
9	5.118	202	206	209	rBV3	5415	12758	1.07%	0.211%
10	5.247	215	219	223	rVB	40259	69396	5.80%	1.150%
11	6.006	303	308	321	rBV	179409	466615	38.97%	7.735%
12	6.653	384	389	398	rBV2	55168	148276	12.38%	2.458%
13	6.853	410	414	419	rVB3	7114	15657	1.31%	0.260%
14	6.989	426	431	440	rBV	40048	116334	9.72%	1.928%
15	7.325	469	473	478	rVB2	12200	25810	2.16%	0.428%
16	7.844	534	538	543	rVB4	5037	9673	0.81%	0.160%
17	8.172	576	579	591	rVB6	7461	23562	1.97%	0.391%
18	9.297	728	734	742	rVB2	8008	21156	1.77%	0.351%
19	9.427	749	753	759	rVB4	6744	13555	1.13%	0.225%
20	9.551	769	771	776	rBV3	3550	4436	0.37%	0.074%
21	9.736	793	798	804	rVB2	4206	9629	0.80%	0.160%
22	10.076	840	843	846	rVB4	1455	2841	0.24%	0.047%
23	10.386	871	876	885	rVV	298695	622023	51.95%	10.311%
24	10.489	885	887	895	rVV	7878	17590	1.47%	0.292%
25	11.034	938	943	948	rBV3	1760	4480	0.37%	0.074%
26	11.372	973	979	983	rBV4	3151	7524	0.63%	0.125%
27	11.438	983	986	991	rVB4	2038	4620	0.39%	0.077%
28	12.156	1051	1055	1064	rVB2	14172	30242	2.53%	0.501%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	12.332	1069	1072	1075	rVB	3447	6296	0.53%	0.104%
30	12.466	1080	1085	1088	rBV2	7151	14990	1.25%	0.248%
31	12.549	1088	1093	1100	rBV	500003	961236	80.29%	15.933%
32	12.705	1107	1108	1109	rBV	1725	1914	0.16%	0.032%
33	12.922	1125	1129	1134	rBV2	5847	13541	1.13%	0.224%
34	13.191	1151	1155	1157	rBV2	1107	2049	0.17%	0.034%
35	13.378	1168	1173	1180	rVB	12283	31161	2.60%	0.517%
36	13.595	1187	1194	1195	rVV4	757	2745	0.23%	0.046%
37	13.657	1197	1200	1205	rVV3	4019	9029	0.75%	0.150%
38	13.792	1212	1213	1216	rBV2	934	2526	0.21%	0.042%
39	14.035	1223	1227	1230	rBV2	1240	4108	0.34%	0.068%
40	14.384	1246	1249	1250	rBV	978	2569	0.21%	0.043%
41	14.415	1250	1251	1253	rVB	2586	3715	0.31%	0.062%
42	14.647	1260	1264	1265	rBV	2346	5305	0.44%	0.088%
43	14.710	1267	1271	1274	rVV3	3636	8149	0.68%	0.135%
44	14.755	1274	1276	1280	rVV2	1517	2832	0.24%	0.047%
45	15.071	1309	1311	1314	rBV3	1445	2509	0.21%	0.042%
46	15.171	1319	1322	1331	rVV2	7829	20118	1.68%	0.333%
47	15.324	1334	1339	1344	rVV2	40651	75623	6.32%	1.254%
48	15.397	1344	1347	1350	rVV2	2904	5740	0.48%	0.095%
49	15.487	1354	1357	1360	rVV	2789	4811	0.40%	0.080%
50	15.532	1360	1362	1366	rVB3	1593	2554	0.21%	0.042%
51	15.677	1375	1378	1381	rBV3	2818	5018	0.42%	0.083%
52	15.803	1389	1392	1395	rBV3	9812	19233	1.61%	0.319%
53	15.840	1395	1396	1400	rVV3	4972	7827	0.65%	0.130%
54	15.921	1401	1405	1409	rVV3	5329	10132	0.85%	0.168%
55	15.984	1409	1412	1417	rVB4	1347	3043	0.25%	0.050%
56	16.156	1429	1431	1434	rBV3	1179	2517	0.21%	0.042%
57	16.210	1434	1437	1441	rVV	10607	15279	1.28%	0.253%
58	16.364	1450	1454	1456	rBV2	2350	3419	0.29%	0.057%
59	16.553	1469	1475	1482	rVB	55071	112280	9.38%	1.861%
60	16.893	1530	1538	1557	rBV	799782	1197239	100.00%	19.845%

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	17.222	1601	1607	1612	rVB	8162	11363	0.95%	0.188%
62	17.350	1629	1634	1643	rVB2	20045	35610	2.97%	0.590%
63	17.555	1670	1677	1678	rBV4	2161	2797	0.23%	0.046%
64	17.641	1690	1695	1702	rVB4	4715	8187	0.68%	0.136%
65	17.722	1704	1712	1719	rVB2	10441	14155	1.18%	0.235%
66	17.860	1735	1741	1746	rBV3	3650	4415	0.37%	0.073%
67	18.160	1800	1804	1810	rVB3	1319	2072	0.17%	0.034%
68	18.445	1855	1864	1870	rBV2	35140	46827	3.91%	0.776%
69	18.607	1894	1898	1902	rVV	5361	6259	0.52%	0.104%
70	18.641	1902	1905	1909	rVV2	3439	4007	0.33%	0.066%
71	18.698	1912	1917	1919	rVV3	2364	2857	0.24%	0.047%
72	18.750	1924	1928	1935	rBV2	3332	3995	0.33%	0.066%
73	18.836	1940	1944	1948	rBV5	2887	3663	0.31%	0.061%
74	18.903	1951	1958	1973	rBV	137398	284174	23.74%	4.710%
75	18.998	1973	1978	1982	rVB	9394	11061	0.92%	0.183%
76	19.041	1982	1987	1993	rBV	29715	35567	2.97%	0.590%
77	19.098	1998	1999	2005	rVB2	1817	2090	0.17%	0.035%
78	19.179	2010	2016	2020	rBV2	3463	4841	0.40%	0.080%
79	19.303	2037	2042	2048	rVB7	2483	4119	0.34%	0.068%
80	19.412	2059	2065	2076	rBV2	41361	49315	4.12%	0.817%
81	19.493	2076	2082	2085	rVB6	1685	2376	0.20%	0.039%
82	19.531	2087	2090	2094	rBV4	2993	3789	0.32%	0.063%
83	19.660	2116	2117	2123	rVV5	1978	2376	0.20%	0.039%
84	19.722	2126	2130	2131	rVV3	2314	2316	0.19%	0.038%
85	19.746	2131	2135	2142	rVV4	2989	5298	0.44%	0.088%
86	19.998	2183	2188	2194	rBV5	4400	6641	0.55%	0.110%
87	20.055	2197	2200	2204	rBV5	2137	2747	0.23%	0.046%
88	20.403	2263	2273	2284	rBV2	31656	62905	5.25%	1.043%
89	20.635	2302	2306	2309	rVV2	2280	4762	0.40%	0.079%
90	20.689	2309	2311	2315	rVB2	3377	5099	0.43%	0.085%
91	20.871	2325	2328	2331	rBV	20573	29591	2.47%	0.491%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

92	21.000	2335	2340	2341	rBV4	1522	4539	0.38%	0.075%
93	21.343	2369	2372	2376	rBV4	1056	2921	0.24%	0.048%
94	21.429	2376	2380	2382	rBV3	1912	4685	0.39%	0.078%
95	21.611	2395	2397	2400	rVB	1554	2489	0.21%	0.041%
96	21.697	2403	2405	2409	rBV2	1801	3690	0.31%	0.061%
97	21.793	2409	2414	2421	rVB5	1807	7390	0.62%	0.122%
98	22.200	2449	2452	2456	rVB5	925	2606	0.22%	0.043%
99	22.404	2469	2471	2476	rBV4	2139	4898	0.41%	0.081%
100	22.565	2482	2486	2490	rBV3	1012	3407	0.28%	0.056%

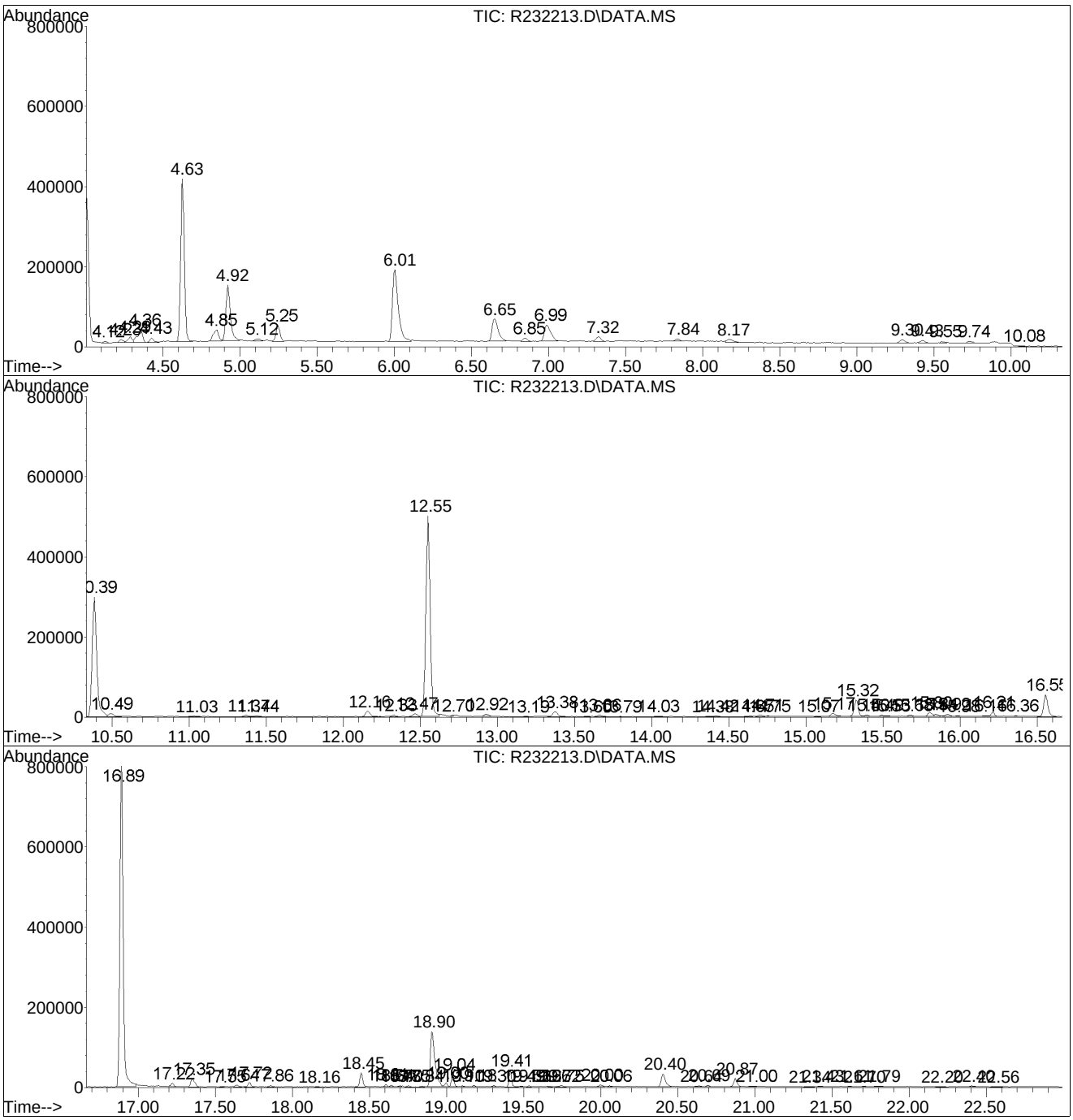
Sum of corrected areas: 6032809

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

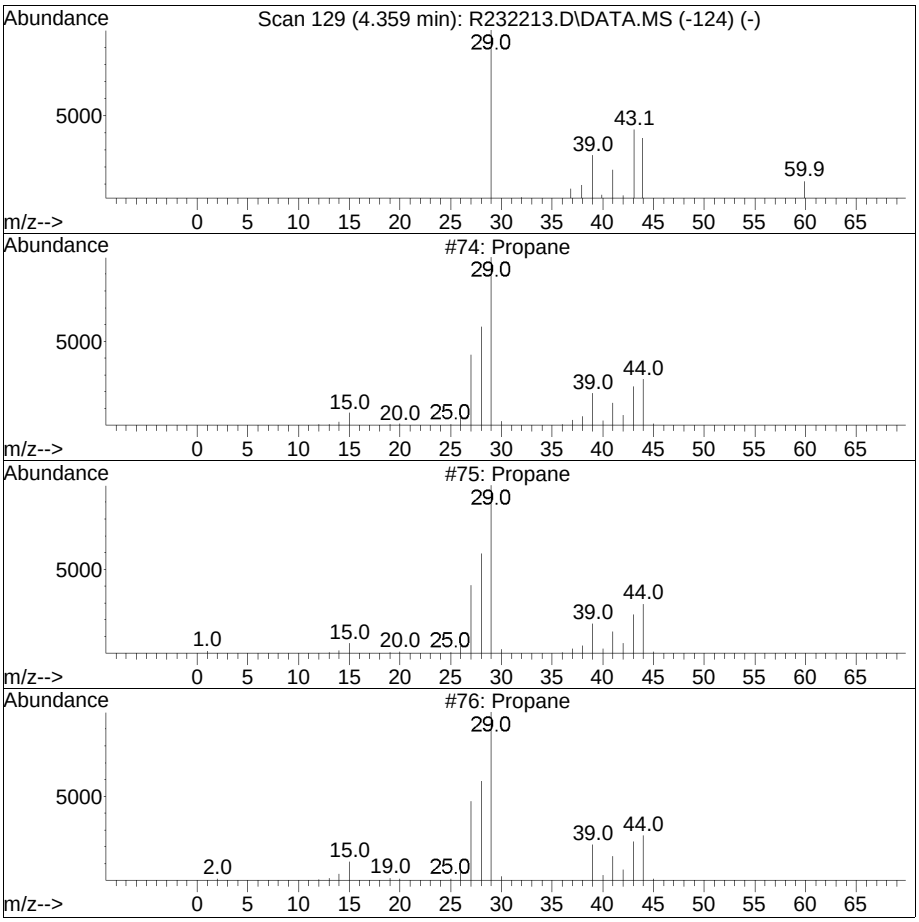
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

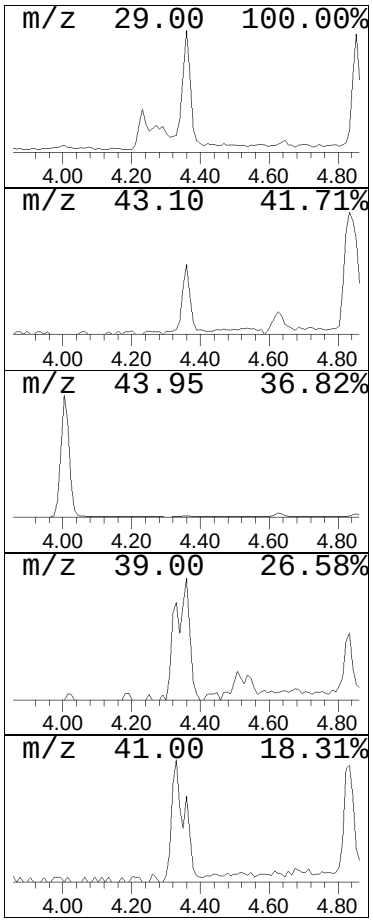
****

Peak Number 1 Propane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.36	1.12 ppbV	69770	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane	44	C3H8	000074-98-6	72
2	Propane	44	C3H8	000074-98-6	64
3	Propane	44	C3H8	000074-98-6	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Ethylene oxide	44	C2H4O	000075-21-8	3





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

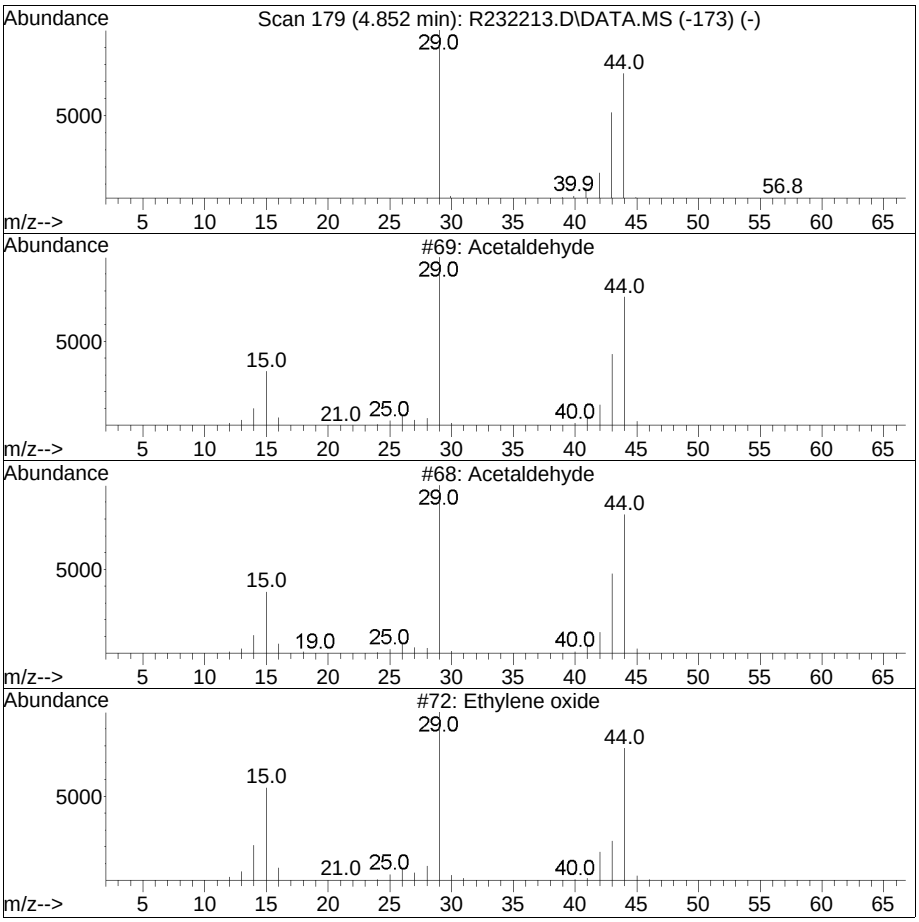
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

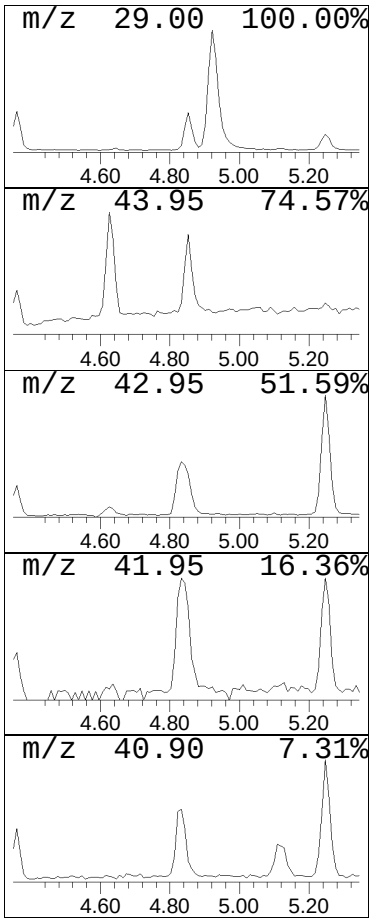
****

Peak Number 2 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	1.13 ppbV	70216	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	83
2	Acetaldehyde	44	C2H4O	000075-07-0	83
3	Ethylene oxide	44	C2H4O	000075-21-8	74
4	Ethylene oxide	44	C2H4O	000075-21-8	74
5	Ethylene oxide	44	C2H4O	000075-21-8	64





Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

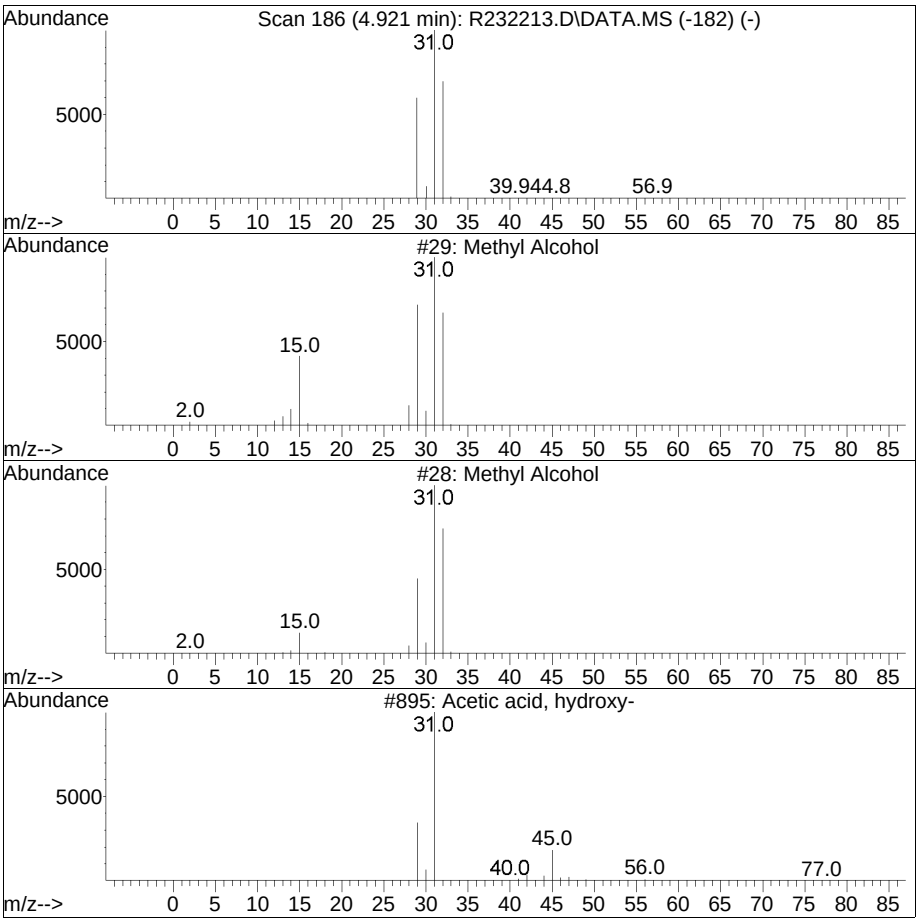
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

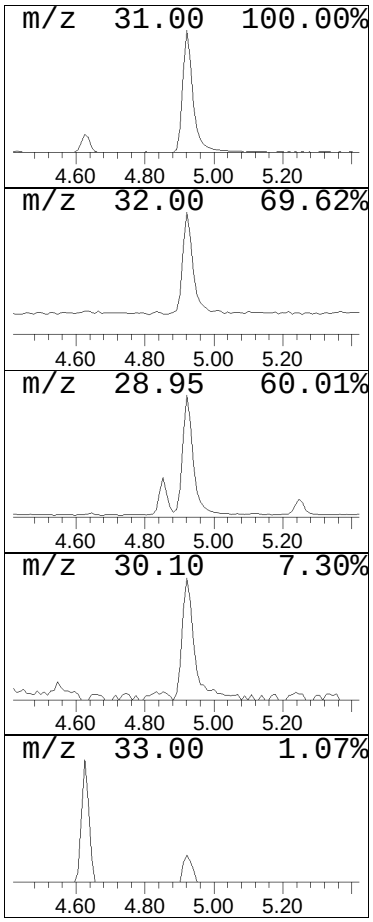
****

Peak Number 3 Methyl Alcohol Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.92	4.48 ppbV	278531	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl Alcohol	32	CH4O	000067-56-1	4
2	Methyl Alcohol	32	CH4O	000067-56-1	4
3	Acetic acid, hydroxy-	76	C2H4O3	000079-14-1	2
4	Acetic acid, hydroxy-	76	C2H4O3	000079-14-1	2
5	1-Butanol	74	C4H10O	000071-36-3	1





Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

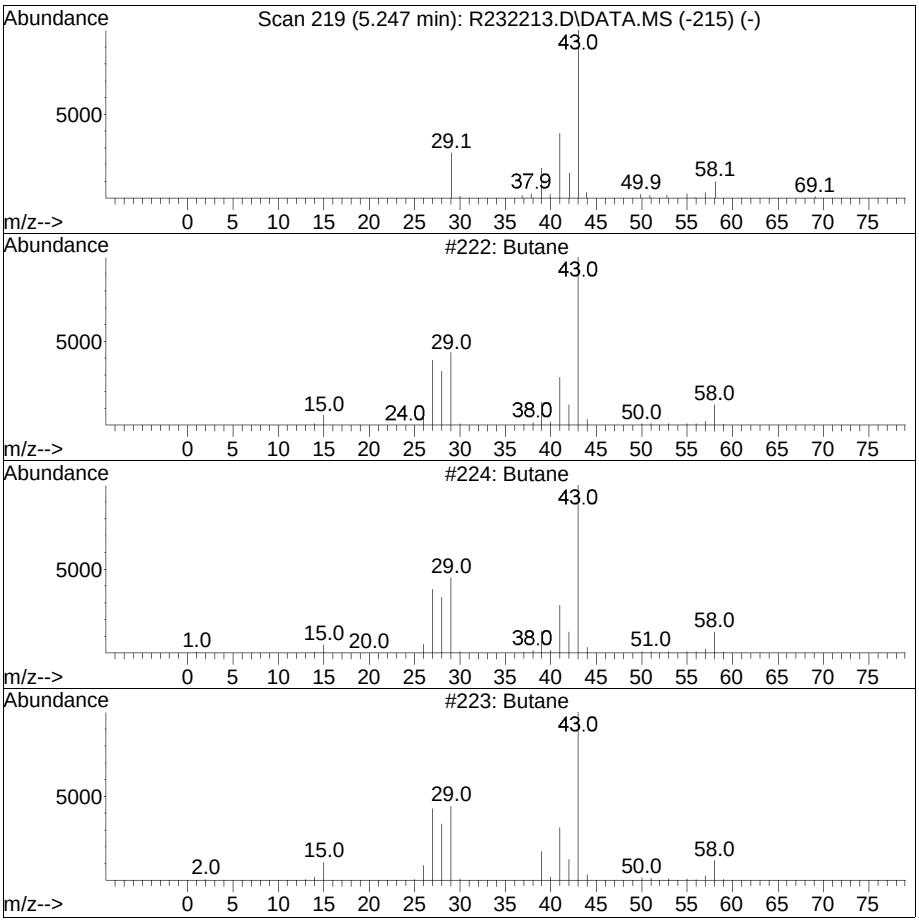
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

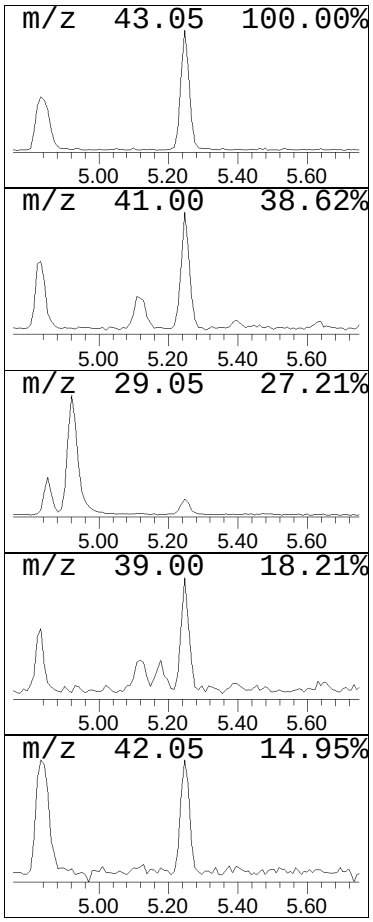
****

Peak Number 4 Butane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.25	1.12 ppbV	69396	bromochloromethane	10.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	80
2	Butane	58	C4H10	000106-97-8	72
3	Butane	58	C4H10	000106-97-8	9
4	1-Tetrazol-2-ylethanone	112	C3H4N4O	051410-11-8	9
5	Isobutane	58	C4H10	000075-28-5	9





Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

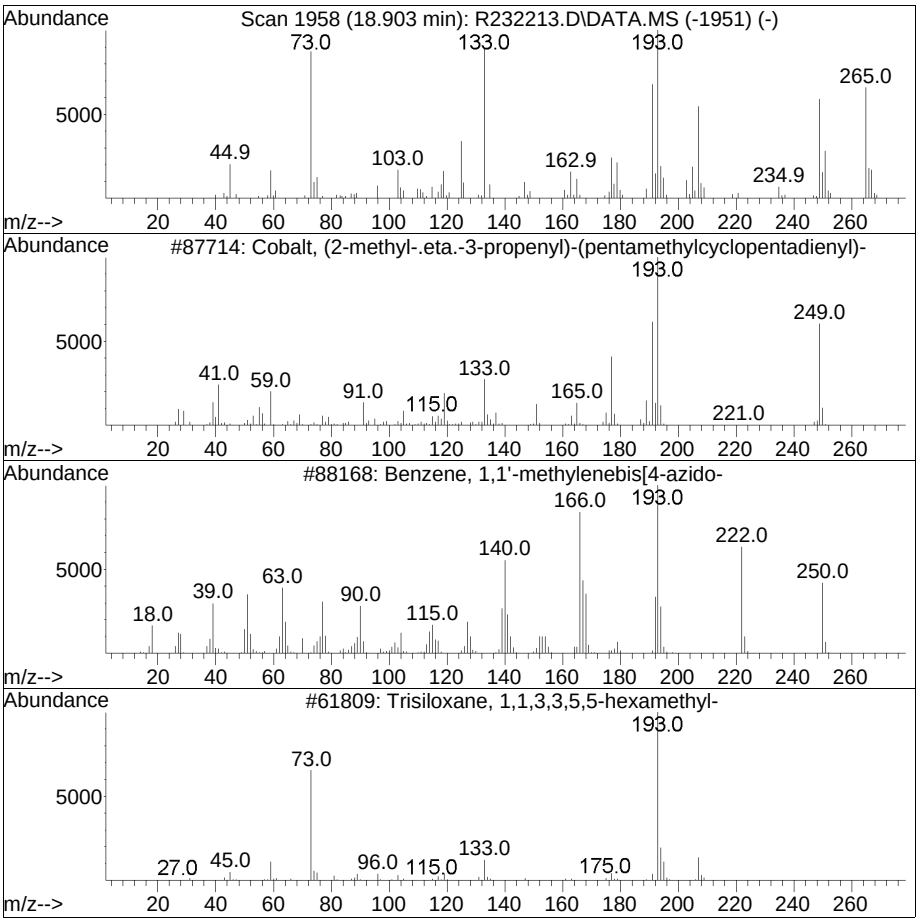
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

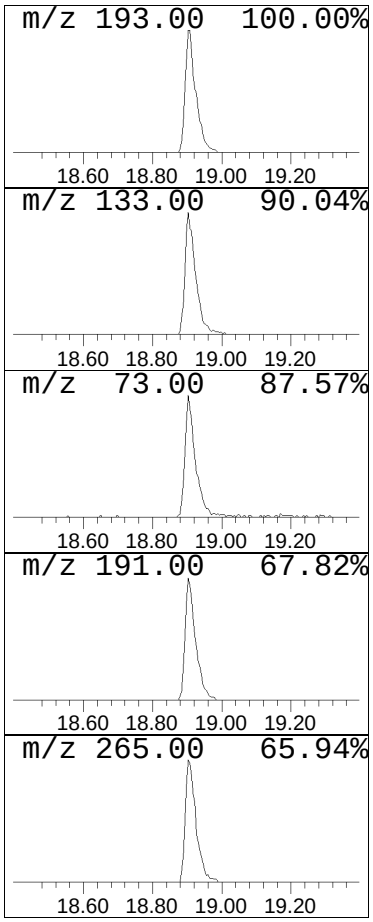
****

Peak Number 5 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.90	2.37 ppbV	284174	chlorobenzene-D5	16.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cobalt, (2-methyl-.eta.-3-propen...	249	C14H22Co	1000157-04-3	64
2	Benzene, 1,1'-methylenebis[4-azido-	250	C13H10N6	002915-44-8	18
3	Trisiloxane, 1,1,3,3,5,5-hexamet...	208	C6H20O2Si3	001189-93-1	14
4	Pyrazole, 5-methyl-3-(5-nitro-2-...	193	C8H7N3O3	016239-90-0	11
5	6-Methylphenanthridine	193	C14H11N	003955-65-5	11





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232213.D
Acq On : 20 Jan 2015 5:24 pm
Operator : AIRPIANO2:RY
Sample : L1500978-03,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Propane	4.36	1.1	ppbV	69770	1	10.39	622023	10.0
Acetaldehyde	4.85	1.1	ppbV	70216	1	10.39	622023	10.0
Methyl Alcohol	4.92	4.5	ppbV	278531	1	10.39	622023	10.0
Butane	5.25	1.1	ppbV	69396	1	10.39	622023	10.0
unknown siloxane	18.90	2.4	ppbV	284174	3	16.89	1197240	10.0

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRPIANO2 Calibration Date(s): 01/19/15 01/20/15

Calibration Times: 23:55 03:37

Calibration Files

0.2 =R232193.D 0.5 =R232194.D 1.0 =R232195.D 5.0 =R232196.D 10 =R232197.D 20 =R232198.D

50 =R232199.D 100 =R232200.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.338	1.277	1.269	1.250	1.223	1.198	1.086	1.009	1.2063	8.97
3)		propylene	0.754	0.616	0.650	0.596	0.576	0.570	0.524	0.485	0.5965	13.71
4)		propane	0.941	0.727	0.660	0.635	0.613	0.612	0.550	0.528	0.6583	19.72
5)		dichlorodifluoromethane	1.547	1.527	1.854	1.686	1.523	1.555	1.108	1.275	1.5094	15.23
6)	C	chloromethane	0.790	0.761	0.704	0.698	0.674	0.661	0.607	0.565	0.6825	10.86
7)		Freon-114	2.009	2.019	1.906	1.930	1.876	1.842	1.634	1.406	1.8277	11.39
8)	C	methanol			0.284	0.255	0.244	0.249	0.223	0.203	0.2428	11.50
9)	C	vinyl chloride	0.741	0.725	0.711	0.741	0.728	0.725	0.661	0.605	0.7047	6.78
10)	C	1,3-butadiene	0.794	0.691	0.629	0.566	0.543	0.542	0.493	0.454	0.5889	18.89
11)		butane	1.481	1.265	1.205	1.207	1.153	1.141	1.041	0.956	1.1811	13.22
12)	C	acetaldehyde		0.506	0.484	0.466	0.448	0.438	0.382	0.327	0.4361	14.22
13)	C	bromomethane	0.753	0.692	0.646	0.652	0.634	0.623	0.562	0.509	0.6339	11.74
14)	C	chloroethane	0.365	0.360	0.358	0.356	0.342	0.340	0.310	0.282	0.3392	8.55
15)		ethanol		0.566	0.504	0.531	0.509	0.539	0.468	0.395	0.5018	11.19
16)		dichlorofluoromethane	1.987	1.793	1.696	1.607	1.581	1.533	1.380	1.248	1.6033	14.40
17)	C	vinyl bromide	0.701	0.625	0.683	0.655	0.652	0.634	0.569	0.512	0.6288	9.81
18)	C	acrolein		0.326	0.308	0.308	0.317	0.304	0.279	0.256	0.2998	8.03
19)		acetone	1.198	1.185	1.174	1.155	1.106	1.090	0.948	0.819	1.0843	12.34
20)	C	acetonitrile	0.881	0.833	0.686	0.688	0.681	0.658	0.594	0.539	0.6949	16.32
21)		trichlorofluoromethane	2.011	1.742	1.818	1.858	1.789	1.744	1.546	1.359	1.7332	11.50
22)		isopropyl alcohol		1.550	1.353	1.285	1.203	1.299	1.150	1.015	1.2651	13.31
23)	C	acrylonitrile	0.892	0.659	0.542	0.552	0.557	0.545	0.495	0.460	0.5878	23.07
24)		pentane	1.608	1.374	1.386	1.456	1.409	1.384	1.247	1.123	1.3733	10.38
25)		ethyl ether	1.277	1.057	1.029	1.032	1.013	0.971	0.869	0.782	1.0039	14.46
26)	C	1,1-dichloroethene	1.249	1.251	1.237	1.256	1.221	1.213	1.070	1.033	1.1912	7.40
27)		tertiary butyl alcohol		1.668	1.602	1.599	1.467	1.583	1.412	1.268	1.5140	9.20
28)	C	methylene chloride		1.131	1.027	0.942	0.926	0.924	0.824	0.775	0.9356	12.74
29)	C	3-chloropropene	1.177	1.155	1.109	1.022	1.006	1.040	0.916	0.864	1.0362	10.59
30)	C	carbon disulfide	2.226	2.119	2.127	2.172	2.128	2.075	1.929	1.757	2.0665	7.34
31)		Freon 113	1.568	1.502	1.468	1.497	1.475	1.421	1.312	1.156	1.4249	9.24
32)		trans-1,2-dichloroethene	1.241	1.200	1.200	1.202	1.178	1.169	1.084	1.022	1.1618	6.23
33)	C	1,1-dichloroethane	1.446	1.342	1.405	1.398	1.368	1.346	1.244	1.158	1.3384	7.03
34)	C	MTBE	2.284	2.151	2.085	2.095	2.024	2.007	1.835	1.743	2.0279	8.48
35)	C	vinyl acetate	1.529	1.205	1.261	1.361	1.470	1.639	1.632	1.603	1.4625	11.58
36)	C	2-butanone	1.894	1.773	1.750	1.740	1.716	1.705	1.567	1.468	1.7016	7.67
37)		cis-1,2-dichloroethene	1.095	1.036	1.044	1.080	1.058	1.051	0.949	0.899	1.0266	6.55
38)		Ethyl Acetate	0.214	0.231	0.251	0.253	0.258	0.260	0.233	0.217	0.2395	7.56
39)	C	chloroform	1.755	1.532	1.588	1.580	1.554	1.534	1.379	1.253	1.5218	9.81
40)		Tetrahydrofuran	0.889	1.109	0.999	0.979	0.960	0.958	0.883	0.823	0.9499	9.17
41)		2,2-dichloropropane	1.521	1.490	1.446	1.452	1.392	1.405	1.286	1.170	1.3952	8.28
42)	C	1,2-dichloroethane	1.150	1.091	1.135	1.141	1.125	1.102	0.993	0.924	1.0826	7.51
43)	I	1,4-difluorobenzene	ISTD									

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRPIANO2 Calibration Date(s): 01/19/15 01/20/15

Calibration Times: 23:55 03:37

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.623	0.525	0.485	0.449	0.451	0.458	0.435	0.417	0.4805	13.81
45)		diisopropyl ether	0.228	0.230	0.225	0.216	0.220	0.219	0.207	0.200	0.2182	4.72
46)		tert-butyl ethyl ether	1.054	0.966	0.980	0.949	0.943	0.940	0.897	0.888	0.9523	5.43
47)	s	1,2-dichloroethane-D4	0.314	0.315	0.315	0.300	0.309	0.308	0.305	0.309	0.3092	1.67
48)	C	1,1,1-trichloroethane	0.805	0.738	0.723	0.684	0.687	0.658	0.616	0.605	0.6895	9.56
49)		1,1-dichloropropene	0.456	0.439	0.436	0.438	0.443	0.440	0.425	0.418	0.4368	2.59
50)	C	benzene	0.968	0.881	0.854	0.830	0.826	0.821	0.782	0.773	0.8417	7.34
51)		thiophene	0.632	0.568	0.598	0.564	0.562	0.564	0.543	0.528	0.5698	5.63
52)	C	carbon tetrachloride	0.677	0.658	0.640	0.647	0.634	0.642	0.607	0.571	0.6344	5.15
53)		cyclohexane	0.585	0.507	0.493	0.467	0.461	0.470	0.445	0.449	0.4848	9.42
54)		tert-amyl methyl ether	0.912	0.874	0.866	0.834	0.835	0.839	0.800	0.791	0.8440	4.71
55)		dibromomethane	0.426	0.373	0.383	0.361	0.363	0.359	0.338	0.323	0.3657	8.47
56)	C	1,2-dichloropropane	0.358	0.341	0.330	0.328	0.325	0.326	0.315	0.312	0.3292	4.42
57)		bromodichloromethane	0.763	0.736	0.692	0.681	0.697	0.695	0.655	0.636	0.6944	5.86
58)	C	1,4-dioxane	0.201	0.203	0.181	0.192	0.185	0.205	0.188	0.178	0.1917	5.37
59)	C	trichloroethene	0.390	0.386	0.378	0.385	0.381	0.386	0.357	0.333	0.3743	5.21
60)	C	2,2,4-trimethylpentane	1.823	1.613	1.560	1.486	1.473	1.482	1.412	1.371	1.5273	9.27
61)		methyl methacrylate	0.505	0.470	0.467	0.451	0.455	0.461	0.448	0.444	0.4626	4.19
62)		heptane	0.687	0.639	0.609	0.590	0.593	0.598	0.570	0.565	0.6063	6.56
63)	C	cis-1,3-dichloropropene	0.462	0.435	0.466	0.474	0.477	0.484	0.468	0.461	0.4660	3.13
64)	C	4-methyl-2-pentanone	0.916	0.823	0.824	0.815	0.827	0.826	0.781	0.763	0.8219	5.44
65)		trans-1,3-dichloropropene	0.615	0.605	0.603	0.601	0.631	0.633	0.615	0.613	0.6145	1.99
66)	C	1,1,2-trichloroethane	0.472	0.442	0.453	0.450	0.451	0.445	0.426	0.414	0.4442	4.00
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	6.519	5.533	5.616	5.691	5.652	5.538	5.231	4.920	5.5874	8.18
69)	s	toluene-D8	3.966	3.961	3.967	3.936	4.028	3.942	3.895	3.950	3.9555	0.95
70)		2-methylthiophene	5.641	5.121	4.965	5.113	5.080	5.073	4.686	4.448	5.0159	6.96
71)		1,3-dichloropropane	2.731	2.582	2.609	2.677	2.682	2.654	2.478	2.388	2.6000	4.43
72)		2-hexanone	4.155	4.223	4.202	4.412	4.378	4.364	4.107	3.858	4.2125	4.31
73)		3-methylthiophene	5.050	4.864	4.770	4.636	4.696	4.762	4.385	4.053	4.6519	6.61
74)		dibromochloromethane	3.659	3.678	3.722	4.017	3.996	3.993	3.603	3.254	3.7403	6.94
75)	C	1,2-dibromoethane	3.301	3.175	3.212	3.182	3.237	3.160	2.953	2.775	3.1243	5.55
76)		butyl acetate	0.572	0.632	0.590	0.618	0.623	0.606	0.574	0.562	0.5972	4.38
77)		octane	1.665	1.725	1.641	1.674	1.677	1.675	1.565	1.485	1.6386	4.68
78)	C	tetrachloroethene	2.754	2.648	2.617	2.653	2.659	2.600	2.381	2.211	2.5656	6.95
79)		1,1,1,2-tetrachloroethane	2.145	1.965	1.929	1.982	1.980	1.933	1.753	1.522	1.9011	9.82
80)	C	chlorobenzene	3.491	3.292	3.326	3.511	3.513	3.437	3.159	2.878	3.3258	6.61
81)	C	ethylbenzene	6.042	5.606	5.572	5.731	5.712	5.576	5.291	4.940	5.5586	5.87
82)		2-ethylthiophene	4.597	4.216	4.307	4.359	4.371	4.405	4.149	3.784	4.2734	5.58
83)	C	m+p-xylene	4.770	4.440	4.413	4.515	4.474	4.462	4.205	3.738	4.3770	6.87
84)	C	bromoform	2.631	2.602	2.614	2.884	2.886	2.868	2.659	2.398	2.6928	6.45
85)	C	styrene	3.399	3.276	3.228	3.434	3.455	3.363	3.224	3.002	3.2978	4.53
86)	C	1,1,2,2-tetrachloroethane	3.598	3.361	3.322	3.531	3.517	3.429	3.108	2.555	3.3026	10.25
87)	C	o-xylene	4.886	4.653	4.637	4.673	4.641	4.548	4.132	3.420	4.4488	10.49
88)		1,2,3-trichloropropane	2.686	2.540	2.614	2.760	2.762	2.717	2.608	2.444	2.6415	4.23
89)		nonane	3.839	3.672	3.537	3.688	3.689	3.667	3.512	3.130	3.5916	5.90
90)	s	bromofluorobenzene	1.675	1.905	2.245	2.306	2.365	1.824	2.321	2.326	2.1209	12.91

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRPIANO2 Calibration Date(s): 01/19/15 01/20/15

Calibration Times: 23:55 03:37

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	5.000	6.170	6.029	6.241	6.174	4.334	5.639	5.029	5.5771	12.74
92)		bromobenzene	2.827	3.198	3.215	3.355	3.412	3.339	3.210	2.971	3.1910	6.27
93)		2-chlorotoluene	1.621	1.640	1.674	1.722	1.737	1.677	1.508	1.292	1.6088	9.09
94)		n-propylbenzene	1.779	1.708	1.735	1.828	1.833	1.781	1.617	1.380	1.7077	8.76
95)		4-chlorotoluene	5.115	4.790	4.648	5.017	4.989	4.878	4.505	4.187	4.7660	6.46
96)		4-ethyl toluene	6.726	6.345	6.418	6.812	6.827	6.736	6.227	5.458	6.4436	7.13
97)		1,3,5-trimethylbenzene	5.845	5.428	5.411	5.488	5.491	5.376	5.034	4.434	5.3135	7.86
98)		tert-butylbenzene	6.026	5.704	5.726	6.041	6.007	5.689	4.766	3.702	5.4577	15.04
99)		1,2,4-trimethylbenzene	5.398	5.235	5.175	5.540	5.549	5.398	4.578	3.537	5.0512	13.58
100)		decane	3.937	3.668	3.613	3.916	3.959	3.925	3.706	3.200	3.7406	6.89
101)	C	Benzyl Chloride	3.814	3.876	4.160	5.140	5.277	5.422	5.189	4.528	4.6758	14.16
102)		1,3-dichlorobenzene	3.008	3.097	3.143	3.658	3.702	3.622	3.330	2.932	3.3116	9.41
103)	C	1,4-dichlorobenzene	3.436	3.935	3.759	3.922	3.899	3.768	3.381	2.812	3.6139	10.73
104)		sec-butylbenzene	8.330	7.719	7.608	8.139	8.090	7.901	7.040	5.661	7.5611	11.43
105)		1,2,3-trimethylbenzene	4.830	4.621	4.591	4.748	4.761	4.765	4.320	3.547	4.5229	9.41
106)		p-isopropyltoluene	7.380	6.989	6.957	7.415	7.482	7.156	6.243	4.830	6.8065	13.09
107)		1,2-dichlorobenzene	3.349	3.173	3.134	3.585	3.625	3.486	3.237	2.932	3.3152	7.25
108)		n-butylbenzene	5.868	5.771	6.165	6.851	6.844	6.677	6.153	5.358	6.2108	8.76
109)		indan	5.063	4.870	4.950	5.133	5.188	5.155	4.780	4.211	4.9187	6.52
110)		indene	3.464	3.266	3.380	3.528	3.603	3.712	3.502	3.241	3.4621	4.66
111)	C	1,2-dibromo-3-chloropropane	1.665	1.547	1.655	1.928	1.964	1.943	1.871	1.681	1.7817	9.09
112)		undecane	3.899	3.886	4.008	4.575	4.632	4.440	4.229	3.540	4.1511	9.24
113)		1,2,4,5-tetramethylbenzene	0.881	0.879	0.878	1.065	1.079	0.955	0.822	0.652	0.9014	15.20
114)		dodecane	3.380	3.497	3.850	4.928	5.192	4.660	4.112	2.846	4.0581	20.18
115)	C	1,2,4-trichlorobenzene	2.163	2.358	2.477	3.188	3.252	2.993	2.717	2.156	2.6629	16.61
116)		naphthalene	5.443	5.684	6.150	7.730	7.919	7.158	6.793	6.340	6.6520	13.68
117)		1,2,3-trichlorobenzene	2.050	1.984	2.398	3.031	3.108	2.834	2.715	2.586	2.5884	16.22
118)		benzothiophene		4.613	5.096	6.444	6.794	6.367	6.102	5.567	5.8546	13.51
119)	C	hexachlorobutadiene	2.240	2.134	2.210	2.613	2.675	2.528	2.432	2.235	2.3834	8.62
120)		2-methylnaphthalene		0.454	1.007	2.158	2.663	2.218	2.329	2.363	1.8847	43.51#
121)		1-methylnaphthalene		1.054	1.596	2.042	2.381	2.263	2.371	2.349	2.0079	25.17

FORM VI-NJ-TO15

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Method File : TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Tue Jan 20 07:55:24 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R232193.D 0.5 =R232194.D 1.0 =R232195.D 5.0 =R232196.D 10 =R232197.D 20 =R232198.D
50 =R232199.D 100 =R232200.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------									
2)		chlorodifluoromethane	1.338	1.277	1.269	1.250	1.223	1.198	1.086	1.009	1.2063	8.97
3)		propylene	0.754	0.616	0.650	0.596	0.576	0.570	0.524	0.485	0.5965	13.71
4)		propane	0.941	0.727	0.660	0.635	0.613	0.612	0.550	0.528	0.6583	19.72
5)		dichlorodifluoromethane	1.547	1.527	1.854	1.686	1.523	1.555	1.108	1.275	1.5094	15.23
6)	C	chloromethane	0.790	0.761	0.704	0.698	0.674	0.661	0.607	0.565	0.6825	10.86
7)		Freon-114	2.009	2.019	1.906	1.930	1.876	1.842	1.634	1.406	1.8277	11.39
8)	C	methanol			0.284	0.255	0.244	0.249	0.223	0.203	0.2428	11.50
9)	C	vinyl chloride	0.741	0.725	0.711	0.741	0.728	0.725	0.661	0.605	0.7047	6.78
10)	C	1,3-butadiene	0.794	0.691	0.629	0.566	0.543	0.542	0.493	0.454	0.5889	18.89
11)		butane	1.481	1.265	1.205	1.207	1.153	1.141	1.041	0.956	1.1811	13.22
12)	C	acetaldehyde			0.506	0.484	0.466	0.448	0.438	0.382	0.327	0.4361	14.22
13)	C	bromomethane	0.753	0.692	0.646	0.652	0.634	0.623	0.562	0.509	0.6339	11.74
14)	C	chloroethane	0.365	0.360	0.358	0.356	0.342	0.340	0.310	0.282	0.3392	8.55
15)		ethanol			0.566	0.504	0.531	0.509	0.539	0.468	0.395	0.5018	11.19
16)		dichlorofluoromethane	1.987	1.793	1.696	1.607	1.581	1.533	1.380	1.248	1.6033	14.40
17)	C	vinyl bromide	0.701	0.625	0.683	0.655	0.652	0.634	0.569	0.512	0.6288	9.81
18)	C	acrolein			0.326	0.308	0.308	0.317	0.304	0.279	0.256	0.2998	8.03
19)		acetone	1.198	1.185	1.174	1.155	1.106	1.090	0.948	0.819	1.0843	12.34
20)	C	acetonitrile	0.881	0.833	0.686	0.688	0.681	0.658	0.594	0.539	0.6949	16.32
21)		trichlorofluoromethane	2.011	1.742	1.818	1.858	1.789	1.744	1.546	1.359	1.7332	11.50
22)		isopropyl alcohol			1.550	1.353	1.285	1.203	1.299	1.150	1.015	1.2651	13.31
23)	C	acrylonitrile	0.892	0.659	0.542	0.552	0.557	0.545	0.495	0.460	0.5878	23.07
24)		pentane	1.608	1.374	1.386	1.456	1.409	1.384	1.247	1.123	1.3733	10.38
25)		ethyl ether	1.277	1.057	1.029	1.032	1.013	0.971	0.869	0.782	1.0039	14.46
26)	C	1,1-dichloroethene	1.249	1.251	1.237	1.256	1.221	1.213	1.070	1.033	1.1912	7.40
27)		tertiary butyl alcohol			1.668	1.602	1.599	1.467	1.583	1.412	1.268	1.5140	9.20
28)	C	methylene chloride			1.131	1.027	0.942	0.926	0.924	0.824	0.775	0.9356	12.74
29)	C	3-chloropropene	1.177	1.155	1.109	1.022	1.006	1.040	0.916	0.864	1.0362	10.59
30)	C	carbon disulfide	2.226	2.119	2.127	2.172	2.128	2.075	1.929	1.757	2.0665	7.34
31)		Freon 113	1.568	1.502	1.468	1.497	1.475	1.421	1.312	1.156	1.4249	9.24

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Method File : TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Tue Jan 20 07:55:24 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R232193.D 0.5 =R232194.D 1.0 =R232195.D 5.0 =R232196.D 10 =R232197.D 20 =R232198.D
50 =R232199.D 100 =R232200.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32)		trans-1,2-dichloroethene	1.241	1.200	1.200	1.202	1.178	1.169	1.084	1.022	1.1618	6.23
33)	C	1,1-dichloroethane	1.446	1.342	1.405	1.398	1.368	1.346	1.244	1.158	1.3384	7.03
34)	C	MTBE	2.284	2.151	2.085	2.095	2.024	2.007	1.835	1.743	2.0279	8.48
35)	C	vinyl acetate	1.529	1.205	1.261	1.361	1.470	1.639	1.632	1.603	1.4625	11.58
36)	C	2-butanone	1.894	1.773	1.750	1.740	1.716	1.705	1.567	1.468	1.7016	7.67
37)		cis-1,2-dichloroethene	1.095	1.036	1.044	1.080	1.058	1.051	0.949	0.899	1.0266	6.55
38)		Ethyl Acetate	0.214	0.231	0.251	0.253	0.258	0.260	0.233	0.217	0.2395	7.56
39)	C	chloroform	1.755	1.532	1.588	1.580	1.554	1.534	1.379	1.253	1.5218	9.81
40)		Tetrahydrofuran	0.889	1.109	0.999	0.979	0.960	0.958	0.883	0.823	0.9499	9.17
41)		2,2-dichloropropane	1.521	1.490	1.446	1.452	1.392	1.405	1.286	1.170	1.3952	8.28
42)	C	1,2-dichloroethane	1.150	1.091	1.135	1.141	1.125	1.102	0.993	0.924	1.0826	7.51
43)	I	1,4-difluorobenzene	----------ISTD----------									
44)	C	hexane	0.623	0.525	0.485	0.449	0.451	0.458	0.435	0.417	0.4805	13.81
45)		diisopropyl ether	0.228	0.230	0.225	0.216	0.220	0.219	0.207	0.200	0.2182	4.72
46)		tert-butyl ethyl ether	1.054	0.966	0.980	0.949	0.943	0.940	0.897	0.888	0.9523	5.43
47)	s	1,2-dichloroethane-D4	0.314	0.315	0.315	0.300	0.309	0.308	0.305	0.309	0.3092	1.67
48)	C	1,1,1-trichloroethane	0.805	0.738	0.723	0.684	0.687	0.658	0.616	0.605	0.6895	9.56
49)		1,1-dichloropropene	0.456	0.439	0.436	0.438	0.443	0.440	0.425	0.418	0.4368	2.59
50)	C	benzene	0.968	0.881	0.854	0.830	0.826	0.821	0.782	0.773	0.8417	7.34
51)		thiophene	0.632	0.568	0.598	0.564	0.562	0.564	0.543	0.528	0.5698	5.63
52)	C	carbon tetrachloride	0.677	0.658	0.640	0.647	0.634	0.642	0.607	0.571	0.6344	5.15
53)		cyclohexane	0.585	0.507	0.493	0.467	0.461	0.470	0.445	0.449	0.4848	9.42
54)		tert-amyl methyl ether	0.912	0.874	0.866	0.834	0.835	0.839	0.800	0.791	0.8440	4.71
55)		dibromomethane	0.426	0.373	0.383	0.361	0.363	0.359	0.338	0.323	0.3657	8.47
56)	C	1,2-dichloropropane	0.358	0.341	0.330	0.328	0.325	0.326	0.315	0.312	0.3292	4.42
57)		bromodichloromethane	0.763	0.736	0.692	0.681	0.697	0.695	0.655	0.636	0.6944	5.86
58)	C	1,4-dioxane	0.201	0.203	0.181	0.192	0.185	0.205	0.188	0.178	0.1917	5.37
59)	C	trichloroethene	0.390	0.386	0.378	0.385	0.381	0.386	0.357	0.333	0.3743	5.21
60)	C	2,2,4-trimethylpentane	1.823	1.613	1.560	1.486	1.473	1.482	1.412	1.371	1.5273	9.27
61)		methyl methacrylate	0.505	0.470	0.467	0.451	0.455	0.461	0.448	0.444	0.4626	4.19
62)		heptane	0.687	0.639	0.609	0.590	0.593	0.598	0.570	0.565	0.6063	6.56

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Method File : TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Tue Jan 20 07:55:24 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R232193.D 0.5 =R232194.D 1.0 =R232195.D 5.0 =R232196.D 10 =R232197.D 20 =R232198.D
50 =R232199.D 100 =R232200.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63)	C	cis-1,3-dichloropropene	0.462	0.435	0.466	0.474	0.477	0.484	0.468	0.461	0.4660	3.13
64)	C	4-methyl-2-pentanone	0.916	0.823	0.824	0.815	0.827	0.826	0.781	0.763	0.8219	5.44
65)		trans-1,3-dichloropropene	0.615	0.605	0.603	0.601	0.631	0.633	0.615	0.613	0.6145	1.99
66)	C	1,1,2-trichloroethane	0.472	0.442	0.453	0.450	0.451	0.445	0.426	0.414	0.4442	4.00
67)	I	chlorobenzene-D5	ISTD									
68)	C	toluene	6.519	5.533	5.616	5.691	5.652	5.538	5.231	4.920	5.5874	8.18
69)	s	toluene-D8	3.966	3.961	3.967	3.936	4.028	3.942	3.895	3.950	3.9555	0.95
70)		2-methylthiophene	5.641	5.121	4.965	5.113	5.080	5.073	4.686	4.448	5.0159	6.96
71)		1,3-dichloropropane	2.731	2.582	2.609	2.677	2.682	2.654	2.478	2.388	2.6000	4.43
72)		2-hexanone	4.155	4.223	4.202	4.412	4.378	4.364	4.107	3.858	4.2125	4.31
73)		3-methylthiophene	5.050	4.864	4.770	4.636	4.696	4.762	4.385	4.053	4.6519	6.61
74)		dibromochloromethane	3.659	3.678	3.722	4.017	3.996	3.993	3.603	3.254	3.7403	6.94
75)	C	1,2-dibromoethane	3.301	3.175	3.212	3.182	3.237	3.160	2.953	2.775	3.1243	5.55
76)		butyl acetate	0.572	0.632	0.590	0.618	0.623	0.606	0.574	0.562	0.5972	4.38
77)		octane	1.665	1.725	1.641	1.674	1.677	1.675	1.565	1.485	1.6386	4.68
78)	C	tetrachloroethene	2.754	2.648	2.617	2.653	2.659	2.600	2.381	2.211	2.5656	6.95
79)		1,1,1,2-tetrachloroethane	2.145	1.965	1.929	1.982	1.980	1.933	1.753	1.522	1.9011	9.82
80)	C	chlorobenzene	3.491	3.292	3.326	3.511	3.513	3.437	3.159	2.878	3.3258	6.61
81)	C	ethylbenzene	6.042	5.606	5.572	5.731	5.712	5.576	5.291	4.940	5.5586	5.87
82)		2-ethylthiophene	4.597	4.216	4.307	4.359	4.371	4.405	4.149	3.784	4.2734	5.58
83)	C	m+p-xylene	4.770	4.440	4.413	4.515	4.474	4.462	4.205	3.738	4.3770	6.87
84)	C	bromoform	2.631	2.602	2.614	2.884	2.886	2.868	2.659	2.398	2.6928	6.45
85)	C	styrene	3.399	3.276	3.228	3.434	3.455	3.363	3.224	3.002	3.2978	4.53
86)	C	1,1,2,2-tetrachloroethane	3.598	3.361	3.322	3.531	3.517	3.429	3.108	2.555	3.3026	10.25
87)	C	o-xylene	4.886	4.653	4.637	4.673	4.641	4.548	4.132	3.420	4.4488	10.49
88)		1,2,3-trichloropropane	2.686	2.540	2.614	2.760	2.762	2.717	2.608	2.444	2.6415	4.23
89)		nonane	3.839	3.672	3.537	3.688	3.689	3.667	3.512	3.130	3.5916	5.90
90)	s	bromofluorobenzene	1.675	1.905	2.245	2.306	2.365	1.824	2.321	2.326	2.1209	12.91
91)	C	isopropylbenzene	5.000	6.170	6.029	6.241	6.174	4.334	5.639	5.029	5.5771	12.74
92)		bromobenzene	2.827	3.198	3.215	3.355	3.412	3.339	3.210	2.971	3.1910	6.27
93)		2-chlorotoluene	1.621	1.640	1.674	1.722	1.737	1.677	1.508	1.292	1.6088	9.09

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Method File : TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Tue Jan 20 07:55:24 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R232193.D 0.5 =R232194.D 1.0 =R232195.D 5.0 =R232196.D 10 =R232197.D 20 =R232198.D
50 =R232199.D 100 =R232200.D

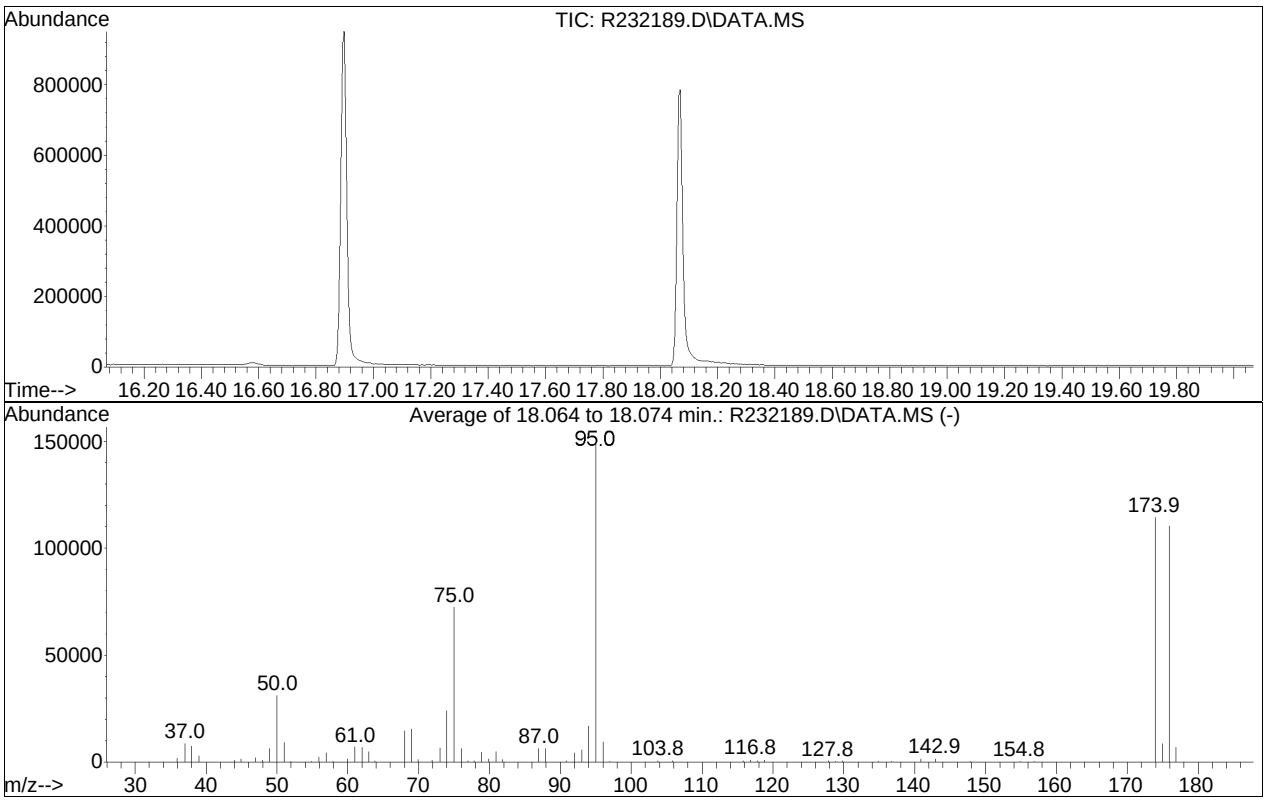
		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94)		n-propylbenzene	1.779	1.708	1.735	1.828	1.833	1.781	1.617	1.380	1.7077	8.76
95)		4-chlorotoluene	5.115	4.790	4.648	5.017	4.989	4.878	4.505	4.187	4.7660	6.46
96)		4-ethyl toluene	6.726	6.345	6.418	6.812	6.827	6.736	6.227	5.458	6.4436	7.13
97)		1,3,5-trimethylbenzene	5.845	5.428	5.411	5.488	5.491	5.376	5.034	4.434	5.3135	7.86
98)		tert-butylbenzene	6.026	5.704	5.726	6.041	6.007	5.689	4.766	3.702	5.4577	15.04
99)		1,2,4-trimethylbenzene	5.398	5.235	5.175	5.540	5.549	5.398	4.578	3.537	5.0512	13.58
100)		decane	3.937	3.668	3.613	3.916	3.959	3.925	3.706	3.200	3.7406	6.89
101)	C	Benzyl Chloride	3.814	3.876	4.160	5.140	5.277	5.422	5.189	4.528	4.6758	14.16
102)		1,3-dichlorobenzene	3.008	3.097	3.143	3.658	3.702	3.622	3.330	2.932	3.3116	9.41
103)	C	1,4-dichlorobenzene	3.436	3.935	3.759	3.922	3.899	3.768	3.381	2.812	3.6139	10.73
104)		sec-butylbenzene	8.330	7.719	7.608	8.139	8.090	7.901	7.040	5.661	7.5611	11.43
105)		1,2,3-trimethylbenzene	4.830	4.621	4.591	4.748	4.761	4.765	4.320	3.547	4.5229	9.41
106)		p-isopropyltoluene	7.380	6.989	6.957	7.415	7.482	7.156	6.243	4.830	6.8065	13.09
107)		1,2-dichlorobenzene	3.349	3.173	3.134	3.585	3.625	3.486	3.237	2.932	3.3152	7.25
108)		n-butylbenzene	5.868	5.771	6.165	6.851	6.844	6.677	6.153	5.358	6.2108	8.76
109)		indan	5.063	4.870	4.950	5.133	5.188	5.155	4.780	4.211	4.9187	6.52
110)		indene	3.464	3.266	3.380	3.528	3.603	3.712	3.502	3.241	3.4621	4.66
111)	C	1,2-dibromo-3-chloropropane	1.665	1.547	1.655	1.928	1.964	1.943	1.871	1.681	1.7817	9.09
112)		undecane	3.899	3.886	4.008	4.575	4.632	4.440	4.229	3.540	4.1511	9.24
113)		1,2,4,5-tetramethylbenzene	0.881	0.879	0.878	1.065	1.079	0.955	0.822	0.652	0.9014	15.20
114)		dodecane	3.380	3.497	3.850	4.928	5.192	4.660	4.112	2.846	4.0581	20.18
115)	C	1,2,4-trichlorobenzene	2.163	2.358	2.477	3.188	3.252	2.993	2.717	2.156	2.6629	16.61
116)		naphthalene	5.443	5.684	6.150	7.730	7.919	7.158	6.793	6.340	6.6520	13.68
117)		1,2,3-trichlorobenzene	2.050	1.984	2.398	3.031	3.108	2.834	2.715	2.586	2.5884	16.22
118)		benzothiophene		4.613	5.096	6.444	6.794	6.367	6.102	5.567	5.8546	13.51
119)	C	hexachlorobutadiene	2.240	2.134	2.210	2.613	2.675	2.528	2.432	2.235	2.3834	8.62
120)		2-methylnaphthalene		0.454	1.007	2.158	2.663	2.218	2.329	2.363	1.8847	43.51#
121)		1-methylnaphthalene		1.054	1.596	2.042	2.381	2.263	2.371	2.349	2.0079	25.17

(#) = Out of Range

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232189.D
Acq On : 19 Jan 2015 9:30 pm
Operator : AIRPIANO2:MB
Sample : WG756921-1,3,250,250
Misc : WG756921
ALS Vial : 4 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Tue Jan 20 07:55:24 2015



AutoFind: Scans 1784, 1785, 1786; Background Corrected with Scan 1776

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	20.8	31131	PASS
75	95	30	66	48.5	72429	PASS
95	95	100	100	100.0	149379	PASS
96	95	5	9	6.5	9676	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	76.6	114413	PASS
175	174	4	9	7.6	8711	PASS
176	174	93	101	96.5	110387	PASS
177	176	5	9	6.5	7126	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232193.D
Acq On : 19 Jan 2015 11:55 pm
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.2
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:37:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	177861	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 100.57%			
43) 1,4-difluorobenzene	12.549	114	453377	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 98.22%			
67) chlorobenzene-D5	16.893	54	109364	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 99.93%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.250	65	142269	10.153	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.53%			
69) toluene-D8	15.234	98	433719	9.845	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.45%			
90) bromofluorobenzene	18.064	95	183178	7.082	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 70.82%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	4760	0.219	ppbV #	90
3) propylene	4.330	41	2682M6	0.262	ppbV	
4) propane	4.359	29	3346	0.307	ppbV	95
5) dichlorodifluoromethane	4.428	85	5502	0.203	ppbV	100
6) chloromethane	4.655	50	2809	0.234	ppbV	99
7) Freon-114	4.813	85	7145	0.214	ppbV	91
8) methanol	4.941	31	7801	1.800	ppbV #	1
9) vinyl chloride	4.971	62	2636	0.203	ppbV #	83
10) 1,3-butadiene	5.178	54	2826	0.293	ppbV	81
11) butane	5.247	43	5268	0.257	ppbV #	86
12) acetaldehyde	4.872	29	10430	1.308	ppbV #	79
13) bromomethane	5.550	94	2677	0.237	ppbV	100
14) chloroethane	5.814	64	1298	0.213	ppbV	100
15) ethanol	6.038	31	11561	1.277	ppbV	99
16) dichlorofluoromethane	5.958	67	7068	0.251	ppbV #	92
17) vinyl bromide	6.286	106	2492	0.215	ppbV #	64
18) acrolein	6.501	56	1532M4	0.271	ppbV	
19) acetone	6.677	43	21299	1.083	ppbV #	91
20) acetonitrile	6.333	41	3135M4	0.259	ppbV	
21) trichlorofluoromethane	6.853	101	7153	0.225	ppbV	86
22) isopropyl alcohol	7.021	45	6316	0.295	ppbV #	90
23) acrylonitrile	7.293	53	3173	0.320	ppbV	94
24) pentane	7.333	43	5721M4	0.228	ppbV	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232193.D
Acq On : 19 Jan 2015 11:55 pm
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.2
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:37:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.405	31	4544	0.252	ppbV		95
26) 1,1-dichloroethene	7.676	61	4442	0.204	ppbV	#	81
27) tertiary butyl alcohol	7.788	59	5841	0.224	ppbV	#	36
28) methylene chloride	7.844	49	4842	0.294	ppbV		98
29) 3-chloropropene	7.988	41	4186	0.234	ppbV	#	90
30) carbon disulfide	8.172	76	7917	0.209	ppbV	#	1
31) Freon 113	8.180	101	5578	0.213	ppbV		91
32) trans-1,2-dichloroethene	8.988	61	4413	0.211	ppbV		95
33) 1,1-dichloroethane	9.221	63	5143	0.211	ppbV		94
34) MTBE	9.324	73	8123	0.226	ppbV	#	83
35) vinyl acetate	9.434	43	5440	0.208	ppbV	#	81
36) 2-butanone	9.729	43	6739	0.221	ppbV	#	91
37) cis-1,2-dichloroethene	10.198	61	3896	0.207	ppbV		92
38) Ethyl Acetate	10.499	61	761	0.166	ppbV	#	26
39) chloroform	10.536	83	6243	0.226	ppbV		99
40) Tetrahydrofuran	11.025	42	3162M4	0.181	ppbV		
41) 2,2-dichloropropane	10.564	77	5410	0.218	ppbV	#	76
42) 1,2-dichloroethane	11.372	62	4090	0.204	ppbV	#	93
44) hexane	10.442	57	5651	0.276	ppbV	#	29
45) diisopropyl ether	10.461	87	2071	0.208	ppbV	#	78
46) tert-butyl ethyl ether	11.071	59	9558	0.223	ppbV		96
48) 1,1,1-trichloroethane	11.648	97	7303	0.235	ppbV		91
49) 1,1-dichloropropene	12.000	75	4132	0.206	ppbV		95
50) benzene	12.166	78	8776	0.234	ppbV	#	92
51) thiophene	12.311	84	5728	0.225	ppbV	#	93
52) carbon tetrachloride	12.332	117	6140	0.214	ppbV		89
53) cyclohexane	12.466	56	5306	0.254	ppbV		91
54) tert-amyl methyl ether	12.839	73	8271	0.218	ppbV	#	82
55) dibromomethane	13.046	93	3866	0.235	ppbV		94
56) 1,2-dichloropropane	13.078	63	3242	0.220	ppbV	#	82
57) bromodichloromethane	13.295	83	6916	0.219	ppbV		88
58) 1,4-dioxane	13.378	88	1823	0.217	ppbV	#	47
59) trichloroethene	13.336	130	3535	0.205	ppbV		98
60) 2,2,4-trimethylpentane	13.378	57	16531	0.241	ppbV		98
61) methyl methacrylate	13.554	41	4578M4	0.222	ppbV		
62) heptane	13.668	43	6227M4	0.232	ppbV		
63) cis-1,3-dichloropropene	14.305	75	4189	0.194	ppbV		93
64) 4-methyl-2-pentanone	14.352	43	8303M4	0.221	ppbV		
65) trans-1,3-dichloropropene	14.873	75	5576	0.195	ppbV	#	85
66) 1,1,2-trichloroethane	15.053	97	4283	0.210	ppbV	#	77

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232193.D
Acq On : 19 Jan 2015 11:55 pm
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.2
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:37:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.334	91	14259	0.231	ppbV		99
70) 2-methylthiophene	15.397	97	12339M4	0.222	ppbV		
71) 1,3-dichloropropane	15.352	76	5973	0.204	ppbV		88
72) 2-hexanone	15.596	43	9088M4	0.190	ppbV		
73) 3-methylthiophene	15.568	97	11045M3	0.215	ppbV		
74) dibromochloromethane	15.740	129	8004	0.183	ppbV		89
75) 1,2-dibromoethane	15.966	107	7221	0.204	ppbV		99
76) butyl acetate	16.156	73	1252M6	0.184	ppbV		
77) octane	16.219	85	3641	0.198	ppbV	#	87
78) tetrachloroethene	16.364	166	6023	0.207	ppbV		93
79) 1,1,1,2-tetrachloroethane	16.917	131	4692	0.217	ppbV		88
80) chlorobenzene	16.931	112	7636	0.199	ppbV		99
81) ethylbenzene	17.222	91	13215	0.212	ppbV		95
82) 2-ethylthiophene	17.260	97	10054	0.210	ppbV		98
83) m+p-xylene	17.360	91	20865	0.426	ppbV		96
84) bromoform	17.441	173	5754	0.182	ppbV		97
85) styrene	17.641	104	7435	0.197	ppbV		93
86) 1,1,2,2-tetrachloroethane	17.722	83	7869	0.205	ppbV		97
87) o-xylene	17.722	91	10688	0.211	ppbV		97
88) 1,2,3-trichloropropane	17.822	75	5876	0.194	ppbV	#	91
89) nonane	17.860	43	8398	0.208	ppbV		91
91) isopropylbenzene	18.160	105	10936	0.162	ppbV		100
92) bromobenzene	18.241	77	6183M4	0.166	ppbV		
93) 2-chlorotoluene	18.522	126	3546	0.187	ppbV	#	64
94) n-propylbenzene	18.536	120	3892	0.194	ppbV		93
95) 4-chlorotoluene	18.569	91	11187	0.205	ppbV		95
96) 4-ethyl toluene	18.641	105	14712M6	0.194	ppbV		
97) 1,3,5-trimethylbenzene	18.693	105	12784M4	0.213	ppbV		
98) tert-butylbenzene	18.998	119	13181	0.201	ppbV		96
99) 1,2,4-trimethylbenzene	18.998	105	11808	0.195	ppbV		95
100) decane	19.046	57	8611	0.199	ppbV	#	88
101) Benzyl Chloride	19.113	91	8342	0.145	ppbV		97
102) 1,3-dichlorobenzene	19.132	146	6580	0.163	ppbV		93
103) 1,4-dichlorobenzene	19.179	146	7516M4	0.176	ppbV		
104) sec-butylbenzene	19.198	105	18220	0.206	ppbV		99
105) 1,2,3-trimethylbenzene	19.322	105	10564	0.203	ppbV		94
106) p-isopropyltoluene	19.308	119	16142	0.197	ppbV		99
107) 1,2-dichlorobenzene	19.436	146	7326	0.185	ppbV		96
108) n-butylbenzene	19.632	91	12835	0.171	ppbV		100
109) indan	19.479	117	11074	0.195	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232193.D
Acq On : 19 Jan 2015 11:55 pm
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.2
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:37:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

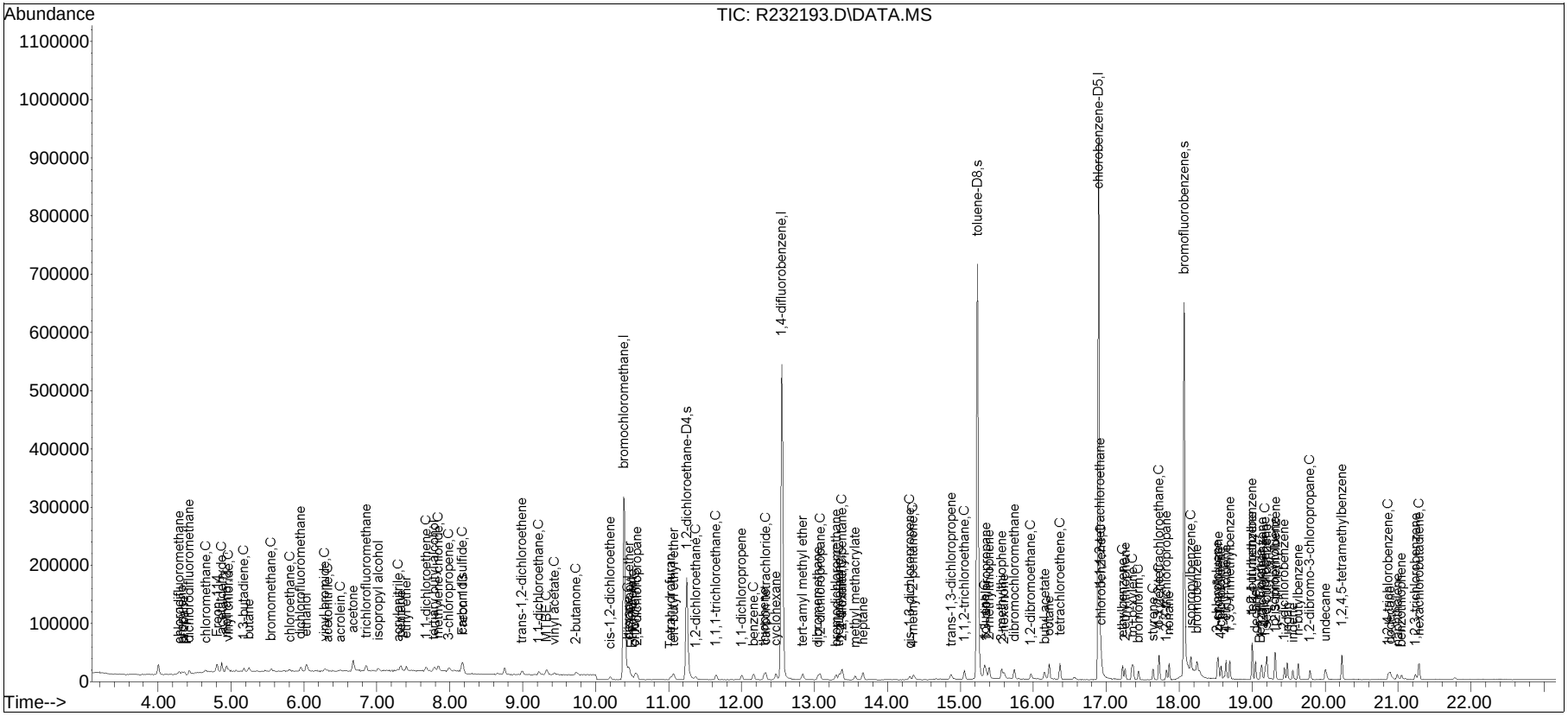
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) indene	19.555	115	7576	0.192	ppbV		91
111) 1,2-dibromo-3-chloropr...	19.789	75	3642	0.170	ppbV		86
112) undecane	20.003	57	8528	0.168	ppbV	#	99
113) 1,2,4,5-tetramethylben...	20.227	119	19268	0.163	ppbV		96
114) dodecane	20.893	57	7393	0.130	ppbV		87
115) 1,2,4-trichlorobenzene	20.861	180	4732	0.133	ppbV		95
116) naphthalene	20.989	128	11905M4	0.137	ppbV		
117) 1,2,3-trichlorobenzene	21.236	180	4485	0.132	ppbV	#	87
118) benzothiophene	21.043	134	8817M4	0.119	ppbV		
119) hexachlorobutadiene	21.289	225	4899	0.167	ppbV	#	90
120) 2-methylnaphthalene	0.000		0	N.D.			
121) 1-methylnaphthalene	22.318		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0119T_ICAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232193.D
Acq On : 19 Jan 2015 11:55 pm
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.2
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:37:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

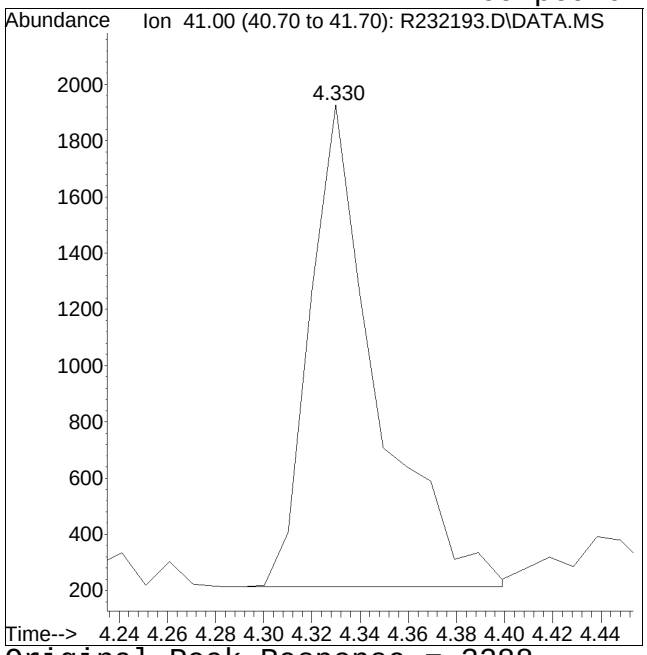


Manual Integration/Negative Proof Report

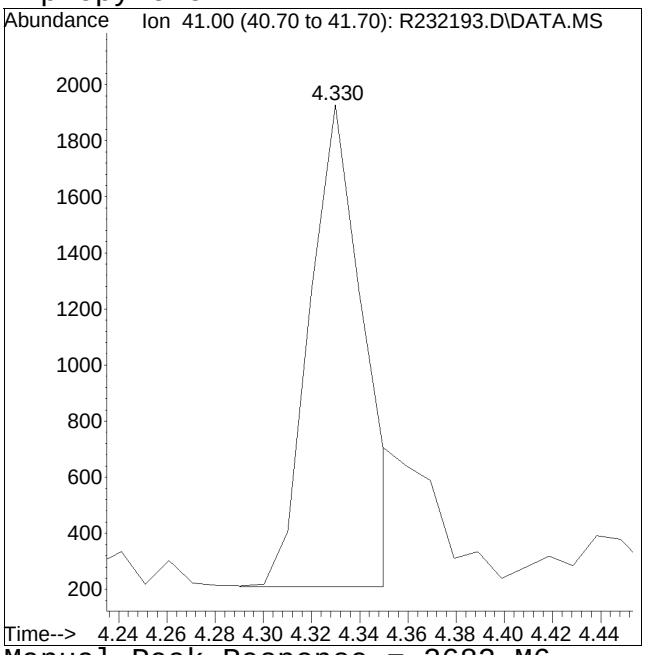
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #3: propylene



Original Peak Response = 3288



Manual Peak Response = 2682 M6

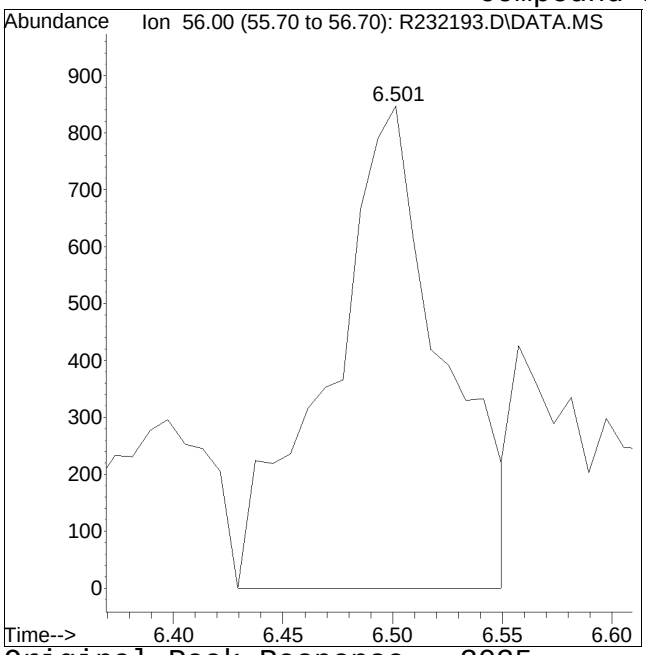
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

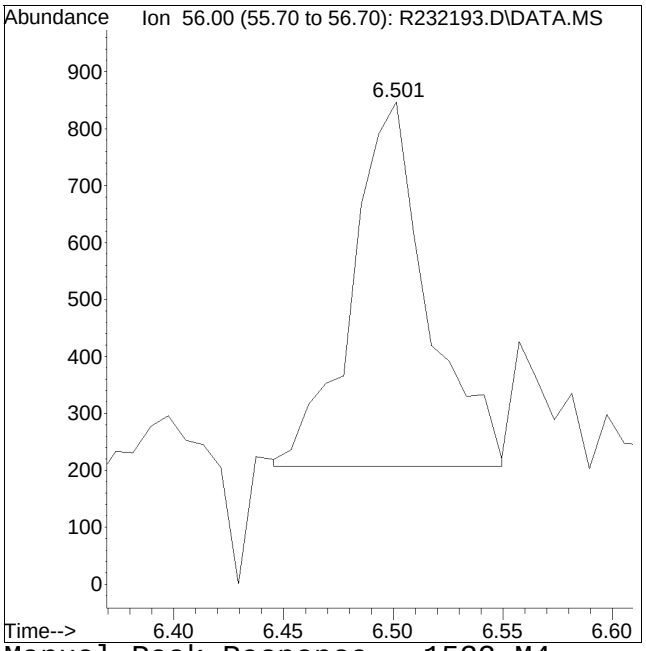
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #18: acrolein



Original Peak Response = 3035



Manual Peak Response = 1532 M4

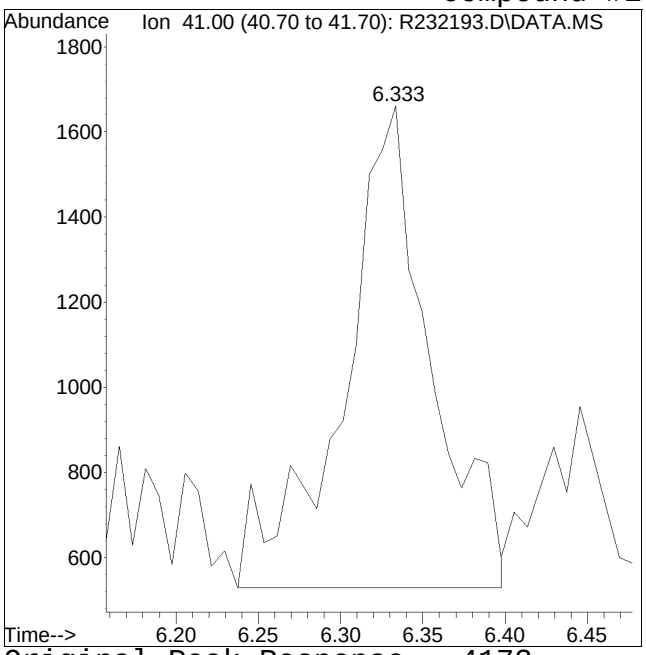
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

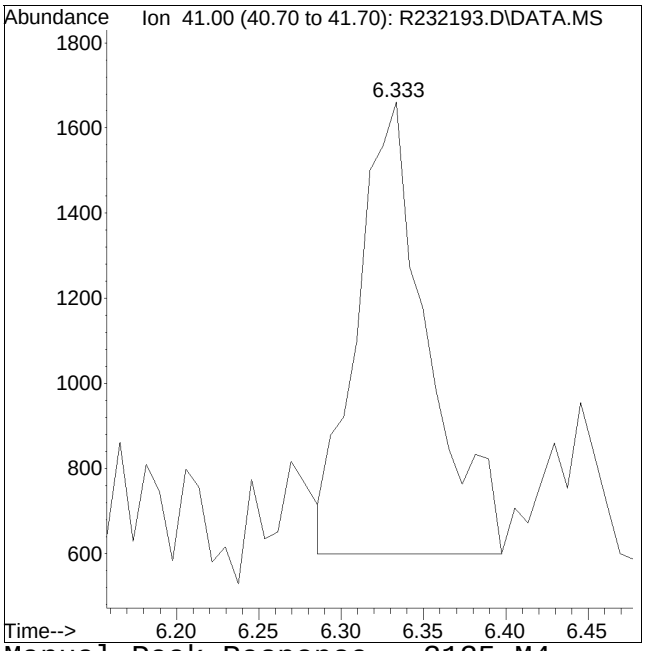
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #20: acetonitrile



Original Peak Response = 4173



Manual Peak Response = 3135 M4

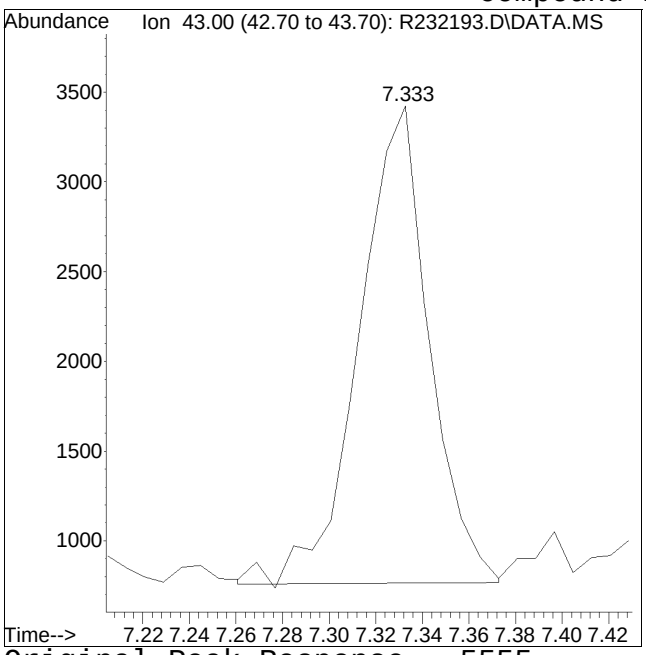
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

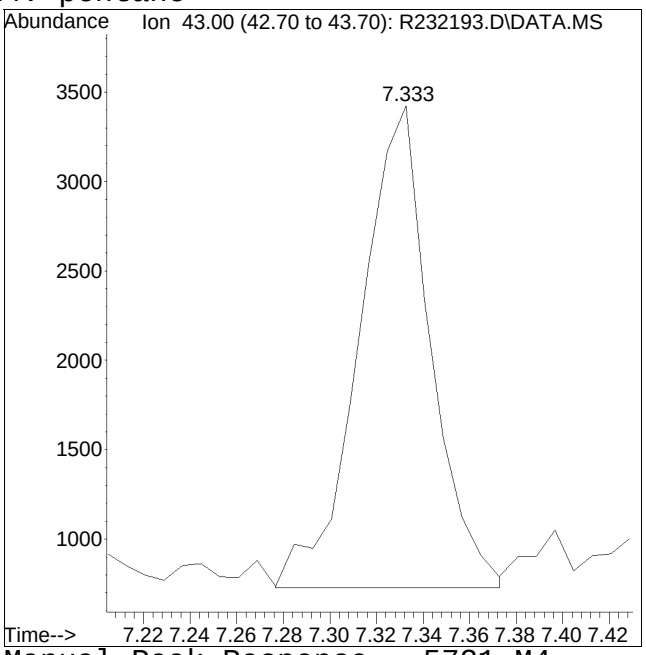
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #24: pentane



Original Peak Response = 5555



Manual Peak Response = 5721 M4

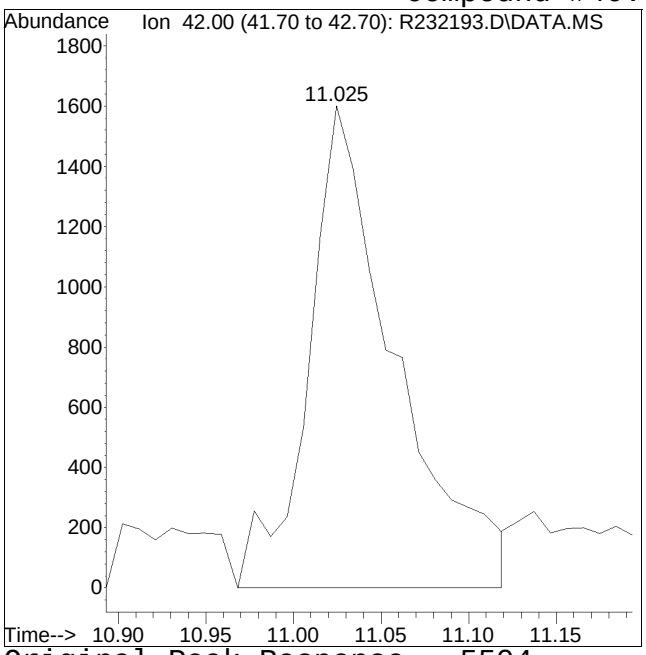
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

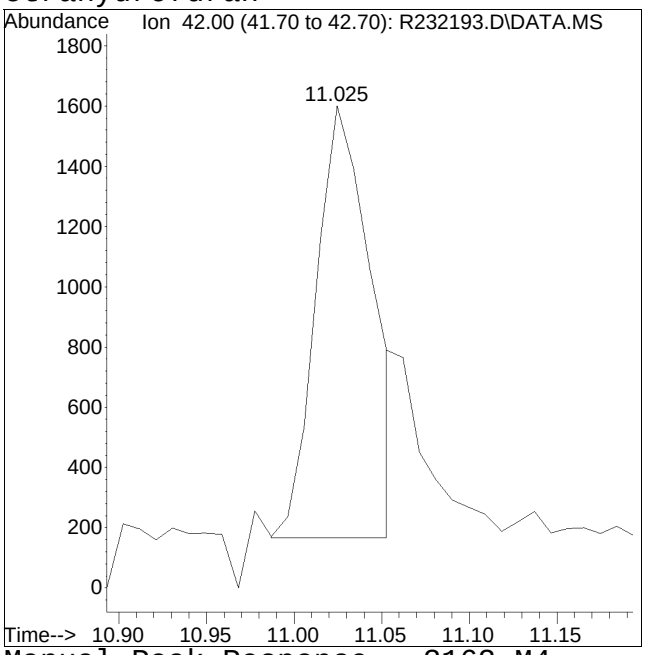
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #40: Tetrahydrofuran



Original Peak Response = 5504



Manual Peak Response = 3162 M4

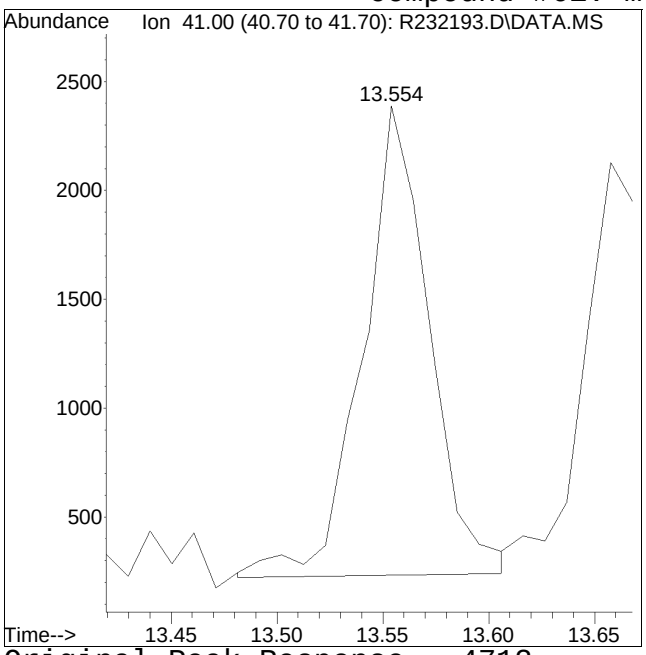
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

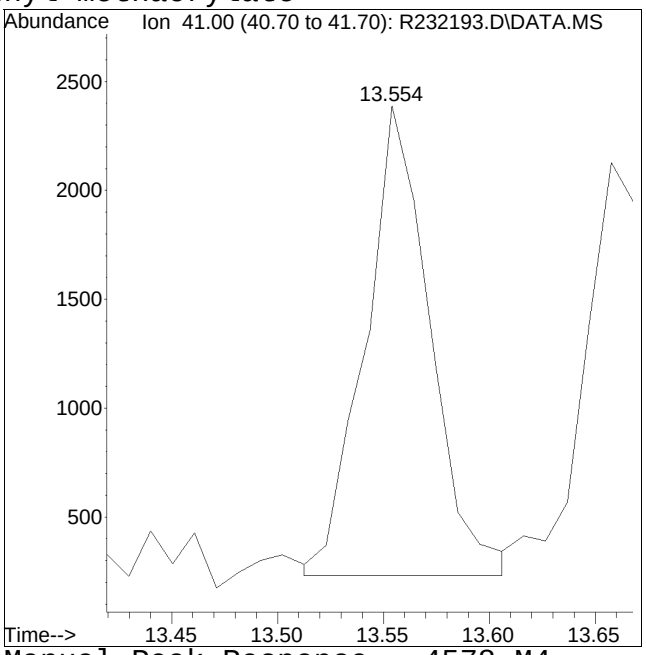
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #61: methyl methacrylate



Original Peak Response = 4712



Manual Peak Response = 4578 M4

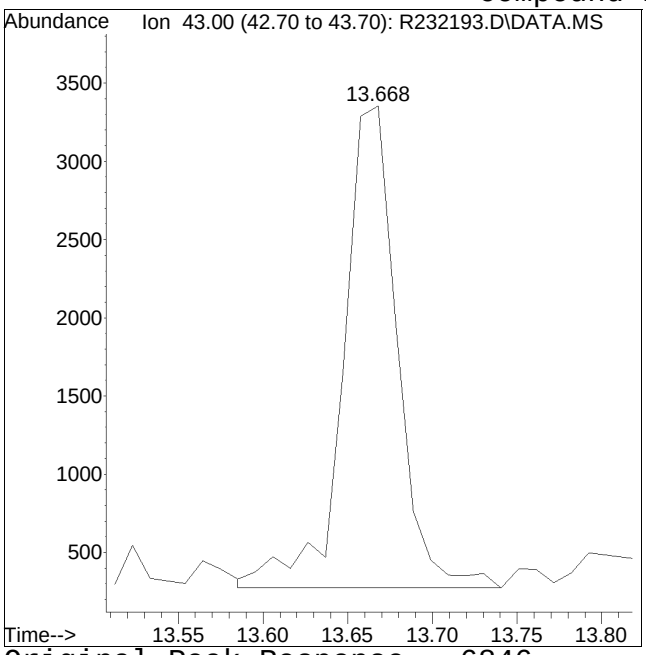
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

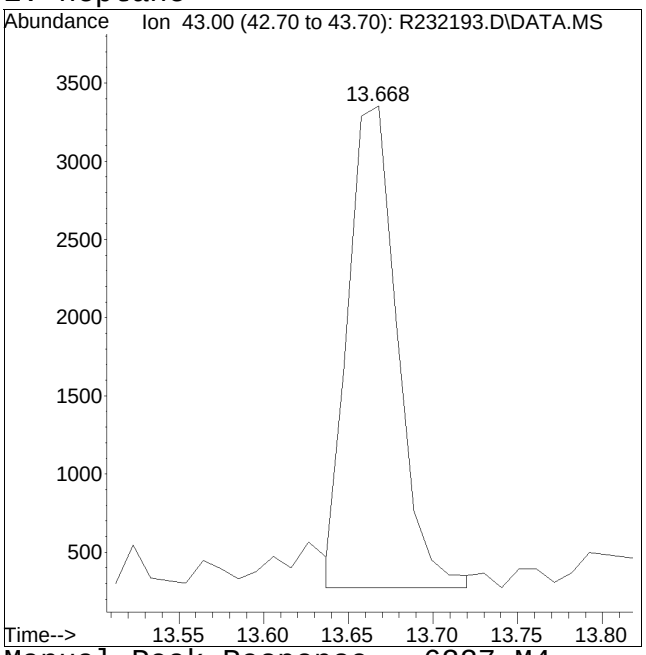
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #62: heptane



Original Peak Response = 6846



Manual Peak Response = 6227 M4

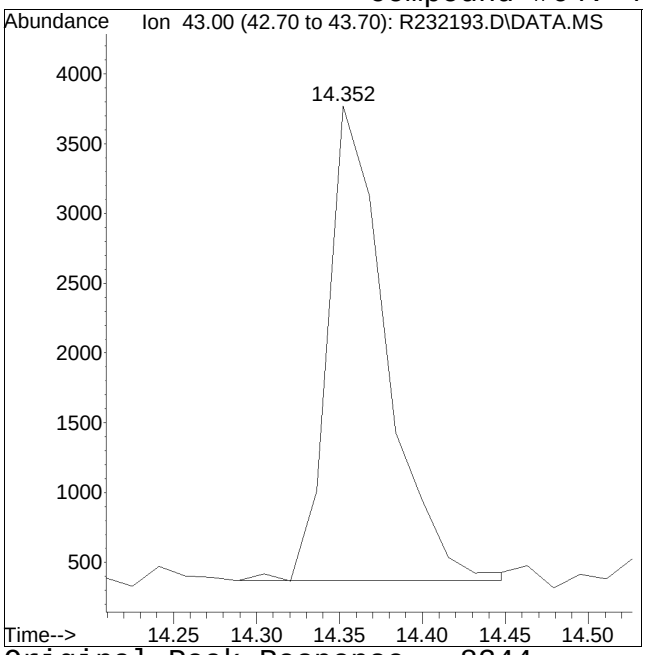
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

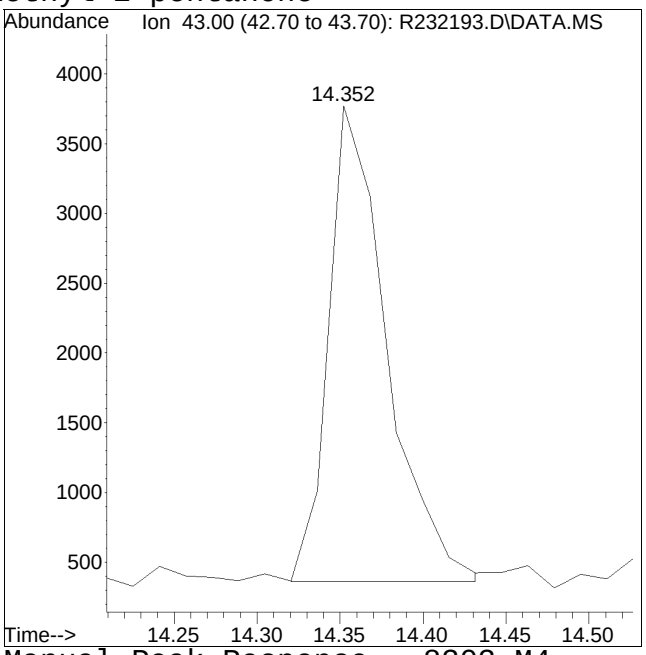
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #64: 4-methyl-2-pentanone



Original Peak Response = 8344



Manual Peak Response = 8303 M4

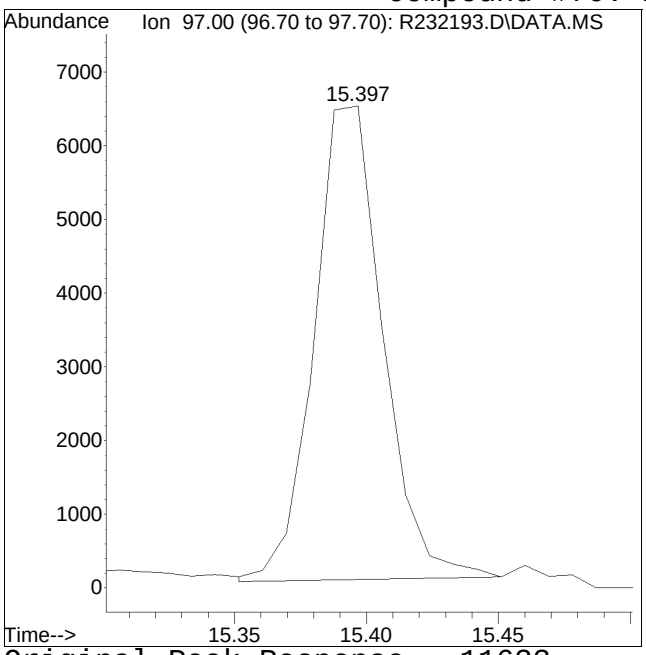
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

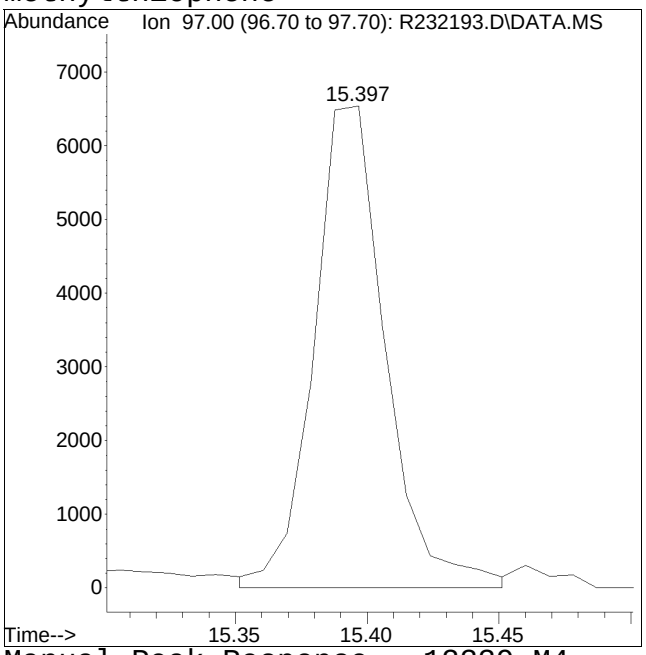
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #70: 2-methylthiophene



Original Peak Response = 11633



Manual Peak Response = 12339 M4

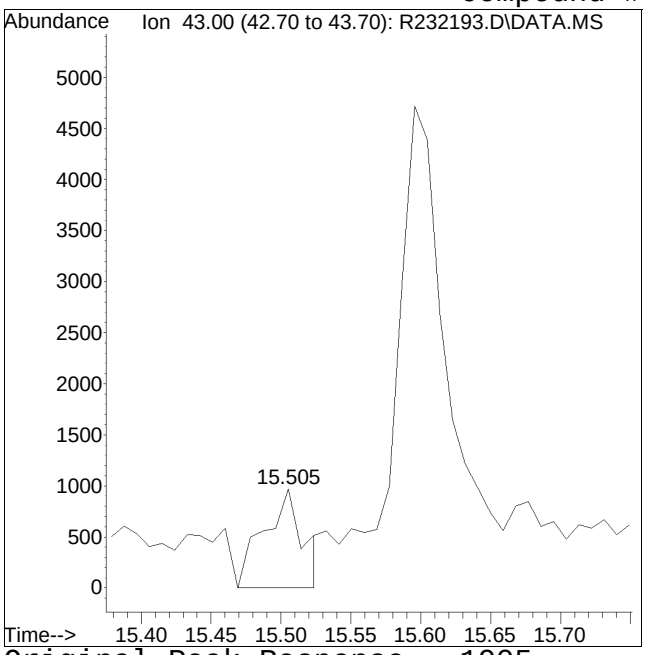
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

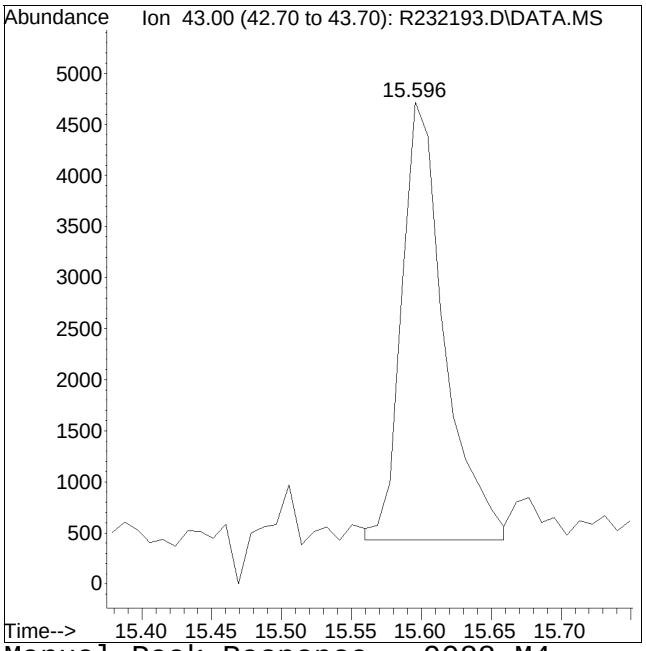
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #72: 2-hexanone



Original Peak Response = 1905



Manual Peak Response = 9088 M4

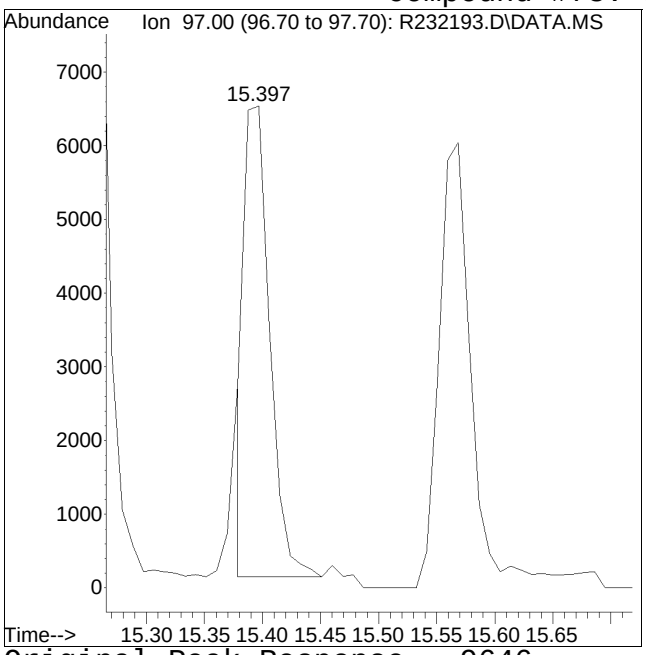
M4 = Poor automated baseline construction.

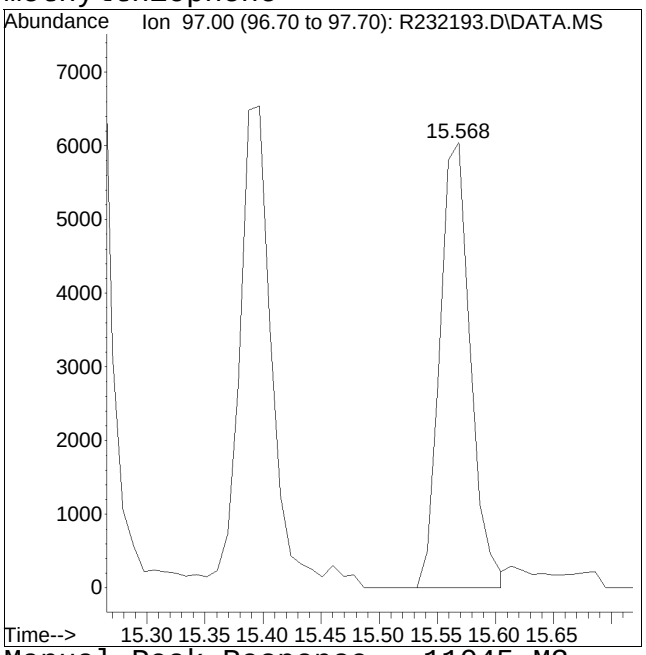
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #73: 3-methylthiophene





Original Peak Response = 9646 Manual Peak Response = 11045 M3

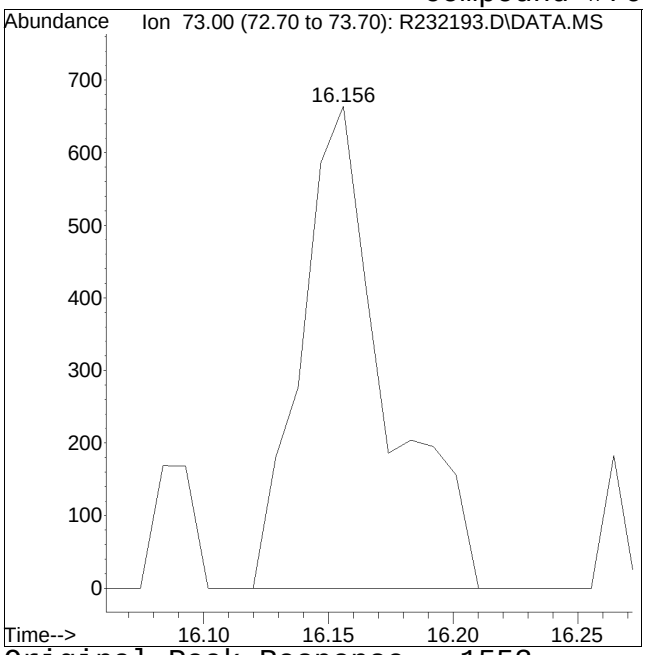
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

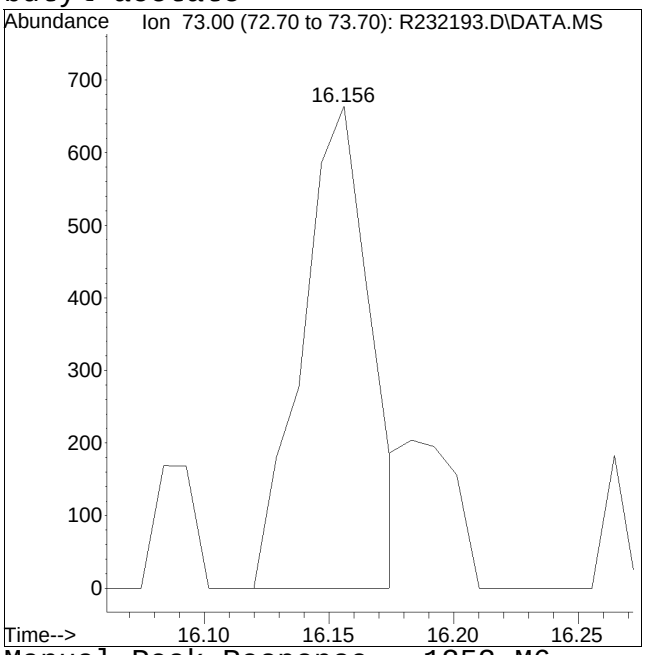
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #76: butyl acetate



Original Peak Response = 1553



Manual Peak Response = 1252 M6

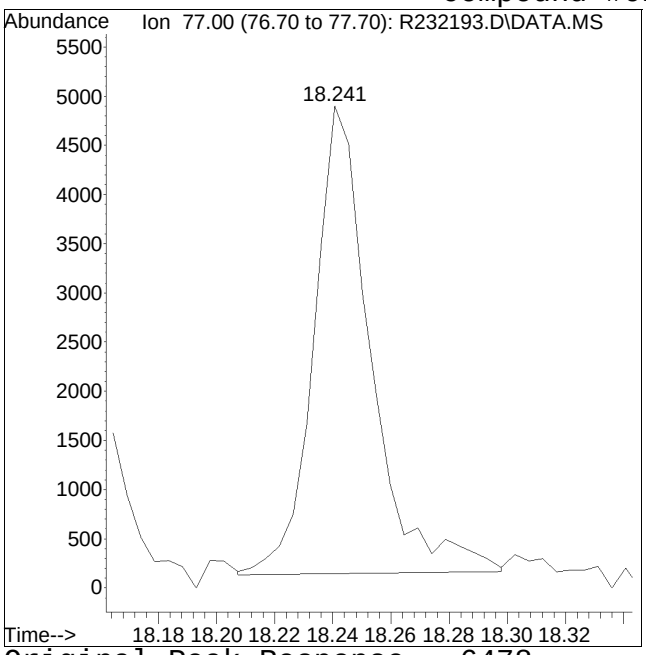
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

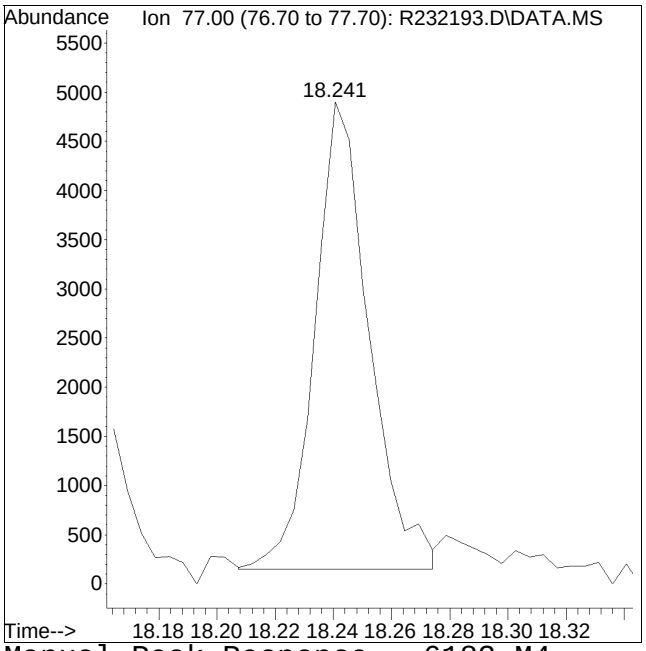
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #92: bromobenzene



Original Peak Response = 6478



Manual Peak Response = 6183 M4

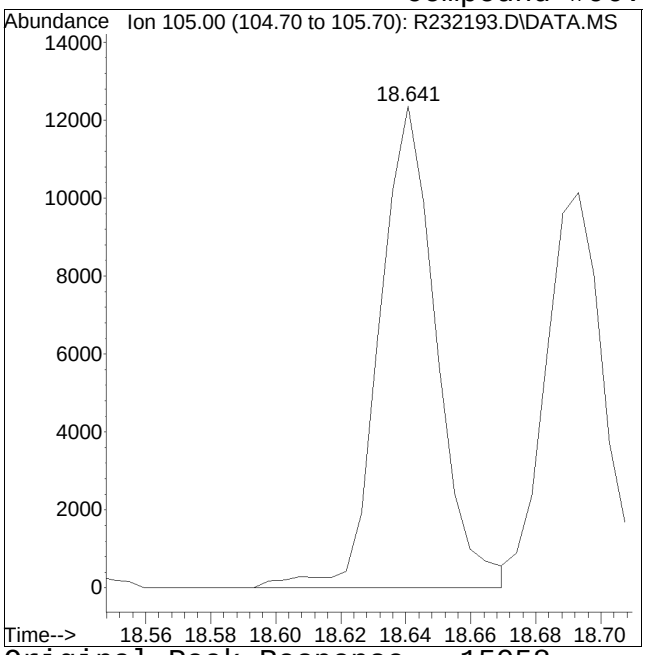
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

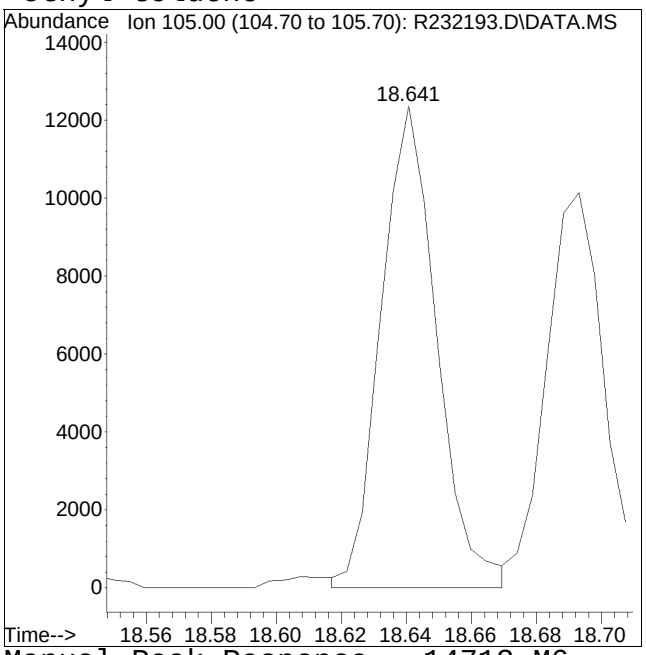
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #96: 4-ethyl toluene



Original Peak Response = 15058



Manual Peak Response = 14712 M6

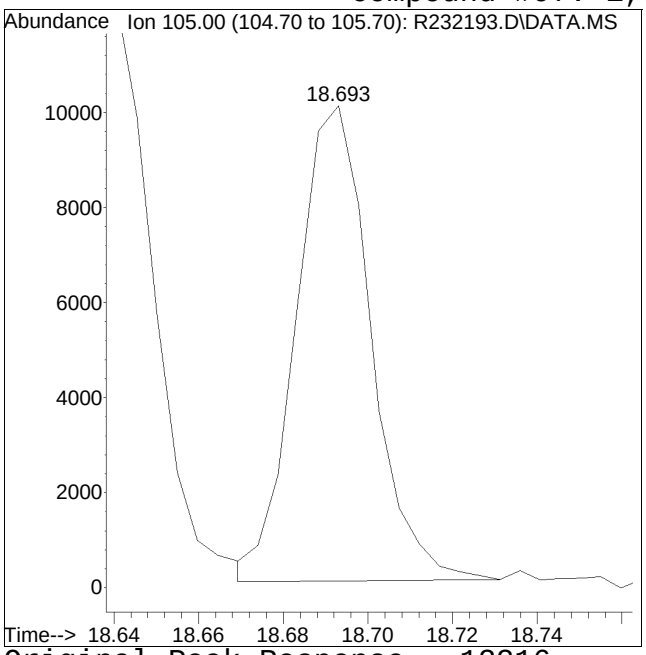
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

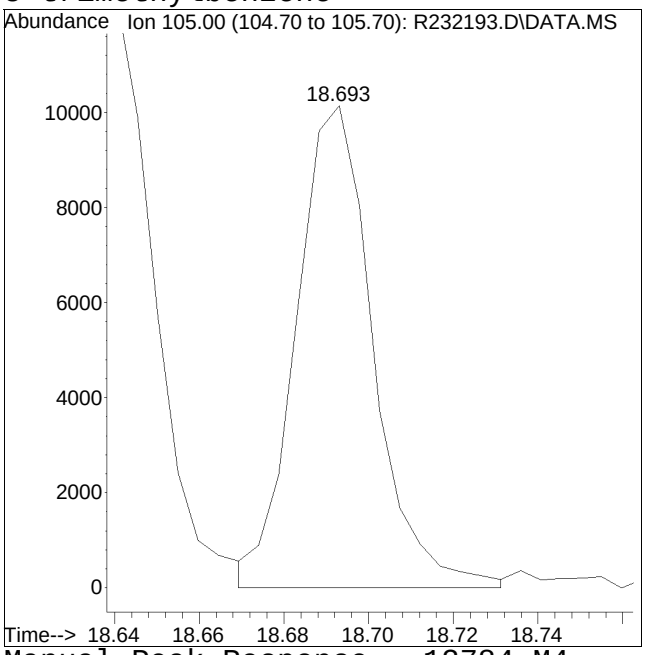
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #97: 1,3,5-trimethylbenzene



Original Peak Response = 12216



Manual Peak Response = 12784 M4

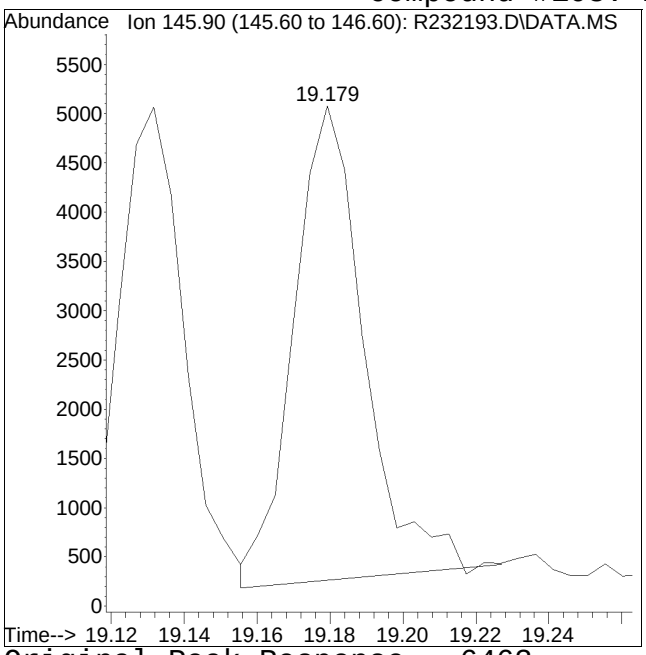
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

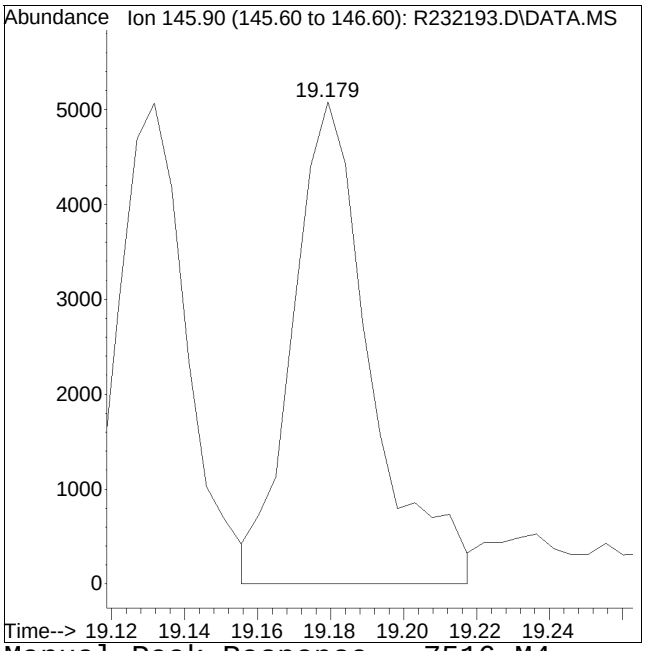
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 6463



Manual Peak Response = 7516 M4

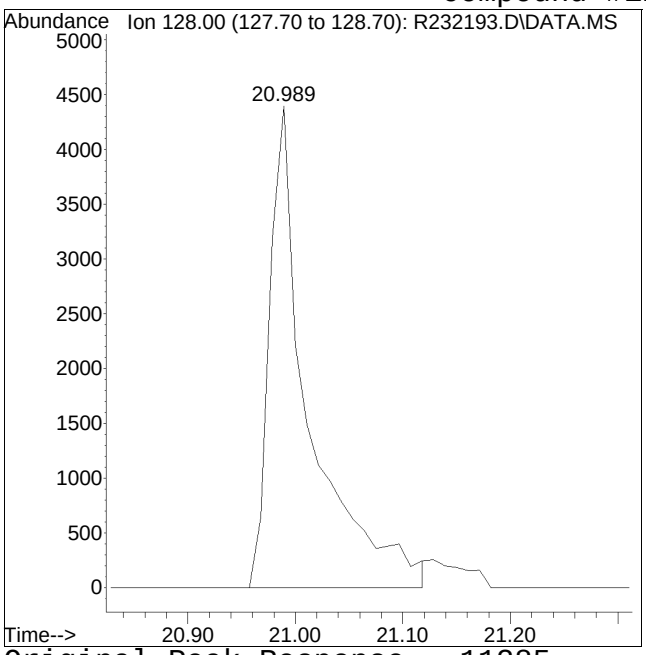
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

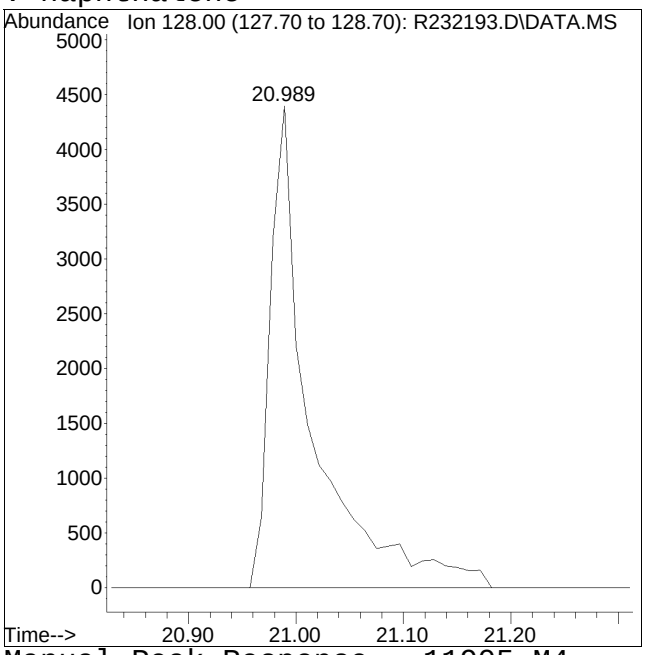
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #116: naphthalene



Original Peak Response = 11285



Manual Peak Response = 11905 M4

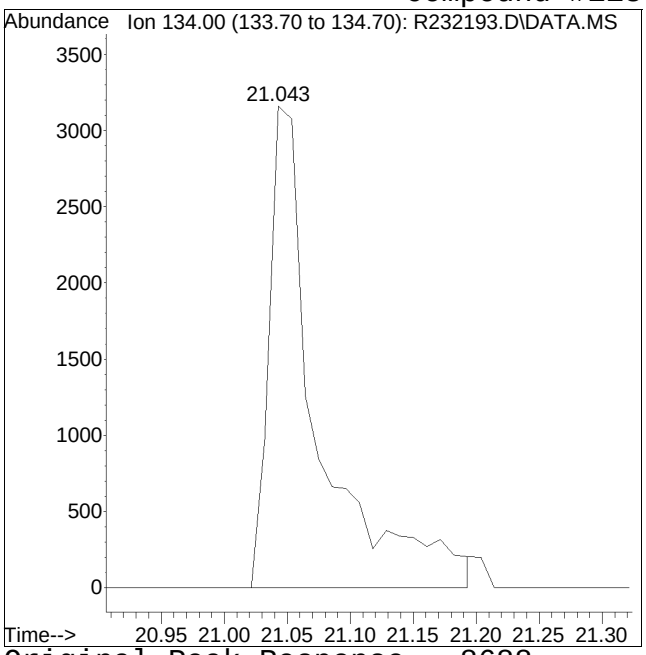
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

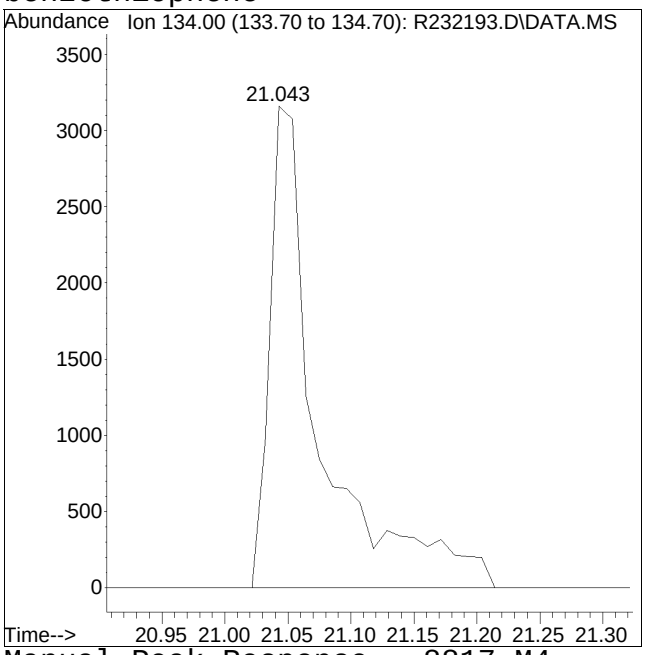
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232193.D
Date Inj'd : 1/19/2015 11:55 pm
Sample : ITO15-SIMSTD0.2

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:36 am

Compound #118: benzothiophene



Original Peak Response = 8688



Manual Peak Response = 8817 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232194.D
Acq On : 20 Jan 2015 12:27 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.5
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:40:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	176723	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 99.93%			
43) 1,4-difluorobenzene	12.549	114	458068	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 99.23%			
67) chlorobenzene-D5	16.893	54	111531	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 101.91%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.250	65	144073	10.177	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.77%			
69) toluene-D8	15.234	98	441719	9.832	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.32%			
90) bromofluorobenzene	18.065	95	212461	8.055	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.55%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	11288	0.522	ppbV	99
3) propylene	4.330	41	5446M6	0.535	ppbV	
4) propane	4.359	29	6427M4	0.593	ppbV	
5) dichlorodifluoromethane	4.428	85	13495	0.501	ppbV	95
6) chloromethane	4.655	50	6725	0.565	ppbV	97
7) Freon-114	4.803	85	17840	0.538	ppbV	94
8) methanol	4.931	31	14075	3.268	ppbV #	39
9) vinyl chloride	4.971	62	6402	0.497	ppbV	96
10) 1,3-butadiene	5.178	54	6105	0.637	ppbV	83
11) butane	5.257	43	11175	0.548	ppbV	94
12) acetaldehyde	4.862	29	22372	2.824	ppbV	91
13) bromomethane	5.550	94	6117	0.546	ppbV	97
14) chloroethane	5.806	64	3185	0.527	ppbV #	86
15) ethanol	6.030	31	24998	2.779	ppbV	100
16) dichlorofluoromethane	5.958	67	15844	0.567	ppbV	95
17) vinyl bromide	6.286	106	5520	0.479	ppbV	94
18) acrolein	6.477	56	2877M4	0.513	ppbV	
19) acetone	6.661	43	52354	2.679	ppbV #	98
20) acetonitrile	6.318	41	7358	0.611	ppbV	97
21) trichlorofluoromethane	6.853	101	15391	0.487	ppbV	90
22) isopropyl alcohol	7.005	45	13698	0.644	ppbV	99
23) acrylonitrile	7.277	53	5821M6	0.592	ppbV	
24) pentane	7.325	43	12138M4	0.488	ppbV	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232194.D
Acq On : 20 Jan 2015 12:27 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.5
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:40:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.397	31	9339	0.521	ppbV		96
26) 1,1-dichloroethene	7.676	61	11051	0.512	ppbV		95
27) tertiary butyl alcohol	7.772	59	14741	0.569	ppbV	#	69
28) methylene chloride	7.844	49	9998	0.611	ppbV		94
29) 3-chloropropene	7.988	41	10207	0.574	ppbV		92
30) carbon disulfide	8.172	76	18723	0.498	ppbV	#	18
31) Freon 113	8.180	101	13276	0.509	ppbV		96
32) trans-1,2-dichloroethene	8.988	61	10601	0.509	ppbV	#	92
33) 1,1-dichloroethane	9.221	63	11859	0.490	ppbV		98
34) MTBE	9.317	73	19006	0.531	ppbV		92
35) vinyl acetate	9.434	43	10650	0.410	ppbV	#	94
36) 2-butanone	9.722	43	15663	0.516	ppbV		98
37) cis-1,2-dichloroethene	10.198	61	9151	0.489	ppbV		98
38) Ethyl Acetate	10.480	61	2042	0.448	ppbV	#	44
39) chloroform	10.536	83	13541	0.493	ppbV		90
40) Tetrahydrofuran	11.015	42	9802M6	0.566	ppbV		
41) 2,2-dichloropropane	10.564	77	13165	0.535	ppbV		92
42) 1,2-dichloroethane	11.372	62	9642	0.485	ppbV		95
44) hexane	10.442	57	12027	0.582	ppbV	#	45
45) diisopropyl ether	10.452	87	5258	0.522	ppbV		97
46) tert-butyl ethyl ether	11.062	59	22130	0.512	ppbV		94
48) 1,1,1-trichloroethane	11.648	97	16894	0.537	ppbV		98
49) 1,1-dichloropropene	12.000	75	10052	0.495	ppbV		95
50) benzene	12.166	78	20172	0.533	ppbV		95
51) thiophene	12.311	84	13017	0.506	ppbV		95
52) carbon tetrachloride	12.332	117	15079	0.519	ppbV		97
53) cyclohexane	12.466	56	11623	0.550	ppbV		90
54) tert-amyl methyl ether	12.829	73	20029	0.523	ppbV		98
55) dibromomethane	13.046	93	8533	0.513	ppbV		98
56) 1,2-dichloropropane	13.078	63	7804	0.524	ppbV	#	84
57) bromodichloromethane	13.295	83	16863	0.528	ppbV		97
58) 1,4-dioxane	13.368	88	4651	0.548	ppbV	#	64
59) trichloroethene	13.337	130	8830	0.506	ppbV		90
60) 2,2,4-trimethylpentane	13.378	57	36938	0.532	ppbV		99
61) methyl methacrylate	13.554	41	10759M4	0.516	ppbV		
62) heptane	13.658	43	14631M4	0.539	ppbV		
63) cis-1,3-dichloropropene	14.305	75	9967M6	0.456	ppbV		
64) 4-methyl-2-pentanone	14.352	43	18846M4	0.498	ppbV		
65) trans-1,3-dichloropropene	14.864	75	13864	0.480	ppbV		99
66) 1,1,2-trichloroethane	15.053	97	10124	0.490	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232194.D
Acq On : 20 Jan 2015 12:27 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.5
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:40:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.325	91	30855	0.489	ppbV		93
70) 2-methylthiophene	15.397	97	28560	0.504	ppbV		98
71) 1,3-dichloropropane	15.352	76	14400	0.481	ppbV		96
72) 2-hexanone	15.578	43	23548	0.482	ppbV		93
73) 3-methylthiophene	15.559	97	27125	0.518	ppbV		95
74) dibromochloromethane	15.740	129	20510	0.460	ppbV		98
75) 1,2-dibromoethane	15.966	107	17707	0.490	ppbV		100
76) butyl acetate	16.138	73	3525	0.507	ppbV		88
77) octane	16.219	85	9620	0.514	ppbV		93
78) tetrachloroethene	16.364	166	14769	0.498	ppbV		98
79) 1,1,1,2-tetrachloroethane	16.917	131	10957	0.496	ppbV		99
80) chlorobenzene	16.931	112	18357	0.469	ppbV		94
81) ethylbenzene	17.222	91	31260	0.491	ppbV		100
82) 2-ethylthiophene	17.255	97	23510	0.482	ppbV		94
83) m+p-xylene	17.355	91	49518	0.992	ppbV		95
84) bromoform	17.441	173	14510	0.451	ppbV		96
85) styrene	17.641	104	18269	0.474	ppbV		98
86) 1,1,2,2-tetrachloroethane	17.722	83	18742	0.478	ppbV		94
87) o-xylene	17.722	91	25949	0.501	ppbV		100
88) 1,2,3-trichloropropane	17.822	75	14166	0.460	ppbV	#	91
89) nonane	17.860	43	20475	0.498	ppbV		98
91) isopropylbenzene	18.155	105	34410	0.500	ppbV		93
92) bromobenzene	18.245	77	17835	0.469	ppbV		98
93) 2-chlorotoluene	18.522	126	9146	0.472	ppbV		91
94) n-propylbenzene	18.536	120	9522	0.466	ppbV		65
95) 4-chlorotoluene	18.569	91	26709M4	0.480	ppbV		
96) 4-ethyl toluene	18.636	105	35382M6	0.459	ppbV		
97) 1,3,5-trimethylbenzene	18.688	105	30270	0.494	ppbV		98
98) tert-butylbenzene	18.998	119	31810	0.475	ppbV		100
99) 1,2,4-trimethylbenzene	18.998	105	29192	0.472	ppbV		96
100) decane	19.041	57	20457	0.463	ppbV		97
101) Benzyl Chloride	19.113	91	21617	0.367	ppbV		99
102) 1,3-dichlorobenzene	19.127	146	17268	0.418	ppbV		99
103) 1,4-dichlorobenzene	19.174	146	21941M4	0.505	ppbV		
104) sec-butylbenzene	19.194	105	43048	0.477	ppbV		100
105) 1,2,3-trimethylbenzene	19.317	105	25768	0.485	ppbV		98
106) p-isopropyltoluene	19.308	119	38975	0.467	ppbV		97
107) 1,2-dichlorobenzene	19.436	146	17697	0.438	ppbV		99
108) n-butylbenzene	19.627	91	32182	0.422	ppbV		100
109) indan	19.479	117	27159	0.469	ppbV		95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232194.D
Acq On : 20 Jan 2015 12:27 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.5
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:40:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

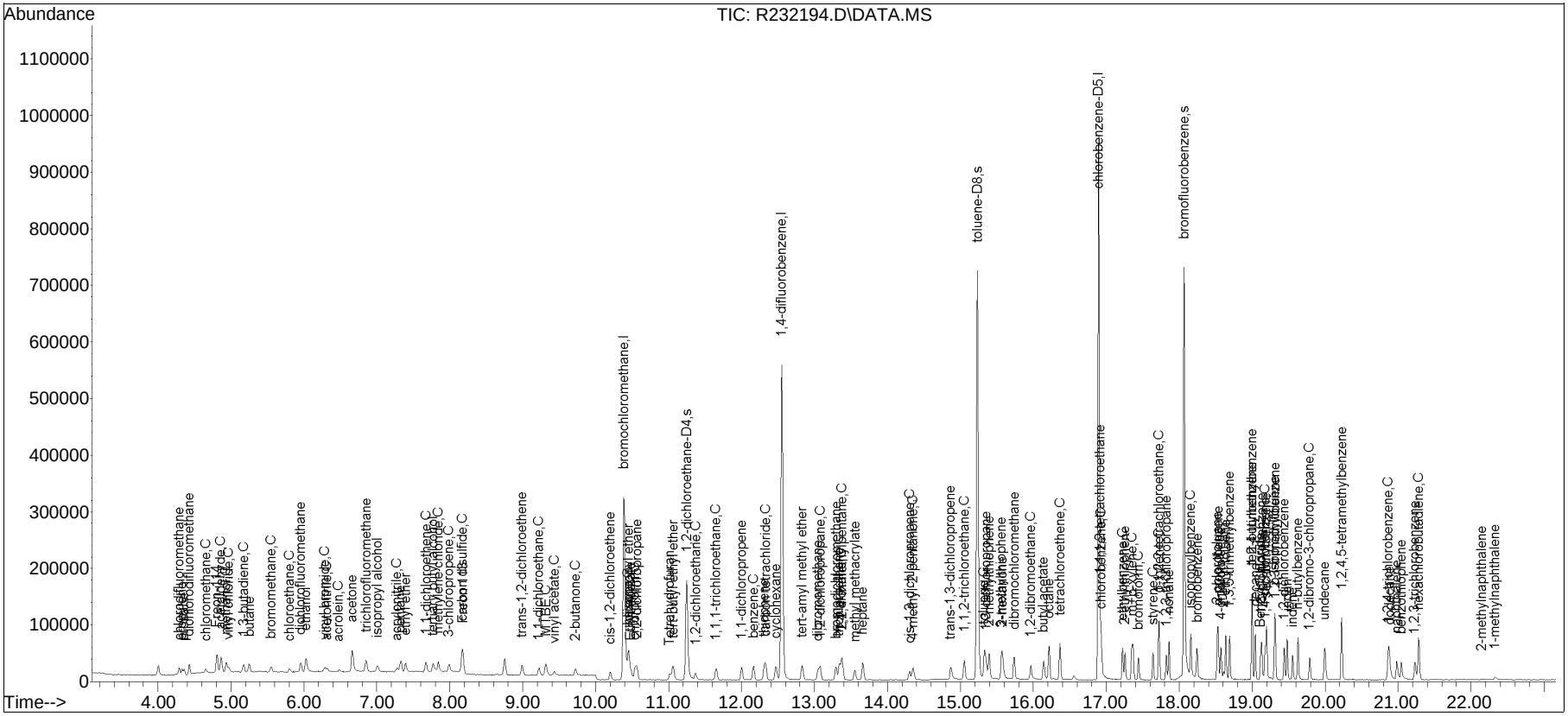
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.551	115	18213	0.453	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.784	75	8626	0.394	ppbV	90
112) undecane	19.993	57	21671	0.419	ppbV #	96
113) 1,2,4,5-tetramethylben...	20.227	119	49044	0.408	ppbV	99
114) dodecane	20.882	57	19503	0.337	ppbV	96
115) 1,2,4-trichlorobenzene	20.861	180	13148	0.363	ppbV	95
116) naphthalene	20.979	128	31695	0.359	ppbV	97
117) 1,2,3-trichlorobenzene	21.225	180	11064	0.319	ppbV	94
118) benzothiophene	21.043	134	25723	0.339	ppbV	98
119) hexachlorobutadiene	21.279	225	11899	0.399	ppbV	93
120) 2-methylnaphthalene	22.147	142	2533	0.085	ppbV	86
121) 1-methylnaphthalene	22.329	142	5880	0.221	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0119T_ICAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232194.D
Acq On : 20 Jan 2015 12:27 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD0.5
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

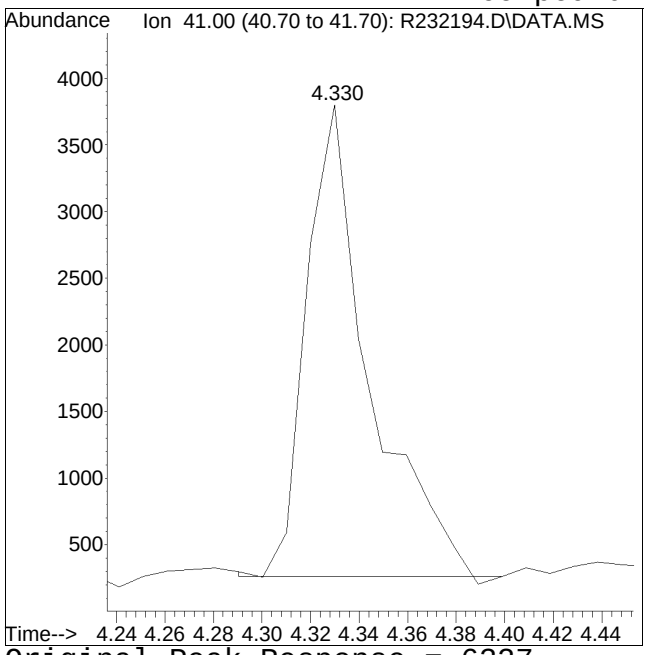
Quant Time: Jan 20 07:40:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration



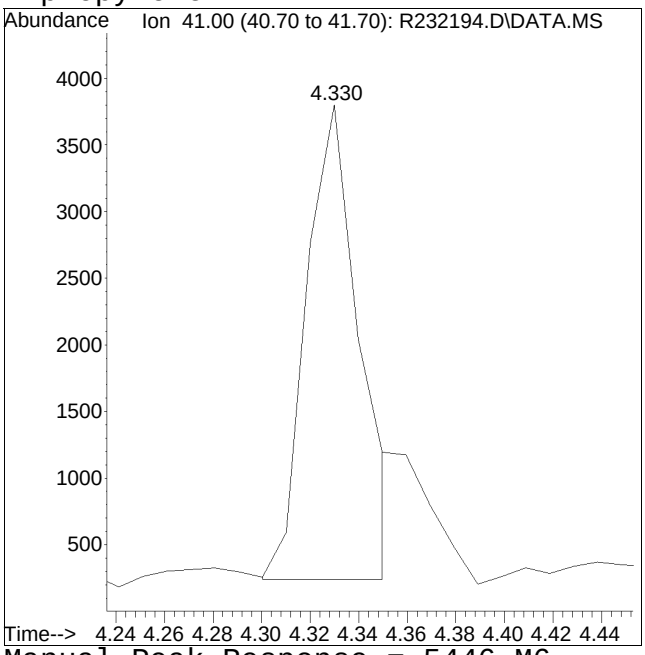
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5
Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #3: propylene



Original Peak Response = 6327



Manual Peak Response = 5446 M6

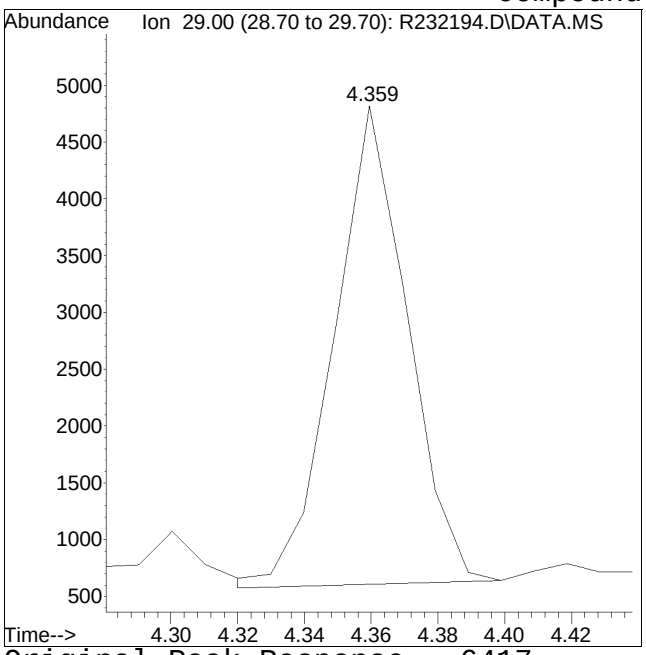
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

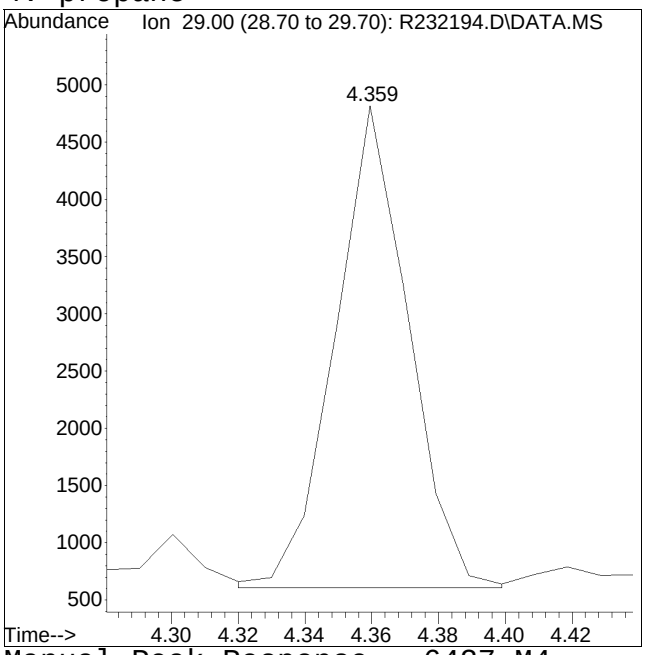
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #4: propane



Original Peak Response = 6417



Manual Peak Response = 6427 M4

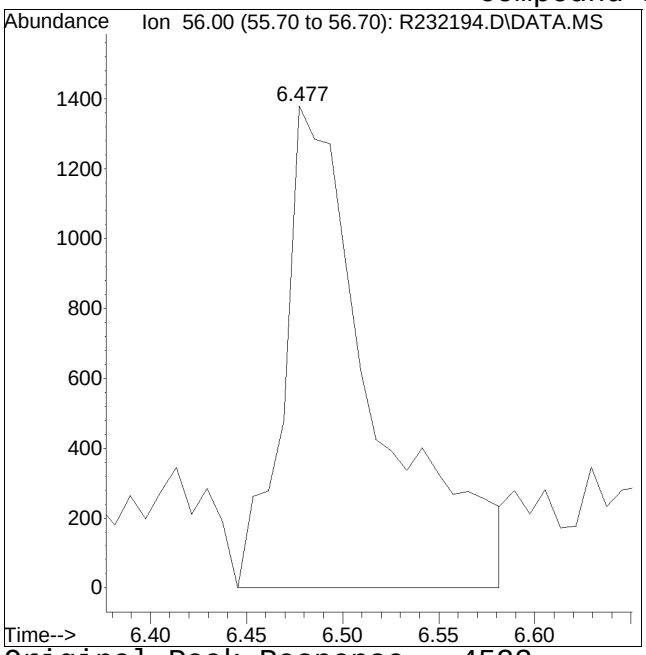
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

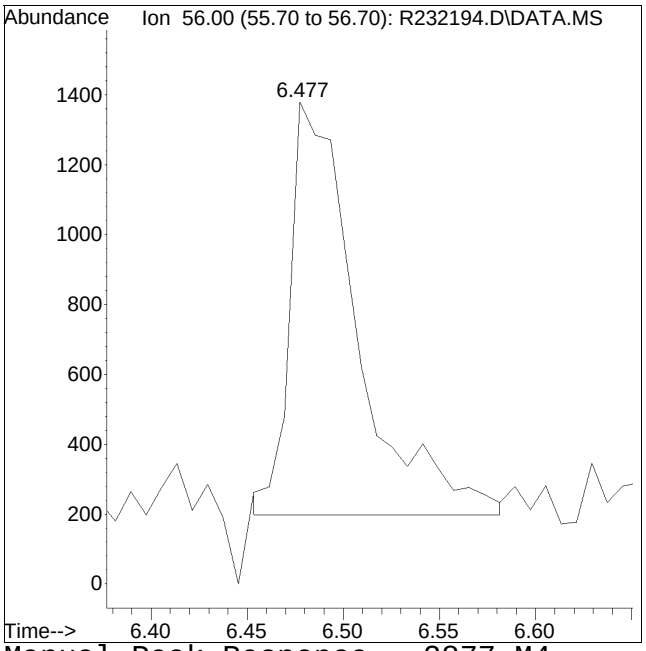
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #18: acrolein



Original Peak Response = 4523



Manual Peak Response = 2877 M4

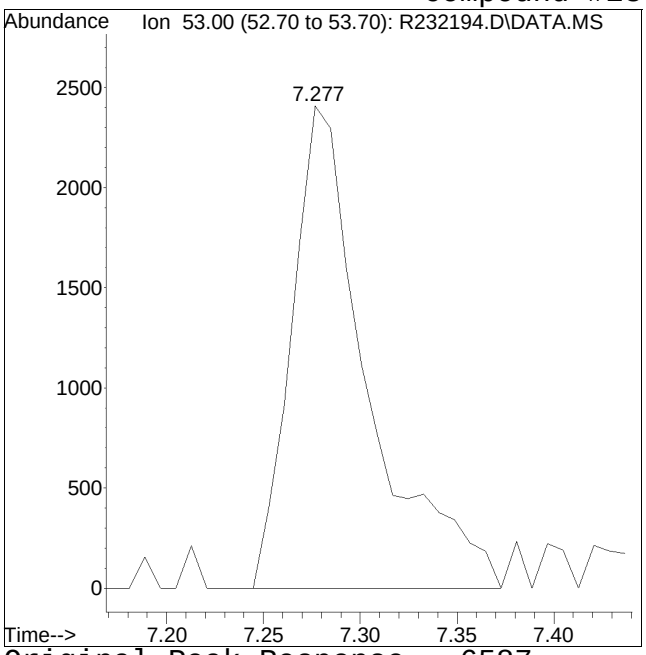
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

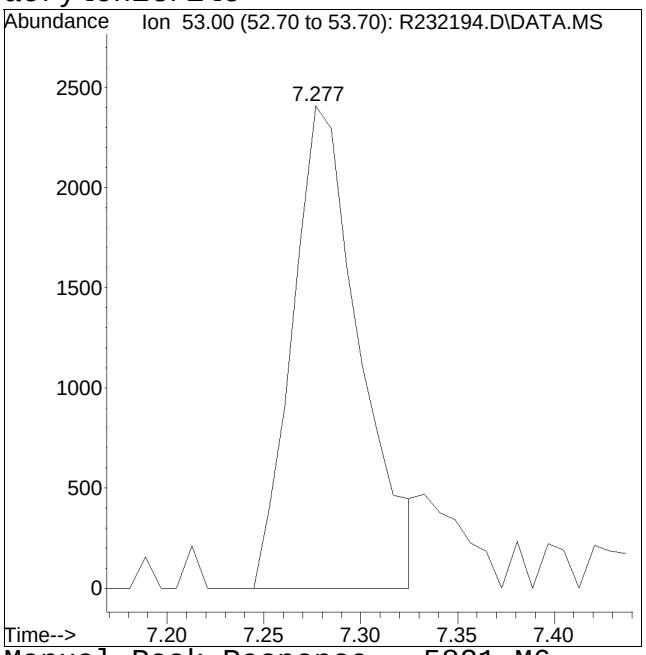
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #23: acrylonitrile



Original Peak Response = 6587



Manual Peak Response = 5821 M6

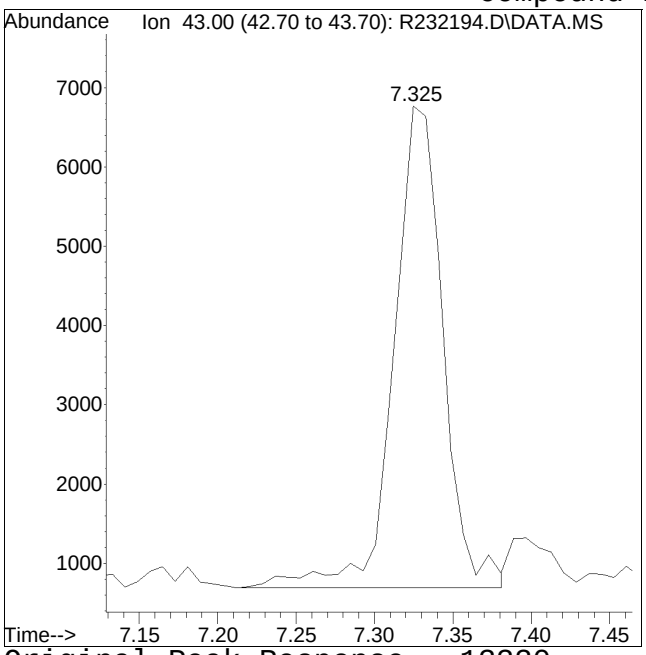
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

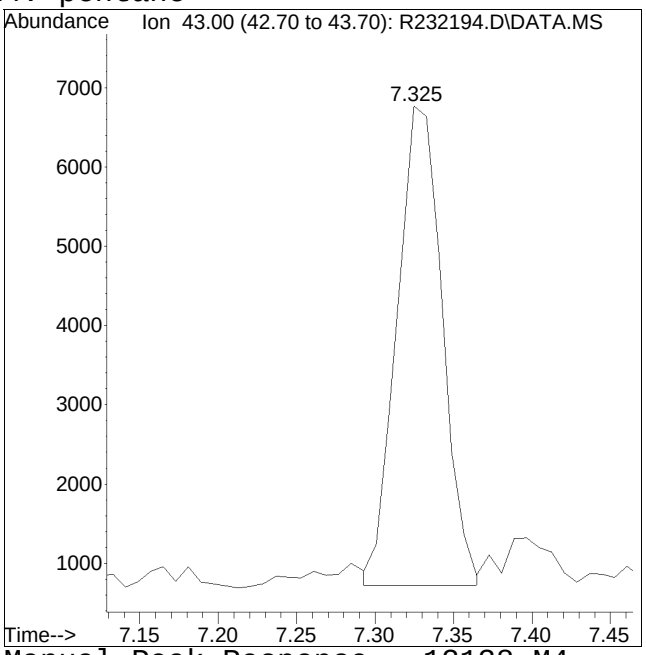
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #24: pentane



Original Peak Response = 13330



Manual Peak Response = 12138 M4

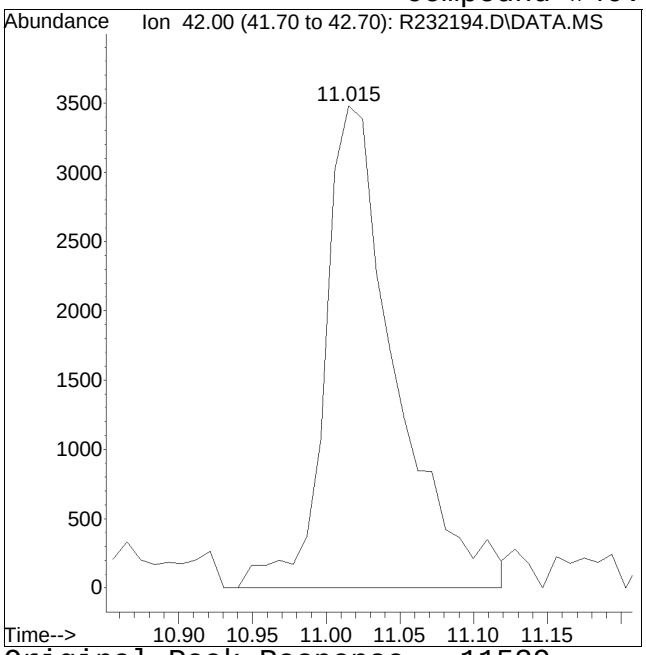
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

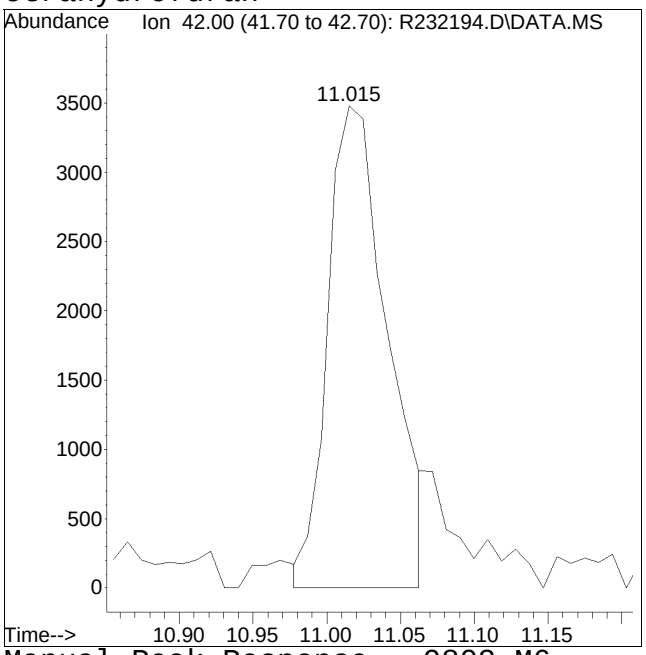
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #40: Tetrahydrofuran



Original Peak Response = 11539



Manual Peak Response = 9802 M6

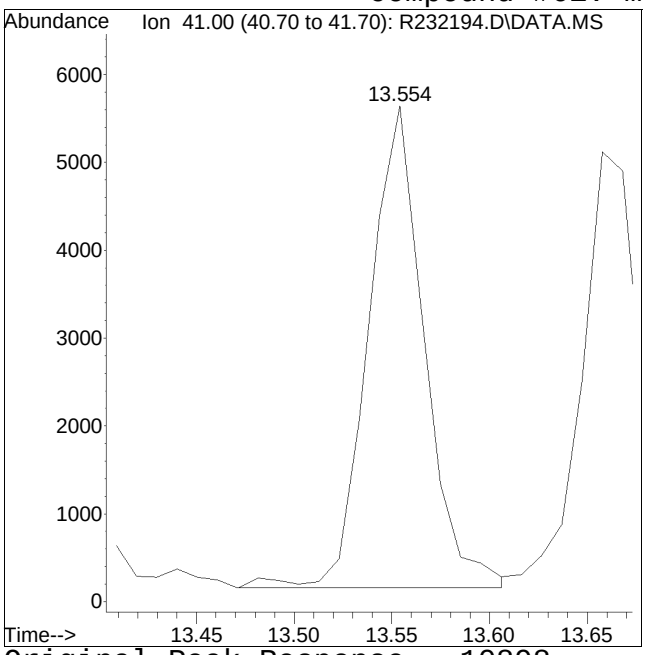
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

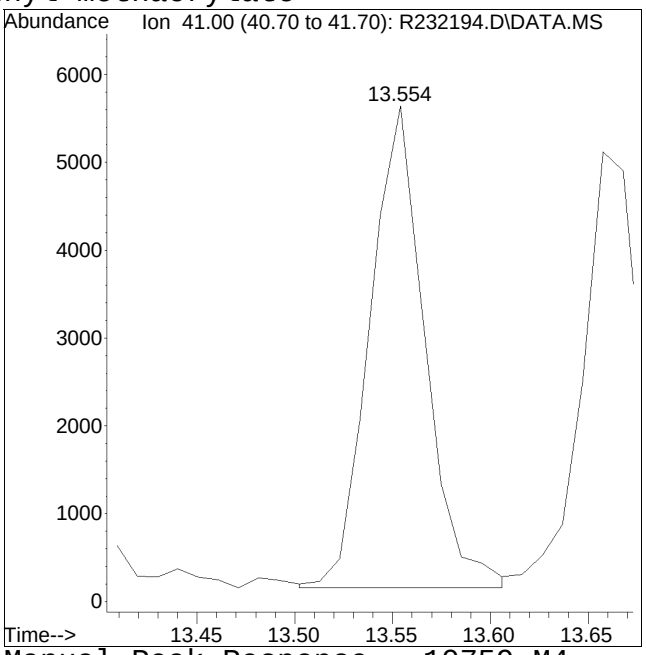
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #61: methyl methacrylate



Original Peak Response = 10898



Manual Peak Response = 10759 M4

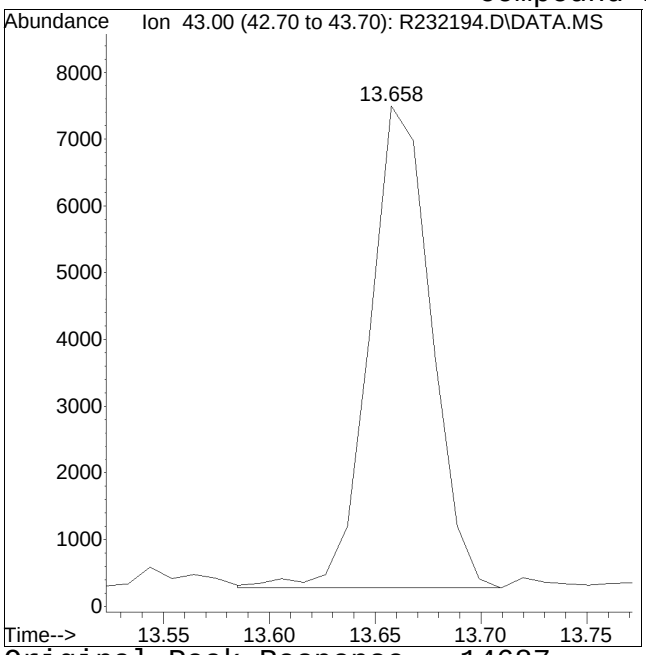
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

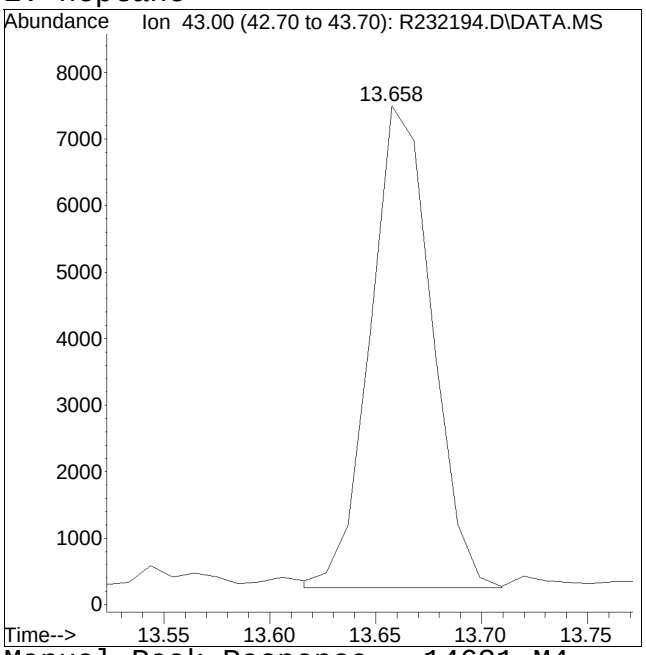
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #62: heptane



Original Peak Response = 14687



Manual Peak Response = 14631 M4

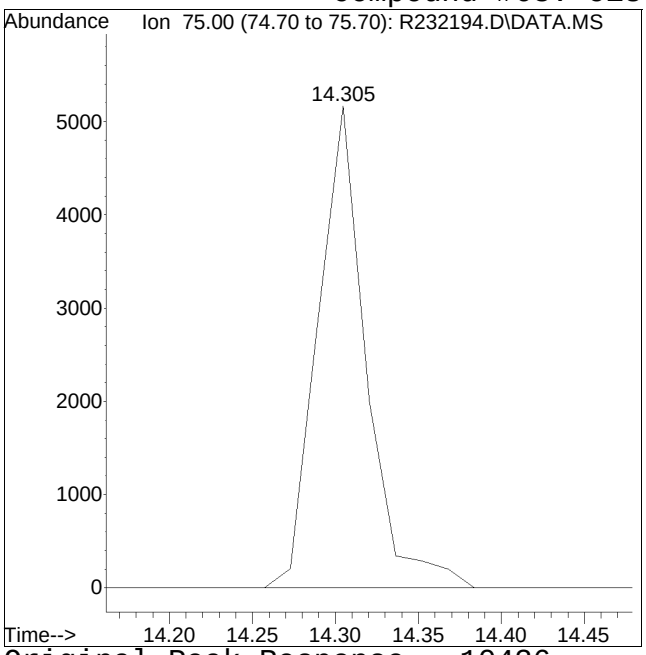
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

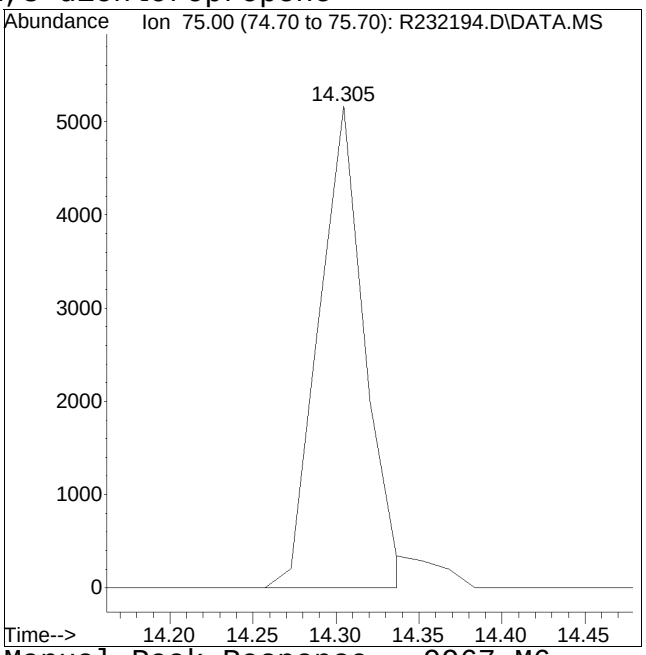
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #63: cis-1,3-dichloropropene



Original Peak Response = 10436



Manual Peak Response = 9967 M6

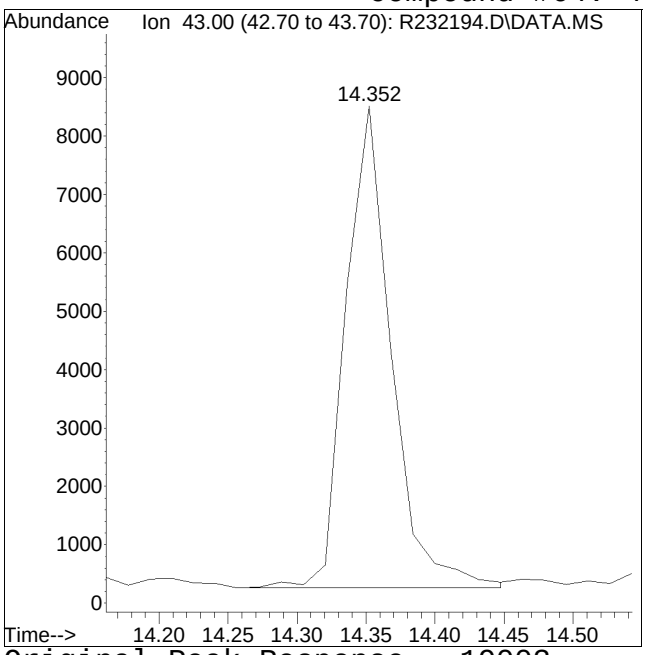
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

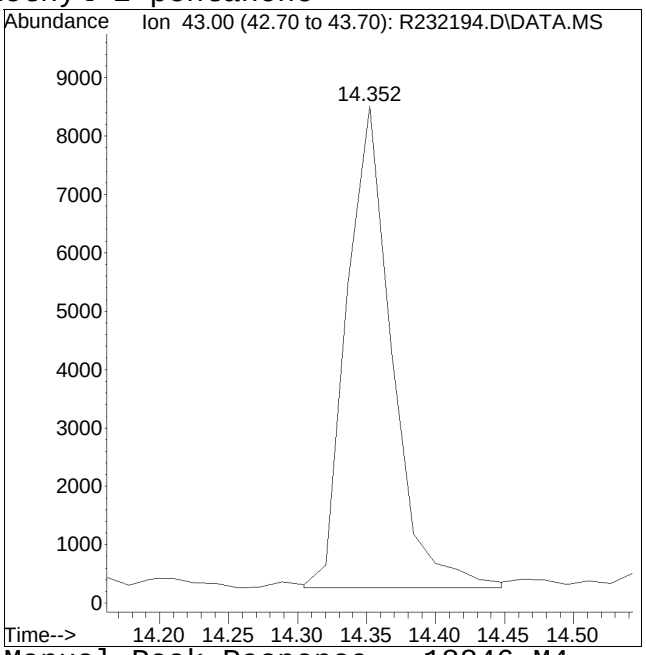
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #64: 4-methyl-2-pentanone



Original Peak Response = 19003



Manual Peak Response = 18846 M4

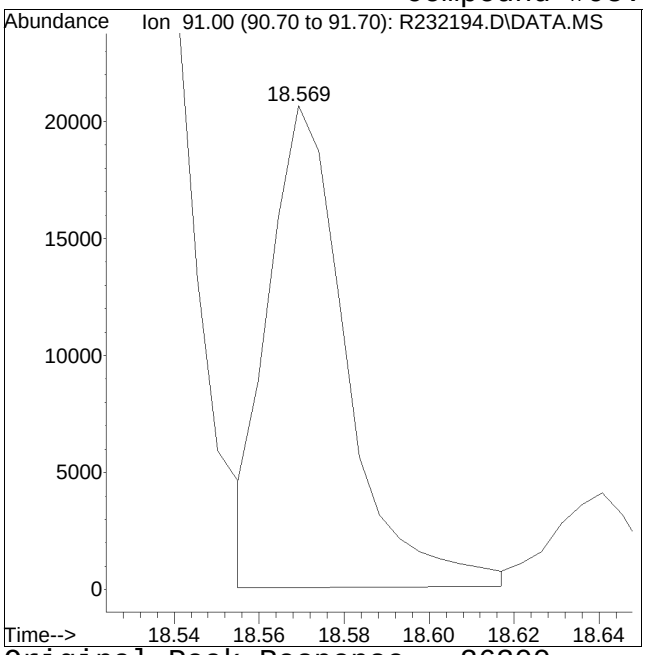
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

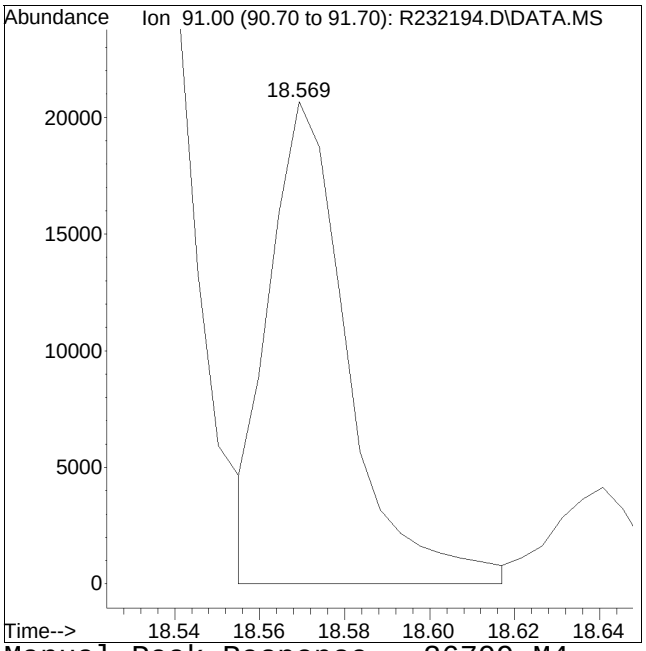
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #95: 4-chlorotoluene



Original Peak Response = 26300



Manual Peak Response = 26709 M4

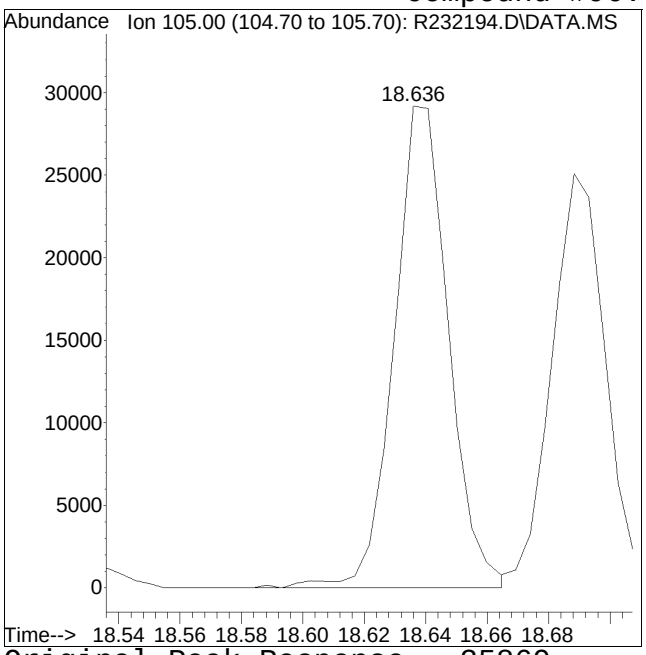
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

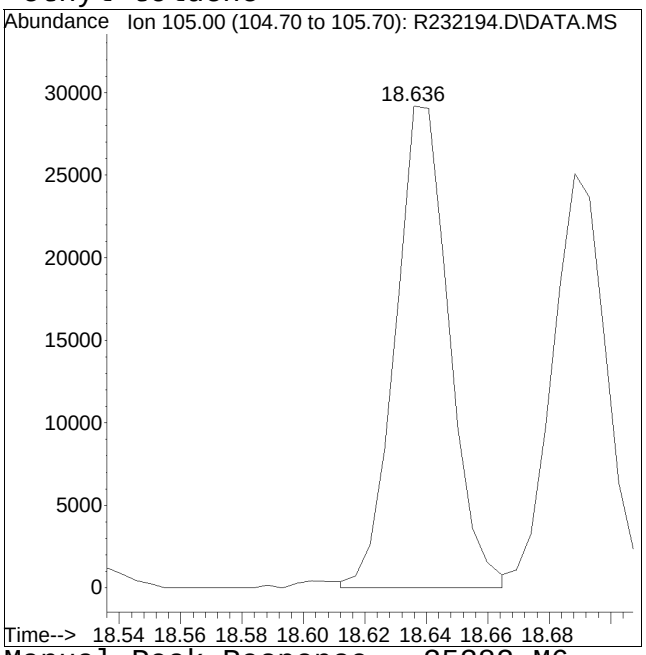
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #96: 4-ethyl toluene



Original Peak Response = 35869



Manual Peak Response = 35382 M6

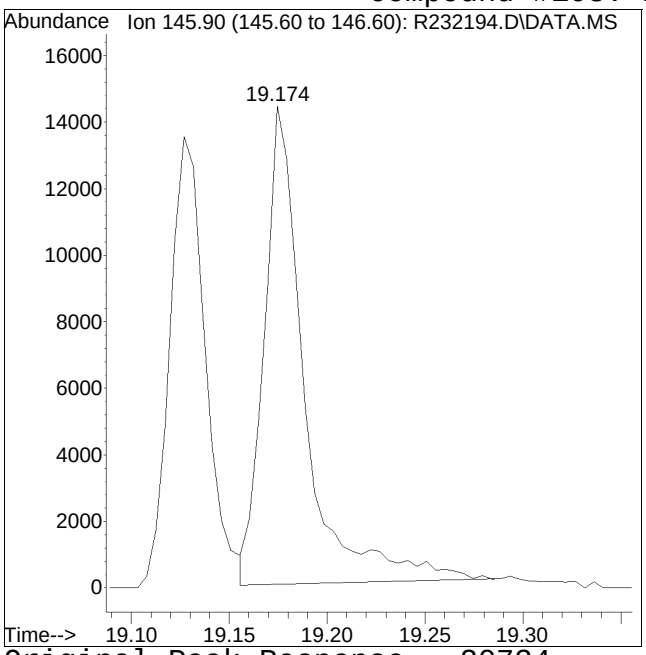
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

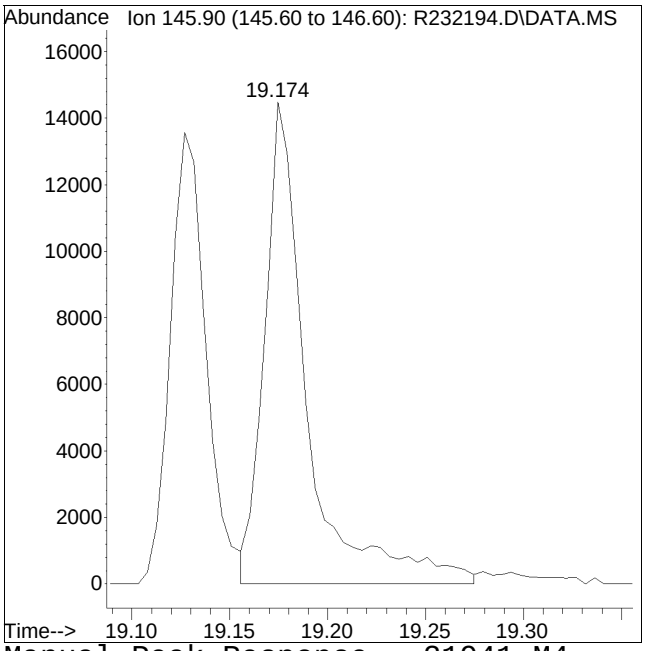
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232194.D
Date Inj'd : 1/20/2015 12:27 am
Sample : ITO15-SIMSTD0.5

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 20734



Manual Peak Response = 21941 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232195.D
Acq On : 20 Jan 2015 12:59 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD1.0
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:43:29 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	177162	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 100.17%			
43) 1,4-difluorobenzene	12.549	114	456449	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 98.88%			
67) chlorobenzene-D5	16.893	54	110845	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 101.28%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.241	65	143588	10.179	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.79%			
69) toluene-D8	15.225	98	439766	9.849	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.49%			
90) bromofluorobenzene	18.065	95	248855	9.493	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.93%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	22475	1.037	ppbV	98
3) propylene	4.330	41	11519M6	1.130	ppbV	
4) propane	4.359	29	11694M4	1.076	ppbV	
5) dichlorodifluoromethane	4.428	85	32846	1.218	ppbV	98
6) chloromethane	4.655	50	12471	1.045	ppbV	98
7) Freon-114	4.803	85	33771	1.016	ppbV	98
8) methanol	4.931	31	25166	5.828	ppbV #	68
9) vinyl chloride	4.971	62	12603	0.977	ppbV	96
10) 1,3-butadiene	5.178	54	11139	1.158	ppbV	89
11) butane	5.247	43	21356	1.045	ppbV	96
12) acetaldehyde	4.852	29	42908	5.402	ppbV	93
13) bromomethane	5.550	94	11446	1.019	ppbV	94
14) chloroethane	5.798	64	6351	1.048	ppbV	95
15) ethanol	6.022	31	44613	4.947	ppbV	100
16) dichlorofluoromethane	5.958	67	30047	1.072	ppbV	99
17) vinyl bromide	6.286	106	12100	1.047	ppbV	84
18) acrolein	6.477	56	5465M4	0.972	ppbV	
19) acetone	6.653	43	103984M4	5.307	ppbV	
20) acetonitrile	6.310	41	12150	1.007	ppbV	85
21) trichlorofluoromethane	6.853	101	32201	1.016	ppbV	98
22) isopropyl alcohol	6.989	45	23971	1.125	ppbV	98
23) acrylonitrile	7.269	53	9608M6	0.974	ppbV	
24) pentane	7.325	43	24560	0.984	ppbV #	94

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232195.D
Acq On : 20 Jan 2015 12:59 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD1.0
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:43:29 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.381	31	18222	1.015	ppbV		97
26) 1,1-dichloroethene	7.676	61	21922	1.013	ppbV		94
27) tertiary butyl alcohol	7.756	59	28374	1.092	ppbV	#	85
28) methylene chloride	7.844	49	18198	1.110	ppbV		91
29) 3-chloropropene	7.988	41	19654M4	1.102	ppbV		
30) carbon disulfide	8.172	76	37679	1.000	ppbV	#	68
31) Freon 113	8.172	101	26013	0.996	ppbV		88
32) trans-1,2-dichloroethene	8.988	61	21255	1.018	ppbV		96
33) 1,1-dichloroethane	9.221	63	24894	1.027	ppbV		97
34) MTBE	9.304	73	36935	1.030	ppbV		97
35) vinyl acetate	9.420	43	22341	0.858	ppbV		98
36) 2-butanone	9.709	43	30997	1.020	ppbV		99
37) cis-1,2-dichloroethene	10.198	61	18500	0.987	ppbV		98
38) Ethyl Acetate	10.480	61	4440	0.972	ppbV	#	25
39) chloroform	10.536	83	28131	1.022	ppbV		96
40) Tetrahydrofuran	11.006	42	17692M6	1.019	ppbV		
41) 2,2-dichloropropane	10.565	77	25611	1.038	ppbV		98
42) 1,2-dichloroethane	11.372	62	20115	1.010	ppbV		98
44) hexane	10.442	57	22145	1.075	ppbV	#	64
45) diisopropyl ether	10.452	87	10291	1.024	ppbV		93
46) tert-butyl ethyl ether	11.053	59	44738	1.039	ppbV		97
48) 1,1,1-trichloroethane	11.648	97	32992	1.052	ppbV		93
49) 1,1-dichloropropene	12.000	75	19889	0.983	ppbV		88
50) benzene	12.166	78	38982	1.034	ppbV		99
51) thiophene	12.311	84	27280	1.063	ppbV		99
52) carbon tetrachloride	12.332	117	29193	1.009	ppbV	#	93
53) cyclohexane	12.466	56	22521	1.070	ppbV		98
54) tert-amyl methyl ether	12.829	73	39549	1.037	ppbV		95
55) dibromomethane	13.047	93	17473	1.055	ppbV		93
56) 1,2-dichloropropane	13.078	63	15060	1.015	ppbV		95
57) bromodichloromethane	13.295	83	31602	0.993	ppbV		96
58) 1,4-dioxane	13.347	88	8254	0.975	ppbV		94
59) trichloroethene	13.337	130	17232	0.991	ppbV		95
60) 2,2,4-trimethylpentane	13.378	57	71201	1.030	ppbV		99
61) methyl methacrylate	13.544	41	21320M4	1.026	ppbV		
62) heptane	13.658	43	27811M4	1.028	ppbV		
63) cis-1,3-dichloropropene	14.305	75	21287	0.977	ppbV		98
64) 4-methyl-2-pentanone	14.336	43	37600M4	0.996	ppbV		
65) trans-1,3-dichloropropene	14.864	75	27512	0.955	ppbV		97
66) 1,1,2-trichloroethane	15.053	97	20683	1.005	ppbV		97

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232195.D
Acq On : 20 Jan 2015 12:59 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD1.0
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:43:29 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.325	91	62251	0.994	ppbV	97
70) 2-methylthiophene	15.388	97	55032	0.977	ppbV	99
71) 1,3-dichloropropane	15.352	76	28916	0.973	ppbV	99
72) 2-hexanone	15.569	43	46579	0.960	ppbV	97
73) 3-methylthiophene	15.560	97	52871	1.016	ppbV	100
74) dibromochloromethane	15.731	129	41257	0.931	ppbV	99
75) 1,2-dibromoethane	15.966	107	35600	0.992	ppbV	97
76) butyl acetate	16.129	73	6535	0.946	ppbV	86
77) octane	16.210	85	18195	0.979	ppbV	99
78) tetrachloroethene	16.364	166	29012	0.984	ppbV	97
79) 1,1,1,2-tetrachloroethane	16.912	131	21379	0.974	ppbV	96
80) chlorobenzene	16.931	112	36862	0.947	ppbV	95
81) ethylbenzene	17.222	91	61767	0.975	ppbV	99
82) 2-ethylthiophene	17.255	97	47746	0.986	ppbV	99
83) m+p-xylene	17.365	91	97837	1.973	ppbV	100
84) bromoform	17.436	173	28979	0.906	ppbV	98
85) styrene	17.636	104	35786	0.934	ppbV	97
86) 1,1,2,2-tetrachloroethane	17.717	83	36821	0.944	ppbV	97
87) o-xylene	17.722	91	51396	0.999	ppbV	100
88) 1,2,3-trichloropropane	17.817	75	28976	0.946	ppbV	95
89) nonane	17.855	43	39203	0.959	ppbV	96
91) isopropylbenzene	18.155	105	66824	0.976	ppbV	97
92) bromobenzene	18.241	77	35640	0.942	ppbV	94
93) 2-chlorotoluene	18.522	126	18554	0.964	ppbV	94
94) n-propylbenzene	18.531	120	19232	0.947	ppbV	92
95) 4-chlorotoluene	18.569	91	51520	0.932	ppbV	100
96) 4-ethyl toluene	18.636	105	71143M6	0.928	ppbV	
97) 1,3,5-trimethylbenzene	18.688	105	59980M4	0.985	ppbV	
98) tert-butylbenzene	18.994	119	63470	0.953	ppbV	98
99) 1,2,4-trimethylbenzene	18.994	105	57362	0.933	ppbV	98
100) decane	19.036	57	40044	0.913	ppbV	99
101) Benzyl Chloride	19.113	91	46108	0.788	ppbV	97
102) 1,3-dichlorobenzene	19.127	146	34839	0.849	ppbV	98
103) 1,4-dichlorobenzene	19.175	146	41667M4	0.964	ppbV	
104) sec-butylbenzene	19.194	105	84329	0.940	ppbV	100
105) 1,2,3-trimethylbenzene	19.313	105	50894	0.964	ppbV	93
106) p-isopropyltoluene	19.303	119	77118	0.930	ppbV	99
107) 1,2-dichlorobenzene	19.436	146	34738	0.865	ppbV	99
108) n-butylbenzene	19.622	91	68332	0.901	ppbV	98
109) indan	19.474	117	54870	0.954	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232195.D
Acq On : 20 Jan 2015 12:59 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD1.0
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:43:29 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

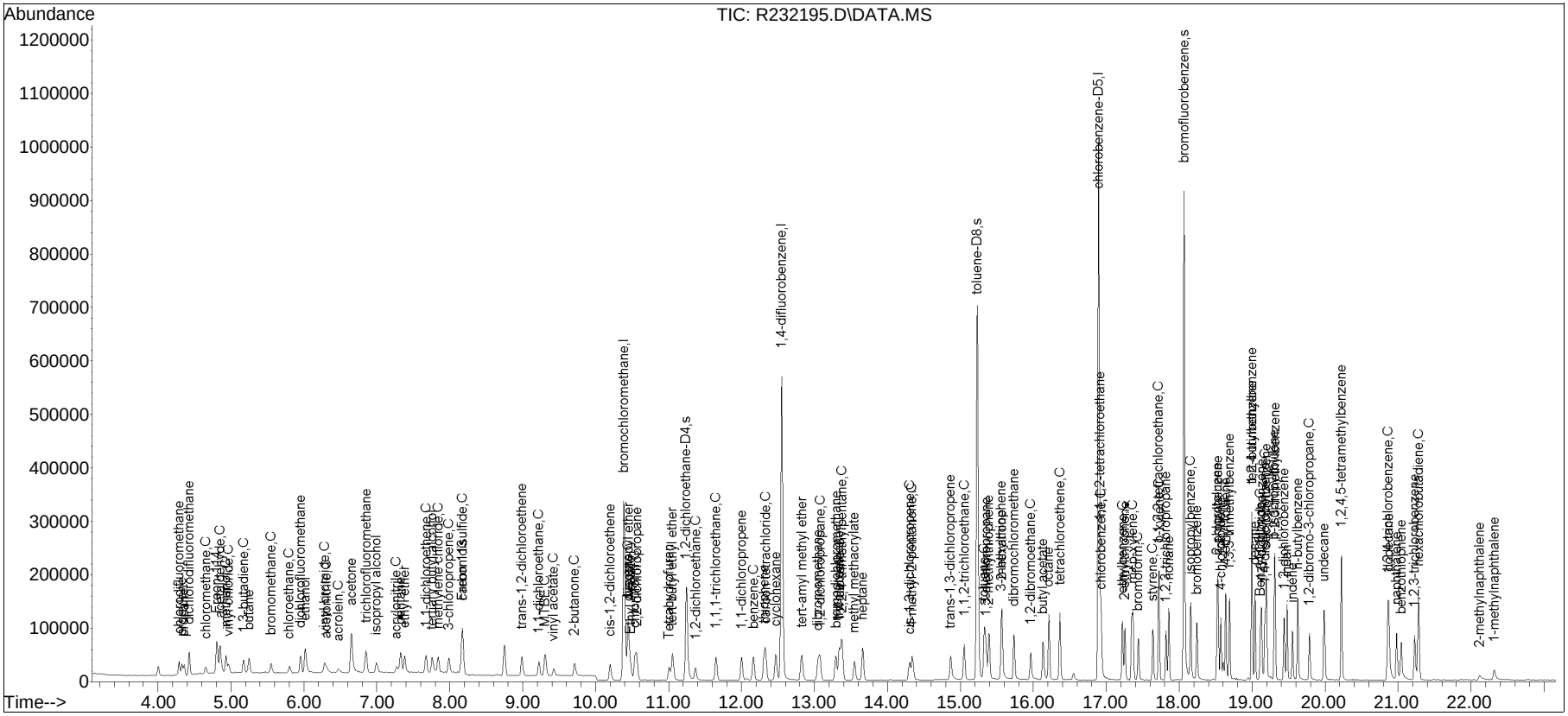
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) indene	19.551	115	37466	0.938	ppbV		98
111) 1,2-dibromo-3-chloropr...	19.784	75	18341	0.842	ppbV		93
112) undecane	19.984	57	44429	0.865	ppbV		99
113) 1,2,4,5-tetramethylben...	20.222	119	97294	0.814	ppbV		99
114) dodecane	20.871	57	42672	0.741	ppbV		100
115) 1,2,4-trichlorobenzene	20.861	180	27454	0.762	ppbV		96
116) naphthalene	20.979	128	68165	0.777	ppbV		98
117) 1,2,3-trichlorobenzene	21.225	180	26577	0.772	ppbV		98
118) benzothiophene	21.043	134	56486	0.750	ppbV		98
119) hexachlorobutadiene	21.279	225	24501	0.826	ppbV		93
120) 2-methylnaphthalene	22.115	142	11165	0.378	ppbV	#	85
121) 1-methylnaphthalene	22.319	142	17686M4	0.670	ppbV		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0119T_ICAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232195.D
Acq On : 20 Jan 2015 12:59 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD1.0
Misc : WG756921
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 20 07:43:29 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

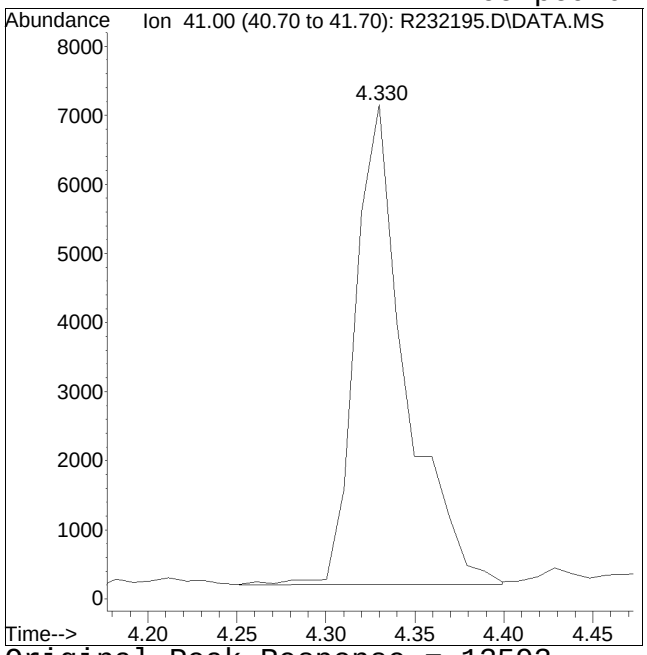


Manual Integration/Negative Proof Report

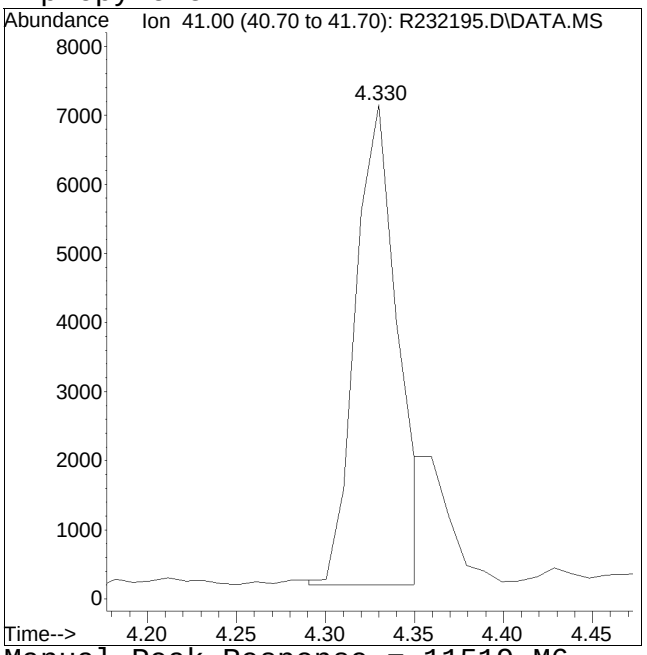
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #3: propylene



Original Peak Response = 13593



Manual Peak Response = 11519 M6

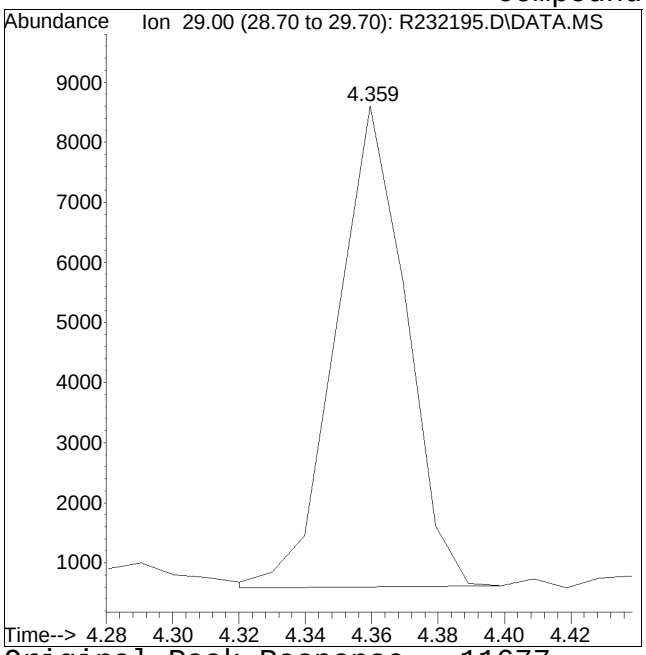
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

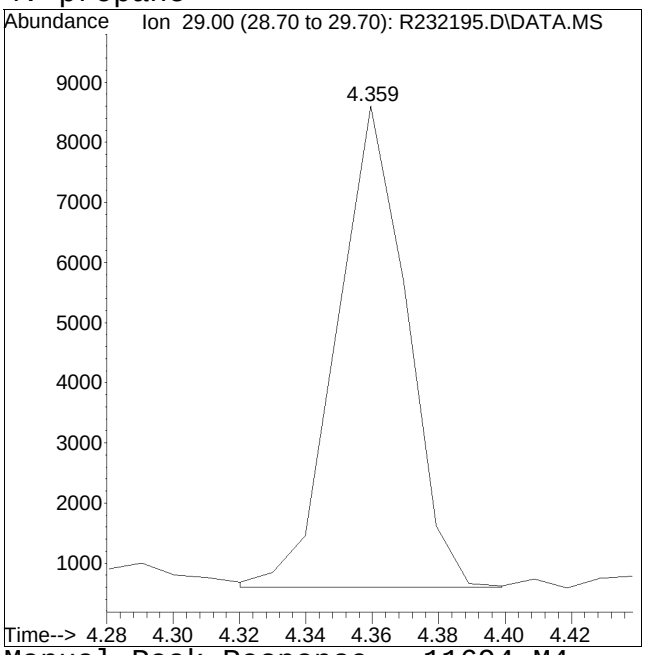
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #4: propane



Original Peak Response = 11677



Manual Peak Response = 11694 M4

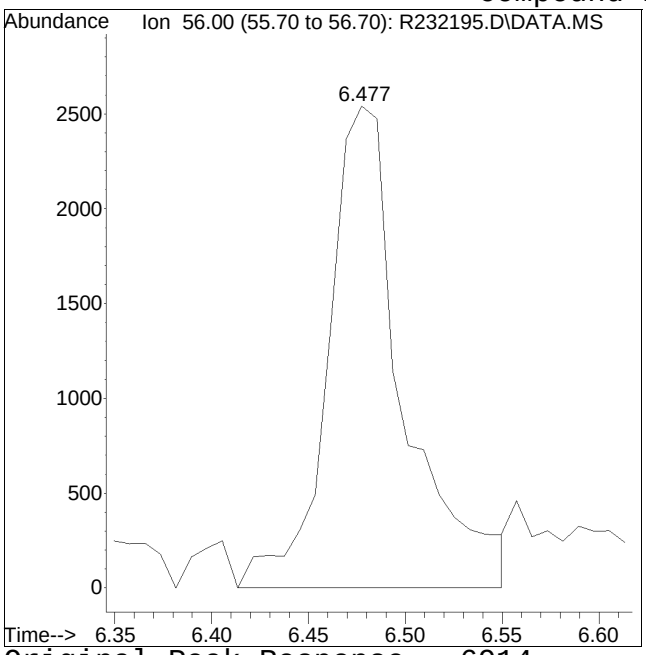
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

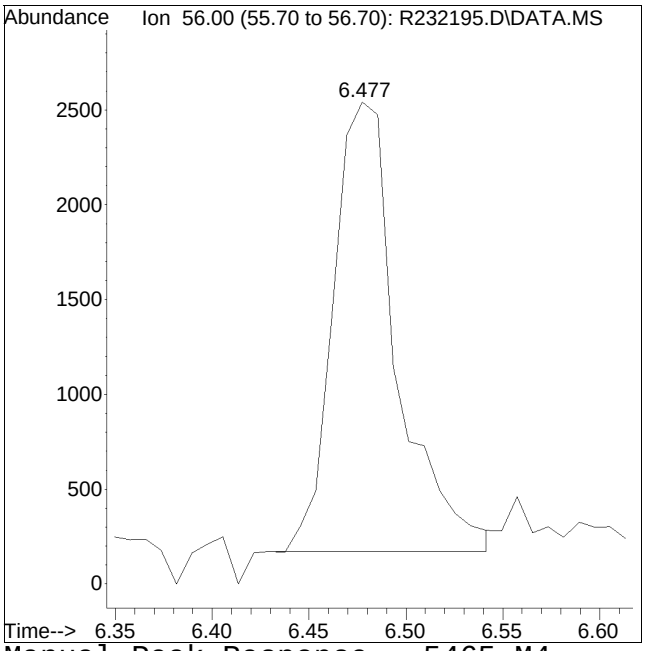
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #18: acrolein



Original Peak Response = 6914



Manual Peak Response = 5465 M4

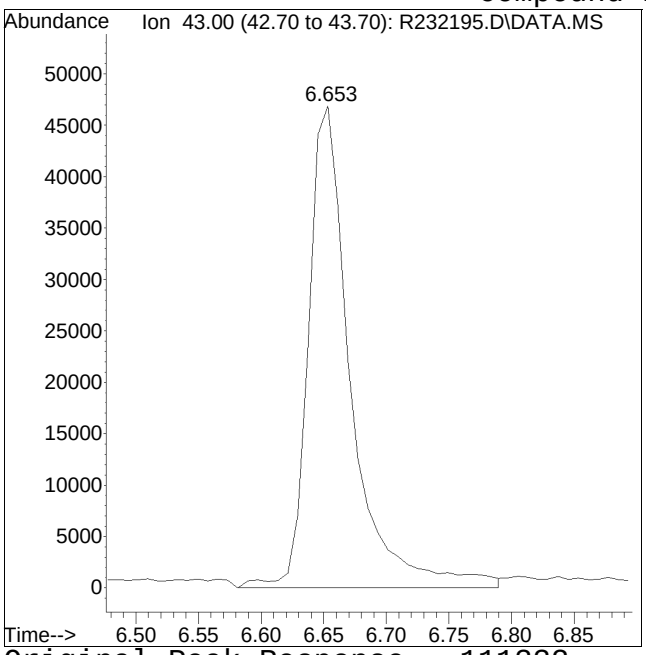
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

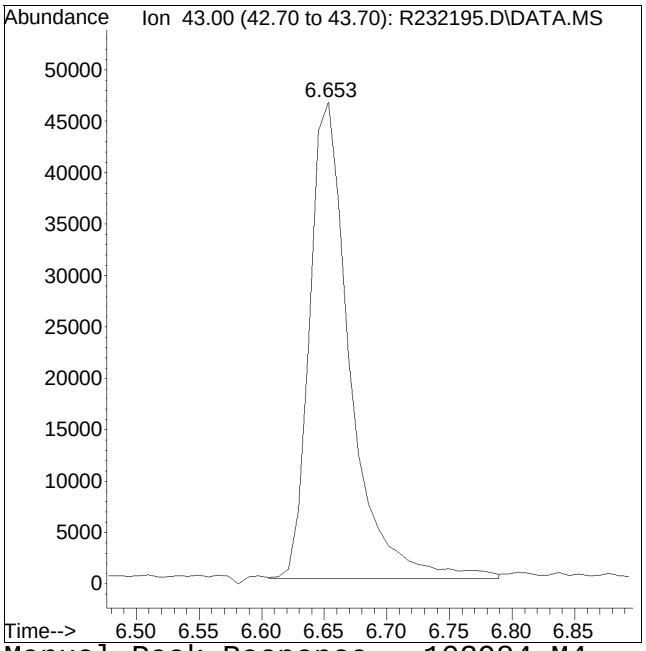
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #19: acetone



Original Peak Response = 111332



Manual Peak Response = 103984 M4

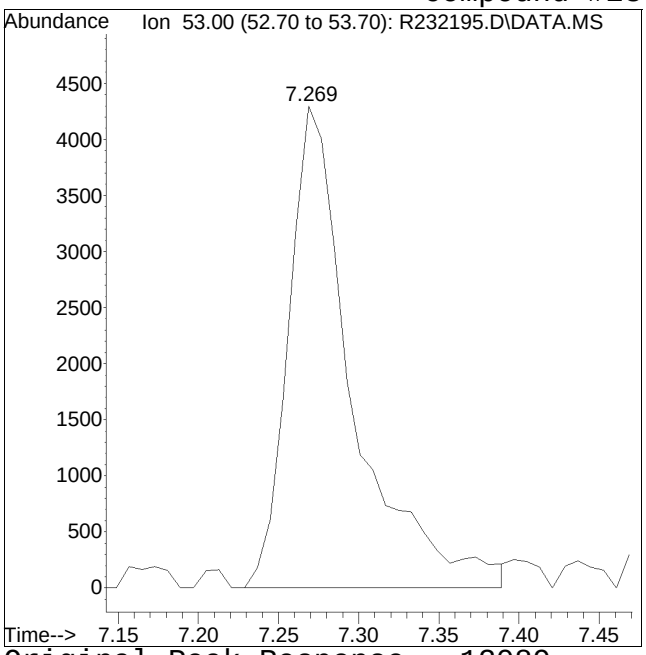
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

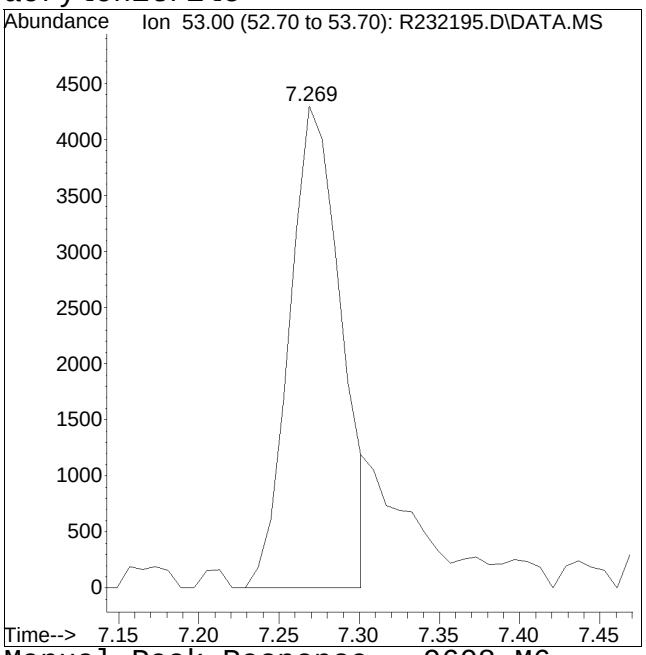
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #23: acrylonitrile



Original Peak Response = 12089



Manual Peak Response = 9608 M6

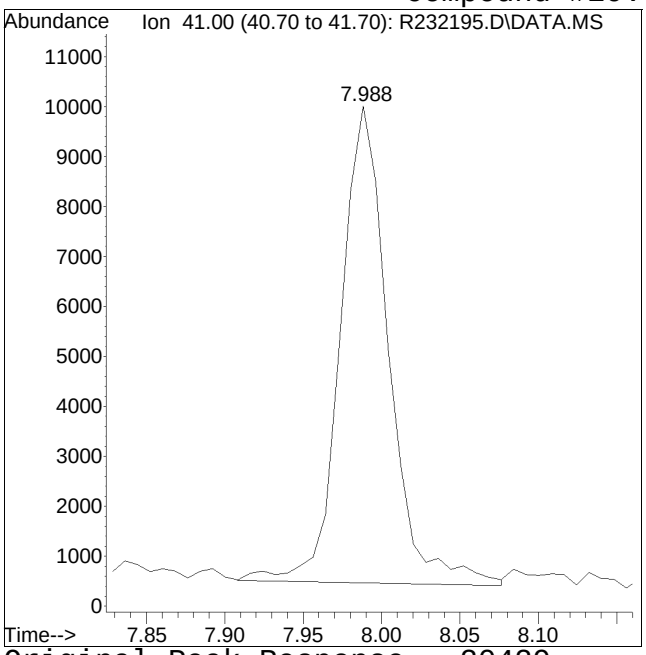
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

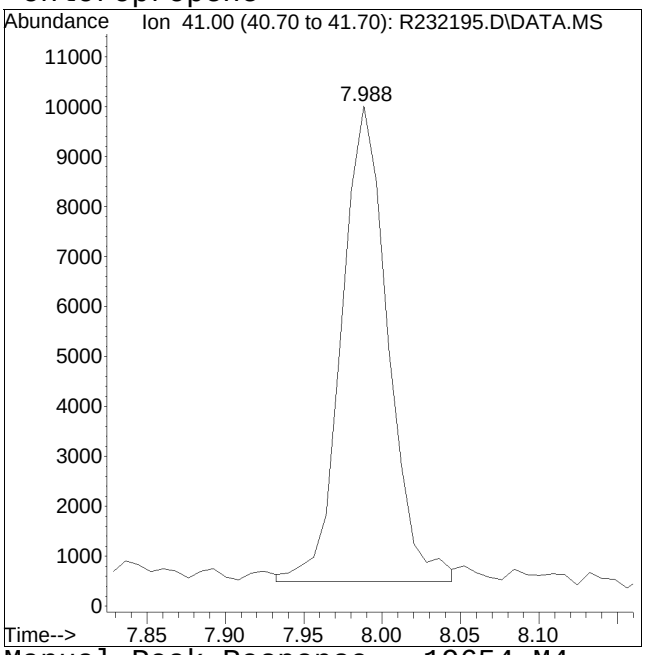
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #29: 3-chloropropene



Original Peak Response = 20429



Manual Peak Response = 19654 M4

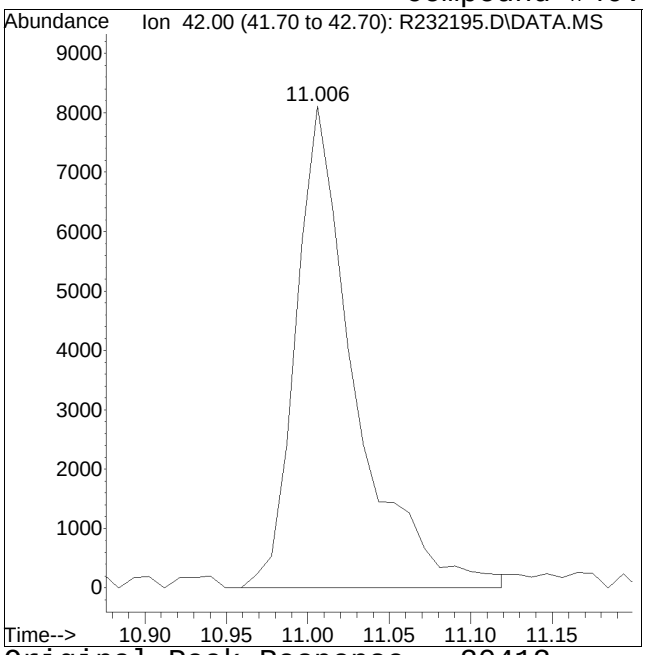
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

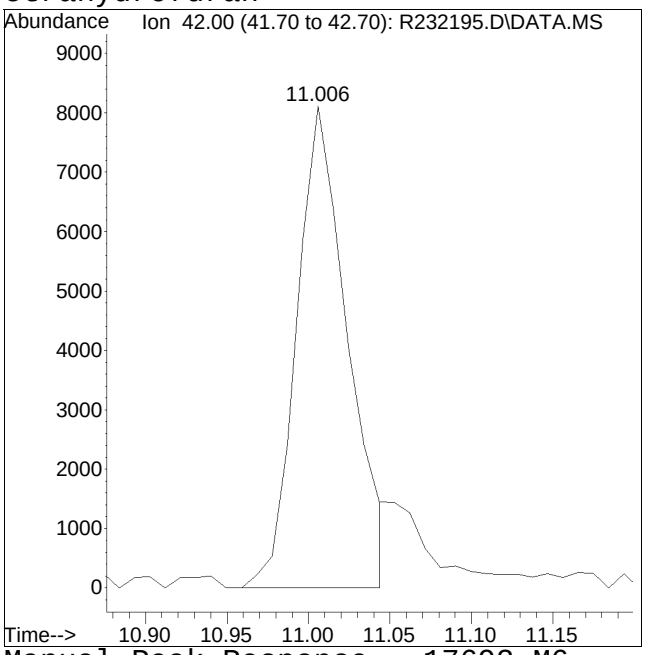
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #40: Tetrahydrofuran



Original Peak Response = 20412



Manual Peak Response = 17692 M6

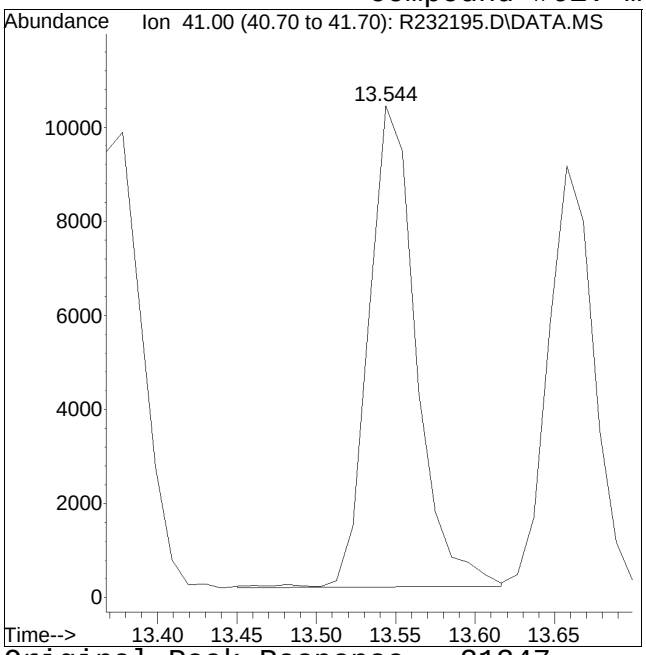
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

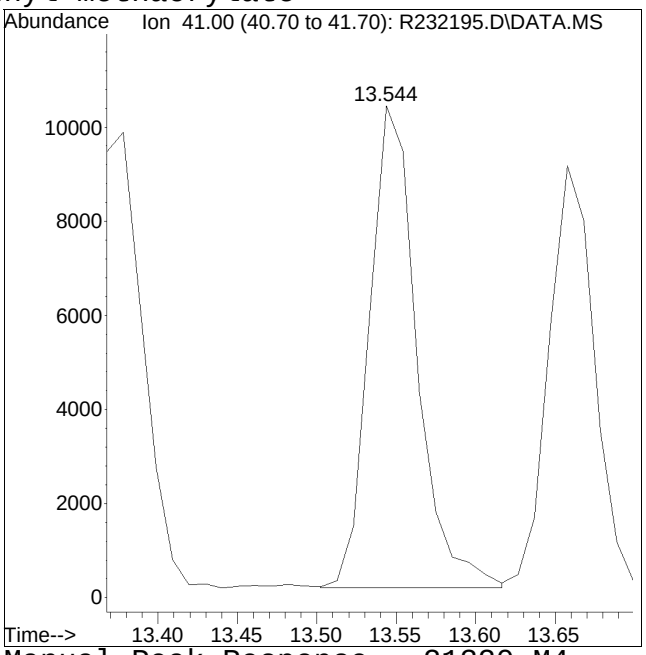
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #61: methyl methacrylate



Original Peak Response = 21247



Manual Peak Response = 21320 M4

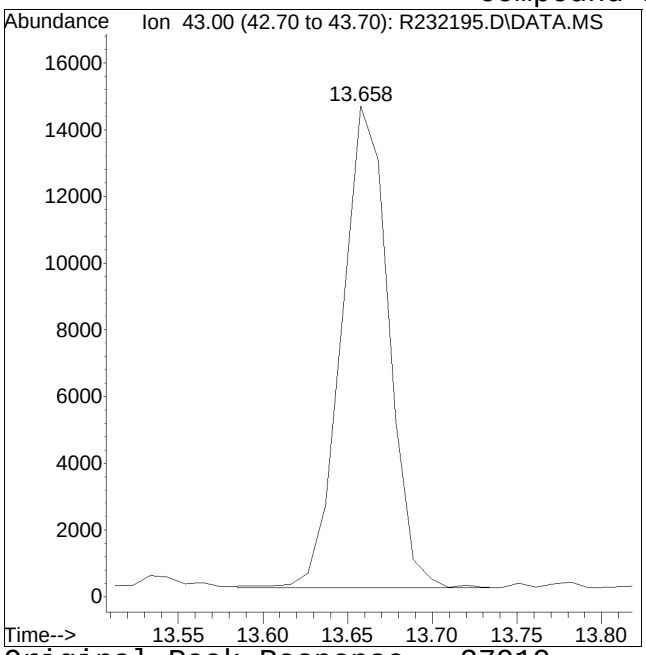
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

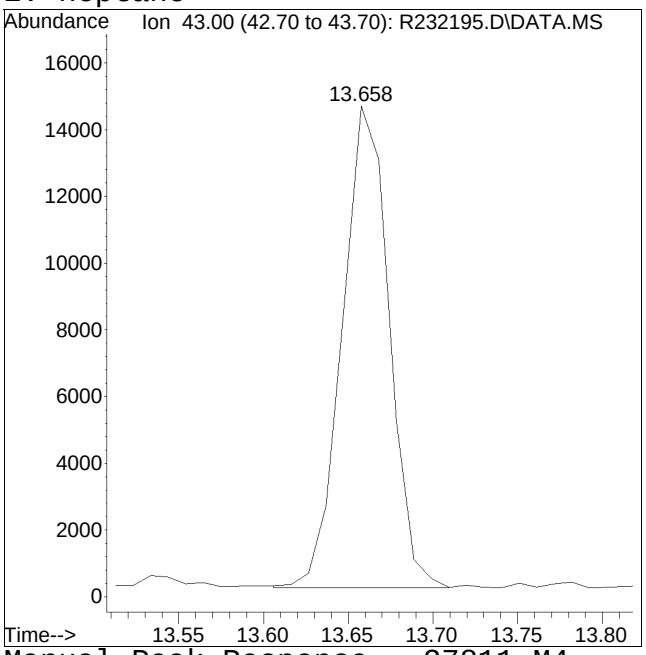
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #62: heptane



Original Peak Response = 27919



Manual Peak Response = 27811 M4

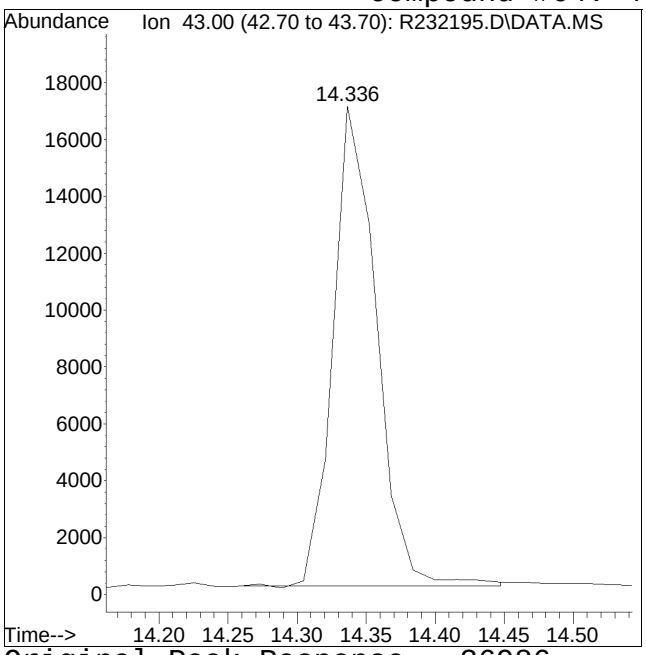
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

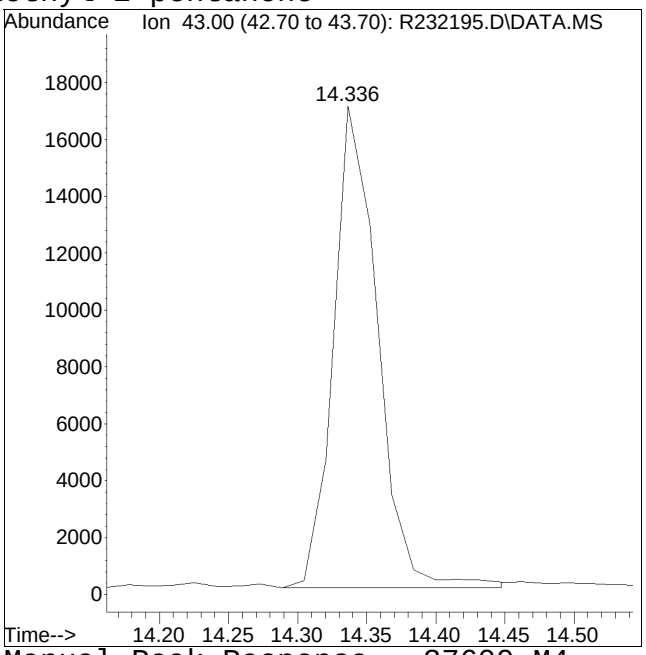
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #64: 4-methyl-2-pentanone



Original Peak Response = 36986



Manual Peak Response = 37600 M4

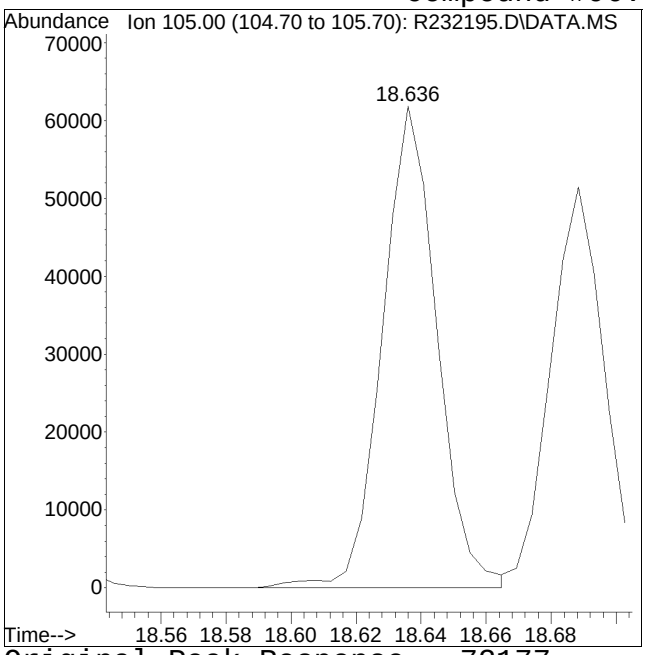
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

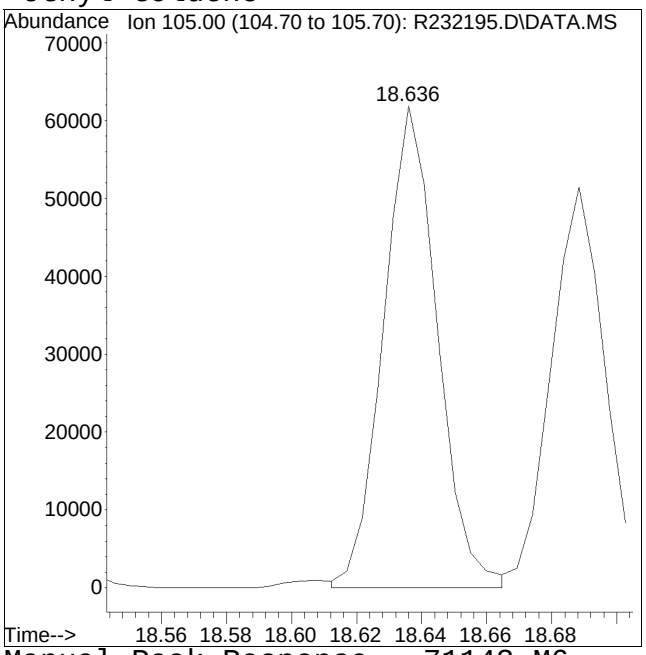
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #96: 4-ethyl toluene



Original Peak Response = 72177



Manual Peak Response = 71143 M6

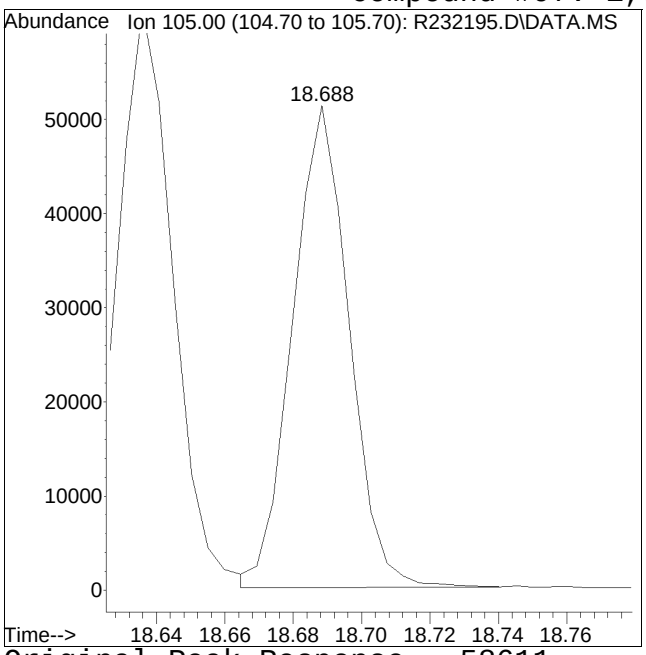
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

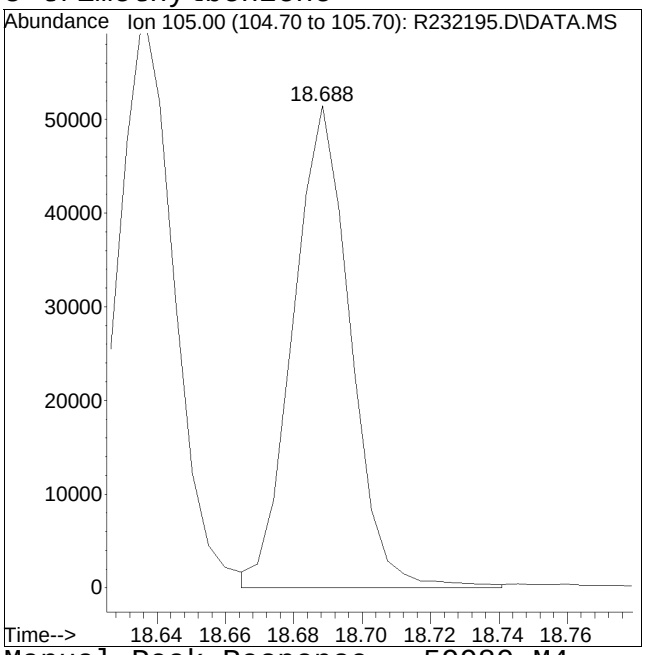
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #97: 1,3,5-trimethylbenzene



Original Peak Response = 58611



Manual Peak Response = 59980 M4

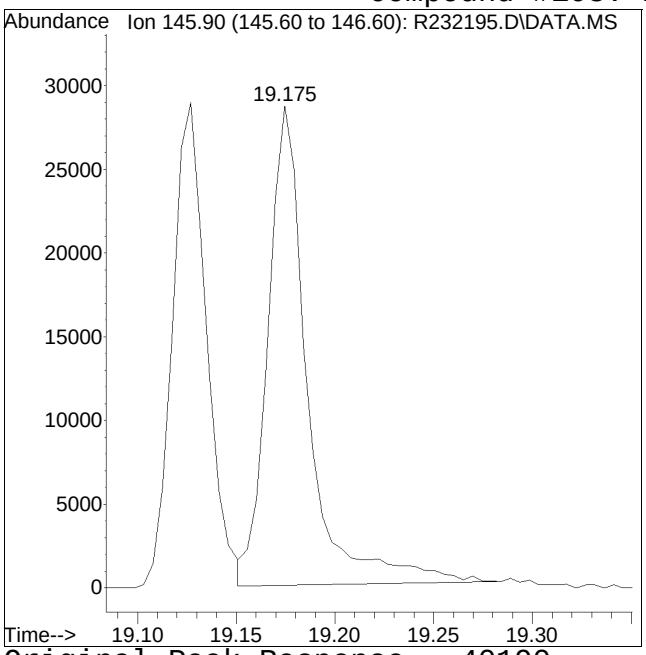
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

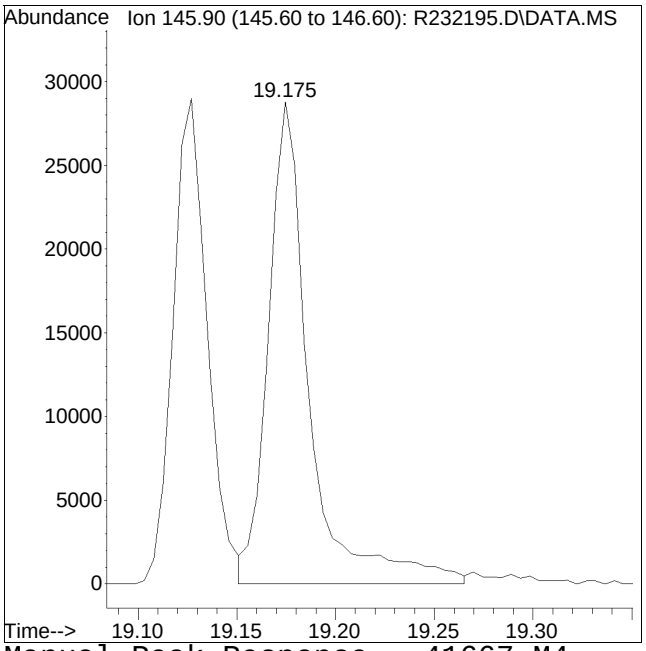
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 40190



Manual Peak Response = 41667 M4

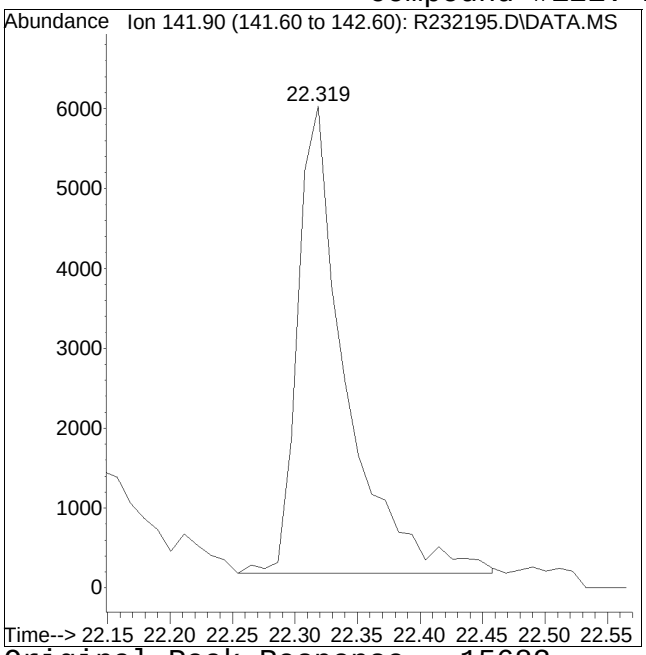
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

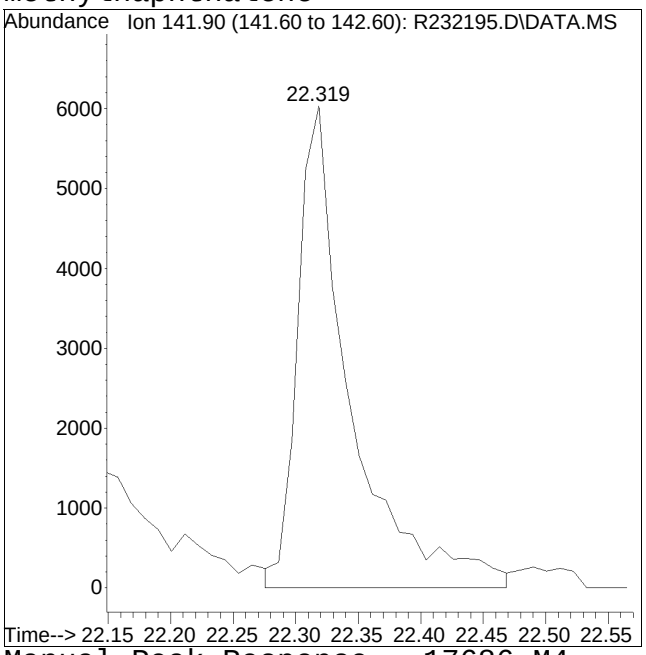
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232195.D
Date Inj'd : 1/20/2015 12:59 am
Sample : ITO15-SIMSTD1.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #121: 1-methylnaphthalene



Original Peak Response = 15682



Manual Peak Response = 17686 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232196.D
Acq On : 20 Jan 2015 1:30 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD5.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 20 07:46:09 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	176187	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 99.62%			
43) 1,4-difluorobenzene	12.549	114	470883	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 102.01%			
67) chlorobenzene-D5	16.893	54	110951	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 101.38%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.291	51	110140	5.112	ppbV	100
3) propylene	4.330	41	52542M6	5.181	ppbV	
4) propane	4.360	29	55971	5.180	ppbV	97
5) dichlorodifluoromethane	4.429	85	148502	5.535	ppbV	97
6) chloromethane	4.655	50	61530	5.182	ppbV	99
7) Freon-114	4.803	85	170017	5.144	ppbV	98
8) methanol	4.921	31	112138	26.114	ppbV	94
9) vinyl chloride	4.971	62	65273	5.086	ppbV	100
10) 1,3-butadiene	5.178	54	49856M4	5.214	ppbV	
11) butane	5.247	43	106309	5.233	ppbV	99
13) bromomethane	5.550	94	57449	5.145	ppbV	96
14) chloroethane	5.806	64	31342	5.198	ppbV	99
15) ethanol	5.998	31	233969	26.090	ppbV	99
16) dichlorofluoromethane	5.958	67	141606	5.082	ppbV	96
17) vinyl bromide	6.286	106	57688	5.022	ppbV	97
18) acrolein	6.454	56	27107M4	4.849	ppbV	
19) acetone	6.621	43	508600	26.103	ppbV	99
20) acetonitrile	6.286	41	60614	5.051	ppbV	98
21) trichlorofluoromethane	6.853	101	163679	5.192	ppbV	99
22) isopropyl alcohol	6.973	45	113166	5.339	ppbV	99
23) acrylonitrile	7.253	53	48648	4.960	ppbV	98
24) pentane	7.325	43	128258	5.168	ppbV	99
25) ethyl ether	7.365	31	90941	5.094	ppbV	99
26) 1,1-dichloroethene	7.669	61	110661	5.143	ppbV	96
27) tertiary butyl alcohol	7.732	59	140823	5.450	ppbV	99
28) methylene chloride	7.836	49	82961	5.086	ppbV	100
29) 3-chloropropene	7.988	41	90009	5.076	ppbV	98
30) carbon disulfide	8.164	76	191352	5.104	ppbV	98
31) Freon 113	8.172	101	131859	5.076	ppbV	96

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232196.D
Acq On : 20 Jan 2015 1:30 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD5.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 20 07:46:09 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) trans-1,2-dichloroethene	8.988	61	105859	5.099	ppbV		98
33) 1,1-dichloroethane	9.221	63	123115	5.107	ppbV		99
34) MTBE	9.290	73	184539	5.175	ppbV		100
35) vinyl acetate	9.414	43	119920	4.631	ppbV		99
36) 2-butanone	9.688	43	153322	5.071	ppbV		99
37) cis-1,2-dichloroethene	10.198	61	95113	5.102	ppbV		99
38) Ethyl Acetate	10.461	61	22254	4.900	ppbV	#	53
39) chloroform	10.536	83	139176	5.084	ppbV		100
40) Tetrahydrofuran	10.978	42	86260M6	4.994	ppbV		
41) 2,2-dichloropropane	10.565	77	127883	5.213	ppbV		97
42) 1,2-dichloroethane	11.363	62	100537	5.074	ppbV		98
44) hexane	10.443	57	105661	4.972	ppbV		87
45) diisopropyl ether	10.433	87	50904	4.912	ppbV		90
46) tert-butyl ethyl ether	11.043	59	223506	5.032	ppbV		98
48) 1,1,1-trichloroethane	11.648	97	161016	4.978	ppbV		99
49) 1,1-dichloropropene	12.000	75	103090	4.939	ppbV		99
50) benzene	12.156	78	195320	5.023	ppbV		100
52) carbon tetrachloride	12.332	117	152328	5.103	ppbV		99
53) cyclohexane	12.467	56	110002	5.067	ppbV		100
54) tert-amyl methyl ether	12.808	73	196419	4.993	ppbV		98
55) dibromomethane	13.047	93	85044	4.976	ppbV		99
56) 1,2-dichloropropane	13.067	63	77147	5.039	ppbV		98
57) bromodichloromethane	13.285	83	160251	4.880	ppbV		96
58) 1,4-dioxane	13.326	88	45289	5.188	ppbV		94
59) trichloroethene	13.337	130	90654	5.051	ppbV		98
60) 2,2,4-trimethylpentane	13.368	57	349774M6	4.905	ppbV		
61) methyl methacrylate	13.533	41	106092	4.948	ppbV		99
62) heptane	13.658	43	138908	4.977	ppbV		97
63) cis-1,3-dichloropropene	14.305	75	111636	4.969	ppbV		90
64) 4-methyl-2-pentanone	14.321	43	191921	4.929	ppbV		100
65) trans-1,3-dichloropropene	14.864	75	141458	4.760	ppbV		98
66) 1,1,2-trichloroethane	15.044	97	105928	4.990	ppbV		97
68) toluene	15.325	91	315684	5.034	ppbV		100
71) 1,3-dichloropropane	15.343	76	148500	4.991	ppbV		100
72) 2-hexanone	15.551	43	244784	5.039	ppbV		99
74) dibromochloromethane	15.731	129	222864	5.027	ppbV		99
75) 1,2-dibromoethane	15.957	107	176526	4.915	ppbV		99
76) butyl acetate	16.120	73	34292	4.961	ppbV		94
77) octane	16.210	85	92886	4.991	ppbV		97
78) tetrachloroethene	16.364	166	147186	4.988	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232196.D
Acq On : 20 Jan 2015 1:30 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD5.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 20 07:46:09 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-LCS-AP2 - All compounds listed

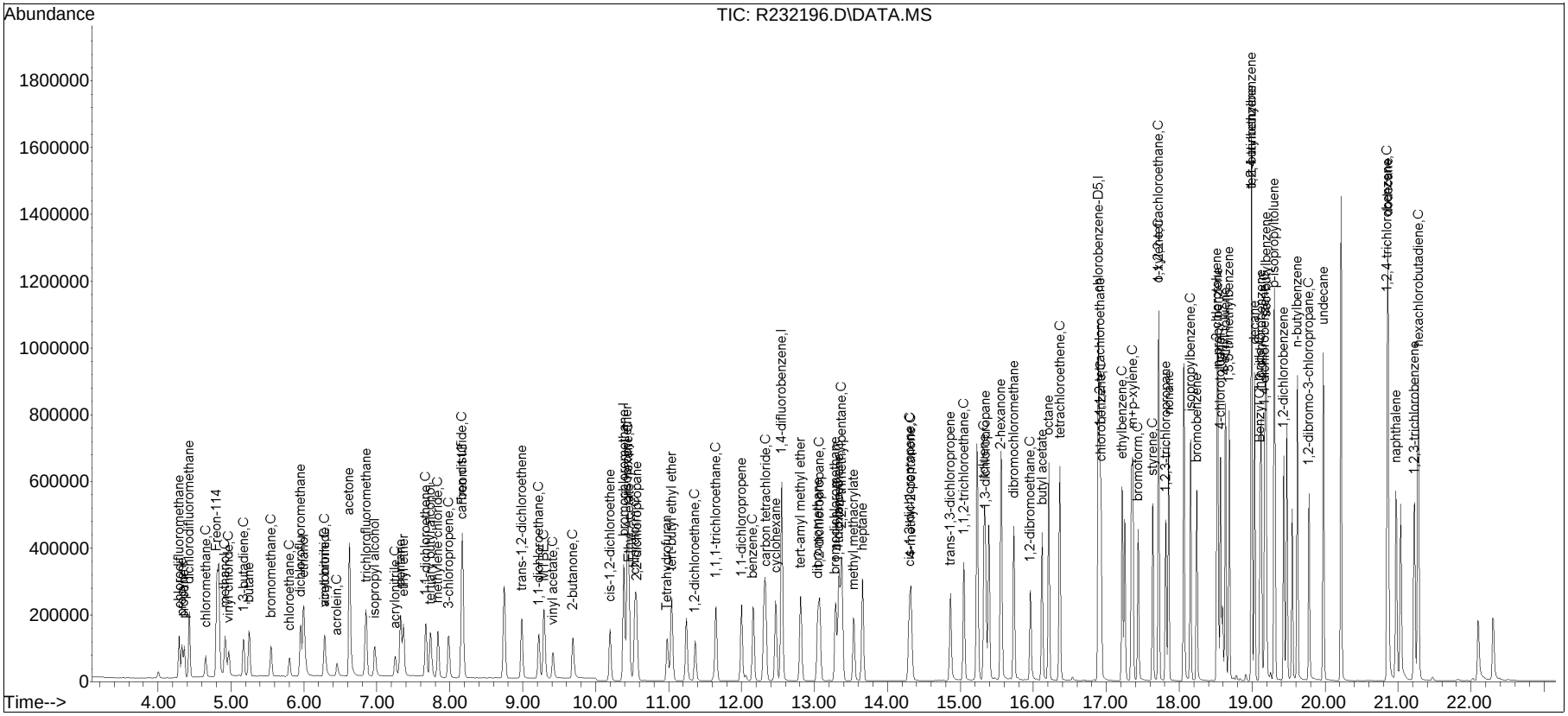
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 1,1,1,2-tetrachloroethane	16.912	131	109972	5.007	ppbV	98
80) chlorobenzene	16.927	112	194789	4.998	ppbV	99
81) ethylbenzene	17.217	91	317940	5.016	ppbV	99
83) m+p-xylene	17.360	91	500895	10.090	ppbV	98
84) bromoform	17.436	173	159993	4.996	ppbV	99
85) styrene	17.636	104	190509	4.969	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.717	83	195908	5.020	ppbV	98
87) o-xylene	17.717	91	259216	5.034	ppbV	98
88) 1,2,3-trichloropropane	17.812	75	153121	4.996	ppbV	99
89) nonane	17.855	43	204605	4.999	ppbV	100
91) isopropylbenzene	18.155	105	346203	5.054	ppbV	100
92) bromobenzene	18.241	77	186138	4.917	ppbV	96
93) 2-chlorotoluene	18.517	126	95519	4.957	ppbV	99
94) n-propylbenzene	18.531	120	101407	4.987	ppbV	76
95) 4-chlorotoluene	18.565	91	278306	5.028	ppbV	99
96) 4-ethyl toluene	18.631	105	377877M6	4.923	ppbV	
97) 1,3,5-trimethylbenzene	18.684	105	304453	4.997	ppbV	100
98) tert-butylbenzene	18.989	119	335135	5.028	ppbV	99
99) 1,2,4-trimethylbenzene	18.989	105	307324	4.992	ppbV	99
100) decane	19.032	57	217267	4.947	ppbV	99
101) Benzyl Chloride	19.108	91	285147	4.870	ppbV	99
102) 1,3-dichlorobenzene	19.122	146	202943	4.941	ppbV	99
103) 1,4-dichlorobenzene	19.170	146	217564M4	5.030	ppbV	
104) sec-butylbenzene	19.189	105	451523	5.030	ppbV	99
106) p-isopropyltoluene	19.298	119	411337	4.955	ppbV	99
107) 1,2-dichlorobenzene	19.432	146	198857	4.945	ppbV	99
108) n-butylbenzene	19.617	91	380062	5.005	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.779	75	106959	4.908	ppbV	98
112) undecane	19.974	57	253808	4.939	ppbV	99
114) dodecane	20.861	57	273360	4.745	ppbV	97
115) 1,2,4-trichlorobenzene	20.850	180	176866	4.903	ppbV	98
116) naphthalene	20.968	128	428819	4.880	ppbV	100
117) 1,2,3-trichlorobenzene	21.225	180	168154	4.877	ppbV	98
119) hexachlorobutadiene	21.279	225	144932	4.883	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listedAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232196.D
Acq On : 20 Jan 2015 1:30 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD5.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

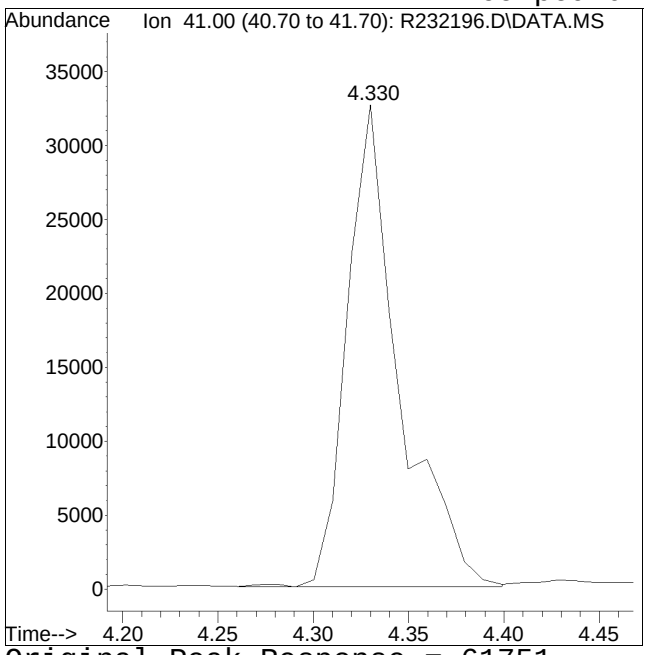
Quant Time: Jan 20 07:46:09 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration



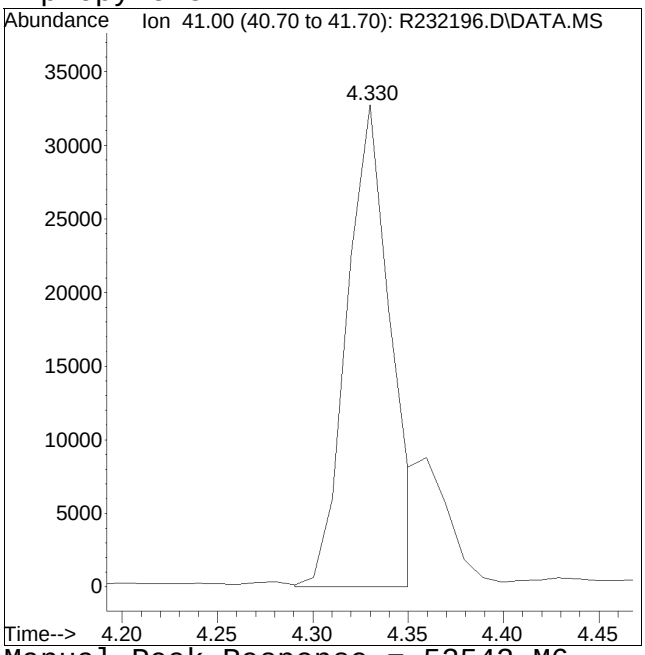
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232196.D
Date Inj'd : 1/20/2015 1:30 am
Sample : ITO15-SIMSTD5.0
Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #3: propylene



Original Peak Response = 61751



Manual Peak Response = 52542 M6

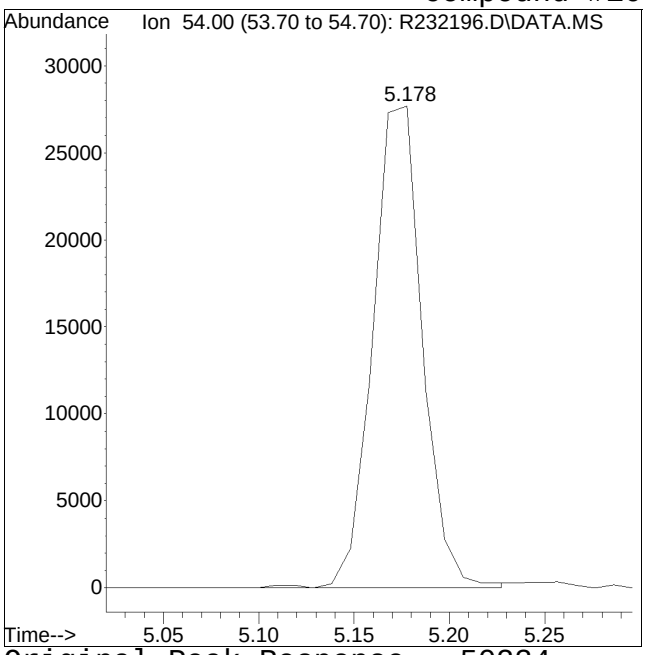
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

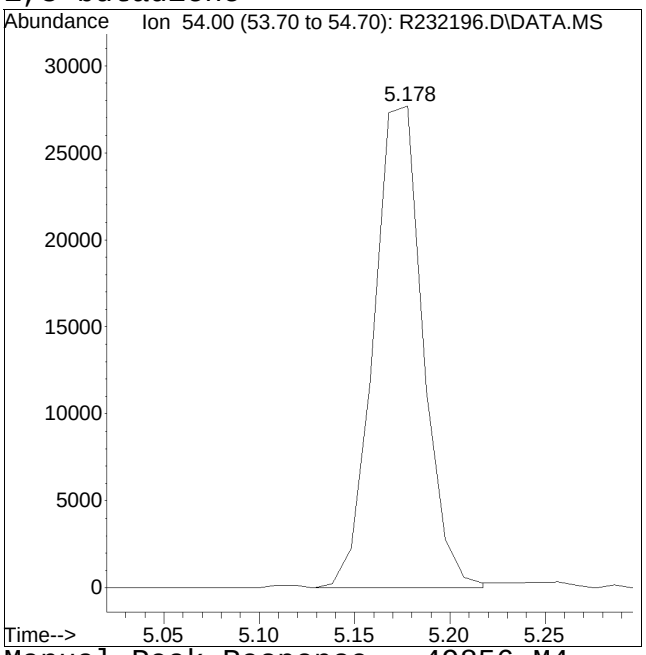
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232196.D
Date Inj'd : 1/20/2015 1:30 am
Sample : ITO15-SIMSTD5.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #10: 1,3-butadiene



Original Peak Response = 50234



Manual Peak Response = 49856 M4

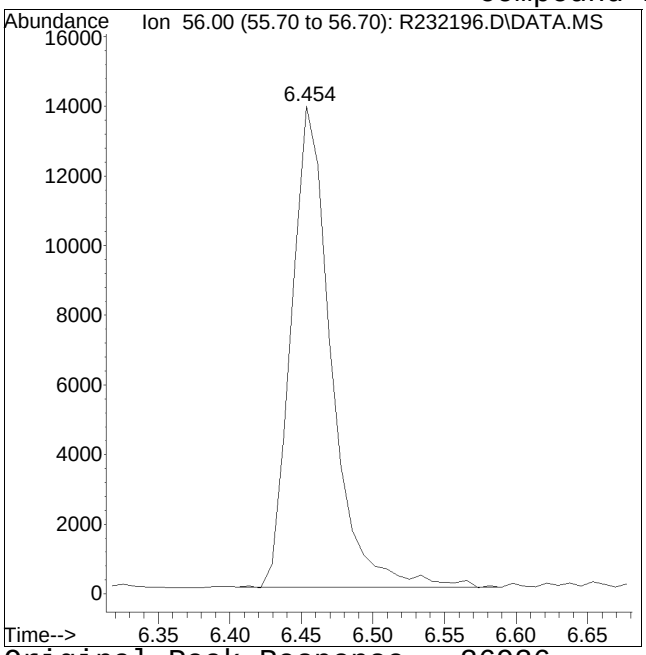
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

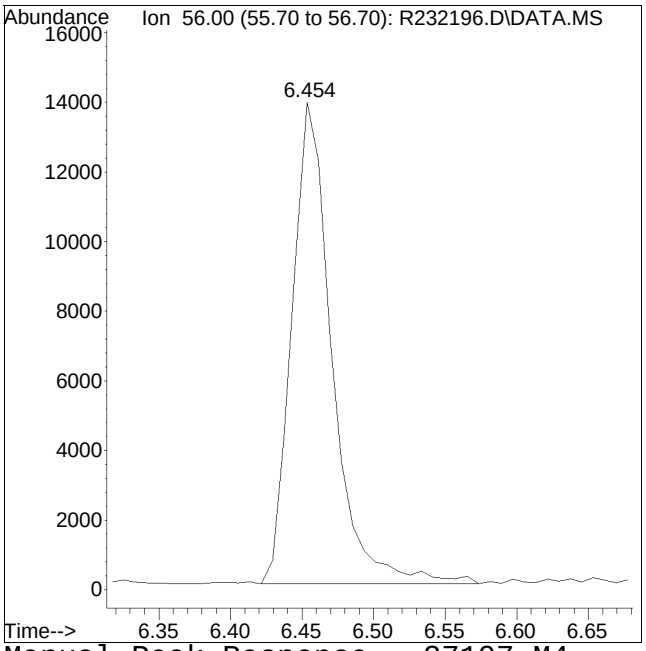
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232196.D
Date Inj'd : 1/20/2015 1:30 am
Sample : ITO15-SIMSTD5.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #18: acrolein



Original Peak Response = 26936



Manual Peak Response = 27107 M4

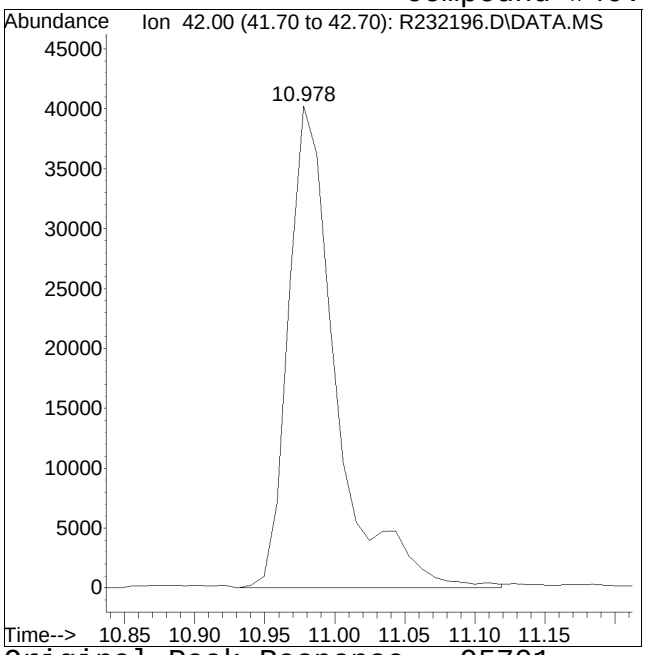
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

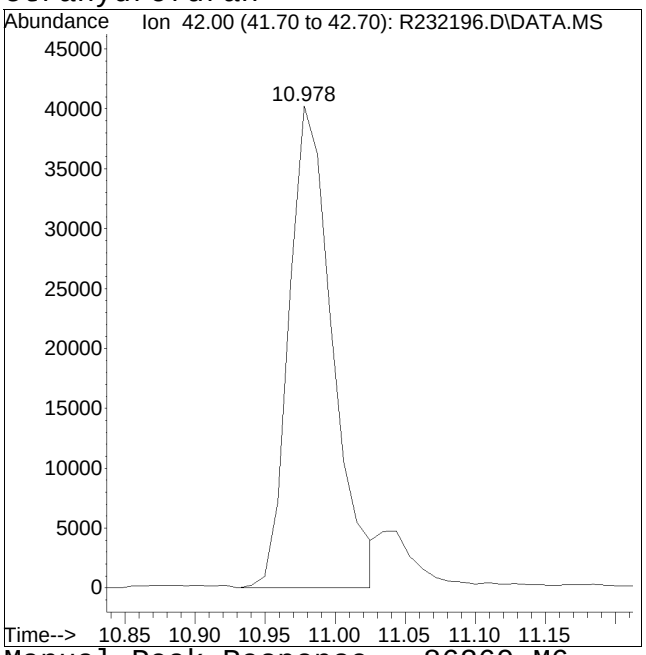
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232196.D
Date Inj'd : 1/20/2015 1:30 am
Sample : ITO15-SIMSTD5.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #40: Tetrahydrofuran



Original Peak Response = 95701



Manual Peak Response = 86260 M6

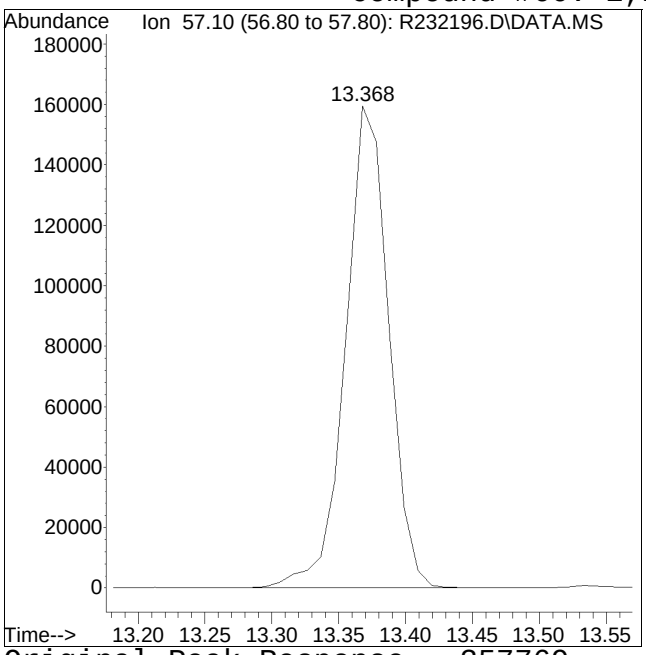
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

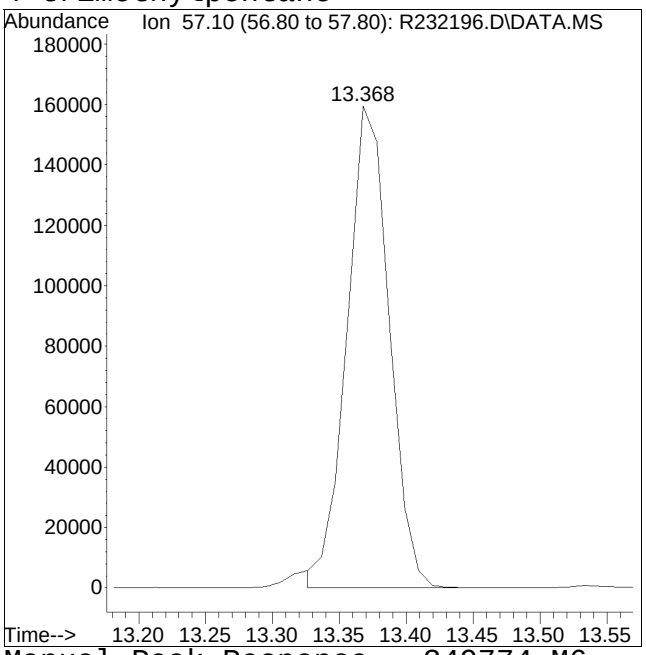
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232196.D
Date Inj'd : 1/20/2015 1:30 am
Sample : ITO15-SIMSTD5.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 357769



Manual Peak Response = 349774 M6

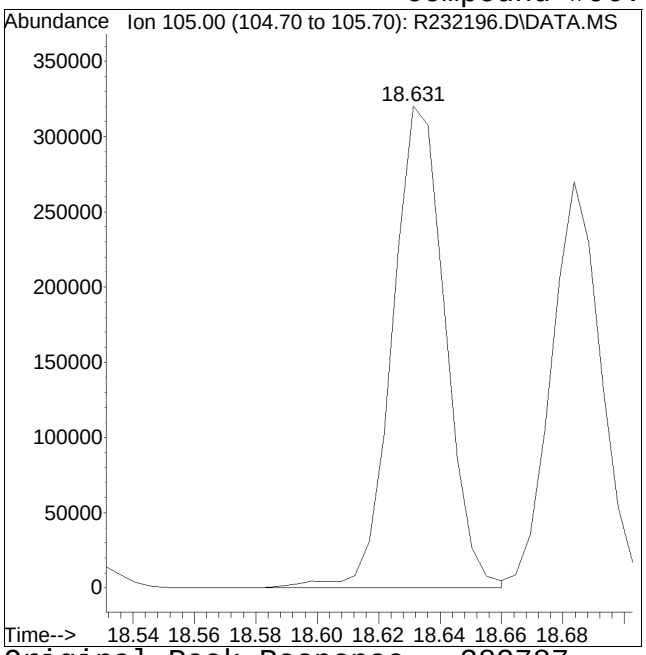
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

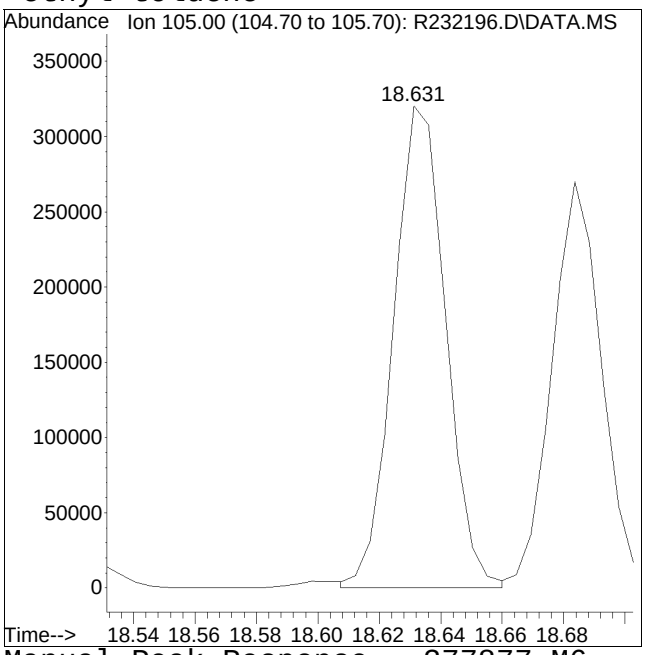
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232196.D
Date Inj'd : 1/20/2015 1:30 am
Sample : ITO15-SIMSTD5.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #96: 4-ethyl toluene



Original Peak Response = 382787



Manual Peak Response = 377877 M6

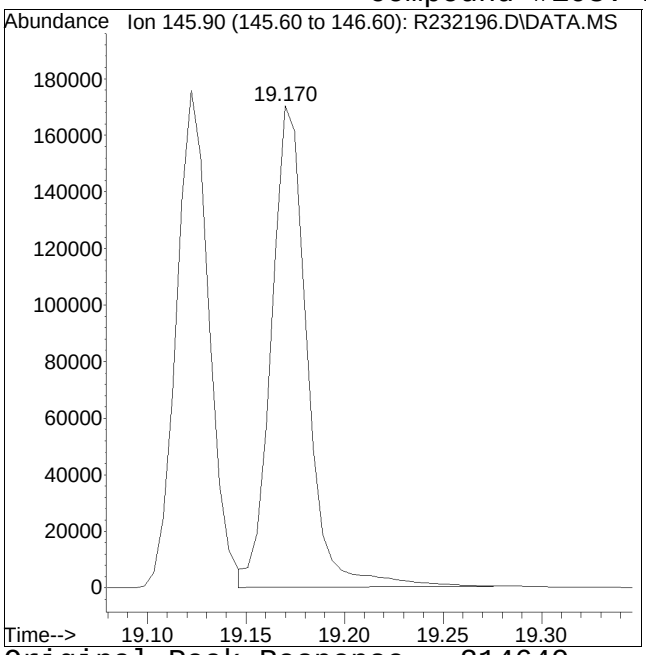
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

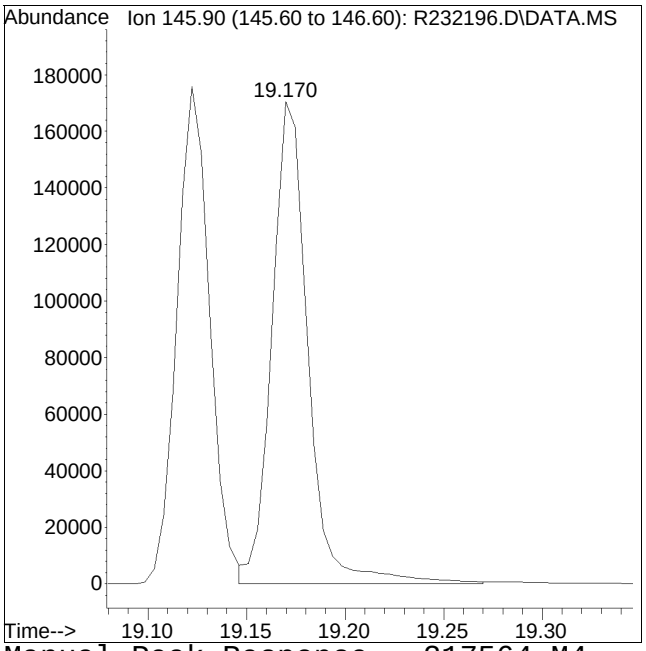
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232196.D
Date Inj'd : 1/20/2015 1:30 am
Sample : ITO15-SIMSTD5.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 214640



Manual Peak Response = 217564 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232197.D
Acq On : 20 Jan 2015 2:02 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD10.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 20 07:32:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	176853	10.000	ppbV	# 0.00
Standard Area = 176853			Recovery = 100.00%			
43) 1,4-difluorobenzene	12.549	114	461616	10.000	ppbV	# 0.00
Standard Area = 461616			Recovery = 100.00%			
67) chlorobenzene-D5	16.893	54	109441	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 100.00%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	142665	13.764	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 137.64%#			
69) toluene-D8	15.225	98	440837	8.582	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 85.82%			
90) bromofluorobenzene	18.060	95	258823	9.904	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.04%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	216265	9.862	ppbV	92
3) propylene	4.330	41	101799M6	9.661	ppbV	
4) propane	4.359	29	108464	8.080	ppbV #	91
5) dichlorodifluoromethane	4.428	85	269300	10.019	ppbV	96
6) chloromethane	4.655	50	119183	9.379	ppbV	100
7) Freon-114	4.813	85	331792	7.110	ppbV	95
8) methanol	4.911	31	215520	37.702	ppbV	95
9) vinyl chloride	4.971	62	128834	8.970	ppbV	99
10) 1,3-butadiene	5.178	54	95985	9.372	ppbV	92
11) butane	5.247	43	203911	8.578	ppbV	98
12) acetaldehyde	4.832	29	396448	40.054	ppbV #	82
13) bromomethane	5.550	94	112091	6.776	ppbV	96
14) chloroethane	5.806	64	60523	8.202	ppbV	98
15) ethanol	5.990	31	450080	37.042	ppbV	88
16) dichlorofluoromethane	5.958	67	279688	7.708	ppbV	97
17) vinyl bromide	6.285	106	115314	6.961	ppbV	97
18) acrolein	6.453	56	56118	9.613	ppbV #	87
19) acetone	6.621	43	977897	40.002	ppbV	97
20) acetonitrile	6.277	41	120450	8.954	ppbV	96
21) trichlorofluoromethane	6.853	101	316468	6.052	ppbV	98
22) isopropyl alcohol	6.965	45	212754	7.987	ppbV	98
23) acrylonitrile	7.245	53	98451	9.184	ppbV	96
24) pentane	7.325	43	249114	9.349	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232197.D
Acq On : 20 Jan 2015 2:02 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD10.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 20 07:32:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.365	31	179216	7.845	ppbV	#	87
26) 1,1-dichloroethene	7.676	61	215997	8.345	ppbV		90
27) tertiary butyl alcohol	7.732	59	259383	8.263	ppbV		99
28) methylene chloride	7.836	49	163733	8.778	ppbV		84
29) 3-chloropropene	7.988	41	177997	8.504	ppbV		97
30) carbon disulfide	8.164	76	376311	8.048	ppbV		100
31) Freon 113	8.172	101	260772	7.185	ppbV		98
32) trans-1,2-dichloroethene	8.988	61	208386	9.758	ppbV	#	83
33) 1,1-dichloroethane	9.221	63	241983	9.374	ppbV		99
34) MTBE	9.290	73	357941	8.371	ppbV		95
35) vinyl acetate	9.413	43	259909	12.093	ppbV		97
36) 2-butanone	9.681	43	303482	9.803	ppbV		94
37) cis-1,2-dichloroethene	10.198	61	187129	9.677	ppbV	#	84
38) Ethyl Acetate	10.452	61	45590	9.895	ppbV	#	40
39) chloroform	10.536	83	274763	7.648	ppbV	#	96
40) Tetrahydrofuran	10.968	42	169723M6	10.146	ppbV		
41) 2,2-dichloropropane	10.555	77	246250	8.015	ppbV		93
42) 1,2-dichloroethane	11.362	62	198906	9.090	ppbV		98
44) hexane	10.442	57	208332	13.389	ppbV	#	98
45) diisopropyl ether	10.433	87	101593	11.061	ppbV	#	62
46) tert-butyl ethyl ether	11.043	59	435433	13.706	ppbV	#	90
48) 1,1,1-trichloroethane	11.648	97	317063	10.028	ppbV	#	90
49) 1,1-dichloropropene	12.000	75	204620	11.857	ppbV		96
50) benzene	12.156	78	381233	11.684	ppbV	#	90
51) thiophene	12.311	84	259461	11.102	ppbV	#	86
52) carbon tetrachloride	12.332	117	292638	9.350	ppbV		96
53) cyclohexane	12.466	56	212821	13.649	ppbV		86
54) tert-amyl methyl ether	12.808	73	385653	11.846	ppbV		94
55) dibromomethane	13.046	93	167539	10.043	ppbV		97
56) 1,2-dichloropropane	13.067	63	150086	12.628	ppbV		95
57) bromodichloromethane	13.285	83	321941	10.652	ppbV		99
58) 1,4-dioxane	13.316	88	85575	10.426	ppbV		87
59) trichloroethene	13.336	130	175942	9.812	ppbV		95
60) 2,2,4-trimethylpentane	13.367	57	679781M4	13.005	ppbV		
61) methyl methacrylate	13.533	41	210173	13.167	ppbV	#	92
62) heptane	13.657	43	273598	13.670	ppbV	#	97
63) cis-1,3-dichloropropene	14.289	75	220242	12.362	ppbV		98
64) 4-methyl-2-pentanone	14.320	43	381717	13.343	ppbV		96
65) trans-1,3-dichloropropene	14.863	75	291336	12.205	ppbV		99
66) 1,1,2-trichloroethane	15.044	97	208094	10.370	ppbV		93

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232197.D
Acq On : 20 Jan 2015 2:02 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD10.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 20 07:32:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.324	91	618572	8.606	ppbV		99
70) 2-methylthiophene	15.388	97	556007	8.661	ppbV	#	98
71) 1,3-dichloropropane	15.342	76	293513	9.094	ppbV		89
72) 2-hexanone	15.550	43	479181	10.901	ppbV	#	98
73) 3-methylthiophene	15.559	97	513887	7.800	ppbV	#	98
74) dibromochloromethane	15.731	129	437327	7.798	ppbV		98
75) 1,2-dibromoethane	15.957	107	354280	8.187	ppbV		96
76) butyl acetate	16.111	73	68178	9.621	ppbV	#	55
77) octane	16.210	85	183577	9.220	ppbV	#	74
78) tetrachloroethene	16.364	166	291058	7.974	ppbV		98
79) 1,1,1,2-tetrachloroethane	16.912	131	216656	7.962	ppbV		98
80) chlorobenzene	16.926	112	384452	8.573	ppbV		95
81) ethylbenzene	17.217	91	625170	8.909	ppbV		99
82) 2-ethylthiophene	17.250	97	478348	8.455	ppbV	#	98
83) m+p-xylene	17.360	91	979324	17.486	ppbV		99
84) bromoform	17.436	173	315878	8.574	ppbV		99
85) styrene	17.636	104	378173	8.691	ppbV		97
86) 1,1,2,2-tetrachloroethane	17.712	83	384957	9.316	ppbV		100
87) o-xylene	17.717	91	507909	8.876	ppbV		99
88) 1,2,3-trichloropropane	17.812	75	302328	9.840	ppbV		92
89) nonane	17.850	43	403685	11.084	ppbV	#	99
91) isopropylbenzene	18.155	105	675733	8.765	ppbV		99
92) bromobenzene	18.236	77	373391	9.269	ppbV		92
93) 2-chlorotoluene	18.517	126	190062	8.494	ppbV		94
94) n-propylbenzene	18.526	120	200566	8.612	ppbV		90
95) 4-chlorotoluene	18.564	91	546019	9.086	ppbV		96
96) 4-ethyl toluene	18.631	105	747185M6	8.496	ppbV		
97) 1,3,5-trimethylbenzene	18.683	105	600982	8.706	ppbV		100
98) tert-butylbenzene	18.989	119	657461	8.784	ppbV		99
99) 1,2,4-trimethylbenzene	18.989	105	607245	8.851	ppbV		98
100) decane	19.032	57	433247	11.716	ppbV	#	98
101) Benzyl Chloride	19.108	91	577571	9.843	ppbV		100
102) 1,3-dichlorobenzene	19.122	146	405173	8.471	ppbV		96
103) 1,4-dichlorobenzene	19.170	146	426674	8.834	ppbV		97
104) sec-butylbenzene	19.189	105	885391	8.797	ppbV		100
105) 1,2,3-trimethylbenzene	19.312	105	521092	8.138	ppbV		99
106) p-isopropyltoluene	19.298	119	818800	8.840	ppbV		99
107) 1,2-dichlorobenzene	19.431	146	396695	8.874	ppbV		96
108) n-butylbenzene	19.617	91	748964	9.245	ppbV		98
109) indan	19.474	117	567739	8.216	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232197.D
Acq On : 20 Jan 2015 2:02 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD10.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 20 07:32:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

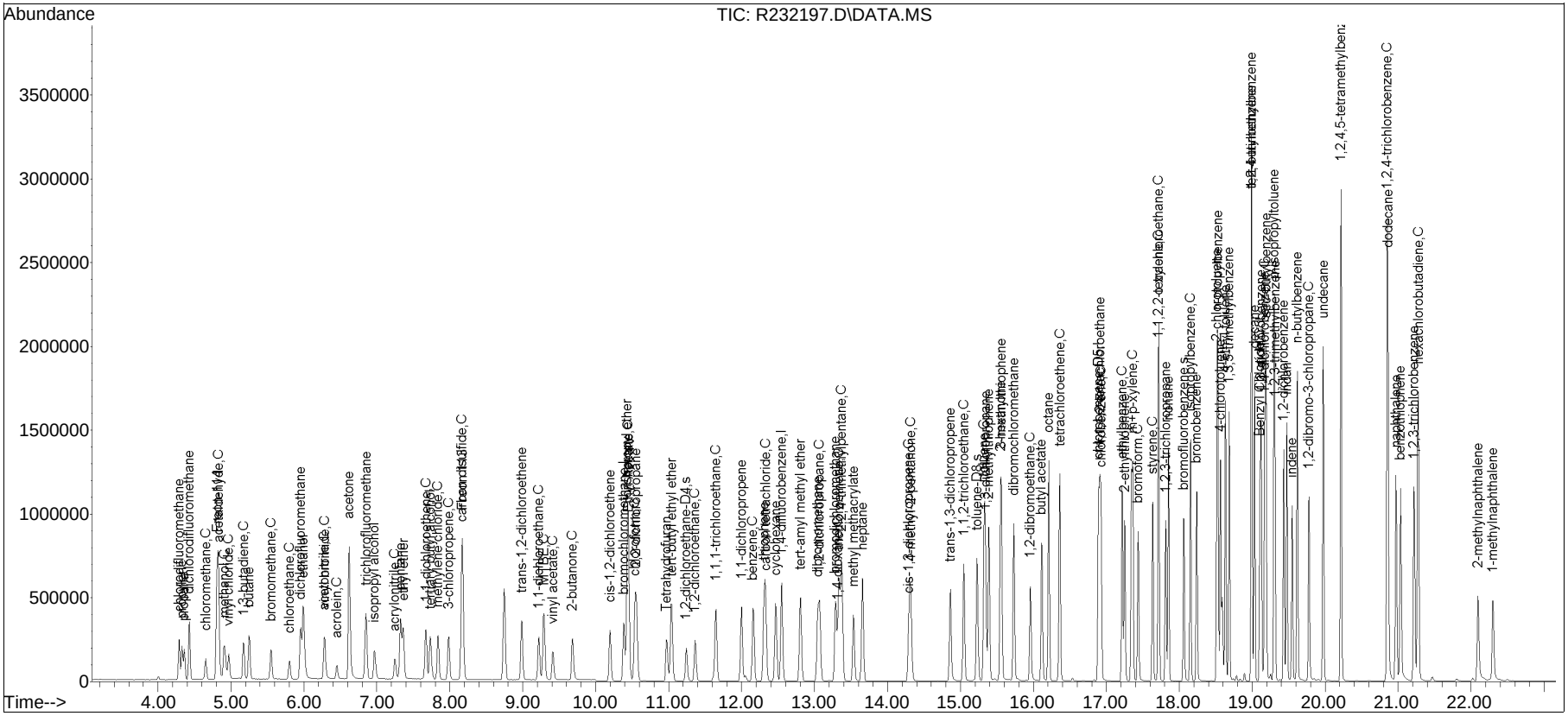
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) indene	19.546	115	394320	8.160	ppbV		97
111) 1,2-dibromo-3-chloropr...	19.779	75	214960	10.471	ppbV		93
112) undecane	19.974	57	506921	12.674	ppbV		95
113) 1,2,4,5-tetramethylben...	20.217	119	1180766	8.285	ppbV		99
114) dodecane	20.861	57	568220	14.539	ppbV		96
115) 1,2,4-trichlorobenzene	20.850	180	355854	10.259	ppbV		97
116) naphthalene	20.968	128	866708	9.821	ppbV		98
117) 1,2,3-trichlorobenzene	21.214	180	340121	10.221	ppbV		97
118) benzothiophene	21.032	134	743501	5.210	ppbV		97
119) hexachlorobutadiene	21.279	225	292764	9.936	ppbV	#	86
120) 2-methylnaphthalene	22.093	142	291426	10.075	ppbV		96
121) 1-methylnaphthalene	22.297	142	260546	9.731	ppbV		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0119T_ICAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232197.D
Acq On : 20 Jan 2015 2:02 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD10.0
Misc : WG756921
ALS Vial : 7 Sample Multiplier: 1

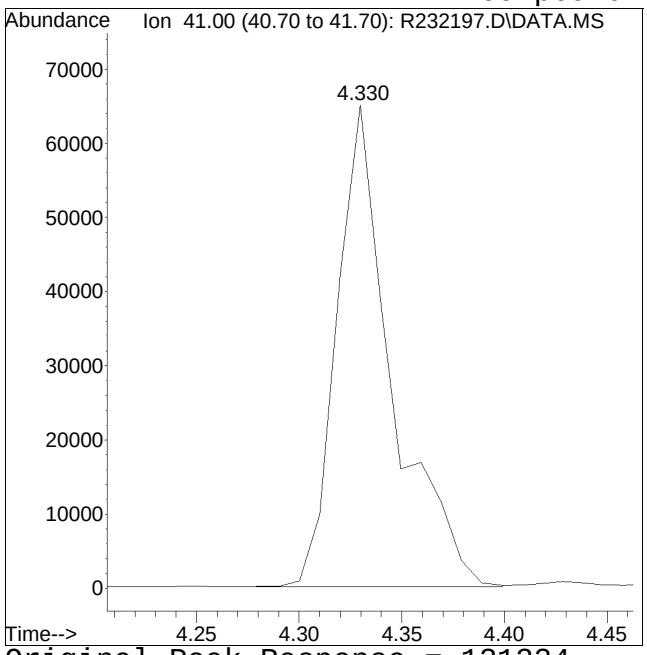
Quant Time: Jan 20 07:32:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration



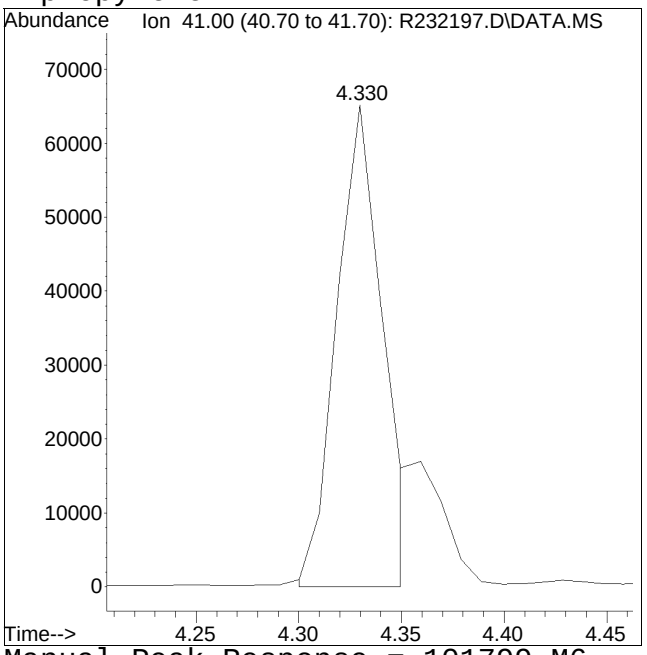
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232197.D
Date Inj'd : 1/20/2015 2:02 am
Sample : ITO15-SIMSTD10.0
Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:34 am

Compound #3: propylene



Original Peak Response = 121224



Manual Peak Response = 101799 M6

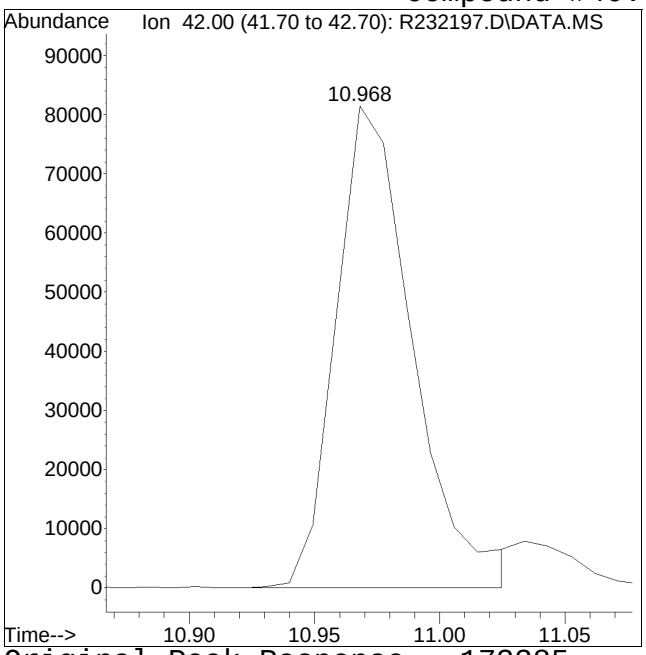
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

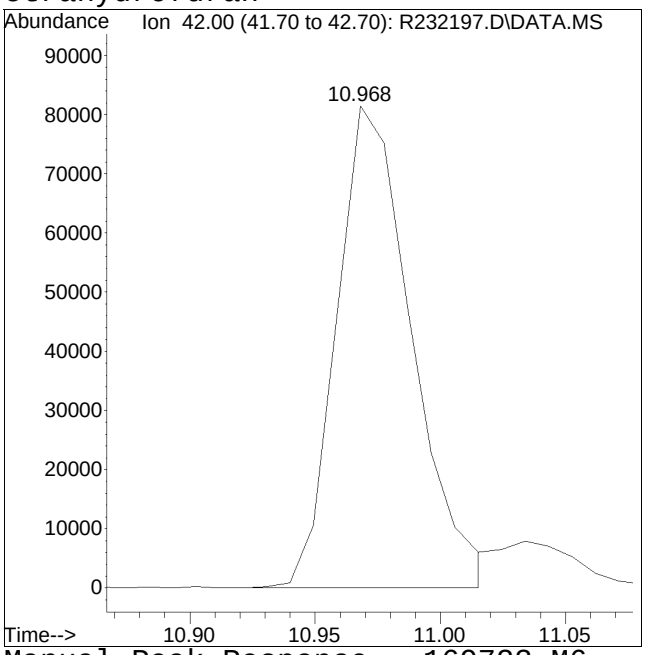
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232197.D
Date Inj'd : 1/20/2015 2:02 am
Sample : ITO15-SIMSTD10.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:34 am

Compound #40: Tetrahydrofuran



Original Peak Response = 173385



Manual Peak Response = 169723 M6

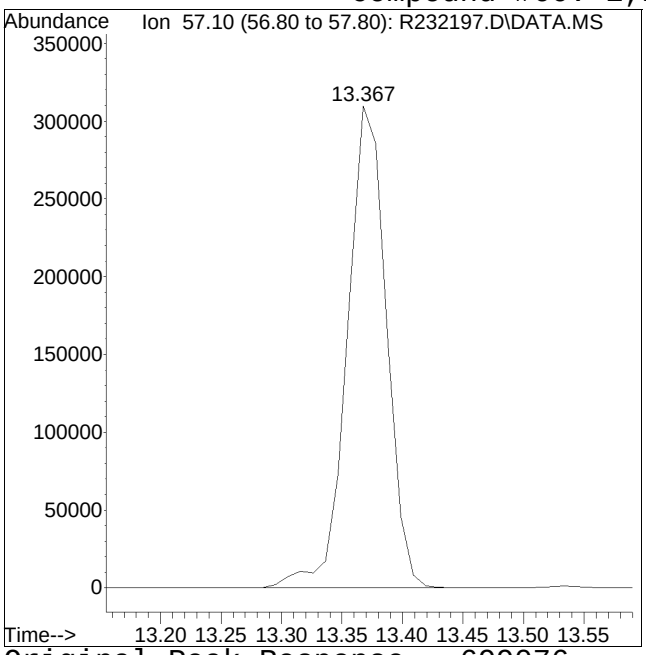
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

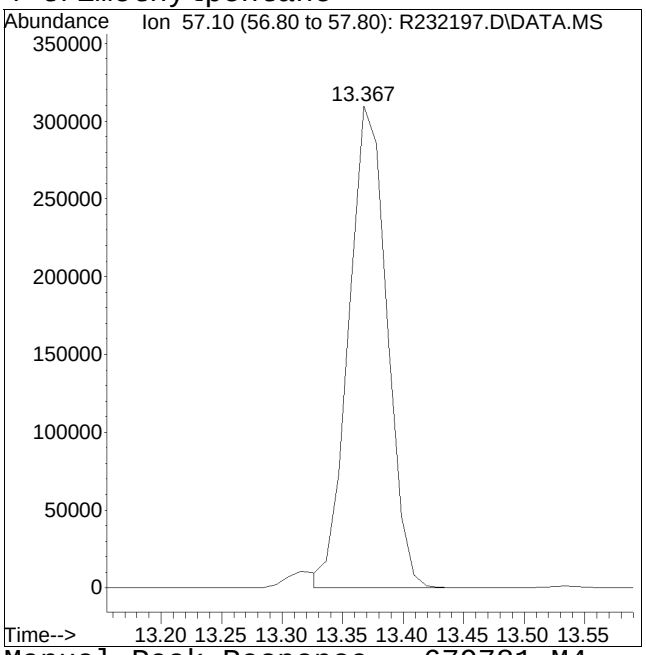
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232197.D
Date Inj'd : 1/20/2015 2:02 am
Sample : ITO15-SIMSTD10.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:34 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 699076



Manual Peak Response = 679781 M4

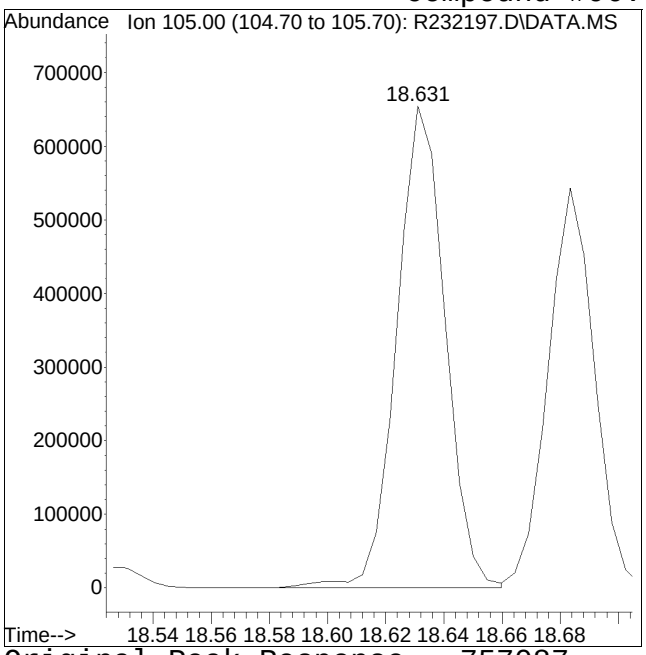
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

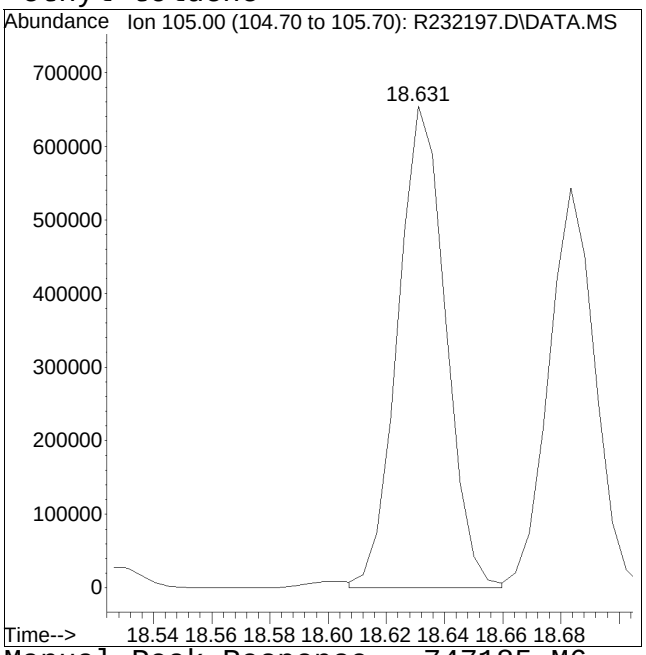
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232197.D
Date Inj'd : 1/20/2015 2:02 am
Sample : ITO15-SIMSTD10.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:34 am

Compound #96: 4-ethyl toluene



Original Peak Response = 757087



Manual Peak Response = 747185 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232198.D
Acq On : 20 Jan 2015 2:34 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD20.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:49:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	178971	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 101.20%			
43) 1,4-difluorobenzene	12.549	114	462407	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 100.17%			
67) chlorobenzene-D5	16.893	54	110595	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 101.05%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	142452	9.968	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.68%			
69) toluene-D8	15.225	98	435911	9.785	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.85%			
90) bromofluorobenzene	18.060	95	201726	7.713	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 77.13%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	428669	19.587	ppbV	99
3) propylene	4.330	41	204168M6	19.819	ppbV	
4) propane	4.359	29	219019	19.954	ppbV	98
5) dichlorodifluoromethane	4.428	85	556767	20.430	ppbV	99
6) chloromethane	4.655	50	236720	19.627	ppbV	100
7) Freon-114	4.803	85	659221	19.633	ppbV	98
8) methanol	4.902	31	445256	102.076	ppbV	94
9) vinyl chloride	4.971	62	259603	19.912	ppbV	99
10) 1,3-butadiene	5.168	54	194027M4	19.975	ppbV	
11) butane	5.247	43	408458	19.794	ppbV	100
12) acetaldehyde	4.823	29	784492	97.769	ppbV	98
13) bromomethane	5.550	94	222836	19.645	ppbV	98
14) chloroethane	5.798	64	121588	19.852	ppbV	98
15) ethanol	5.990	31	964931	105.927	ppbV	99
16) dichlorofluoromethane	5.958	67	548683	19.386	ppbV	99
17) vinyl bromide	6.285	106	226902	19.444	ppbV	99
18) acrolein	6.445	56	108893	19.175	ppbV	98
19) acetone	6.613	43	1951498	98.600	ppbV #	100
20) acetonitrile	6.277	41	235382	19.311	ppbV	100
21) trichlorofluoromethane	6.853	101	624104	19.488	ppbV	99
22) isopropyl alcohol	6.965	45	465144	21.604	ppbV	99
23) acrylonitrile	7.245	53	195248	19.597	ppbV	98
24) pentane	7.325	43	495296	19.647	ppbV	99

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232198.D
Acq On : 20 Jan 2015 2:34 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD20.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:49:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.357	31	347532	19.162	ppbV	98
26) 1,1-dichloroethene	7.668	61	434058	19.858	ppbV	98
27) tertiary butyl alcohol	7.732	59	566526	21.583	ppbV	99
28) methylene chloride	7.836	49	330696	19.958	ppbV	92
29) 3-chloropropene	7.980	41	372082	20.656	ppbV	91
30) carbon disulfide	8.164	76	742553	19.499	ppbV	100
31) Freon 113	8.172	101	508606	19.273	ppbV	97
32) trans-1,2-dichloroethene	8.988	61	418512	19.846	ppbV	98
33) 1,1-dichloroethane	9.221	63	481776	19.674	ppbV	99
34) MTBE	9.290	73	718476	19.835	ppbV	99
35) vinyl acetate	9.413	43	586641	22.304	ppbV	99
36) 2-butanone	9.681	43	610422	19.876	ppbV	99
37) cis-1,2-dichloroethene	10.198	61	376221	19.867	ppbV	99
38) Ethyl Acetate	10.452	61	92908	20.138	ppbV	87
39) chloroform	10.536	83	549163	19.750	ppbV	100
40) Tetrahydrofuran	10.968	42	342808	19.538	ppbV	99
41) 2,2-dichloropropane	10.564	77	503034	20.186	ppbV	98
42) 1,2-dichloroethane	11.362	62	394396	19.594	ppbV	98
44) hexane	10.442	57	423356	20.286	ppbV	93
45) diisopropyl ether	10.433	87	202547	19.903	ppbV	99
46) tert-butyl ethyl ether	11.034	59	869410	19.932	ppbV	99
48) 1,1,1-trichloroethane	11.648	97	608422	19.156	ppbV	99
49) 1,1-dichloropropene	12.000	75	406532	19.834	ppbV	99
50) benzene	12.166	78	759077	19.877	ppbV	98
51) thiophene	12.311	84	521385	20.061	ppbV	99
52) carbon tetrachloride	12.332	117	593819	20.257	ppbV	99
53) cyclohexane	12.466	56	434788	20.395	ppbV	99
54) tert-amyl methyl ether	12.808	73	775866	20.084	ppbV	99
55) dibromomethane	13.046	93	331945	19.779	ppbV	99
56) 1,2-dichloropropane	13.067	63	301561	20.058	ppbV	96
57) bromodichloromethane	13.285	83	642297	19.917	ppbV	100
58) 1,4-dioxane	13.316	88	189190	22.070	ppbV	95
59) trichloroethene	13.336	130	356679	20.238	ppbV	99
60) 2,2,4-trimethylpentane	13.367	57	1370201M6	19.567	ppbV	
61) methyl methacrylate	13.533	41	426563	20.261	ppbV	99
62) heptane	13.658	43	552624	20.164	ppbV	100
63) cis-1,3-dichloropropene	14.289	75	447208	20.271	ppbV	97
64) 4-methyl-2-pentanone	14.320	43	764150	19.985	ppbV	99
65) trans-1,3-dichloropropene	14.863	75	585693	20.069	ppbV	98
66) 1,1,2-trichloroethane	15.044	97	411918	19.761	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232198.D
Acq On : 20 Jan 2015 2:34 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD20.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:49:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.324	91	1224870	19.595	ppbV	100
70) 2-methylthiophene	15.388	97	1121990	19.969	ppbV	100
71) 1,3-dichloropropane	15.342	76	586980	19.790	ppbV	99
72) 2-hexanone	15.550	43	965363	19.936	ppbV	100
73) 3-methylthiophene	15.559	97	1053197	20.281	ppbV	99
74) dibromochloromethane	15.731	129	883235	19.985	ppbV	98
75) 1,2-dibromoethane	15.957	107	698871	19.521	ppbV	99
76) butyl acetate	16.111	73	133986	19.447	ppbV	94
77) octane	16.210	85	370555	19.975	ppbV	98
78) tetrachloroethene	16.364	166	575103	19.553	ppbV	98
79) 1,1,1,2-tetrachloroethane	16.912	131	427654	19.533	ppbV	99
80) chlorobenzene	16.926	112	760244	19.568	ppbV	99
81) ethylbenzene	17.217	91	1233248	19.521	ppbV	100
82) 2-ethylthiophene	17.250	97	974244	20.154	ppbV	99
83) m+p-xylene	17.360	91	1973817	39.889	ppbV	100
84) bromoform	17.436	173	634445	19.876	ppbV	99
85) styrene	17.636	104	743920	19.466	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.712	83	758455	19.497	ppbV	98
87) o-xylene	17.717	91	1006031	19.601	ppbV	100
88) 1,2,3-trichloropropane	17.812	75	600868	19.667	ppbV	99
89) nonane	17.850	43	811019	19.881	ppbV	98
91) isopropylbenzene	18.155	105	958635	14.039	ppbV	97
92) bromobenzene	18.236	77	738650	19.576	ppbV	97
93) 2-chlorotoluene	18.517	126	370871	19.310	ppbV	100
94) n-propylbenzene	18.526	120	393953	19.437	ppbV	96
95) 4-chlorotoluene	18.564	91	1078962	19.554	ppbV	99
96) 4-ethyl toluene	18.631	105	1489992M6	19.475	ppbV	
97) 1,3,5-trimethylbenzene	18.683	105	1189119	19.580	ppbV	100
98) tert-butylbenzene	18.993	119	1258413	18.941	ppbV	99
99) 1,2,4-trimethylbenzene	18.993	105	1194049	19.458	ppbV	96
100) decane	19.032	57	868185	19.830	ppbV	98
101) Benzyl Chloride	19.108	91	1199221	20.547	ppbV	100
102) 1,3-dichlorobenzene	19.122	146	801117	19.566	ppbV	98
103) 1,4-dichlorobenzene	19.170	146	833546M4	19.332	ppbV	
104) sec-butylbenzene	19.189	105	1747678	19.533	ppbV	99
105) 1,2,3-trimethylbenzene	19.312	105	1053891	20.014	ppbV	99
106) p-isopropyltoluene	19.298	119	1582867	19.130	ppbV	99
107) 1,2-dichlorobenzene	19.432	146	771098	19.235	ppbV	98
108) n-butylbenzene	19.617	91	1476941	19.514	ppbV	99
109) indan	19.474	117	1140227	19.874	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232198.D
Acq On : 20 Jan 2015 2:34 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD20.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:49:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

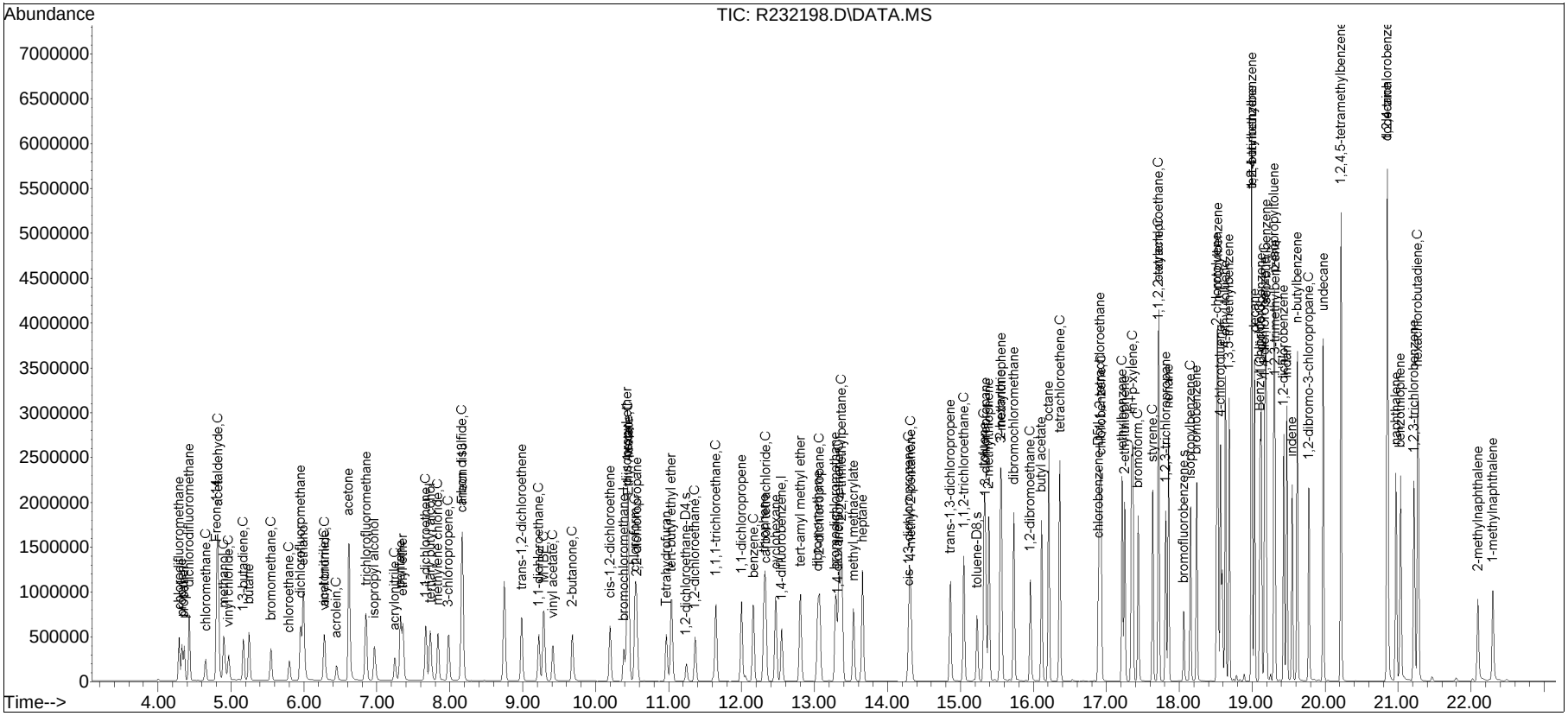
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.546	115	821134	20.607	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.774	75	429719	19.782	ppbV	97
112) undecane	19.974	57	982081	19.171	ppbV	99
113) 1,2,4,5-tetramethylben...	20.217	119	2112405	17.703	ppbV	100
114) dodecane	20.850	57	1030733	17.950	ppbV	100
115) 1,2,4-trichlorobenzene	20.850	180	662093	18.412	ppbV	98
116) naphthalene	20.968	128	1583237	18.077	ppbV	99
117) 1,2,3-trichlorobenzene	21.214	180	626901	18.239	ppbV	99
118) benzothiophene	21.032	134	1408257	18.743	ppbV	100
119) hexachlorobutadiene	21.268	225	559154	18.900	ppbV	97
120) 2-methylnaphthalene	22.093	142	490573	16.658	ppbV	99
121) 1-methylnaphthalene	22.297	142	500445	19.007	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0119T_ICAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232198.D
Acq On : 20 Jan 2015 2:34 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD20.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

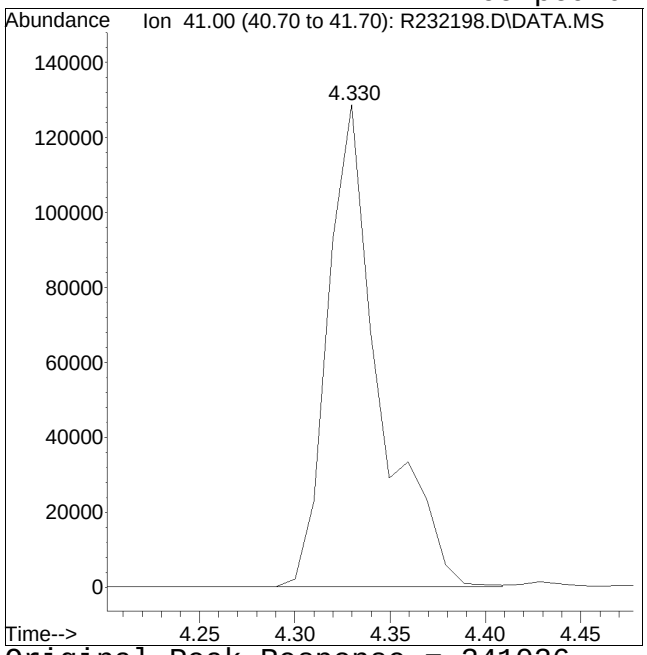
Quant Time: Jan 20 07:49:20 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration



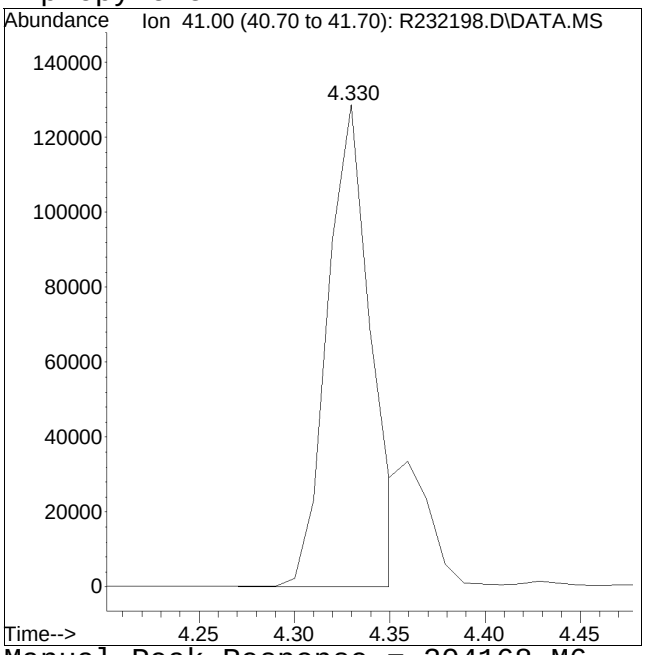
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232198.D
Date Inj'd : 1/20/2015 2:34 am
Sample : ITO15-SIMSTD20.0
Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #3: propylene



Original Peak Response = 241026



Manual Peak Response = 204168 M6

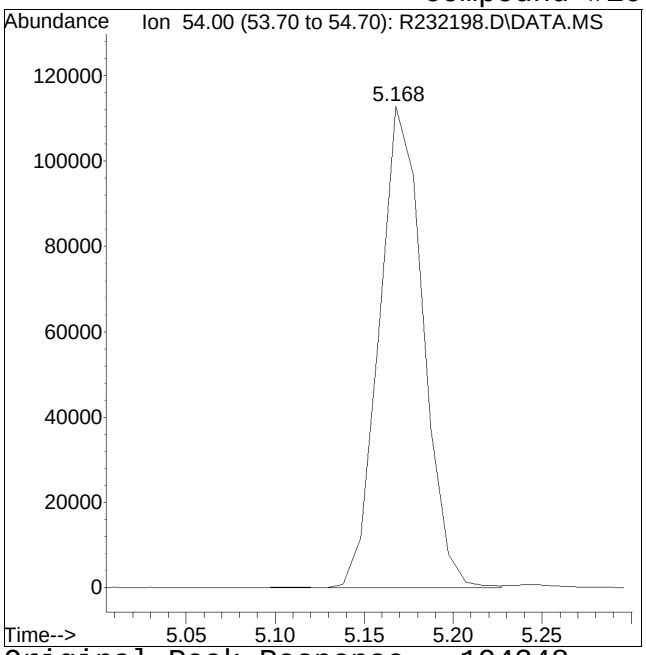
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

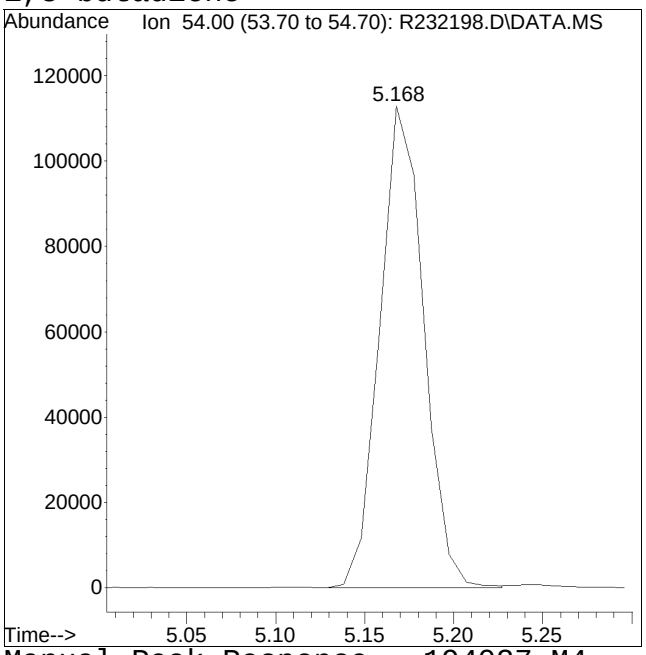
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232198.D
Date Inj'd : 1/20/2015 2:34 am
Sample : ITO15-SIMSTD20.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #10: 1,3-butadiene



Original Peak Response = 194348



Manual Peak Response = 194027 M4

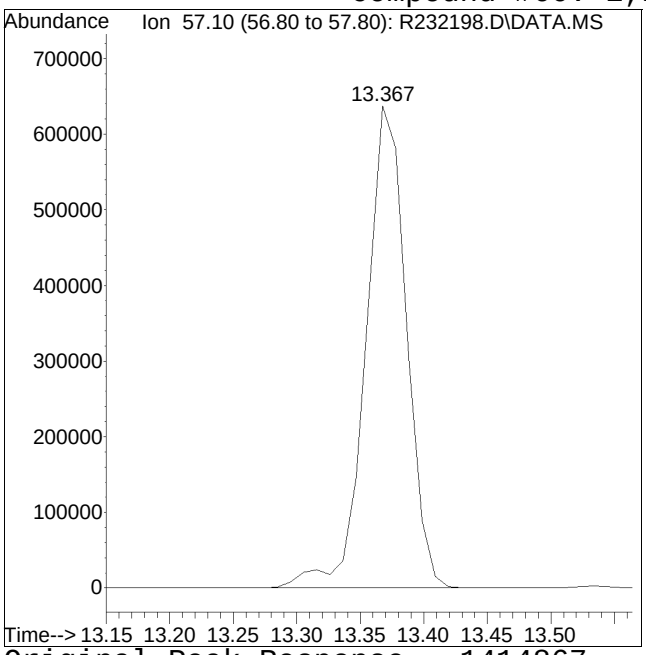
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

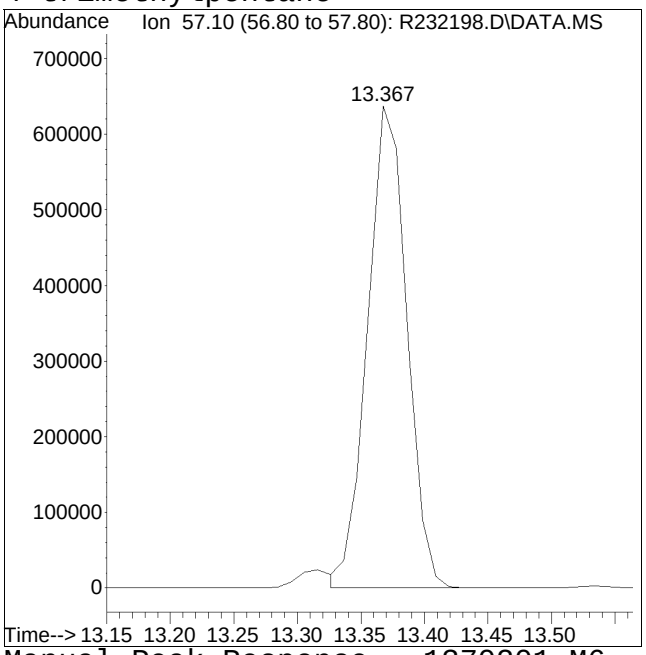
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232198.D
Date Inj'd : 1/20/2015 2:34 am
Sample : ITO15-SIMSTD20.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 1414867



Manual Peak Response = 1370201 M6

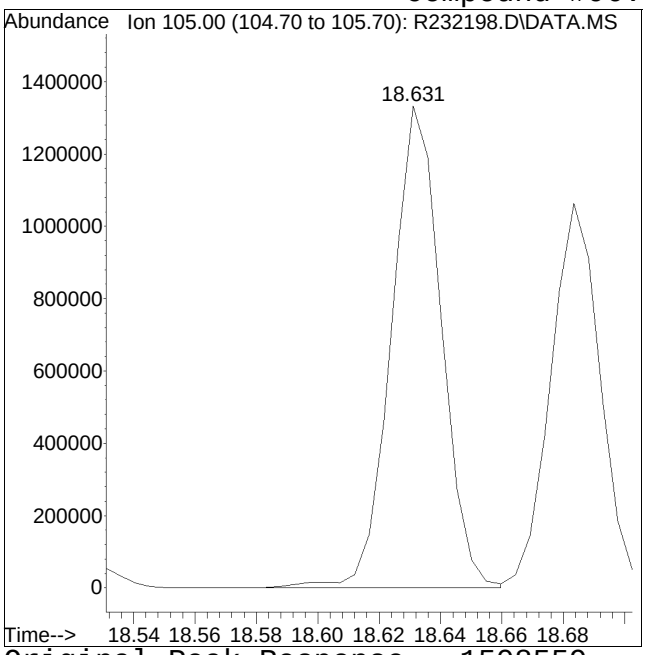
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

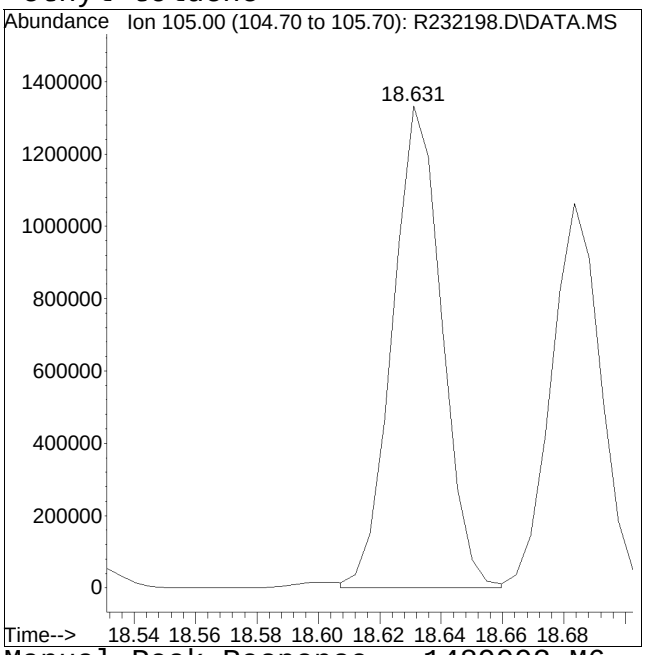
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232198.D
Date Inj'd : 1/20/2015 2:34 am
Sample : ITO15-SIMSTD20.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #96: 4-ethyl toluene



Original Peak Response = 1508559



Manual Peak Response = 1489992 M6

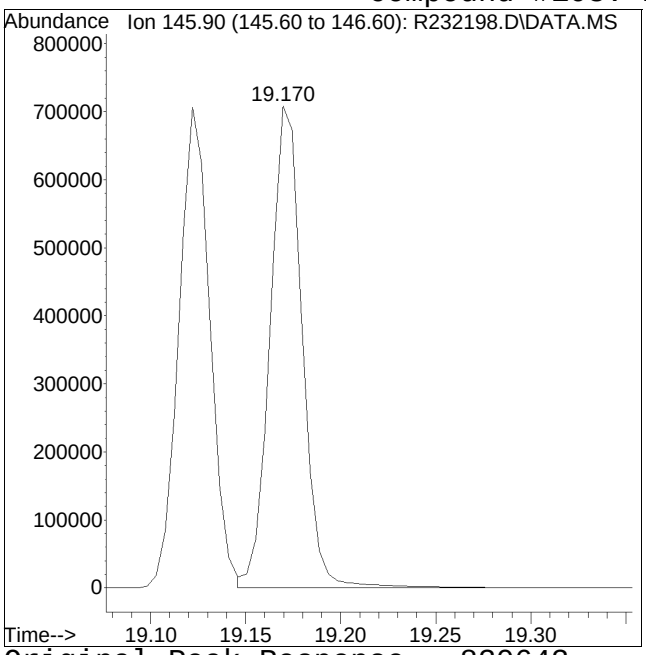
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

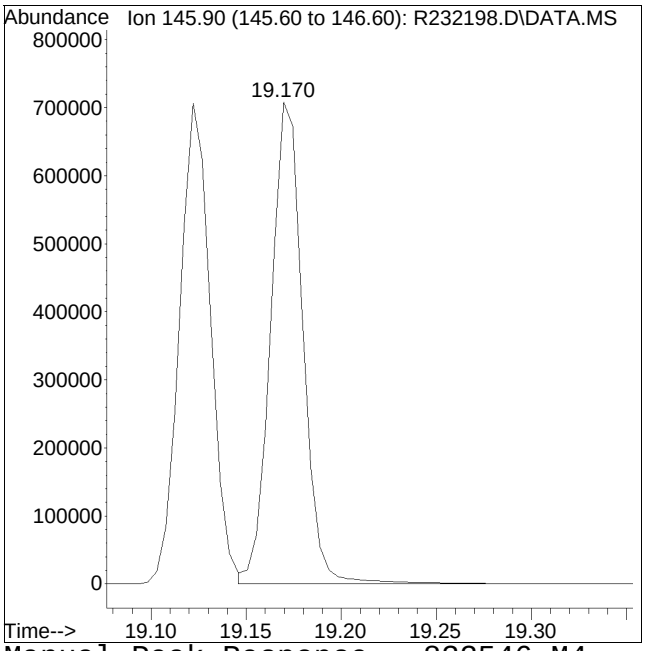
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232198.D
Date Inj'd : 1/20/2015 2:34 am
Sample : ITO15-SIMSTD20.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 830643



Manual Peak Response = 833546 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232199.D
Acq On : 20 Jan 2015 3:05 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD50.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:52:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	186544	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 105.48%			
43) 1,4-difluorobenzene	12.549	114	459946	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 99.64%			
67) chlorobenzene-D5	16.893	54	110990	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 101.42%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.240	65	140290	9.869	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.69%			
69) toluene-D8	15.225	98	432258	9.669	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.69%			
90) bromofluorobenzene	18.060	95	257601	9.814	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.14%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	1012946	44.405	ppbV	100
3) propylene	4.330	41	488839M6	45.525	ppbV	
4) propane	4.359	29	512894M4	44.830	ppbV	
5) dichlorodifluoromethane	4.428	85	1033343	36.378	ppbV	100
6) chloromethane	4.655	50	566152	45.035	ppbV	99
7) Freon-114	4.803	85	1524125	43.550	ppbV	98
8) methanol	4.902	31	1039861	228.712	ppbV	92
9) vinyl chloride	4.971	62	616554	45.370	ppbV	100
10) 1,3-butadiene	5.168	54	459463M6	45.381	ppbV	
11) butane	5.247	43	971014	45.146	ppbV	100
12) acetaldehyde	4.823	29	1783084	213.200	ppbV	97
13) bromomethane	5.550	94	524332	44.347	ppbV	98
14) chloroethane	5.798	64	288858	45.248	ppbV	99
15) ethanol	6.006	31	2184807	230.104	ppbV	97
16) dichlorofluoromethane	5.958	67	1287136	43.630	ppbV	99
17) vinyl bromide	6.285	106	531052	43.660	ppbV	98
18) acrolein	6.445	56	260577	44.022	ppbV	99
19) acetone	6.621	43	4419177	214.215	ppbV #	99
20) acetonitrile	6.277	41	553648	43.577	ppbV	98
21) trichlorofluoromethane	6.853	101	1441611	43.187	ppbV	97
22) isopropyl alcohol	6.973	45	1072877	47.808	ppbV	99
23) acrylonitrile	7.253	53	461454	44.436	ppbV	99
24) pentane	7.325	43	1163212	44.268	ppbV	100

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232199.D
Acq On : 20 Jan 2015 3:05 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD50.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:52:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.357	31	810621	42.882	ppbV	99
26) 1,1-dichloroethene	7.668	61	998157	43.811	ppbV	99
27) tertiary butyl alcohol	7.740	59	1316944	48.135	ppbV	99
28) methylene chloride	7.836	49	768686	44.509	ppbV	98
29) 3-chloropropene	7.988	41	854705	45.523	ppbV	98
30) carbon disulfide	8.164	76	1799612	45.338	ppbV	98
31) Freon 113	8.172	101	1224166	44.505	ppbV	97
32) trans-1,2-dichloroethene	8.988	61	1010927	45.992	ppbV	99
33) 1,1-dichloroethane	9.221	63	1160607	45.471	ppbV	99
34) MTBE	9.283	73	1711285	45.325	ppbV	98
35) vinyl acetate	9.413	43	1521874	55.512	ppbV	100
36) 2-butanone	9.681	43	1461262	45.648	ppbV	99
37) cis-1,2-dichloroethene	10.198	61	885521	44.863	ppbV	98
38) Ethyl Acetate	10.452	61	217029	45.131	ppbV	93
39) chloroform	10.546	83	1285897	44.369	ppbV	99
40) Tetrahydrofuran	10.968	42	823800M4	45.044	ppbV	
41) 2,2-dichloropropane	10.564	77	1199527	46.181	ppbV	98
42) 1,2-dichloroethane	11.363	62	925765	44.125	ppbV	98
44) hexane	10.442	57	1000574	48.202	ppbV	94
45) diisopropyl ether	10.433	87	476004	47.024	ppbV	97
46) tert-butyl ethyl ether	11.034	59	2063109	47.553	ppbV	99
48) 1,1,1-trichloroethane	11.648	97	1417518	44.870	ppbV	99
49) 1,1-dichloropropene	12.000	75	977001	47.920	ppbV	98
50) benzene	12.166	78	1798219	47.340	ppbV	99
51) thiophene	12.311	84	1248417	48.290	ppbV	97
52) carbon tetrachloride	12.332	117	1395263	47.852	ppbV	98
53) cyclohexane	12.466	56	1022784	48.233	ppbV	99
54) tert-amyl methyl ether	12.808	73	1839491	47.871	ppbV	99
55) dibromomethane	13.046	93	777334	46.566	ppbV	98
56) 1,2-dichloropropane	13.077	63	724154	48.424	ppbV	97
57) bromodichloromethane	13.295	83	1506034	46.950	ppbV	97
58) 1,4-dioxane	13.316	88	432478	50.721	ppbV	94
59) trichloroethene	13.336	130	820120	46.782	ppbV	99
60) 2,2,4-trimethylpentane	13.378	57	3246680M6	46.611	ppbV	
61) methyl methacrylate	13.533	41	1029906	49.181	ppbV	100
62) heptane	13.658	43	1311828	48.121	ppbV	99
63) cis-1,3-dichloropropene	14.289	75	1076291	49.046	ppbV	99
64) 4-methyl-2-pentanone	14.320	43	1796177	47.226	ppbV	99
65) trans-1,3-dichloropropene	14.864	75	1414106	48.715	ppbV	98
66) 1,1,2-trichloroethane	15.044	97	980341	47.282	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232199.D
Acq On : 20 Jan 2015 3:05 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD50.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:52:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.324	91	2902910	46.274	ppbV	100
70) 2-methylthiophene	15.397	97	2600409	46.117	ppbV	100
71) 1,3-dichloropropane	15.352	76	1375143	46.197	ppbV	99
72) 2-hexanone	15.550	43	2279111	46.899	ppbV	99
73) 3-methylthiophene	15.559	97	2433258	46.689	ppbV	100
74) dibromochloromethane	15.731	129	1999461	45.082	ppbV	99
75) 1,2-dibromoethane	15.966	107	1638495	45.603	ppbV	99
76) butyl acetate	16.111	73	318769	46.103	ppbV	96
77) octane	16.210	85	868477	46.648	ppbV	99
78) tetrachloroethene	16.364	166	1321569	44.772	ppbV	98
79) 1,1,1,2-tetrachloroethane	16.912	131	972640	44.267	ppbV	98
80) chlorobenzene	16.931	112	1753207	44.966	ppbV	97
81) ethylbenzene	17.217	91	2936091	46.309	ppbV	99
82) 2-ethylthiophene	17.255	97	2302322	47.459	ppbV	100
83) m+p-xylene	17.364	91	4666771	93.976	ppbV	98
84) bromoform	17.441	173	1475593	46.062	ppbV	99
85) styrene	17.636	104	1789311	46.654	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.717	83	1724920	44.183	ppbV	99
87) o-xylene	17.722	91	2293076	44.517	ppbV	99
88) 1,2,3-trichloropropane	17.817	75	1447468	47.209	ppbV	98
89) nonane	17.855	43	1948929	47.605	ppbV	97
91) isopropylbenzene	18.155	105	3129587	45.668	ppbV	99
92) bromobenzene	18.241	77	1781648	47.049	ppbV	97
93) 2-chlorotoluene	18.517	126	836690	43.408	ppbV	81
94) n-propylbenzene	18.531	120	897626	44.130	ppbV	80
95) 4-chlorotoluene	18.569	91	2500144	45.150	ppbV	97
96) 4-ethyl toluene	18.636	105	3455576M6	45.006	ppbV	
97) 1,3,5-trimethylbenzene	18.688	105	2793694	45.837	ppbV	100
98) tert-butylbenzene	18.994	119	2644636	39.664	ppbV	98
99) 1,2,4-trimethylbenzene	18.994	105	2540519	41.253	ppbV	98
100) decane	19.032	57	2056884	46.813	ppbV	98
101) Benzyl Chloride	19.108	91	2879908	49.167	ppbV	98
102) 1,3-dichlorobenzene	19.127	146	1847962	44.973	ppbV	99
103) 1,4-dichlorobenzene	19.174	146	1876231M4	43.360	ppbV	
104) sec-butylbenzene	19.189	105	3907067	43.512	ppbV	100
105) 1,2,3-trimethylbenzene	19.313	105	2397463	45.366	ppbV	99
106) p-isopropyltoluene	19.303	119	3464453	41.721	ppbV	99
107) 1,2-dichlorobenzene	19.436	146	1796606	44.657	ppbV	98
108) n-butylbenzene	19.617	91	3414390	44.952	ppbV	99
109) indan	19.479	117	2652438	46.067	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232199.D
Acq On : 20 Jan 2015 3:05 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD50.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:52:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

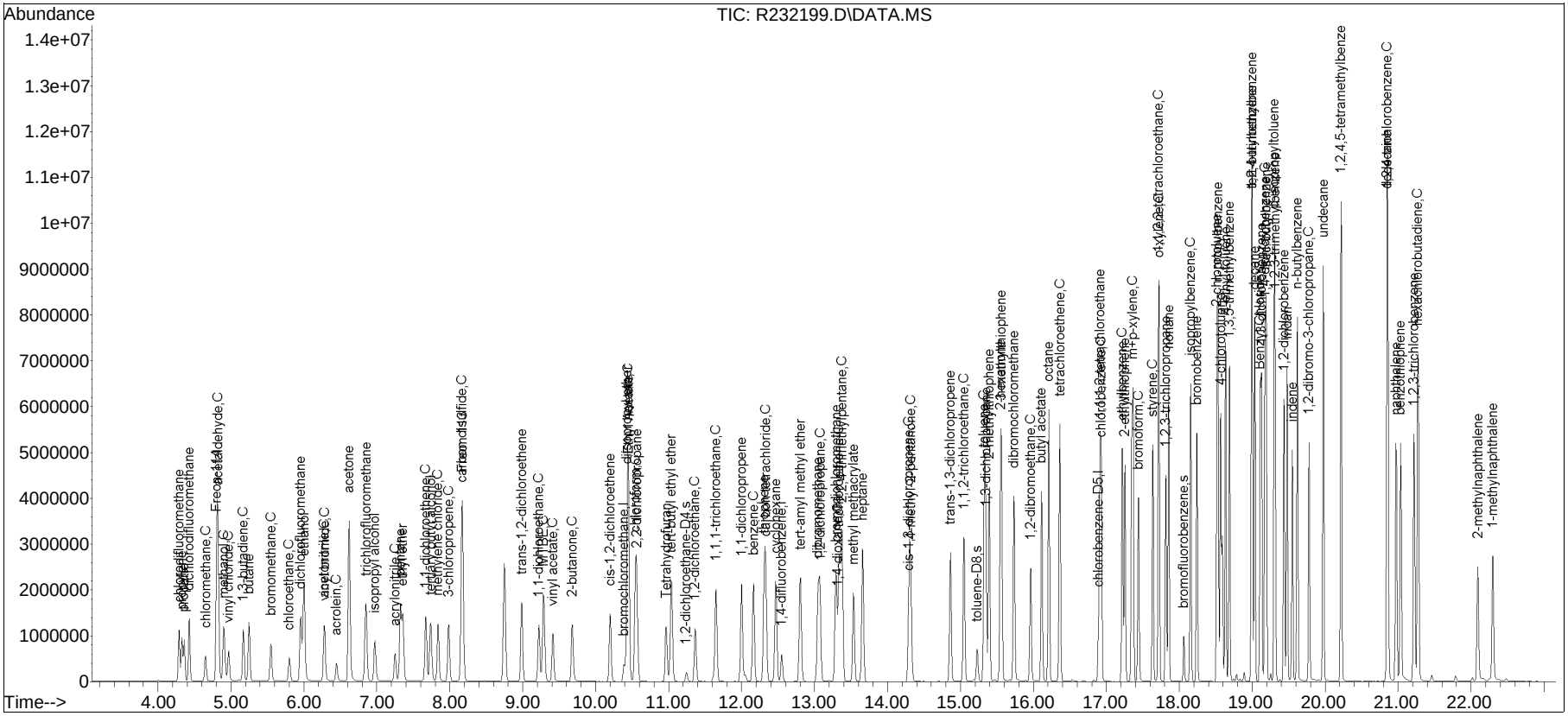
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.551	115	1943676	48.604	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.779	75	1038551	47.639	ppbV	93
112) undecane	19.974	57	2346931	45.652	ppbV	98
113) 1,2,4,5-tetramethylben...	20.217	119	4561245	38.090	ppbV	98
114) dodecane	20.850	57	2282144	39.603	ppbV	98
115) 1,2,4-trichlorobenzene	20.850	180	1507707	41.777	ppbV	97
116) naphthalene	20.968	128	3769506	42.885	ppbV	99
117) 1,2,3-trichlorobenzene	21.214	180	1506927	43.687	ppbV	99
118) benzothiophene	21.032	134	3386174	44.908	ppbV	98
119) hexachlorobutadiene	21.268	225	1349756	45.460	ppbV	96
120) 2-methylnaphthalene	22.093	142	1292746	43.740	ppbV	99
121) 1-methylnaphthalene	22.297	142	1315606	49.789	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0119T_ICAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232199.D
Acq On : 20 Jan 2015 3:05 am
Operator : AIRPIANO2:MB
Sample : ITO15-SIMSTD50.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

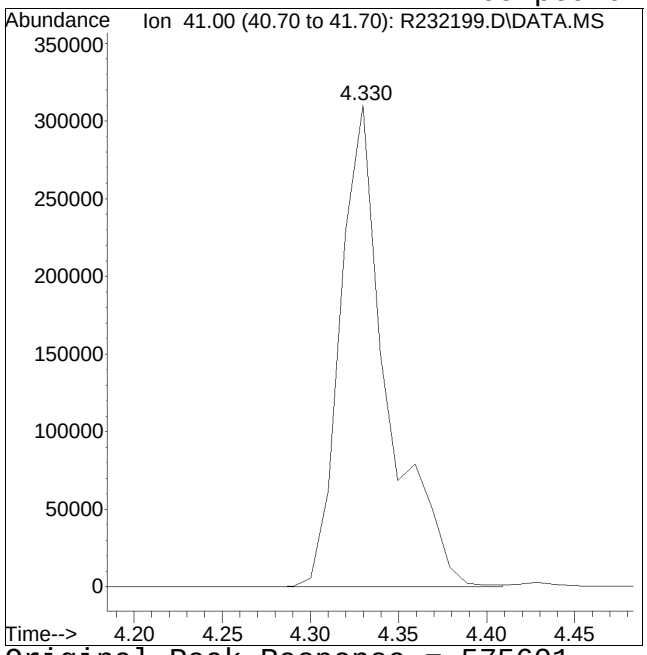
Quant Time: Jan 20 07:52:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration



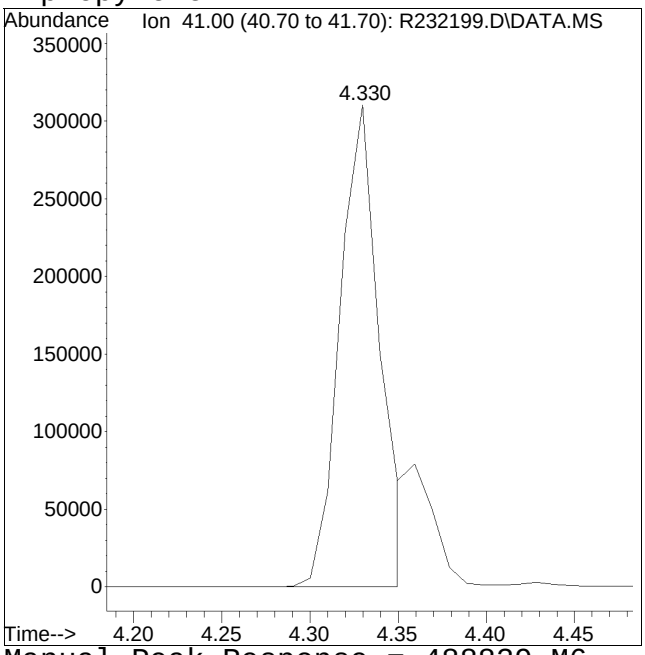
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232199.D
Date Inj'd : 1/20/2015 3:05 am
Sample : ITO15-SIMSTD50.0
Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #3: propylene



Original Peak Response = 575601



Manual Peak Response = 488839 M6

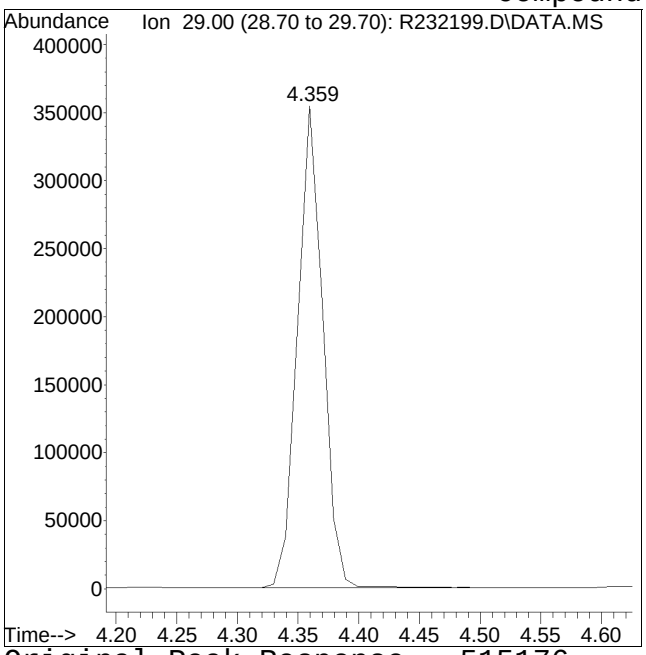
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

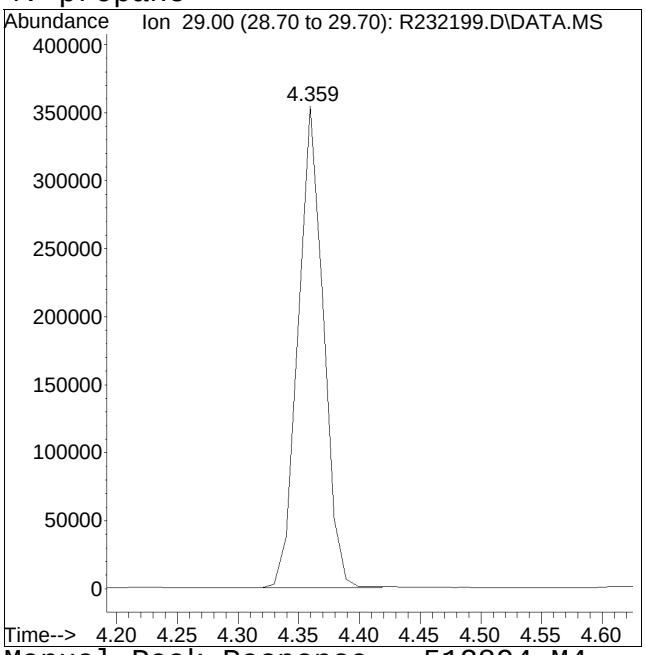
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232199.D
Date Inj'd : 1/20/2015 3:05 am
Sample : ITO15-SIMSTD50.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #4: propane



Original Peak Response = 515176



Manual Peak Response = 512894 M4

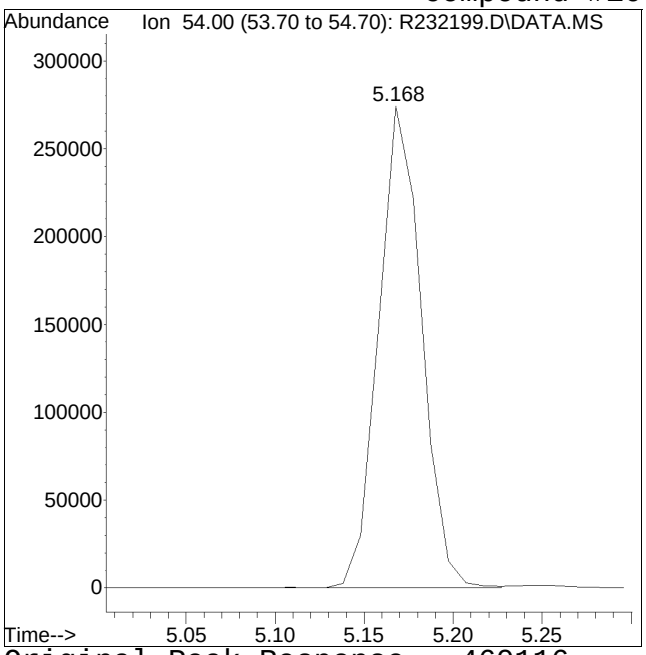
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

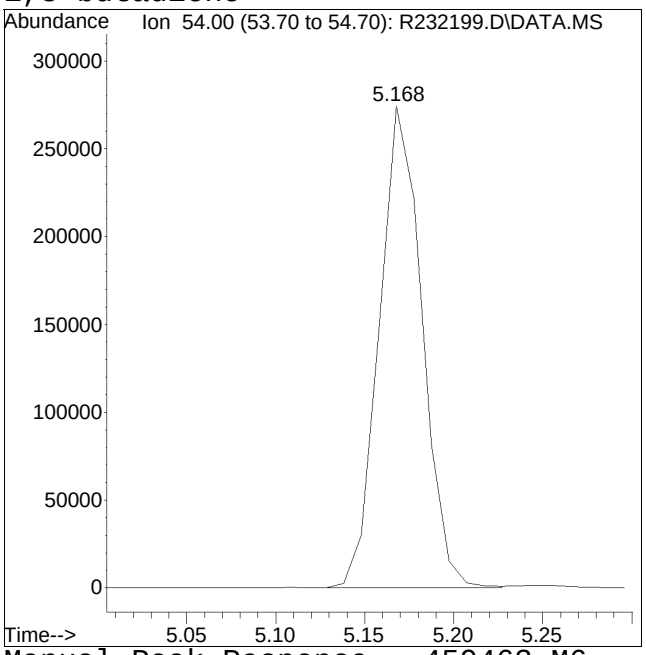
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232199.D
Date Inj'd : 1/20/2015 3:05 am
Sample : ITO15-SIMSTD50.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #10: 1,3-butadiene



Original Peak Response = 460116



Manual Peak Response = 459463 M6

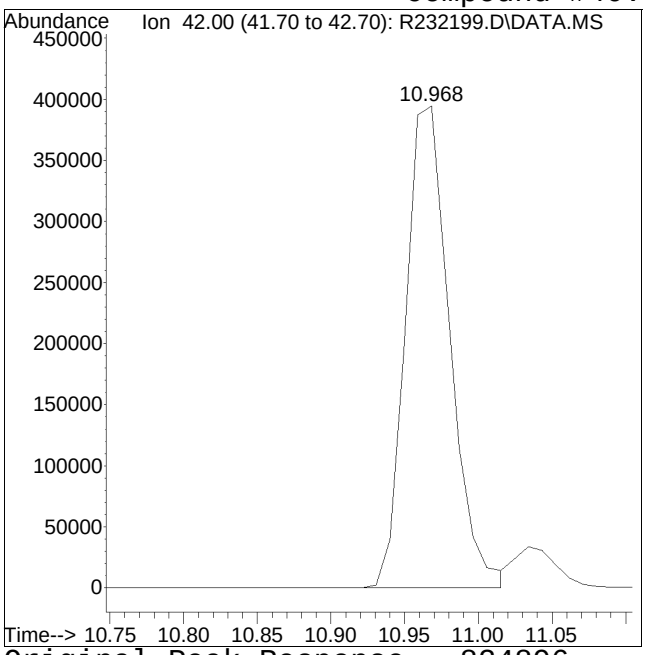
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

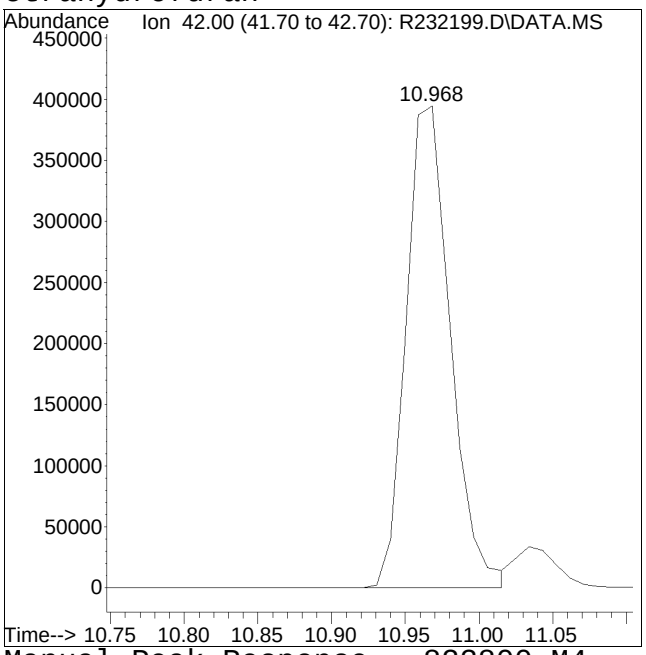
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232199.D
Date Inj'd : 1/20/2015 3:05 am
Sample : ITO15-SIMSTD50.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #40: Tetrahydrofuran



Original Peak Response = 824896



Manual Peak Response = 823800 M4

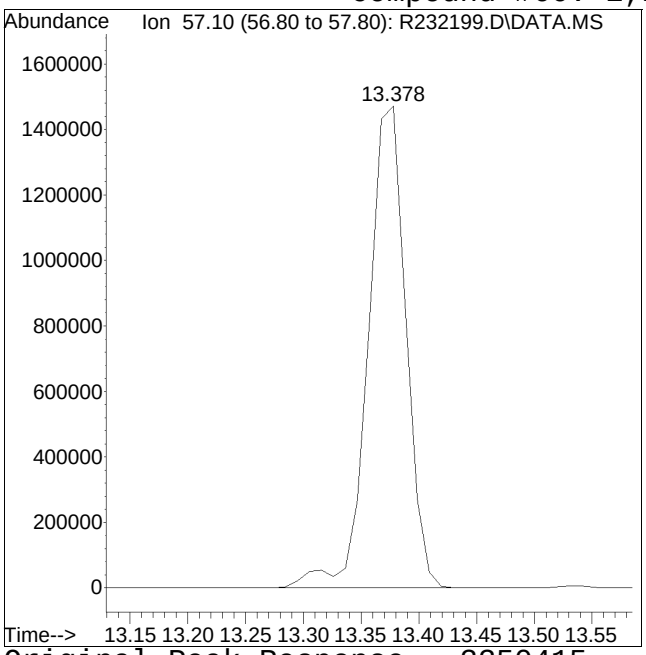
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

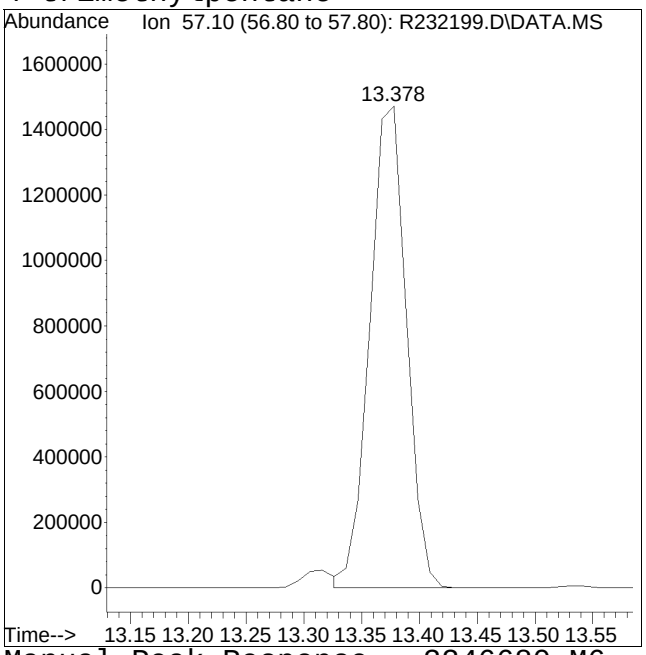
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232199.D
Date Inj'd : 1/20/2015 3:05 am
Sample : ITO15-SIMSTD50.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 3350415



Manual Peak Response = 3246680 M6

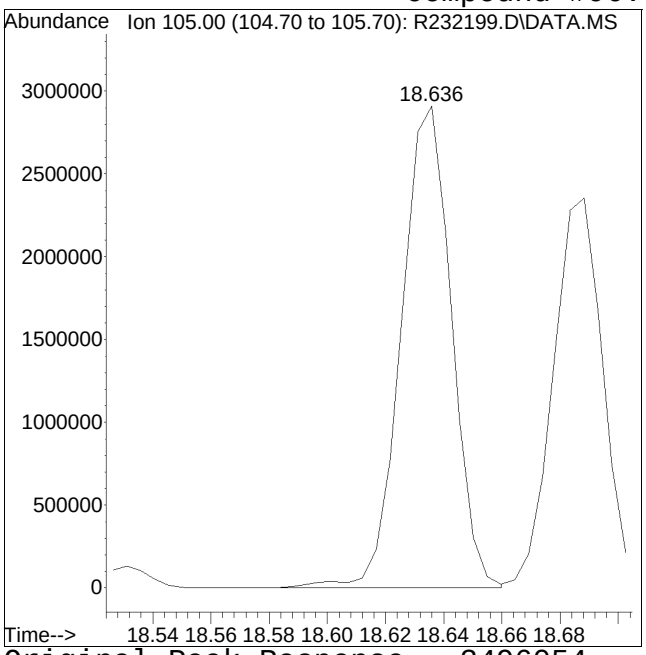
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

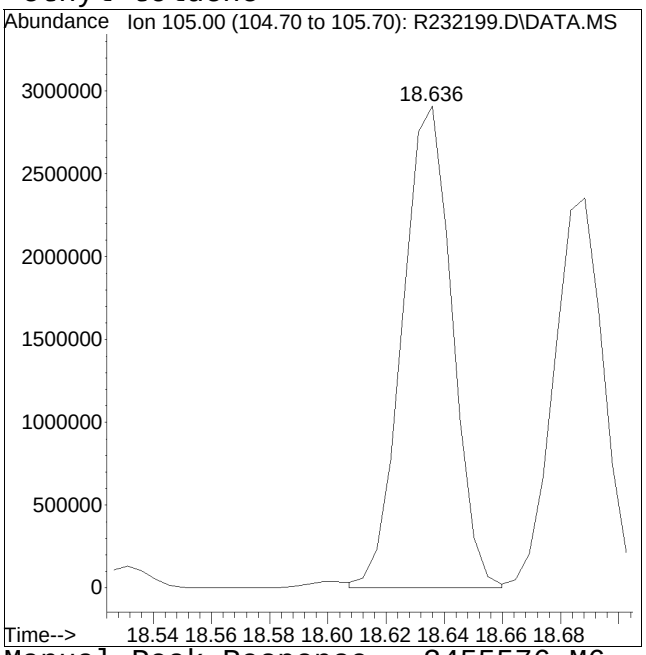
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232199.D
Date Inj'd : 1/20/2015 3:05 am
Sample : ITO15-SIMSTD50.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #96: 4-ethyl toluene



Original Peak Response = 3496054



Manual Peak Response = 3455576 M6

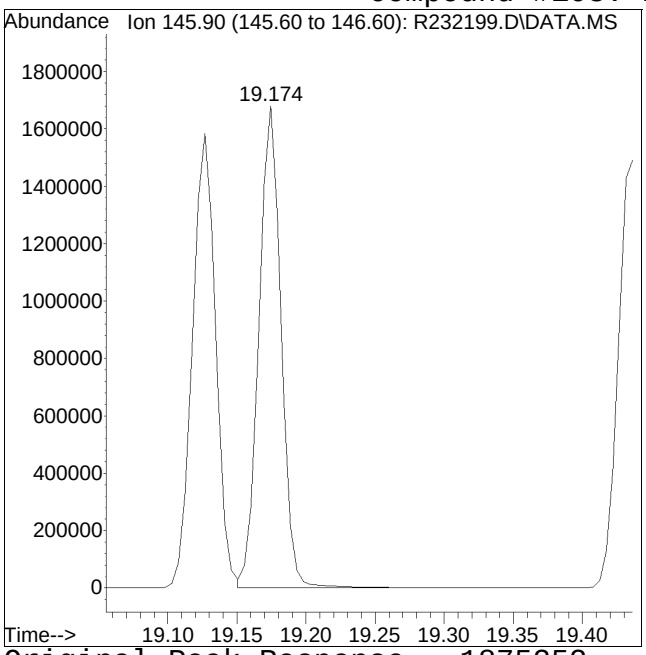
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

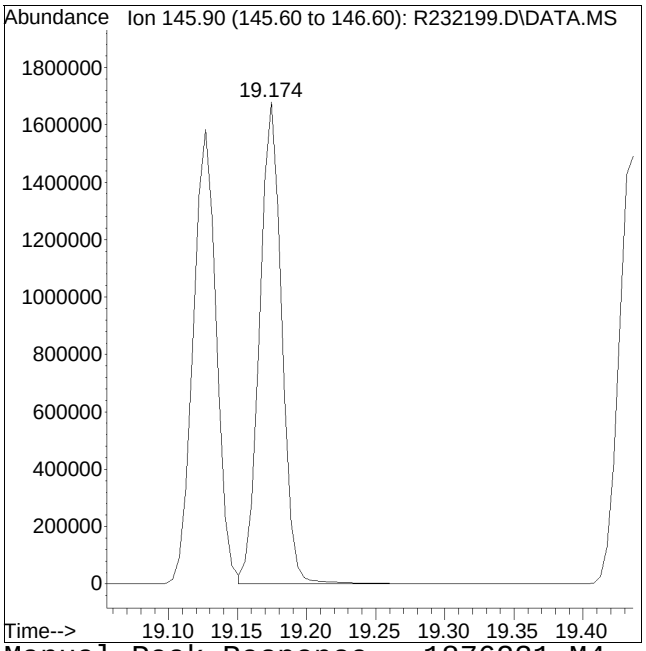
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232199.D
Date Inj'd : 1/20/2015 3:05 am
Sample : ITO15-SIMSTD50.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 1875252



Manual Peak Response = 1876231 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232200.D
Acq On : 20 Jan 2015 3:37 am
Operator : AIRPIANO2:MB
Sample : ITO15-LLSTD100.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:55:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.395	49	197220	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 111.52%			
43) 1,4-difluorobenzene	12.549	114	458057	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 99.23%			
67) chlorobenzene-D5	16.893	54	111955	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 102.30%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.250	65	141588	10.002	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.02%			
69) toluene-D8	15.234	98	442274	9.807	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.07%			
90) bromofluorobenzene	18.064	95	260422	9.836	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.36%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290	51	1990583	82.538	ppbV	100
3) propylene	4.330	41	956758M6	84.279	ppbV	
4) propane	4.359	29	1041223M4	86.083	ppbV	
5) dichlorodifluoromethane	4.428	85	2514936	83.744	ppbV	99
6) chloromethane	4.655	50	1113618	83.788	ppbV	99
7) Freon-114	4.803	85	2773298	74.954	ppbV	97
8) methanol	4.911	31	1997075	415.469	ppbV	92
9) vinyl chloride	4.971	62	1192399	82.995	ppbV	100
10) 1,3-butadiene	5.168	54	894911M6	83.606	ppbV	
11) butane	5.247	43	1885563	82.920	ppbV	100
12) acetaldehyde	4.823	29	3226433	364.895	ppbV	98
13) bromomethane	5.550	94	1004706	80.377	ppbV	97
14) chloroethane	5.806	64	556531	82.458	ppbV	99
15) ethanol	6.022	31	3895599M6	388.075	ppbV	
16) dichlorofluoromethane	5.958	67	2461631	78.924	ppbV	98
17) vinyl bromide	6.286	106	1009014	78.465	ppbV	96
18) acrolein	6.453	56	504567	80.627	ppbV	100
19) acetone	6.629	43	8080188	370.476	ppbV #	99
20) acetonitrile	6.286	41	1062976	79.137	ppbV	97
21) trichlorofluoromethane	6.853	101	2680367	75.950	ppbV	99
22) isopropyl alcohol	6.981	45	2002383	84.398	ppbV	99
23) acrylonitrile	7.261	53	906786	82.594	ppbV	99
24) pentane	7.325	43	2214398	79.711	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232200.D
Acq On : 20 Jan 2015 3:37 am
Operator : AIRPIANO2:MB
Sample : ITO15-LLSTD100.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:55:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.357	31	1542901	77.201	ppbV		98
26) 1,1-dichloroethene	7.676	61	2036453	84.545	ppbV		98
27) tertiary butyl alcohol	7.748	59	2501359	86.476	ppbV		99
28) methylene chloride	7.844	49	1528112	83.691	ppbV		99
29) 3-chloropropene	7.988	41	1704810	85.886	ppbV		94
30) carbon disulfide	8.172	76	3465220	82.574	ppbV		96
31) Freon 113	8.172	101	2278945	78.367	ppbV		96
32) trans-1,2-dichloroethene	8.988	61	2014937	86.707	ppbV		99
33) 1,1-dichloroethane	9.228	63	2283493	84.621	ppbV		98
34) MTBE	9.290	73	3437211	86.111	ppbV		97
35) vinyl acetate	9.413	43	3161089	109.063	ppbV		100
36) 2-butanone	9.681	43	2894981	85.541	ppbV		97
37) cis-1,2-dichloroethene	10.198	61	1773486	84.986	ppbV		95
38) Ethyl Acetate	10.461	61	428700	84.323	ppbV	#	54
39) chloroform	10.555	83	2471268	80.653	ppbV		100
40) Tetrahydrofuran	10.968	42	1622526	83.915	ppbV		100
41) 2,2-dichloropropane	10.564	77	2306664	83.998	ppbV		96
42) 1,2-dichloroethane	11.372	62	1822176	82.149	ppbV		99
44) hexane	10.442	57	1911094	92.446	ppbV		79
45) diisopropyl ether	10.442	87	917099	90.973	ppbV		99
46) tert-butyl ethyl ether	11.043	59	4067938	94.149	ppbV		98
48) 1,1,1-trichloroethane	11.648	97	2770536	88.060	ppbV		99
49) 1,1-dichloropropene	12.000	75	1916550	94.392	ppbV		98
50) benzene	12.166	78	3540094	93.581	ppbV		100
51) thiophene	12.311	84	2420105	93.999	ppbV		94
52) carbon tetrachloride	12.332	117	2613810	90.013	ppbV		97
53) cyclohexane	12.477	56	2058131	97.459	ppbV		97
54) tert-amyl methyl ether	12.808	73	3622142	94.652	ppbV		100
55) dibromomethane	13.057	93	1478012	88.904	ppbV		98
56) 1,2-dichloropropane	13.078	63	1427014	95.819	ppbV		96
57) bromodichloromethane	13.295	83	2913455	91.200	ppbV		99
58) 1,4-dioxane	13.316	88	815162	95.997	ppbV		94
59) trichloroethene	13.347	130	1526665	87.445	ppbV		99
60) 2,2,4-trimethylpentane	13.378	57	6281596M6	90.554	ppbV		
61) methyl methacrylate	13.544	41	2032964	97.480	ppbV		100
62) heptane	13.668	43	2586663	95.277	ppbV		99
63) cis-1,3-dichloropropene	14.305	75	2113919	96.727	ppbV		96
64) 4-methyl-2-pentanone	14.320	43	3496334	92.307	ppbV		97
65) trans-1,3-dichloropropene	14.864	75	2808611	97.154	ppbV		98
66) 1,1,2-trichloroethane	15.053	97	1894726	91.759	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232200.D
Acq On : 20 Jan 2015 3:37 am
Operator : AIRPIANO2:MB
Sample : ITO15-LLSTD100.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:55:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.334	91	5508265	87.048	ppbV		98
70) 2-methylthiophene	15.397	97	4979518	87.547	ppbV		100
71) 1,3-dichloropropane	15.352	76	2673124	89.028	ppbV		99
72) 2-hexanone	15.550	43	4319208	88.113	ppbV		99
73) 3-methylthiophene	15.568	97	4537878	86.322	ppbV		98
74) dibromochloromethane	15.740	129	3642865	81.428	ppbV		100
75) 1,2-dibromoethane	15.966	107	3106654	85.720	ppbV		99
76) butyl acetate	16.120	73	629701	90.287	ppbV		99
77) octane	16.219	85	1663055	88.557	ppbV		99
78) tetrachloroethene	16.364	166	2475225	83.133	ppbV		96
79) 1,1,1,2-tetrachloroethane	16.917	131	1703700	76.870	ppbV		98
80) chlorobenzene	16.936	112	3221791	81.920	ppbV		95
81) ethylbenzene	17.222	91	5530035	86.470	ppbV		100
82) 2-ethylthiophene	17.260	97	4236477	86.576	ppbV		99
83) m+p-xylene	17.369	91	8369494	167.086	ppbV		99
84) bromoform	17.445	173	2684790	83.086	ppbV		99
85) styrene	17.641	104	3360338	86.862	ppbV		97
86) 1,1,2,2-tetrachloroethane	17.722	83	2859949	72.624	ppbV		99
87) o-xylene	17.726	91	3828834	73.691	ppbV		99
88) 1,2,3-trichloropropane	17.817	75	2735933	88.463	ppbV		98
89) nonane	17.860	43	3504127	84.854	ppbV		96
91) isopropylbenzene	18.160	105	5630318	81.451	ppbV		99
92) bromobenzene	18.245	77	3325992	87.075	ppbV		100
93) 2-chlorotoluene	18.517	126	1446578	74.402	ppbV	#	62
94) n-propylbenzene	18.536	120	1545439	75.324	ppbV		66
95) 4-chlorotoluene	18.569	91	4687615	83.923	ppbV		96
96) 4-ethyl toluene	18.636	105	6110169M6	78.894	ppbV		
97) 1,3,5-trimethylbenzene	18.688	105	4964222	80.747	ppbV		99
98) tert-butylbenzene	18.994	119	4144524	61.623	ppbV		97
99) 1,2,4-trimethylbenzene	19.003	105	3959508	63.740	ppbV		89
100) decane	19.036	57	3583092	80.846	ppbV		96
101) Benzyl Chloride	19.113	91	5068904	85.792	ppbV		99
102) 1,3-dichlorobenzene	19.132	146	3282865	79.204	ppbV		98
103) 1,4-dichlorobenzene	19.179	146	3147802M4	72.119	ppbV		
104) sec-butylbenzene	19.194	105	6337477	69.971	ppbV		98
105) 1,2,3-trimethylbenzene	19.317	105	3971072	74.495	ppbV		100
106) p-isopropyltoluene	19.303	119	5407351	64.557	ppbV		96
107) 1,2-dichlorobenzene	19.441	146	3282119	80.879	ppbV		98
108) n-butylbenzene	19.622	91	5999107	78.300	ppbV		97
109) indan	19.479	117	4714094	81.168	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232200.D
Acq On : 20 Jan 2015 3:37 am
Operator : AIRPIANO2:MB
Sample : ITO15-LLSTD100.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 20 07:55:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default - All compounds listed

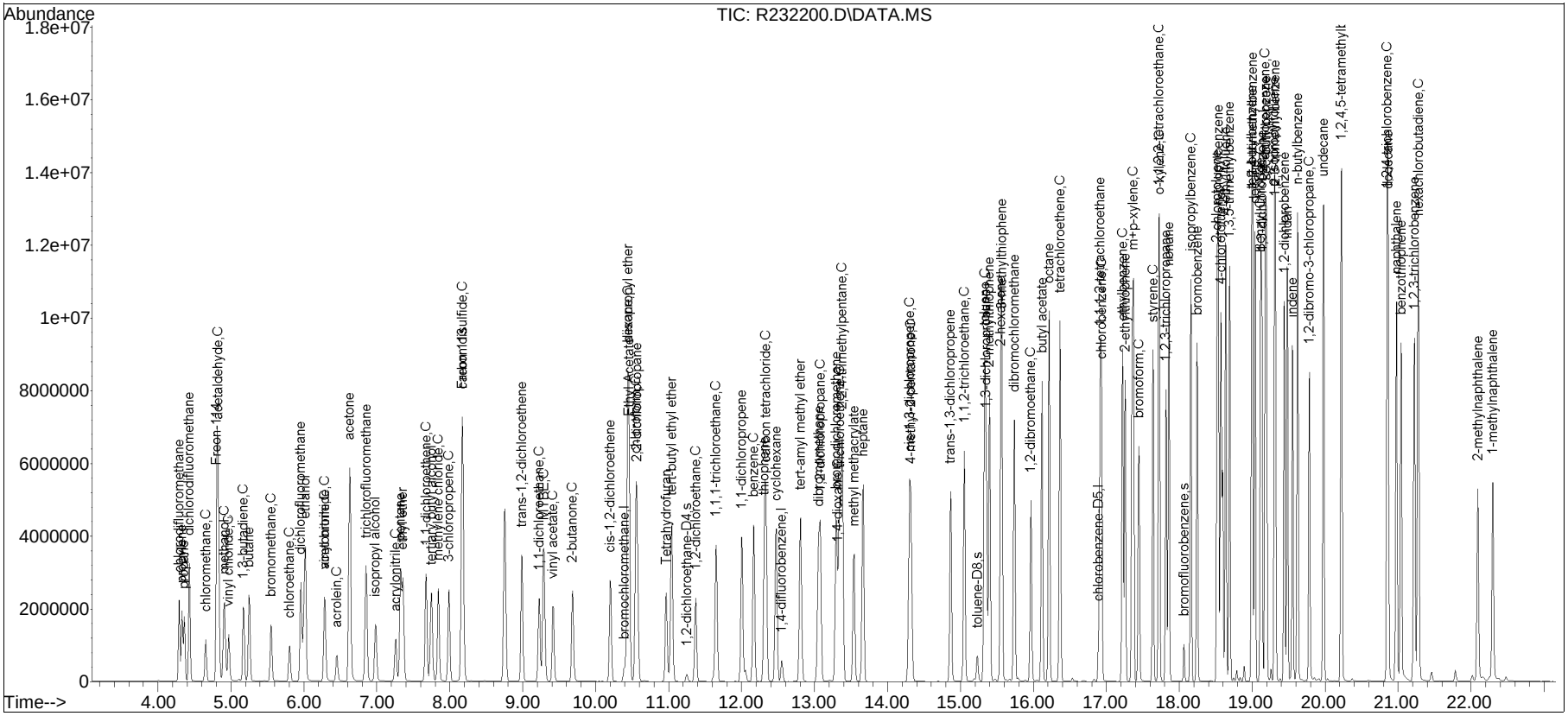
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) indene	19.551	115	3628663	89.957	ppbV		99
111) 1,2-dibromo-3-chloropr...	19.784	75	1881895	85.580	ppbV		96
112) undecane	19.979	57	3962662	76.416	ppbV		98
113) 1,2,4,5-tetramethylben...	20.222	119	7294893	60.394	ppbV		96
114) dodecane	20.861	57	3185888	54.809	ppbV		98
115) 1,2,4-trichlorobenzene	20.850	180	2413361	66.296	ppbV		94
116) naphthalene	20.979	128	7098308	80.061	ppbV		98
117) 1,2,3-trichlorobenzene	21.225	180	2895473	83.219	ppbV		98
118) benzothiophene	21.043	134	6232534	81.944	ppbV		97
119) hexachlorobutadiene	21.279	225	2502508	83.559	ppbV	#	88
120) 2-methylnaphthalene	22.093	142	2645428	88.737	ppbV		99
121) 1-methylnaphthalene	22.297	142	2630168	98.681	ppbV		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0119T_ICAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232200.D
Acq On : 20 Jan 2015 3:37 am
Operator : AIRPIANO2:MB
Sample : ITO15-LLSTD100.0
Misc : WG756921
ALS Vial : 8 Sample Multiplier: 1

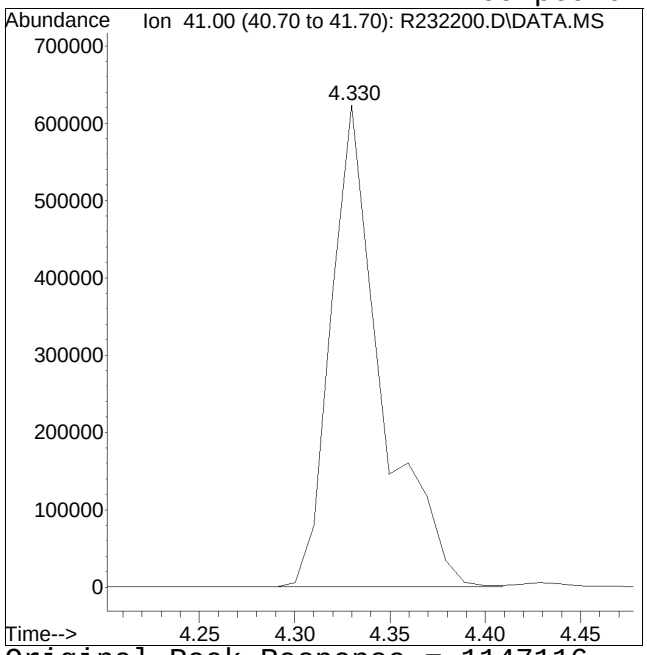
Quant Time: Jan 20 07:55:05 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 06:36:41 2015
Response via : Initial Calibration



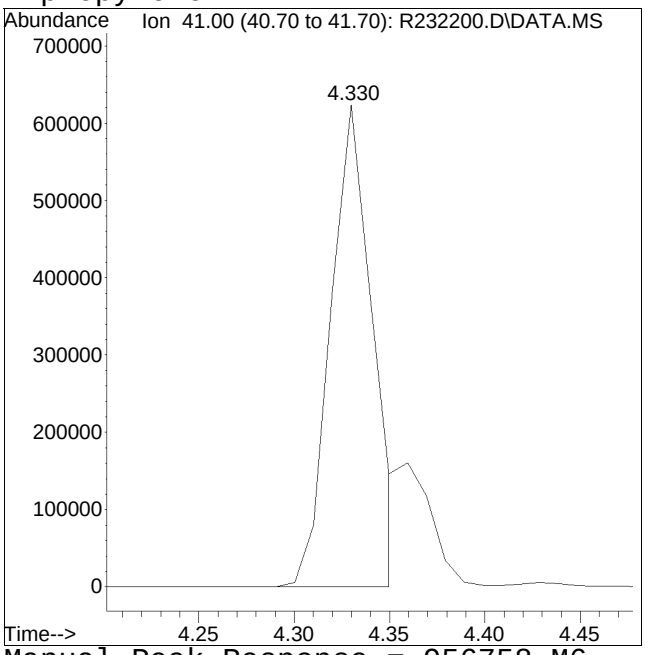
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232200.D
Date Inj'd : 1/20/2015 3:37 am
Sample : ITO15-LLSTD100.0
Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #3: propylene



Original Peak Response = 1147116



Manual Peak Response = 956758 M6

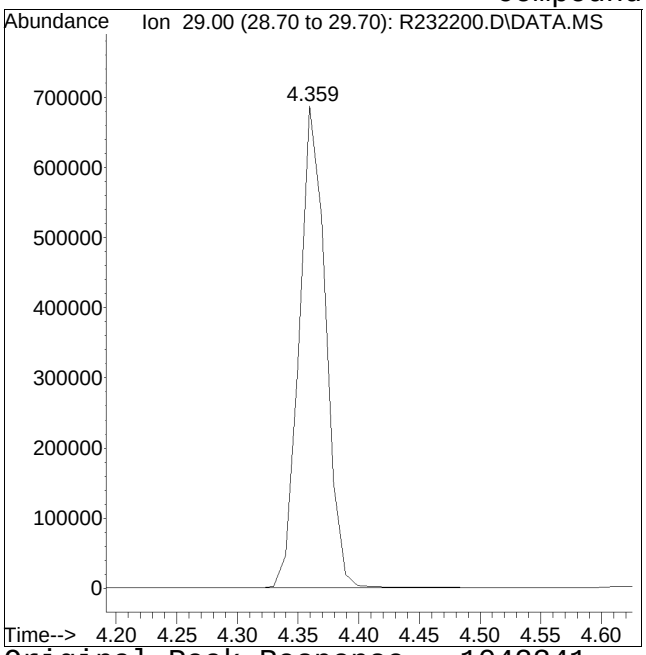
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

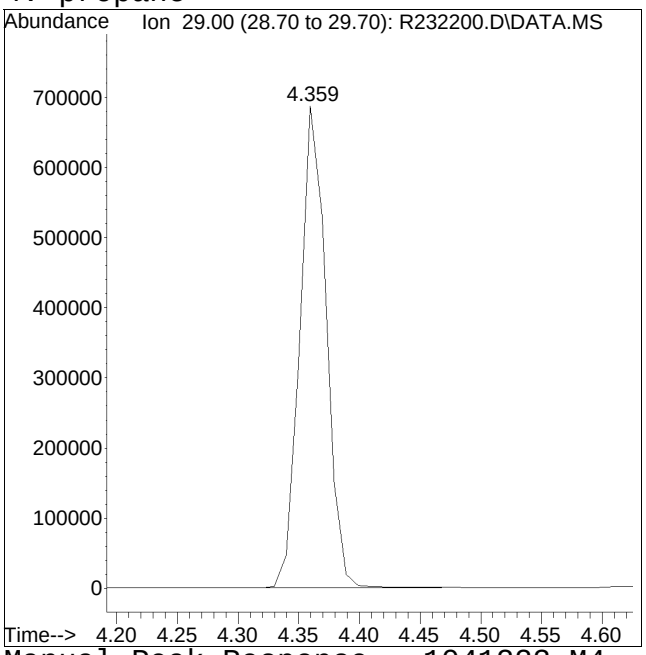
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232200.D
Date Inj'd : 1/20/2015 3:37 am
Sample : ITO15-LLSTD100.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #4: propane



Original Peak Response = 1042341



Manual Peak Response = 1041223 M4

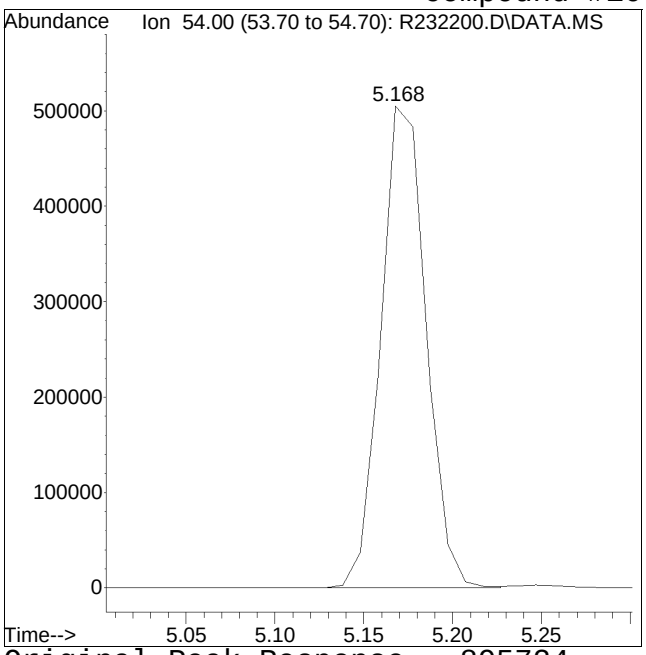
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

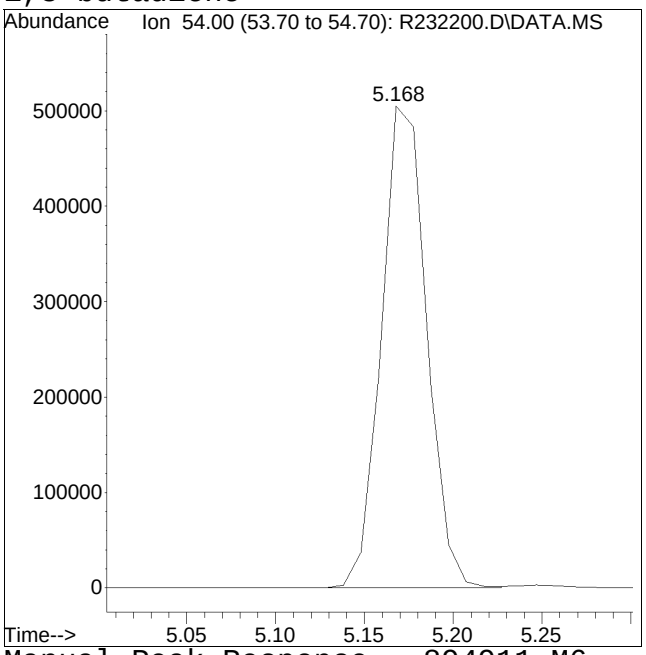
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232200.D
Date Inj'd : 1/20/2015 3:37 am
Sample : ITO15-LLSTD100.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #10: 1,3-butadiene



Original Peak Response = 895724



Manual Peak Response = 894911 M6

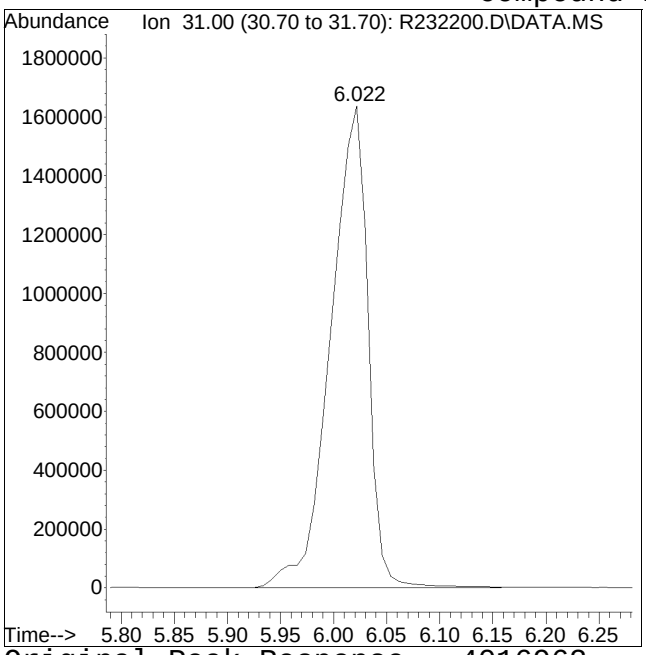
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

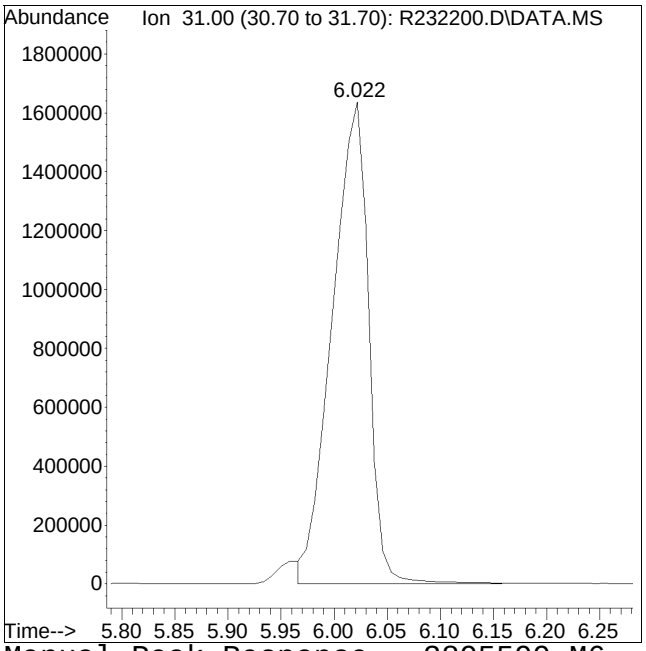
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232200.D
Date Inj'd : 1/20/2015 3:37 am
Sample : ITO15-LLSTD100.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #15: ethanol



Original Peak Response = 4016962



Manual Peak Response = 3895599 M6

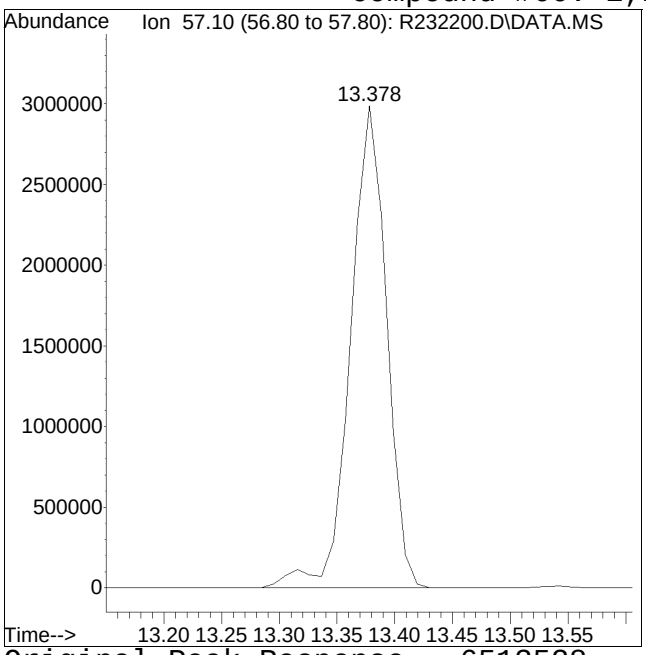
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

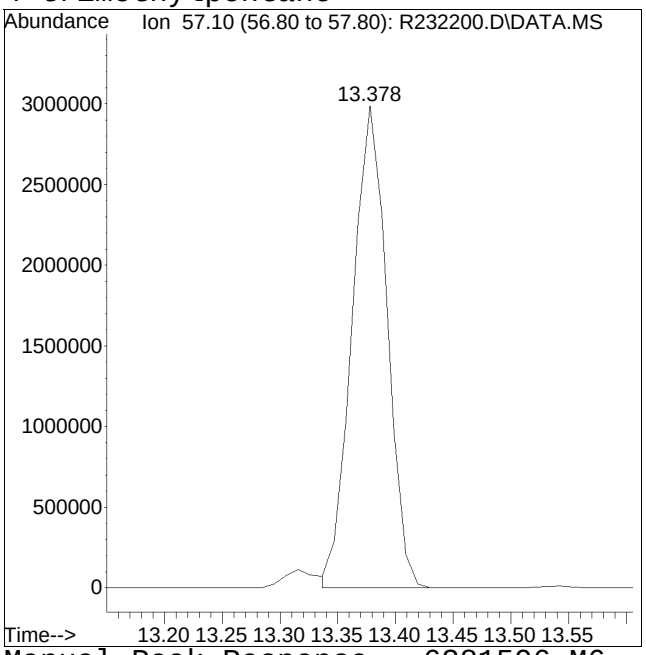
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232200.D
Date Inj'd : 1/20/2015 3:37 am
Sample : ITO15-LLSTD100.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 6513528



Manual Peak Response = 6281596 M6

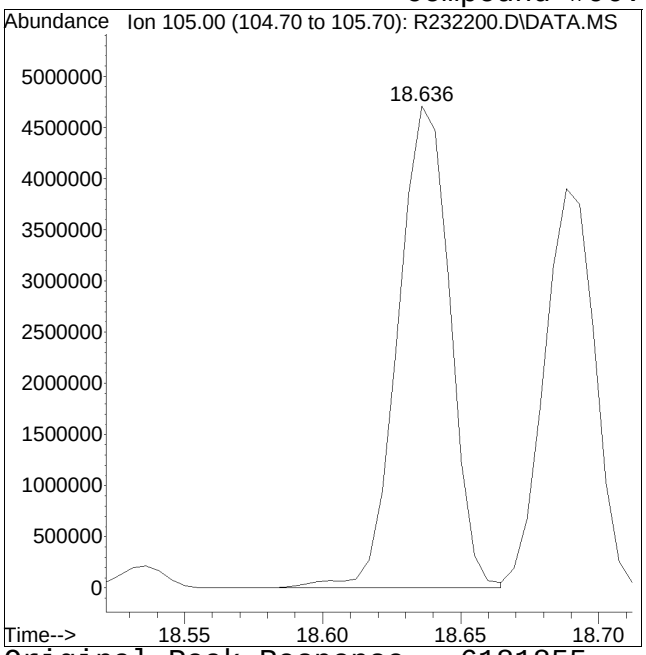
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

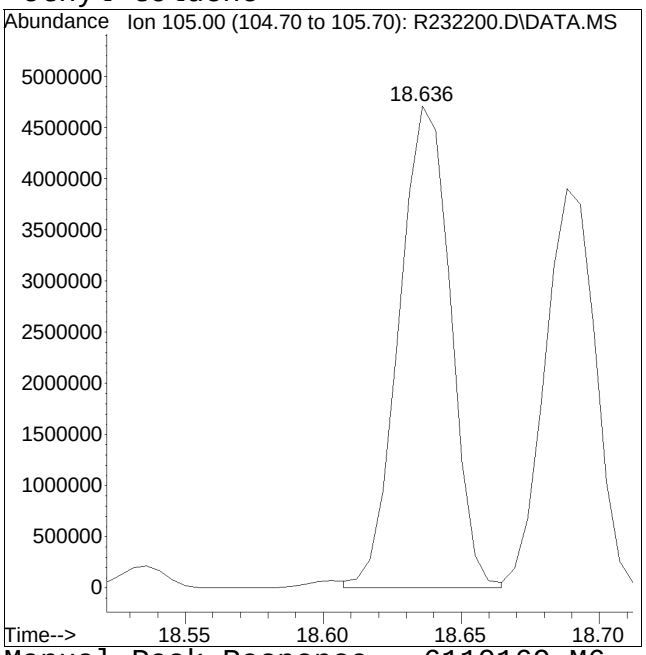
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232200.D
Date Inj'd : 1/20/2015 3:37 am
Sample : ITO15-LLSTD100.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #96: 4-ethyl toluene



Original Peak Response = 6181855



Manual Peak Response = 6110169 M6

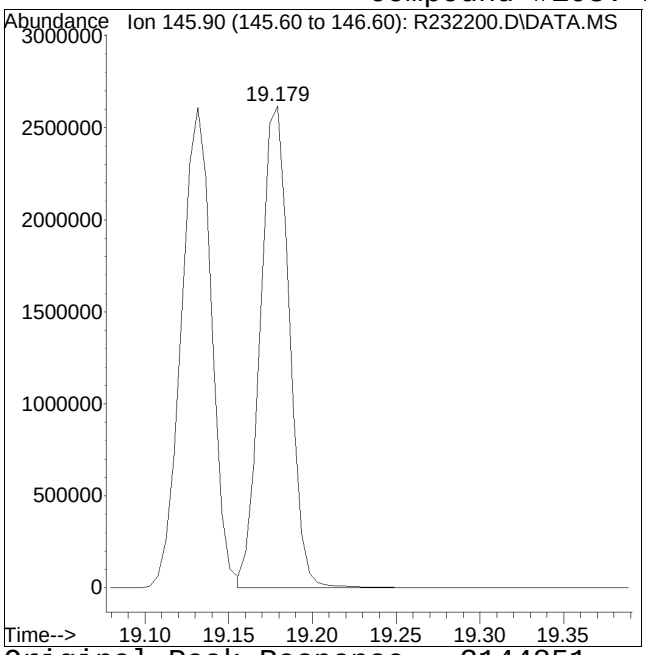
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

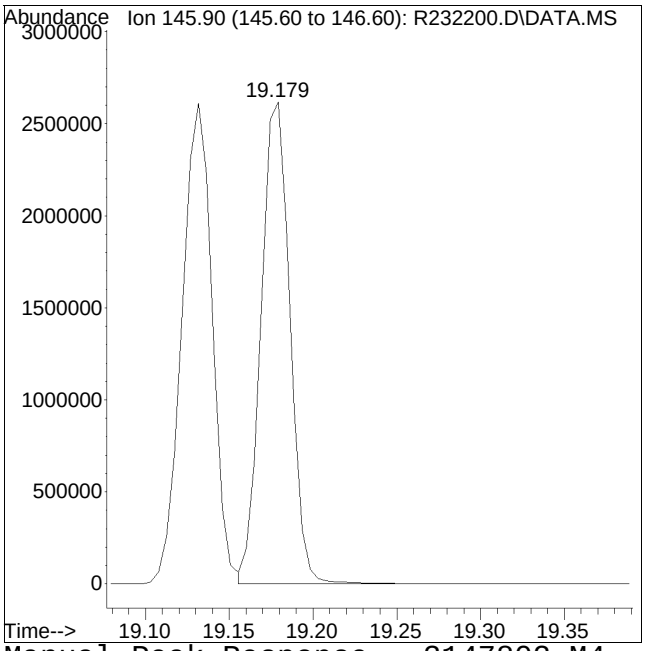
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232200.D
Date Inj'd : 1/20/2015 3:37 am
Sample : ITO15-LLSTD100.0

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 6:37 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 3144851



Manual Peak Response = 3147802 M4

M4 = Poor automated baseline construction.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	103	0.00
2		chlorodifluoromethane	1.206	1.051	12.9	88	0.00
3		propylene	0.597	0.574	3.9	103	0.00
4		propane	0.658	0.497	24.5	83	0.00
5		dichlorodifluoromethane	1.509	1.236	18.1	84	0.00
6	C	chloromethane	0.683	0.632	7.5	97	0.00
7		Freon-114	1.828	1.804	1.3	99	0.00
8	C	methanol	0.243	0.226	7.0	95	0.00
9	C	vinyl chloride	0.705	0.690	2.1	97	0.00
10	C	1,3-butadiene	0.589	0.549	6.8	104	0.00
11		butane	1.181	1.055	10.7	94	0.00
13	C	bromomethane	0.634	0.616	2.8	100	0.00
14	C	chloroethane	0.339	0.337	0.6	101	0.00
15		ethanol	0.502	0.498	0.8	101	0.00
16		dichlorofluoromethane	1.603	1.399	12.7	91	0.00
17	C	vinyl bromide	0.629	0.635	-1.0	100	0.00
18	C	acrolein	0.300	0.278	7.3	90	0.00
19		acetone	1.084	1.144	-5.5	106	0.00
20	C	acetonitrile	0.695	0.623	10.4	94	0.00
21		trichlorofluoromethane	1.733	1.738	-0.3	100	0.00
22		isopropyl alcohol	1.265	1.299	-2.7	111	0.00
23	C	acrylonitrile	0.588	0.504	14.3	93	0.00
24		pentane	1.373	1.281	6.7	94	0.00
25		ethyl ether	1.004	0.874	12.9	89	0.00
26	C	1,1-dichloroethene	1.191	1.187	0.3	100	0.00
27		tertiary butyl alcohol	1.514	1.456	3.8	102	0.00
28	C	methylene chloride	0.936	0.901	3.7	100	0.00
29	C	3-chloropropene	1.036	1.035	0.1	106	0.00
30	C	carbon disulfide	2.067	2.031	1.7	98	0.00
31		Freon 113	1.425	1.469	-3.1	102	0.00
32		trans-1,2-dichloroethene	1.162	1.032	11.2	90	0.00
33	C	1,1-dichloroethane	1.338	1.298	3.0	98	0.00
34	C	MTBE	2.028	1.946	4.0	99	0.00
35	C	vinyl acetate	1.462	1.609	-10.1	113	0.00
36	C	2-butanone	1.702	1.638	3.8	98	0.00
37		cis-1,2-dichloroethene	1.027	1.107	-7.8	108	0.00
38		Ethyl Acetate	0.239	0.242	-1.3	97	0.00
39	C	chloroform	1.522	1.521	0.1	101	0.00
40		Tetrahydrofuran	0.950	0.901	5.2	97	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.395	1.273	8.7	94	0.00
42	C	1,2-dichloroethane	1.083	1.080	0.3	99	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00
44	C	hexane	0.480	0.428	10.8	98	0.00
45		diisopropyl ether	0.218	0.196	10.1	92	0.00
46		tert-butyl ethyl ether	0.952	0.848	10.9	93	0.00
47	s	1,2-dichloroethane-D4	0.309	0.314	-1.6	105	0.00
48	C	1,1,1-trichloroethane	0.689	0.670	2.8	101	0.00
49		1,1-dichloropropene	0.437	0.417	4.6	97	0.00
50	C	benzene	0.842	0.777	7.7	97	0.00
52	C	carbon tetrachloride	0.634	0.627	1.1	102	0.00
53		cyclohexane	0.485	0.442	8.9	99	0.00
54		tert-amyl methyl ether	0.844	0.753	10.8	93	0.00
55		dibromomethane	0.366	0.332	9.3	95	0.00
56	C	1,2-dichloropropane	0.329	0.316	4.0	101	0.00
57		bromodichloromethane	0.694	0.670	3.5	99	0.00
58	C	1,4-dioxane	0.192	0.181	5.7	101	0.00
59	C	trichloroethene	0.374	0.373	0.3	101	0.00
60	C	2,2,4-trimethylpentane	1.527	1.395	8.6	98	0.00
61		methyl methacrylate	0.463	0.411	11.2	93	0.00
62		heptane	0.606	0.559	7.8	98	0.00
63	C	cis-1,3-dichloropropene	0.466	0.487	-4.5	106	0.00
64	C	4-methyl-2-pentanone	0.822	0.784	4.6	98	0.00
65		trans-1,3-dichloropropene	0.615	0.547	11.1	90	0.00
66	C	1,1,2-trichloroethane	0.444	0.443	0.2	102	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	103	0.00
68	C	toluene	5.587	5.487	1.8	100	0.00
69	s	toluene-D8	3.955	4.150	-4.9	106	0.00
71		1,3-dichloropropane	2.600	2.447	5.9	94	0.00
72		2-hexanone	4.212	4.111	2.4	97	0.00
74		dibromochloromethane	3.740	3.910	-4.5	101	0.00
75	C	1,2-dibromoethane	3.124	3.171	-1.5	101	0.00
76		butyl acetate	0.597	0.552	7.5	91	0.00
77		octane	1.639	1.545	5.7	95	0.00
78	C	tetrachloroethene	2.566	2.608	-1.6	101	0.00
79		1,1,1,2-tetrachloroethane	1.901	1.847	2.8	96	0.00
80	C	chlorobenzene	3.326	3.431	-3.2	101	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	5.559	5.541	0.3	100	0.00
83	C	m+p-xylene	4.377	4.433	-1.3	102	0.00
84	C	bromoform	2.693	2.827	-5.0	101	0.00
85	C	styrene	3.298	3.358	-1.8	100	0.00
86	C	1,1,2,2-tetrachloroethane	3.303	3.443	-4.2	101	0.00
87	C	o-xylene	4.449	4.603	-3.5	102	0.00
88		1,2,3-trichloropropane	2.642	2.515	4.8	94	0.00
89		nonane	3.592	3.301	8.1	92	0.00
90	s	bromofluorobenzene	2.121	1.760	17.0	77	0.00
91	C	isopropylbenzene	5.577	4.547	18.5	76	0.00
92		bromobenzene	3.191	3.113	2.4	94	0.00
93		2-chlorotoluene	1.609	1.601	0.5	95	0.00
94		n-propylbenzene	1.708	1.687	1.2	95	0.00
95		4-chlorotoluene	4.766	4.488	5.8	93	0.00
96		4-ethyl toluene	6.444	6.236	3.2	94	0.00
97		1,3,5-trimethylbenzene	5.313	5.318	-0.1	100	0.00
98		tert-butylbenzene	5.458	5.444	0.3	93	0.00
99		1,2,4-trimethylbenzene	5.051	5.412	-7.1	100	0.00
100		decane	3.741	3.522	5.9	92	0.00
101	C	Benzyl Chloride	4.676	5.013	-7.2	98	0.00
102		1,3-dichlorobenzene	3.312	3.621	-9.3	101	0.00
103	C	1,4-dichlorobenzene	3.614	3.829	-5.9	101	0.00
104		sec-butylbenzene	7.561	7.384	2.3	94	0.00
106		p-isopropyltoluene	6.806	6.360	6.6	87	0.00
107		1,2-dichlorobenzene	3.315	3.557	-7.3	101	0.00
108		n-butylbenzene	6.211	6.371	-2.6	96	0.00
111	C	1,2-dibromo-3-chloropropane	1.782	1.781	0.1	93	0.00
112		undecane	4.151	4.111	1.0	91	0.00
114		dodecane	4.058	4.406	-8.6	87	0.00
115	C	1,2,4-trichlorobenzene	2.663	3.125	-17.3	99	0.00
116		naphthalene	6.652	7.251	-9.0	94	0.00
117		1,2,3-trichlorobenzene	2.588	2.873	-11.0	95	0.00
119	C	hexachlorobutadiene	2.383	2.490	-4.5	96	-0.01

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	181970	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 102.89%			
43) 1,4-difluorobenzene	12.549	114	477703	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 103.48%			
67) chlorobenzene-D5	16.888	54	112646	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 102.93%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.241	65	149969	10.152	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.52%			
69) toluene-D8	15.225	98	467533	10.493	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.93%			
90) bromofluorobenzene	18.060	95	198274	8.299	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.99%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.291	51	191217	8.711	ppbV	99
3) propylene	4.330	41	104466M6	9.624	ppbV	
4) propane	4.360	29	90375M4	7.544	ppbV	
5) dichlorodifluoromethane	4.429	85	224894	8.188	ppbV	98
6) chloromethane	4.655	50	115025	9.262	ppbV	100
7) Freon-114	4.813	85	328306	9.871	ppbV	96
8) methanol	4.912	31	205689	46.558	ppbV	98
9) vinyl chloride	4.971	62	125493	9.787	ppbV	100
10) 1,3-butadiene	5.178	54	99965	9.328	ppbV	96
11) butane	5.247	43	191959	8.931	ppbV	99
13) bromomethane	5.550	94	112150	9.723	ppbV	99
14) chloroethane	5.806	64	61274	9.928	ppbV	98
15) ethanol	5.990	31	453106	49.626	ppbV	100
16) dichlorofluoromethane	5.958	67	254599	8.727	ppbV	99
17) vinyl bromide	6.286	106	115540	10.098	ppbV	98
18) acrolein	6.454	56	50666	9.288	ppbV	99
19) acetone	6.621	43	1040997	52.760	ppbV	99
20) acetonitrile	6.286	41	113446	8.972	ppbV	99
21) trichlorofluoromethane	6.853	101	316347	10.030	ppbV	98
22) isopropyl alcohol	6.973	45	236456	10.271	ppbV	99
23) acrylonitrile	7.253	53	91725	8.576	ppbV	99
24) pentane	7.325	43	233127	9.329	ppbV	99
25) ethyl ether	7.365	31	158989	8.704	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	7.677	61	215934	9.962	ppbV	99
27) tertiary butyl alcohol	7.732	59	264989	9.618	ppbV	98
28) methylene chloride	7.836	49	163913	9.628	ppbV	99
29) 3-chloropropene	7.988	41	188394	9.991	ppbV	98
30) carbon disulfide	8.164	76	369523	9.827	ppbV	99
31) Freon 113	8.172	101	267237	10.307	ppbV	97
32) trans-1,2-dichloroethene	8.988	61	187766	8.881	ppbV	97
33) 1,1-dichloroethane	9.221	63	236201	9.698	ppbV	97
34) MTBE	9.290	73	354055	9.595	ppbV	99
35) vinyl acetate	9.414	43	292740	11.000	ppbV	100
36) 2-butanone	9.681	43	298060	9.626	ppbV	99
37) cis-1,2-dichloroethene	10.198	61	201379	10.780	ppbV	99
38) Ethyl Acetate	10.452	61	44126	10.127	ppbV	96
39) chloroform	10.536	83	276737	9.993	ppbV	99
40) Tetrahydrofuran	10.978	42	163898	9.482	ppbV	99
41) 2,2-dichloropropane	10.555	77	231646	9.124	ppbV	99
42) 1,2-dichloroethane	11.363	62	196539	9.977	ppbV	98
44) hexane	10.443	57	204255	8.899	ppbV	95
45) diisopropyl ether	10.433	87	93753	8.993	ppbV	96
46) tert-butyl ethyl ether	11.043	59	404942	8.902	ppbV	98
48) 1,1,1-trichloroethane	11.648	97	319926	9.714	ppbV	100
49) 1,1-dichloropropene	12.000	75	199388	9.556	ppbV	98
50) benzene	12.156	78	371343	9.235	ppbV	99
52) carbon tetrachloride	12.332	117	299717	9.889	ppbV	98
53) cyclohexane	12.467	56	211082	9.114	ppbV	100
54) tert-amyl methyl ether	12.808	73	359743	8.922	ppbV	99
55) dibromomethane	13.047	93	158475	9.072	ppbV	99
56) 1,2-dichloropropane	13.067	63	150869	9.594	ppbV	95
57) bromodichloromethane	13.285	83	320178	9.653	ppbV	99
58) 1,4-dioxane	13.316	88	86367	9.433	ppbV	90
59) trichloroethene	13.337	130	178161	9.963	ppbV	99
60) 2,2,4-trimethylpentane	13.368	57	666449M6	9.134	ppbV	
61) methyl methacrylate	13.533	41	196400M4	8.888	ppbV	
62) heptane	13.658	43	267089	9.222	ppbV	100
63) cis-1,3-dichloropropene	14.289	75	232652	10.452	ppbV	98
64) 4-methyl-2-pentanone	14.321	43	374593	9.541	ppbV	97
65) trans-1,3-dichloropropene	14.864	75	261363	8.903	ppbV	100
66) 1,1,2-trichloroethane	15.044	97	211653	9.975	ppbV	97
68) toluene	15.325	91	618050	9.820	ppbV	99
71) 1,3-dichloropropane	15.343	76	275656	9.412	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) 2-hexanone	15.551	43	463117	9.760	ppbV	96
74) dibromochloromethane	15.731	129	440460	10.454	ppbV	98
75) 1,2-dibromoethane	15.957	107	357227	10.150	ppbV	100
76) butyl acetate	16.111	73	62187	9.244	ppbV	95
77) octane	16.210	85	174004	9.427	ppbV	96
78) tetrachloroethene	16.355	166	293739	10.164	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.907	131	208031	9.714	ppbV	98
80) chlorobenzene	16.927	112	386521	10.317	ppbV	99
81) ethylbenzene	17.217	91	624187	9.969	ppbV	100
83) m+p-xylene	17.360	91	998718	20.256	ppbV	99
84) bromoform	17.436	173	318411	10.497	ppbV	100
85) styrene	17.631	104	378214	10.181	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.712	83	387867	10.426	ppbV	100
87) o-xylene	17.717	91	518541	10.347	ppbV	100
88) 1,2,3-trichloropropane	17.812	75	283352	9.523	ppbV	99
89) nonane	17.850	43	371868	9.191	ppbV	98
91) isopropylbenzene	18.150	105	512207	8.153	ppbV	97
92) bromobenzene	18.236	77	350666	9.755	ppbV	99
93) 2-chlorotoluene	18.512	126	180298	9.949	ppbV	69
94) n-propylbenzene	18.527	120	190033	9.879	ppbV	86
95) 4-chlorotoluene	18.565	91	505611	9.418	ppbV	99
96) 4-ethyl toluene	18.631	105	702509M6	9.678	ppbV	
97) 1,3,5-trimethylbenzene	18.684	105	598996	10.008	ppbV	99
98) tert-butylbenzene	18.989	119	613270	9.975	ppbV	100
99) 1,2,4-trimethylbenzene	18.989	105	609614	10.714	ppbV	97
100) decane	19.032	57	396770	9.416	ppbV	100
101) Benzyl Chloride	19.103	91	564642	10.720	ppbV	100
102) 1,3-dichlorobenzene	19.122	146	407893	10.934	ppbV	99
103) 1,4-dichlorobenzene	19.170	146	431356M4	10.596	ppbV	
104) sec-butylbenzene	19.189	105	831781	9.766	ppbV	98
106) p-isopropyltoluene	19.298	119	716387	9.344	ppbV	98
107) 1,2-dichlorobenzene	19.432	146	400637	10.728	ppbV	99
108) n-butylbenzene	19.617	91	717645	10.258	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.775	75	200610	9.995	ppbV	98
112) undecane	19.970	57	463094	9.904	ppbV	99
114) dodecane	20.861	57	496345	10.858	ppbV	99
115) 1,2,4-trichlorobenzene	20.850	180	351974	11.734	ppbV	99
116) naphthalene	20.968	128	816835	10.901	ppbV	99
117) 1,2,3-trichlorobenzene	21.215	180	323623	11.099	ppbV	100
119) hexachlorobutadiene	21.268	225	280528	10.449	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

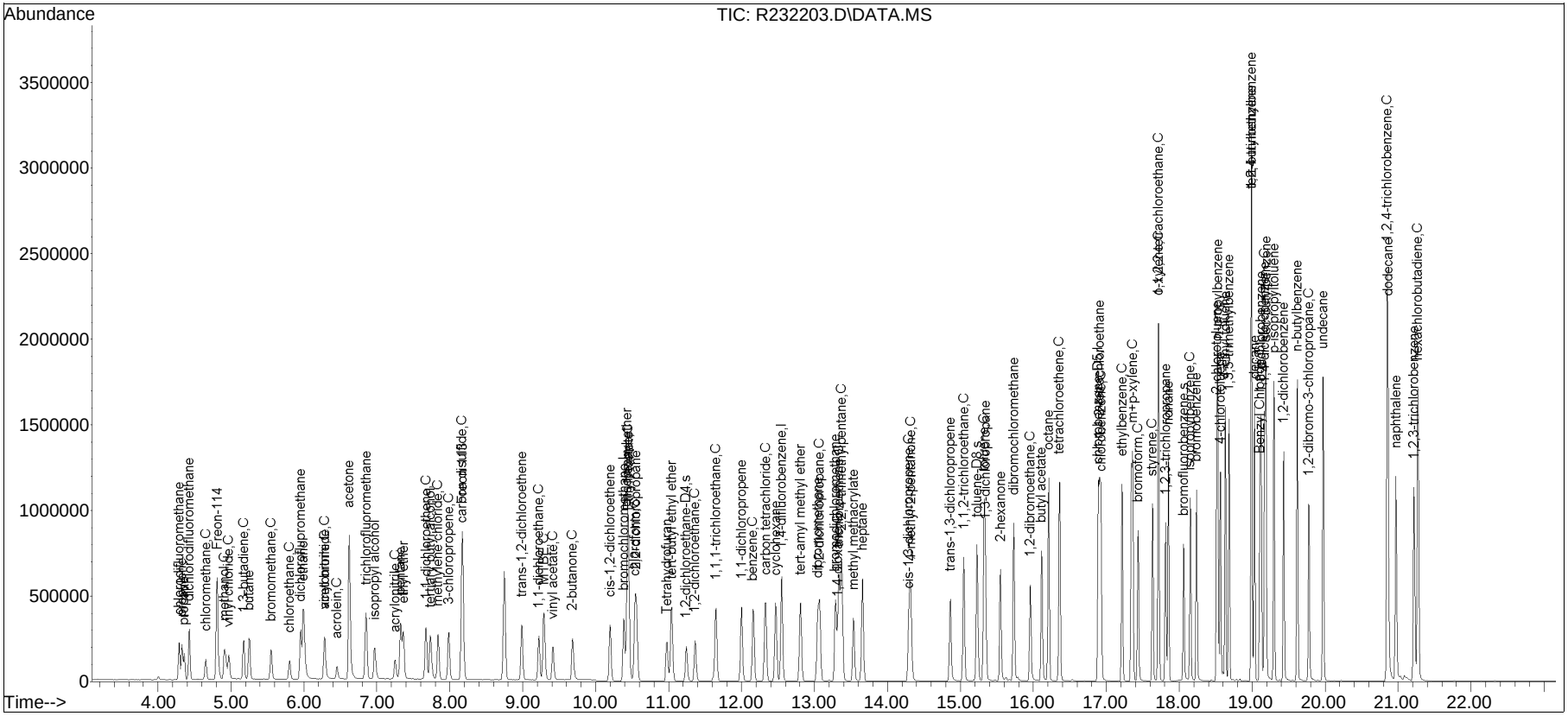
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

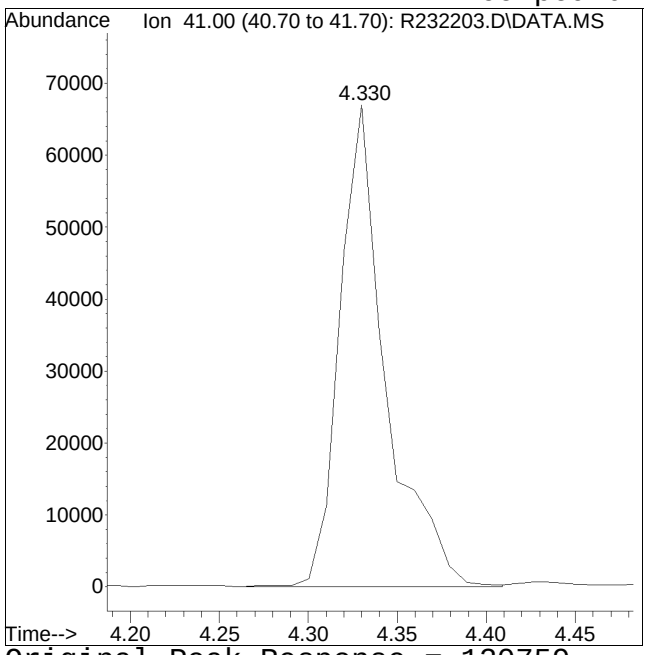


Manual Integration/Negative Proof Report

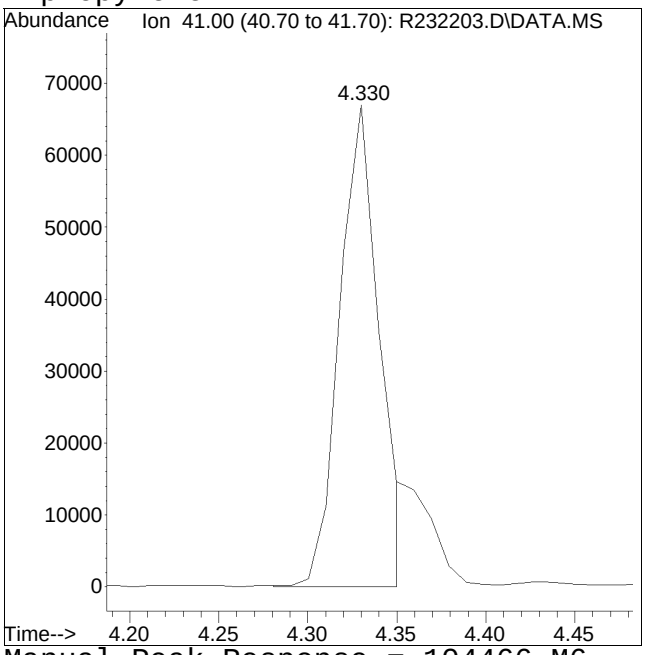
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #3: propylene



Original Peak Response = 120759



Manual Peak Response = 104466 M6

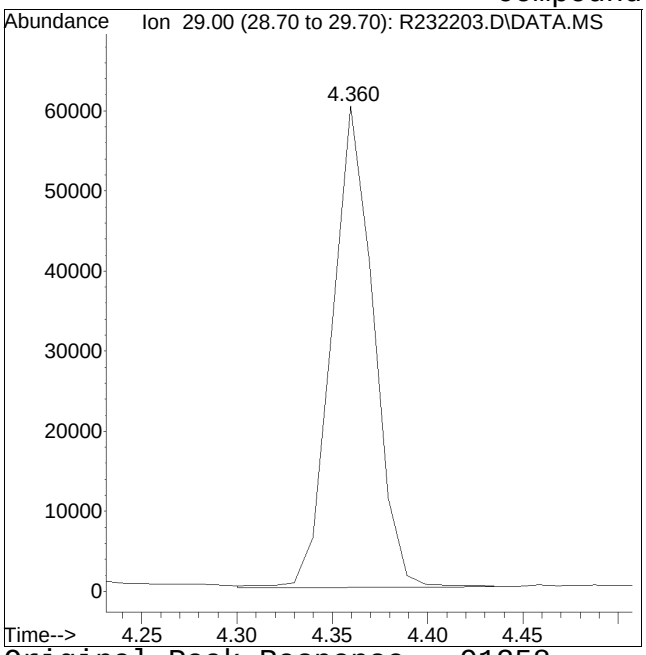
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

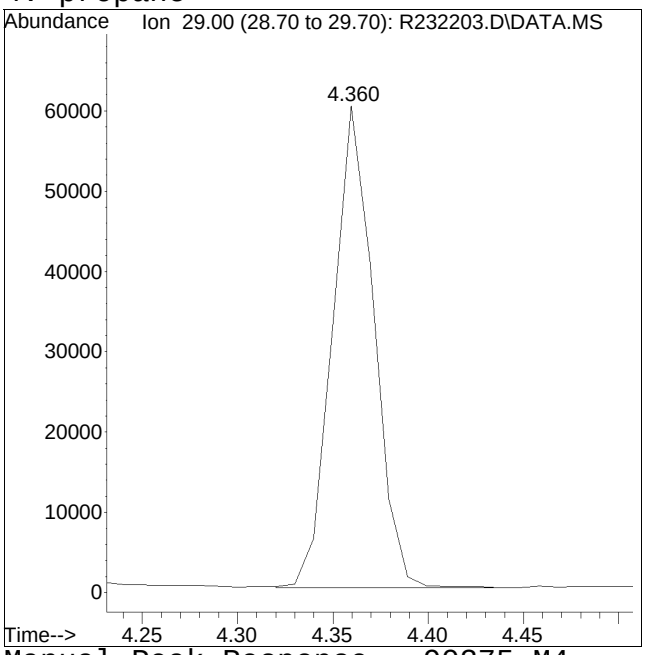
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #4: propane



Original Peak Response = 91258



Manual Peak Response = 90375 M4

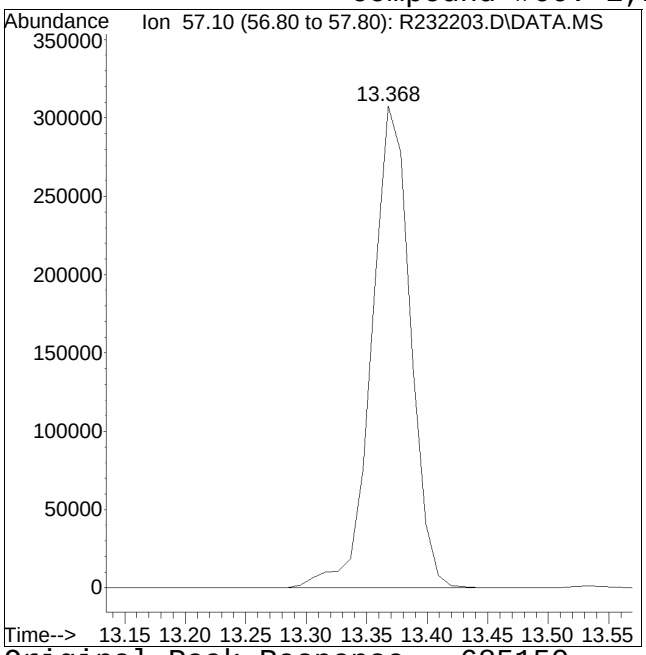
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

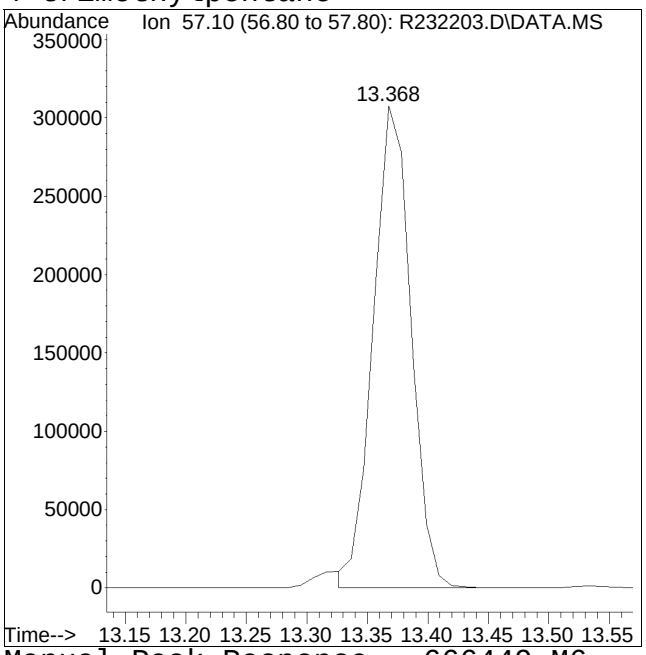
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 685150



Manual Peak Response = 666449 M6

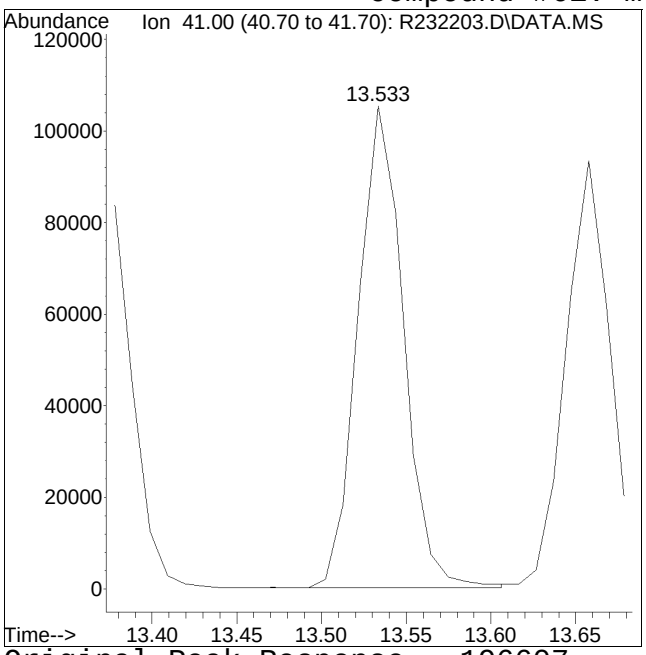
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

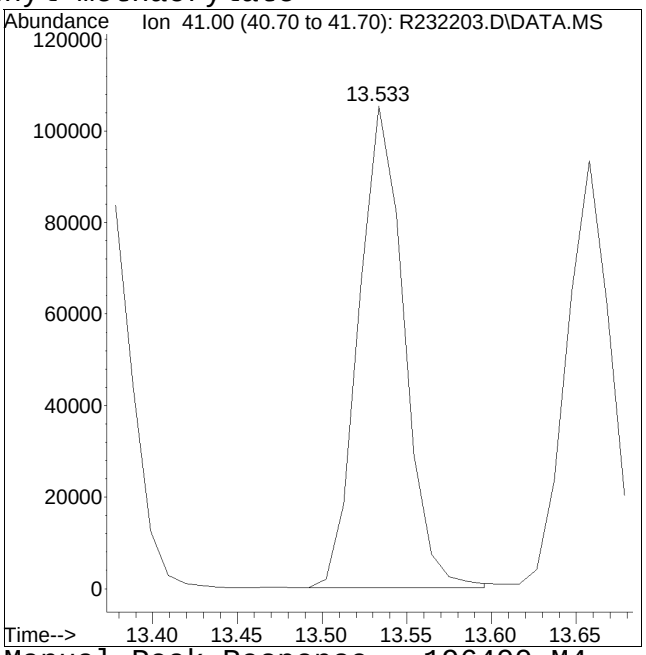
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #61: methyl methacrylate



Original Peak Response = 196607



Manual Peak Response = 196400 M4

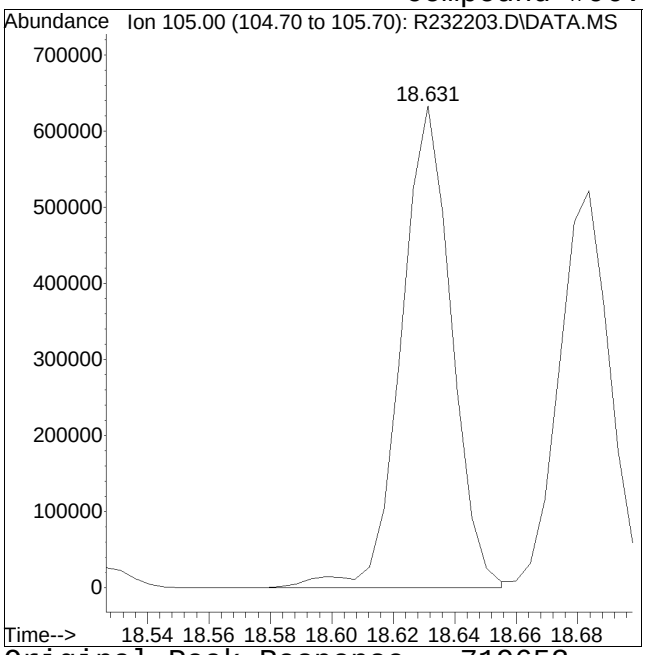
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

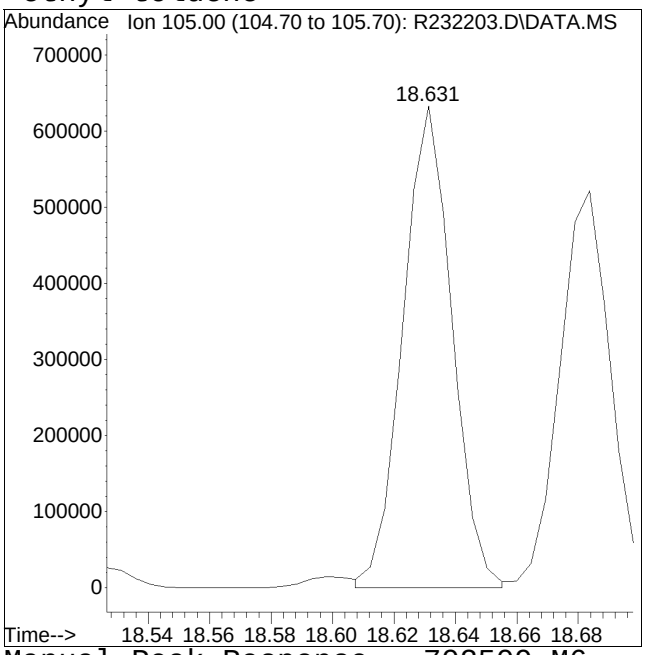
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #96: 4-ethyl toluene



Original Peak Response = 719653



Manual Peak Response = 702509 M6

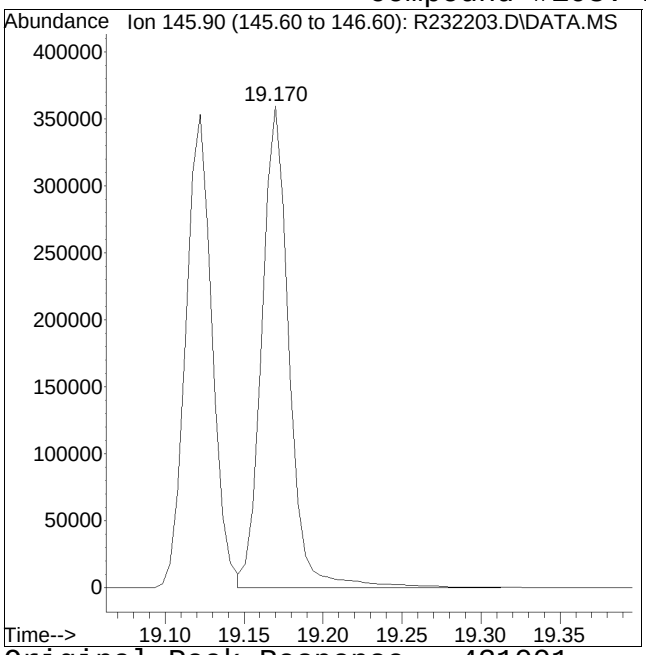
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

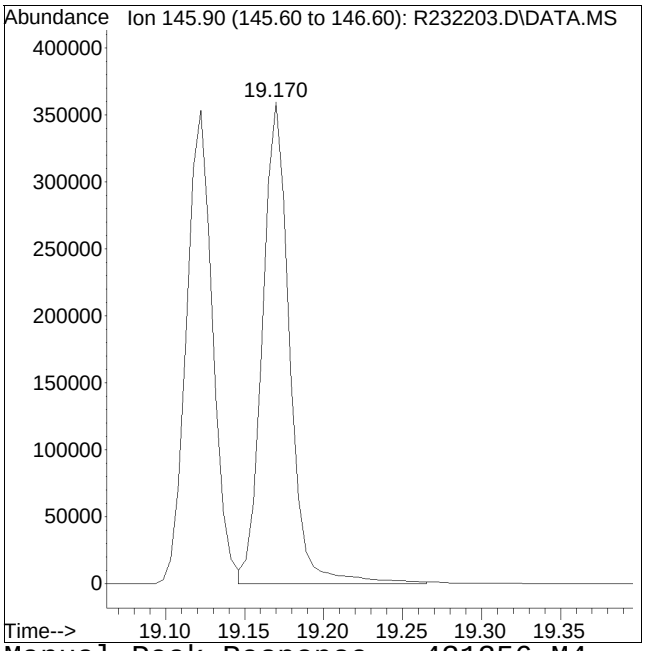
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 431001



Manual Peak Response = 431356 M4

M4 = Poor automated baseline construction.

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRLAB14 Calibration Date(s): 01/20/15 01/21/15

Calibration Times: 22:11 04:10

Calibration Files

0.2 =R141337.D 0.5 =R141338.D 1.0 =R141339.D 5.0 =R141340.D 10 =R141341.D 20 =R141342.D

50 =R141343.D 100 =R141344.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------									
2)		chlorodifluoromethane	1.683	1.611	1.655	1.573	1.513	1.525	1.248	1.210	1.5021	11.91
3)		propylene	1.009	0.886	0.905	0.804	0.758	0.799	0.603	0.669	0.8041	16.24
4)		propane	1.020	0.824	0.837	0.700	0.649	0.666	0.537	0.520	0.7190	23.28
5)		dichlorodifluoromethane	3.078	2.932	2.980	2.896	2.768	2.798	2.286	2.249	2.7484	11.37
6)	C	chloromethane	0.892	0.847	0.861	0.819	0.796	0.812	0.678	0.668	0.7966	10.31
7)		Freon-114	3.359	3.125	3.138	3.038	2.970	3.006	2.512	2.505	2.9566	10.18
8)	C	methanol	0.421	0.340	0.286	0.262	0.258	0.256	0.227	0.211	0.2827	24.03
9)	C	vinyl chloride	1.089	1.045	1.042	0.993	0.972	0.990	0.833	0.840	0.9754	9.60
10)	C	1,3-butadiene	0.785	0.737	0.765	0.716	0.712	0.721	0.605	0.618	0.7075	9.09
11)		butane	1.780	1.511	1.498	1.397	1.344	1.337	1.111	1.132	1.3887	15.58
12)	C	acetaldehyde		0.522	0.512	0.458	0.441	0.443	0.368	0.340	0.4405	15.37
13)	C	bromomethane	1.012	1.037	1.049	1.005	0.997	1.018	0.865	1.049	1.0039	5.94
14)	C	chloroethane	0.523	0.556	0.566	0.545	0.534	0.537	0.458	0.465	0.5230	7.69
15)		ethanol		0.595	0.490	0.542	0.559	0.573	0.498	0.434	0.5273	10.66
16)		dichlorofluoromethane	2.428	2.318	2.387	2.259	2.212	2.218	1.908	1.891	2.2026	9.16
17)	C	vinyl bromide	1.170	1.107	1.128	1.091	1.083	1.109	0.954	0.968	1.0762	7.06
18)	C	acrolein	0.438	0.429	0.425	0.413	0.405	0.420	0.373	0.365	0.4085	6.53
19)		acetone	1.759	1.542	1.463	1.377	1.345	1.317	1.140	1.042	1.3729	16.36
20)	C	acetonitrile	0.978	0.854	0.841	0.804	0.772	0.778	0.692	0.656	0.7970	12.51
21)		trichlorofluoromethane	3.236	3.032	3.067	2.938	2.863	2.893	2.449	2.452	2.8664	9.83
22)		isopropyl alcohol		1.976	1.520	1.545	1.436	1.590	1.402	1.267	1.5336	14.52
23)	C	acrylonitrile	0.822	0.769	0.763	0.753	0.730	0.748	0.678	0.662	0.7405	6.91
24)		pentane	2.043	1.765	1.883	1.748	1.661	1.661	1.401	1.391	1.6942	13.11
25)		ethyl ether	1.196	1.073	1.094	1.054	1.019	1.003	0.864	0.826	1.0161	11.90
26)	C	1,1-dichloroethene	1.813	1.687	1.729	1.666	1.631	1.640	1.418	1.407	1.6239	8.80
27)		tertiary butyl alcohol	2.447	2.310	1.985	2.088	2.011	2.186	1.932	1.711	2.0838	11.04
28)	C	methylene chloride		1.445	1.345	1.157	1.098	1.092	0.950	0.933	1.1457	16.64
29)	C	3-chloropropene	1.442	1.304	1.287	1.245	1.202	1.199	1.041	1.021	1.2176	11.34
30)	C	carbon disulfide	5.271	3.979	3.767	3.319	3.212	3.232	2.805	2.762	3.5432	22.97
31)		Freon 113	2.512	2.372	2.480	2.343	2.306	2.307	2.025	2.036	2.2977	7.89
32)		trans-1,2-dichloroethene	1.687	1.623	1.679	1.622	1.584	1.578	1.399	1.380	1.5689	7.48
33)	C	1,1-dichloroethane	2.123	2.007	2.017	1.946	1.898	1.858	1.669	1.626	1.8929	9.09
34)	C	MTBE	3.520	3.262	3.263	3.126	3.096	3.032	2.744	2.667	3.0890	9.06
35)	C	vinyl acetate	3.078	2.564	2.636	2.450	2.413	2.415	2.172	2.064	2.4740	12.48
36)	C	2-butanone	2.816	2.475	2.316	2.116	2.136	2.095	1.869	1.746	2.1961	15.45
37)		cis-1,2-dichloroethene	1.538	1.457	1.466	1.409	1.406	1.390	1.257	1.214	1.3921	7.73
38)		Ethyl Acetate	0.333	0.365	0.364	0.352	0.354	0.347	0.314	0.298	0.3409	7.09
39)	C	chloroform	2.519	2.390	2.384	2.295	2.269	2.235	2.019	1.920	2.2538	8.79
40)		Tetrahydrofuran	1.585	1.390	1.301	1.243	1.262	1.353	1.093	1.024	1.2813	13.61
41)		2,2-dichloropropane	2.266	2.075	2.071	2.018	2.000	1.960	1.770	1.710	1.9839	8.90
42)	C	1,2-dichloroethane	1.596	1.501	1.486	1.435	1.424	1.511	1.250	1.167	1.4212	10.07
43)	I	1,4-difluorobenzene	----------ISTD----------									

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRLAB14 Calibration Date(s): 01/20/15 01/21/15

Calibration Times: 22:11 04:10

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.463	0.435	0.449	0.434	0.417	0.410	0.382	0.396	0.4234	6.44
45)		diisopropyl ether	0.257	0.253	0.255	0.246	0.244	0.241	0.234	0.245	0.2470	3.15
46)		tert-butyl ethyl ether	0.924	0.869	0.870	0.839	0.831	0.897	0.780	0.789	0.8499	5.90
47)	s	1,2-dichloroethane-D4	0.299	0.290	0.290	0.167	0.284	0.314	0.290	0.299	0.2793	16.57
48)	C	1,1,1-trichloroethane	0.662	0.628	0.635	0.611	0.637	0.645	0.565	0.577	0.6198	5.43
49)		1,1-dichloropropene	0.505	0.463	0.444	0.473	0.467	0.473	0.392	0.402	0.4524	8.42
50)	C	benzene	1.045	0.956	0.848	0.927	0.912	0.911	0.834	0.867	0.9125	7.43
51)		thiophene	0.651	0.630	0.628	0.623	0.622	0.625	0.592	0.605	0.6218	2.80
52)	C	carbon tetrachloride	0.745	0.702	0.703	0.708	0.702	0.710	0.673	0.697	0.7050	2.80
53)		cyclohexane	0.510	0.512	0.505	0.478	0.480	0.468	0.436	0.455	0.4803	5.72
54)		tert-amyl methyl ether	0.993	0.924	0.898	0.896	0.909	0.907	0.853	0.861	0.9053	4.76
55)		dibromomethane	0.442	0.386	0.393	0.375	0.376	0.384	0.365	0.377	0.3875	6.12
56)	C	1,2-dichloropropane	0.366	0.337	0.342	0.333	0.332	0.332	0.312	0.315	0.3335	5.04
57)		bromodichloromethane	0.789	0.747	0.759	0.743	0.747	0.761	0.712	0.719	0.7470	3.27
58)	C	1,4-dioxane	0.263	0.231	0.207	0.220	0.222	0.239	0.222	0.222	0.2282	7.34
59)	C	trichloroethene	0.512	0.479	0.482	0.474	0.468	0.475	0.454	0.477	0.4775	3.41
60)	C	2,2,4-trimethylpentane	1.671	1.566	1.578	1.532	1.514	1.499	1.401	1.352	1.5142	6.65
61)		methyl methacrylate	0.413	0.397	0.389	0.386	0.396	0.396	0.368	0.360	0.3882	4.37
62)		heptane	0.580	0.548	0.547	0.525	0.523	0.517	0.488	0.484	0.5264	6.09
63)	C	cis-1,3-dichloropropene	0.531	0.509	0.510	0.517	0.529	0.537	0.505	0.503	0.5178	2.56
64)	C	4-methyl-2-pentanone	0.780	0.748	0.723	0.707	0.722	0.728	0.654	0.623	0.7108	7.08
65)		trans-1,3-dichloropropene	0.534	0.512	0.512	0.516	0.546	0.555	0.526	0.511	0.5266	3.23
66)	C	1,1,2-trichloroethane	0.430	0.407	0.409	0.394	0.405	0.408	0.381	0.381	0.4019	3.99
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	7.014	6.456	6.566	6.364	6.354	6.344	5.979	5.943	6.3774	5.29
69)	s	toluene-D8	4.992	4.745	4.859	2.807	4.810	4.928	4.836	5.244	4.6527	16.36
70)		2-methylthiophene	6.041	5.591	5.792	5.790	5.774	5.697	5.428	5.448	5.6951	3.56
71)		1,3-dichloropropane	3.199	2.994	3.024	2.993	3.030	3.012	2.865	2.916	3.0040	3.24
72)		2-hexanone	3.966	3.685	3.854	3.814	3.748	3.756	3.425		3.7497	4.51
73)		3-methylthiophene	5.659	5.340	5.494	5.412	5.429	5.368	5.144	5.108	5.3692	3.34
74)		dibromochloromethane	4.429	4.210	4.380	4.417	4.580	4.705	4.487	4.485	4.4617	3.25
75)	C	1,2-dibromoethane	3.648	3.482	3.517	3.454	3.565	3.612	3.470	3.504	3.5315	1.99
76)		butyl acetate		0.788	0.878	0.863	0.861	0.877	0.824	0.874	0.8521	3.97
77)		octane	2.204	2.044	2.050	2.010	2.043	2.047	1.972	2.036	2.0509	3.29
78)	C	tetrachloroethene	3.911	3.693	3.735	3.655	3.710	3.778	3.699	3.817	3.7498	2.20
79)		1,1,1,2-tetrachloroethane	3.140	2.993	2.996	3.028	3.123	3.217	3.047	3.052	3.0744	2.55
80)	C	chlorobenzene	5.511	5.271	5.279	5.161	5.308	5.391	5.080	5.049	5.2561	2.96
81)	C	ethylbenzene	8.783	8.350	8.283	8.339	8.508	8.619	7.739	7.305	8.2406	5.91
82)		2-ethylthiophene	6.512	6.353	6.310	6.411	6.535	6.590	6.012	5.792	6.3142	4.40
83)	C	m+p-xylene	6.683	6.456	6.411	6.504	6.570	6.678	5.953	5.419	6.3343	6.88
84)	C	bromoform	4.653	4.537	4.578	5.037	5.236	5.500	5.170	5.202	4.9890	7.14
85)	C	styrene	4.893	4.883	4.864	5.227	5.291	5.422	4.978	4.998	5.0694	4.22
86)	C	1,1,2,2-tetrachloroethane	5.091	4.820	5.078	5.083	5.008	5.014	4.669	4.083	4.8559	7.13
87)	C	o-xylene	6.924	6.692	6.693	6.814	6.848	6.949	6.193	5.623	6.5919	6.95
88)		1,2,3-trichloropropane	3.731	3.558	3.783	3.816	3.731	3.724	3.531	3.538	3.6764	3.14
89)		nonane	4.427	4.163	4.128	4.220	4.199	4.238	3.729	3.389	4.0618	8.25
90)	s	bromofluorobenzene	3.712	3.328	3.020	2.054	3.555	3.463	3.596	3.764	3.3114	16.91

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRLAB14 Calibration Date(s): 01/20/15 01/21/15

Calibration Times: 22:11 04:10

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	9.875	9.571	9.771	9.819	9.661	9.615	8.531	7.664	9.3133	8.50
92)		bromobenzene	4.457	4.485	4.432	4.687	4.641	4.708	4.441	4.419	4.5337	2.71
93)		2-chlorotoluene	2.569	2.656	2.564	2.729	2.703	2.705	2.592	2.626	2.6429	2.46
94)		n-propylbenzene	2.580	2.651	2.845	2.907	2.873	2.835	2.787	2.649	2.7658	4.41
95)		4-chlorotoluene	5.472	4.982	6.264	6.065	5.600	5.822	6.095	5.091	5.6739	8.33
96)		4-ethyl toluene	0.983	1.000	1.075	1.105	1.090	1.049	0.960	0.852	1.0144	8.26
97)		1,3,5-trimethylbenzene	7.776	7.340	8.303	7.990	7.851	7.707	7.491	6.502	7.6200	7.07
98)		tert-butylbenzene	9.147	8.834	9.735	9.318	9.343	9.240	8.460	7.013	8.8861	9.51
99)		1,2,4-trimethylbenzene	7.314	7.377	8.232	8.270	8.299	8.368	7.586	6.203	7.7060	9.71
100)		decane	4.553	4.708	5.228	5.081	5.094	5.012	4.706	4.138	4.8147	7.48
101)	C	Benzyl Chloride	4.353	4.621	6.005	7.239	7.587	8.194	7.665	6.757	6.5526	21.87
102)		1,3-dichlorobenzene	4.855	4.972	6.042	6.113	6.182	6.306	6.231	6.034	5.8417	9.95
103)	C	1,4-dichlorobenzene	4.257	4.430	5.162	5.896	6.005	6.255	5.856	4.838	5.3374	14.40
104)		sec-butylbenzene	1.183	1.158	1.282	1.211	1.215	1.222	1.069	0.834	1.1465	12.25
105)		1,2,3-trimethylbenzene	6.553	6.540	7.364	7.110	7.166	7.411	6.790	6.155	6.8861	6.51
106)		p-isopropyltoluene	1.062	1.025	1.175	1.132	1.148	1.171	1.021	0.827	1.0702	10.87
107)		1,2-dichlorobenzene	4.930	4.955	5.704	5.803	5.825	6.103	5.680	5.497	5.5622	7.53
108)		n-butylbenzene	0.787	0.799	0.922	1.000	0.961	1.003	0.875	0.770	0.8896	10.80
109)		indan	7.259	7.160	8.131	7.969	7.981	8.232	7.393	6.737	7.6078	7.13
110)		indene	4.336	4.495	5.400	5.504	5.476	5.859	5.372	5.151	5.1990	10.07
111)	C	1,2-dibromo-3-chloropropane	2.062	2.032	2.199	2.592	2.531	2.643	2.513	2.426	2.3747	10.21
112)		undecane	3.736	4.089	5.200	5.724	5.721	5.611	5.233	4.408	4.9653	15.75
113)		1,2,4,5-tetramethylbenzene	1.084	1.112	1.322	1.626	1.609	1.460	1.285	1.019	1.3145	17.90
114)		dodecane	2.854	3.158	4.288	5.872	6.013	5.879	5.402	4.250	4.7145	26.75
115)	C	1,2,4-trichlorobenzene	2.023	2.730	4.037	5.517	5.624	5.932	5.947	5.506	4.6645	33.13#
116)		naphthalene	0.514	0.656	0.881	1.163	1.165	1.160	1.083	0.948	0.9463	26.34
117)		1,2,3-trichlorobenzene	2.554	3.207	4.113	5.319	5.411	5.499	5.518	5.372	4.6241	25.56
118)		benzothiophene	0.349	0.510	0.702	1.091	1.142	1.025	0.991	0.879	0.8361	34.49#
119)	C	hexachlorobutadiene	4.652	4.696	5.328	5.717	5.651	5.674	5.712	5.142	5.3214	8.44
120)		2-methylnaphthalene			0.682	2.673	3.621	2.982	3.520	3.470	2.8247	39.33#
121)		1-methylnaphthalene		0.847	1.313	3.024	3.634	3.208	3.579	3.146	2.6787	41.90#

FORM VI-NJ-TO15

Response Factor Report Airlab 14

Method Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Method File : TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Jan 21 14:43:16 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R141337.D 0.5 =R141338.D 1.0 =R141339.D 5.0 =R141340.D 10 =R141341.D 20 =R141342.D
50 =R141343.D 100 =R141344.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.683	1.611	1.655	1.573	1.513	1.525	1.248	1.210	1.5021	11.91
3)		propylene	1.009	0.886	0.905	0.804	0.758	0.799	0.603	0.669	0.8041	16.24
4)		propane	1.020	0.824	0.837	0.700	0.649	0.666	0.537	0.520	0.7190	23.28
5)		dichlorodifluoromethane	3.078	2.932	2.980	2.896	2.768	2.798	2.286	2.249	2.7484	11.37
6)	C	chloromethane	0.892	0.847	0.861	0.819	0.796	0.812	0.678	0.668	0.7966	10.31
7)		Freon-114	3.359	3.125	3.138	3.038	2.970	3.006	2.512	2.505	2.9566	10.18
8)	C	methanol	0.421	0.340	0.286	0.262	0.258	0.256	0.227	0.211	0.2827	24.03
9)	C	vinyl chloride	1.089	1.045	1.042	0.993	0.972	0.990	0.833	0.840	0.9754	9.60
10)	C	1,3-butadiene	0.785	0.737	0.765	0.716	0.712	0.721	0.605	0.618	0.7075	9.09
11)		butane	1.780	1.511	1.498	1.397	1.344	1.337	1.111	1.132	1.3887	15.58
12)	C	acetaldehyde		0.522	0.512	0.458	0.441	0.443	0.368	0.340	0.4405	15.37
13)	C	bromomethane	1.012	1.037	1.049	1.005	0.997	1.018	0.865	1.049	1.0039	5.94
14)	C	chloroethane	0.523	0.556	0.566	0.545	0.534	0.537	0.458	0.465	0.5230	7.69
15)		ethanol		0.595	0.490	0.542	0.559	0.573	0.498	0.434	0.5273	10.66
16)		dichlorofluoromethane	2.428	2.318	2.387	2.259	2.212	2.218	1.908	1.891	2.2026	9.16
17)	C	vinyl bromide	1.170	1.107	1.128	1.091	1.083	1.109	0.954	0.968	1.0762	7.06
18)	C	acrolein	0.438	0.429	0.425	0.413	0.405	0.420	0.373	0.365	0.4085	6.53
19)		acetone	1.759	1.542	1.463	1.377	1.345	1.317	1.140	1.042	1.3729	16.36
20)	C	acetonitrile	0.978	0.854	0.841	0.804	0.772	0.778	0.692	0.656	0.7970	12.51
21)		trichlorofluoromethane	3.236	3.032	3.067	2.938	2.863	2.893	2.449	2.452	2.8664	9.83
22)		isopropyl alcohol		1.976	1.520	1.545	1.436	1.590	1.402	1.267	1.5336	14.52
23)	C	acrylonitrile	0.822	0.769	0.763	0.753	0.730	0.748	0.678	0.662	0.7405	6.91
24)		pentane	2.043	1.765	1.883	1.748	1.661	1.661	1.401	1.391	1.6942	13.11
25)		ethyl ether	1.196	1.073	1.094	1.054	1.019	1.003	0.864	0.826	1.0161	11.90
26)	C	1,1-dichloroethene	1.813	1.687	1.729	1.666	1.631	1.640	1.418	1.407	1.6239	8.80
27)		tertiary butyl alcohol	2.447	2.310	1.985	2.088	2.011	2.186	1.932	1.711	2.0838	11.04
28)	C	methylene chloride		1.445	1.345	1.157	1.098	1.092	0.950	0.933	1.1457	16.64
29)	C	3-chloropropene	1.442	1.304	1.287	1.245	1.202	1.199	1.041	1.021	1.2176	11.34
30)	C	carbon disulfide	5.271	3.979	3.767	3.319	3.212	3.232	2.805	2.762	3.5432	22.97
31)		Freon 113	2.512	2.372	2.480	2.343	2.306	2.307	2.025	2.036	2.2977	7.89

Method Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Method File : TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Jan 21 14:43:16 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R141337.D 0.5 =R141338.D 1.0 =R141339.D 5.0 =R141340.D 10 =R141341.D 20 =R141342.D
50 =R141343.D 100 =R141344.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32)		trans-1,2-dichloroethene	1.687	1.623	1.679	1.622	1.584	1.578	1.399	1.380	1.5689	7.48
33)	C	1,1-dichloroethane	2.123	2.007	2.017	1.946	1.898	1.858	1.669	1.626	1.8929	9.09
34)	C	MTBE	3.520	3.262	3.263	3.126	3.096	3.032	2.744	2.667	3.0890	9.06
35)	C	vinyl acetate	3.078	2.564	2.636	2.450	2.413	2.415	2.172	2.064	2.4740	12.48
36)	C	2-butanone	2.816	2.475	2.316	2.116	2.136	2.095	1.869	1.746	2.1961	15.45
37)		cis-1,2-dichloroethene	1.538	1.457	1.466	1.409	1.406	1.390	1.257	1.214	1.3921	7.73
38)		Ethyl Acetate	0.333	0.365	0.364	0.352	0.354	0.347	0.314	0.298	0.3409	7.09
39)	C	chloroform	2.519	2.390	2.384	2.295	2.269	2.235	2.019	1.920	2.2538	8.79
40)		Tetrahydrofuran	1.585	1.390	1.301	1.243	1.262	1.353	1.093	1.024	1.2813	13.61
41)		2,2-dichloropropane	2.266	2.075	2.071	2.018	2.000	1.960	1.770	1.710	1.9839	8.90
42)	C	1,2-dichloroethane	1.596	1.501	1.486	1.435	1.424	1.511	1.250	1.167	1.4212	10.07
43)	I	1,4-difluorobenzene	----------ISTD----------									
44)	C	hexane	0.463	0.435	0.449	0.434	0.417	0.410	0.382	0.396	0.4234	6.44
45)		diisopropyl ether	0.257	0.253	0.255	0.246	0.244	0.241	0.234	0.245	0.2470	3.15
46)		tert-butyl ethyl ether	0.924	0.869	0.870	0.839	0.831	0.897	0.780	0.789	0.8499	5.90
47)	s	1,2-dichloroethane-D4	0.299	0.290	0.290	0.167	0.284	0.314	0.290	0.299	0.2793	16.57
48)	C	1,1,1-trichloroethane	0.662	0.628	0.635	0.611	0.637	0.645	0.565	0.577	0.6198	5.43
49)		1,1-dichloropropene	0.505	0.463	0.444	0.473	0.467	0.473	0.392	0.402	0.4524	8.42
50)	C	benzene	1.045	0.956	0.848	0.927	0.912	0.911	0.834	0.867	0.9125	7.43
51)		thiophene	0.651	0.630	0.628	0.623	0.622	0.625	0.592	0.605	0.6218	2.80
52)	C	carbon tetrachloride	0.745	0.702	0.703	0.708	0.702	0.710	0.673	0.697	0.7050	2.80
53)		cyclohexane	0.510	0.512	0.505	0.478	0.480	0.468	0.436	0.455	0.4803	5.72
54)		tert-amyl methyl ether	0.993	0.924	0.898	0.896	0.909	0.907	0.853	0.861	0.9053	4.76
55)		dibromomethane	0.442	0.386	0.393	0.375	0.376	0.384	0.365	0.377	0.3875	6.12
56)	C	1,2-dichloropropane	0.366	0.337	0.342	0.333	0.332	0.332	0.312	0.315	0.3335	5.04
57)		bromodichloromethane	0.789	0.747	0.759	0.743	0.747	0.761	0.712	0.719	0.7470	3.27
58)	C	1,4-dioxane	0.263	0.231	0.207	0.220	0.222	0.239	0.222	0.222	0.2282	7.34
59)	C	trichloroethene	0.512	0.479	0.482	0.474	0.468	0.475	0.454	0.477	0.4775	3.41
60)	C	2,2,4-trimethylpentane	1.671	1.566	1.578	1.532	1.514	1.499	1.401	1.352	1.5142	6.65
61)		methyl methacrylate	0.413	0.397	0.389	0.386	0.396	0.396	0.368	0.360	0.3882	4.37
62)		heptane	0.580	0.548	0.547	0.525	0.523	0.517	0.488	0.484	0.5264	6.09

Method Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Method File : TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Jan 21 14:43:16 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R141337.D 0.5 =R141338.D 1.0 =R141339.D 5.0 =R141340.D 10 =R141341.D 20 =R141342.D
50 =R141343.D 100 =R141344.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63)	C	cis-1,3-dichloropropene	0.531	0.509	0.510	0.517	0.529	0.537	0.505	0.503	0.5178	2.56
64)	C	4-methyl-2-pentanone	0.780	0.748	0.723	0.707	0.722	0.728	0.654	0.623	0.7108	7.08
65)		trans-1,3-dichloropropene	0.534	0.512	0.512	0.516	0.546	0.555	0.526	0.511	0.5266	3.23
66)	C	1,1,2-trichloroethane	0.430	0.407	0.409	0.394	0.405	0.408	0.381	0.381	0.4019	3.99
67)	I	chlorobenzene-D5	ISTD									
68)	C	toluene	7.014	6.456	6.566	6.364	6.354	6.344	5.979	5.943	6.3774	5.29
69)	s	toluene-D8	4.992	4.745	4.859	2.807	4.810	4.928	4.836	5.244	4.6527	16.36
70)		2-methylthiophene	6.041	5.591	5.792	5.790	5.774	5.697	5.428	5.448	5.6951	3.56
71)		1,3-dichloropropane	3.199	2.994	3.024	2.993	3.030	3.012	2.865	2.916	3.0040	3.24
72)		2-hexanone	3.966	3.685	3.854	3.814	3.748	3.756	3.425		3.7497	4.51
73)		3-methylthiophene	5.659	5.340	5.494	5.412	5.429	5.368	5.144	5.108	5.3692	3.34
74)		dibromochloromethane	4.429	4.210	4.380	4.417	4.580	4.705	4.487	4.485	4.4617	3.25
75)	C	1,2-dibromoethane	3.648	3.482	3.517	3.454	3.565	3.612	3.470	3.504	3.5315	1.99
76)		butyl acetate		0.788	0.878	0.863	0.861	0.877	0.824	0.874	0.8521	3.97
77)		octane	2.204	2.044	2.050	2.010	2.043	2.047	1.972	2.036	2.0509	3.29
78)	C	tetrachloroethene	3.911	3.693	3.735	3.655	3.710	3.778	3.699	3.817	3.7498	2.20
79)		1,1,1,2-tetrachloroethane	3.140	2.993	2.996	3.028	3.123	3.217	3.047	3.052	3.0744	2.55
80)	C	chlorobenzene	5.511	5.271	5.279	5.161	5.308	5.391	5.080	5.049	5.2561	2.96
81)	C	ethylbenzene	8.783	8.350	8.283	8.339	8.508	8.619	7.739	7.305	8.2406	5.91
82)		2-ethylthiophene	6.512	6.353	6.310	6.411	6.535	6.590	6.012	5.792	6.3142	4.40
83)	C	m+p-xylene	6.683	6.456	6.411	6.504	6.570	6.678	5.953	5.419	6.3343	6.88
84)	C	bromoform	4.653	4.537	4.578	5.037	5.236	5.500	5.170	5.202	4.9890	7.14
85)	C	styrene	4.893	4.883	4.864	5.227	5.291	5.422	4.978	4.998	5.0694	4.22
86)	C	1,1,2,2-tetrachloroethane	5.091	4.820	5.078	5.083	5.008	5.014	4.669	4.083	4.8559	7.13
87)	C	o-xylene	6.924	6.692	6.693	6.814	6.848	6.949	6.193	5.623	6.5919	6.95
88)		1,2,3-trichloropropane	3.731	3.558	3.783	3.816	3.731	3.724	3.531	3.538	3.6764	3.14
89)		nonane	4.427	4.163	4.128	4.220	4.199	4.238	3.729	3.389	4.0618	8.25
90)	s	bromofluorobenzene	3.712	3.328	3.020	2.054	3.555	3.463	3.596	3.764	3.3114	16.91
91)	C	isopropylbenzene	9.875	9.571	9.771	9.819	9.661	9.615	8.531	7.664	9.3133	8.50
92)		bromobenzene	4.457	4.485	4.432	4.687	4.641	4.708	4.441	4.419	4.5337	2.71
93)		2-chlorotoluene	2.569	2.656	2.564	2.729	2.703	2.705	2.592	2.626	2.6429	2.46

Method Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Method File : TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Jan 21 14:43:16 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R141337.D 0.5 =R141338.D 1.0 =R141339.D 5.0 =R141340.D 10 =R141341.D 20 =R141342.D
50 =R141343.D 100 =R141344.D

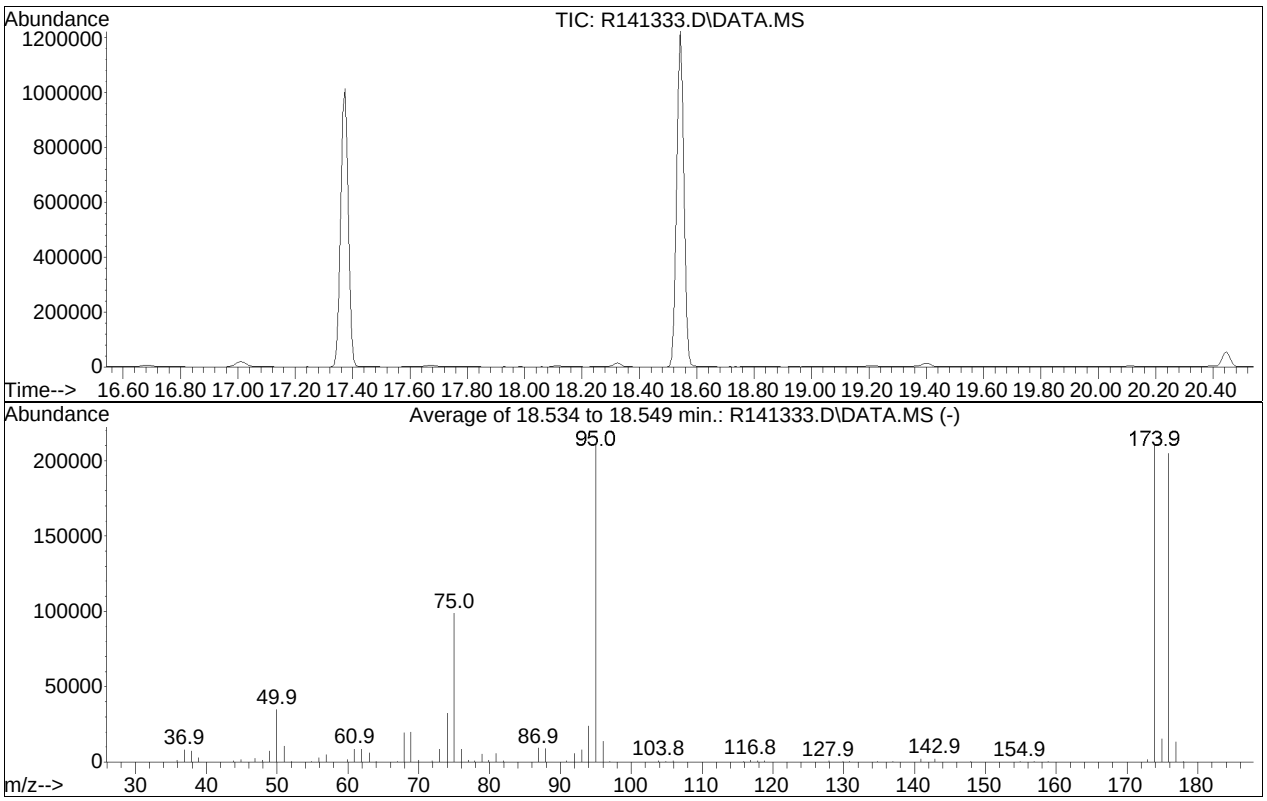
		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94)		n-propylbenzene	2.580	2.651	2.845	2.907	2.873	2.835	2.787	2.649	2.7658	4.41
95)		4-chlorotoluene	5.472	4.982	6.264	6.065	5.600	5.822	6.095	5.091	5.6739	8.33
96)		4-ethyl toluene	0.983	1.000	1.075	1.105	1.090	1.049	0.960	0.852	1.0144	8.26
97)		1,3,5-trimethylbenzene	7.776	7.340	8.303	7.990	7.851	7.707	7.491	6.502	7.6200	7.07
98)		tert-butylbenzene	9.147	8.834	9.735	9.318	9.343	9.240	8.460	7.013	8.8861	9.51
99)		1,2,4-trimethylbenzene	7.314	7.377	8.232	8.270	8.299	8.368	7.586	6.203	7.7060	9.71
100)		decane	4.553	4.708	5.228	5.081	5.094	5.012	4.706	4.138	4.8147	7.48
101)	C	Benzyl Chloride	4.353	4.621	6.005	7.239	7.587	8.194	7.665	6.757	6.5526	21.87
102)		1,3-dichlorobenzene	4.855	4.972	6.042	6.113	6.182	6.306	6.231	6.034	5.8417	9.95
103)	C	1,4-dichlorobenzene	4.257	4.430	5.162	5.896	6.005	6.255	5.856	4.838	5.3374	14.40
104)		sec-butylbenzene	1.183	1.158	1.282	1.211	1.215	1.222	1.069	0.834	1.1465	12.25
105)		1,2,3-trimethylbenzene	6.553	6.540	7.364	7.110	7.166	7.411	6.790	6.155	6.8861	6.51
106)		p-isopropyltoluene	1.062	1.025	1.175	1.132	1.148	1.171	1.021	0.827	1.0702	10.87
107)		1,2-dichlorobenzene	4.930	4.955	5.704	5.803	5.825	6.103	5.680	5.497	5.5622	7.53
108)		n-butylbenzene	0.787	0.799	0.922	1.000	0.961	1.003	0.875	0.770	0.8896	10.80
109)		indan	7.259	7.160	8.131	7.969	7.981	8.232	7.393	6.737	7.6078	7.13
110)		indene	4.336	4.495	5.400	5.504	5.476	5.859	5.372	5.151	5.1990	10.07
111)	C	1,2-dibromo-3-chloropropane	2.062	2.032	2.199	2.592	2.531	2.643	2.513	2.426	2.3747	10.21
112)		undecane	3.736	4.089	5.200	5.724	5.721	5.611	5.233	4.408	4.9653	15.75
113)		1,2,4,5-tetramethylbenzene	1.084	1.112	1.322	1.626	1.609	1.460	1.285	1.019	1.3145	17.90
114)		dodecane	2.854	3.158	4.288	5.872	6.013	5.879	5.402	4.250	4.7145	26.75
115)	C	1,2,4-trichlorobenzene	2.023	2.730	4.037	5.517	5.624	5.932	5.947	5.506	4.6645	33.13#
116)		naphthalene	0.514	0.656	0.881	1.163	1.165	1.160	1.083	0.948	0.9463	26.34
117)		1,2,3-trichlorobenzene	2.554	3.207	4.113	5.319	5.411	5.499	5.518	5.372	4.6241	25.56
118)		benzothiophene	0.349	0.510	0.702	1.091	1.142	1.025	0.991	0.879	0.8361	34.49#
119)	C	hexachlorobutadiene	4.652	4.696	5.328	5.717	5.651	5.674	5.712	5.142	5.3214	8.44
120)		2-methylnaphthalene			0.682	2.673	3.621	2.982	3.520	3.470	2.8247	39.33#
121)		1-methylnaphthalene		0.847	1.313	3.024	3.634	3.208	3.579	3.146	2.6787	41.90#

(#) = Out of Range

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141333.D
Acq On : 20 Jan 2015 06:33 pm
Operator : AIRLAB14:MB
Sample : WG758134-1,3,250,250
Misc : WG758134
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Jan 21 14:43:16 2015



AutoFind: Scans 1182, 1183, 1184; Background Corrected with Scan 1175

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.5	34901	PASS
75	95	30	66	46.6	98813	PASS
95	95	100	100	100.0	211968	PASS
96	95	5	9	6.6	14077	PASS
173	174	0.00	2	0.9	1896	PASS
174	95	50	120	99.3	210453	PASS
175	174	4	9	7.4	15615	PASS
176	174	93	101	97.4	205035	PASS
177	176	5	9	6.5	13372	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141337.D
Acq On : 20 Jan 2015 10:11 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.2
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:06:33 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.971	49	158260	10.000	ppbV	0.00
Standard Area = 169082			Recovery = 93.60%			
43) 1,4-difluorobenzene	13.123	114	615647	10.000	ppbV	0.00
Standard Area = 662709			Recovery = 92.90%			
67) chlorobenzene-D5	17.387	54	117945	10.000	ppbV	0.00
Standard Area = 123609			Recovery = 95.42%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.831	65	184046	10.511	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.11%			
69) toluene-D8	15.751	98	588765	10.378	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.78%			
90) bromofluorobenzene	18.570	95	437810	10.443	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.43%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.862	51	5328	0.223	ppbV	98
3) propylene	4.903	41	3194M6	0.266	ppbV	
4) propane	4.929	29	3227	0.314	ppbV	95
5) dichlorodifluoromethane	5.009	85	9743	0.222	ppbV	99
6) chloromethane	5.250	50	2824	0.224	ppbV	99
7) Freon-114	5.410	85	10633	0.226	ppbV	98
8) methanol	5.557	31	6659	1.631	ppbV #	11
9) vinyl chloride	5.570	62	3447	0.224	ppbV	97
10) 1,3-butadiene	5.784	54	2486	0.221	ppbV	94
11) butane	5.851	43	5635	0.265	ppbV	99
12) acetaldehyde	5.463	29	9306M4	1.334	ppbV	
13) bromomethane	6.166	94	3203	0.203	ppbV	95
14) chloroethane	6.417	64	1656	0.196	ppbV	92
15) ethanol	6.656	31	10409	1.177	ppbV	99
16) dichlorofluoromethane	6.572	67	7684	0.219	ppbV	100
17) vinyl bromide	6.894	106	3702	0.216	ppbV	94
18) acrolein	7.097	56	1386	0.216	ppbV #	61
19) acetone	7.288	43	27832	1.308	ppbV #	98
20) acetonitrile	6.942	41	3095	0.253	ppbV #	12
21) trichlorofluoromethane	7.467	101	10244	0.226	ppbV	97
22) isopropyl alcohol	7.634	45	7806	0.343	ppbV #	88
23) acrylonitrile	7.873	53	2601	0.219	ppbV	97
24) pentane	7.933	43	6467M6	0.246	ppbV	

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141337.D
Acq On : 20 Jan 2015 10:11 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.2
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:06:33 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.992	31	3785	0.235	ppbV		98
26) 1,1-dichloroethene	8.279	61	5740	0.222	ppbV		96
27) tertiary butyl alcohol	8.386	59	7745	0.243	ppbV	#	90
28) methylene chloride	8.434	49	6056	0.349	ppbV		98
29) 3-chloropropene	8.589	41	4564	0.240	ppbV		99
30) carbon disulfide	8.780	76	16683	0.328	ppbV	#	35
31) Freon 113	8.768	101	7952	0.218	ppbV		98
32) trans-1,2-dichloroethene	9.570	61	5339	0.213	ppbV		98
33) 1,1-dichloroethane	9.808	63	6721	0.224	ppbV		100
34) MTBE	9.905	73	11143	0.227	ppbV	#	95
35) vinyl acetate	10.002	43	9743	0.255	ppbV		99
36) 2-butanone	10.305	43	8912M4	0.264	ppbV		
37) cis-1,2-dichloroethene	10.772	61	4867	0.219	ppbV		98
38) Ethyl Acetate	11.050	61	1054	0.188	ppbV		83
39) chloroform	11.116	83	7972	0.222	ppbV		97
40) Tetrahydrofuran	11.619	42	5016	0.251	ppbV		92
41) 2,2-dichloropropane	11.143	77	7173	0.227	ppbV		97
42) 1,2-dichloroethane	11.950	62	5053	0.224	ppbV		99
44) hexane	11.010	57	5707	0.222	ppbV	#	60
45) diisopropyl ether	11.024	87	3164	0.211	ppbV		99
46) tert-butyl ethyl ether	11.632	59	11383	0.223	ppbV		98
48) 1,1,1-trichloroethane	12.228	97	8148	0.208	ppbV		98
49) 1,1-dichloropropene	12.583	75	6213	0.216	ppbV	#	77
50) benzene	12.739	78	12873	0.229	ppbV		98
51) thiophene	12.896	84	8010	0.209	ppbV		98
52) carbon tetrachloride	12.910	117	9173	0.212	ppbV		99
53) cyclohexane	13.052	56	6278	0.213	ppbV		99
54) tert-amyl methyl ether	13.407	73	12232	0.218	ppbV		97
55) dibromomethane	13.634	93	5448	0.235	ppbV		99
56) 1,2-dichloropropane	13.662	63	4511	0.221	ppbV		97
57) bromodichloromethane	13.875	83	9720	0.211	ppbV		97
58) 1,4-dioxane	13.946	88	3237	0.236	ppbV	#	70
59) trichloroethene	13.918	130	6299	0.219	ppbV		98
60) 2,2,4-trimethylpentane	13.946	57	20581	0.221	ppbV		100
61) methyl methacrylate	14.131	41	5088	0.209	ppbV		98
62) heptane	14.230	43	7147	0.222	ppbV		98
63) cis-1,3-dichloropropene	14.862	75	6544	0.201	ppbV		96
64) 4-methyl-2-pentanone	14.914	43	9609	0.216	ppbV		98
65) trans-1,3-dichloropropene	15.390	75	6576	0.196	ppbV		97
66) 1,1,2-trichloroethane	15.570	97	5290	0.212	ppbV		100

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141337.D
Acq On : 20 Jan 2015 10:11 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.2
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:06:33 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.841	91	16545	0.221	ppbV	99
70) 2-methylthiophene	15.905	97	14249	0.209	ppbV	99
71) 1,3-dichloropropane	15.867	76	7545	0.211	ppbV	98
72) 2-hexanone	16.086	43	9356	0.212	ppbV	99
73) 3-methylthiophene	16.073	97	13348	0.208	ppbV	100
74) dibromochloromethane	16.240	129	10448	0.193	ppbV	99
75) 1,2-dibromoethane	16.472	107	8606	0.205	ppbV	100
76) butyl acetate	16.627	73	1993	0.196	ppbV	90
77) octane	16.691	85	5200	0.216	ppbV	97
78) tetrachloroethene	16.858	166	9225	0.211	ppbV	98
79) 1,1,1,2-tetrachloroethane	17.410	131	7406	0.201	ppbV	98
80) chlorobenzene	17.425	112	13000	0.208	ppbV	97
81) ethylbenzene	17.711	91	20718	0.206	ppbV	99
82) 2-ethylthiophene	17.749	97	15362	0.199	ppbV	100
83) m+p-xylene	17.847	91	31530	0.407	ppbV	99
84) bromoform	17.945	173	10975	0.178	ppbV	99
85) styrene	18.133	104	11542	0.185	ppbV	99
86) 1,1,2,2-tetrachloroethane	18.224	83	12010	0.203	ppbV	99
87) o-xylene	18.216	91	16332	0.202	ppbV	99
88) 1,2,3-trichloropropane	18.322	75	8800	0.200	ppbV	98
89) nonane	18.344	43	10444	0.211	ppbV	98
91) isopropylbenzene	18.661	105	23293	0.204	ppbV	99
92) bromobenzene	18.751	77	10513	0.192	ppbV	98
93) 2-chlorotoluene	19.033	126	6059	0.190	ppbV	83
94) n-propylbenzene	19.041	120	6085	0.180	ppbV	86
95) 4-chlorotoluene	19.082	91	12908M3	0.195	ppbV	
96) 4-ethyl toluene	19.148	105	23194	0.180	ppbV	99
97) 1,3,5-trimethylbenzene	19.197	105	18342	0.198	ppbV	98
98) tert-butylbenzene	19.518	119	21577	0.196	ppbV	100
99) 1,2,4-trimethylbenzene	19.518	105	17252	0.176	ppbV	92
100) decane	19.551	57	10739	0.179	ppbV	97
101) Benzyl Chloride	19.641	91	10269	0.115	ppbV	97
102) 1,3-dichlorobenzene	19.657	146	11452	0.157	ppbV	99
103) 1,4-dichlorobenzene	19.707	146	10043	0.142	ppbV	98
104) sec-butylbenzene	19.723	105	27897	0.195	ppbV	98
105) 1,2,3-trimethylbenzene	19.854	105	15458	0.183	ppbV	98
106) p-isopropyltoluene	19.838	119	25041M6	0.185	ppbV	
107) 1,2-dichlorobenzene	19.994	146	11630	0.169	ppbV	99
108) n-butylbenzene	20.183	91	18567	0.164	ppbV	99
109) indan	20.027	117	17124	0.182	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141337.D
Acq On : 20 Jan 2015 10:11 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.2
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:06:33 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

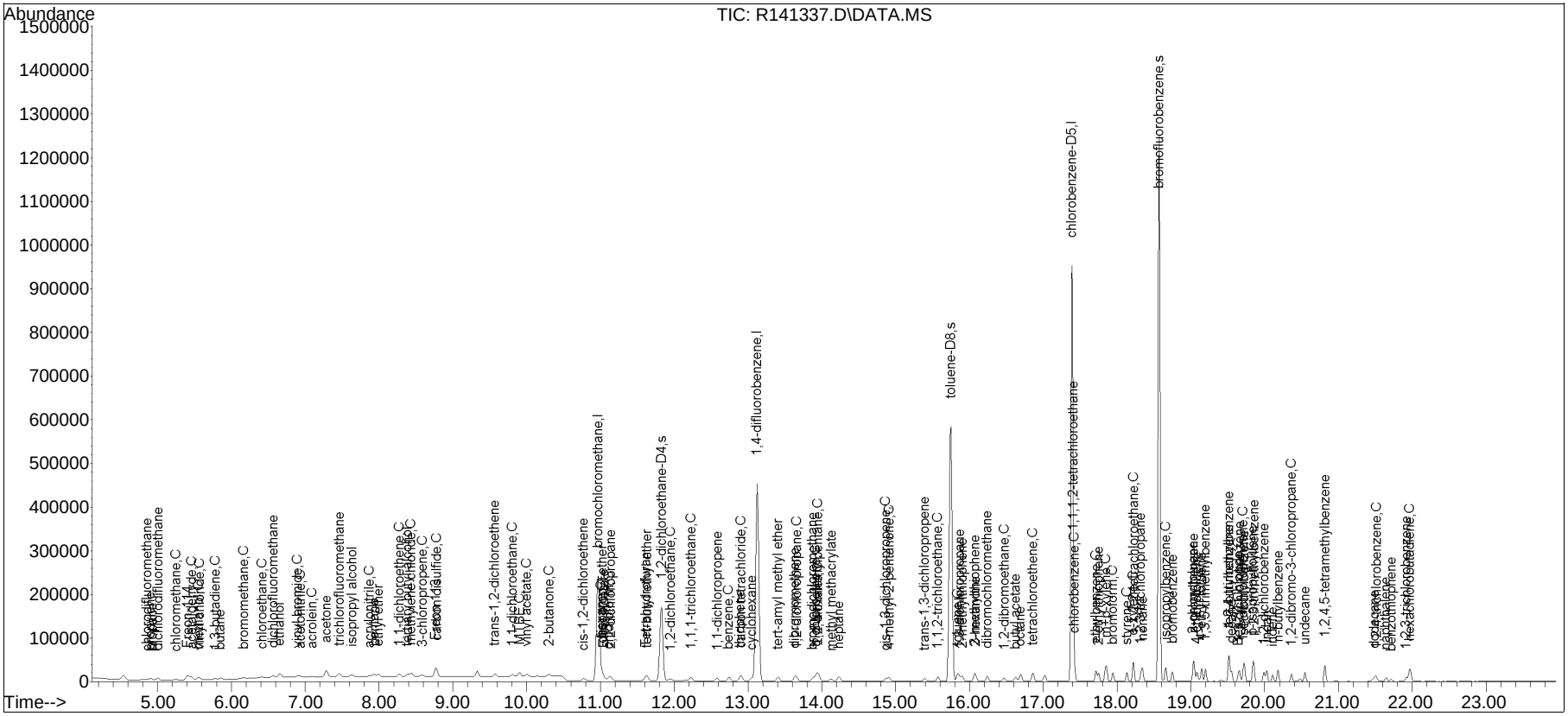
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.109	115	10229	0.158	ppbV	98
111) 1,2-dibromo-3-chloropr...	20.364	75	4865	0.163	ppbV	97
112) undecane	20.544	57	8814	0.131	ppbV	99
113) 1,2,4,5-tetramethylben...	20.816	119	25563	0.135	ppbV	99
114) dodecane	21.492	57	6733	0.095	ppbV	95
115) 1,2,4-trichlorobenzene	21.516	180	4773	0.072	ppbV	97
116) naphthalene	21.640	128	12129	0.088	ppbV	99
117) 1,2,3-trichlorobenzene	21.913	180	6025	0.094	ppbV	98
118) benzothiophene	21.715	134	8237	0.061	ppbV	100
119) hexachlorobutadiene	21.963	225	10973	0.165	ppbV	99
120) 2-methylnaphthalene	0.000		0	N.D.		
121) 1-methylnaphthalene	23.117		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141337.D
Acq On : 20 Jan 2015 10:11 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.2
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

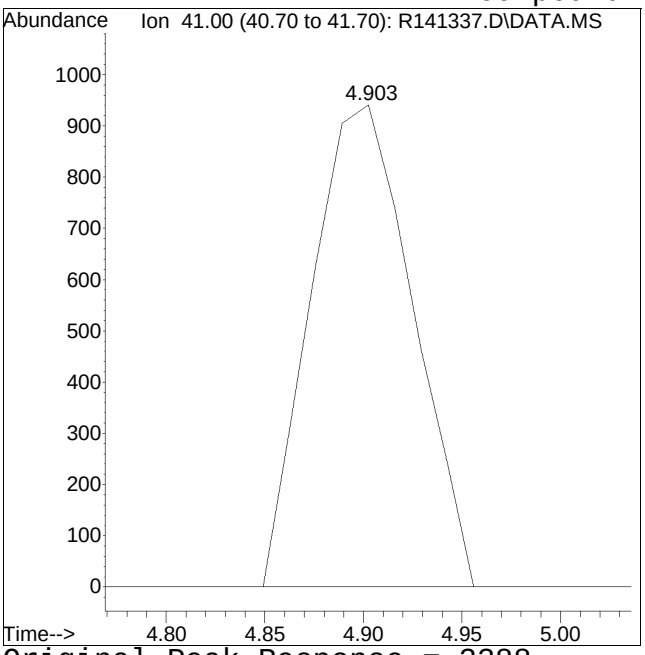
Quant Time: Jan 21 14:06:33 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration



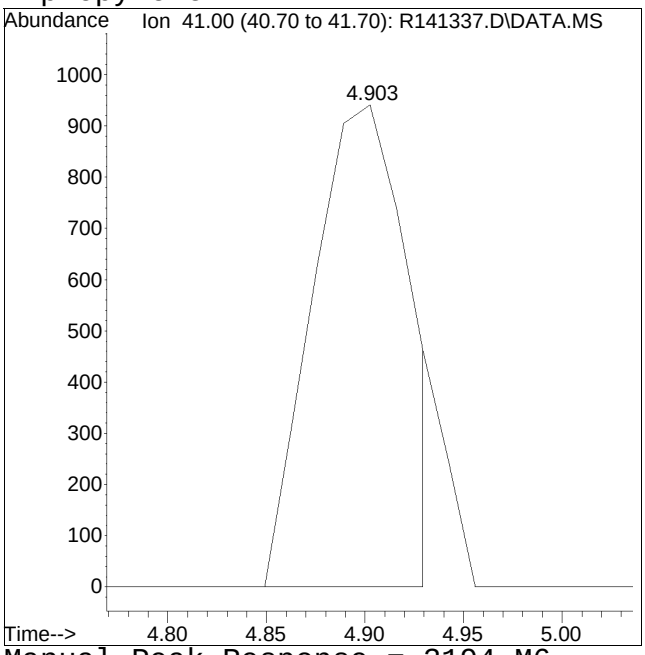
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141337.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 10:11 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.2 Quant Date : 1/21/2015 6:25 am

Compound #3: propylene



Original Peak Response = 3388



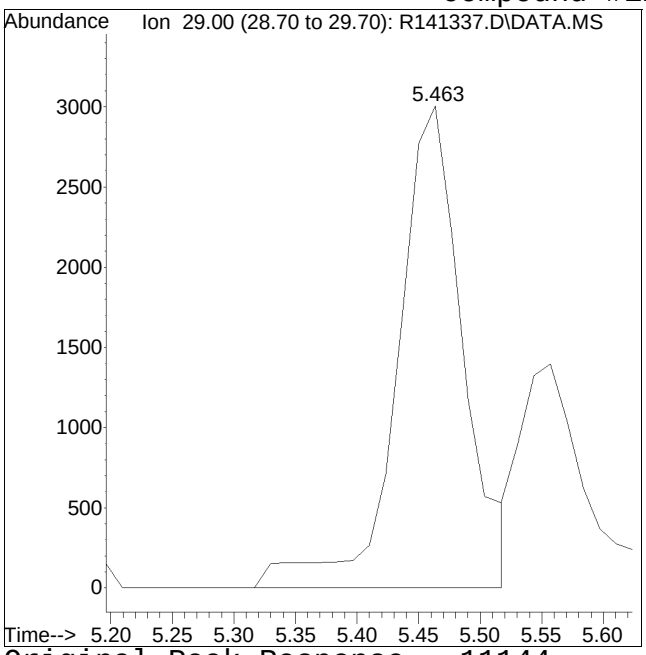
Manual Peak Response = 3194 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

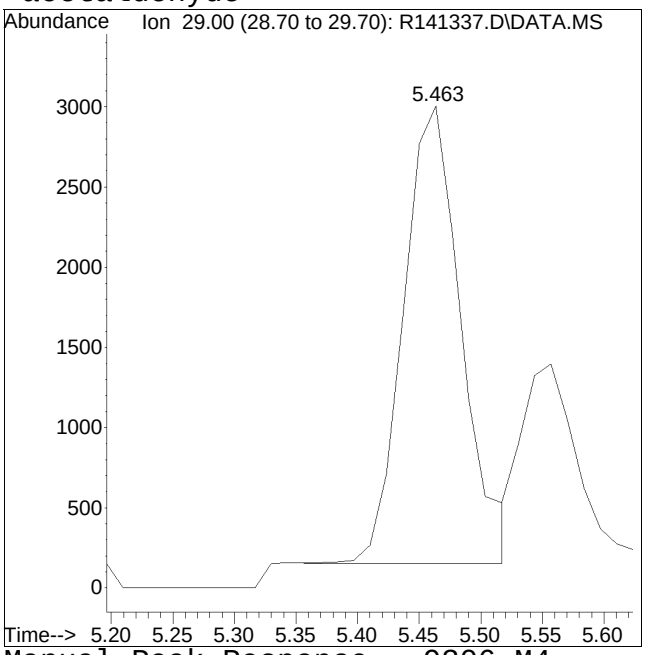
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141337.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 10:11 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.2 Quant Date : 1/21/2015 6:25 am

Compound #12: acetaldehyde



Original Peak Response = 11144



Manual Peak Response = 9306 M4

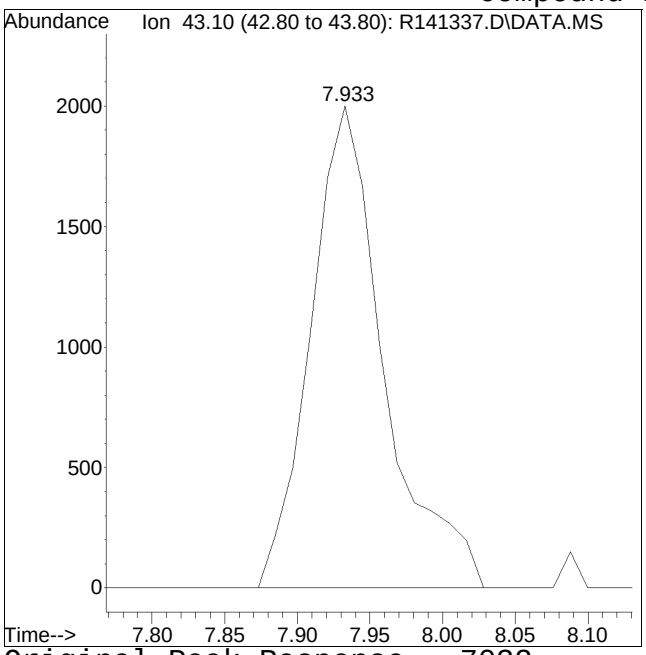
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

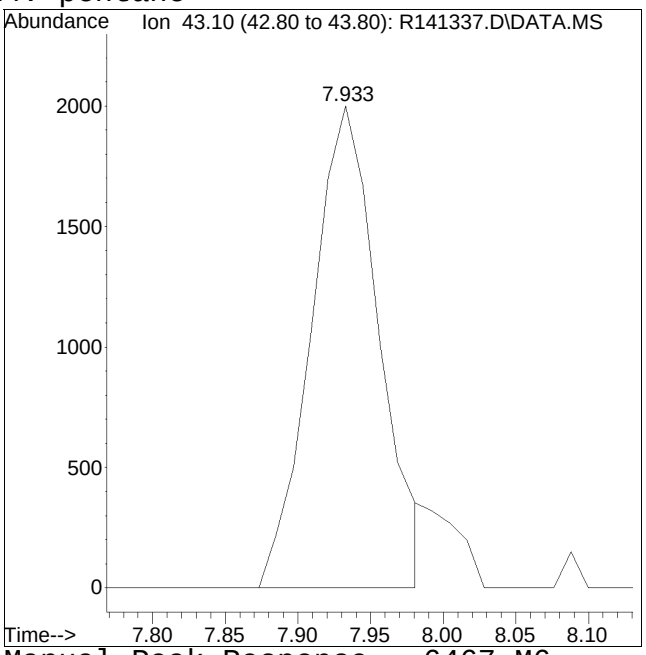
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141337.D
Date Inj'd : 1/20/2015 10:11 pm
Sample : ITO15-SIMSTD0.2

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:25 am

Compound #24: pentane



Original Peak Response = 7032



Manual Peak Response = 6467 M6

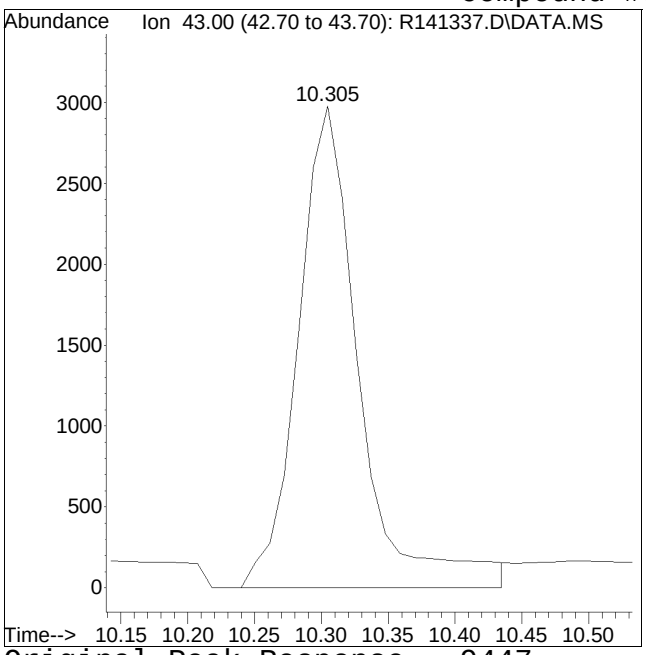
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

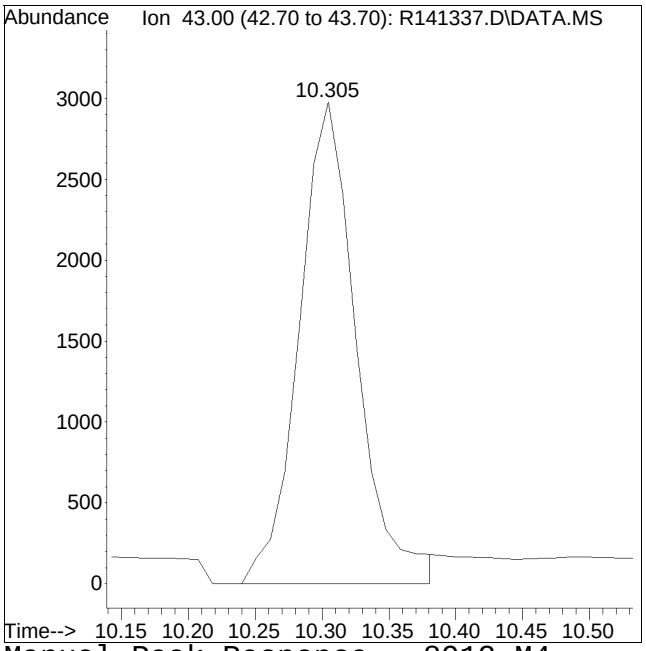
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141337.D
Date Inj'd : 1/20/2015 10:11 pm
Sample : ITO15-SIMSTD0.2

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:25 am

Compound #36: 2-butanone



Original Peak Response = 9447



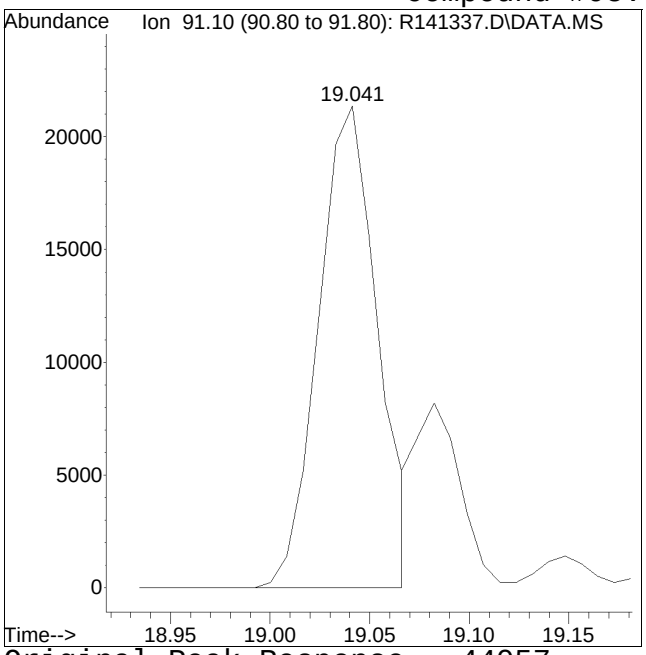
Manual Peak Response = 8912 M4

M4 = Poor automated baseline construction.

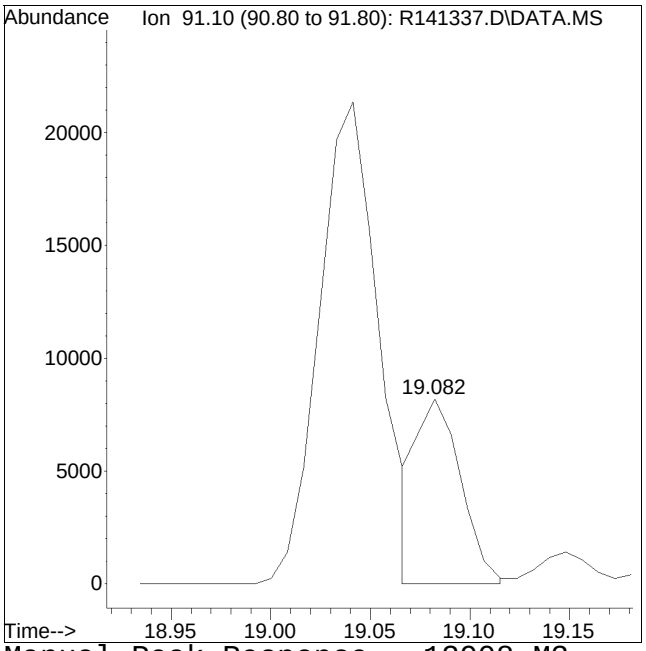
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141337.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 10:11 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.2 Quant Date : 1/21/2015 6:25 am

Compound #95: 4-chlorotoluene



Original Peak Response = 44057



Manual Peak Response = 12908 M3

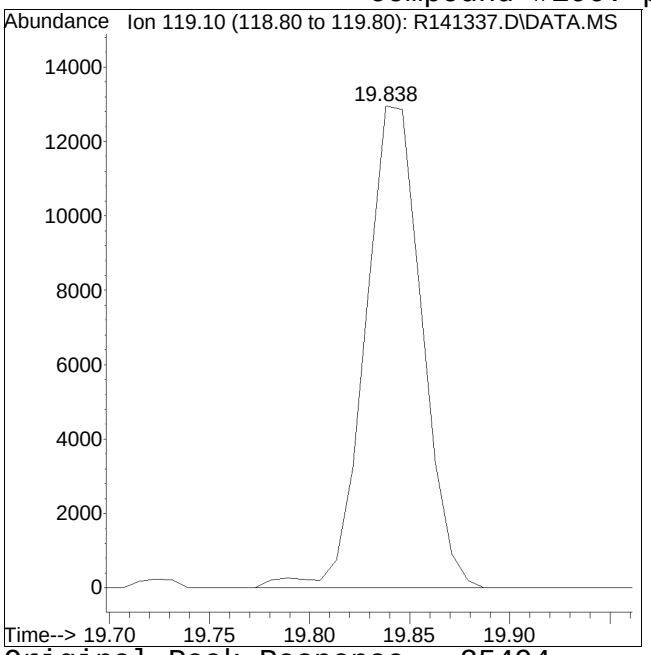
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

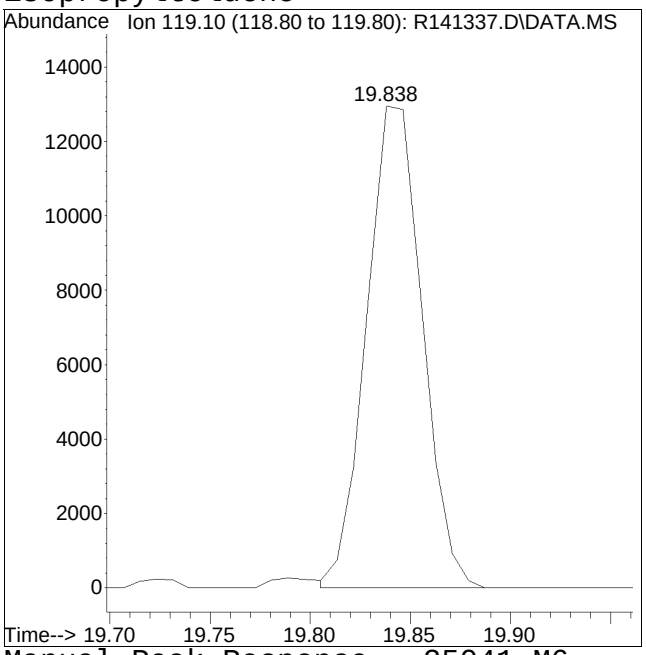
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141337.D
Date Inj'd : 1/20/2015 10:11 pm
Sample : ITO15-SIMSTD0.2

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:25 am

Compound #106: p-isopropyltoluene



Original Peak Response = 25494



Manual Peak Response = 25041 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141338.D
Acq On : 20 Jan 2015 11:00 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.5
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:11:02 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.944	49	166909	10.000	ppbV	-0.02
Standard Area = 169082			Recovery = 98.71%			
43) 1,4-difluorobenzene	13.108	114	657102	10.000	ppbV	-0.01
Standard Area = 662709			Recovery = 99.15%			
67) chlorobenzene-D5	17.387	54	125459	10.000	ppbV	0.00
Standard Area = 123609			Recovery = 101.50%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.804	65	190835	10.212	ppbV	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.12%			
69) toluene-D8	15.738	98	595307	9.864	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.64%			
90) bromofluorobenzene	18.570	95	417532	9.362	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.62%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.796	51	13441	0.532	ppbV	100
3) propylene	4.822	41	7391M6	0.584	ppbV	
4) propane	4.849	29	6874M3	0.635	ppbV	
5) dichlorodifluoromethane	4.942	85	24470	0.530	ppbV	100
6) chloromethane	5.183	50	7071	0.532	ppbV	99
7) Freon-114	5.343	85	26078	0.526	ppbV	98
8) methanol	5.503	31	14182	3.293	ppbV #	57
9) vinyl chloride	5.517	62	8719	0.538	ppbV	98
10) 1,3-butadiene	5.717	54	6152	0.518	ppbV	98
11) butane	5.797	43	12606	0.562	ppbV	99
12) acetaldehyde	5.397	29	21797	2.963	ppbV	93
13) bromomethane	6.106	94	8656	0.520	ppbV	99
14) chloroethane	6.357	64	4642	0.521	ppbV	100
15) ethanol	6.608	31	24821	2.661	ppbV	99
16) dichlorofluoromethane	6.512	67	19343	0.524	ppbV	99
17) vinyl bromide	6.846	106	9239	0.511	ppbV	98
18) acrolein	7.049	56	3584	0.530	ppbV #	89
19) acetone	7.228	43	64331	2.866	ppbV	100
20) acetonitrile	6.882	41	7123	0.553	ppbV #	63
21) trichlorofluoromethane	7.419	101	25304	0.529	ppbV	100
22) isopropyl alcohol	7.575	45	16493	0.688	ppbV	99
23) acrylonitrile	7.837	53	6415	0.511	ppbV	97
24) pentane	7.885	43	14733M6	0.531	ppbV	

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141338.D
Acq On : 20 Jan 2015 11:00 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.5
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:11:02 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.945	31	8957	0.527	ppbV		99
26) 1,1-dichloroethene	8.231	61	14079	0.517	ppbV		99
27) tertiary butyl alcohol	8.338	59	19280	0.574	ppbV		96
28) methylene chloride	8.398	49	12061	0.658	ppbV		98
29) 3-chloropropene	8.541	41	10881	0.542	ppbV		98
30) carbon disulfide	8.732	76	33206	0.619	ppbV	#	68
31) Freon 113	8.732	101	19797	0.514	ppbV		99
32) trans-1,2-dichloroethene	9.537	61	13541	0.512	ppbV		98
33) 1,1-dichloroethane	9.775	63	16750	0.529	ppbV		99
34) MTBE	9.872	73	27226	0.527	ppbV		99
35) vinyl acetate	9.970	43	21401M4	0.531	ppbV		
36) 2-butanone	10.272	43	20657	0.579	ppbV		99
37) cis-1,2-dichloroethene	10.759	61	12158	0.518	ppbV		97
38) Ethyl Acetate	11.023	61	3048	0.516	ppbV		84
39) chloroform	11.090	83	19949	0.527	ppbV		99
40) Tetrahydrofuran	11.579	42	11598	0.551	ppbV		98
41) 2,2-dichloropropane	11.129	77	17319	0.519	ppbV		99
42) 1,2-dichloroethane	11.923	62	12523	0.527	ppbV		99
44) hexane	10.997	57	14296	0.522	ppbV		80
45) diisopropyl ether	10.997	87	8327	0.520	ppbV		97
46) tert-butyl ethyl ether	11.606	59	28535	0.523	ppbV		99
48) 1,1,1-trichloroethane	12.214	97	20617	0.492	ppbV		97
49) 1,1-dichloropropene	12.555	75	15211	0.496	ppbV		95
50) benzene	12.725	78	31406	0.524	ppbV		100
51) thiophene	12.881	84	20696	0.507	ppbV		98
52) carbon tetrachloride	12.895	117	23080	0.501	ppbV		98
53) cyclohexane	13.037	56	16824	0.534	ppbV		98
54) tert-amyl methyl ether	13.392	73	30370	0.508	ppbV		99
55) dibromomethane	13.620	93	12688	0.513	ppbV		99
56) 1,2-dichloropropane	13.648	63	11059	0.507	ppbV		96
57) bromodichloromethane	13.861	83	24536	0.500	ppbV		99
58) 1,4-dioxane	13.932	88	7587	0.519	ppbV	#	77
59) trichloroethene	13.918	130	15752	0.513	ppbV		99
60) 2,2,4-trimethylpentane	13.946	57	51447	0.517	ppbV		99
61) methyl methacrylate	14.117	41	13049	0.502	ppbV		99
62) heptane	14.216	43	17992	0.524	ppbV		100
63) cis-1,3-dichloropropene	14.862	75	16714	0.480	ppbV		96
64) 4-methyl-2-pentanone	14.901	43	24569	0.518	ppbV		99
65) trans-1,3-dichloropropene	15.390	75	16820	0.469	ppbV		99
66) 1,1,2-trichloroethane	15.570	97	13375	0.503	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141338.D
Acq On : 20 Jan 2015 11:00 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.5
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:11:02 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.828	91	40496	0.508	ppbV	100
70) 2-methylthiophene	15.892	97	35071	0.484	ppbV	99
71) 1,3-dichloropropane	15.854	76	18780	0.494	ppbV	100
72) 2-hexanone	16.060	43	23115	0.492	ppbV	96
73) 3-methylthiophene	16.060	97	33500	0.492	ppbV	99
74) dibromochloromethane	16.240	129	26408	0.460	ppbV	100
75) 1,2-dibromoethane	16.459	107	21840	0.488	ppbV	99
76) butyl acetate	16.614	73	4943	0.458	ppbV	99
77) octane	16.691	85	12825	0.500	ppbV	99
78) tetrachloroethene	16.858	166	23169	0.498	ppbV	99
79) 1,1,1,2-tetrachloroethane	17.410	131	18775	0.479	ppbV	99
80) chlorobenzene	17.425	112	33063	0.496	ppbV	100
81) ethylbenzene	17.711	91	52380	0.491	ppbV	100
82) 2-ethylthiophene	17.749	97	39851	0.486	ppbV	99
83) m+p-xylene	17.847	91	80997	0.983	ppbV	99
84) bromoform	17.945	173	28460	0.433	ppbV	99
85) styrene	18.133	104	30633	0.461	ppbV	99
86) 1,1,2,2-tetrachloroethane	18.216	83	30237	0.481	ppbV	100
87) o-xylene	18.216	91	41976	0.489	ppbV	99
88) 1,2,3-trichloropropane	18.321	75	22319	0.477	ppbV	97
89) nonane	18.344	43	26116	0.496	ppbV	100
91) isopropylbenzene	18.653	105	60039	0.495	ppbV	98
92) bromobenzene	18.751	77	28133	0.483	ppbV	96
93) 2-chlorotoluene	19.033	126	16660	0.491	ppbV	91
94) n-propylbenzene	19.041	120	16628	0.461	ppbV	96
95) 4-chlorotoluene	19.082	91	31252	0.445	ppbV	100
96) 4-ethyl toluene	19.148	105	62733	0.459	ppbV	100
97) 1,3,5-trimethylbenzene	19.197	105	46042	0.467	ppbV	100
98) tert-butylbenzene	19.509	119	55416	0.473	ppbV	100
99) 1,2,4-trimethylbenzene	19.509	105	46273	0.444	ppbV	96
100) decane	19.542	57	29532	0.462	ppbV	98
101) Benzyl Chloride	19.641	91	28986	0.305	ppbV	99
102) 1,3-dichlorobenzene	19.657	146	31187	0.402	ppbV	99
103) 1,4-dichlorobenzene	19.706	146	27790	0.369	ppbV	100
104) sec-butylbenzene	19.723	105	72623	0.477	ppbV	99
105) 1,2,3-trimethylbenzene	19.854	105	41023	0.456	ppbV	98
106) p-isopropyltoluene	19.838	119	64321M6	0.446	ppbV	
107) 1,2-dichlorobenzene	19.986	146	31080	0.425	ppbV	100
108) n-butylbenzene	20.175	91	50120	0.416	ppbV	98
109) indan	20.027	117	44917	0.449	ppbV	100

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141338.D
Acq On : 20 Jan 2015 11:00 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.5
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:11:02 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

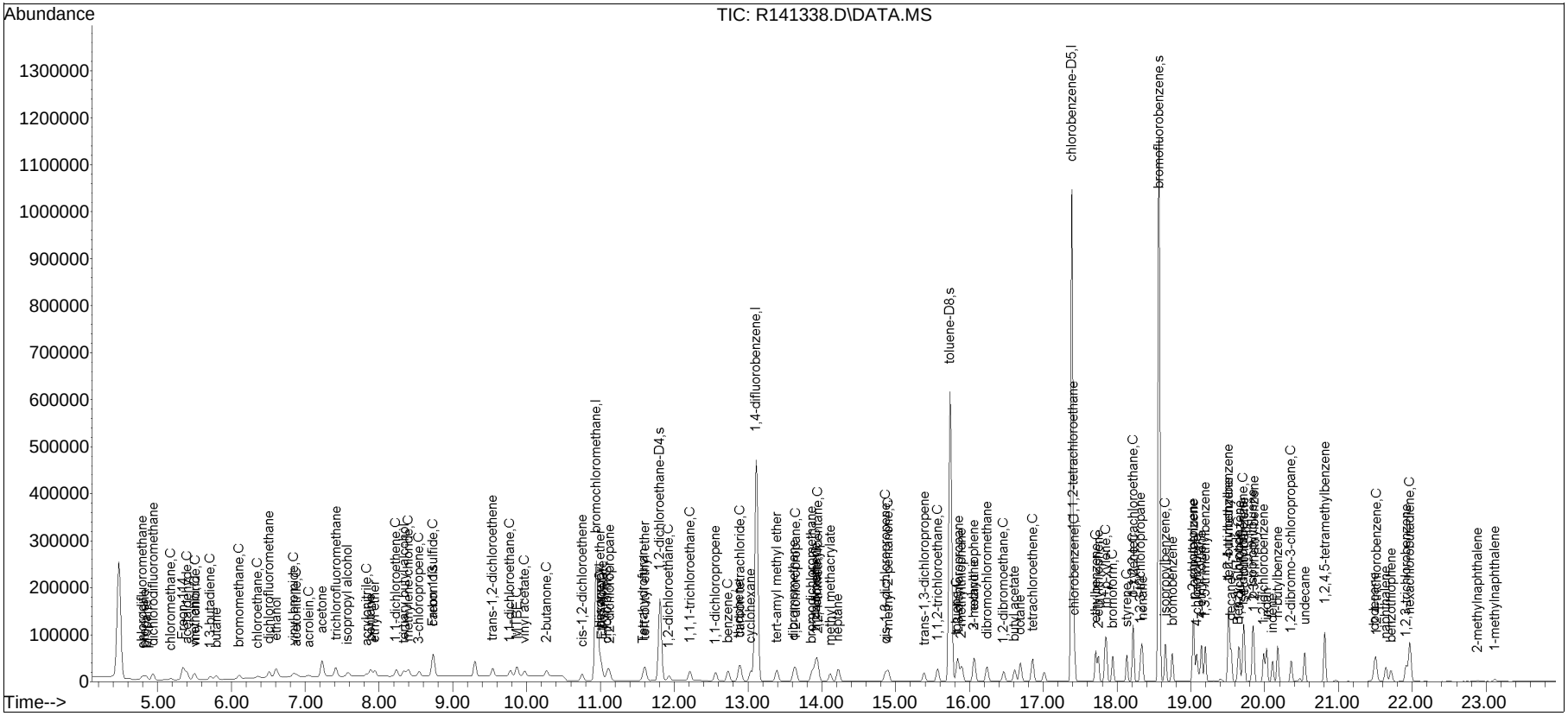
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.109	115	28196	0.410	ppbV	99
111) 1,2-dibromo-3-chloropr...	20.355	75	12745	0.401	ppbV	97
112) undecane	20.544	57	25647	0.357	ppbV	99
113) 1,2,4,5-tetramethylben...	20.815	119	69782	0.346	ppbV	99
114) dodecane	21.491	57	19812	0.263	ppbV	98
115) 1,2,4-trichlorobenzene	21.516	180	17128	0.243	ppbV	100
116) naphthalene	21.640	128	41128	0.281	ppbV	100
117) 1,2,3-trichlorobenzene	21.913	180	20116M6	0.296	ppbV	
118) benzothiophene	21.715	134	31970	0.223	ppbV	100
119) hexachlorobutadiene	21.963	225	29459	0.415	ppbV	100
120) 2-methylnaphthalene	22.881	142	2282	0.050	ppbV	97
121) 1-methylnaphthalene	23.117	142	5315	0.117	ppbV	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141338.D
Acq On : 20 Jan 2015 11:00 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD0.5
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

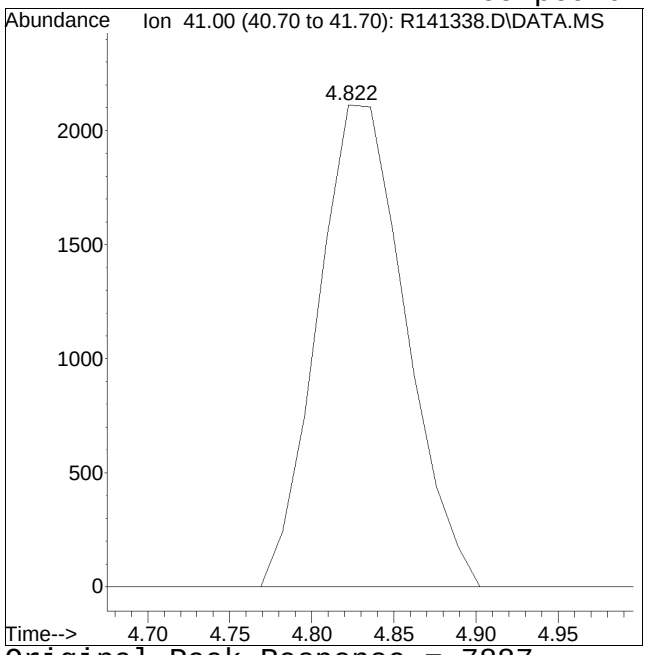
Quant Time: Jan 21 14:11:02 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration



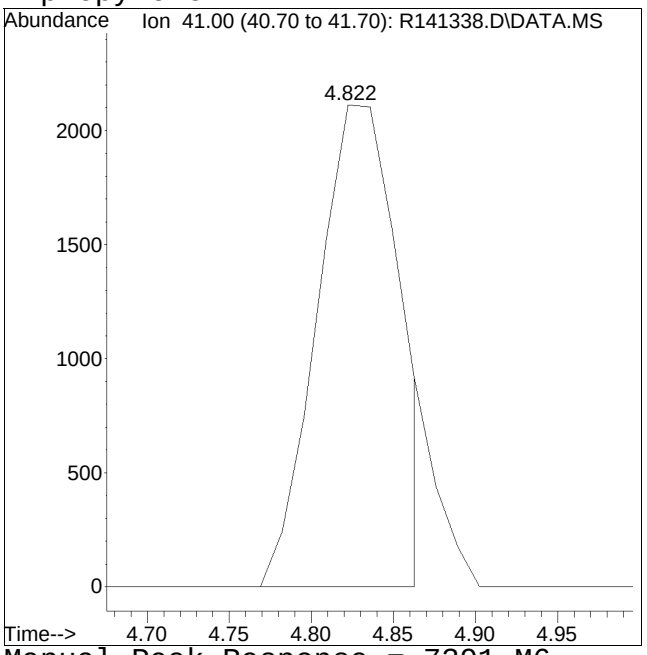
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141338.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:00 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.5 Quant Date : 1/21/2015 6:25 am

Compound #3: propylene



Original Peak Response = 7887



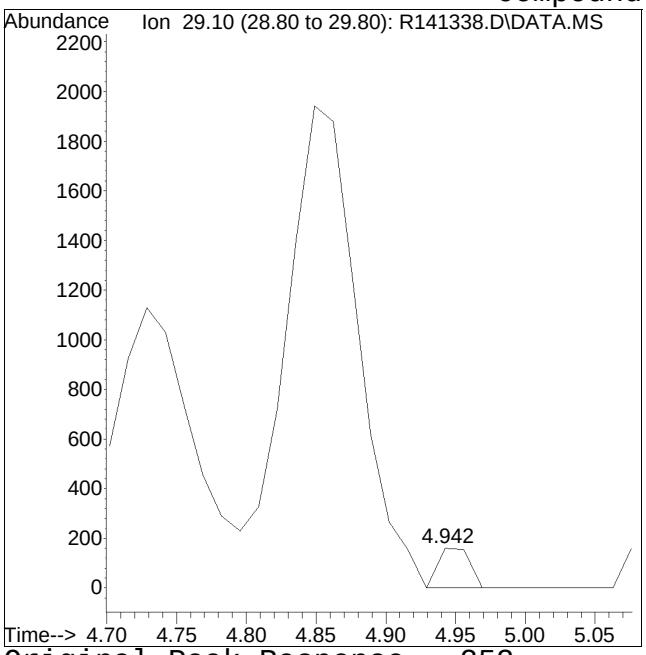
Manual Peak Response = 7391 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

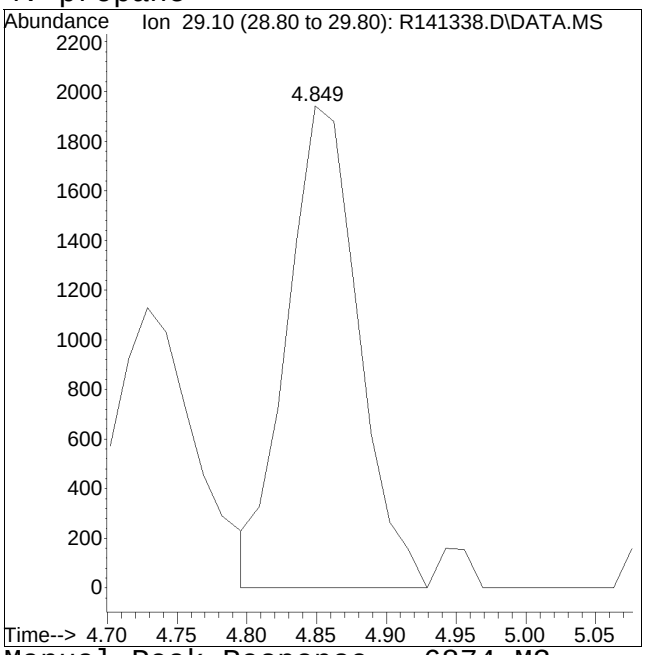
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141338.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:00 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.5 Quant Date : 1/21/2015 6:25 am

Compound #4: propane



Original Peak Response = 252



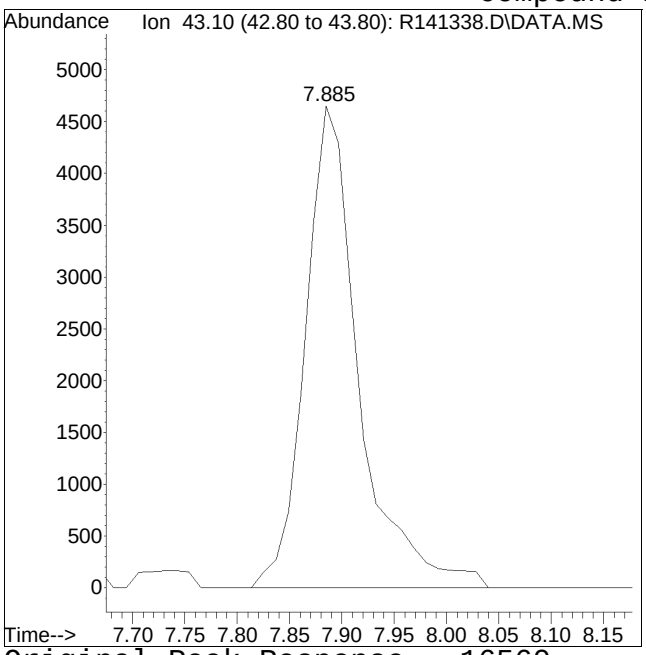
Manual Peak Response = 6874 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

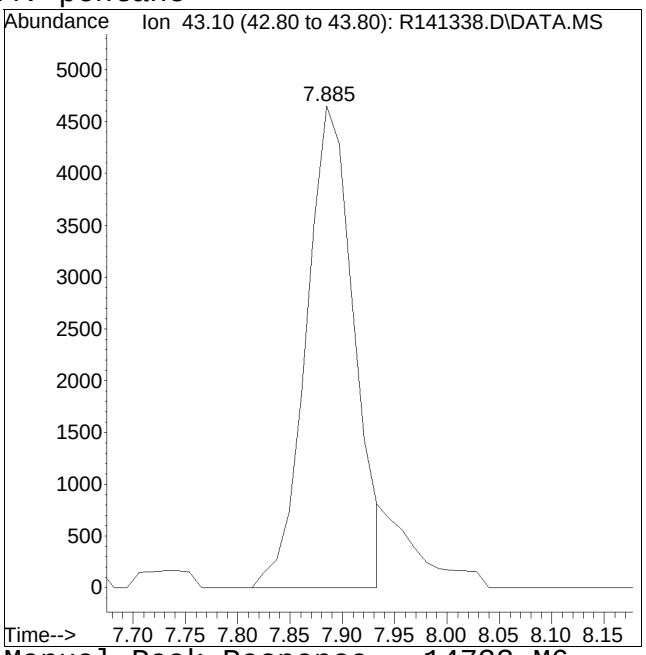
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141338.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:00 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.5 Quant Date : 1/21/2015 6:25 am

Compound #24: pentane



Original Peak Response = 16560



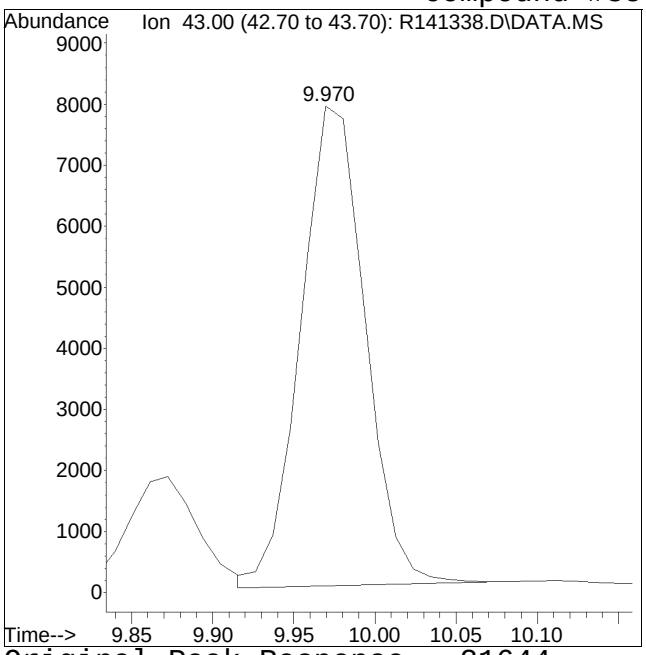
Manual Peak Response = 14733 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

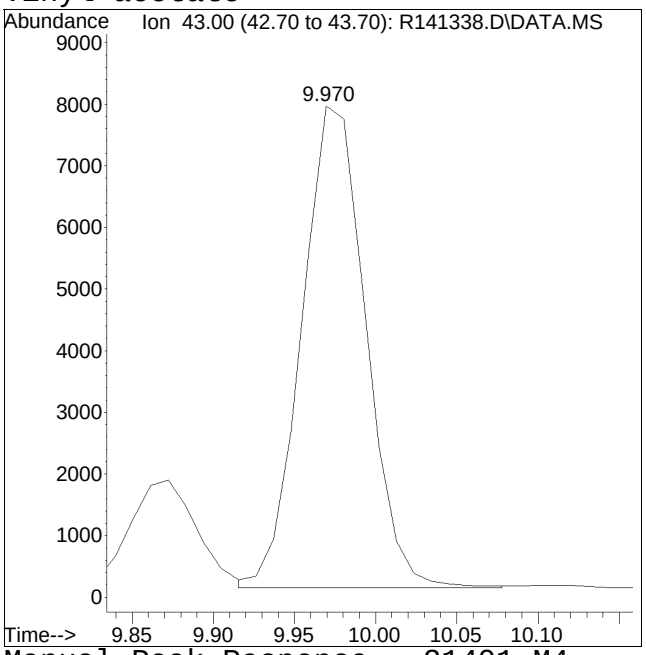
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141338.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:00 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.5 Quant Date : 1/21/2015 6:25 am

Compound #35: vinyl acetate



Original Peak Response = 21644



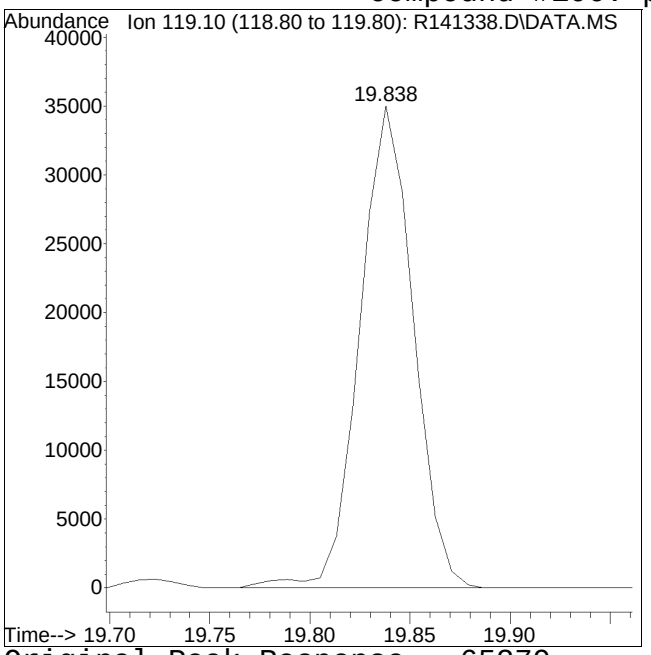
Manual Peak Response = 21401 M4

M4 = Poor automated baseline construction.

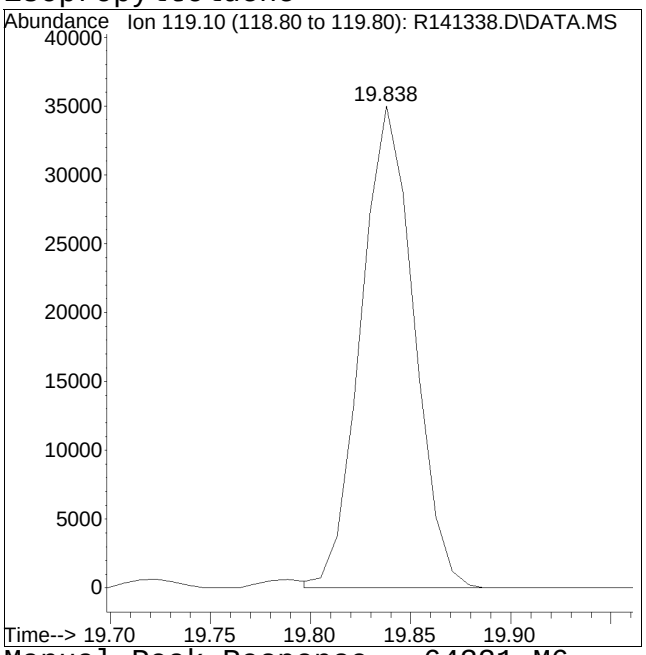
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141338.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:00 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.5 Quant Date : 1/21/2015 6:25 am

Compound #106: p-isopropyltoluene



Original Peak Response = 65279



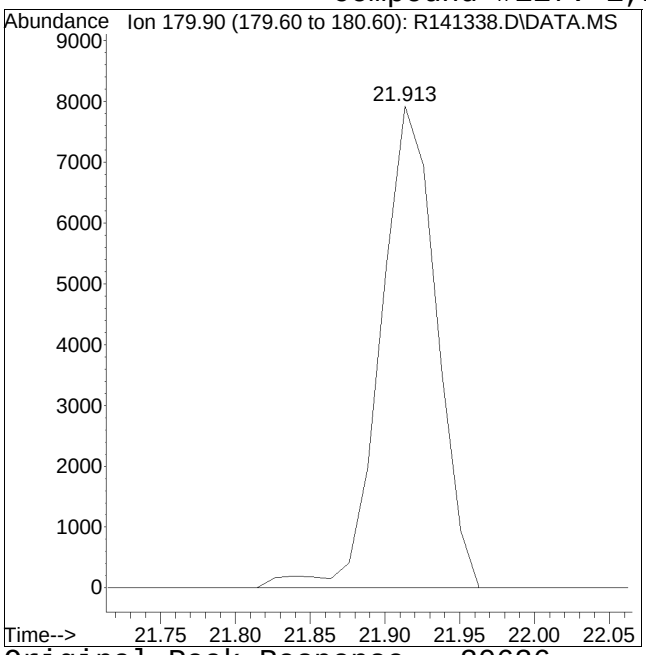
Manual Peak Response = 64321 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

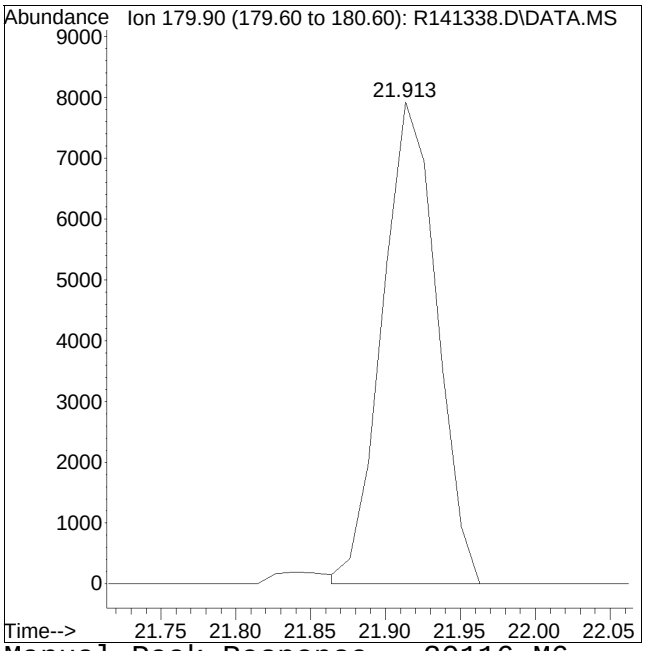
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141338.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:00 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD0.5 Quant Date : 1/21/2015 6:25 am

Compound #117: 1,2,3-trichlorobenzene



Original Peak Response = 20636



Manual Peak Response = 20116 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141339.D
Acq On : 20 Jan 2015 11:55 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD1.0
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:41:03 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.980	49	162613	10.000	ppbV	0.01
Standard Area = 169082			Recovery = 96.17%			
43) 1,4-difluorobenzene	13.133	114	629280	10.000	ppbV	0.01
Standard Area = 662709			Recovery = 94.96%			
67) chlorobenzene-D5	17.389	54	116600	10.000	ppbV	0.00
Standard Area = 123609			Recovery = 94.33%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.840	65	182800	10.214	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.14%			
69) toluene-D8	15.747	98	566522	10.101	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.01%			
90) bromofluorobenzene	18.565	95	352158	8.497	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 84.97%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.902	51	26915	1.094	ppbV	99
3) propylene	4.942	41	14710M6	1.193	ppbV	
4) propane	4.969	29	13608	1.290	ppbV	92
5) dichlorodifluoromethane	5.049	85	48453	1.076	ppbV	100
6) chloromethane	5.290	50	13994	1.080	ppbV	98
7) Freon-114	5.450	85	51023	1.056	ppbV	99
8) methanol	5.584	31	23291	5.551	ppbV #	74
9) vinyl chloride	5.610	62	16942	1.072	ppbV	98
10) 1,3-butadiene	5.824	54	12444	1.075	ppbV	99
11) butane	5.904	43	24356	1.115	ppbV	98
12) acetaldehyde	5.490	29	41597	5.804	ppbV	96
13) bromomethane	6.202	94	17058	1.053	ppbV	99
14) chloroethane	6.453	64	9199	1.060	ppbV	100
15) ethanol	6.679	31	39846M4	4.385	ppbV	
16) dichlorofluoromethane	6.608	67	38819	1.079	ppbV	99
17) vinyl bromide	6.942	106	18335	1.041	ppbV	100
18) acrolein	7.121	56	6915	1.049	ppbV #	92
19) acetone	7.300	43	118932	5.439	ppbV	100
20) acetonitrile	6.954	41	13677	1.089	ppbV #	82
21) trichlorofluoromethane	7.503	101	49872	1.071	ppbV	100
22) isopropyl alcohol	7.634	45	24710	1.058	ppbV	100
23) acrylonitrile	7.897	53	12400M6	1.014	ppbV	
24) pentane	7.968	43	30621	1.134	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141339.D
Acq On : 20 Jan 2015 11:55 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD1.0
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:41:03 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	8.004	31	17785	1.073	ppbV		99
26) 1,1-dichloroethene	8.303	61	28120	1.061	ppbV		99
27) tertiary butyl alcohol	8.386	59	32281M6	0.987	ppbV		
28) methylene chloride	8.470	49	21868	1.225	ppbV		99
29) 3-chloropropene	8.613	41	20932	1.071	ppbV		99
30) carbon disulfide	8.804	76	61251	1.173	ppbV	#	85
31) Freon 113	8.792	101	40334	1.076	ppbV		98
32) trans-1,2-dichloroethene	9.601	61	27304	1.060	ppbV		100
33) 1,1-dichloroethane	9.828	63	32794	1.063	ppbV		100
34) MTBE	9.904	73	53062	1.054	ppbV		99
35) vinyl acetate	10.012	43	42869M4	1.093	ppbV		
36) 2-butanone	10.303	43	37669	1.085	ppbV		99
37) cis-1,2-dichloroethene	10.795	61	23842	1.043	ppbV		99
38) Ethyl Acetate	11.060	61	5921	1.030	ppbV		76
39) chloroform	11.126	83	38772	1.051	ppbV		99
40) Tetrahydrofuran	11.602	42	21159	1.031	ppbV		97
41) 2,2-dichloropropane	11.165	77	33682	1.035	ppbV		98
42) 1,2-dichloroethane	11.959	62	24168	1.044	ppbV		99
44) hexane	11.033	57	28277	1.078	ppbV		94
45) diisopropyl ether	11.033	87	16078	1.048	ppbV		99
46) tert-butyl ethyl ether	11.629	59	54778	1.048	ppbV		100
48) 1,1,1-trichloroethane	12.237	97	39938	0.996	ppbV		99
49) 1,1-dichloropropene	12.594	75	27946	0.951	ppbV		99
50) benzene	12.750	78	53379	0.930	ppbV		99
51) thiophene	12.906	84	39488	1.010	ppbV		97
52) carbon tetrachloride	12.920	117	44234	1.002	ppbV		100
53) cyclohexane	13.062	56	31753	1.052	ppbV		99
54) tert-amyl methyl ether	13.403	73	56510	0.987	ppbV		99
55) dibromomethane	13.645	93	24705	1.044	ppbV		99
56) 1,2-dichloropropane	13.673	63	21495	1.030	ppbV		99
57) bromodichloromethane	13.886	83	47769	1.017	ppbV		99
58) 1,4-dioxane	13.943	88	13036	0.931	ppbV	#	79
59) trichloroethene	13.929	130	30329	1.031	ppbV		99
60) 2,2,4-trimethylpentane	13.957	57	99286	1.042	ppbV		99
61) methyl methacrylate	14.127	41	24478	0.983	ppbV		99
62) heptane	14.241	43	34395	1.045	ppbV		99
63) cis-1,3-dichloropropene	14.871	75	32111	0.964	ppbV		98
64) 4-methyl-2-pentanone	14.897	43	45526	1.002	ppbV		99
65) trans-1,3-dichloropropene	15.399	75	32212	0.938	ppbV		99
66) 1,1,2-trichloroethane	15.580	97	25733	1.010	ppbV		98

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141339.D
Acq On : 20 Jan 2015 11:55 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD1.0
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:41:03 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.837	91	76564	1.033	ppbV	100
70) 2-methylthiophene	15.902	97	67530	1.003	ppbV	99
71) 1,3-dichloropropane	15.863	76	35264	0.998	ppbV	100
72) 2-hexanone	16.056	43	44932	1.028	ppbV	98
73) 3-methylthiophene	16.069	97	64064	1.012	ppbV	99
74) dibromochloromethane	16.249	129	51075	0.956	ppbV	99
75) 1,2-dibromoethane	16.468	107	41013	0.987	ppbV	100
76) butyl acetate	16.610	73	10232	1.019	ppbV	98
77) octane	16.700	85	23903	1.003	ppbV	98
78) tetrachloroethene	16.855	166	43549	1.007	ppbV	99
79) 1,1,1,2-tetrachloroethane	17.411	131	34928	0.959	ppbV	99
80) chlorobenzene	17.426	112	61550	0.994	ppbV	99
81) ethylbenzene	17.713	91	96579	0.974	ppbV	100
82) 2-ethylthiophene	17.751	97	73569	0.966	ppbV	100
83) m+p-xylene	17.849	91	149495	1.951	ppbV	99
84) bromoform	17.946	173	53375	0.874	ppbV	100
85) styrene	18.135	104	56715	0.919	ppbV	100
86) 1,1,2,2-tetrachloroethane	18.218	83	59213	1.014	ppbV	99
87) o-xylene	18.218	91	78035	0.977	ppbV	99
88) 1,2,3-trichloropropane	18.316	75	44111	1.014	ppbV	98
89) nonane	18.338	43	48134	0.983	ppbV	99
91) isopropylbenzene	18.655	105	113934	1.011	ppbV	99
92) bromobenzene	18.745	77	51681	0.955	ppbV	96
93) 2-chlorotoluene	19.026	126	29892	0.948	ppbV	85
94) n-propylbenzene	19.034	120	33172	0.990	ppbV	77
95) 4-chlorotoluene	19.075	91	73037M3	1.118	ppbV	
96) 4-ethyl toluene	19.141	105	125374	0.986	ppbV	99
97) 1,3,5-trimethylbenzene	19.190	105	96808	1.057	ppbV	99
98) tert-butylbenzene	19.510	119	113507	1.042	ppbV	99
99) 1,2,4-trimethylbenzene	19.510	105	95983	0.992	ppbV	97
100) decane	19.543	57	60954	1.026	ppbV	99
101) Benzyl Chloride	19.634	91	70017	0.791	ppbV	98
102) 1,3-dichlorobenzene	19.658	146	70448	0.977	ppbV	99
103) 1,4-dichlorobenzene	19.708	146	60189	0.860	ppbV	99
104) sec-butylbenzene	19.716	105	149500	1.056	ppbV	97
105) 1,2,3-trimethylbenzene	19.847	105	85862	1.028	ppbV	95
106) p-isopropyltoluene	19.839	119	136997M6	1.023	ppbV	
107) 1,2-dichlorobenzene	19.987	146	66505	0.979	ppbV	100
108) n-butylbenzene	20.176	91	107490	0.959	ppbV	100
109) indan	20.028	117	94802	1.019	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141339.D
Acq On : 20 Jan 2015 11:55 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD1.0
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 14:41:03 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

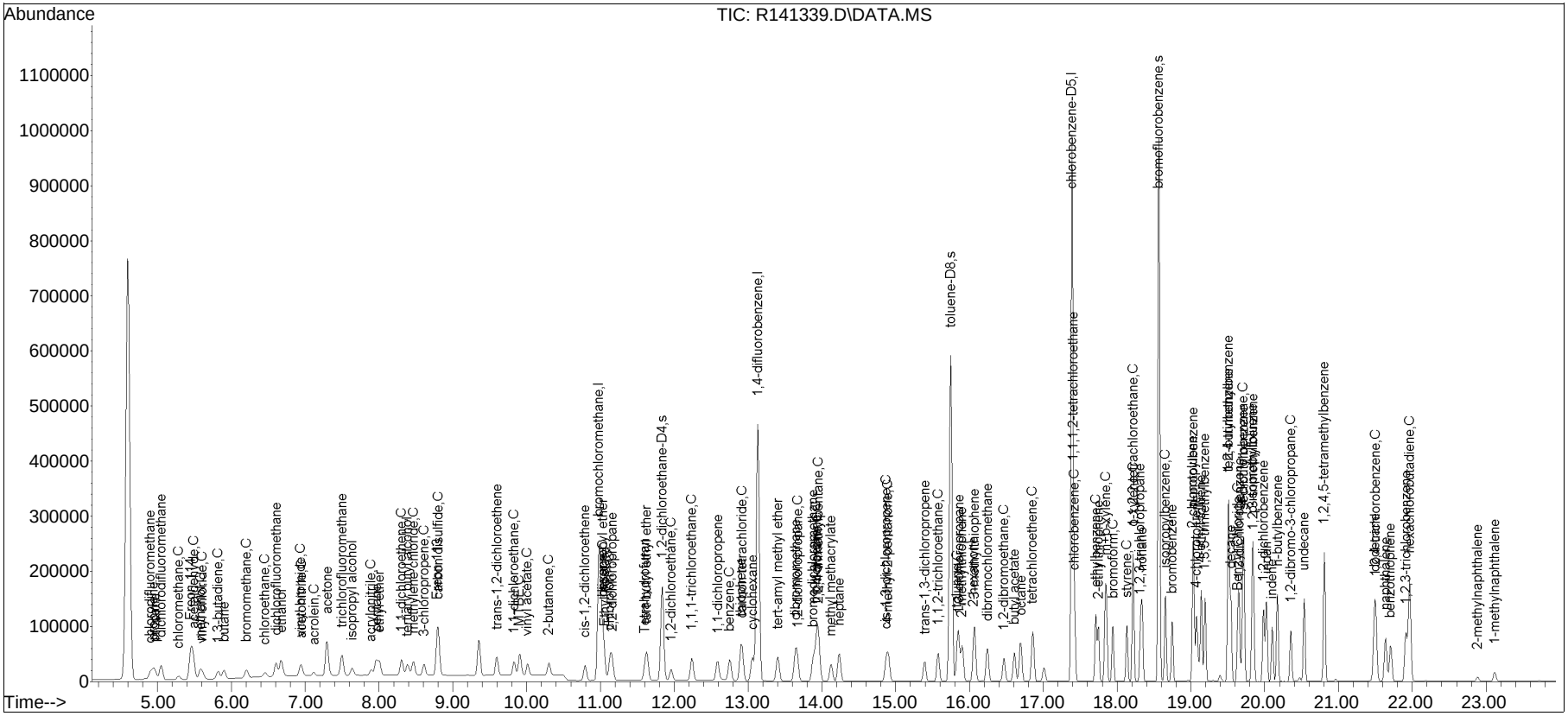
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.102	115	62960	0.986	ppbV	100
111) 1,2-dibromo-3-chloropr...	20.357	75	25637	0.869	ppbV	95
112) undecane	20.537	57	60637	0.909	ppbV	99
113) 1,2,4,5-tetramethylben...	20.808	119	154091	0.821	ppbV	99
114) dodecane	21.493	57	50003	0.713	ppbV	98
115) 1,2,4-trichlorobenzene	21.505	180	47072	0.718	ppbV	100
116) naphthalene	21.642	128	102757	0.756	ppbV	100
117) 1,2,3-trichlorobenzene	21.915	180	47955	0.760	ppbV	99
118) benzothiophene	21.704	134	81830	0.614	ppbV	99
119) hexachlorobutadiene	21.964	225	62124	0.943	ppbV	99
120) 2-methylnaphthalene	22.882	142	7954	0.188	ppbV	99
121) 1-methylnaphthalene	23.118	142	15309	0.361	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141339.D
Acq On : 20 Jan 2015 11:55 pm
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD1.0
Misc : WG758134
ALS Vial : 6 Sample Multiplier: 1

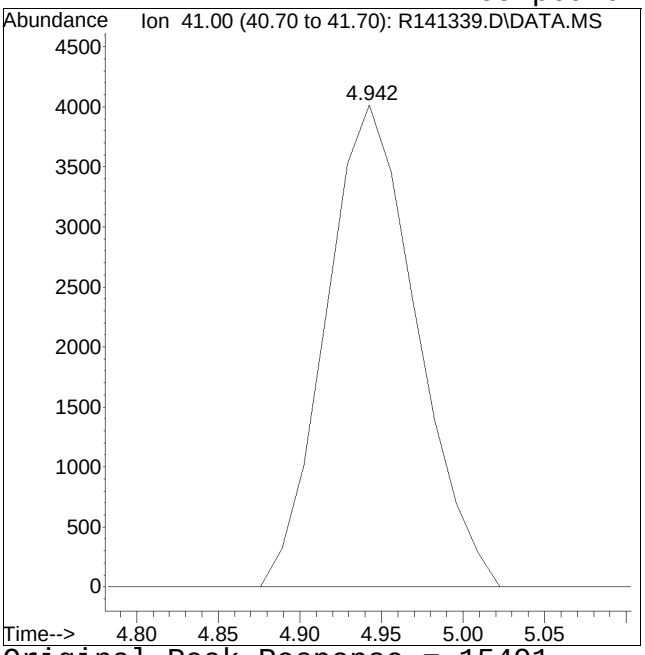
Quant Time: Jan 21 14:41:03 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration



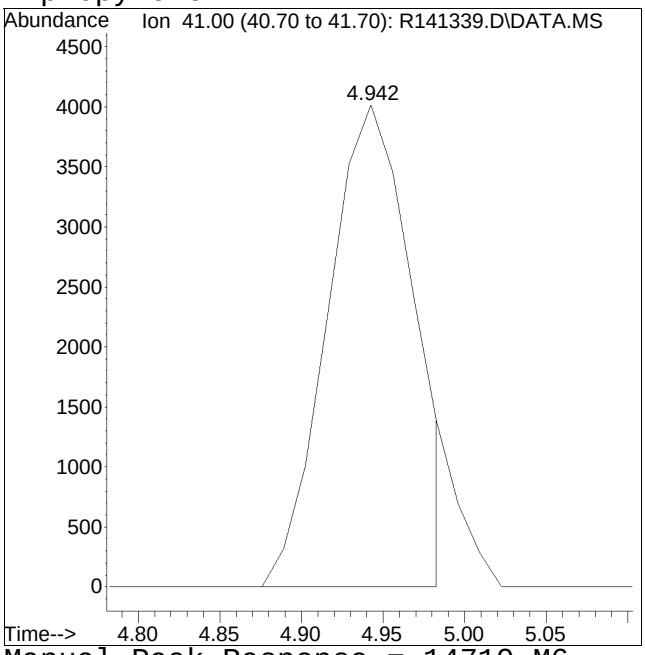
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141339.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:55 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD1.0 Quant Date : 1/21/2015 6:25 am

Compound #3: propylene



Original Peak Response = 15491



Manual Peak Response = 14710 M6

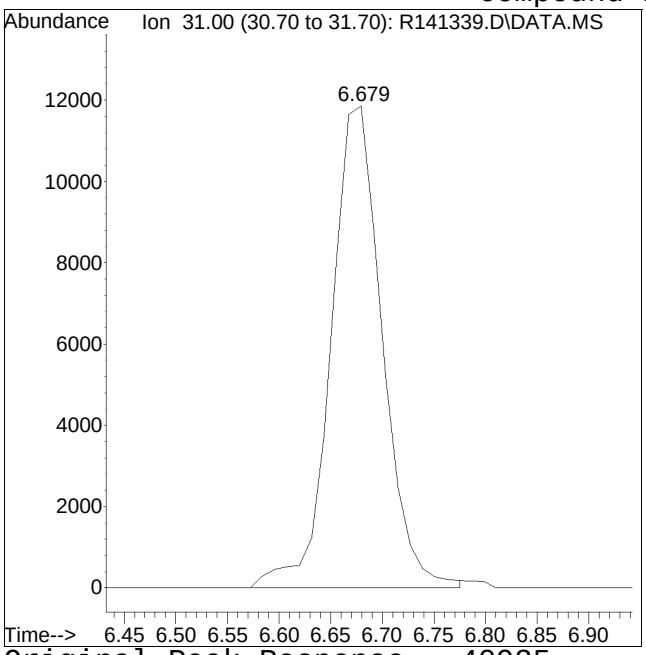
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

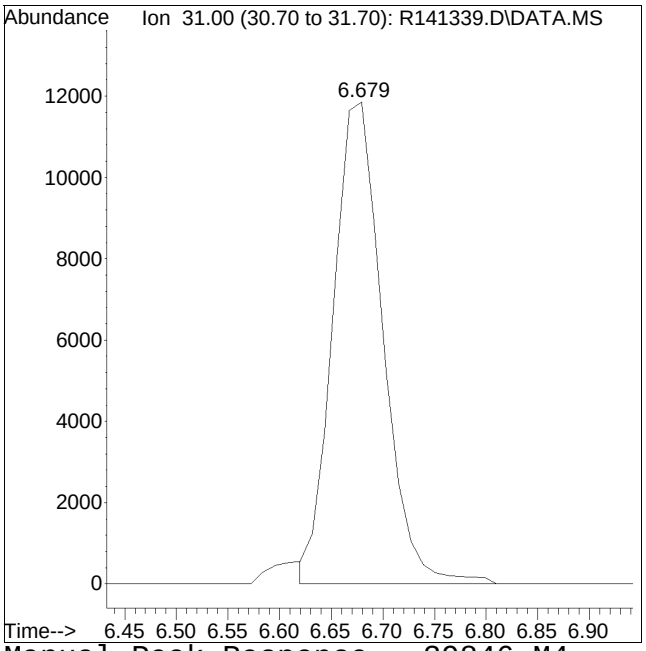
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141339.D
Date Inj'd : 1/20/2015 11:55 pm
Sample : ITO15-SIMSTD1.0

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:25 am

Compound #15: ethanol



Original Peak Response = 40925



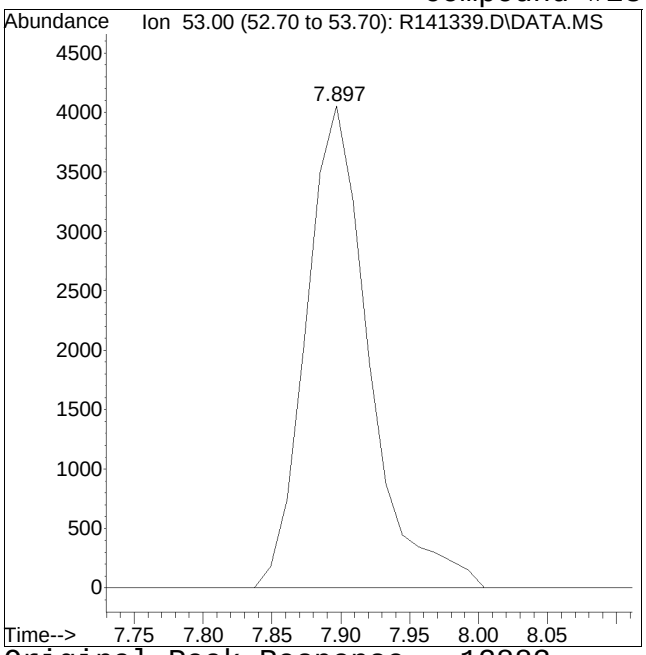
Manual Peak Response = 39846 M4

M4 = Poor automated baseline construction.

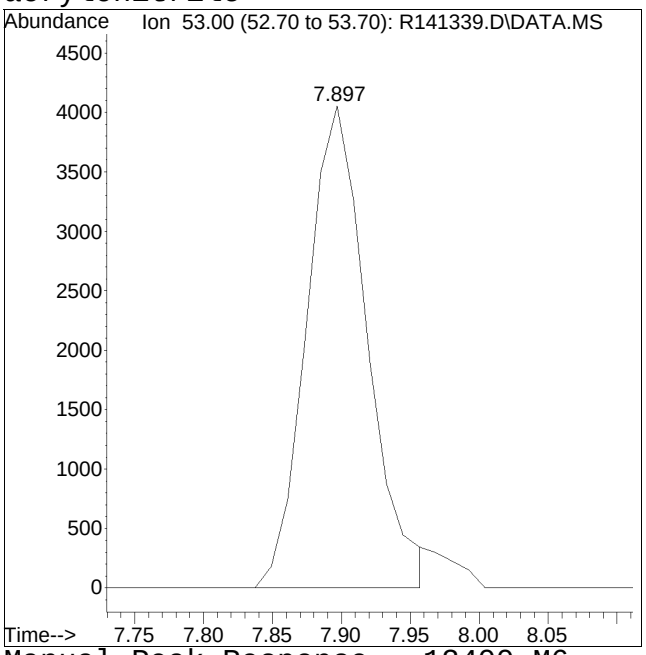
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141339.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:55 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD1.0 Quant Date : 1/21/2015 6:25 am

Compound #23: acrylonitrile



Original Peak Response = 12883



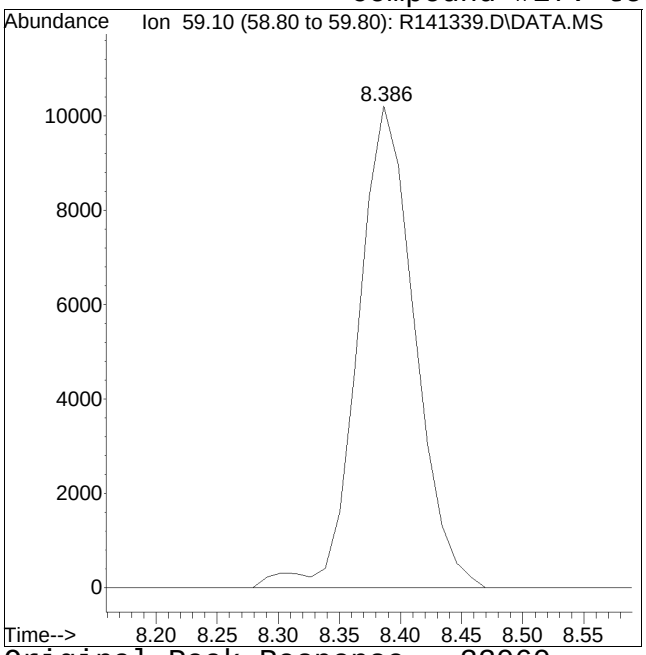
Manual Peak Response = 12400 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

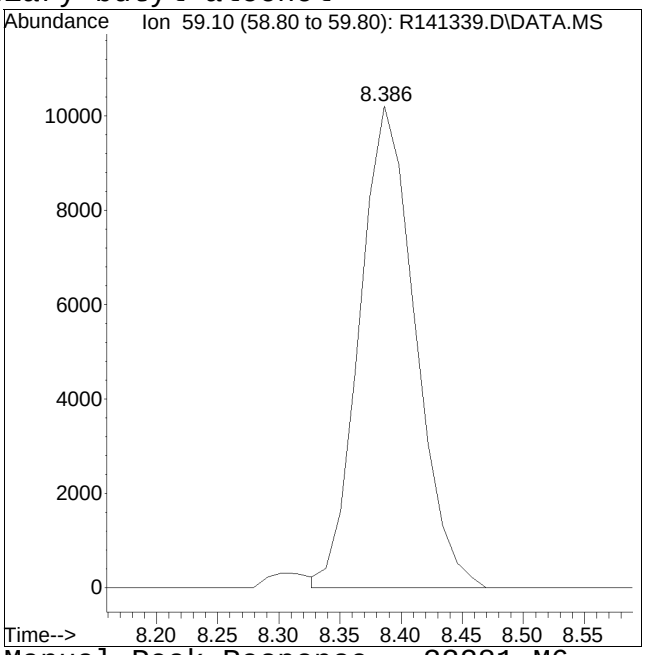
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141339.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:55 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD1.0 Quant Date : 1/21/2015 6:25 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 33060



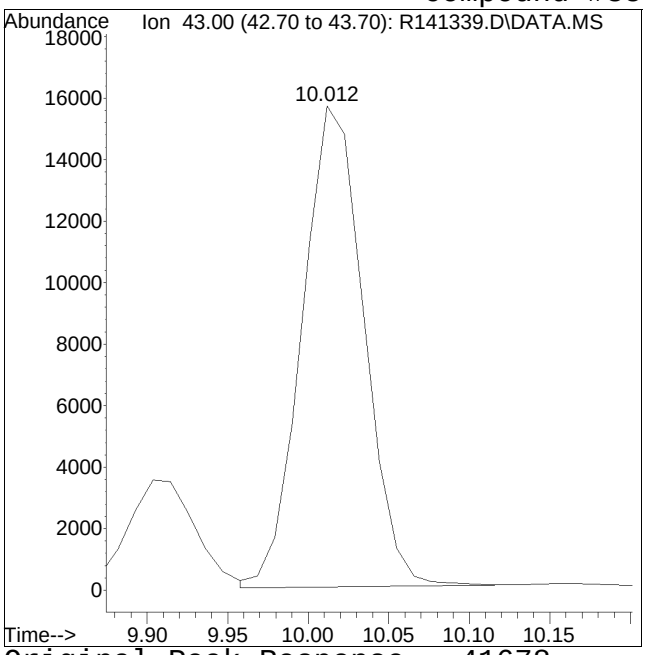
Manual Peak Response = 32281 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

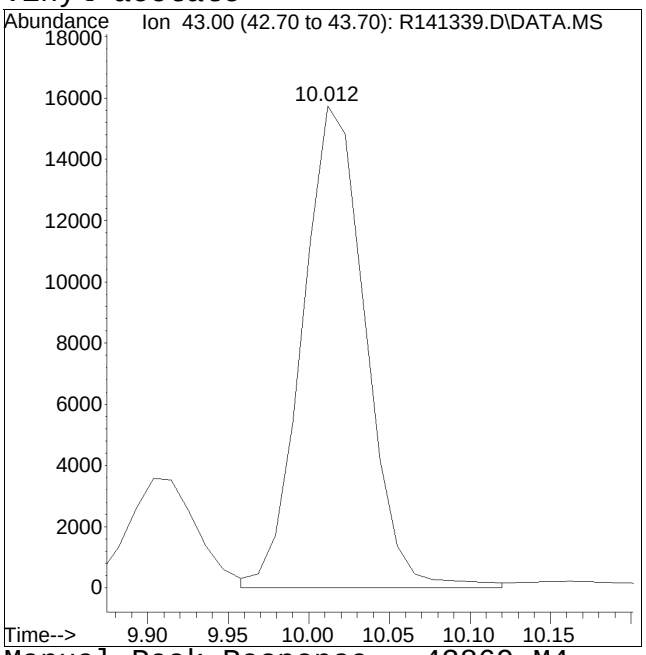
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141339.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:55 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD1.0 Quant Date : 1/21/2015 6:25 am

Compound #35: vinyl acetate



Original Peak Response = 41678



Manual Peak Response = 42869 M4

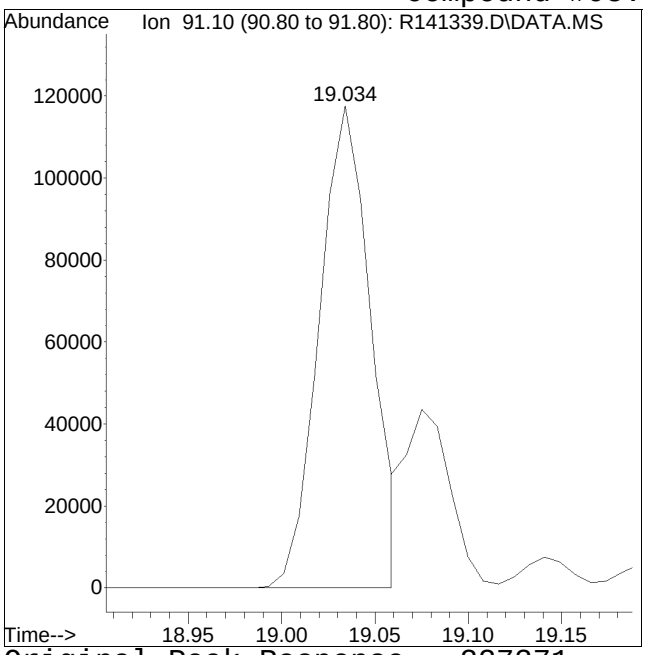
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

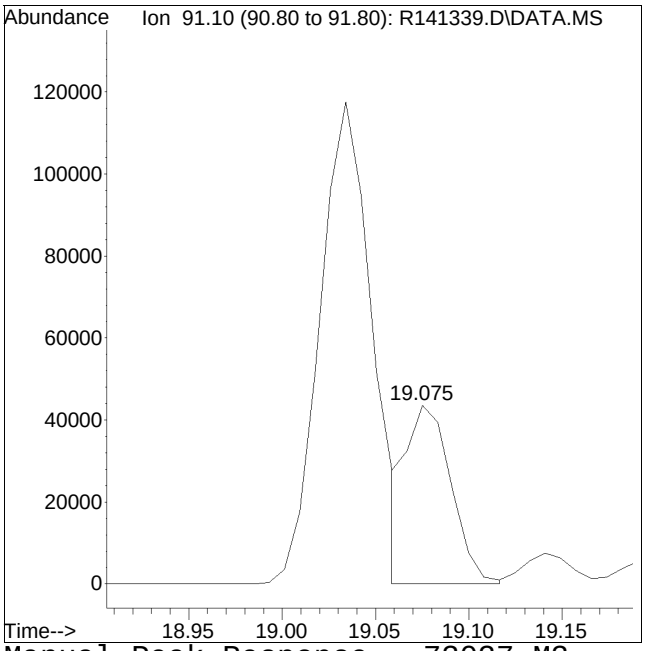
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141339.D
Date Inj'd : 1/20/2015 11:55 pm
Sample : ITO15-SIMSTD1.0

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:25 am

Compound #95: 4-chlorotoluene



Original Peak Response = 227371



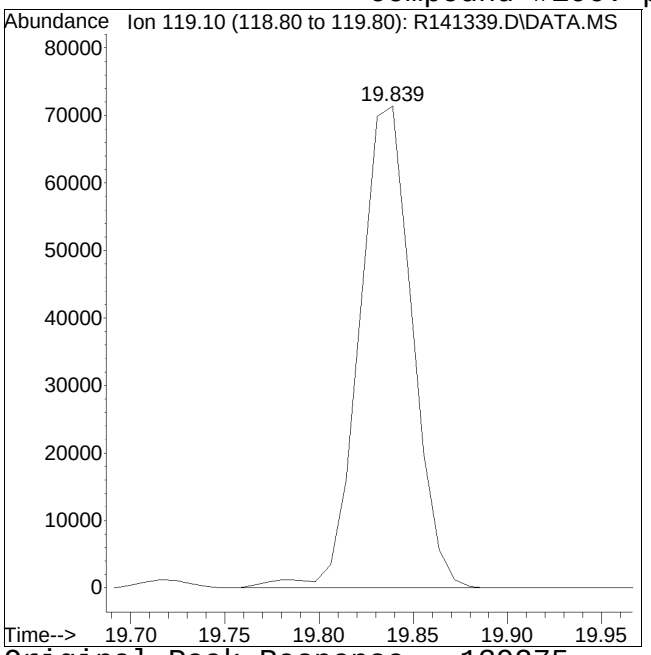
Manual Peak Response = 73037 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

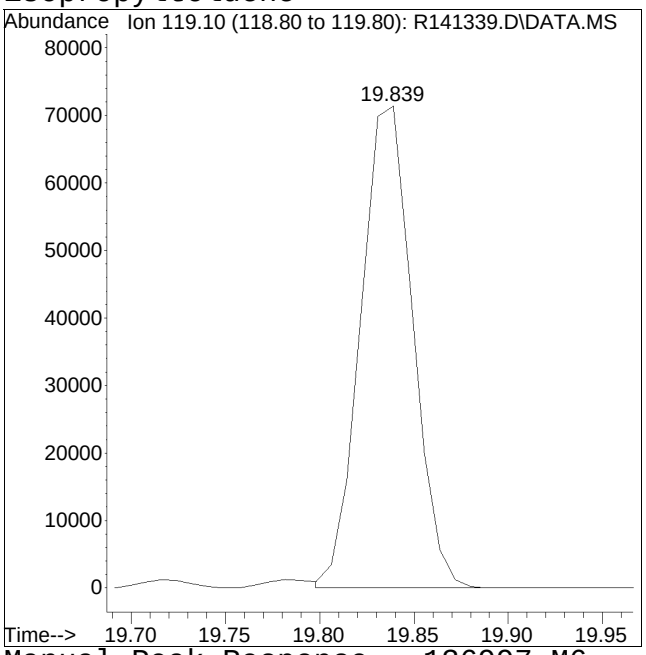
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141339.D Operator : AIRLAB14:MB
Date Inj'd : 1/20/2015 11:55 pm Instrument : Airlab 14
Sample : ITO15-SIMSTD1.0 Quant Date : 1/21/2015 6:25 am

Compound #106: p-isopropyltoluene



Original Peak Response = 139275



Manual Peak Response = 136997 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141340.D
Acq On : 21 Jan 2015 12:43 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD5.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:22 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.954	49	166710	10.000	ppbV	-0.01
Standard Area = 169082			Recovery =	98.60%		
43) 1,4-difluorobenzene	13.119	114	645454	10.000	ppbV	0.00
Standard Area = 662709			Recovery =	97.40%		
67) chlorobenzene-D5	17.381	54	118651	10.000	ppbV	0.00
Standard Area = 123609			Recovery =	95.99%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.814	65	107755	5.870	ppbV	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	58.70%#		
69) toluene-D8	15.734	98	333092	5.836	ppbV	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	58.36%#		
90) bromofluorobenzene	18.565	95	243708	5.778	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	57.78%#		
Target Compounds						Qvalue
2) chlorodifluoromethane	4.796	51	131097	5.198	ppbV	100
3) propylene	4.822	41	66999M6	5.301	ppbV	
4) propane	4.862	29	58390	5.398	ppbV	98
5) dichlorodifluoromethane	4.943	85	241366	5.230	ppbV	100
6) chloromethane	5.183	50	68260	5.141	ppbV	99
7) Freon-114	5.343	85	253272	5.115	ppbV	97
8) methanol	5.490	31	109365	25.424	ppbV	97
9) vinyl chloride	5.517	62	82771	5.111	ppbV	100
10) 1,3-butadiene	5.717	54	59687	5.029	ppbV	96
11) butane	5.797	43	116461	5.198	ppbV	99
12) acetaldehyde	5.383	29	191015	25.998	ppbV	99
13) bromomethane	6.107	94	83739	5.040	ppbV	99
14) chloroethane	6.369	64	45415	5.105	ppbV	99
15) ethanol	6.596	31	226076M6	24.268	ppbV	
16) dichlorofluoromethane	6.524	67	188288	5.105	ppbV	100
17) vinyl bromide	6.847	106	90969	5.038	ppbV	99
18) acrolein	7.026	56	34450	5.100	ppbV	99
19) acetone	7.205	43	573852	25.600	ppbV	99
20) acetonitrile	6.870	41	67057	5.210	ppbV	99
21) trichlorofluoromethane	7.420	101	244872	5.130	ppbV	99
22) isopropyl alcohol	7.563	45	128764	5.379	ppbV	100
23) acrylonitrile	7.825	53	62799M6	5.008	ppbV	
24) pentane	7.897	43	145721	5.262	ppbV	99

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141340.D
Acq On : 21 Jan 2015 12:43 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD5.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:22 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.933	31	87883	5.174	ppbV	100
26) 1,1-dichloroethene	8.243	61	138891	5.110	ppbV	100
27) tertiary butyl alcohol	8.327	59	174015M6	5.191	ppbV	
28) methylene chloride	8.410	49	96427	5.268	ppbV	99
29) 3-chloropropene	8.553	41	103739	5.178	ppbV	99
30) carbon disulfide	8.744	76	276619	5.167	ppbV	98
31) Freon 113	8.732	101	195277	5.080	ppbV	98
32) trans-1,2-dichloroethene	9.547	61	135228	5.122	ppbV	100
33) 1,1-dichloroethane	9.785	63	162236	5.129	ppbV	100
34) MTBE	9.861	73	260594	5.049	ppbV	100
35) vinyl acetate	9.969	43	204208	5.077	ppbV	100
36) 2-butanone	10.249	43	176350	4.953	ppbV	99
37) cis-1,2-dichloroethene	10.755	61	117423	5.010	ppbV	100
38) Ethyl Acetate	11.020	61	29340	4.978	ppbV	88
39) chloroform	11.099	83	191286	5.057	ppbV	99
40) Tetrahydrofuran	11.549	42	103599	4.924	ppbV	100
41) 2,2-dichloropropane	11.126	77	168176	5.043	ppbV	100
42) 1,2-dichloroethane	11.933	62	119577	5.038	ppbV	100
44) hexane	10.993	57	140033	5.203	ppbV	96
45) diisopropyl ether	10.993	87	79438	5.049	ppbV	100
46) tert-butyl ethyl ether	11.602	59	270779	5.050	ppbV	100
48) 1,1,1-trichloroethane	12.211	97	197160	4.792	ppbV	98
49) 1,1-dichloropropene	12.565	75	152795	5.067	ppbV	100
50) benzene	12.736	78	299063	5.082	ppbV	100
51) thiophene	12.878	84	201036	5.011	ppbV	99
52) carbon tetrachloride	12.892	117	228527	5.046	ppbV	100
53) cyclohexane	13.034	56	154172M6	4.981	ppbV	
54) tert-amyl methyl ether	13.375	73	289008	4.923	ppbV	99
55) dibromomethane	13.630	93	121160	4.990	ppbV	97
56) 1,2-dichloropropane	13.645	63	107450	5.018	ppbV	99
57) bromodichloromethane	13.872	83	239691	4.973	ppbV	100
58) 1,4-dioxane	13.914	88	70850	4.934	ppbV	93
59) trichloroethene	13.914	130	152952	5.068	ppbV	99
60) 2,2,4-trimethylpentane	13.943	57	494422	5.061	ppbV	99
61) methyl methacrylate	14.099	41	124548	4.877	ppbV	99
62) heptane	14.227	43	169427	5.019	ppbV	99
63) cis-1,3-dichloropropene	14.859	75	166889	4.884	ppbV	99
64) 4-methyl-2-pentanone	14.884	43	228238	4.897	ppbV	99
65) trans-1,3-dichloropropene	15.387	75	166639	4.732	ppbV	100
66) 1,1,2-trichloroethane	15.567	97	127216	4.867	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141340.D
Acq On : 21 Jan 2015 12:43 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD5.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:22 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.837	91	377567	5.008	ppbV	100
70) 2-methylthiophene	15.902	97	343522	5.014	ppbV	100
71) 1,3-dichloropropane	15.850	76	177534	4.939	ppbV	100
72) 2-hexanone	16.043	43	226283	5.088	ppbV	100
73) 3-methylthiophene	16.069	97	321053	4.984	ppbV	100
74) dibromochloromethane	16.237	129	262037	4.822	ppbV	100
75) 1,2-dibromoethane	16.456	107	204907	4.845	ppbV	100
76) butyl acetate	16.597	73	51226	5.014	ppbV	97
77) octane	16.687	85	119240	4.918	ppbV	100
78) tetrachloroethene	16.855	166	216826	4.925	ppbV	99
79) 1,1,1,2-tetrachloroethane	17.404	131	179653	4.848	ppbV	100
80) chlorobenzene	17.419	112	306157	4.861	ppbV	98
81) ethylbenzene	17.705	91	494714	4.901	ppbV	99
82) 2-ethylthiophene	17.743	97	380326	4.905	ppbV	100
83) m+p-xylene	17.849	91	771712	9.900	ppbV	99
84) bromoform	17.939	173	298824	4.810	ppbV	100
85) styrene	18.127	104	310090	4.939	ppbV	100
86) 1,1,2,2-tetrachloroethane	18.210	83	301564	5.075	ppbV	100
87) o-xylene	18.218	91	404252	4.975	ppbV	100
88) 1,2,3-trichloropropane	18.316	75	226365	5.114	ppbV	100
89) nonane	18.339	43	250382	5.025	ppbV	99
91) isopropylbenzene	18.655	105	582515	5.082	ppbV	100
92) bromobenzene	18.746	77	278071	5.050	ppbV	100
93) 2-chlorotoluene	19.026	126	161878	5.047	ppbV	98
94) n-propylbenzene	19.034	120	172432	5.058	ppbV	93
95) 4-chlorotoluene	19.075	91	359816	5.415	ppbV	99
96) 4-ethyl toluene	19.141	105	655468	5.068	ppbV	100
97) 1,3,5-trimethylbenzene	19.190	105	473990	5.088	ppbV	100
98) tert-butylbenzene	19.511	119	552770	4.986	ppbV	100
99) 1,2,4-trimethylbenzene	19.511	105	490643	4.983	ppbV	99
100) decane	19.535	57	301435	4.988	ppbV	100
101) Benzyl Chloride	19.634	91	429445	4.770	ppbV	99
102) 1,3-dichlorobenzene	19.650	146	362648	4.944	ppbV	100
103) 1,4-dichlorobenzene	19.700	146	349779	4.909	ppbV	100
104) sec-butylbenzene	19.716	105	718163	4.984	ppbV	99
105) 1,2,3-trimethylbenzene	19.847	105	421816	4.961	ppbV	99
106) p-isopropyltoluene	19.831	119	671533M6	4.928	ppbV	
107) 1,2-dichlorobenzene	19.979	146	344254	4.981	ppbV	100
108) n-butylbenzene	20.168	91	593394	5.204	ppbV	99
109) indan	20.020	117	472738	4.992	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141340.D
Acq On : 21 Jan 2015 12:43 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD5.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:22 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

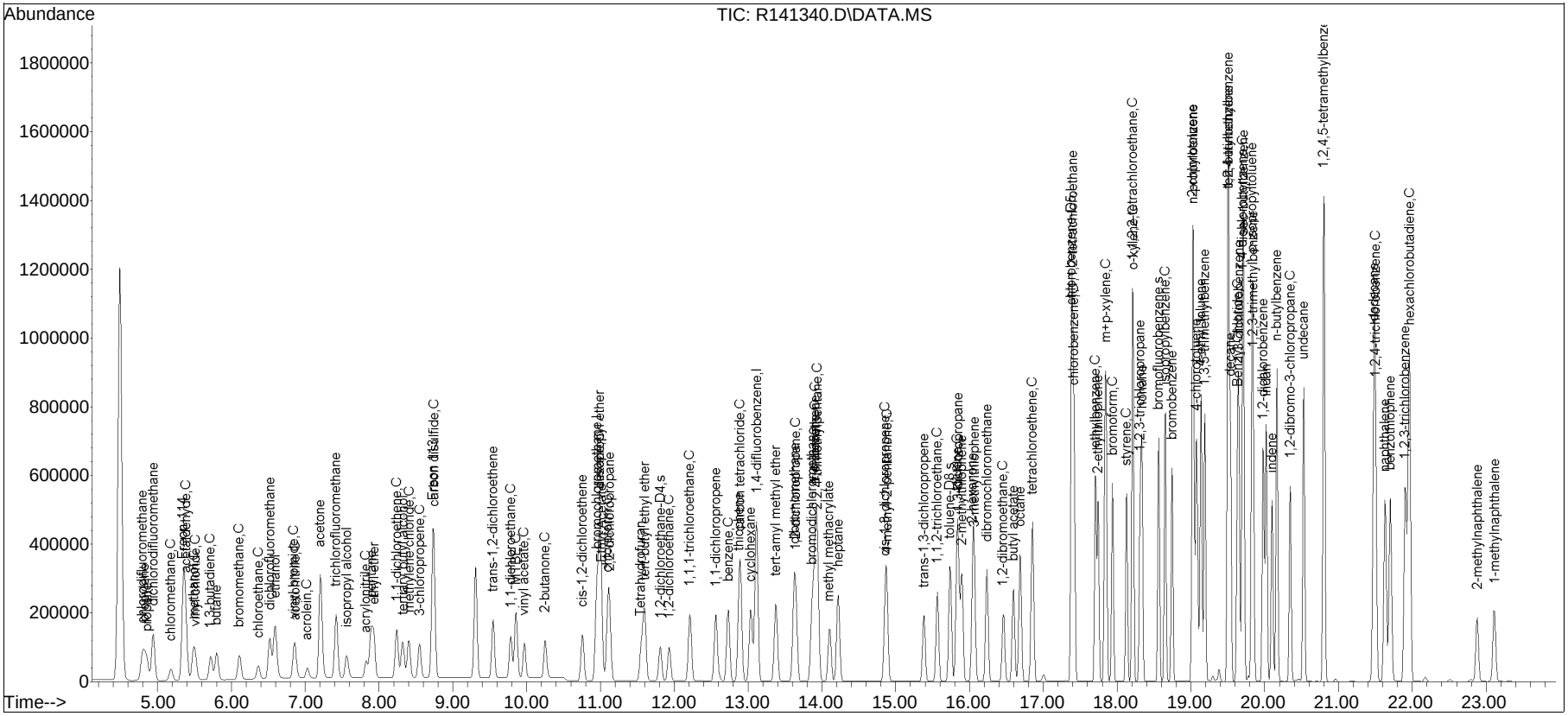
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.102	115	326510	5.026	ppbV	100
111) 1,2-dibromo-3-chloropr...	20.348	75	153765	5.120	ppbV	94
112) undecane	20.529	57	339573	5.003	ppbV	99
113) 1,2,4,5-tetramethylben...	20.800	119	964652	5.051	ppbV	99
114) dodecane	21.480	57	348347	4.882	ppbV	98
115) 1,2,4-trichlorobenzene	21.505	180	327271	4.904	ppbV	98
116) naphthalene	21.629	128	689907	4.990	ppbV	100
117) 1,2,3-trichlorobenzene	21.902	180	315566	4.915	ppbV	99
118) benzothiophene	21.704	134	647334	4.775	ppbV	100
119) hexachlorobutadiene	21.964	225	339161	5.058	ppbV	97
120) 2-methylnaphthalene	22.882	142	158604	3.692	ppbV	100
121) 1-methylnaphthalene	23.118	142	179397	4.161	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141340.D
Acq On : 21 Jan 2015 12:43 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD5.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

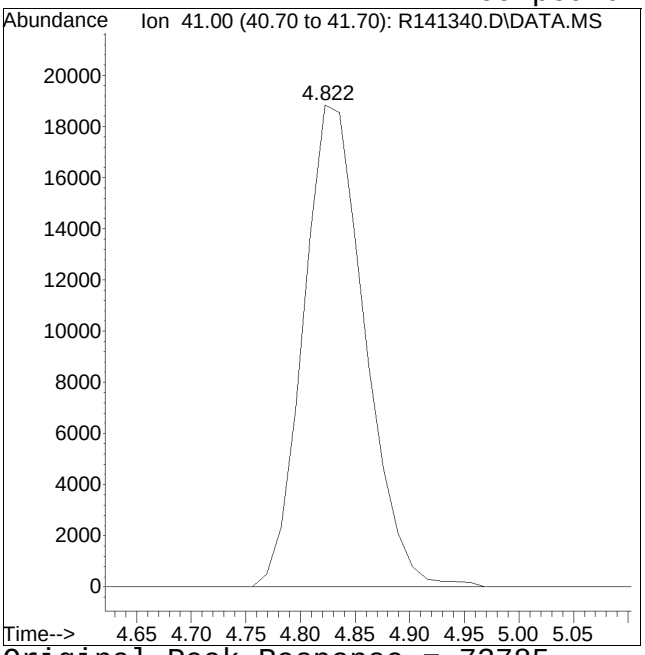
Quant Time: Jan 21 14:41:22 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration



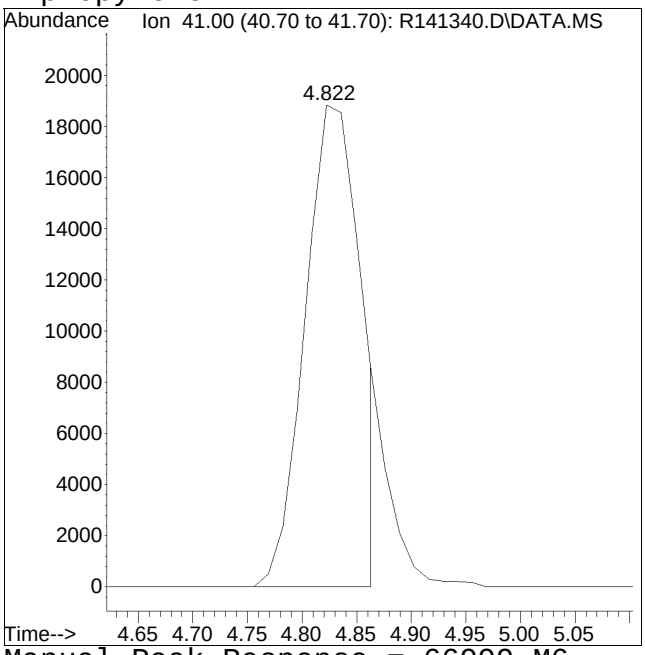
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141340.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 12:43 am Instrument : Airlab 14
Sample : ITO15-SIMSTD5.0 Quant Date : 1/21/2015 6:25 am

Compound #3: propylene



Original Peak Response = 73785



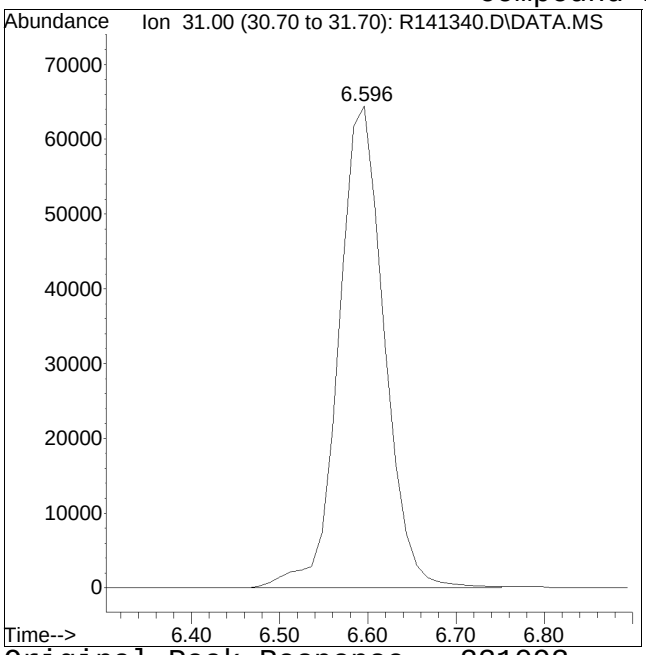
Manual Peak Response = 66999 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

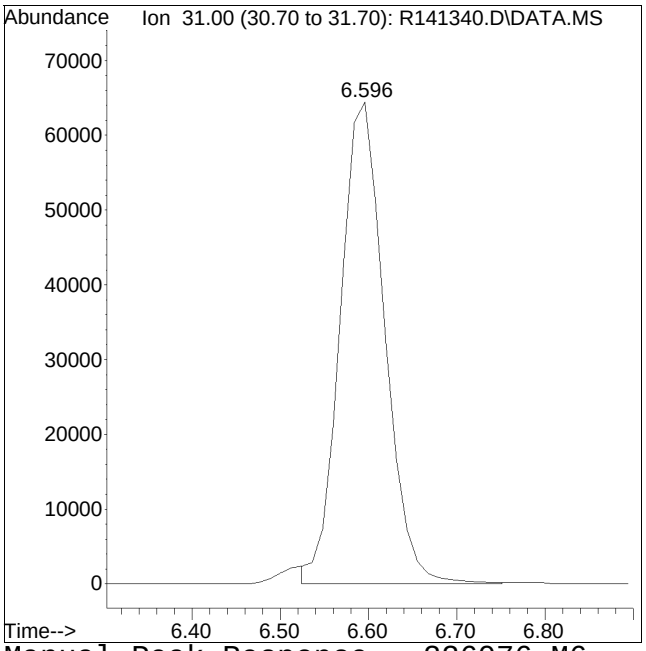
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141340.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 12:43 am Instrument : Airlab 14
Sample : ITO15-SIMSTD5.0 Quant Date : 1/21/2015 6:25 am

Compound #15: ethanol



Original Peak Response = 231093



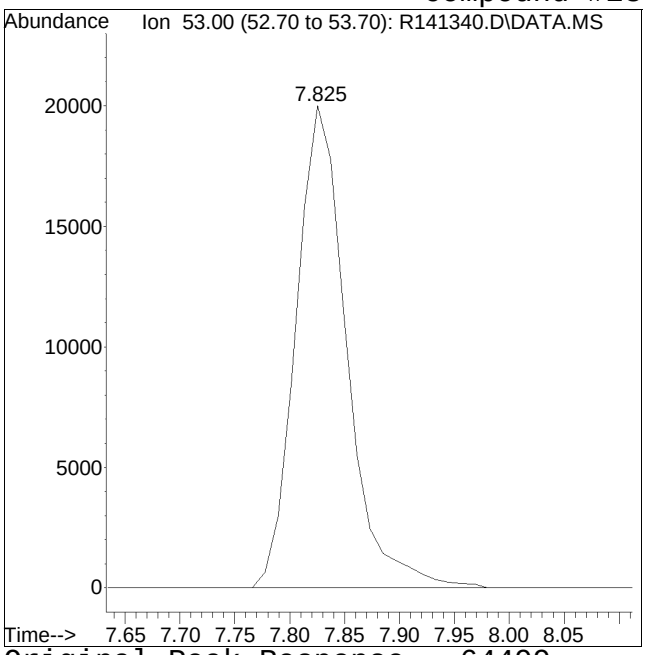
Manual Peak Response = 226076 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

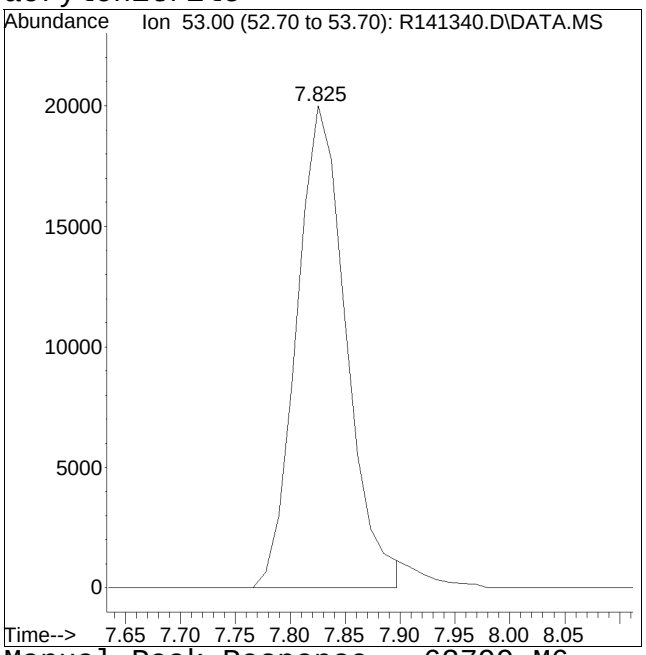
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141340.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 12:43 am Instrument : Airlab 14
Sample : ITO15-SIMSTD5.0 Quant Date : 1/21/2015 6:25 am

Compound #23: acrylonitrile



Original Peak Response = 64499



Manual Peak Response = 62799 M6

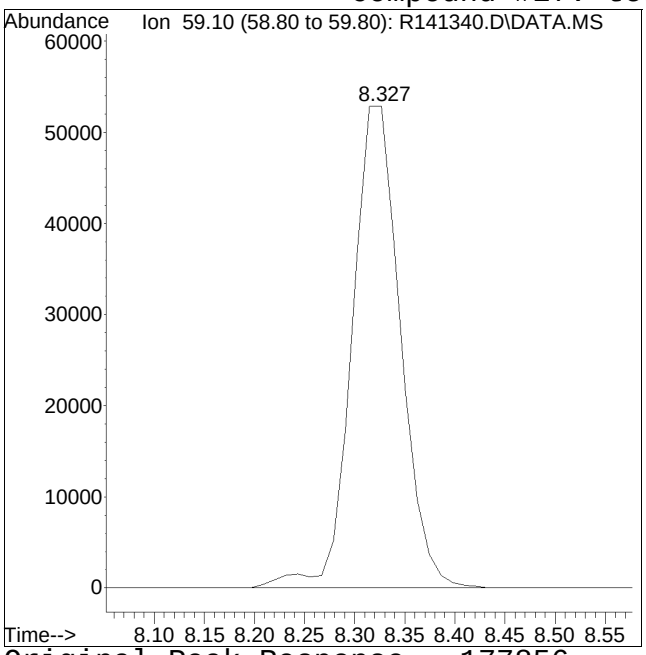
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

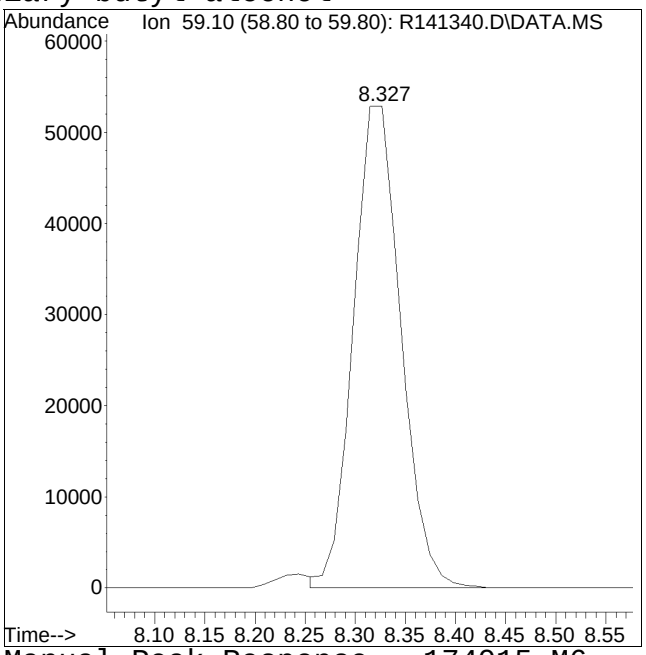
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141340.D
Date Inj'd : 1/21/2015 12:43 am
Sample : ITO15-SIMSTD5.0

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:25 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 177856



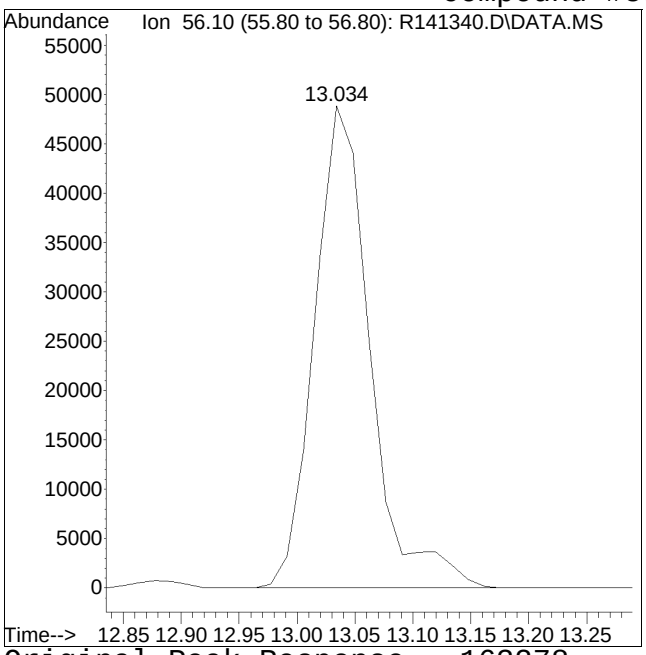
Manual Peak Response = 174015 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

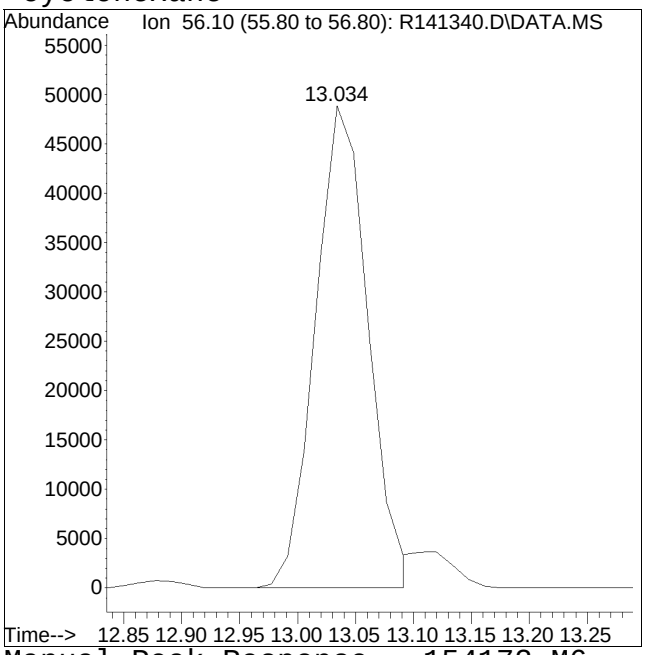
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141340.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 12:43 am Instrument : Airlab 14
Sample : ITO15-SIMSTD5.0 Quant Date : 1/21/2015 6:25 am

Compound #53: cyclohexane



Original Peak Response = 163278



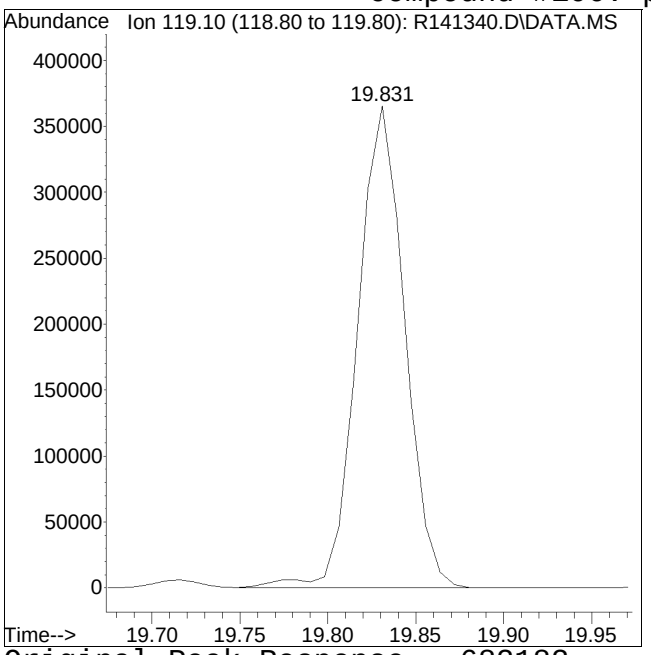
Manual Peak Response = 154172 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

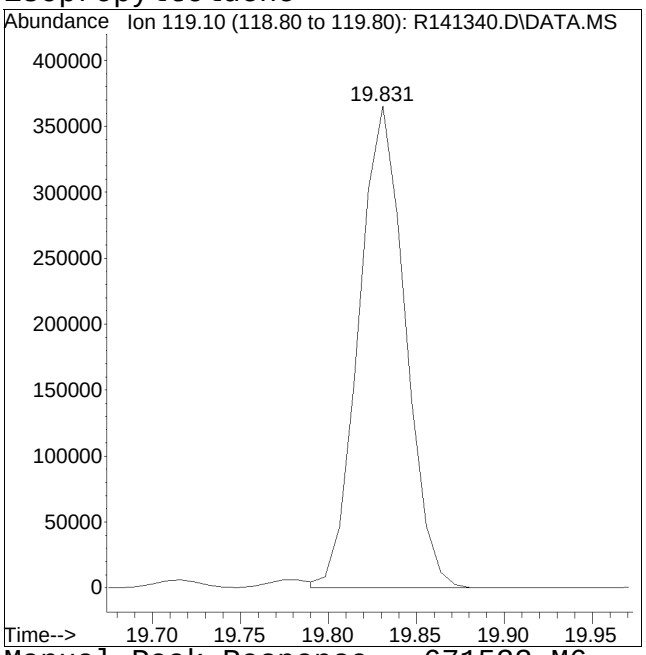
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141340.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 12:43 am Instrument : Airlab 14
Sample : ITO15-SIMSTD5.0 Quant Date : 1/21/2015 6:25 am

Compound #106: p-isopropyltoluene



Original Peak Response = 682182



Manual Peak Response = 671533 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141341.D
Acq On : 21 Jan 2015 01:38 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD10.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:39 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 06 14:58:55 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.967	49	169082	10.000	ppbV	0.05
Standard Area = 169082			Recovery = 100.00%			
43) 1,4-difluorobenzene	13.119	114	662709	10.000	ppbV	0.04
Standard Area = 662709			Recovery = 100.00%			
67) chlorobenzene-D5	17.389	54	123609	10.000	ppbV	0.04
Standard Area = 123609			Recovery = 100.00%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.827	65	188475	9.910	ppbV	0.05
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.10%			
69) toluene-D8	15.747	98	594591	9.596	ppbV	0.03
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.96%			
90) bromofluorobenzene	18.564	95	439387	9.792	ppbV	0.05
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.92%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.836	51	255780	11.931	ppbV	98
3) propylene	4.876	41	128184M6	11.704	ppbV	
4) propane	4.916	29	109703	11.955	ppbV	96
5) dichlorodifluoromethane	4.996	85	468074	11.686	ppbV	100
6) chloromethane	5.236	50	134667	10.792	ppbV	99
7) Freon-114	5.397	85	502178	10.473	ppbV	99
8) methanol	5.517	31	218139	55.377	ppbV	96
9) vinyl chloride	5.557	62	164264	10.455	ppbV	100
10) 1,3-butadiene	5.771	54	120372	10.985	ppbV	93
11) butane	5.851	43	227224	11.005	ppbV	99
12) acetaldehyde	5.423	29	372596	62.328	ppbV	87
13) bromomethane	6.154	94	168499	10.334	ppbV	100
14) chloroethane	6.405	64	90235	10.245	ppbV	100
15) ethanol	6.620	31	472409	59.471	ppbV	91
16) dichlorofluoromethane	6.560	67	374074	10.177	ppbV	99
17) vinyl bromide	6.894	106	183147	10.537	ppbV	99
18) acrolein	7.061	56	68516	10.500	ppbV #	94
19) acetone	7.240	43	1136734	55.351	ppbV	96
20) acetonitrile	6.906	41	130532	11.011	ppbV	100
21) trichlorofluoromethane	7.455	101	484153	10.465	ppbV	100
22) isopropyl alcohol	7.586	45	242799	9.707	ppbV	99
23) acrylonitrile	7.861	53	123423M6	10.305	ppbV	
24) pentane	7.933	43	280887	10.925	ppbV	99

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141341.D
Acq On : 21 Jan 2015 01:38 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD10.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:39 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 06 14:58:55 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.956	31	172264	12.197	ppbV	92
26) 1,1-dichloroethene	8.279	61	275691	10.720	ppbV	98
27) tertiary butyl alcohol	8.350	59	339969	10.168	ppbV	99
28) methylene chloride	8.434	49	185634	9.953	ppbV	96
29) 3-chloropropene	8.577	41	203211	11.323	ppbV	95
30) carbon disulfide	8.768	76	543017	9.158	ppbV	96
31) Freon 113	8.768	101	389871	10.451	ppbV	98
32) trans-1,2-dichloroethene	9.569	61	267778	10.750	ppbV	99
33) 1,1-dichloroethane	9.806	63	320841	10.682	ppbV	100
34) MTBE	9.871	73	523501	11.067	ppbV	99
35) vinyl acetate	9.990	43	407931	8.817	ppbV	97
36) 2-butanone	10.271	43	361130	10.551	ppbV	97
37) cis-1,2-dichloroethene	10.782	61	237712	10.194	ppbV	100
38) Ethyl Acetate	11.033	61	59781	9.892	ppbV	96
39) chloroform	11.126	83	383628	9.749	ppbV	99
40) Tetrahydrofuran	11.562	42	213389	9.664	ppbV	97
41) 2,2-dichloropropane	11.139	77	338214	10.192	ppbV	96
42) 1,2-dichloroethane	11.946	62	240747	9.614	ppbV	99
44) hexane	11.007	57	276335	9.785	ppbV	78
45) diisopropyl ether	11.007	87	161544	10.086	ppbV	97
46) tert-butyl ethyl ether	11.615	59	550551	9.910	ppbV	99
48) 1,1,1-trichloroethane	12.224	97	422429	10.177	ppbV	99
49) 1,1-dichloropropene	12.579	75	309584	9.149	ppbV	94
50) benzene	12.750	78	604238	9.527	ppbV	98
51) thiophene	12.892	84	411886	9.881	ppbV	95
52) carbon tetrachloride	12.906	117	464958	9.977	ppbV	99
53) cyclohexane	13.048	56	317811	10.082	ppbV	96
54) tert-amyl methyl ether	13.389	73	602709	12.342	ppbV	98
55) dibromomethane	13.630	93	249281	11.257	ppbV	93
56) 1,2-dichloropropane	13.659	63	219835	11.919	ppbV	100
57) bromodichloromethane	13.872	83	494872	11.962	ppbV	100
58) 1,4-dioxane	13.914	88	147425	11.083	ppbV	96
59) trichloroethene	13.928	130	309849	11.683	ppbV	99
60) 2,2,4-trimethylpentane	13.943	57	1003028	12.096	ppbV	98
61) methyl methacrylate	14.113	41	262191	13.055	ppbV	95
62) heptane	14.227	43	346571	12.820	ppbV	96
63) cis-1,3-dichloropropene	14.858	75	350874	12.612	ppbV	98
64) 4-methyl-2-pentanone	14.884	43	478516	12.835	ppbV	98
65) trans-1,3-dichloropropene	15.386	75	361592	12.887	ppbV	99
66) 1,1,2-trichloroethane	15.567	97	268369	12.080	ppbV	99

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141341.D
Acq On : 21 Jan 2015 01:38 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD10.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:39 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 06 14:58:55 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.837	91	785390	9.273	ppbV	99
70) 2-methylthiophene	15.902	97	713749	9.481	ppbV	99
71) 1,3-dichloropropane	15.850	76	374482	9.202	ppbV	95
72) 2-hexanone	16.043	43	463300	9.848	ppbV	96
73) 3-methylthiophene	16.069	97	671029	9.391	ppbV	100
74) dibromochloromethane	16.237	129	566115	9.350	ppbV	100
75) 1,2-dibromoethane	16.468	107	440608	9.234	ppbV	100
76) butyl acetate	16.597	73	106445	9.447	ppbV	93
77) octane	16.687	85	252563	9.490	ppbV	91
78) tetrachloroethene	16.855	166	458646	9.372	ppbV	97
79) 1,1,1,2-tetrachloroethane	17.404	131	386073	9.242	ppbV	100
80) chlorobenzene	17.426	112	656147	9.187	ppbV	99
81) ethylbenzene	17.713	91	1051631	9.706	ppbV	100
82) 2-ethylthiophene	17.743	97	807773	9.728	ppbV	99
83) m+p-xylene	17.848	91	1624226	19.006	ppbV	99
84) bromoform	17.939	173	647257	9.469	ppbV	99
85) styrene	18.127	104	654018	9.777	ppbV	100
86) 1,1,2,2-tetrachloroethane	18.210	83	619091	8.992	ppbV	100
87) o-xylene	18.218	91	846507	9.426	ppbV	99
88) 1,2,3-trichloropropane	18.316	75	461131	9.132	ppbV	98
89) nonane	18.338	43	519051	9.905	ppbV	97
91) isopropylbenzene	18.655	105	1194160	9.608	ppbV	100
92) bromobenzene	18.745	77	573696	9.296	ppbV	96
93) 2-chlorotoluene	19.026	126	334174	9.085	ppbV	84
94) n-propylbenzene	19.034	120	355128	9.307	ppbV	83
95) 4-chlorotoluene	19.075	91	692249	9.189	ppbV	100
96) 4-ethyl toluene	19.141	105	1347393	9.840	ppbV	99
97) 1,3,5-trimethylbenzene	19.190	105	970509	9.469	ppbV	99
98) tert-butylbenzene	19.510	119	1154900	9.480	ppbV	100
99) 1,2,4-trimethylbenzene	19.510	105	1025784	9.681	ppbV	99
100) decane	19.535	57	629613	9.816	ppbV	96
101) Benzyl Chloride	19.634	91	937855	10.613	ppbV	99
102) 1,3-dichlorobenzene	19.650	146	764127	9.536	ppbV	99
103) 1,4-dichlorobenzene	19.699	146	742255M3	9.886	ppbV	
104) sec-butylbenzene	19.716	105	1501238	9.512	ppbV	99
105) 1,2,3-trimethylbenzene	19.847	105	885728	9.517	ppbV	99
106) p-isopropyltoluene	19.831	119	1419648	9.836	ppbV	99
107) 1,2-dichlorobenzene	19.979	146	720054	9.628	ppbV	99
108) n-butylbenzene	20.168	91	1187892	9.986	ppbV	98
109) indan	20.020	117	986525	9.698	ppbV	99

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141341.D
Acq On : 21 Jan 2015 01:38 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD10.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 14:41:39 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 06 14:58:55 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

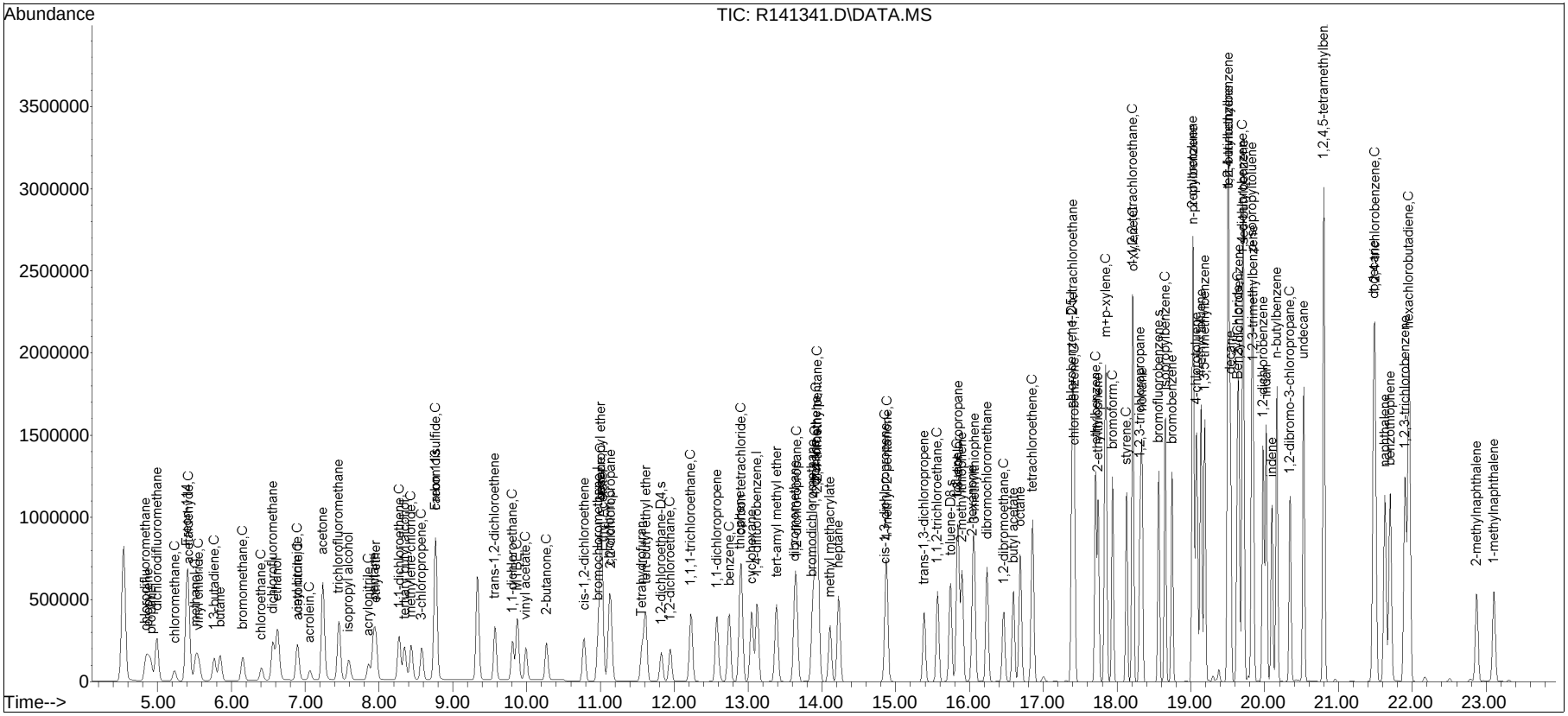
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.102	115	676829	9.932	ppbV	99
111) 1,2-dibromo-3-chloropr...	20.340	75	312890	10.060	ppbV	91
112) undecane	20.529	57	707157	10.950	ppbV	98
113) 1,2,4,5-tetramethylben...	20.800	119	1989482	11.520	ppbV	99
114) dodecane	21.480	57	743304	11.915	ppbV	96
115) 1,2,4-trichlorobenzene	21.493	180	695184	10.017	ppbV	100
116) naphthalene	21.629	128	1440344	11.532	ppbV	99
117) 1,2,3-trichlorobenzene	21.902	180	668868	10.679	ppbV	100
118) benzothiophene	21.703	134	1412229	13.124	ppbV	100
119) hexachlorobutadiene	21.952	225	698551	9.663	ppbV	97
120) 2-methylnaphthalene	22.870	142	447561	10.946	ppbV	100
121) 1-methylnaphthalene	23.106	142	449195	11.758	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141341.D
Acq On : 21 Jan 2015 01:38 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD10.0
Misc : WG758134
ALS Vial : 7 Sample Multiplier: 1

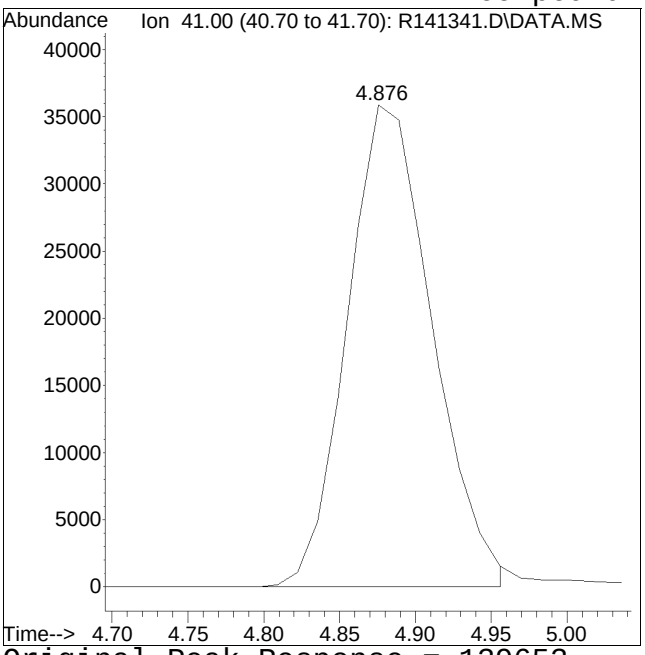
Quant Time: Jan 21 14:41:39 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 06 14:58:55 2015
Response via : Initial Calibration



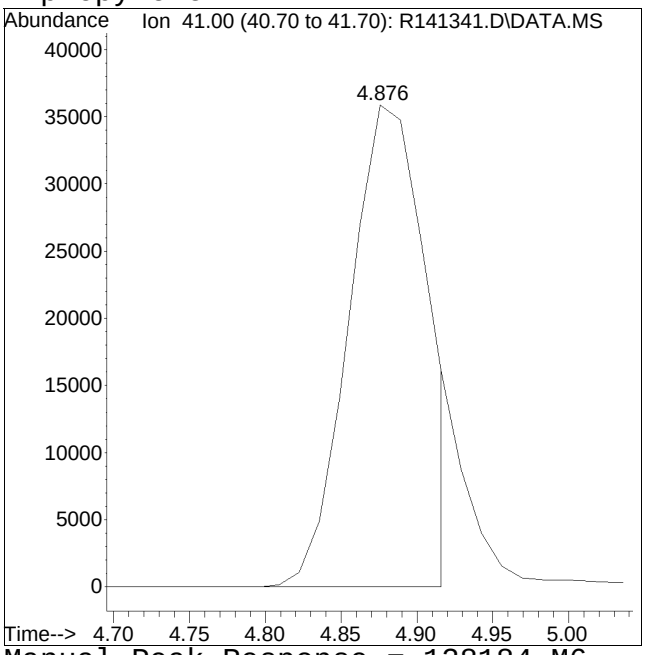
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141341.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 1:38 am Instrument : Airlab 14
Sample : ITO15-SIMSTD10.0 Quant Date : 1/21/2015 6:22 am

Compound #3: propylene



Original Peak Response = 139653



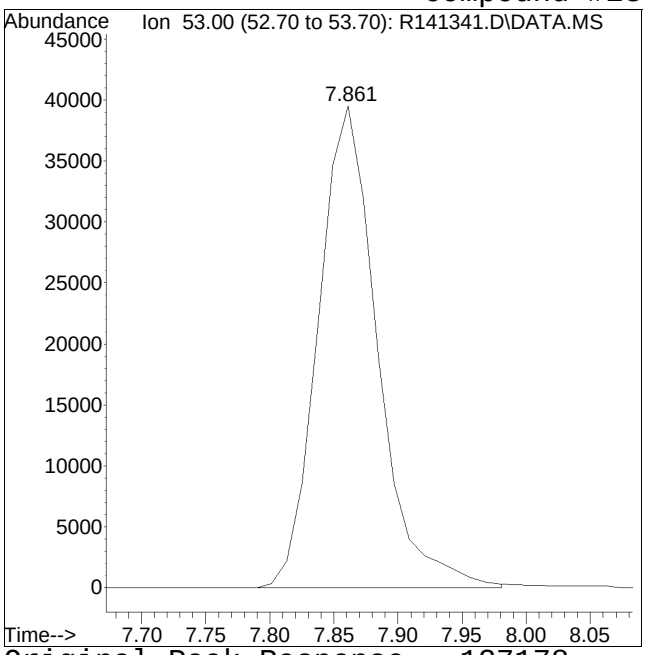
Manual Peak Response = 128184 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

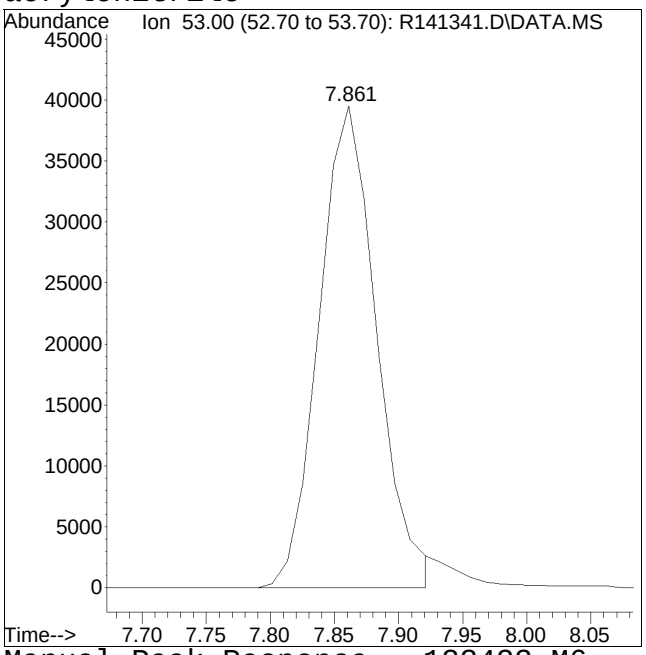
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141341.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 1:38 am Instrument : Airlab 14
Sample : ITO15-SIMSTD10.0 Quant Date : 1/21/2015 6:22 am

Compound #23: acrylonitrile



Original Peak Response = 127178



Manual Peak Response = 123423 M6

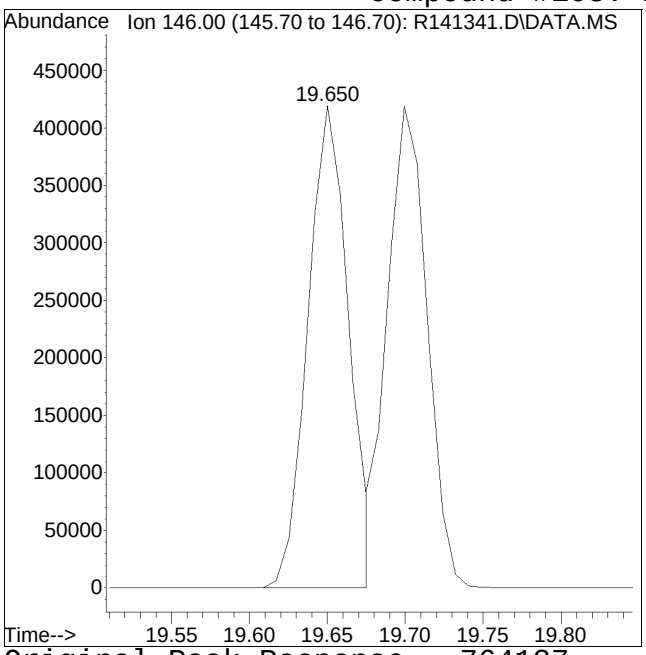
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

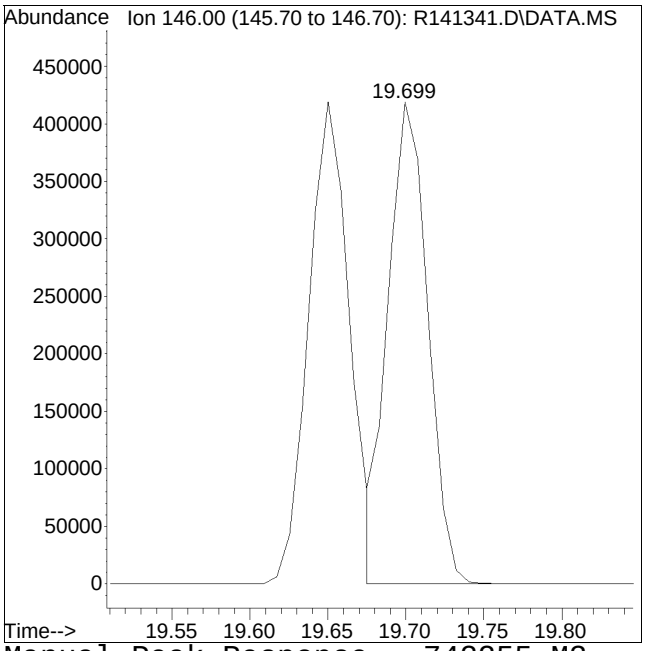
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141341.D
Date Inj'd : 1/21/2015 1:38 am
Sample : ITO15-SIMSTD10.0

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:22 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 764127



Manual Peak Response = 742255 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141342.D
Acq On : 21 Jan 2015 02:26 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD020
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:18:13 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.980	49	163769	10.000	ppbV	0.01
Standard Area = 169082			Recovery = 96.86%			
43) 1,4-difluorobenzene	13.134	114	633346	10.000	ppbV	0.01
Standard Area = 662709			Recovery = 95.57%			
67) chlorobenzene-D5	17.389	54	119335	10.000	ppbV	0.00
Standard Area = 123609			Recovery = 96.54%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.840	65	198727	11.033	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.33%			
69) toluene-D8	15.747	98	588130	10.246	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.46%			
90) bromofluorobenzene	18.565	95	413294	9.743	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.43%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.889	51	499472	20.161	ppbV	100
3) propylene	4.929	41	261615M6	21.071	ppbV	
4) propane	4.956	29	218105	20.526	ppbV #	92
5) dichlorodifluoromethane	5.036	85	916536	20.216	ppbV	99
6) chloromethane	5.277	50	265854	20.382	ppbV	100
7) Freon-114	5.437	85	984447	20.240	ppbV	100
8) methanol	5.557	31	419481M4	99.269	ppbV	
9) vinyl chloride	5.610	62	324412	20.390	ppbV	100
10) 1,3-butadiene	5.811	54	236122	20.252	ppbV	99
11) butane	5.891	43	437875	19.896	ppbV	99
12) acetaldehyde	5.464	29	725703	100.544	ppbV	99
13) bromomethane	6.190	94	333420	20.430	ppbV	100
14) chloroethane	6.453	64	176032	20.141	ppbV	100
15) ethanol	6.656	31	939118	102.621	ppbV	98
16) dichlorofluoromethane	6.596	67	726351	20.047	ppbV	100
17) vinyl bromide	6.930	106	363380	20.485	ppbV	99
18) acrolein	7.097	56	137621	20.738	ppbV	97
19) acetone	7.264	43	2156810	97.946	ppbV	99
20) acetonitrile	6.930	41	254905	20.162	ppbV	99
21) trichlorofluoromethane	7.491	101	947624	20.208	ppbV	100
22) isopropyl alcohol	7.611	45	520755	22.144	ppbV	100
23) acrylonitrile	7.885	53	244931M6	19.884	ppbV	
24) pentane	7.957	43	543905	19.992	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141342.D
Acq On : 21 Jan 2015 02:26 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD020
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:18:13 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.981	31	328498	19.688	ppbV		99
26) 1,1-dichloroethene	8.303	61	537286	20.121	ppbV		99
27) tertiary butyl alcohol	8.363	59	716124M6	21.748	ppbV		
28) methylene chloride	8.458	49	357769	19.898	ppbV		99
29) 3-chloropropene	8.601	41	392612	19.947	ppbV		99
30) carbon disulfide	8.792	76	1058741	20.130	ppbV		98
31) Freon 113	8.780	101	755788	20.014	ppbV		99
32) trans-1,2-dichloroethene	9.591	61	516753	19.924	ppbV		99
33) 1,1-dichloroethane	9.828	63	608462	19.580	ppbV		100
34) MTBE	9.893	73	993165	19.587	ppbV		99
35) vinyl acetate	10.001	43	791073	20.021	ppbV		100
36) 2-butanone	10.282	43	686232	19.619	ppbV		99
37) cis-1,2-dichloroethene	10.795	61	455347	19.777	ppbV		100
38) Ethyl Acetate	11.033	61	113806	19.655	ppbV	#	55
39) chloroform	11.126	83	731885	19.697	ppbV		100
40) Tetrahydrofuran	11.576	42	443010	21.434	ppbV		100
41) 2,2-dichloropropane	11.152	77	641971	19.597	ppbV		99
42) 1,2-dichloroethane	11.959	62	495031	21.229	ppbV		99
44) hexane	11.020	57	519292	19.663	ppbV		94
45) diisopropyl ether	11.020	87	305810	19.808	ppbV		98
46) tert-butyl ethyl ether	11.615	59	1135926	21.589	ppbV		99
48) 1,1,1-trichloroethane	12.237	97	816771	20.232	ppbV		99
49) 1,1-dichloropropene	12.580	75	598975	20.245	ppbV		99
50) benzene	12.750	78	1154025	19.984	ppbV		100
51) thiophene	12.906	84	791847	20.116	ppbV		97
52) carbon tetrachloride	12.921	117	899017	20.232	ppbV		99
53) cyclohexane	13.063	56	592949	19.522	ppbV		99
54) tert-amyl methyl ether	13.389	73	1149381	19.954	ppbV		100
55) dibromomethane	13.645	93	486735	20.431	ppbV		98
56) 1,2-dichloropropane	13.659	63	420171	19.999	ppbV		99
57) bromodichloromethane	13.886	83	963554	20.373	ppbV		100
58) 1,4-dioxane	13.915	88	302764	21.489	ppbV		96
59) trichloroethene	13.929	130	601370	20.308	ppbV		100
60) 2,2,4-trimethylpentane	13.957	57	1898844	19.809	ppbV		99
61) methyl methacrylate	14.113	41	502067	20.037	ppbV		99
62) heptane	14.227	43	655460	19.790	ppbV		99
63) cis-1,3-dichloropropene	14.872	75	680833	20.304	ppbV		95
64) 4-methyl-2-pentanone	14.884	43	922409	20.170	ppbV		100
65) trans-1,3-dichloropropene	15.387	75	703617	20.361	ppbV		100
66) 1,1,2-trichloroethane	15.567	97	516412	20.135	ppbV		100

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141342.D
Acq On : 21 Jan 2015 02:26 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD020
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:18:13 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.837	91	1514033	19.968	ppbV	100
70) 2-methylthiophene	15.902	97	1359604	19.731	ppbV	99
71) 1,3-dichloropropane	15.863	76	718834	19.883	ppbV	97
72) 2-hexanone	16.044	43	896442	20.042	ppbV	100
73) 3-methylthiophene	16.069	97	1281204	19.777	ppbV	99
74) dibromochloromethane	16.237	129	1122956	20.547	ppbV	100
75) 1,2-dibromoethane	16.469	107	862125	20.267	ppbV	99
76) butyl acetate	16.597	73	209262	20.363	ppbV	98
77) octane	16.688	85	488460	20.033	ppbV	99
78) tetrachloroethene	16.855	166	901735	20.365	ppbV	100
79) 1,1,1,2-tetrachloroethane	17.404	131	767744	20.598	ppbV	100
80) chlorobenzene	17.427	112	1286667	20.312	ppbV	99
81) ethylbenzene	17.713	91	2057034	20.261	ppbV	99
82) 2-ethylthiophene	17.743	97	1572772	20.168	ppbV	100
83) m+p-xylene	17.849	91	3187851	40.660	ppbV	100
84) bromoform	17.939	173	1312586	21.006	ppbV	99
85) styrene	18.128	104	1294033	20.495	ppbV	100
86) 1,1,2,2-tetrachloroethane	18.210	83	1196661	20.022	ppbV	99
87) o-xylene	18.218	91	1658473	20.294	ppbV	99
88) 1,2,3-trichloropropane	18.316	75	888904	19.967	ppbV	99
89) nonane	18.339	43	1011490	20.185	ppbV	99
91) isopropylbenzene	18.655	105	2294806	19.905	ppbV	100
92) bromobenzene	18.746	77	1123552	20.286	ppbV	100
93) 2-chlorotoluene	19.026	126	645563	20.010	ppbV	91
94) n-propylbenzene	19.034	120	676696	19.737	ppbV	94
95) 4-chlorotoluene	19.075	91	1389581	20.792	ppbV	100
96) 4-ethyl toluene	19.141	105	2503646	19.247	ppbV	99
97) 1,3,5-trimethylbenzene	19.190	105	1839545	19.633	ppbV	100
98) tert-butylbenzene	19.511	119	2205323	19.779	ppbV	99
99) 1,2,4-trimethylbenzene	19.511	105	1997260	20.168	ppbV	99
100) decane	19.535	57	1196142	19.678	ppbV	99
101) Benzyl Chloride	19.634	91	1955556	21.598	ppbV	99
102) 1,3-dichlorobenzene	19.650	146	1505027	20.401	ppbV	99
103) 1,4-dichlorobenzene	19.700	146	1492784	20.832	ppbV	100
104) sec-butylbenzene	19.716	105	2915994	20.120	ppbV	99
105) 1,2,3-trimethylbenzene	19.847	105	1768870	20.686	ppbV	99
106) p-isopropyltoluene	19.831	119	2794997M6	20.393	ppbV	
107) 1,2-dichlorobenzene	19.979	146	1456705	20.955	ppbV	100
108) n-butylbenzene	20.168	91	2394718	20.881	ppbV	99
109) indan	20.020	117	1964661	20.628	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141342.D
Acq On : 21 Jan 2015 02:26 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD020
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:18:13 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

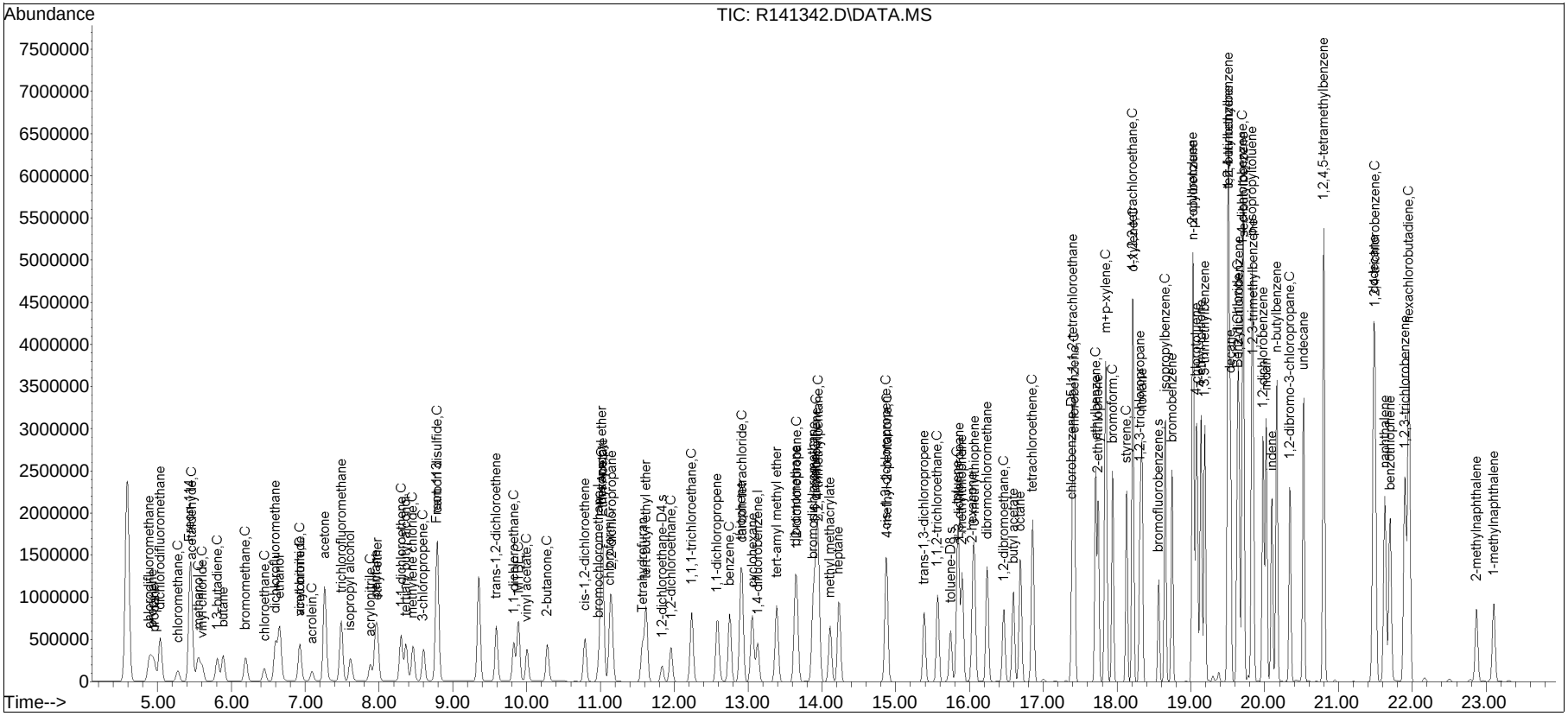
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.102	115	1398273	21.399	ppbV	100
111) 1,2-dibromo-3-chloropr...	20.340	75	630847	20.884	ppbV	97
112) undecane	20.529	57	1339132	19.615	ppbV	99
113) 1,2,4,5-tetramethylben...	20.800	119	3483498	18.137	ppbV	98
114) dodecane	21.480	57	1403047	19.552	ppbV	99
115) 1,2,4-trichlorobenzene	21.493	180	1415704	21.094	ppbV	100
116) naphthalene	21.629	128	2769390	19.916	ppbV	100
117) 1,2,3-trichlorobenzene	21.902	180	1312487	20.325	ppbV	100
118) benzothiophene	21.704	134	2445871	17.940	ppbV	100
119) hexachlorobutadiene	21.952	225	1354131	20.079	ppbV	98
120) 2-methylnaphthalene	22.870	142	711692	16.471	ppbV	100
121) 1-methylnaphthalene	23.106	142	765707	17.657	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141342.D
Acq On : 21 Jan 2015 02:26 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD020
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

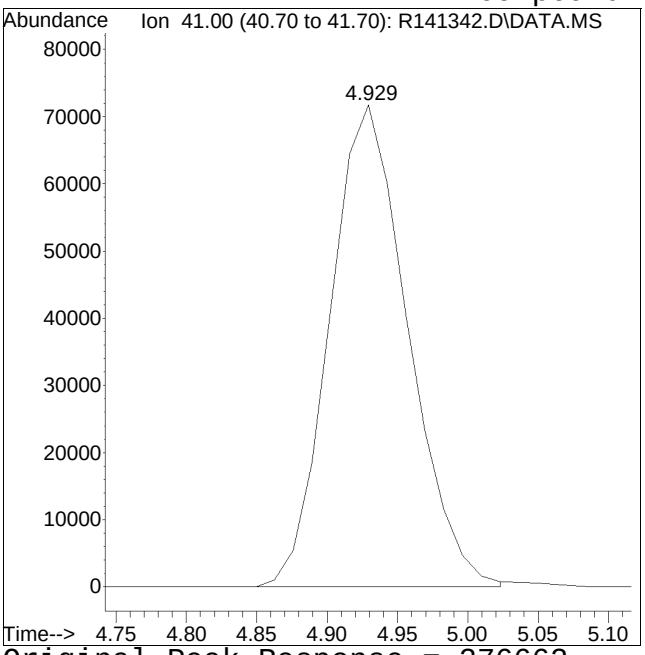
Quant Time: Jan 21 14:18:13 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration



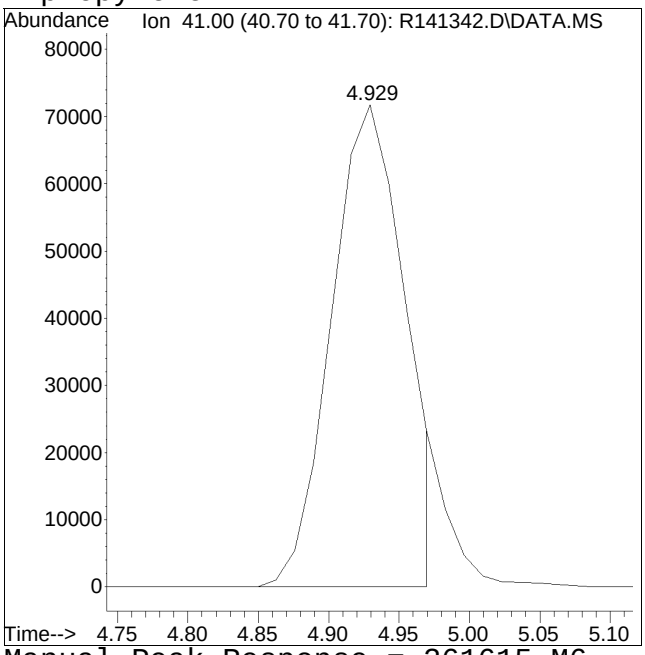
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141342.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 2:26 am Instrument : Airlab 14
Sample : ITO15-SIMSTD020 Quant Date : 1/21/2015 6:25 am

Compound #3: propylene



Original Peak Response = 276662



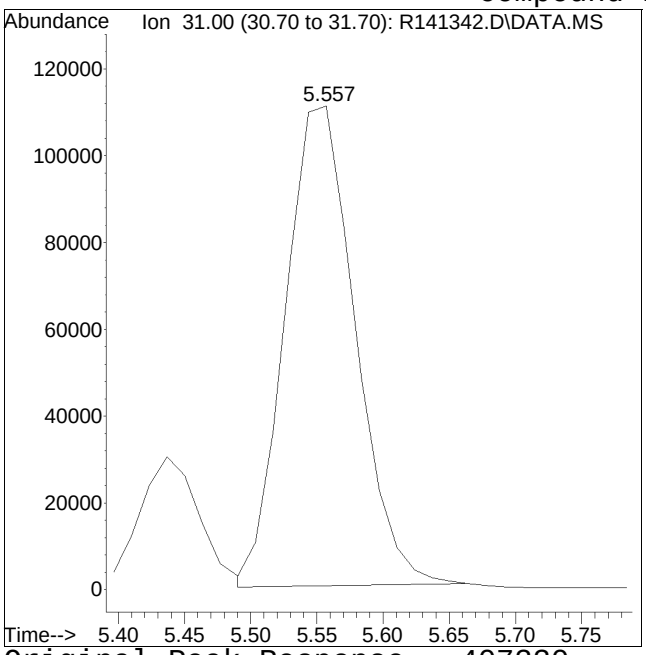
Manual Peak Response = 261615 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

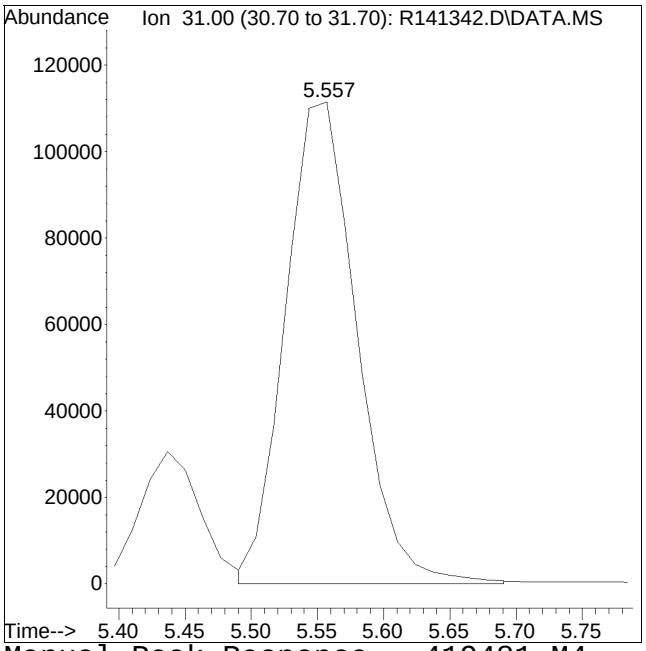
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141342.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 2:26 am Instrument : Airlab 14
Sample : ITO15-SIMSTD020 Quant Date : 1/21/2015 6:25 am

Compound #8: methanol



Original Peak Response = 407330



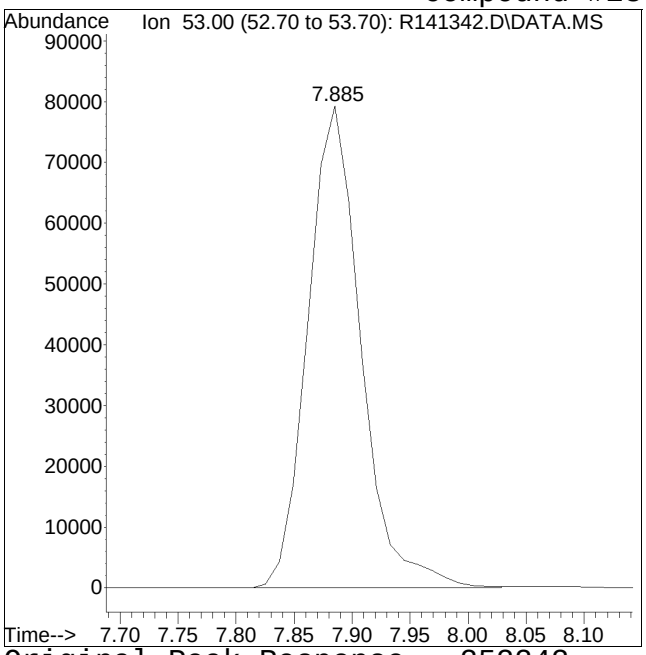
Manual Peak Response = 419481 M4

M4 = Poor automated baseline construction.

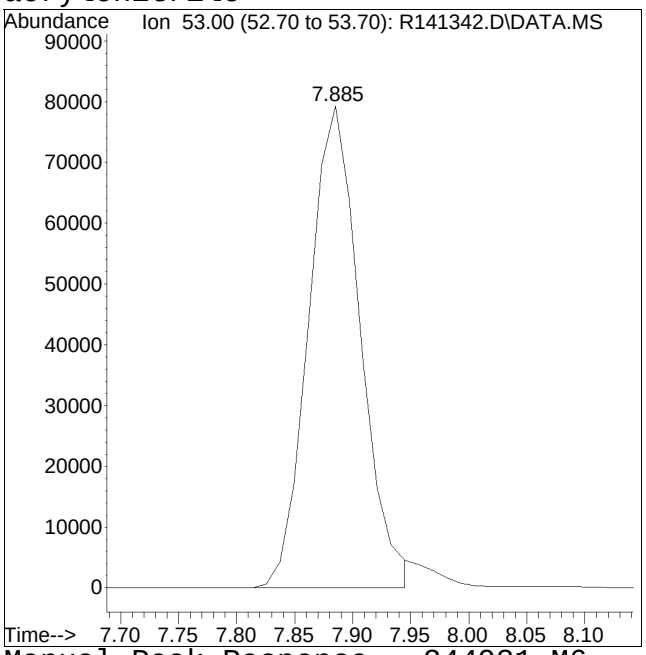
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141342.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 2:26 am Instrument : Airlab 14
Sample : ITO15-SIMSTD020 Quant Date : 1/21/2015 6:25 am

Compound #23: acrylonitrile



Original Peak Response = 252242



Manual Peak Response = 244931 M6

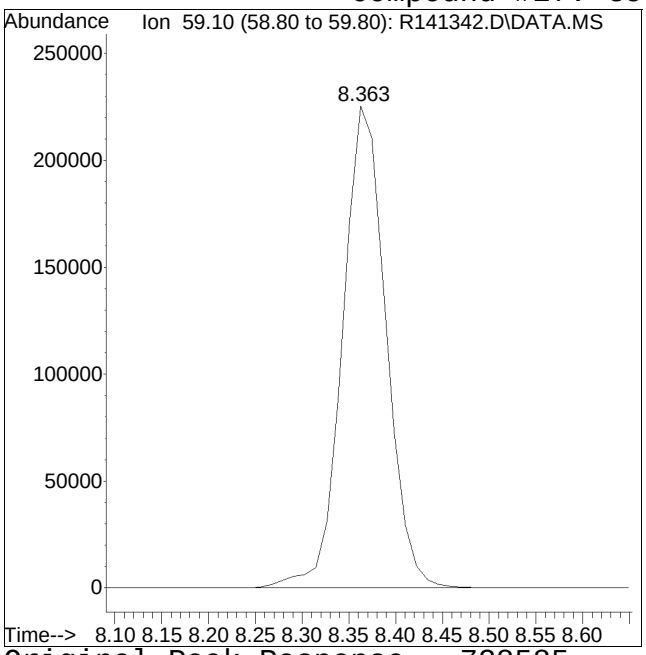
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

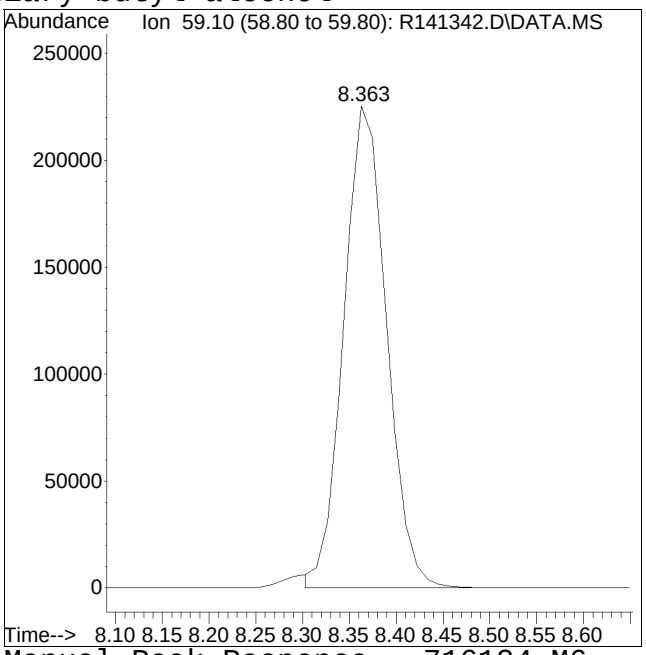
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141342.D
Date Inj'd : 1/21/2015 2:26 am
Sample : ITO15-SIMSTD020

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 1/21/2015 6:25 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 728585



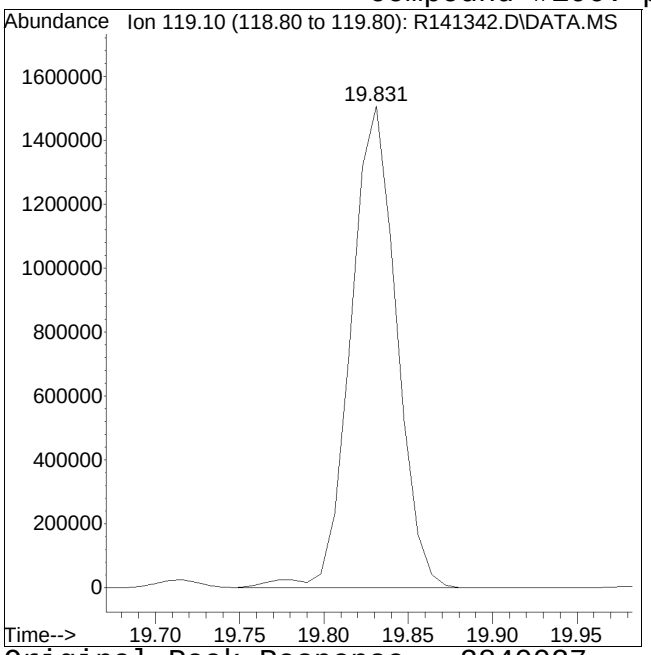
Manual Peak Response = 716124 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

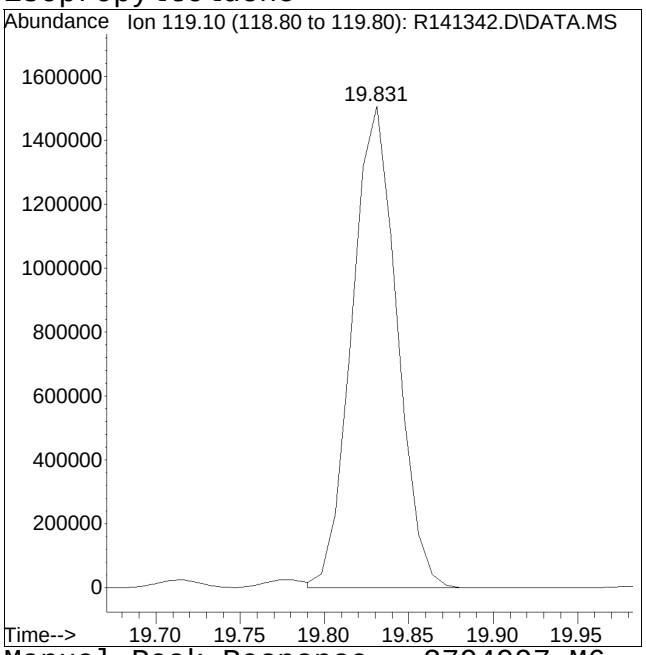
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141342.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 2:26 am Instrument : Airlab 14
Sample : ITO15-SIMSTD020 Quant Date : 1/21/2015 6:25 am

Compound #106: p-isopropyltoluene



Original Peak Response = 2840027



Manual Peak Response = 2794997 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141343.D
Acq On : 21 Jan 2015 03:15 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD050
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:00 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.980	49	184320	10.000	ppbV	0.01
Standard Area = 169082			Recovery = 109.01%			
43) 1,4-difluorobenzene	13.133	114	670959	10.000	ppbV	0.01
Standard Area = 662709			Recovery = 101.24%			
67) chlorobenzene-D5	17.389	54	122792	10.000	ppbV	# 0.00
Standard Area = 123609			Recovery = 99.34%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.840	65	194826	10.210	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.10%			
69) toluene-D8	15.747	98	593821	10.053	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.53%			
90) bromofluorobenzene	18.564	95	441518	10.115	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.15%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.876	51	1149698	41.233	ppbV	100
3) propylene	4.916	41	555953M6	39.786	ppbV	
4) propane	4.942	29	494583	41.357	ppbV	94
5) dichlorodifluoromethane	5.023	85	2107072	41.294	ppbV	99
6) chloromethane	5.263	50	624459	42.537	ppbV	99
7) Freon-114	5.423	85	2315421	42.296	ppbV	99
8) methanol	5.543	31	1047875M4	220.329	ppbV	
9) vinyl chloride	5.584	62	767378	42.854	ppbV	100
10) 1,3-butadiene	5.797	54	557925	42.518	ppbV	99
11) butane	5.877	43	1024015	41.341	ppbV	100
12) acetaldehyde	5.450	29	1694751	208.623	ppbV	97
13) bromomethane	6.178	94	796761	43.377	ppbV	100
14) chloroethane	6.429	64	421964	42.897	ppbV	100
15) ethanol	6.655	31	2293175	222.646	ppbV	97
16) dichlorofluoromethane	6.584	67	1758629	43.126	ppbV	100
17) vinyl bromide	6.918	106	878941	44.024	ppbV	99
18) acrolein	7.085	56	343325	45.966	ppbV	97
19) acetone	7.264	43	5253451	211.973	ppbV	97
20) acetonitrile	6.930	41	637890	44.828	ppbV	98
21) trichlorofluoromethane	7.479	101	2256940	42.762	ppbV	99
22) isopropyl alcohol	7.610	45	1292295	48.825	ppbV	100
23) acrylonitrile	7.885	53	624748M6	45.063	ppbV	
24) pentane	7.945	43	1291297	42.172	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141343.D
Acq On : 21 Jan 2015 03:15 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD050
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:00 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.968	31	796320	42.405	ppbV	98
26) 1,1-dichloroethene	8.291	61	1306461	43.471	ppbV	99
27) tertiary butyl alcohol	8.362	59	1780521M6	48.043	ppbV	
28) methylene chloride	8.458	49	875960	43.286	ppbV	97
29) 3-chloropropene	8.601	41	959787	43.326	ppbV	98
30) carbon disulfide	8.792	76	2584974	43.668	ppbV	97
31) Freon 113	8.780	101	1865934	43.904	ppbV	99
32) trans-1,2-dichloroethene	9.590	61	1289358	44.170	ppbV	97
33) 1,1-dichloroethane	9.828	63	1538088	43.976	ppbV	100
34) MTBE	9.882	73	2528915	44.314	ppbV	99
35) vinyl acetate	10.001	43	2001444	45.007	ppbV	99
36) 2-butanone	10.282	43	1722146	43.745	ppbV	98
37) cis-1,2-dichloroethene	10.795	61	1158451	44.705	ppbV	99
38) Ethyl Acetate	11.046	61	289250	44.385	ppbV	76
39) chloroform	11.139	83	1860634	44.491	ppbV	100
40) Tetrahydrofuran	11.562	42	1007398	43.307	ppbV	98
41) 2,2-dichloropropane	11.152	77	1631508	44.251	ppbV	98
42) 1,2-dichloroethane	11.959	62	1151618	43.881	ppbV	100
44) hexane	11.020	57	1281234	45.795	ppbV	96
45) diisopropyl ether	11.020	87	785654	48.036	ppbV	91
46) tert-butyl ethyl ether	11.615	59	2616953	46.949	ppbV	99
48) 1,1,1-trichloroethane	12.237	97	1894597	44.299	ppbV	97
49) 1,1-dichloropropene	12.579	75	1314419	41.936	ppbV	98
50) benzene	12.750	78	2797049	45.721	ppbV	100
51) thiophene	12.906	84	1985465	47.612	ppbV	96
52) carbon tetrachloride	12.920	117	2258038	47.967	ppbV	99
53) cyclohexane	13.048	56	1461304	45.415	ppbV	99
54) tert-amyl methyl ether	13.389	73	2862499	46.910	ppbV	100
55) dibromomethane	13.644	93	1224780	48.528	ppbV	98
56) 1,2-dichloropropane	13.673	63	1046705	47.028	ppbV	99
57) bromodichloromethane	13.886	83	2386996	47.642	ppbV	99
58) 1,4-dioxane	13.914	88	743408	49.806	ppbV	95
59) trichloroethene	13.928	130	1522891	48.545	ppbV	100
60) 2,2,4-trimethylpentane	13.957	57	4701444	46.296	ppbV	100
61) methyl methacrylate	14.113	41	1235965	46.560	ppbV	98
62) heptane	14.227	43	1637016	46.654	ppbV	99
63) cis-1,3-dichloropropene	14.871	75	1694695	47.705	ppbV	99
64) 4-methyl-2-pentanone	14.884	43	2192865	45.263	ppbV	99
65) trans-1,3-dichloropropene	15.386	75	1765033	48.213	ppbV	99
66) 1,1,2-trichloroethane	15.580	97	1278708	47.062	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141343.D
Acq On : 21 Jan 2015 03:15 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD050
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:00 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.837	91	3670645	47.048	ppbV		98
70) 2-methylthiophene	15.902	97	3332729	47.004	ppbV		98
71) 1,3-dichloropropane	15.863	76	1759240	47.291	ppbV		97
72) 2-hexanone	16.056	43	2102718	45.688	ppbV		95
73) 3-methylthiophene	16.069	97	3158400	47.381	ppbV		99
74) dibromochloromethane	16.249	129	2755000	48.989	ppbV		99
75) 1,2-dibromoethane	16.468	107	2130709	48.680	ppbV		100
76) butyl acetate	16.597	73	505772	47.831	ppbV		95
77) octane	16.687	85	1210840	48.261	ppbV		98
78) tetrachloroethene	16.855	166	2270846	49.841	ppbV		100
79) 1,1,1,2-tetrachloroethane	17.411	131	1870688	48.777	ppbV		99
80) chlorobenzene	17.426	112	3119025	47.852	ppbV		98
81) ethylbenzene	17.713	91	4751334	45.481	ppbV		97
82) 2-ethylthiophene	17.750	97	3690877	45.996	ppbV		97
83) m+p-xylene	17.856	91	7309707	90.607	ppbV		97
84) bromoform	17.946	173	3174158	49.366	ppbV		98
85) styrene	18.135	104	3056030	47.038	ppbV		99
86) 1,1,2,2-tetrachloroethane	18.218	83	2866534	46.610	ppbV		98
87) o-xylene	18.218	91	3802515	45.219	ppbV		97
88) 1,2,3-trichloropropane	18.316	75	2167773	47.323	ppbV		98
89) nonane	18.338	43	2289374	44.400	ppbV		98
91) isopropylbenzene	18.655	105	5237484	44.151	ppbV		96
92) bromobenzene	18.753	77	2726339	47.839	ppbV		94
93) 2-chlorotoluene	19.026	126	1591357	47.937	ppbV	#	44
94) n-propylbenzene	19.034	120	1711162	48.505	ppbV		75
95) 4-chlorotoluene	19.075	91	3742020M3	54.416	ppbV		
96) 4-ethyl toluene	19.141	105	5896195	44.051	ppbV		95
97) 1,3,5-trimethylbenzene	19.190	105	4599222	47.705	ppbV		97
98) tert-butylbenzene	19.510	119	5193968	45.273	ppbV		96
99) 1,2,4-trimethylbenzene	19.510	105	4657398	45.705	ppbV		98
100) decane	19.543	57	2889167	46.193	ppbV		97
101) Benzyl Chloride	19.634	91	4705777	50.510	ppbV		98
102) 1,3-dichlorobenzene	19.658	146	3825738	50.400	ppbV		99
103) 1,4-dichlorobenzene	19.708	146	3595291	48.760	ppbV		99
104) sec-butylbenzene	19.716	105	6560941	43.994	ppbV		94
105) 1,2,3-trimethylbenzene	19.847	105	4168844	47.380	ppbV		92
106) p-isopropyltoluene	19.839	119	6267823M6	44.444	ppbV		
107) 1,2-dichlorobenzene	19.987	146	3487396	48.755	ppbV		99
108) n-butylbenzene	20.168	91	5370028	45.507	ppbV		95
109) indan	20.028	117	4539150	46.318	ppbV		97

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141343.D
Acq On : 21 Jan 2015 03:15 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD050
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:00 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

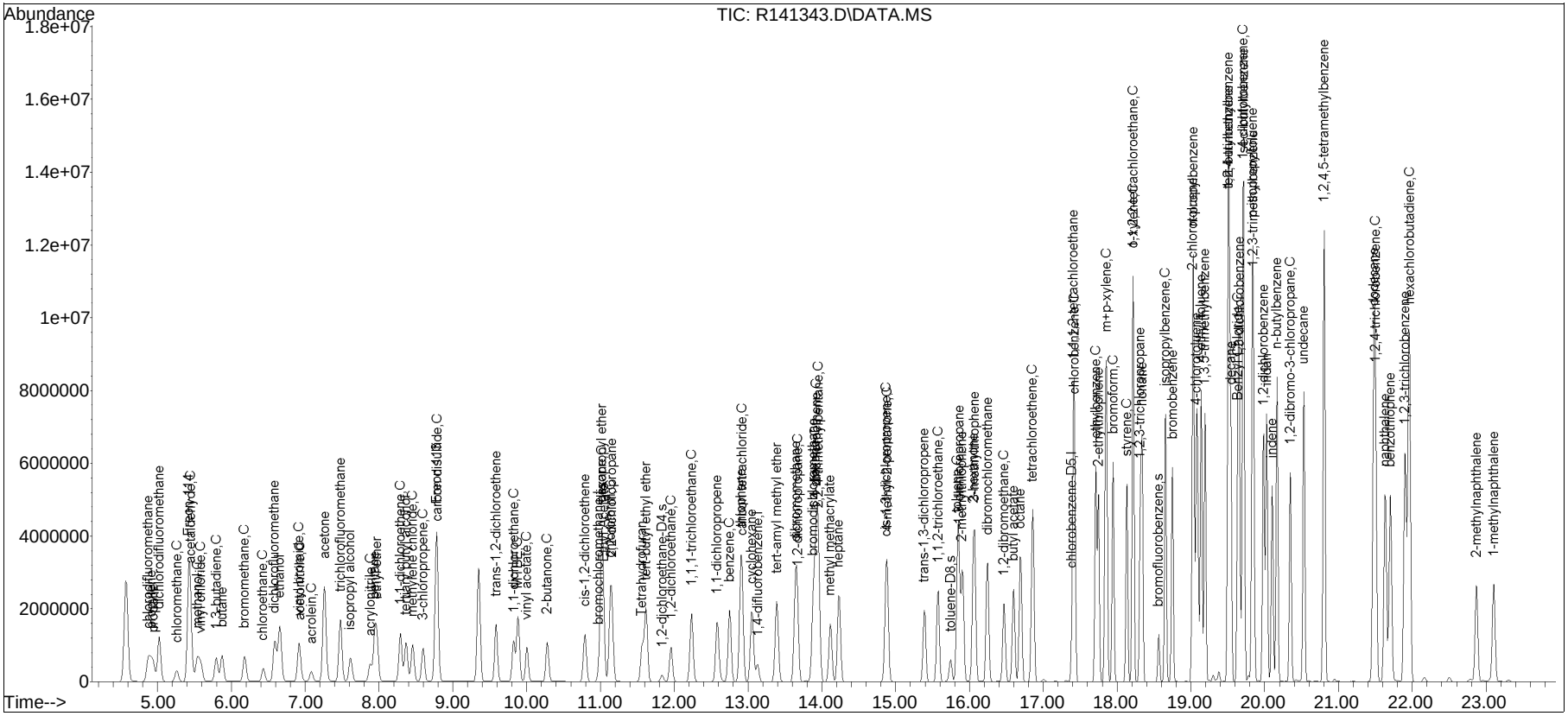
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.102	115	3298278	49.056	ppbV	99
111) 1,2-dibromo-3-chloropr...	20.348	75	1542723	49.634	ppbV	90
112) undecane	20.529	57	3213038	45.738	ppbV	97
113) 1,2,4,5-tetramethylben...	20.808	119	7886782	39.906	ppbV	91
114) dodecane	21.480	57	3316453	44.915	ppbV	96
115) 1,2,4-trichlorobenzene	21.505	180	3651094	52.869	ppbV	99
116) naphthalene	21.629	128	6646808	46.454	ppbV	98
117) 1,2,3-trichlorobenzene	21.902	180	3387584	50.984	ppbV	99
118) benzothiophene	21.703	134	6085384	43.377	ppbV	98
119) hexachlorobutadiene	21.964	225	3506687	50.533	ppbV	93
120) 2-methylnaphthalene	22.870	142	2160869	48.602	ppbV	99
121) 1-methylnaphthalene	23.106	142	2197456	49.245	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141343.D
Acq On : 21 Jan 2015 03:15 am
Operator : AIRLAB14:MB
Sample : ITO15-SIMSTD050
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

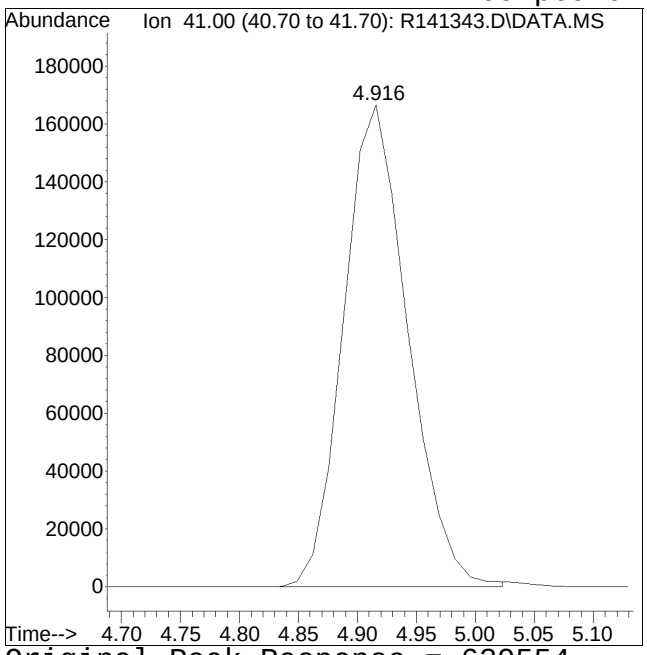
Quant Time: Jan 21 14:42:00 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration



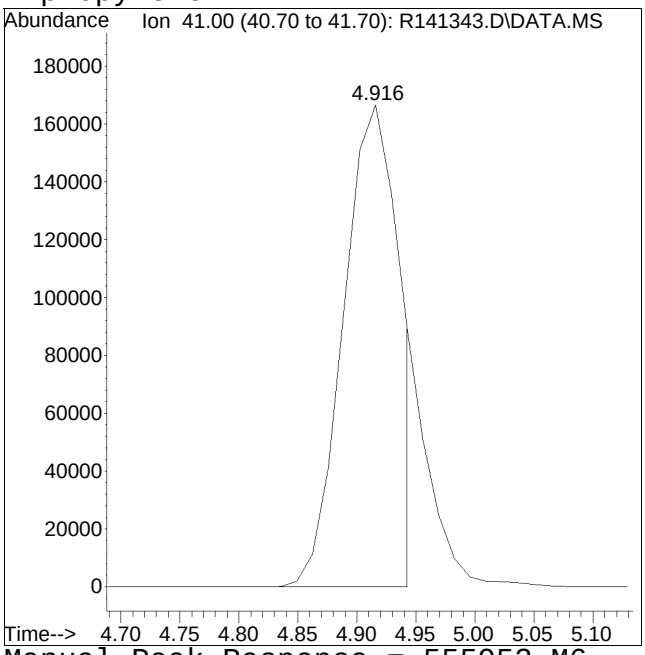
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141343.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 3:15 am Instrument : Airlab 14
Sample : ITO15-SIMSTD050 Quant Date : 1/21/2015 6:25 am

Compound #3: propylene



Original Peak Response = 630554



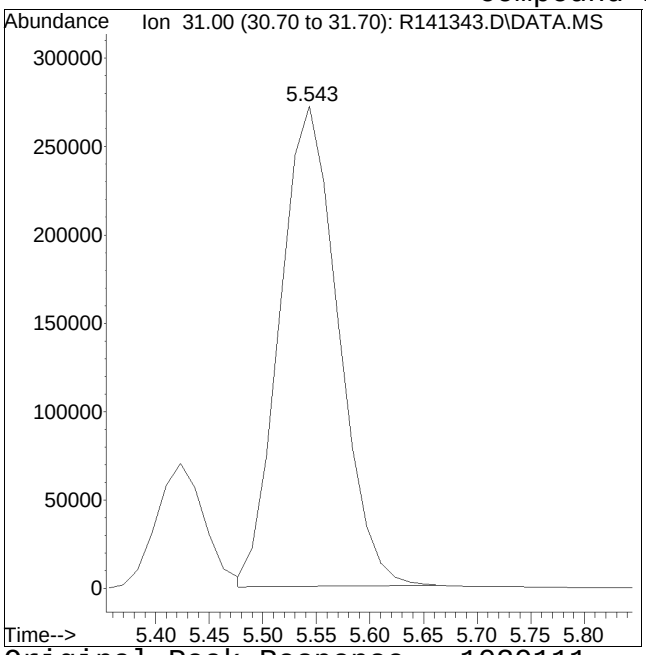
Manual Peak Response = 555953 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

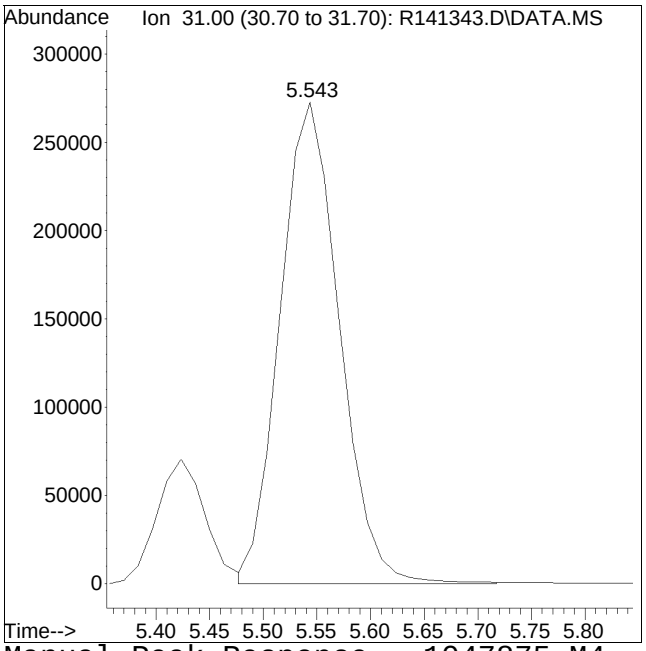
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141343.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 3:15 am Instrument : Airlab 14
Sample : ITO15-SIMSTD050 Quant Date : 1/21/2015 6:25 am

Compound #8: methanol



Original Peak Response = 1029111



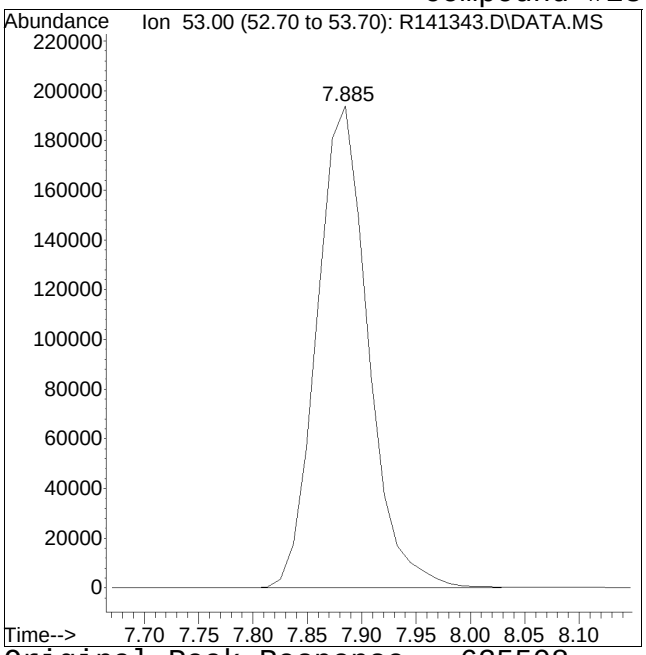
Manual Peak Response = 1047875 M4

M4 = Poor automated baseline construction.

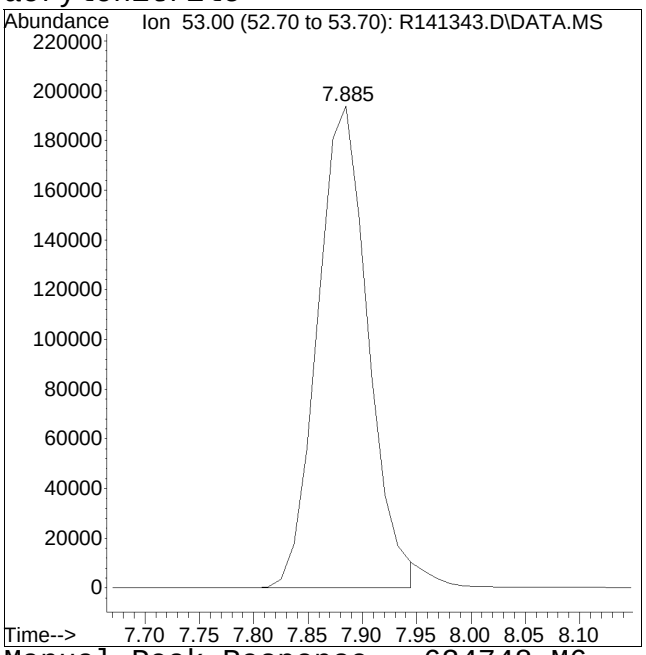
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141343.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 3:15 am Instrument : Airlab 14
Sample : ITO15-SIMSTD050 Quant Date : 1/21/2015 6:25 am

Compound #23: acrylonitrile



Original Peak Response = 635508



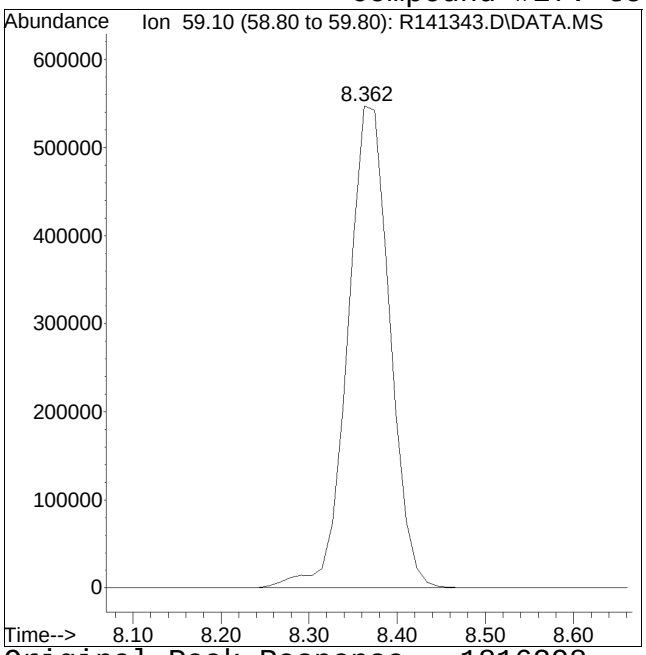
Manual Peak Response = 624748 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

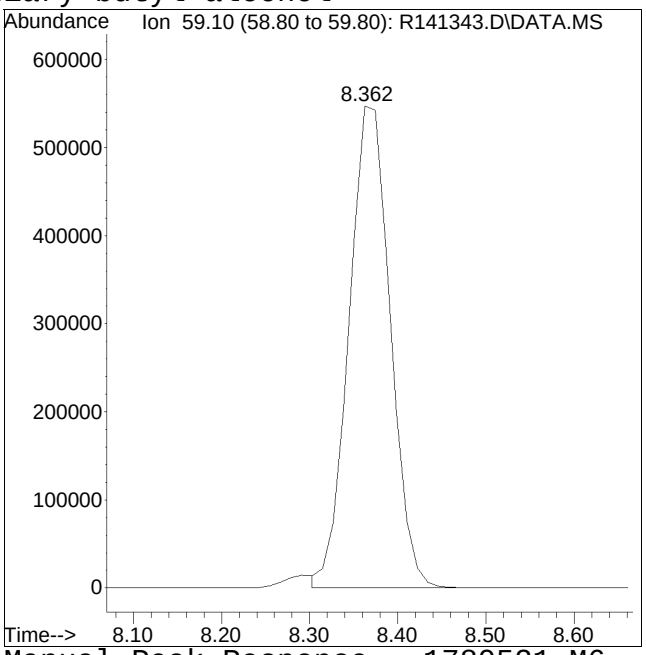
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141343.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 3:15 am Instrument : Airlab 14
Sample : ITO15-SIMSTD050 Quant Date : 1/21/2015 6:25 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 1816298



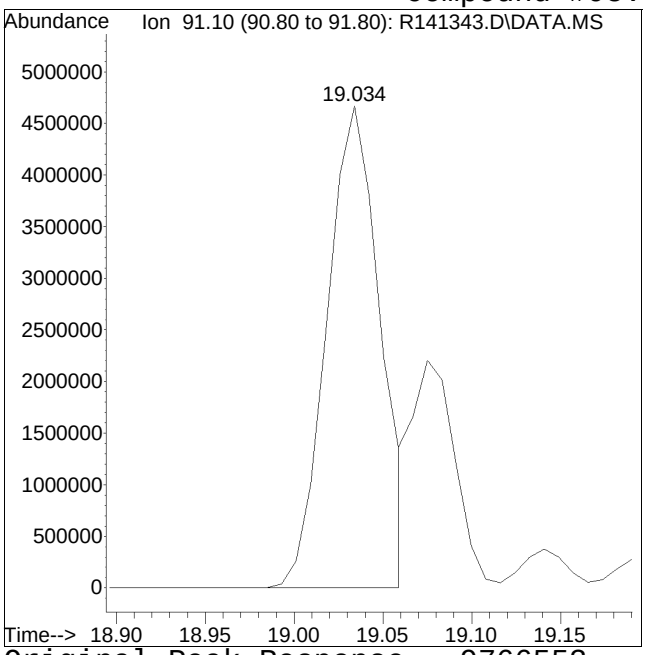
Manual Peak Response = 1780521 M6

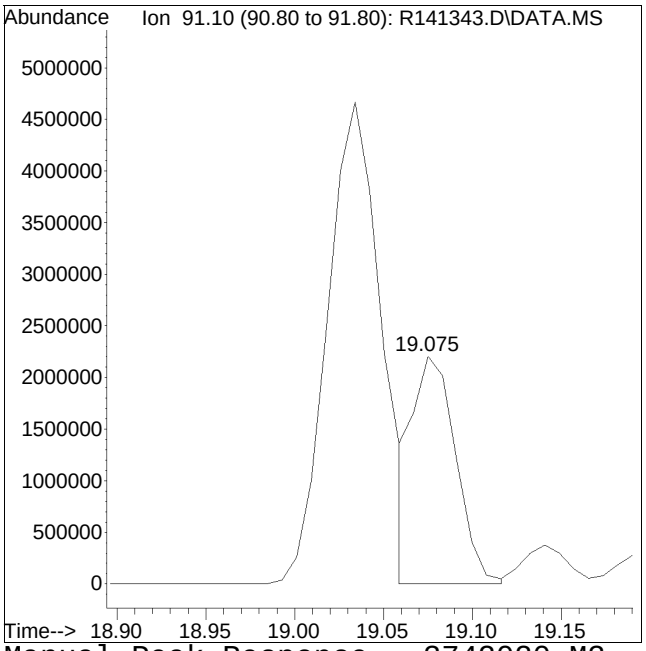
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141343.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 3:15 am Instrument : Airlab 14
Sample : ITO15-SIMSTD050 Quant Date : 1/21/2015 6:25 am

Compound #95: 4-chlorotoluene





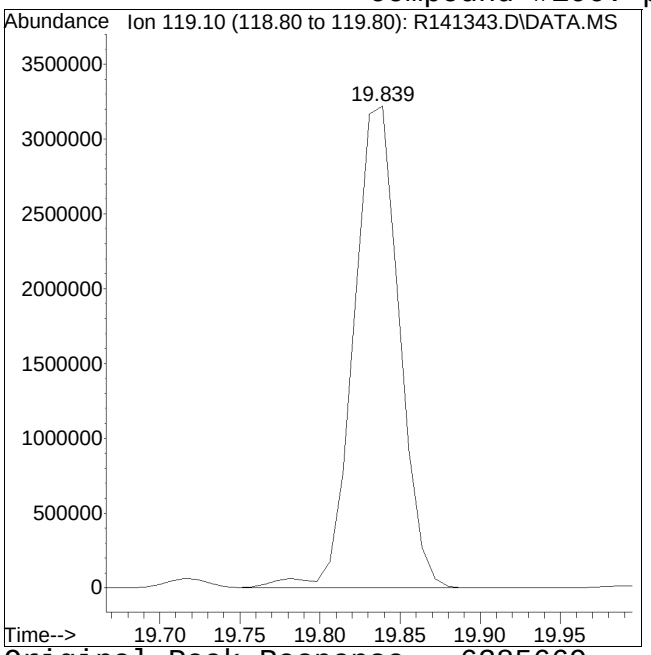
Original Peak Response = 9766553 Manual Peak Response = 3742020 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

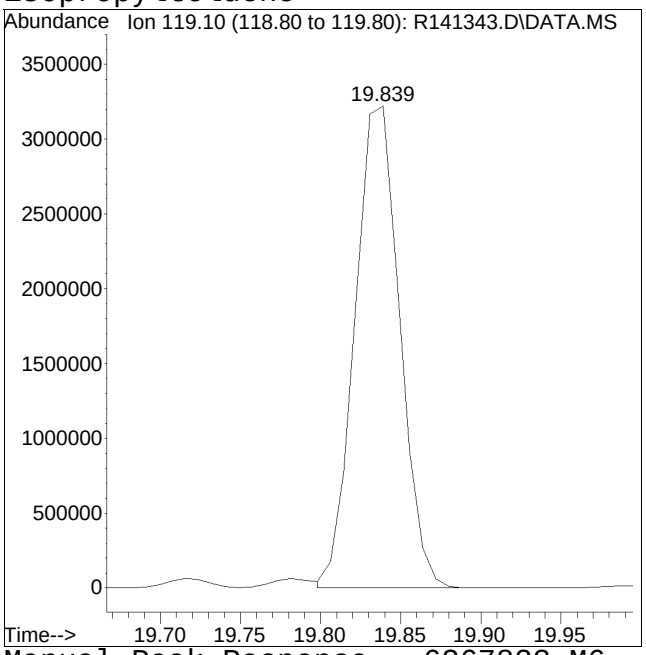
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141343.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 3:15 am Instrument : Airlab 14
Sample : ITO15-SIMSTD050 Quant Date : 1/21/2015 6:25 am

Compound #106: p-isopropyltoluene



Original Peak Response = 6385669



Manual Peak Response = 6267823 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141344.D
Acq On : 21 Jan 2015 04:10 am
Operator : AIRLAB14:MB
Sample : ITO15-LLSTD100
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:29 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.954	49	198450	10.000	ppbV	-0.01
Standard Area = 169082			Recovery = 117.37%			
43) 1,4-difluorobenzene	13.119	114	672710	10.000	ppbV	0.00
Standard Area = 662709			Recovery = 101.51%			
67) chlorobenzene-D5	17.389	54	118651	10.000	ppbV	# 0.00
Standard Area = 123609			Recovery = 95.99%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.814	65	201150	10.514	ppbV	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.14%			
69) toluene-D8	15.747	98	622232	10.902	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.02%			
90) bromofluorobenzene	18.565	95	446557	10.588	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.88%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.756	51	2400888	79.975	ppbV	100
3) propylene	4.796	41	1328472	88.301	ppbV	99
4) propane	4.836	29	1031908	80.144	ppbV	99
5) dichlorodifluoromethane	4.916	85	4463330	81.244	ppbV	98
6) chloromethane	5.156	50	1325673	83.873	ppbV	100
7) Freon-114	5.317	85	4970387	84.329	ppbV	99
8) methanol	5.477	31	2090793	408.314	ppbV	97
9) vinyl chloride	5.490	62	1666728	86.451	ppbV	99
10) 1,3-butadiene	5.704	54	1226542	86.817	ppbV	98
11) butane	5.771	43	2246803	84.248	ppbV	100
12) acetaldehyde	5.357	29	3372105	385.549	ppbV	95
13) bromomethane	6.083	94	2081795	105.266	ppbV	100
14) chloroethane	6.357	64	922997	87.151	ppbV	100
15) ethanol	6.620	31	4302697M6	388.006	ppbV	
16) dichlorofluoromethane	6.512	67	3753149	85.484	ppbV	99
17) vinyl bromide	6.847	106	1921002	89.366	ppbV	99
18) acrolein	7.026	56	723415	89.958	ppbV	97
19) acetone	7.217	43	10337466	387.411	ppbV	94
20) acetonitrile	6.870	41	1302608	85.024	ppbV	98
21) trichlorofluoromethane	7.408	101	4866667	85.644	ppbV	99
22) isopropyl alcohol	7.587	45	2513457	88.200	ppbV	99
23) acrylonitrile	7.837	53	1313633M6	88.005	ppbV	
24) pentane	7.873	43	2760583	83.737	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141344.D
Acq On : 21 Jan 2015 04:10 am
Operator : AIRLAB14:MB
Sample : ITO15-LLSTD100
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:29 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	7.921	31	1639575	81.093	ppbV		94
26) 1,1-dichloroethene	8.231	61	2791904	86.283	ppbV		98
27) tertiary butyl alcohol	8.339	59	3396352	85.118	ppbV		99
28) methylene chloride	8.410	49	1850550	84.936	ppbV		95
29) 3-chloropropene	8.553	41	2026760	84.977	ppbV		97
30) carbon disulfide	8.732	76	5480397	85.989	ppbV		95
31) Freon 113	8.732	101	4040525	88.300	ppbV		97
32) trans-1,2-dichloroethene	9.547	61	2739339	87.160	ppbV		96
33) 1,1-dichloroethane	9.785	63	3225831	85.664	ppbV		99
34) MTBE	9.850	73	5292831	86.142	ppbV		99
35) vinyl acetate	9.979	43	4095752	85.545	ppbV		97
36) 2-butanone	10.260	43	3465651	81.765	ppbV		97
37) cis-1,2-dichloroethene	10.769	61	2410037	86.381	ppbV		97
38) Ethyl Acetate	11.033	61	591489	84.300	ppbV	#	46
39) chloroform	11.126	83	3810226	84.623	ppbV		99
40) Tetrahydrofuran	11.549	42	2032258	81.143	ppbV		95
41) 2,2-dichloropropane	11.139	77	3393344	85.484	ppbV		95
42) 1,2-dichloroethane	11.946	62	2316643	81.987	ppbV		99
44) hexane	10.993	57	2666771	95.070	ppbV	#	58
45) diisopropyl ether	11.007	87	1647720	100.482	ppbV		80
46) tert-butyl ethyl ether	11.602	59	5309102	94.999	ppbV		98
48) 1,1,1-trichloroethane	12.224	97	3880774	90.502	ppbV		96
49) 1,1-dichloropropene	12.565	75	2706435	86.122	ppbV		96
50) benzene	12.736	78	5831222	95.071	ppbV		99
51) thiophene	12.892	84	4067904	97.295	ppbV		96
52) carbon tetrachloride	12.906	117	4691208	99.395	ppbV		100
53) cyclohexane	13.034	56	3059744	94.844	ppbV		99
54) tert-amyl methyl ether	13.389	73	5790378	94.644	ppbV		98
55) dibromomethane	13.645	93	2539322	100.351	ppbV		94
56) 1,2-dichloropropane	13.659	63	2117457	94.888	ppbV		98
57) bromodichloromethane	13.886	83	4838830	96.326	ppbV		98
58) 1,4-dioxane	13.914	88	1491155	99.643	ppbV		95
59) trichloroethene	13.929	130	3209042	102.028	ppbV		100
60) 2,2,4-trimethylpentane	13.943	57	9096918	89.346	ppbV		99
61) methyl methacrylate	14.113	41	2422175	91.009	ppbV		95
62) heptane	14.227	43	3252574	92.455	ppbV		96
63) cis-1,3-dichloropropene	14.871	75	3382847	94.979	ppbV		98
64) 4-methyl-2-pentanone	14.884	43	4194105	86.345	ppbV		96
65) trans-1,3-dichloropropene	15.387	75	3438909	93.691	ppbV		98
66) 1,1,2-trichloroethane	15.580	97	2565213	94.164	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141344.D
Acq On : 21 Jan 2015 04:10 am
Operator : AIRLAB14:MB
Sample : ITO15-LLSTD100
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:29 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	15.837	91	7050836	93.526	ppbV		96
70) 2-methylthiophene	15.915	97	6464526	94.356	ppbV		97
71) 1,3-dichloropropane	15.863	76	3460175	96.260	ppbV		96
72) 2-hexanone	16.056	43	3939610	88.587	ppbV	#	91
73) 3-methylthiophene	16.069	97	6060355	94.088	ppbV		97
74) dibromochloromethane	16.250	129	5321219	97.923	ppbV		98
75) 1,2-dibromoethane	16.468	107	4157457	98.300	ppbV		100
76) butyl acetate	16.597	73	1036755	101.468	ppbV		86
77) octane	16.700	85	2416140	99.662	ppbV		87
78) tetrachloroethene	16.855	166	4529404	102.883	ppbV		99
79) 1,1,1,2-tetrachloroethane	17.411	131	3620965	97.709	ppbV		100
80) chlorobenzene	17.434	112	5990145	95.108	ppbV		97
81) ethylbenzene	17.713	91	8667259	85.861	ppbV		90
82) 2-ethylthiophene	17.751	97	6871849	88.626	ppbV		93
83) m+p-xylene	17.864	91	12860080	164.970	ppbV		89
84) bromoform	17.954	173	6172076	99.342	ppbV		95
85) styrene	18.135	104	5929854	94.457	ppbV		96
86) 1,1,2,2-tetrachloroethane	18.225	83	4844133	81.516	ppbV		96
87) o-xylene	18.225	91	6671584	82.106	ppbV		94
88) 1,2,3-trichloropropane	18.323	75	4197969	94.840	ppbV		96
89) nonane	18.346	43	4021369	80.713	ppbV	#	92
91) isopropylbenzene	18.663	105	9093251	79.330	ppbV	#	85
92) bromobenzene	18.753	77	5242977	95.208	ppbV		95
93) 2-chlorotoluene	19.026	126	3116353	97.152	ppbV	#	1
94) n-propylbenzene	19.042	120	3143529	92.217	ppbV	#	26
95) 4-chlorotoluene	19.083	91	6040213M3	90.901	ppbV		
96) 4-ethyl toluene	19.141	105	10112492	78.188	ppbV	#	86
97) 1,3,5-trimethylbenzene	19.198	105	7715280	82.819	ppbV		90
98) tert-butylbenzene	19.519	119	8320483	75.056	ppbV		93
99) 1,2,4-trimethylbenzene	19.519	105	7359762	74.746	ppbV		98
100) decane	19.543	57	4909315	81.232	ppbV	#	94
101) Benzyl Chloride	19.642	91	8017578	89.061	ppbV	#	88
102) 1,3-dichlorobenzene	19.667	146	7158876	97.602	ppbV		97
103) 1,4-dichlorobenzene	19.716	146	5740532	80.571	ppbV		98
104) sec-butylbenzene	19.724	105	9893030	68.653	ppbV	#	85
105) 1,2,3-trimethylbenzene	19.856	105	7302950	85.897	ppbV		88
106) p-isopropyltoluene	19.839	119	9814595M6	72.023	ppbV		
107) 1,2-dichlorobenzene	19.995	146	6522693	94.371	ppbV		97
108) n-butylbenzene	20.176	91	9132545	80.093	ppbV	#	83
109) indan	20.036	117	7993892	84.417	ppbV		91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141344.D
Acq On : 21 Jan 2015 04:10 am
Operator : AIRLAB14:MB
Sample : ITO15-LLSTD100
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 14:42:29 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default - All compounds listed

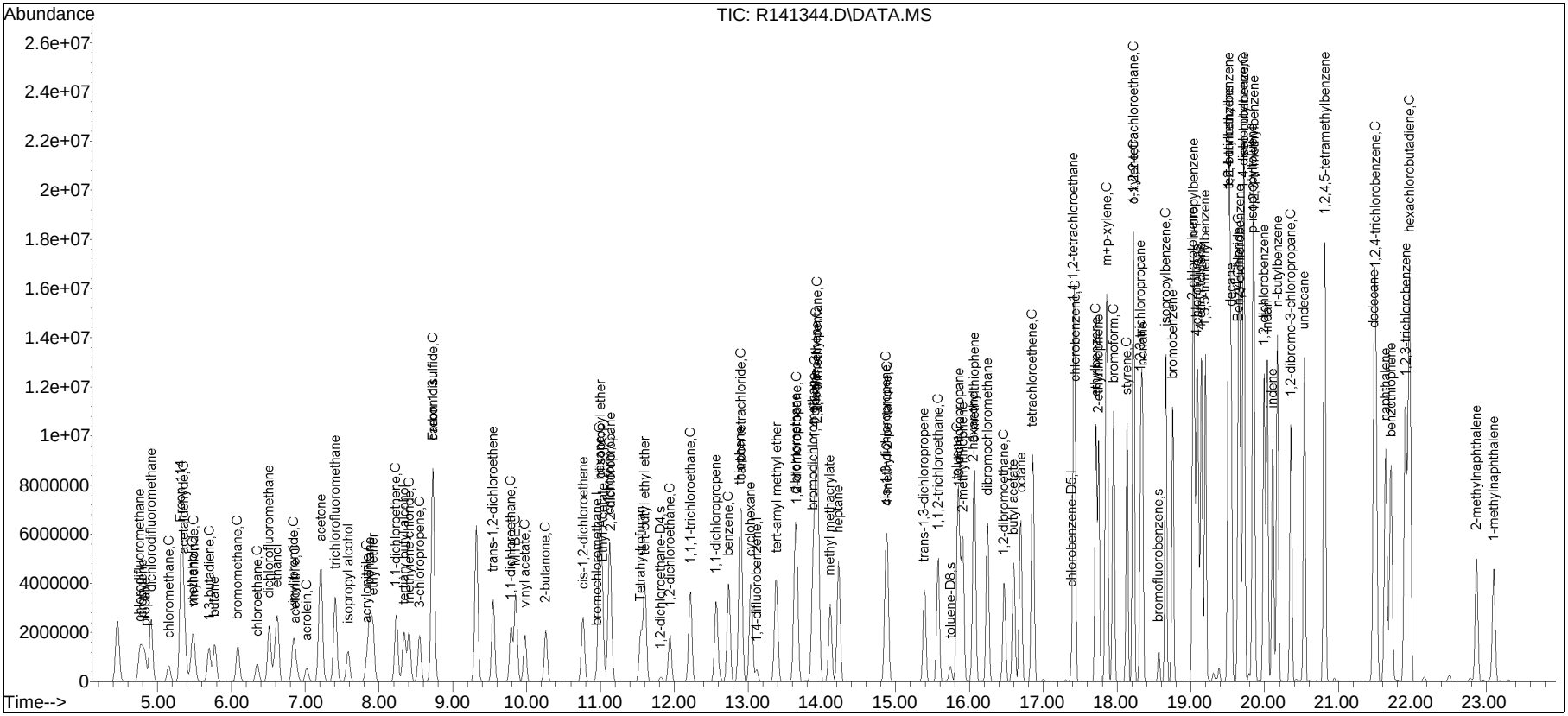
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	20.110	115	6112227	94.080	ppbV	98
111) 1,2-dibromo-3-chloropr...	20.357	75	2878037	95.826	ppbV	85
112) undecane	20.537	57	5230101	77.050	ppbV #	93
113) 1,2,4,5-tetramethylben...	20.817	119	12090107	63.309	ppbV #	83
114) dodecane	21.480	57	5042275	70.671	ppbV	94
115) 1,2,4-trichlorobenzene	21.505	180	6532737	97.898	ppbV	97
116) naphthalene	21.642	128	11245778	81.340	ppbV #	93
117) 1,2,3-trichlorobenzene	21.915	180	6373594	99.271	ppbV	98
118) benzothiophene	21.716	134	10427499	76.923	ppbV #	95
119) hexachlorobutadiene	21.964	225	6100494	90.980	ppbV	93
120) 2-methylnaphthalene	22.870	142	4117492	95.843	ppbV	99
121) 1-methylnaphthalene	23.106	142	3732205	86.558	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150120T_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141344.D
Acq On : 21 Jan 2015 04:10 am
Operator : AIRLAB14:MB
Sample : ITO15-LLSTD100
Misc : WG758134
ALS Vial : 8 Sample Multiplier: 1

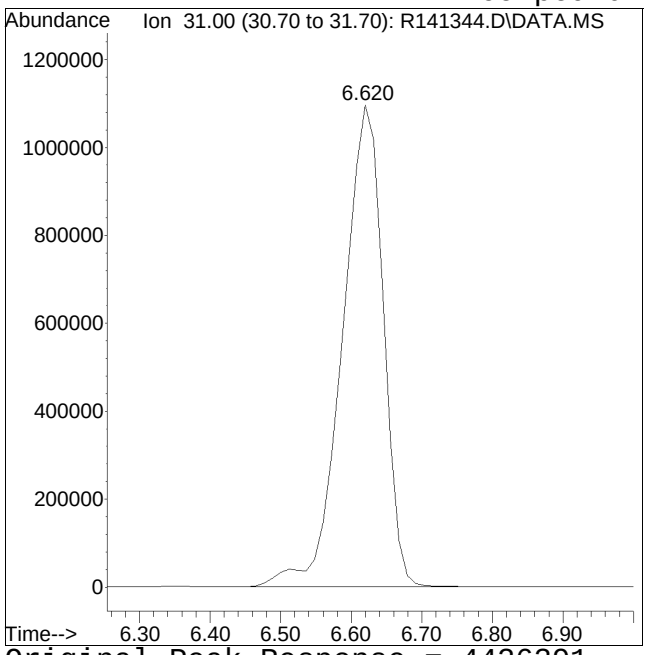
Quant Time: Jan 21 14:42:29 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 06:25:05 2015
Response via : Initial Calibration



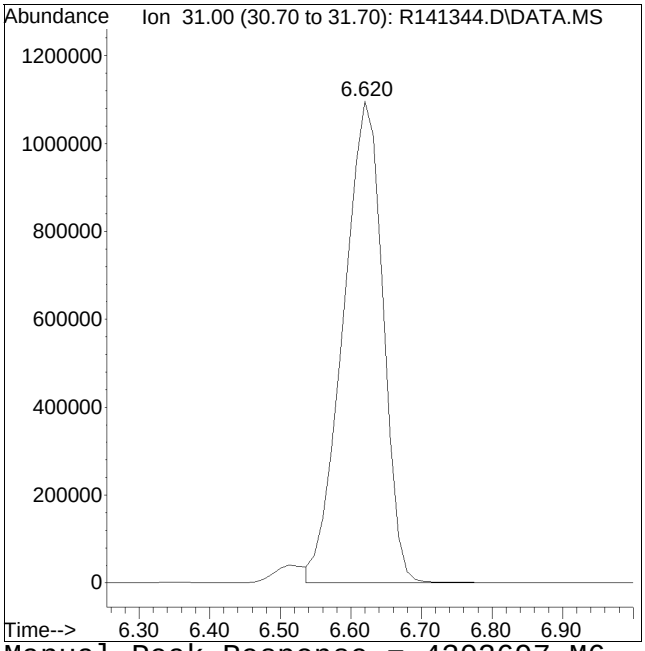
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141344.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 4:10 am Instrument : Airlab 14
Sample : ITO15-LLSTD100 Quant Date : 1/21/2015 6:25 am

Compound #15: ethanol



Original Peak Response = 4426391



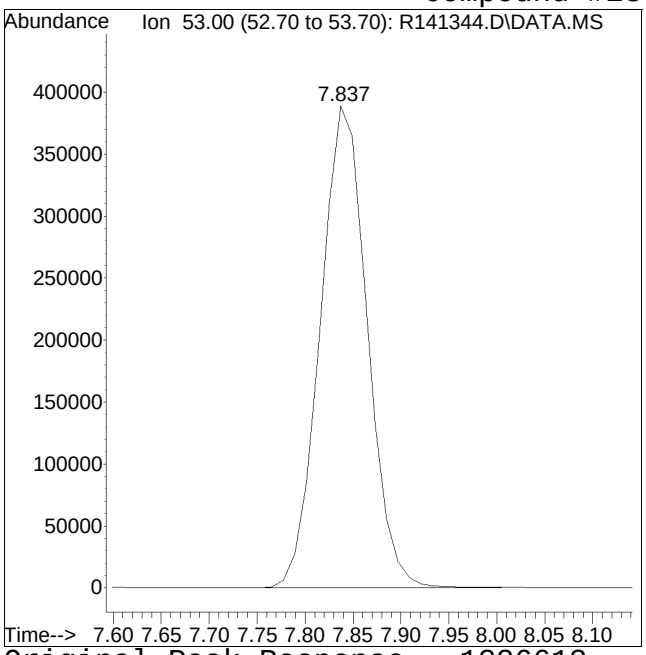
Manual Peak Response = 4302697 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

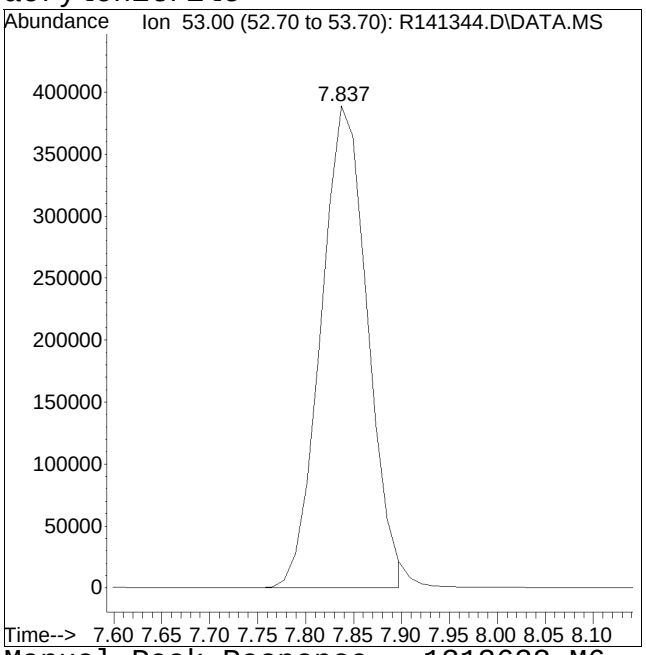
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141344.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 4:10 am Instrument : Airlab 14
Sample : ITO15-LLSTD100 Quant Date : 1/21/2015 6:25 am

Compound #23: acrylonitrile



Original Peak Response = 1326613



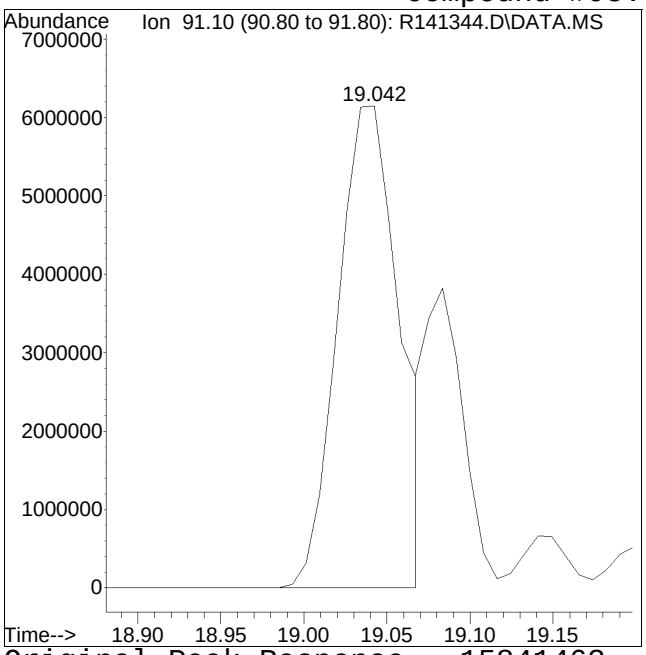
Manual Peak Response = 1313633 M6

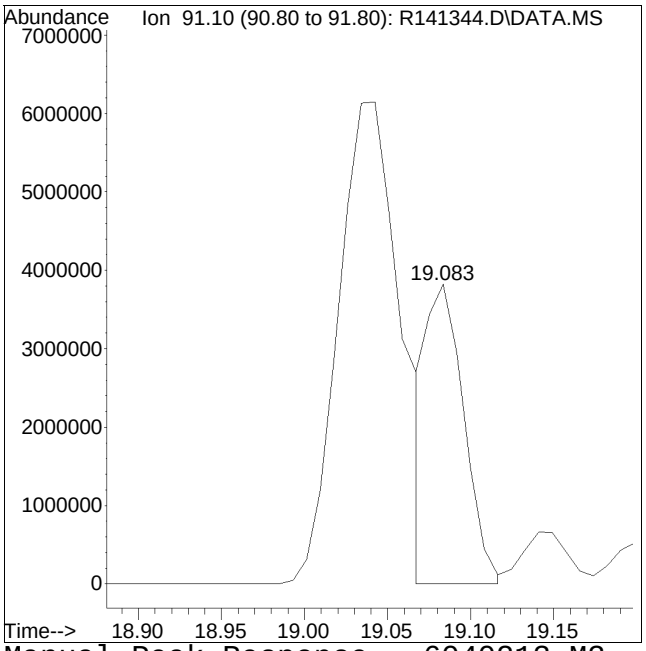
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141344.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 4:10 am Instrument : Airlab 14
Sample : ITO15-LLSTD100 Quant Date : 1/21/2015 6:25 am

Compound #95: 4-chlorotoluene



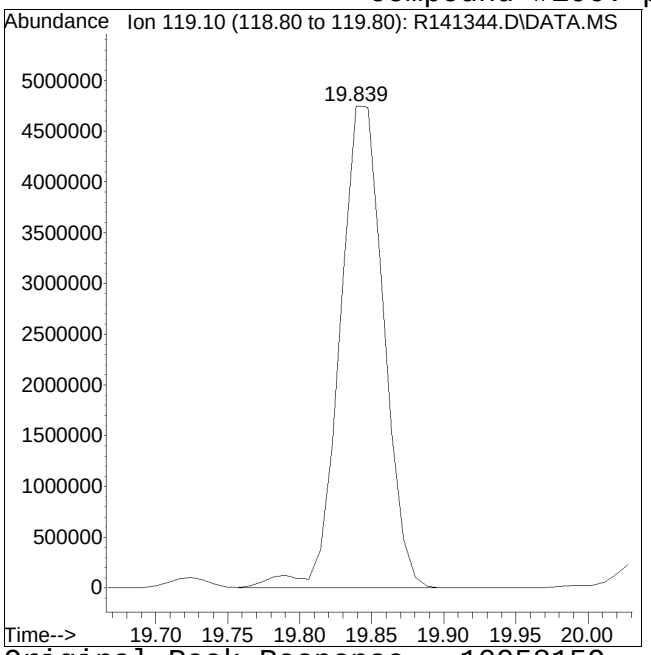


Original Peak Response = 15841463 Manual Peak Response = 6040213 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

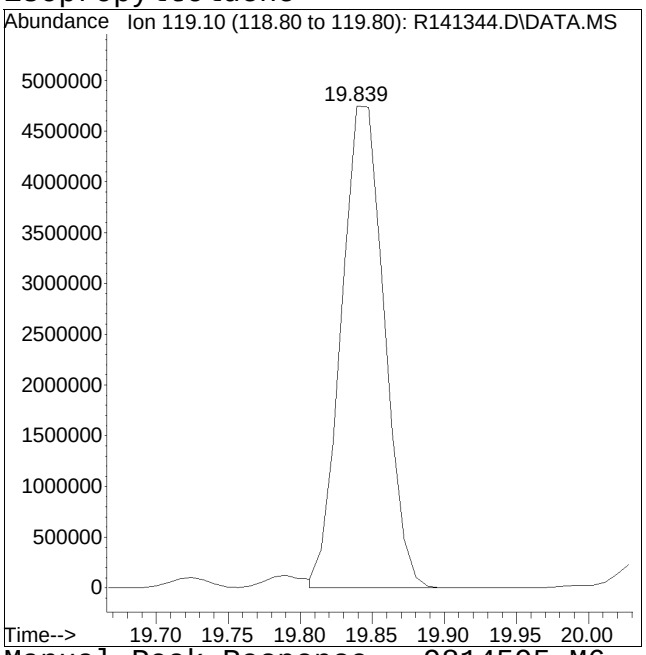
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141344.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 4:10 am Instrument : Airlab 14
Sample : ITO15-LLSTD100 Quant Date : 1/21/2015 6:25 am

Compound #106: p-isopropyltoluene



Original Peak Response = 10058159



Manual Peak Response = 9814595 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	89	-0.04
2		chlorodifluoromethane	1.502	1.338	10.9	79	-0.09
3		propylene	0.804	0.800	0.5	94	-0.09
4		propane	0.719	0.555	22.8	76	-0.11
5		dichlorodifluoromethane	2.748	2.712	1.3	88	-0.11
6	C	chloromethane	0.797	0.771	3.3	86	-0.11
7		Freon-114	2.957	2.909	1.6	88	-0.09
8	C	methanol	0.283	0.234	17.3	81	-0.08
9	C	vinyl chloride	0.975	0.952	2.4	88	-0.09
10	C	1,3-butadiene	0.708	0.731	-3.2	92	-0.09
11		butane	1.389	1.233	11.2	82	-0.09
13	C	bromomethane	1.004	1.246	-24.1	112	-0.10
14	C	chloroethane	0.523	0.518	1.0	87	-0.08
15		ethanol	0.527	0.498	5.5	80	-0.07
16		dichlorofluoromethane	2.203	2.004	9.0	81	-0.08
17	C	vinyl bromide	1.076	1.065	1.0	88	-0.08
18	C	acrolein	0.409	0.377	7.8	83	-0.07
19		acetone	1.373	1.400	-2.0	93	-0.07
20	C	acetonitrile	0.797	0.740	7.2	86	-0.08
21		trichlorofluoromethane	2.866	2.828	1.3	88	-0.07
22		isopropyl alcohol	1.534	1.569	-2.3	98	-0.06
23	C	acrylonitrile	0.740	0.693	6.4	85	-0.07
24		pentane	1.694	1.520	10.3	82	-0.08
25		ethyl ether	1.016	0.912	10.2	80	-0.06
26	C	1,1-dichloroethene	1.624	1.605	1.2	88	-0.07
27		tertiary butyl alcohol	2.084	1.933	7.2	86	-0.06
28	C	methylene chloride	1.146	1.098	4.2	89	-0.06
29	C	3-chloropropene	1.218	1.260	-3.4	94	-0.06
30	C	carbon disulfide	3.543	3.153	11.0	88	-0.06
31		Freon 113	2.298	2.291	0.3	89	-0.07
32		trans-1,2-dichloroethene	1.569	1.429	8.9	81	-0.05
33	C	1,1-dichloroethane	1.893	1.871	1.2	88	-0.05
34	C	MTBE	3.089	3.075	0.5	89	-0.04
35	C	vinyl acetate	2.474	2.705	-9.3	100	-0.04
36	C	2-butanone	2.196	2.065	6.0	86	-0.04
37		cis-1,2-dichloroethene	1.392	1.526	-9.6	97	-0.05
38		Ethyl Acetate	0.341	0.339	0.6	86	-0.04
39	C	chloroform	2.254	2.263	-0.4	89	-0.05
40		Tetrahydrofuran	1.281	1.190	7.1	84	-0.04

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.984	1.819	8.3	81	-0.04
42	C	1,2-dichloroethane	1.421	1.371	3.5	86	-0.04
43	I	1,4-difluorobenzene	1.000	1.000	0.0	90	-0.03
44	C	hexane	0.423	0.402	5.0	86	-0.04
45		diisopropyl ether	0.247	0.225	8.9	82	-0.04
46		tert-butyl ethyl ether	0.850	0.757	10.9	82	-0.04
47	s	1,2-dichloroethane-D4	0.279	0.292	-4.7	92	-0.04
48	C	1,1,1-trichloroethane	0.620	0.595	4.0	84	-0.03
49		1,1-dichloropropene	0.452	0.399	11.7	77	-0.04
50	C	benzene	0.912	0.766	16.0	75	-0.04
52	C	carbon tetrachloride	0.705	0.632	10.4	81	-0.03
53		cyclohexane	0.480	0.446	7.1	83	-0.03
54		tert-amyl methyl ether	0.905	0.827	8.6	81	-0.03
55		dibromomethane	0.387	0.346	10.6	82	-0.03
56	C	1,2-dichloropropane	0.333	0.321	3.6	87	-0.03
57		bromodichloromethane	0.747	0.734	1.7	88	-0.01
58	C	1,4-dioxane	0.228	0.210	7.9	85	-0.03
59	C	trichloroethene	0.478	0.456	4.6	87	-0.03
60	C	2,2,4-trimethylpentane	1.514	1.449	4.3	86	-0.01
61		methyl methacrylate	0.388	0.359	7.5	81	-0.03
62		heptane	0.526	0.495	5.9	85	-0.03
63	C	cis-1,3-dichloropropene	0.518	0.538	-3.9	91	-0.01
64	C	4-methyl-2-pentanone	0.711	0.698	1.8	86	-0.01
65		trans-1,3-dichloropropene	0.527	0.478	9.3	78	-0.01
66	C	1,1,2-trichloroethane	0.402	0.402	0.0	89	-0.01
67	I	chlorobenzene-D5	1.000	1.000	0.0	89	-0.02
68	C	toluene	6.377	6.208	2.7	87	-0.01
69	s	toluene-D8	4.653	4.966	-6.7	92	-0.03
71		1,3-dichloropropane	3.004	2.761	8.1	81	-0.01
72		2-hexanone	3.750	3.644	2.8	86	-0.01
74		dibromochloromethane	4.462	4.502	-0.9	87	-0.01
75	C	1,2-dibromoethane	3.532	3.532	0.0	88	-0.03
76		butyl acetate	0.852	0.784	8.0	81	-0.01
77		octane	2.051	1.859	9.4	81	-0.01
78	C	tetrachloroethene	3.750	3.658	2.5	88	-0.01
79		1,1,1,2-tetrachloroethane	3.074	2.880	6.3	82	0.00
80	C	chlorobenzene	5.256	5.215	0.8	87	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	8.241	8.390	-1.8	88	-0.01
83	C	m+p-xylene	6.334	6.532	-3.1	88	-0.02
84	C	bromoform	4.989	5.228	-4.8	89	0.00
85	C	styrene	5.069	5.291	-4.4	89	0.00
86	C	1,1,2,2-tetrachloroethane	4.856	5.066	-4.3	90	0.00
87	C	o-xylene	6.592	6.842	-3.8	89	-0.01
88		1,2,3-trichloropropane	3.676	3.543	3.6	84	-0.01
89		nonane	4.062	3.858	5.0	82	0.00
90	s	bromofluorobenzene	3.311	3.721	-12.4	93	0.00
91	C	isopropylbenzene	9.313	9.337	-0.3	86	0.00
92		bromobenzene	4.534	4.482	1.1	86	0.00
93		2-chlorotoluene	2.643	2.519	4.7	83	0.00
94		n-propylbenzene	2.766	2.692	2.7	83	0.00
95		4-chlorotoluene	5.674	5.896	-3.9	93	0.00
96		4-ethyl toluene	10.144	10.249	-1.0	83	0.00
97		1,3,5-trimethylbenzene	7.620	7.968	-4.6	90	0.00
98		tert-butylbenzene	8.886	8.720	1.9	83	0.00
99		1,2,4-trimethylbenzene	7.706	8.293	-7.6	89	0.00
100		decane	4.815	4.622	4.0	81	0.00
101	C	Benzyl Chloride	6.553	7.282	-11.1	85	0.00
102		1,3-dichlorobenzene	5.842	6.368	-9.0	91	0.00
103	C	1,4-dichlorobenzene	5.337	5.832	-9.3	86	0.00
104		sec-butylbenzene	11.465	11.209	2.2	82	0.00
106		p-isopropyltoluene	10.702	9.651	9.8	75	0.00
107		1,2-dichlorobenzene	5.562	5.764	-3.6	88	0.00
108		n-butylbenzene	8.896	9.046	-1.7	84	0.00
111	C	1,2-dibromo-3-chloropropane	2.375	2.347	1.2	82	0.00
112		undecane	4.965	5.181	-4.4	80	0.00
114		dodecane	4.715	5.284	-12.1	78	0.00
115	C	1,2,4-trichlorobenzene	4.664	5.359	-14.9	85	0.01
116		naphthalene	9.463	10.546	-11.4	80	0.00
117		1,2,3-trichlorobenzene	4.624	5.067	-9.6	83	0.00
119	C	hexachlorobutadiene	5.321	5.417	-1.8	85	0.01

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.927	49	151062	10.000	ppbV	-0.04
Standard Area = 169082			Recovery = 89.34%			
43) 1,4-difluorobenzene	13.091	114	593279	10.000	ppbV	-0.03
Standard Area = 662709			Recovery = 89.52%			
67) chlorobenzene-D5	17.374	54	109768	10.000	ppbV	-0.02
Standard Area = 123609			Recovery = 88.80%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.787	65	173468	10.469	ppbV	-0.04
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.69%			
69) toluene-D8	15.721	98	545104	10.673	ppbV	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.73%			
90) bromofluorobenzene	18.557	95	408437	11.237	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.37%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.742	51	202132	8.908	ppbV	100
3) propylene	4.782	41	120779M6	9.943	ppbV	
4) propane	4.809	29	83798	7.715	ppbV #	90
5) dichlorodifluoromethane	4.889	85	409692	9.868	ppbV	100
6) chloromethane	5.130	50	116484	9.680	ppbV	100
7) Freon-114	5.303	85	439500	9.840	ppbV	99
8) methanol	5.437	31	176668	41.366	ppbV	99
9) vinyl chloride	5.463	62	143863	9.764	ppbV	100
10) 1,3-butadiene	5.677	54	110458	10.335	ppbV	100
11) butane	5.757	43	186334	8.882	ppbV	99
13) bromomethane	6.059	94	188193	12.410	ppbV	100
14) chloroethane	6.321	64	78226	9.901	ppbV	99
15) ethanol	6.548	31	376356M6	47.251	ppbV	
16) dichlorofluoromethane	6.476	67	302689	9.097	ppbV	100
17) vinyl bromide	6.811	106	160835	9.893	ppbV	99
18) acrolein	6.990	56	56878	9.216	ppbV	98
19) acetone	7.169	43	1057430	50.986	ppbV	99
20) acetonitrile	6.823	41	111775	9.284	ppbV	99
21) trichlorofluoromethane	7.384	101	427221	9.867	ppbV	100
22) isopropyl alcohol	7.527	45	237000	10.230	ppbV	100
23) acrylonitrile	7.789	53	104648M6	9.355	ppbV	
24) pentane	7.849	43	229595	8.971	ppbV	99
25) ethyl ether	7.897	31	137825	8.979	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	8.207	61	242500	9.885	ppbV	99
27) tertiary butyl alcohol	8.291	59	292058M6	9.278	ppbV	
28) methylene chloride	8.374	49	165889	9.585	ppbV	98
29) 3-chloropropene	8.518	41	190380	10.351	ppbV	99
30) carbon disulfide	8.709	76	476328	8.899	ppbV	99
31) Freon 113	8.697	101	346105	9.971	ppbV	99
32) trans-1,2-dichloroethene	9.515	61	215796	9.105	ppbV	99
33) 1,1-dichloroethane	9.752	63	282569	9.882	ppbV	99
34) MTBE	9.828	73	464506	9.955	ppbV	99
35) vinyl acetate	9.947	43	408599	10.933	ppbV	99
36) 2-butanone	10.228	43	311906	9.402	ppbV	99
37) cis-1,2-dichloroethene	10.729	61	230587	10.965	ppbV	99
38) Ethyl Acetate	10.993	61	51206	9.943	ppbV	93
39) chloroform	11.073	83	341862	10.041	ppbV	100
40) Tetrahydrofuran	11.523	42	179812	9.290	ppbV	99
41) 2,2-dichloropropane	11.099	77	274832	9.171	ppbV	99
42) 1,2-dichloroethane	11.906	62	207062	9.644	ppbV	100
44) hexane	10.967	57	238508	9.495	ppbV	88
45) diisopropyl ether	10.967	87	133221	9.089	ppbV	98
46) tert-butyl ethyl ether	11.576	59	449149	8.908	ppbV	99
48) 1,1,1-trichloroethane	12.197	97	352871	9.596	ppbV	97
49) 1,1-dichloropropene	12.537	75	236926	8.827	ppbV	99
50) benzene	12.707	78	454580	8.397	ppbV	99
52) carbon tetrachloride	12.878	117	374693	8.958	ppbV	99
53) cyclohexane	13.020	56	264613M6	9.286	ppbV	
54) tert-amyl methyl ether	13.361	73	490679	9.136	ppbV	100
55) dibromomethane	13.602	93	205456	8.938	ppbV	99
56) 1,2-dichloropropane	13.630	63	190716	9.640	ppbV	99
57) bromodichloromethane	13.858	83	435273	9.821	ppbV	100
58) 1,4-dioxane	13.886	88	124840	9.223	ppbV	100
59) trichloroethene	13.900	130	270766	9.557	ppbV	99
60) 2,2,4-trimethylpentane	13.929	57	859827	9.571	ppbV	99
61) methyl methacrylate	14.085	41	213193	9.256	ppbV	100
62) heptane	14.198	43	293771	9.406	ppbV	99
63) cis-1,3-dichloropropene	14.846	75	319444	10.398	ppbV	99
64) 4-methyl-2-pentanone	14.871	43	413870	9.815	ppbV	100
65) trans-1,3-dichloropropene	15.374	75	283391	9.071	ppbV	99
66) 1,1,2-trichloroethane	15.554	97	238597	10.007	ppbV	100
68) toluene	15.824	91	681405	9.734	ppbV	100
71) 1,3-dichloropropane	15.837	76	303027	9.190	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72)	2-hexanone	16.031	43	399979	9.718	ppbV	97
74)	dibromochloromethane	16.224	129	494190	10.091	ppbV	100
75)	1,2-dibromoethane	16.443	107	387698	10.001	ppbV	100
76)	butyl acetate	16.584	73	86025	9.198	ppbV	100
77)	octane	16.674	85	204007	9.062	ppbV	98
78)	tetrachloroethene	16.842	166	401564	9.756	ppbV	99
79)	1,1,1,2-tetrachloroethane	17.396	131	316155	9.368	ppbV	99
80)	chlorobenzene	17.411	112	572394	9.921	ppbV	99
81)	ethylbenzene	17.698	91	920953	10.181	ppbV	100
83)	m+p-xylene	17.833	91	1433942	20.623	ppbV	98
84)	bromoform	17.931	173	573817	10.478	ppbV	100
85)	styrene	18.120	104	580777	10.437	ppbV	99
86)	1,1,2,2-tetrachloroethane	18.203	83	556052	10.432	ppbV	100
87)	o-xylene	18.203	91	751061	10.380	ppbV	99
88)	1,2,3-trichloropropane	18.301	75	388861	9.636	ppbV	98
89)	nonane	18.331	43	423462	9.498	ppbV	100
91)	isopropylbenzene	18.647	105	1024933	10.026	ppbV	100
92)	bromobenzene	18.738	77	491973	9.886	ppbV	99
93)	2-chlorotoluene	19.018	126	276454	9.529	ppbV	89
94)	n-propylbenzene	19.026	120	295493	9.733	ppbV	89
95)	4-chlorotoluene	19.067	91	647203M3	10.392	ppbV	
96)	4-ethyl toluene	19.133	105	1125031	10.104	ppbV	100
97)	1,3,5-trimethylbenzene	19.182	105	874634	10.457	ppbV	100
98)	tert-butylbenzene	19.502	119	957189	9.813	ppbV	99
99)	1,2,4-trimethylbenzene	19.502	105	910262	10.761	ppbV	96
100)	decane	19.535	57	507401	9.601	ppbV	99
101)	Benzyl Chloride	19.625	91	799330	11.113	ppbV	99
102)	1,3-dichlorobenzene	19.650	146	699018	10.901	ppbV	98
103)	1,4-dichlorobenzene	19.699	146	640121	10.926	ppbV	99
104)	sec-butylbenzene	19.708	105	1230421	9.777	ppbV	99
106)	p-isopropyltoluene	19.831	119	1059418	9.019	ppbV	99
107)	1,2-dichlorobenzene	19.979	146	632659	10.362	ppbV	99
108)	n-butylbenzene	20.168	91	992952	10.168	ppbV	99
111)	1,2-dibromo-3-chloropr...	20.348	75	257587	9.882	ppbV	94
112)	undecane	20.529	57	568762	10.435	ppbV	99
114)	dodecane	21.480	57	579982	11.207	ppbV	99
115)	1,2,4-trichlorobenzene	21.505	180	588238	11.489	ppbV	98
116)	naphthalene	21.629	128	1157655	11.145	ppbV	100
117)	1,2,3-trichlorobenzene	21.902	180	556163	10.957	ppbV	99
119)	hexachlorobutadiene	21.964	225	594666	10.181	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

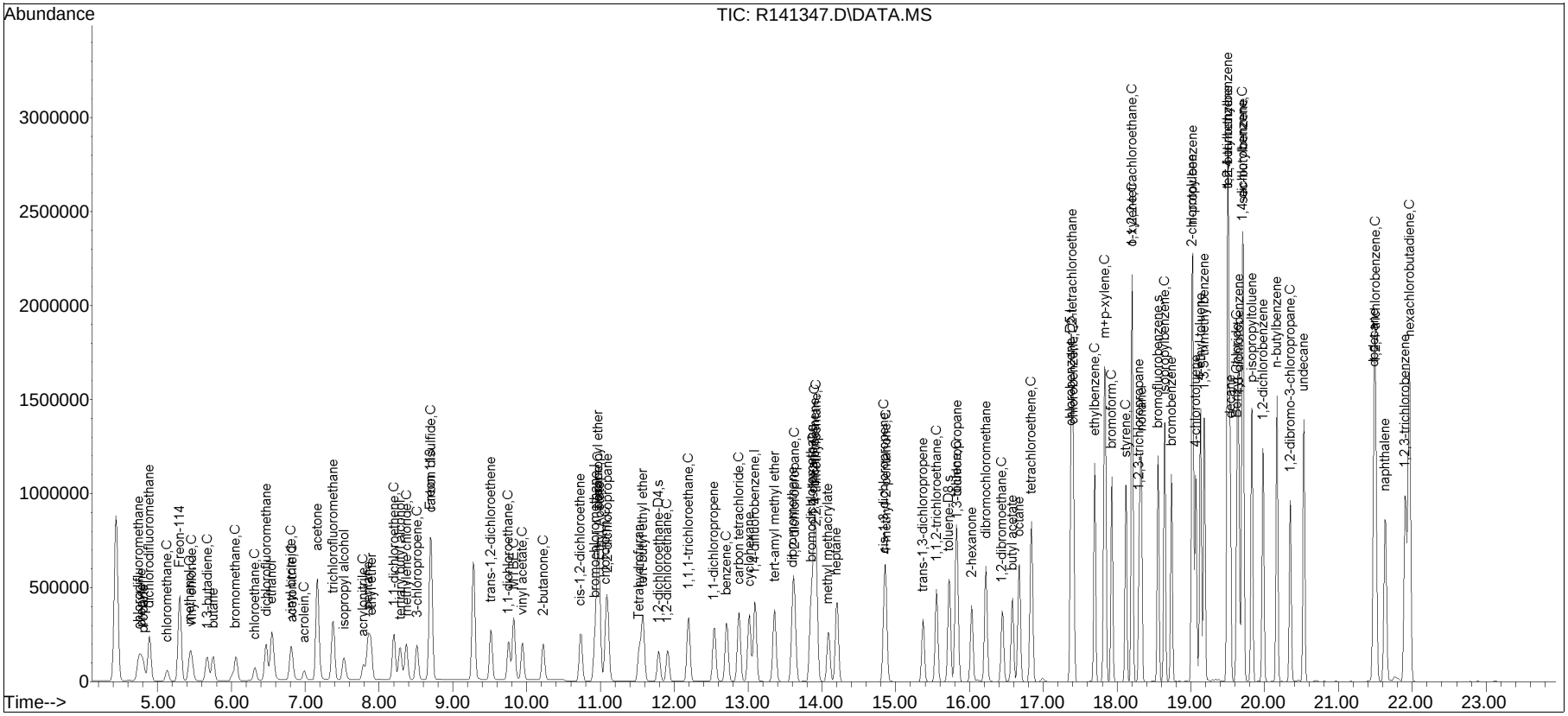
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedT_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

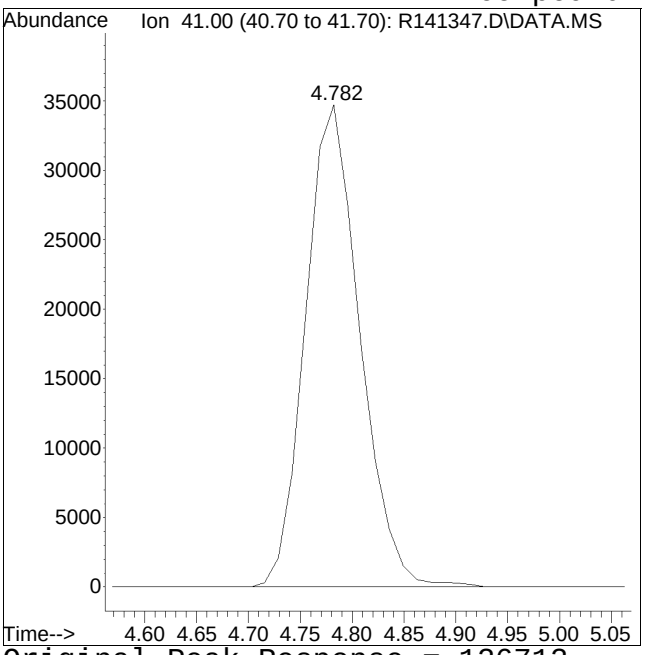
Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration



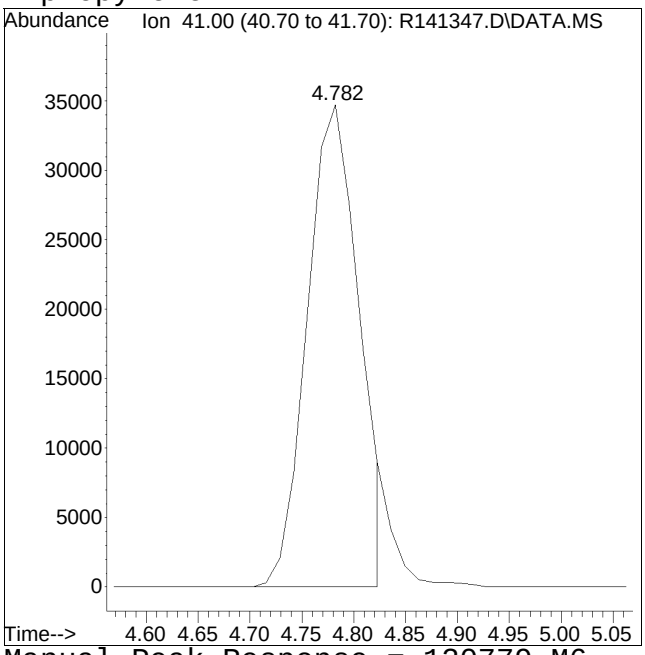
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #3: propylene



Original Peak Response = 126712



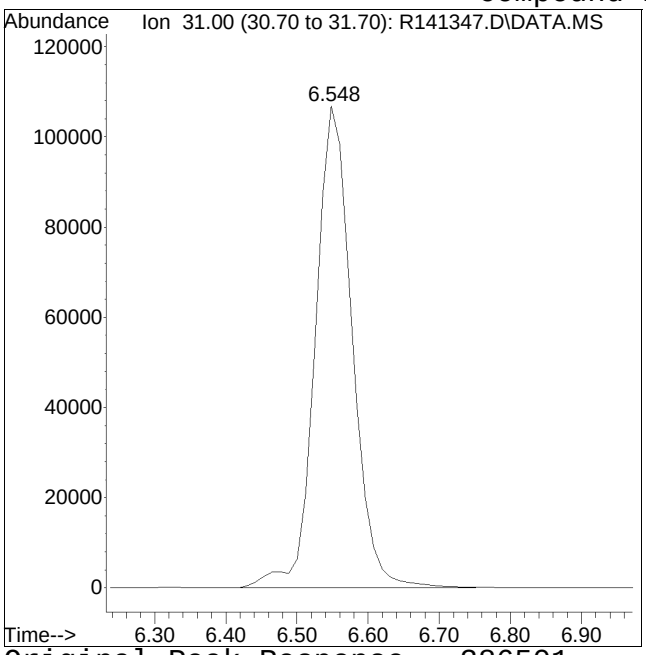
Manual Peak Response = 120779 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

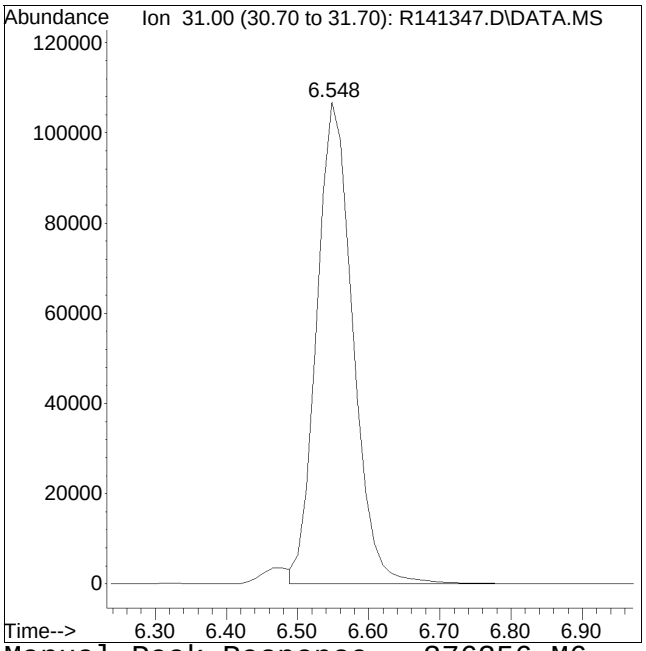
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #15: ethanol



Original Peak Response = 386501



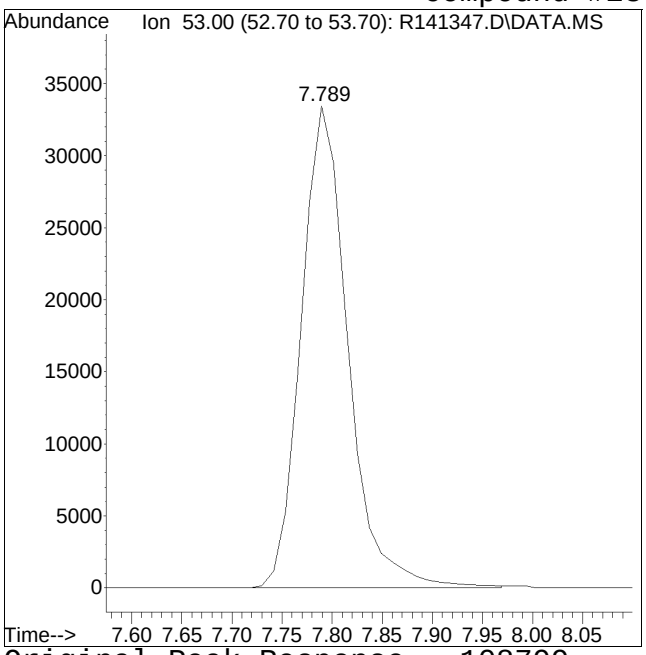
Manual Peak Response = 376356 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

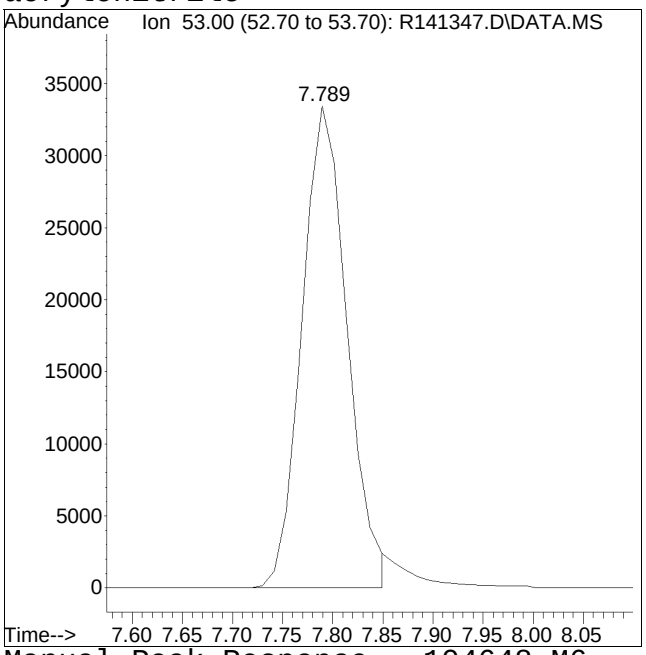
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #23: acrylonitrile



Original Peak Response = 108799



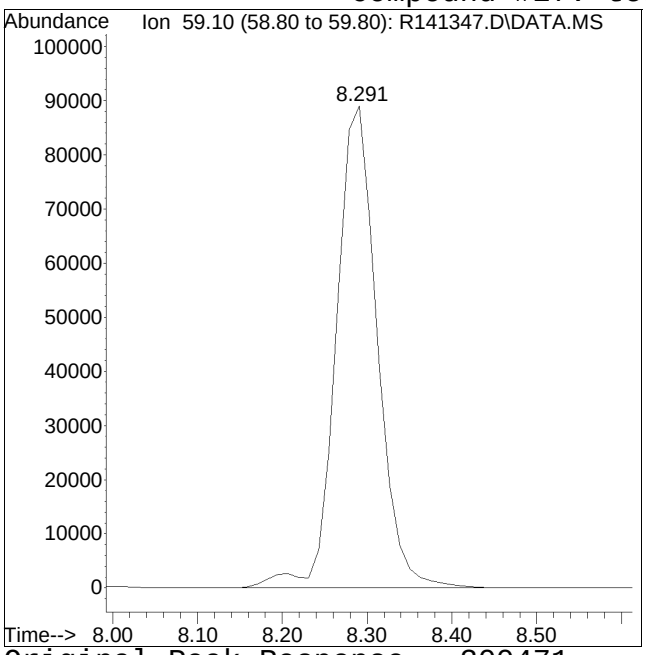
Manual Peak Response = 104648 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

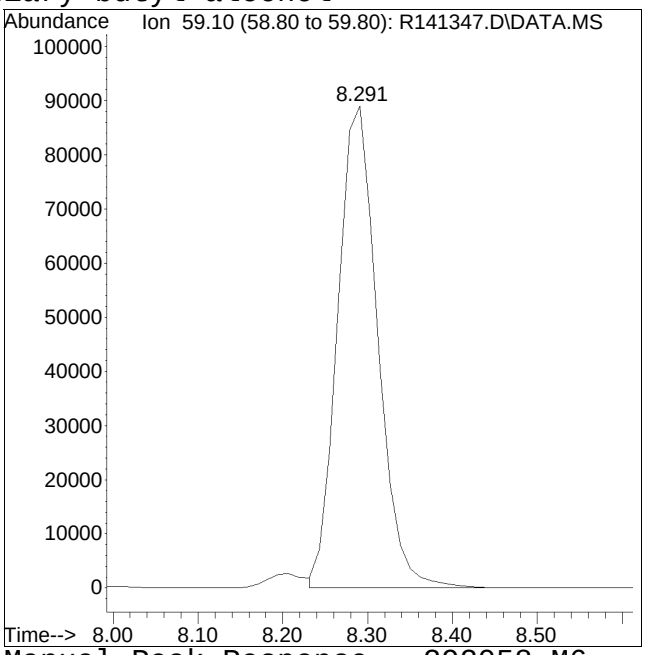
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #27: tertiary butyl alcohol



Original Peak Response = 300471



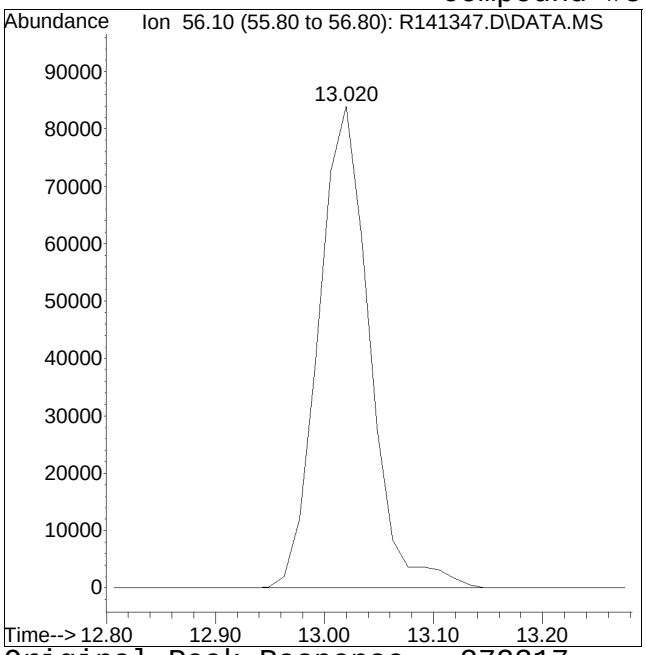
Manual Peak Response = 292058 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

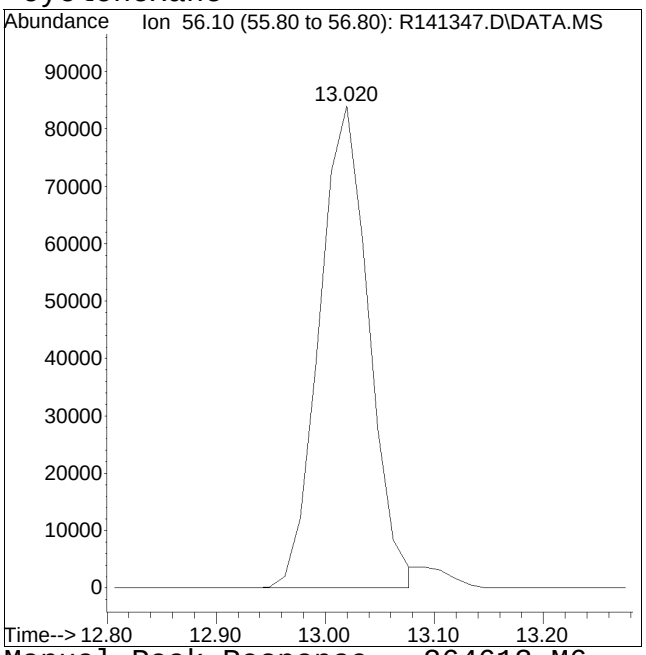
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #53: cyclohexane



Original Peak Response = 272317



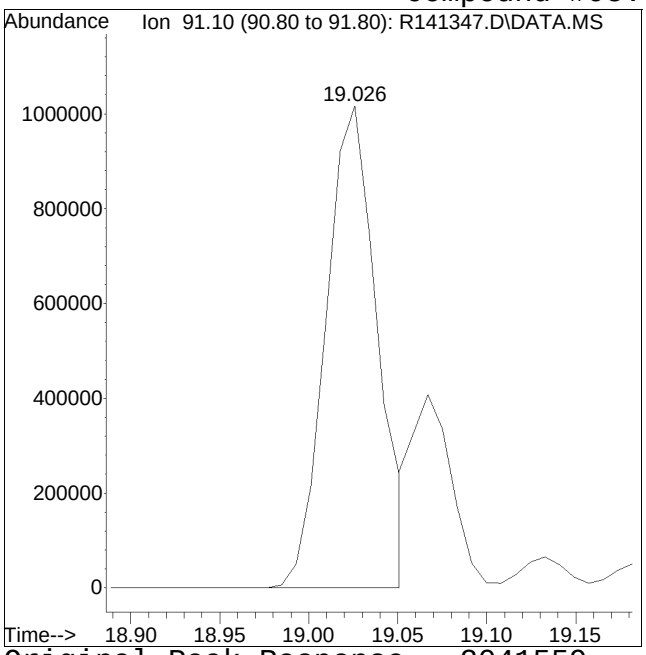
Manual Peak Response = 264613 M6

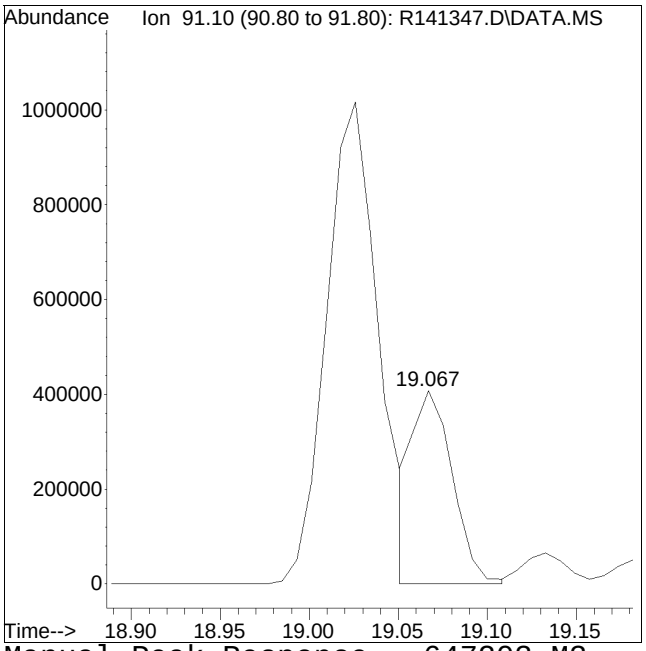
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #95: 4-chlorotoluene





Original Peak Response = 2041559 Manual Peak Response = 647203 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRPIANO2 Calibration Date: 01/20/2015 Time: 08:39

Lab File ID: R232203 Init. Calib. Date(s): 01/19/15 01/20/15

Sample No: CTO15-LLSTD10 Init. Calib. Times : 23:55 03:37

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	103	0.00
2		chlorodifluoromethane	1.206	1.051	12.9	88	0.00
3		propylene	0.597	0.574	3.9	103	0.00
4		propane	0.658	0.497	24.5	83	0.00
5		dichlorodifluoromethane	1.509	1.236	18.1	84	0.00
6	C	chloromethane	0.683	0.632	7.5	97	0.00
7		Freon-114	1.828	1.804	1.3	99	0.00
8	C	methanol	0.243	0.226	7.0	95	0.00
9	C	vinyl chloride	0.705	0.690	2.1	97	0.00
10	C	1,3-butadiene	0.589	0.549	6.8	104	0.00
11		butane	1.181	1.055	10.7	94	0.00
13	C	bromomethane	0.634	0.616	2.8	100	0.00
14	C	chloroethane	0.339	0.337	0.6	101	0.00
15		ethanol	0.502	0.498	0.8	101	0.00
16		dichlorofluoromethane	1.603	1.399	12.7	91	0.00
17	C	vinyl bromide	0.629	0.635	-1.0	100	0.00
18	C	acrolein	0.300	0.278	7.3	90	0.00
19		acetone	1.084	1.144	-5.5	106	0.00
20	C	acetonitrile	0.695	0.623	10.4	94	0.00
21		trichlorofluoromethane	1.733	1.738	-0.3	100	0.00
22		isopropyl alcohol	1.265	1.299	-2.7	111	0.00
23	C	acrylonitrile	0.588	0.504	14.3	93	0.00
24		pentane	1.373	1.281	6.7	94	0.00
25		ethyl ether	1.004	0.874	12.9	89	0.00
26	C	1,1-dichloroethene	1.191	1.187	0.3	100	0.00
27		tertiary butyl alcohol	1.514	1.456	3.8	102	0.00
28	C	methylene chloride	0.936	0.901	3.7	100	0.00
29	C	3-chloropropene	1.036	1.035	0.1	106	0.00
30	C	carbon disulfide	2.067	2.031	1.7	98	0.00
31		Freon 113	1.425	1.469	-3.1	102	0.00
32		trans-1,2-dichloroethene	1.162	1.032	11.2	90	0.00
33	C	1,1-dichloroethane	1.338	1.298	3.0	98	0.00
34	C	MTBE	2.028	1.946	4.0	99	0.00
35	C	vinyl acetate	1.462	1.609	-10.1	113	0.00
36	C	2-butanone	1.702	1.638	3.8	98	0.00
37		cis-1,2-dichloroethene	1.027	1.107	-7.8	108	0.00
38		Ethyl Acetate	0.239	0.242	-1.3	97	0.00
39	C	chloroform	1.522	1.521	0.1	101	0.00
40		Tetrahydrofuran	0.950	0.901	5.2	97	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.395	1.273	8.7	94	0.00
42	C	1,2-dichloroethane	1.083	1.080	0.3	99	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00
44	C	hexane	0.480	0.428	10.8	98	0.00
45		diisopropyl ether	0.218	0.196	10.1	92	0.00
46		tert-butyl ethyl ether	0.952	0.848	10.9	93	0.00
47	s	1,2-dichloroethane-D4	0.309	0.314	-1.6	105	0.00
48	C	1,1,1-trichloroethane	0.689	0.670	2.8	101	0.00
49		1,1-dichloropropene	0.437	0.417	4.6	97	0.00
50	C	benzene	0.842	0.777	7.7	97	0.00
52	C	carbon tetrachloride	0.634	0.627	1.1	102	0.00
53		cyclohexane	0.485	0.442	8.9	99	0.00
54		tert-amyl methyl ether	0.844	0.753	10.8	93	0.00
55		dibromomethane	0.366	0.332	9.3	95	0.00
56	C	1,2-dichloropropane	0.329	0.316	4.0	101	0.00
57		bromodichloromethane	0.694	0.670	3.5	99	0.00
58	C	1,4-dioxane	0.192	0.181	5.7	101	0.00
59	C	trichloroethene	0.374	0.373	0.3	101	0.00
60	C	2,2,4-trimethylpentane	1.527	1.395	8.6	98	0.00
61		methyl methacrylate	0.463	0.411	11.2	93	0.00
62		heptane	0.606	0.559	7.8	98	0.00
63	C	cis-1,3-dichloropropene	0.466	0.487	-4.5	106	0.00
64	C	4-methyl-2-pentanone	0.822	0.784	4.6	98	0.00
65		trans-1,3-dichloropropene	0.615	0.547	11.1	90	0.00
66	C	1,1,2-trichloroethane	0.444	0.443	0.2	102	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	103	0.00
68	C	toluene	5.587	5.487	1.8	100	0.00
69	s	toluene-D8	3.955	4.150	-4.9	106	0.00
71		1,3-dichloropropane	2.600	2.447	5.9	94	0.00
72		2-hexanone	4.212	4.111	2.4	97	0.00
74		dibromochloromethane	3.740	3.910	-4.5	101	0.00
75	C	1,2-dibromoethane	3.124	3.171	-1.5	101	0.00
76		butyl acetate	0.597	0.552	7.5	91	0.00
77		octane	1.639	1.545	5.7	95	0.00
78	C	tetrachloroethene	2.566	2.608	-1.6	101	0.00
79		1,1,1,2-tetrachloroethane	1.901	1.847	2.8	96	0.00
80	C	chlorobenzene	3.326	3.431	-3.2	101	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	5.559	5.541	0.3	100	0.00
83	C	m+p-xylene	4.377	4.433	-1.3	102	0.00
84	C	bromoform	2.693	2.827	-5.0	101	0.00
85	C	styrene	3.298	3.358	-1.8	100	0.00
86	C	1,1,2,2-tetrachloroethane	3.303	3.443	-4.2	101	0.00
87	C	o-xylene	4.449	4.603	-3.5	102	0.00
88		1,2,3-trichloropropane	2.642	2.515	4.8	94	0.00
89		nonane	3.592	3.301	8.1	92	0.00
90	s	bromofluorobenzene	2.121	1.760	17.0	77	0.00
91	C	isopropylbenzene	5.577	4.547	18.5	76	0.00
92		bromobenzene	3.191	3.113	2.4	94	0.00
93		2-chlorotoluene	1.609	1.601	0.5	95	0.00
94		n-propylbenzene	1.708	1.687	1.2	95	0.00
95		4-chlorotoluene	4.766	4.488	5.8	93	0.00
96		4-ethyl toluene	6.444	6.236	3.2	94	0.00
97		1,3,5-trimethylbenzene	5.313	5.318	-0.1	100	0.00
98		tert-butylbenzene	5.458	5.444	0.3	93	0.00
99		1,2,4-trimethylbenzene	5.051	5.412	-7.1	100	0.00
100		decane	3.741	3.522	5.9	92	0.00
101	C	Benzyl Chloride	4.676	5.013	-7.2	98	0.00
102		1,3-dichlorobenzene	3.312	3.621	-9.3	101	0.00
103	C	1,4-dichlorobenzene	3.614	3.829	-5.9	101	0.00
104		sec-butylbenzene	7.561	7.384	2.3	94	0.00
106		p-isopropyltoluene	6.806	6.360	6.6	87	0.00
107		1,2-dichlorobenzene	3.315	3.557	-7.3	101	0.00
108		n-butylbenzene	6.211	6.371	-2.6	96	0.00
111	C	1,2-dibromo-3-chloropropane	1.782	1.781	0.1	93	0.00
112		undecane	4.151	4.111	1.0	91	0.00
114		dodecane	4.058	4.406	-8.6	87	0.00
115	C	1,2,4-trichlorobenzene	2.663	3.125	-17.3	99	0.00
116		naphthalene	6.652	7.251	-9.0	94	0.00
117		1,2,3-trichlorobenzene	2.588	2.873	-11.0	95	0.00
119	C	hexachlorobutadiene	2.383	2.490	-4.5	96	-0.01

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	181970	10.000	ppbV	0.00
Standard Area = 176853			Recovery = 102.89%			
43) 1,4-difluorobenzene	12.549	114	477703	10.000	ppbV	0.00
Standard Area = 461616			Recovery = 103.48%			
67) chlorobenzene-D5	16.888	54	112646	10.000	ppbV	0.00
Standard Area = 109441			Recovery = 102.93%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.241	65	149969	10.152	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.52%			
69) toluene-D8	15.225	98	467533	10.493	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.93%			
90) bromofluorobenzene	18.060	95	198274	8.299	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.99%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.291	51	191217	8.711	ppbV	99
3) propylene	4.330	41	104466M6	9.624	ppbV	
4) propane	4.360	29	90375M4	7.544	ppbV	
5) dichlorodifluoromethane	4.429	85	224894	8.188	ppbV	98
6) chloromethane	4.655	50	115025	9.262	ppbV	100
7) Freon-114	4.813	85	328306	9.871	ppbV	96
8) methanol	4.912	31	205689	46.558	ppbV	98
9) vinyl chloride	4.971	62	125493	9.787	ppbV	100
10) 1,3-butadiene	5.178	54	99965	9.328	ppbV	96
11) butane	5.247	43	191959	8.931	ppbV	99
13) bromomethane	5.550	94	112150	9.723	ppbV	99
14) chloroethane	5.806	64	61274	9.928	ppbV	98
15) ethanol	5.990	31	453106	49.626	ppbV	100
16) dichlorofluoromethane	5.958	67	254599	8.727	ppbV	99
17) vinyl bromide	6.286	106	115540	10.098	ppbV	98
18) acrolein	6.454	56	50666	9.288	ppbV	99
19) acetone	6.621	43	1040997	52.760	ppbV	99
20) acetonitrile	6.286	41	113446	8.972	ppbV	99
21) trichlorofluoromethane	6.853	101	316347	10.030	ppbV	98
22) isopropyl alcohol	6.973	45	236456	10.271	ppbV	99
23) acrylonitrile	7.253	53	91725	8.576	ppbV	99
24) pentane	7.325	43	233127	9.329	ppbV	99
25) ethyl ether	7.365	31	158989	8.704	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	7.677	61	215934	9.962	ppbV	99
27) tertiary butyl alcohol	7.732	59	264989	9.618	ppbV	98
28) methylene chloride	7.836	49	163913	9.628	ppbV	99
29) 3-chloropropene	7.988	41	188394	9.991	ppbV	98
30) carbon disulfide	8.164	76	369523	9.827	ppbV	99
31) Freon 113	8.172	101	267237	10.307	ppbV	97
32) trans-1,2-dichloroethene	8.988	61	187766	8.881	ppbV	97
33) 1,1-dichloroethane	9.221	63	236201	9.698	ppbV	97
34) MTBE	9.290	73	354055	9.595	ppbV	99
35) vinyl acetate	9.414	43	292740	11.000	ppbV	100
36) 2-butanone	9.681	43	298060	9.626	ppbV	99
37) cis-1,2-dichloroethene	10.198	61	201379	10.780	ppbV	99
38) Ethyl Acetate	10.452	61	44126	10.127	ppbV	96
39) chloroform	10.536	83	276737	9.993	ppbV	99
40) Tetrahydrofuran	10.978	42	163898	9.482	ppbV	99
41) 2,2-dichloropropane	10.555	77	231646	9.124	ppbV	99
42) 1,2-dichloroethane	11.363	62	196539	9.977	ppbV	98
44) hexane	10.443	57	204255	8.899	ppbV	95
45) diisopropyl ether	10.433	87	93753	8.993	ppbV	96
46) tert-butyl ethyl ether	11.043	59	404942	8.902	ppbV	98
48) 1,1,1-trichloroethane	11.648	97	319926	9.714	ppbV	100
49) 1,1-dichloropropene	12.000	75	199388	9.556	ppbV	98
50) benzene	12.156	78	371343	9.235	ppbV	99
52) carbon tetrachloride	12.332	117	299717	9.889	ppbV	98
53) cyclohexane	12.467	56	211082	9.114	ppbV	100
54) tert-amyl methyl ether	12.808	73	359743	8.922	ppbV	99
55) dibromomethane	13.047	93	158475	9.072	ppbV	99
56) 1,2-dichloropropane	13.067	63	150869	9.594	ppbV	95
57) bromodichloromethane	13.285	83	320178	9.653	ppbV	99
58) 1,4-dioxane	13.316	88	86367	9.433	ppbV	90
59) trichloroethene	13.337	130	178161	9.963	ppbV	99
60) 2,2,4-trimethylpentane	13.368	57	666449M6	9.134	ppbV	
61) methyl methacrylate	13.533	41	196400M4	8.888	ppbV	
62) heptane	13.658	43	267089	9.222	ppbV	100
63) cis-1,3-dichloropropene	14.289	75	232652	10.452	ppbV	98
64) 4-methyl-2-pentanone	14.321	43	374593	9.541	ppbV	97
65) trans-1,3-dichloropropene	14.864	75	261363	8.903	ppbV	100
66) 1,1,2-trichloroethane	15.044	97	211653	9.975	ppbV	97
68) toluene	15.325	91	618050	9.820	ppbV	99
71) 1,3-dichloropropane	15.343	76	275656	9.412	ppbV	99

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) 2-hexanone	15.551	43	463117	9.760	ppbV	96
74) dibromochloromethane	15.731	129	440460	10.454	ppbV	98
75) 1,2-dibromoethane	15.957	107	357227	10.150	ppbV	100
76) butyl acetate	16.111	73	62187	9.244	ppbV	95
77) octane	16.210	85	174004	9.427	ppbV	96
78) tetrachloroethene	16.355	166	293739	10.164	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.907	131	208031	9.714	ppbV	98
80) chlorobenzene	16.927	112	386521	10.317	ppbV	99
81) ethylbenzene	17.217	91	624187	9.969	ppbV	100
83) m+p-xylene	17.360	91	998718	20.256	ppbV	99
84) bromoform	17.436	173	318411	10.497	ppbV	100
85) styrene	17.631	104	378214	10.181	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.712	83	387867	10.426	ppbV	100
87) o-xylene	17.717	91	518541	10.347	ppbV	100
88) 1,2,3-trichloropropane	17.812	75	283352	9.523	ppbV	99
89) nonane	17.850	43	371868	9.191	ppbV	98
91) isopropylbenzene	18.150	105	512207	8.153	ppbV	97
92) bromobenzene	18.236	77	350666	9.755	ppbV	99
93) 2-chlorotoluene	18.512	126	180298	9.949	ppbV	69
94) n-propylbenzene	18.527	120	190033	9.879	ppbV	86
95) 4-chlorotoluene	18.565	91	505611	9.418	ppbV	99
96) 4-ethyl toluene	18.631	105	702509M6	9.678	ppbV	
97) 1,3,5-trimethylbenzene	18.684	105	598996	10.008	ppbV	99
98) tert-butylbenzene	18.989	119	613270	9.975	ppbV	100
99) 1,2,4-trimethylbenzene	18.989	105	609614	10.714	ppbV	97
100) decane	19.032	57	396770	9.416	ppbV	100
101) Benzyl Chloride	19.103	91	564642	10.720	ppbV	100
102) 1,3-dichlorobenzene	19.122	146	407893	10.934	ppbV	99
103) 1,4-dichlorobenzene	19.170	146	431356M4	10.596	ppbV	
104) sec-butylbenzene	19.189	105	831781	9.766	ppbV	98
106) p-isopropyltoluene	19.298	119	716387	9.344	ppbV	98
107) 1,2-dichlorobenzene	19.432	146	400637	10.728	ppbV	99
108) n-butylbenzene	19.617	91	717645	10.258	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.775	75	200610	9.995	ppbV	98
112) undecane	19.970	57	463094	9.904	ppbV	99
114) dodecane	20.861	57	496345	10.858	ppbV	99
115) 1,2,4-trichlorobenzene	20.850	180	351974	11.734	ppbV	99
116) naphthalene	20.968	128	816835	10.901	ppbV	99
117) 1,2,3-trichlorobenzene	21.215	180	323623	11.099	ppbV	100
119) hexachlorobutadiene	21.268	225	280528	10.449	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150119T_ICAL\R232197.D
Sub List : Default-ICV-AP2 - All compounds listed

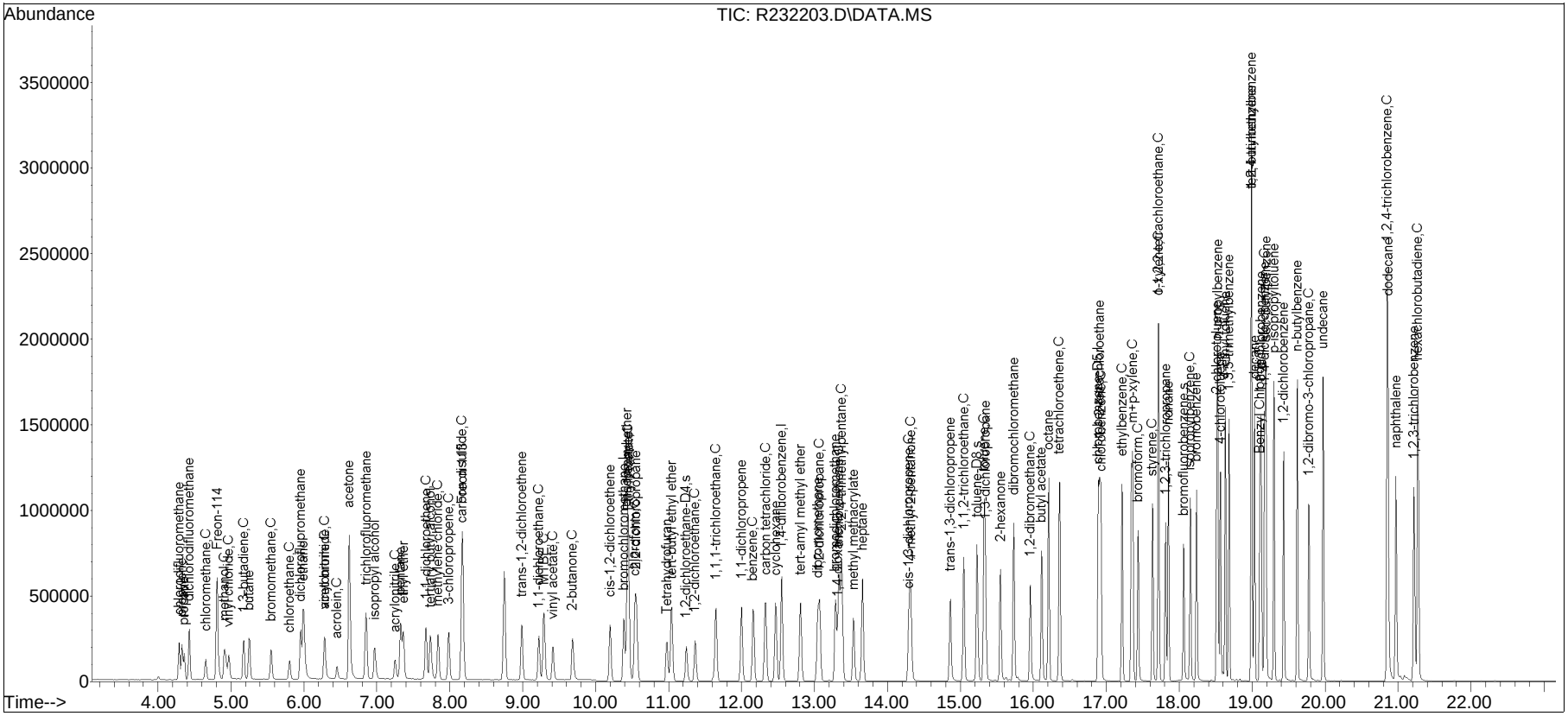
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedAL\R232197.D

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232203.D
Acq On : 20 Jan 2015 8:39 am
Operator : AIRPIANO2:MB
Sample : CTO15-LLSTD10
Misc : WG756921
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 09:30:30 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

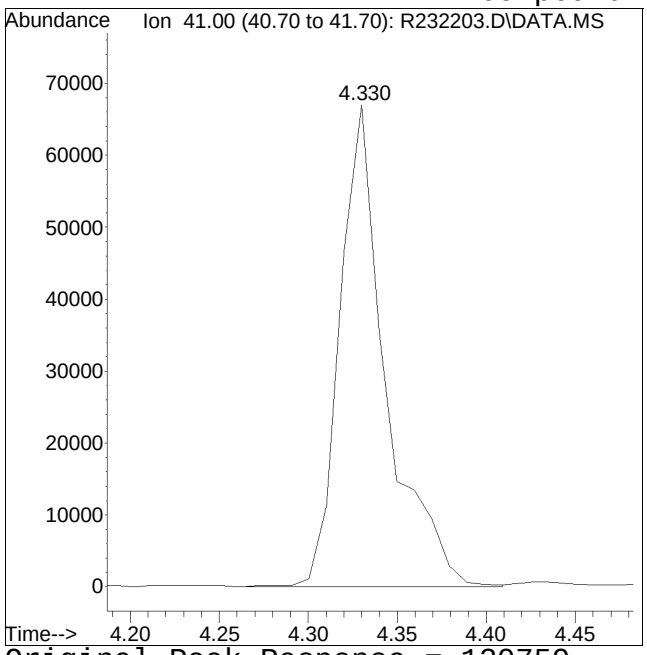


Manual Integration/Negative Proof Report

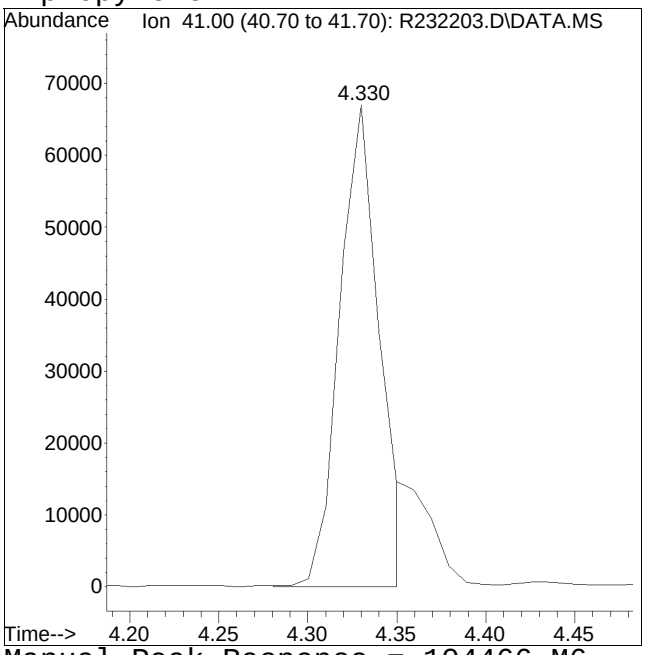
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #3: propylene



Original Peak Response = 120759



Manual Peak Response = 104466 M6

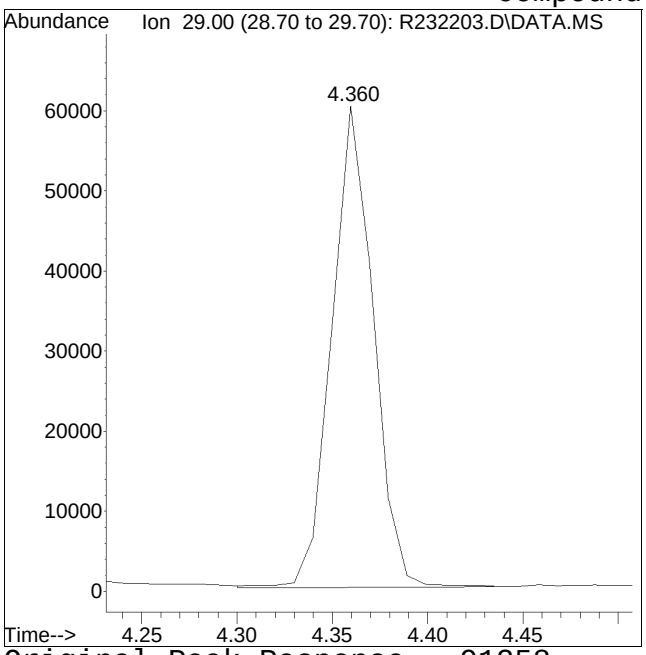
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

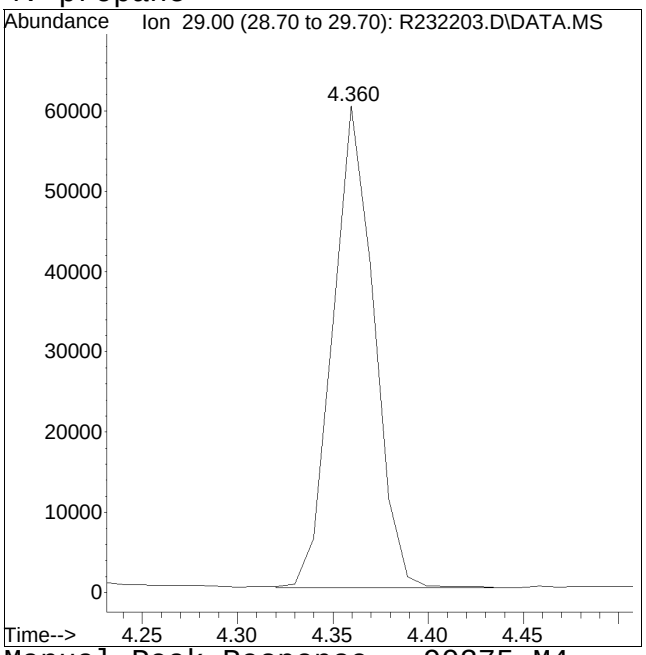
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #4: propane



Original Peak Response = 91258



Manual Peak Response = 90375 M4

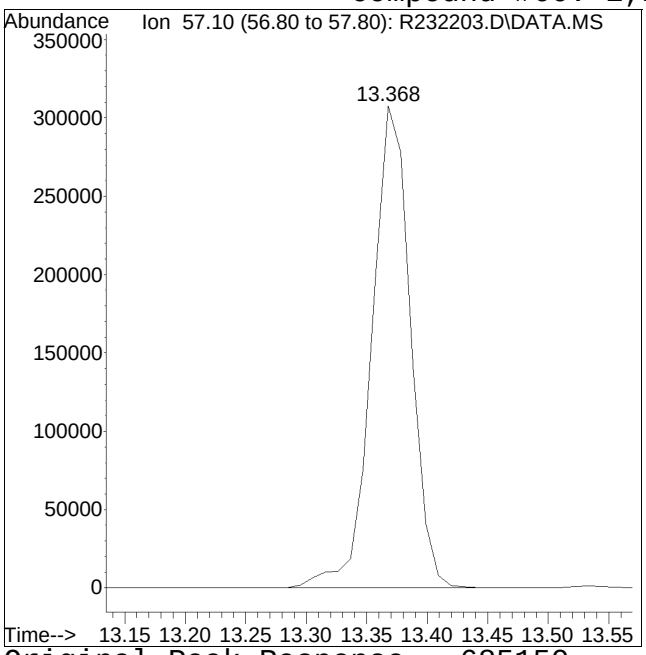
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

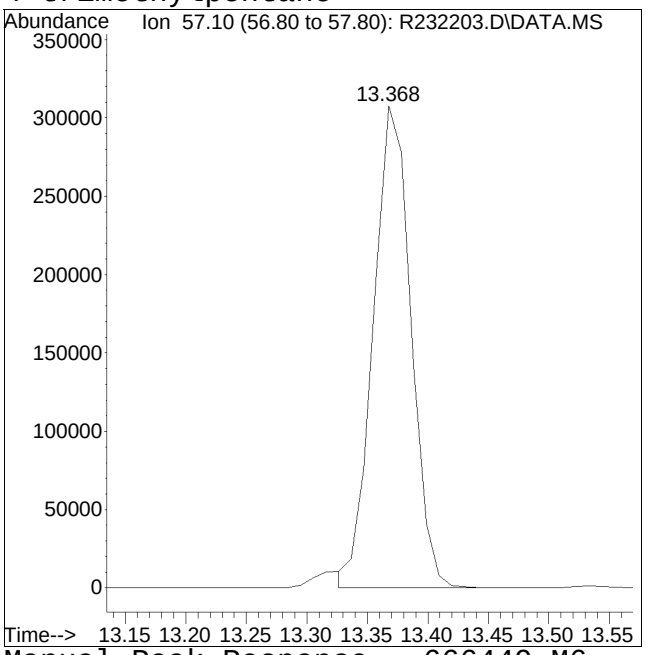
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 685150



Manual Peak Response = 666449 M6

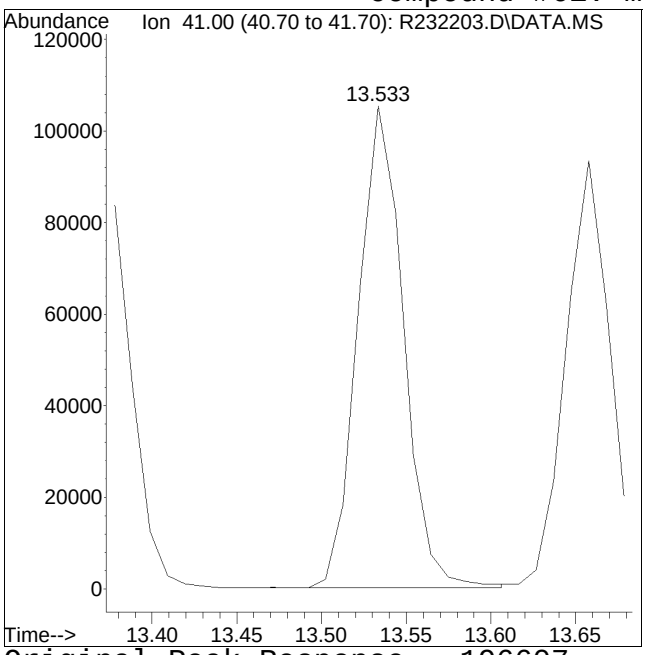
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

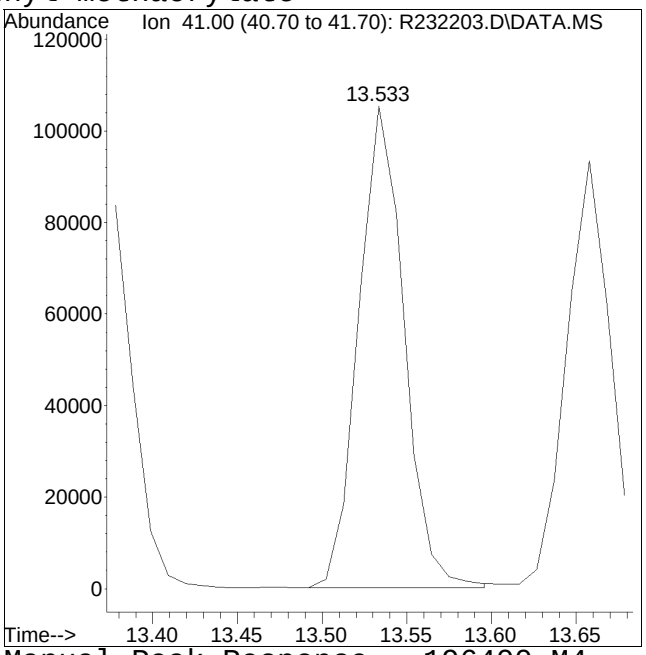
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #61: methyl methacrylate



Original Peak Response = 196607



Manual Peak Response = 196400 M4

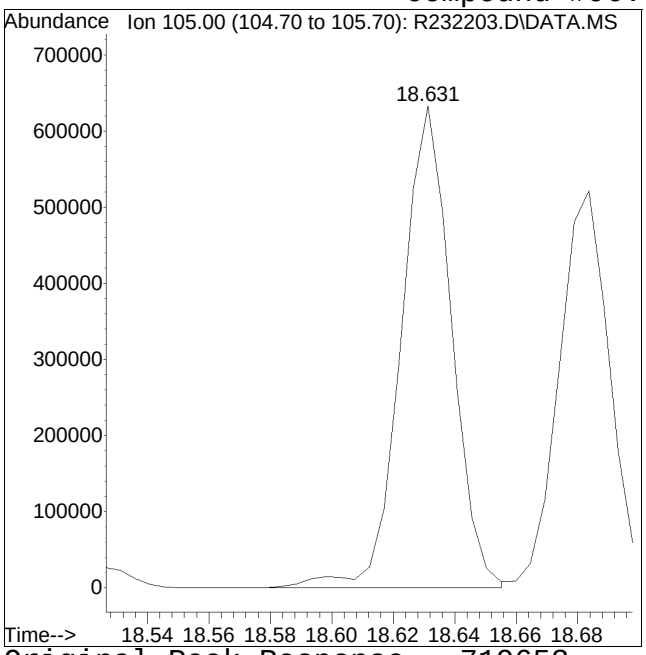
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

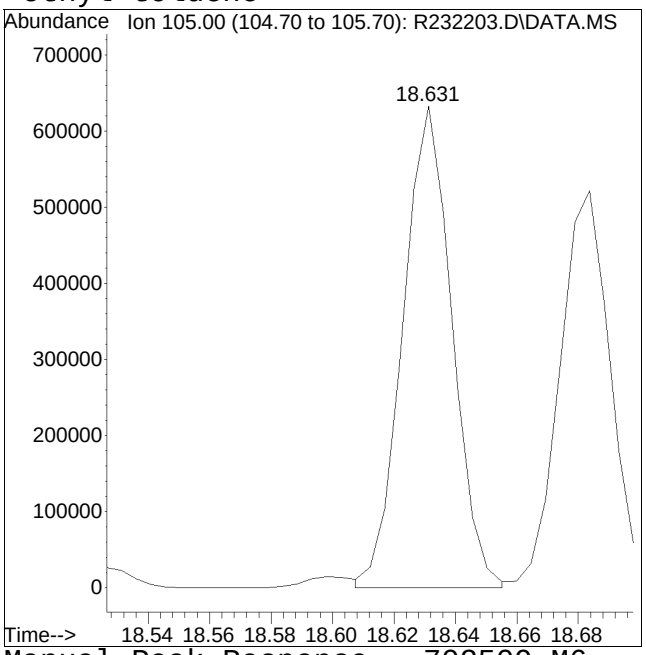
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #96: 4-ethyl toluene



Original Peak Response = 719653



Manual Peak Response = 702509 M6

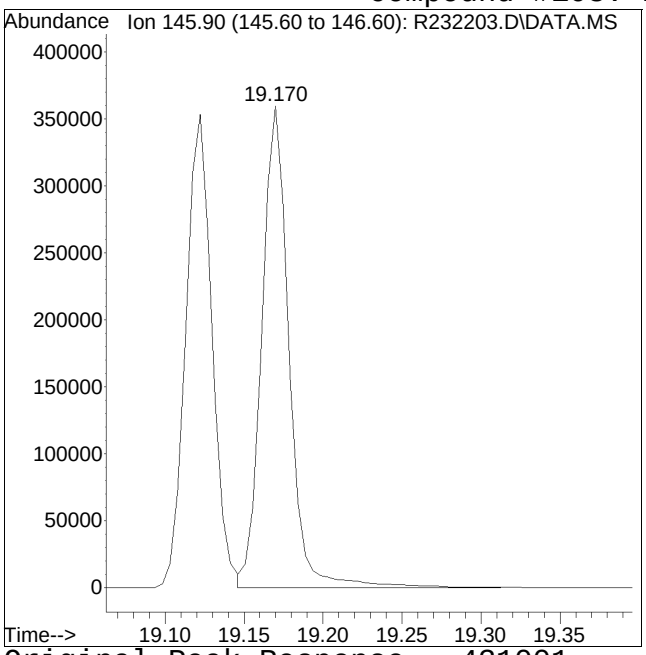
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

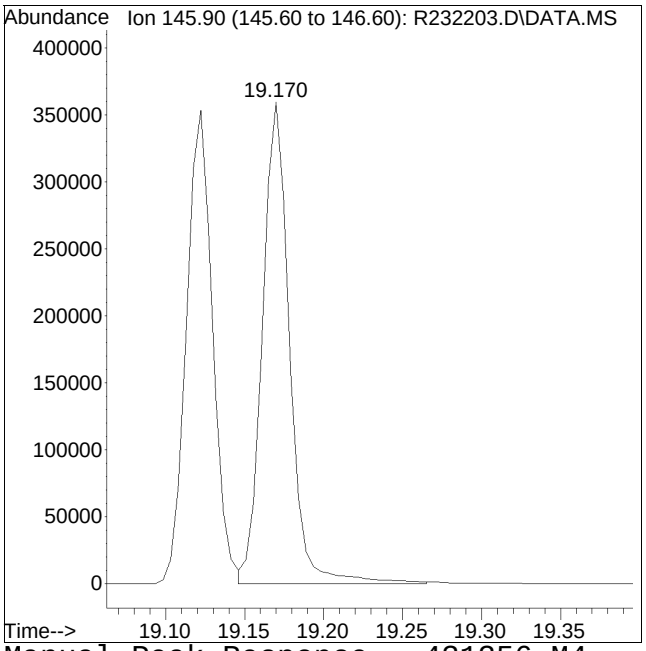
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232203.D
Date Inj'd : 1/20/2015 8:39 am
Sample : CTO15-LLSTD10

Method : TALL150119.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 1/20/2015 9:28 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 431001



Manual Peak Response = 431356 M4

M4 = Poor automated baseline construction.

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRLAB14 Calibration Date: 01/21/2015 Time: 10:01

Lab File ID: R141347 Init. Calib. Date(s): 01/20/15 01/21/15

Sample No: CTO15-LLSTD10.0 Init. Calib. Times : 22:11 04:10

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	89	-0.04
2		chlorodifluoromethane	1.502	1.338	10.9	79	-0.09
3		propylene	0.804	0.800	0.5	94	-0.09
4		propane	0.719	0.555	22.8	76	-0.11
5		dichlorodifluoromethane	2.748	2.712	1.3	88	-0.11
6	C	chloromethane	0.797	0.771	3.3	86	-0.11
7		Freon-114	2.957	2.909	1.6	88	-0.09
8	C	methanol	0.283	0.234	17.3	81	-0.08
9	C	vinyl chloride	0.975	0.952	2.4	88	-0.09
10	C	1,3-butadiene	0.708	0.731	-3.2	92	-0.09
11		butane	1.389	1.233	11.2	82	-0.09
13	C	bromomethane	1.004	1.246	-24.1	112	-0.10
14	C	chloroethane	0.523	0.518	1.0	87	-0.08
15		ethanol	0.527	0.498	5.5	80	-0.07
16		dichlorofluoromethane	2.203	2.004	9.0	81	-0.08
17	C	vinyl bromide	1.076	1.065	1.0	88	-0.08
18	C	acrolein	0.409	0.377	7.8	83	-0.07
19		acetone	1.373	1.400	-2.0	93	-0.07
20	C	acetonitrile	0.797	0.740	7.2	86	-0.08
21		trichlorofluoromethane	2.866	2.828	1.3	88	-0.07
22		isopropyl alcohol	1.534	1.569	-2.3	98	-0.06
23	C	acrylonitrile	0.740	0.693	6.4	85	-0.07
24		pentane	1.694	1.520	10.3	82	-0.08
25		ethyl ether	1.016	0.912	10.2	80	-0.06
26	C	1,1-dichloroethene	1.624	1.605	1.2	88	-0.07
27		tertiary butyl alcohol	2.084	1.933	7.2	86	-0.06
28	C	methylene chloride	1.146	1.098	4.2	89	-0.06
29	C	3-chloropropene	1.218	1.260	-3.4	94	-0.06
30	C	carbon disulfide	3.543	3.153	11.0	88	-0.06
31		Freon 113	2.298	2.291	0.3	89	-0.07
32		trans-1,2-dichloroethene	1.569	1.429	8.9	81	-0.05
33	C	1,1-dichloroethane	1.893	1.871	1.2	88	-0.05
34	C	MTBE	3.089	3.075	0.5	89	-0.04
35	C	vinyl acetate	2.474	2.705	-9.3	100	-0.04
36	C	2-butanone	2.196	2.065	6.0	86	-0.04
37		cis-1,2-dichloroethene	1.392	1.526	-9.6	97	-0.05
38		Ethyl Acetate	0.341	0.339	0.6	86	-0.04
39	C	chloroform	2.254	2.263	-0.4	89	-0.05
40		Tetrahydrofuran	1.281	1.190	7.1	84	-0.04

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.984	1.819	8.3	81	-0.04
42	C	1,2-dichloroethane	1.421	1.371	3.5	86	-0.04
43	I	1,4-difluorobenzene	1.000	1.000	0.0	90	-0.03
44	C	hexane	0.423	0.402	5.0	86	-0.04
45		diisopropyl ether	0.247	0.225	8.9	82	-0.04
46		tert-butyl ethyl ether	0.850	0.757	10.9	82	-0.04
47	s	1,2-dichloroethane-D4	0.279	0.292	-4.7	92	-0.04
48	C	1,1,1-trichloroethane	0.620	0.595	4.0	84	-0.03
49		1,1-dichloropropene	0.452	0.399	11.7	77	-0.04
50	C	benzene	0.912	0.766	16.0	75	-0.04
52	C	carbon tetrachloride	0.705	0.632	10.4	81	-0.03
53		cyclohexane	0.480	0.446	7.1	83	-0.03
54		tert-amyl methyl ether	0.905	0.827	8.6	81	-0.03
55		dibromomethane	0.387	0.346	10.6	82	-0.03
56	C	1,2-dichloropropane	0.333	0.321	3.6	87	-0.03
57		bromodichloromethane	0.747	0.734	1.7	88	-0.01
58	C	1,4-dioxane	0.228	0.210	7.9	85	-0.03
59	C	trichloroethene	0.478	0.456	4.6	87	-0.03
60	C	2,2,4-trimethylpentane	1.514	1.449	4.3	86	-0.01
61		methyl methacrylate	0.388	0.359	7.5	81	-0.03
62		heptane	0.526	0.495	5.9	85	-0.03
63	C	cis-1,3-dichloropropene	0.518	0.538	-3.9	91	-0.01
64	C	4-methyl-2-pentanone	0.711	0.698	1.8	86	-0.01
65		trans-1,3-dichloropropene	0.527	0.478	9.3	78	-0.01
66	C	1,1,2-trichloroethane	0.402	0.402	0.0	89	-0.01
67	I	chlorobenzene-D5	1.000	1.000	0.0	89	-0.02
68	C	toluene	6.377	6.208	2.7	87	-0.01
69	s	toluene-D8	4.653	4.966	-6.7	92	-0.03
71		1,3-dichloropropane	3.004	2.761	8.1	81	-0.01
72		2-hexanone	3.750	3.644	2.8	86	-0.01
74		dibromochloromethane	4.462	4.502	-0.9	87	-0.01
75	C	1,2-dibromoethane	3.532	3.532	0.0	88	-0.03
76		butyl acetate	0.852	0.784	8.0	81	-0.01
77		octane	2.051	1.859	9.4	81	-0.01
78	C	tetrachloroethene	3.750	3.658	2.5	88	-0.01
79		1,1,1,2-tetrachloroethane	3.074	2.880	6.3	82	0.00
80	C	chlorobenzene	5.256	5.215	0.8	87	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	8.241	8.390	-1.8	88	-0.01
83	C	m+p-xylene	6.334	6.532	-3.1	88	-0.02
84	C	bromoform	4.989	5.228	-4.8	89	0.00
85	C	styrene	5.069	5.291	-4.4	89	0.00
86	C	1,1,2,2-tetrachloroethane	4.856	5.066	-4.3	90	0.00
87	C	o-xylene	6.592	6.842	-3.8	89	-0.01
88		1,2,3-trichloropropane	3.676	3.543	3.6	84	-0.01
89		nonane	4.062	3.858	5.0	82	0.00
90	s	bromofluorobenzene	3.311	3.721	-12.4	93	0.00
91	C	isopropylbenzene	9.313	9.337	-0.3	86	0.00
92		bromobenzene	4.534	4.482	1.1	86	0.00
93		2-chlorotoluene	2.643	2.519	4.7	83	0.00
94		n-propylbenzene	2.766	2.692	2.7	83	0.00
95		4-chlorotoluene	5.674	5.896	-3.9	93	0.00
96		4-ethyl toluene	10.144	10.249	-1.0	83	0.00
97		1,3,5-trimethylbenzene	7.620	7.968	-4.6	90	0.00
98		tert-butylbenzene	8.886	8.720	1.9	83	0.00
99		1,2,4-trimethylbenzene	7.706	8.293	-7.6	89	0.00
100		decane	4.815	4.622	4.0	81	0.00
101	C	Benzyl Chloride	6.553	7.282	-11.1	85	0.00
102		1,3-dichlorobenzene	5.842	6.368	-9.0	91	0.00
103	C	1,4-dichlorobenzene	5.337	5.832	-9.3	86	0.00
104		sec-butylbenzene	11.465	11.209	2.2	82	0.00
106		p-isopropyltoluene	10.702	9.651	9.8	75	0.00
107		1,2-dichlorobenzene	5.562	5.764	-3.6	88	0.00
108		n-butylbenzene	8.896	9.046	-1.7	84	0.00
111	C	1,2-dibromo-3-chloropropane	2.375	2.347	1.2	82	0.00
112		undecane	4.965	5.181	-4.4	80	0.00
114		dodecane	4.715	5.284	-12.1	78	0.00
115	C	1,2,4-trichlorobenzene	4.664	5.359	-14.9	85	0.01
116		naphthalene	9.463	10.546	-11.4	80	0.00
117		1,2,3-trichlorobenzene	4.624	5.067	-9.6	83	0.00
119	C	hexachlorobutadiene	5.321	5.417	-1.8	85	0.01

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.927	49	151062	10.000	ppbV	-0.04
Standard Area = 169082			Recovery = 89.34%			
43) 1,4-difluorobenzene	13.091	114	593279	10.000	ppbV	-0.03
Standard Area = 662709			Recovery = 89.52%			
67) chlorobenzene-D5	17.374	54	109768	10.000	ppbV	-0.02
Standard Area = 123609			Recovery = 88.80%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.787	65	173468	10.469	ppbV	-0.04
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.69%			
69) toluene-D8	15.721	98	545104	10.673	ppbV	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.73%			
90) bromofluorobenzene	18.557	95	408437	11.237	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.37%			
Target Compounds						Qvalue
2) chlorodifluoromethane	4.742	51	202132	8.908	ppbV	100
3) propylene	4.782	41	120779M6	9.943	ppbV	
4) propane	4.809	29	83798	7.715	ppbV #	90
5) dichlorodifluoromethane	4.889	85	409692	9.868	ppbV	100
6) chloromethane	5.130	50	116484	9.680	ppbV	100
7) Freon-114	5.303	85	439500	9.840	ppbV	99
8) methanol	5.437	31	176668	41.366	ppbV	99
9) vinyl chloride	5.463	62	143863	9.764	ppbV	100
10) 1,3-butadiene	5.677	54	110458	10.335	ppbV	100
11) butane	5.757	43	186334	8.882	ppbV	99
13) bromomethane	6.059	94	188193	12.410	ppbV	100
14) chloroethane	6.321	64	78226	9.901	ppbV	99
15) ethanol	6.548	31	376356M6	47.251	ppbV	
16) dichlorofluoromethane	6.476	67	302689	9.097	ppbV	100
17) vinyl bromide	6.811	106	160835	9.893	ppbV	99
18) acrolein	6.990	56	56878	9.216	ppbV	98
19) acetone	7.169	43	1057430	50.986	ppbV	99
20) acetonitrile	6.823	41	111775	9.284	ppbV	99
21) trichlorofluoromethane	7.384	101	427221	9.867	ppbV	100
22) isopropyl alcohol	7.527	45	237000	10.230	ppbV	100
23) acrylonitrile	7.789	53	104648M6	9.355	ppbV	
24) pentane	7.849	43	229595	8.971	ppbV	99
25) ethyl ether	7.897	31	137825	8.979	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	8.207	61	242500	9.885	ppbV	99
27) tertiary butyl alcohol	8.291	59	292058M6	9.278	ppbV	
28) methylene chloride	8.374	49	165889	9.585	ppbV	98
29) 3-chloropropene	8.518	41	190380	10.351	ppbV	99
30) carbon disulfide	8.709	76	476328	8.899	ppbV	99
31) Freon 113	8.697	101	346105	9.971	ppbV	99
32) trans-1,2-dichloroethene	9.515	61	215796	9.105	ppbV	99
33) 1,1-dichloroethane	9.752	63	282569	9.882	ppbV	99
34) MTBE	9.828	73	464506	9.955	ppbV	99
35) vinyl acetate	9.947	43	408599	10.933	ppbV	99
36) 2-butanone	10.228	43	311906	9.402	ppbV	99
37) cis-1,2-dichloroethene	10.729	61	230587	10.965	ppbV	99
38) Ethyl Acetate	10.993	61	51206	9.943	ppbV	93
39) chloroform	11.073	83	341862	10.041	ppbV	100
40) Tetrahydrofuran	11.523	42	179812	9.290	ppbV	99
41) 2,2-dichloropropane	11.099	77	274832	9.171	ppbV	99
42) 1,2-dichloroethane	11.906	62	207062	9.644	ppbV	100
44) hexane	10.967	57	238508	9.495	ppbV	88
45) diisopropyl ether	10.967	87	133221	9.089	ppbV	98
46) tert-butyl ethyl ether	11.576	59	449149	8.908	ppbV	99
48) 1,1,1-trichloroethane	12.197	97	352871	9.596	ppbV	97
49) 1,1-dichloropropene	12.537	75	236926	8.827	ppbV	99
50) benzene	12.707	78	454580	8.397	ppbV	99
52) carbon tetrachloride	12.878	117	374693	8.958	ppbV	99
53) cyclohexane	13.020	56	264613M6	9.286	ppbV	
54) tert-amyl methyl ether	13.361	73	490679	9.136	ppbV	100
55) dibromomethane	13.602	93	205456	8.938	ppbV	99
56) 1,2-dichloropropane	13.630	63	190716	9.640	ppbV	99
57) bromodichloromethane	13.858	83	435273	9.821	ppbV	100
58) 1,4-dioxane	13.886	88	124840	9.223	ppbV	100
59) trichloroethene	13.900	130	270766	9.557	ppbV	99
60) 2,2,4-trimethylpentane	13.929	57	859827	9.571	ppbV	99
61) methyl methacrylate	14.085	41	213193	9.256	ppbV	100
62) heptane	14.198	43	293771	9.406	ppbV	99
63) cis-1,3-dichloropropene	14.846	75	319444	10.398	ppbV	99
64) 4-methyl-2-pentanone	14.871	43	413870	9.815	ppbV	100
65) trans-1,3-dichloropropene	15.374	75	283391	9.071	ppbV	99
66) 1,1,2-trichloroethane	15.554	97	238597	10.007	ppbV	100
68) toluene	15.824	91	681405	9.734	ppbV	100
71) 1,3-dichloropropane	15.837	76	303027	9.190	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72)	2-hexanone	16.031	43	399979	9.718	ppbV	97
74)	dibromochloromethane	16.224	129	494190	10.091	ppbV	100
75)	1,2-dibromoethane	16.443	107	387698	10.001	ppbV	100
76)	butyl acetate	16.584	73	86025	9.198	ppbV	100
77)	octane	16.674	85	204007	9.062	ppbV	98
78)	tetrachloroethene	16.842	166	401564	9.756	ppbV	99
79)	1,1,1,2-tetrachloroethane	17.396	131	316155	9.368	ppbV	99
80)	chlorobenzene	17.411	112	572394	9.921	ppbV	99
81)	ethylbenzene	17.698	91	920953	10.181	ppbV	100
83)	m+p-xylene	17.833	91	1433942	20.623	ppbV	98
84)	bromoform	17.931	173	573817	10.478	ppbV	100
85)	styrene	18.120	104	580777	10.437	ppbV	99
86)	1,1,2,2-tetrachloroethane	18.203	83	556052	10.432	ppbV	100
87)	o-xylene	18.203	91	751061	10.380	ppbV	99
88)	1,2,3-trichloropropane	18.301	75	388861	9.636	ppbV	98
89)	nonane	18.331	43	423462	9.498	ppbV	100
91)	isopropylbenzene	18.647	105	1024933	10.026	ppbV	100
92)	bromobenzene	18.738	77	491973	9.886	ppbV	99
93)	2-chlorotoluene	19.018	126	276454	9.529	ppbV	89
94)	n-propylbenzene	19.026	120	295493	9.733	ppbV	89
95)	4-chlorotoluene	19.067	91	647203M3	10.392	ppbV	
96)	4-ethyl toluene	19.133	105	1125031	10.104	ppbV	100
97)	1,3,5-trimethylbenzene	19.182	105	874634	10.457	ppbV	100
98)	tert-butylbenzene	19.502	119	957189	9.813	ppbV	99
99)	1,2,4-trimethylbenzene	19.502	105	910262	10.761	ppbV	96
100)	decane	19.535	57	507401	9.601	ppbV	99
101)	Benzyl Chloride	19.625	91	799330	11.113	ppbV	99
102)	1,3-dichlorobenzene	19.650	146	699018	10.901	ppbV	98
103)	1,4-dichlorobenzene	19.699	146	640121	10.926	ppbV	99
104)	sec-butylbenzene	19.708	105	1230421	9.777	ppbV	99
106)	p-isopropyltoluene	19.831	119	1059418	9.019	ppbV	99
107)	1,2-dichlorobenzene	19.979	146	632659	10.362	ppbV	99
108)	n-butylbenzene	20.168	91	992952	10.168	ppbV	99
111)	1,2-dibromo-3-chloropr...	20.348	75	257587	9.882	ppbV	94
112)	undecane	20.529	57	568762	10.435	ppbV	99
114)	dodecane	21.480	57	579982	11.207	ppbV	99
115)	1,2,4-trichlorobenzene	21.505	180	588238	11.489	ppbV	98
116)	naphthalene	21.629	128	1157655	11.145	ppbV	100
117)	1,2,3-trichlorobenzene	21.902	180	556163	10.957	ppbV	99
119)	hexachlorobutadiene	21.964	225	594666	10.181	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\R141341.D
Sub List : Default-ICV-AP2 - All compounds listed

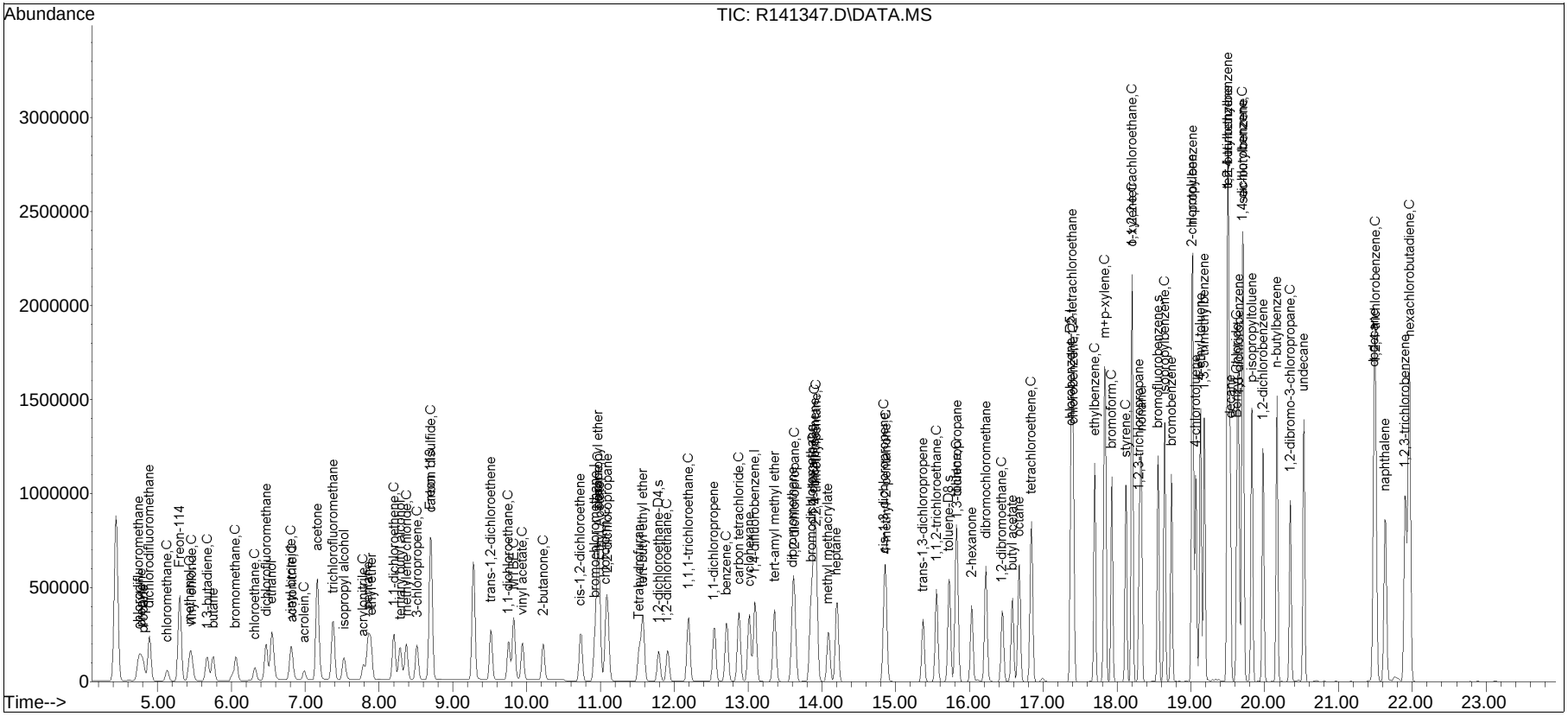
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedT_ICAL\R141341.D

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141347.D
Acq On : 21 Jan 2015 10:01 am
Operator : AIRLAB14:MB
Sample : CTO15-LLSTD10.0
Misc : WG758134
ALS Vial : 2 Sample Multiplier: 1

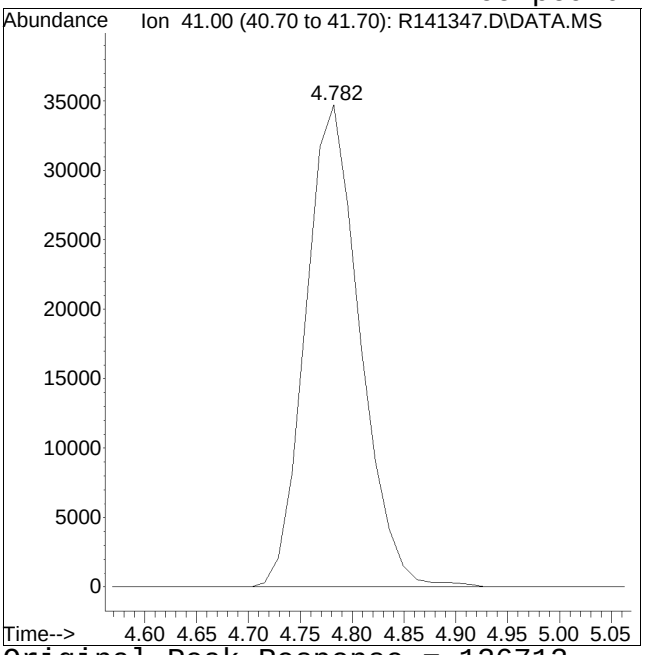
Quant Time: Jan 21 14:43:53 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration



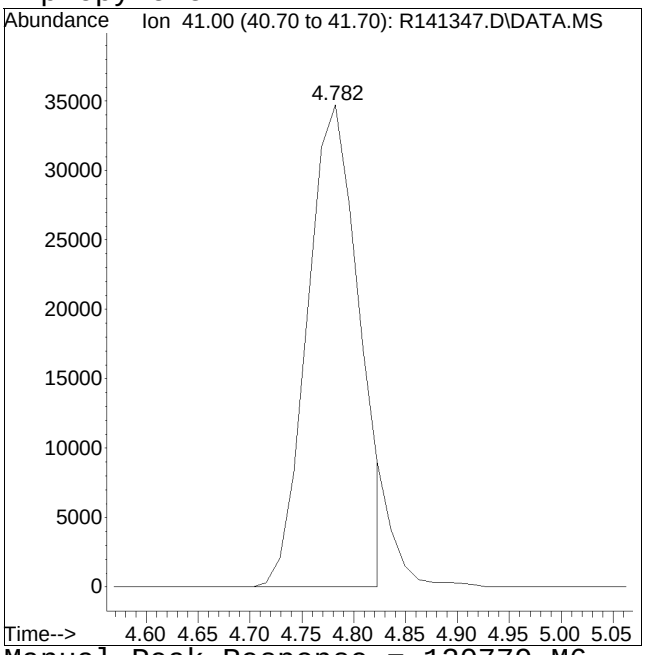
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #3: propylene



Original Peak Response = 126712



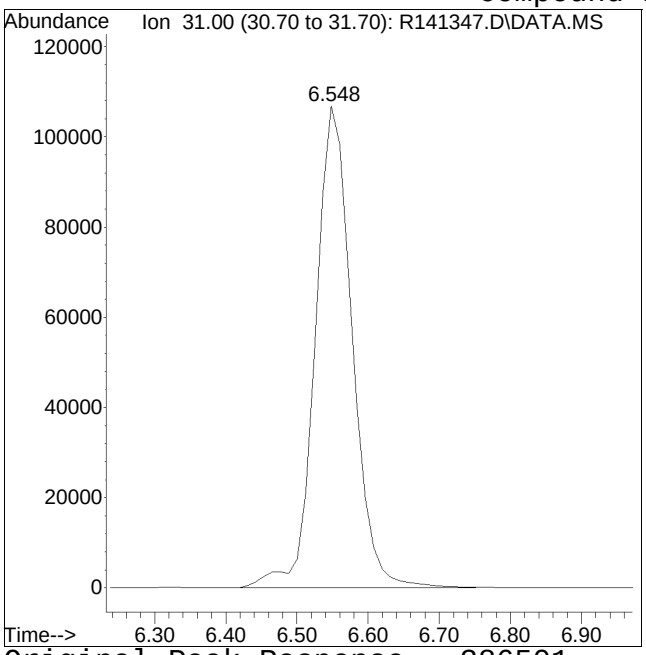
Manual Peak Response = 120779 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

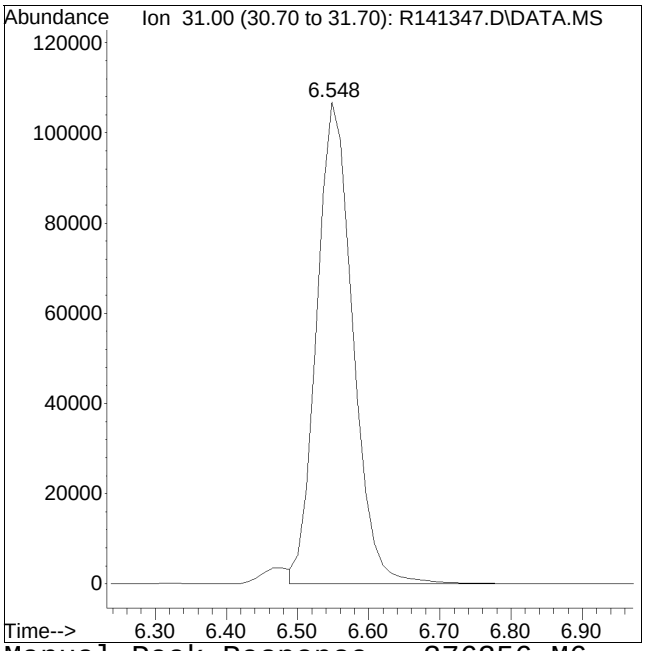
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #15: ethanol



Original Peak Response = 386501



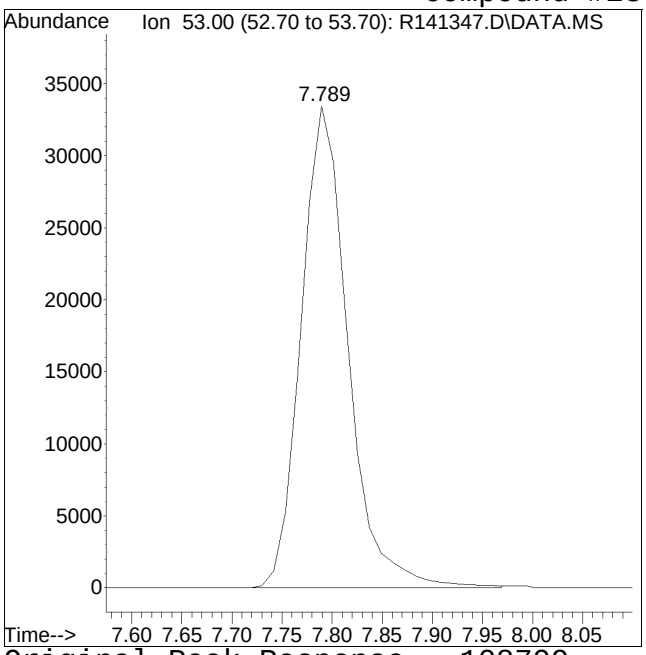
Manual Peak Response = 376356 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

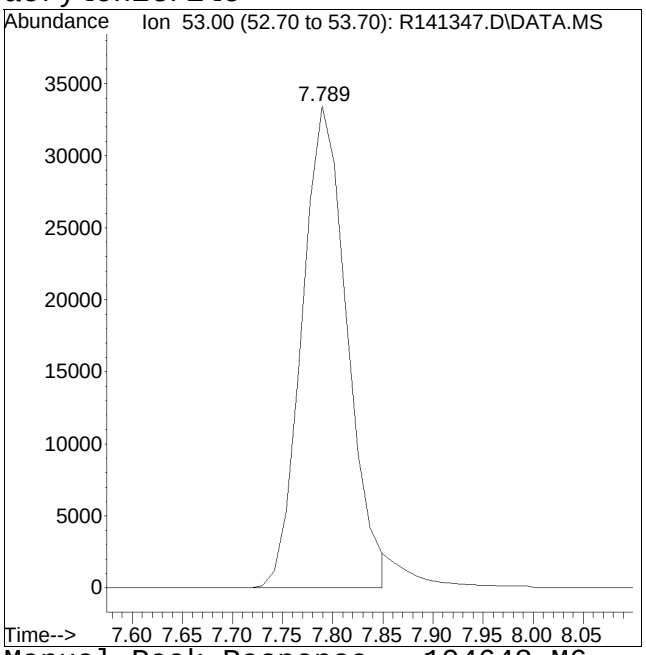
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #23: acrylonitrile



Original Peak Response = 108799



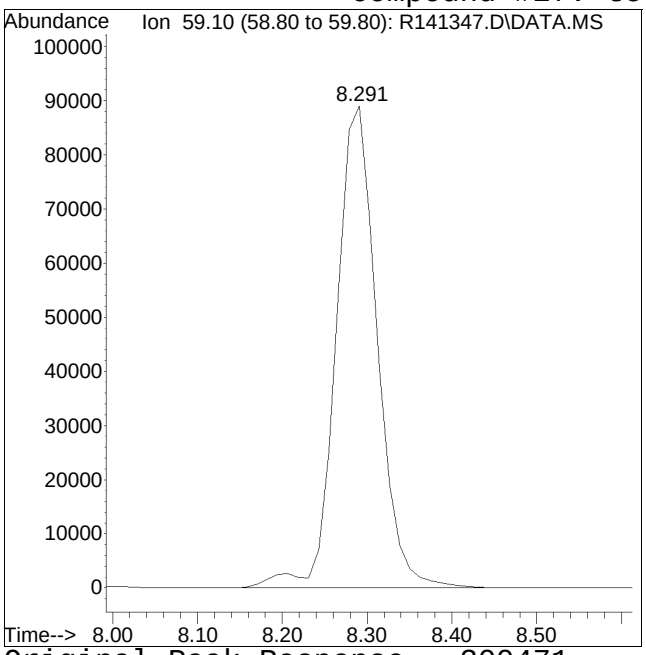
Manual Peak Response = 104648 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

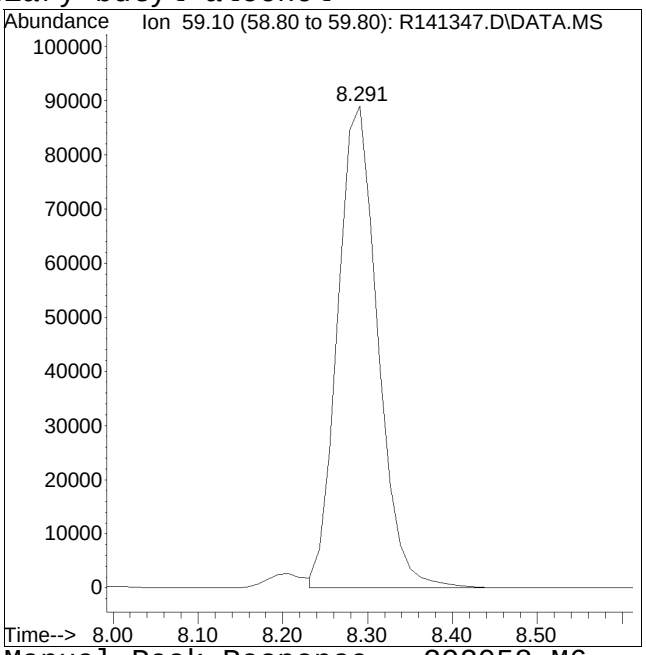
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #27: tertiary butyl alcohol



Original Peak Response = 300471



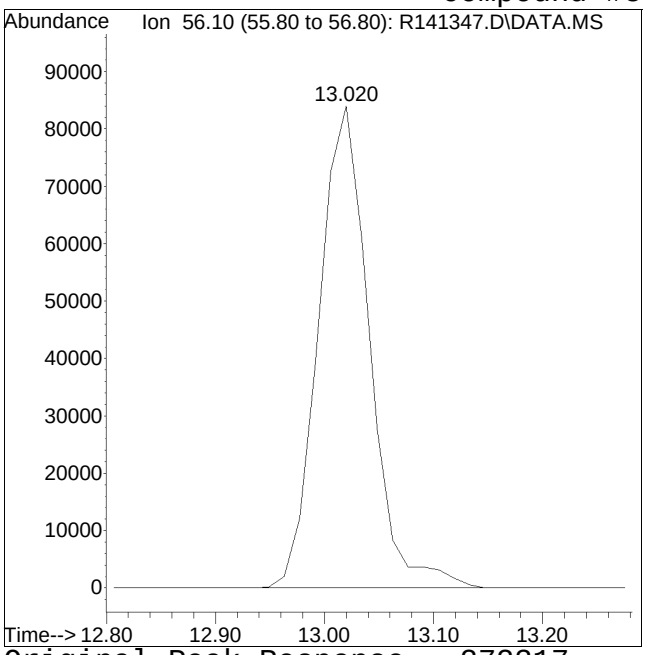
Manual Peak Response = 292058 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

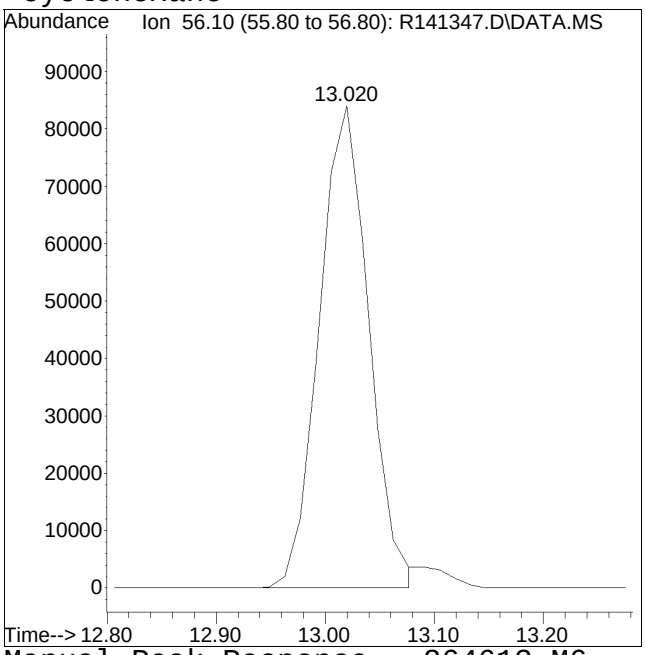
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #53: cyclohexane



Original Peak Response = 272317



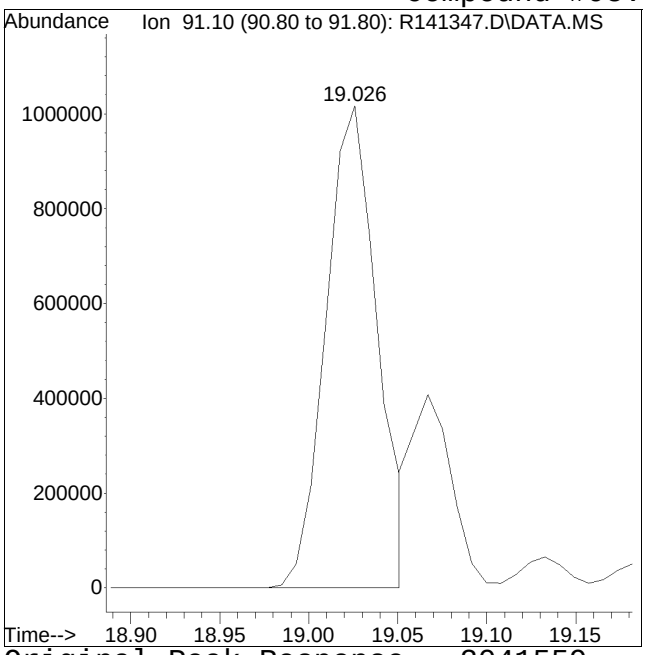
Manual Peak Response = 264613 M6

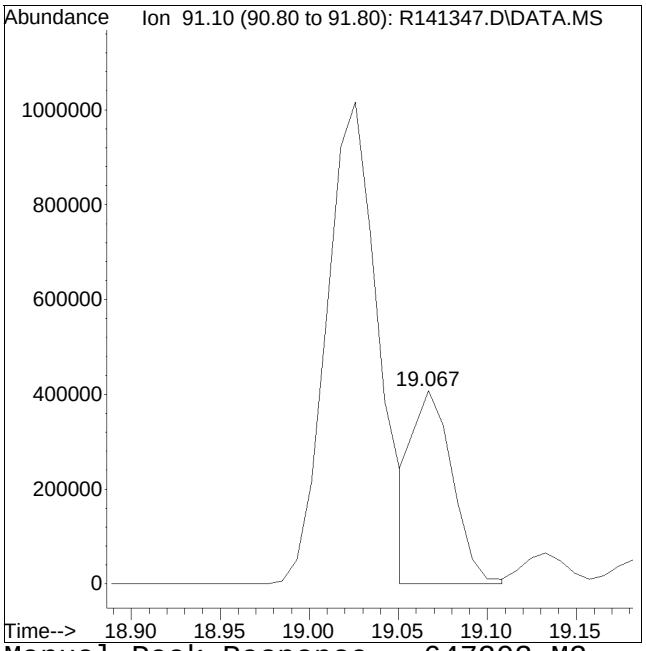
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141347.D Operator : AIRLAB14:MB
Date Inj'd : 1/21/2015 10:01 am Instrument : Airlab 14
Sample : CTO15-LLSTD10.0 Quant Date : 1/21/2015 2:43 pm

Compound #95: 4-chlorotoluene





Original Peak Response = 2041559 Manual Peak Response = 647203 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRLAB14 Calibration Date: 02/04/2015 Time: 15:48

Lab File ID: R141368 Init. Calib. Date(s): 01/20/15 01/21/15

Sample No: WG760633-2,3,25 Init. Calib. Times : 22:11 04:10

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	87	-0.04
5		dichlorodifluoromethane	2.748	2.829	-2.9	89	-0.09
6	C	chloromethane	0.797	0.805	-1.0	88	-0.09
7		Freon-114	2.957	3.048	-3.1	89	-0.08
9	C	vinyl chloride	0.975	1.001	-2.7	89	-0.08
10	C	1,3-butadiene	0.708	0.724	-2.3	88	-0.08
13	C	bromomethane	1.004	0.999	0.5	87	-0.07
14	C	chloroethane	0.523	0.546	-4.4	89	-0.07
15		ethanol	0.527	0.558	-5.9	87	-0.06
17	C	vinyl bromide	1.076	1.123	-4.4	90	-0.07
19		acetone	1.373	1.326	3.4	86	-0.06
21		trichlorofluoromethane	2.866	2.923	-2.0	89	-0.06
22		isopropyl alcohol	1.534	1.532	0.1	93	-0.05
26	C	1,1-dichloroethene	1.624	1.616	0.5	86	-0.06
27		tertiary butyl alcohol	2.084	2.111	-1.3	91	-0.05
28	C	methylene chloride	1.146	1.076	6.1	85	-0.05
29	C	3-chloropropene	1.218	1.182	3.0	85	-0.05
30	C	carbon disulfide	3.543	3.356	5.3	91	-0.05
31		Freon 113	2.298	2.302	-0.2	87	-0.06
32		trans-1,2-dichloroethene	1.569	1.557	0.8	85	-0.04
33	C	1,1-dichloroethane	1.893	1.862	1.6	85	-0.04
34	C	MTBE	3.089	3.062	0.9	86	-0.03
36	C	2-butanone	2.196	2.075	5.5	84	-0.03
37		cis-1,2-dichloroethene	1.392	1.365	1.9	84	-0.04
39	C	chloroform	2.254	2.230	1.1	85	-0.04
40		Tetrahydrofuran	1.281	1.193	6.9	82	-0.02
42	C	1,2-dichloroethane	1.421	1.399	1.5	85	-0.02
43	I	1,4-difluorobenzene	1.000	1.000	0.0	78	-0.01
44	C	hexane	0.423	0.443	-4.7	83	-0.02
48	C	1,1,1-trichloroethane	0.620	0.658	-6.1	81	-0.02
50	C	benzene	0.912	0.851	6.7	73	-0.02
52	C	carbon tetrachloride	0.705	0.710	-0.7	79	-0.02
53		cyclohexane	0.480	0.416	13.3	68	-0.02
56	C	1,2-dichloropropane	0.333	0.356	-6.9	84	-0.02
57		bromodichloromethane	0.747	0.810	-8.4	85	-0.01
58	C	1,4-dioxane	0.228	0.239	-4.8	84	-0.01
59	C	trichloroethene	0.478	0.512	-7.1	86	-0.02
60	C	2,2,4-trimethylpentane	1.514	1.626	-7.4	84	-0.01

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141368.D
Acq On : 04 Feb 2015 03:48 pm
Operator : AIRLAB14:RY
Sample : WG760633-2,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 04 17:19:35 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
61		methyl methacrylate	0.388	0.417	-7.5	83	-0.01
62		heptane	0.526	0.558	-6.1	84	-0.01
63	C	cis-1,3-dichloropropene	0.518	0.567	-9.5	84	0.00
64	C	4-methyl-2-pentanone	0.711	0.769	-8.2	84	0.00
65		trans-1,3-dichloropropene	0.527	0.593	-12.5	85	0.00
66	C	1,1,2-trichloroethane	0.402	0.434	-8.0	84	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	88	-0.02
68	C	toluene	6.377	6.121	4.0	84	0.00
74		dibromochloromethane	4.462	4.481	-0.4	86	0.00
75	C	1,2-dibromoethane	3.532	3.456	2.2	85	-0.02
78	C	tetrachloroethene	3.750	3.642	2.9	86	-0.02
80	C	chlorobenzene	5.256	5.128	2.4	85	-0.02
81	C	ethylbenzene	8.241	8.111	1.6	84	-0.03
83	C	m+p-xylene	6.334	6.316	0.3	84	-0.03
84	C	bromoform	4.989	5.168	-3.6	87	-0.02
85	C	styrene	5.069	5.134	-1.3	85	-0.02
86	C	1,1,2,2-tetrachloroethane	4.856	4.767	1.8	83	-0.02
87	C	o-xylene	6.592	6.526	1.0	84	-0.03
93		2-chlorotoluene	2.643	2.647	-0.2	86	-0.03
96		4-ethyl toluene	10.144	10.754	-6.0	87	-0.03
97		1,3,5-trimethylbenzene	7.620	7.627	-0.1	85	-0.03
99		1,2,4-trimethylbenzene	7.706	8.186	-6.2	86	-0.04
102		1,3-dichlorobenzene	5.842	6.377	-9.2	90	-0.03
103	C	1,4-dichlorobenzene	5.337	5.901	-10.6	86	-0.03
107		1,2-dichlorobenzene	5.562	5.927	-6.6	89	-0.03
115	C	1,2,4-trichlorobenzene	4.664	5.574	-19.5	87	-0.01
119	C	hexachlorobutadiene	5.321	5.744	-7.9	89	-0.01

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141368.D
Acq On : 04 Feb 2015 03:48 pm
Operator : AIRLAB14:RY
Sample : WG760633-2,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 04 17:19:35 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.931	49	146829	10.000	ppbV	-0.04
Standard Area = 146829			Recovery = 100.00%			
43) 1,4-difluorobenzene	13.108	114	519450	10.000	ppbV	-0.01
Standard Area = 519450			Recovery = 100.00%			
67) chlorobenzene-D5	17.364	54	108386	10.000	ppbV	-0.02
Standard Area = 108386			Recovery = 100.00%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.902	85	415383	10.293	ppbV	99
6) chloromethane	5.143	50	118128	10.100	ppbV	100
7) Freon-114	5.316	85	447592	10.310	ppbV	98
9) vinyl chloride	5.477	62	146974	10.262	ppbV	99
10) 1,3-butadiene	5.690	54	106263	10.229	ppbV	99
13) bromomethane	6.083	94	146645M6	9.949	ppbV	
14) chloroethane	6.333	64	80222	10.447	ppbV	100
15) ethanol	6.560	31	409334	52.873	ppbV	98
17) vinyl bromide	6.823	106	164934	10.437	ppbV	100
19) acetone	7.181	43	973780	48.306	ppbV	99
21) trichlorofluoromethane	7.396	101	429152	10.197	ppbV	100
22) isopropyl alcohol	7.539	45	224973	9.991	ppbV	100
26) 1,1-dichloroethene	8.219	61	237278	9.951	ppbV	99
27) tertiary butyl alcohol	8.303	59	309901	10.129	ppbV	100
28) methylene chloride	8.386	49	157937	9.388	ppbV	97
29) 3-chloropropene	8.529	41	173618	9.711	ppbV	99
30) carbon disulfide	8.720	76	492723	9.471	ppbV	99
31) Freon 113	8.709	101	338048	10.020	ppbV	99
32) trans-1,2-dichloroethene	9.527	61	228650	9.925	ppbV	98
33) 1,1-dichloroethane	9.764	63	273386	9.836	ppbV	100
34) MTBE	9.840	73	449603	9.913	ppbV	99
36) 2-butanone	10.240	43	304608	9.447	ppbV	99
37) cis-1,2-dichloroethene	10.746	61	200440	9.806	ppbV	99
39) chloroform	11.090	83	327403	9.894	ppbV	100
40) Tetrahydrofuran	11.539	42	175164	9.311	ppbV	98
42) 1,2-dichloroethane	11.923	62	205406	9.843	ppbV	99
44) hexane	10.984	57	230002	10.458	ppbV	91
48) 1,1,1-trichloroethane	12.201	97	341701	10.613	ppbV	98
50) benzene	12.725	78	442092	9.327	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141368.D
Acq On : 04 Feb 2015 03:48 pm
Operator : AIRLAB14:RY
Sample : WG760633-2,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 04 17:19:35 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

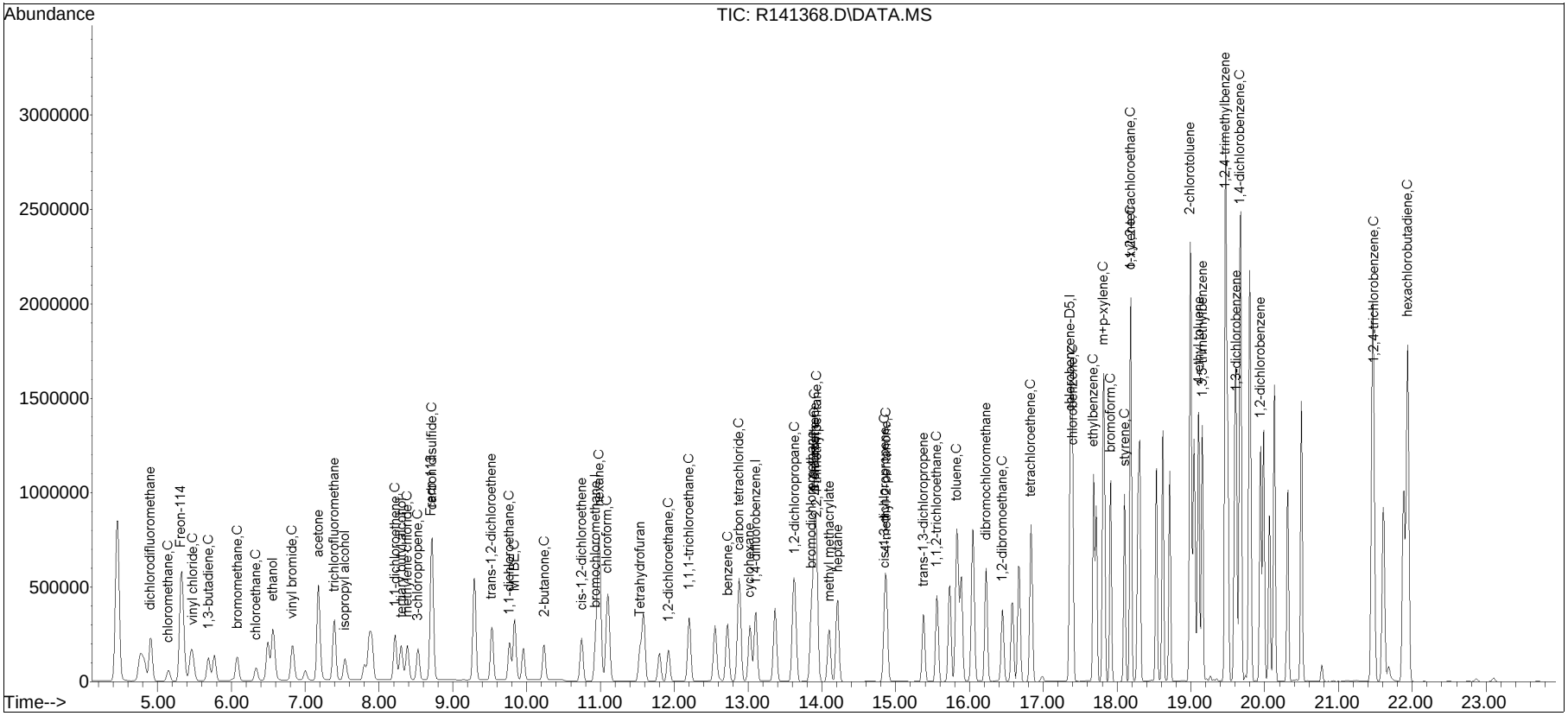
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) carbon tetrachloride	12.881	117	368613	10.065	ppbV	100
53) cyclohexane	13.023	56	216139	8.663	ppbV	97
56) 1,2-dichloropropane	13.634	63	184668	10.661	ppbV	100
57) bromodichloromethane	13.861	83	420769	10.843	ppbV	99
58) 1,4-dioxane	13.904	88	124328	10.490	ppbV	93
59) trichloroethene	13.904	130	266140	10.729	ppbV	100
60) 2,2,4-trimethylpentane	13.932	57	844763	10.740	ppbV	99
61) methyl methacrylate	14.102	41	216628	10.742	ppbV	99
62) heptane	14.216	43	290084	10.608	ppbV	99
63) cis-1,3-dichloropropene	14.849	75	294691	10.956	ppbV	98
64) 4-methyl-2-pentanone	14.875	43	399590	10.823	ppbV	99
65) trans-1,3-dichloropropene	15.377	75	308051	11.262	ppbV	99
66) 1,1,2-trichloroethane	15.558	97	225669	10.810	ppbV	100
68) toluene	15.828	91	663410	9.598	ppbV	100
74) dibromochloromethane	16.227	129	485672	10.043	ppbV	100
75) 1,2-dibromoethane	16.446	107	374574	9.786	ppbV	100
78) tetrachloroethene	16.833	166	394756	9.713	ppbV	99
80) chlorobenzene	17.402	112	555769	9.756	ppbV	100
81) ethylbenzene	17.681	91	879083	9.842	ppbV	99
83) m+p-xylene	17.817	91	1369216	19.943	ppbV	99
84) bromoform	17.915	173	560096	10.358	ppbV	100
85) styrene	18.103	104	556442	10.127	ppbV	99
86) 1,1,2,2-tetrachloroethane	18.186	83	516638	9.816	ppbV	99
87) o-xylene	18.186	91	707379	9.901	ppbV	100
93) 2-chlorotoluene	18.992	126	286876	10.015	ppbV	99
96) 4-ethyl toluene	19.107	105	1165564	10.601	ppbV	100
97) 1,3,5-trimethylbenzene	19.156	105	826696	10.010	ppbV	100
99) 1,2,4-trimethylbenzene	19.468	105	887290	10.623	ppbV	100
102) 1,3-dichlorobenzene	19.616	146	691217M3	10.917	ppbV	
103) 1,4-dichlorobenzene	19.665	146	639554	11.055	ppbV	98
107) 1,2-dichlorobenzene	19.945	146	642363	10.655	ppbV	98
115) 1,2,4-trichlorobenzene	21.479	180	604184	11.951	ppbV	98
119) hexachlorobutadiene	21.938	225	622559	10.794	ppbV	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : NJ-LL_New - .Data\Airlab14\2015\150204T\R141368.D

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141368.D
Acq On : 04 Feb 2015 03:48 pm
Operator : AIRLAB14:RY
Sample : WG760633-2,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 2 Sample Multiplier: 1

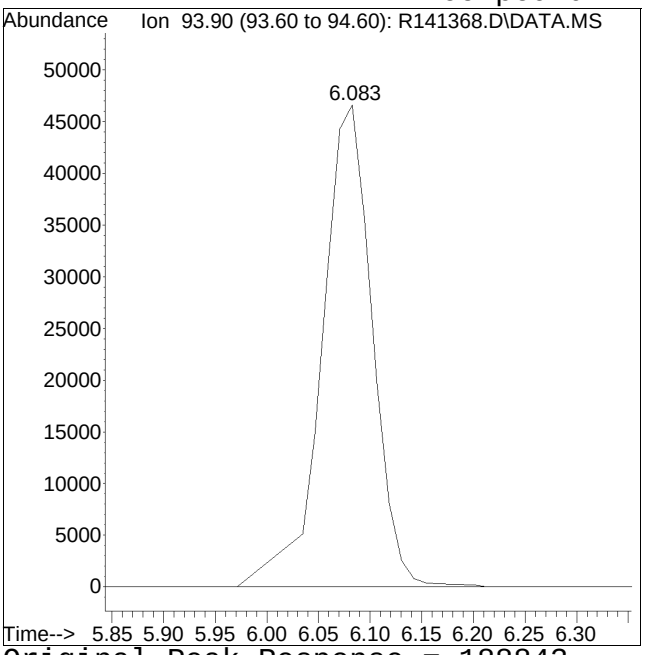
Quant Time: Feb 04 17:19:35 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration



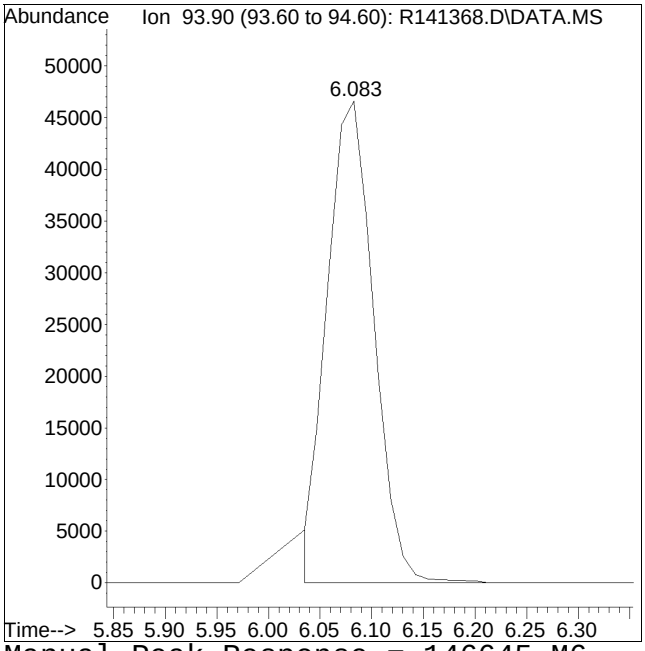
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141368.D Operator : AIRLAB14:RY
Date Inj'd : 2/4/2015 3:48 pm Instrument : Airlab 14
Sample : WG760633-2,3,250,250 Quant Date : 2/4/2015 4:19 pm

Compound #13: bromomethane



Original Peak Response = 188843



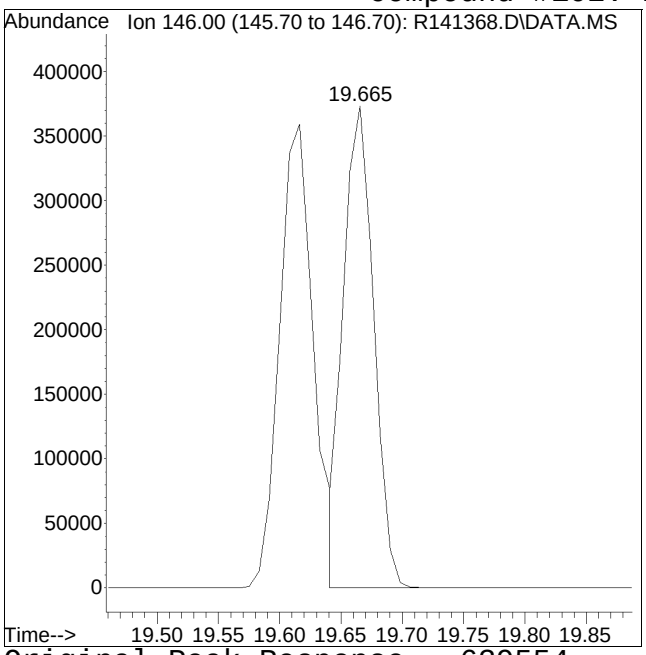
Manual Peak Response = 146645 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

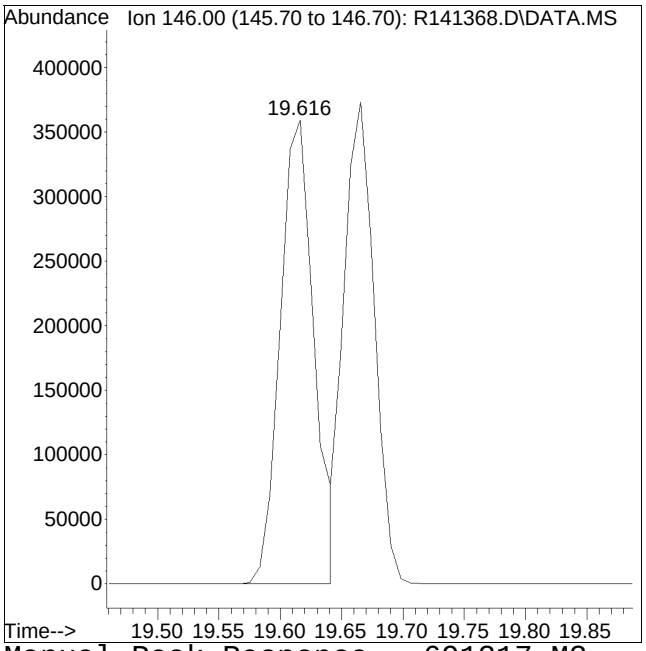
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141368.D Operator : AIRLAB14:RY
Date Inj'd : 2/4/2015 3:48 pm Instrument : Airlab 14
Sample : WG760633-2,3,250,250 Quant Date : 2/4/2015 4:19 pm

Compound #102: 1,3-dichlorobenzene



Original Peak Response = 639554



Manual Peak Response = 691217 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500978

Instrument ID: AIRPIANO2 Calibration Date: 01/20/2015 Time: 10:30

Lab File ID: R232206 Init. Calib. Date(s): 01/19/15 01/20/15

Sample No: WG757004-2,3,25 Init. Calib. Times : 23:55 03:37

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	102	0.00
2		chlorodifluoromethane	1.206	1.142	5.3	95	0.00
3		propylene	0.597	0.534	10.6	94	0.00
4		propane	0.658	0.524	20.4	87	0.00
5		dichlorodifluoromethane	1.509	1.514	-0.3	101	0.00
6	C	chloromethane	0.683	0.641	6.1	97	0.00
7		Freon-114	1.828	1.810	1.0	98	0.00
8	C	methanol	0.243	0.245	-0.8	102	0.00
9	C	vinyl chloride	0.705	0.689	2.3	96	0.00
10	C	1,3-butadiene	0.589	0.516	12.4	97	0.00
11		butane	1.181	1.111	5.9	98	0.00
13	C	bromomethane	0.634	0.623	1.7	100	0.00
14	C	chloroethane	0.339	0.342	-0.9	102	0.00
15		ethanol	0.502	0.517	-3.0	103	0.00
16		dichlorofluoromethane	1.603	1.500	6.4	97	0.00
17	C	vinyl bromide	0.629	0.652	-3.7	102	0.00
18	C	acrolein	0.300	0.303	-1.0	97	0.00
19		acetone	1.084	1.076	0.7	99	0.00
20	C	acetonitrile	0.695	0.649	6.6	97	0.00
21		trichlorofluoromethane	1.733	1.759	-1.5	100	0.00
22		isopropyl alcohol	1.265	1.251	1.1	106	0.00
23	C	acrylonitrile	0.588	0.527	10.4	96	0.00
24		pentane	1.373	1.329	3.2	96	0.00
25		ethyl ether	1.004	0.936	6.8	94	0.00
26	C	1,1-dichloroethene	1.191	1.169	1.8	98	0.00
27		tertiary butyl alcohol	1.514	1.511	0.2	105	0.00
28	C	methylene chloride	0.936	0.892	4.7	98	0.00
29	C	3-chloropropene	1.036	1.007	2.8	102	0.00
30	C	carbon disulfide	2.067	1.990	3.7	95	0.00
31		Freon 113	1.425	1.321	7.3	91	0.00
32		trans-1,2-dichloroethene	1.162	1.120	3.6	97	0.00
33	C	1,1-dichloroethane	1.338	1.263	5.6	94	0.00
34	C	MTBE	2.028	1.919	5.4	97	0.00
35	C	vinyl acetate	1.462	1.371	6.2	95	0.00
36	C	2-butanone	1.702	1.606	5.6	95	0.00
37		cis-1,2-dichloroethene	1.027	0.988	3.8	95	0.00
38		Ethyl Acetate	0.239	0.243	-1.7	96	0.00
39	C	chloroform	1.522	1.496	1.7	98	0.00
40		Tetrahydrofuran	0.950	0.885	6.8	94	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232206.D
Acq On : 20 Jan 2015 10:30 am
Operator : AIRPIANO2:RY
Sample : WG757004-2,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 20 10:55:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.395	1.347	3.4	99	0.00
42	C	1,2-dichloroethane	1.083	1.036	4.3	94	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00
44	C	hexane	0.480	0.421	12.3	97	0.00
45		diisopropyl ether	0.218	0.203	6.9	96	0.00
46		tert-butyl ethyl ether	0.952	0.858	9.9	95	0.00
48	C	1,1,1-trichloroethane	0.689	0.639	7.3	97	0.00
49		1,1-dichloropropene	0.437	0.403	7.8	95	0.00
50	C	benzene	0.842	0.765	9.1	96	0.00
52	C	carbon tetrachloride	0.634	0.603	4.9	99	-0.01
53		cyclohexane	0.485	0.427	12.0	96	0.00
54		tert-amyl methyl ether	0.844	0.759	10.1	95	0.00
55		dibromomethane	0.366	0.339	7.4	97	0.00
56	C	1,2-dichloropropane	0.329	0.298	9.4	95	0.00
57		bromodichloromethane	0.694	0.643	7.3	96	0.00
58	C	1,4-dioxane	0.192	0.184	4.2	103	0.00
59	C	trichloroethene	0.374	0.359	4.0	98	0.00
60	C	2,2,4-trimethylpentane	1.527	1.346	11.9	95	0.00
61		methyl methacrylate	0.463	0.416	10.2	95	0.00
62		heptane	0.606	0.540	10.9	95	0.00
63	C	cis-1,3-dichloropropene	0.466	0.439	5.8	96	0.00
64	C	4-methyl-2-pentanone	0.822	0.757	7.9	95	0.00
65		trans-1,3-dichloropropene	0.615	0.577	6.2	95	0.00
66	C	1,1,2-trichloroethane	0.444	0.423	4.7	98	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	104	0.00
68	C	toluene	5.587	5.235	6.3	97	0.00
71		1,3-dichloropropane	2.600	2.476	4.8	96	0.00
72		2-hexanone	4.212	3.961	6.0	94	0.00
74		dibromochloromethane	3.740	3.802	-1.7	99	0.00
75	C	1,2-dibromoethane	3.124	2.997	4.1	96	0.00
76		butyl acetate	0.597	0.555	7.0	93	0.00
77		octane	1.639	1.555	5.1	97	0.00
78	C	tetrachloroethene	2.566	2.496	2.7	98	0.00
79		1,1,1,2-tetrachloroethane	1.901	1.861	2.1	98	0.00
80	C	chlorobenzene	3.326	3.242	2.5	96	0.00
81	C	ethylbenzene	5.559	5.287	4.9	96	0.00
83	C	m+p-xylene	4.377	4.192	4.2	98	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232206.D
Acq On : 20 Jan 2015 10:30 am
Operator : AIRPIANO2:RY
Sample : WG757004-2,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 20 10:55:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	2.693	2.723	-1.1	98	0.00
85	C	styrene	3.298	3.197	3.1	96	0.00
86	C	1,1,2,2-tetrachloroethane	3.303	3.272	0.9	97	0.00
87	C	o-xylene	4.449	4.343	2.4	98	0.00
88		1,2,3-trichloropropane	2.642	2.552	3.4	96	0.00
89		nonane	3.592	3.376	6.0	95	0.00
91	C	isopropylbenzene	5.577	5.763	-3.3	97	0.00
92		bromobenzene	3.191	3.125	2.1	95	0.00
93		2-chlorotoluene	1.609	1.619	-0.6	97	0.00
94		n-propylbenzene	1.708	1.701	0.4	97	0.00
95		4-chlorotoluene	4.766	4.484	5.9	94	0.00
96		4-ethyl toluene	6.444	6.409	0.5	98	0.00
97		1,3,5-trimethylbenzene	5.313	5.099	4.0	97	0.00
98		tert-butylbenzene	5.458	5.521	-1.2	96	0.00
99		1,2,4-trimethylbenzene	5.051	5.088	-0.7	96	0.00
100		decane	3.741	3.563	4.8	94	0.00
101	C	Benzyl Chloride	4.676	4.857	-3.9	96	0.00
102		1,3-dichlorobenzene	3.312	3.442	-3.9	97	0.00
103	C	1,4-dichlorobenzene	3.614	3.623	-0.2	97	0.00
104		sec-butylbenzene	7.561	7.467	1.2	96	0.00
106		p-isopropyltoluene	6.806	6.853	-0.7	95	0.00
107		1,2-dichlorobenzene	3.315	3.381	-2.0	97	0.00
108		n-butylbenzene	6.211	6.226	-0.2	95	0.00
111	C	1,2-dibromo-3-chloropropane	1.782	1.790	-0.4	95	0.00
112		undecane	4.151	3.979	4.1	90	0.00
114		dodecane	4.058	4.107	-1.2	82	-0.01
115	C	1,2,4-trichlorobenzene	2.663	2.875	-8.0	92	0.00
116		naphthalene	6.652	6.793	-2.1	89	0.00
117		1,2,3-trichlorobenzene	2.588	2.672	-3.2	90	0.00
119	C	hexachlorobutadiene	2.383	2.332	2.1	91	-0.01

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232206.D
Acq On : 20 Jan 2015 10:30 am
Operator : AIRPIANO2:RY
Sample : WG757004-2,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 20 10:55:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	180187	10.000	ppbV	0.00
Standard Area = 180187			Recovery = 100.00%			
43) 1,4-difluorobenzene	12.55	114	480871	10.000	ppbV	0.00
Standard Area = 480871			Recovery = 100.00%			
67) chlorobenzene-D5	16.89	54	114070	10.000	ppbV	0.00
Standard Area = 114070			Recovery = 100.00%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.29	51	205747	9.466	ppbV	100
3) propylene	4.33	41	96151M6	8.946	ppbV	
4) propane	4.36	29	94456	7.963	ppbV	98
5) dichlorodifluoromethane	4.43	85	272776	10.030	ppbV	100
6) chloromethane	4.66	50	115458	9.388	ppbV	98
7) Freon-114	4.80	85	326126	9.903	ppbV	99
8) methanol	4.91	31	220773	50.467	ppbV	99
9) vinyl chloride	4.97	62	124076	9.772	ppbV	100
10) 1,3-butadiene	5.17	54	92893	8.754	ppbV	94
11) butane	5.25	43	200207	9.407	ppbV	98
13) bromomethane	5.55	94	112227	9.826	ppbV	99
14) chloroethane	5.80	64	61629	10.084	ppbV	98
15) ethanol	5.99	31	465823	51.523	ppbV	98
16) dichlorofluoromethane	5.96	67	270287	9.356	ppbV	100
17) vinyl bromide	6.29	106	117458	10.368	ppbV	99
18) acrolein	6.45	56	54547	10.098	ppbV	98
19) acetone	6.62	43	969776	49.636	ppbV	99
20) acetonitrile	6.28	41	116852	9.332	ppbV	99
21) trichlorofluoromethane	6.85	101	316986	10.150	ppbV	98
22) isopropyl alcohol	6.96	45	225454	9.890	ppbV #	97
23) acrylonitrile	7.24	53	94997	8.970	ppbV	100
24) pentane	7.32	43	239531	9.680	ppbV	99
25) ethyl ether	7.36	31	168695	9.326	ppbV	98
26) 1,1-dichloroethene	7.67	61	210719	9.817	ppbV	98
27) tertiary butyl alcohol	7.73	59	272212	9.978	ppbV	97
28) methylene chloride	7.84	49	160638	9.529	ppbV	97
29) 3-chloropropene	7.98	41	181509	9.721	ppbV	93
30) carbon disulfide	8.16	76	358589	9.630	ppbV	98
31) Freon 113	8.17	101	237945	9.268	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232206.D
Acq On : 20 Jan 2015 10:30 am
Operator : AIRPIANO2:RY
Sample : WG757004-2,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 20 10:55:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	8.98	61	201877	9.643	ppbV	99
33) 1,1-dichloroethane	9.22	63	227542	9.435	ppbV	95
34) MTBE	9.29	73	345792	9.464	ppbV	99
35) vinyl acetate	9.41	43	247036	9.374	ppbV	100
36) 2-butanone	9.68	43	289445	9.440	ppbV	98
37) cis-1,2-dichloroethene	10.20	61	177941	9.620	ppbV	99
38) Ethyl Acetate	10.45	61	43776	10.146	ppbV	90
39) chloroform	10.54	83	269509	9.828	ppbV	99
40) Tetrahydrofuran	10.97	42	159418	9.314	ppbV	100
41) 2,2-dichloropropane	10.56	77	242738	9.656	ppbV	97
42) 1,2-dichloroethane	11.36	62	186760	9.574	ppbV	99
44) hexane	10.44	57	202564	8.768	ppbV	100
45) diisopropyl ether	10.43	87	97701	9.310	ppbV	97
46) tert-butyl ethyl ether	11.03	59	412786	9.014	ppbV	99
48) 1,1,1-trichloroethane	11.65	97	307395	9.272	ppbV	99
49) 1,1-dichloropropene	12.00	75	193976	9.235	ppbV	98
50) benzene	12.16	78	367660	9.084	ppbV	99
52) carbon tetrachloride	12.32	117	289822	9.500	ppbV	99
53) cyclohexane	12.47	56	205109	8.798	ppbV	99
54) tert-amyl methyl ether	12.81	73	364746	8.987	ppbV	99
55) dibromomethane	13.05	93	163020	9.271	ppbV	97
56) 1,2-dichloropropane	13.07	63	143286	9.052	ppbV	95
57) bromodichloromethane	13.28	83	309150	9.259	ppbV	99
58) 1,4-dioxane	13.32	88	88315	9.582	ppbV	94
59) trichloroethene	13.34	130	172794	9.599	ppbV	97
60) 2,2,4-trimethylpentane	13.37	57	647105M6	8.811	ppbV	
61) methyl methacrylate	13.53	41	199926	8.988	ppbV	99
62) heptane	13.66	43	259450	8.899	ppbV	99
63) cis-1,3-dichloropropene	14.29	75	211253	9.428	ppbV	98
64) 4-methyl-2-pentanone	14.32	43	364049	9.211	ppbV	98
65) trans-1,3-dichloropropene	14.86	75	277577	9.393	ppbV	100
66) 1,1,2-trichloroethane	15.04	97	203255	9.516	ppbV	98
68) toluene	15.32	91	597141	9.369	ppbV	100
71) 1,3-dichloropropane	15.34	76	282444	9.523	ppbV	97
72) 2-hexanone	15.55	43	451801	9.402	ppbV	97
74) dibromochloromethane	15.73	129	433670	10.164	ppbV	100
75) 1,2-dibromoethane	15.96	107	341877	9.593	ppbV	100
76) butyl acetate	16.11	73	63318	9.294	ppbV	97
77) octane	16.21	85	177376M4	9.490	ppbV	
78) tetrachloroethene	16.35	166	284731	9.729	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232206.D
Acq On : 20 Jan 2015 10:30 am
Operator : AIRPIANO2:RY
Sample : WG757004-2,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 20 10:55:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	16.91	131	212287	9.789	ppbV	99
80)	chlorobenzene	16.93	112	369858	9.749	ppbV	100
81)	ethylbenzene	17.22	91	603091	9.511	ppbV	99
83)	m+p-xylene	17.36	91	956320	19.154	ppbV	98
84)	bromoform	17.44	173	310664	10.114	ppbV	99
85)	styrene	17.63	104	364643	9.693	ppbV	100
86)	1,1,2,2-tetrachloroethane	17.71	83	373229	9.907	ppbV	100
87)	o-xylene	17.72	91	495397	9.762	ppbV	100
88)	1,2,3-trichloropropane	17.81	75	291079	9.660	ppbV	97
89)	nonane	17.85	43	385059	9.399	ppbV	98
91)	isopropylbenzene	18.15	105	657377	10.333	ppbV	100
92)	bromobenzene	18.24	77	356496	9.794	ppbV	98
93)	2-chlorotoluene	18.51	126	184682	10.064	ppbV	79
94)	n-propylbenzene	18.53	120	194071	9.963	ppbV	83
95)	4-chlorotoluene	18.56	91	511517	9.409	ppbV	100
96)	4-ethyl toluene	18.63	105	731099M6	9.947	ppbV	
97)	1,3,5-trimethylbenzene	18.68	105	581593M4	9.596	ppbV	
98)	tert-butylbenzene	18.99	119	629728	10.115	ppbV	99
99)	1,2,4-trimethylbenzene	18.99	105	580398	10.073	ppbV	98
100)	decane	19.03	57	406380	9.524	ppbV	99
101)	Benzyl Chloride	19.10	91	554003	10.387	ppbV	100
102)	1,3-dichlorobenzene	19.12	146	392635	10.394	ppbV	99
103)	1,4-dichlorobenzene	19.17	146	413236M4	10.024	ppbV	
104)	sec-butylbenzene	19.18	105	851721	9.875	ppbV	100
106)	p-isopropyltoluene	19.29	119	781776	10.069	ppbV	99
107)	1,2-dichlorobenzene	19.43	146	385614	10.197	ppbV	99
108)	n-butylbenzene	19.61	91	710208	10.025	ppbV	100
111)	1,2-dibromo-3-chloropr...	19.77	75	204168	10.046	ppbV	98
112)	undecane	19.97	57	453920	9.586	ppbV	100
114)	dodecane	20.85	57	468528	10.121	ppbV	97
115)	1,2,4-trichlorobenzene	20.85	180	327926	10.796	ppbV	98
116)	naphthalene	20.97	128	774911	10.212	ppbV	99
117)	1,2,3-trichlorobenzene	21.21	180	304795	10.323	ppbV	97
119)	hexachlorobutadiene	21.27	225	265977	9.783	ppbV	98

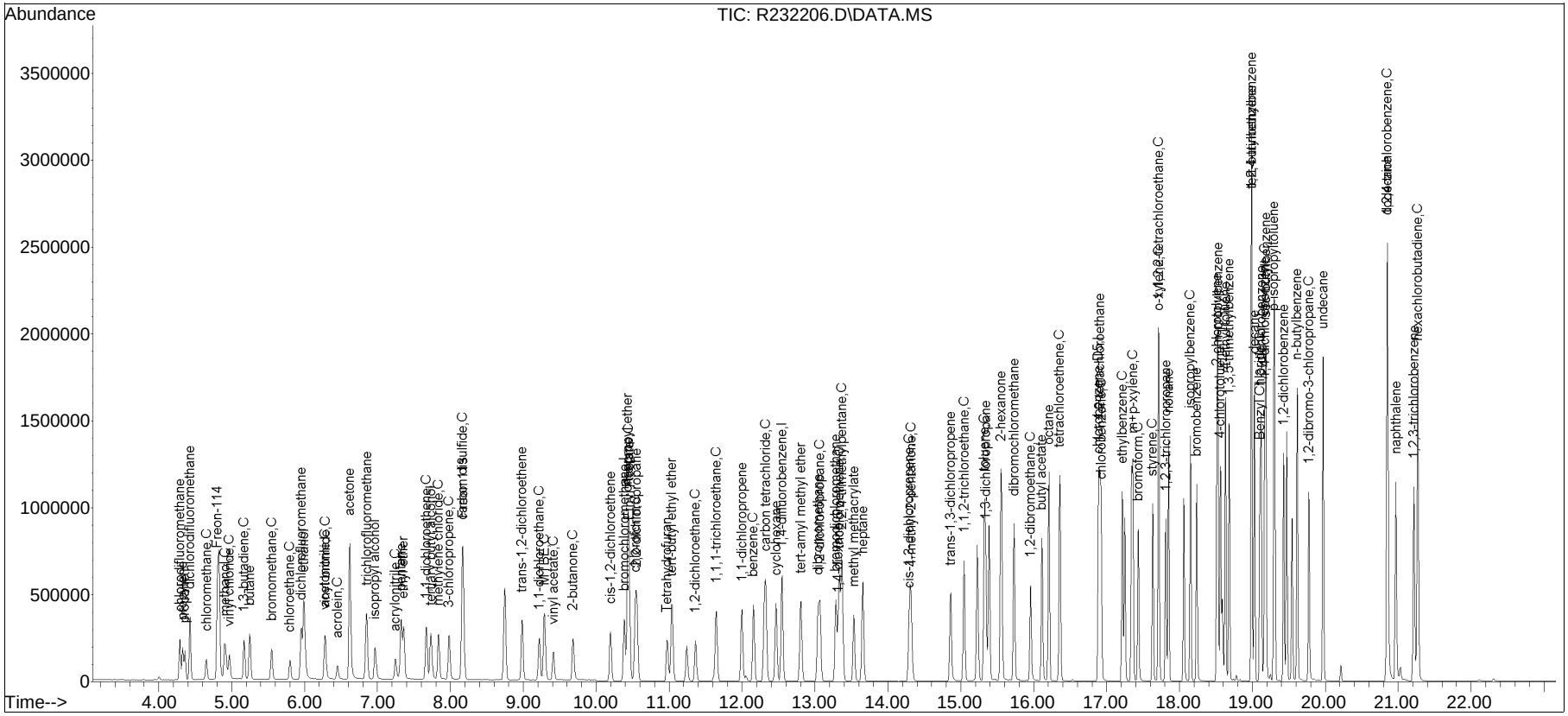
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232206.D
Acq On : 20 Jan 2015 10:30 am
Operator : AIRPIANO2:RY
Sample : WG757004-2,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 20 10:55:44 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

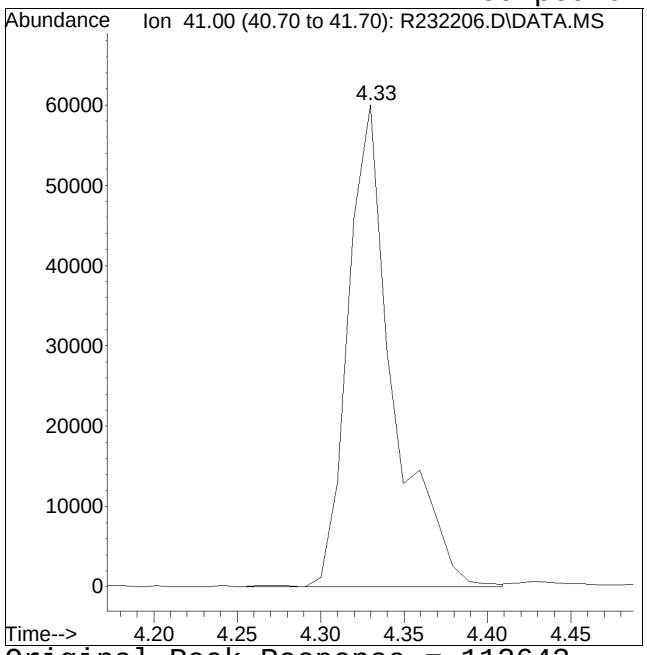
Sub List : Default-LCS-AP2 - All compounds listed32206.D



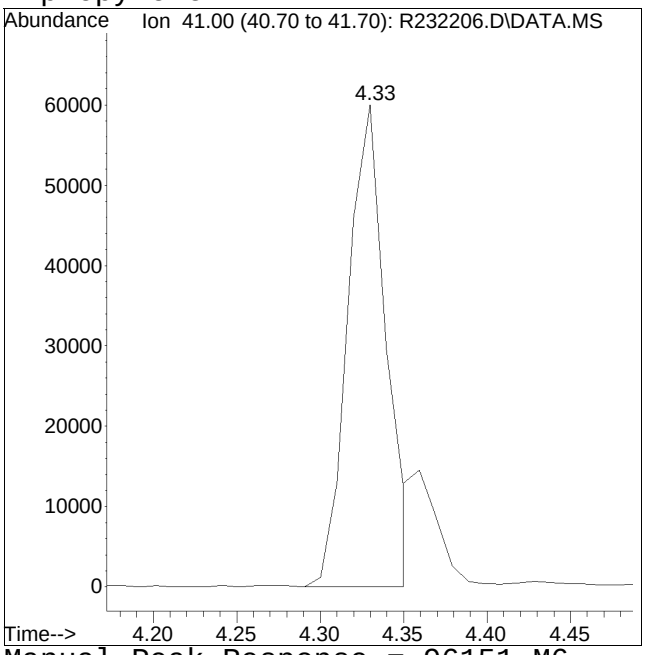
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232206.D
Date Inj'd : 1/20/2015 10:30 am
Sample : WG757004-2,3,250,250
Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 10:53 am

Compound #3: propylene



Original Peak Response = 112643



Manual Peak Response = 96151 M6

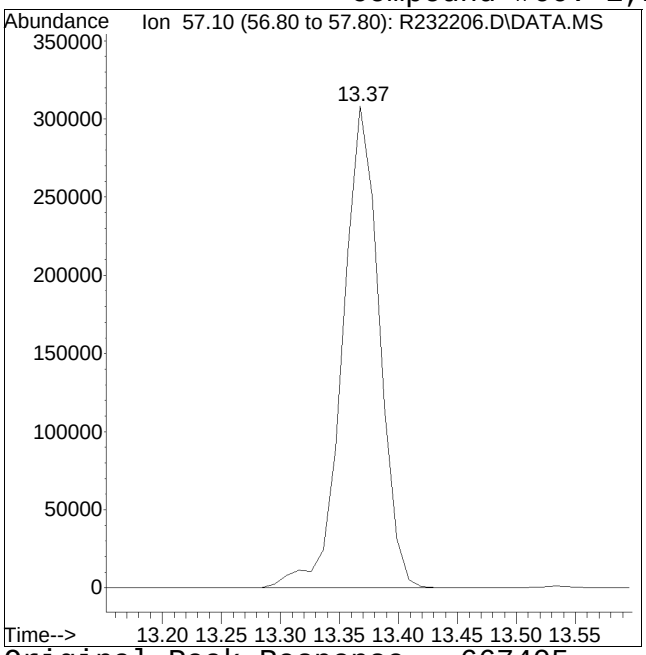
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

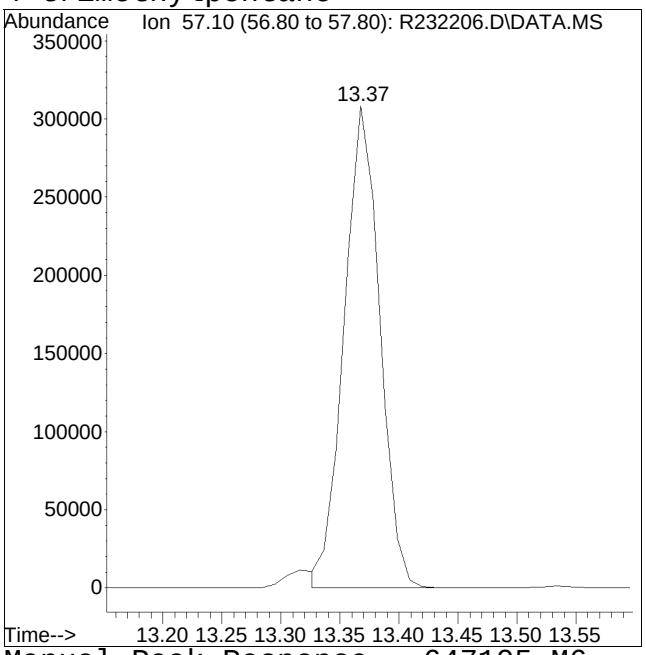
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232206.D
Date Inj'd : 1/20/2015 10:30 am
Sample : WG757004-2,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 10:53 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 667405



Manual Peak Response = 647105 M6

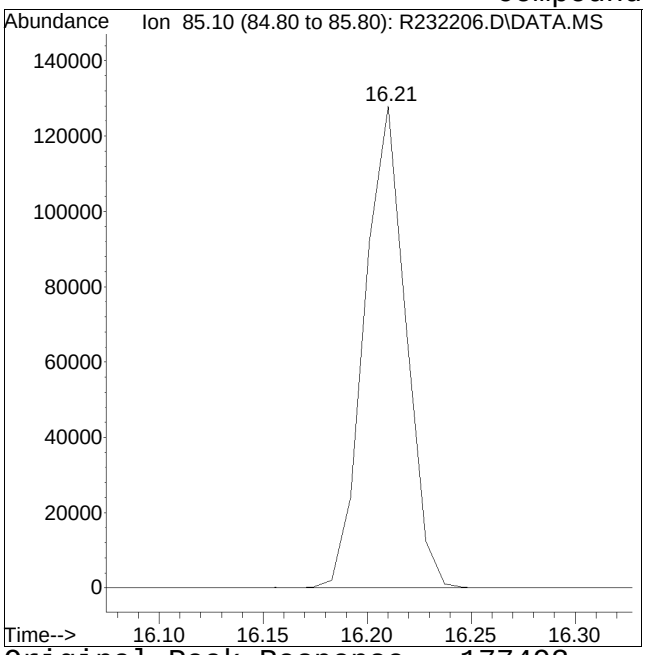
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

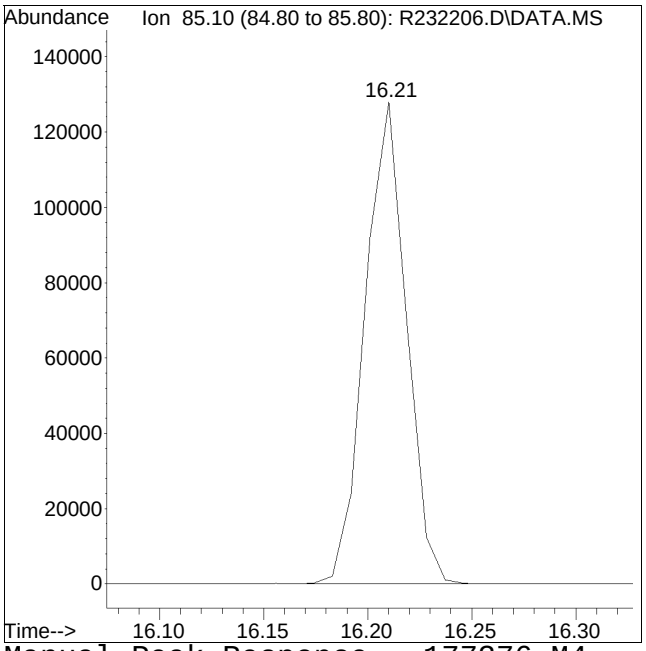
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232206.D
Date Inj'd : 1/20/2015 10:30 am
Sample : WG757004-2,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 10:53 am

Compound #77: octane



Original Peak Response = 177493



Manual Peak Response = 177376 M4

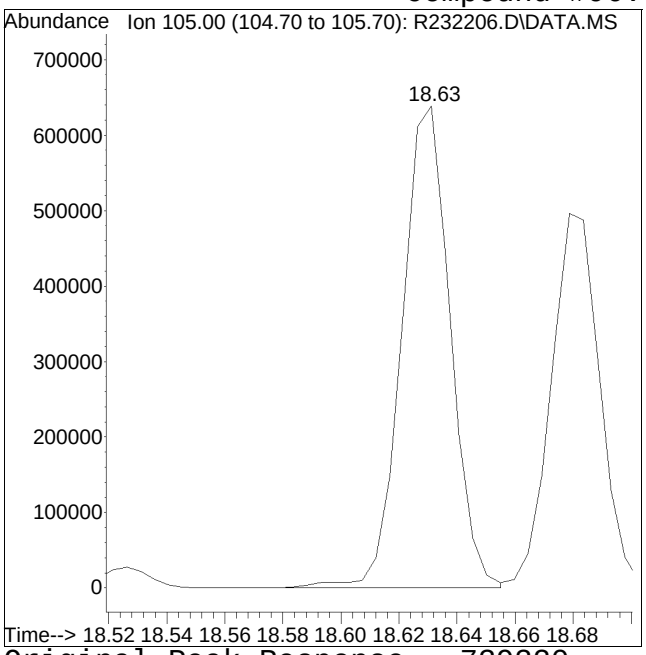
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

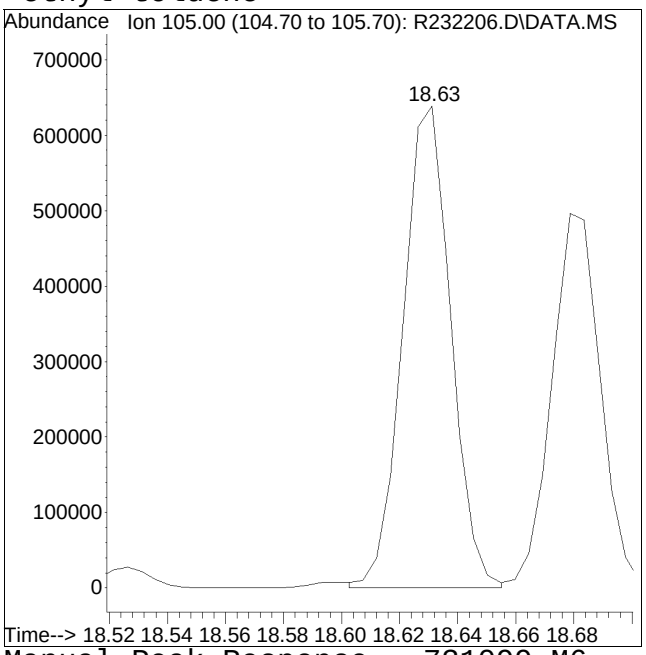
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232206.D
Date Inj'd : 1/20/2015 10:30 am
Sample : WG757004-2,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 10:53 am

Compound #96: 4-ethyl toluene



Original Peak Response = 739320



Manual Peak Response = 731099 M6

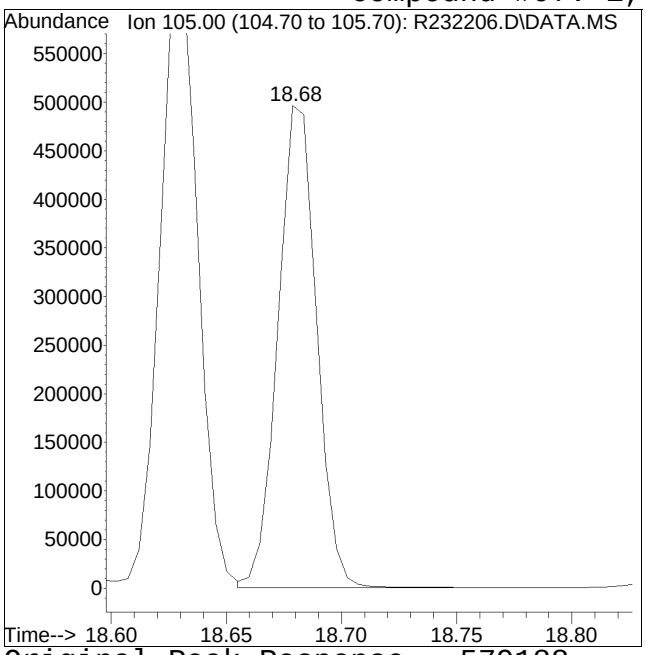
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

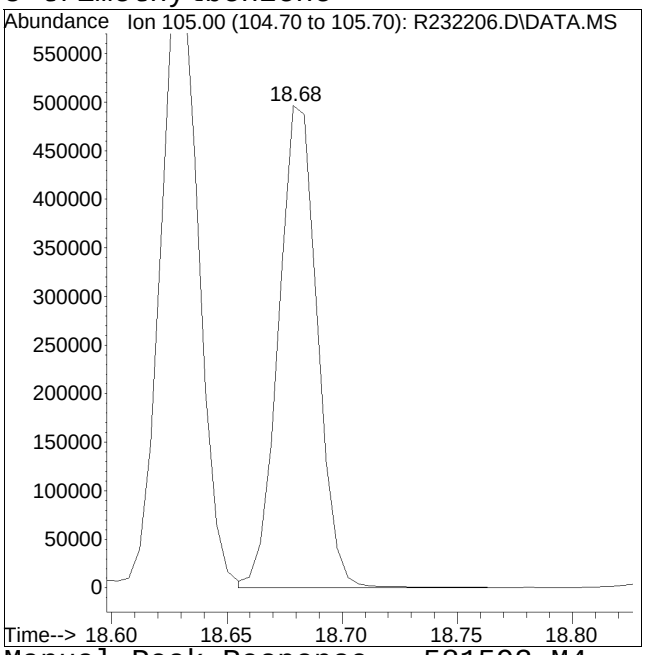
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232206.D
Date Inj'd : 1/20/2015 10:30 am
Sample : WG757004-2,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 10:53 am

Compound #97: 1,3,5-trimethylbenzene



Original Peak Response = 579188



Manual Peak Response = 581593 M4

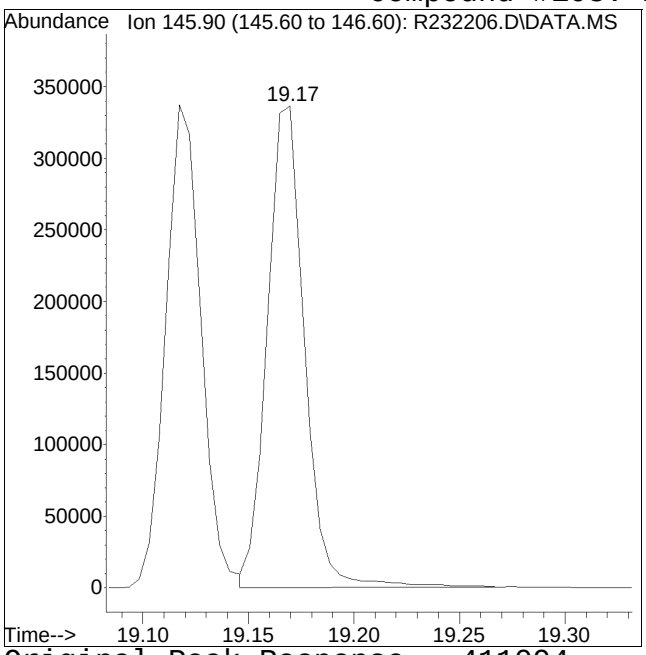
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

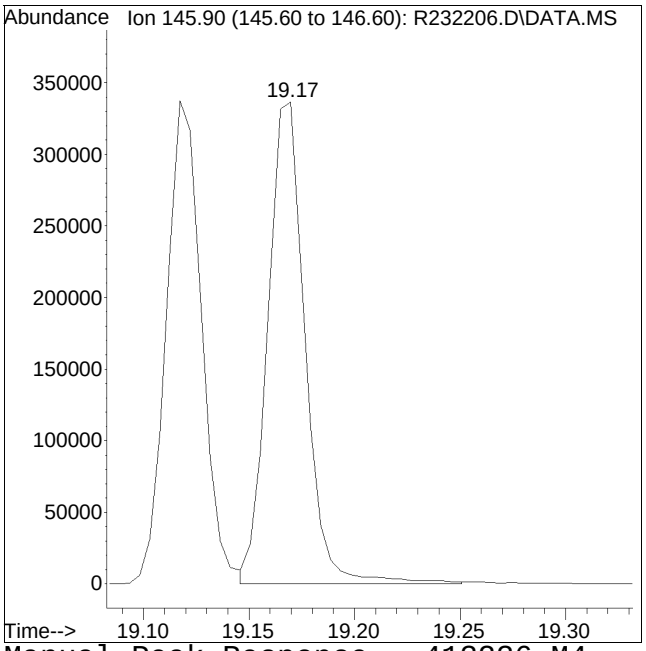
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232206.D
Date Inj'd : 1/20/2015 10:30 am
Sample : WG757004-2,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 10:53 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 411094



Manual Peak Response = 413236 M4

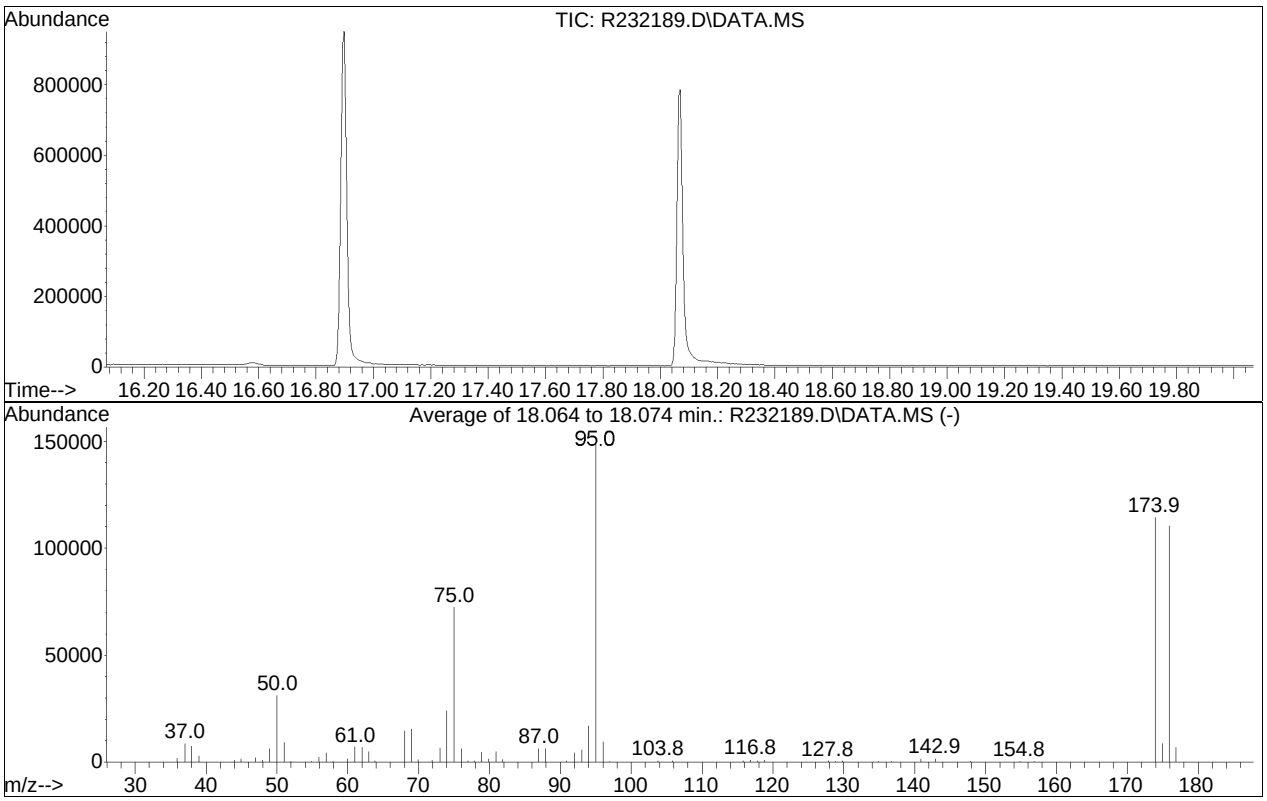
M4 = Poor automated baseline construction.

Raw Quality Control Data

Data Path : O:\Forensics\Data\AIR2\2015\150119T_ICAL\
Data File : R232189.D
Acq On : 19 Jan 2015 9:30 pm
Operator : AIRPIANO2:MB
Sample : WG756921-1,3,250,250
Misc : WG756921
ALS Vial : 4 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR2\2015\150119T_ICAL\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Tue Jan 20 07:55:24 2015



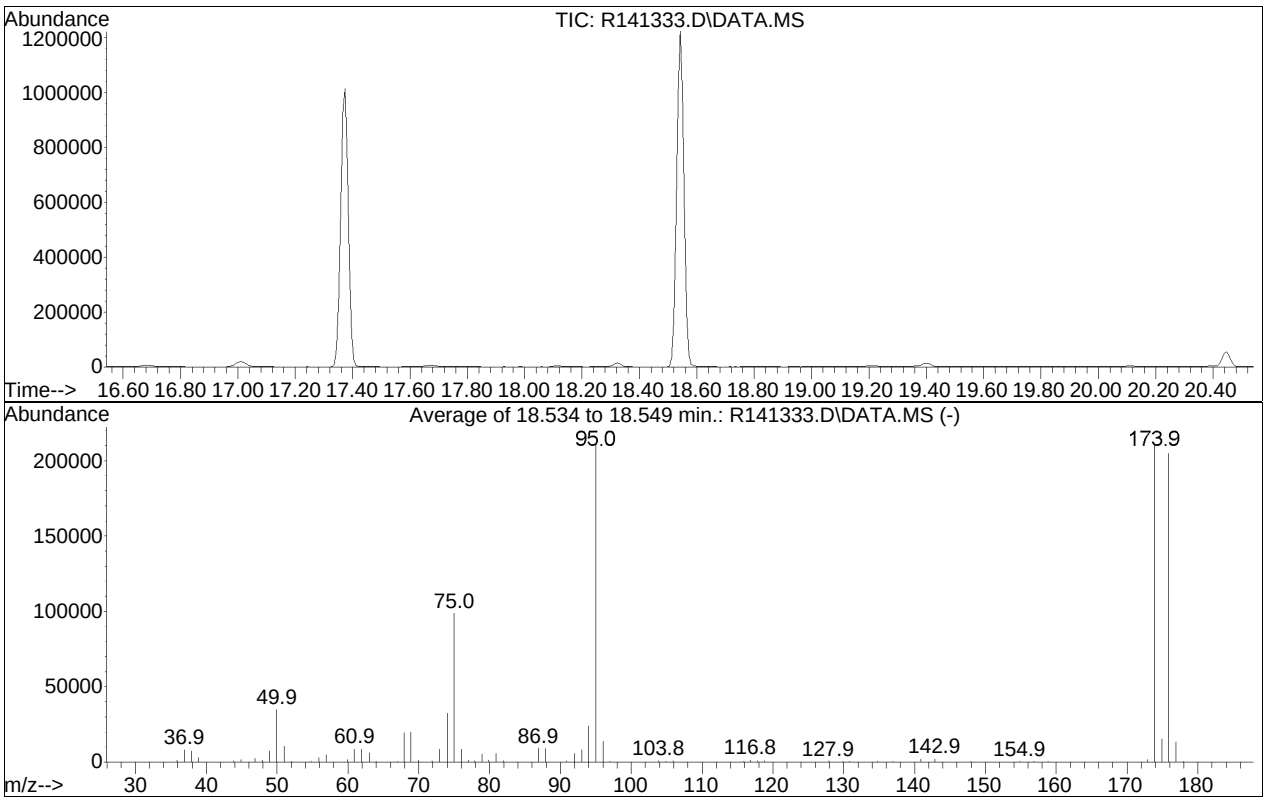
AutoFind: Scans 1784, 1785, 1786; Background Corrected with Scan 1776

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	20.8	31131	PASS
75	95	30	66	48.5	72429	PASS
95	95	100	100	100.0	149379	PASS
96	95	5	9	6.5	9676	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	76.6	114413	PASS
175	174	4	9	7.6	8711	PASS
176	174	93	101	96.5	110387	PASS
177	176	5	9	6.5	7126	PASS

Data Path : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\
Data File : R141333.D
Acq On : 20 Jan 2015 06:33 pm
Operator : AIRLAB14:MB
Sample : WG758134-1,3,250,250
Misc : WG758134
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab14\2015\150120T_ICAL\TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Jan 21 14:43:16 2015



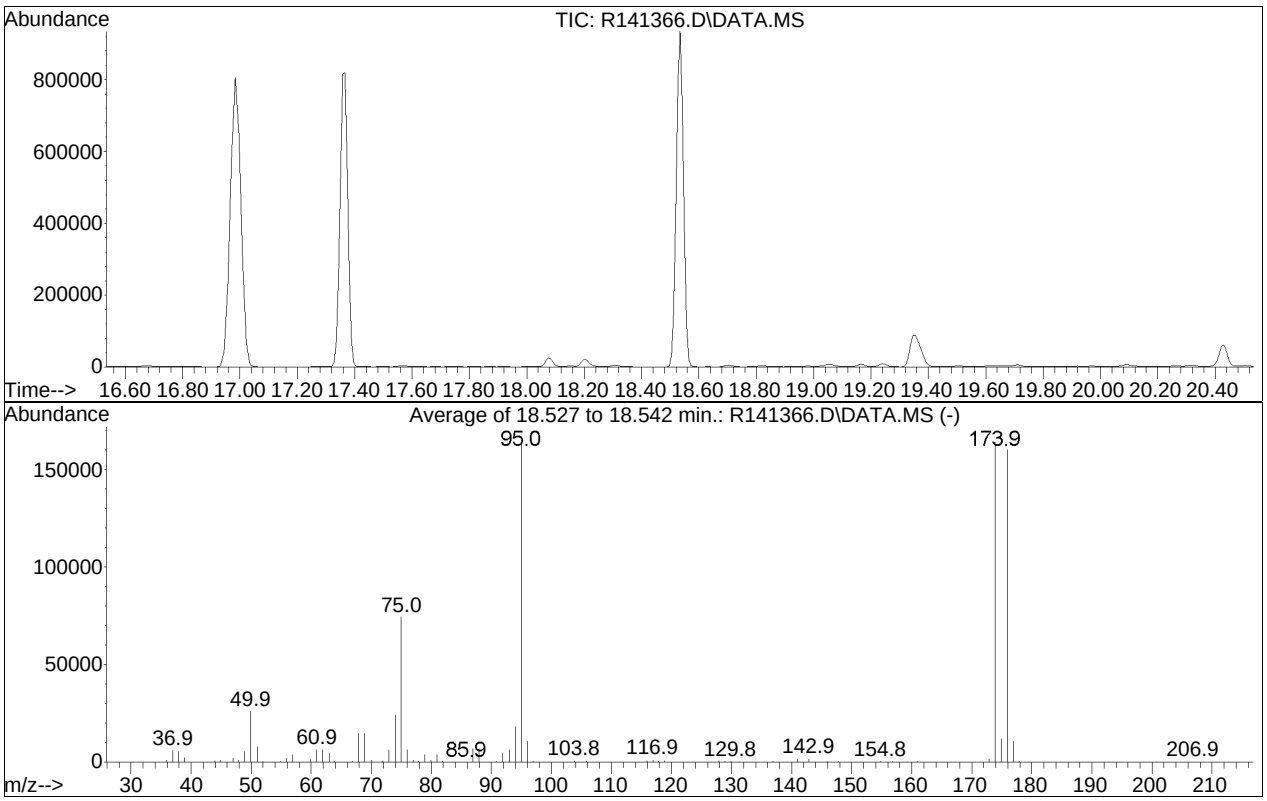
AutoFind: Scans 1182, 1183, 1184; Background Corrected with Scan 1175

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.5	34901	PASS
75	95	30	66	46.6	98813	PASS
95	95	100	100	100.0	211968	PASS
96	95	5	9	6.6	14077	PASS
173	174	0.00	2	0.9	1896	PASS
174	95	50	120	99.3	210453	PASS
175	174	4	9	7.4	15615	PASS
176	174	93	101	97.4	205035	PASS
177	176	5	9	6.5	13372	PASS

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141366.D
Acq On : 04 Feb 2015 01:32 pm
Operator : AIRLAB14:RY
Sample : WG760633-1,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Jan 21 14:43:16 2015



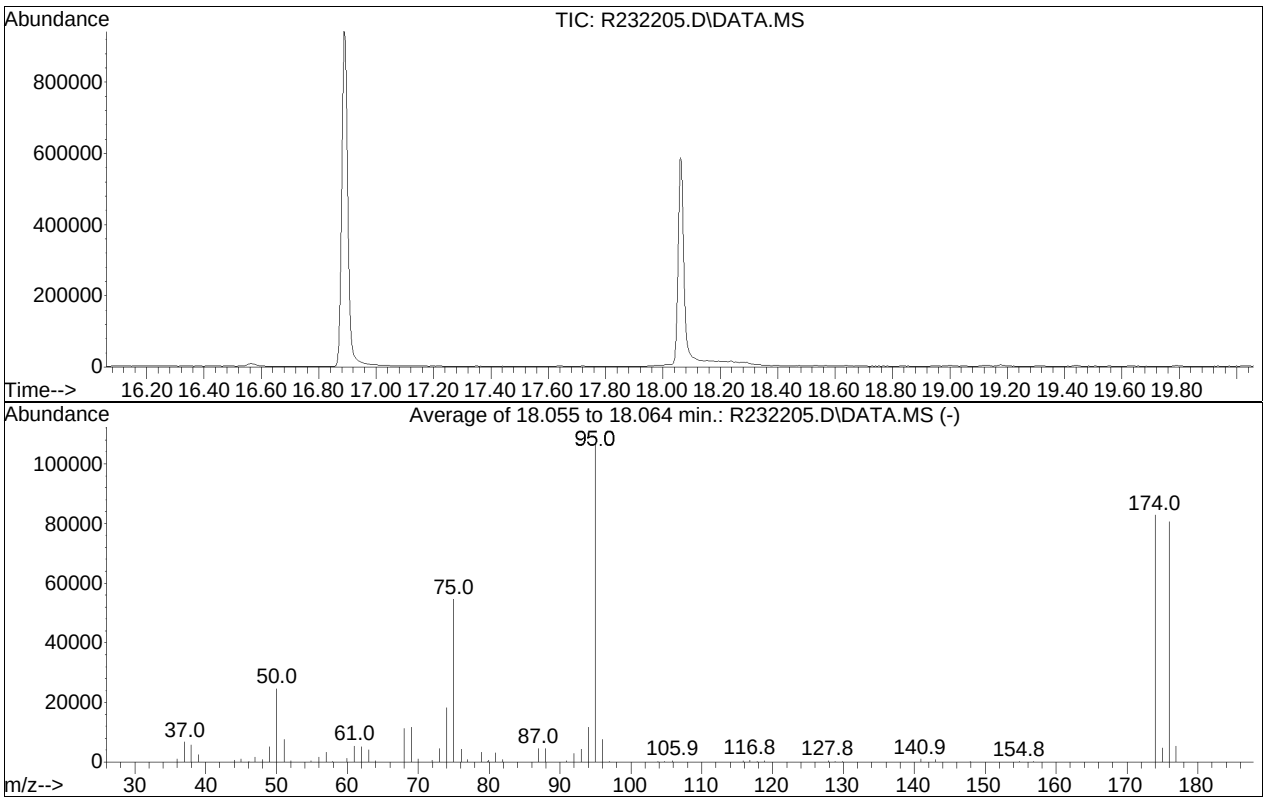
AutoFind: Scans 1181, 1182, 1183; Background Corrected with Scan 1174

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.9	25891	PASS
75	95	30	66	45.9	74664	PASS
95	95	100	100	100.0	162624	PASS
96	95	5	9	6.6	10794	PASS
173	174	0.00	2	0.9	1548	PASS
174	95	50	120	100.7	163797	PASS
175	174	4	9	7.3	11901	PASS
176	174	93	101	97.7	160064	PASS
177	176	5	9	6.6	10551	PASS

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232205.D
Acq On : 20 Jan 2015 9:58 am
Operator : AIRPIANO2:RY
Sample : WG757004-1,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Tue Jan 20 07:55:24 2015



AutoFind: Scans 1782, 1783, 1784; Background Corrected with Scan 1774

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	23.0	24587	PASS
75	95	30	66	51.0	54680	PASS
95	95	100	100	100.0	107128	PASS
96	95	5	9	7.1	7585	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	77.3	82843	PASS
175	174	4	9	5.8	4779	PASS
176	174	93	101	97.4	80723	PASS
177	176	5	9	6.6	5368	PASS

Blank Data

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-4	Date Collected	: NA
Client ID	: WG757004-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/20/15 15:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232211	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.20	--	ND	1.	--	U
74-87-3	Chloromethane	ND	0.20	--	ND	0.4	--	U
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
106-97-8	Butane	ND	0.20	--	ND	0.5	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	ND	2.5	--	ND	5	--	U
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	ND	1.0	--	ND	2	--	U
75-69-4	Trichlorofluoromethane	ND	0.20	--	ND	1.	--	U
67-63-0	Isopropanol	ND	0.50	--	ND	1.	--	U
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2.	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	ND	0.20	--	ND	0.6	--	U
76-13-1	Freon-113	ND	0.20	--	ND	2.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	ND	0.20	--	ND	0.6	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1.	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-4	Date Collected	: NA
Client ID	: WG757004-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/20/15 15:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232211	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U
71-43-2	Benzene	ND	0.20	--	ND	0.6	--	U
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1.	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	ND	0.20	--	ND	1.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	ND	0.20	--	ND	0.8	--	U
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	ND	0.20	--	ND	1.	--	U
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-4	Date Collected	: NA
Client ID	: WG757004-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/20/15 15:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232211	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1.	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 20 16:20:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	164165	10.000	ppbV	0.00
Standard Area = 180187			Recovery = 91.11%			
43) 1,4-difluorobenzene	12.55	114	431784	10.000	ppbV	0.00
Standard Area = 480871			Recovery = 89.79%			
67) chlorobenzene-D5	16.89	54	95398	10.000	ppbV	0.00
Standard Area = 114070			Recovery = 83.63%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	0.00		0	N.D.		
6) chloromethane	4.68		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
11) butane	5.25		0	N.D.		
13) bromomethane	5.59		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.05	31	1034	0.126	ppbV #	31
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.69	43	2165M3	0.122	ppbV	
21) trichlorofluoromethane	0.00		0	N.D.		
22) isopropyl alcohol	0.00		0	N.D.	d	
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	0.00		0	N.D.		
28) methylene chloride	7.84	49	1571	0.102	ppbV #	77
29) 3-chloropropene	7.98		0	N.D.		
30) carbon disulfide	0.00		0	N.D.		
31) Freon 113	0.00		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
36) 2-butanone	9.66		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	0.00		0	N.D.		
40) Tetrahydrofuran	10.98		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 20 16:20:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) 1,1,1-trichloroethane	0.00		0	N.D.		
50) benzene	12.16		0	N.D.		
52) carbon tetrachloride	0.00		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	13.25		0	N.D.		
61) methyl methacrylate	13.57		0	N.D.		
62) heptane	13.68		0	N.D.		
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	14.34		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	15.32		0	N.D.		
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
78) tetrachloroethene	0.00		0	N.D.		
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	17.35		0	N.D.		
83) m+p-xylene	17.35		0	N.D.		
84) bromoform	0.00		0	N.D.		
85) styrene	0.00		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	0.00		0	N.D.		
93) 2-chlorotoluene	0.00		0	N.D.		
96) 4-ethyl toluene	18.64		0	N.D.		
97) 1,3,5-trimethylbenzene	18.70		0	N.D.		
99) 1,2,4-trimethylbenzene	19.00		0	N.D.		
102) 1,3-dichlorobenzene	19.14		0	N.D.		
103) 1,4-dichlorobenzene	19.18		0	N.D.		
107) 1,2-dichlorobenzene	19.44		0	N.D.		
115) 1,2,4-trichlorobenzene	20.88		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 20 16:20:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

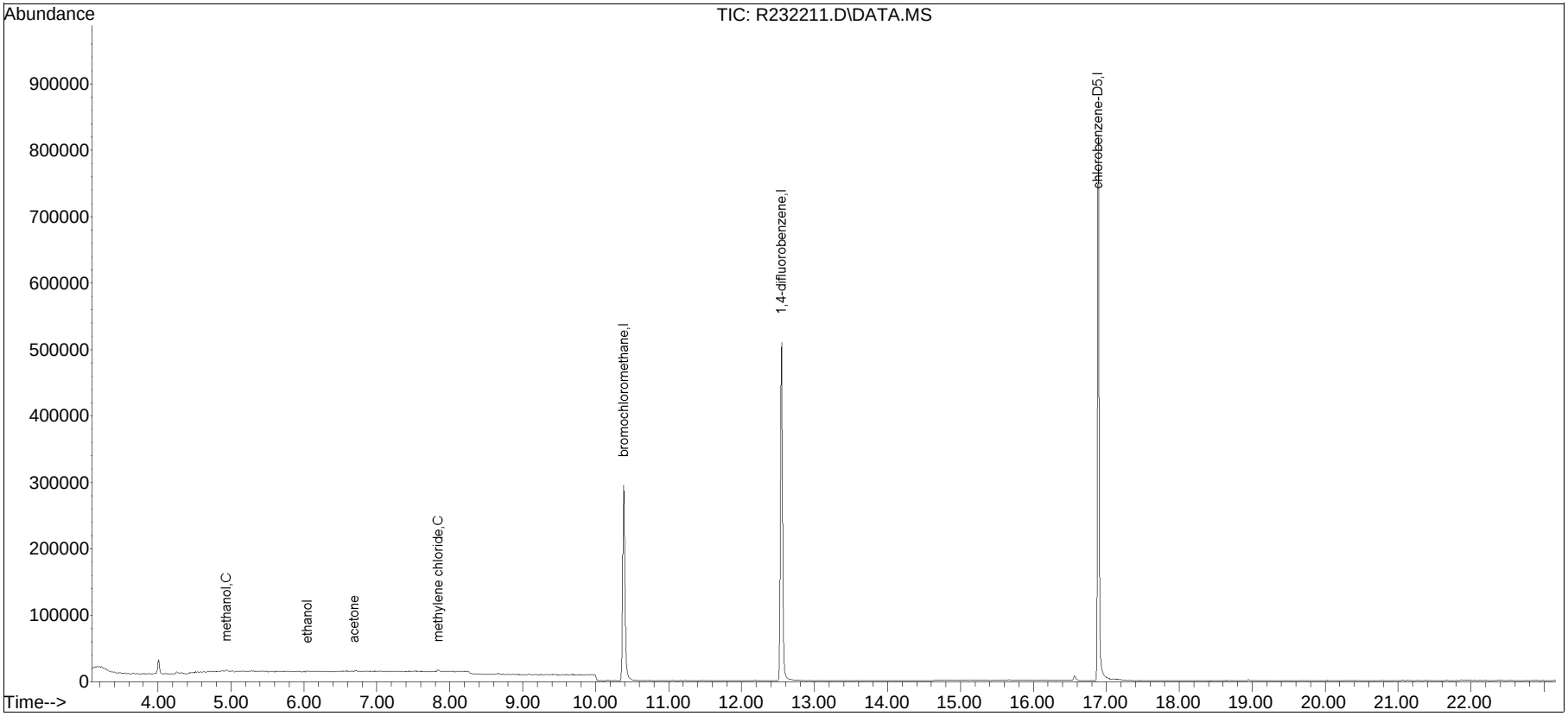
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

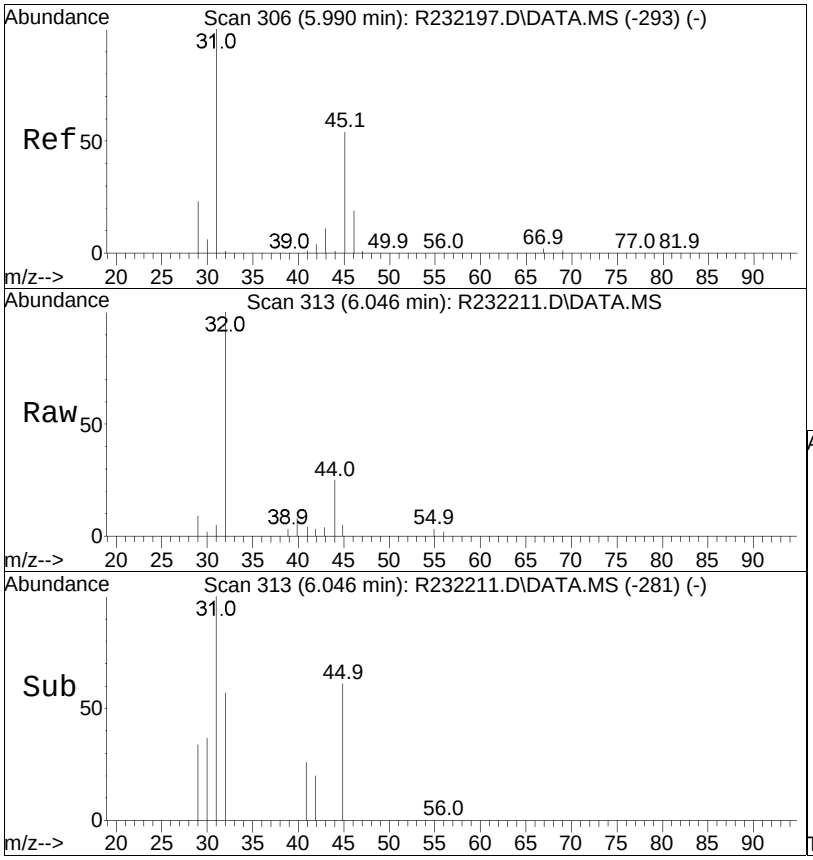
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 20 16:20:04 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed32206.D

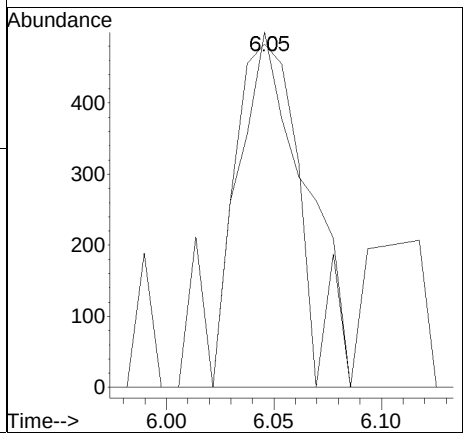


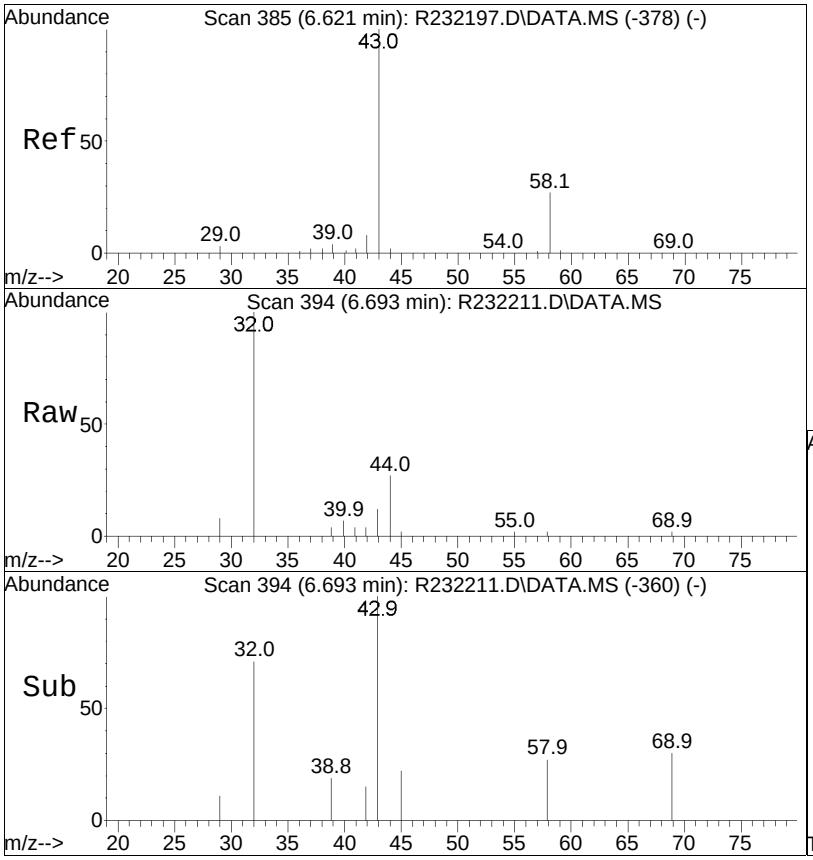


#15
ethanol
Concen: 0.13 ppbV
RT: 6.05 min Scan# 313
Delta R.T. 0.056 min
Lab File: R232211.D
Acq: 20 Jan 2015 3:01 pm

Tgt Ion: 31 Resp: 1034

Ion	Ratio	Lower	Upper
31	100		
45	103.5	43.2	64.8#

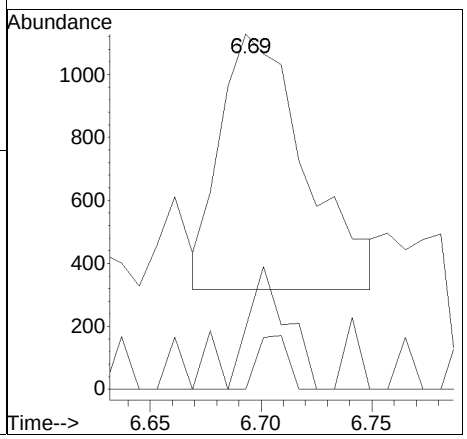


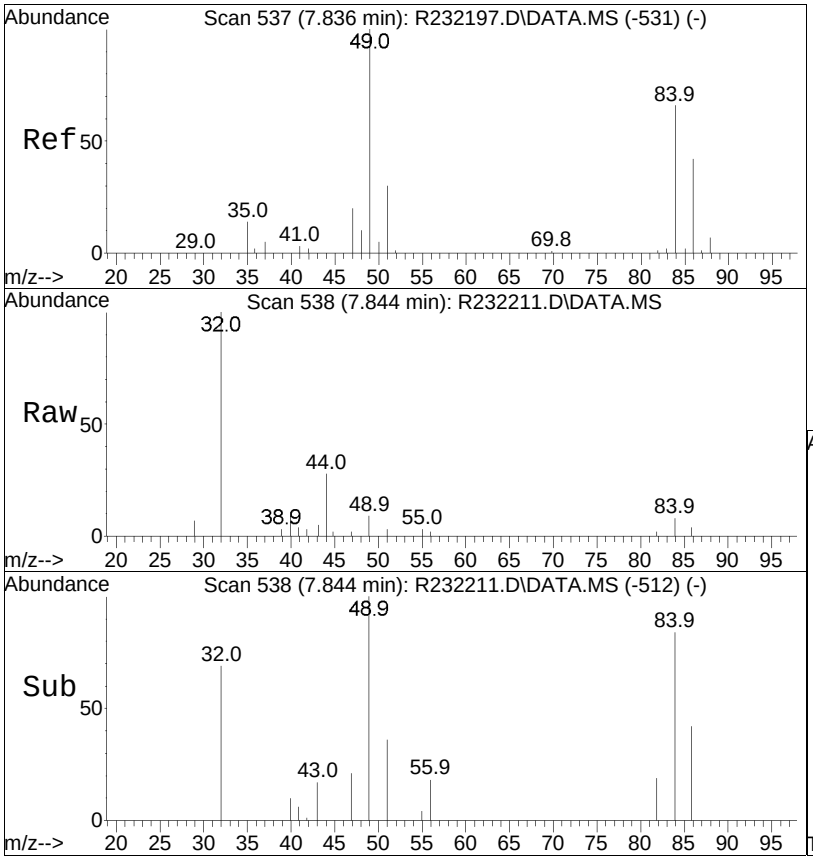


#19
acetone
Concen: 0.12 ppbV m
RT: 6.69 min Scan# 394
Delta R.T. 0.072 min
Lab File: R232211.D
Acq: 20 Jan 2015 3:01 pm

Tgt Ion: 43 Resp: 2165

Ion	Ratio	Lower	Upper
43	100		
58	17.4	21.8	32.8#
57	0.0	0.7	1.1#

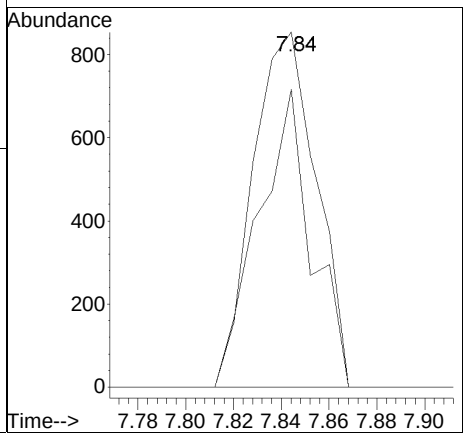




#28
methylene chloride
Concen: 0.10 ppbV
RT: 7.84 min Scan# 538
Delta R.T. 0.008 min
Lab File: R232211.D
Acq: 20 Jan 2015 3:01 pm

Tgt Ion: 49 Resp: 1571

Ion	Ratio	Lower	Upper
49	100		
84	84.0	52.4	78.6#

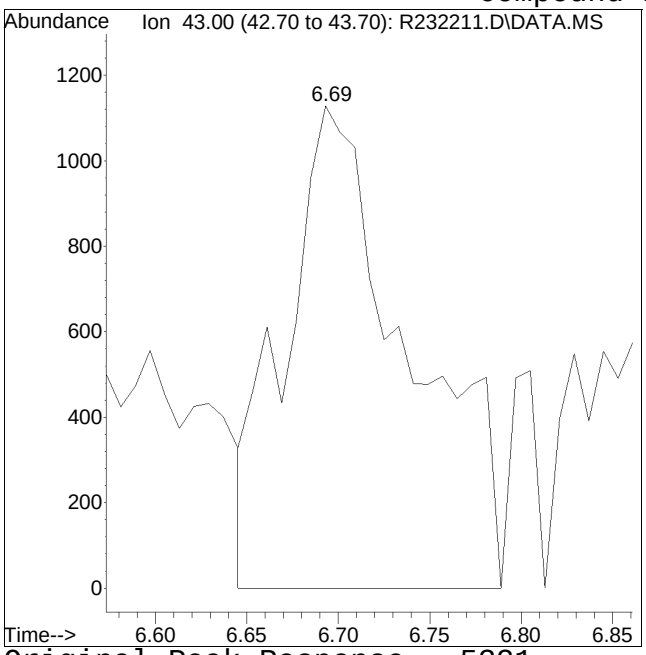


Manual Integration/Negative Proof Report

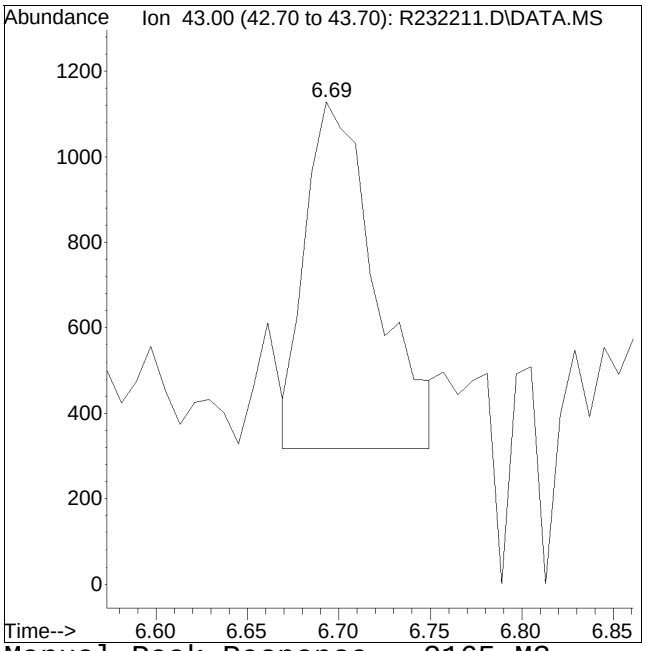
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232211.D
Date Inj'd : 1/20/2015 3:01 pm
Sample : WG757004-4,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 4:19 pm

Compound #19: acetone



Original Peak Response = 5321



Manual Peak Response = 2165 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-4	Date Collected	: NA
Client ID	: WG757004-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/20/15 15:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232211	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R232211.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.261	116	119	123	rBV2	2712	5709	0.47%	0.191%
2	7.844	534	538	542	rBV6	3061	6983	0.57%	0.234%
3	10.161	850	852	856	rBV3	733	1472	0.12%	0.049%
4	10.386	871	876	891	rBV	294219	639165	52.06%	21.434%
5	10.724	911	912	916	rVB2	878	1505	0.12%	0.050%
6	10.968	935	936	941	rBV	935	1772	0.14%	0.059%
7	11.062	941	946	949	rVV2	871	2243	0.18%	0.075%
8	11.165	953	957	960	rBV3	1035	2015	0.16%	0.068%
9	11.231	960	964	967	rVV2	737	1584	0.13%	0.053%
10	11.475	989	990	993	rBV	902	1240	0.10%	0.042%
11	11.752	1013	1016	1019	rBV	625	1389	0.11%	0.047%
12	11.907	1027	1031	1032	rBV2	953	1416	0.12%	0.047%
13	12.176	1053	1057	1062	rBV2	1038	2987	0.24%	0.100%
14	12.311	1068	1070	1075	rBV4	682	1662	0.14%	0.056%
15	12.383	1075	1077	1080	rVB2	764	1238	0.10%	0.042%
16	12.435	1080	1082	1085	rBV	889	1964	0.16%	0.066%
17	12.549	1088	1093	1109	rBV	509348	1016285	82.78%	34.080%
18	13.924	1217	1220	1222	rBV	543	1709	0.14%	0.057%
19	14.665	1263	1266	1267	rBV2	860	3346	0.27%	0.112%
20	14.999	1300	1303	1306	rVV	557	1331	0.11%	0.045%
21	15.135	1316	1318	1322	rBV	986	1683	0.14%	0.056%
22	15.496	1354	1358	1360	rVB	661	1282	0.10%	0.043%
23	15.668	1375	1377	1380	rBV2	1124	1386	0.11%	0.046%
24	16.111	1423	1426	1429	rVB4	650	1432	0.12%	0.048%
25	16.165	1429	1432	1435	rBV2	746	1335	0.11%	0.045%
26	16.563	1471	1476	1481	rVB	7368	18804	1.53%	0.631%
27	16.888	1529	1537	1562	rBV	822162	1227691	100.00%	41.169%
28	17.098	1579	1581	1587	rVV6	1107	1529	0.12%	0.051%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	18.946	1962	1967	1972	rBV4	1860	2513	0.20%	0.084%
30	20.668	2306	2309	2312	rBV2	643	1304	0.11%	0.044%
31	21.075	2342	2347	2349	rBV4	1033	2691	0.22%	0.090%
32	21.118	2349	2351	2353	rVV	812	1505	0.12%	0.050%
33	21.161	2353	2355	2359	rVB3	999	2210	0.18%	0.074%
34	21.300	2367	2368	2372	rBV2	862	1344	0.11%	0.045%
35	21.375	2372	2375	2378	rVB3	636	1565	0.13%	0.052%
36	21.675	2398	2403	2406	rBV4	811	2857	0.23%	0.096%
37	21.868	2416	2421	2422	rBV3	1243	2582	0.21%	0.087%
38	21.911	2422	2425	2427	rVV3	866	1672	0.14%	0.056%
39	22.200	2447	2452	2455	rVB4	635	1920	0.16%	0.064%
40	22.372	2465	2468	2470	rBV2	1160	2201	0.18%	0.074%
41	22.844	2509	2512	2513	rBV3	1165	2159	0.18%	0.072%
42	22.886	2513	2516	2517	rVV2	1159	1863	0.15%	0.062%
43	22.908	2517	2518	2521	rVB	1200	1530	0.12%	0.051%

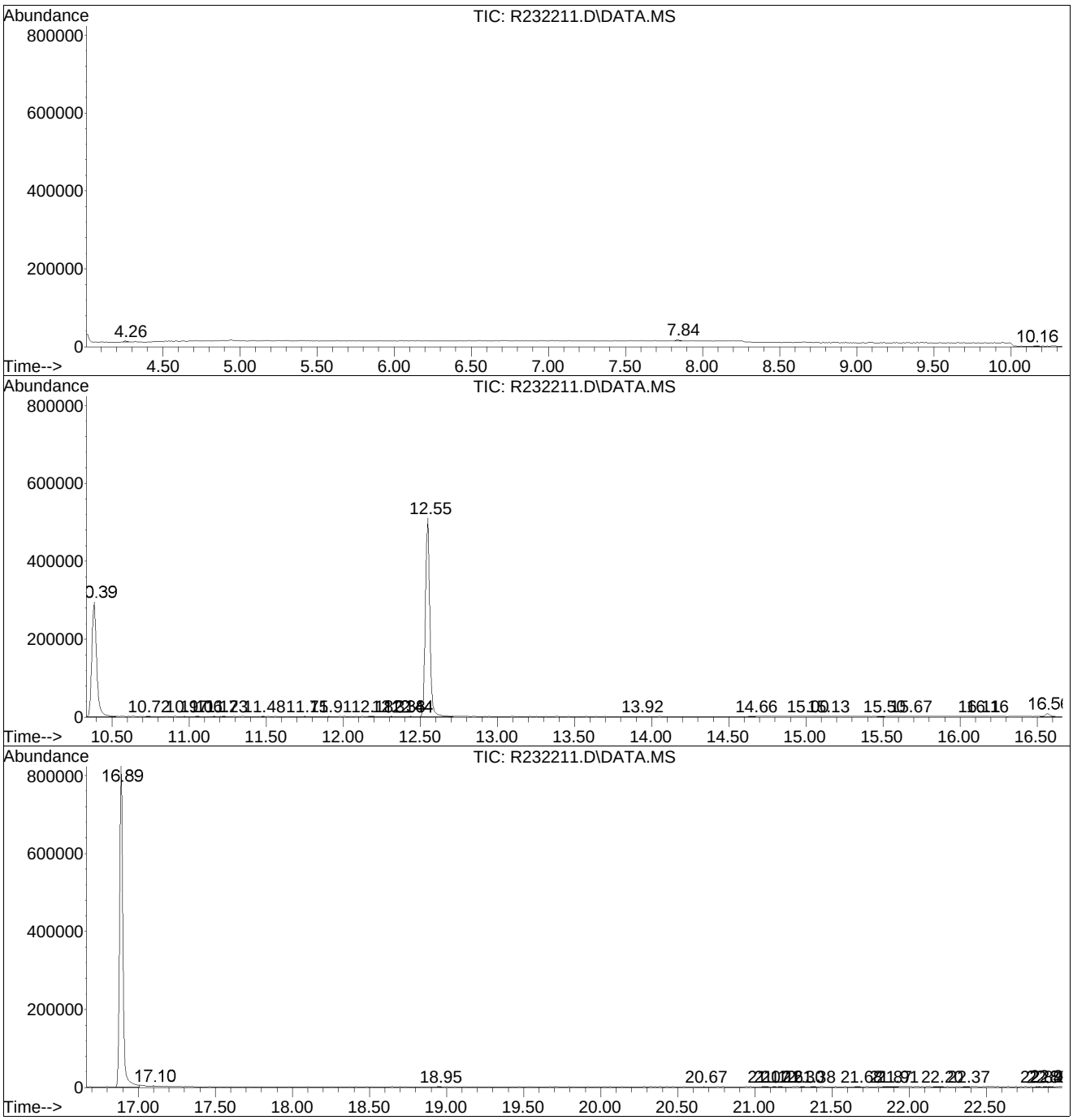
Sum of corrected areas: 2982073

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232211.D
Acq On : 20 Jan 2015 3:01 pm
Operator : AIRPIANO2:RY
Sample : WG757004-4,tic3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-4	Date Collected	: NA
Client ID	: WG760633-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/04/15 18:51
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141371	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.20	--	ND	1.	--	U
74-87-3	Chloromethane	ND	0.20	--	ND	0.4	--	U
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	ND	2.5	--	ND	5	--	U
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	ND	1.0	--	ND	2	--	U
75-69-4	Trichlorofluoromethane	ND	0.20	--	ND	1.	--	U
67-63-0	Isopropanol	ND	0.50	--	ND	1.	--	U
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2.	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	0.21	0.20	--	0.7	0.6	--	
76-13-1	Freon-113	ND	0.20	--	ND	2.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	ND	0.20	--	ND	0.6	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1.	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-4	Date Collected	: NA
Client ID	: WG760633-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/04/15 18:51
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141371	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.20	--	ND	0.6	--	U
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1.	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	ND	0.20	--	ND	1.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	ND	0.20	--	ND	0.8	--	U
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	ND	0.20	--	ND	1.	--	U
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-4	Date Collected	: NA
Client ID	: WG760633-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/04/15 18:51
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141371	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1.	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 04 19:17:34 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.931	49	143584	10.000	ppbV	-0.04
Standard Area = 146829			Recovery = 97.79%			
43) 1,4-difluorobenzene	13.109	114	579327	10.000	ppbV	-0.01
Standard Area = 519450			Recovery = 111.53%			
67) chlorobenzene-D5	17.364	54	102597	10.000	ppbV	-0.02
Standard Area = 108386			Recovery = 94.66%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.620	31	668	0.088	ppbV	87
17) vinyl bromide	0.000		0	N.D.		
19) acetone	7.264	43	1568	0.080	ppbV #	97
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.610		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	8.374	49	2321	0.141	ppbV	98
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	8.720	76	10897	0.214	ppbV #	24
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
36) 2-butanone	10.305		0	N.D.		
37) cis-1,2-dichloroethene	0.000		0	N.D.		
39) chloroform	0.000		0	N.D.		
40) Tetrahydrofuran	0.000		0	N.D.		
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	0.000		0	N.D.		
48) 1,1,1-trichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 04 19:17:34 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) benzene	12.725		0	N.D.		
52) carbon tetrachloride	0.000		0	N.D.		
53) cyclohexane	0.000		0	N.D.	d	
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	0.000		0	N.D.		
61) methyl methacrylate	0.000		0	N.D.		
62) heptane	0.000		0	N.D.		
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.		
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.828		0	N.D.		
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
78) tetrachloroethene	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	0.000		0	N.D.		
83) m+p-xylene	0.000		0	N.D.		
84) bromoform	0.000		0	N.D.		
85) styrene	0.000		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87) o-xylene	0.000		0	N.D.		
93) 2-chlorotoluene	0.000		0	N.D.		
96) 4-ethyl toluene	19.181		0	N.D.		
97) 1,3,5-trimethylbenzene	0.000		0	N.D.	d	
99) 1,2,4-trimethylbenzene	19.493		0	N.D.		
102) 1,3-dichlorobenzene	19.707		0	N.D.		
103) 1,4-dichlorobenzene	19.707		0	N.D.		
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	21.405		0	N.D.		
119) hexachlorobutadiene	21.889		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 04 19:17:34 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

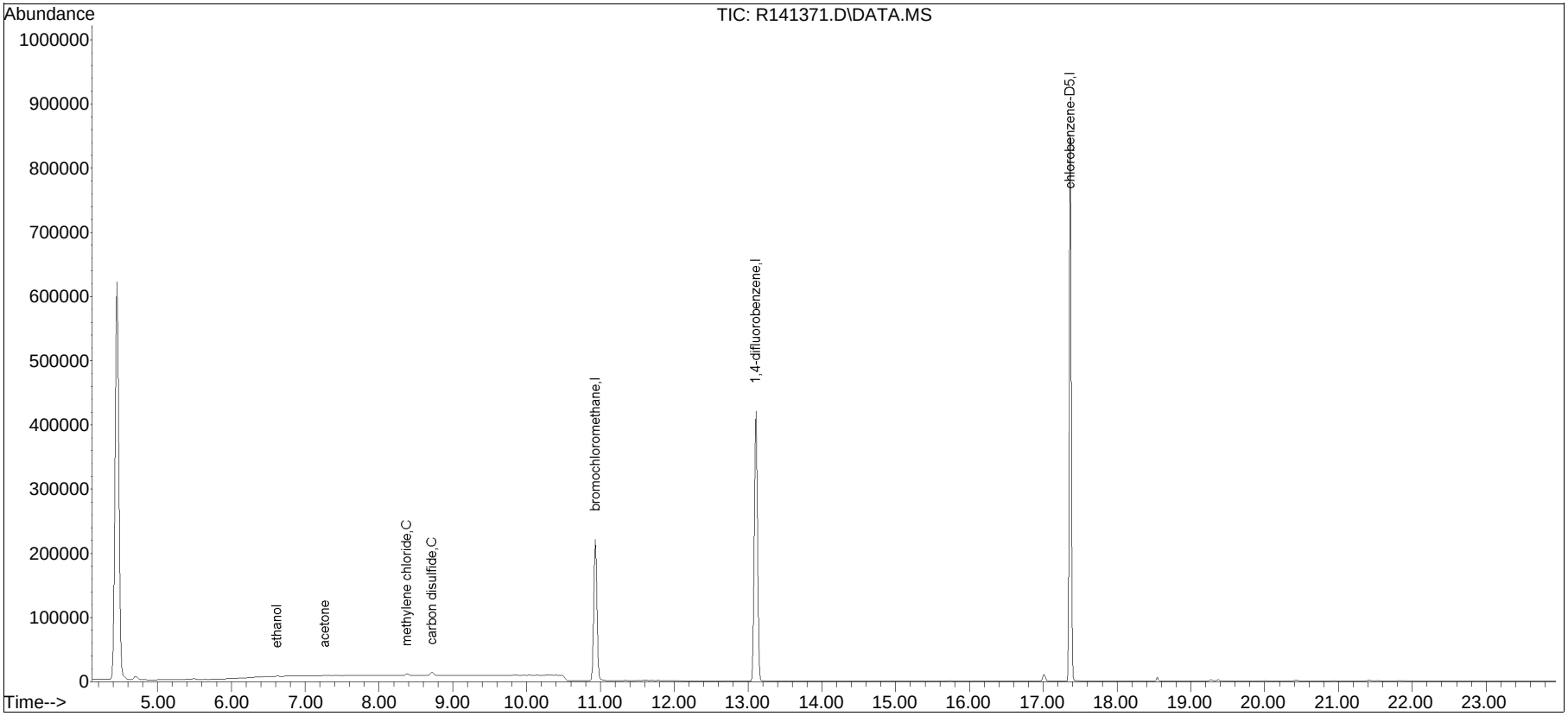
CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

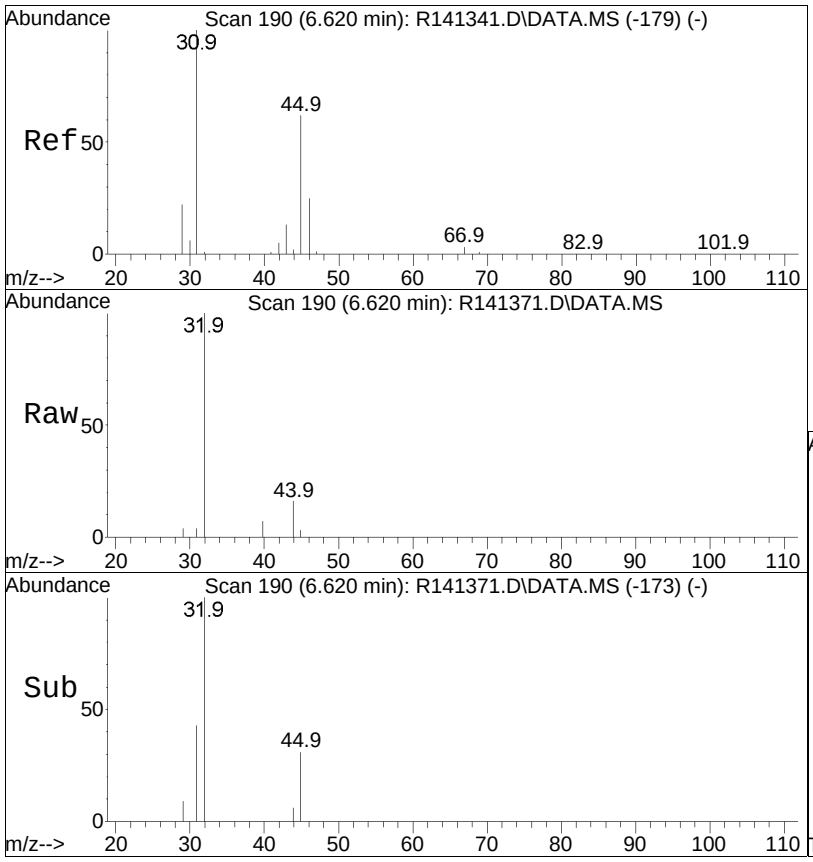
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : NJ-LL_New - .Data\Airlab14\2015\150204T\R141368.D

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 04 19:17:34 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

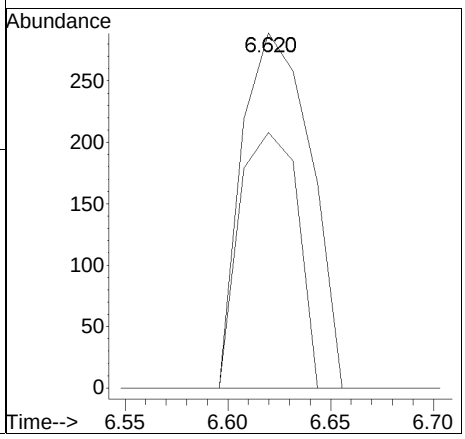


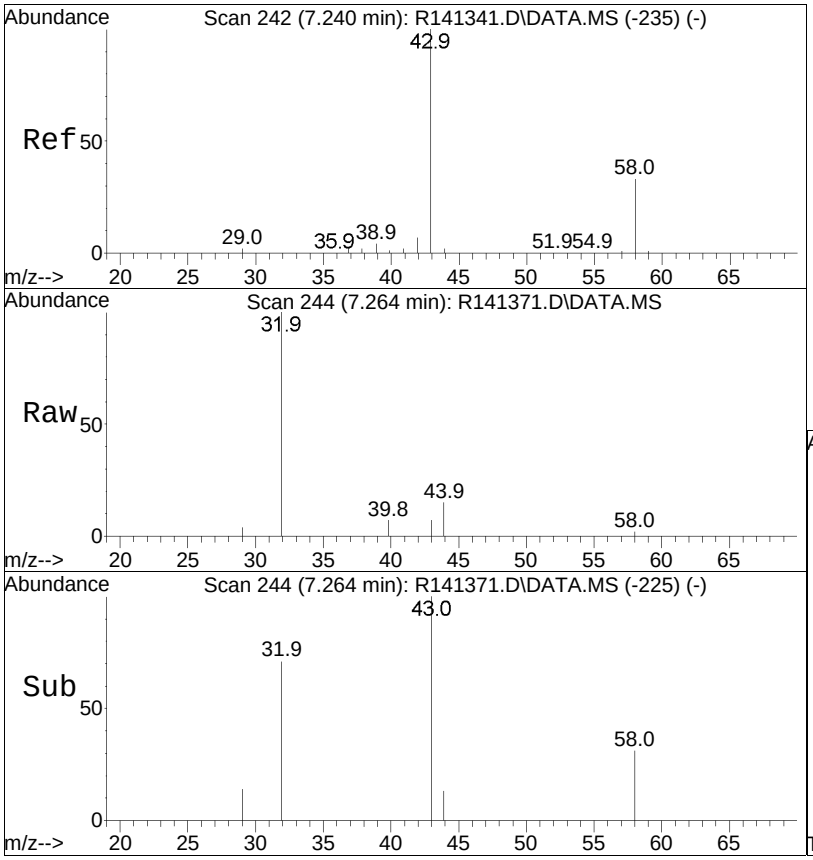


#15
ethanol
Concen: 0.09 ppbV
RT: 6.620 min Scan# 190
Delta R.T. 0.000 min
Lab File: R141371.D
Acq: 04 Feb 2015 06:51 pm

Tgt Ion: 31 Resp: 668

Ion	Ratio	Lower	Upper
31	100		
45	72.0	49.6	74.4

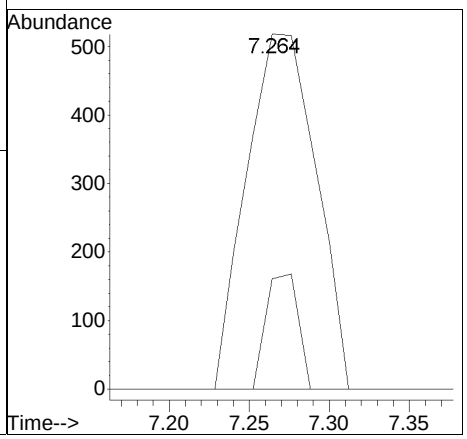


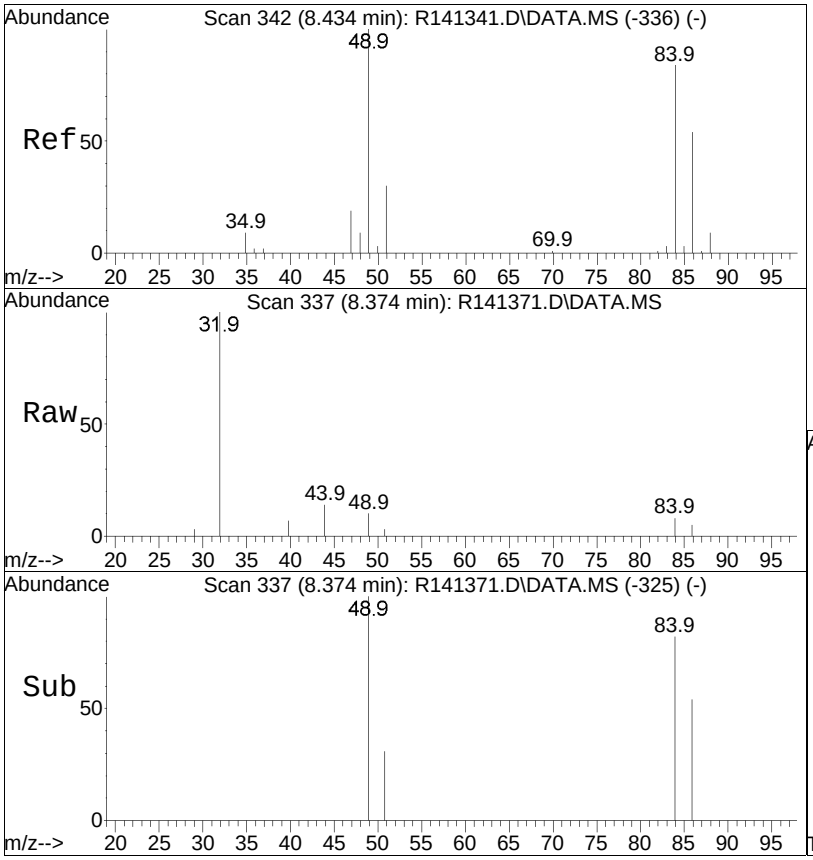


#19
acetone
Concen: 0.08 ppbV
RT: 7.264 min Scan# 244
Delta R.T. 0.024 min
Lab File: R141371.D
Acq: 04 Feb 2015 06:51 pm

Tgt Ion: 43 Resp: 1568

Ion	Ratio	Lower	Upper
43	100		
58	31.1	26.0	39.0
57	0.0	0.7	1.1#

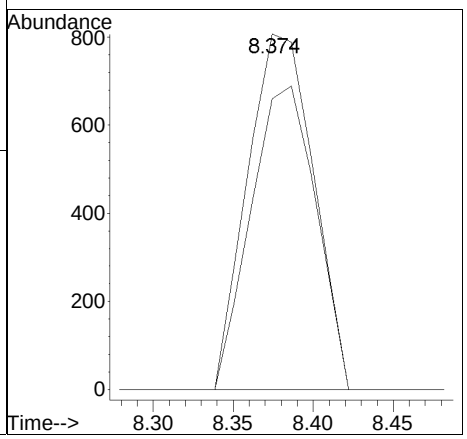


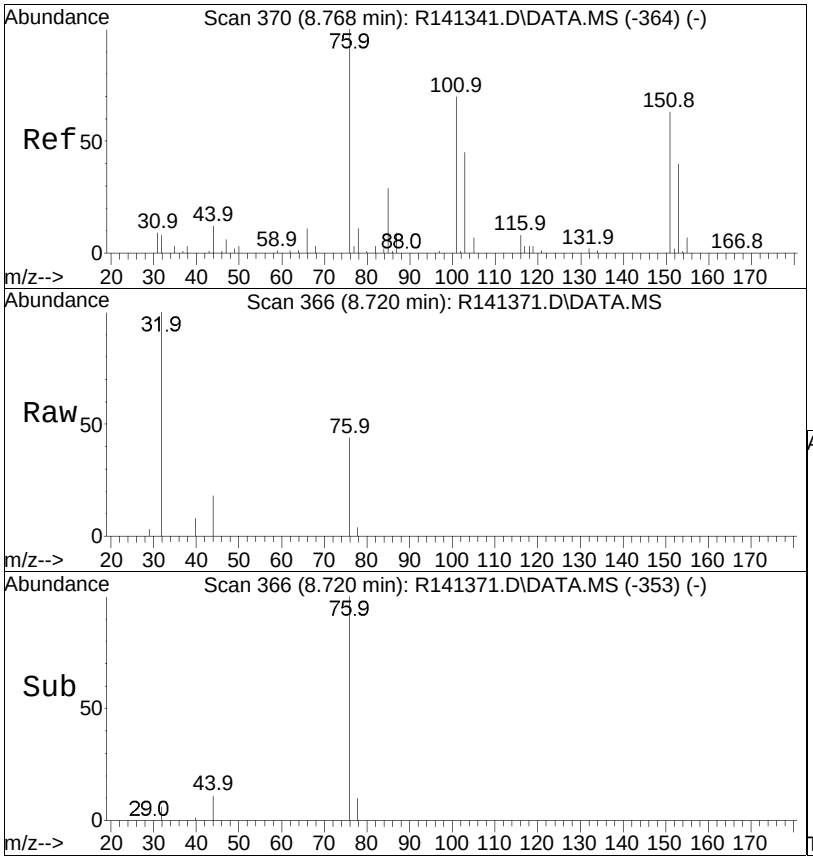


#28
methylene chloride
Concen: 0.14 ppbV
RT: 8.374 min Scan# 337
Delta R.T. -0.060 min
Lab File: R141371.D
Acq: 04 Feb 2015 06:51 pm

Tgt Ion: 49 Resp: 2321

Ion	Ratio	Lower	Upper
49	100		
84	81.8	67.1	100.7

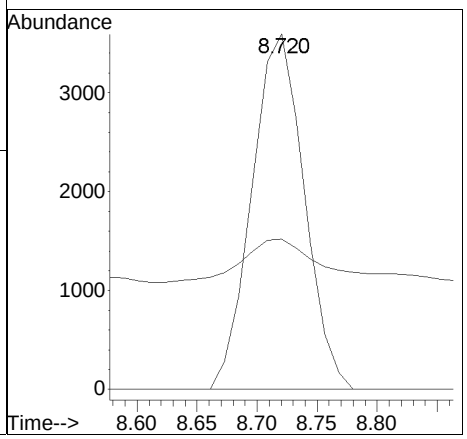




#30
carbon disulfide
Concen: 0.21 ppbV
RT: 8.720 min Scan# 366
Delta R.T. -0.048 min
Lab File: R141371.D
Acq: 04 Feb 2015 06:51 pm

Tgt Ion: 76 Resp: 10897

Ion	Ratio	Lower	Upper
76	100		
44	42.3	10.0	15.0#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\Airlab14\	QMethod	: TALL150120.M
Data File	: R141371.D	Operator	: AIRLAB14:RY
Date Inj'd	: 2/4/2015 6:51 pm	Instrument	: Airlab 14
Sample	: WG760633-4,3,250,250	Quant Date	: 2/4/2015 7:16 pm

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-4	Date Collected	: NA
Client ID	: WG760633-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/04/15 18:51
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141371	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,TIC3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R141371.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.448	19	26	40	rVB	620056	2212565	100.00%	38.729%
2	10.931	548	553	564	rBV	219977	652208	29.48%	11.416%
3	13.109	701	706	711	rBV	420373	1251054	56.54%	21.899%
4	17.013	991	995	1004	rBV	10413	28871	1.30%	0.505%
5	17.364	1021	1027	1048	rBV	851727	1568221	70.88%	27.450%

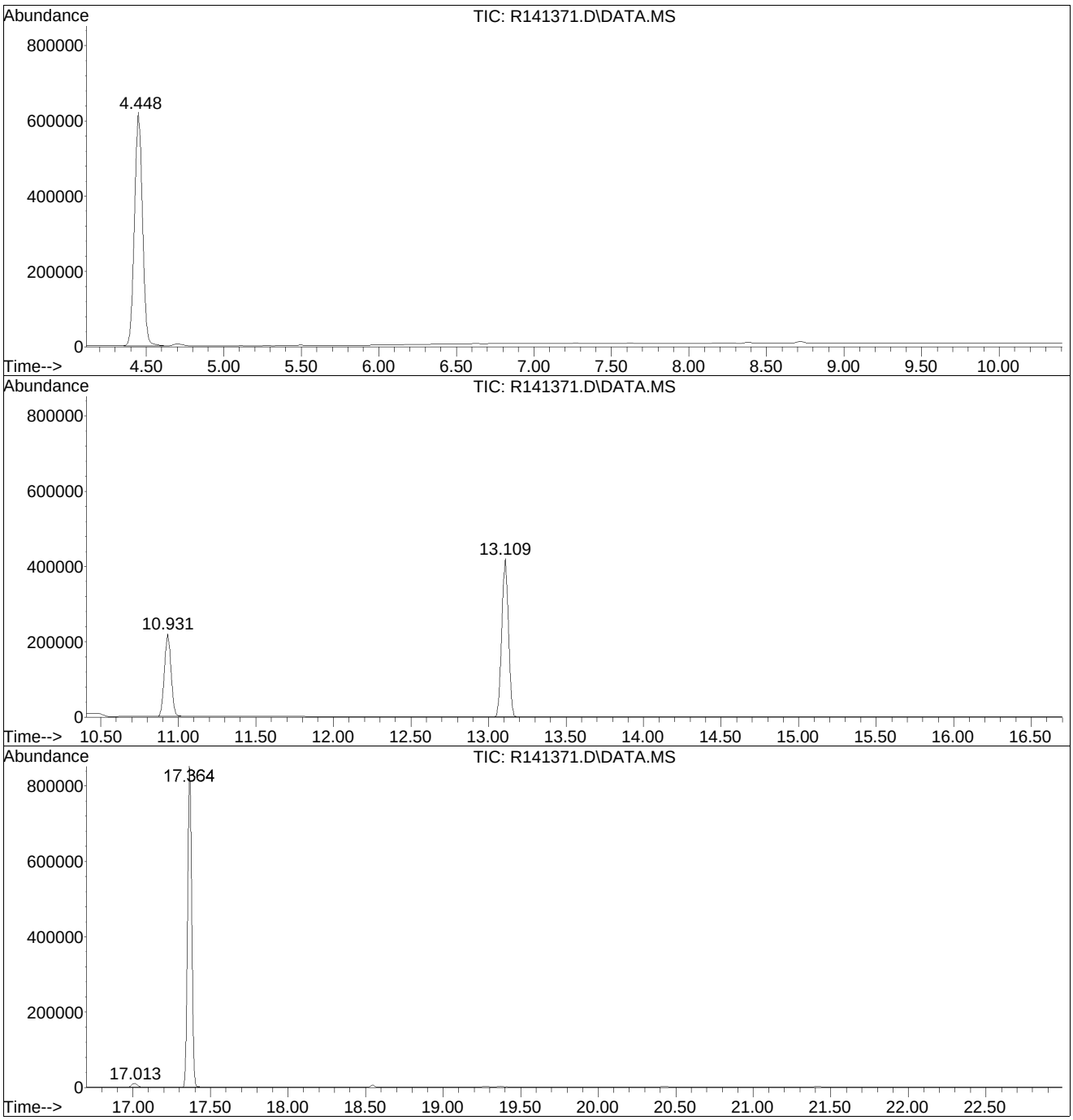
Sum of corrected areas: 5712919

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,TIC3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,TIC3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141371.D
Acq On : 04 Feb 2015 06:51 pm
Operator : AIRLAB14:RY
Sample : WG760633-4,TIC3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-3	Date Collected	:
Client ID	: WG757004-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/20/15 11:12
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232207	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	8.5	0.20	--	30.	0.71	--	
115-07-1	Propylene	9.5	0.50	--	16.	0.86	--	
74-98-6	Propane	7.4	0.20	--	13.	0.36	--	
75-71-8	Dichlorodifluoromethane	9.7	0.20	--	48.	0.99	--	
74-87-3	Chloromethane	9.2	0.20	--	19.	0.41	--	
76-14-2	Freon-114	9.8	0.20	--	68.	1.4	--	
67-56-1	Methanol	47.	5.0	--	62.	6.6	--	
75-01-4	Vinyl chloride	9.6	0.20	--	25.	0.51	--	
106-99-0	1,3-Butadiene	9.2	0.20	--	20.	0.44	--	
106-97-8	Butane	8.7	0.20	--	21.	0.48	--	
74-83-9	Bromomethane	9.6	0.20	--	37.	0.78	--	
75-00-3	Chloroethane	9.6	0.20	--	25.	0.53	--	
64-17-5	Ethanol	49.	2.5	--	92.	4.7	--	
75-43-4	Dichlorofluoromethane	8.6	0.20	--	36.	0.84	--	
593-60-2	Vinyl bromide	9.8	0.20	--	43.	0.87	--	
107-02-8	Acrolein	9.4	0.50	--	22.	1.1	--	
67-64-1	Acetone	53.	1.0	--	130	2.4	--	
75-05-8	Acetonitrile	8.6	0.20	--	14.	0.34	--	
75-69-4	Trichlorofluoromethane	10.	0.20	--	56.	1.1	--	
67-63-0	Isopropanol	10.	0.50	--	25.	1.2	--	
107-13-1	Acrylonitrile	8.6	0.20	--	19.	0.43	--	
109-66-0	Pentane	9.2	0.20	--	27.	0.59	--	
60-29-7	Ethyl ether	8.6	0.20	--	26.	0.61	--	
75-35-4	1,1-Dichloroethene	9.7	0.20	--	38.	0.79	--	
75-65-0	Tertiary butyl Alcohol	9.7	0.50	--	29.	1.5	--	
75-09-2	Methylene chloride	9.6	0.50	--	33.	1.7	--	
107-05-1	3-Chloropropene	10.	0.20	--	31.	0.63	--	
75-15-0	Carbon disulfide	9.3	0.20	--	29.	0.62	--	

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Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-3	Date Collected	:
Client ID	: WG757004-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/20/15 11:12
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232207	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	9.2	0.20	--	71.	1.5	--	
156-60-5	trans-1,2-Dichloroethene	8.7	0.20	--	34.	0.79	--	
75-34-3	1,1-Dichloroethane	9.4	0.20	--	38.	0.81	--	
1634-04-4	Methyl tert butyl ether	9.4	0.20	--	34.	0.72	--	
108-05-4	Vinyl acetate	11.	0.20	--	39.	0.70	--	
78-93-3	2-Butanone	9.3	0.20	--	27.	0.59	--	
156-59-2	cis-1,2-Dichloroethene	10.	0.20	--	40.	0.79	--	
141-78-6	Ethyl Acetate	10.	0.50	--	36.	1.8	--	
67-66-3	Chloroform	9.7	0.20	--	47.	0.98	--	
109-99-9	Tetrahydrofuran	9.2	0.20	--	27.	0.59	--	
594-20-7	2,2-Dichloropropane	8.9	0.20	--	41.	0.92	--	
107-06-2	1,2-Dichloroethane	9.5	0.20	--	38.	0.81	--	
110-54-3	n-Hexane	8.5	0.20	--	30.	0.70	--	
108-20-3	Diisopropyl ether	8.6	0.20	--	36.	0.84	--	
637-92-3	tert-Butyl Ethyl Ether	8.5	0.20	--	36.	0.84	--	
71-55-6	1,1,1-Trichloroethane	9.0	0.20	--	49.	1.1	--	
563-58-6	1,1-Dichloropropene	9.1	0.20	--	41.	0.91	--	
71-43-2	Benzene	8.8	0.20	--	28.	0.64	--	
56-23-5	Carbon tetrachloride	9.4	0.20	--	59.	1.3	--	
110-82-7	Cyclohexane	8.7	0.20	--	30.	0.69	--	
994-05-8	tert-Amyl Methyl Ether	8.5	0.20	--	36.	0.84	--	
74-95-3	Dibromomethane	8.7	0.20	--	62.	1.4	--	
78-87-5	1,2-Dichloropropane	9.1	0.20	--	42.	0.92	--	
75-27-4	Bromodichloromethane	9.3	0.20	--	62.	1.3	--	
123-91-1	1,4-Dioxane	9.3	0.20	--	34.	0.72	--	
79-01-6	Trichloroethene	9.6	0.20	--	52.	1.1	--	
540-84-1	2,2,4-Trimethylpentane	8.7	0.20	--	41.	0.93	--	
80-62-6	Methyl Methacrylate	8.5	0.50	--	35.	2.0	--	

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Client ID	: WG757004-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/20/15 11:12
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232207	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	8.8	0.20	--	36.	0.82	--	
10061-01-5	cis-1,3-Dichloropropene	10.	0.20	--	45.	0.91	--	
108-10-1	4-Methyl-2-pentanone	9.2	0.20	--	38.	0.82	--	
10061-02-6	trans-1,3-Dichloropropene	8.4	0.20	--	38.	0.91	--	
79-00-5	1,1,2-Trichloroethane	9.5	0.20	--	52.	1.1	--	
108-88-3	Toluene	9.3	0.20	--	35.	0.75	--	
142-28-9	1,3-Dichloropropane	8.9	0.20	--	41.	0.92	--	
591-78-6	2-Hexanone	9.3	0.20	--	38.	0.82	--	
124-48-1	Dibromochloromethane	9.9	0.20	--	84.	1.7	--	
106-93-4	1,2-Dibromoethane	9.6	0.20	--	74.	1.5	--	
123-86-4	Butyl acetate	8.6	0.50	--	41.	2.4	--	
111-65-9	Octane	8.7	0.20	--	41.	0.93	--	
127-18-4	Tetrachloroethene	9.8	0.20	--	66.	1.4	--	
630-20-6	1,1,1,2-Tetrachloroethane	9.2	0.20	--	63.	1.4	--	
108-90-7	Chlorobenzene	9.9	0.20	--	46.	0.92	--	
100-41-4	Ethylbenzene	9.5	0.20	--	41.	0.87	--	
179601-23-1	p/m-Xylene	19.	0.40	--	83.	1.7	--	
75-25-2	Bromoform	9.9	0.20	--	100	2.1	--	
100-42-5	Styrene	9.6	0.20	--	41.	0.85	--	
79-34-5	1,1,2,2-Tetrachloroethane	10.	0.20	--	69.	1.4	--	
95-47-6	o-Xylene	9.8	0.20	--	43.	0.87	--	
96-18-4	1,2,3-Trichloropropane	9.1	0.20	--	55.	1.2	--	
111-84-2	Nonane	8.7	0.20	--	46.	1.0	--	
98-82-8	Isopropylbenzene	7.2	0.20	--	35.	0.98	--	
108-86-1	Bromobenzene	7.8	0.20	--	31.	0.79	--	
95-49-8	2-Chlorotoluene	9.3	0.20	--	48.	1.0	--	
103-65-1	n-Propylbenzene	9.3	0.20	--	46.	0.98	--	
106-43-4	4-Chlorotoluene	8.8	0.20	--	46.	1.0	--	

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Client ID	: WG757004-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 01/20/15 11:12
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232207	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	9.2	0.20	--	45.	0.98	--	
108-67-8	1,3,5-Trimethybenzene	9.5	0.20	--	47.	0.98	--	
98-06-6	tert-Butylbenzene	9.5	0.20	--	52.	1.1	--	
95-63-6	1,2,4-Trimethylbenzene	10.	0.20	--	49.	0.98	--	
124-18-5	Decane	9.0	0.20	--	52.	1.2	--	
100-44-7	Benzyl chloride	10.	0.20	--	52.	1.0	--	
541-73-1	1,3-Dichlorobenzene	10.	0.20	--	60.	1.2	--	
106-46-7	1,4-Dichlorobenzene	10.	0.20	--	60.	1.2	--	
135-98-8	sec-Butylbenzene	9.2	0.20	--	50.	1.1	--	
99-87-6	p-Isopropyltoluene	8.8	0.20	--	48.	1.1	--	
95-50-1	1,2-Dichlorobenzene	10.	0.20	--	60.	1.2	--	
104-51-8	n-Butylbenzene	9.8	0.20	--	54.	1.1	--	
96-12-8	1,2-Dibromo-3-chloropropane	9.6	0.20	--	93.	1.9	--	
1120-21-4	Undecane	9.4	0.20	--	60.	1.3	--	
112-40-3	Dodecane	10.	0.20	--	70.	1.4	--	
120-82-1	1,2,4-Trichlorobenzene	11.	0.20	--	82.	1.5	--	
91-20-3	Naphthalene	10.	0.20	--	52.	1.0	--	
87-61-6	1,2,3-Trichlorobenzene	11.	0.20	--	82.	1.5	--	
87-68-3	Hexachlorobutadiene	10.	0.20	--	110	2.1	--	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232207.D
Acq On : 20 Jan 2015 11:12 am
Operator : AIRPIANO2:RY
Sample : WG757004-3,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 11:40:43 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	177651	10.000	ppbV	0.00
Standard Area = 180187			Recovery = 98.59%			
43) 1,4-difluorobenzene	12.55	114	474155	10.000	ppbV	0.00
Standard Area = 480871			Recovery = 98.60%			
67) chlorobenzene-D5	16.89	54	112397	10.000	ppbV	0.00
Standard Area = 114070			Recovery = 98.53%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.29	51	182177	8.501	ppbV	100
3) propylene	4.33	41	101172M6	9.547	ppbV	
4) propane	4.36	29	86511	7.397	ppbV	98
5) dichlorodifluoromethane	4.43	85	261422	9.749	ppbV	100
6) chloromethane	4.66	50	111448	9.192	ppbV	97
7) Freon-114	4.80	85	318331	9.804	ppbV	98
8) methanol	4.91	31	201036	46.611	ppbV	99
9) vinyl chloride	4.97	62	120356	9.614	ppbV	98
10) 1,3-butadiene	5.17	54	96711	9.244	ppbV	95
11) butane	5.25	43	182734	8.709	ppbV	100
13) bromomethane	5.55	94	108714	9.654	ppbV	99
14) chloroethane	5.80	64	58021	9.629	ppbV	99
15) ethanol	5.99	31	439589	49.316	ppbV	99
16) dichlorofluoromethane	5.95	67	244998	8.602	ppbV	99
17) vinyl bromide	6.28	106	109962	9.845	ppbV	98
18) acrolein	6.45	56	49981	9.385	ppbV	99
19) acetone	6.62	43	1018918	52.896	ppbV	99
20) acetonitrile	6.28	41	106103	8.595	ppbV	98
21) trichlorofluoromethane	6.84	101	310320	10.078	ppbV	100
22) isopropyl alcohol	6.96	45	234539	10.435	ppbV	99
23) acrylonitrile	7.24	53	89371	8.559	ppbV	98
24) pentane	7.32	43	224370	9.197	ppbV	99
25) ethyl ether	7.36	31	153746	8.621	ppbV	99
26) 1,1-dichloroethene	7.67	61	205910	9.730	ppbV	98
27) tertiary butyl alcohol	7.73	59	260608	9.689	ppbV	98
28) methylene chloride	7.84	49	159284	9.583	ppbV	94
29) 3-chloropropene	7.98	41	188788	10.255	ppbV	92
30) carbon disulfide	8.16	76	341944	9.314	ppbV	100
31) Freon 113	8.16	101	234010	9.245	ppbV	99

Quantitation Report (QT Reviewed)

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Data File : R232207.D
Acq On : 20 Jan 2015 11:12 am
Operator : AIRPIANO2:RY
Sample : WG757004-3,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 11:40:43 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	8.98	61	179109	8.678	ppbV	98
33) 1,1-dichloroethane	9.21	63	223790	9.412	ppbV	99
34) MTBE	9.28	73	339216	9.416	ppbV	99
35) vinyl acetate	9.41	43	280155	10.783	ppbV	100
36) 2-butanone	9.68	43	280147	9.267	ppbV	99
37) cis-1,2-dichloroethene	10.19	61	192445	10.552	ppbV	99
38) Ethyl Acetate	10.45	61	42957	10.098	ppbV	64
39) chloroform	10.54	83	263358	9.741	ppbV	99
40) Tetrahydrofuran	10.97	42	155013	9.186	ppbV	98
41) 2,2-dichloropropane	10.55	77	221252	8.927	ppbV	99
42) 1,2-dichloroethane	11.36	62	182629	9.496	ppbV	99
44) hexane	10.44	57	193131	8.478	ppbV	87
45) diisopropyl ether	10.43	87	88955	8.596	ppbV	99
46) tert-butyl ethyl ether	11.03	59	382316	8.467	ppbV	99
48) 1,1,1-trichloroethane	11.64	97	294106	8.997	ppbV	99
49) 1,1-dichloropropene	11.99	75	189291	9.140	ppbV	99
50) benzene	12.16	78	352655	8.836	ppbV	98
52) carbon tetrachloride	12.32	117	284416	9.455	ppbV	99
53) cyclohexane	12.47	56	199648	8.685	ppbV	99
54) tert-amyl methyl ether	12.80	73	340179	8.500	ppbV	99
55) dibromomethane	13.04	93	150284	8.667	ppbV	98
56) 1,2-dichloropropane	13.07	63	142000	9.098	ppbV	94
57) bromodichloromethane	13.28	83	305937	9.292	ppbV	98
58) 1,4-dioxane	13.32	88	84753	9.326	ppbV	93
59) trichloroethene	13.33	130	170526	9.608	ppbV	98
60) 2,2,4-trimethylpentane	13.37	57	629981M6	8.699	ppbV	
61) methyl methacrylate	13.53	41	186172	8.488	ppbV	99
62) heptane	13.66	43	254304	8.846	ppbV	100
63) cis-1,3-dichloropropene	14.29	75	220756	9.991	ppbV	98
64) 4-methyl-2-pentanone	14.32	43	358526	9.200	ppbV	99
65) trans-1,3-dichloropropene	14.85	75	243379	8.352	ppbV	99
66) 1,1,2-trichloroethane	15.04	97	201112	9.549	ppbV	100
68) toluene	15.32	91	585658	9.326	ppbV	99
71) 1,3-dichloropropane	15.34	76	259997	8.897	ppbV	99
72) 2-hexanone	15.54	43	441153	9.317	ppbV	97
74) dibromochloromethane	15.73	129	415185	9.876	ppbV	99
75) 1,2-dibromoethane	15.96	107	338979	9.653	ppbV	99
76) butyl acetate	16.11	73	57662	8.590	ppbV	96
77) octane	16.21	85	161096	8.747	ppbV	99
78) tetrachloroethene	16.35	166	281314	9.756	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232207.D
Acq On : 20 Jan 2015 11:12 am
Operator : AIRPIANO2:RY
Sample : WG757004-3,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 11:40:43 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 1,1,1,2-tetrachloroethane	16.91	131	197751	9.255	ppbV	99
80) chlorobenzene	16.93	112	369895	9.895	ppbV	99
81) ethylbenzene	17.21	91	596223	9.543	ppbV	99
83) m+p-xylene	17.35	91	939858	19.104	ppbV	98
84) bromoform	17.43	173	300715	9.936	ppbV	99
85) styrene	17.63	104	354594	9.566	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.71	83	371390	10.005	ppbV	99
87) o-xylene	17.72	91	491351	9.826	ppbV	99
88) 1,2,3-trichloropropane	17.81	75	271259	9.136	ppbV	98
89) nonane	17.85	43	349707	8.663	ppbV	98
91) isopropylbenzene	18.15	105	451563	7.204	ppbV	98
92) bromobenzene	18.24	77	281297	7.843	ppbV	94
93) 2-chlorotoluene	18.51	126	168490	9.318	ppbV	79
94) n-propylbenzene	18.53	120	178403	9.295	ppbV	86
95) 4-chlorotoluene	18.56	91	472096	8.813	ppbV	100
96) 4-ethyl toluene	18.63	105	663396M6	9.160	ppbV	
97) 1,3,5-trimethylbenzene	18.68	105	569914M4	9.543	ppbV	
98) tert-butylbenzene	18.99	119	585257	9.541	ppbV	99
99) 1,2,4-trimethylbenzene	18.99	105	577883	10.179	ppbV	96
100) decane	19.03	57	376488	8.955	ppbV	98
101) Benzyl Chloride	19.10	91	542826	10.329	ppbV	99
102) 1,3-dichlorobenzene	19.12	146	384871	10.340	ppbV	98
103) 1,4-dichlorobenzene	19.17	146	412893M4	10.165	ppbV	
104) sec-butylbenzene	19.18	105	781794	9.199	ppbV	100
106) p-isopropyltoluene	19.30	119	672998	8.797	ppbV	99
107) 1,2-dichlorobenzene	19.43	146	376447	10.103	ppbV	99
108) n-butylbenzene	19.62	91	683069	9.785	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.77	75	192093	9.592	ppbV	99
112) undecane	19.97	57	437990	9.387	ppbV	99
114) dodecane	20.86	57	468454	10.271	ppbV	100
115) 1,2,4-trichlorobenzene	20.85	180	338384	11.306	ppbV	98
116) naphthalene	20.97	128	786035	10.513	ppbV	99
117) 1,2,3-trichlorobenzene	21.21	180	310800	10.683	ppbV	99
119) hexachlorobutadiene	21.27	225	269529	10.061	ppbV	95

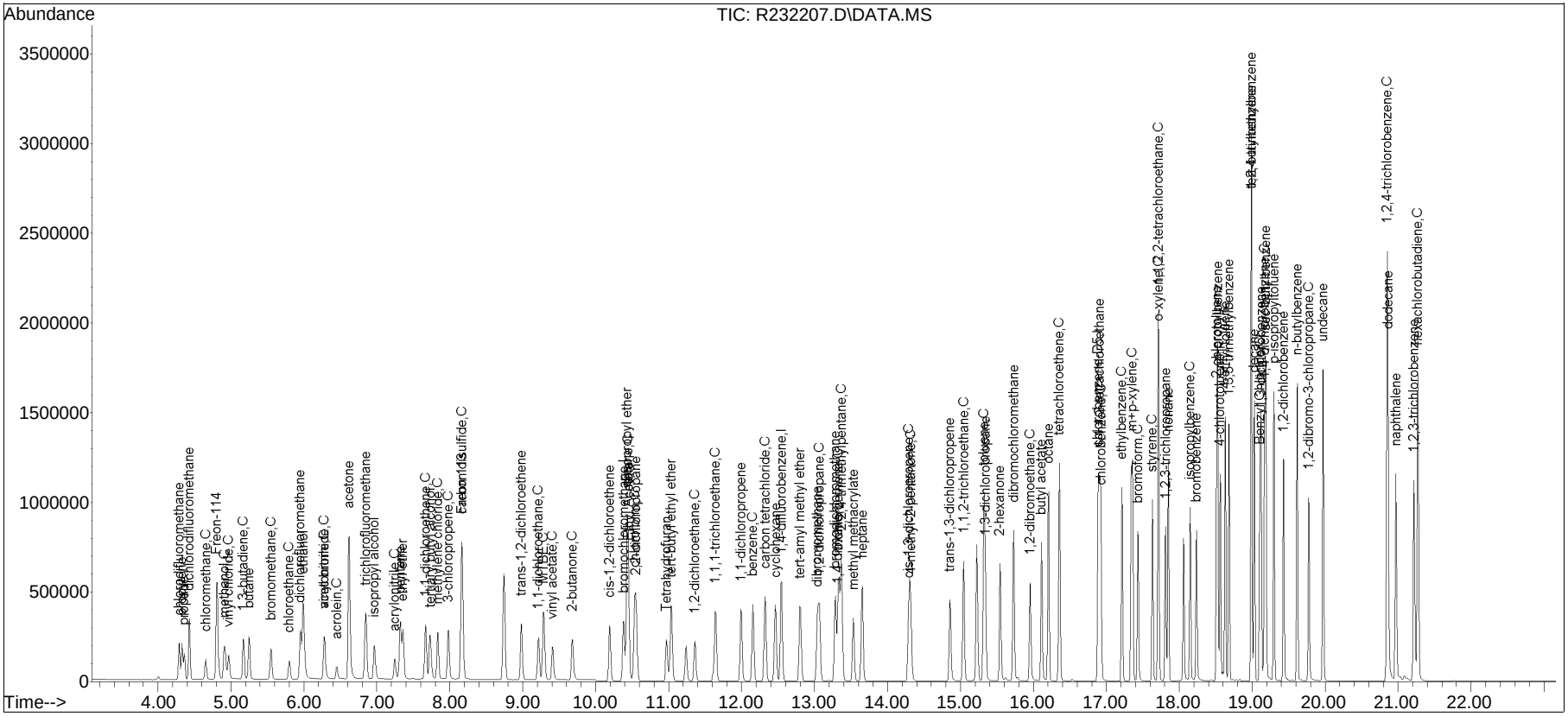
(#) = qualifier out of range (m) = manual integration (+) = signals summed

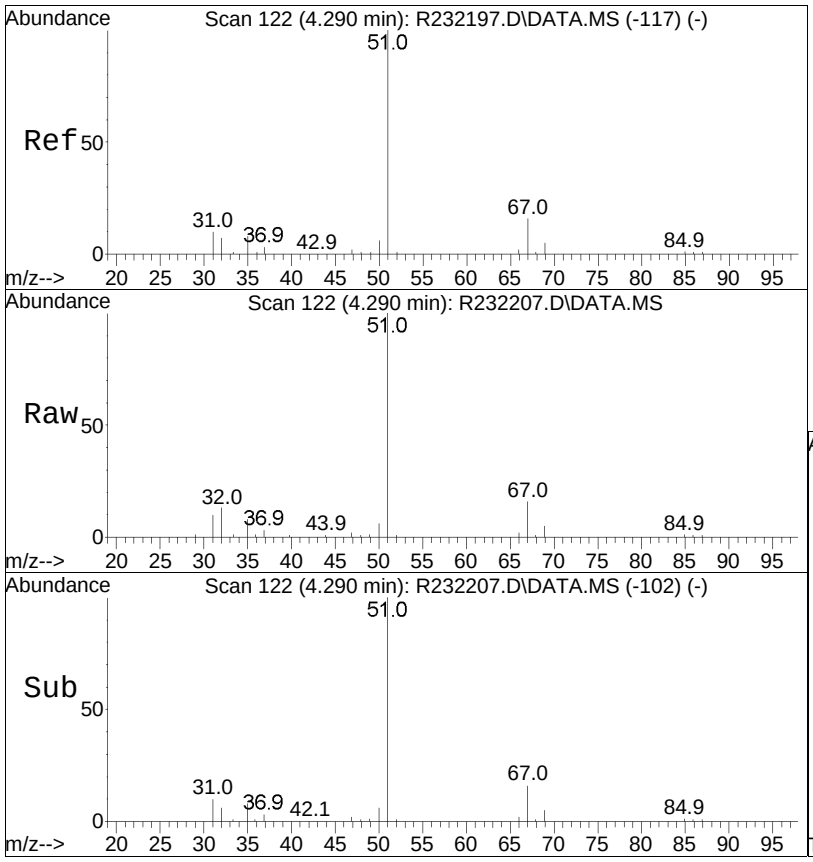
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232207.D
Acq On : 20 Jan 2015 11:12 am
Operator : AIRPIANO2:RY
Sample : WG757004-3,3,250,250
Misc : WG757004,ICAL10630
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 20 11:40:43 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed32206.D

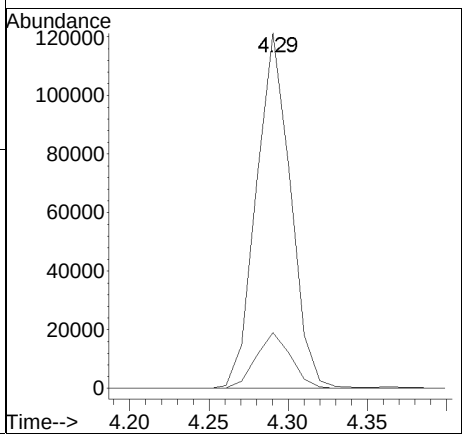


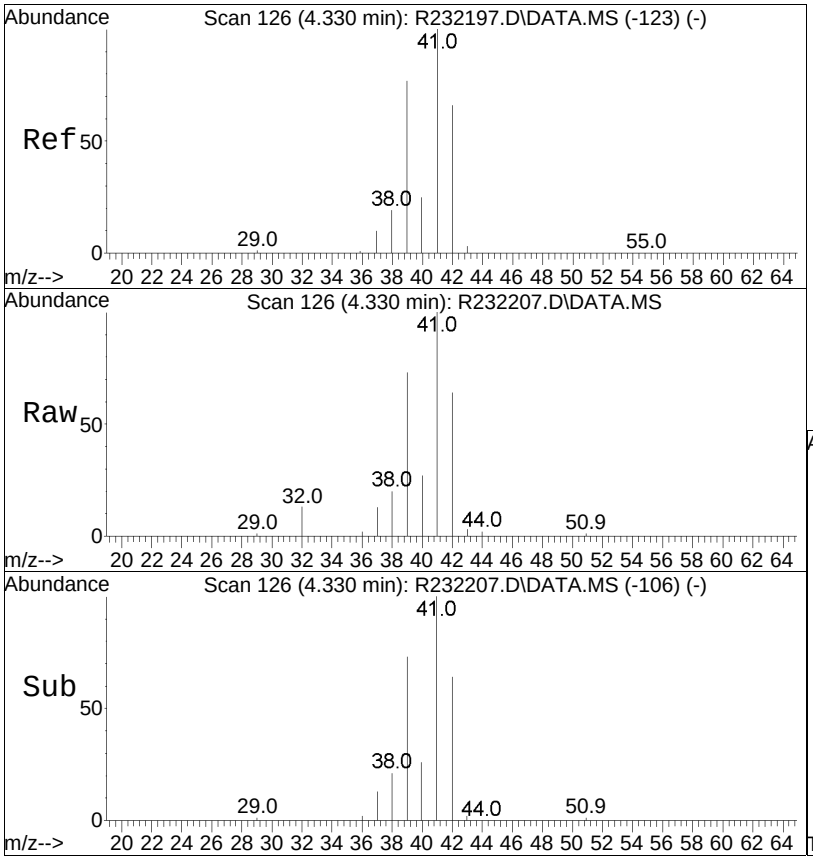


#2
chlorodifluoromethane
Concen: 8.50 ppbV
RT: 4.29 min Scan# 122
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 51 Resp: 182177

Ion	Ratio	Lower	Upper
51	100		
67	15.7	12.7	19.1

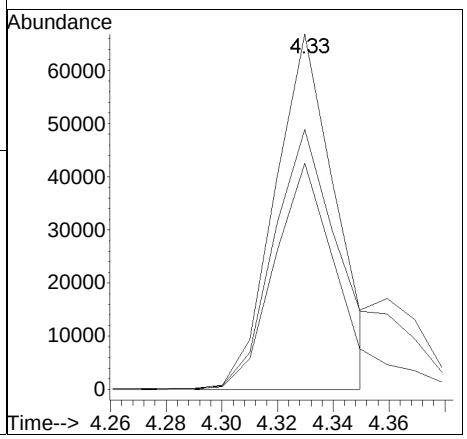


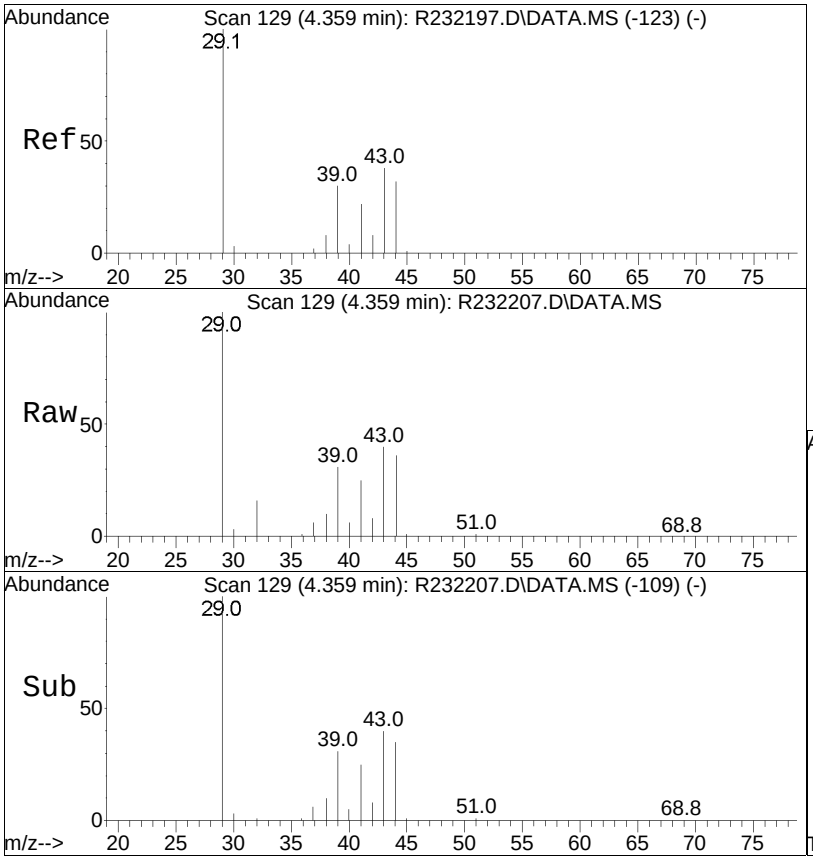


#3
propylene
Concen: 9.55 ppbV m
RT: 4.33 min Scan# 126
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 41 Resp: 101172

Ion	Ratio	Lower	Upper
41	100		
42	63.7	52.6	78.8
39	73.2	61.8	92.6

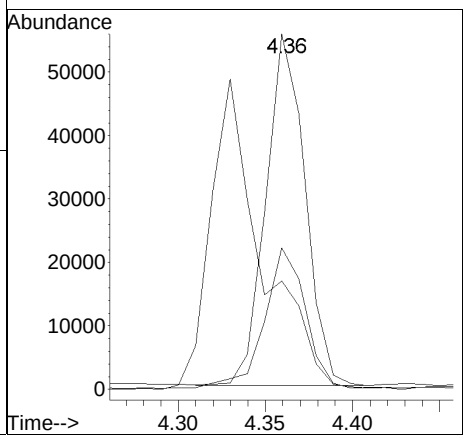


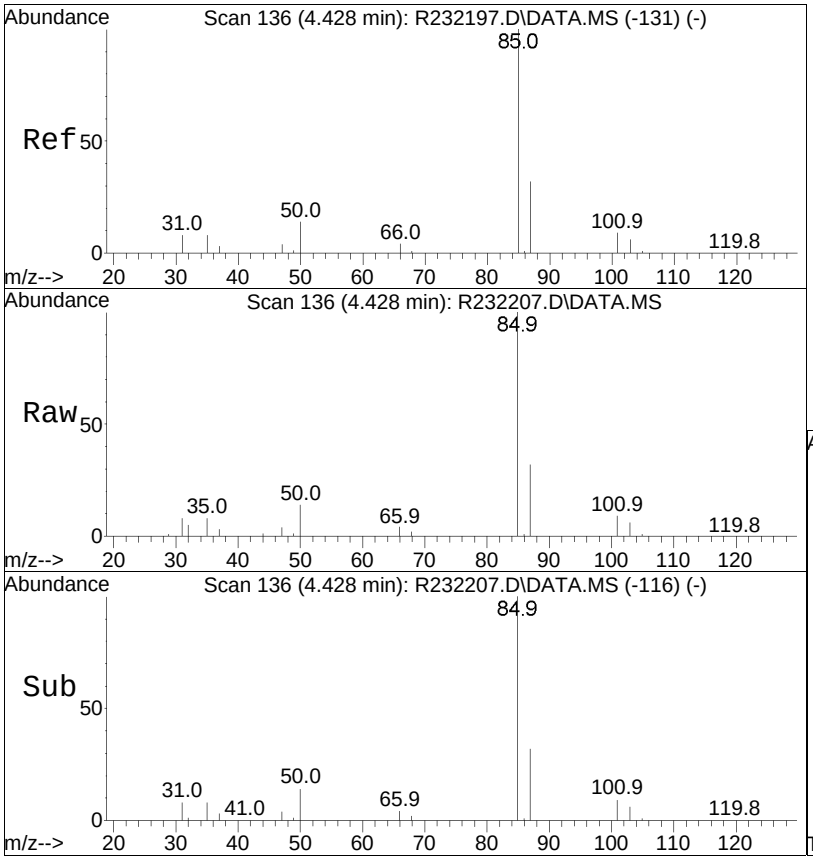


#4
propane
Concen: 7.40 ppbV
RT: 4.36 min Scan# 129
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 29 Resp: 86511

Ion	Ratio	Lower	Upper
29	100		
43	39.8	30.6	46.0
39	30.5	24.6	37.0

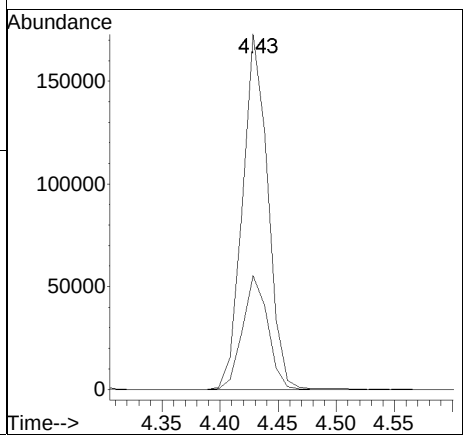


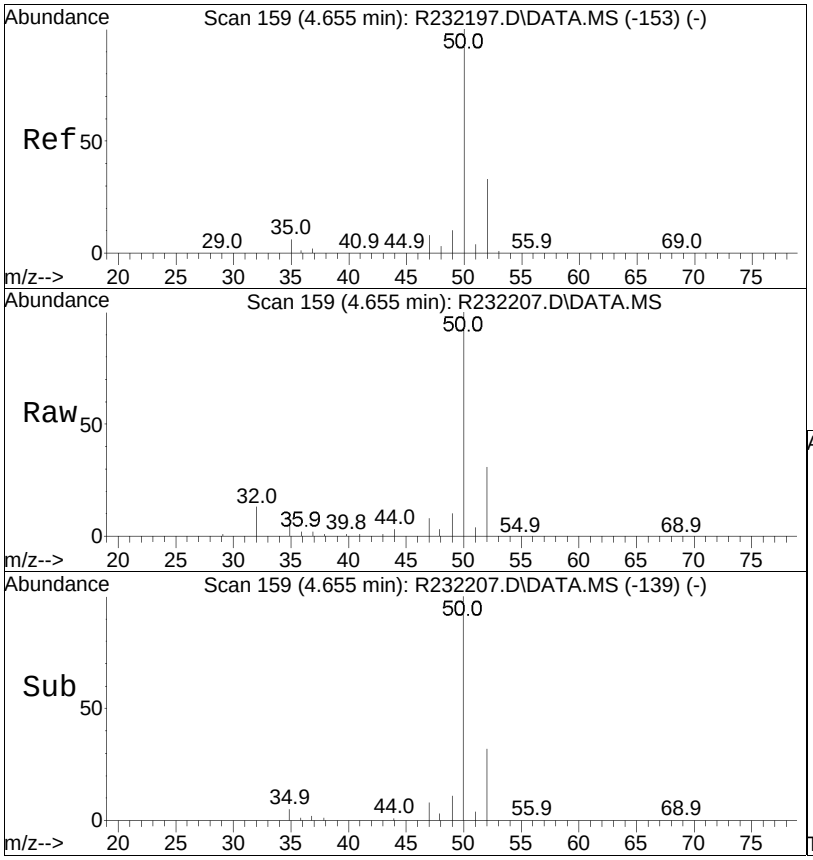


#5
dichlorodifluoromethane
Concen: 9.75 ppbV
RT: 4.43 min Scan# 136
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 85 Resp: 261422

Ion	Ratio	Lower	Upper
85	100		
87	32.0	25.5	38.3

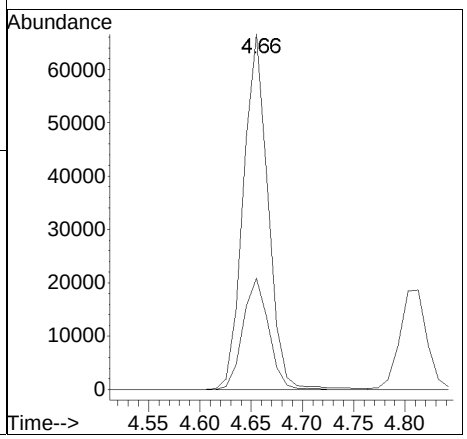


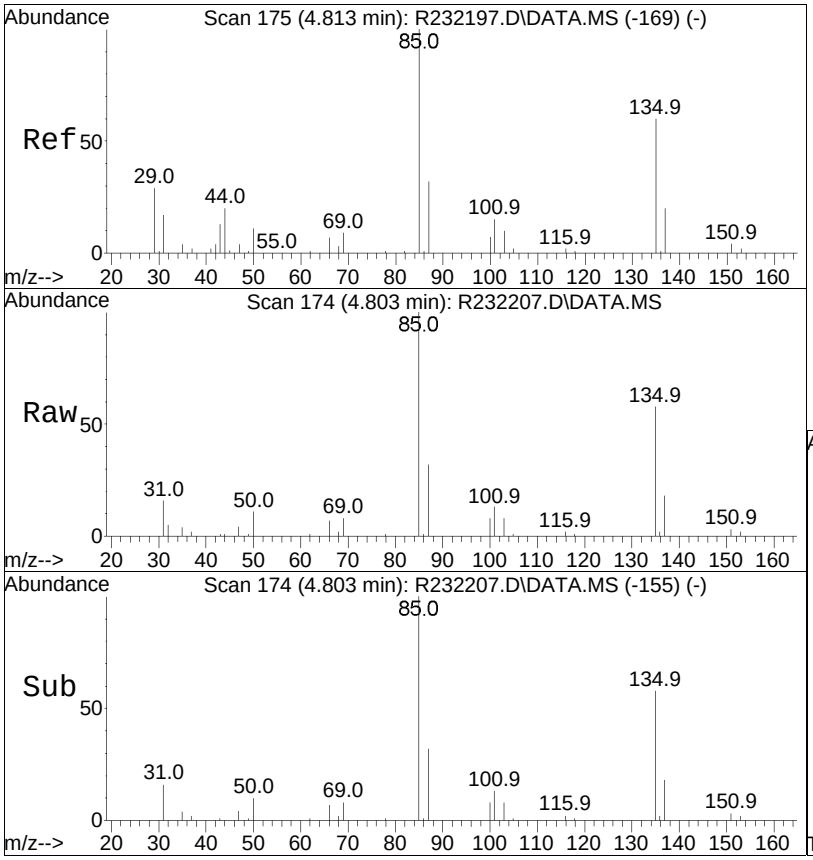


#6
chloromethane
Concen: 9.19 ppbV
RT: 4.66 min Scan# 159
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 50 Resp: 111448

Ion	Ratio	Lower	Upper
50	100		
52	31.3	26.5	39.7

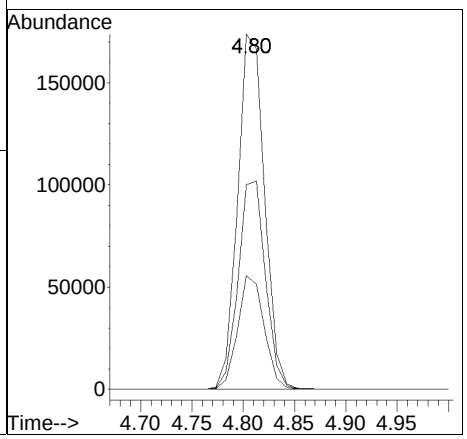


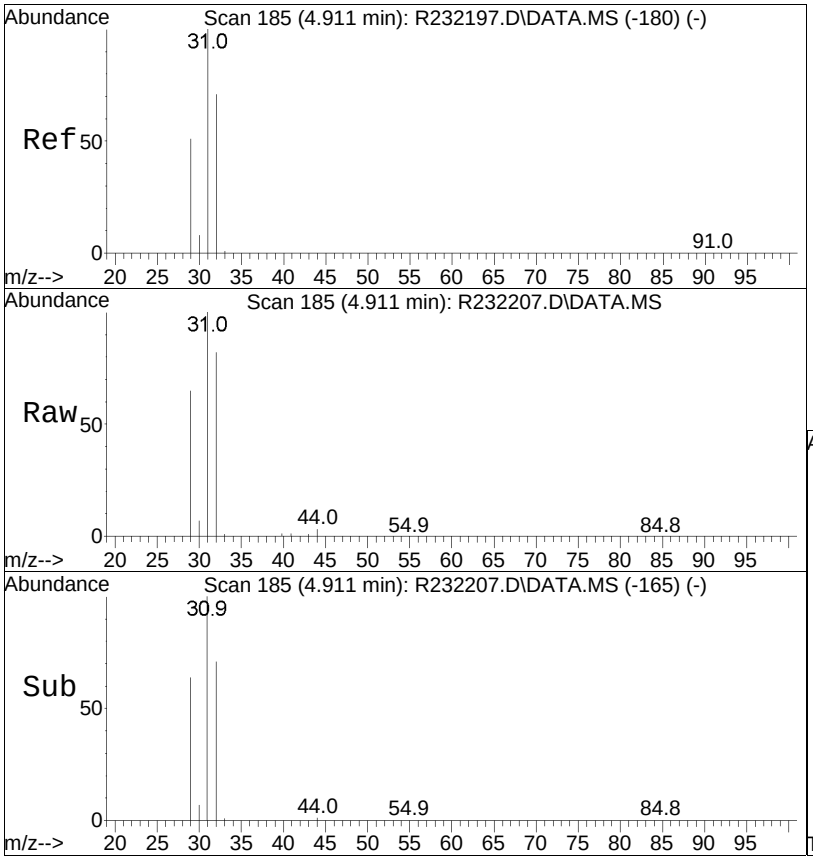


#7
Freon-114
Concen: 9.80 ppbV
RT: 4.80 min Scan# 174
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 85 Resp: 318331

Ion	Ratio	Lower	Upper
85	100		
87	32.0	25.8	38.8
135	57.6	47.8	71.6

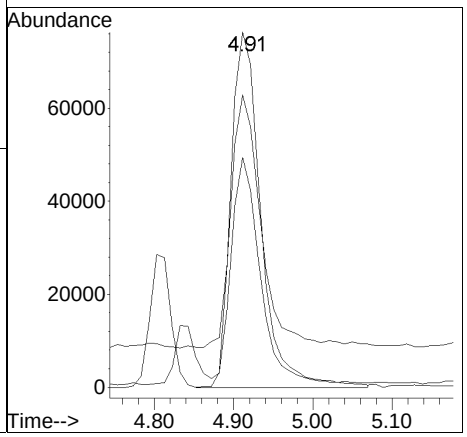


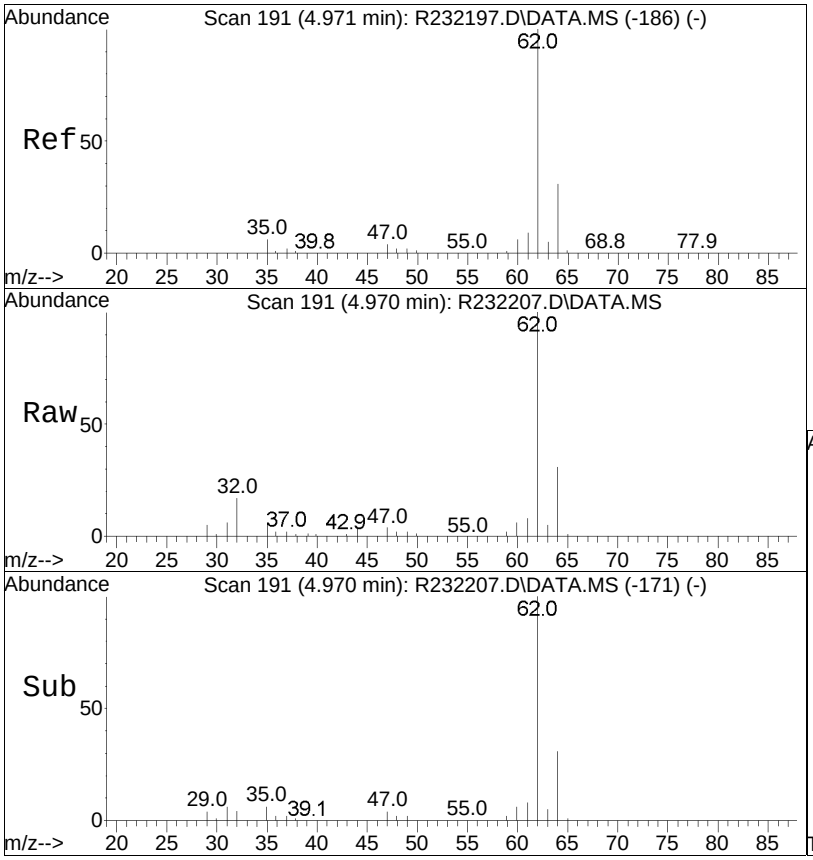


#8
methanol
Concen: 46.61 ppbV
RT: 4.91 min Scan# 185
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 31 Resp: 201036

Ion	Ratio	Lower	Upper
31	100		
32	82.3	65.3	97.9
29	64.8	53.0	79.6

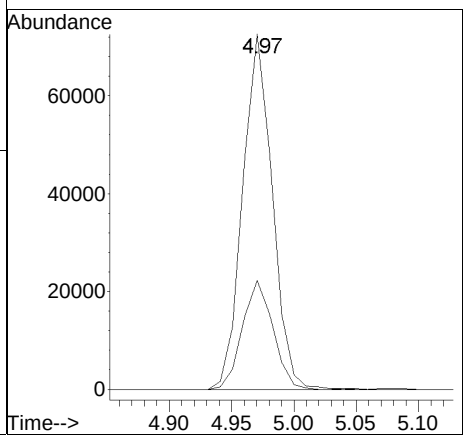


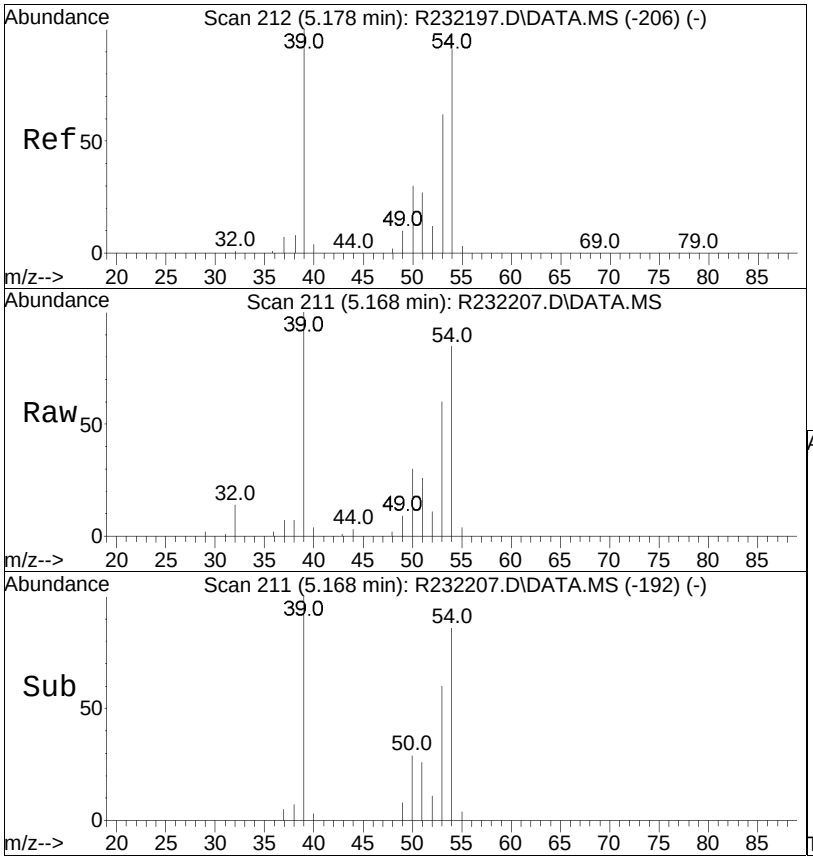


#9
vinyl chloride
Concen: 9.61 ppbV
RT: 4.97 min Scan# 191
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 62 Resp: 120356

Ion	Ratio	Lower	Upper
62	100		
64	30.7	25.2	37.8

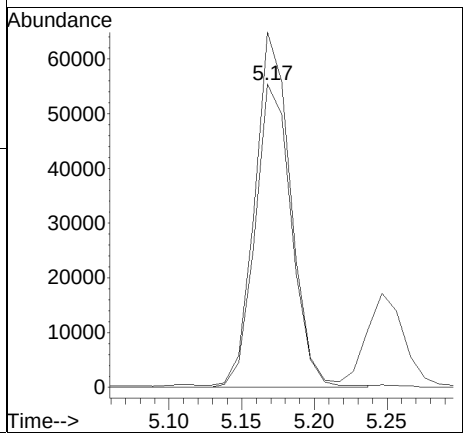


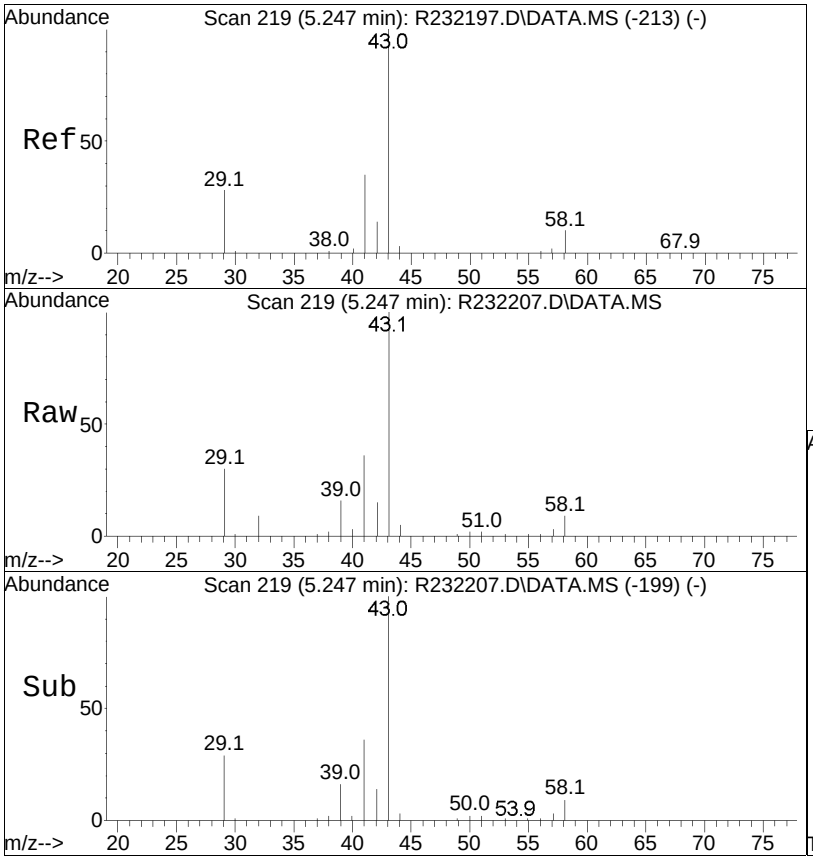


#10
1,3-butadiene
Concen: 9.24 ppbV
RT: 5.17 min Scan# 211
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 54 Resp: 96711

Ion	Ratio	Lower	Upper
54	100		
39	117.2	89.6	134.4

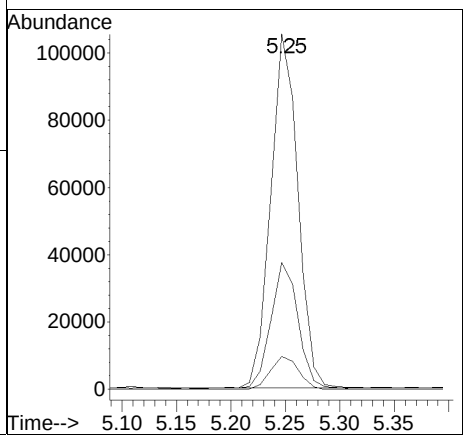


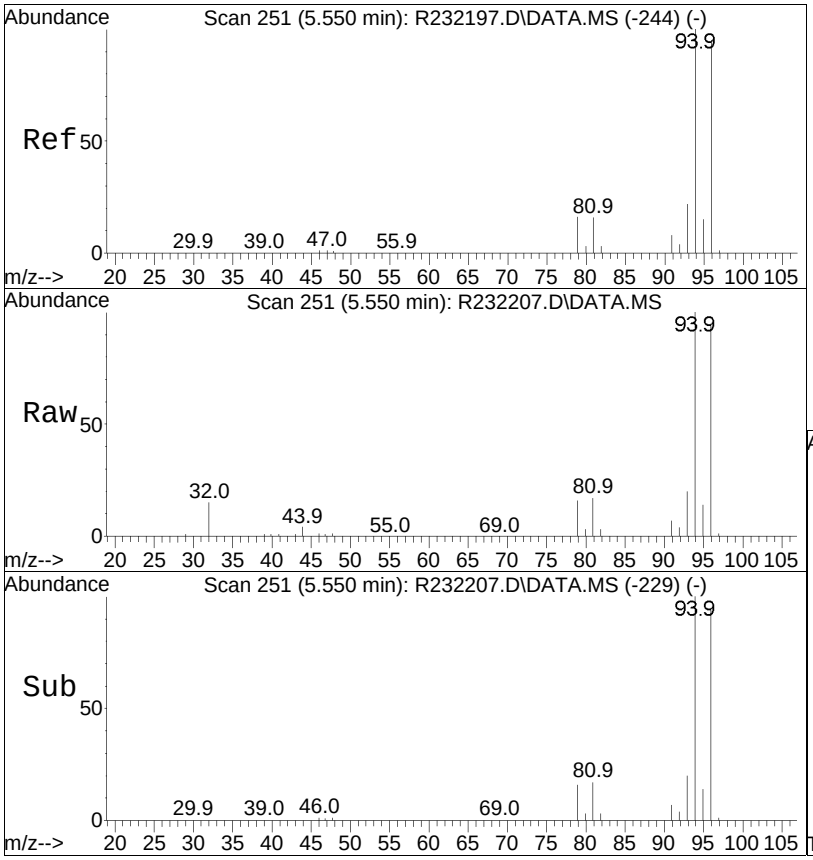


#11
butane
Concen: 8.71 ppbV
RT: 5.25 min Scan# 219
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 182734

Ion	Ratio	Lower	Upper
43	100		
58	9.3	7.8	11.6
41	35.7	28.5	42.7

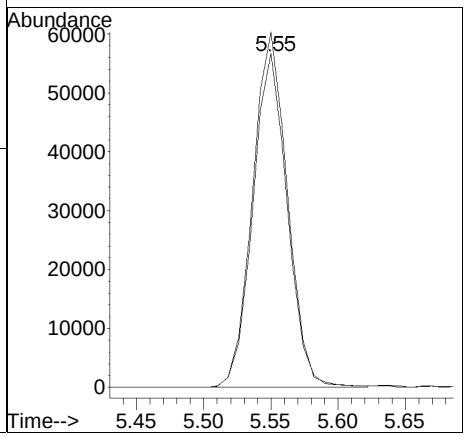


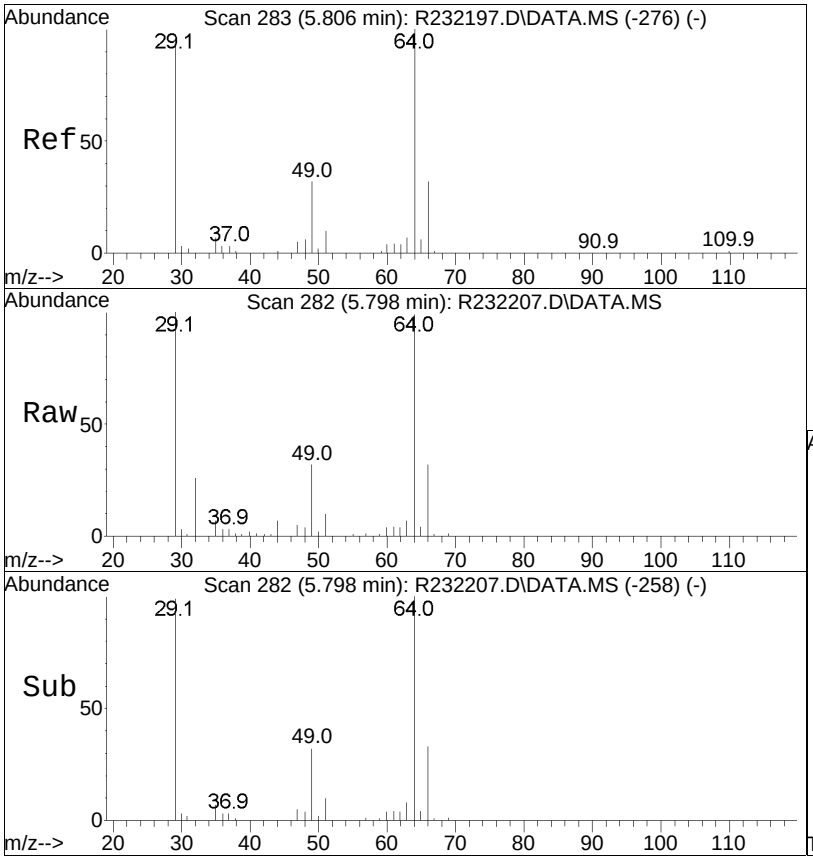


#13
bromomethane
Concen: 9.65 ppbV
RT: 5.55 min Scan# 251
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 94 Resp: 108714

Ion	Ratio	Lower	Upper
94	100		
96	94.1	76.2	114.4

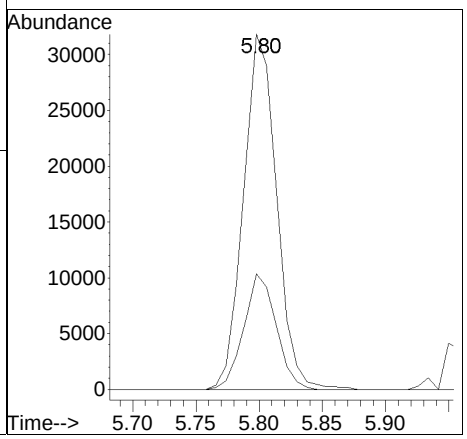


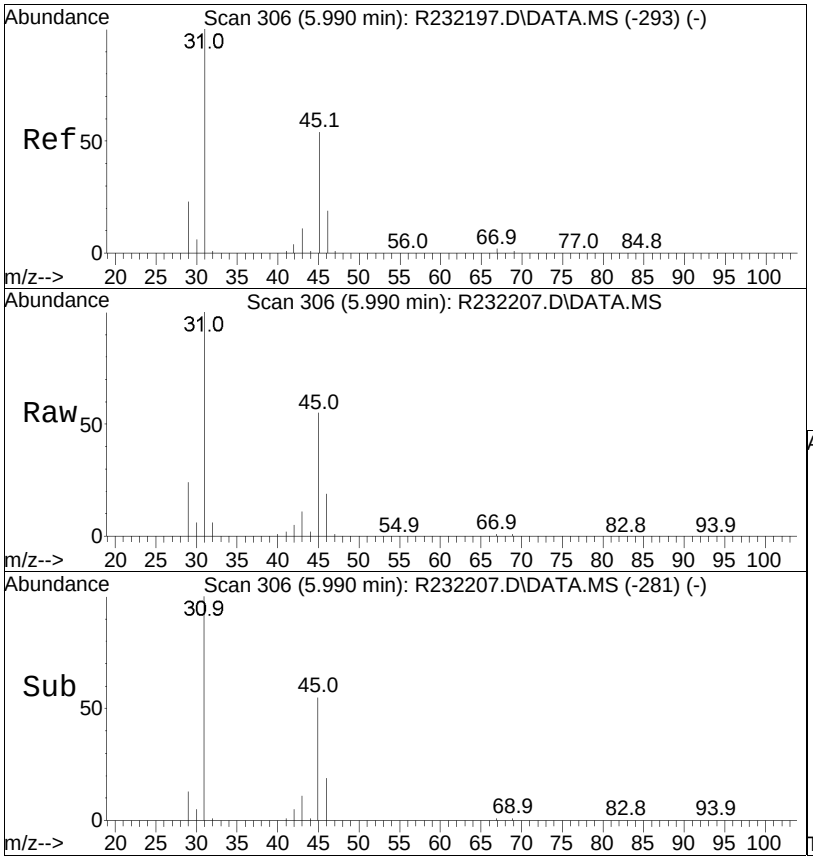


#14
chloroethane
Concen: 9.63 ppbV
RT: 5.80 min Scan# 282
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 64 Resp: 58021

Ion	Ratio	Lower	Upper
64	100		
66	32.5	25.5	38.3

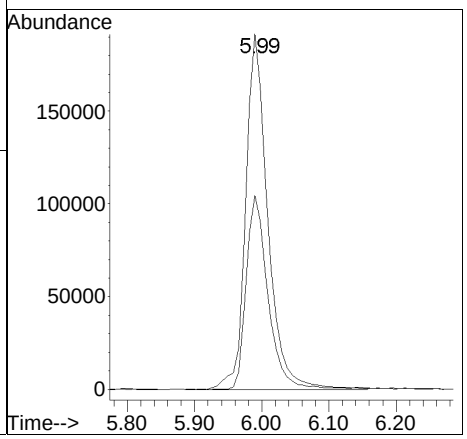


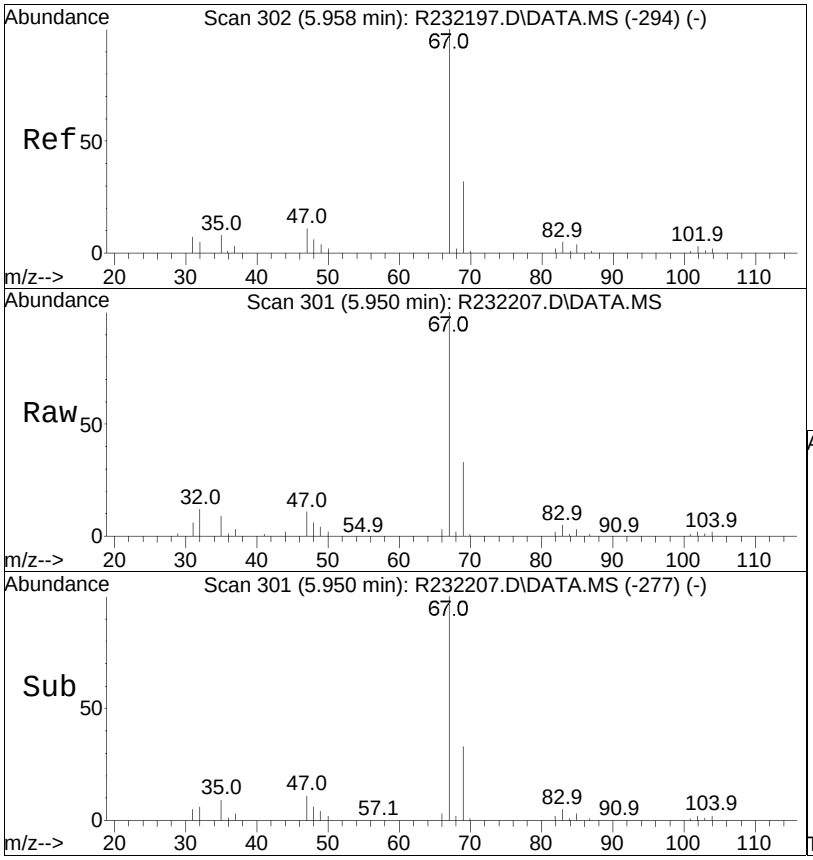


#15
ethanol
Concen: 49.32 ppbV
RT: 5.99 min Scan# 306
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 31 Resp: 439589

Ion	Ratio	Lower	Upper
31	100		
45	54.6	43.2	64.8

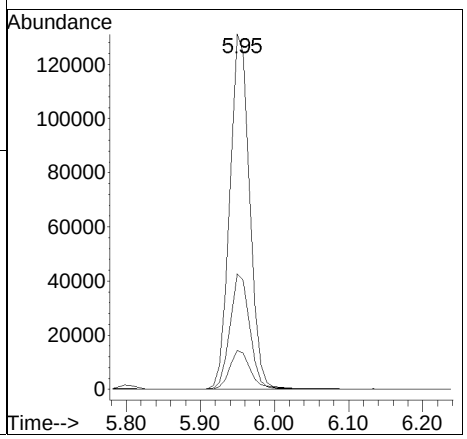


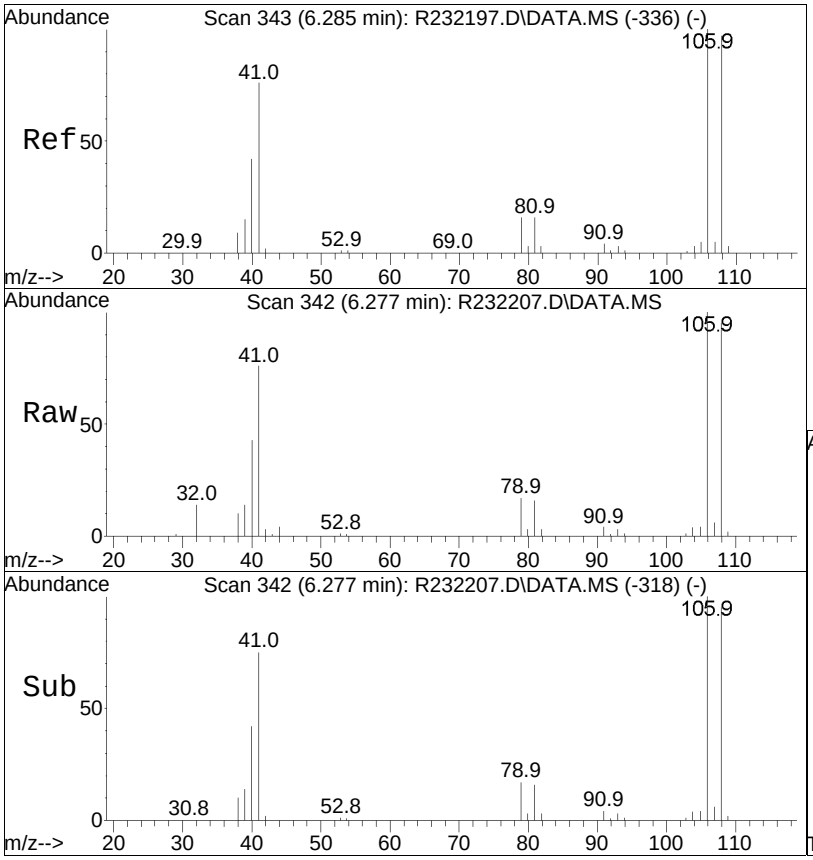


#16
dichlorofluoromethane
Concen: 8.60 ppbV
RT: 5.95 min Scan# 301
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 67 Resp: 244998

Ion	Ratio	Lower	Upper
67	100		
69	32.5	25.3	37.9
47	11.0	8.8	13.2

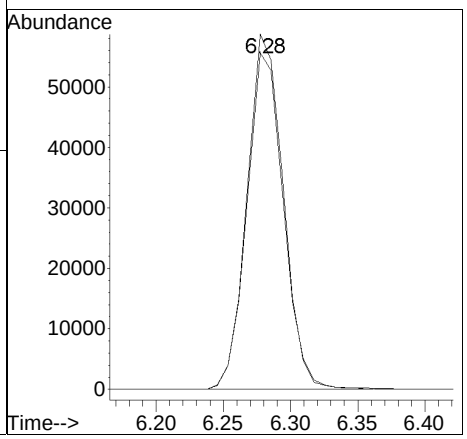


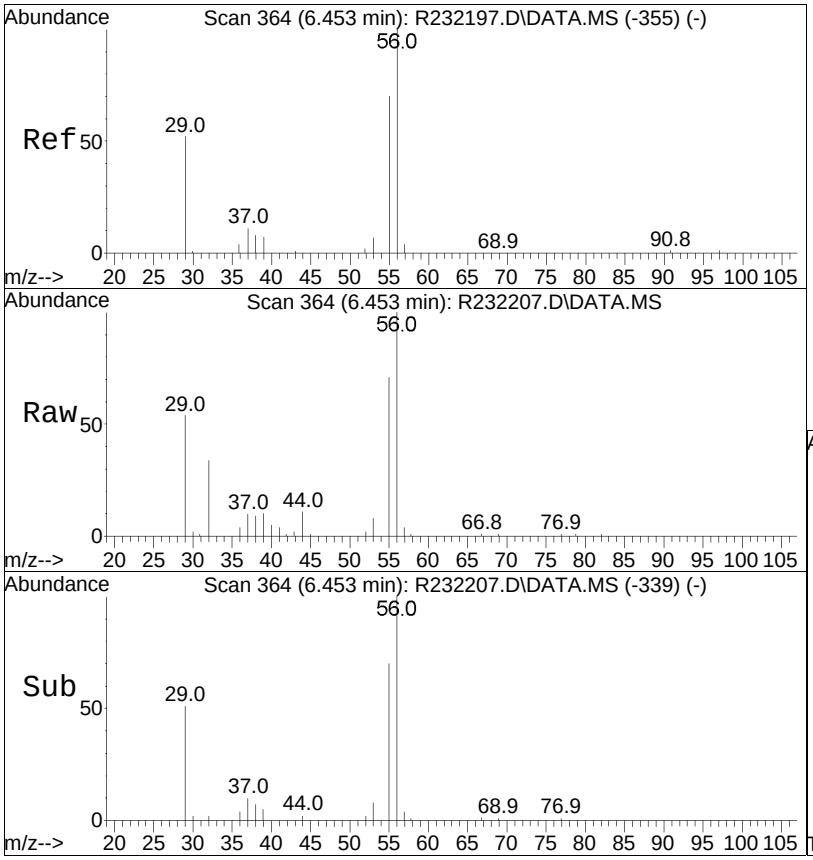


#17
vinyl bromide
Concen: 9.84 ppbV
RT: 6.28 min Scan# 342
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:106 Resp: 109962

Ion	Ratio	Lower	Upper
106	100		
108	94.7	77.5	116.3

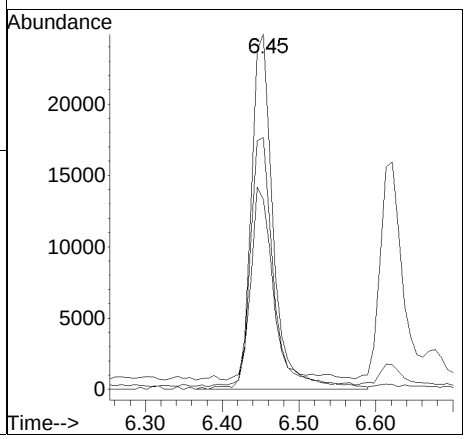


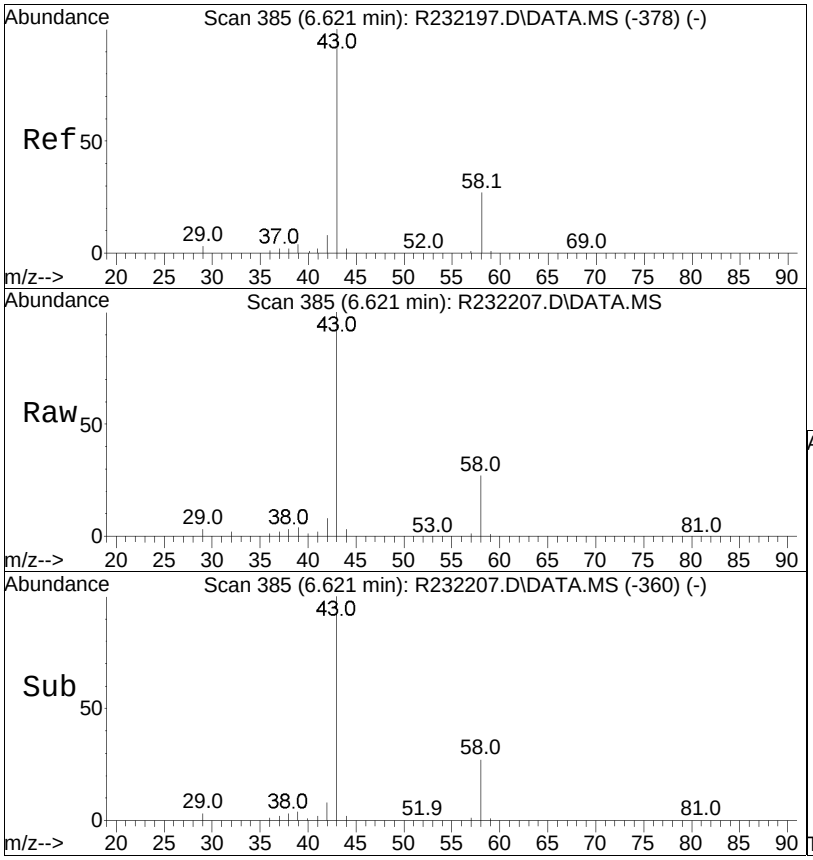


#18
acrolein
Concen: 9.38 ppbV
RT: 6.45 min Scan# 364
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 56 Resp: 49981

Ion	Ratio	Lower	Upper
56	100		
55	70.9	57.4	86.0
29	53.5	43.4	65.2

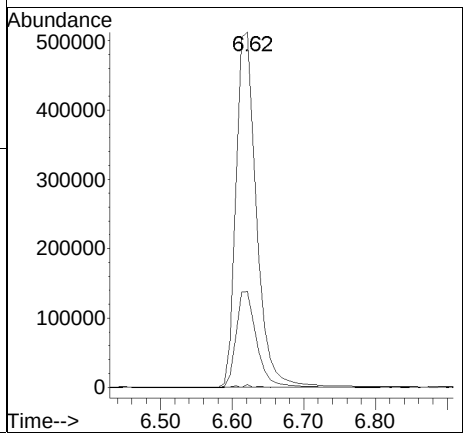


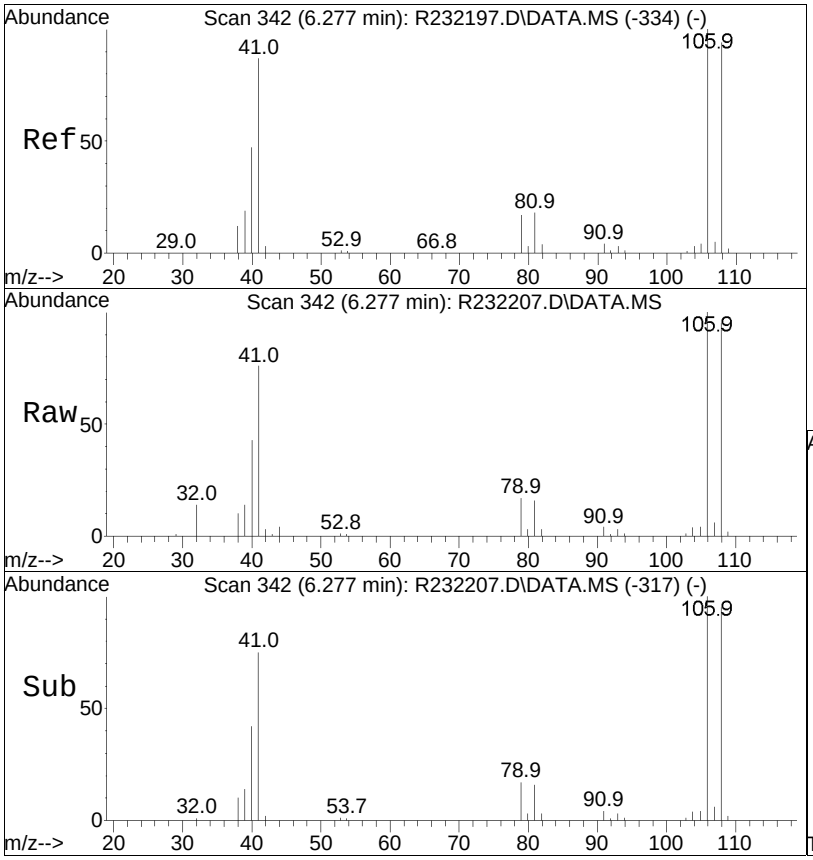


#19
acetone
Concen: 52.90 ppbV
RT: 6.62 min Scan# 385
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 1018918

Ion	Ratio	Lower	Upper
43	100		
58	27.0	21.8	32.8
57	0.8	0.7	1.1

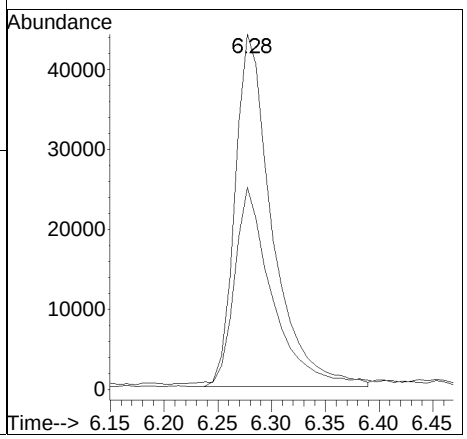


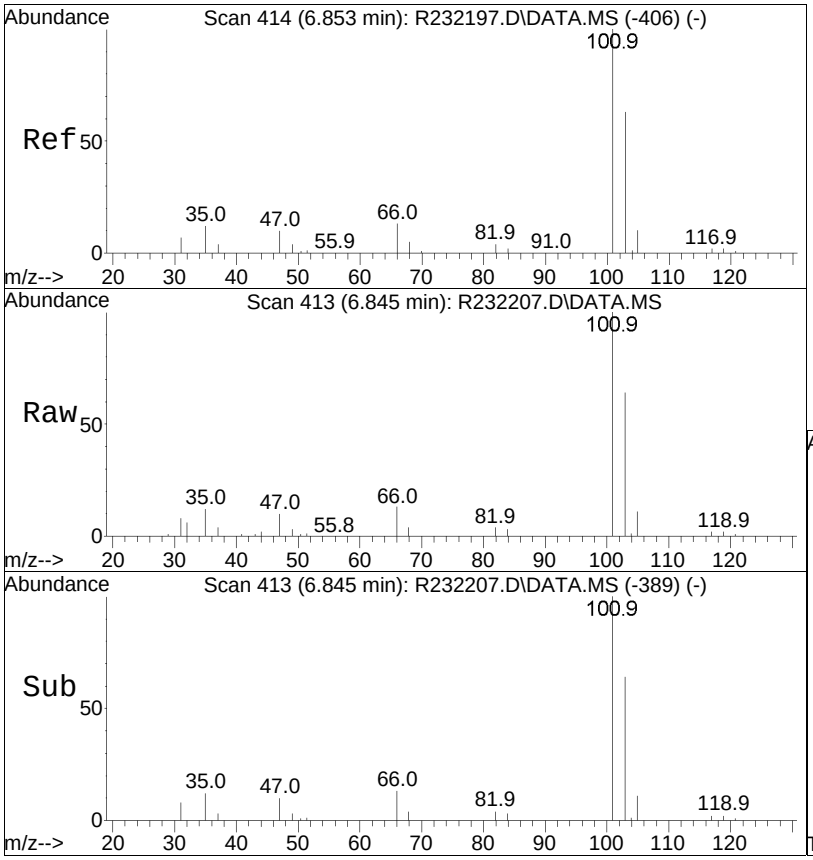


#20
acetonitrile
Concen: 8.59 ppbV
RT: 6.28 min Scan# 342
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 41 Resp: 106103

Ion	Ratio	Lower	Upper
41	100		
40	56.8	44.3	66.5

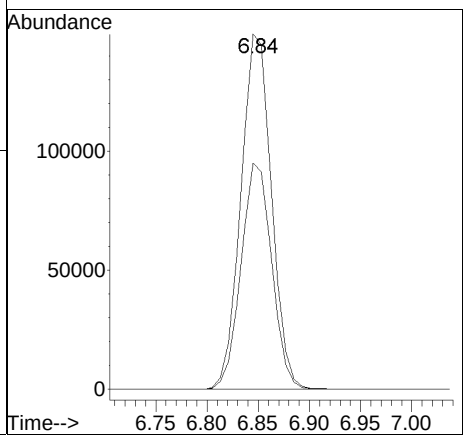


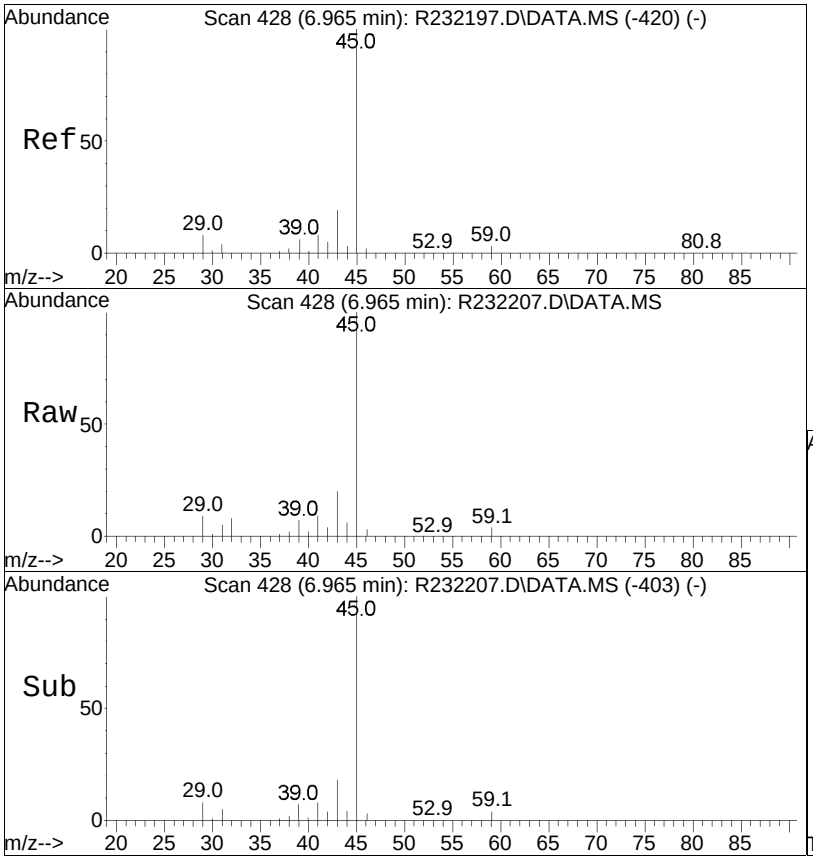


#21
trichlorofluoromethane
Concen: 10.08 ppbV
RT: 6.84 min Scan# 413
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:101 Resp: 310320

Ion	Ratio	Lower	Upper
101	100		
103	63.8	50.7	76.1

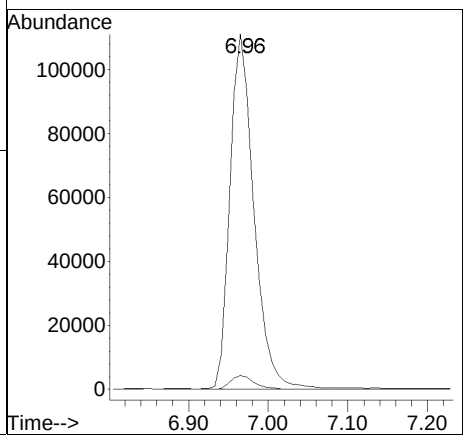


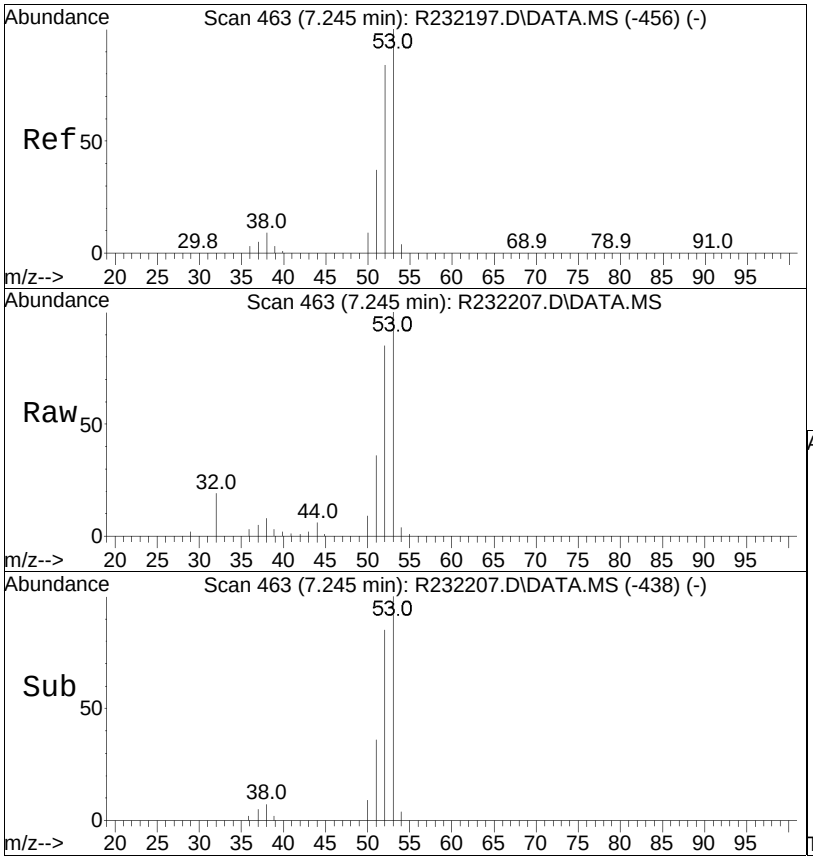


#22
isopropyl alcohol
Concen: 10.44 ppbV
RT: 6.96 min Scan# 428
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 45 Resp: 234539

Ion	Ratio	Lower	Upper
45	100		
59	3.9	2.7	4.1

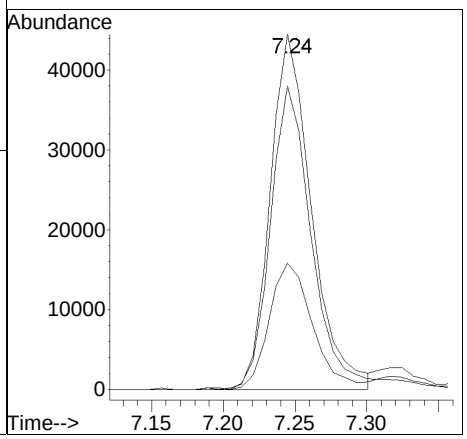


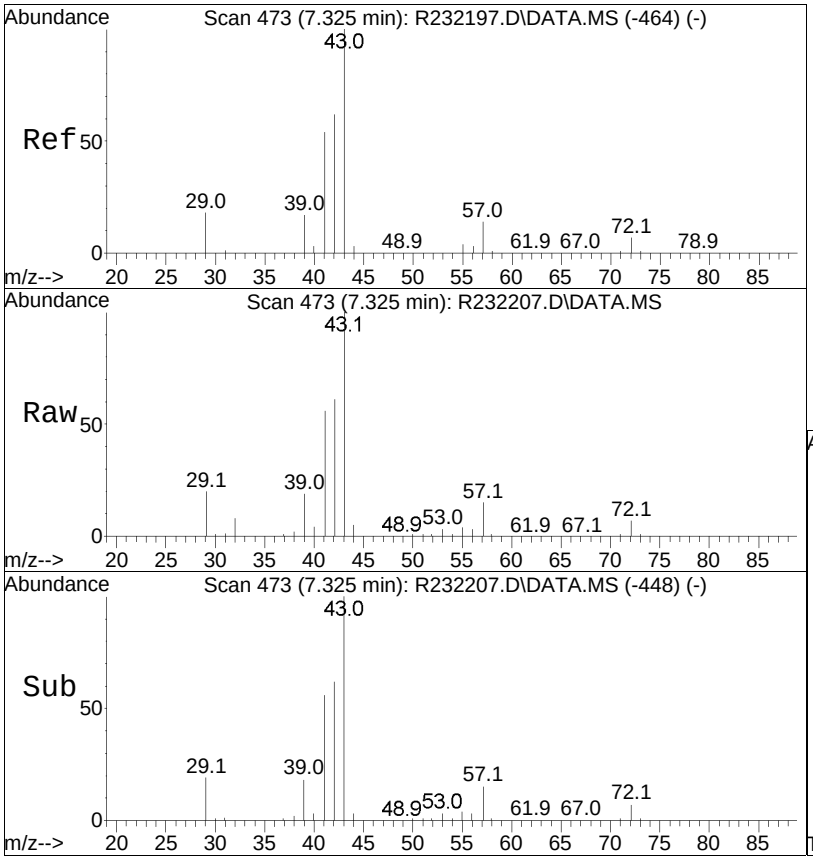


#23
acrylonitrile
Concen: 8.56 ppbV
RT: 7.24 min Scan# 463
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 53 Resp: 89371

Ion	Ratio	Lower	Upper
53	100		
52	85.4	67.2	100.8
51	35.6	30.0	45.0

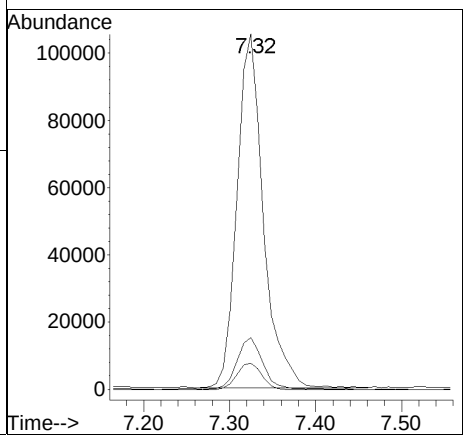


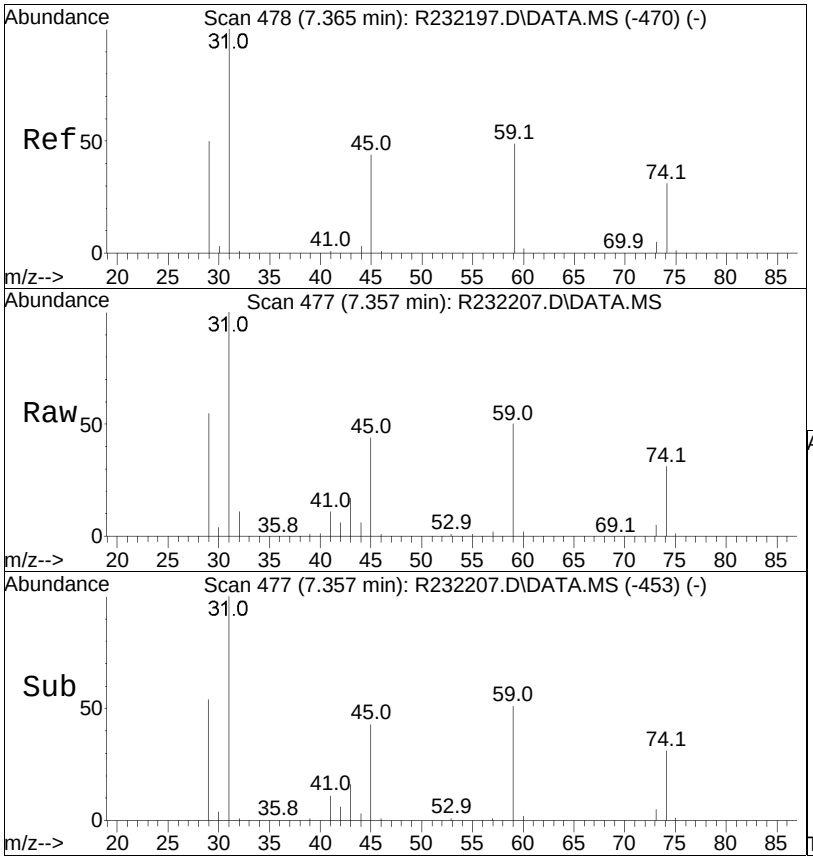


#24
pentane
Concen: 9.20 ppbV
RT: 7.32 min Scan# 473
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 224370

Ion	Ratio	Lower	Upper
43	100		
57	14.6	11.1	16.7
72	7.4	5.9	8.9

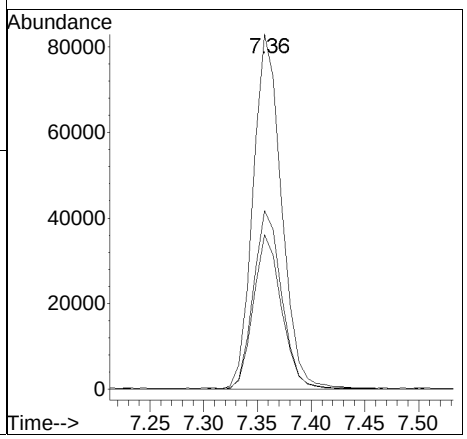


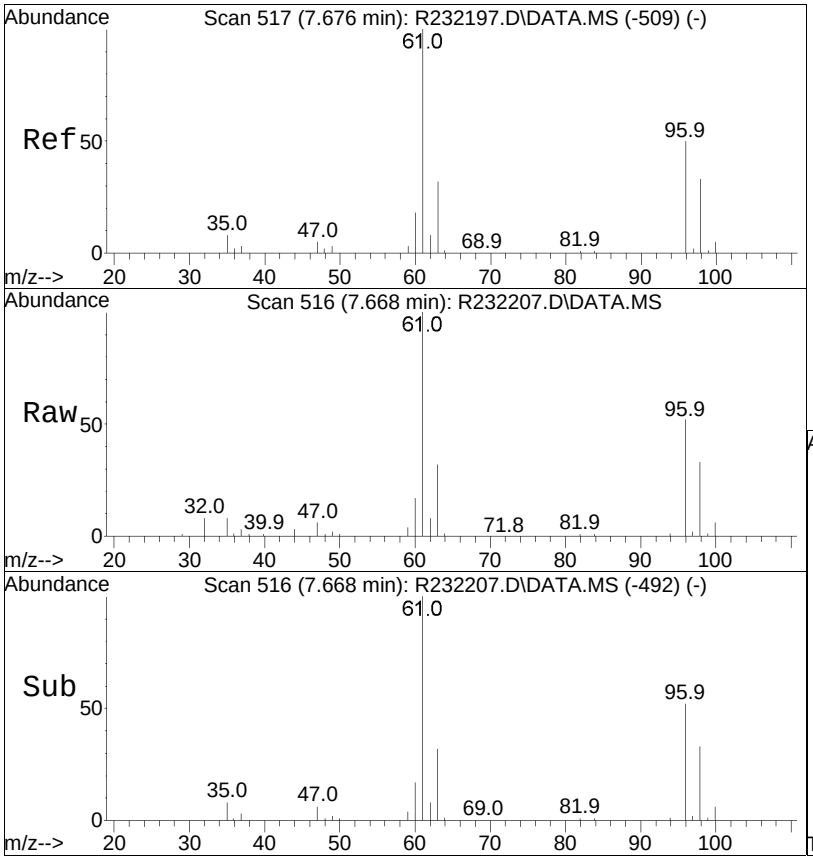


#25
ethyl ether
Concen: 8.62 ppbV
RT: 7.36 min Scan# 477
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 31 Resp: 153746

Ion	Ratio	Lower	Upper
31	100		
59	50.3	39.4	59.0
45	43.5	35.5	53.3

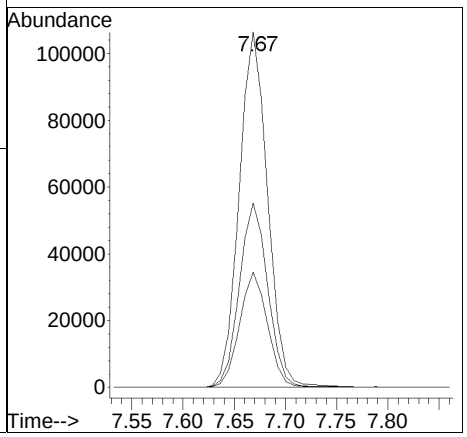


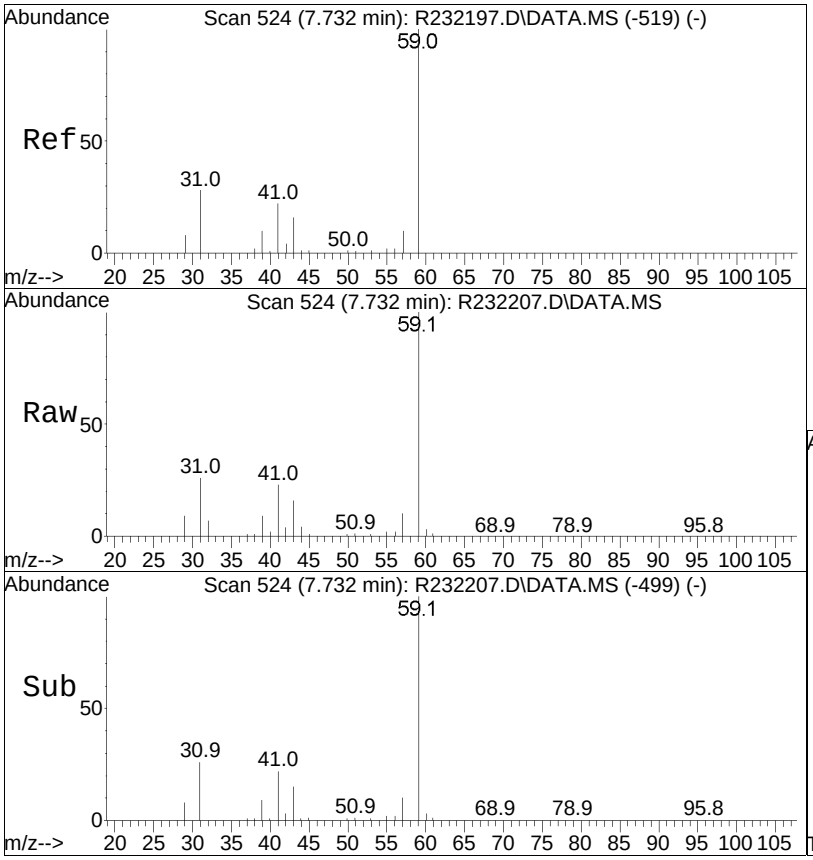


#26
1,1-dichloroethene
Concen: 9.73 ppbV
RT: 7.67 min Scan# 516
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 61 Resp: 205910

Ion	Ratio	Lower	Upper
61	100		
96	51.9	40.2	60.4
63	32.4	25.7	38.5

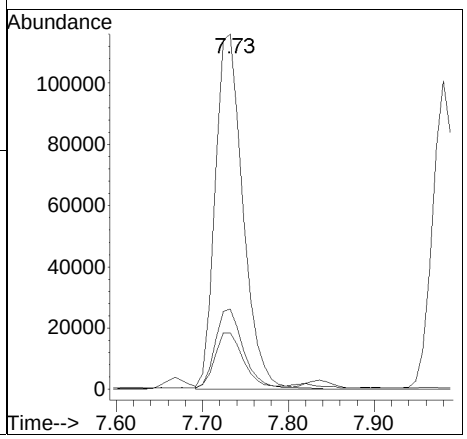


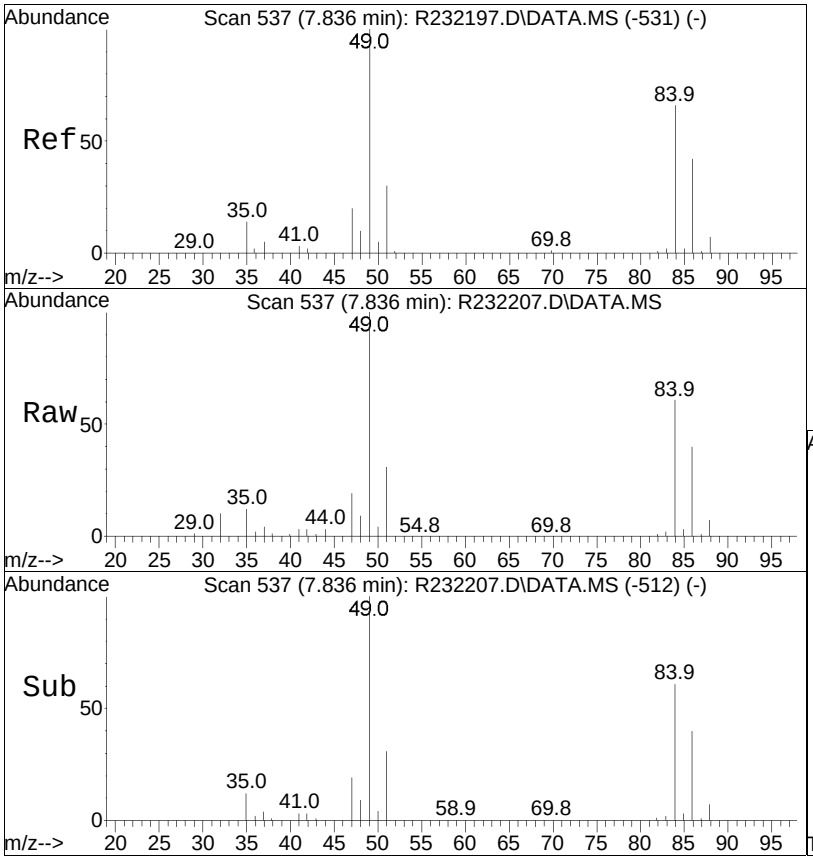


#27
tertiary butyl alcohol
Concen: 9.69 ppbV
RT: 7.73 min Scan# 524
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 59 Resp: 260608

Ion	Ratio	Lower	Upper
59	100		
41	22.7	17.4	26.2
43	16.0	13.2	19.8

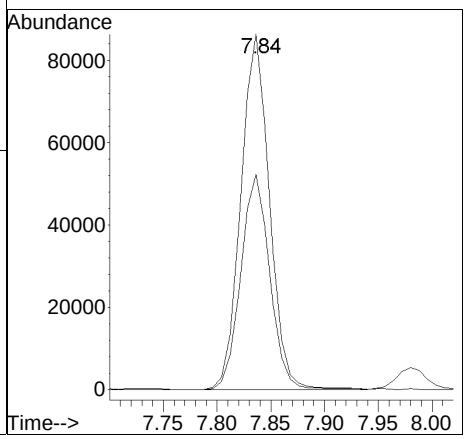


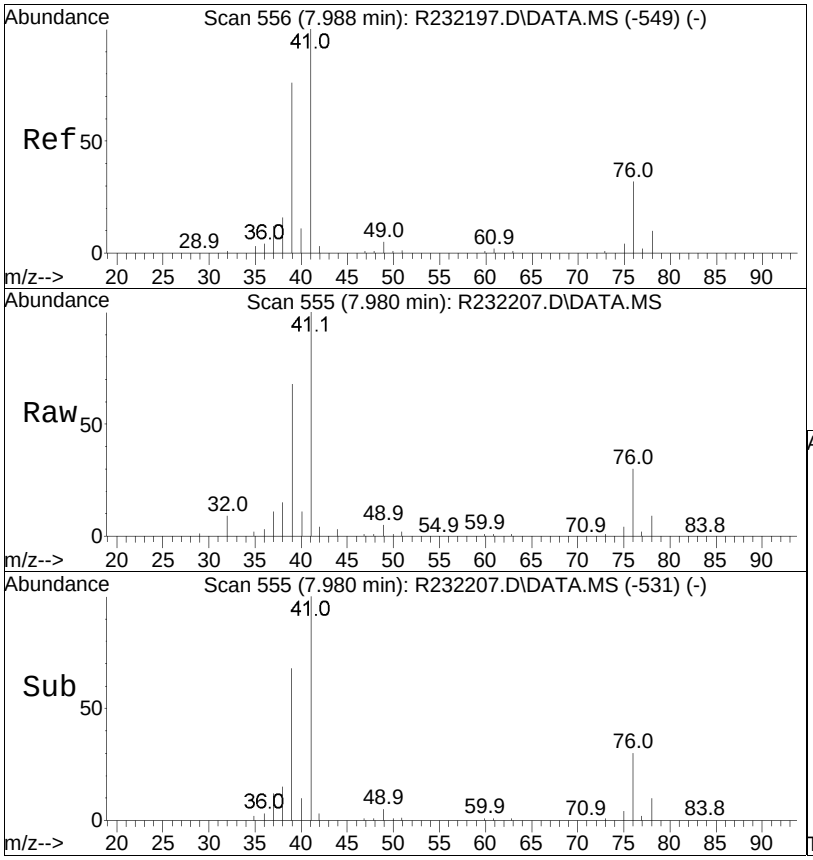


#28
methylene chloride
Concen: 9.58 ppbV
RT: 7.84 min Scan# 537
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 49 Resp: 159284

Ion	Ratio	Lower	Upper
49	100		
84	60.6	52.4	78.6

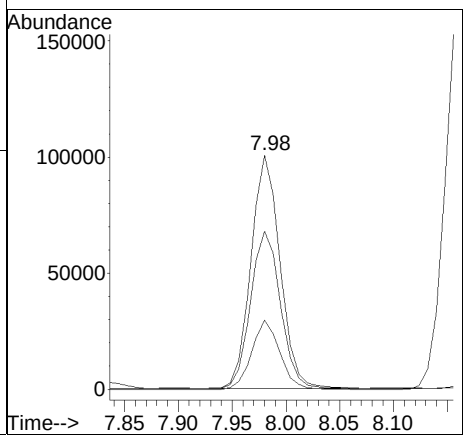


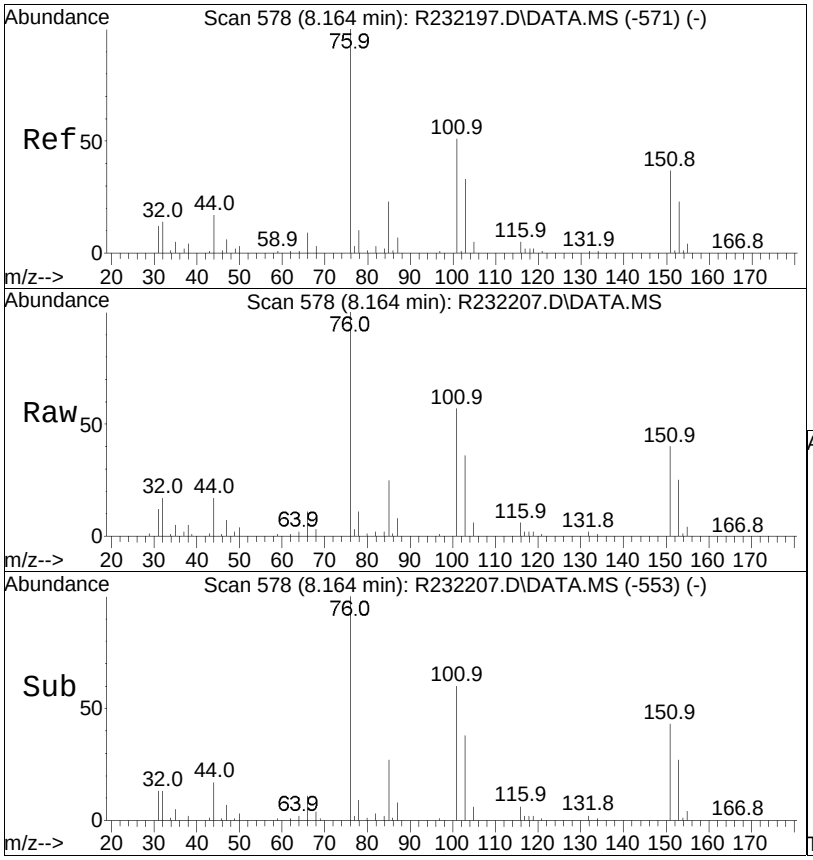


#29
3-chloropropene
Concen: 10.26 ppbV
RT: 7.98 min Scan# 555
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 41 Resp: 188788

Ion	Ratio	Lower	Upper
41	100		
39	67.5	60.6	90.8
76	29.5	25.4	38.2

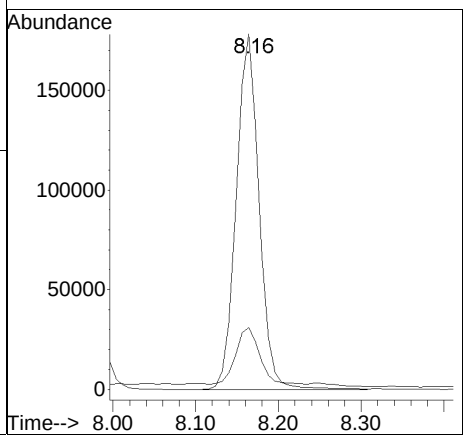


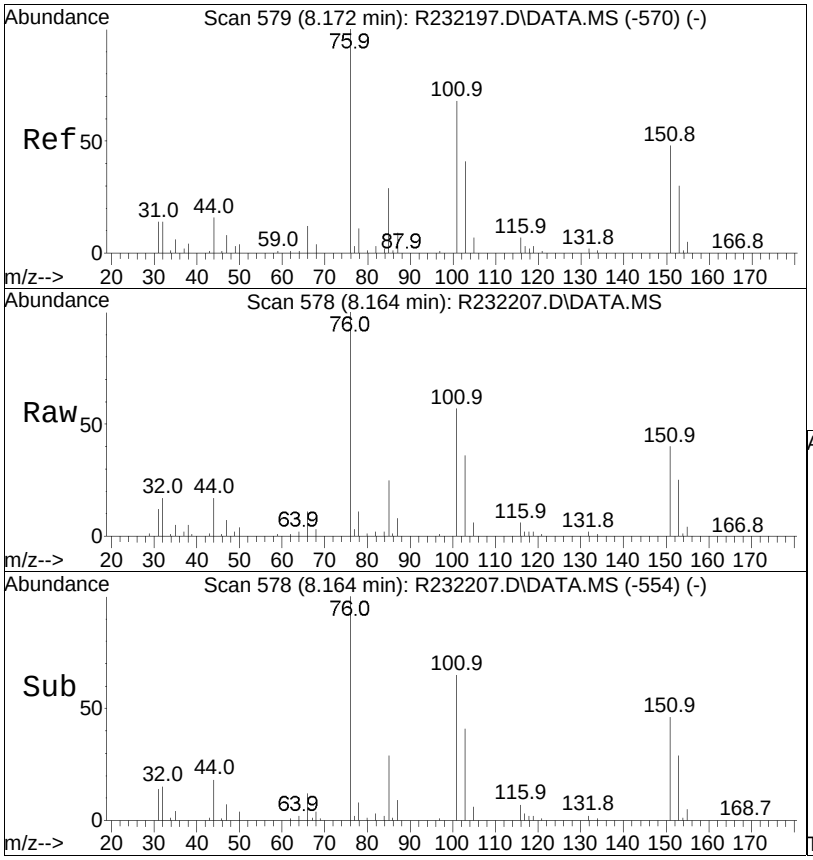


#30
carbon disulfide
Concen: 9.31 ppbV
RT: 8.16 min Scan# 578
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 76 Resp: 341944

Ion	Ratio	Lower	Upper
76	100		
44	17.4	13.9	20.9

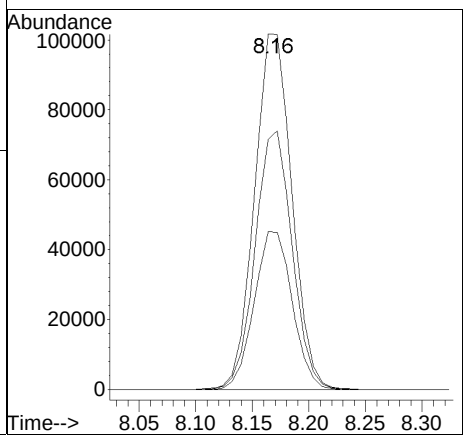


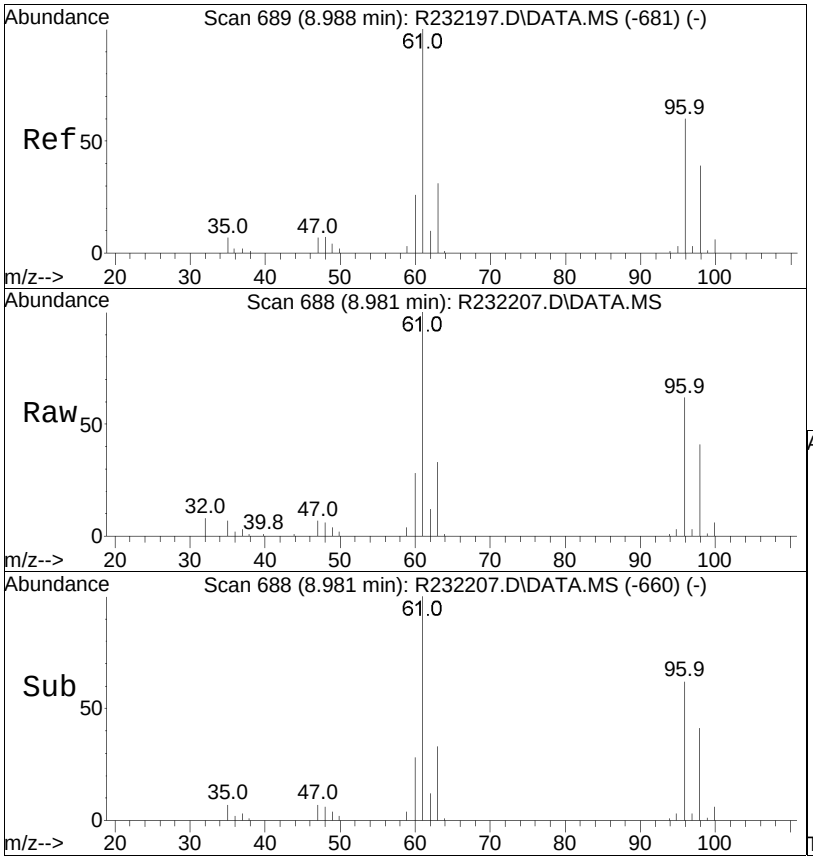


#31
Freon 113
Concen: 9.24 ppbV
RT: 8.16 min Scan# 578
Delta R.T. -0.008 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:101 Resp: 234010

Ion	Ratio	Lower	Upper
101	100		
85	44.3	34.3	51.5
151	70.4	56.0	84.0

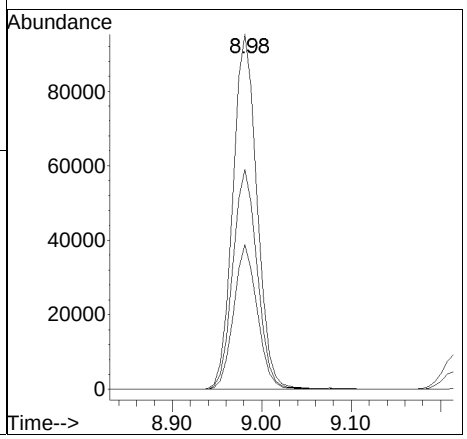


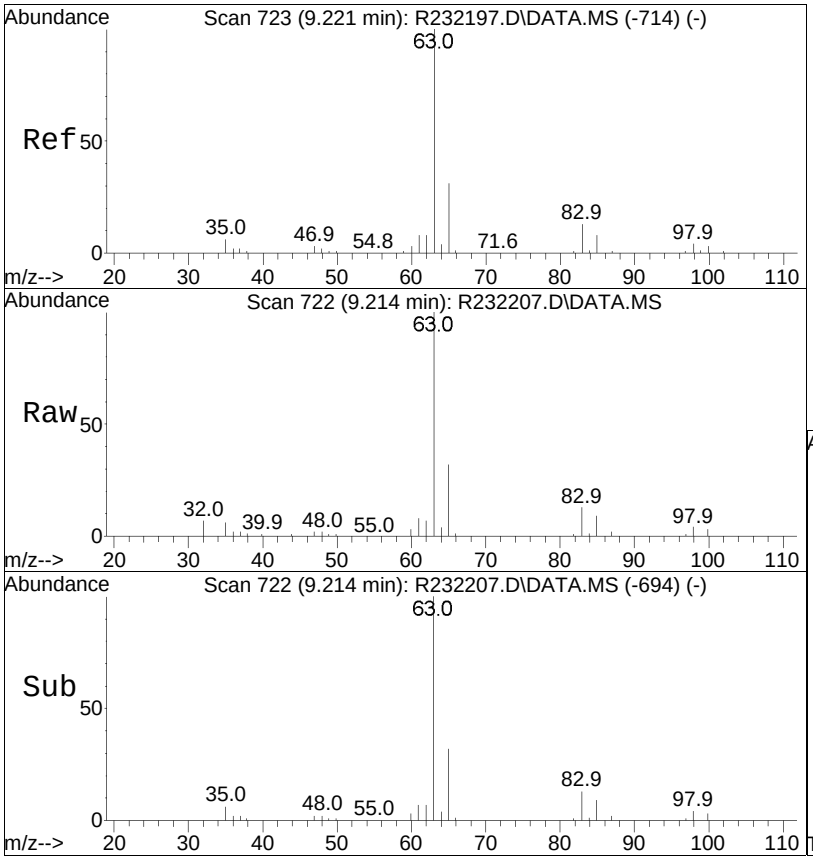


#32
trans-1,2-dichloroethene
Concen: 8.68 ppbV
RT: 8.98 min Scan# 688
Delta R.T. -0.007 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 61 Resp: 179109

Ion	Ratio	Lower	Upper
61	100		
96	61.9	48.2	72.4
98	40.8	31.4	47.0

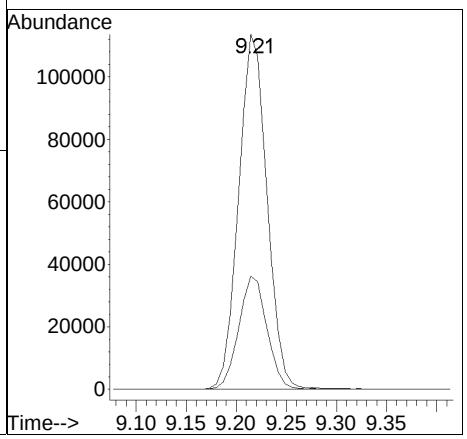


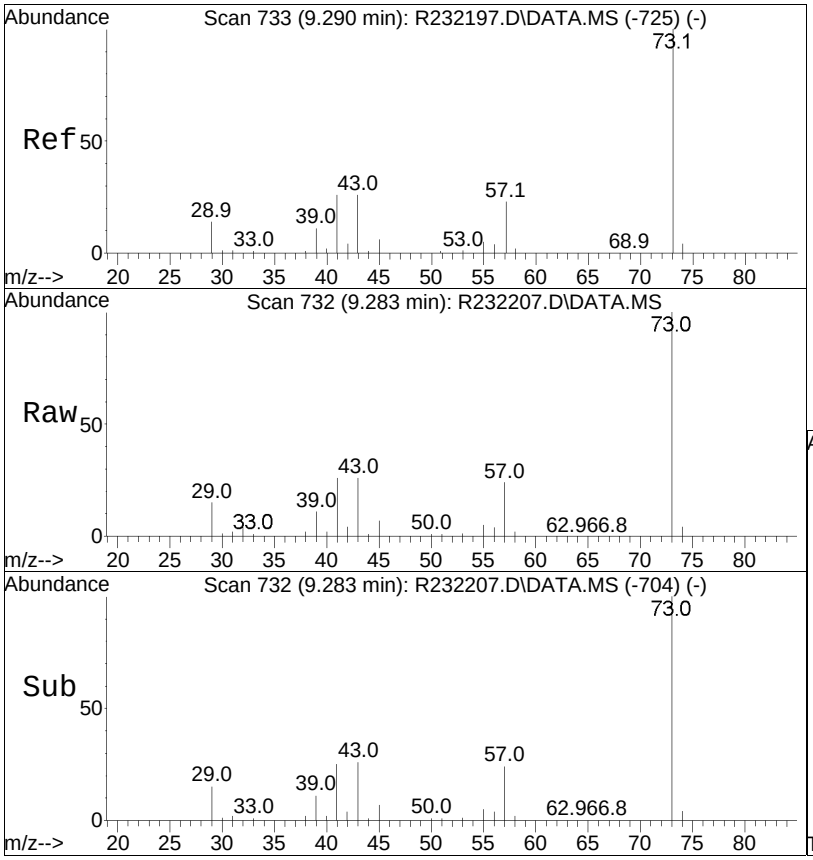


#33
1,1-dichloroethane
Concen: 9.41 ppbV
RT: 9.21 min Scan# 722
Delta R.T. -0.007 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 63 Resp: 223790

Ion	Ratio	Lower	Upper
63	100		
65	31.8	24.9	37.3

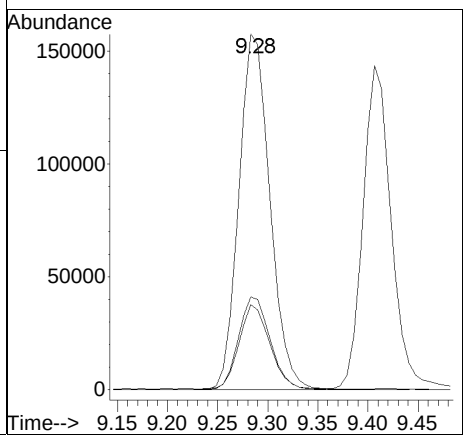


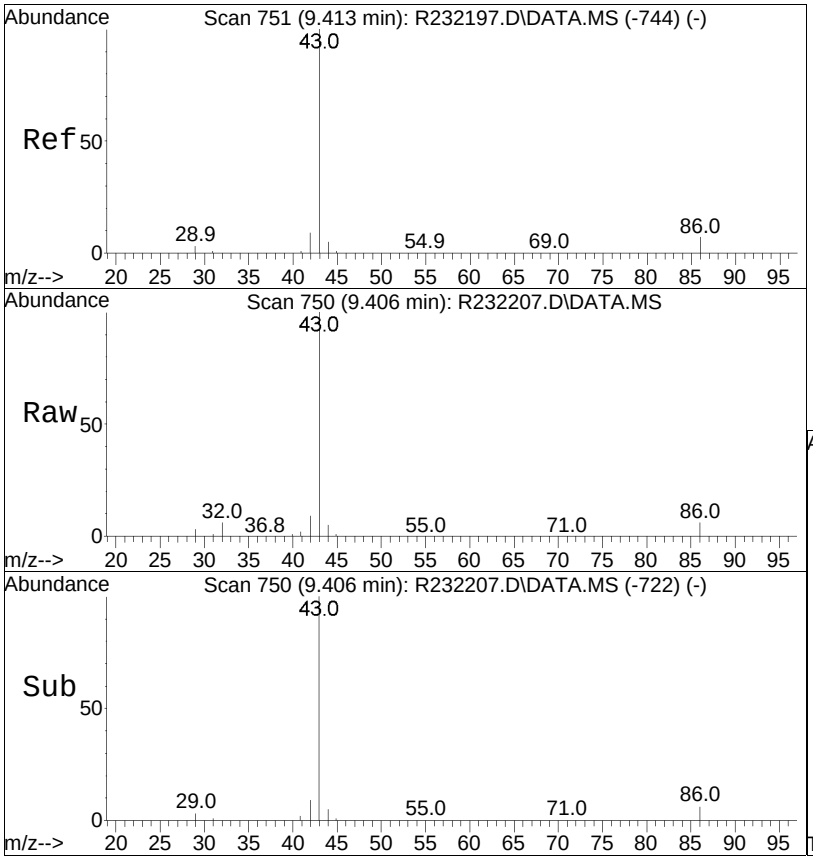


#34
MTBE
Concen: 9.42 ppbV
RT: 9.28 min Scan# 732
Delta R.T. -0.007 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 73 Resp: 339216

Ion	Ratio	Lower	Upper
73	100		
57	23.9	18.2	27.2
43	26.1	20.7	31.1

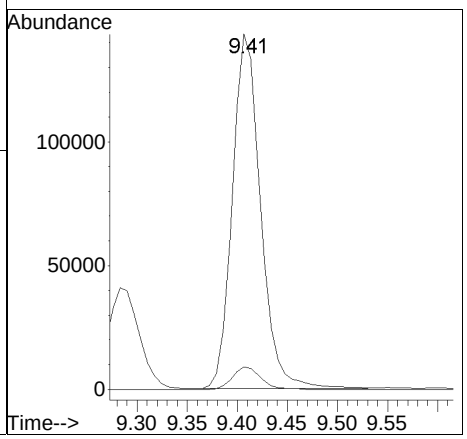


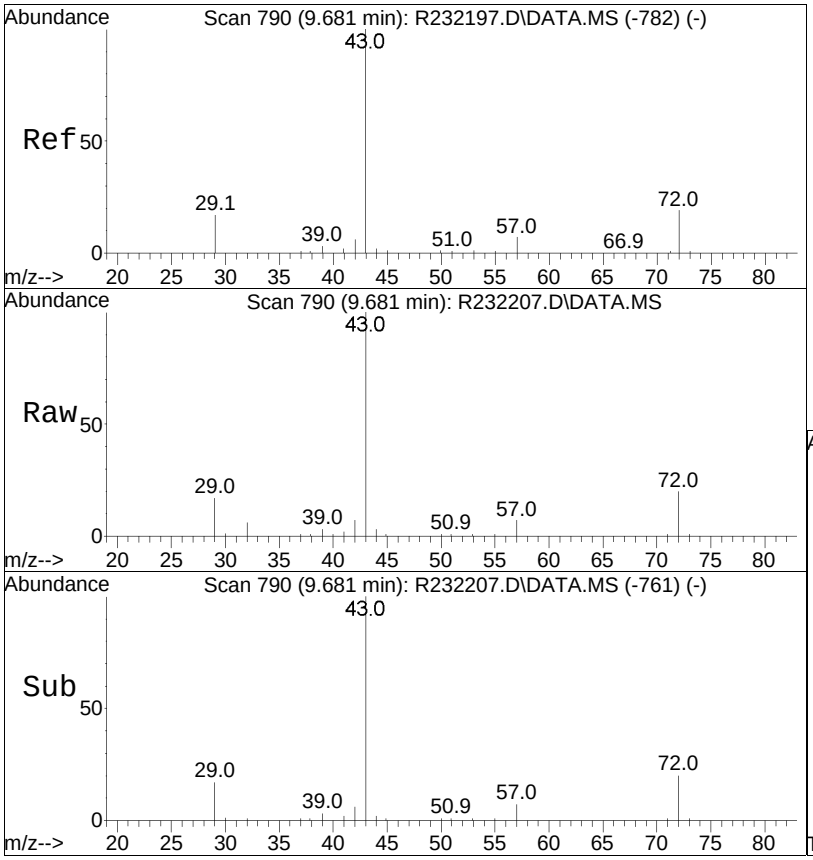


#35
vinyl acetate
Concen: 10.78 ppbV
RT: 9.41 min Scan# 750
Delta R.T. -0.007 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 280155

Ion	Ratio	Lower	Upper
43	100		
86	6.4	5.2	7.8

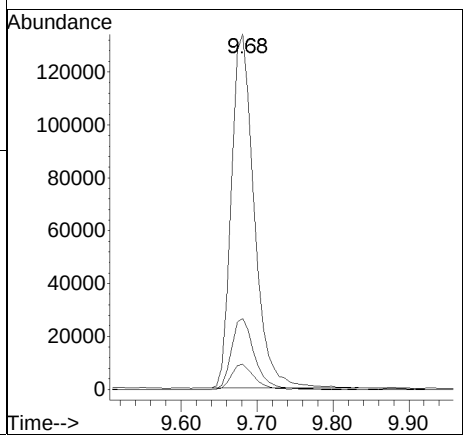


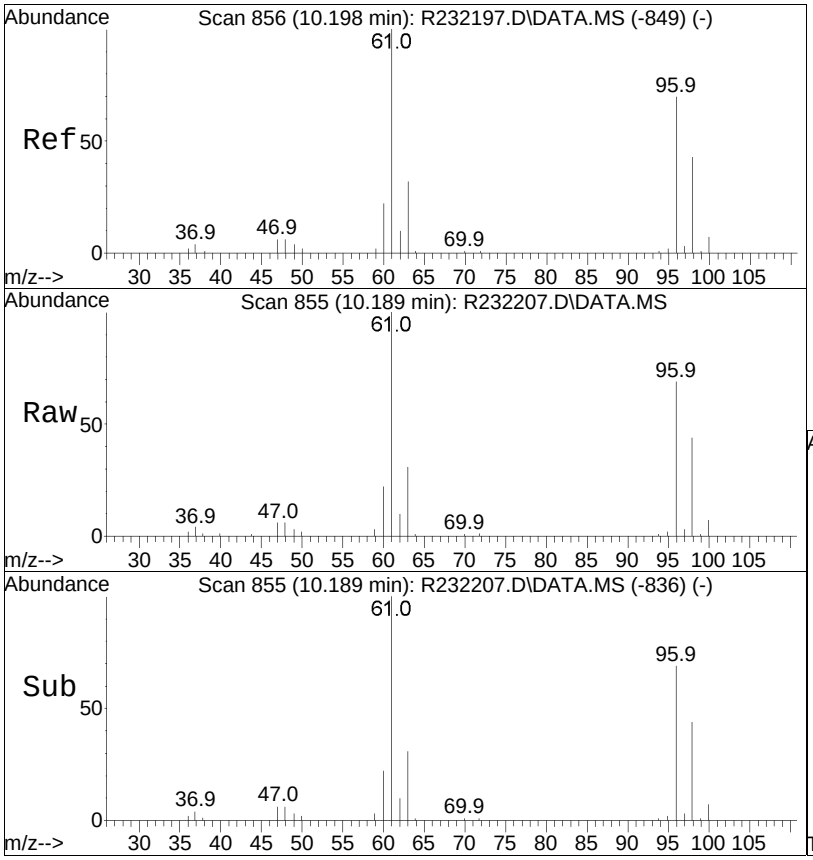


#36
2-butanone
Concen: 9.27 ppbV
RT: 9.68 min Scan# 790
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 280147

Ion	Ratio	Lower	Upper
43	100		
72	19.9	15.5	23.3
57	7.1	5.4	8.0

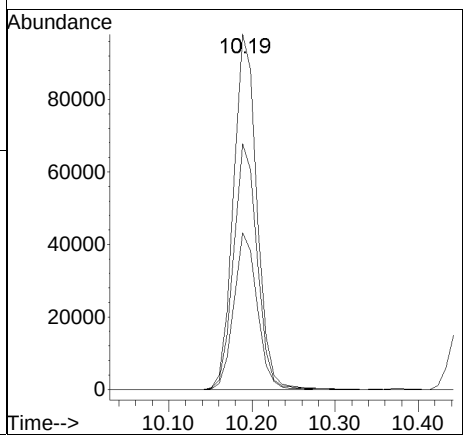


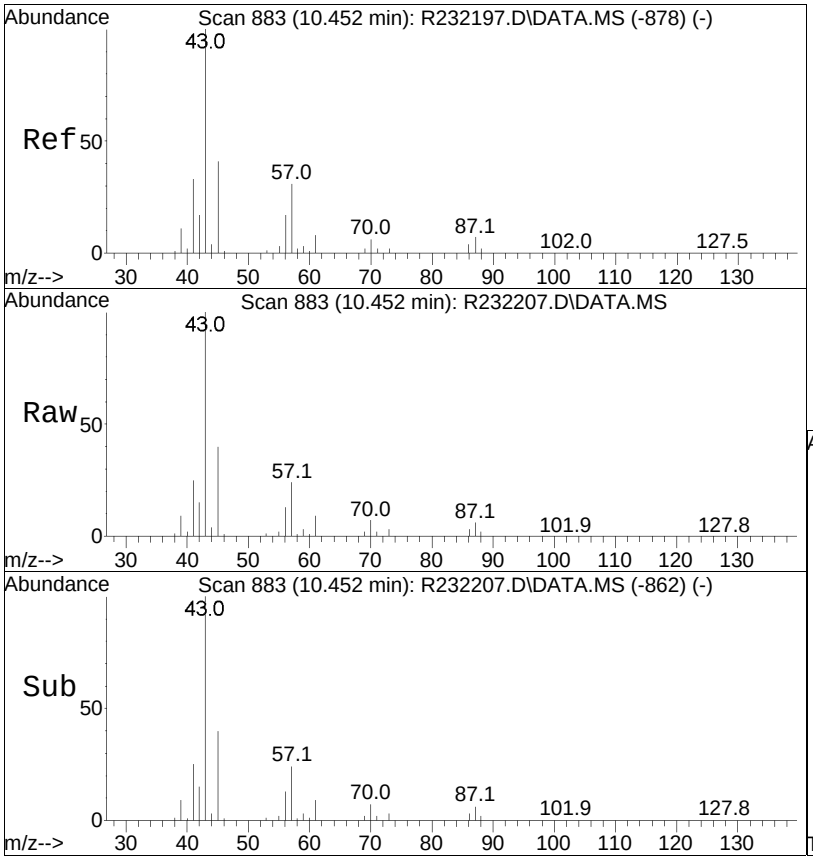


#37
cis-1,2-dichloroethene
Concen: 10.55 ppbV
RT: 10.19 min Scan# 855
Delta R.T. -0.009 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 61 Resp: 192445

Ion	Ratio	Lower	Upper
61	100		
96	69.1	55.8	83.6
98	44.1	34.7	52.1

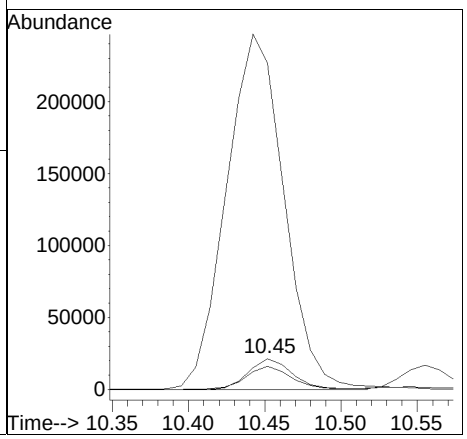


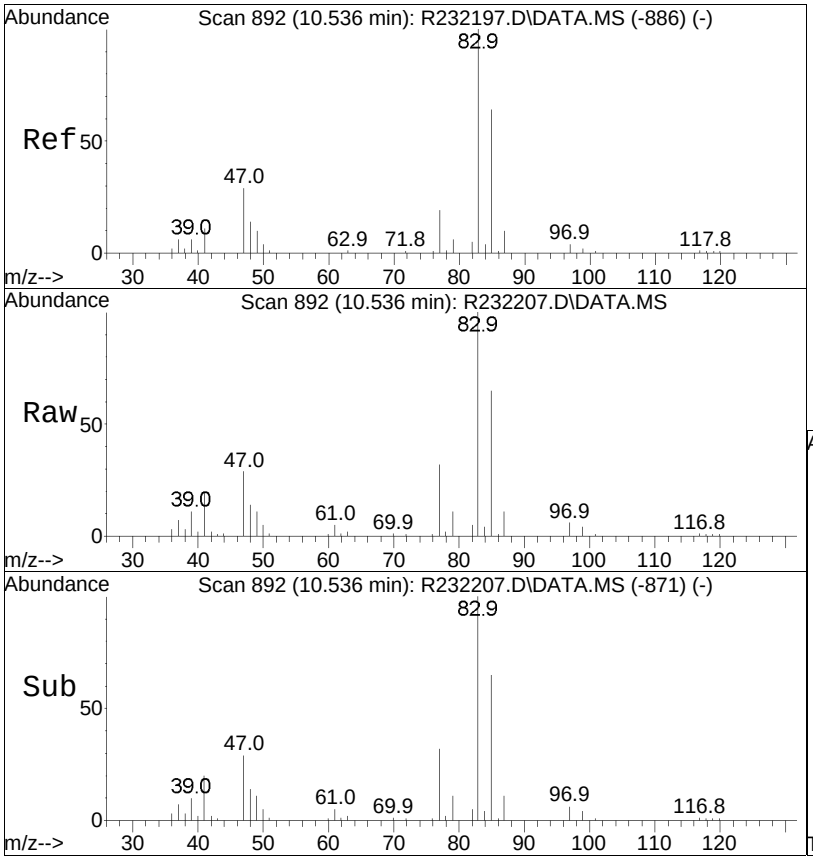


#38
Ethyl Acetate
Concen: 10.10 ppbV
RT: 10.45 min Scan# 883
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 61 Resp: 42957

Ion	Ratio	Lower	Upper
61	100		
70	75.6	59.9	89.9
43	1062.6	1008.3	1512.5

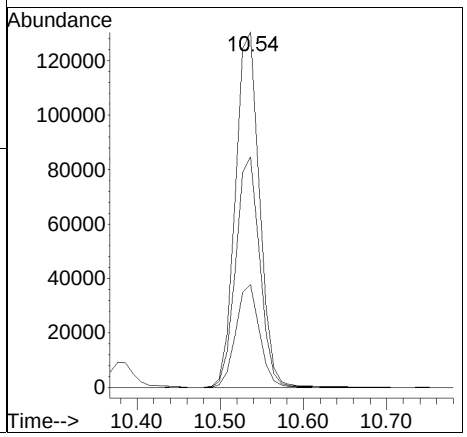


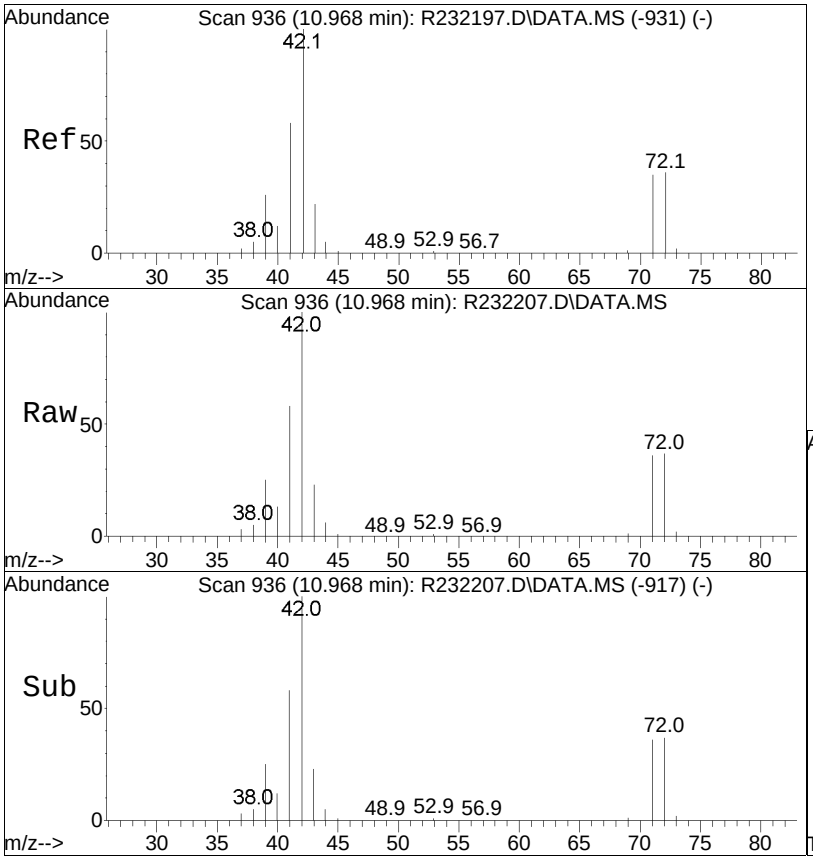


#39
chloroform
Concen: 9.74 ppbV
RT: 10.54 min Scan# 892
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 83 Resp: 263358

Ion	Ratio	Lower	Upper
83	100		
85	64.9	51.3	76.9
47	28.9	22.9	34.3

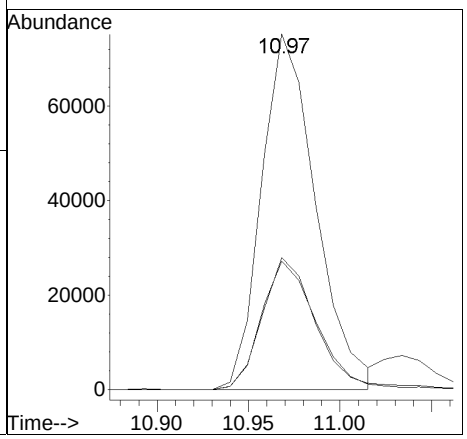


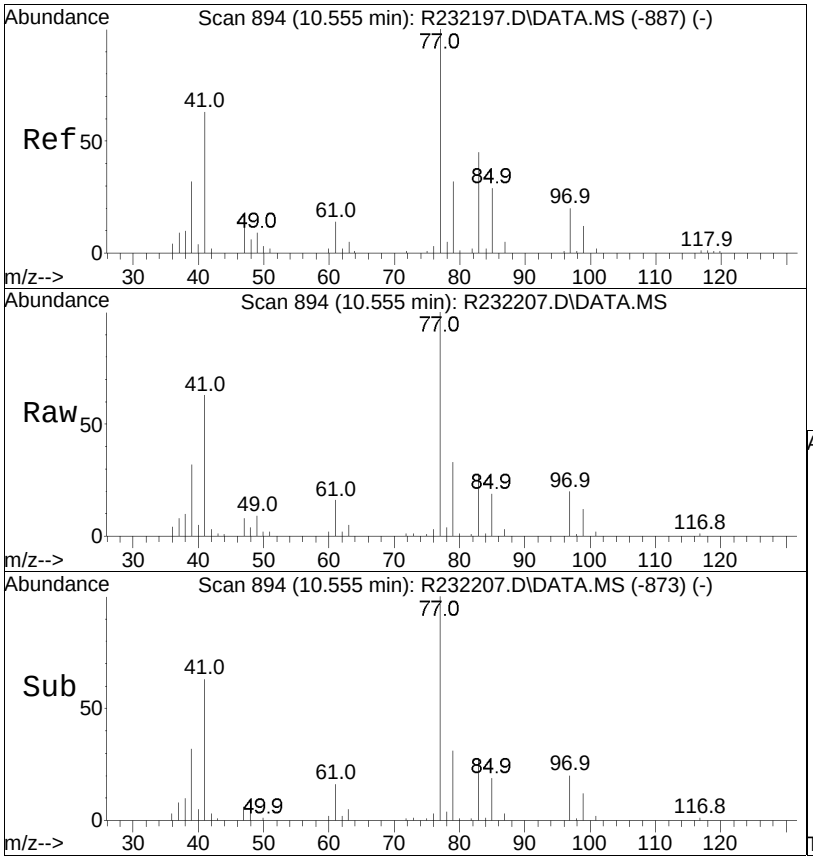


#40
Tetrahydrofuran
Concen: 9.19 ppbV
RT: 10.97 min Scan# 936
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 42 Resp: 155013

Ion	Ratio	Lower	Upper
42	100		
71	36.1	28.1	42.1
72	37.1	28.6	43.0

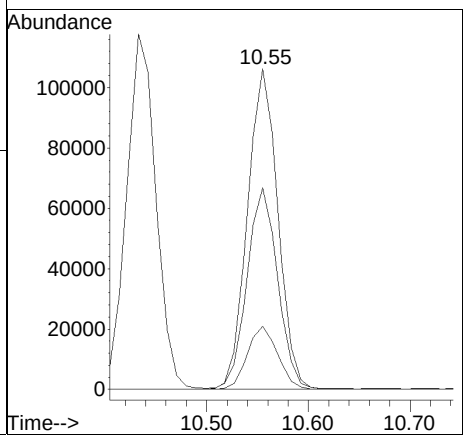


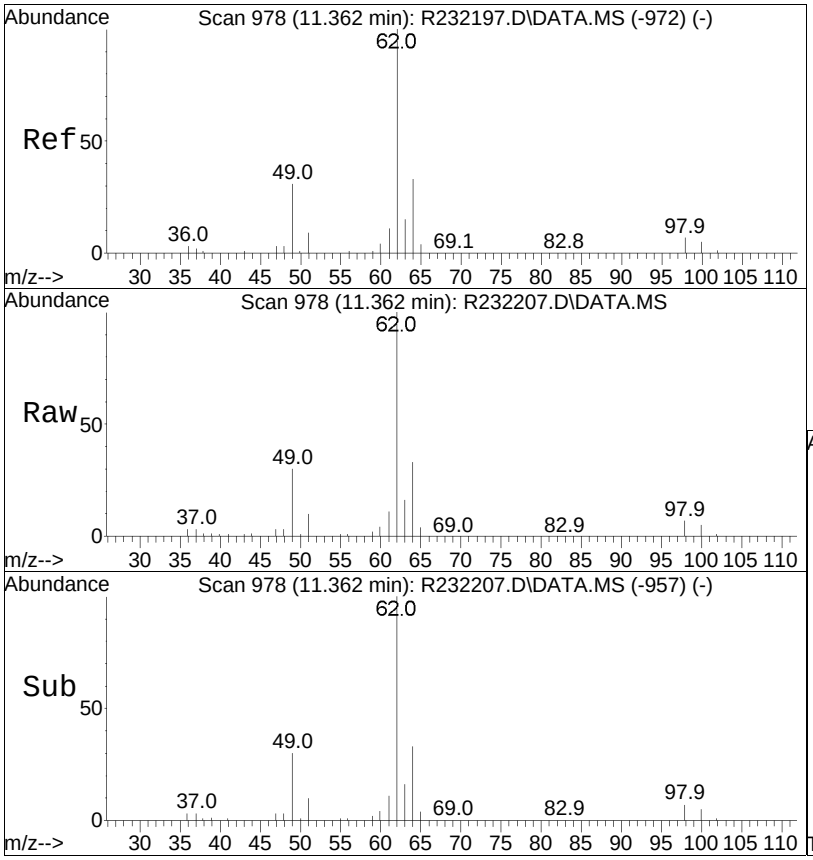


#41
2,2-dichloropropane
Concen: 8.93 ppbV
RT: 10.55 min Scan# 894
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 77 Resp: 221252

Ion	Ratio	Lower	Upper
77	100		
41	62.9	51.0	76.4
97	19.7	15.7	23.5

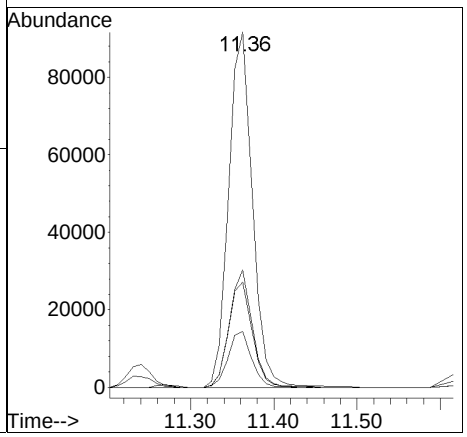


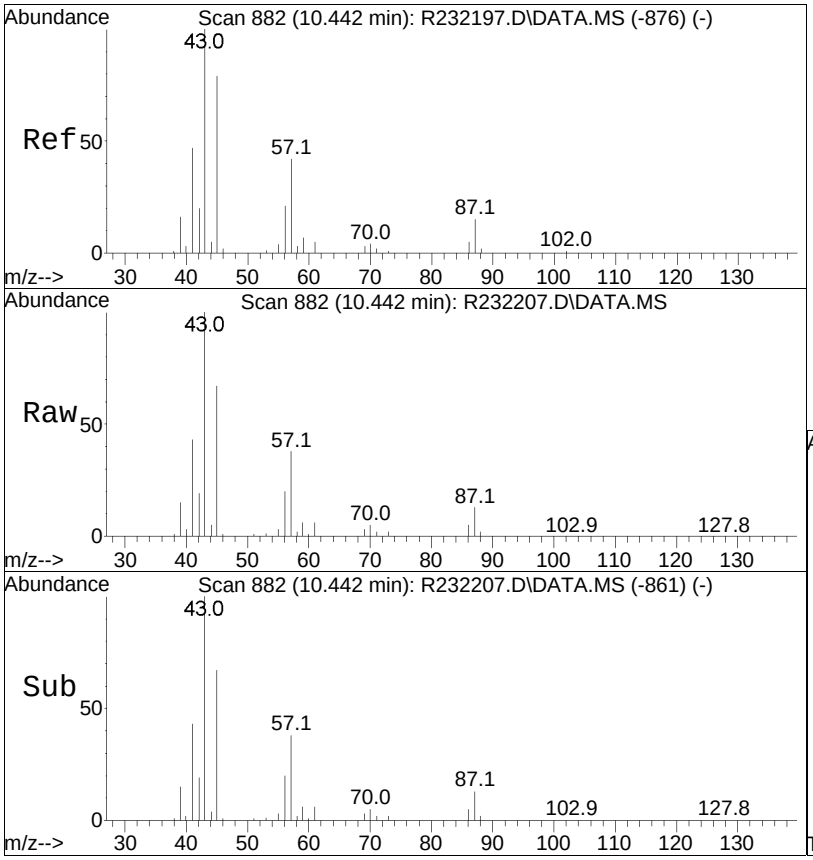


#42
1,2-dichloroethane
Concen: 9.50 ppbV
RT: 11.36 min Scan# 978
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 62 Resp: 182629

Ion	Ratio	Lower	Upper
62	100		
64	33.1	26.7	40.1
49	29.6	24.6	36.8
63	15.7	12.0	18.0

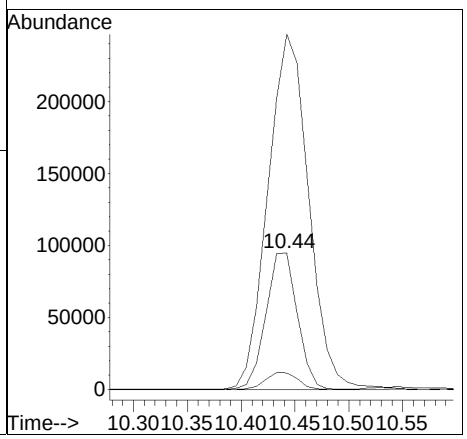


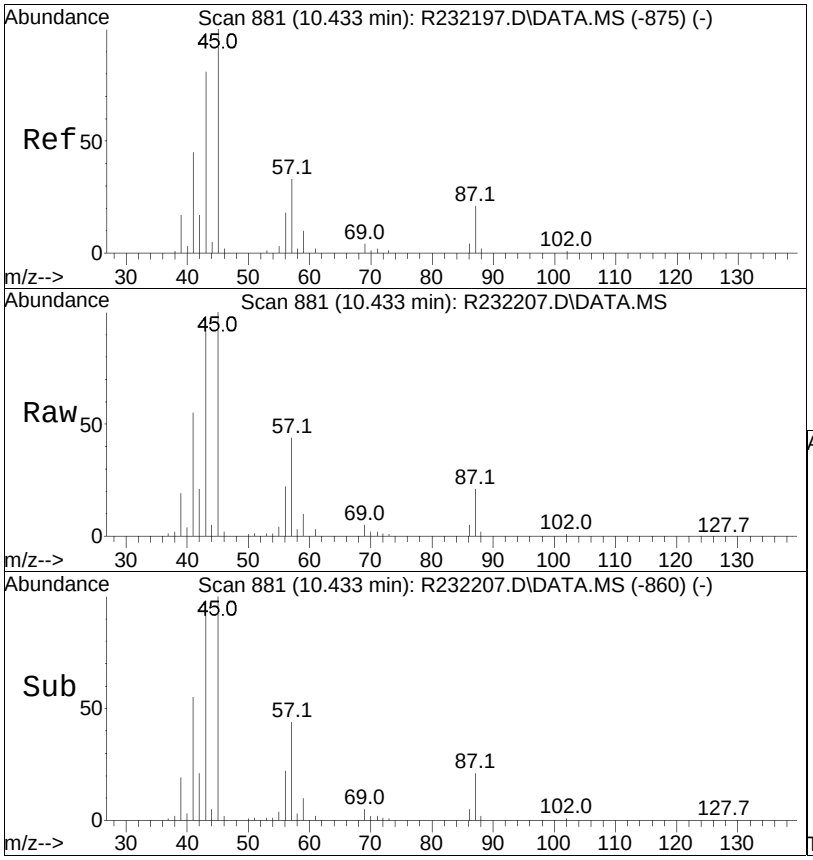


#44
hexane
Concen: 8.48 ppbV
RT: 10.44 min Scan# 882
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 57 Resp: 193131

Ion	Ratio	Lower	Upper
57	100		
43	260.9	191.0	286.4
86	12.0	9.4	14.0

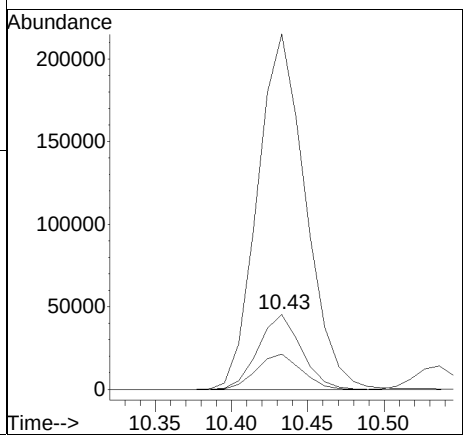


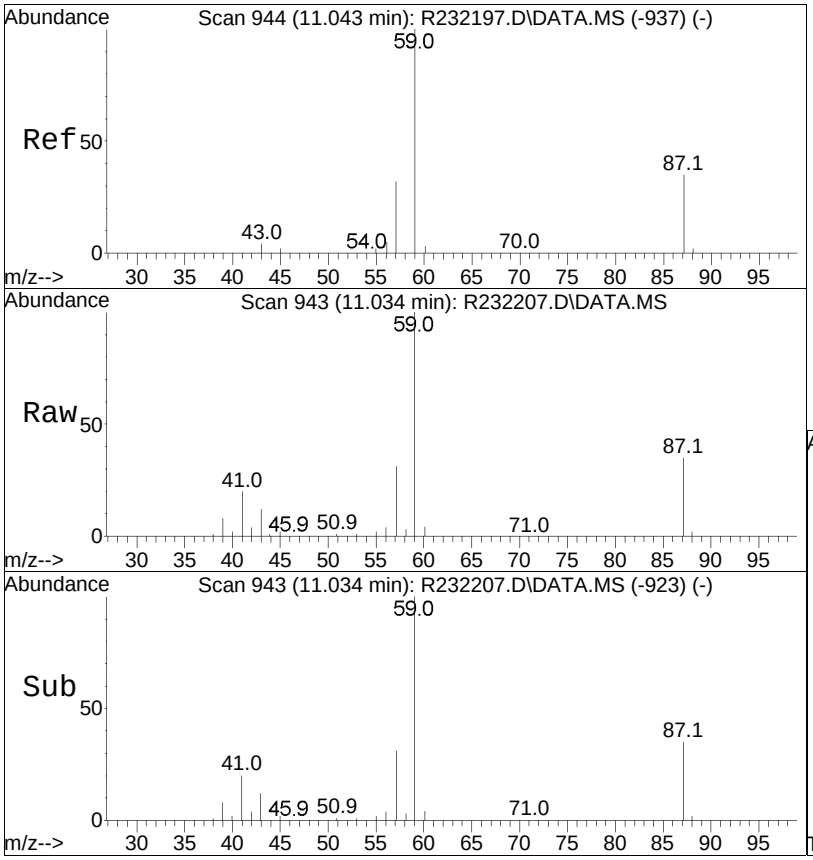


#45
diisopropyl ether
Concen: 8.60 ppbV
RT: 10.43 min Scan# 881
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 87 Resp: 88955

Ion	Ratio	Lower	Upper
87	100		
59	47.4	39.0	58.4
45	475.0	382.2	573.2

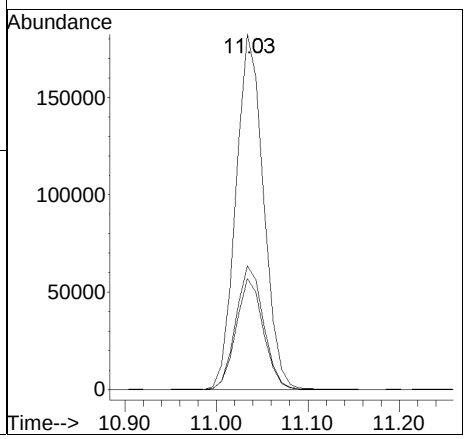


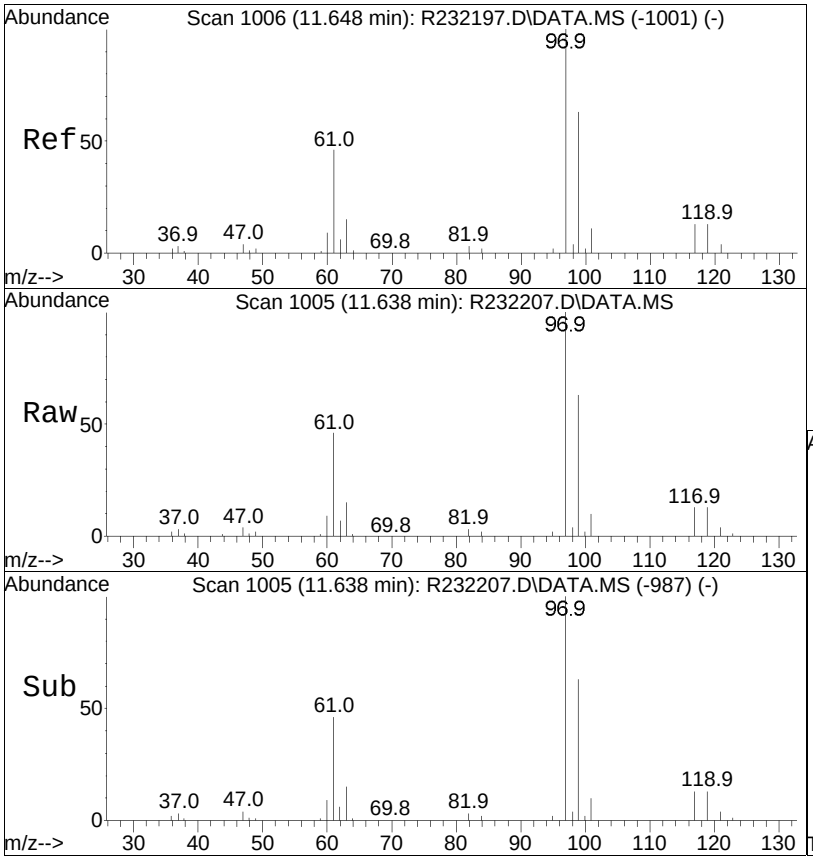


#46
tert-butyl ethyl ether
Concen: 8.47 ppbV
RT: 11.03 min Scan# 943
Delta R.T. -0.009 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 59 Resp: 382316

Ion	Ratio	Lower	Upper
59	100		
87	34.7	27.9	41.9
57	31.2	25.8	38.6

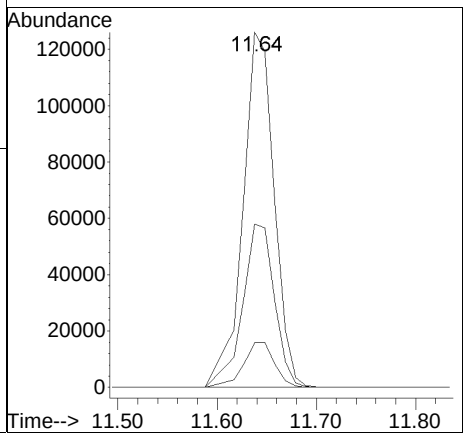


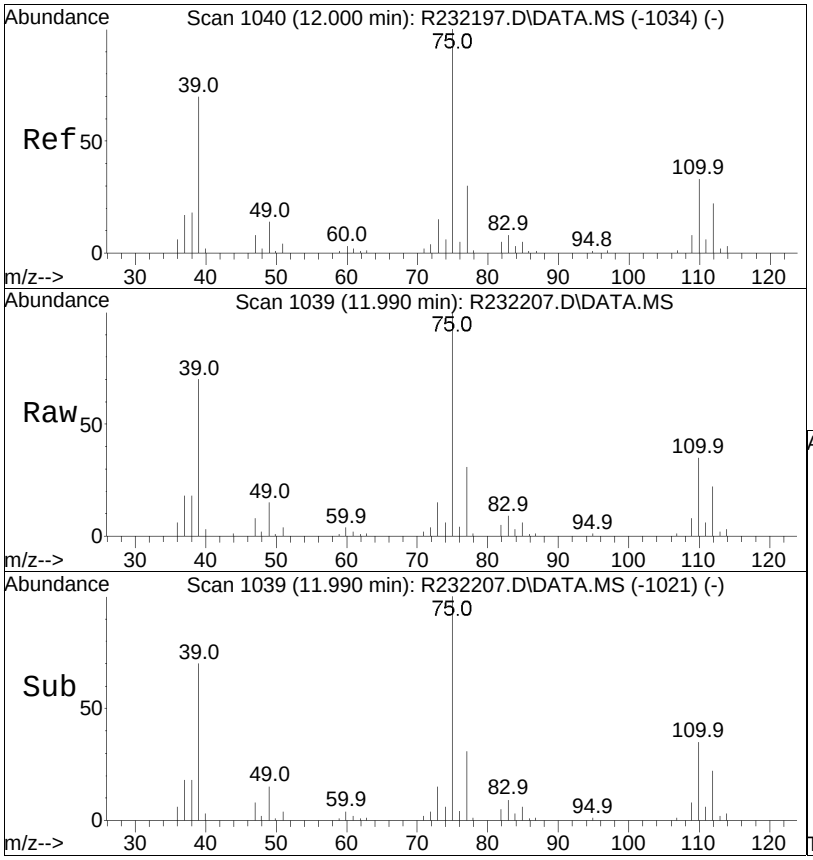


#48
1,1,1-trichloroethane
Concen: 9.00 ppbV
RT: 11.64 min Scan# 1005
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 97 Resp: 294106

Ion	Ratio	Lower	Upper
97	100		
61	46.0	37.2	55.8
119	12.6	10.4	15.6

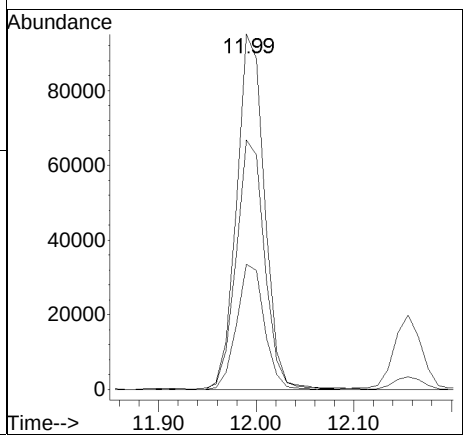


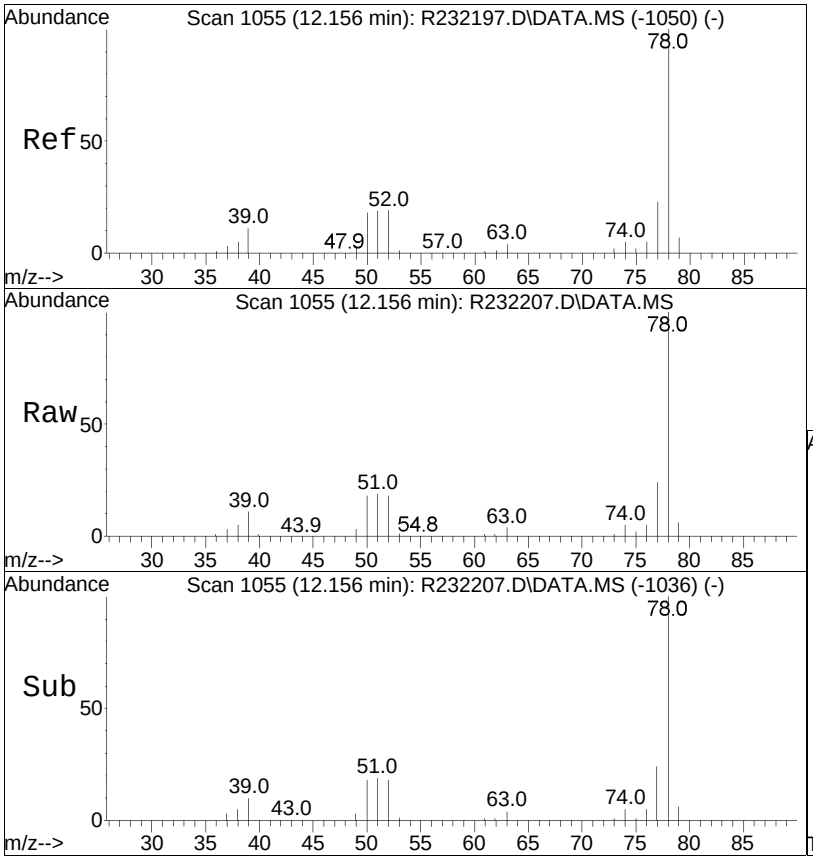


#49
1,1-dichloropropene
Concen: 9.14 ppbV
RT: 11.99 min Scan# 1039
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 75 Resp: 189291

Ion	Ratio	Lower	Upper
75	100		
110	35.2	26.7	40.1
39	70.2	55.9	83.9

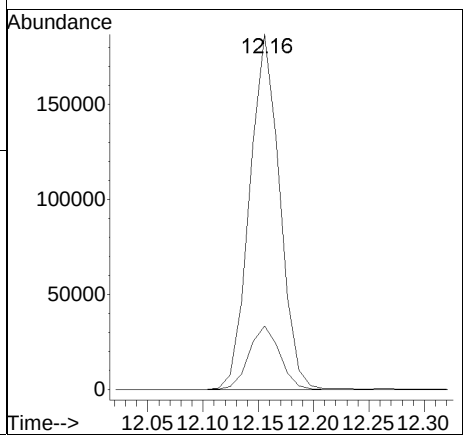


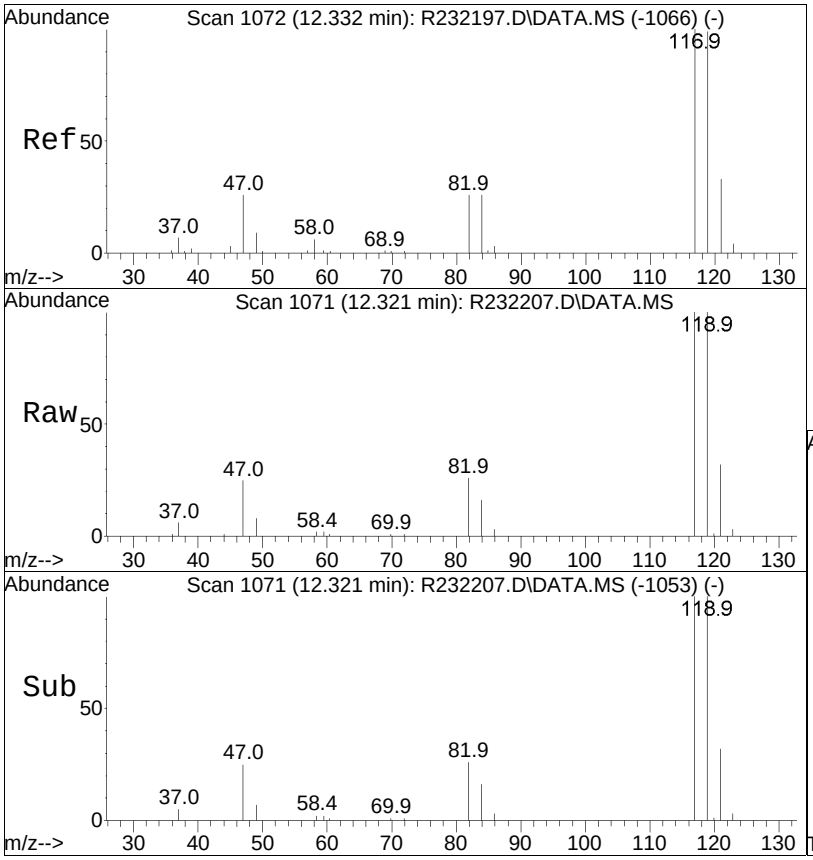


#50
benzene
Concen: 8.84 ppbV
RT: 12.16 min Scan# 1055
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 78 Resp: 352655

Ion	Ratio	Lower	Upper
78	100		
52	17.9	14.9	22.3

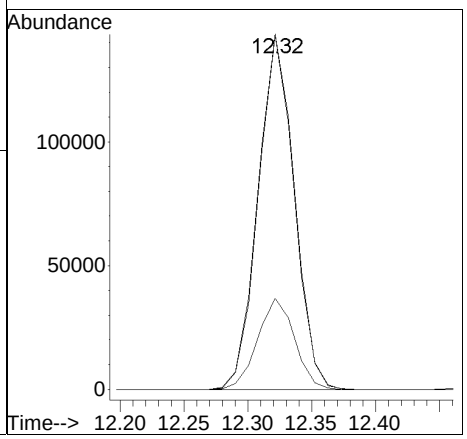


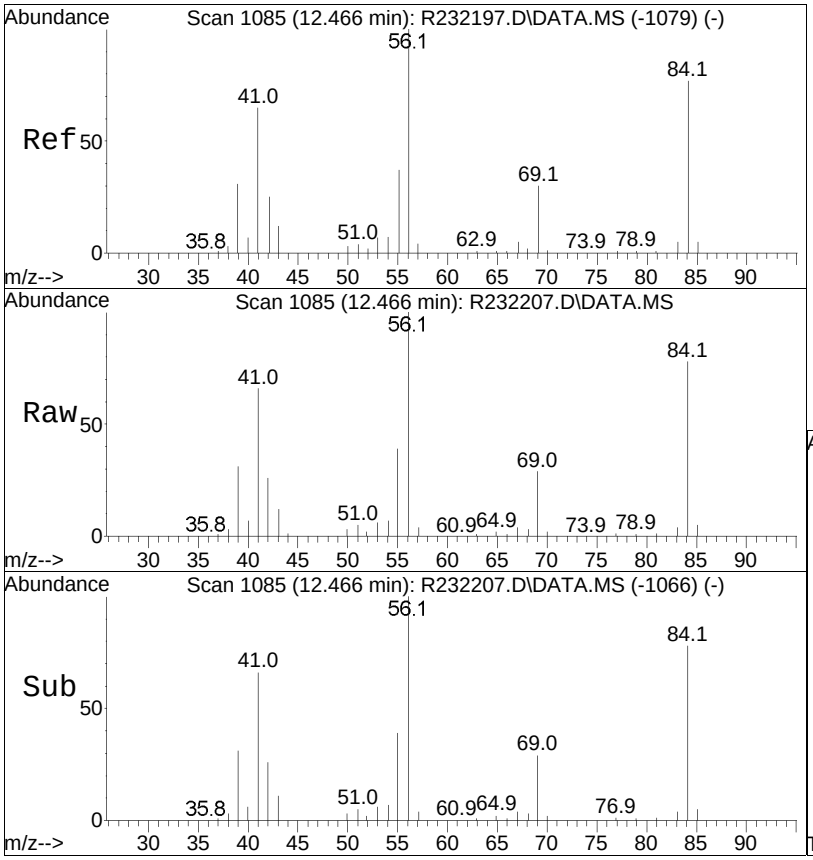


#52
carbon tetrachloride
Concen: 9.45 ppbV
RT: 12.32 min Scan# 1071
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:117 Resp: 284416

Ion	Ratio	Lower	Upper
117	100		
119	99.7	79.2	118.8
82	25.6	20.5	30.7

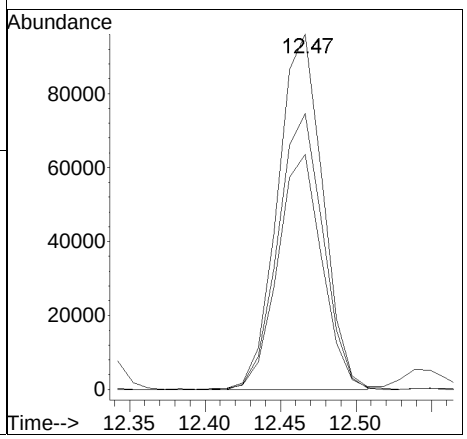


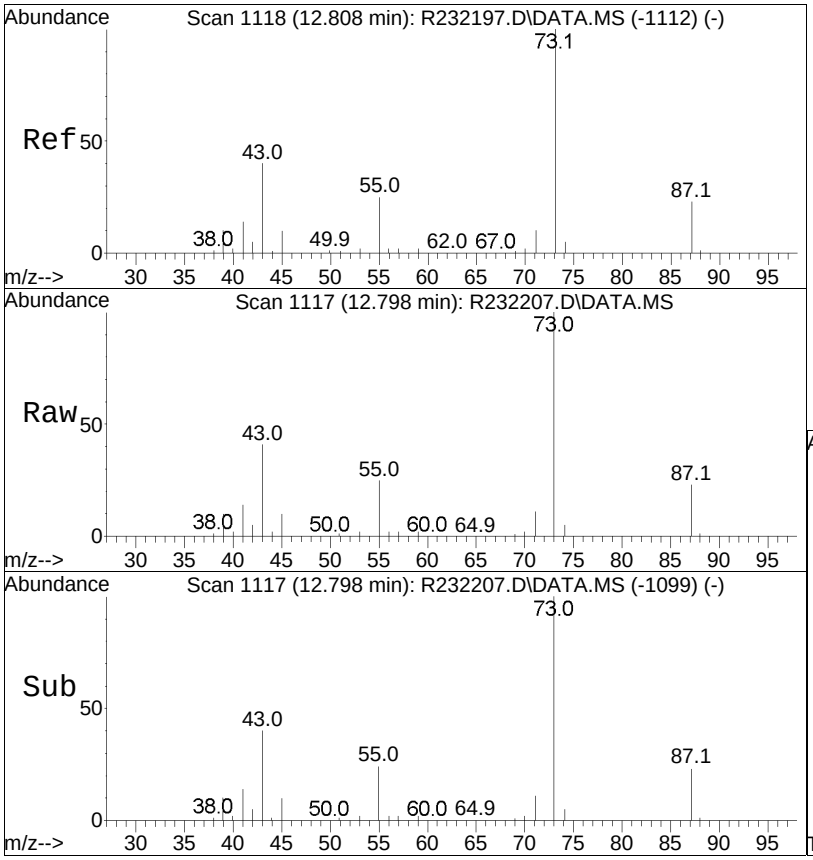


#53
cyclohexane
Concen: 8.69 ppbV
RT: 12.47 min Scan# 1085
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 56 Resp: 199648

Ion	Ratio	Lower	Upper
56	100		
84	77.6	61.5	92.3
41	66.1	52.0	78.0

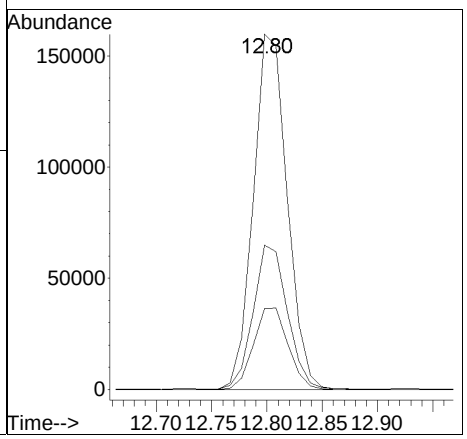


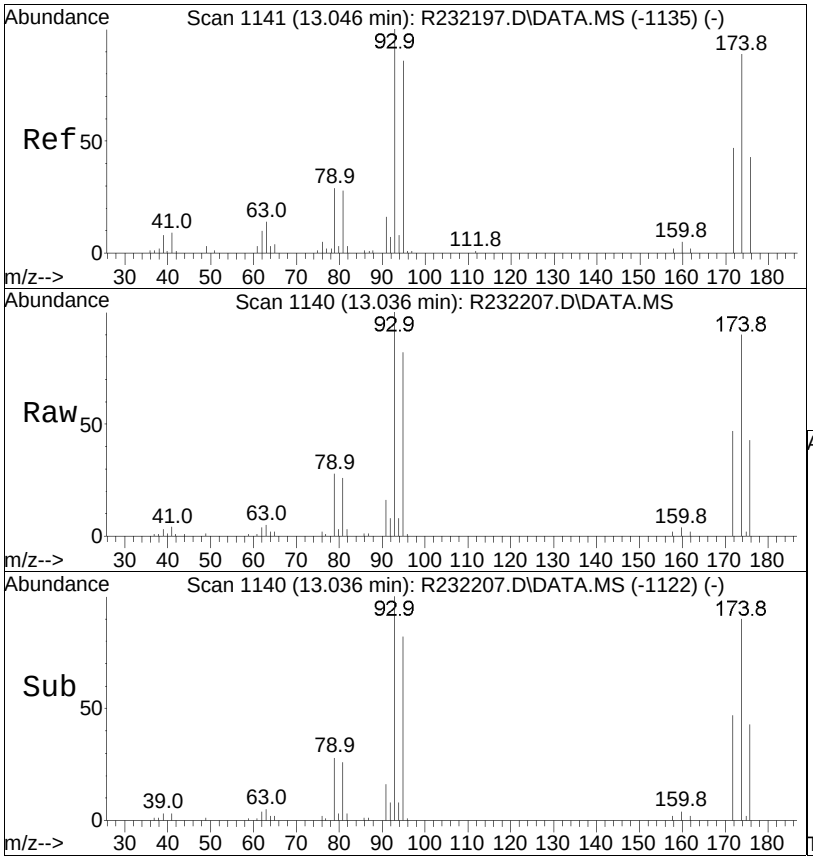


#54
tert-amyl methyl ether
Concen: 8.50 ppbV
RT: 12.80 min Scan# 1117
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 73 Resp: 340179

Ion	Ratio	Lower	Upper
73	100		
43	40.6	32.2	48.2
87	22.8	18.3	27.5

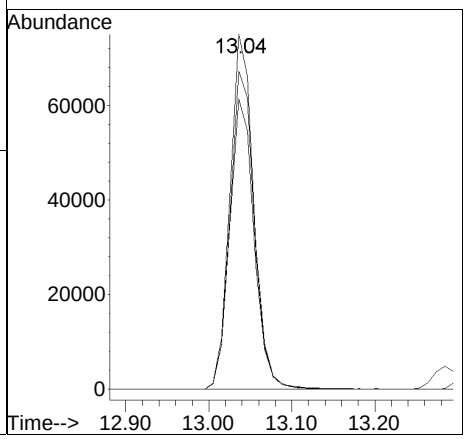


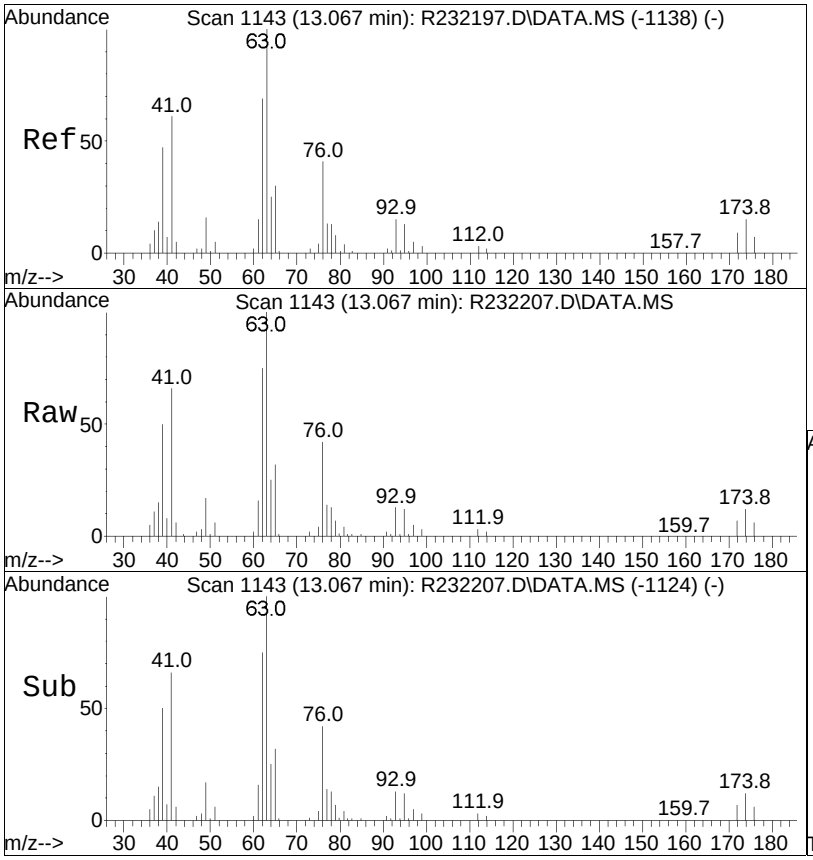


#55
dibromomethane
Concen: 8.67 ppbV
RT: 13.04 min Scan# 1140
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 93 Resp: 150284

Ion	Ratio	Lower	Upper
93	100		
174	89.6	71.4	107.2
95	81.8	68.6	102.8

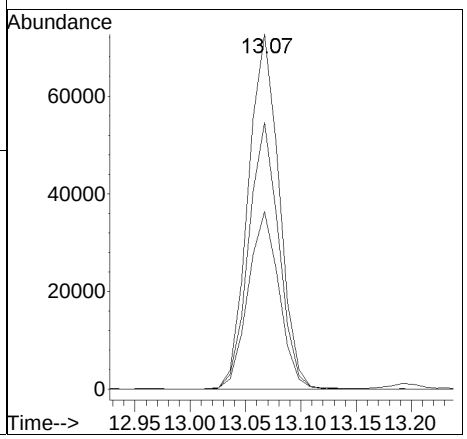


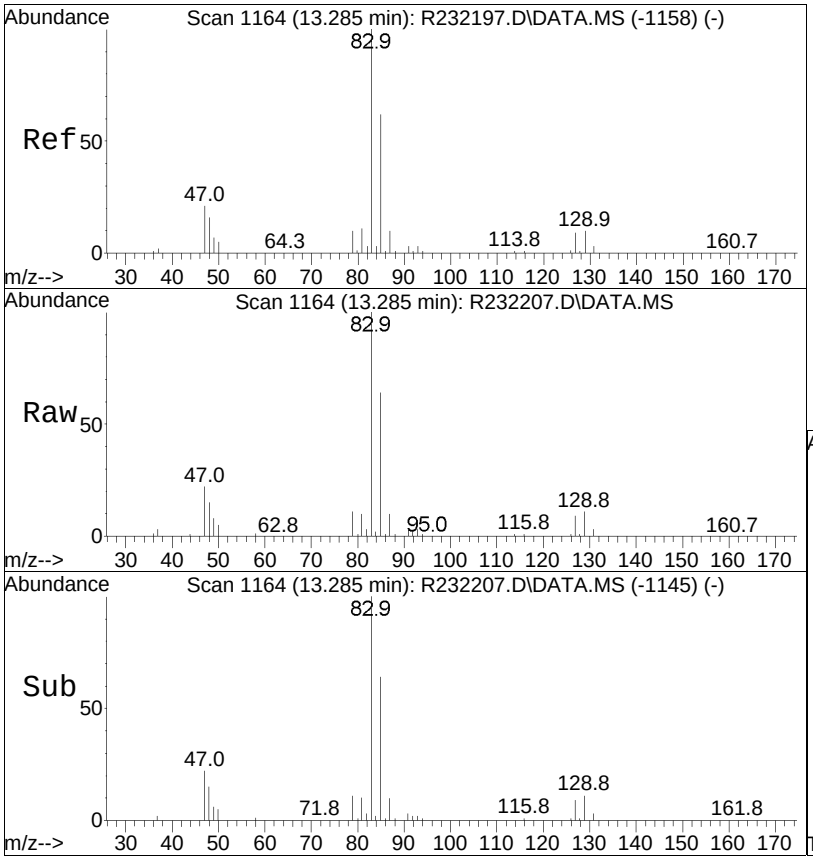


#56
1,2-dichloropropane
Concen: 9.10 ppbV
RT: 13.07 min Scan# 1143
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 63 Resp: 142000

Ion	Ratio	Lower	Upper
63	100		
62	75.1	55.6	83.4
39	50.0	37.7	56.5

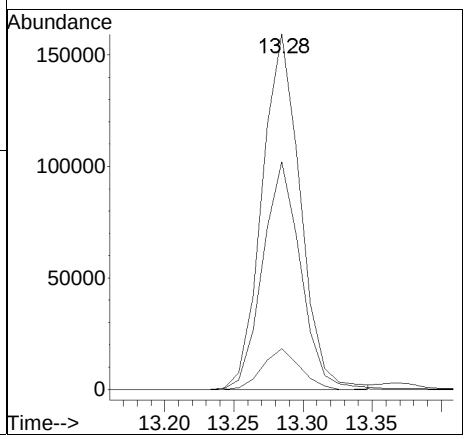


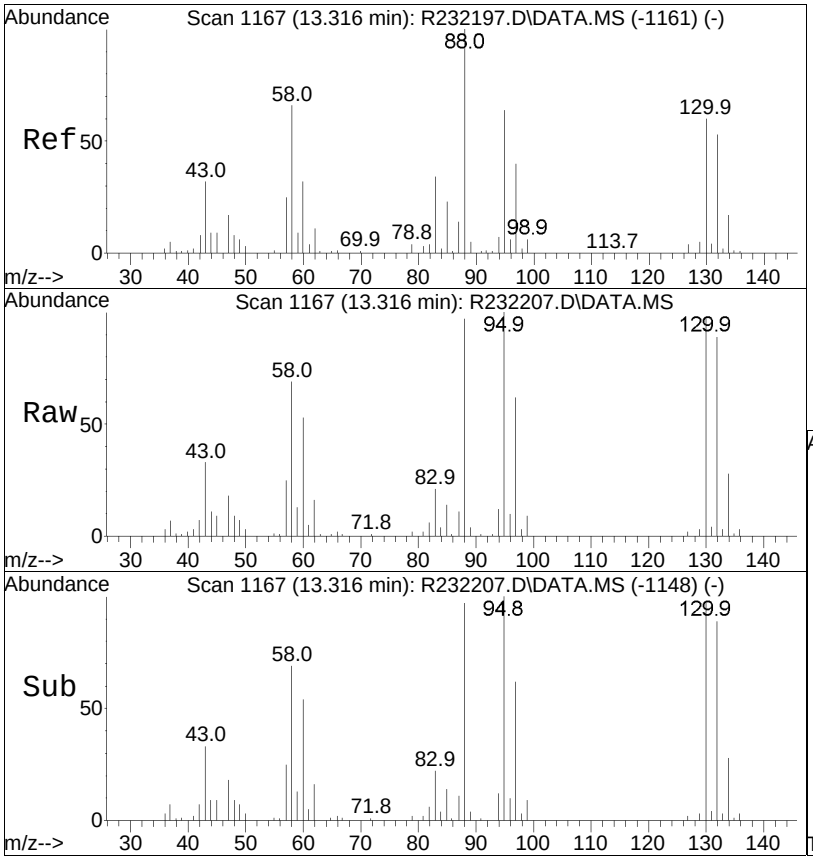


#57
bromodichloromethane
Concen: 9.29 ppbV
RT: 13.28 min Scan# 1164
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 83 Resp: 305937

Ion	Ratio	Lower	Upper
83	100		
85	64.1	49.9	74.9
129	11.4	8.4	12.6

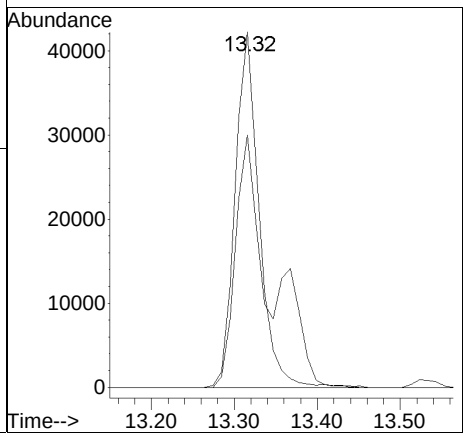


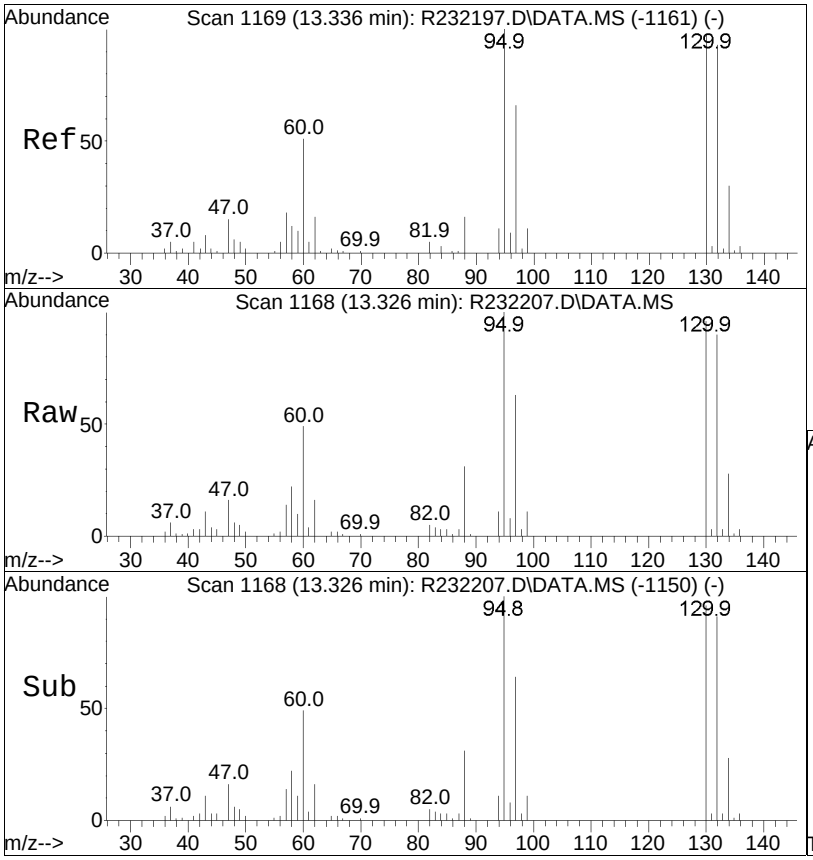


#58
1,4-dioxane
Concen: 9.33 ppbV
RT: 13.32 min Scan# 1167
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 88 Resp: 84753

Ion	Ratio	Lower	Upper
88	100		
58	71.1	52.7	79.1

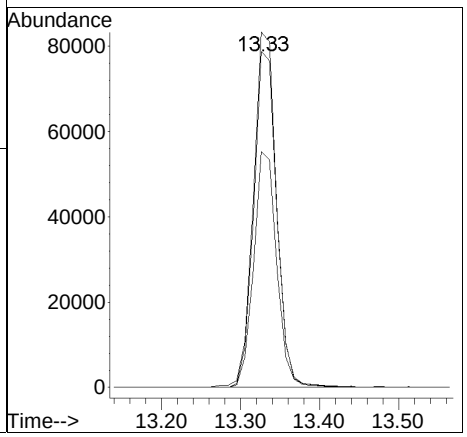


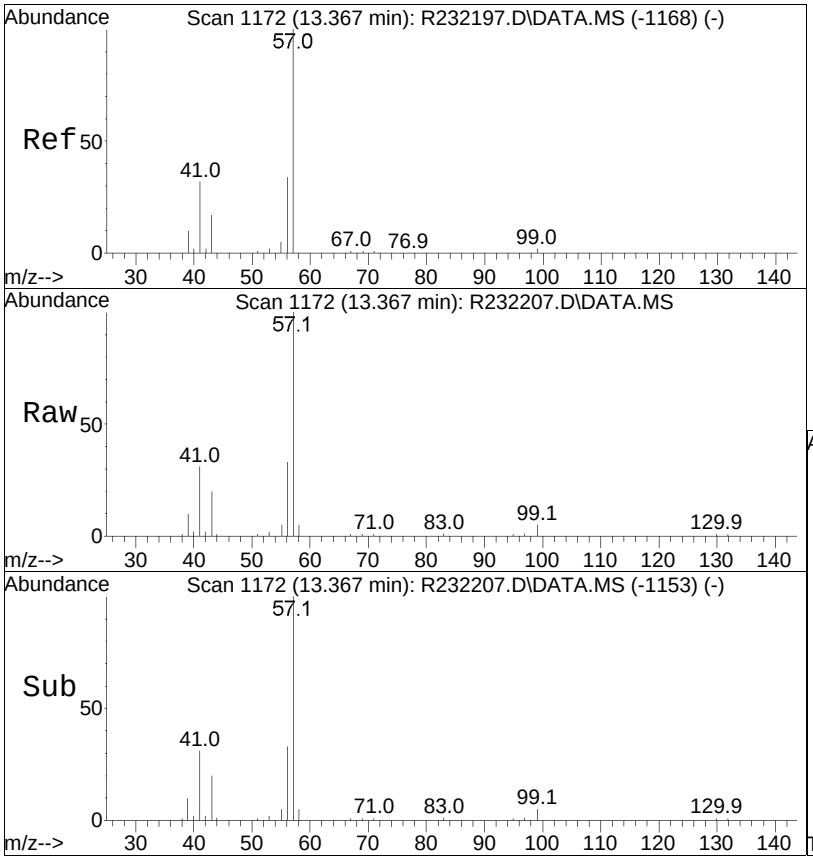


#59
trichloroethene
Concen: 9.61 ppbV
RT: 13.33 min Scan# 1168
Delta R.T. -0.010 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:130 Resp: 170526

Ion	Ratio	Lower	Upper
130	100		
132	94.6	77.0	115.6
97	66.4	54.3	81.5

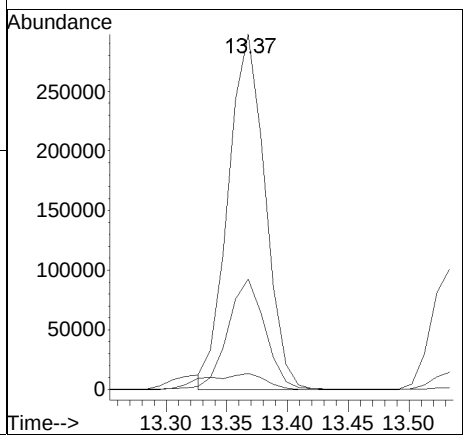


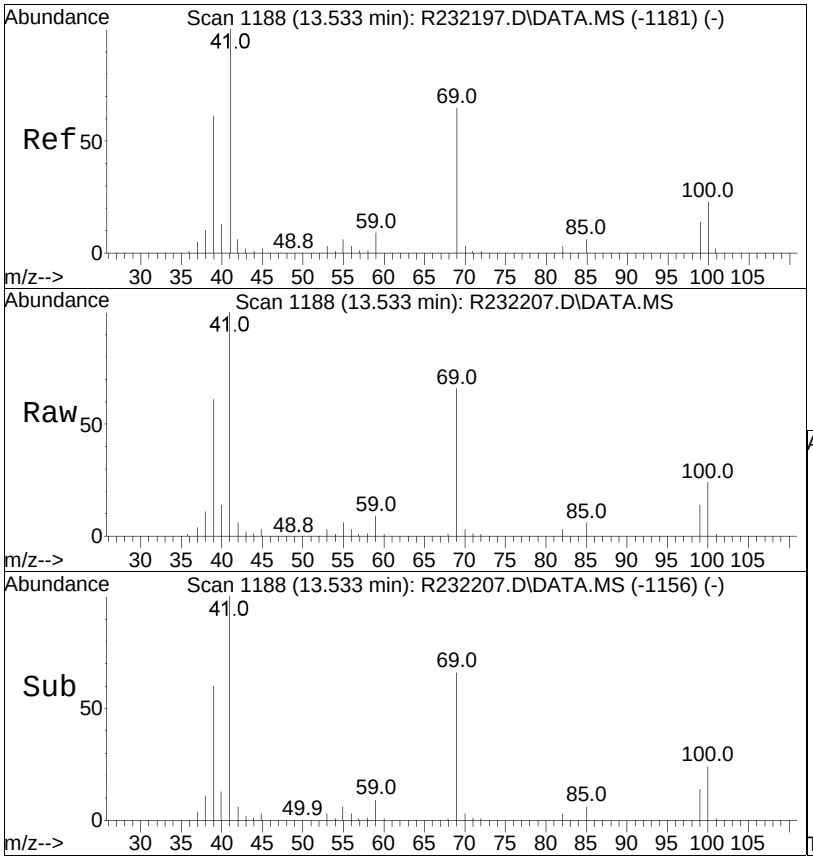


#60
2,2,4-trimethylpentane
Concen: 8.70 ppbV m
RT: 13.37 min Scan# 1172
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 57 Resp: 629981

Ion	Ratio	Lower	Upper
57	100		
99	4.5	3.8	5.8
41	31.0	24.9	37.3

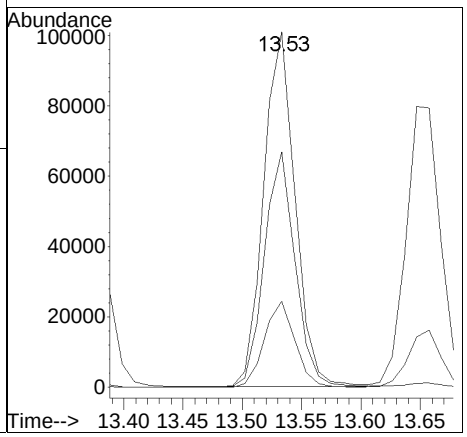


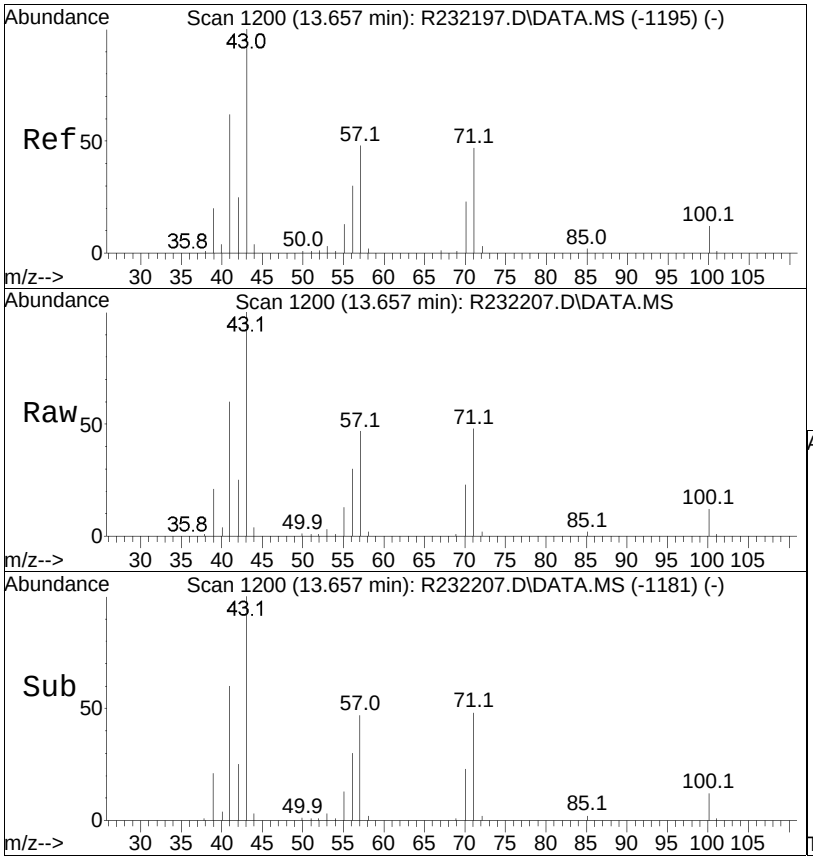


#61
methyl methacrylate
Concen: 8.49 ppbV
RT: 13.53 min Scan# 1188
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 41 Resp: 186172

Ion	Ratio	Lower	Upper
41	100		
69	65.6	52.1	78.1
100	23.8	18.2	27.4

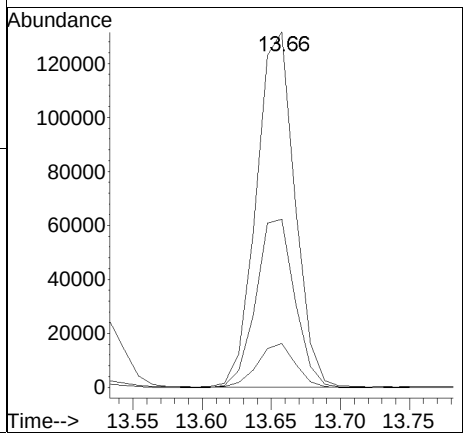


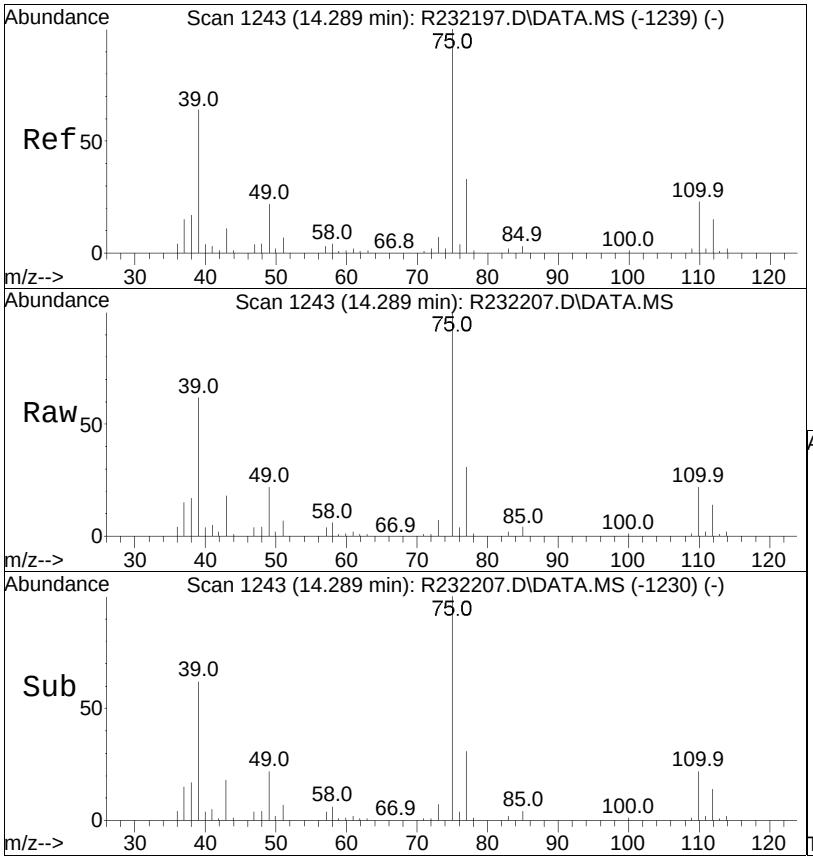


#62
heptane
Concen: 8.85 ppbV
RT: 13.66 min Scan# 1200
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 254304

Ion	Ratio	Lower	Upper
43	100		
57	47.3	38.0	57.0
100	12.4	9.8	14.8

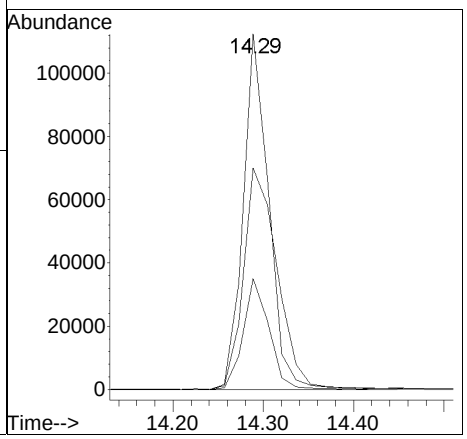


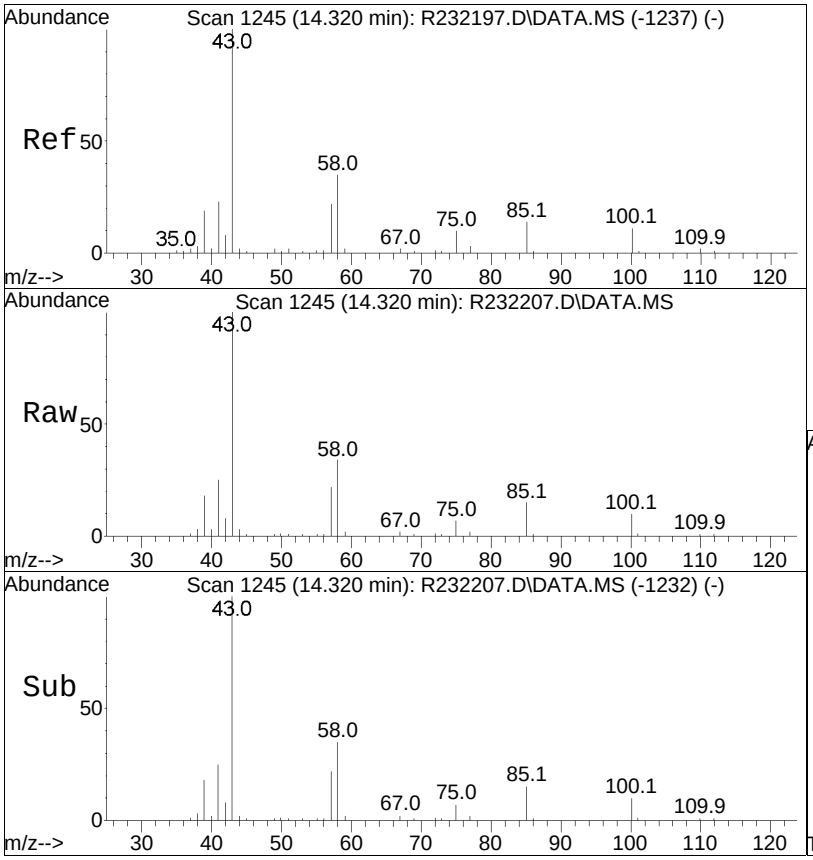


#63
cis-1,3-dichloropropene
Concen: 9.99 ppbV
RT: 14.29 min Scan# 1243
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 75 Resp: 220756

Ion	Ratio	Lower	Upper
75	100		
39	62.3	50.9	76.3
77	31.2	26.7	40.1

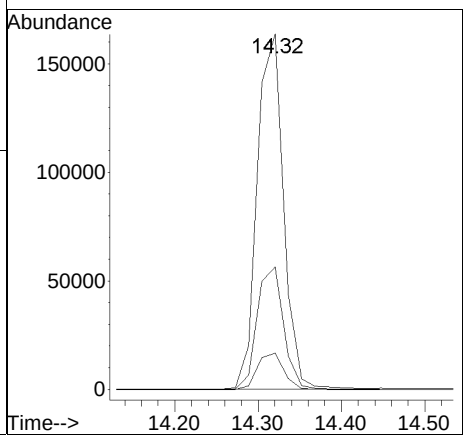


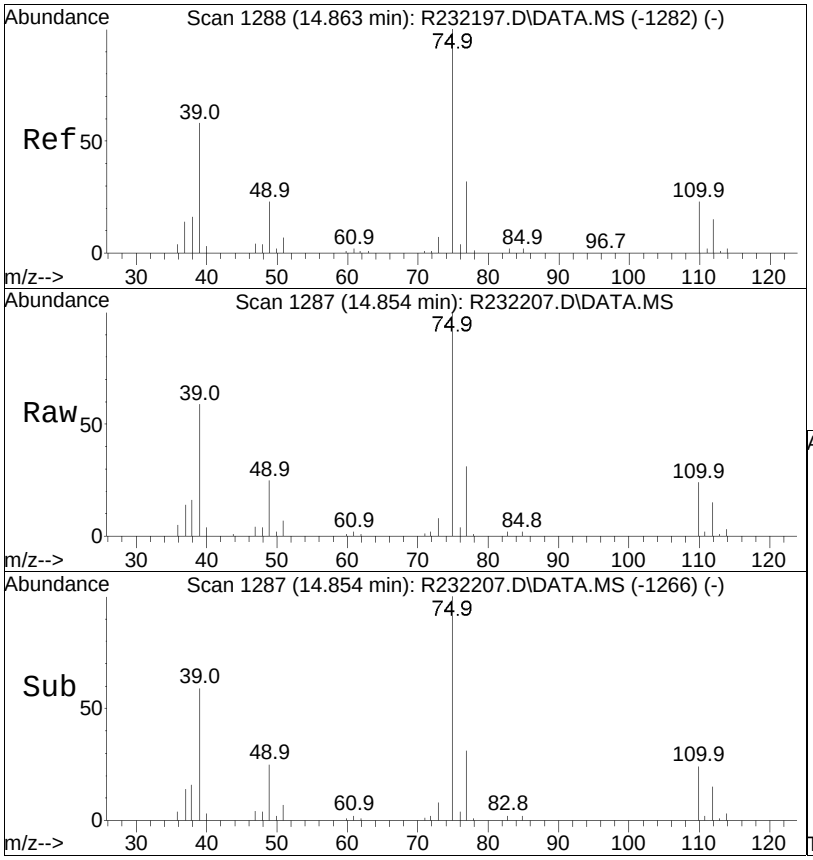


#64
4-methyl-2-pentanone
Concen: 9.20 ppbV
RT: 14.32 min Scan# 1245
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 358526

Ion	Ratio	Lower	Upper
43	100		
58	34.5	28.0	42.0
100	10.2	8.6	13.0

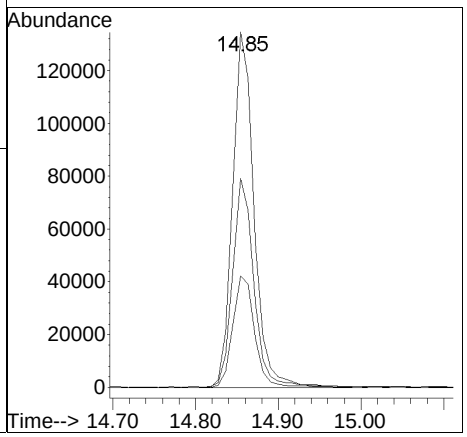


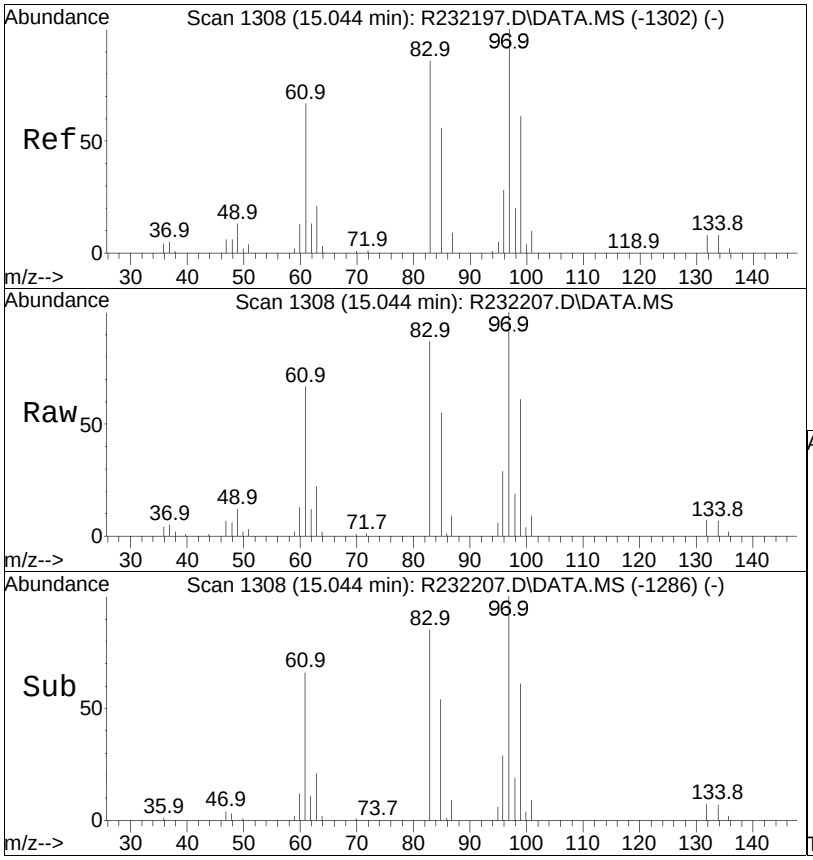


#65
trans-1,3-dichloropropene
Concen: 8.35 ppbV
RT: 14.85 min Scan# 1287
Delta R.T. -0.009 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 75 Resp: 243379

Ion	Ratio	Lower	Upper
75	100		
77	31.3	25.6	38.4
39	58.8	46.2	69.2

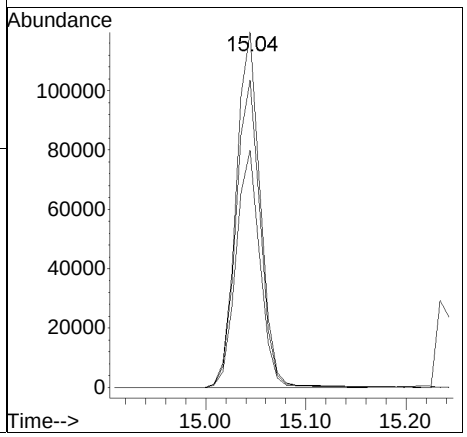


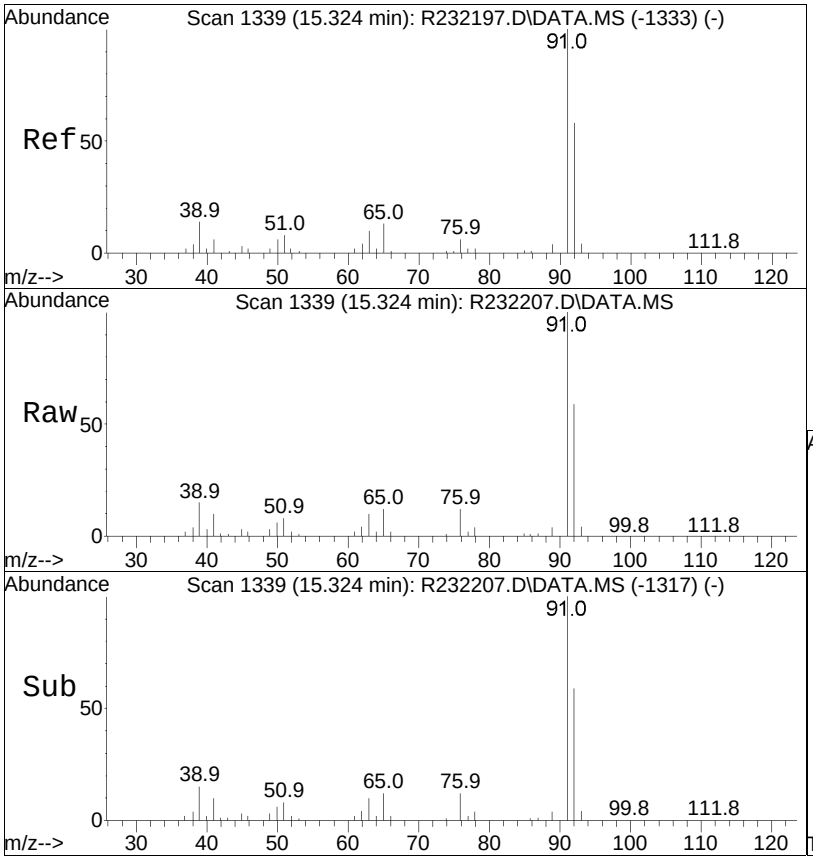


#66
1,1,2-trichloroethane
Concen: 9.55 ppbV
RT: 15.04 min Scan# 1308
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 97 Resp: 201112

Ion	Ratio	Lower	Upper
97	100		
83	86.5	68.9	103.3
61	66.8	53.2	79.8

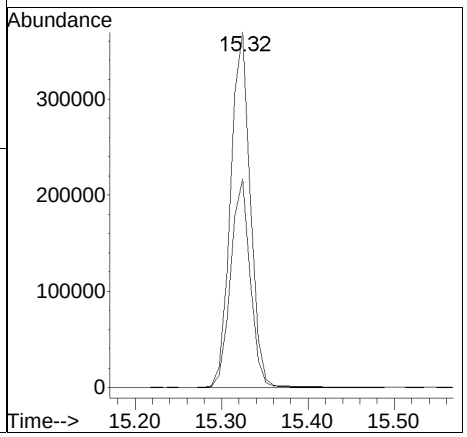


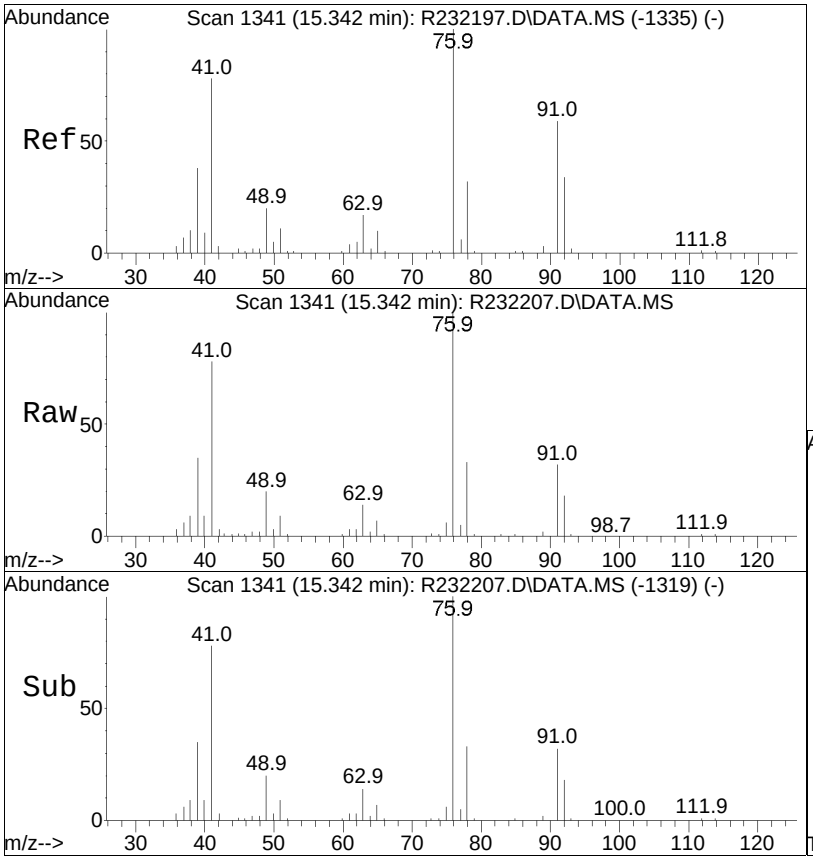


#68
toluene
Concen: 9.33 ppbV
RT: 15.32 min Scan# 1339
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 91 Resp: 585658

Ion	Ratio	Lower	Upper
91	100		
92	58.7	46.5	69.7

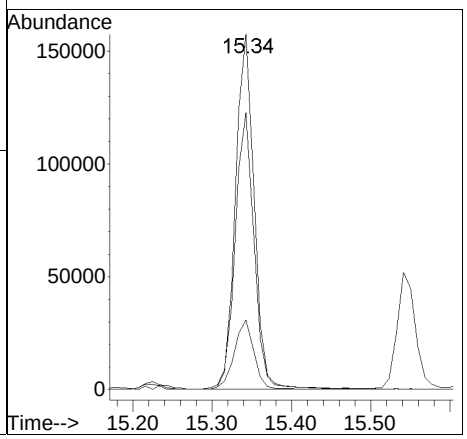


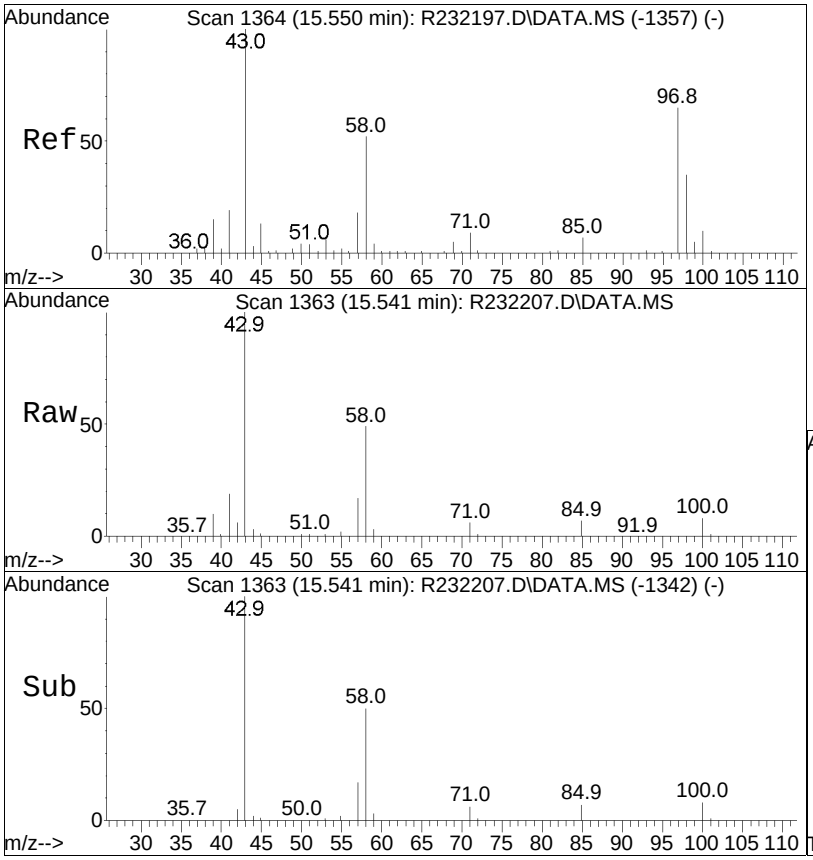


#71
1,3-dichloropropane
Concen: 8.90 ppbV
RT: 15.34 min Scan# 1341
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 76 Resp: 259997

Ion	Ratio	Lower	Upper
76	100		
41	77.9	62.9	94.3
49	19.5	16.1	24.1

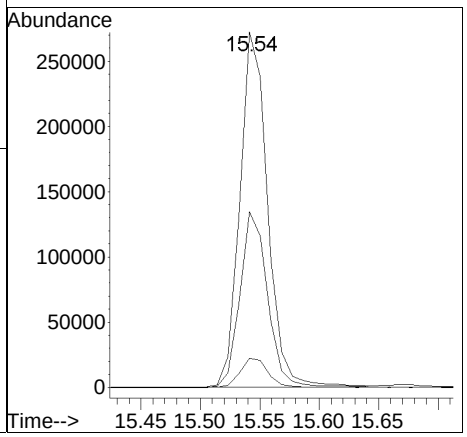


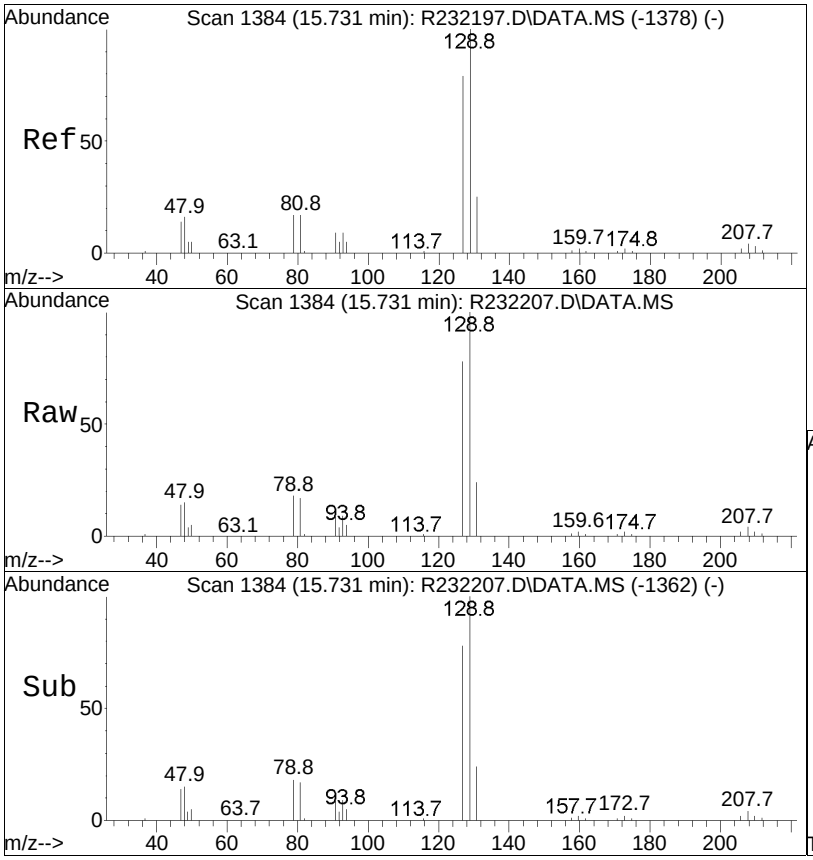


#72
2-hexanone
Concen: 9.32 ppbV
RT: 15.54 min Scan# 1363
Delta R.T. -0.009 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 441153

Ion	Ratio	Lower	Upper
43	100		
58	49.4	41.4	62.0
100	8.2	7.8	11.6

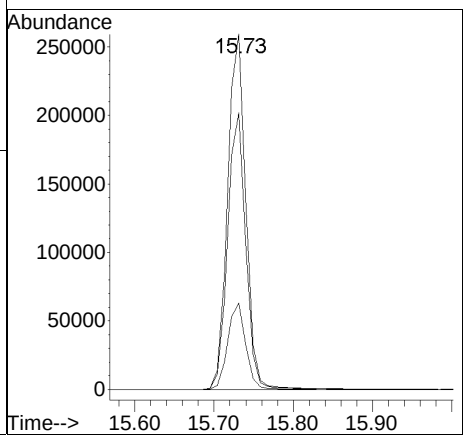


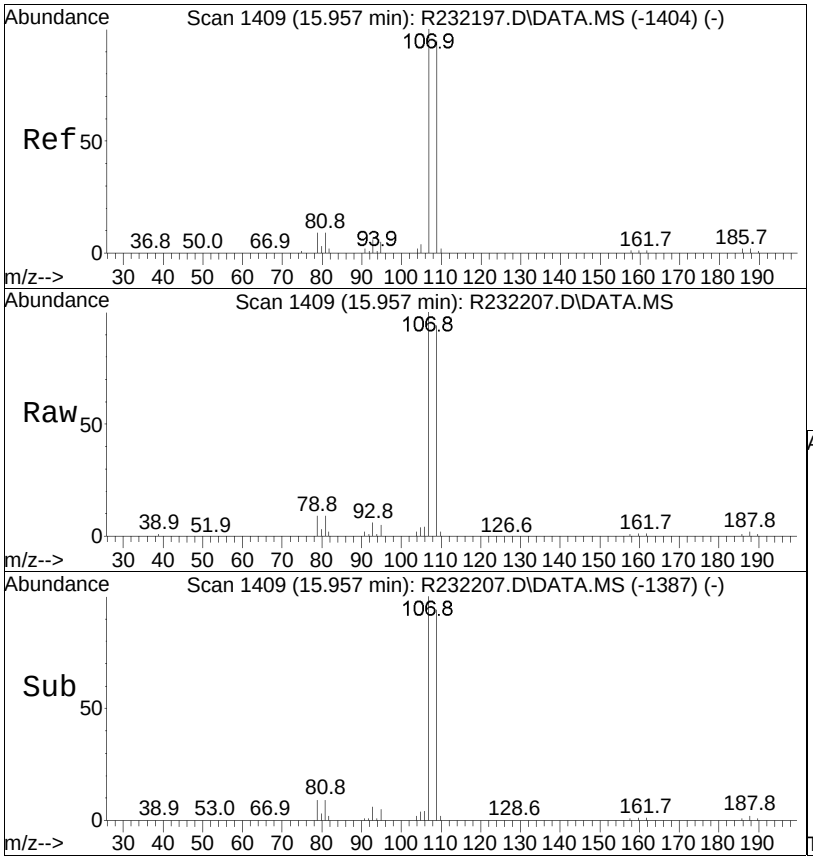


#74
dibromochloromethane
Concen: 9.88 ppbV
RT: 15.73 min Scan# 1384
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:129 Resp: 415185

Ion	Ratio	Lower	Upper
129	100		
127	77.8	63.1	94.7
131	24.3	19.8	29.6

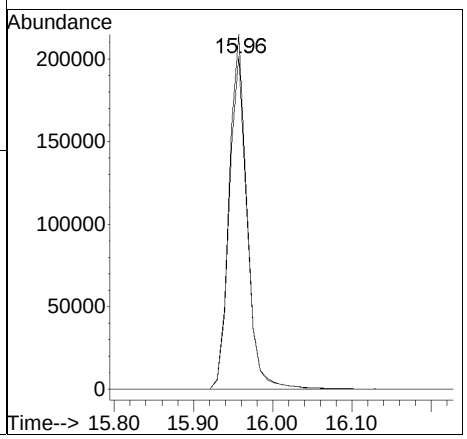


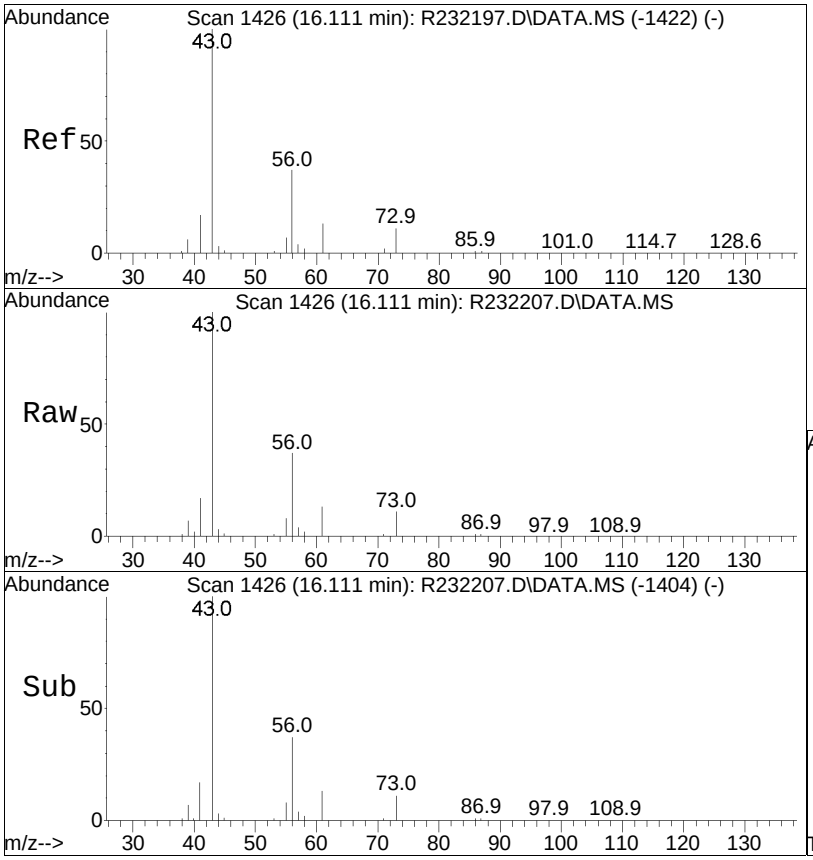


#75
1,2-dibromoethane
Concen: 9.65 ppbV
RT: 15.96 min Scan# 1409
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:107 Resp: 338979

Ion	Ratio	Lower	Upper
107	100		
109	93.9	75.8	113.6

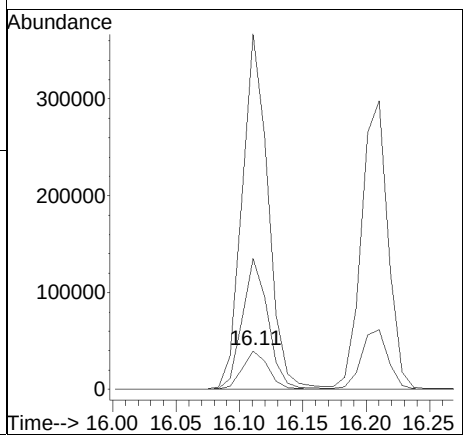


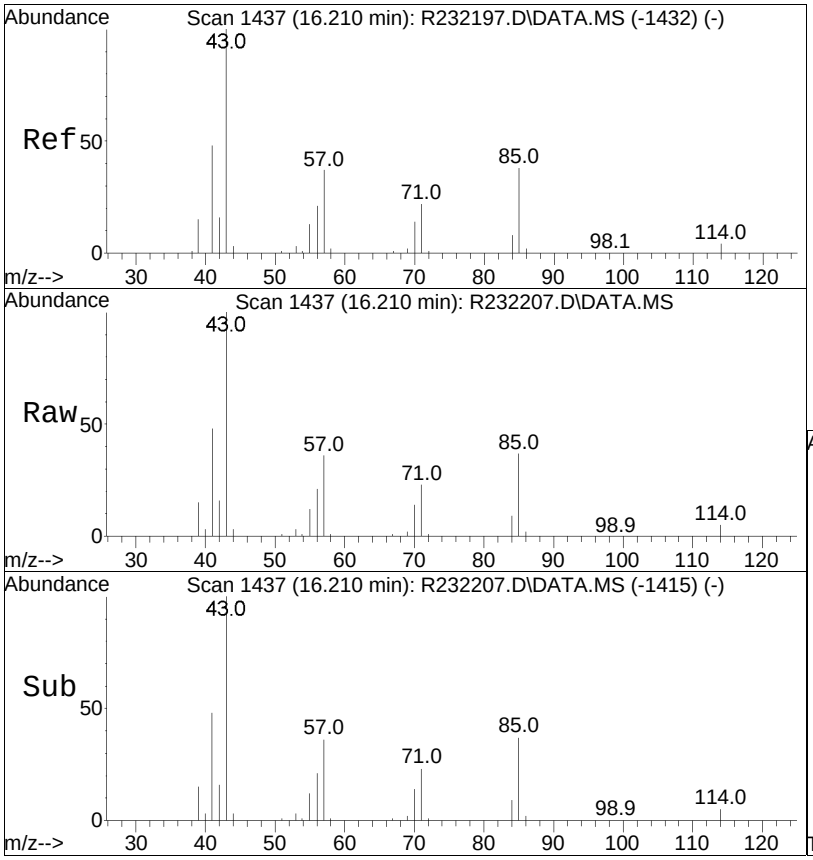


#76
butyl acetate
Concen: 8.59 ppbV
RT: 16.11 min Scan# 1426
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 73 Resp: 57662

Ion	Ratio	Lower	Upper
73	100		
56	341.2	270.6	406.0
43	926.1	723.3	1084.9

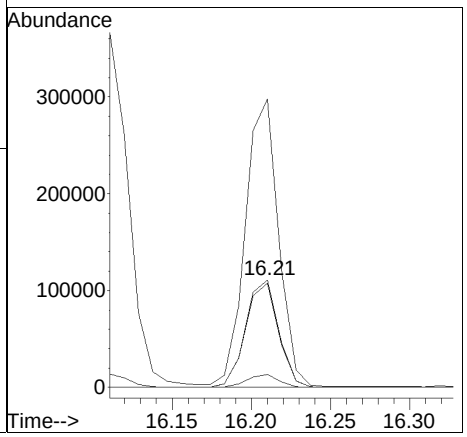


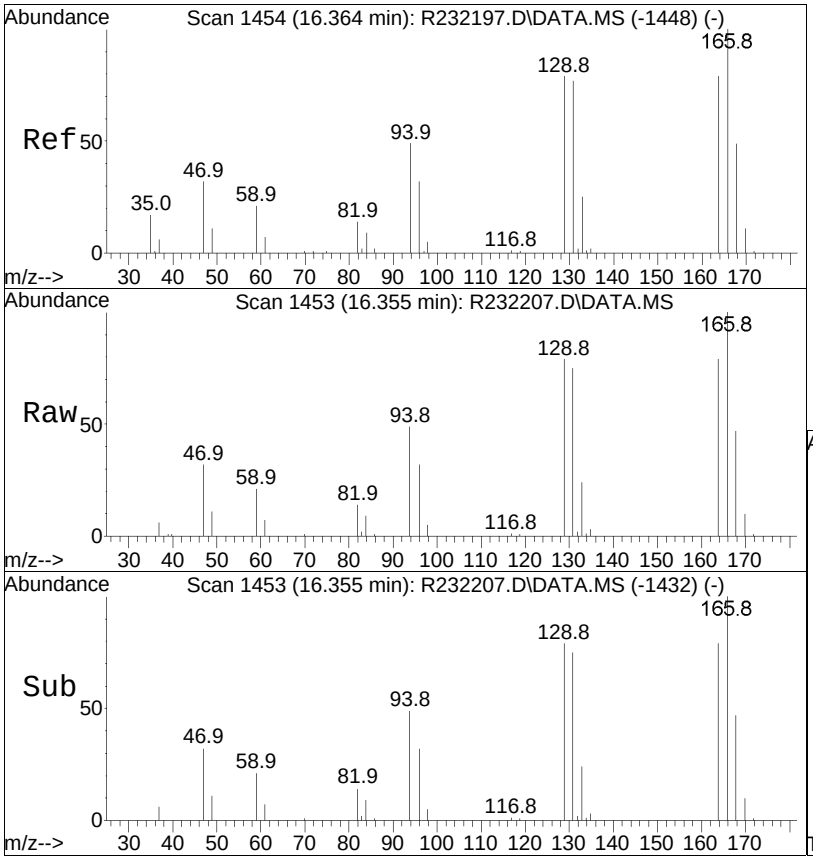


#77
octane
Concen: 8.75 ppbV
RT: 16.21 min Scan# 1437
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 85 Resp: 161096

Ion	Ratio	Lower	Upper
85	100		
57	96.9	77.7	116.5
114	12.1	9.2	13.8
43	268.5	213.2	319.8

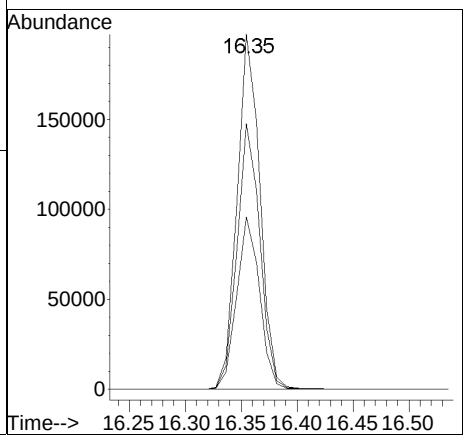


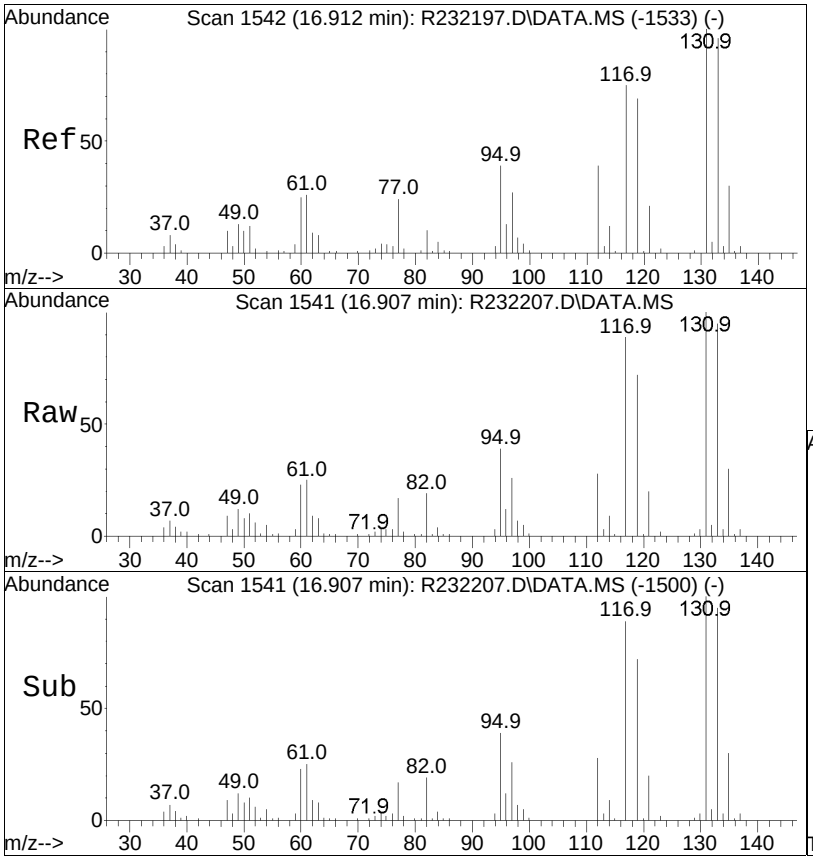


#78
tetrachloroethene
Concen: 9.76 ppbV
RT: 16.35 min Scan# 1453
Delta R.T. -0.009 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:166 Resp: 281314

Ion	Ratio	Lower	Upper
166	100		
131	74.8	61.7	92.5
94	48.6	39.1	58.7

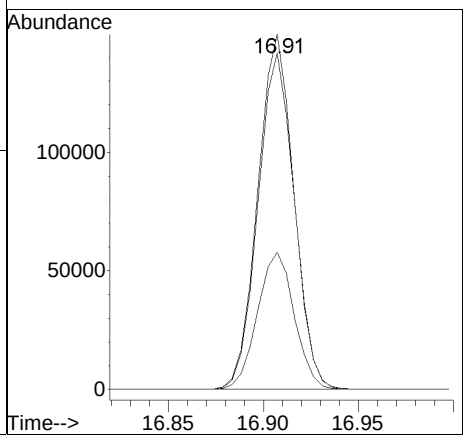


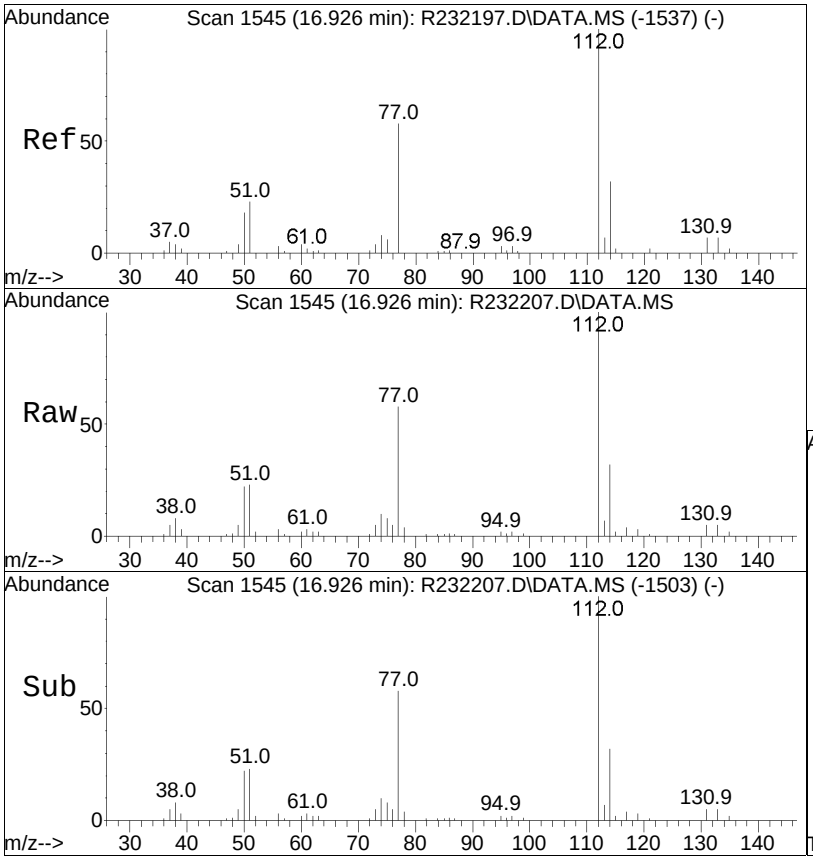


#79
1,1,1,2-tetrachloroethane
Concen: 9.25 ppbV
RT: 16.91 min Scan# 1541
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:131 Resp: 197751

Ion	Ratio	Lower	Upper
131	100		
133	94.7	76.6	115.0
95	38.6	31.1	46.7

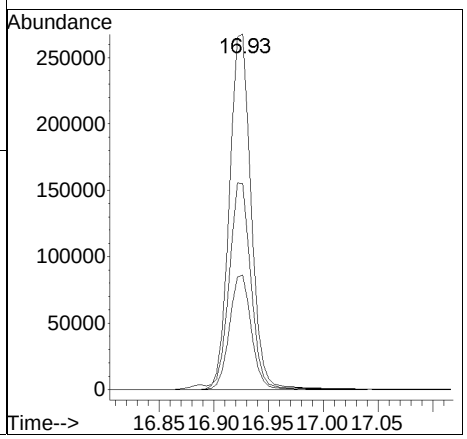


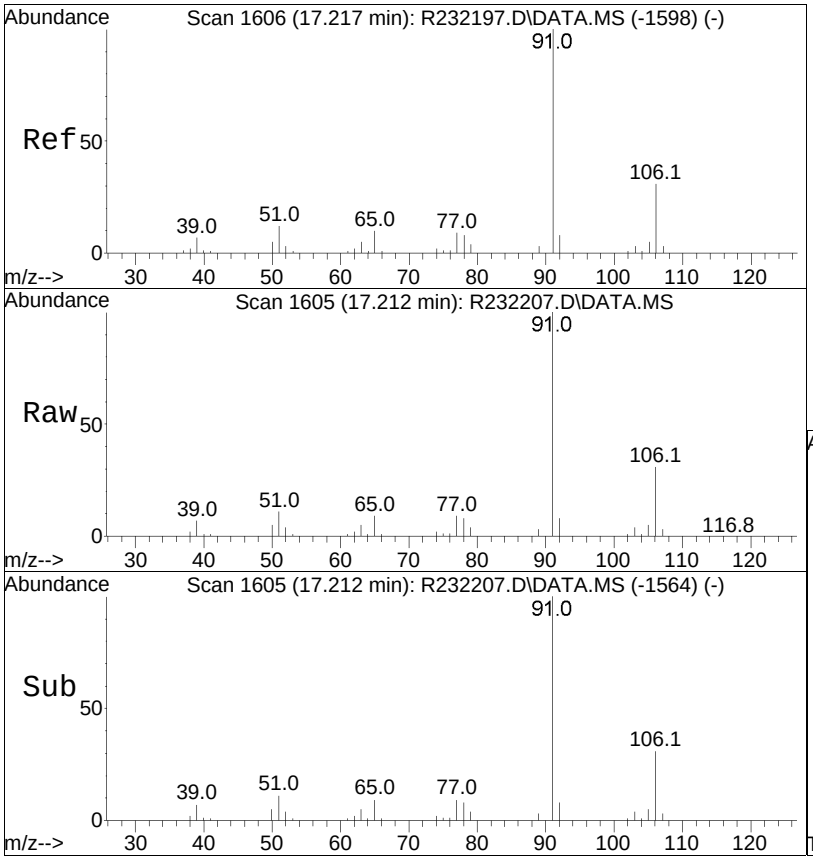


#80
chlorobenzene
Concen: 9.90 ppbV
RT: 16.93 min Scan# 1545
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:112 Resp: 369895

Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.8	38.8
77	57.9	47.0	70.6

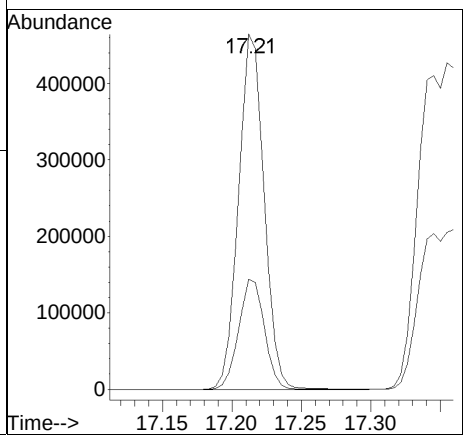


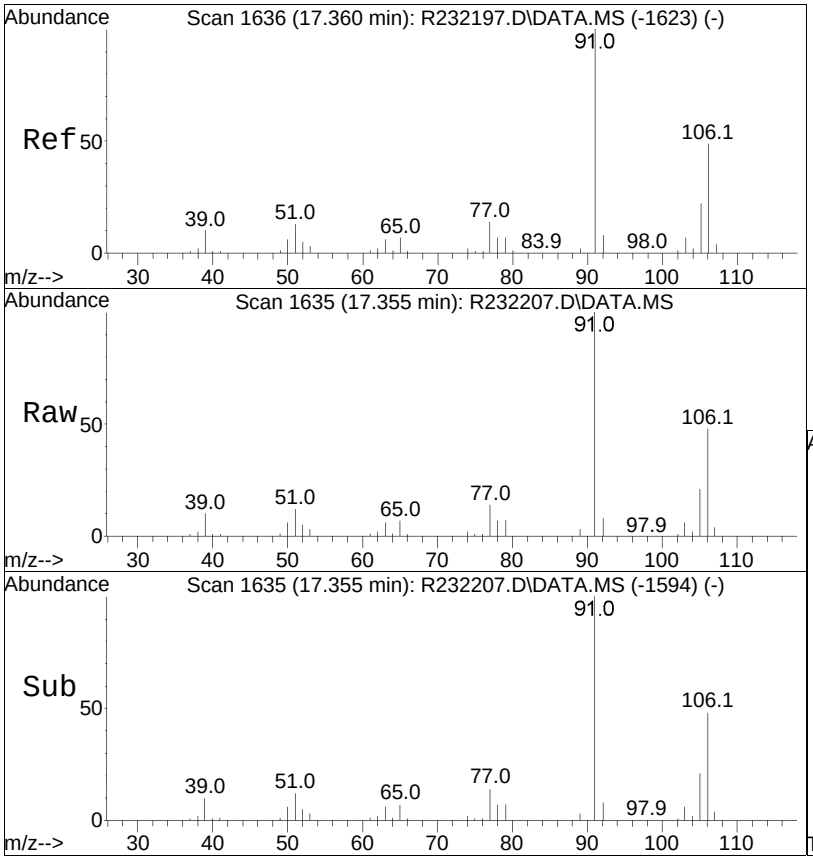


#81
ethylbenzene
Concen: 9.54 ppbV
RT: 17.21 min Scan# 1605
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 91 Resp: 596223

Ion	Ratio	Lower	Upper
91	100		
106	31.0	25.0	37.6

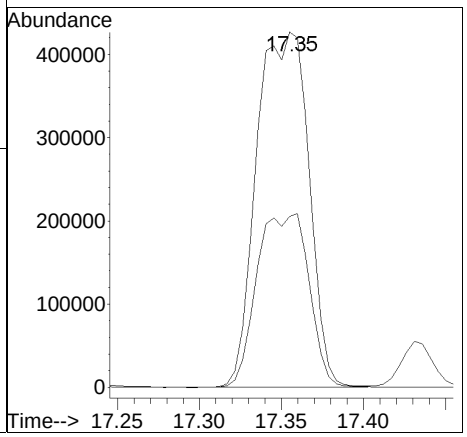


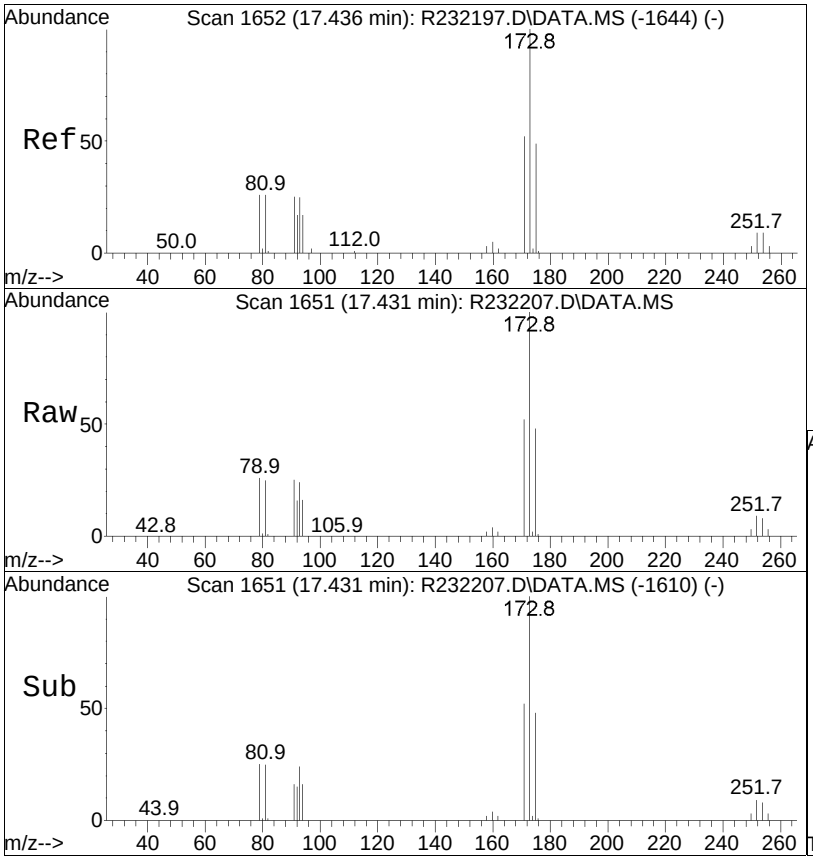


#83
m+p-xylene
Concen: 19.10 ppbV
RT: 17.35 min Scan# 1635
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 91 Resp: 939858

Ion	Ratio	Lower	Upper
91	100		
106	48.1	39.4	59.2

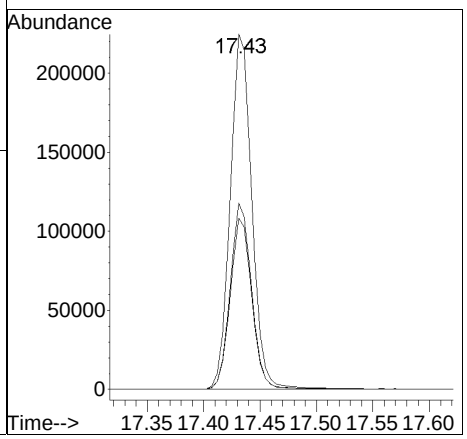


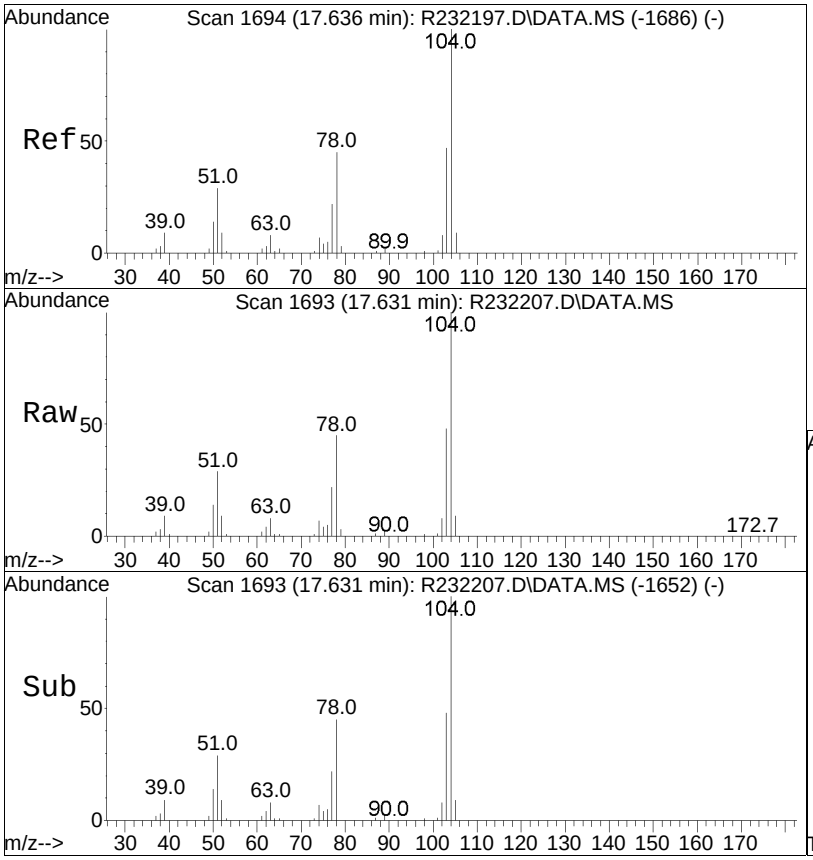


#84
bromoform
Concen: 9.94 ppbV
RT: 17.43 min Scan# 1651
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:173 Resp: 300715

Ion	Ratio	Lower	Upper
173	100		
175	48.2	39.4	59.0
171	52.5	41.7	62.5

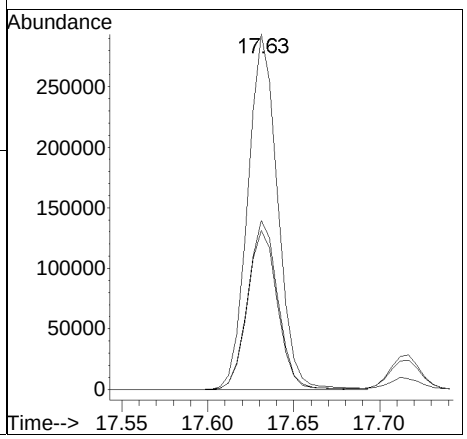


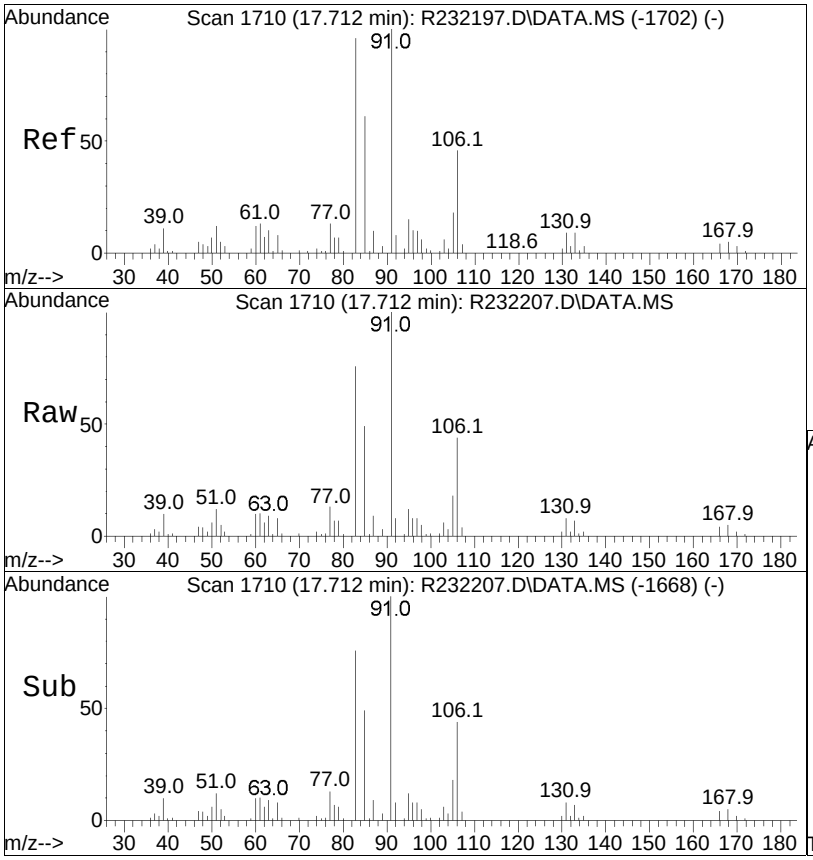


#85
styrene
Concen: 9.57 ppbV
RT: 17.63 min Scan# 1693
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:104 Resp: 354594

Ion	Ratio	Lower	Upper
104	100		
103	47.6	37.9	56.9
78	44.7	36.2	54.4

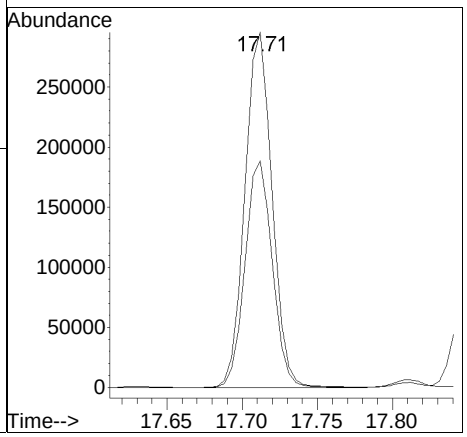


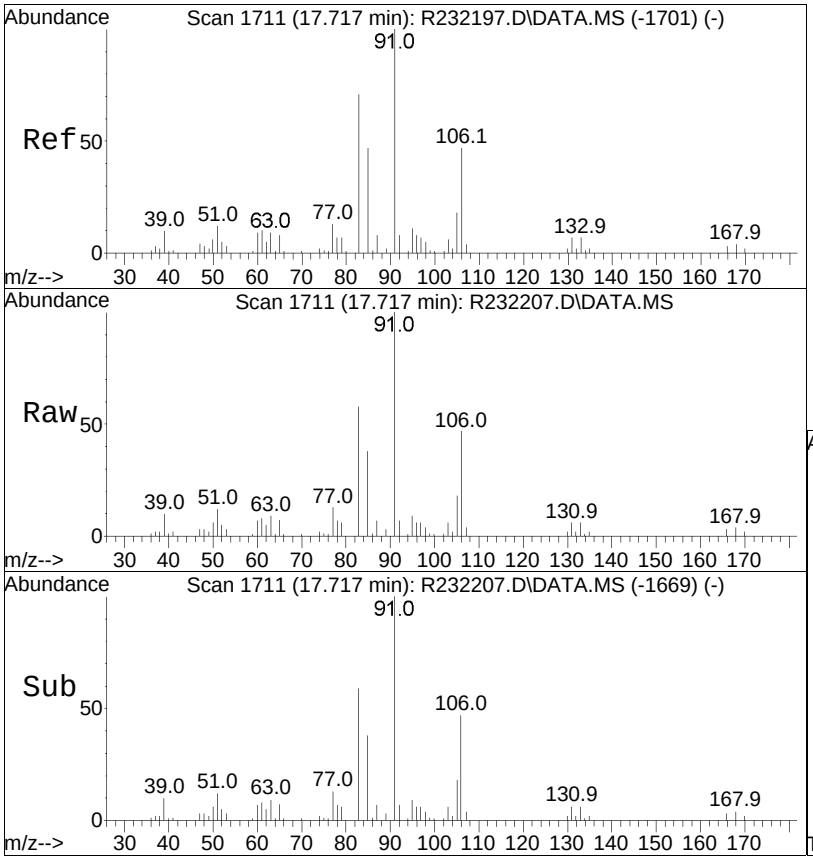


#86
1,1,2,2-tetrachloroethane
Concen: 10.00 ppbV
RT: 17.71 min Scan# 1710
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 83 Resp: 371390

Ion	Ratio	Lower	Upper
83	100		
85	63.8	50.7	76.1

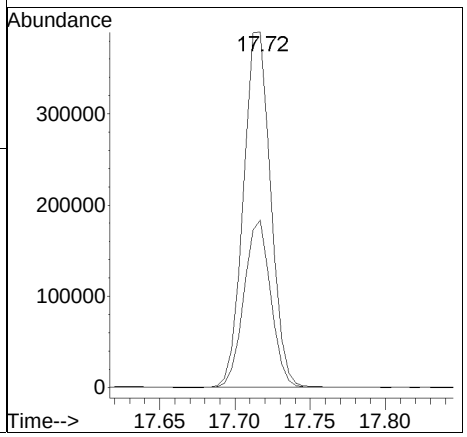


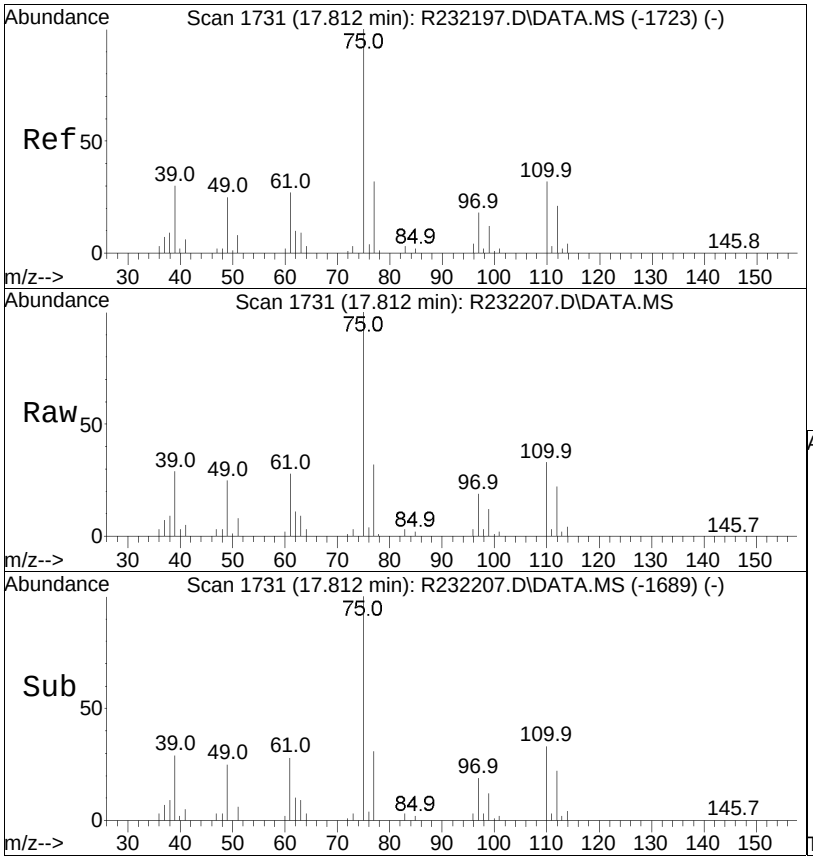


#87
o-xylene
Concen: 9.83 ppbV
RT: 17.72 min Scan# 1711
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 91 Resp: 491351

Ion	Ratio	Lower	Upper
91	100		
106	47.1	37.3	55.9

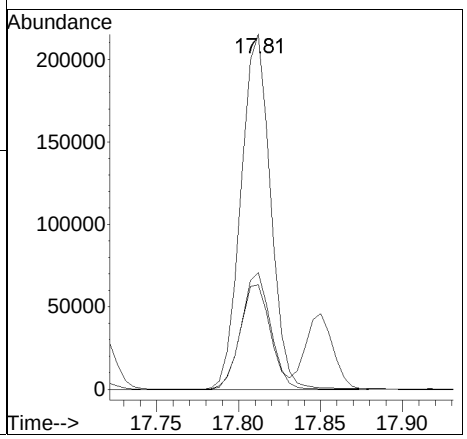


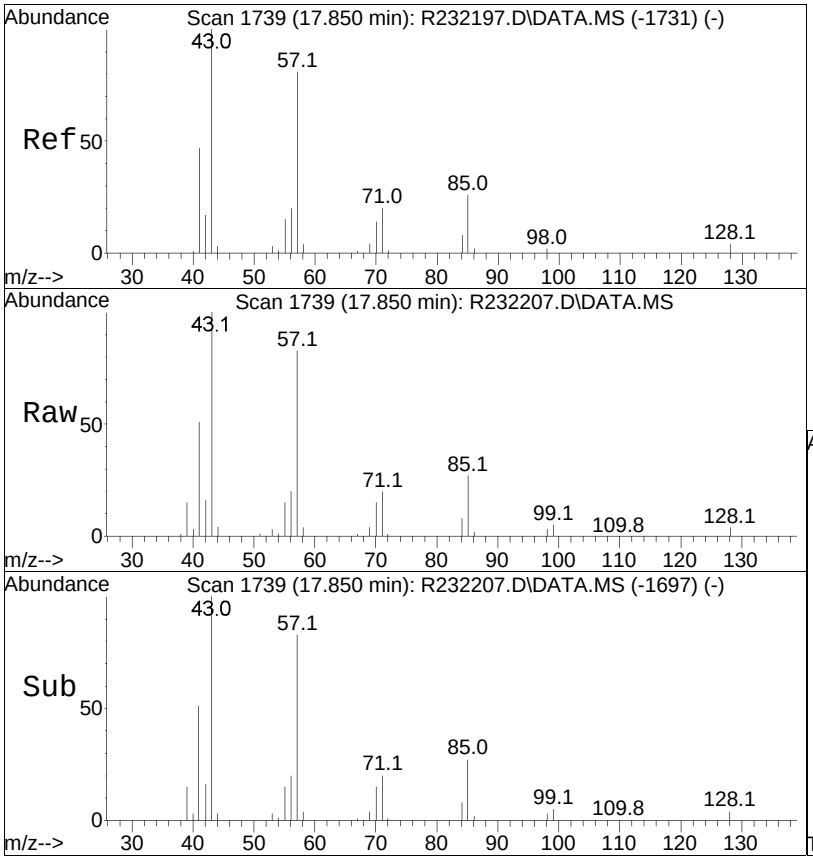


#88
1,2,3-trichloropropane
Concen: 9.14 ppbV
RT: 17.81 min Scan# 1731
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 75 Resp: 271259

Ion	Ratio	Lower	Upper
75	100		
110	32.9	25.5	38.3
39	29.5	24.2	36.2

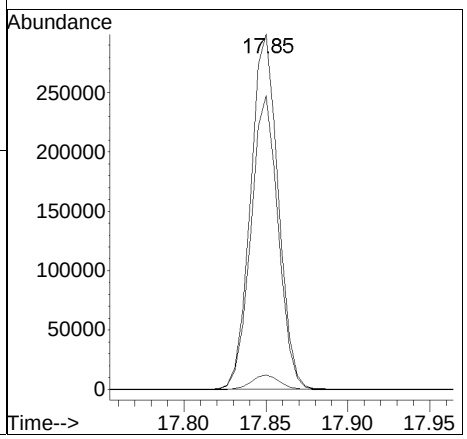


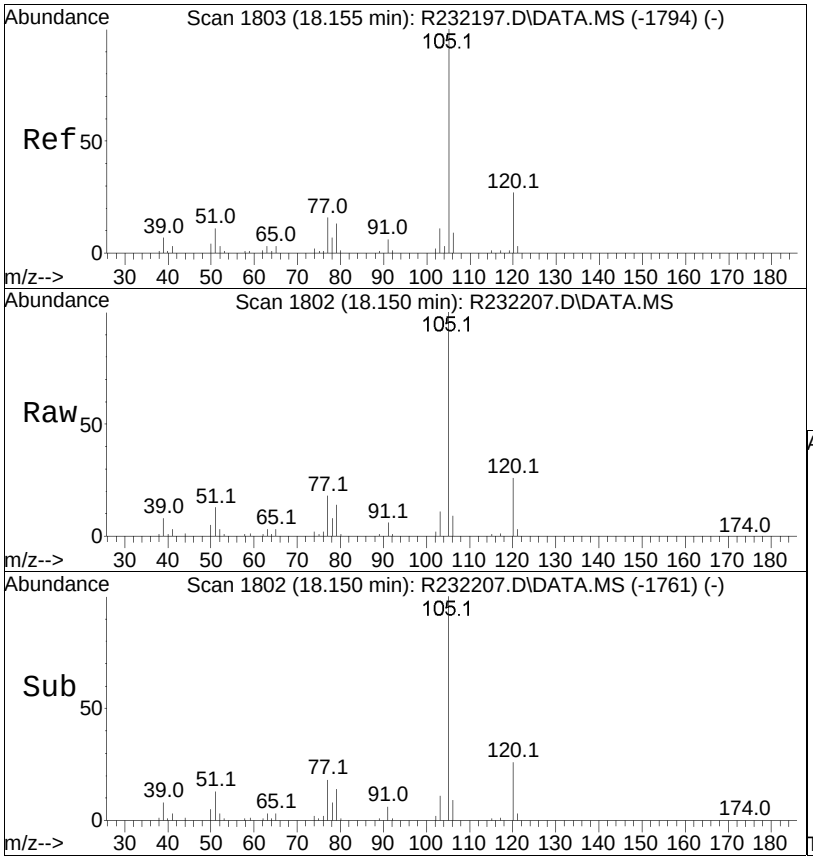


#89
nonane
Concen: 8.66 ppbV
RT: 17.85 min Scan# 1739
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 43 Resp: 349707

Ion	Ratio	Lower	Upper
43	100		
57	82.7	64.6	96.8
128	4.0	3.0	4.6

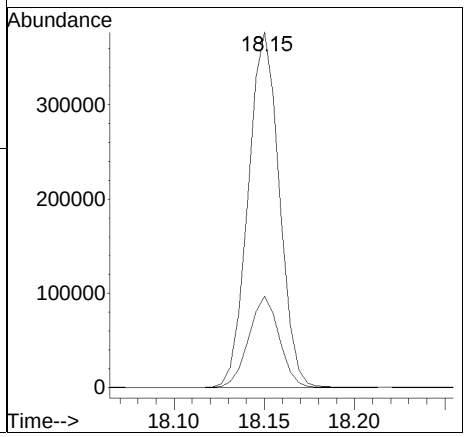


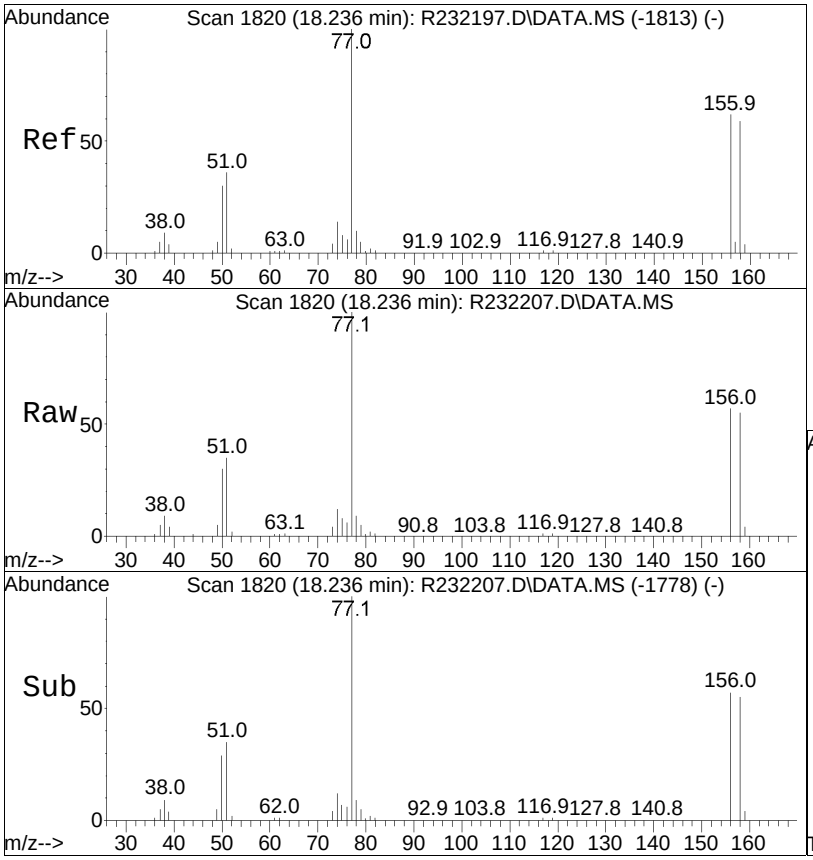


#91
isopropylbenzene
Concen: 7.20 ppbV
RT: 18.15 min Scan# 1802
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:105 Resp: 451563

Ion	Ratio	Lower	Upper
105	100		
120	25.7	21.3	31.9

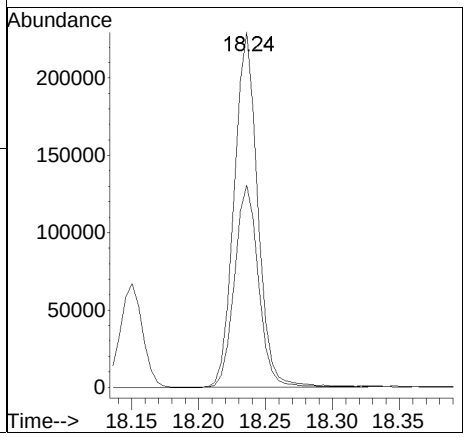


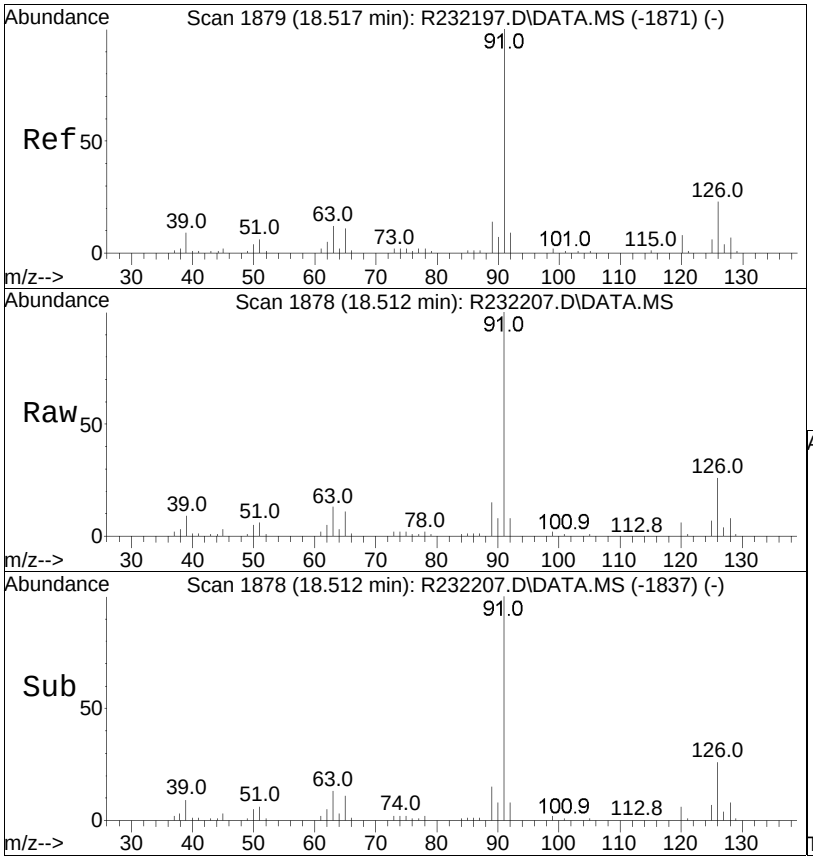


#92
bromobenzene
Concen: 7.84 ppbV
RT: 18.24 min Scan# 1820
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 77 Resp: 281297

Ion	Ratio	Lower	Upper
77	100		
156	57.0	49.4	74.2

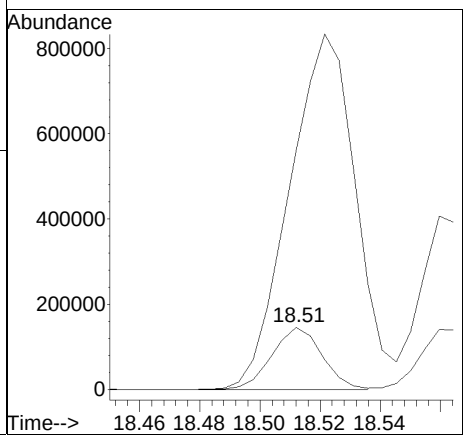


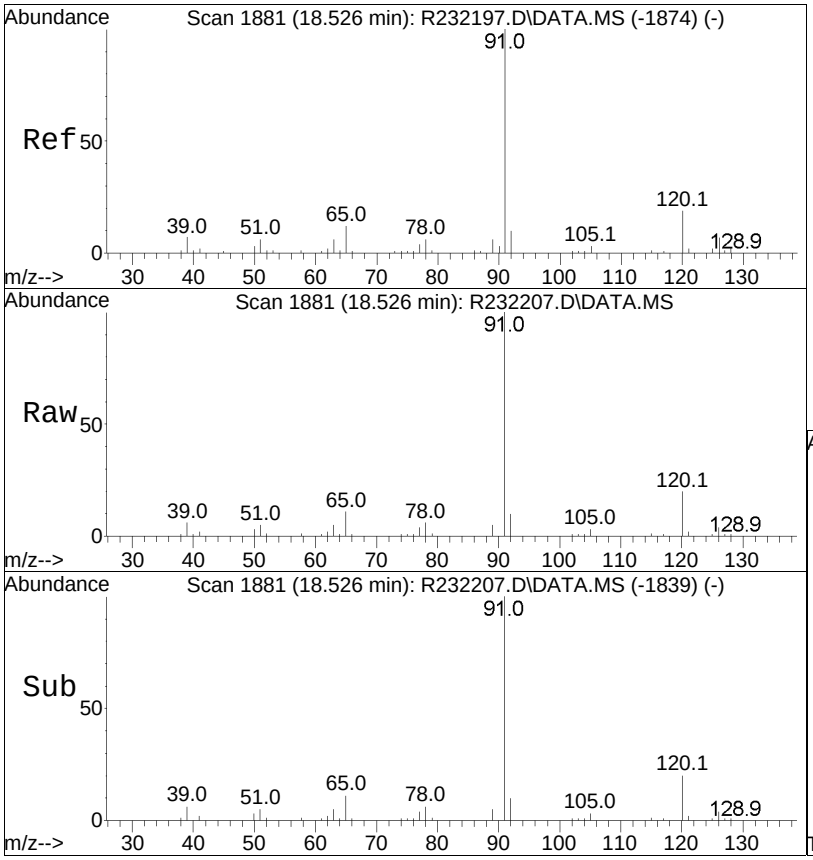


#93
2-chlorotoluene
Concen: 9.32 ppbV
RT: 18.51 min Scan# 1878
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:126 Resp: 168490

Ion	Ratio	Lower	Upper
126	100		
91	384.5	348.9	523.3

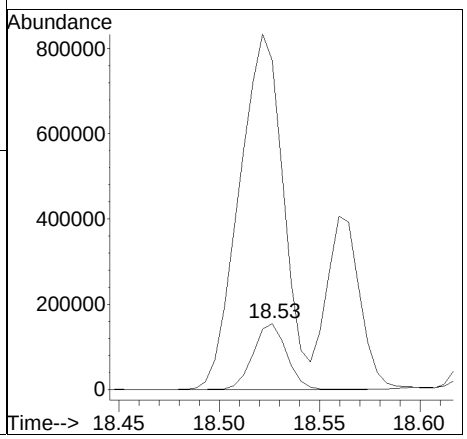


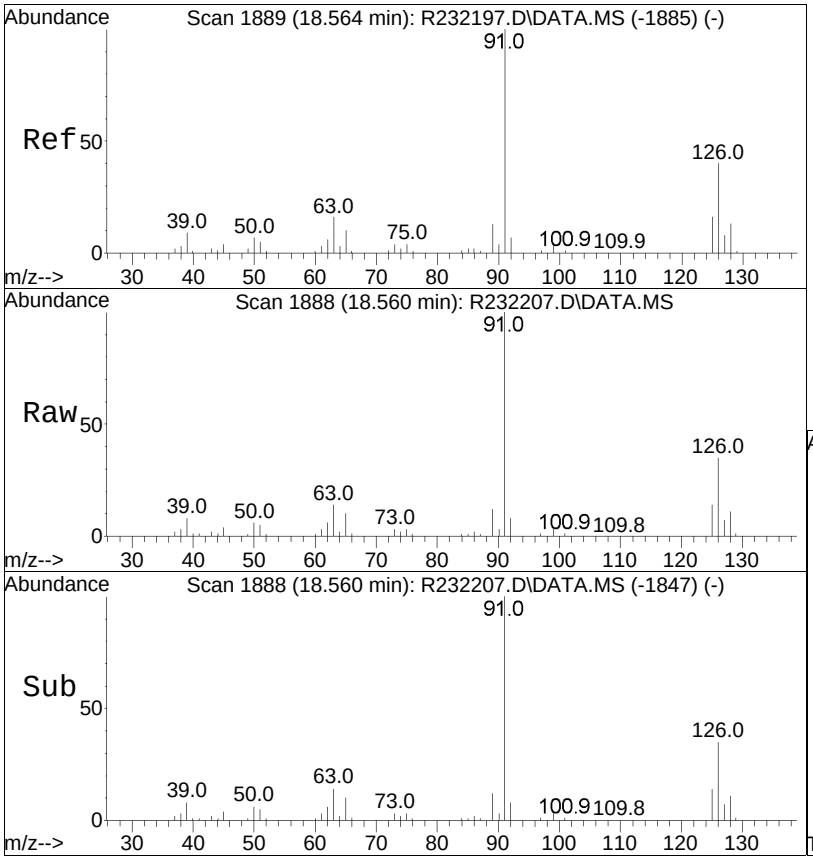


#94
n-propylbenzene
Concen: 9.29 ppbV
RT: 18.53 min Scan# 1881
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:120 Resp: 178403

Ion	Ratio	Lower	Upper
120	100		
91	500.3	433.1	649.7

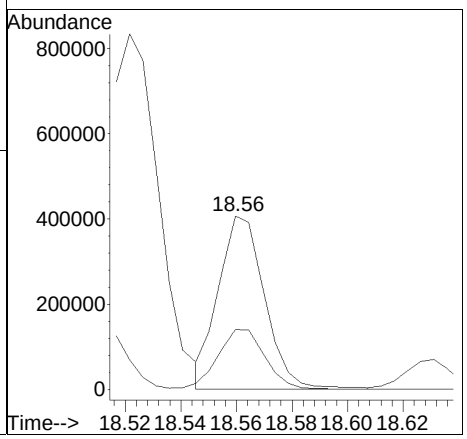


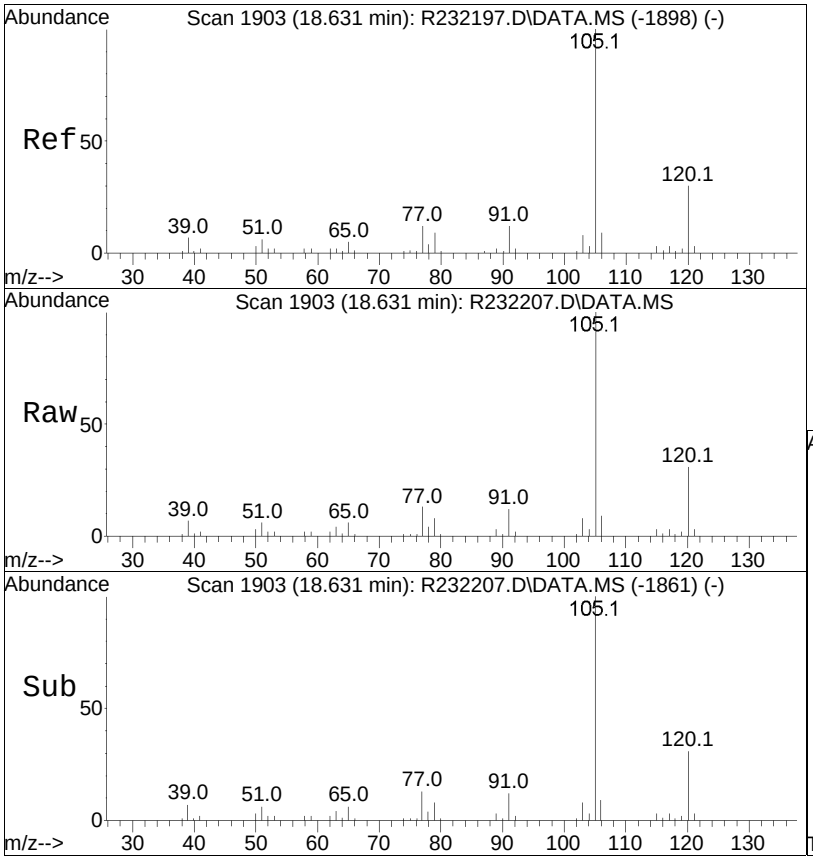


#95
4-chlorotoluene
Concen: 8.81 ppbV
RT: 18.56 min Scan# 1888
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 91 Resp: 472096

Ion	Ratio	Lower	Upper
91	100		
126	34.6	27.8	41.8

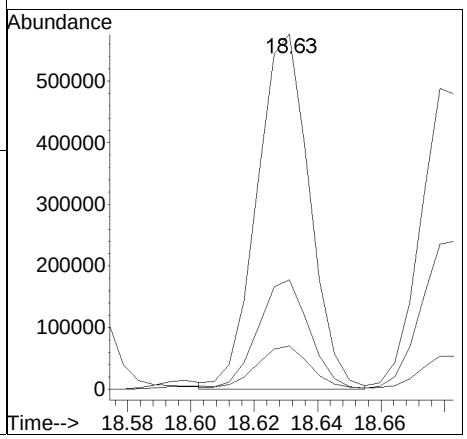


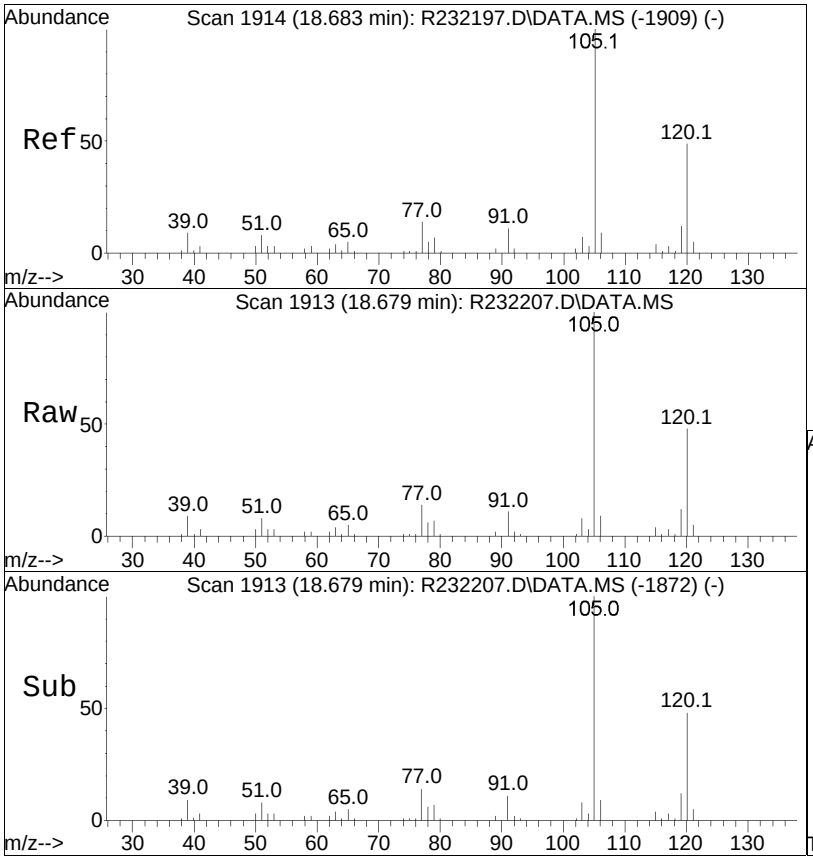


#96
4-ethyl toluene
Concen: 9.16 ppbV m
RT: 18.63 min Scan# 1903
Delta R.T. 0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:105 Resp: 663396

Ion	Ratio	Lower	Upper
105	100		
120	30.9	24.0	36.0
91	12.2	9.7	14.5

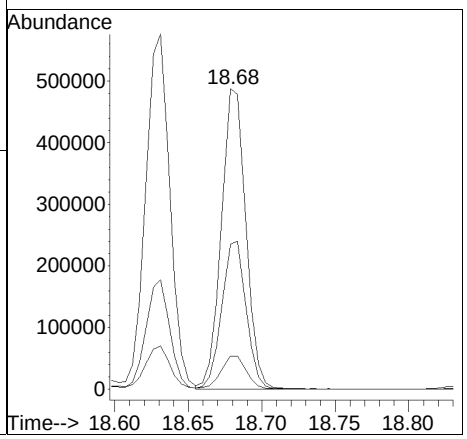


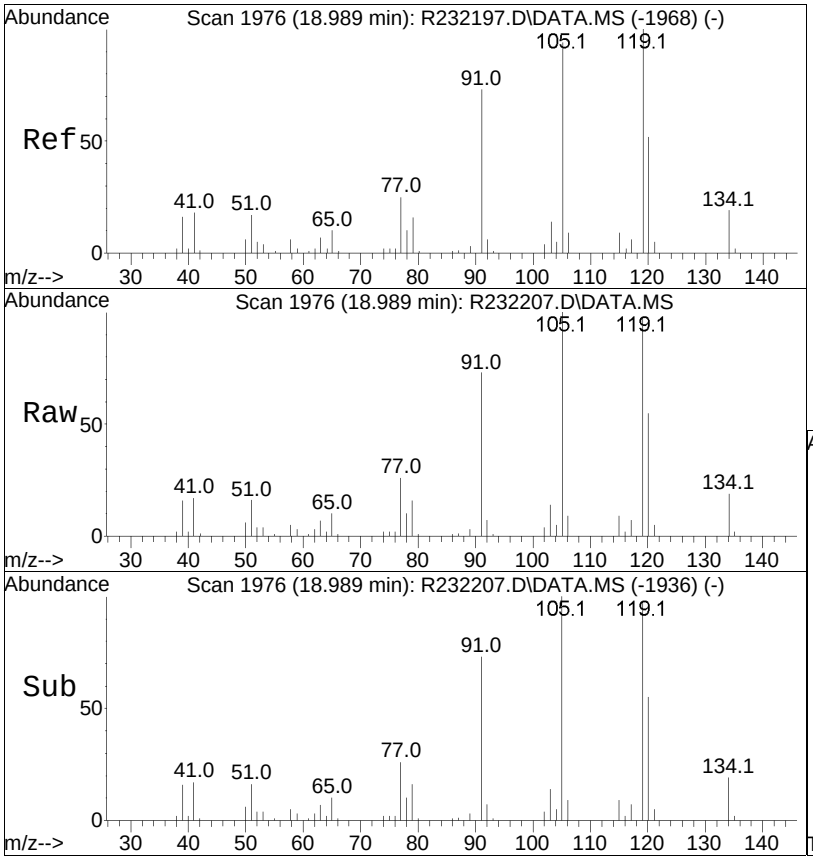


#97
1,3,5-trimethylbenzene
Concen: 9.54 ppbV m
RT: 18.68 min Scan# 1913
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:105 Resp: 569914

Ion	Ratio	Lower	Upper
105	100		
120	48.2	39.1	58.7
91	11.1	8.9	13.3

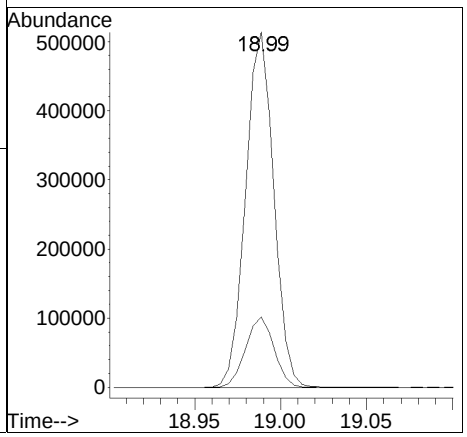


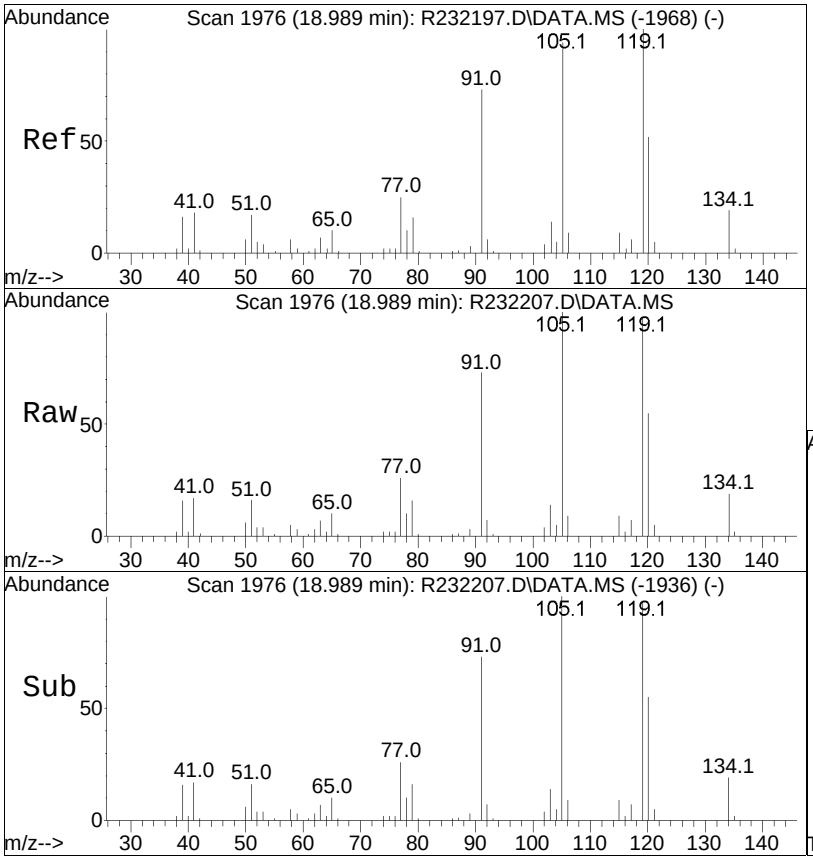


#98
tert-butylbenzene
Concen: 9.54 ppbV
RT: 18.99 min Scan# 1976
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:119 Resp: 585257

Ion	Ratio	Lower	Upper
119	100		
134	19.8	15.4	23.2

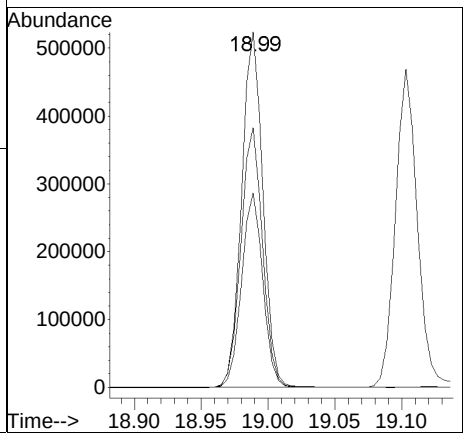


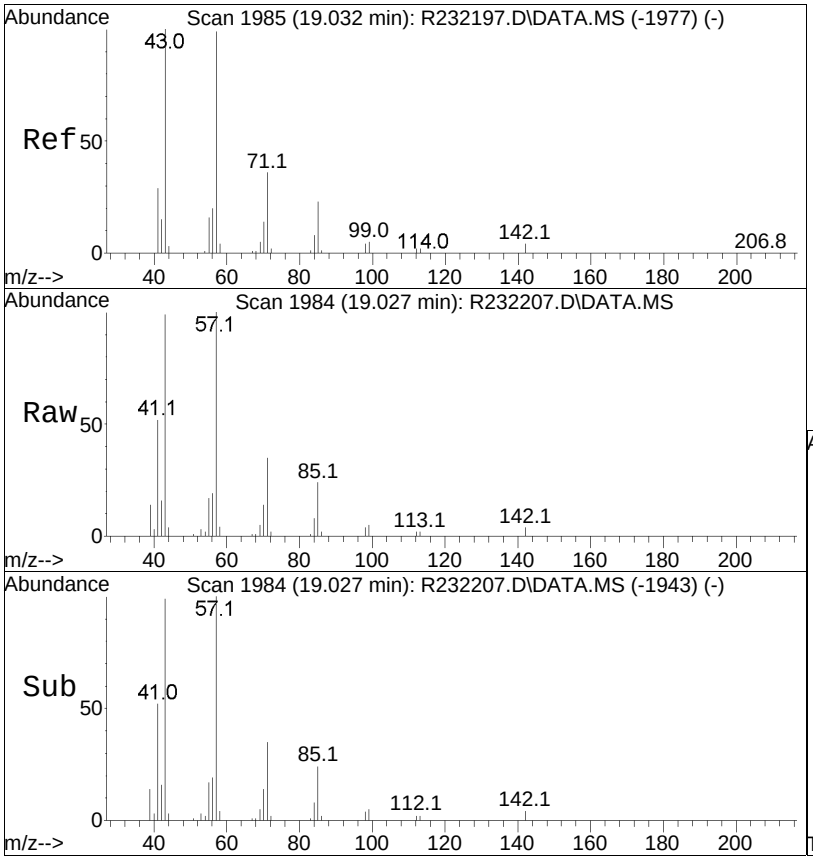


#99
1,2,4-trimethylbenzene
Concen: 10.18 ppbV
RT: 18.99 min Scan# 1976
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:105 Resp: 577883

Ion	Ratio	Lower	Upper
105	100		
120	54.7	44.3	66.5
91	73.1	62.4	93.6

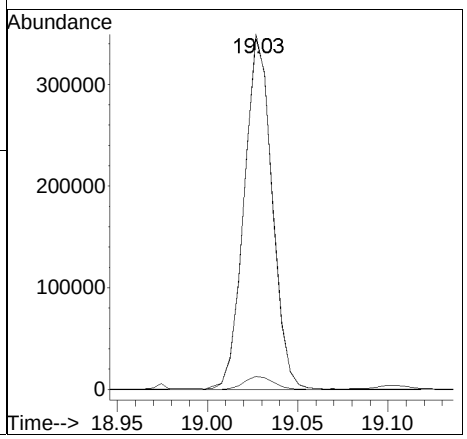


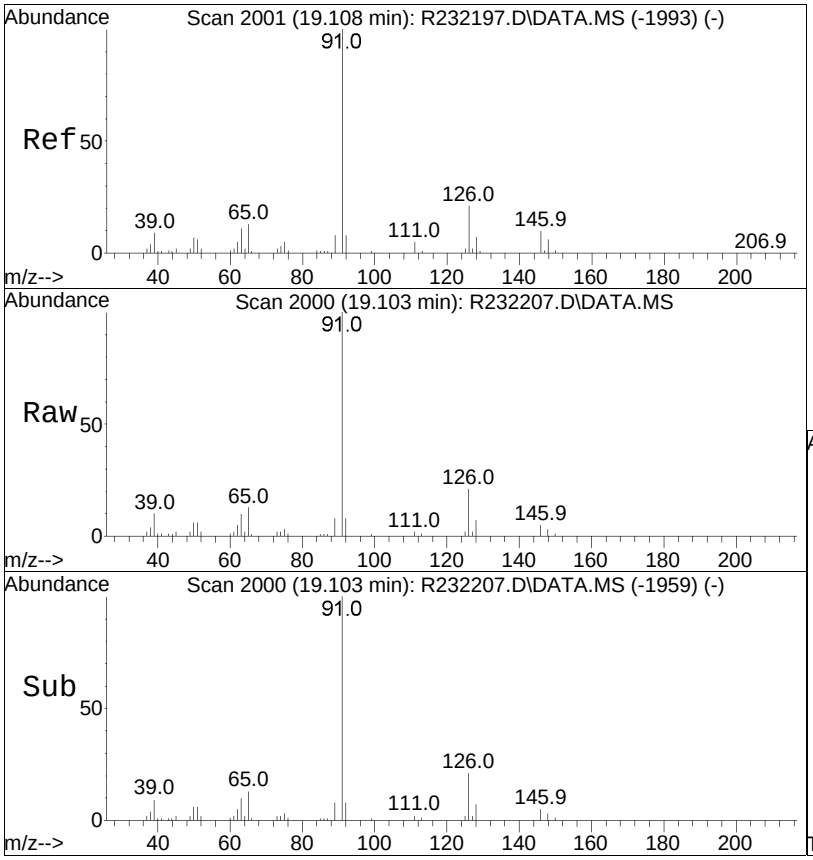


#100
decane
Concen: 8.95 ppbV
RT: 19.03 min Scan# 1984
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 57 Resp: 376488

Ion	Ratio	Lower	Upper
57	100		
43	98.8	80.6	121.0
142	3.7	3.0	4.4

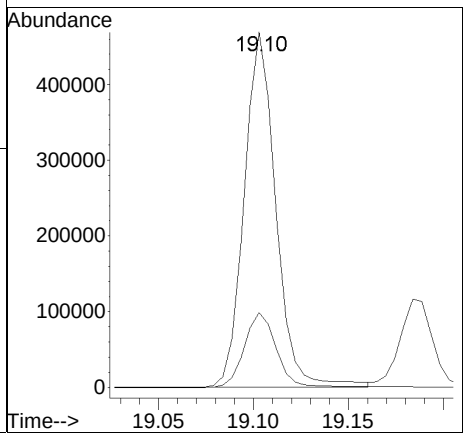


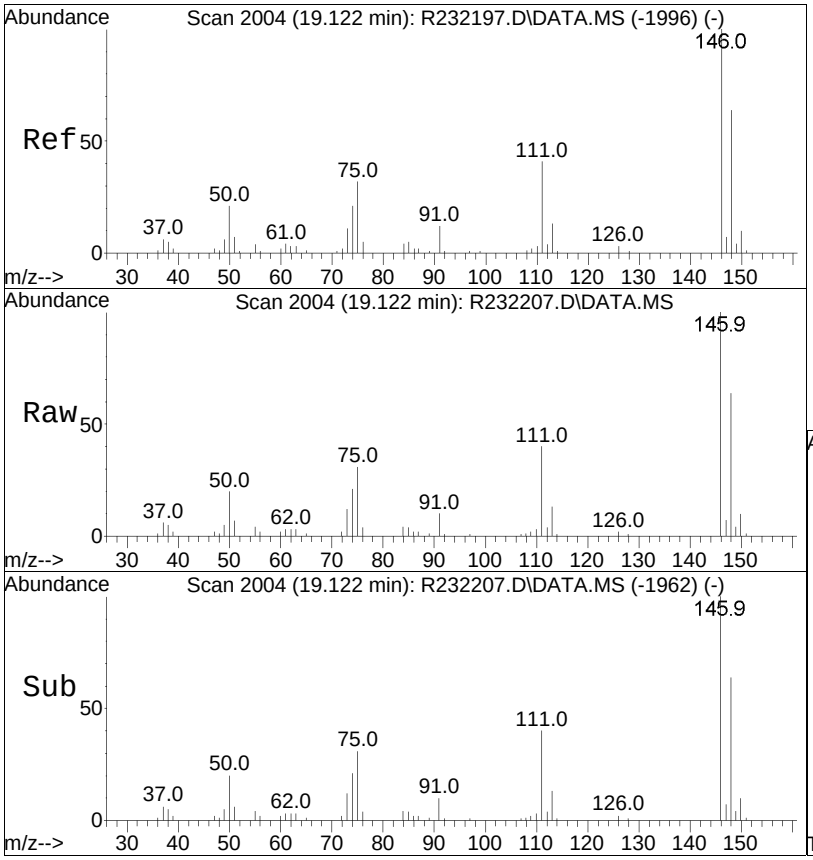


#101
Benzyl Chloride
Concen: 10.33 ppbV
RT: 19.10 min Scan# 2000
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 91 Resp: 542826

Ion	Ratio	Lower	Upper
91	100		
126	21.1	17.1	25.7

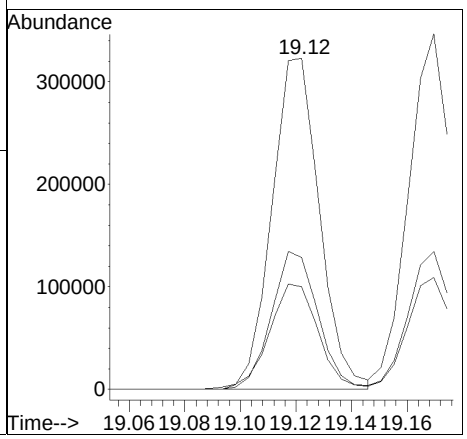


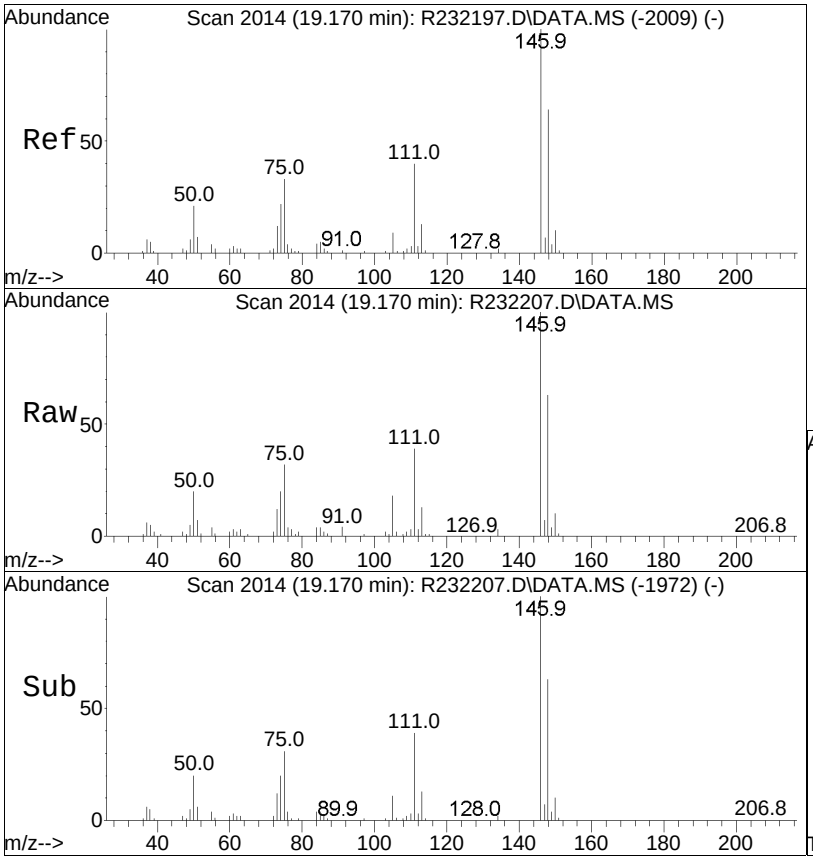


#102
1,3-dichlorobenzene
Concen: 10.34 ppbV
RT: 19.12 min Scan# 2004
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:146 Resp: 384871

Ion	Ratio	Lower	Upper
146	100		
111	39.8	32.9	49.3
75	31.0	25.6	38.4

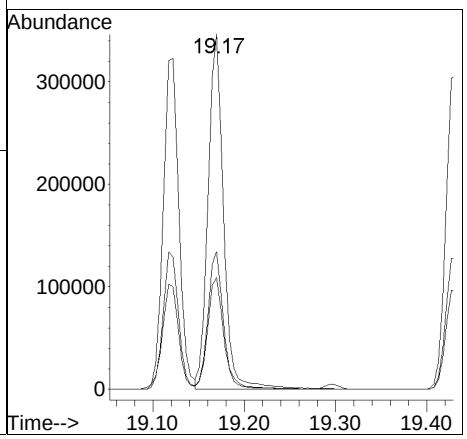


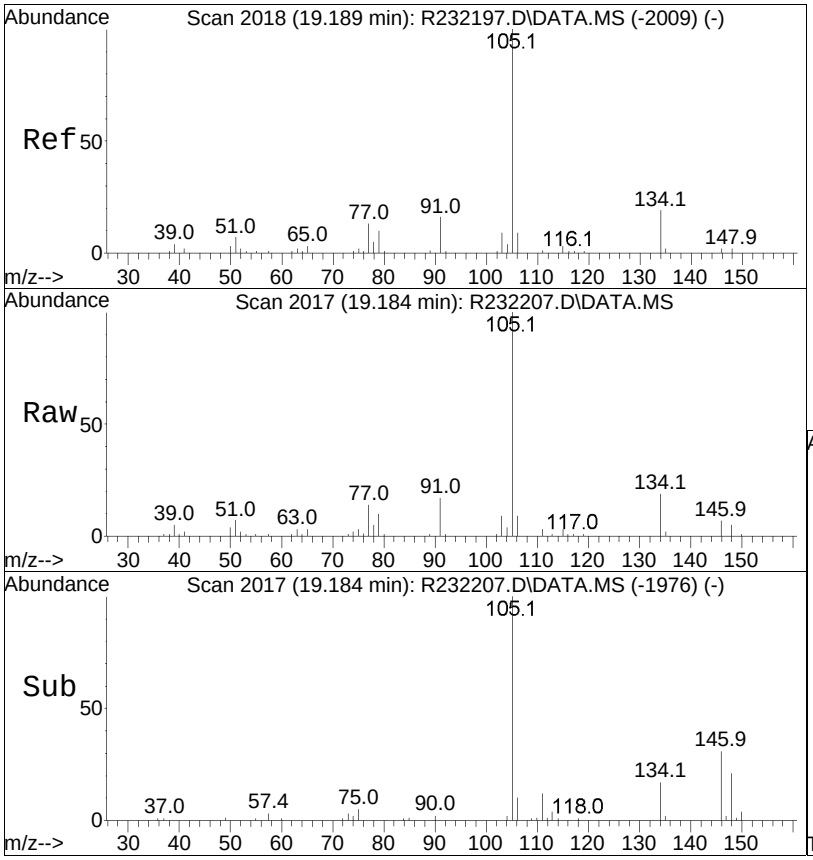


#103
1,4-dichlorobenzene
Concen: 10.16 ppbV m
RT: 19.17 min Scan# 2014
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:146 Resp: 412893

Ion	Ratio	Lower	Upper
146	100		
111	38.9	31.6	47.4
75	31.5	25.9	38.9

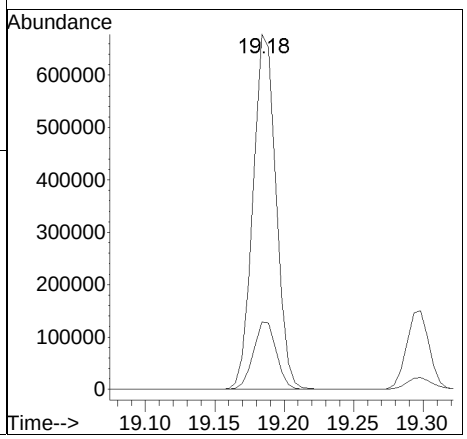


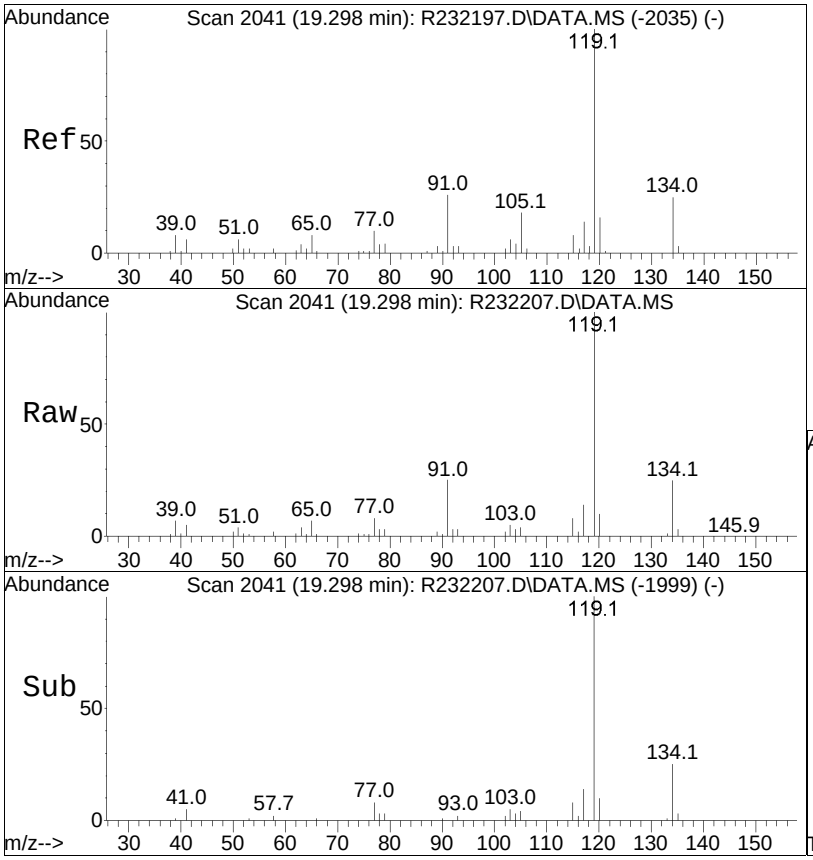


#104
sec-butylbenzene
Concen: 9.20 ppbV
RT: 19.18 min Scan# 2017
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:105 Resp: 781794

Ion	Ratio	Lower	Upper
105	100		
134	18.9	15.0	22.6

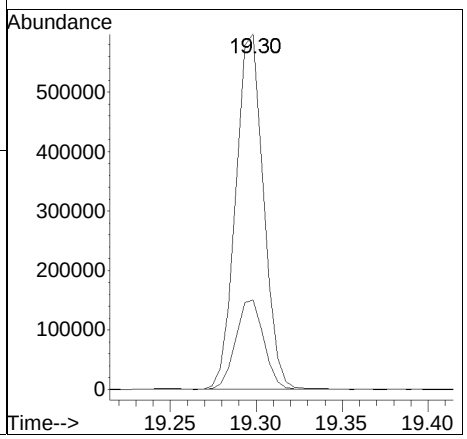


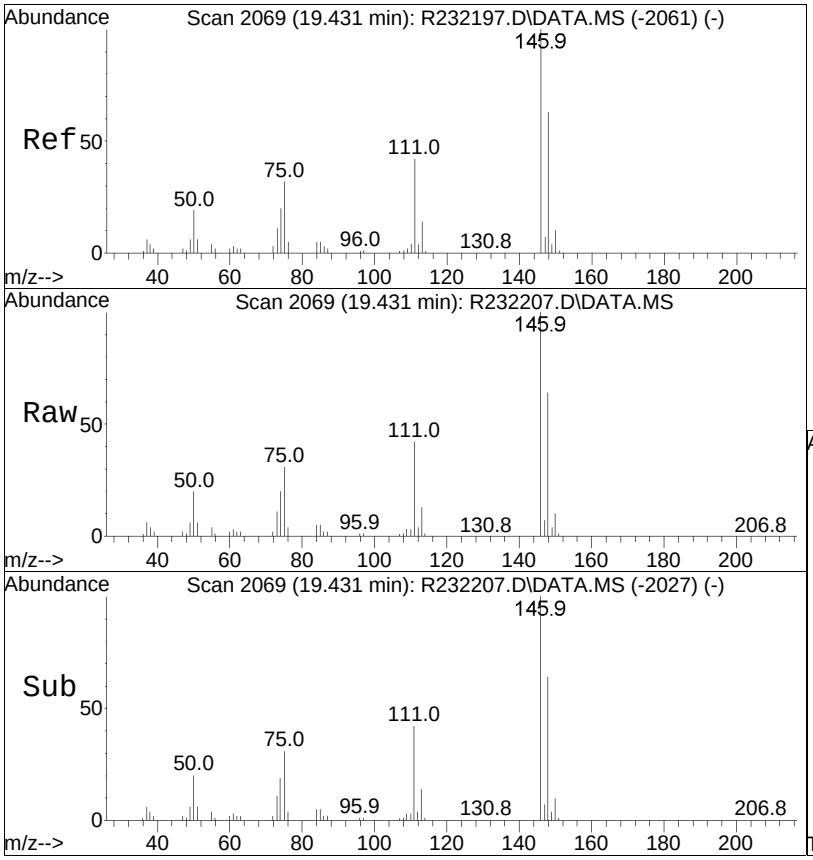


#106
p-isopropyltoluene
Concen: 8.80 ppbV
RT: 19.30 min Scan# 2041
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:119 Resp: 672998

Ion	Ratio	Lower	Upper
119	100		
134	25.2	19.8	29.8

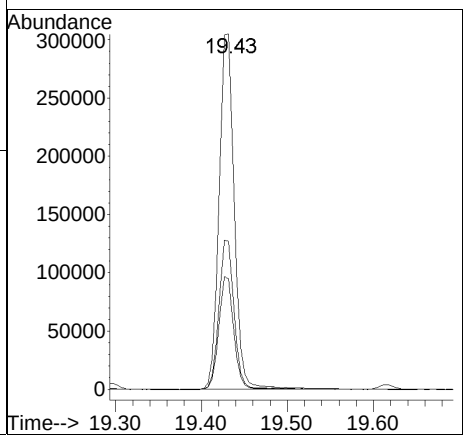


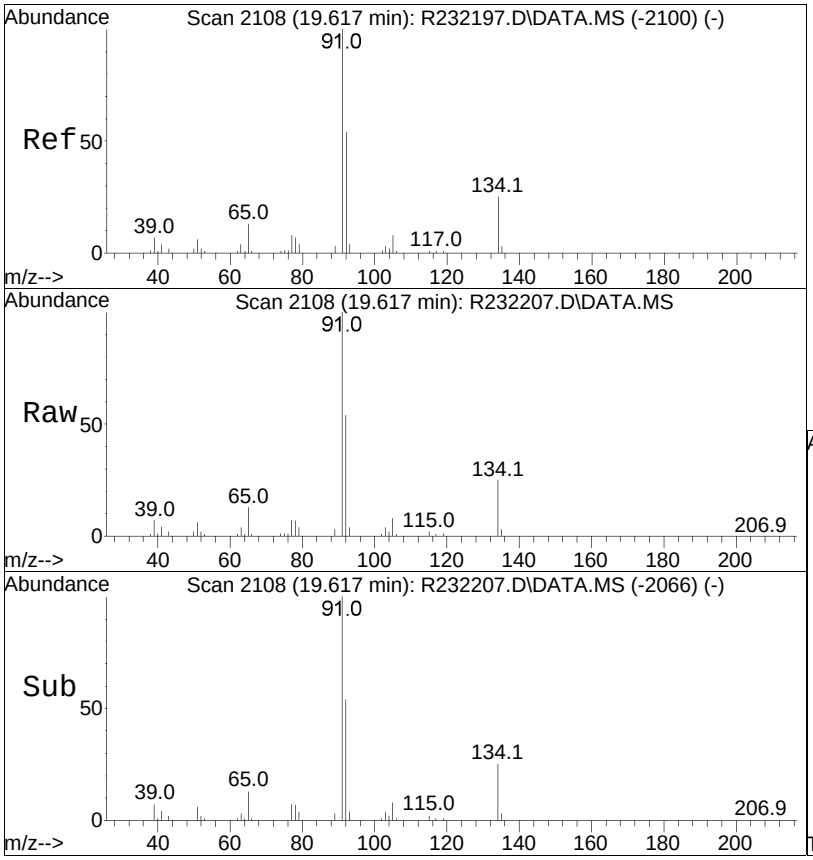


#107
1,2-dichlorobenzene
Concen: 10.10 ppbV
RT: 19.43 min Scan# 2069
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:146 Resp: 376447

Ion	Ratio	Lower	Upper
146	100		
111	41.7	34.0	51.0
75	31.1	25.6	38.4

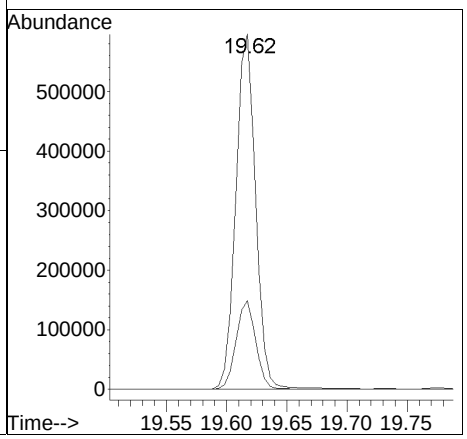


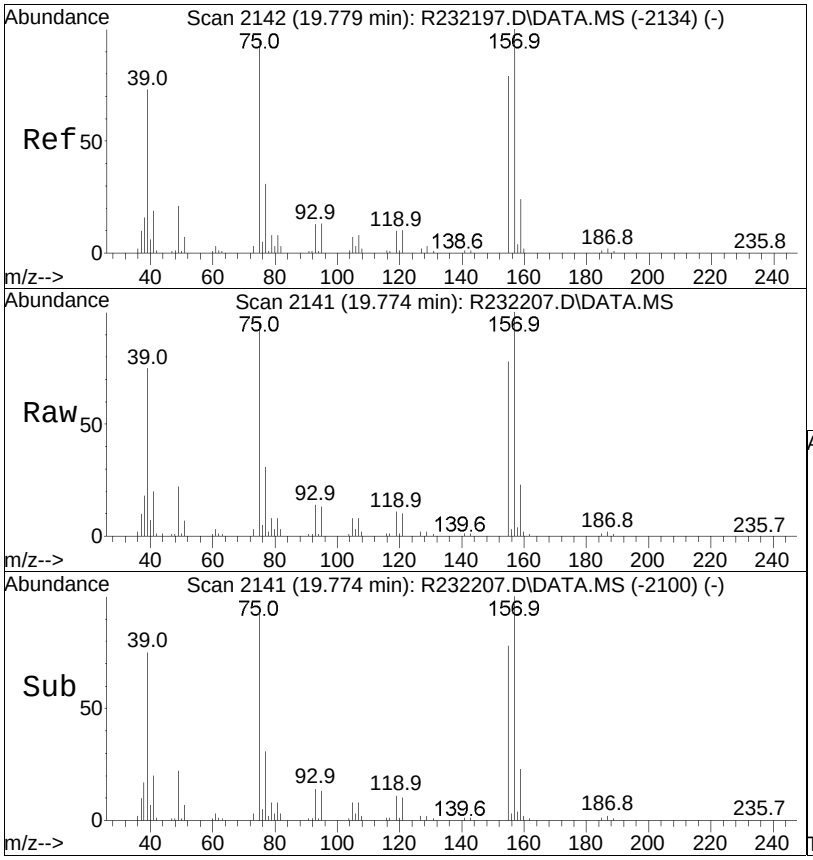


#108
n-butylbenzene
Concen: 9.79 ppbV
RT: 19.62 min Scan# 2108
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 91 Resp: 683069

Ion	Ratio	Lower	Upper
91	100		
134	25.0	19.9	29.9

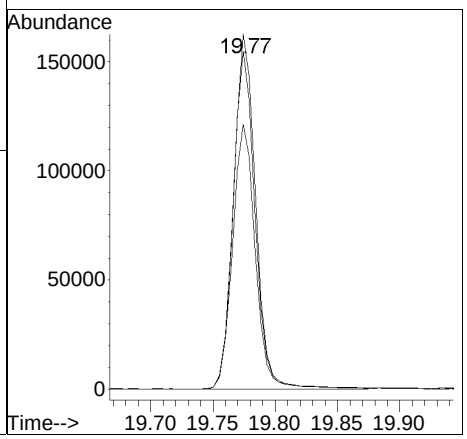


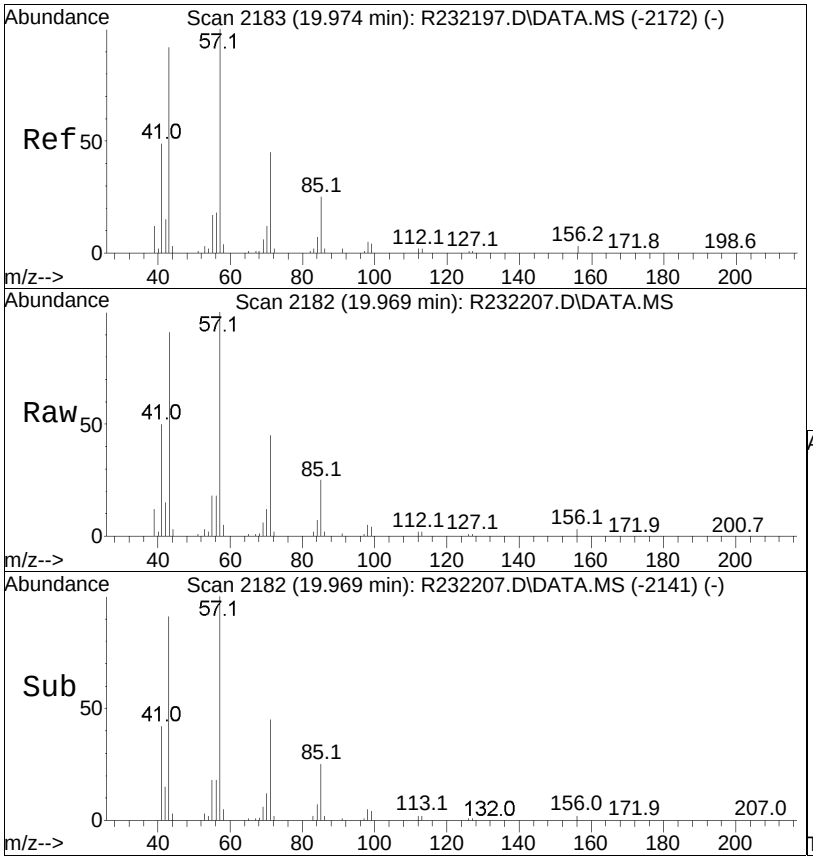


#111
1,2-dibromo-3-chloropropane
Concen: 9.59 ppbV
RT: 19.77 min Scan# 2141
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 75 Resp: 192093

Ion	Ratio	Lower	Upper
75	100		
157	105.0	84.5	126.7
39	78.4	61.4	92.0

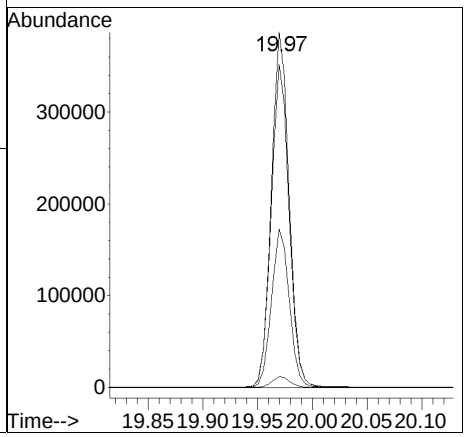


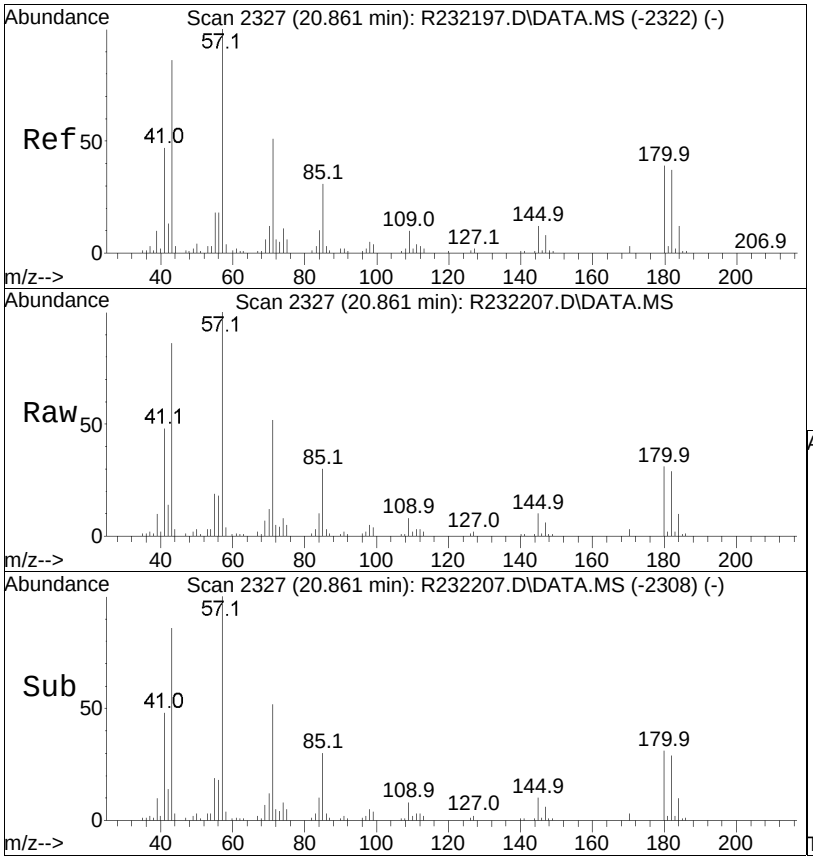


#112
undecane
Concen: 9.39 ppbV
RT: 19.97 min Scan# 2182
Delta R.T. -0.005 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 57 Resp: 437990

Ion	Ratio	Lower	Upper
57	100		
43	91.0	74.0	111.0
71	44.7	35.9	53.9
156	3.0	2.5	3.7

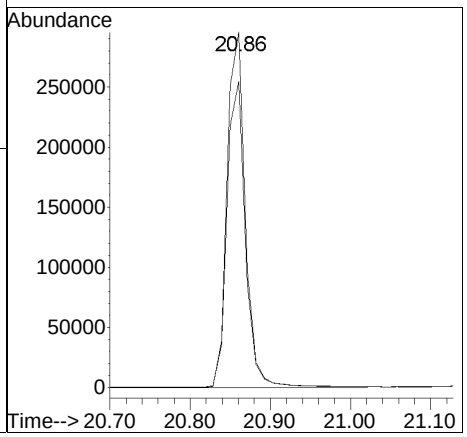


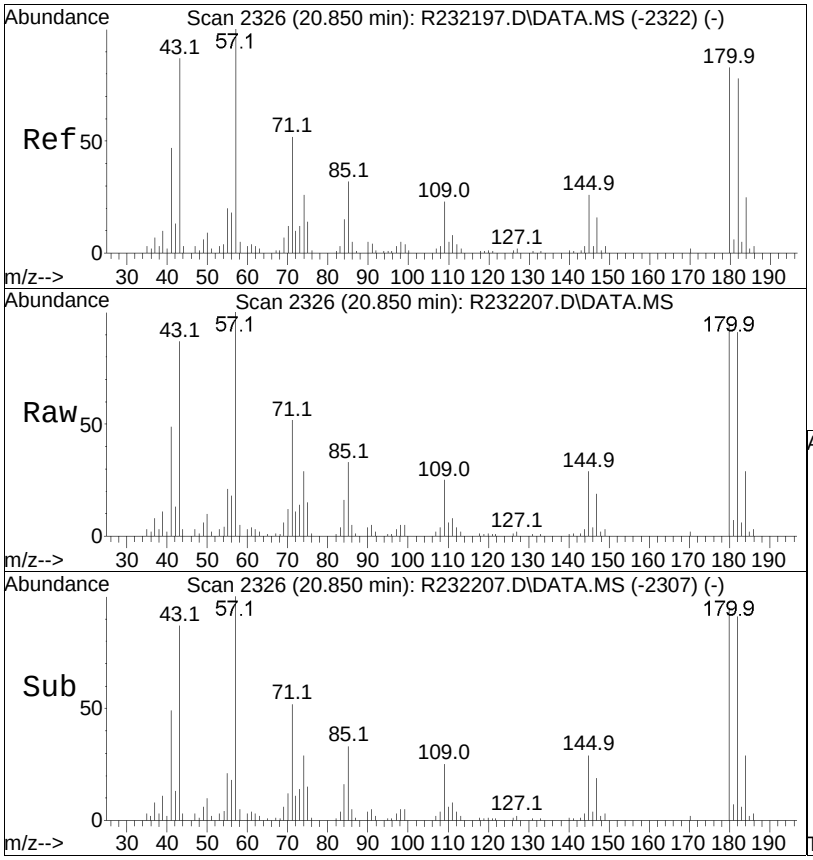


#114
dodecane
Concen: 10.27 ppbV
RT: 20.86 min Scan# 2327
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion: 57 Resp: 468454

Ion	Ratio	Lower	Upper
57	100		
43	86.2	68.7	103.1

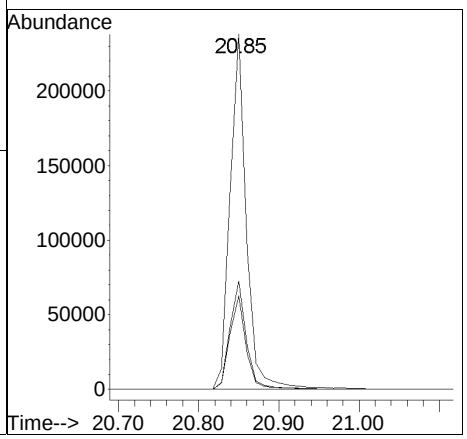


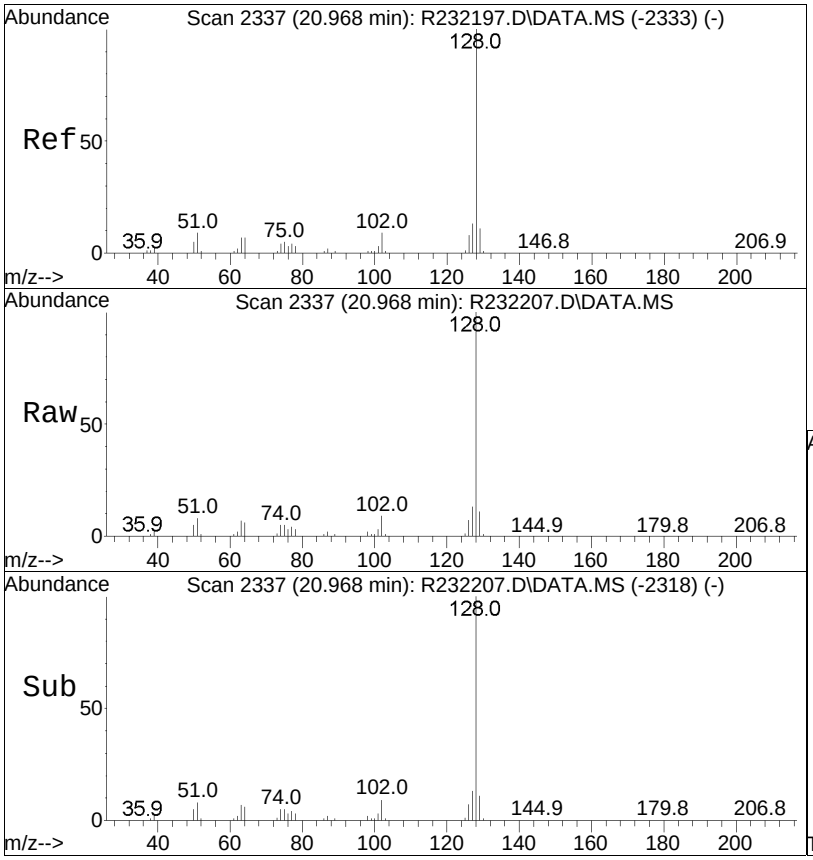


#115
1,2,4-trichlorobenzene
Concen: 11.31 ppbV
RT: 20.85 min Scan# 2326
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:180 Resp: 338384

Ion	Ratio	Lower	Upper
180	100		
145	30.6	25.3	37.9
109	26.3	21.8	32.8

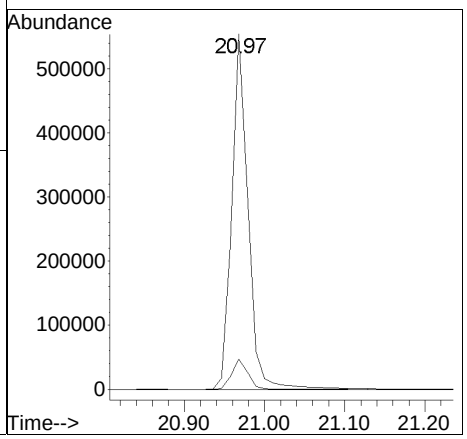


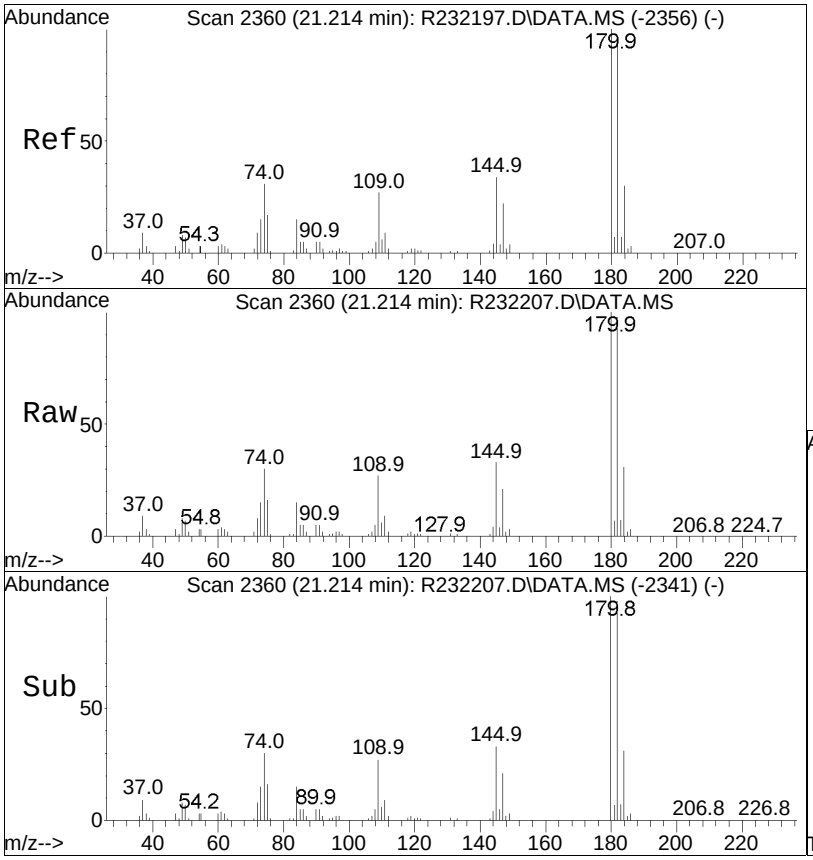


#116
naphthalene
Concen: 10.51 ppbV
RT: 20.97 min Scan# 2337
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:128 Resp: 786035

Ion	Ratio	Lower	Upper
128	100		
102	8.5	7.2	10.8

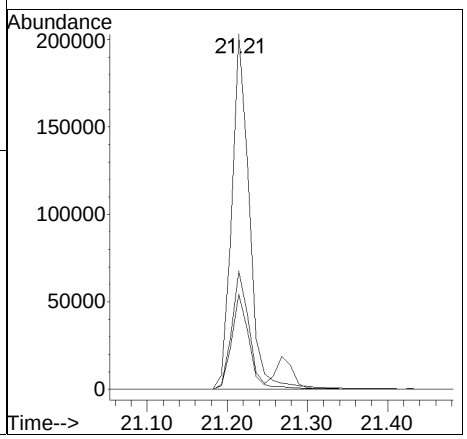


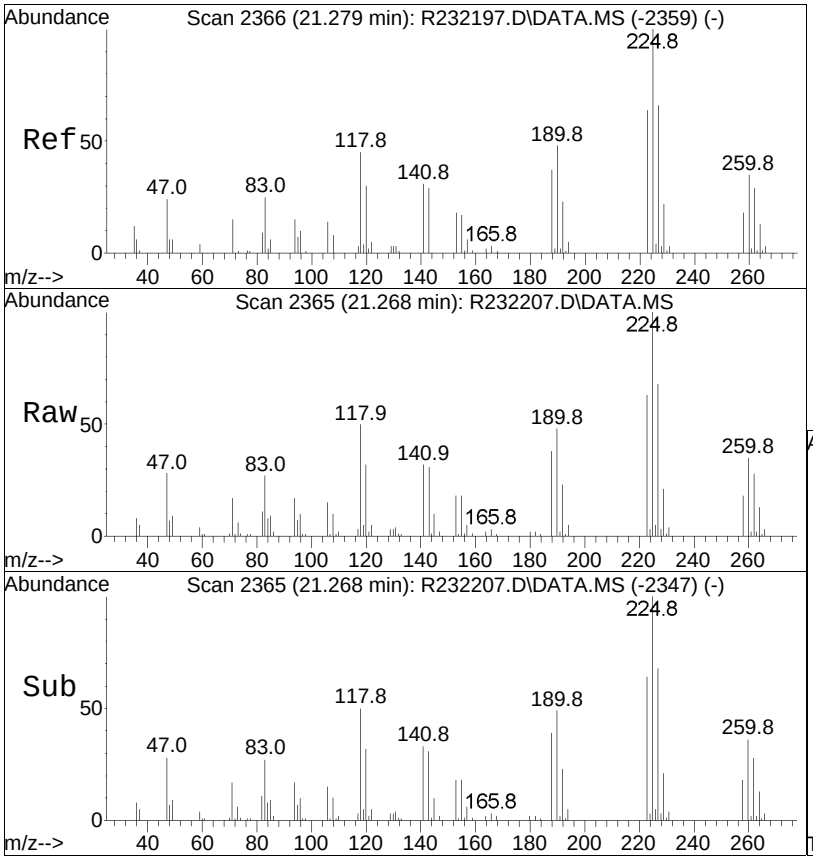


#117
1,2,3-trichlorobenzene
Concen: 10.68 ppbV
RT: 21.21 min Scan# 2360
Delta R.T. -0.000 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:180 Resp: 310800

Ion	Ratio	Lower	Upper
180	100		
145	33.3	27.0	40.4
109	26.8	21.8	32.6

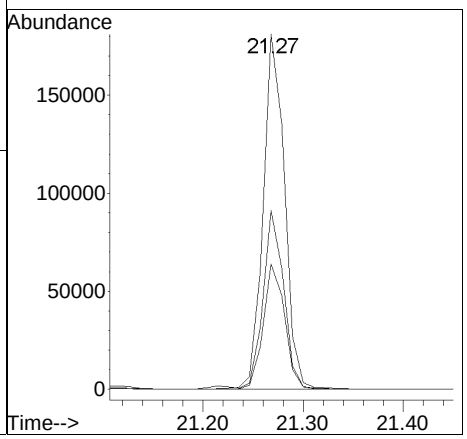




#119
hexachlorobutadiene
Concen: 10.06 ppbV
RT: 21.27 min Scan# 2365
Delta R.T. -0.011 min
Lab File: R232207.D
Acq: 20 Jan 2015 11:12 am

Tgt Ion:225 Resp: 269529

Ion	Ratio	Lower	Upper
225	100		
260	35.4	27.8	41.6
118	50.3	36.4	54.6

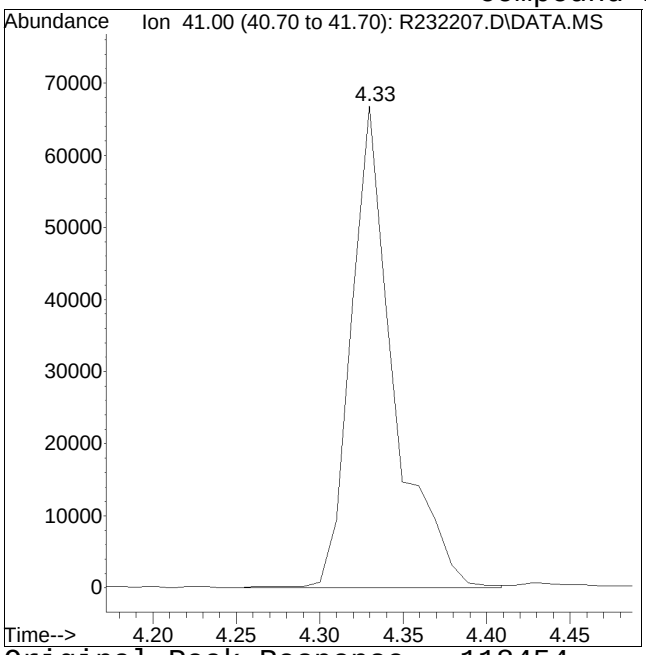


Manual Integration/Negative Proof Report

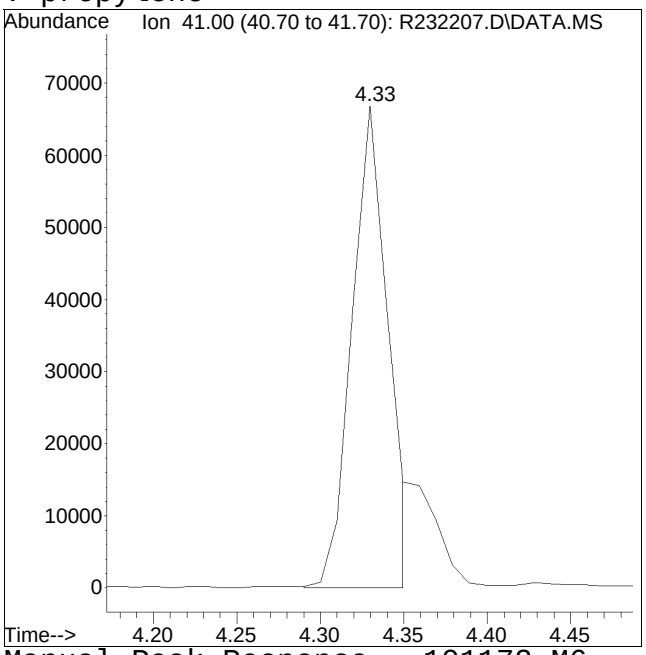
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232207.D
Date Inj'd : 1/20/2015 11:12 am
Sample : WG757004-3,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 11:39 am

Compound #3: propylene



Original Peak Response = 118454



Manual Peak Response = 101172 M6

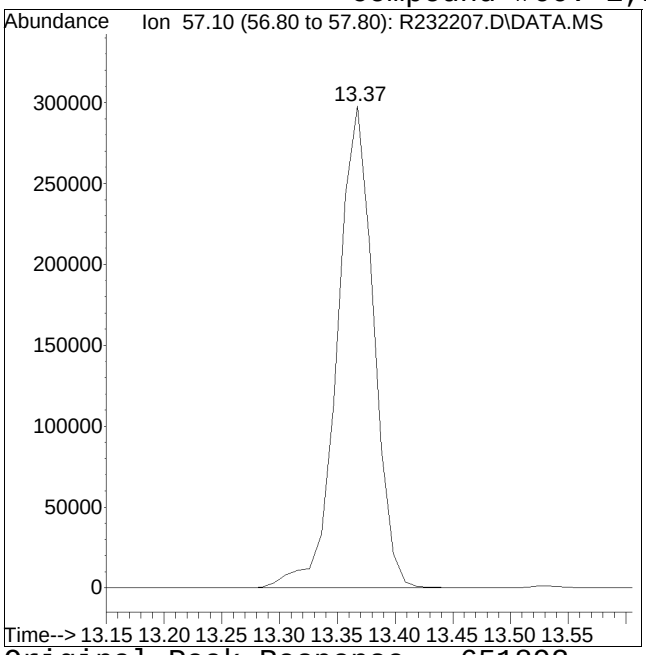
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

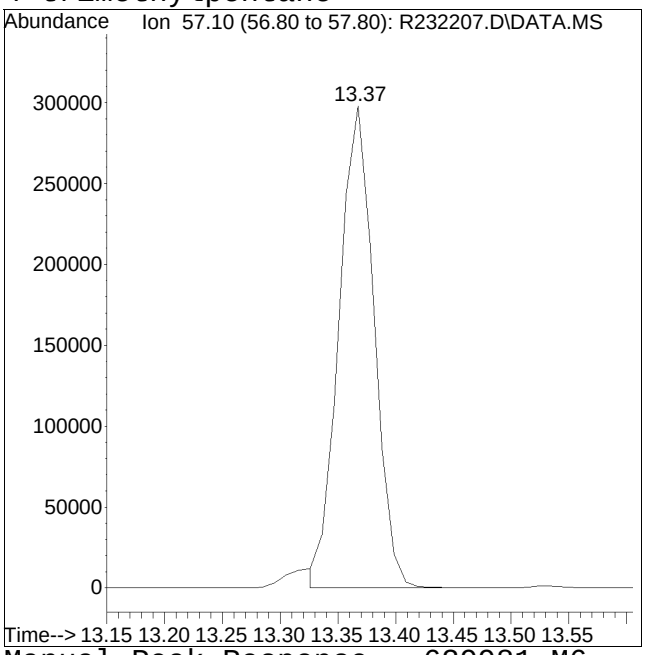
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232207.D
Date Inj'd : 1/20/2015 11:12 am
Sample : WG757004-3,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 11:39 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 651892



Manual Peak Response = 629981 M6

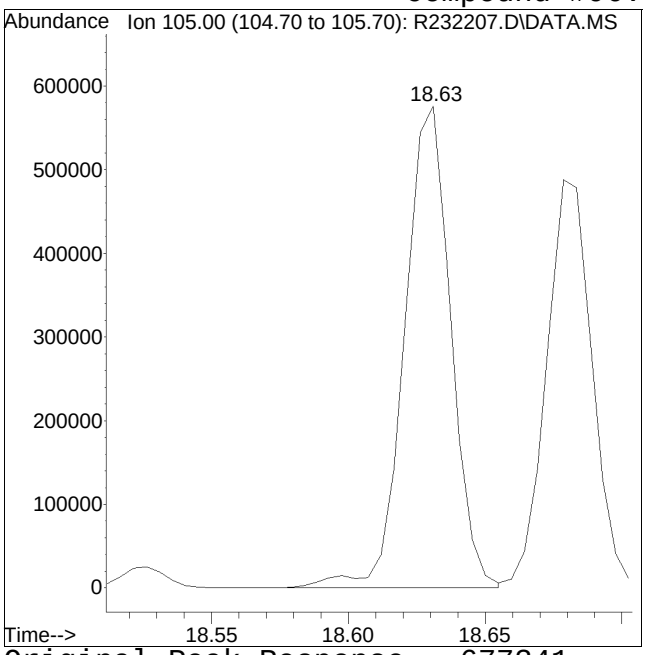
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

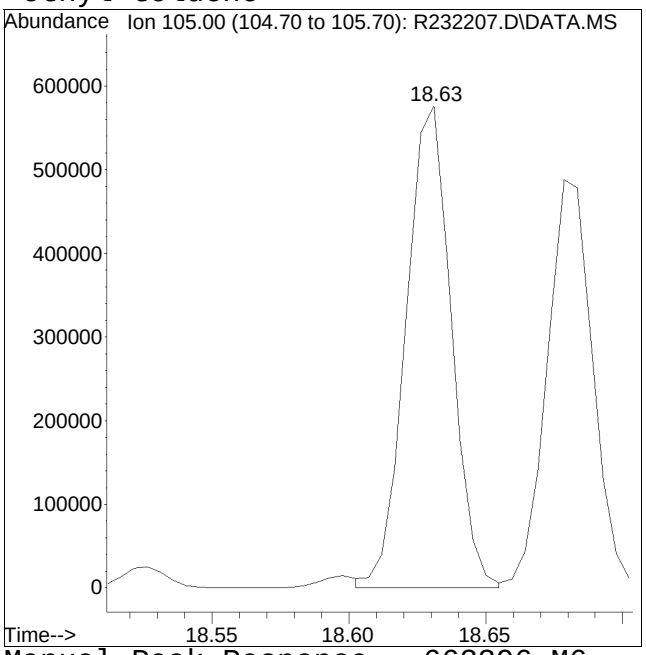
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232207.D
Date Inj'd : 1/20/2015 11:12 am
Sample : WG757004-3,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 11:39 am

Compound #96: 4-ethyl toluene



Original Peak Response = 677341



Manual Peak Response = 663396 M6

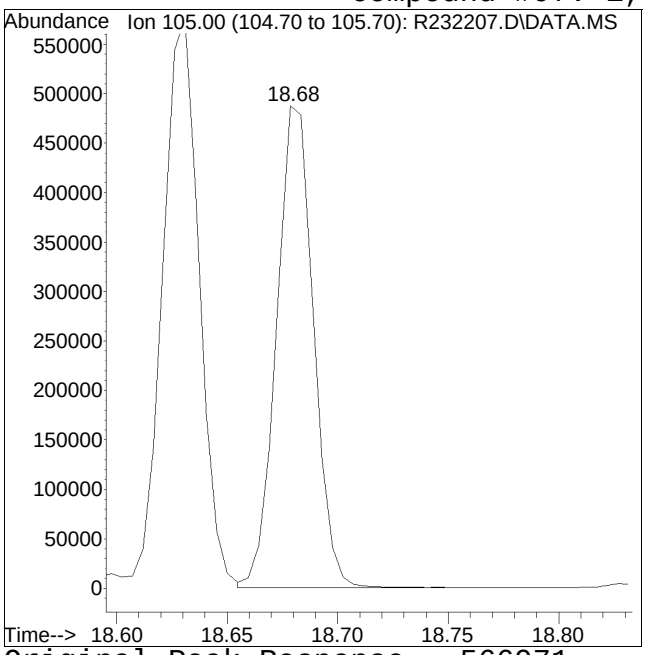
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

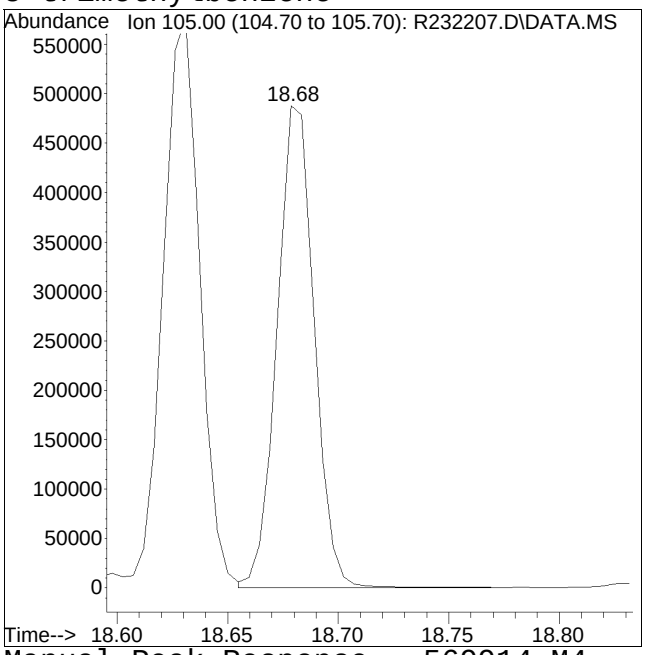
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232207.D
Date Inj'd : 1/20/2015 11:12 am
Sample : WG757004-3,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 11:39 am

Compound #97: 1,3,5-trimethylbenzene



Original Peak Response = 566971



Manual Peak Response = 569914 M4

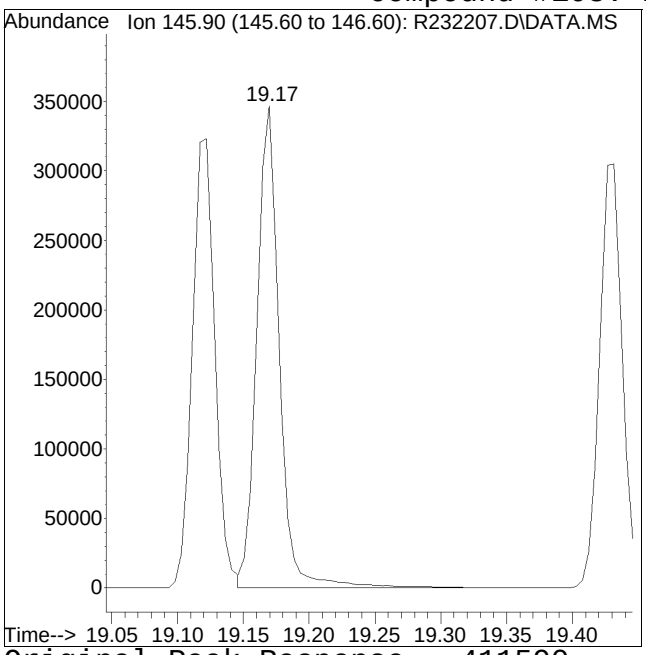
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

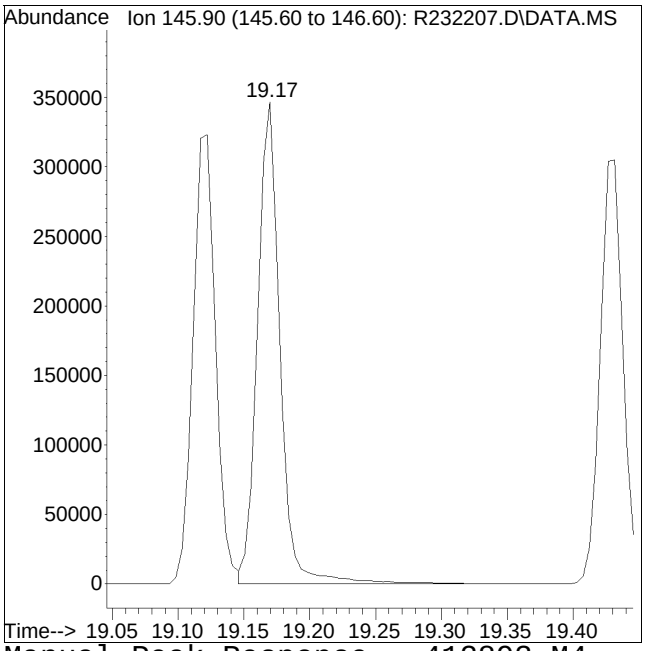
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232207.D
Date Inj'd : 1/20/2015 11:12 am
Sample : WG757004-3,3,250,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/20/2015 11:39 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 411590



Manual Peak Response = 412893 M4

M4 = Poor automated baseline construction.

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-3	Date Collected	:
Client ID	: WG760633-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 02/04/15 16:52
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141369	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	9.9	0.20	--	49.	0.99	--	
74-87-3	Chloromethane	9.9	0.20	--	20.	0.41	--	
76-14-2	Freon-114	10.	0.20	--	70.	1.4	--	
75-01-4	Vinyl chloride	9.9	0.20	--	25.	0.51	--	
106-99-0	1,3-Butadiene	10.	0.20	--	22.	0.44	--	
74-83-9	Bromomethane	9.4	0.20	--	37.	0.78	--	
75-00-3	Chloroethane	10.	0.20	--	26.	0.53	--	
64-17-5	Ethanol	50.	2.5	--	94.	4.7	--	
593-60-2	Vinyl bromide	10.	0.20	--	44.	0.87	--	
67-64-1	Acetone	51.	1.0	--	120	2.4	--	
75-69-4	Trichlorofluoromethane	9.9	0.20	--	56.	1.1	--	
67-63-0	Isopropanol	10.	0.50	--	25.	1.2	--	
75-35-4	1,1-Dichloroethene	9.7	0.20	--	38.	0.79	--	
75-65-0	Tertiary butyl Alcohol	9.6	0.50	--	29.	1.5	--	
75-09-2	Methylene chloride	9.4	0.50	--	33.	1.7	--	
107-05-1	3-Chloropropene	10.	0.20	--	31.	0.63	--	
75-15-0	Carbon disulfide	8.9	0.20	--	28.	0.62	--	
76-13-1	Freon-113	9.9	0.20	--	76.	1.5	--	
156-60-5	trans-1,2-Dichloroethene	8.9	0.20	--	35.	0.79	--	
75-34-3	1,1-Dichloroethane	9.7	0.20	--	39.	0.81	--	
1634-04-4	Methyl tert butyl ether	9.7	0.20	--	35.	0.72	--	
78-93-3	2-Butanone	9.2	0.20	--	27.	0.59	--	
156-59-2	cis-1,2-Dichloroethene	11.	0.20	--	44.	0.79	--	
67-66-3	Chloroform	9.9	0.20	--	48.	0.98	--	
109-99-9	Tetrahydrofuran	8.9	0.20	--	26.	0.59	--	
107-06-2	1,2-Dichloroethane	9.6	0.20	--	39.	0.81	--	
110-54-3	n-Hexane	10.	0.20	--	35.	0.70	--	
71-55-6	1,1,1-Trichloroethane	11.	0.20	--	60.	1.1	--	

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-3	Date Collected	:
Client ID	: WG760633-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 02/04/15 16:52
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141369	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	9.2	0.20	--	29.	0.64	--	
56-23-5	Carbon tetrachloride	10.	0.20	--	63.	1.3	--	
110-82-7	Cyclohexane	8.6	0.20	--	30.	0.69	--	
78-87-5	1,2-Dichloropropane	11.	0.20	--	51.	0.92	--	
75-27-4	Bromodichloromethane	11.	0.20	--	74.	1.3	--	
123-91-1	1,4-Dioxane	10.	0.20	--	36.	0.72	--	
79-01-6	Trichloroethene	11.	0.20	--	59.	1.1	--	
540-84-1	2,2,4-Trimethylpentane	11.	0.20	--	51.	0.93	--	
80-62-6	Methyl Methacrylate	10.	0.50	--	41.	2.0	--	
142-82-5	Heptane	10.	0.20	--	41.	0.82	--	
10061-01-5	cis-1,3-Dichloropropene	12.	0.20	--	54.	0.91	--	
108-10-1	4-Methyl-2-pentanone	11.	0.20	--	45.	0.82	--	
10061-02-6	trans-1,3-Dichloropropene	10.	0.20	--	45.	0.91	--	
79-00-5	1,1,2-Trichloroethane	11.	0.20	--	60.	1.1	--	
108-88-3	Toluene	9.8	0.20	--	37.	0.75	--	
124-48-1	Dibromochloromethane	10.	0.20	--	85.	1.7	--	
106-93-4	1,2-Dibromoethane	9.8	0.20	--	75.	1.5	--	
127-18-4	Tetrachloroethene	9.6	0.20	--	65.	1.4	--	
108-90-7	Chlorobenzene	9.9	0.20	--	46.	0.92	--	
100-41-4	Ethylbenzene	10.	0.20	--	43.	0.87	--	
179601-23-1	p/m-Xylene	20.	0.40	--	87.	1.7	--	
75-25-2	Bromoform	10.	0.20	--	100	2.1	--	
100-42-5	Styrene	10.	0.20	--	43.	0.85	--	
79-34-5	1,1,2,2-Tetrachloroethane	10.	0.20	--	69.	1.4	--	
95-47-6	o-Xylene	11.	0.20	--	48.	0.87	--	
95-49-8	2-Chlorotoluene	9.9	0.20	--	51.	1.0	--	
622-96-8	4-Ethyltoluene	11.	0.20	--	54.	0.98	--	
108-67-8	1,3,5-Trimethybenzene	10.	0.20	--	49.	0.98	--	

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-3	Date Collected	:
Client ID	: WG760633-3LCS	Date Received	:
Sample Location	:	Date Analyzed	: 02/04/15 16:52
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141369	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	11.	0.20	--	54.	0.98	--	
541-73-1	1,3-Dichlorobenzene	11.	0.20	--	66.	1.2	--	
106-46-7	1,4-Dichlorobenzene	11.	0.20	--	66.	1.2	--	
95-50-1	1,2-Dichlorobenzene	11.	0.20	--	66.	1.2	--	
120-82-1	1,2,4-Trichlorobenzene	12.	0.20	--	89.	1.5	--	
87-68-3	Hexachlorobutadiene	11.	0.20	--	120	2.1	--	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141369.D
Acq On : 04 Feb 2015 04:52 pm
Operator : AIRLAB14:RY
Sample : WG760633-3,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 04 17:18:58 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.941	49	148305	10.000	ppbV	-0.03
Standard Area = 146829			Recovery = 101.01%			
43) 1,4-difluorobenzene	13.105	114	519572	10.000	ppbV	-0.01
Standard Area = 519450			Recovery = 100.02%			
67) chlorobenzene-D5	17.366	54	109592	10.000	ppbV	-0.02
Standard Area = 108386			Recovery = 101.11%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.902	85	404225	9.917	ppbV	100
6) chloromethane	5.143	50	116500	9.861	ppbV	100
7) Freon-114	5.316	85	439970	10.034	ppbV	98
9) vinyl chloride	5.477	62	143471	9.918	ppbV	99
10) 1,3-butadiene	5.690	54	110728	10.553	ppbV	98
13) bromomethane	6.071	94	140819M6	9.459	ppbV	
14) chloroethane	6.333	64	78416	10.110	ppbV	100
15) ethanol	6.560	31	392572	50.203	ppbV	98
17) vinyl bromide	6.823	106	160337	10.046	ppbV	99
19) acetone	7.181	43	1040493	51.102	ppbV	99
21) trichlorofluoromethane	7.396	101	421447	9.914	ppbV	100
22) isopropyl alcohol	7.539	45	237299	10.433	ppbV	100
26) 1,1-dichloroethene	8.219	61	233548	9.697	ppbV	99
27) tertiary butyl alcohol	8.303	59	298503	9.659	ppbV	100
28) methylene chloride	8.386	49	159296	9.375	ppbV	97
29) 3-chloropropene	8.530	41	185056	10.248	ppbV	99
30) carbon disulfide	8.720	76	468424	8.914	ppbV	99
31) Freon 113	8.709	101	337957	9.918	ppbV	100
32) trans-1,2-dichloroethene	9.526	61	206835	8.889	ppbV	99
33) 1,1-dichloroethane	9.763	63	272143	9.694	ppbV	100
34) MTBE	9.839	73	446096	9.738	ppbV	99
36) 2-butanone	10.239	43	298459	9.164	ppbV	99
37) cis-1,2-dichloroethene	10.742	61	220559	10.683	ppbV	100
39) chloroform	11.086	83	330279	9.881	ppbV	99
40) Tetrahydrofuran	11.536	42	169765	8.934	ppbV	98
42) 1,2-dichloroethane	11.920	62	203508	9.655	ppbV	99
44) hexane	10.980	57	227506	10.342	ppbV	96
48) 1,1,1-trichloroethane	12.197	97	343467	10.665	ppbV	98
50) benzene	12.722	78	434736	9.170	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141369.D
Acq On : 04 Feb 2015 04:52 pm
Operator : AIRLAB14:RY
Sample : WG760633-3,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 04 17:18:58 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

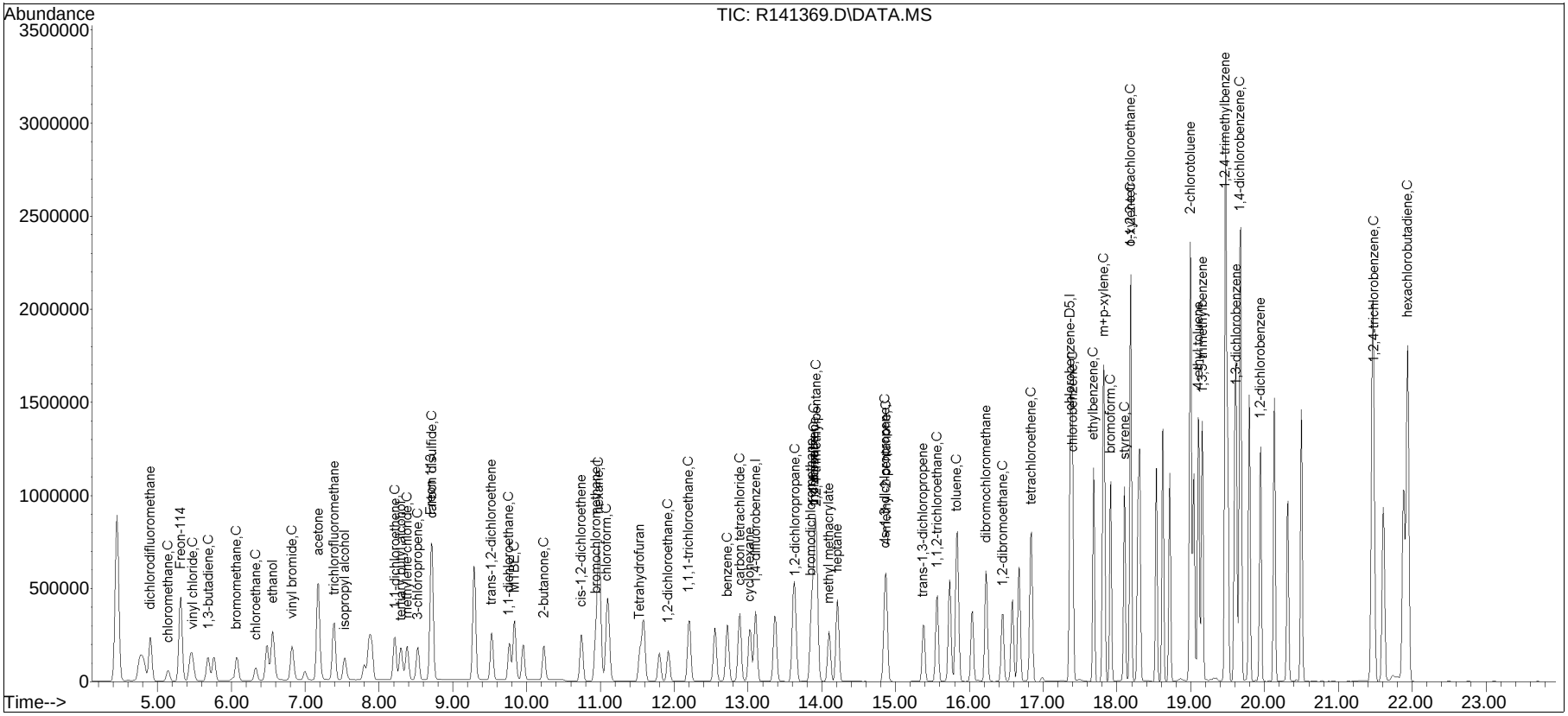
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) carbon tetrachloride	12.892	117	372330	10.164	ppbV	99
53) cyclohexane	13.020	56	214689	8.603	ppbV	98
56) 1,2-dichloropropane	13.645	63	186746	10.779	ppbV	99
57) bromodichloromethane	13.858	83	420202	10.826	ppbV	100
58) 1,4-dioxane	13.900	88	123538	10.421	ppbV	97
59) trichloroethene	13.900	130	265113	10.685	ppbV	100
60) 2,2,4-trimethylpentane	13.929	57	838203	10.654	ppbV	99
61) methyl methacrylate	14.099	41	207219	10.273	ppbV	100
62) heptane	14.213	43	289103	10.570	ppbV	99
63) cis-1,3-dichloropropene	14.858	75	312132	11.601	ppbV	99
64) 4-methyl-2-pentanone	14.871	43	402097	10.888	ppbV	100
65) trans-1,3-dichloropropene	15.374	75	275890	10.084	ppbV	100
66) 1,1,2-trichloroethane	15.567	97	239237	11.458	ppbV	98
68) toluene	15.824	91	688299	9.848	ppbV	100
74) dibromochloromethane	16.224	129	486771	9.955	ppbV	100
75) 1,2-dibromoethane	16.456	107	380062	9.820	ppbV	100
78) tetrachloroethene	16.842	166	396635	9.652	ppbV	97
80) chlorobenzene	17.404	112	571356	9.919	ppbV	100
81) ethylbenzene	17.683	91	914560	10.127	ppbV	99
83) m+p-xylene	17.818	91	1429920	20.598	ppbV	99
84) bromoform	17.916	173	572610	10.473	ppbV	100
85) styrene	18.105	104	586021	10.548	ppbV	99
86) 1,1,2,2-tetrachloroethane	18.188	83	554153	10.413	ppbV	99
87) o-xylene	18.188	91	783819	10.850	ppbV	100
93) 2-chlorotoluene	18.994	126	287907	9.940	ppbV	94
96) 4-ethyl toluene	19.100	105	1181811	10.631	ppbV	99
97) 1,3,5-trimethylbenzene	19.158	105	864211	10.349	ppbV	100
99) 1,2,4-trimethylbenzene	19.470	105	919726	10.891	ppbV	97
102) 1,3-dichlorobenzene	19.618	146	720206M3	11.250	ppbV	
103) 1,4-dichlorobenzene	19.667	146	656238	11.219	ppbV	98
107) 1,2-dichlorobenzene	19.947	146	650585	10.673	ppbV	99
115) 1,2,4-trichlorobenzene	21.481	180	620730	12.143	ppbV	98
119) hexachlorobutadiene	21.940	225	630507	10.812	ppbV	97

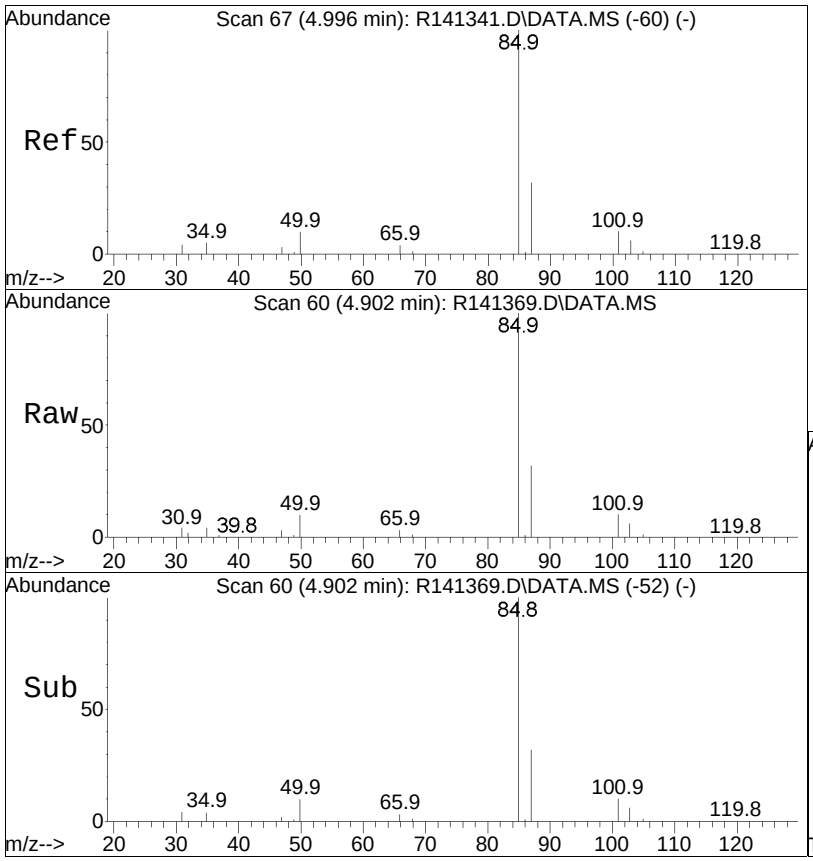
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : NJ-LL_New - .Data\Airlab14\2015\150204T\R141368.D

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141369.D
Acq On : 04 Feb 2015 04:52 pm
Operator : AIRLAB14:RY
Sample : WG760633-3,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 04 17:18:58 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

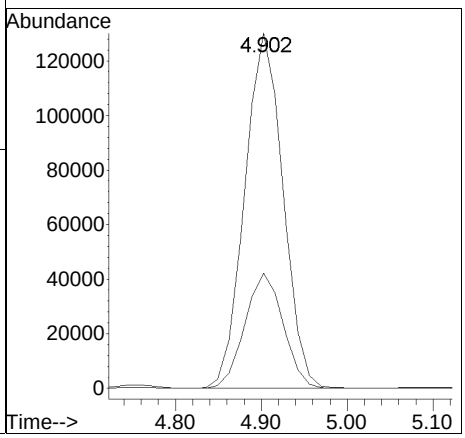


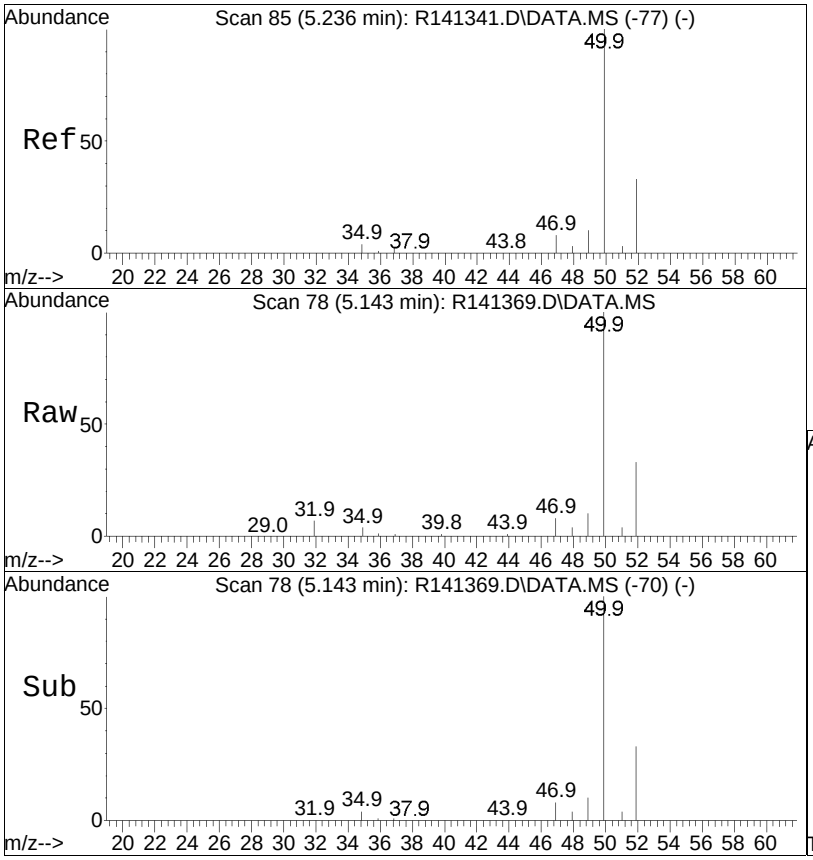


#5
dichlorodifluoromethane
Concen: 9.92 ppbV
RT: 4.902 min Scan# 60
Delta R.T. -0.093 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 85 Resp: 404225

Ion	Ratio	Lower	Upper
85	100		
87	32.4	25.9	38.9

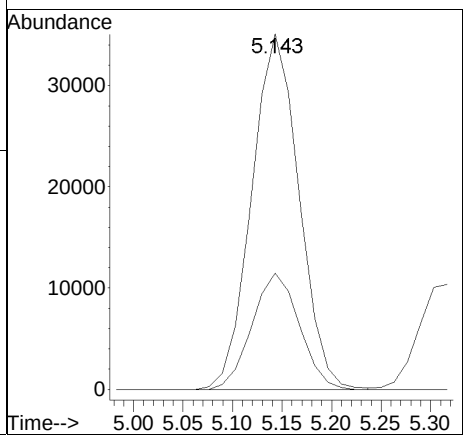


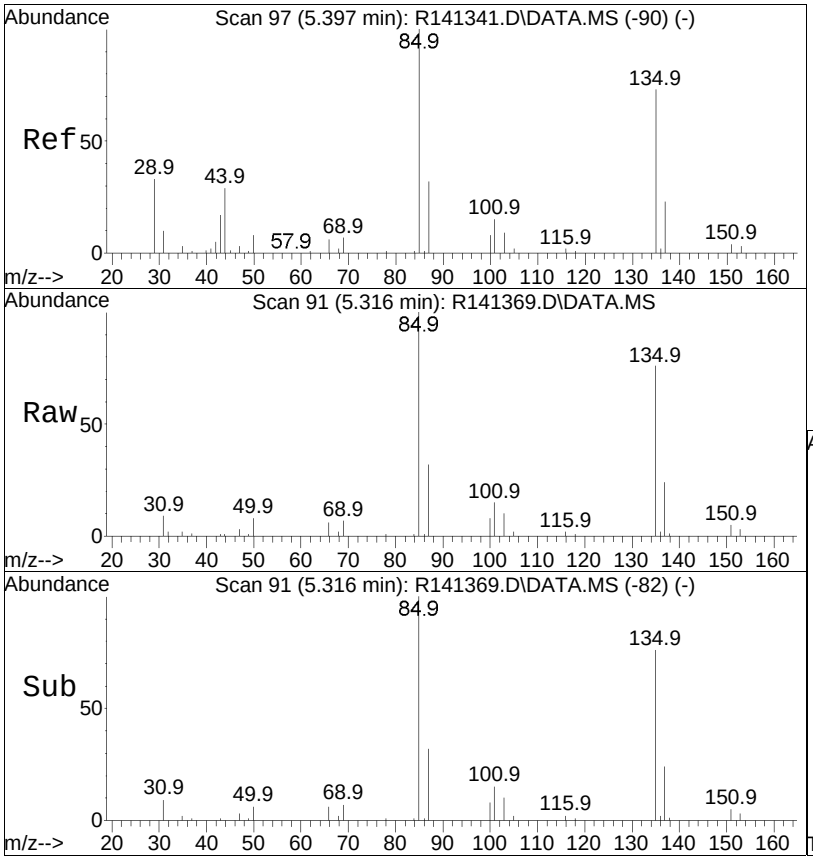


#6
chloromethane
Concen: 9.86 ppbV
RT: 5.143 min Scan# 78
Delta R.T. -0.093 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 50 Resp: 116500

Ion	Ratio	Lower	Upper
50	100		
52	32.7	26.2	39.2

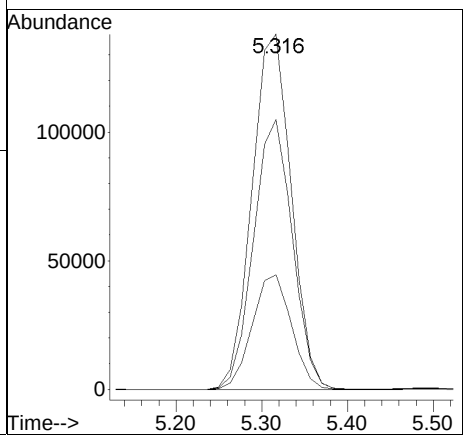


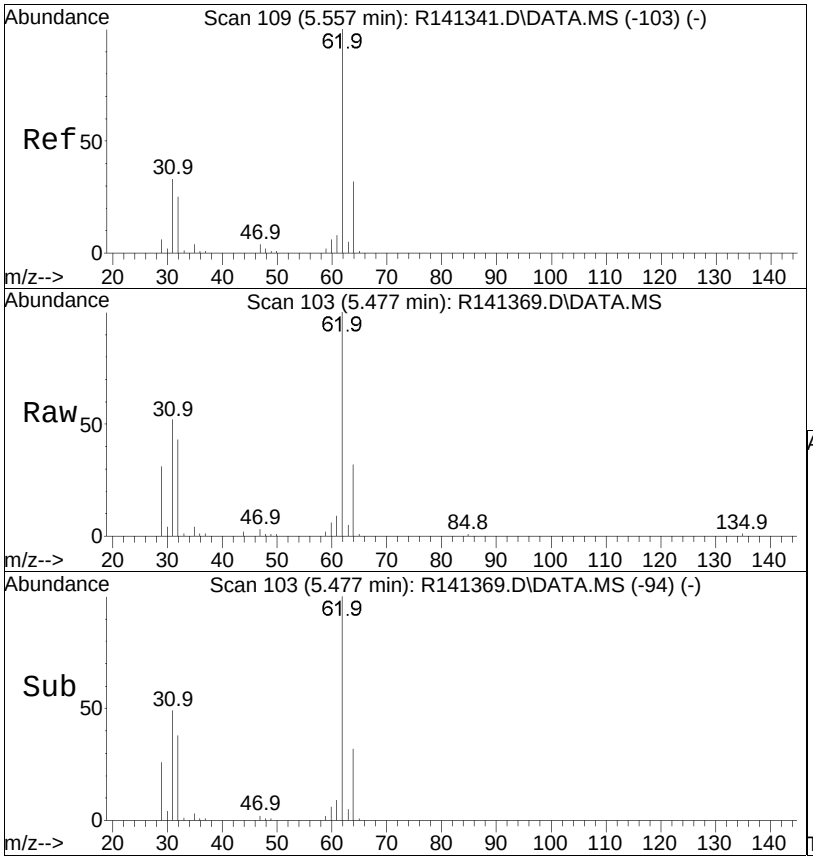


#7
Freon-114
Concen: 10.03 ppbV
RT: 5.316 min Scan# 91
Delta R.T. -0.080 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 85 Resp: 439970

Ion	Ratio	Lower	Upper
85	100		
87	32.3	25.7	38.5
135	76.0	58.6	87.8

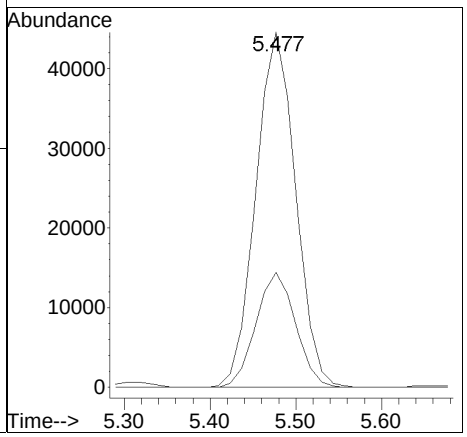


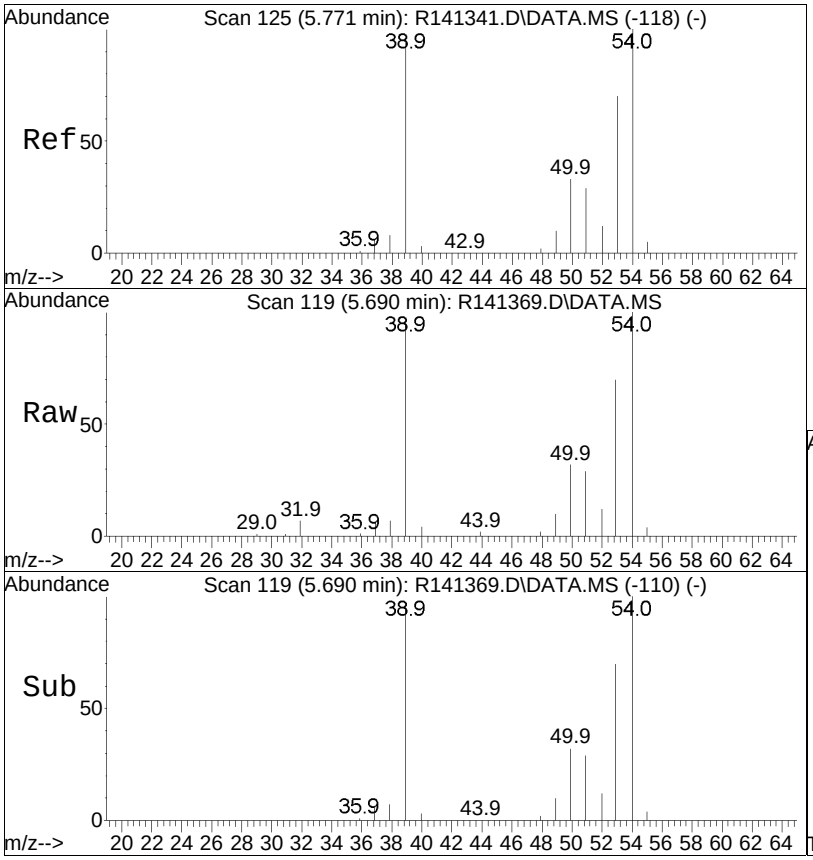


#9
vinyl chloride
Concen: 9.92 ppbV
RT: 5.477 min Scan# 103
Delta R.T. -0.080 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 62 Resp: 143471

Ion	Ratio	Lower	Upper
62	100		
64	32.4	25.5	38.3

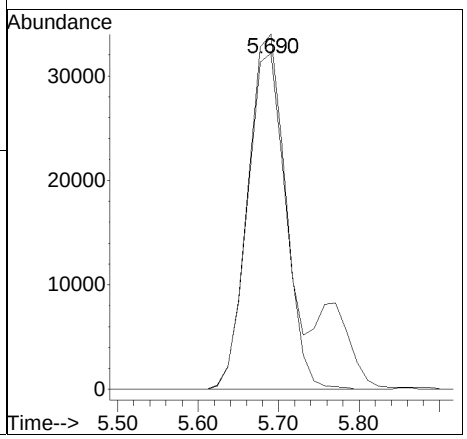


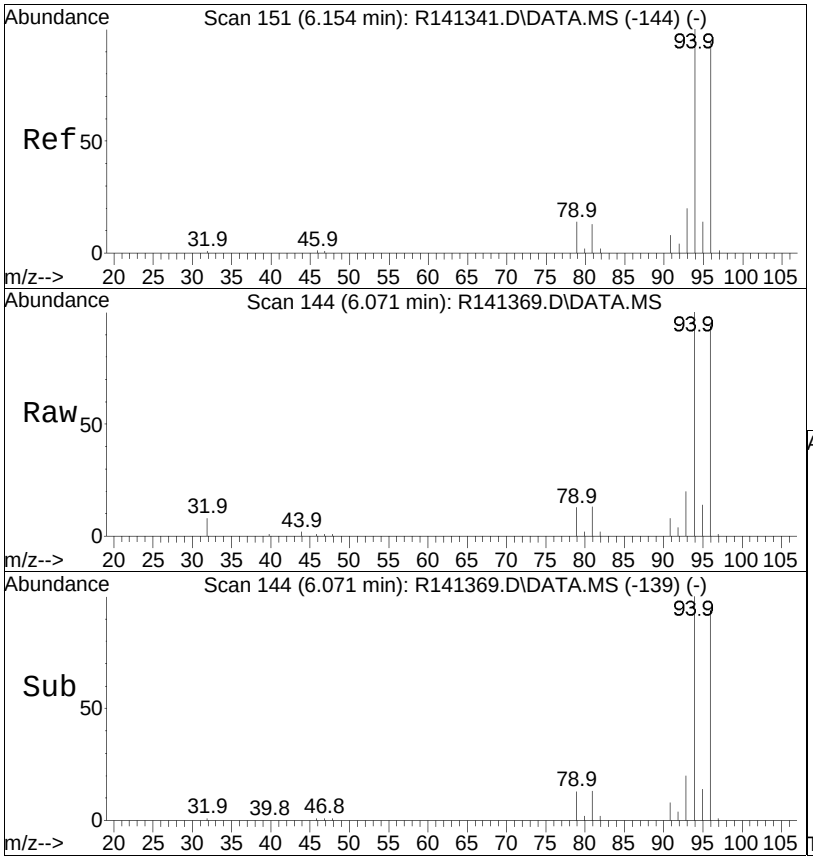


#10
1,3-butadiene
Concen: 10.55 ppbV
RT: 5.690 min Scan# 119
Delta R.T. -0.080 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 54 Resp: 110728

Ion	Ratio	Lower	Upper
54	100		
39	94.6	77.4	116.2

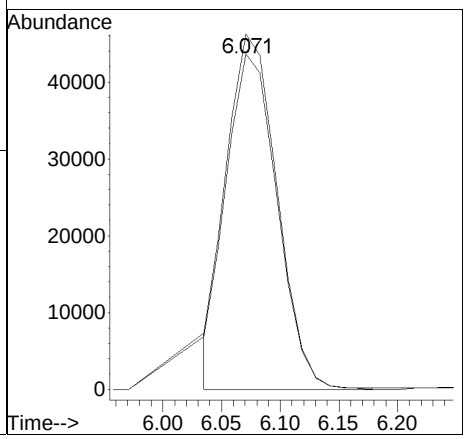


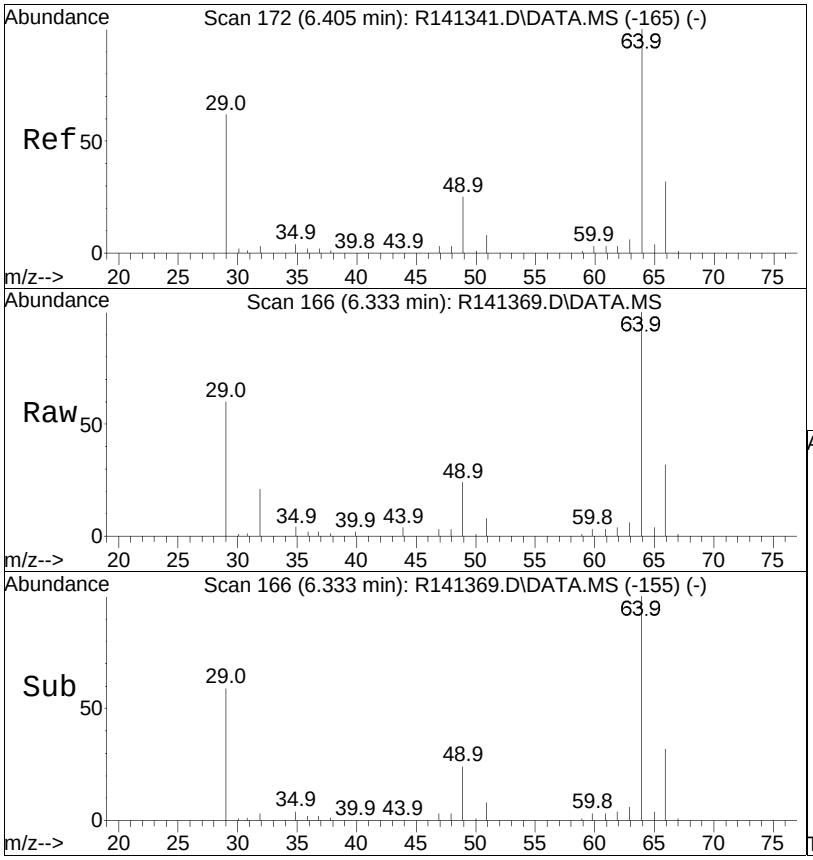


#13
bromomethane
Concen: 9.46 ppbV m
RT: 6.071 min Scan# 144
Delta R.T. -0.083 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 94 Resp: 140819

Ion	Ratio	Lower	Upper
94	100		
96	94.4	75.7	113.5

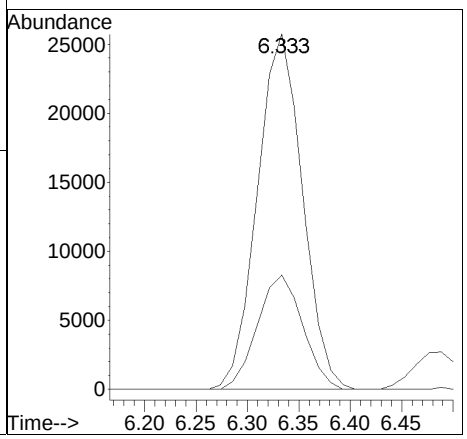


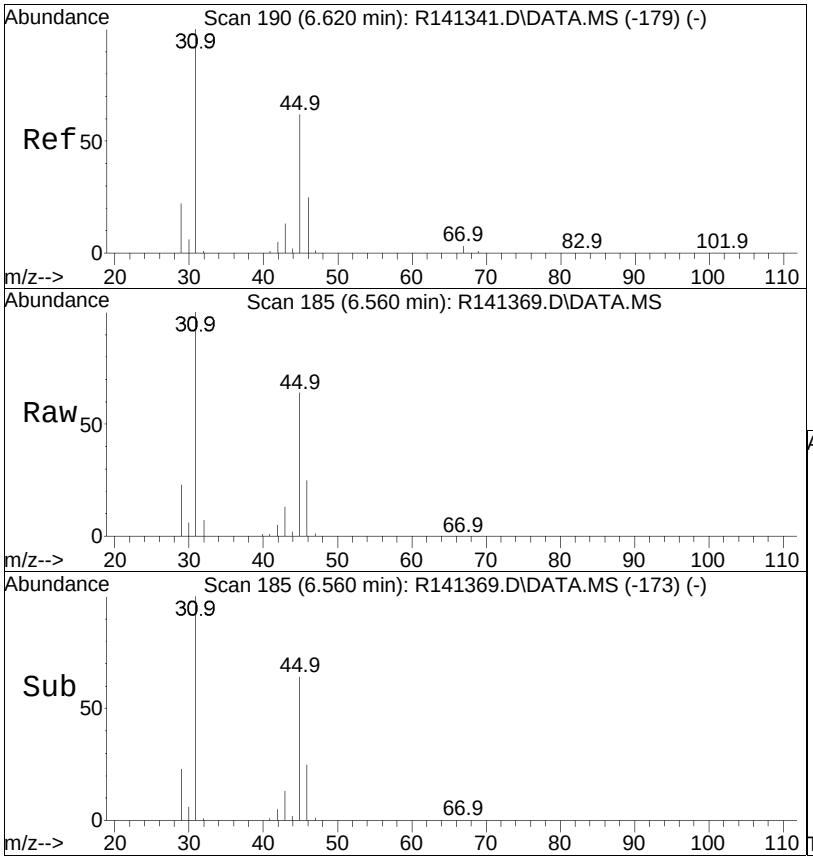


#14
chloroethane
Concen: 10.11 ppbV
RT: 6.333 min Scan# 166
Delta R.T. -0.072 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 64 Resp: 78416

Ion	Ratio	Lower	Upper
64	100		
66	32.2	25.8	38.6

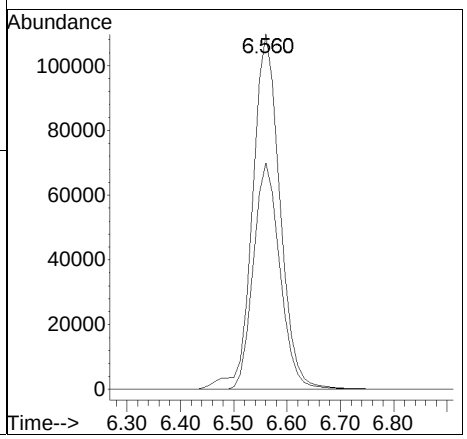


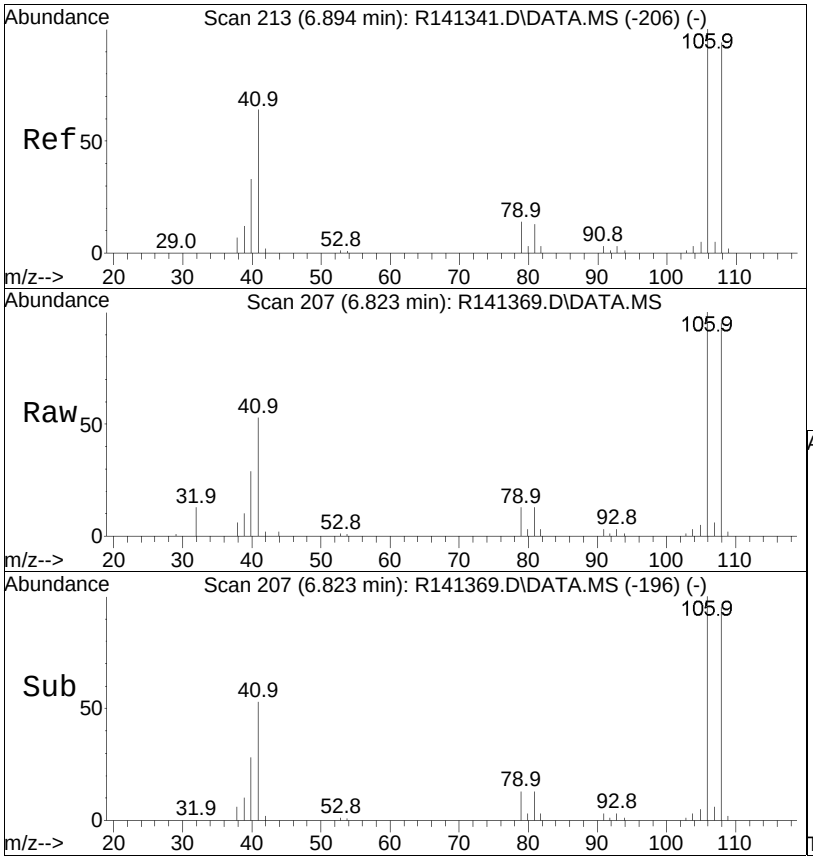


#15
ethanol
Concen: 50.20 ppbV
RT: 6.560 min Scan# 185
Delta R.T. -0.060 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 31 Resp: 392572

Ion	Ratio	Lower	Upper
31	100		
45	63.7	49.6	74.4

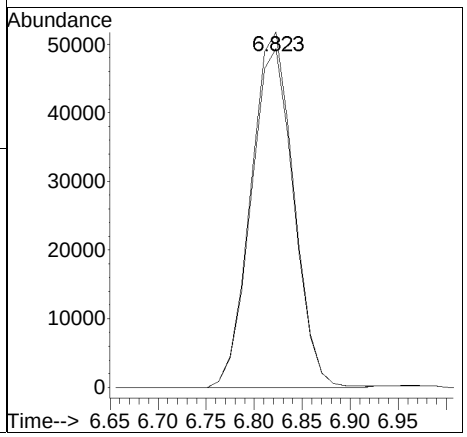


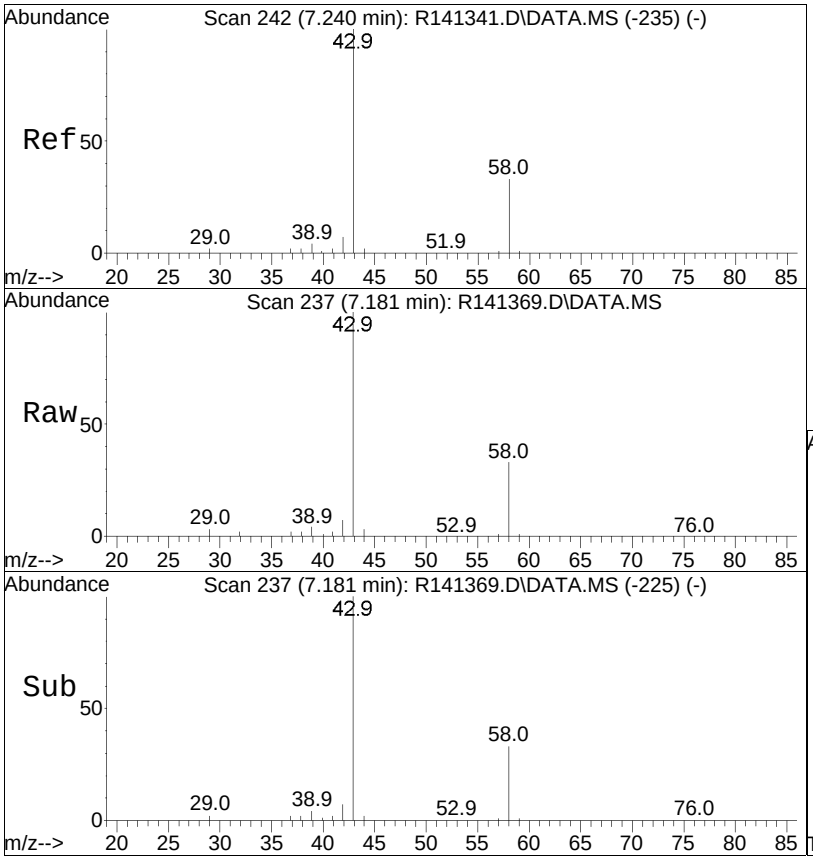


#17
vinyl bromide
Concen: 10.05 ppbV
RT: 6.823 min Scan# 207
Delta R.T. -0.072 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:106 Resp: 160337

Ion	Ratio	Lower	Upper
106	100		
108	95.4	75.4	113.2

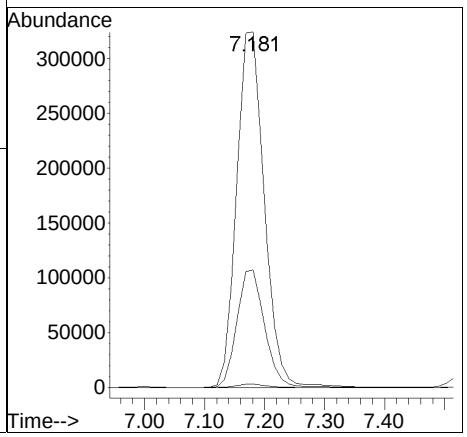


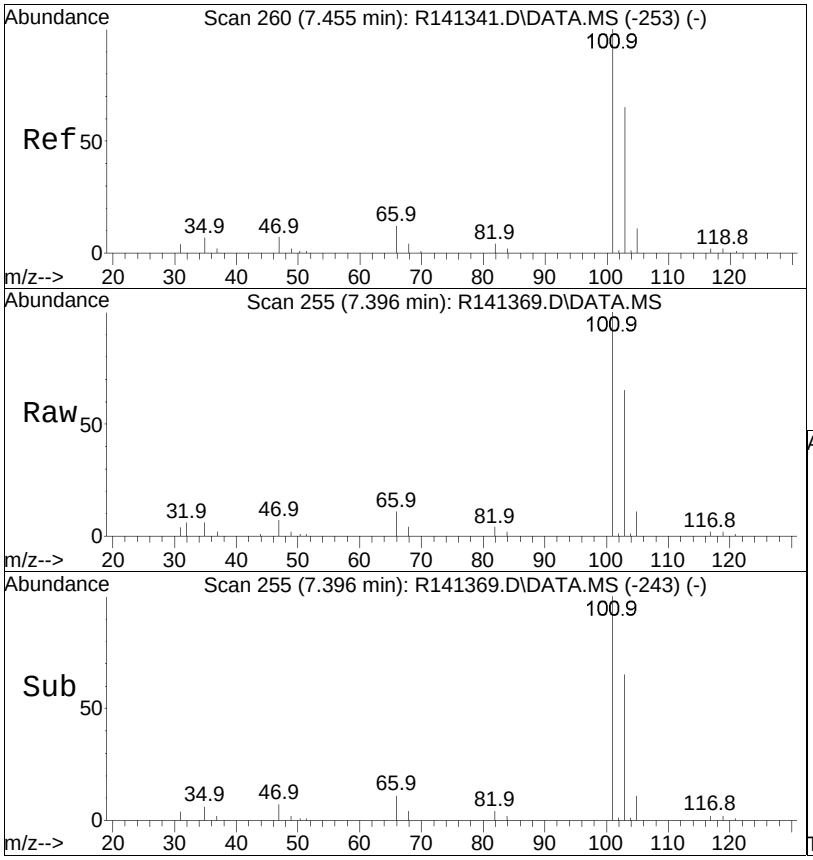


#19
acetone
Concen: 51.10 ppbV
RT: 7.181 min Scan# 237
Delta R.T. -0.060 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 43 Resp: 1040493

Ion	Ratio	Lower	Upper
43	100		
58	33.0	26.0	39.0
57	0.9	0.7	1.1

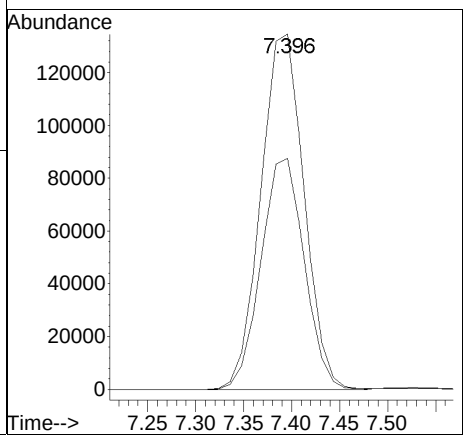


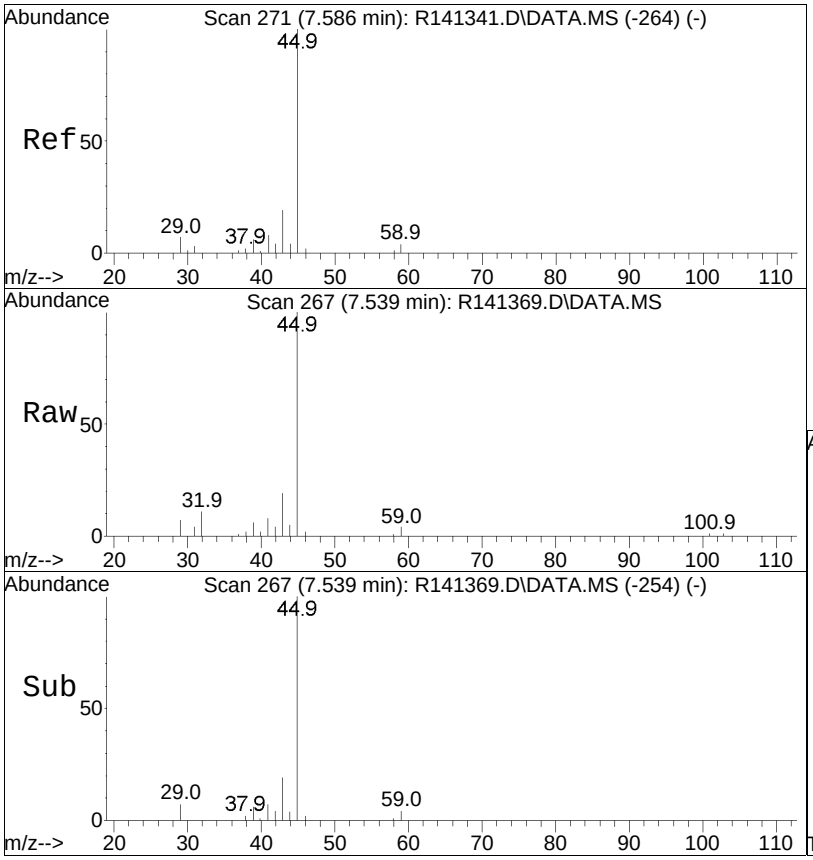


#21
trichlorofluoromethane
Concen: 9.91 ppbV
RT: 7.396 min Scan# 255
Delta R.T. -0.060 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:101 Resp: 421447

Ion	Ratio	Lower	Upper
101	100		
103	65.0	51.8	77.6

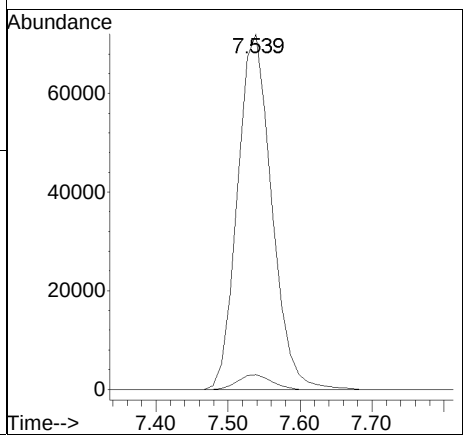


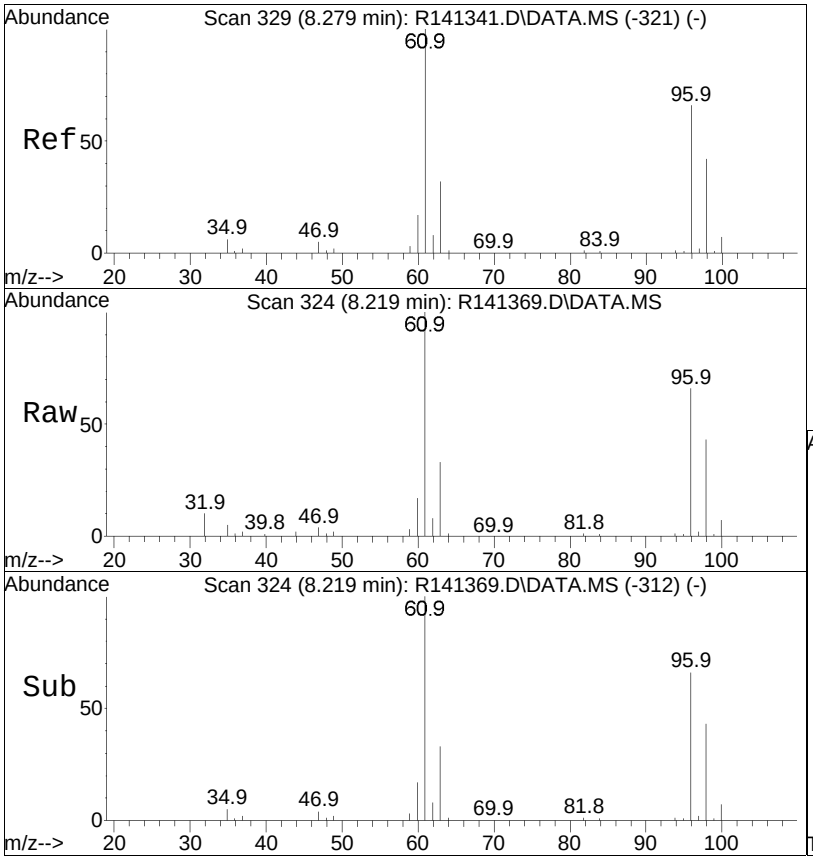


#22
isopropyl alcohol
Concen: 10.43 ppbV
RT: 7.539 min Scan# 267
Delta R.T. -0.048 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 45 Resp: 237299

Ion	Ratio	Lower	Upper
45	100		
59	4.2	3.3	4.9

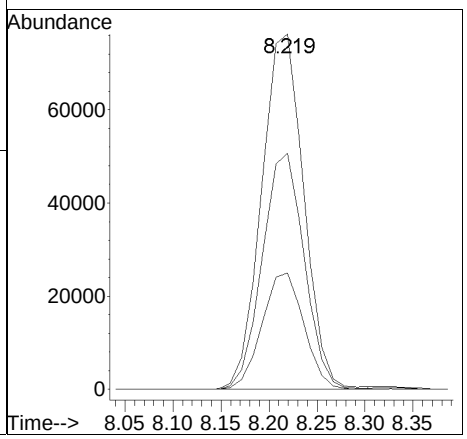


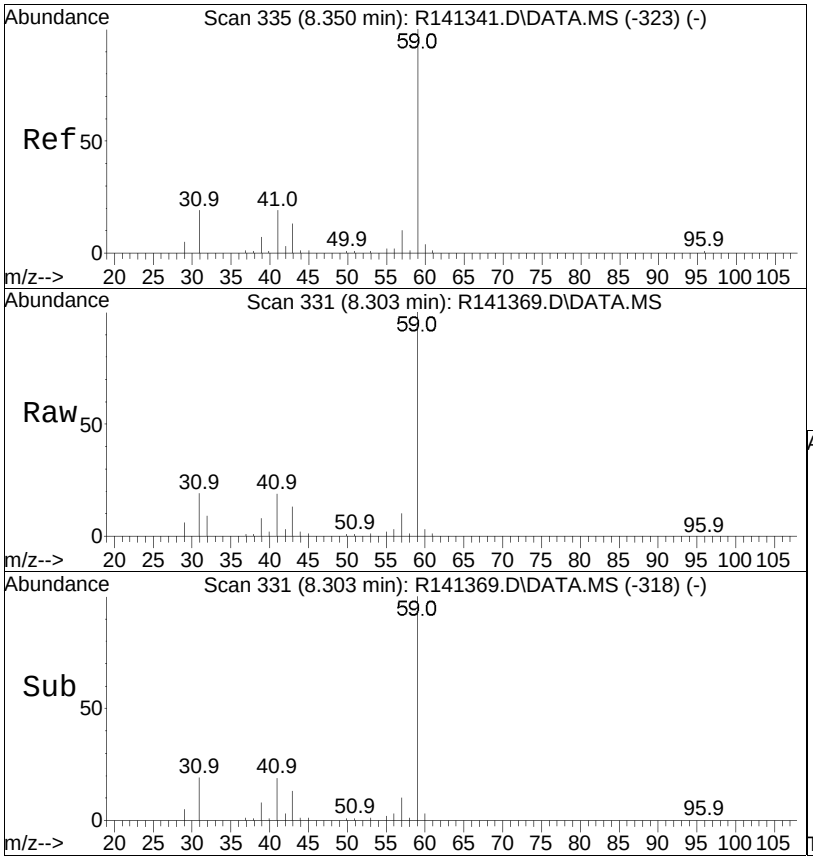


#26
1,1-dichloroethene
Concen: 9.70 ppbV
RT: 8.219 min Scan# 324
Delta R.T. -0.060 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 61 Resp: 233548

Ion	Ratio	Lower	Upper
61	100		
96	66.4	52.6	78.8
63	32.8	26.0	39.0

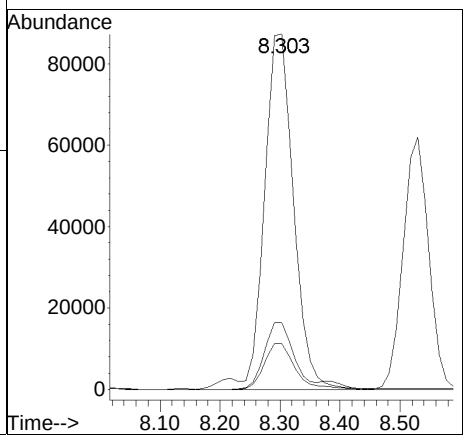


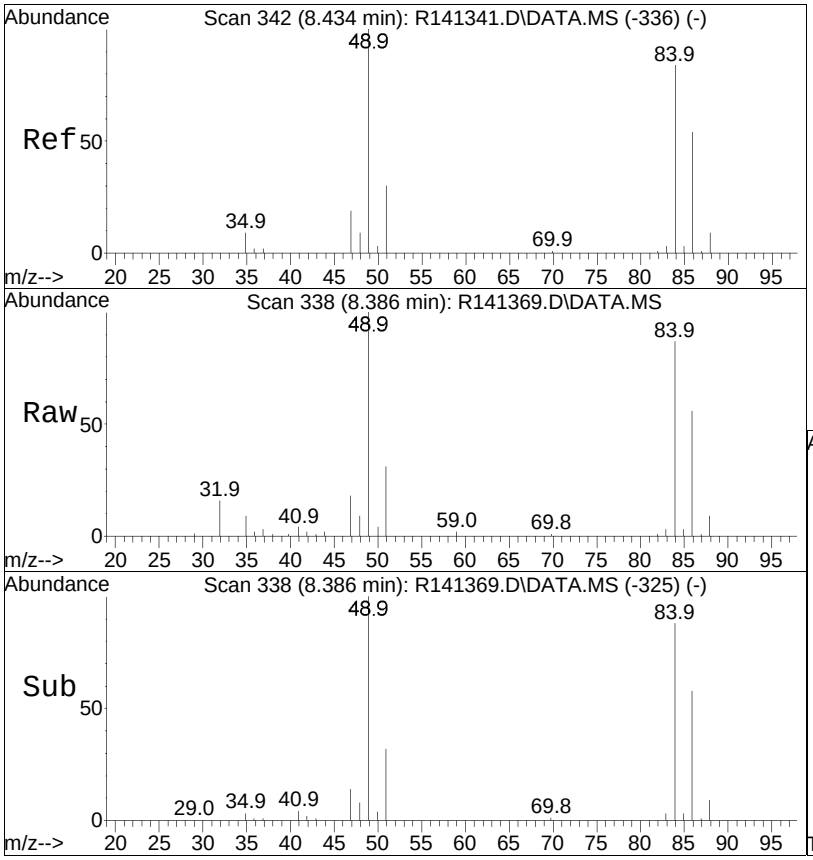


#27
tertiary butyl alcohol
Concen: 9.66 ppbV
RT: 8.303 min Scan# 331
Delta R.T. -0.048 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 59 Resp: 298503

Ion	Ratio	Lower	Upper
59	100		
41	18.8	15.0	22.4
43	12.9	10.3	15.5

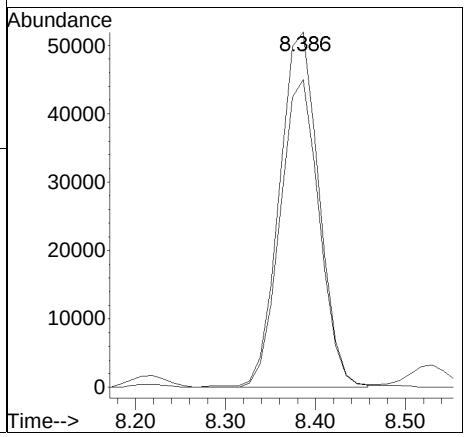


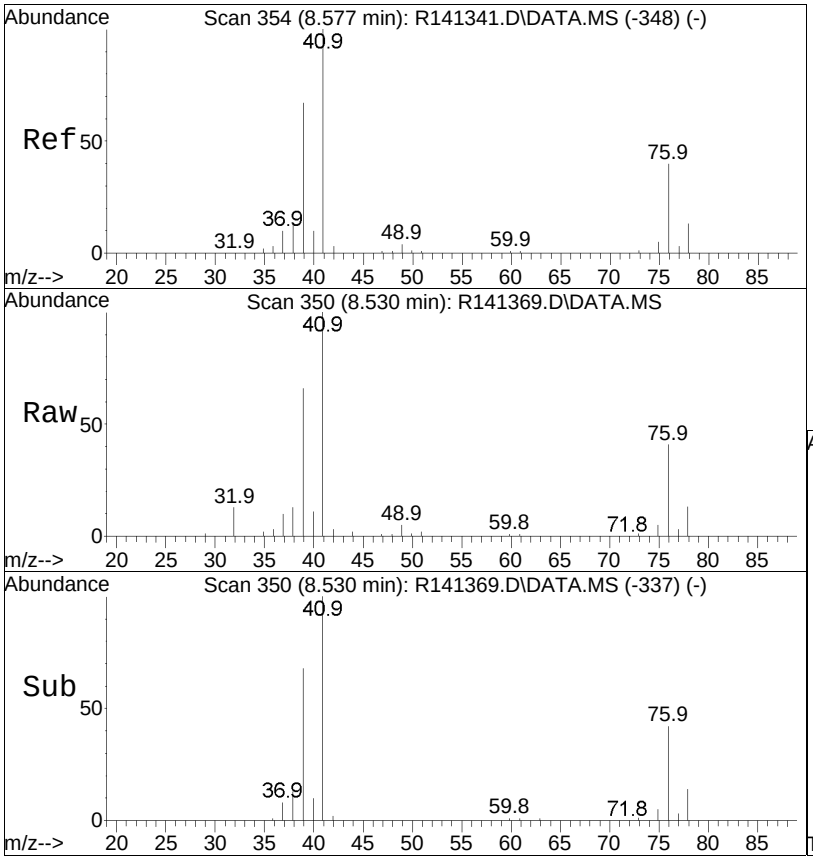


#28
methylene chloride
Concen: 9.38 ppbV
RT: 8.386 min Scan# 338
Delta R.T. -0.048 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 49 Resp: 159296

Ion	Ratio	Lower	Upper
49	100		
84	86.6	67.1	100.7

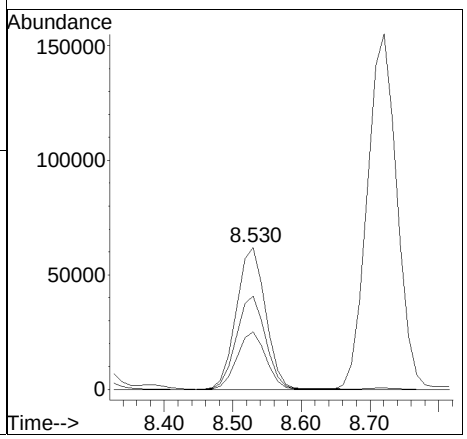


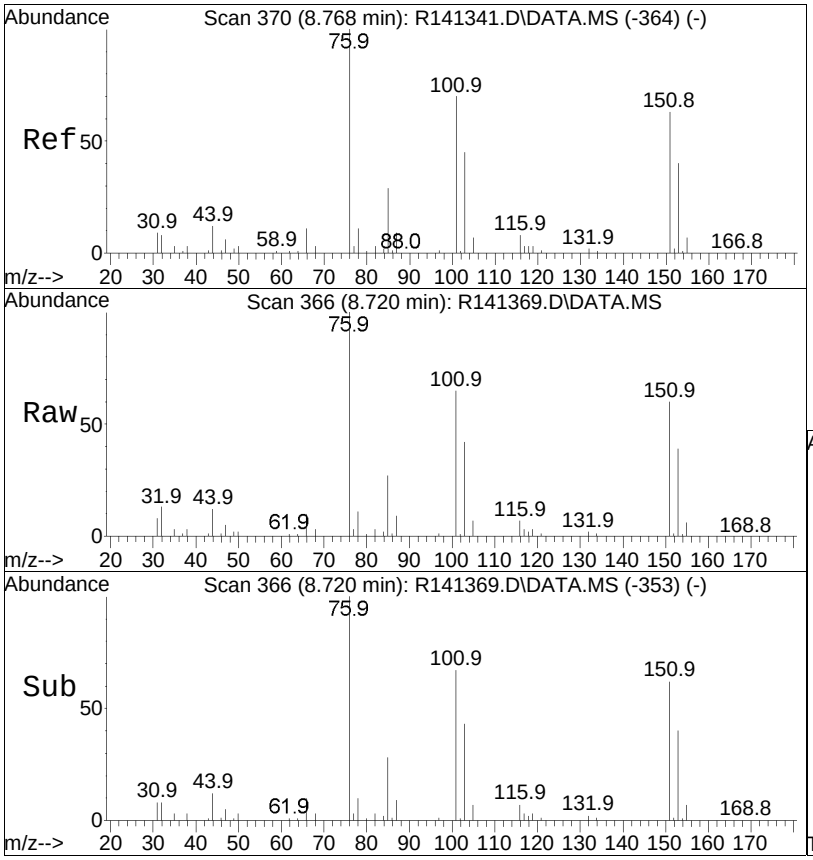


#29
3-chloropropene
Concen: 10.25 ppbV
RT: 8.530 min Scan# 350
Delta R.T. -0.048 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 41 Resp: 185056

Ion	Ratio	Lower	Upper
41	100		
39	65.7	53.2	79.8
76	40.6	31.5	47.3

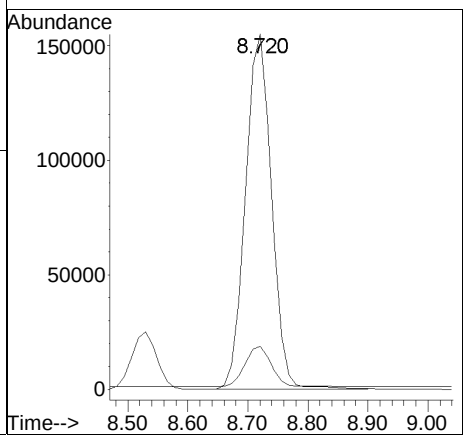


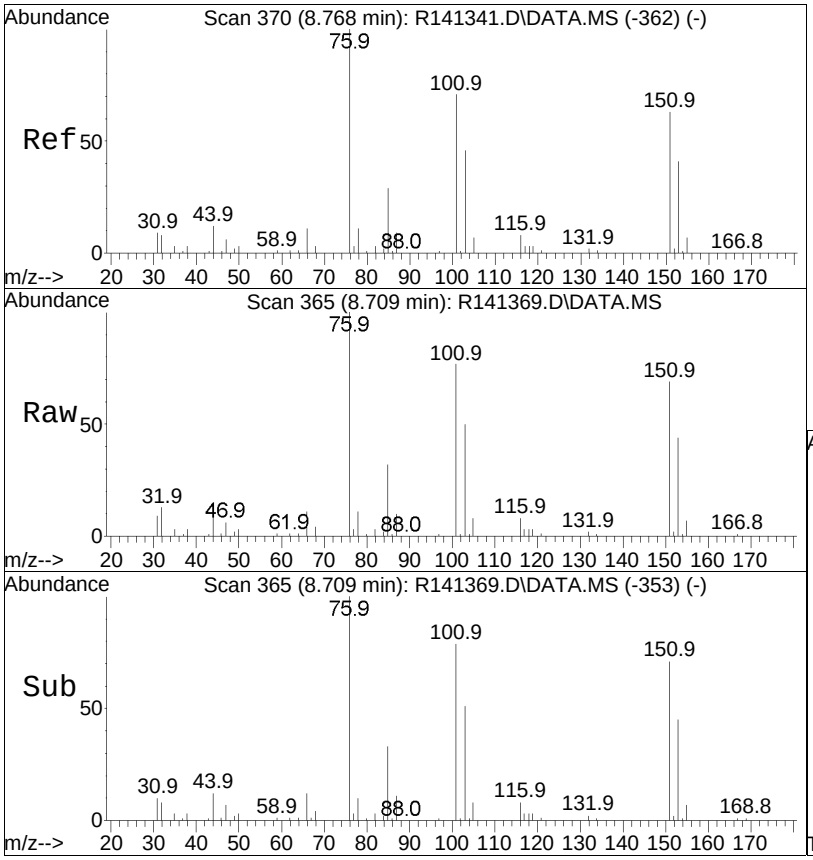


#30
carbon disulfide
Concen: 8.91 ppbV
RT: 8.720 min Scan# 366
Delta R.T. -0.048 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 76 Resp: 468424

Ion	Ratio	Lower	Upper
76	100		
44	12.1	10.0	15.0

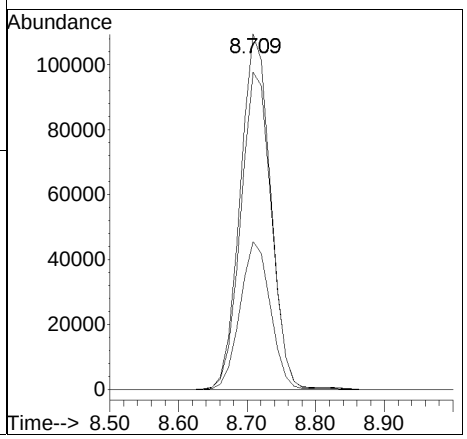


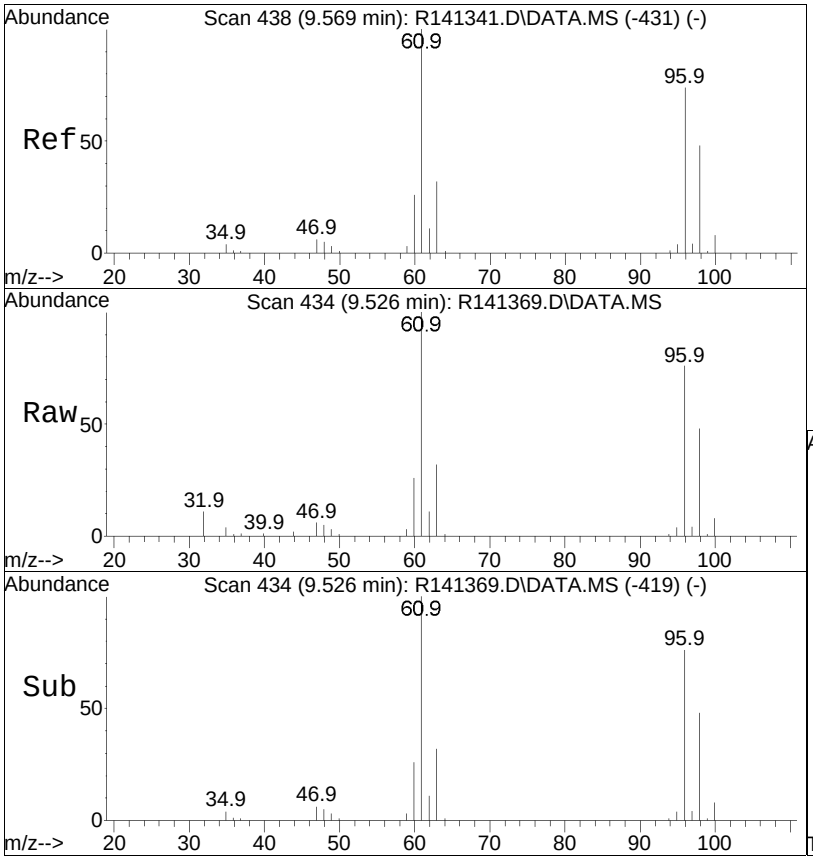


#31
Freon 113
Concen: 9.92 ppbV
RT: 8.709 min Scan# 365
Delta R.T. -0.060 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:101 Resp: 337957

Ion	Ratio	Lower	Upper
101	100		
85	41.6	33.3	49.9
151	89.2	71.6	107.4

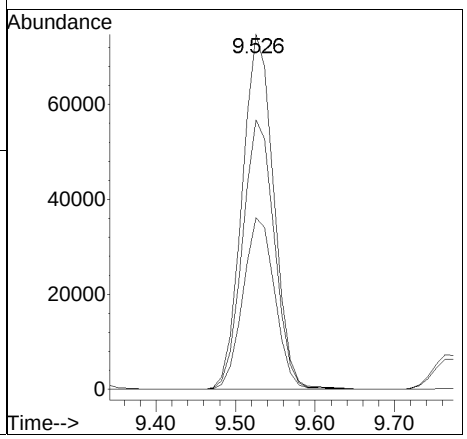


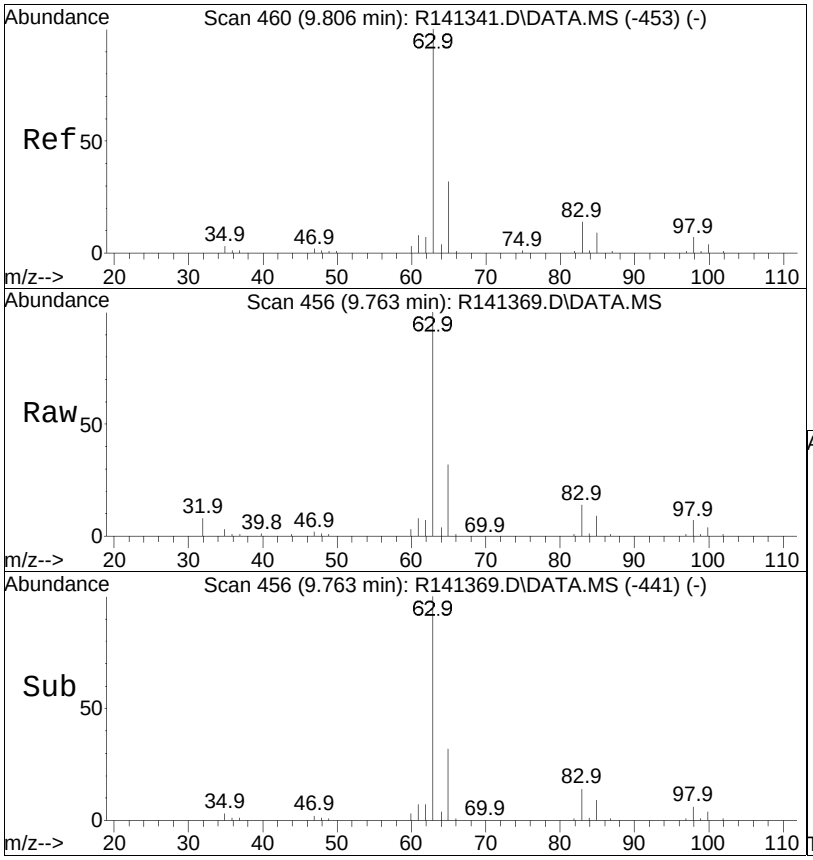


#32
trans-1,2-dichloroethene
Concen: 8.89 ppbV
RT: 9.526 min Scan# 434
Delta R.T. -0.043 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 61 Resp: 206835

Ion	Ratio	Lower	Upper
61	100		
96	75.9	59.6	89.4
98	48.3	38.0	57.0

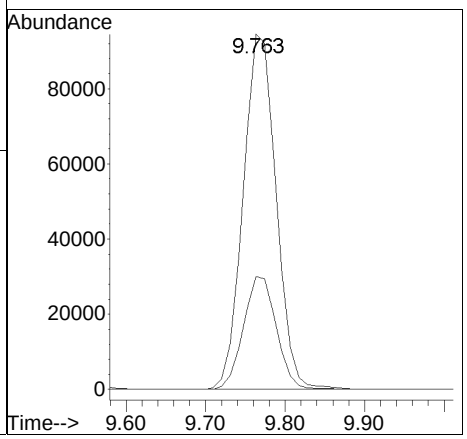


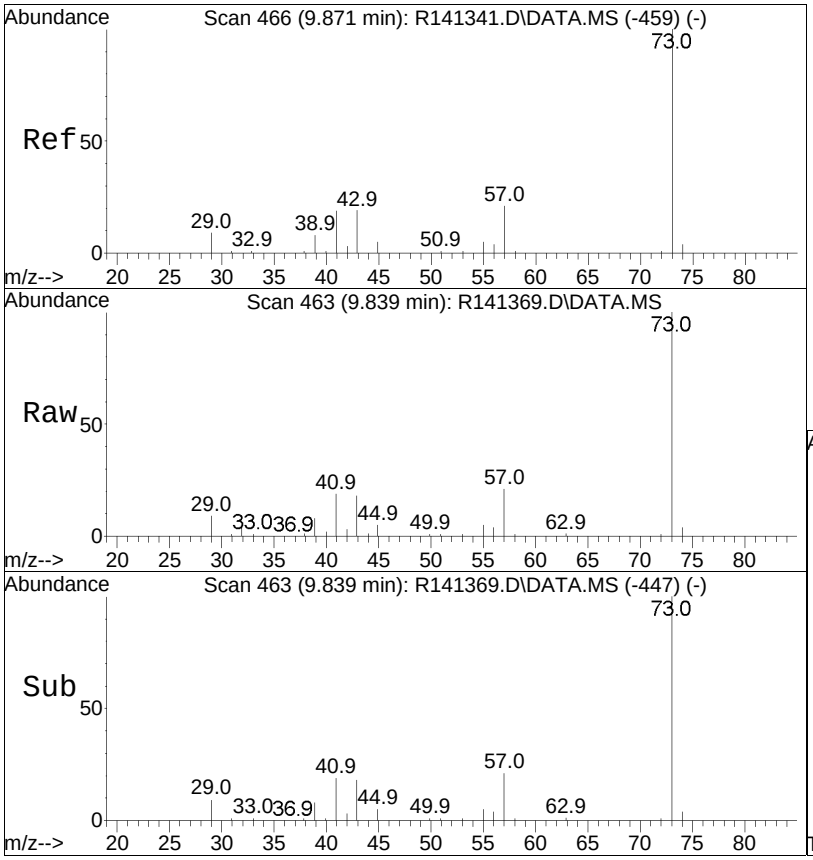


#33
1,1-dichloroethane
Concen: 9.69 ppbV
RT: 9.763 min Scan# 456
Delta R.T. -0.043 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 63 Resp: 272143

Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.6	38.4

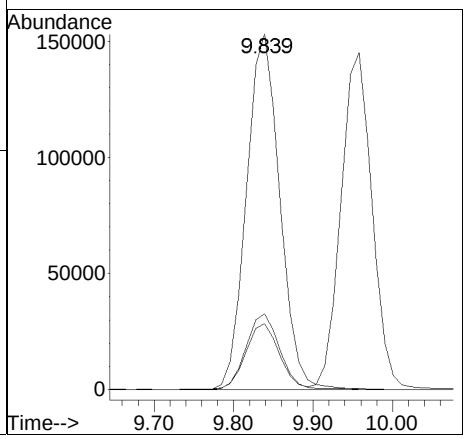


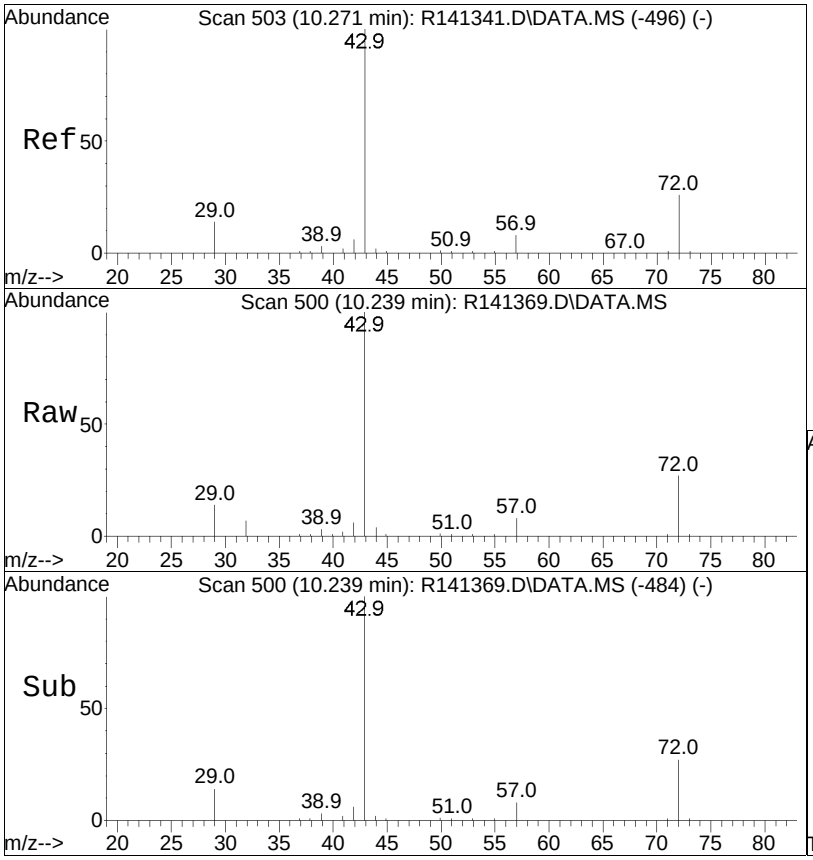


#34
MTBE
Concen: 9.74 ppbV
RT: 9.839 min Scan# 463
Delta R.T. -0.032 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 73 Resp: 446096

Ion	Ratio	Lower	Upper
73	100		
57	21.3	17.1	25.7
43	18.5	15.1	22.7

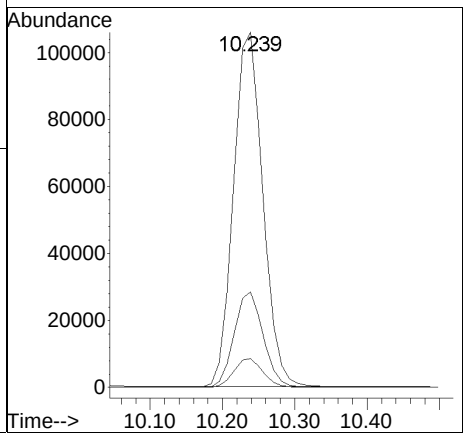


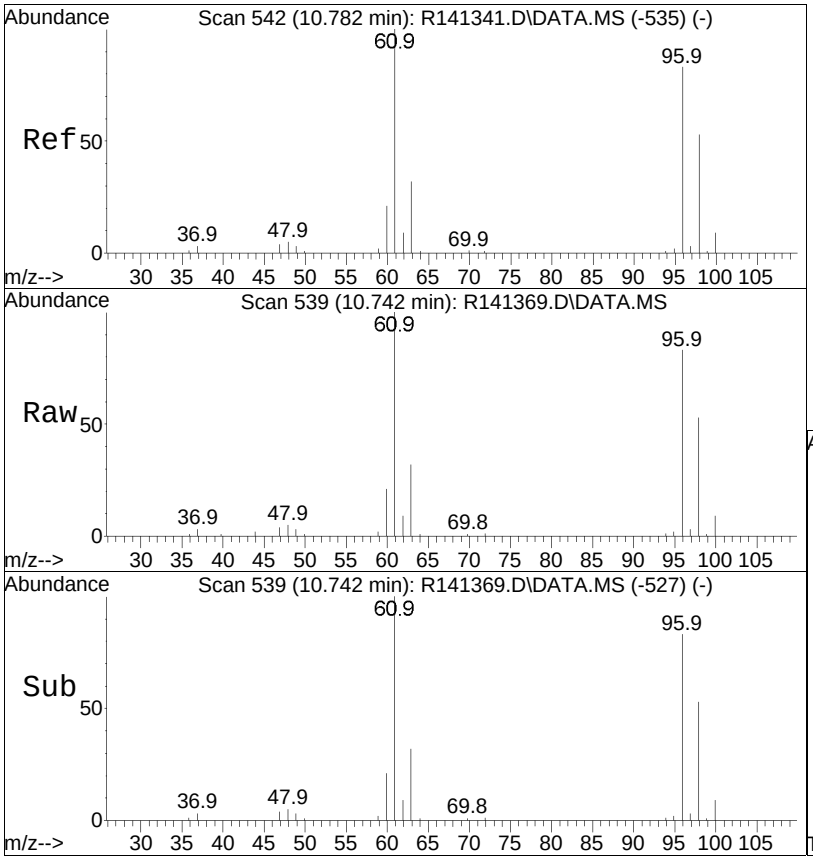


#36
2-butanone
Concen: 9.16 ppbV
RT: 10.239 min Scan# 500
Delta R.T. -0.032 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 43 Resp: 298459

Ion	Ratio	Lower	Upper
43	100		
72	26.9	20.8	31.2
57	8.1	6.3	9.5

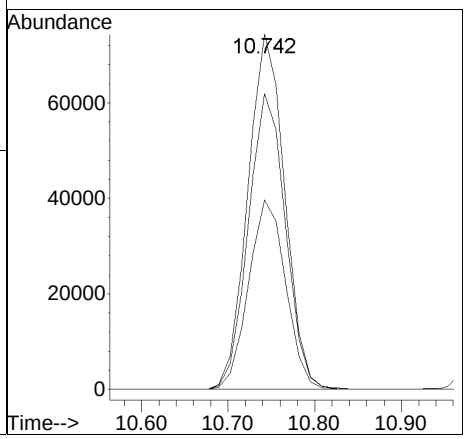


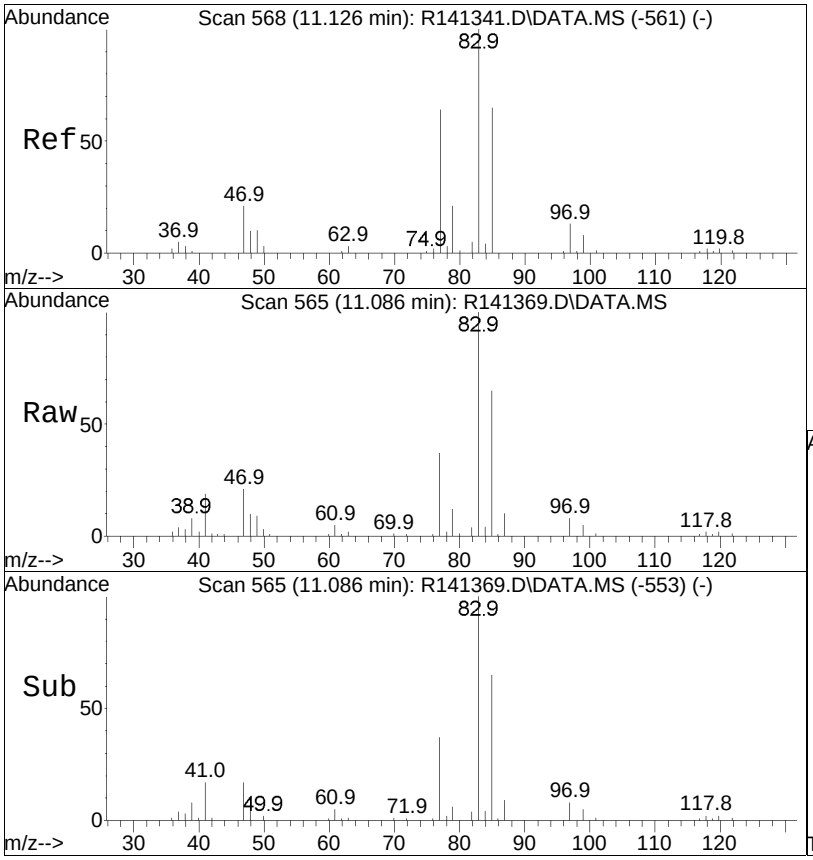


#37
cis-1,2-dichloroethene
Concen: 10.68 ppbV
RT: 10.742 min Scan# 539
Delta R.T. -0.040 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 61 Resp: 220559

Ion	Ratio	Lower	Upper
61	100		
96	83.2	66.2	99.4
98	53.3	42.7	64.1

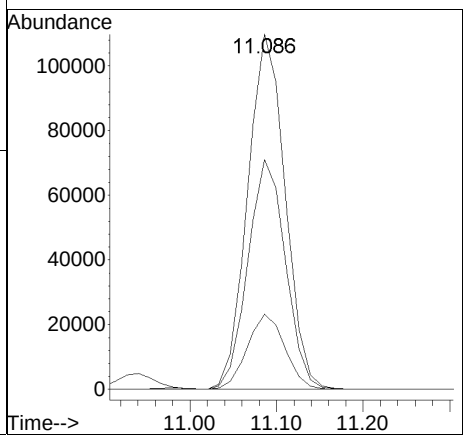


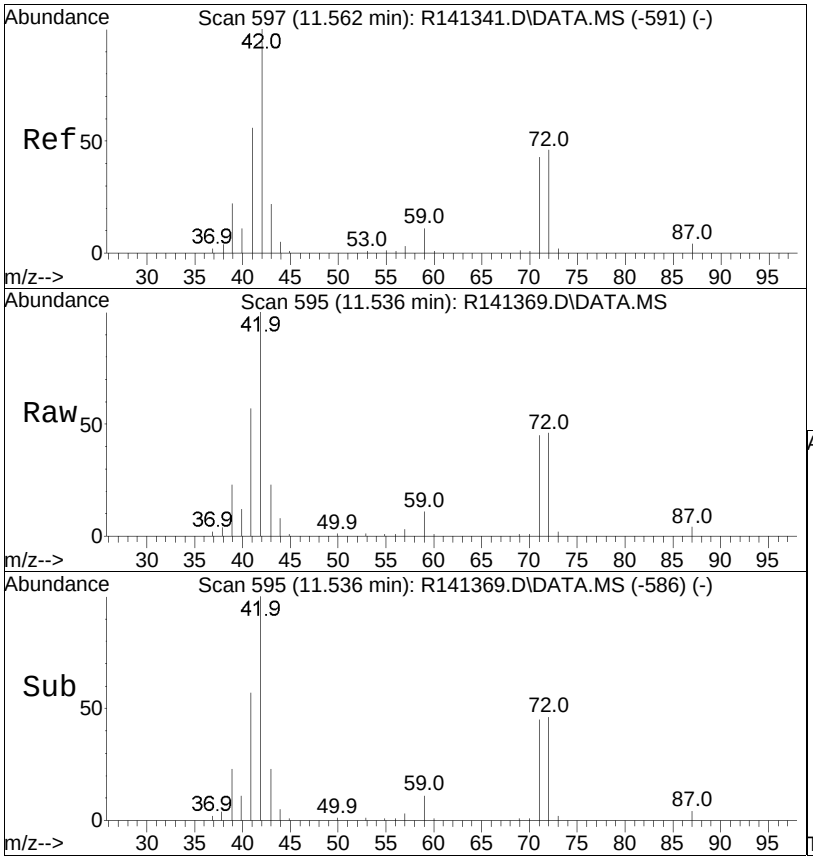


#39
chloroform
Concen: 9.88 ppbV
RT: 11.086 min Scan# 565
Delta R.T. -0.040 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 83 Resp: 330279

Ion	Ratio	Lower	Upper
83	100		
85	64.7	52.2	78.2
47	21.2	17.2	25.8

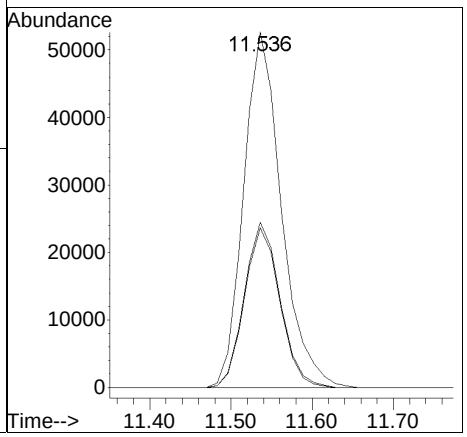


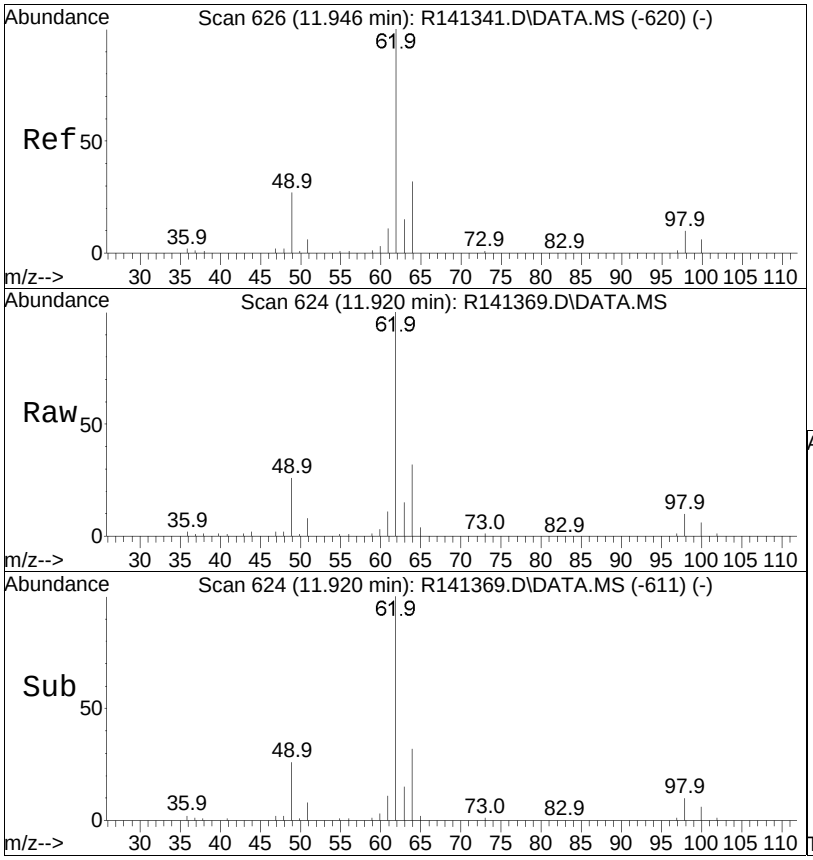


#40
Tetrahydrofuran
Concen: 8.93 ppbV
RT: 11.536 min Scan# 595
Delta R.T. -0.026 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 42 Resp: 169765

Ion	Ratio	Lower	Upper
42	100		
71	44.9	34.7	52.1
72	46.5	36.5	54.7

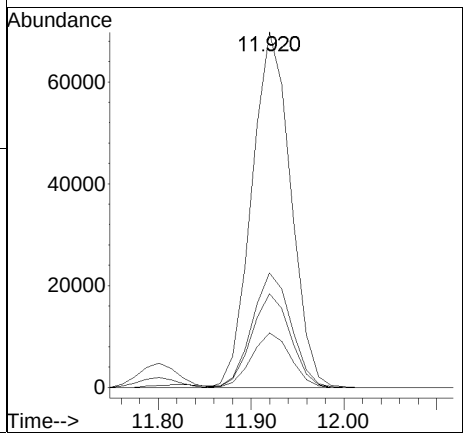


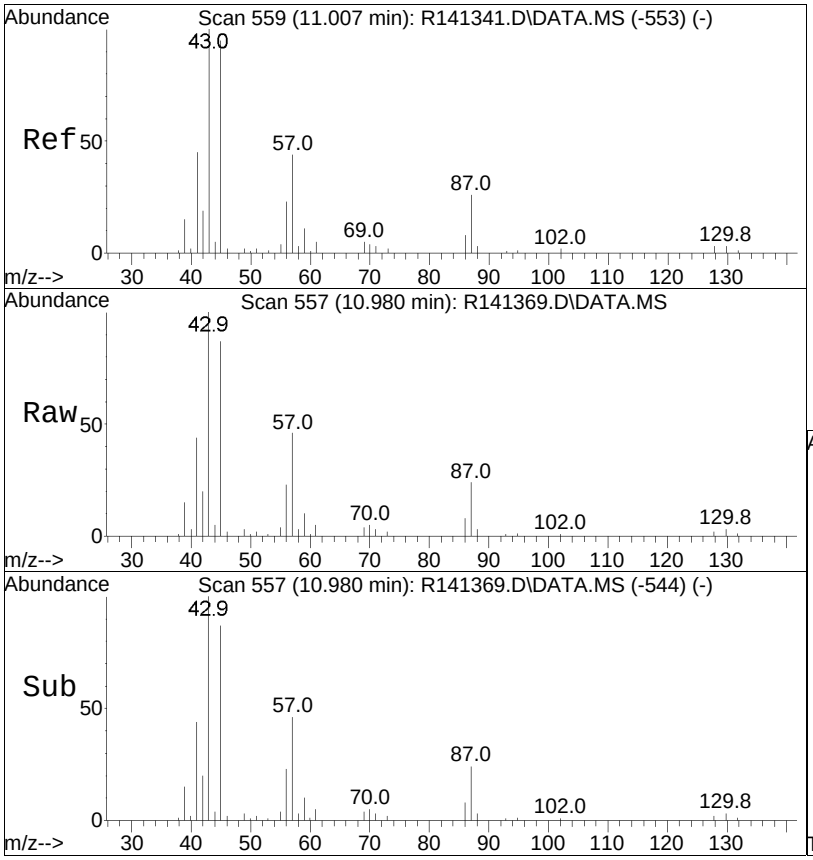


#42
1,2-dichloroethane
Concen: 9.66 ppbV
RT: 11.920 min Scan# 624
Delta R.T. -0.026 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 62 Resp: 203508

Ion	Ratio	Lower	Upper
62	100		
64	32.2	26.0	39.0
49	26.4	21.6	32.4
63	15.4	12.6	18.8

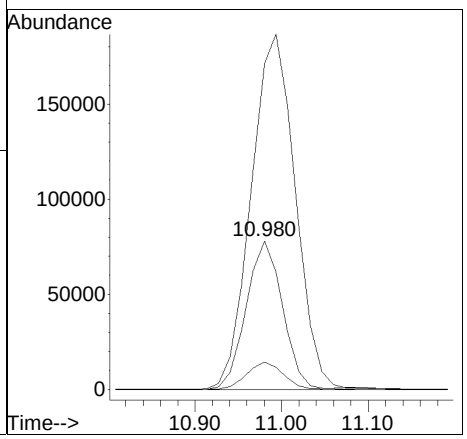


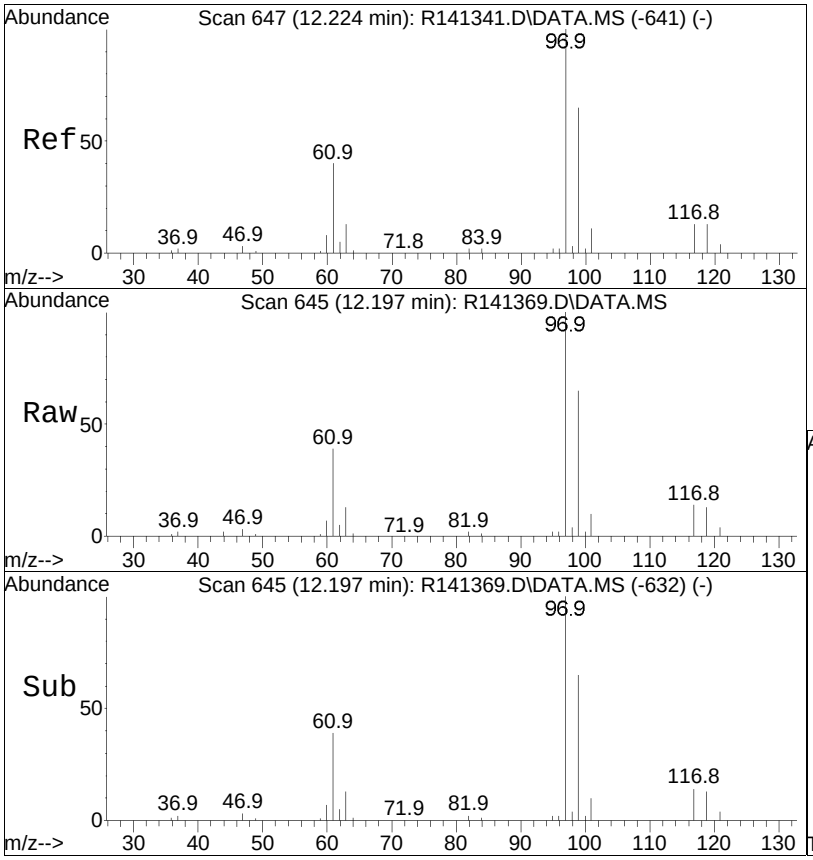


#44
hexane
Concen: 10.34 ppbV
RT: 10.980 min Scan# 557
Delta R.T. -0.026 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 57 Resp: 227506

Ion	Ratio	Lower	Upper
57	100		
43	219.5	180.9	271.3
86	18.5	14.4	21.6

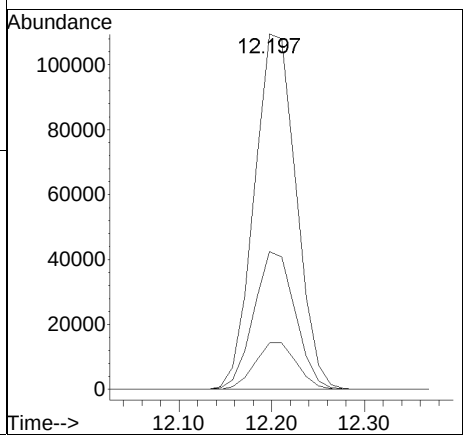


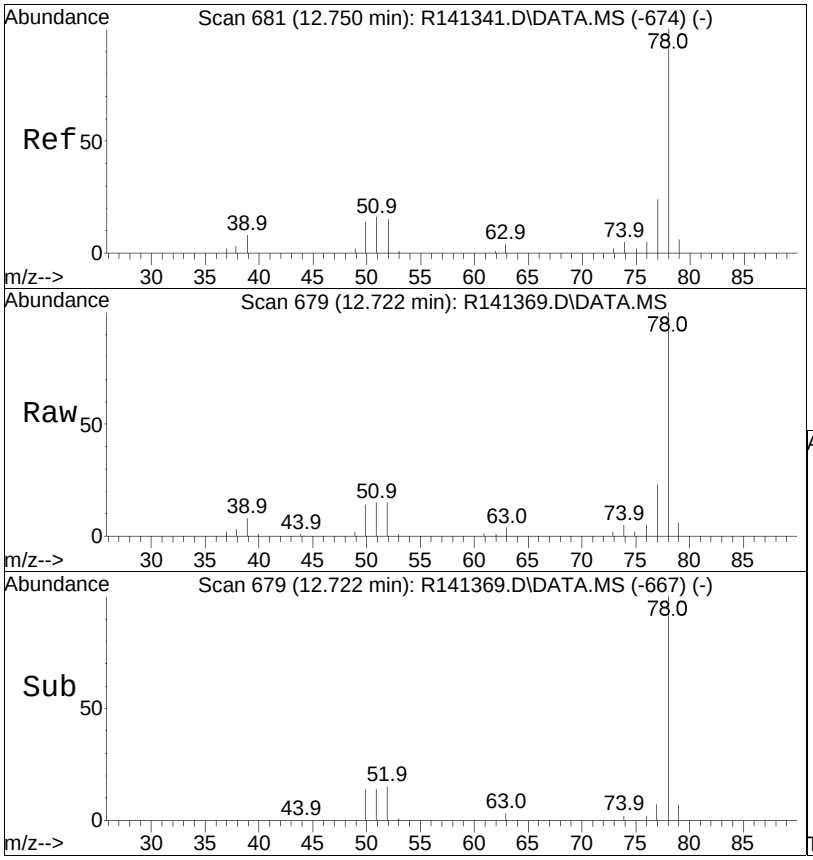


#48
1,1,1-trichloroethane
Concen: 10.67 ppbV
RT: 12.197 min Scan# 645
Delta R.T. -0.026 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 97 Resp: 343467

Ion	Ratio	Lower	Upper
97	100		
61	38.8	32.2	48.4
119	13.0	10.6	15.8

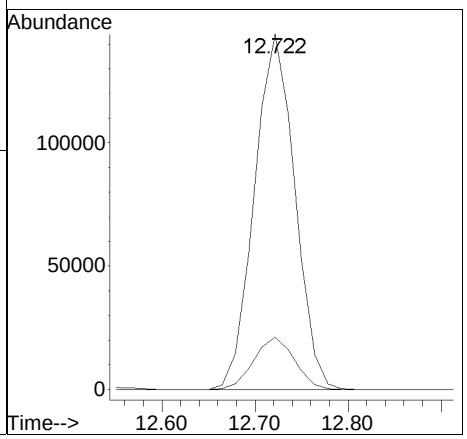


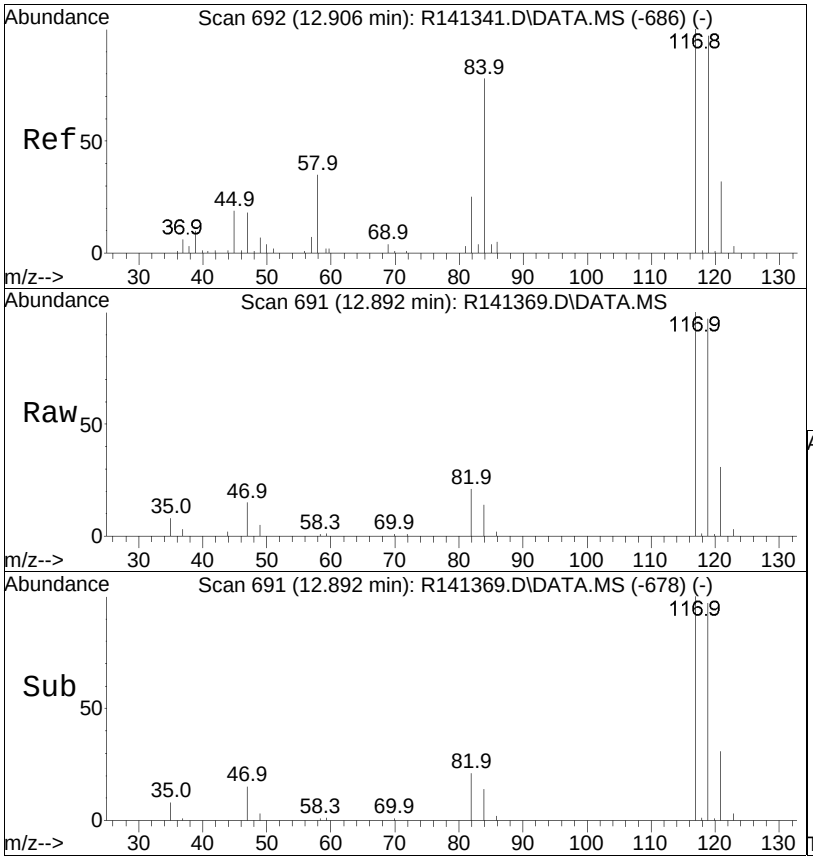


#50
benzene
Concen: 9.17 ppbV
RT: 12.722 min Scan# 679
Delta R.T. -0.028 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 78 Resp: 434736

Ion	Ratio	Lower	Upper
78	100		
52	14.7	12.2	18.4

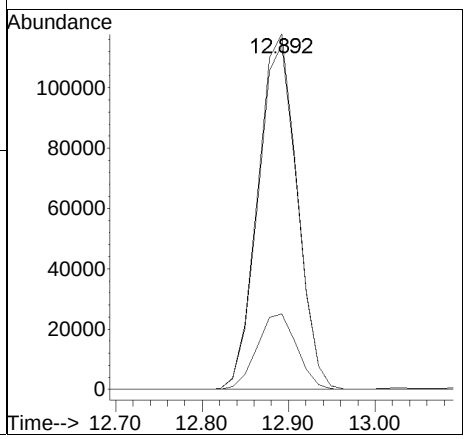


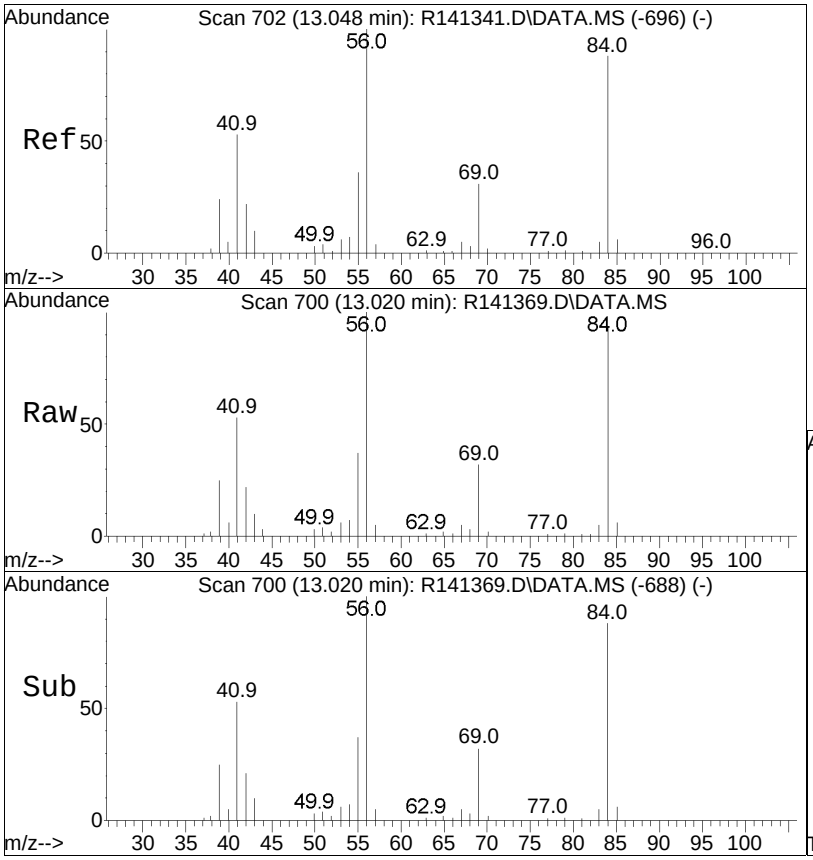


#52
carbon tetrachloride
Concen: 10.16 ppbV
RT: 12.892 min Scan# 691
Delta R.T. -0.014 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:117 Resp: 372330

Ion	Ratio	Lower	Upper
117	100		
119	97.0	77.7	116.5
82	21.3	19.6	29.4

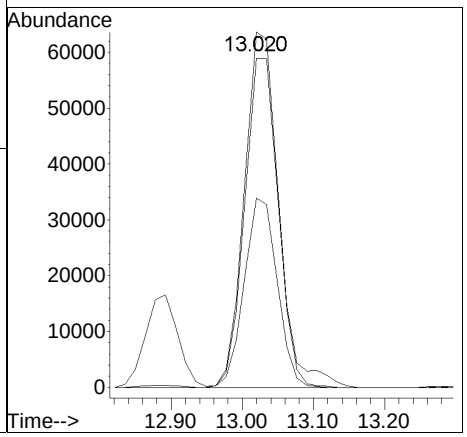


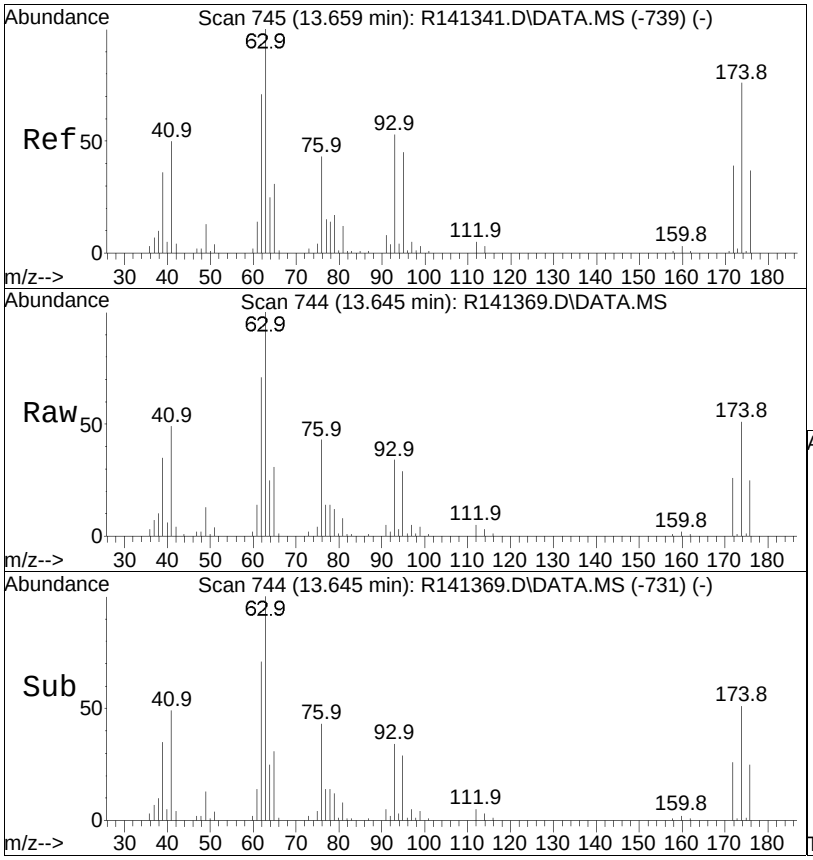


#53
cyclohexane
Concen: 8.60 ppbV
RT: 13.020 min Scan# 700
Delta R.T. -0.028 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 56 Resp: 214689

Ion	Ratio	Lower	Upper
56	100		
84	92.7	71.4	107.0
41	53.3	42.4	63.6

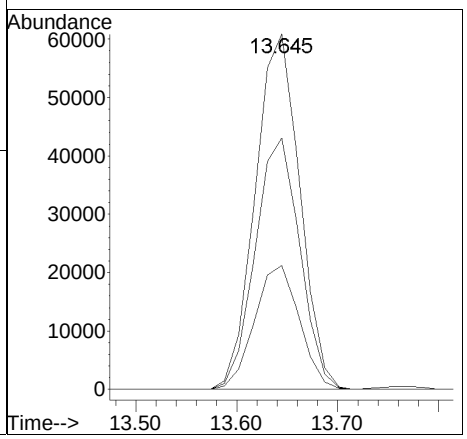


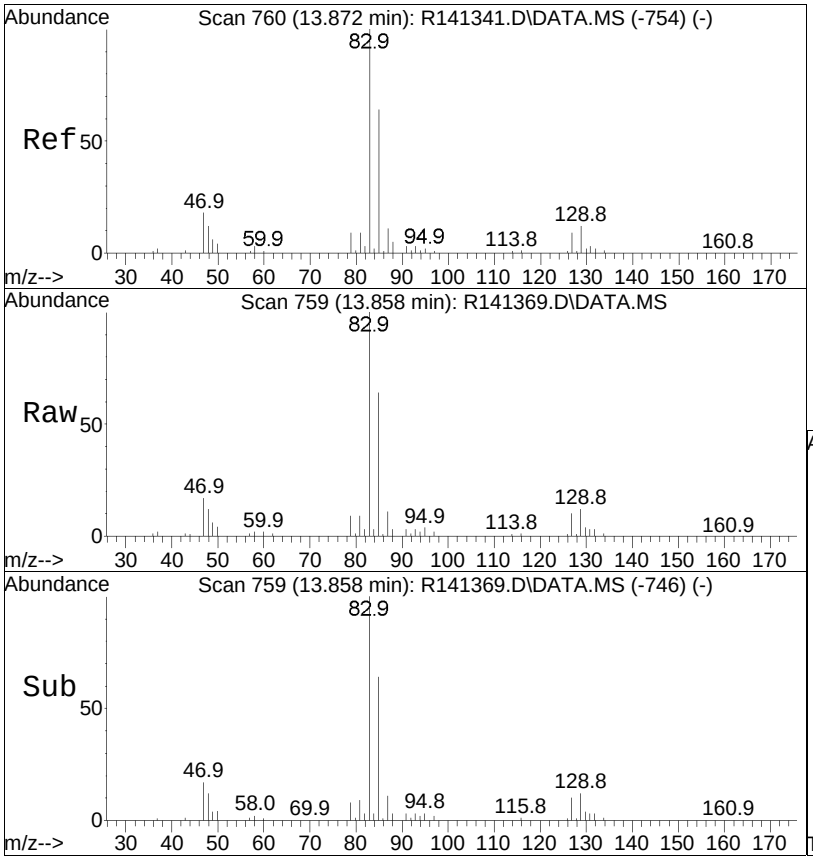


#56
1,2-dichloropropane
Concen: 10.78 ppbV
RT: 13.645 min Scan# 744
Delta R.T. -0.014 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 63 Resp: 186746

Ion	Ratio	Lower	Upper
63	100		
62	70.8	57.1	85.7
39	34.9	28.7	43.1

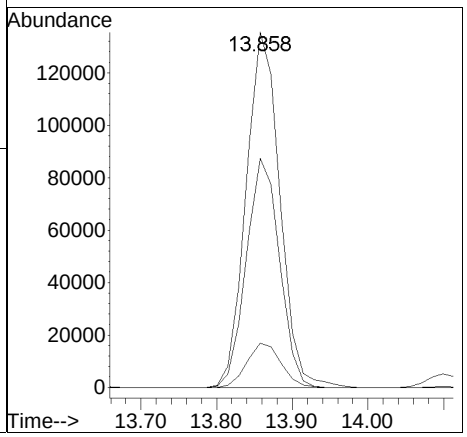


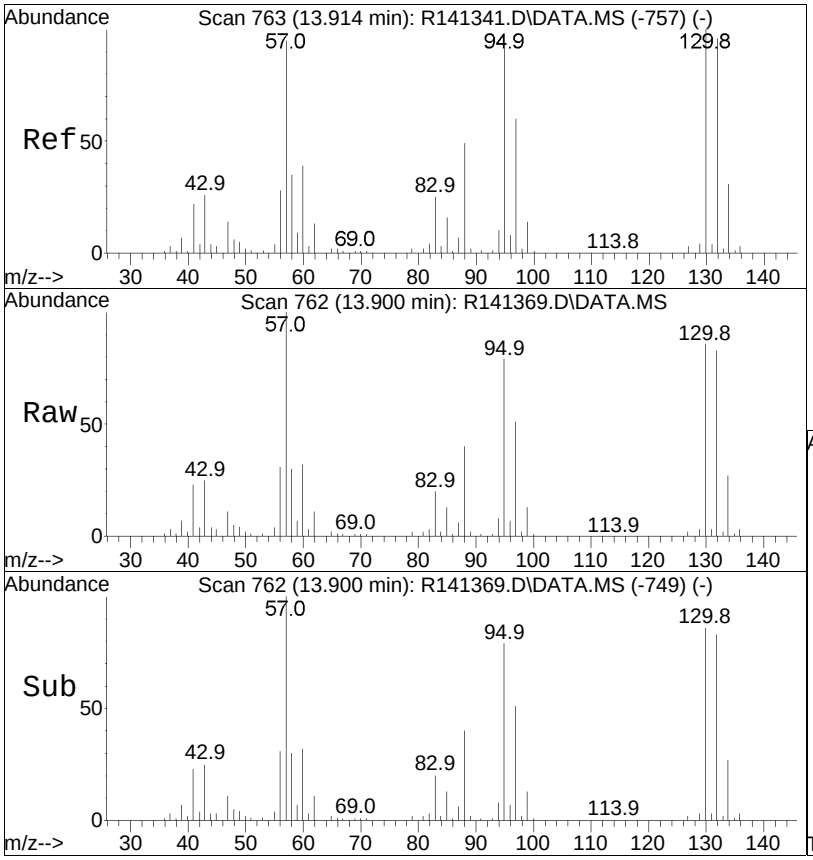


#57
bromodichloromethane
Concen: 10.83 ppbV
RT: 13.858 min Scan# 759
Delta R.T. -0.014 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 83 Resp: 420202

Ion	Ratio	Lower	Upper
83	100		
85	64.5	51.5	77.3
129	12.5	9.7	14.5

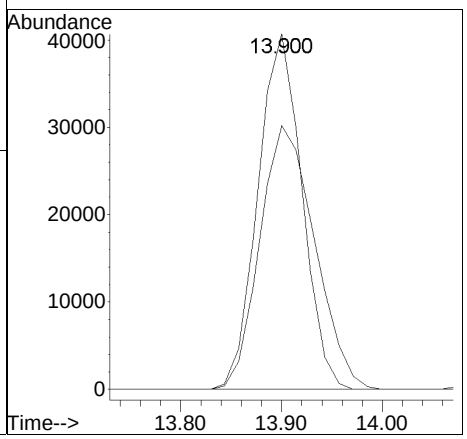


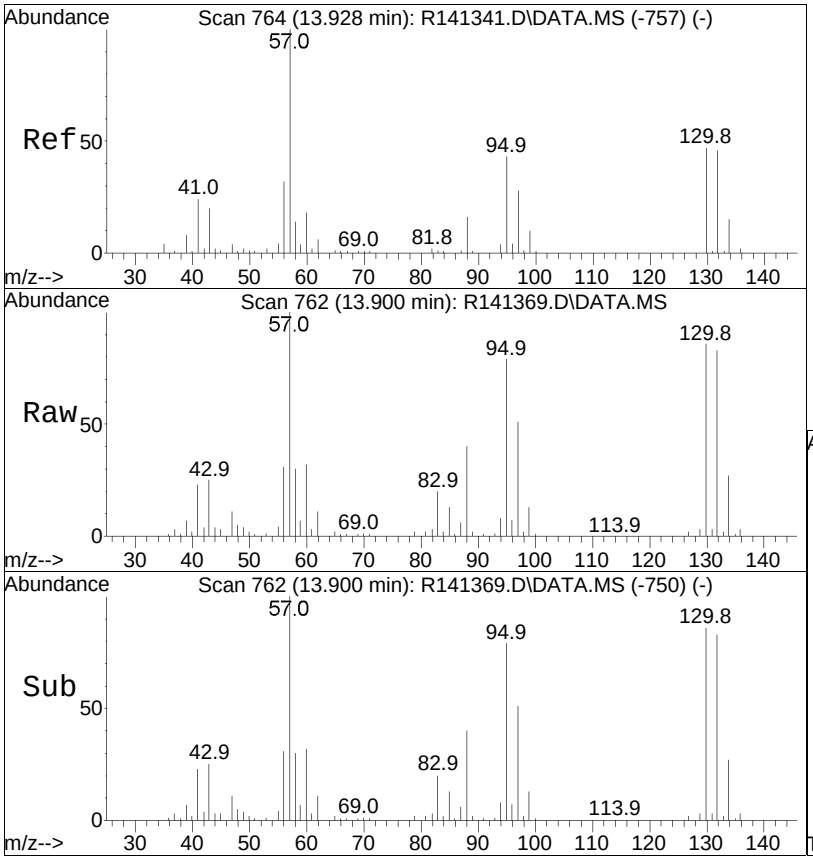


#58
1,4-dioxane
Concen: 10.42 ppbV
RT: 13.900 min Scan# 762
Delta R.T. -0.014 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 88 Resp: 123538

Ion	Ratio	Lower	Upper
88	100		
58	74.3	57.4	86.0

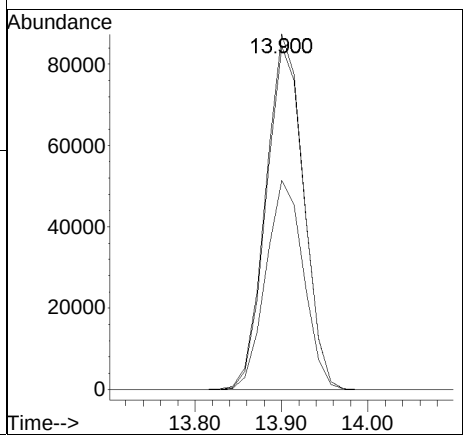


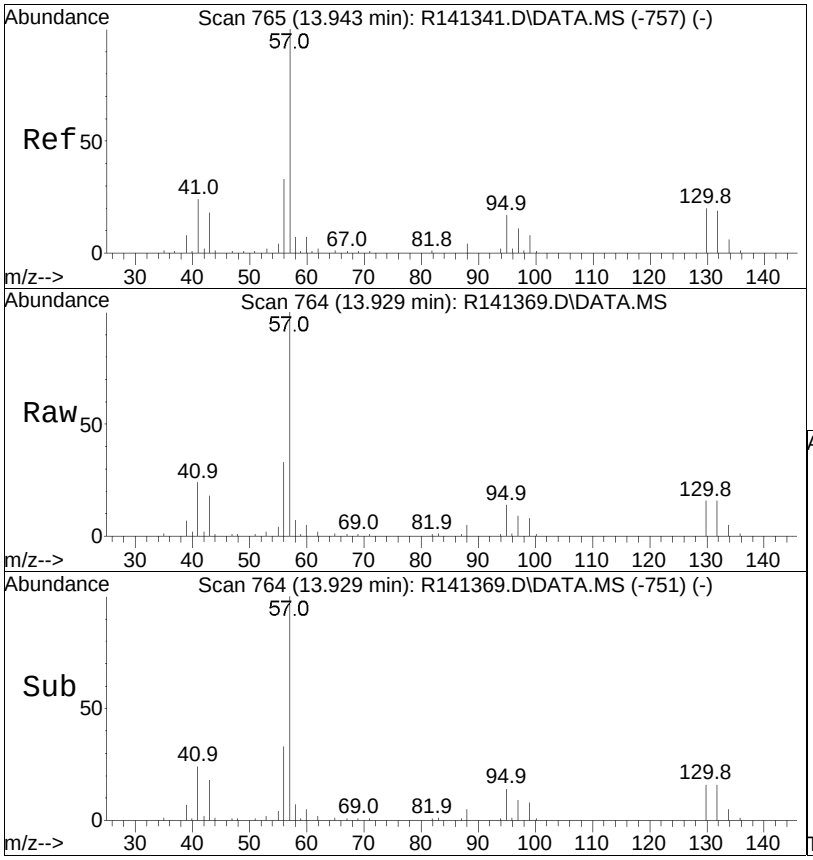


#59
trichloroethene
Concen: 10.69 ppbV
RT: 13.900 min Scan# 762
Delta R.T. -0.028 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:130 Resp: 265113

Ion	Ratio	Lower	Upper
130	100		
132	96.6	77.8	116.6
97	58.8	47.1	70.7

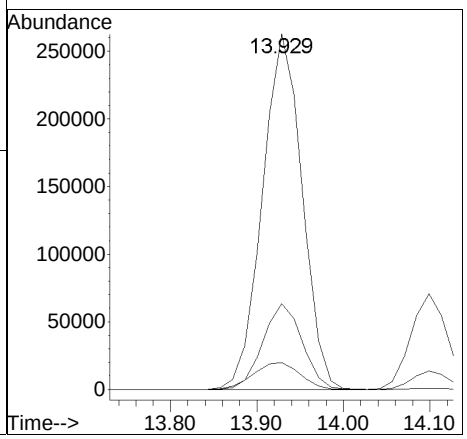


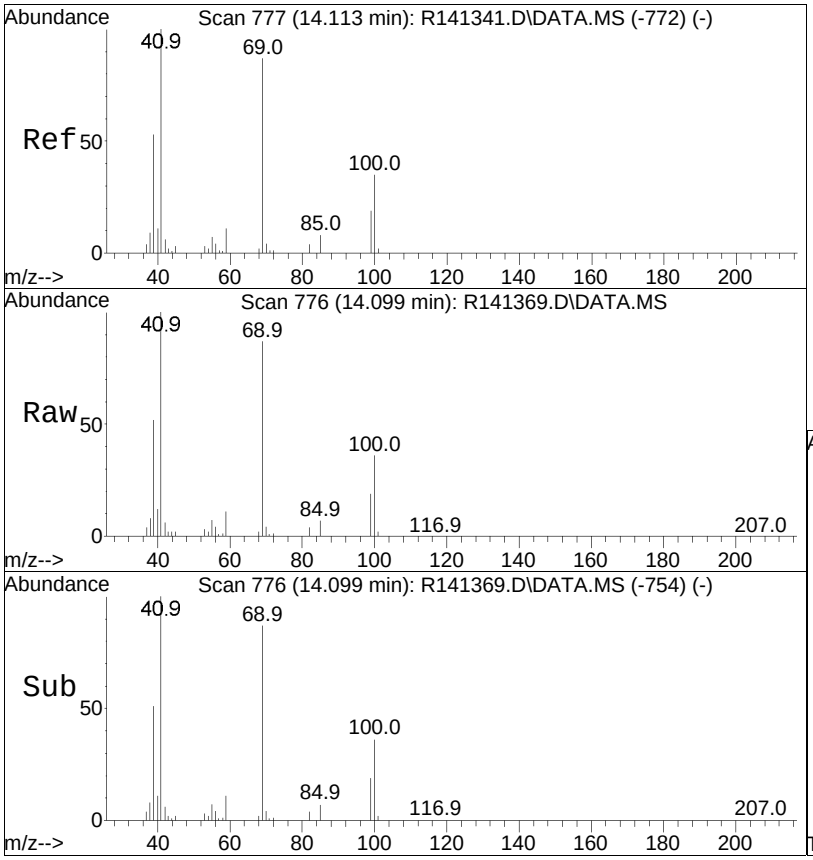


#60
2,2,4-trimethylpentane
Concen: 10.65 ppbV
RT: 13.929 min Scan# 764
Delta R.T. -0.014 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 57 Resp: 838203

Ion	Ratio	Lower	Upper
57	100		
99	7.6	6.3	9.5
41	24.1	19.6	29.4

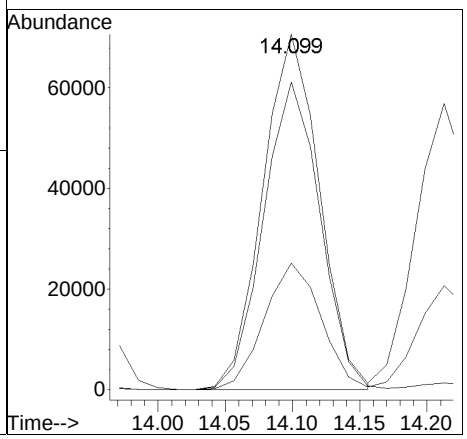


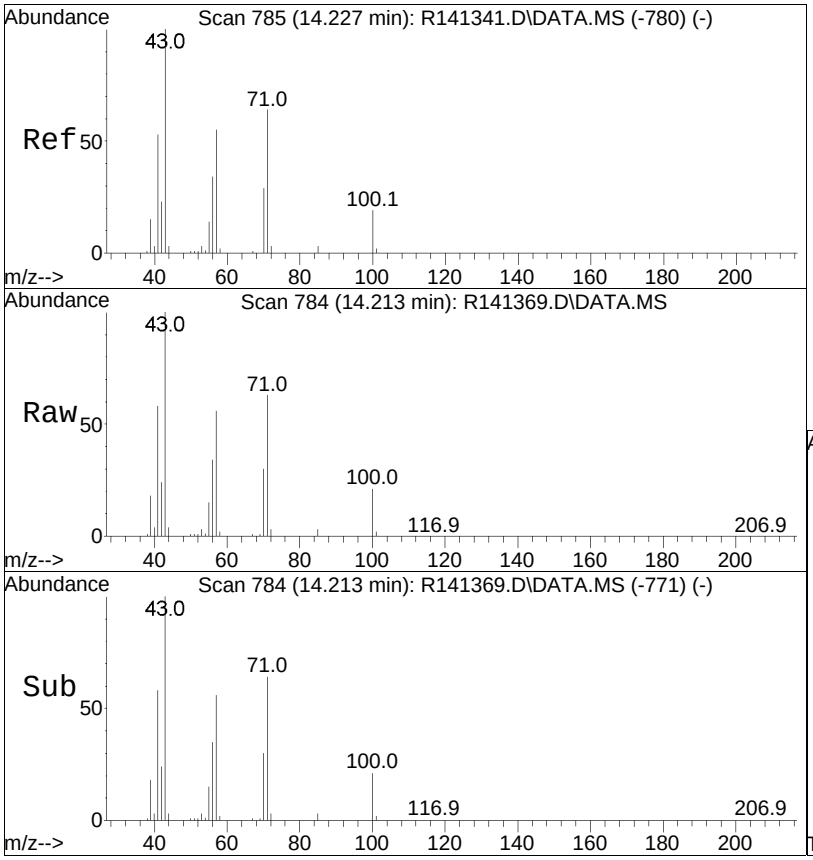


#61
methyl methacrylate
Concen: 10.27 ppbV
RT: 14.099 min Scan# 776
Delta R.T. -0.014 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 41 Resp: 207219

Ion	Ratio	Lower	Upper
41	100		
69	86.3	69.2	103.8
100	35.6	28.1	42.1

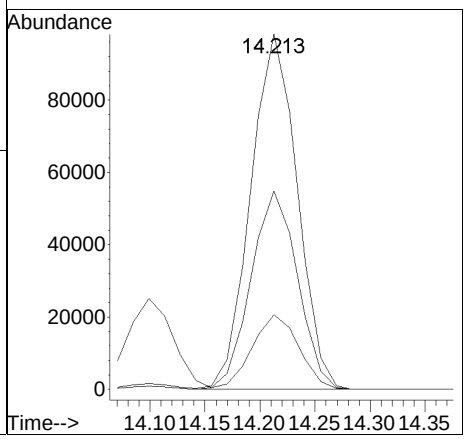


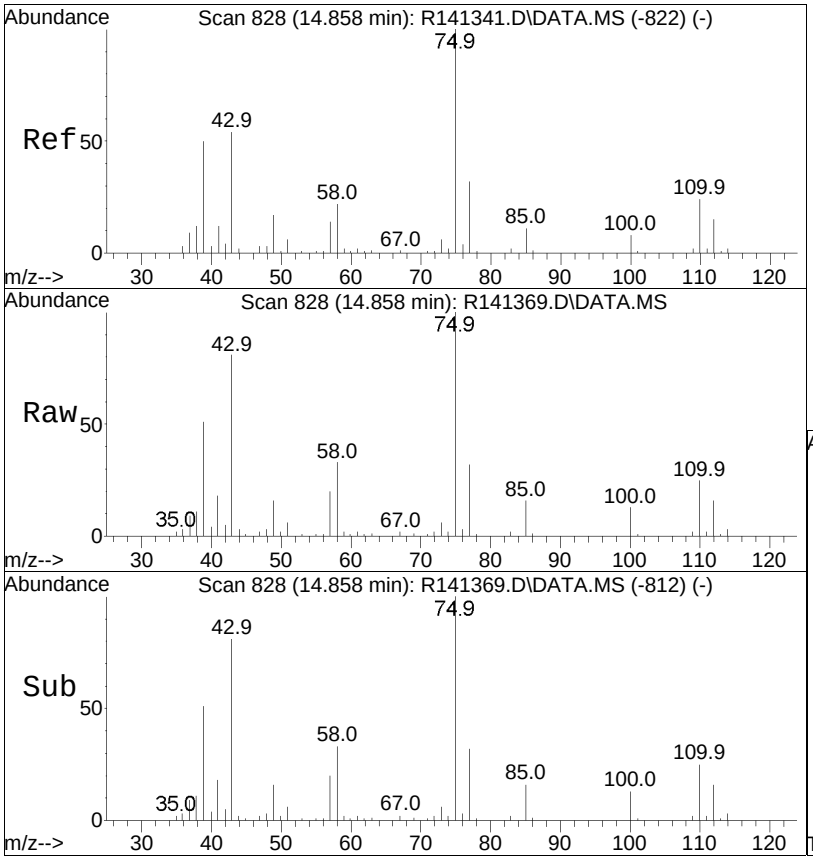


#62
heptane
Concen: 10.57 ppbV
RT: 14.213 min Scan# 784
Delta R.T. -0.014 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 43 Resp: 289103

Ion	Ratio	Lower	Upper
43	100		
57	55.8	44.0	66.0
100	21.0	16.4	24.6

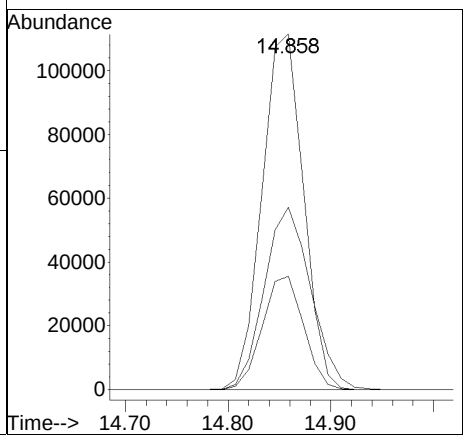


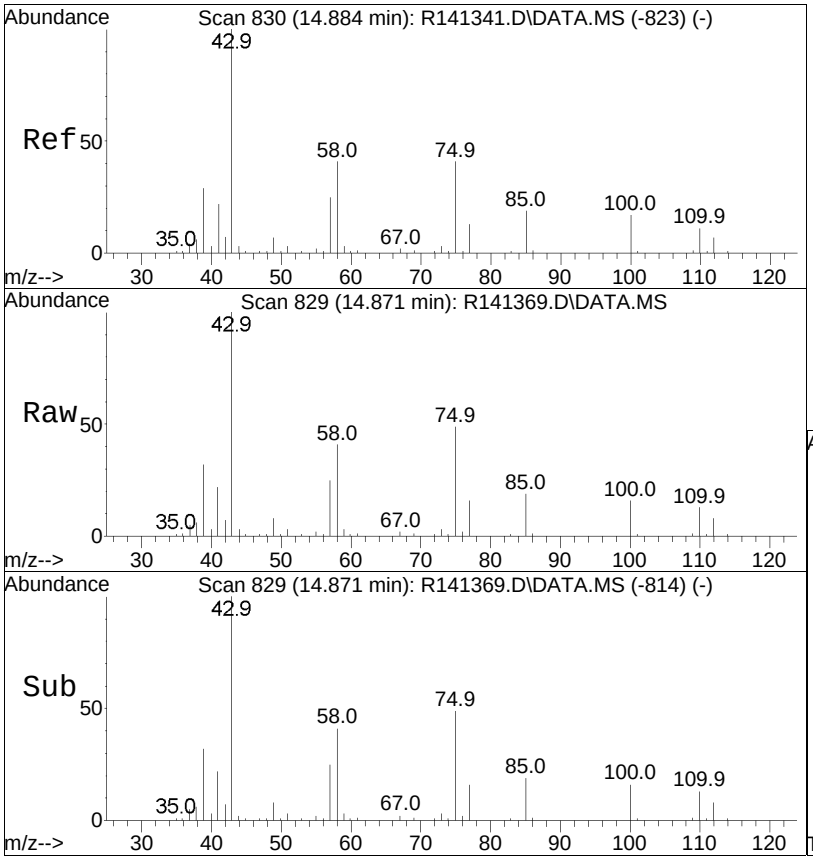


#63
cis-1,3-dichloropropene
Concen: 11.60 ppbV
RT: 14.858 min Scan# 828
Delta R.T. 0.000 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 75 Resp: 312132

Ion	Ratio	Lower	Upper
75	100		
39	51.3	40.3	60.5
77	31.8	25.2	37.8

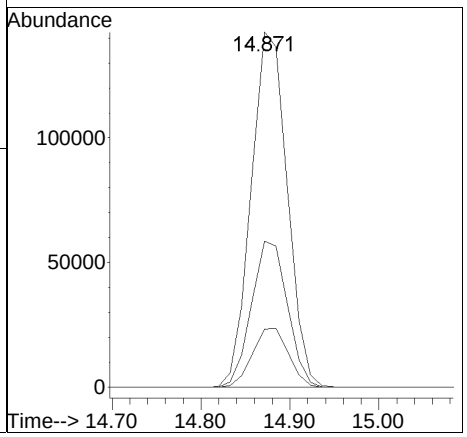


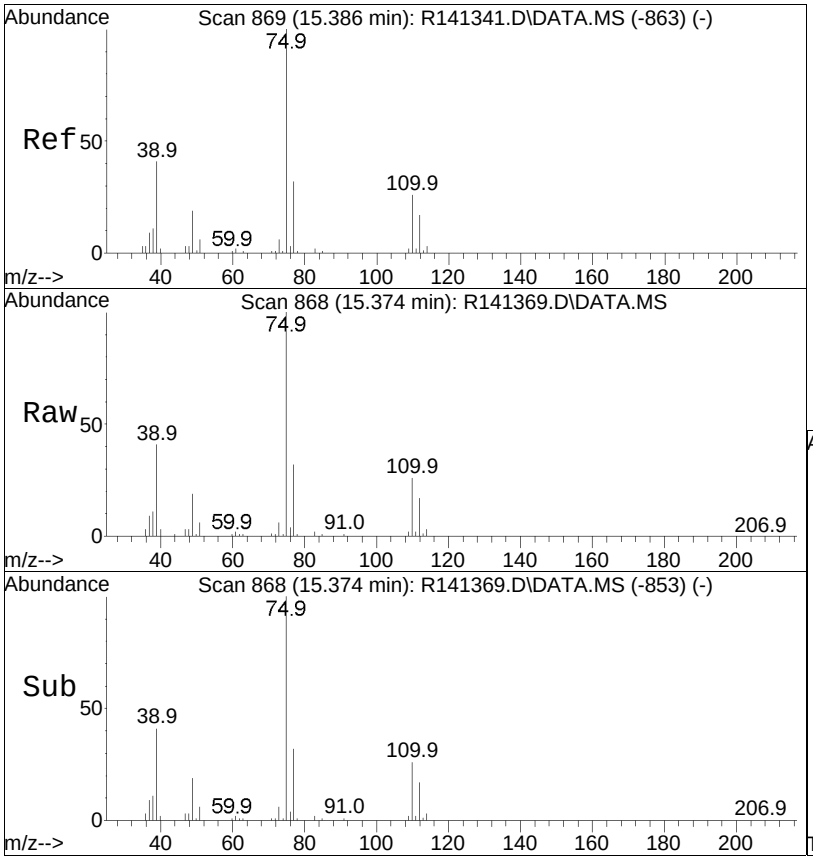


#64
4-methyl-2-pentanone
Concen: 10.89 ppbV
RT: 14.871 min Scan# 829
Delta R.T. -0.013 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 43 Resp: 402097

Ion	Ratio	Lower	Upper
43	100		
58	41.1	33.0	49.4
100	16.4	13.4	20.0

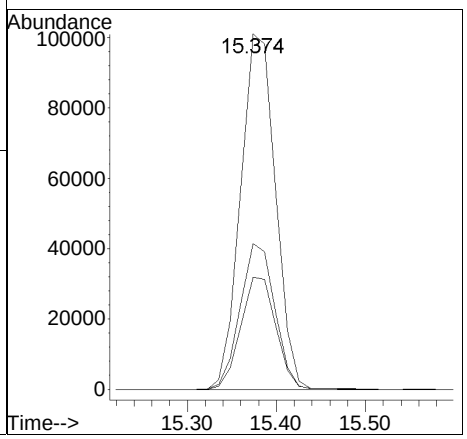


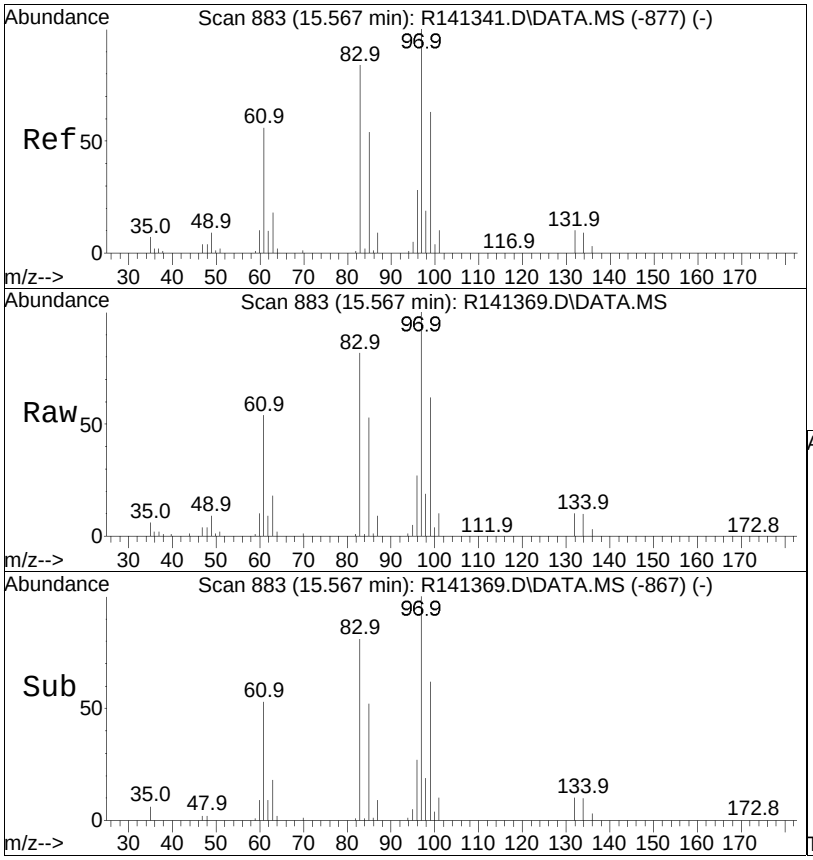


#65
trans-1,3-dichloropropene
Concen: 10.08 ppbV
RT: 15.374 min Scan# 868
Delta R.T. -0.013 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 75 Resp: 275890

Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.4	38.0
39	41.0	33.0	49.4

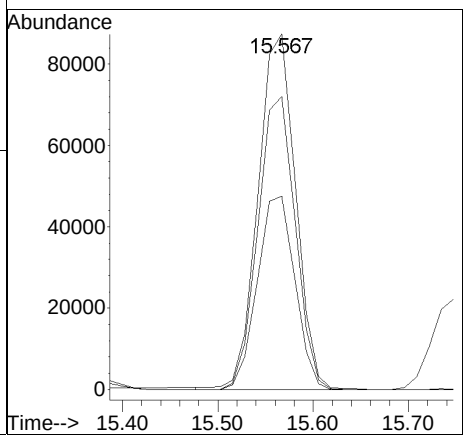


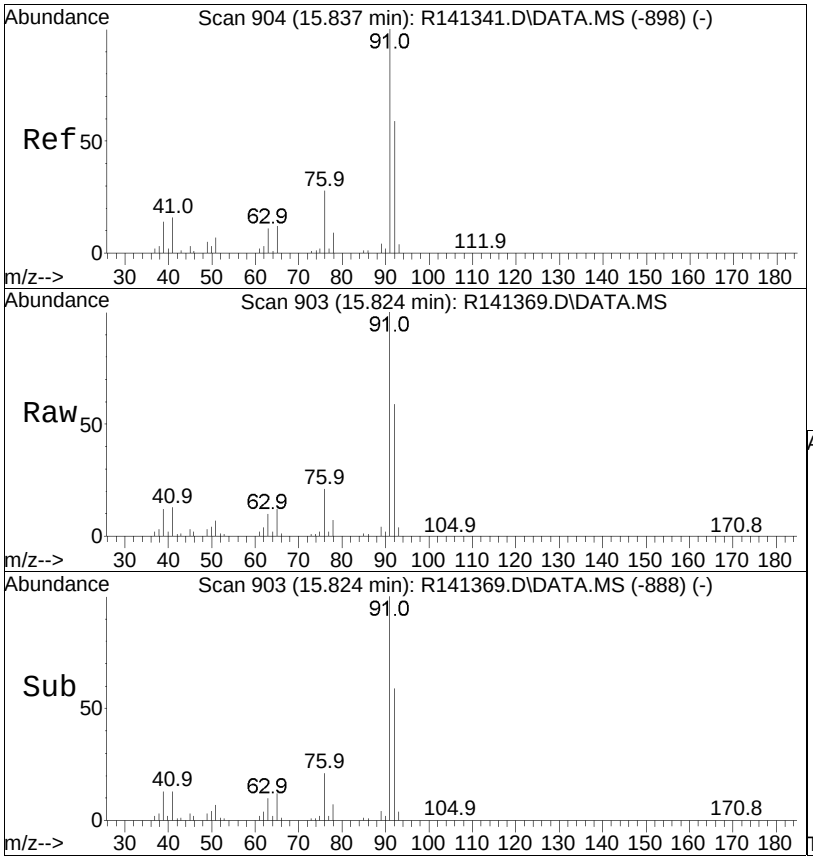


#66
1,1,2-trichloroethane
Concen: 11.46 ppbV
RT: 15.567 min Scan# 883
Delta R.T. 0.000 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 97 Resp: 239237

Ion	Ratio	Lower	Upper
97	100		
83	82.4	67.1	100.7
61	54.4	44.9	67.3

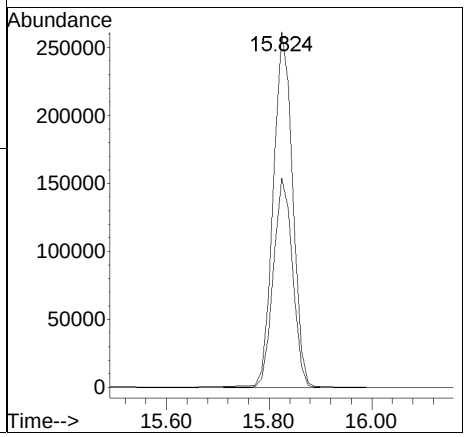


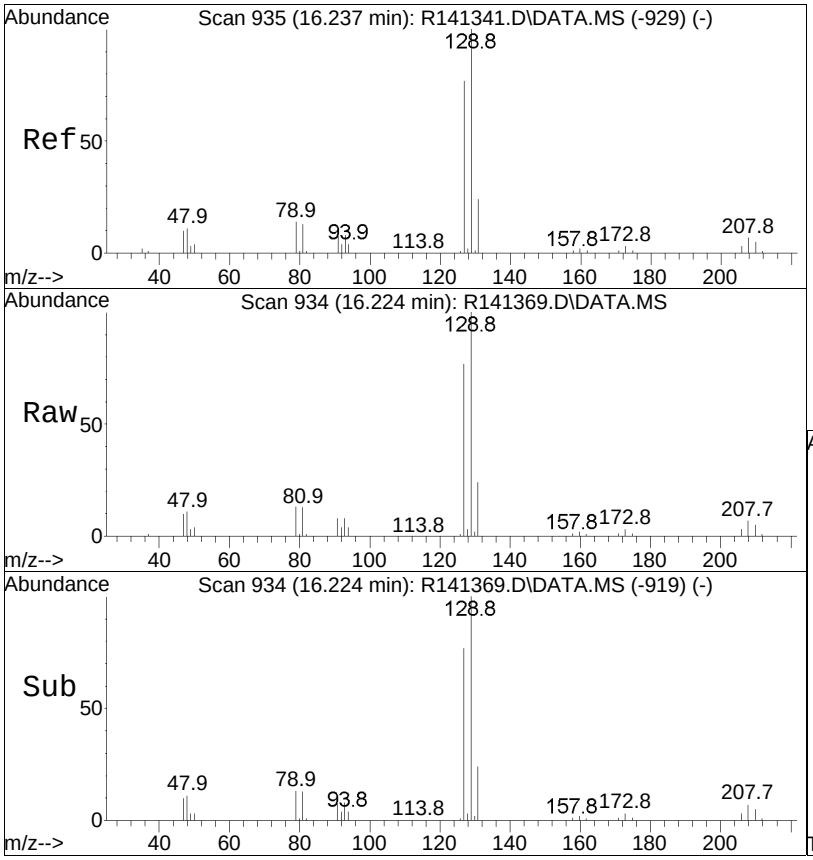


#68
toluene
Concen: 9.85 ppbV
RT: 15.824 min Scan# 903
Delta R.T. -0.013 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 91 Resp: 688299

Ion	Ratio	Lower	Upper
91	100		
92	58.9	47.3	70.9

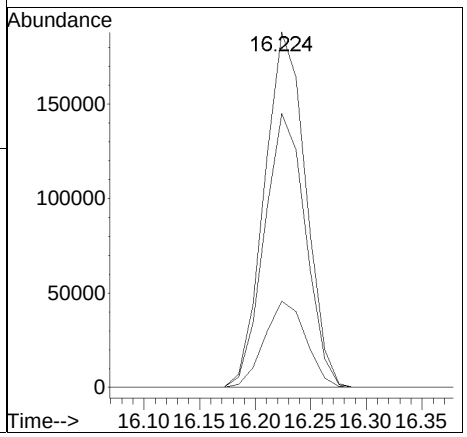


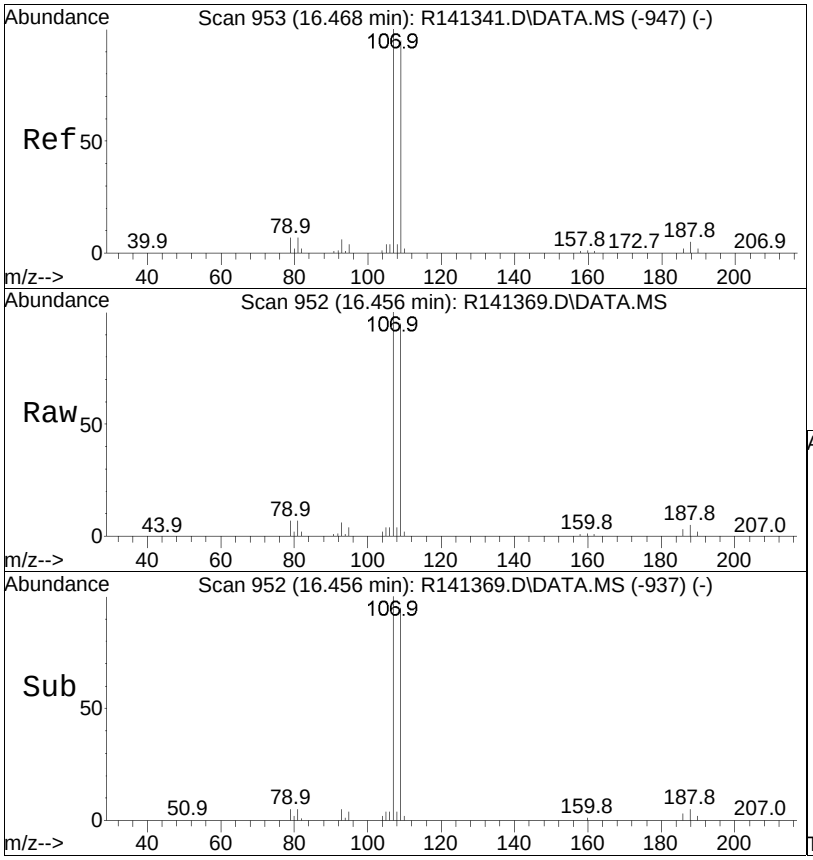


#74
dibromochloromethane
Concen: 9.96 ppbV
RT: 16.224 min Scan# 934
Delta R.T. -0.013 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:129 Resp: 486771

Ion	Ratio	Lower	Upper
129	100		
127	77.0	61.4	92.0
131	24.3	19.4	29.0

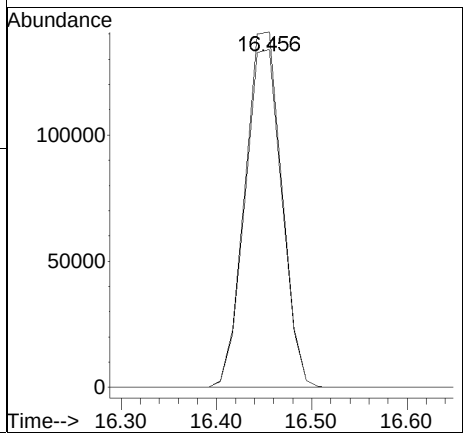


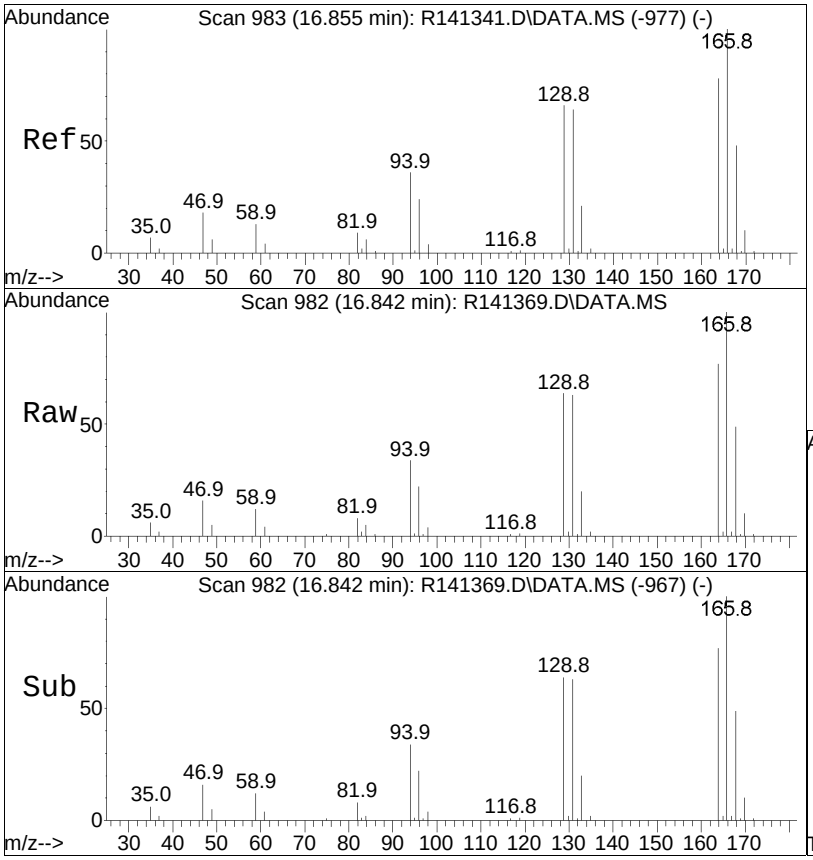


#75
1,2-dibromoethane
Concen: 9.82 ppbV
RT: 16.456 min Scan# 952
Delta R.T. -0.013 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:107 Resp: 380062

Ion	Ratio	Lower	Upper
107	100		
109	95.1	75.8	113.6

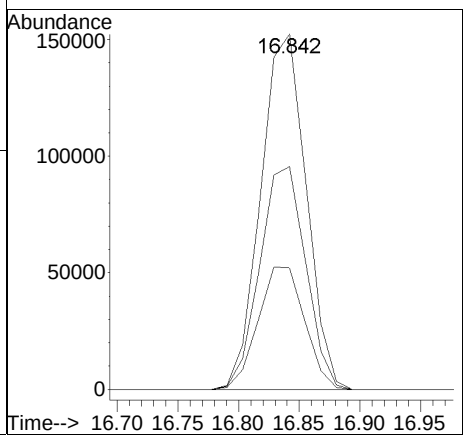


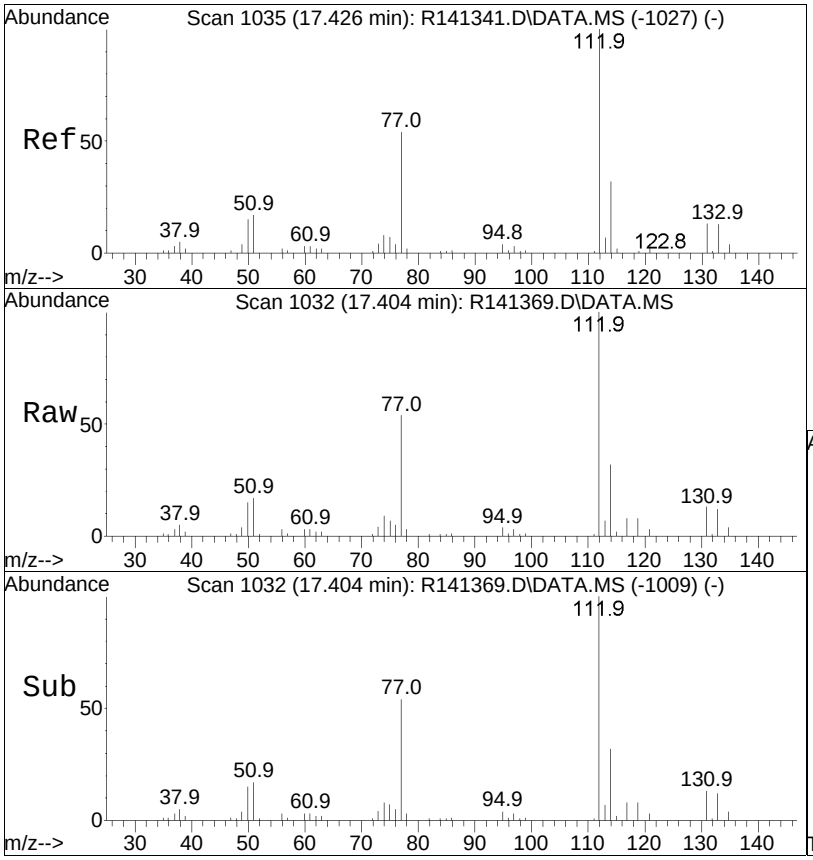


#78
tetrachloroethene
Concen: 9.65 ppbV
RT: 16.842 min Scan# 982
Delta R.T. -0.013 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:166 Resp: 396635

Ion	Ratio	Lower	Upper
166	100		
131	62.7	51.4	77.2
94	34.2	29.2	43.8

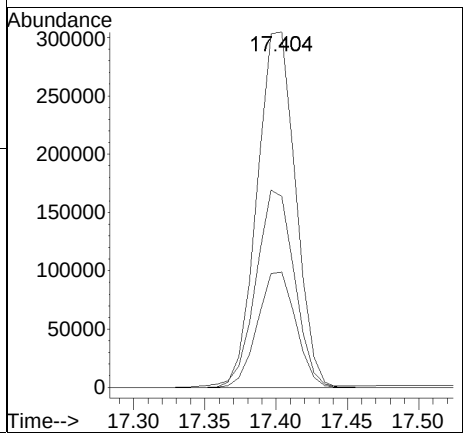


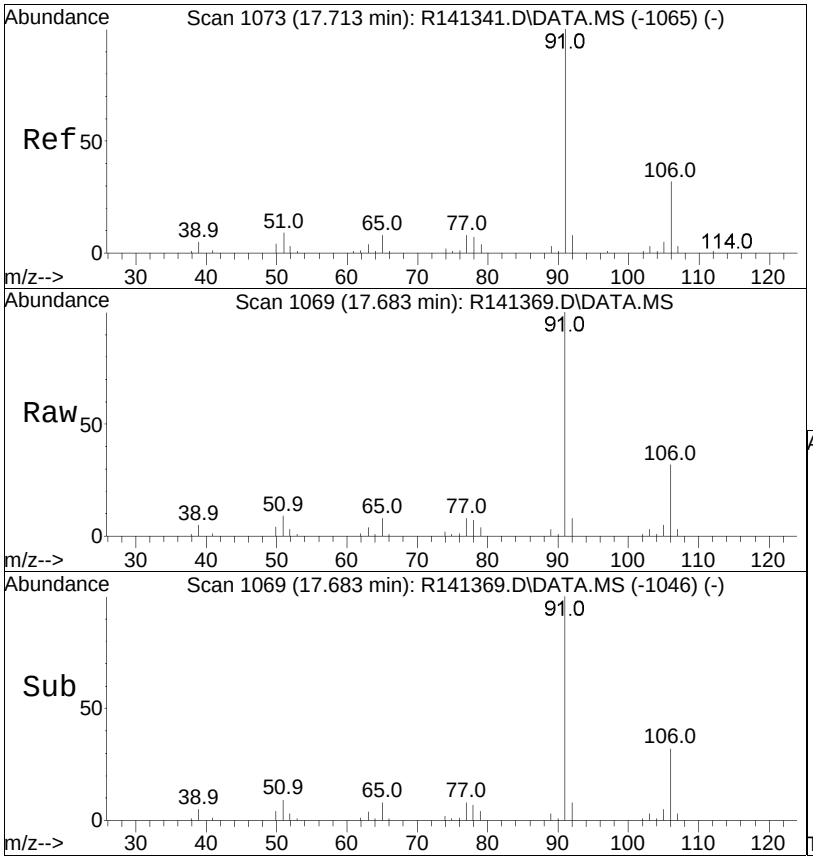


#80
chlorobenzene
Concen: 9.92 ppbV
RT: 17.404 min Scan# 1032
Delta R.T. -0.023 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:112 Resp: 571356

Ion	Ratio	Lower	Upper
112	100		
114	32.5	26.0	39.0
77	53.8	43.0	64.6

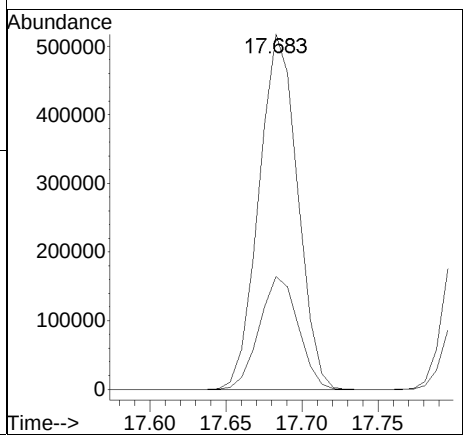


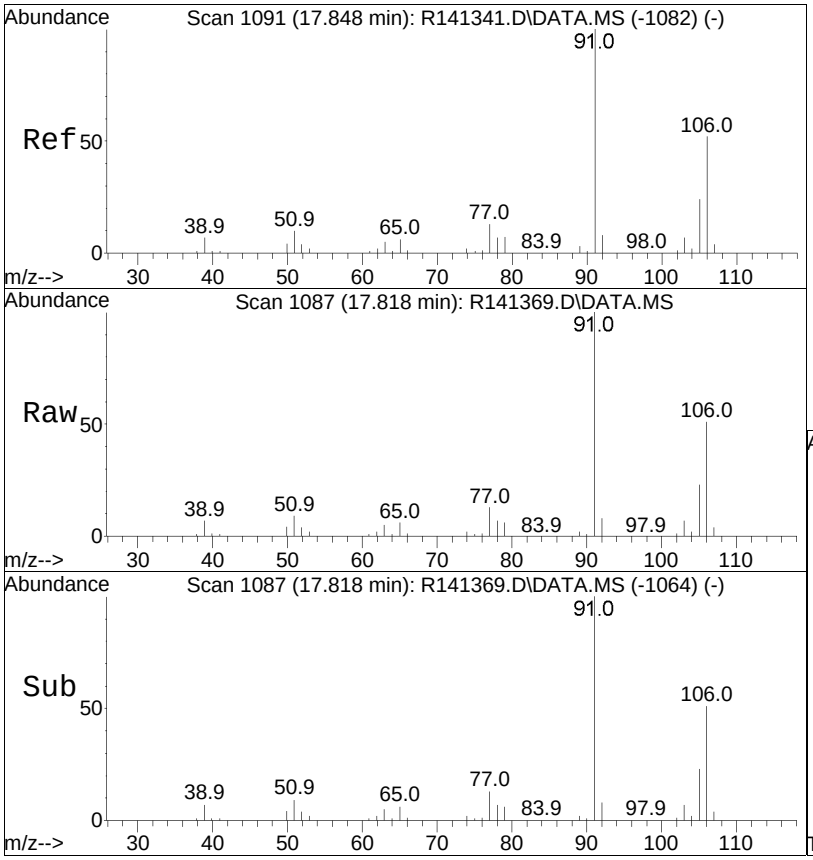


#81
ethylbenzene
Concen: 10.13 ppbV
RT: 17.683 min Scan# 1069
Delta R.T. -0.030 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 91 Resp: 914560

Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.7	38.5

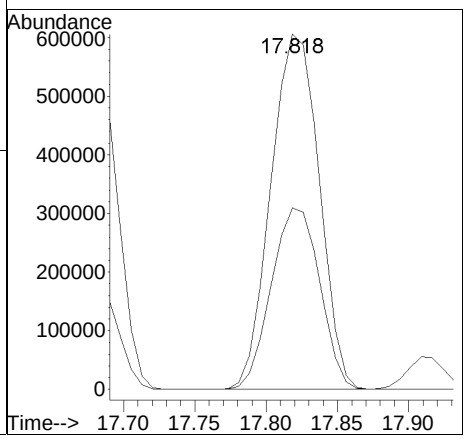


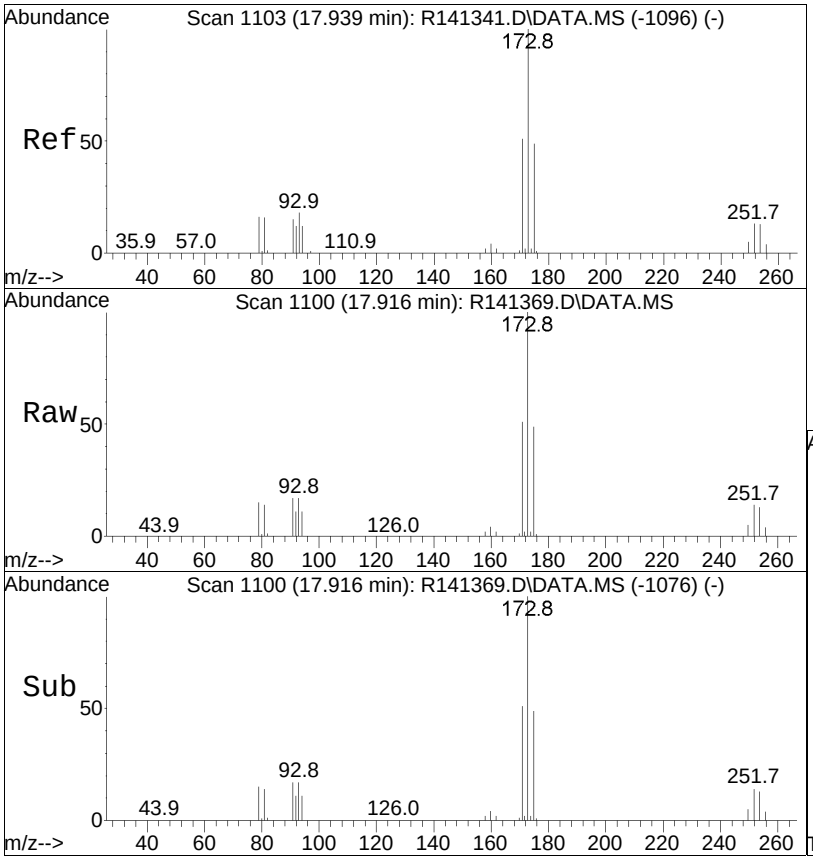


#83
m+p-xylene
Concen: 20.60 ppbV
RT: 17.818 min Scan# 1087
Delta R.T. -0.030 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 91 Resp: 1429920

Ion	Ratio	Lower	Upper
91	100		
106	51.1	41.4	62.0

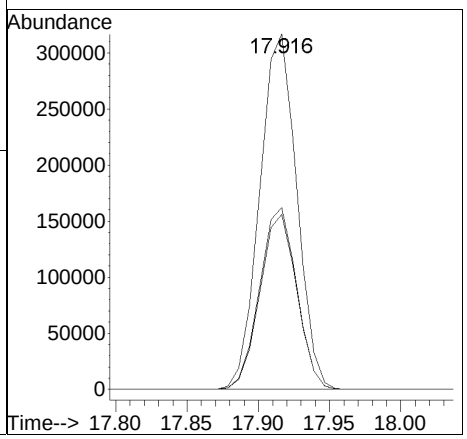


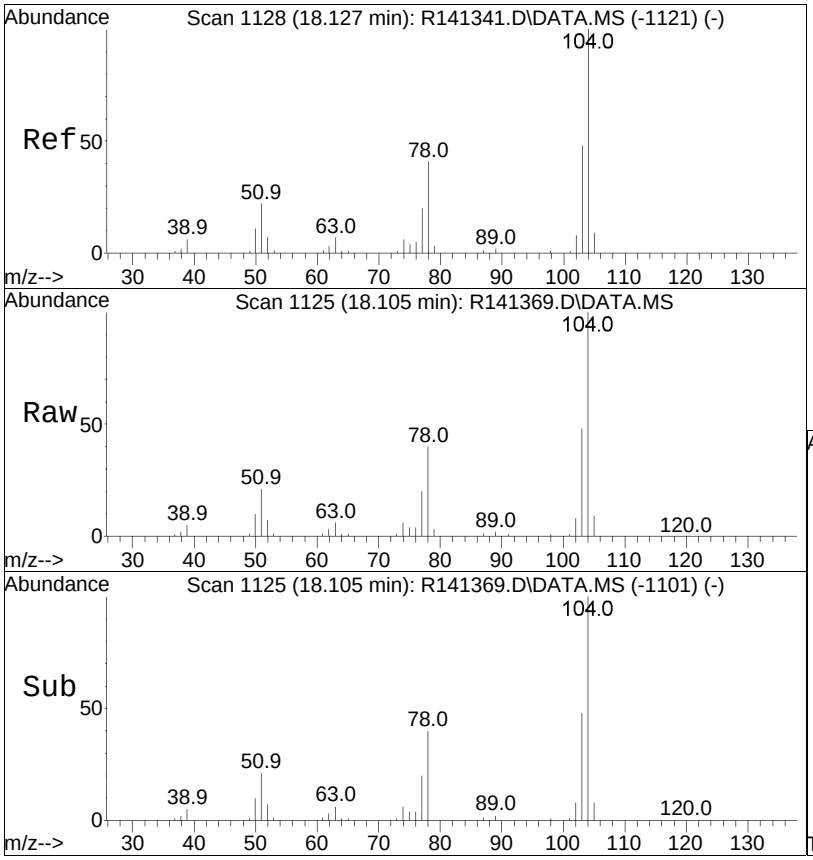


#84
bromoform
Concen: 10.47 ppbV
RT: 17.916 min Scan# 1100
Delta R.T. -0.023 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:173 Resp: 572610

Ion	Ratio	Lower	Upper
173	100		
175	49.3	39.2	58.8
171	51.2	41.0	61.4

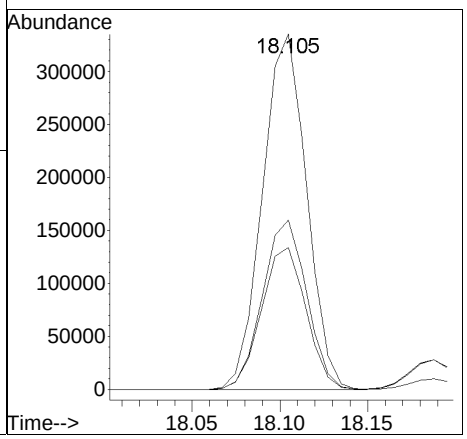


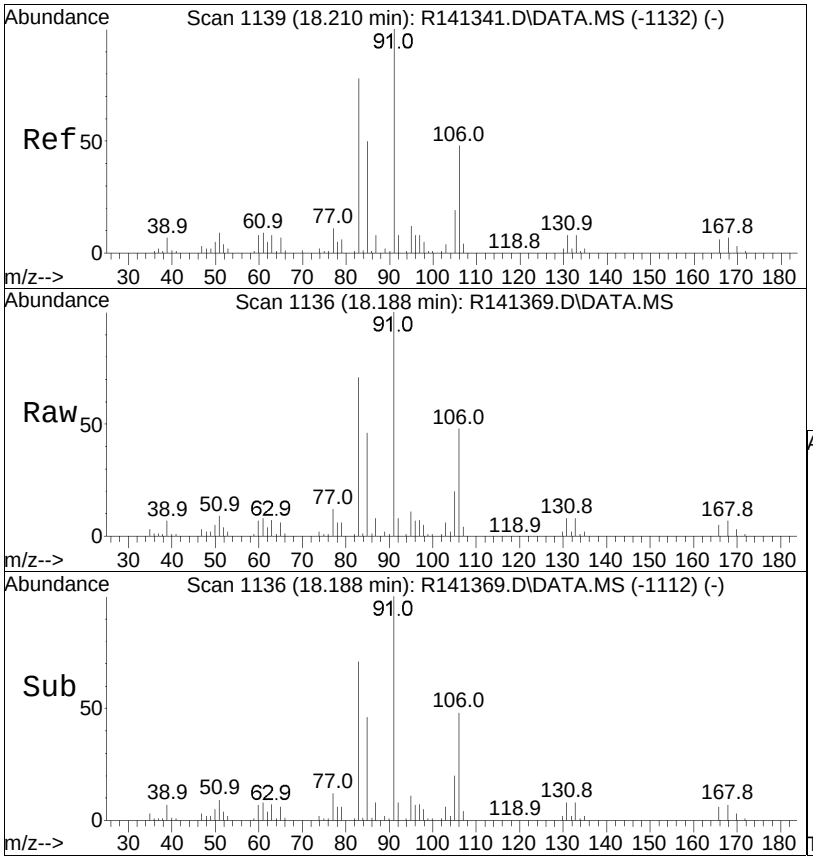


#85
styrene
Concen: 10.55 ppbV
RT: 18.105 min Scan# 1125
Delta R.T. -0.023 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:104 Resp: 586021

Ion	Ratio	Lower	Upper
104	100		
103	47.7	38.2	57.4
78	40.0	33.1	49.7

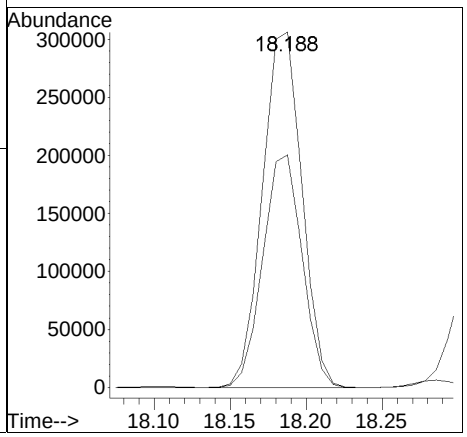


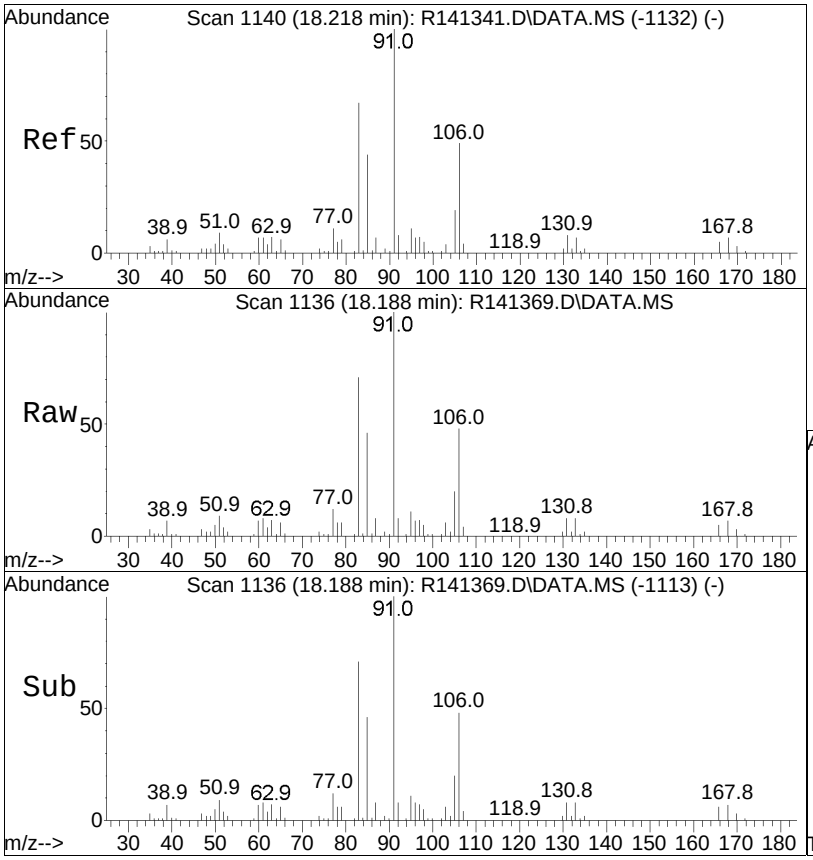


#86
1,1,2,2-tetrachloroethane
Concen: 10.41 ppbV
RT: 18.188 min Scan# 1136
Delta R.T. -0.023 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 83 Resp: 554153

Ion	Ratio	Lower	Upper
83	100		
85	65.4	51.6	77.4

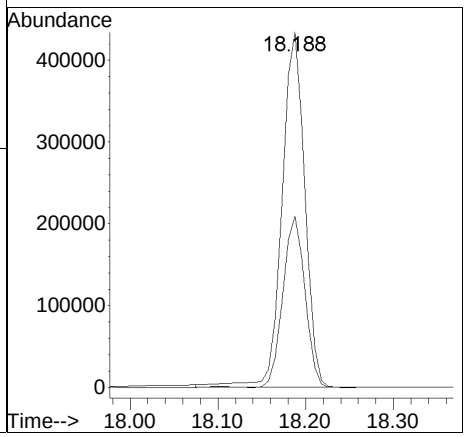


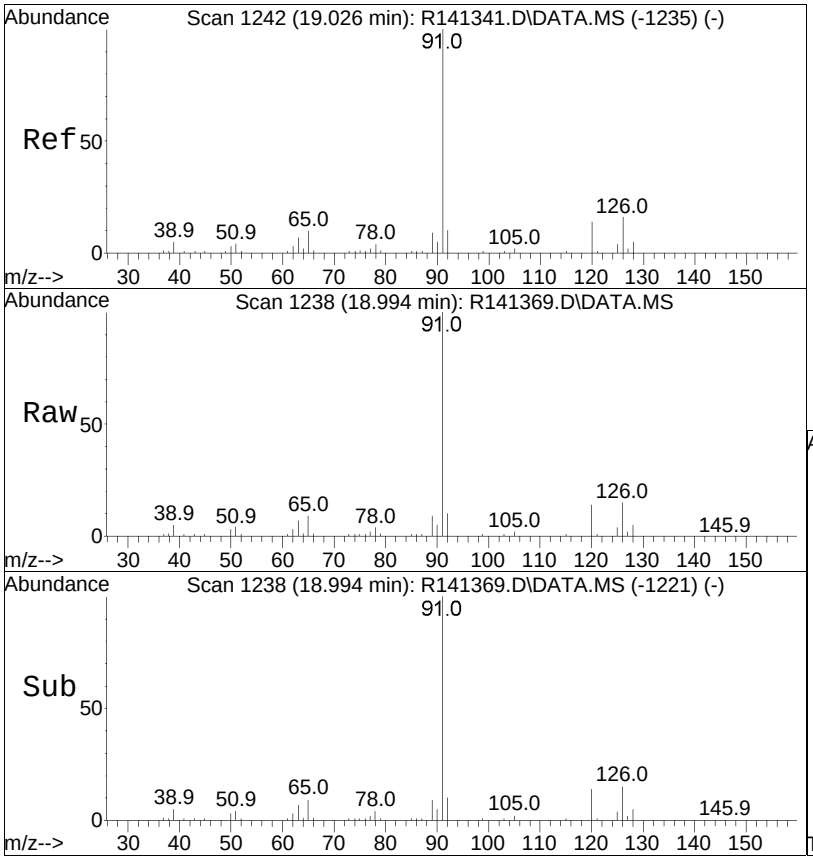


#87
o-xylene
Concen: 10.85 ppbV
RT: 18.188 min Scan# 1136
Delta R.T. -0.030 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion: 91 Resp: 783819

Ion	Ratio	Lower	Upper
91	100		
106	48.2	38.8	58.2

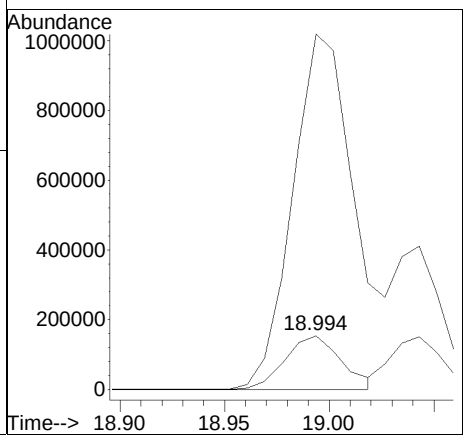


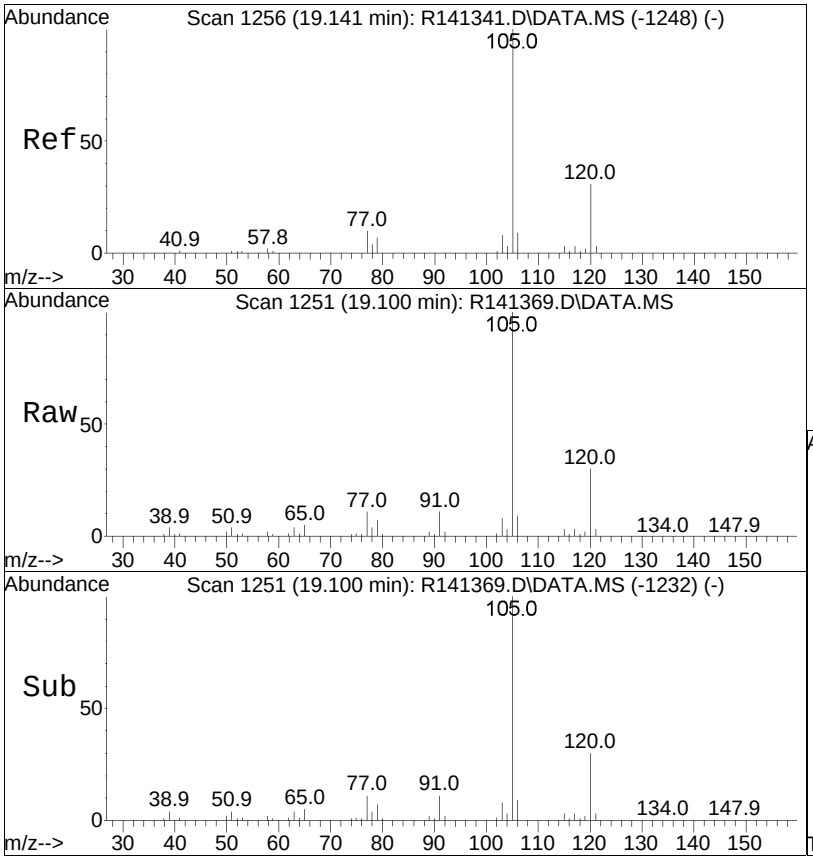


#93
2-chlorotoluene
Concen: 9.94 ppbV
RT: 18.994 min Scan# 1238
Delta R.T. -0.032 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:126 Resp: 287907

Ion	Ratio	Lower	Upper
126	100		
91	663.2	515.8	773.6

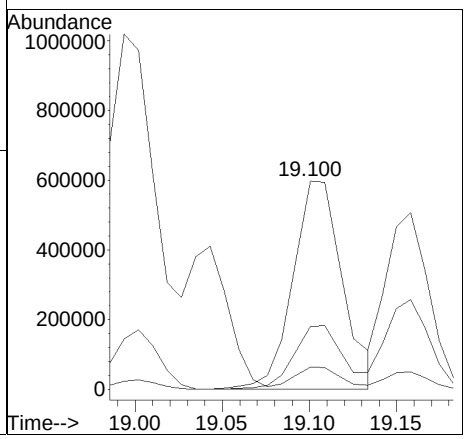


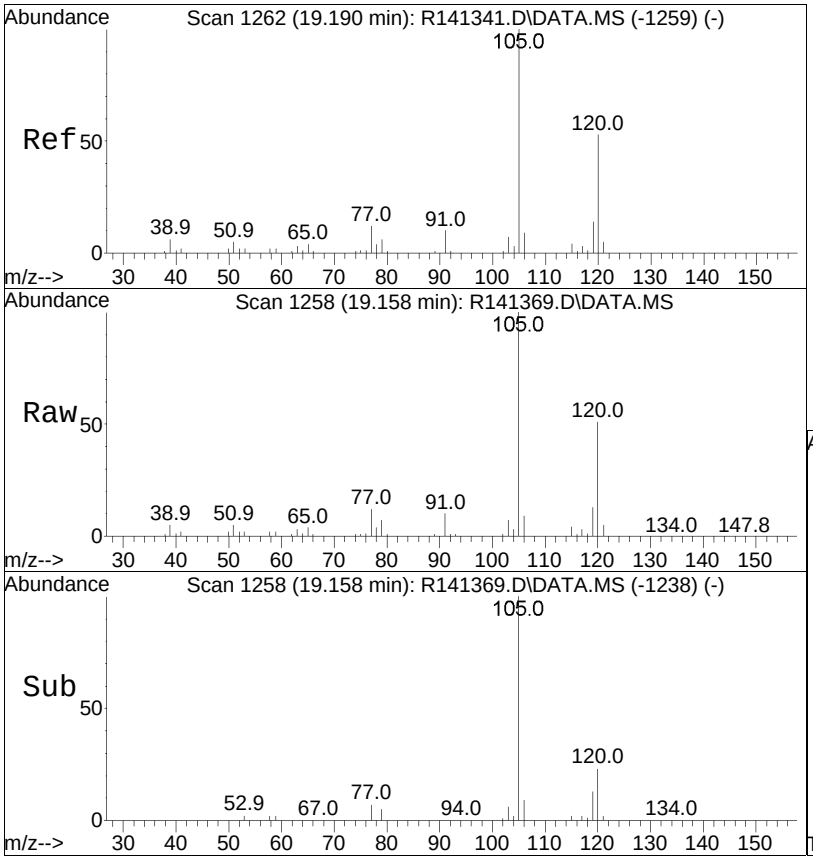


#96
4-ethyl toluene
Concen: 10.63 ppbV
RT: 19.100 min Scan# 1251
Delta R.T. -0.040 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:105 Resp: 1181811

Ion	Ratio	Lower	Upper
105	100		
120	30.2	24.6	36.8
91	10.7	8.5	12.7

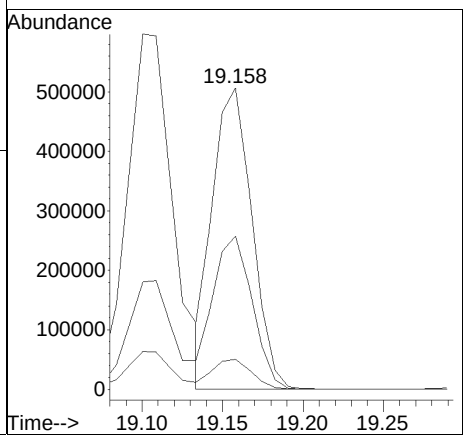


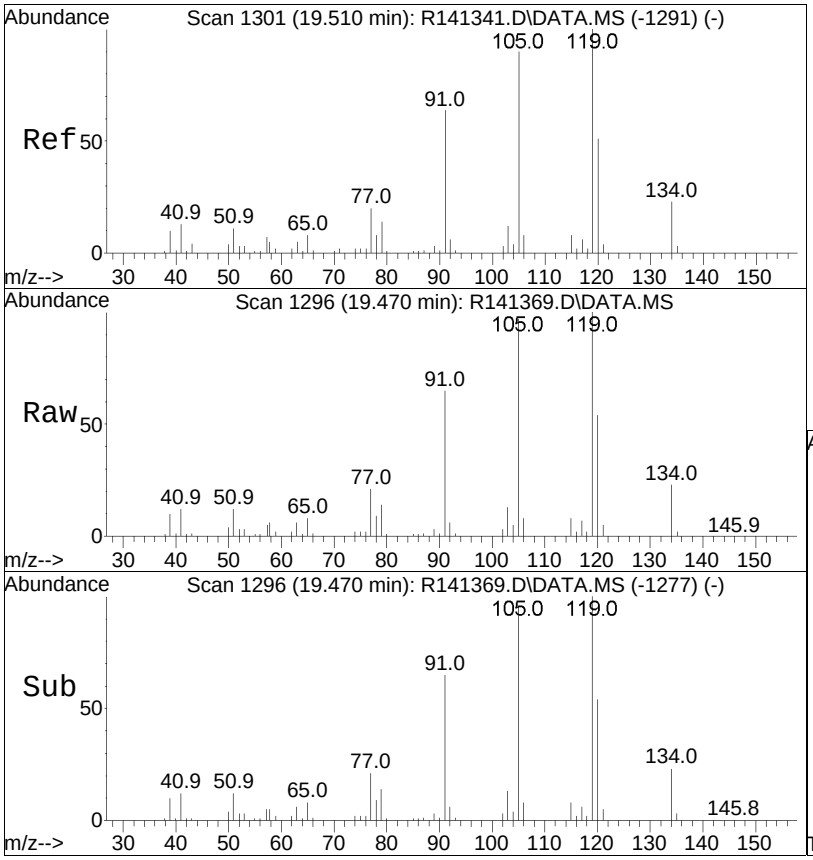


#97
1,3,5-trimethylbenzene
Concen: 10.35 ppbV
RT: 19.158 min Scan# 1258
Delta R.T. -0.032 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:105 Resp: 864211

Ion	Ratio	Lower	Upper
105	100		
120	50.9	41.0	61.4
91	10.0	8.1	12.1

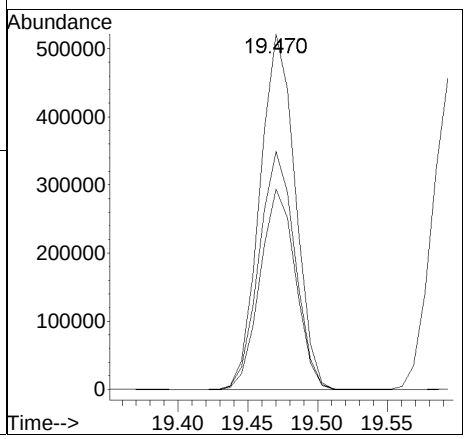


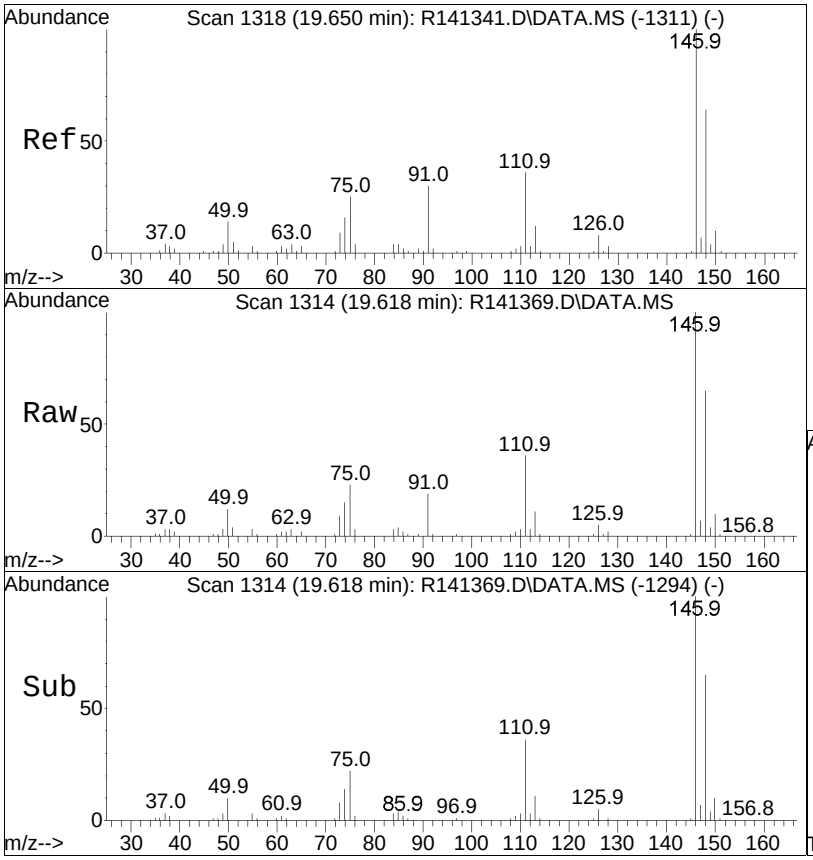


#99
1,2,4-trimethylbenzene
Concen: 10.89 ppbV
RT: 19.470 min Scan# 1296
Delta R.T. -0.040 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:105 Resp: 919726

Ion	Ratio	Lower	Upper
105	100		
120	56.4	45.7	68.5
91	67.0	56.8	85.2

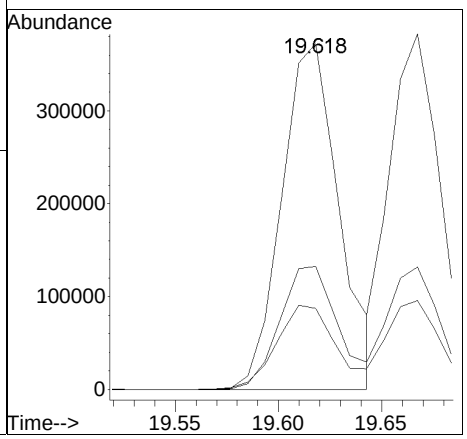


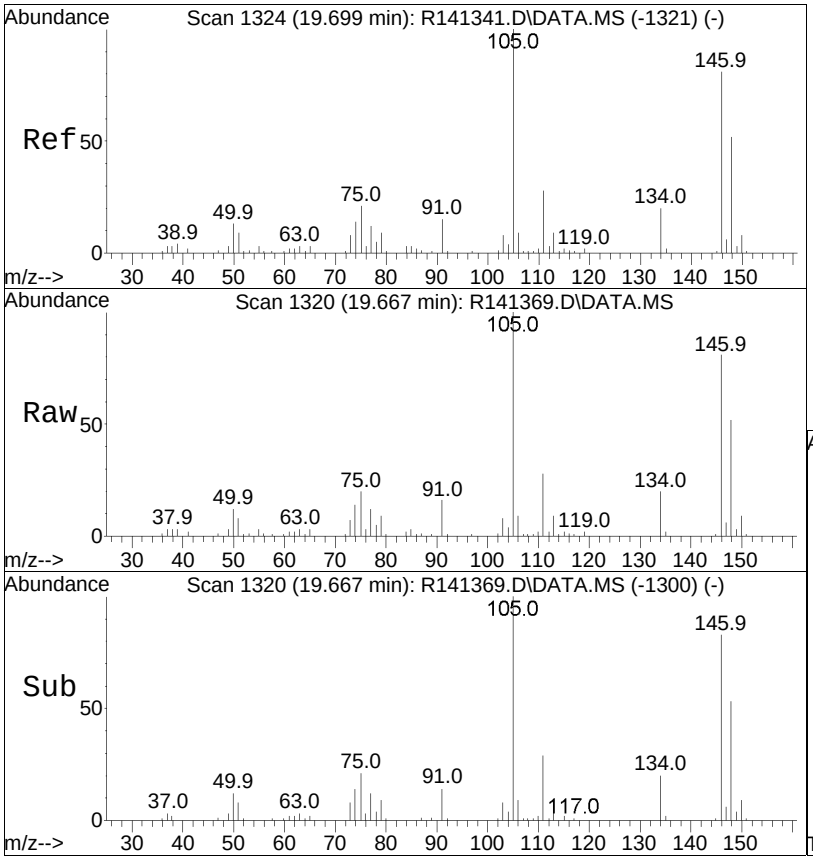


#102
1,3-dichlorobenzene
Concen: 11.25 ppbV m
RT: 19.618 min Scan# 1314
Delta R.T. -0.032 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:146 Resp: 720206

Ion	Ratio	Lower	Upper
146	100		
111	35.6	29.0	43.6
75	23.4	19.8	29.8

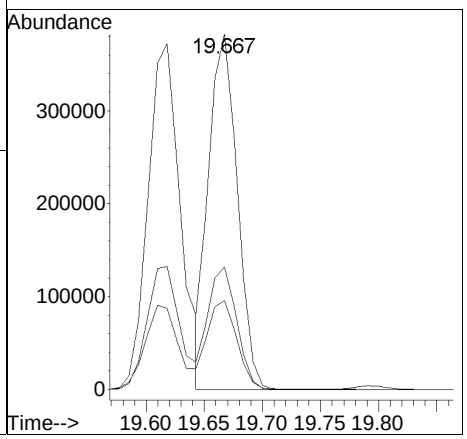


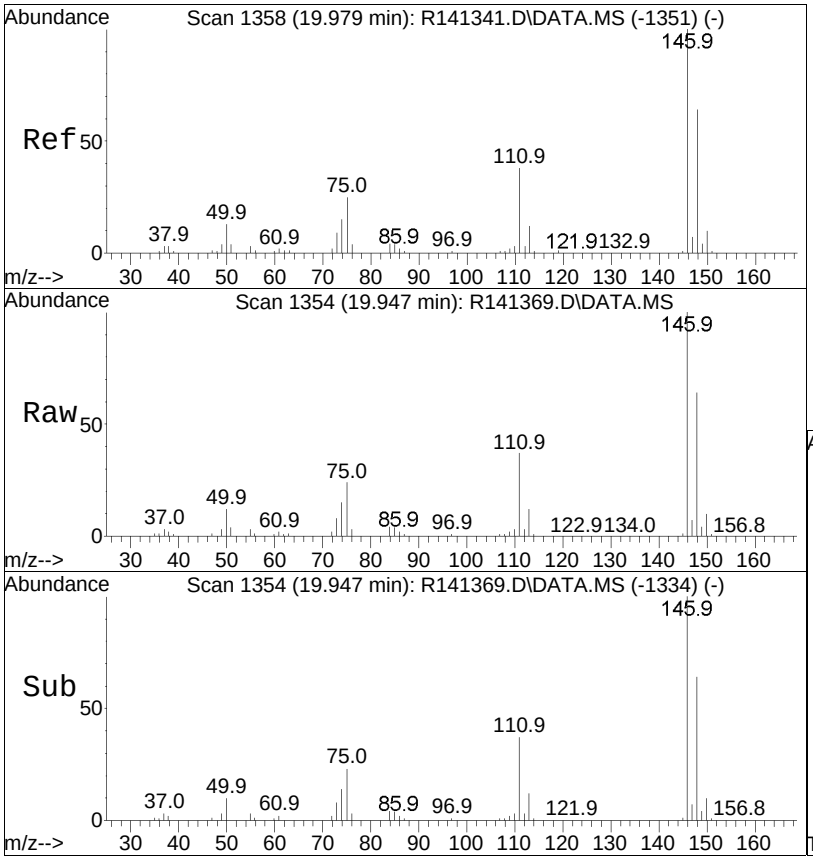


#103
1,4-dichlorobenzene
Concen: 11.22 ppbV
RT: 19.667 min Scan# 1320
Delta R.T. -0.032 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:146 Resp: 656238

Ion	Ratio	Lower	Upper
146	100		
111	34.4	28.2	42.2
75	25.0	21.0	31.4

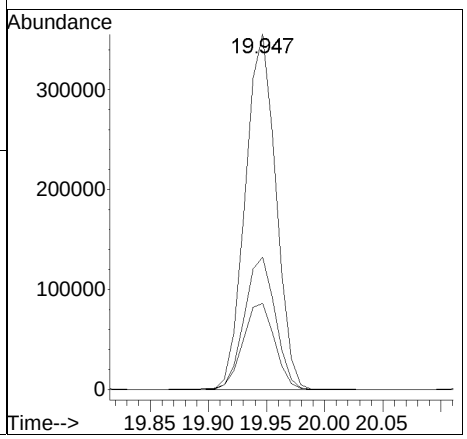


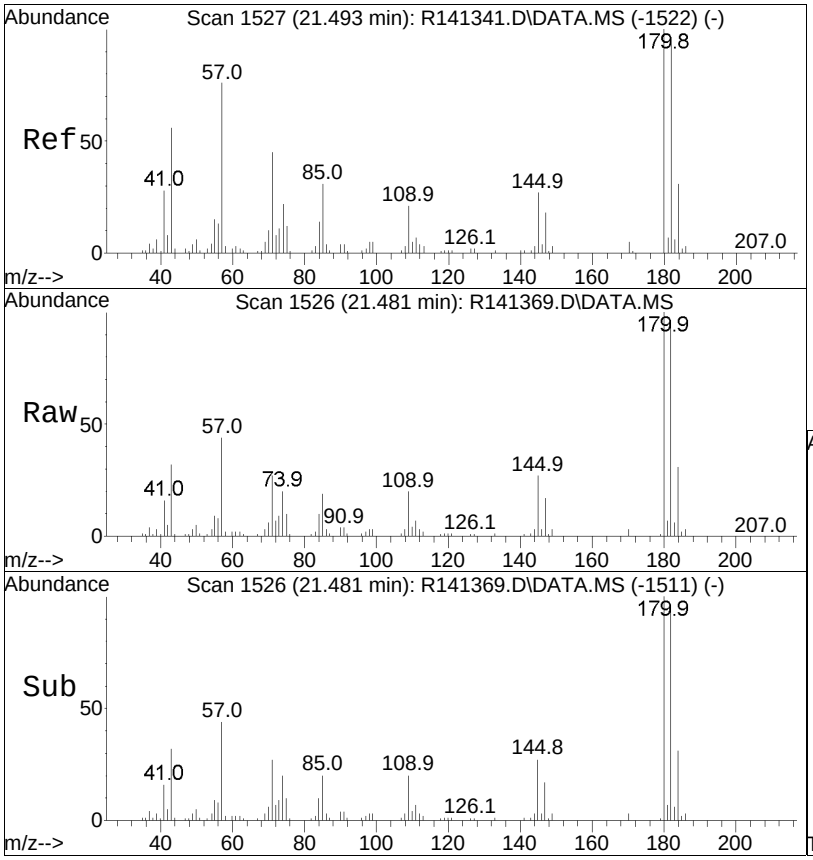


#107
1,2-dichlorobenzene
Concen: 10.67 ppbV
RT: 19.947 min Scan# 1354
Delta R.T. -0.032 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:146 Resp: 650585

Ion	Ratio	Lower	Upper
146	100		
111	37.2	30.3	45.5
75	24.2	20.1	30.1

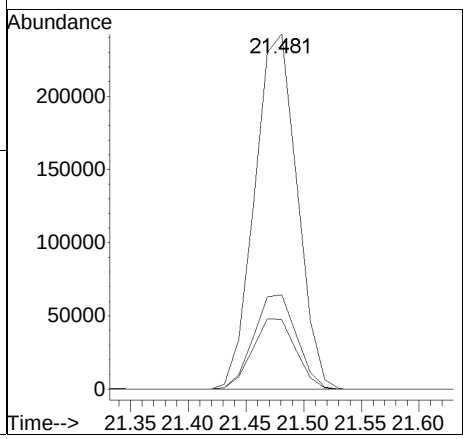


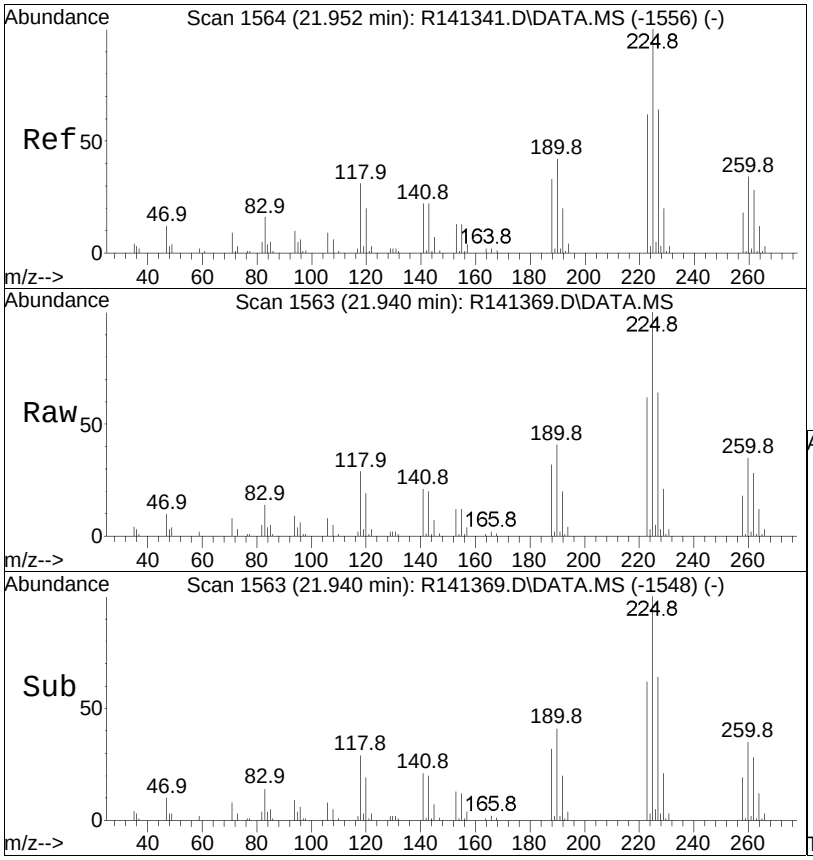


#115
1,2,4-trichlorobenzene
Concen: 12.14 ppbV
RT: 21.481 min Scan# 1526
Delta R.T. -0.012 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:180 Resp: 620730

Ion	Ratio	Lower	Upper
180	100		
145	26.6	21.9	32.9
109	19.6	16.9	25.3

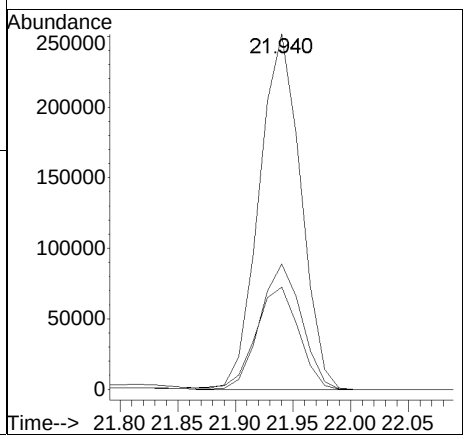




#119
hexachlorobutadiene
Concen: 10.81 ppbV
RT: 21.940 min Scan# 1563
Delta R.T. -0.012 min
Lab File: R141369.D
Acq: 04 Feb 2015 04:52 pm

Tgt Ion:225 Resp: 630507

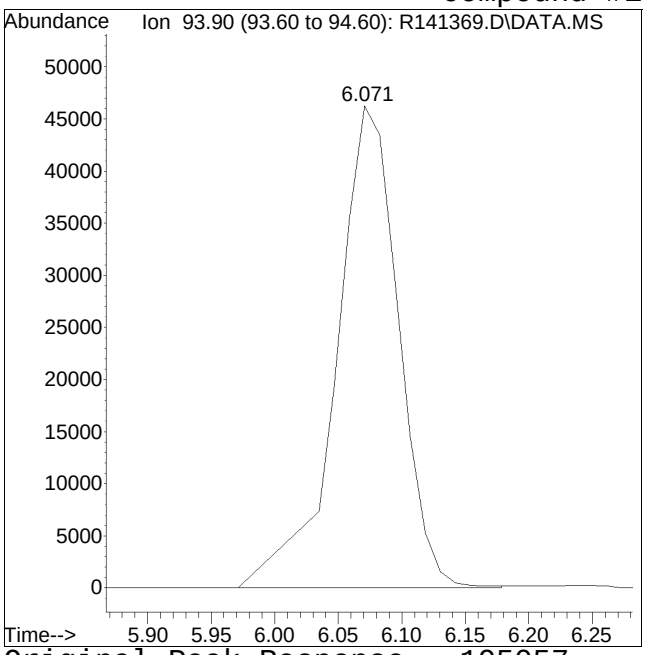
Ion	Ratio	Lower	Upper
225	100		
260	35.3	27.6	41.4
118	28.8	24.9	37.3



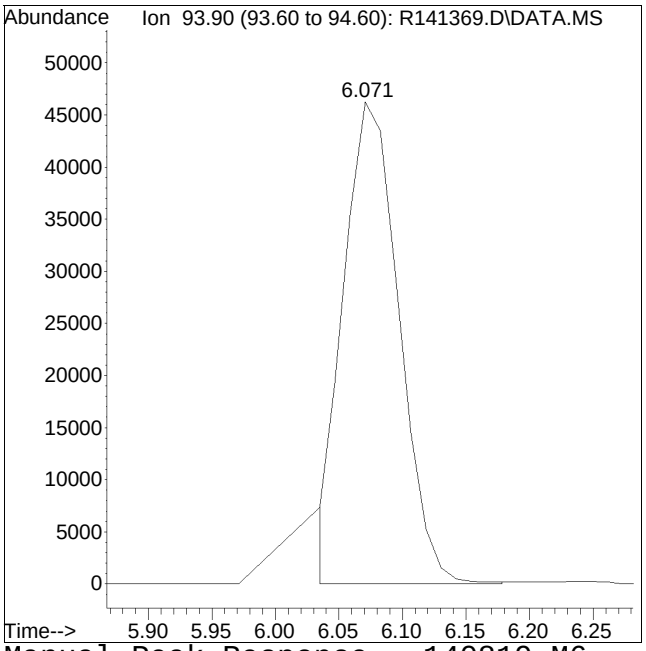
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141369.D Operator : AIRLAB14:RY
Date Inj'd : 2/4/2015 4:52 pm Instrument : Airlab 14
Sample : WG760633-3,3,250,250 Quant Date : 2/4/2015 5:17 pm

Compound #13: bromomethane



Original Peak Response = 195057



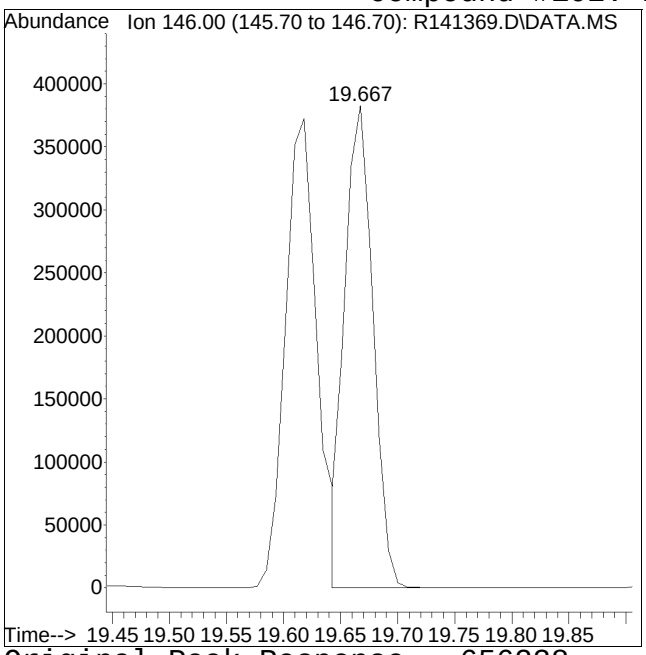
Manual Peak Response = 140819 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

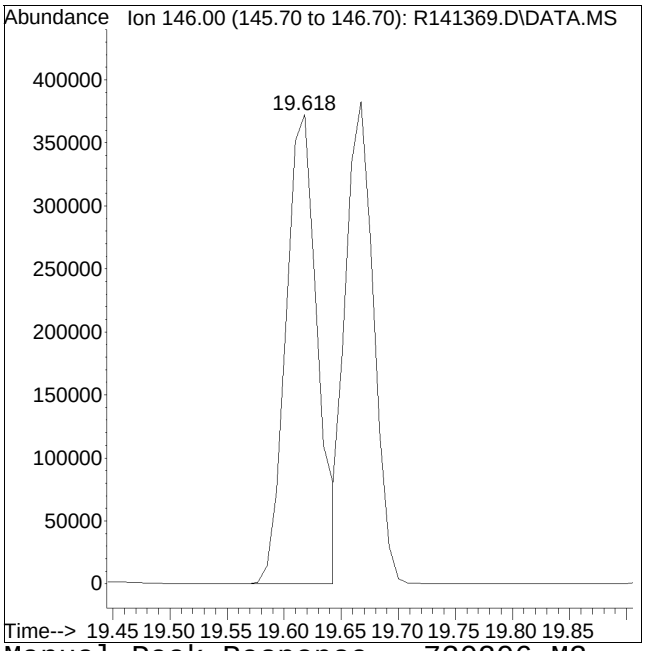
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141369.D Operator : AIRLAB14:RY
Date Inj'd : 2/4/2015 4:52 pm Instrument : Airlab 14
Sample : WG760633-3,3,250,250 Quant Date : 2/4/2015 5:17 pm

Compound #102: 1,3-dichlorobenzene



Original Peak Response = 656238



Manual Peak Response = 720206 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-5DL	Date Collected	: 01/15/15 11:42
Client ID	: SS-219 B-1DUP	Date Received	: 01/15/15
Sample Location	:	Date Analyzed	: 01/20/15 23:14
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.144
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232224	Instrument ID	: AIRPIANO2
Sample Amount	: 117 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.48	0.43	--	2.	2.	--	
74-87-3	Chloromethane	ND	0.43	--	ND	0.9	--	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.43	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.43	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.43	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.43	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.43	--	ND	1.	--	U
64-17-5	Ethyl Alcohol	7.0	5.4	--	13.	10.	--	
593-60-2	Vinyl bromide	ND	0.43	--	ND	2.	--	U
67-64-1	Acetone	8.6	2.1	--	20.	5.0	--	
75-69-4	Trichlorofluoromethane	ND	0.43	--	ND	2.	--	U
67-63-0	iso-Propyl Alcohol	ND	1.1	--	ND	3.	--	U
75-35-4	1,1-Dichloroethene	ND	0.43	--	ND	2.	--	U
75-65-0	tert-Butyl Alcohol	ND	1.1	--	ND	3.	--	U
75-09-2	Methylene chloride	ND	1.1	--	ND	4.	--	U
107-05-1	3-Chloropropene	ND	0.43	--	ND	1.	--	U
75-15-0	Carbon disulfide	0.70	0.43	--	2.	1.	--	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.43	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.43	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.43	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.43	--	ND	2.	--	U
78-93-3	2-Butanone	1.4	0.43	--	4.	1.	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.43	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.43	--	ND	2.	--	U
109-99-9	Tetrahydrofuran	ND	0.43	--	ND	1.	--	U
107-06-2	1,2-Dichloroethane	ND	0.43	--	ND	2.	--	U
110-54-3	n-Hexane	0.72	0.43	--	3.	2.	--	
71-55-6	1,1,1-Trichloroethane	ND	0.43	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-5DL	Date Collected	: 01/15/15 11:42
Client ID	: SS-219 B-1DUP	Date Received	: 01/15/15
Sample Location	:	Date Analyzed	: 01/20/15 23:14
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.144
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232224	Instrument ID	: AIRPIANO2
Sample Amount	: 117 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.43	--	ND	1.	--	U
56-23-5	Carbon tetrachloride	ND	0.43	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.43	--	ND	1.	--	U
78-87-5	1,2-Dichloropropane	ND	0.43	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.43	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.43	--	ND	2.	--	U
79-01-6	Trichloroethene	ND	0.43	--	ND	2.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.43	--	ND	2.	--	U
80-62-6	Methyl methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	0.84	0.43	--	3.	2.	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.43	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.43	--	ND	2.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.43	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.43	--	ND	2.	--	U
108-88-3	Toluene	0.80	0.43	--	3.	2.	--	
124-48-1	Dibromochloromethane	ND	0.43	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.43	--	ND	3.	--	U
127-18-4	Tetrachloroethene	0.48	0.43	--	3.	3.	--	
108-90-7	Chlorobenzene	ND	0.43	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.43	--	ND	2.	--	U
179601-23-1	p/m-Xylene	0.99	0.86	--	4.	4.	--	
75-25-2	Bromoform	ND	0.43	--	ND	4.	--	U
100-42-5	Styrene	ND	0.43	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.43	--	ND	3.	--	U
95-47-6	o-Xylene	ND	0.43	--	ND	2.	--	U
95-49-8	o-Chlorotoluene	ND	0.43	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.43	--	ND	2.	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.43	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG757004-5DL	Date Collected	: 01/15/15 11:42
Client ID	: SS-219 B-1DUP	Date Received	: 01/15/15
Sample Location	:	Date Analyzed	: 01/20/15 23:14
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.144
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R232224	Instrument ID	: AIRPIANO2
Sample Amount	: 117 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	0.53	0.43	--	3.	2.	--	
541-73-1	1,3-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.43	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.43	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232224.D
Acq On : 20 Jan 2015 11:14 pm
Operator : AIRPIANO2:RY
Sample : WG757004-5D,3,116.6107,250
Misc : WG757004,ICAL10630
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 21 09:37:32 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	167913	10.000	ppbV	0.00
Standard Area = 180187			Recovery =		93.19%	
43) 1,4-difluorobenzene	12.55	114	446535	10.000	ppbV	0.00
Standard Area = 480871			Recovery =		92.86%	
67) chlorobenzene-D5	16.89	54	104537	10.000	ppbV	0.00
Standard Area = 114070			Recovery =		91.64%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.43	85	5712	0.225	ppbV	100
6) chloromethane	4.66	50	962	0.084	ppbV	95
7) Freon-114	4.81		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	5.17	54	749	0.076	ppbV	86
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	6.03	31	27356	3.247	ppbV	100
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.66	43	72649	3.990	ppbV #	95
21) trichlorofluoromethane	6.85	101	3780	0.130	ppbV	89
22) isopropyl alcohol	0.00		0	N.D.	d	
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.78	59	9854	0.388	ppbV #	81
28) methylene chloride	7.84	49	2387	0.152	ppbV	86
29) 3-chloropropene	7.96		0	N.D.		
30) carbon disulfide	8.16	76	11264	0.325	ppbV #	1
31) Freon 113	8.17		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	9.28		0	N.D.		
36) 2-butanone	9.73	43	18069M4	0.632	ppbV	
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.55	83	1766	0.069	ppbV #	79
40) Tetrahydrofuran	0.00		0	N.D.	d	
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.44	57	7219	0.336	ppbV #	2
48) 1,1,1-trichloroethane	11.66	97	1547	0.050	ppbV #	74
50) benzene	12.17	78	2195	0.058	ppbV #	88

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232224.D
Acq On : 20 Jan 2015 11:14 pm
Operator : AIRPIANO2:RY
Sample : WG757004-5D,3,116.6107,250
Misc : WG757004,ICAL10630
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 21 09:37:32 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2015\150120T\R232206.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) carbon tetrachloride	12.33		0	N.D.		
53) cyclohexane	12.47	56	3493	0.161	ppbV	97
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	0.00		0	N.D.	d	
61) methyl methacrylate	0.00		0	N.D.	d	
62) heptane	13.66	43	10552	0.390	ppbV	95
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	0.00		0	N.D.	d	
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	15.32	91	21764	0.373	ppbV	98
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
78) tetrachloroethene	16.35	166	6013	0.224	ppbV	91
80) chlorobenzene	16.93		0	N.D.		
81) ethylbenzene	17.22	91	7364	0.127	ppbV	98
83) m+p-xylene	17.35	91	21122	0.462	ppbV	99
84) bromoform	0.00		0	N.D.		
85) styrene	17.64		0	N.D.		
86) 1,1,2,2-tetrachloroethane	17.75		0	N.D.		
87) o-xylene	17.72	91	8011	0.172	ppbV	99
93) 2-chlorotoluene	0.00		0	N.D.		
96) 4-ethyl toluene	18.64	105	4581	0.068	ppbV	97
97) 1,3,5-trimethylbenzene	18.69	105	4024	0.072	ppbV	93
99) 1,2,4-trimethylbenzene	18.99	105	13073	0.248	ppbV #	56
102) 1,3-dichlorobenzene	0.00		0	N.D.		
103) 1,4-dichlorobenzene	0.00		0	N.D.		
107) 1,2-dichlorobenzene	0.00		0	N.D.		
115) 1,2,4-trichlorobenzene	20.92		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

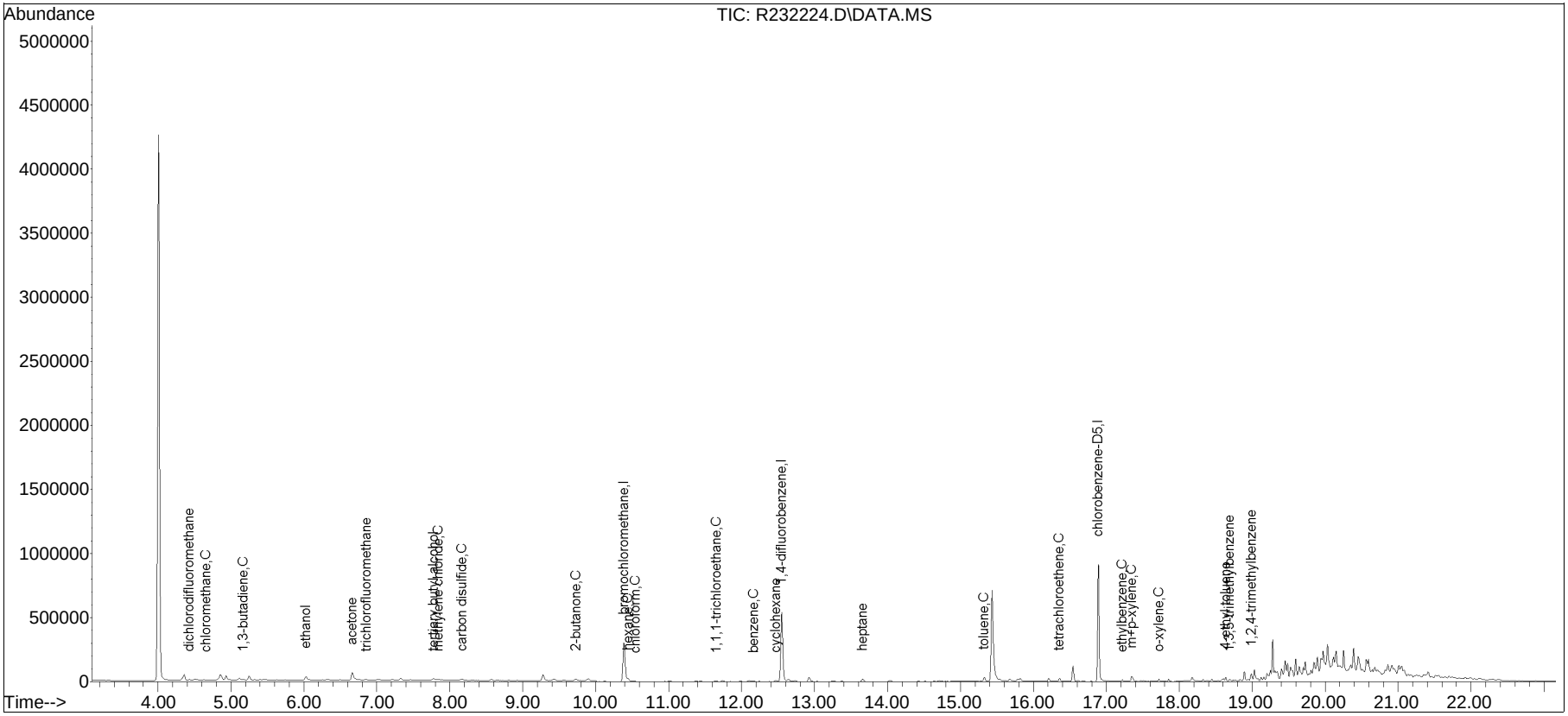
(#) = qualifier out of range (m) = manual integration (+) = signals summed

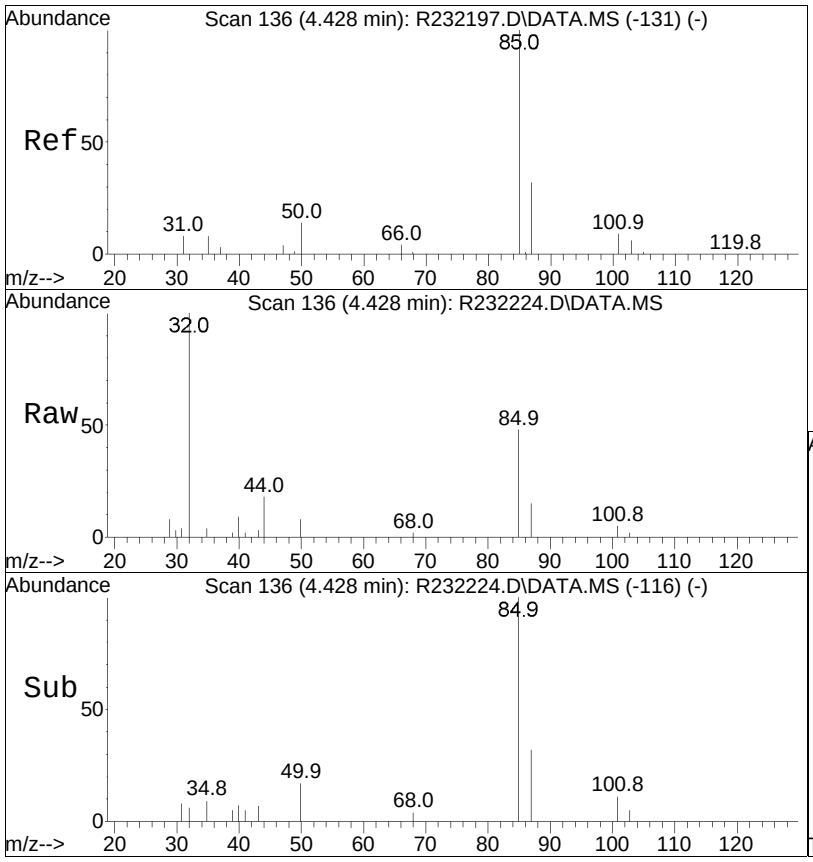
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2015\150120T\
Data File : R232224.D
Acq On : 20 Jan 2015 11:14 pm
Operator : AIRPIANO2:RY
Sample : WG757004-5D,3,116.6107,250
Misc : WG757004,ICAL10630
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 21 09:37:32 2015
Quant Method : O:\Forensics\Data\AIR2\2015\150120T\TALL150119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Jan 20 07:55:24 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\AIR2\2015\150120T\R232206.D

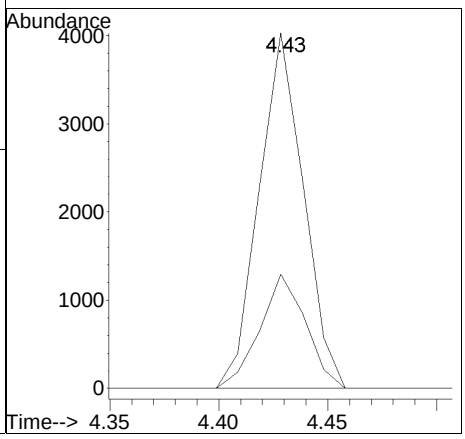


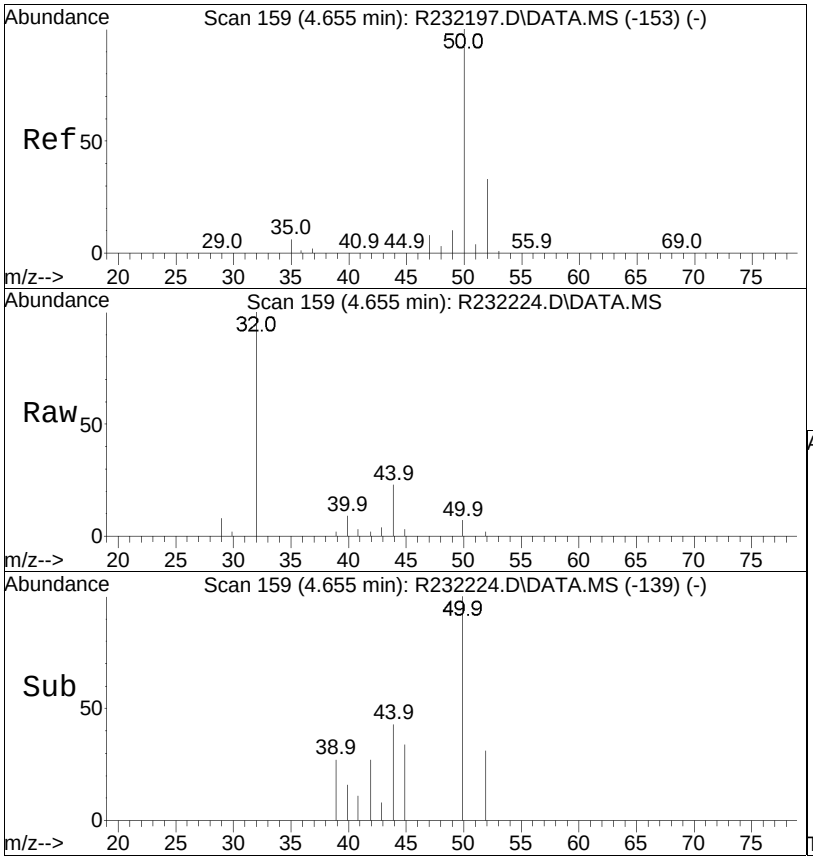


#5
dichlorodifluoromethane
Concen: 0.23 ppbV
RT: 4.43 min Scan# 136
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 85 Resp: 5712

Ion	Ratio	Lower	Upper
85	100		
87	32.1	25.5	38.3

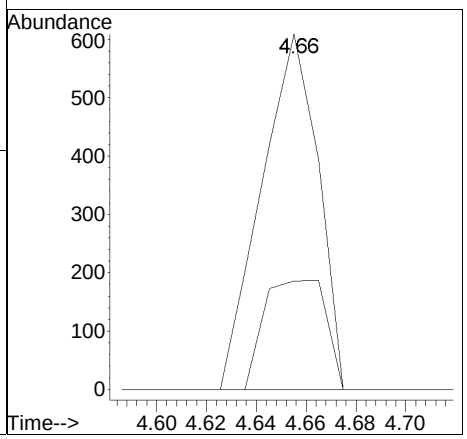


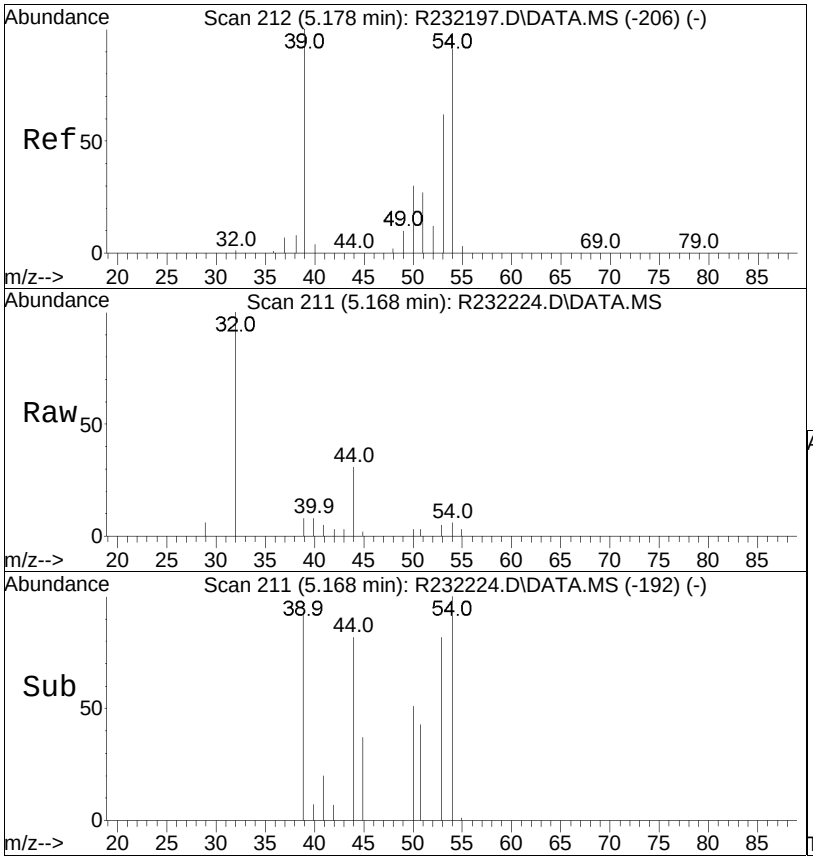


#6
chloromethane
Concen: 0.08 ppbV
RT: 4.66 min Scan# 159
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 50 Resp: 962

Ion	Ratio	Lower	Upper
50	100		
52	30.5	26.5	39.7

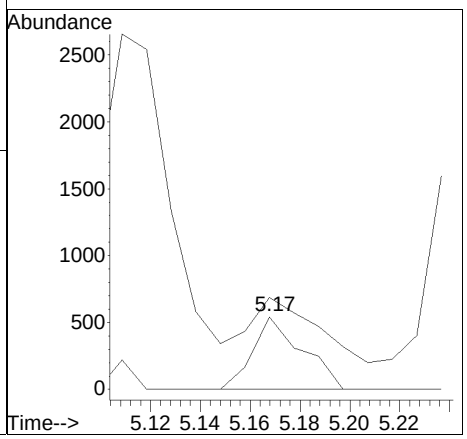


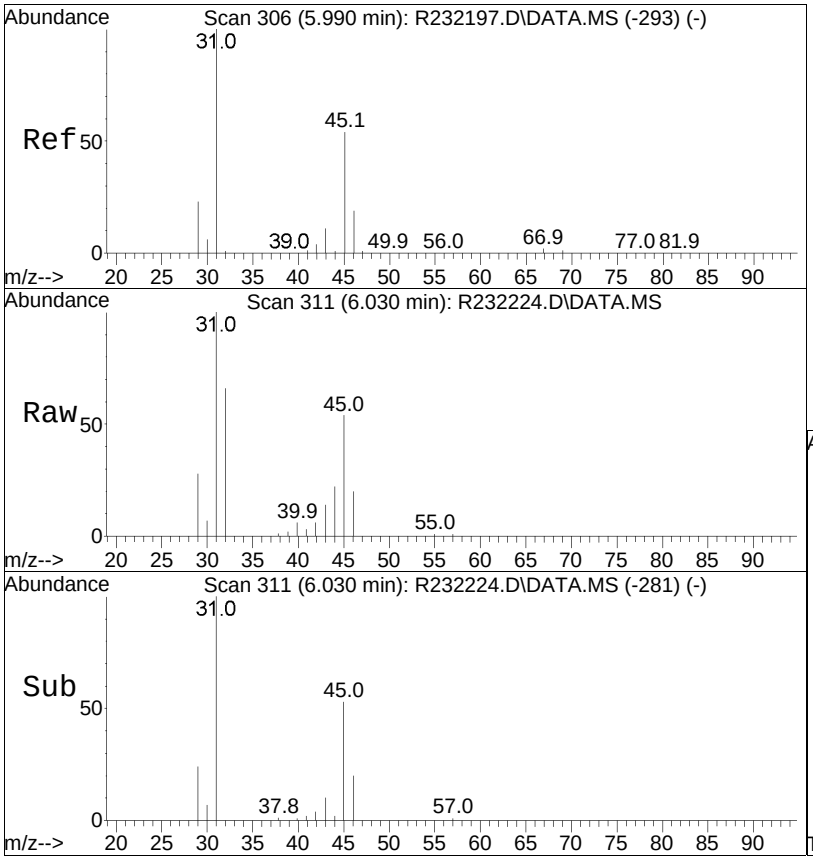


#10
1,3-butadiene
Concen: 0.08 ppbV
RT: 5.17 min Scan# 211
Delta R.T. -0.010 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 54 Resp: 749

Ion	Ratio	Lower	Upper
54	100		
39	127.0	89.6	134.4

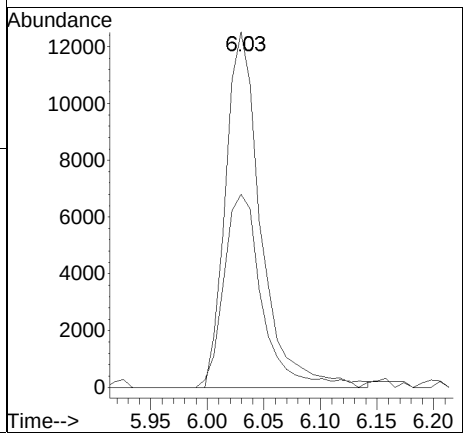


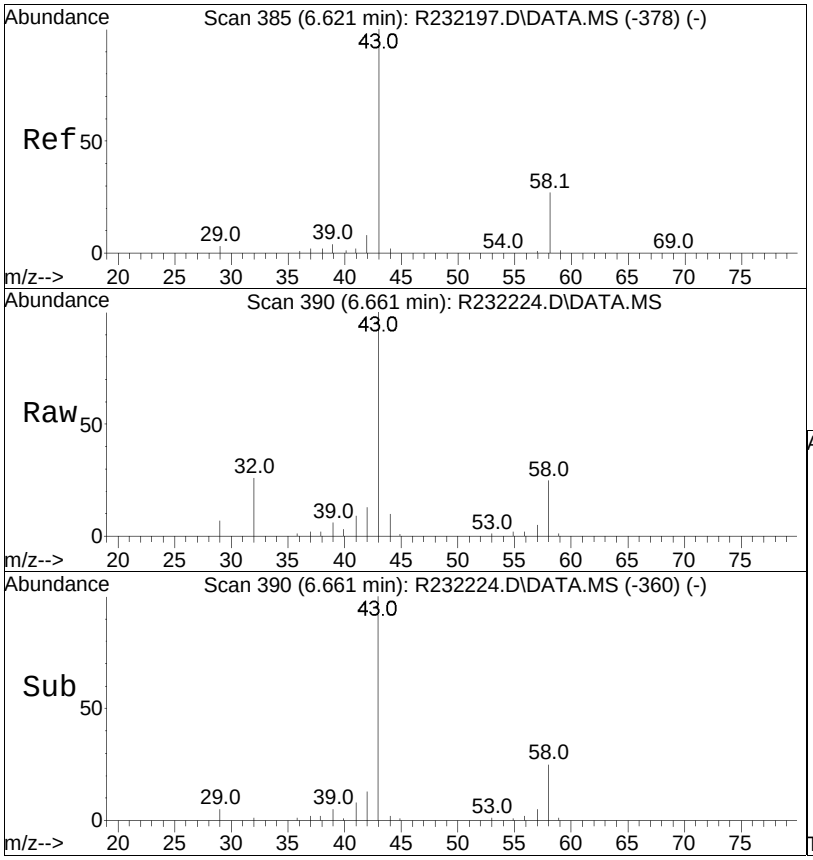


#15
ethanol
Concen: 3.25 ppbV
RT: 6.03 min Scan# 311
Delta R.T. 0.040 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 31 Resp: 27356

Ion	Ratio	Lower	Upper
31	100		
45	54.3	43.2	64.8

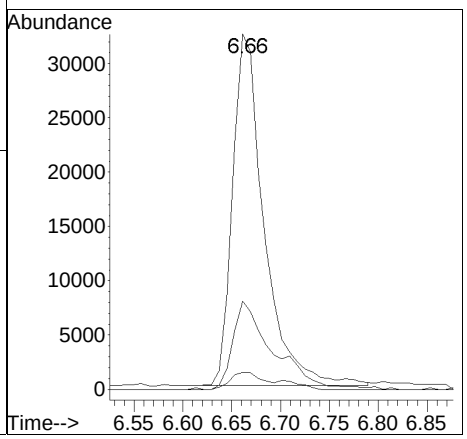


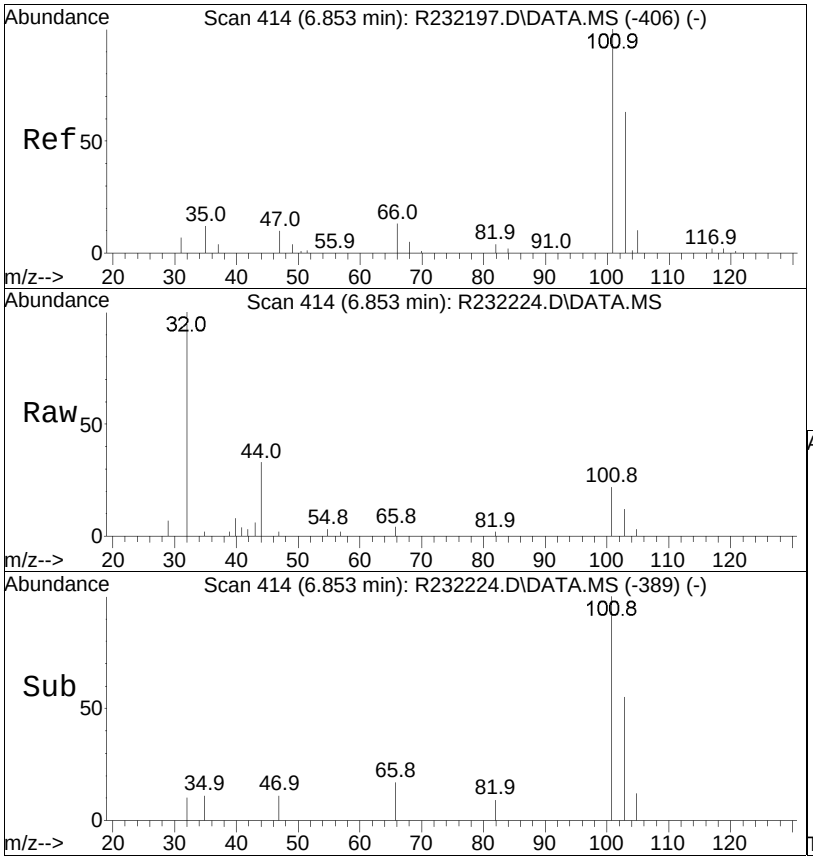


#19
acetone
Concen: 3.99 ppbV
RT: 6.66 min Scan# 390
Delta R.T. 0.040 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 43 Resp: 72649

Ion	Ratio	Lower	Upper
43	100		
58	24.8	21.8	32.8
57	4.8	0.7	1.1#

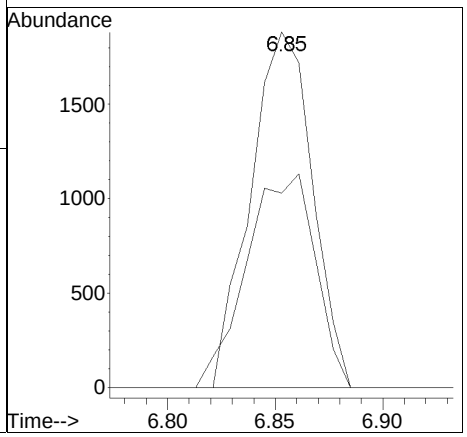


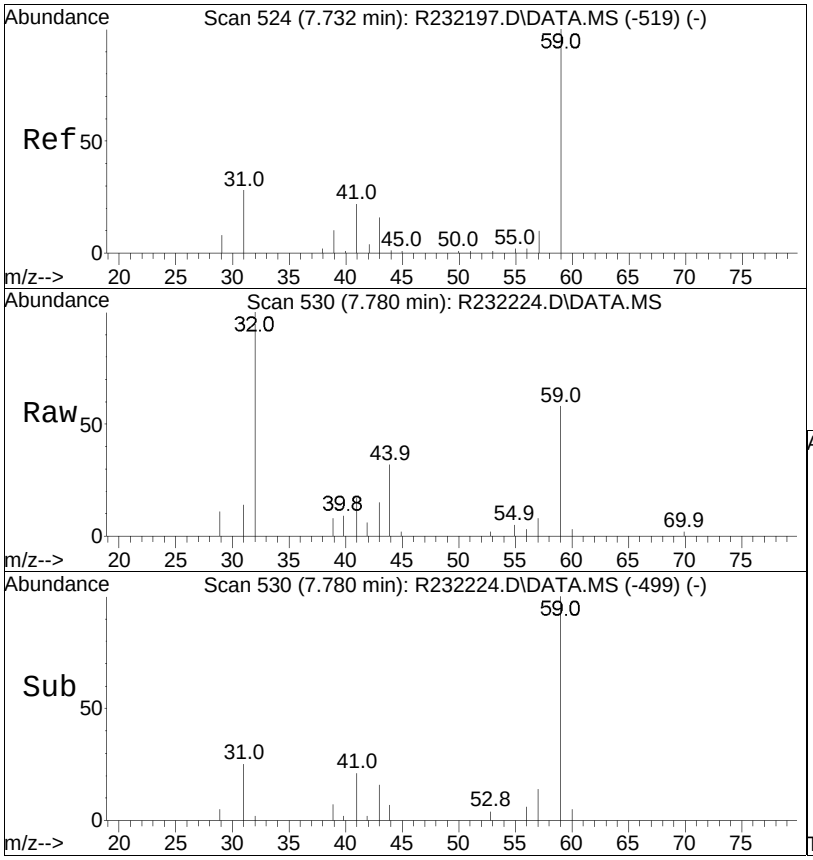


#21
trichlorofluoromethane
Concen: 0.13 ppbV
RT: 6.85 min Scan# 414
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion:101 Resp: 3780

Ion	Ratio	Lower	Upper
101	100		
103	54.7	50.7	76.1

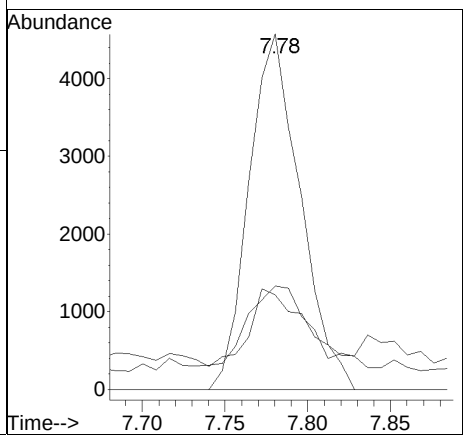


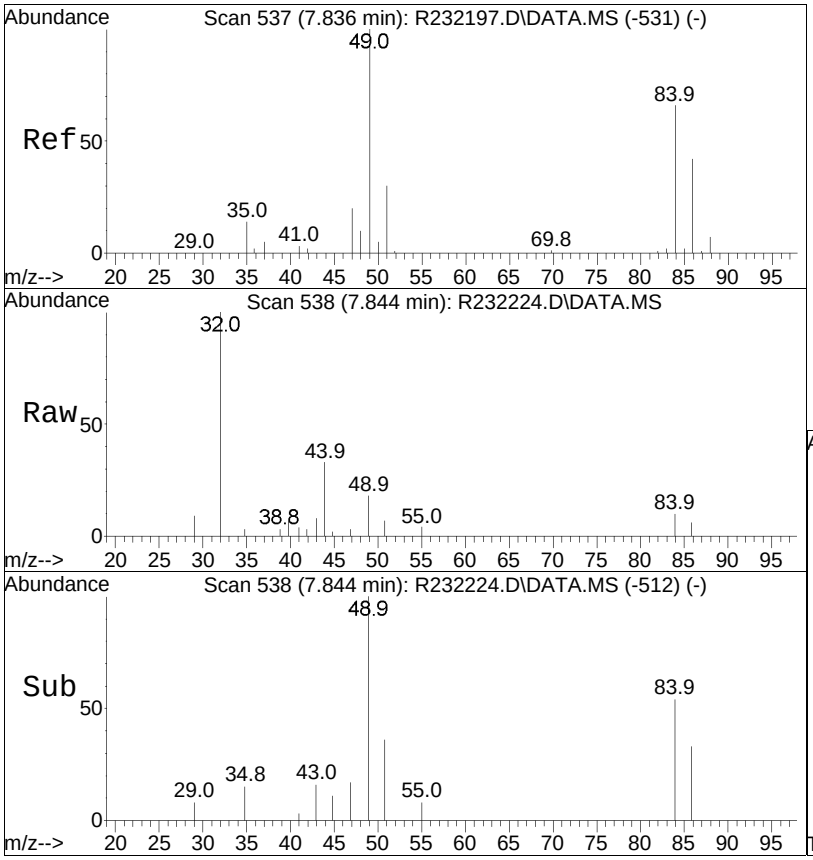


#27
tertiary butyl alcohol
Concen: 0.39 ppbV
RT: 7.78 min Scan# 530
Delta R.T. 0.048 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 59 Resp: 9854

Ion	Ratio	Lower	Upper
59	100		
41	29.1	17.4	26.2#
43	26.6	13.2	19.8#

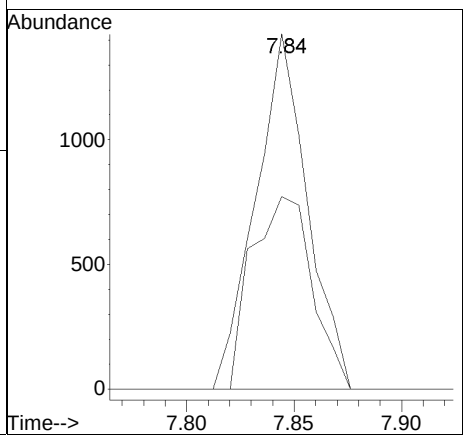


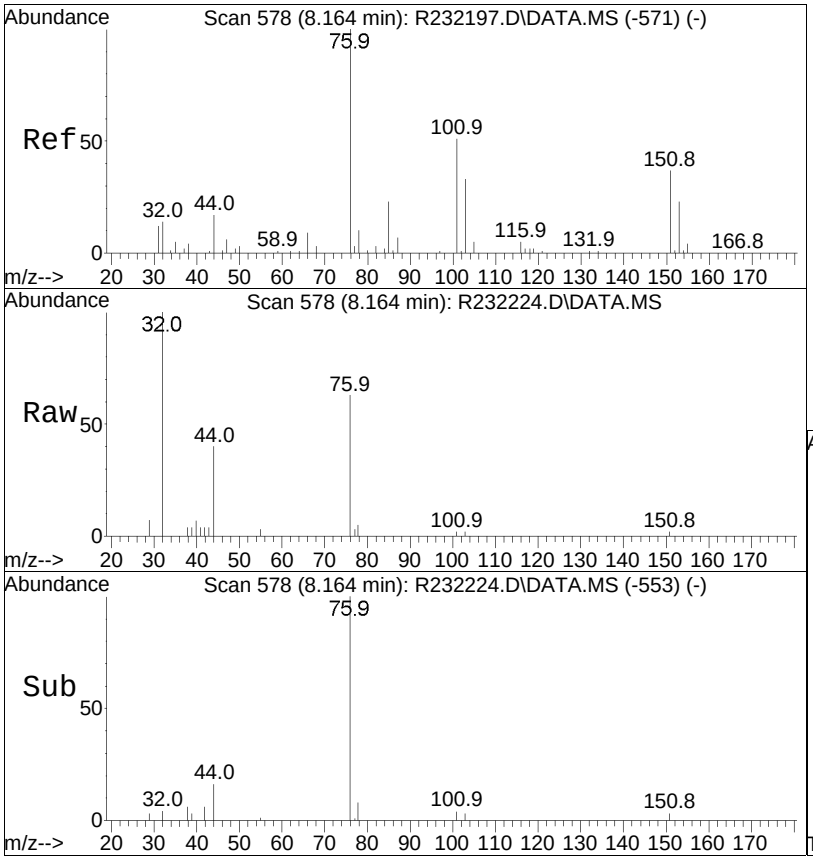


#28
methylene chloride
Concen: 0.15 ppbV
RT: 7.84 min Scan# 538
Delta R.T. 0.008 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 49 Resp: 2387

Ion	Ratio	Lower	Upper
49	100		
84	54.3	52.4	78.6

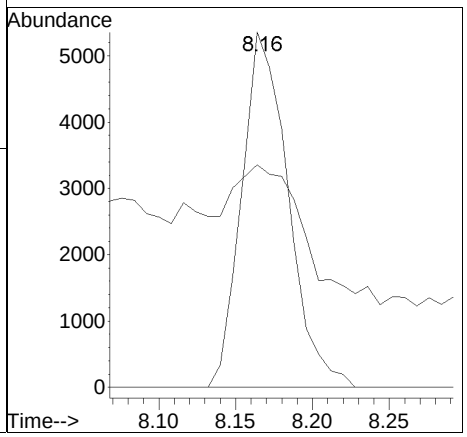


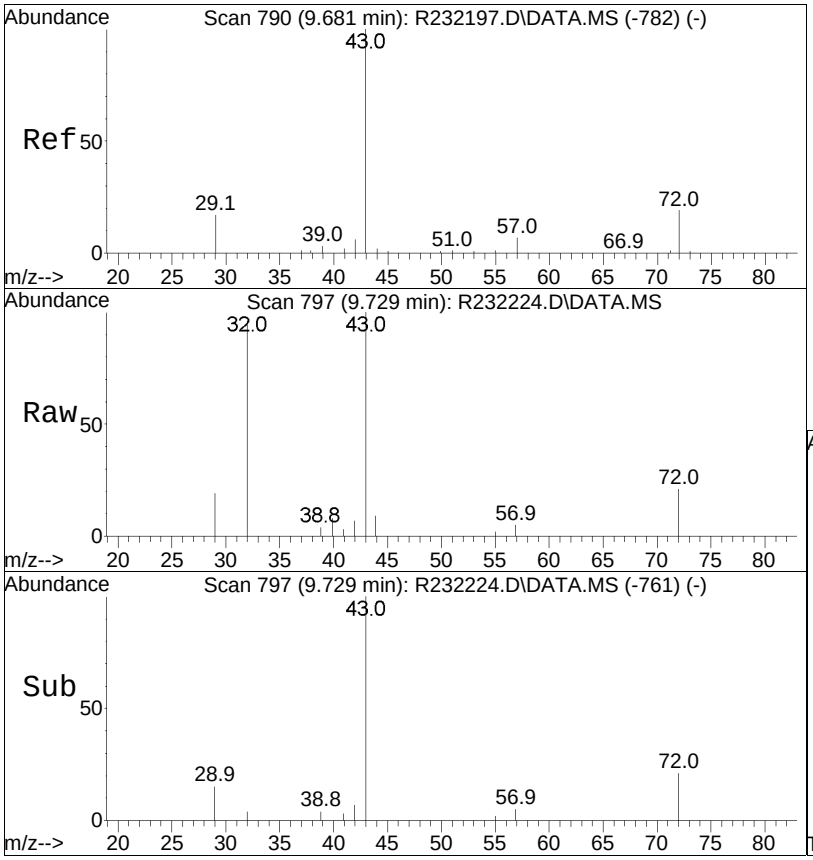


#30
carbon disulfide
Concen: 0.32 ppbV
RT: 8.16 min Scan# 578
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 76 Resp: 11264

Ion	Ratio	Lower	Upper
76	100		
44	62.6	13.9	20.9#

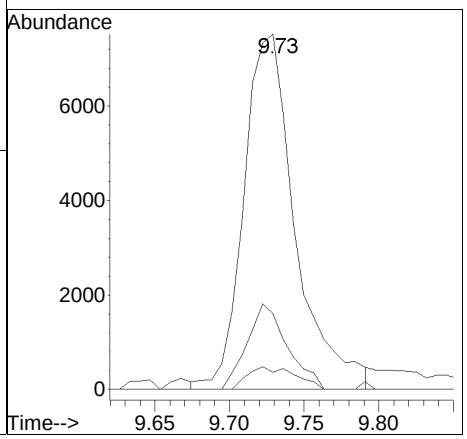


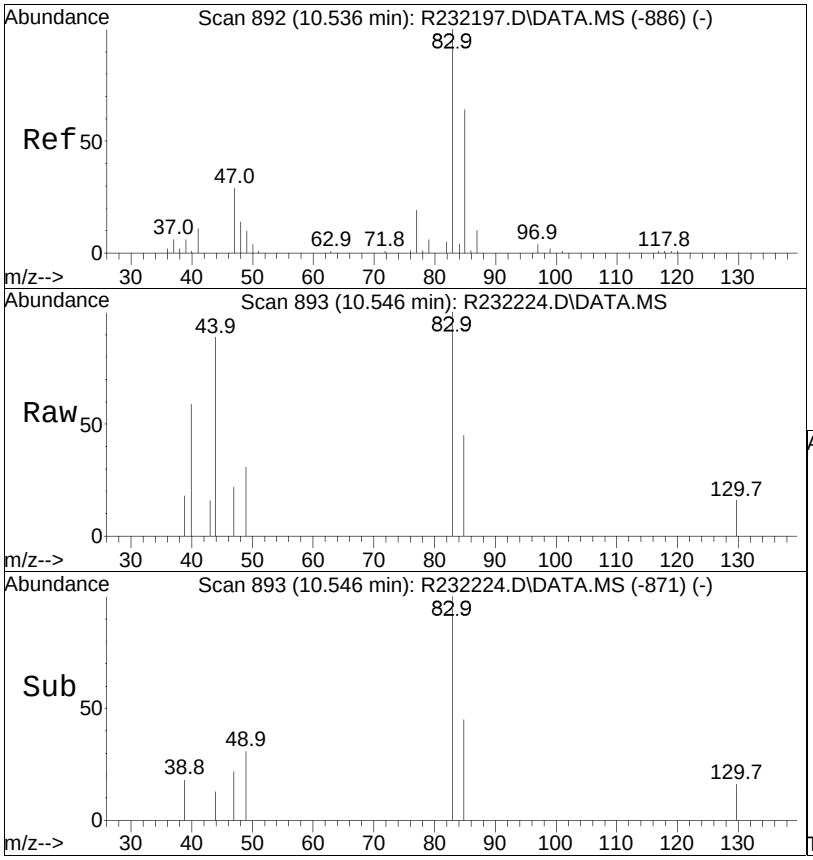


#36
2-butanone
Concen: 0.63 ppbV m
RT: 9.73 min Scan# 797
Delta R.T. 0.048 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 43 Resp: 18069

Ion	Ratio	Lower	Upper
43	100		
72	21.3	15.5	23.3
57	4.8	5.4	8.0#

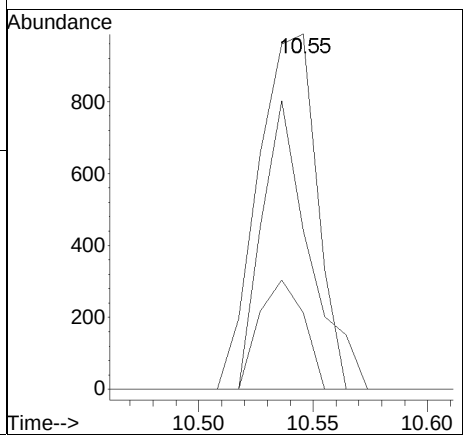


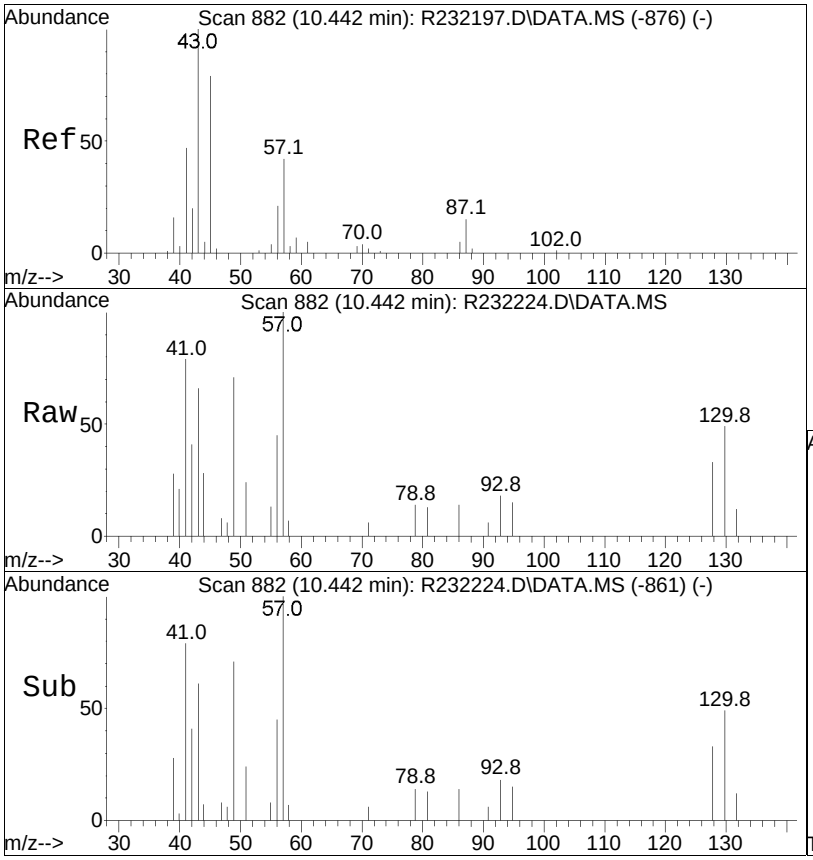


#39
chloroform
Concen: 0.07 ppbV
RT: 10.55 min Scan# 893
Delta R.T. 0.009 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 83 Resp: 1766

Ion	Ratio	Lower	Upper
83	100		
85	44.7	51.3	76.9#
47	21.6	22.9	34.3#

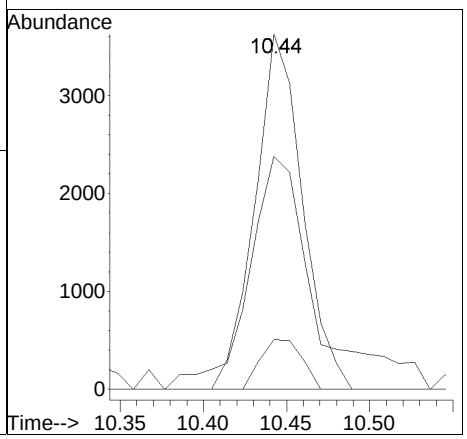


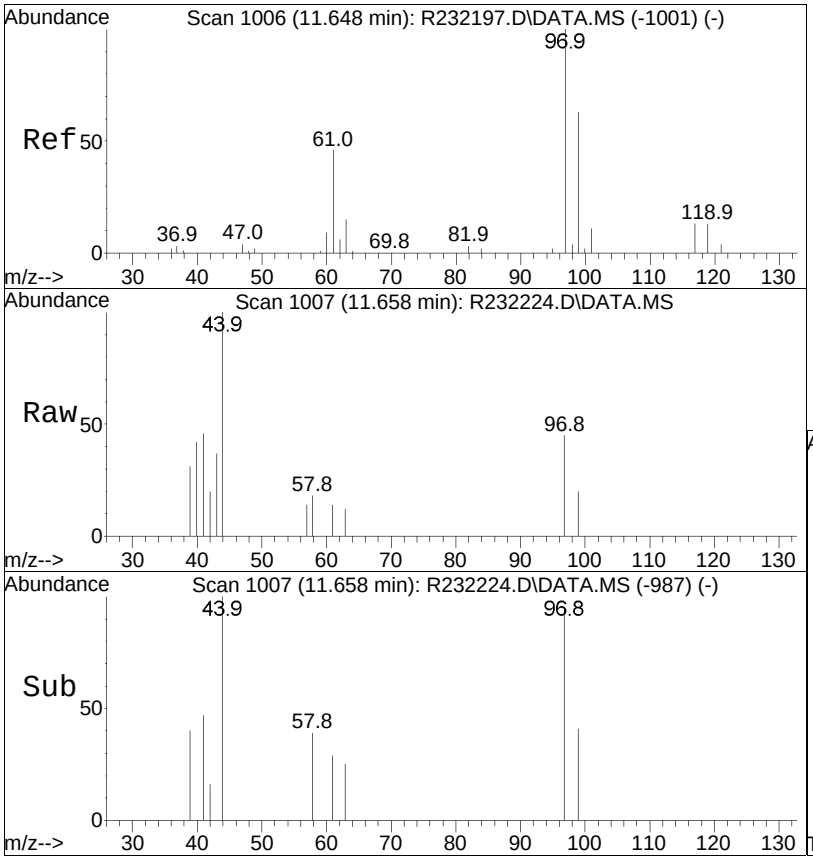


#44
hexane
Concen: 0.34 ppbV
RT: 10.44 min Scan# 882
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 57 Resp: 7219

Ion	Ratio	Lower	Upper
57	100		
43	65.6	191.0	286.4#
86	14.0	9.4	14.0

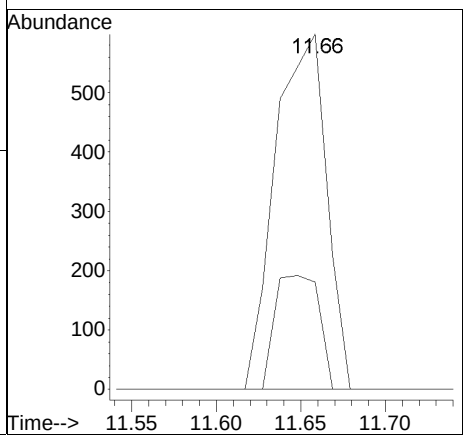


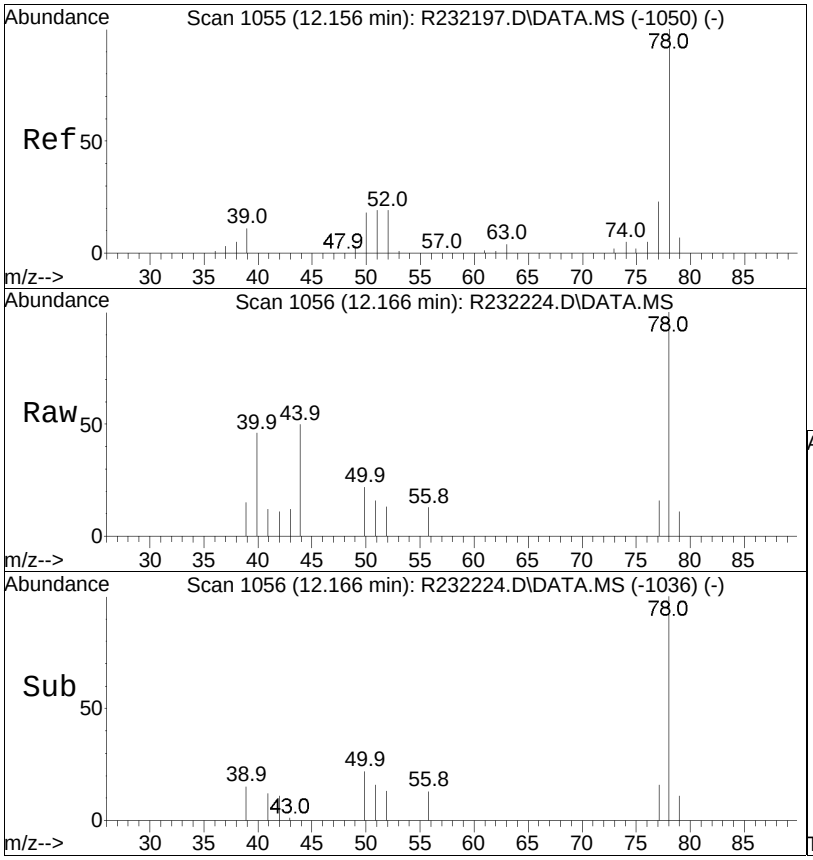


#48
1,1,1-trichloroethane
Concen: 0.05 ppbV
RT: 11.66 min Scan# 1007
Delta R.T. 0.010 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 97 Resp: 1547

Ion	Ratio	Lower	Upper
97	100		
61	30.2	37.2	55.8#
119	0.0	10.4	15.6#

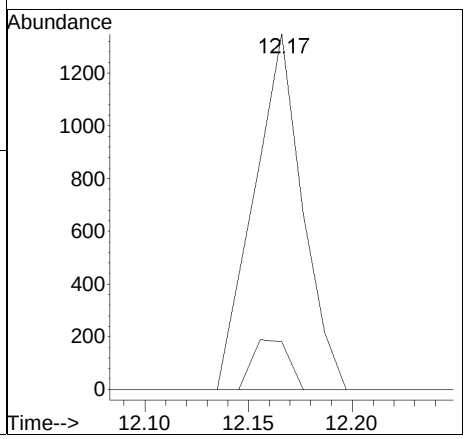


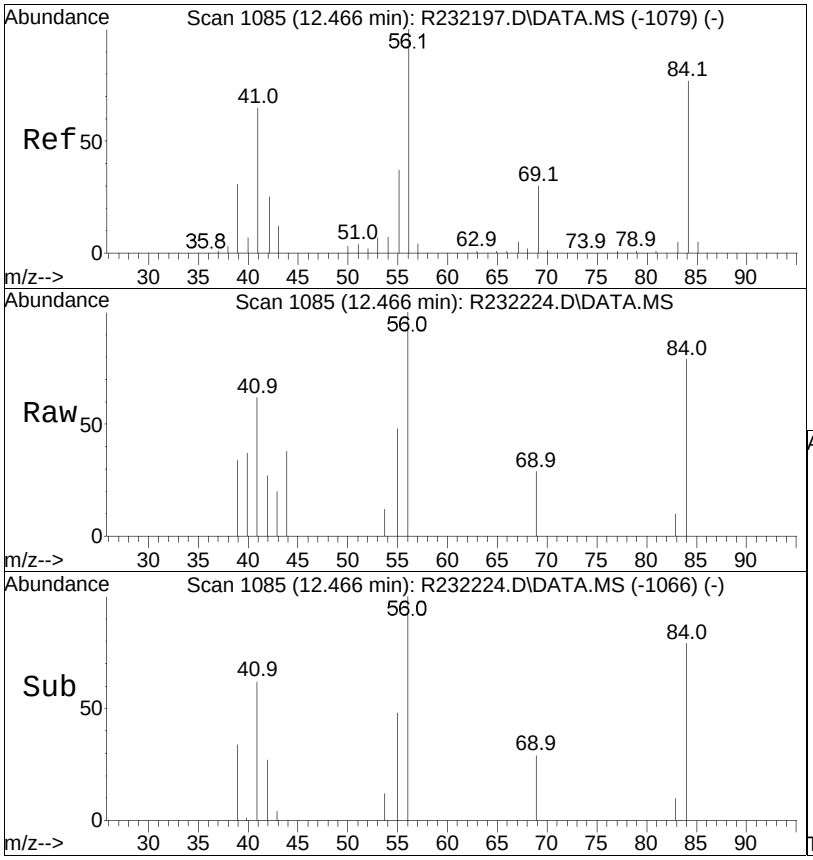


#50
benzene
Concen: 0.06 ppbV
RT: 12.17 min Scan# 1056
Delta R.T. 0.010 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 78 Resp: 2195

Ion	Ratio	Lower	Upper
78	100		
52	13.4	14.9	22.3#

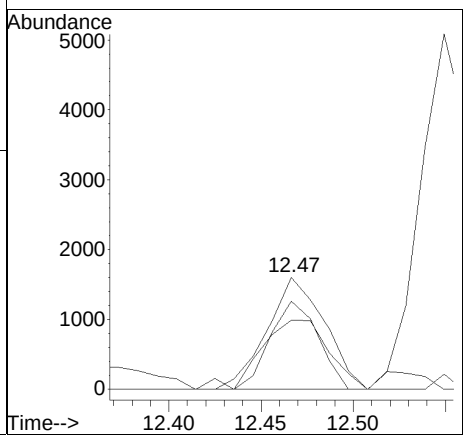


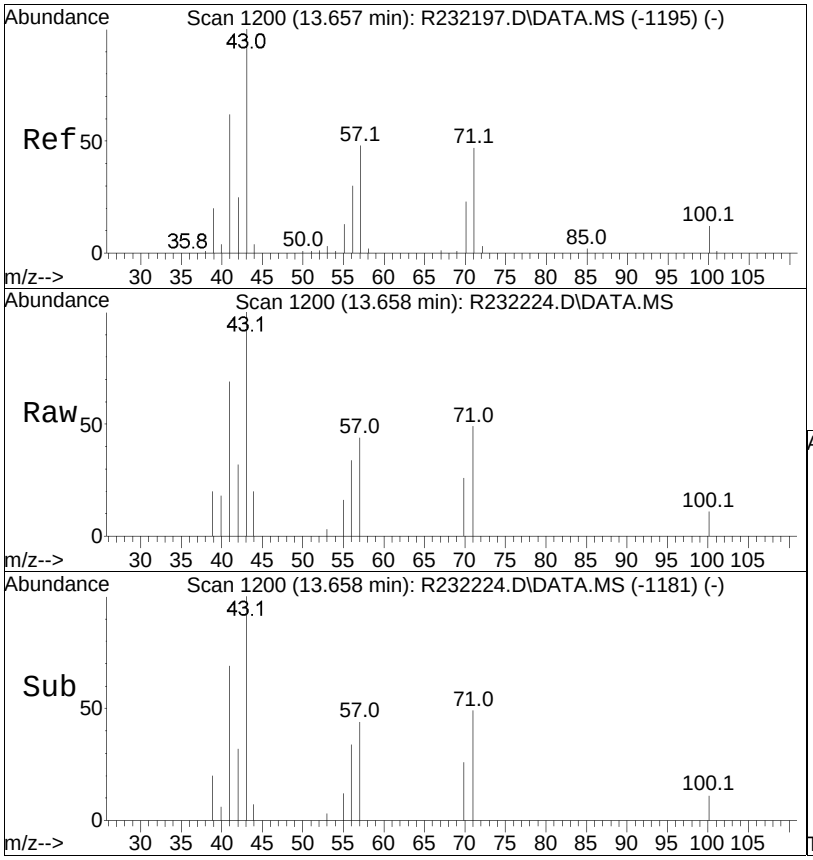


#53
cyclohexane
Concen: 0.16 ppbV
RT: 12.47 min Scan# 1085
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 56 Resp: 3493

Ion	Ratio	Lower	Upper
56	100		
84	78.7	61.5	92.3
41	61.9	52.0	78.0

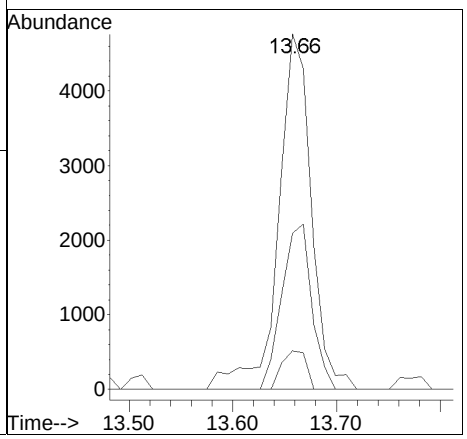


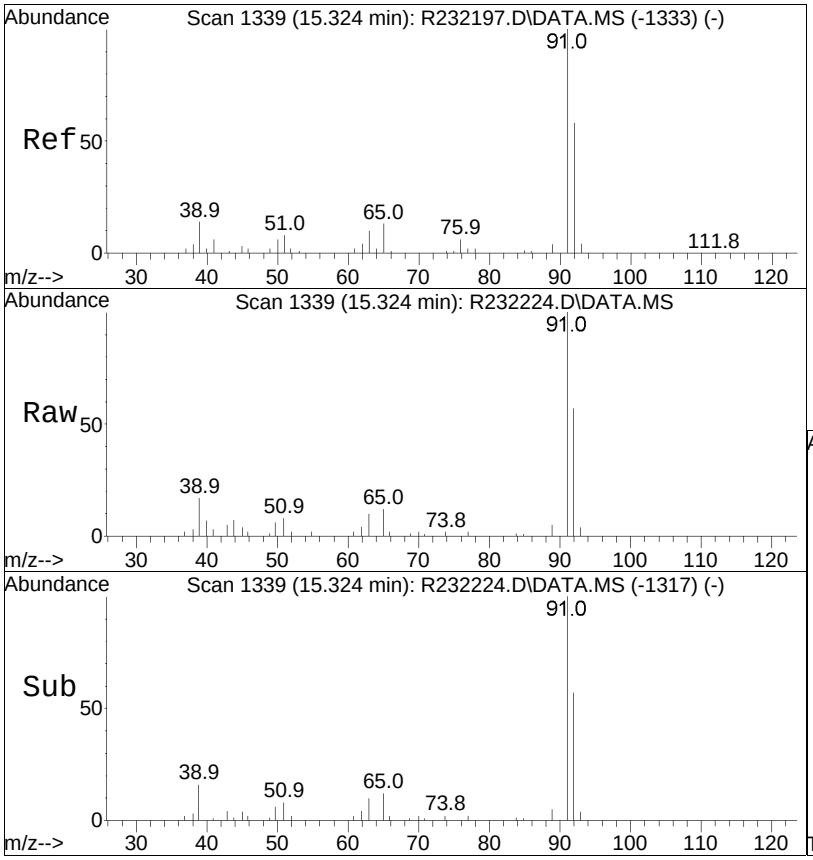


#62
heptane
Concen: 0.39 ppbV
RT: 13.66 min Scan# 1200
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 43 Resp: 10552

Ion	Ratio	Lower	Upper
43	100		
57	43.9	38.0	57.0
100	10.9	9.8	14.8

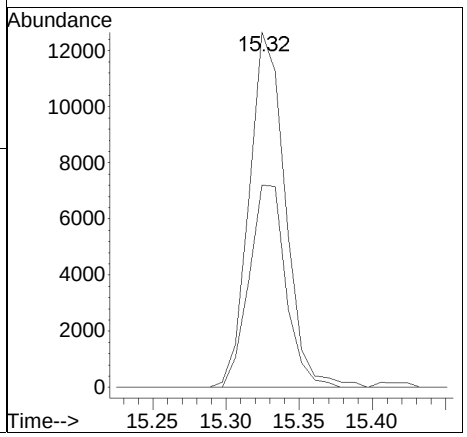


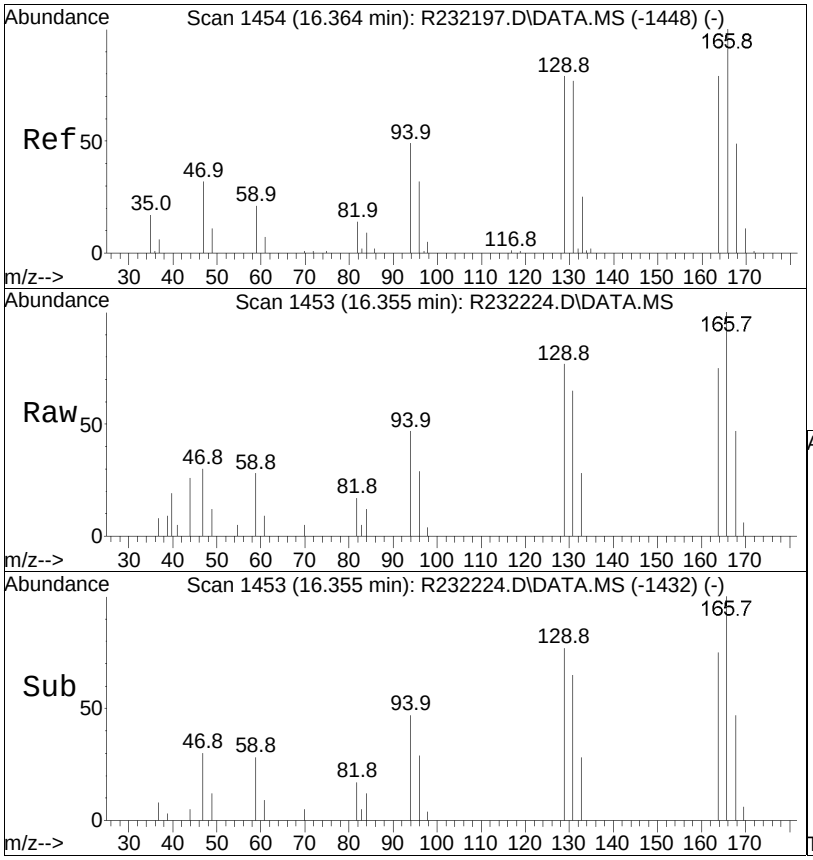


#68
toluene
Concen: 0.37 ppbV
RT: 15.32 min Scan# 1339
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 91 Resp: 21764

Ion	Ratio	Lower	Upper
91	100		
92	57.0	46.5	69.7

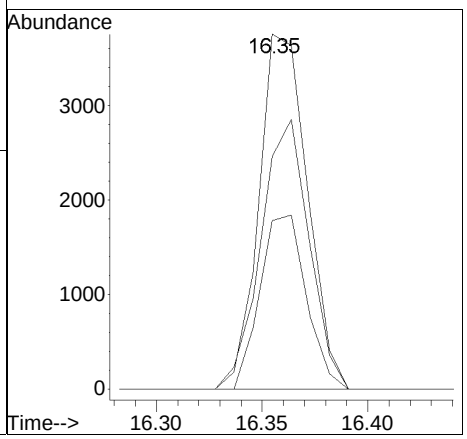


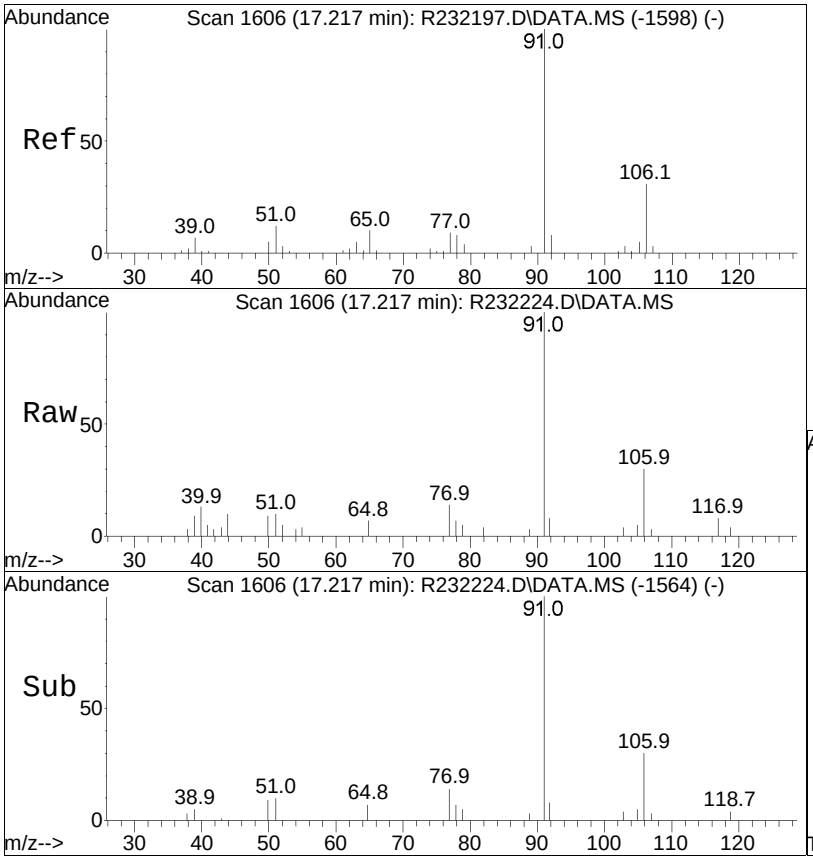


#78
tetrachloroethene
Concen: 0.22 ppbV
RT: 16.35 min Scan# 1453
Delta R.T. -0.009 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion:166 Resp: 6013

Ion	Ratio	Lower	Upper
166	100		
131	65.5	61.7	92.5
94	47.5	39.1	58.7

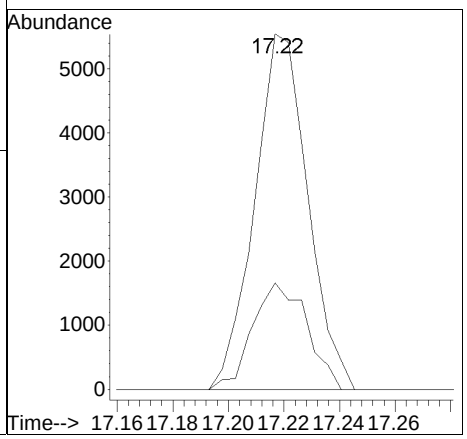


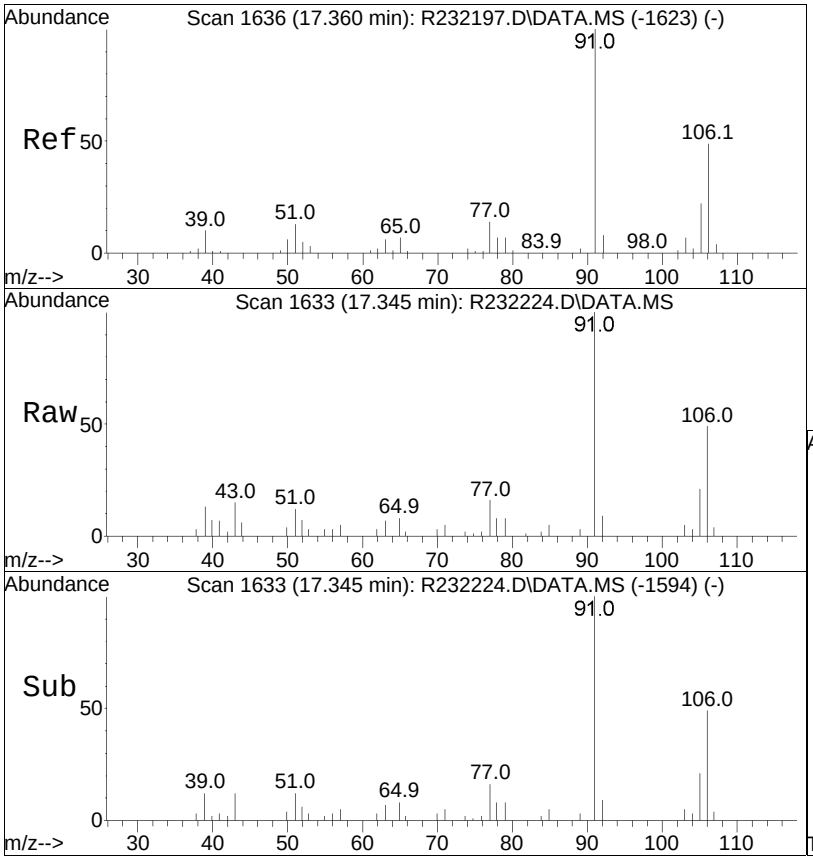


#81
ethylbenzene
Concen: 0.13 ppbV
RT: 17.22 min Scan# 1606
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 91 Resp: 7364

Ion	Ratio	Lower	Upper
91	100		
106	30.0	25.0	37.6

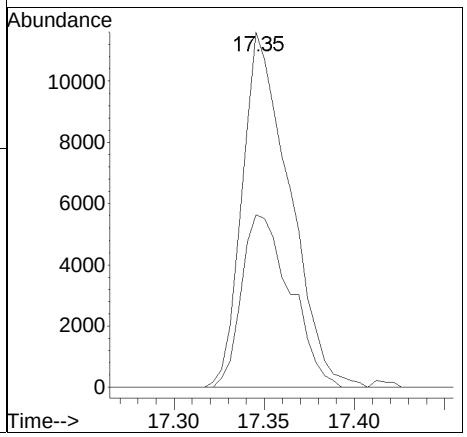


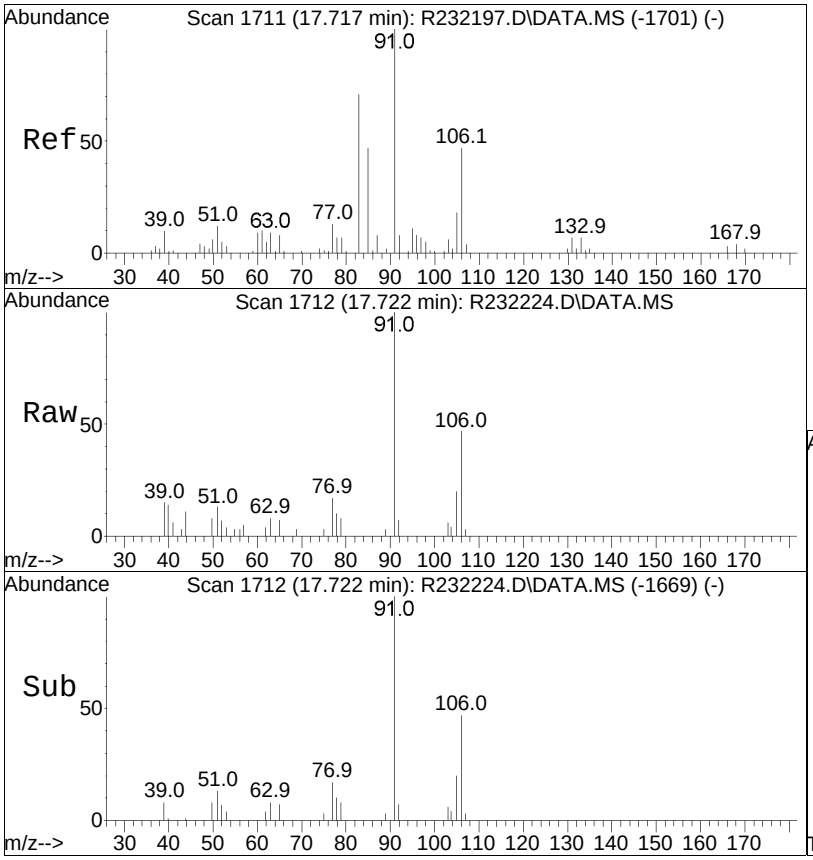


#83
m+p-xylene
Concen: 0.46 ppbV
RT: 17.35 min Scan# 1633
Delta R.T. -0.014 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 91 Resp: 21122

Ion	Ratio	Lower	Upper
91	100		
106	48.6	39.4	59.2

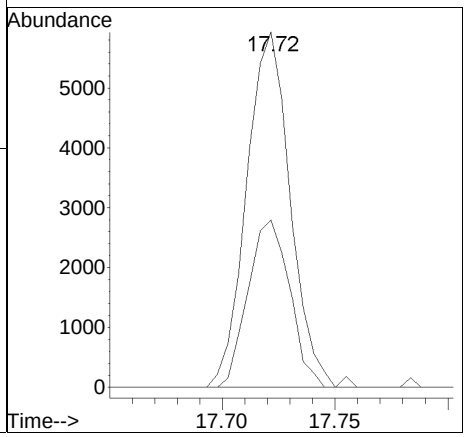


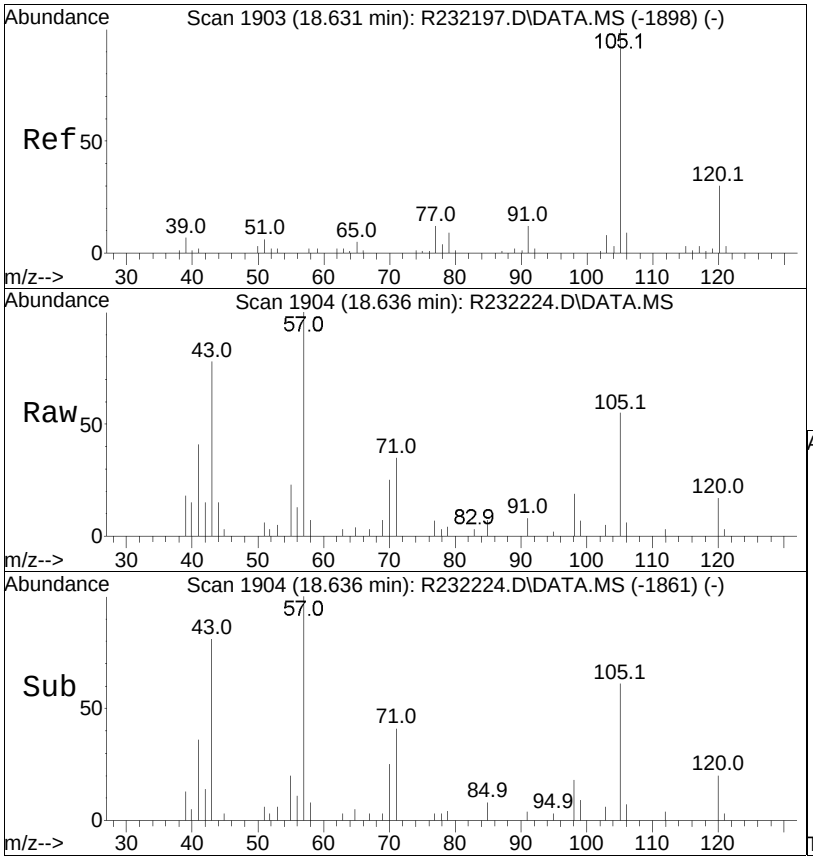


#87
o-xylene
Concen: 0.17 ppbV
RT: 17.72 min Scan# 1712
Delta R.T. 0.005 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion: 91 Resp: 8011

Ion	Ratio	Lower	Upper
91	100		
106	47.1	37.3	55.9

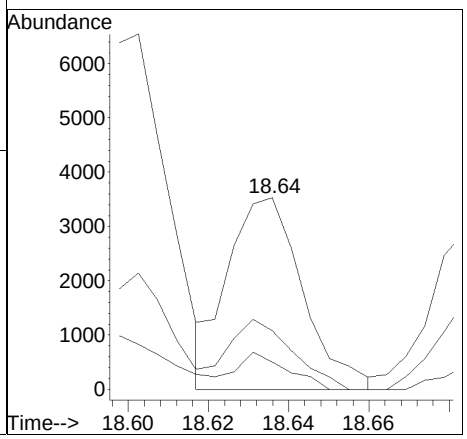


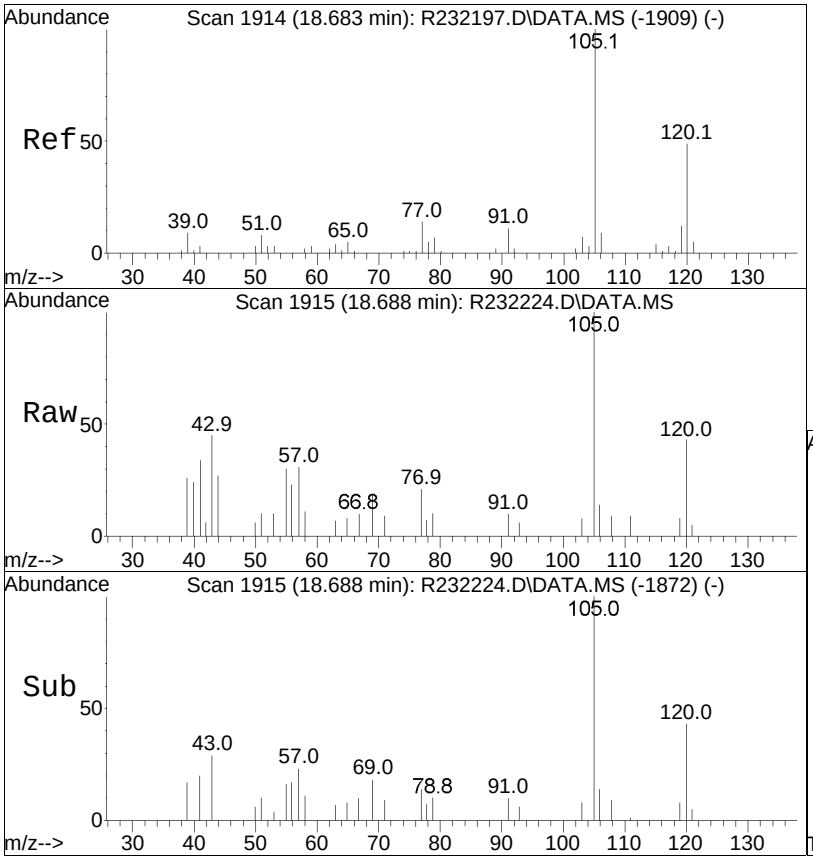


#96
4-ethyl toluene
Concen: 0.07 ppbV
RT: 18.64 min Scan# 1904
Delta R.T. 0.005 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion:105 Resp: 4581

Ion	Ratio	Lower	Upper
105	100		
120	30.7	24.0	36.0
91	14.3	9.7	14.5

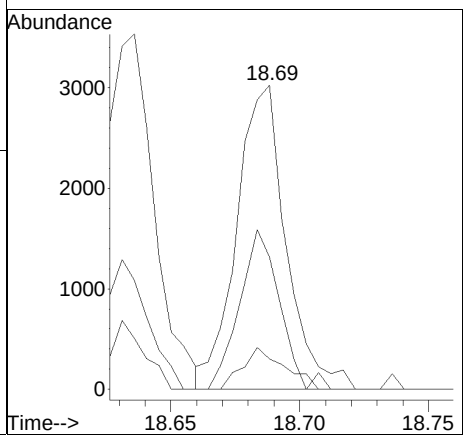


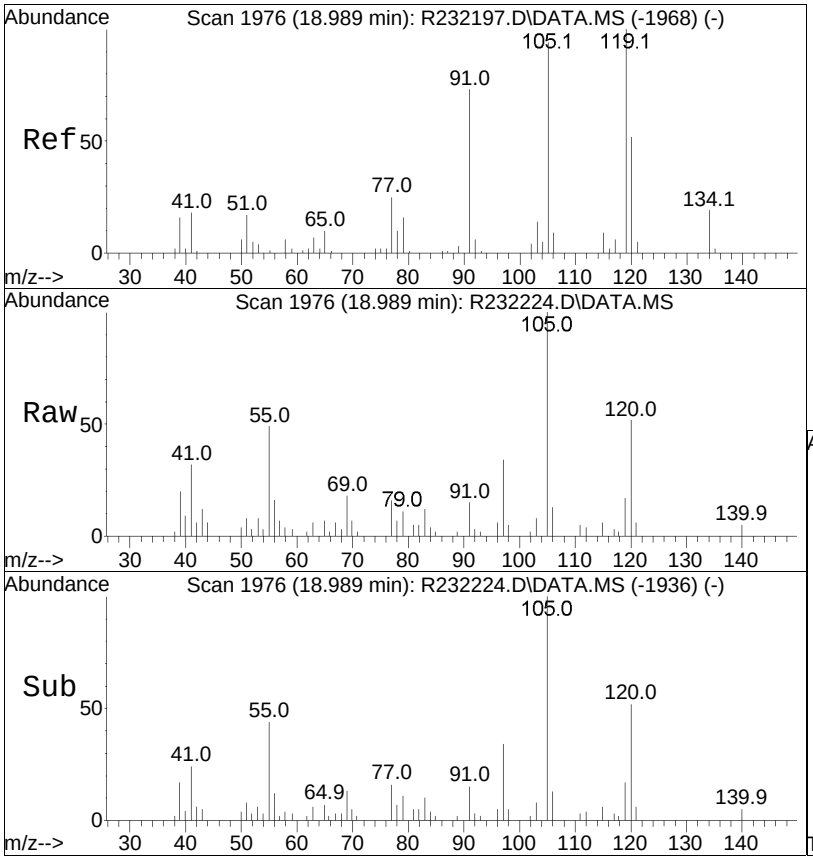


#97
1,3,5-trimethylbenzene
Concen: 0.07 ppbV
RT: 18.69 min Scan# 1915
Delta R.T. 0.005 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion:105 Resp: 4024

Ion	Ratio	Lower	Upper
105	100		
120	43.5	39.1	58.7
91	10.0	8.9	13.3

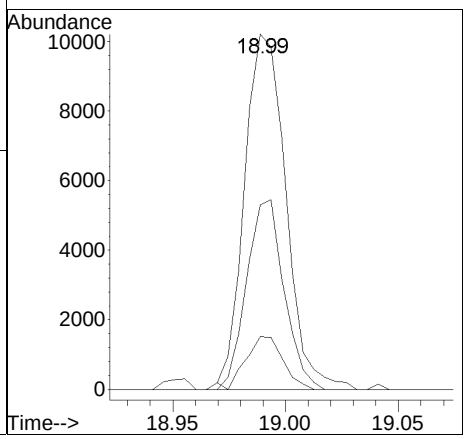




#99
1,2,4-trimethylbenzene
Concen: 0.25 ppbV
RT: 18.99 min Scan# 1976
Delta R.T. 0.000 min
Lab File: R232224.D
Acq: 20 Jan 2015 11:14 pm

Tgt Ion:105 Resp: 13073

Ion	Ratio	Lower	Upper
105	100		
120	51.9	44.3	66.5
91	14.8	62.4	93.6#

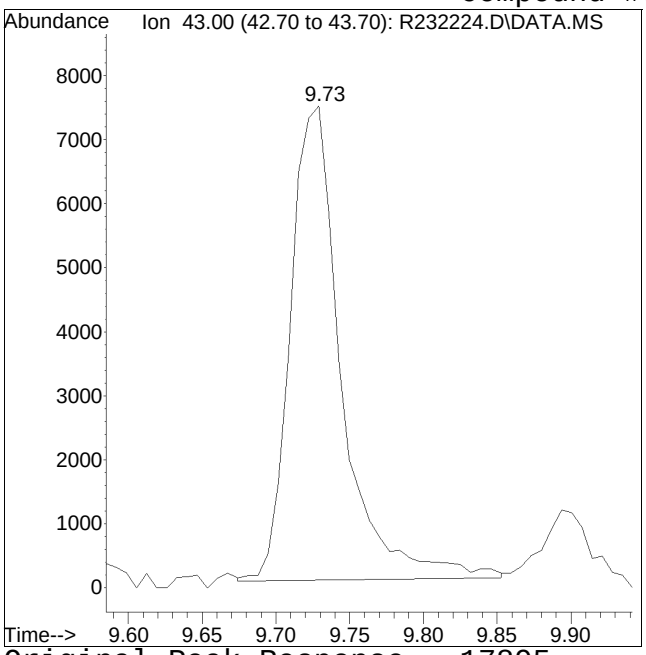


Manual Integration/Negative Proof Report

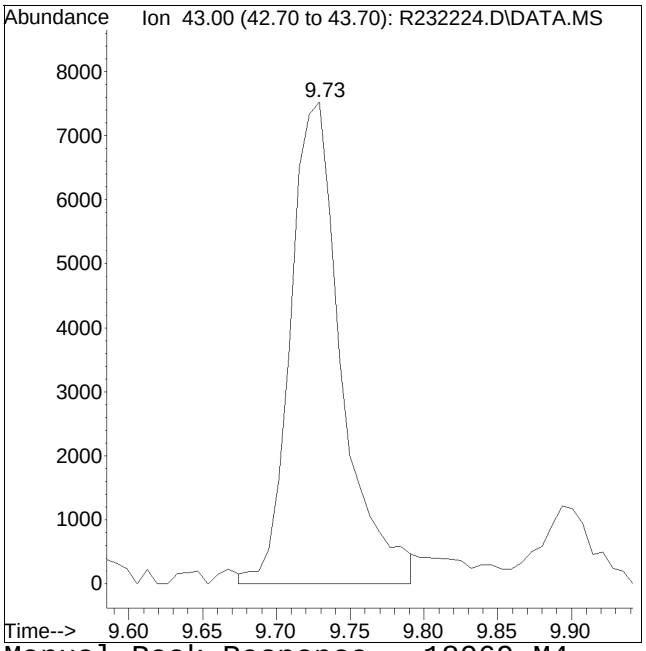
Data Path : O:\Forensics\Data\AIR2\2015Q
Data File : R232224.D
Date Inj'd : 1/20/2015 11:14 pm
Sample : WG757004-5D,3,116.6107,250

Method : TALL150119.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 1/21/2015 6:23 am

Compound #36: 2-butanone



Original Peak Response = 17895



Manual Peak Response = 18069 M4

M4 = Poor automated baseline construction.

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-5	Date Collected	: 01/30/15 16:00
Client ID	: 112 LANZA IA-1DUP	Date Received	: 02/02/15
Sample Location	:	Date Analyzed	: 02/05/15 01:11
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141379	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.50	0.20	--	2.	1.	--	
74-87-3	Chloromethane	0.58	0.20	--	1.	0.4	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	0.27	0.20	--	0.6	0.4	--	
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethyl Alcohol	140	2.5	--	260	4.7	--	
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	7.6	1.0	--	18.	2.4	--	
75-69-4	Trichlorofluoromethane	0.22	0.20	--	1.	1.	--	
67-63-0	iso-Propyl Alcohol	12.	0.50	--	29.	1.2	--	
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	tert-Butyl Alcohol	ND	0.50	--	ND	2.	--	U
75-09-2	Methylene chloride	0.96	0.50	--	3.	2.	--	
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	ND	0.20	--	ND	0.6	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.20	--	ND	2.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	0.44	0.20	--	1.	0.6	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1.	--	U
109-99-9	Tetrahydrofuran	ND	0.20	--	ND	0.6	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-5	Date Collected	: 01/30/15 16:00
Client ID	: 112 LANZA IA-1DUP	Date Received	: 02/02/15
Sample Location	:	Date Analyzed	: 02/05/15 01:11
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141379	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	0.38	0.20	--	1.	0.6	--	
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1.	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	ND	0.20	--	ND	1.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.20	--	ND	0.8	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	0.70	0.20	--	3.	0.8	--	
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	ND	0.20	--	ND	1.	--	U
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	o-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Tetra Tech GEO	Lab Number	: L1500978
Project Name	: FORMER LEC	Project Number	: 117-0507600
Lab ID	: WG760633-5	Date Collected	: 01/30/15 16:00
Client ID	: 112 LANZA IA-1DUP	Date Received	: 02/02/15
Sample Location	:	Date Analyzed	: 02/05/15 01:11
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R141379	Instrument ID	: AIRLAB14
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1.	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141379.D
Acq On : 05 Feb 2015 01:11 am
Operator : AIRLAB14:MB
Sample : WG760633-5,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 09:38:11 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.927	49	135067	10.000	ppbV	-0.04
Standard Area = 146829			Recovery = 91.99%			
43) 1,4-difluorobenzene	13.105	114	538594	10.000	ppbV	-0.01
Standard Area = 519450			Recovery = 103.69%			
67) chlorobenzene-D5	17.366	54	93394	10.000	ppbV	-0.02
Standard Area = 108386			Recovery = 86.17%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.889	85	18559	0.500	ppbV	98
6) chloromethane	5.129	50	6224	0.578	ppbV	99
7) Freon-114	5.303		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	5.757	54	2583	0.270	ppbV #	1
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.560	31	979564	137.548	ppbV	100
17) vinyl bromide	0.000		0	N.D.		
19) acetone	7.181	43	140004	7.550	ppbV #	93
21) trichlorofluoromethane	7.384	101	8527	0.220	ppbV	99
22) isopropyl alcohol	7.539	45	257834	12.447	ppbV	100
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	8.315	59	3140	0.112	ppbV #	70
28) methylene chloride	8.374	49	14931	0.965	ppbV	98
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	8.708	76	6784	0.142	ppbV #	1
31) Freon 113	8.708	101	1969	0.063	ppbV	93
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	9.850		0	N.D.		
36) 2-butanone	10.249	43	13104	0.442	ppbV	100
37) cis-1,2-dichloroethene	0.000		0	N.D.		
39) chloroform	11.086		0	N.D.		
40) Tetrahydrofuran	11.562		0	N.D.		
42) 1,2-dichloroethane	11.920		0	N.D.		
44) hexane	10.980	57	4421	0.194	ppbV #	38
48) 1,1,1-trichloroethane	0.000		0	N.D.		
50) benzene	12.721	78	18576	0.378	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141379.D
Acq On : 05 Feb 2015 01:11 am
Operator : AIRLAB14:MB
Sample : WG760633-5,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 09:38:11 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab14\2015\150204T\R141368.D
Sub List : NJ-LL_New - .

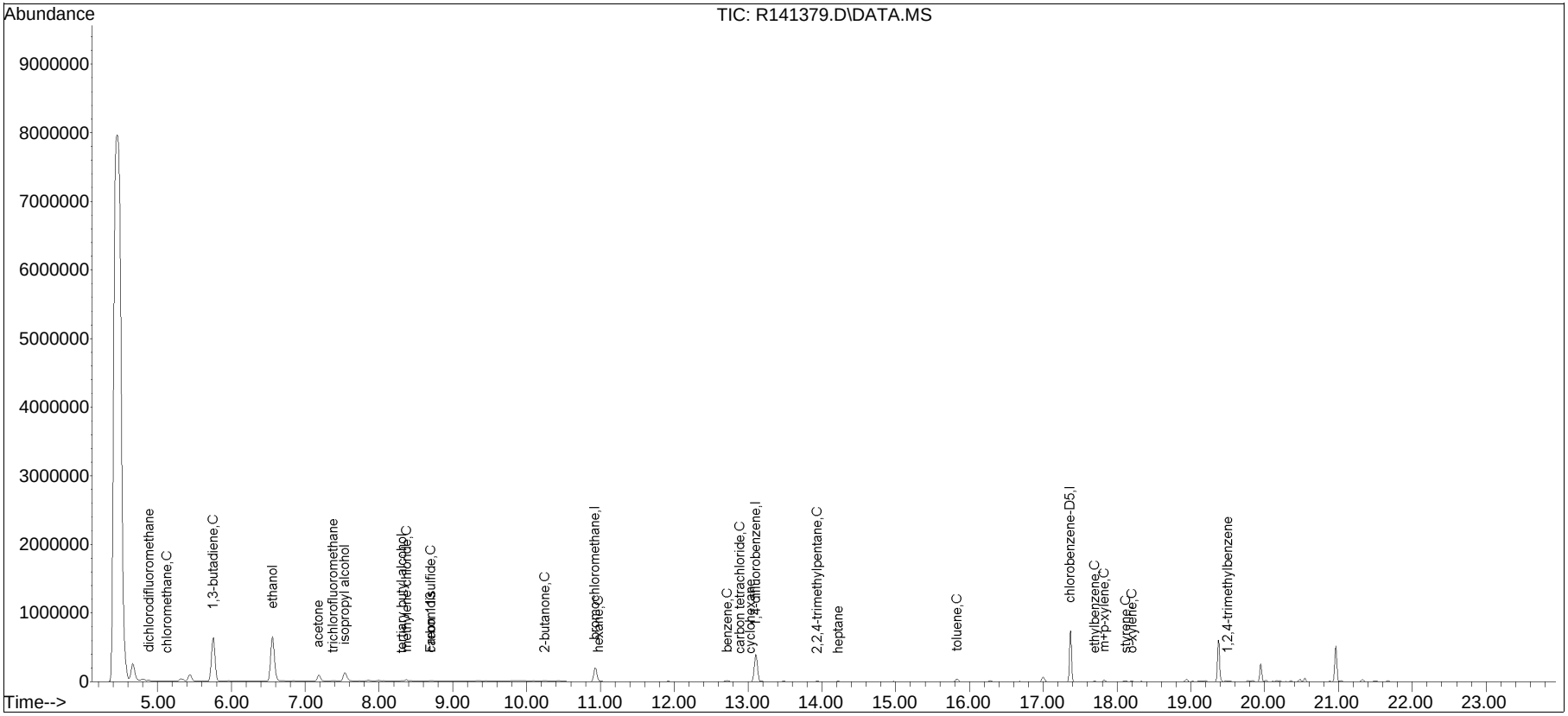
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) carbon tetrachloride	12.892	117	2461	0.065	ppbV	95
53) cyclohexane	13.034	56	1949M6	0.075	ppbV	
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	13.857		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	13.900		0	N.D.		
60) 2,2,4-trimethylpentane	13.943	57	8303	0.102	ppbV #	91
61) methyl methacrylate	14.113		0	N.D.		
62) heptane	14.227	43	3121M6	0.110	ppbV	
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	14.923		0	N.D.		
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.837	91	41884	0.703	ppbV	100
74) dibromochloromethane	16.236		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
78) tetrachloroethene	16.842		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.698	91	8468	0.110	ppbV	95
83) m+p-xylene	17.826	91	18480	0.312	ppbV	99
84) bromoform	17.924		0	N.D.		
85) styrene	18.120	104	6754	0.143	ppbV	99
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87) o-xylene	18.203	91	6520	0.106	ppbV	100
93) 2-chlorotoluene	19.026		0	N.D.		
96) 4-ethyl toluene	19.133		0	N.D.		
97) 1,3,5-trimethylbenzene	19.190		0	N.D.		
99) 1,2,4-trimethylbenzene	19.502	105	6697	0.093	ppbV #	55
102) 1,3-dichlorobenzene	19.699		0	N.D.		
103) 1,4-dichlorobenzene	19.699		0	N.D.		
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

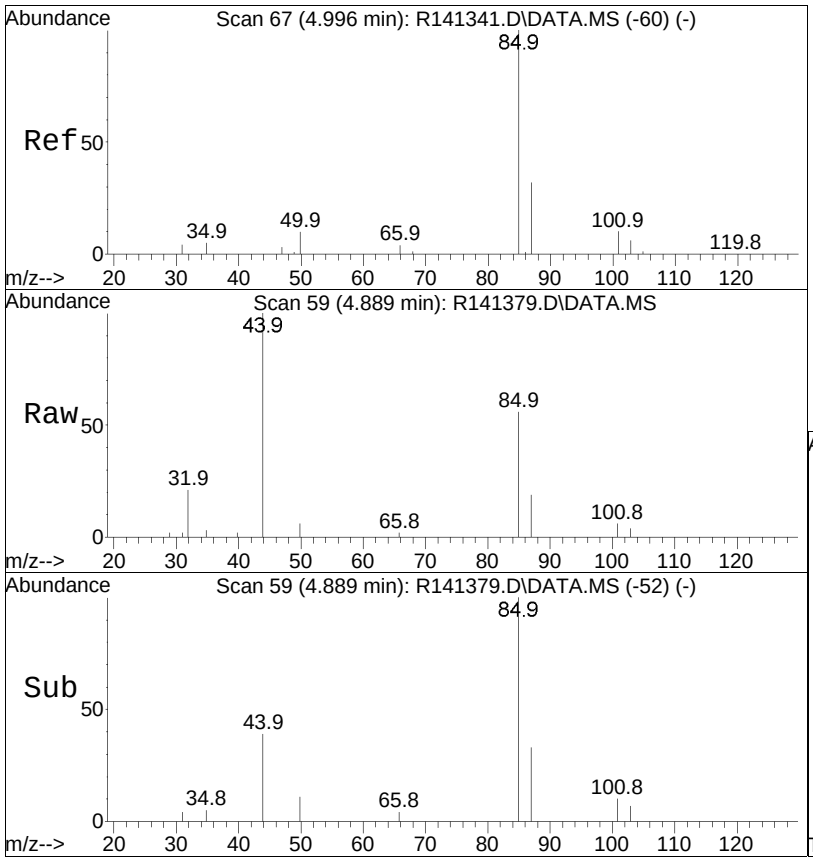
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : NJ-LL_New - .Data\Airlab14\2015\150204T\R141368.D

Data Path : O:\Forensics\Data\Airlab14\2015\150204T\
Data File : R141379.D
Acq On : 05 Feb 2015 01:11 am
Operator : AIRLAB14:MB
Sample : WG760633-5,3,250,250
Misc : WG760633,ICAL10650
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 09:38:11 2015
Quant Method : O:\Forensics\Data\Airlab14\2015\150204T\TALL150120.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Jan 21 14:43:16 2015
Response via : Initial Calibration

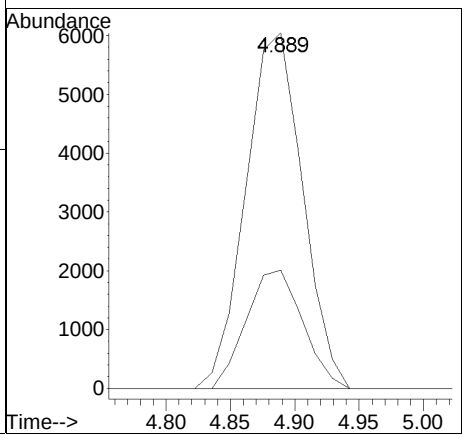


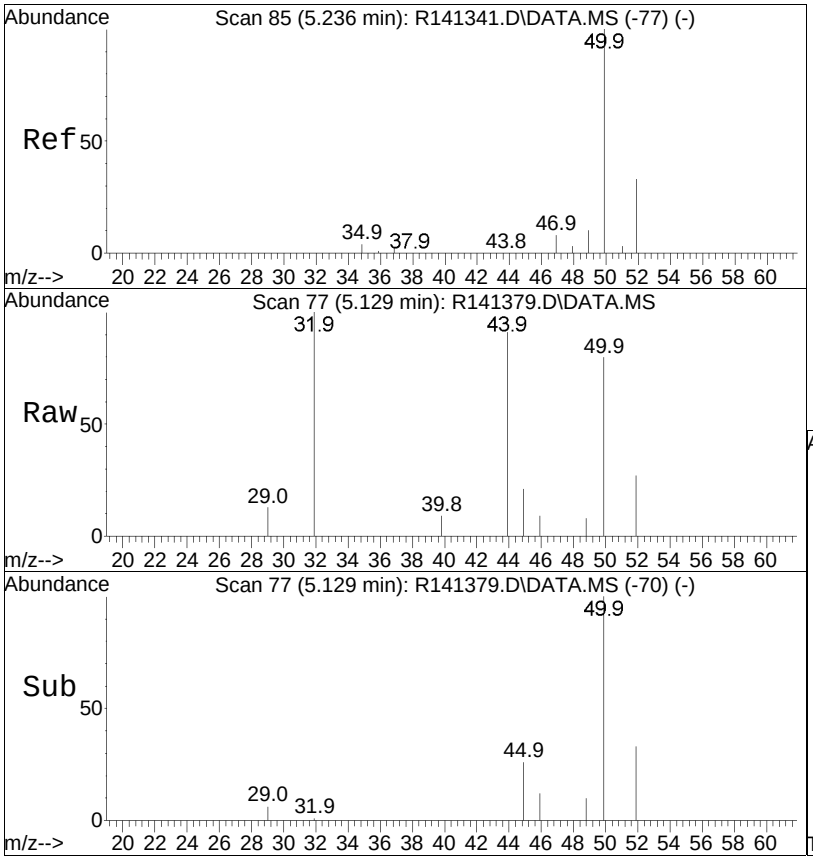


#5
dichlorodifluoromethane
Concen: 0.50 ppbV
RT: 4.889 min Scan# 59
Delta R.T. -0.107 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 85 Resp: 18559

Ion	Ratio	Lower	Upper
85	100		
87	33.3	25.9	38.9

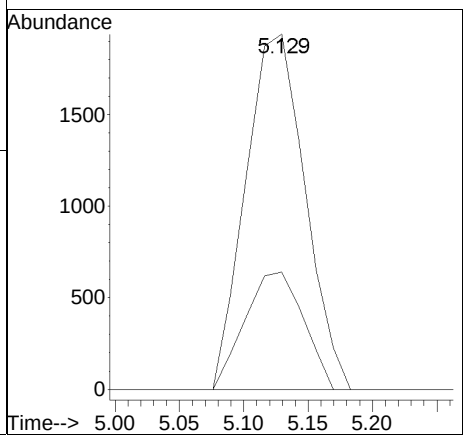


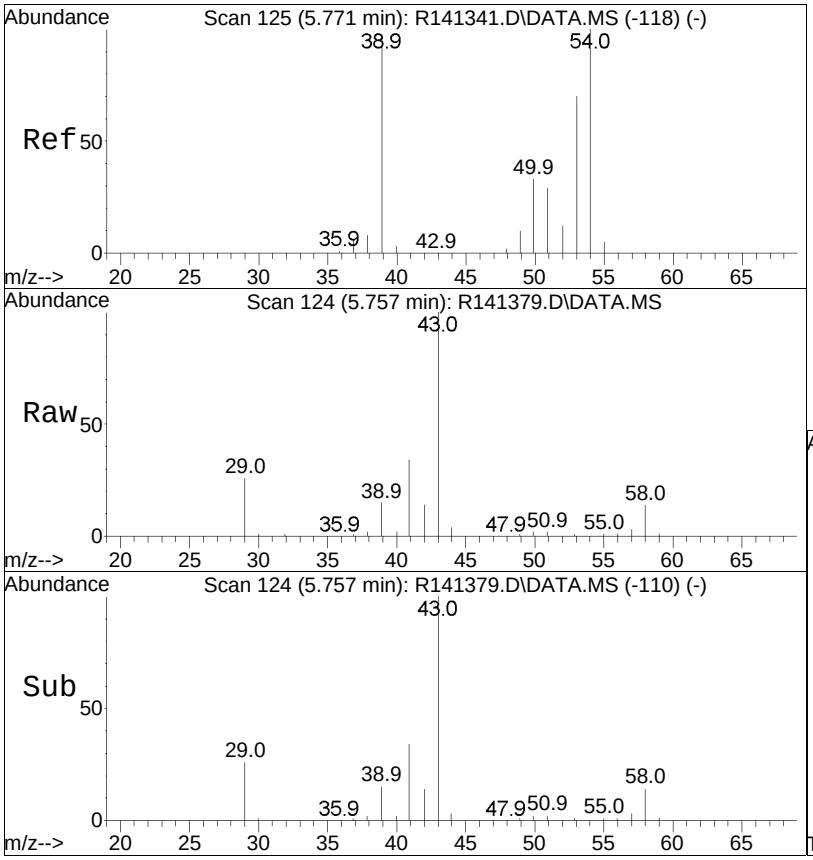


#6
chloromethane
Concen: 0.58 ppbV
RT: 5.129 min Scan# 77
Delta R.T. -0.107 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 50 Resp: 6224

Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.2	39.2

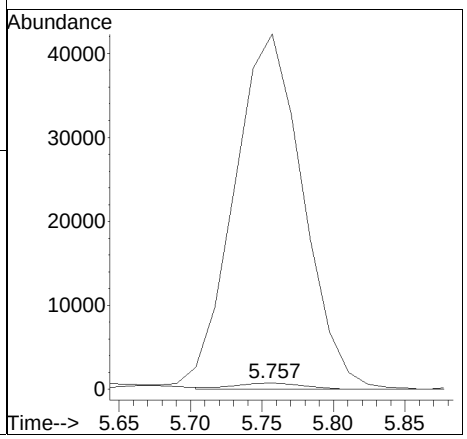


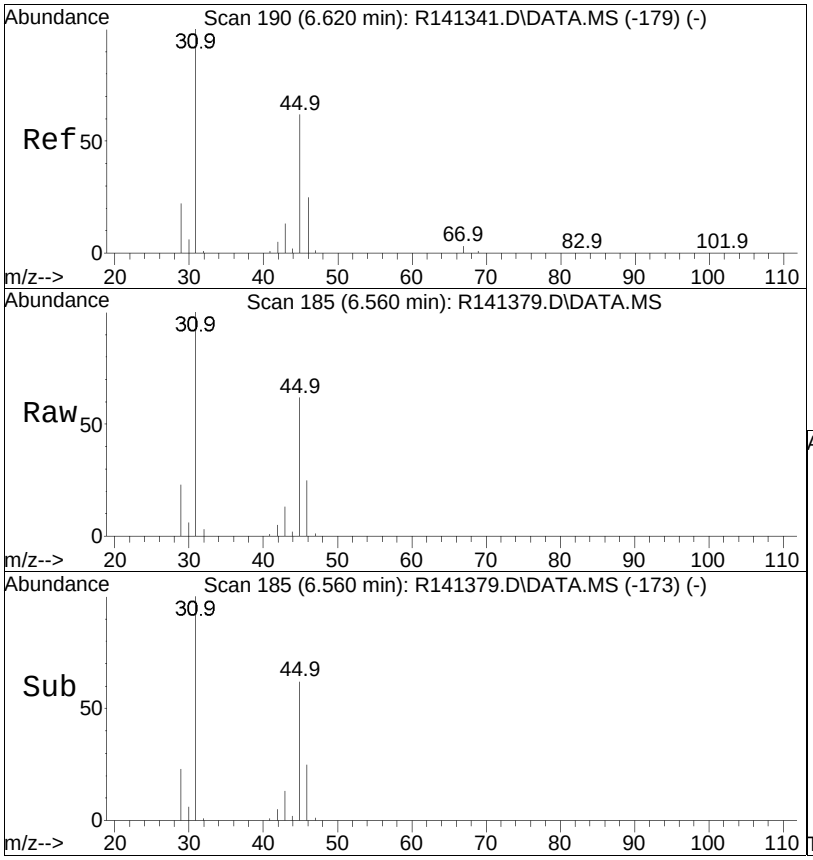


#10
1,3-butadiene
Concen: 0.27 ppbV
RT: 5.757 min Scan# 124
Delta R.T. -0.013 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 54 Resp: 2583

Ion	Ratio	Lower	Upper
54	100		
39	5553.8	77.4	116.2#

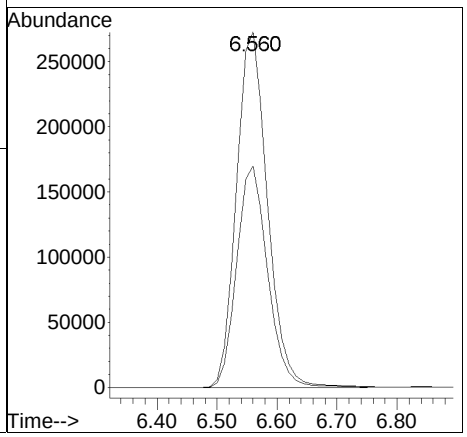


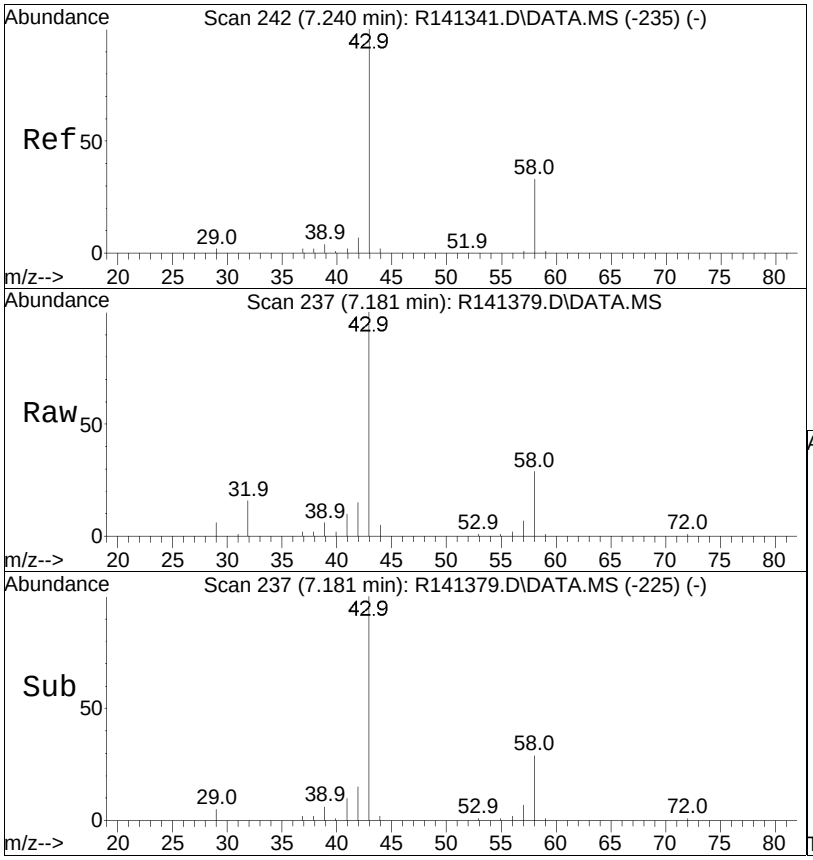


#15
ethanol
Concen: 137.55 ppbV
RT: 6.560 min Scan# 185
Delta R.T. -0.060 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 31 Resp: 979564

Ion	Ratio	Lower	Upper
31	100		
45	62.4	49.6	74.4

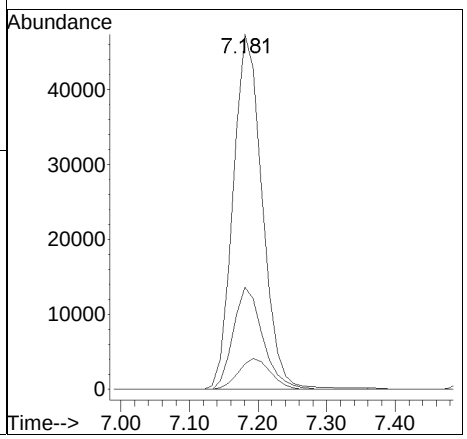


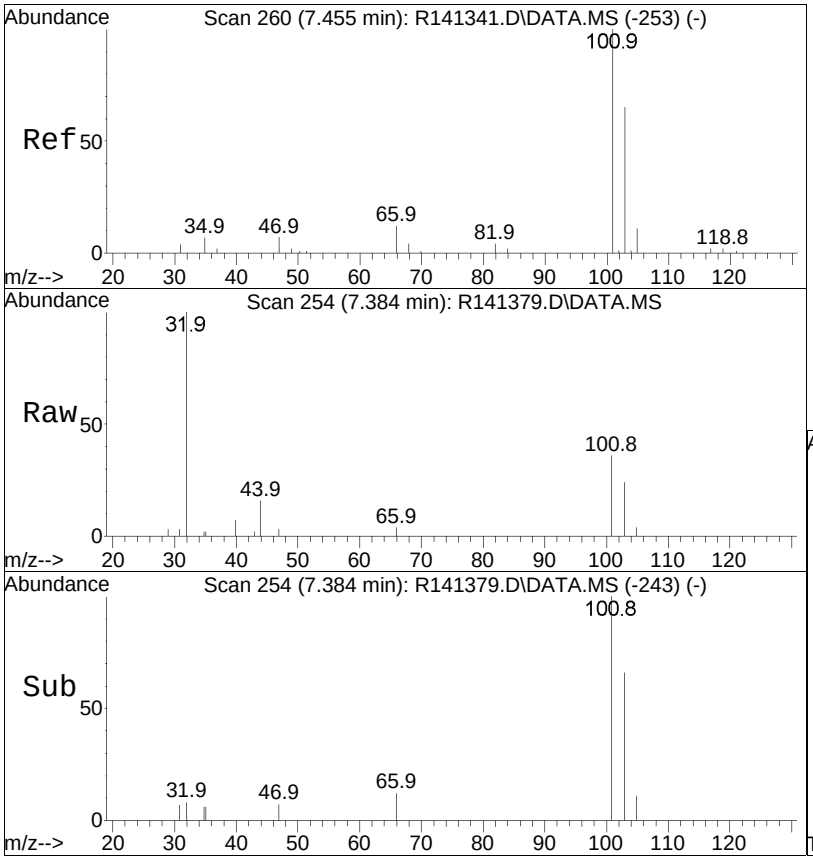


#19
acetone
Concen: 7.55 ppbV
RT: 7.181 min Scan# 237
Delta R.T. -0.060 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 43 Resp: 140004

Ion	Ratio	Lower	Upper
43	100		
58	28.7	26.0	39.0
57	7.2	0.7	1.1#

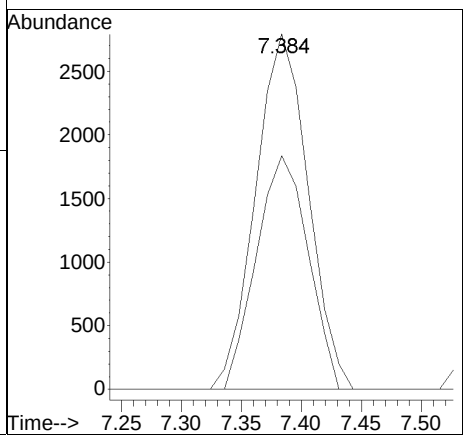


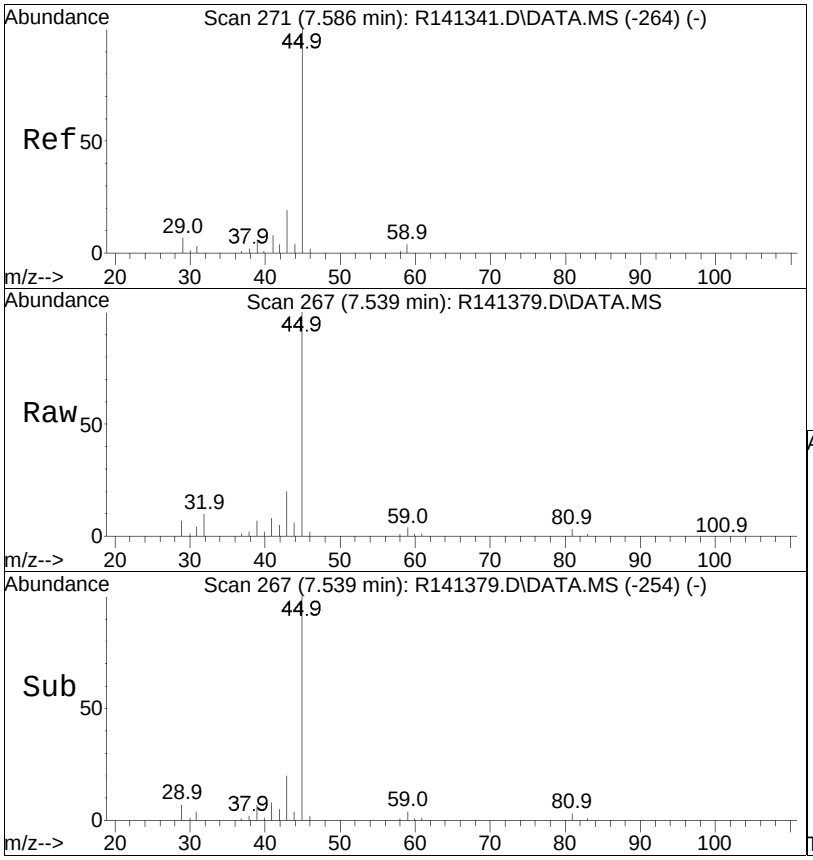


#21
trichlorofluoromethane
Concen: 0.22 ppbV
RT: 7.384 min Scan# 254
Delta R.T. -0.072 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion:101 Resp: 8527

Ion	Ratio	Lower	Upper
101	100		
103	65.7	51.8	77.6

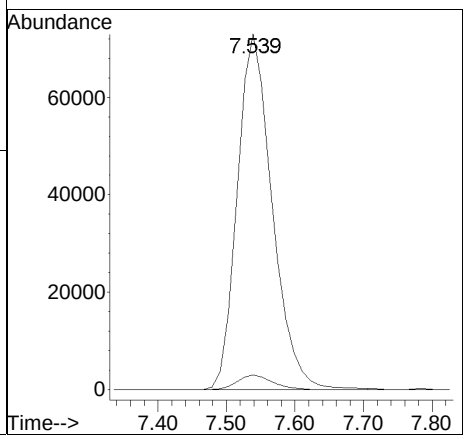


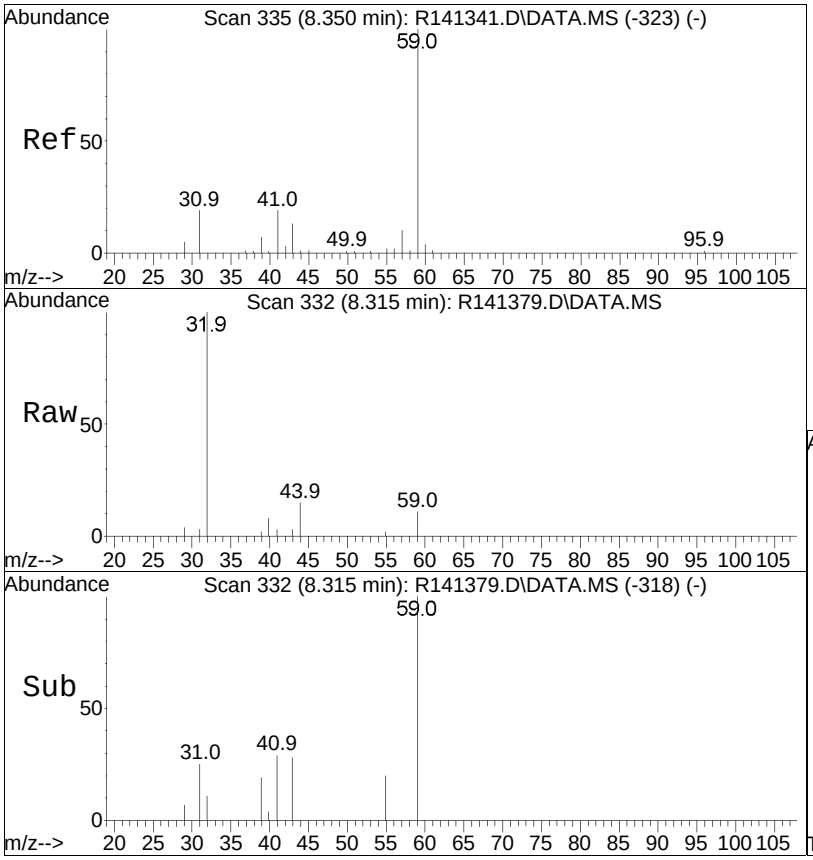


#22
isopropyl alcohol
Concen: 12.45 ppbV
RT: 7.539 min Scan# 267
Delta R.T. -0.048 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 45 Resp: 257834

Ion	Ratio	Lower	Upper
45	100		
59	4.1	3.3	4.9

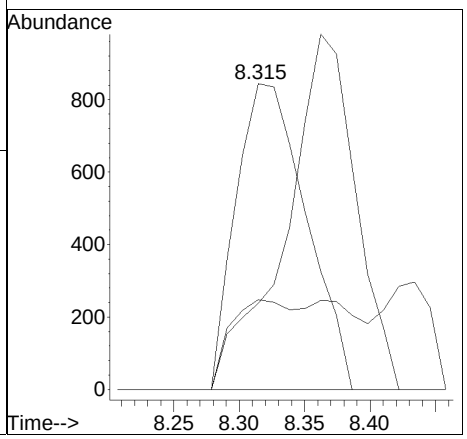


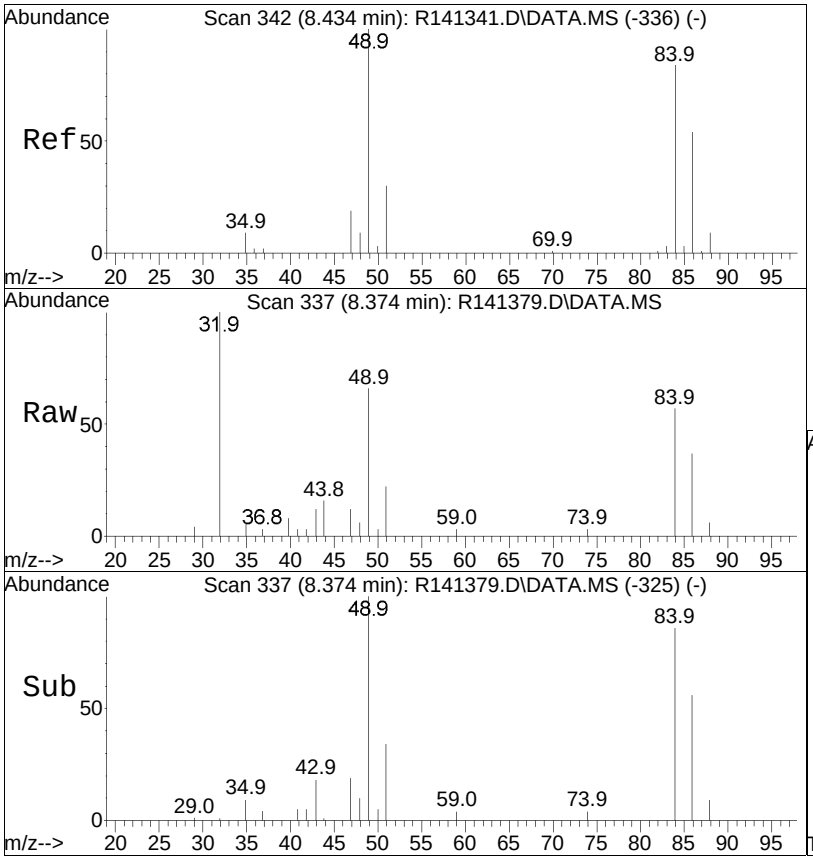


#27
tertiary butyl alcohol
Concen: 0.11 ppbV
RT: 8.315 min Scan# 332
Delta R.T. -0.036 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 59 Resp: 3140

Ion	Ratio	Lower	Upper
59	100		
41	29.4	15.0	22.4#
43	28.2	10.3	15.5#

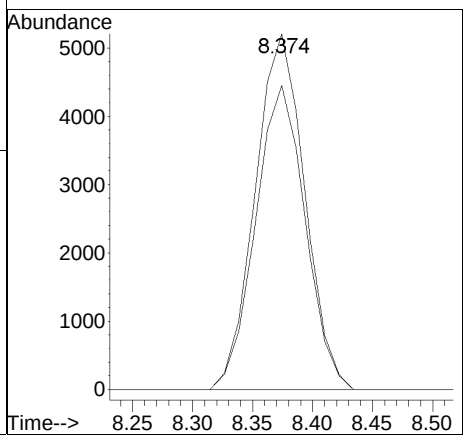


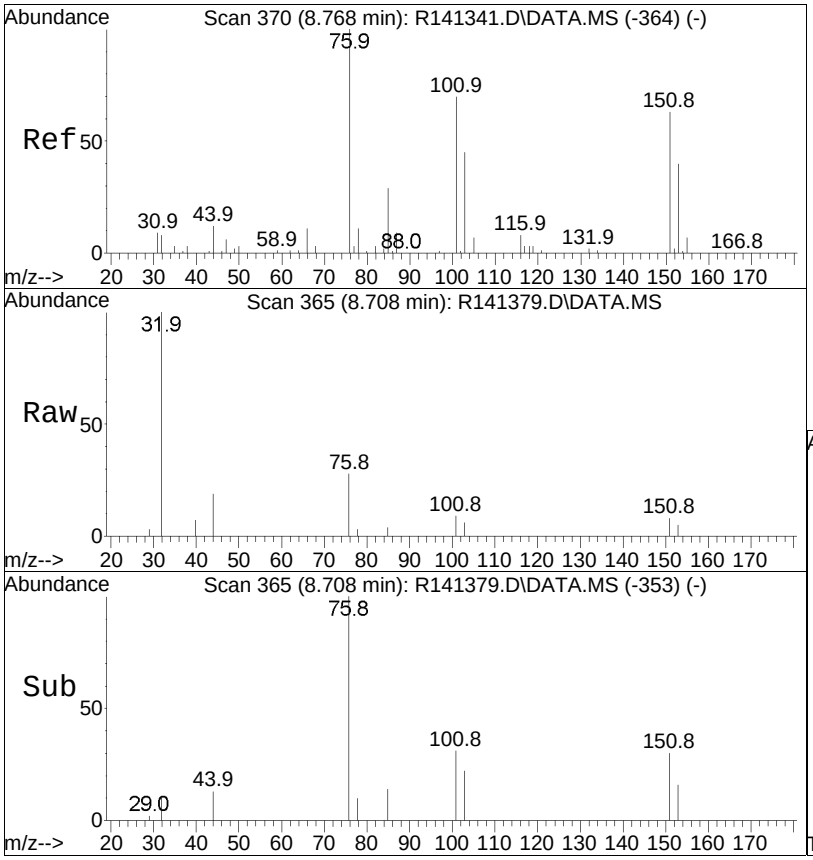


#28
methylene chloride
Concen: 0.96 ppbV
RT: 8.374 min Scan# 337
Delta R.T. -0.060 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 49 Resp: 14931

Ion	Ratio	Lower	Upper
49	100		
84	85.5	67.1	100.7

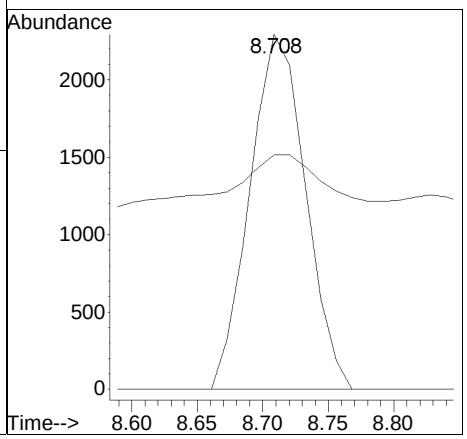


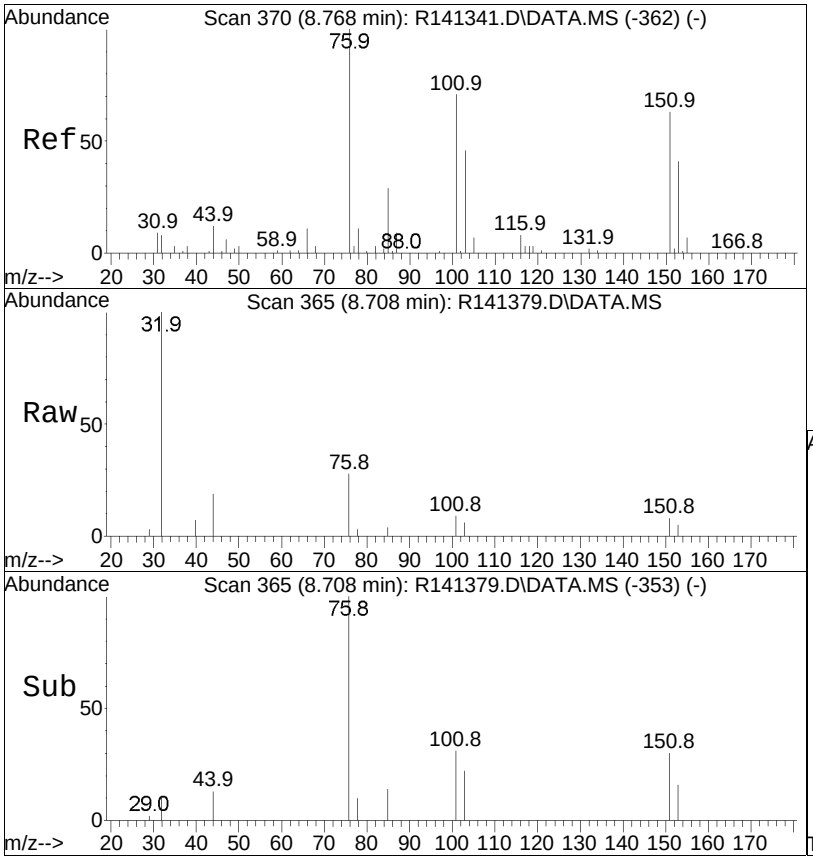


#30
carbon disulfide
Concen: 0.14 ppbV
RT: 8.708 min Scan# 365
Delta R.T. -0.060 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 76 Resp: 6784

Ion	Ratio	Lower	Upper
76	100		
44	65.9	10.0	15.0#

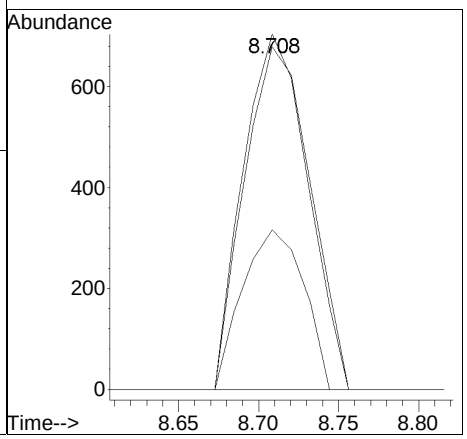


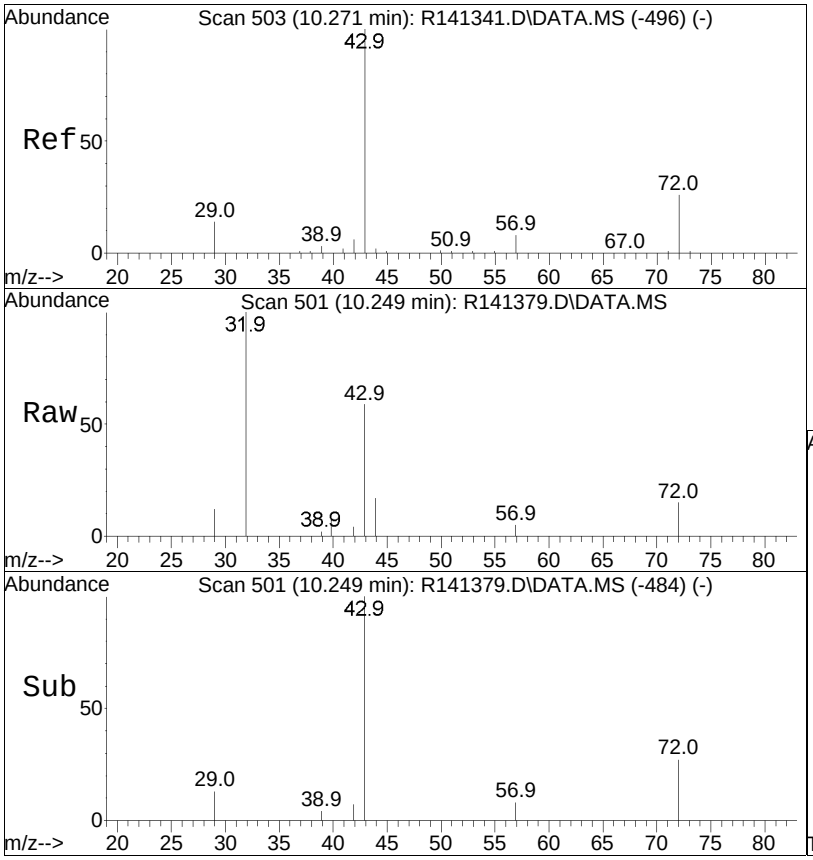


#31
Freon 113
Concen: 0.06 ppbV
RT: 8.708 min Scan# 365
Delta R.T. -0.060 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion:101 Resp: 1969

Ion	Ratio	Lower	Upper
101	100		
85	44.9	33.3	49.9
151	96.4	71.6	107.4

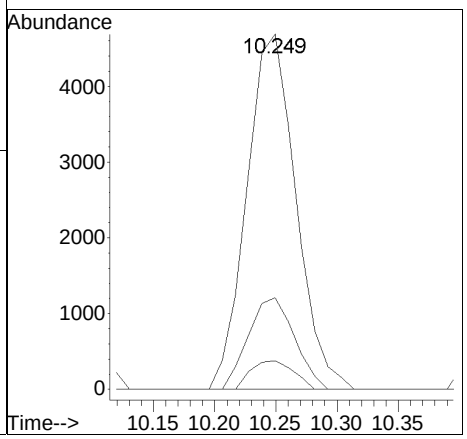


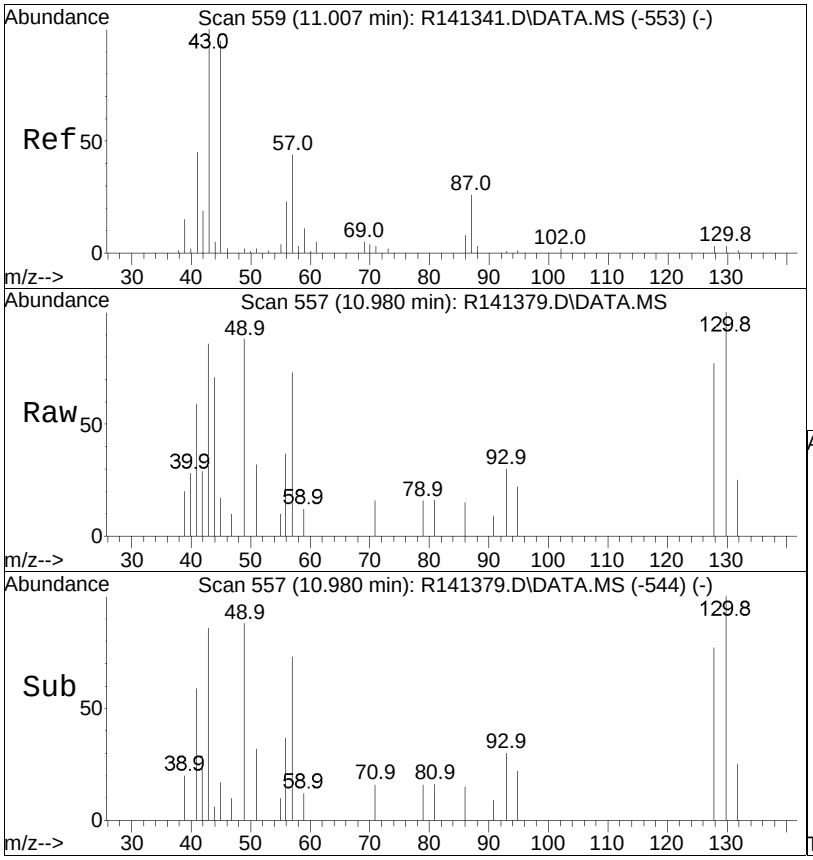


#36
2-butanone
Concen: 0.44 ppbV
RT: 10.249 min Scan# 501
Delta R.T. -0.022 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 43 Resp: 13104

Ion	Ratio	Lower	Upper
43	100		
72	25.8	20.8	31.2
57	8.1	6.3	9.5

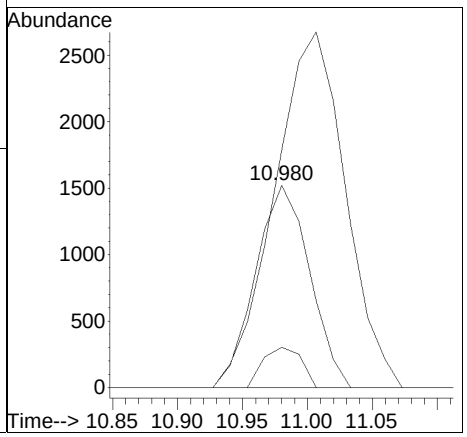


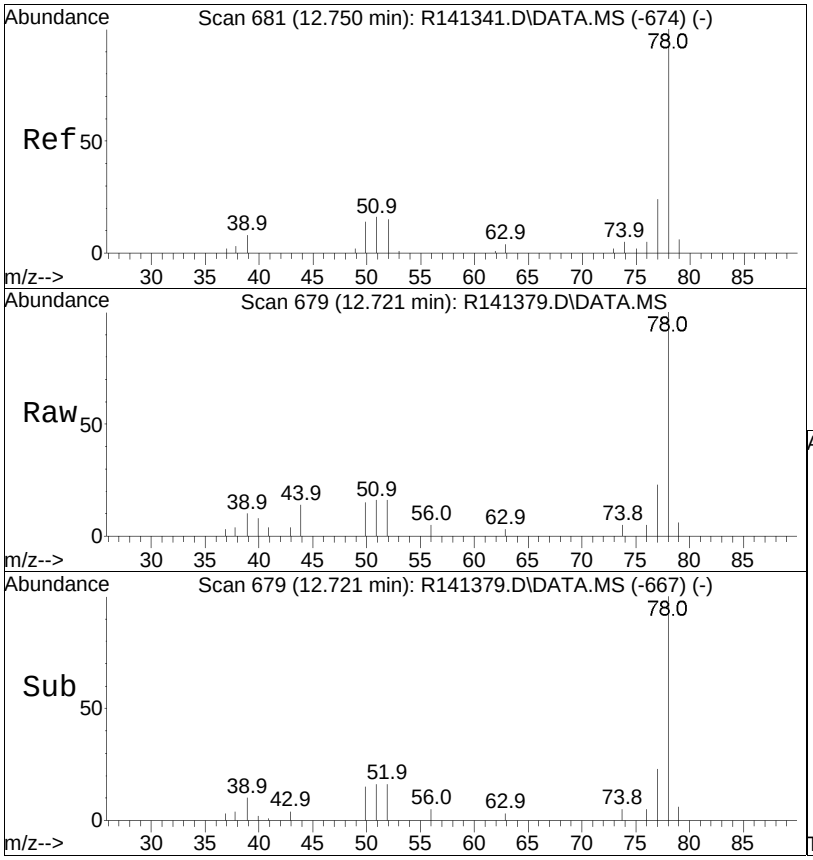


#44
hexane
Concen: 0.19 ppbV
RT: 10.980 min Scan# 557
Delta R.T. -0.026 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 57 Resp: 4421

Ion	Ratio	Lower	Upper
57	100		
43	117.6	180.9	271.3#
86	19.9	14.4	21.6

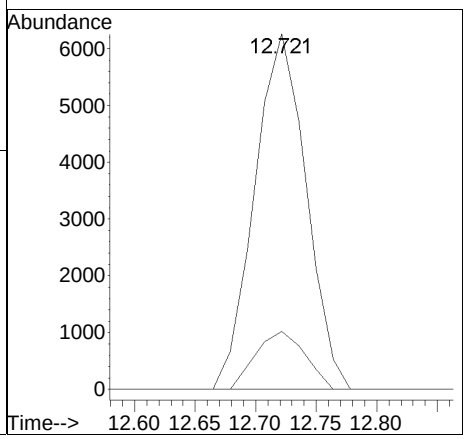


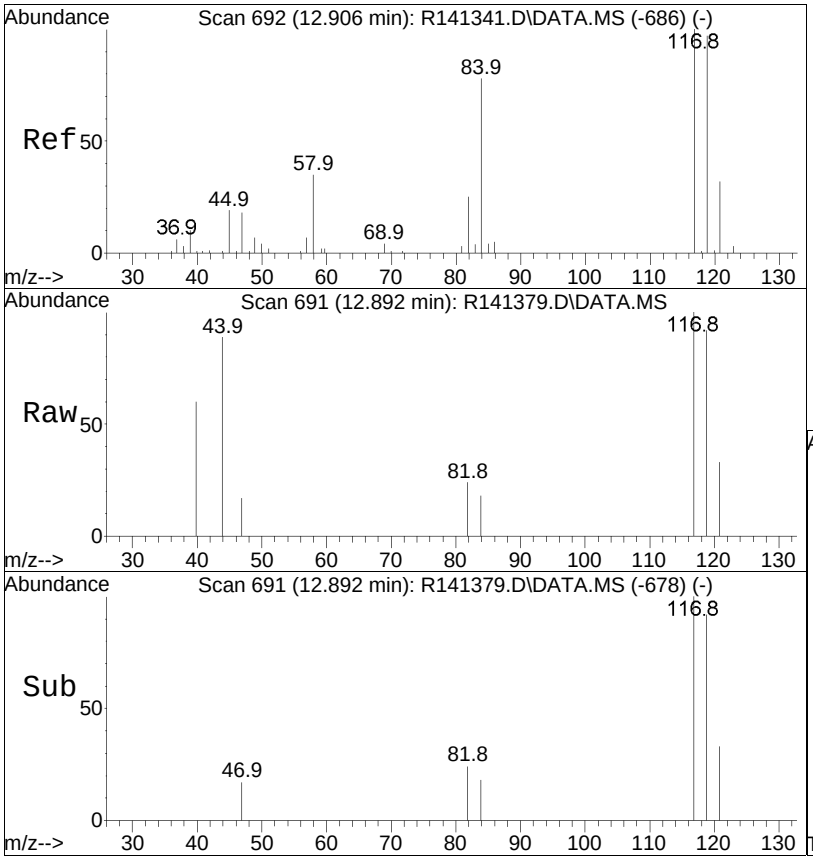


#50
benzene
Concen: 0.38 ppbV
RT: 12.721 min Scan# 679
Delta R.T. -0.028 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 78 Resp: 18576

Ion	Ratio	Lower	Upper
78	100		
52	16.3	12.2	18.4

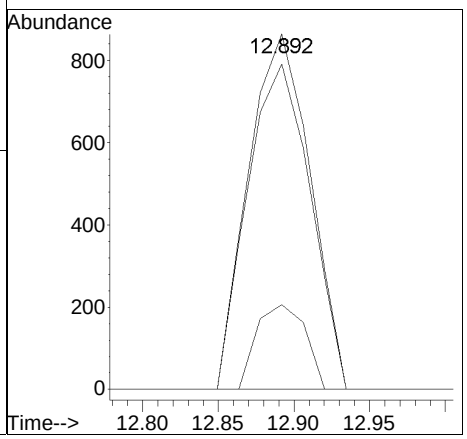


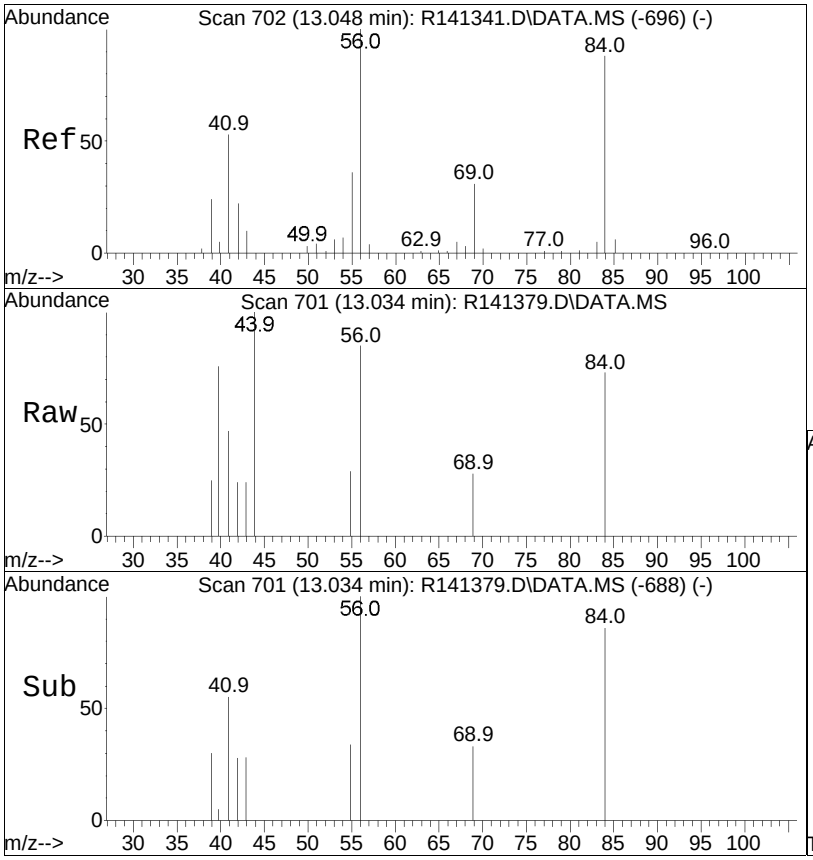


#52
carbon tetrachloride
Concen: 0.06 ppbV
RT: 12.892 min Scan# 691
Delta R.T. -0.014 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion:117 Resp: 2461

Ion	Ratio	Lower	Upper
117	100		
119	91.6	77.7	116.5
82	23.8	19.6	29.4

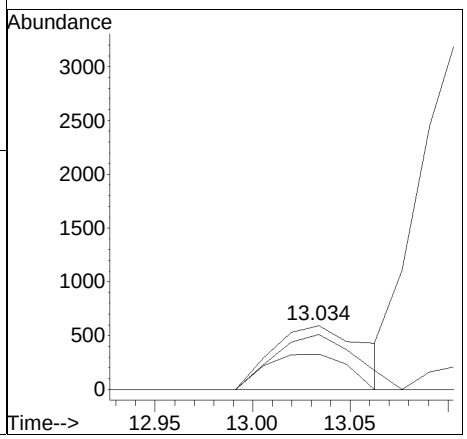


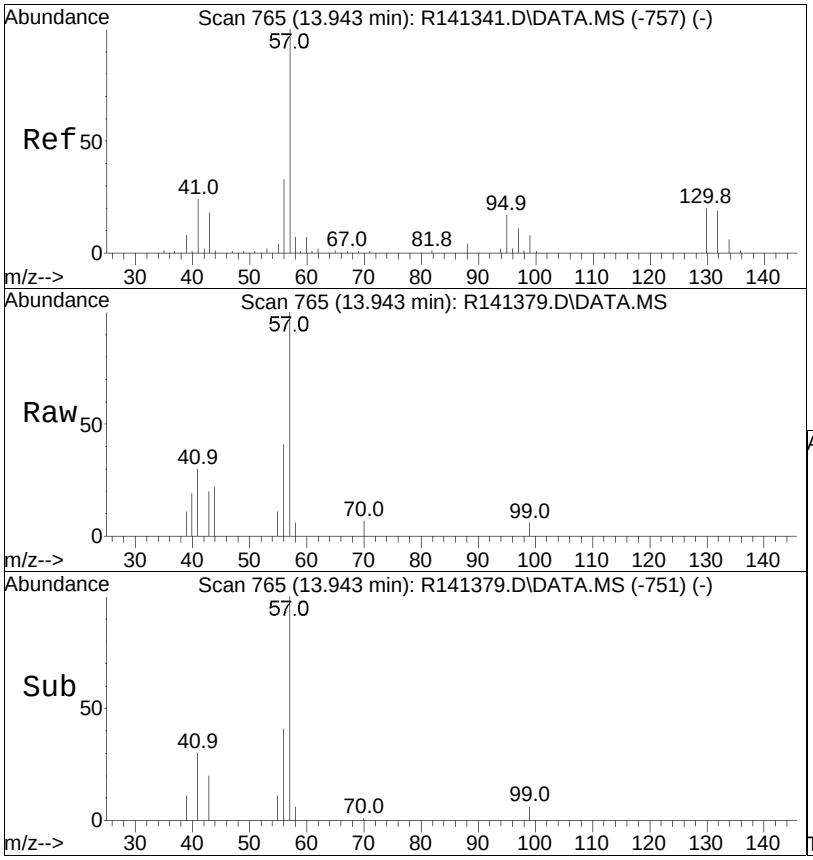


#53
cyclohexane
Concen: 0.08 ppbV m
RT: 13.034 min Scan# 701
Delta R.T. -0.014 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 56 Resp: 1949

Ion	Ratio	Lower	Upper
56	100		
84	86.2	71.4	107.0
41	55.5	42.4	63.6

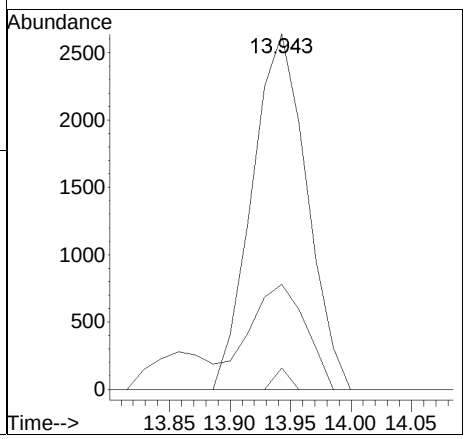


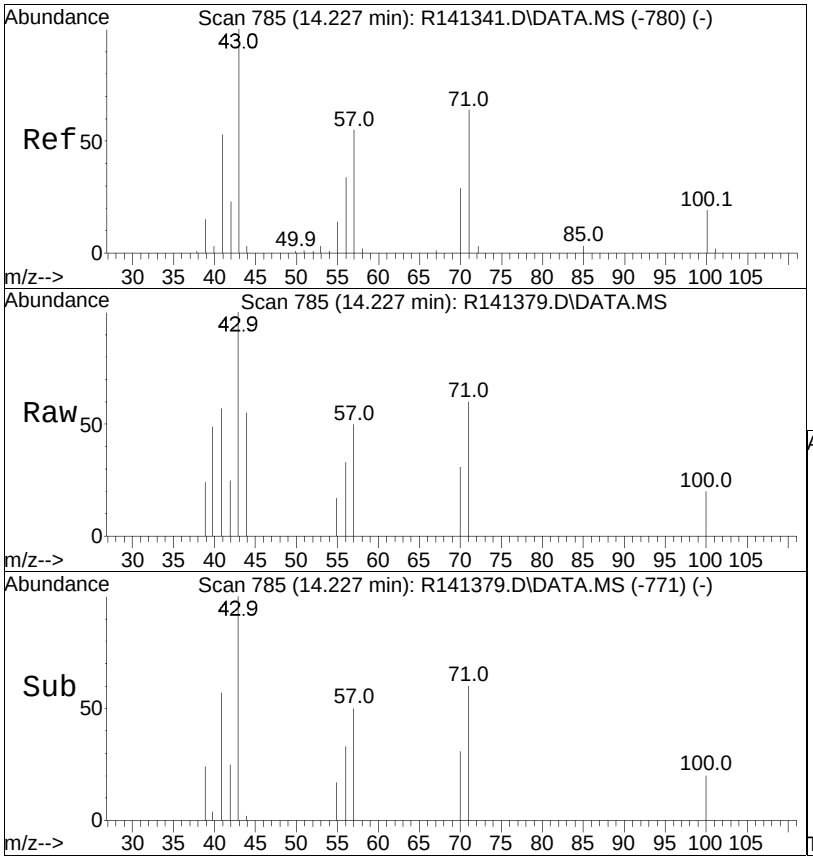


#60
2,2,4-trimethylpentane
Concen: 0.10 ppbV
RT: 13.943 min Scan# 765
Delta R.T. -0.000 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 57 Resp: 8303

Ion	Ratio	Lower	Upper
57	100		
99	6.0	6.3	9.5#
41	29.6	19.6	29.4#

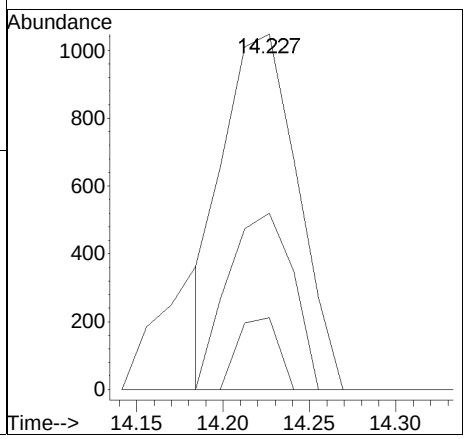


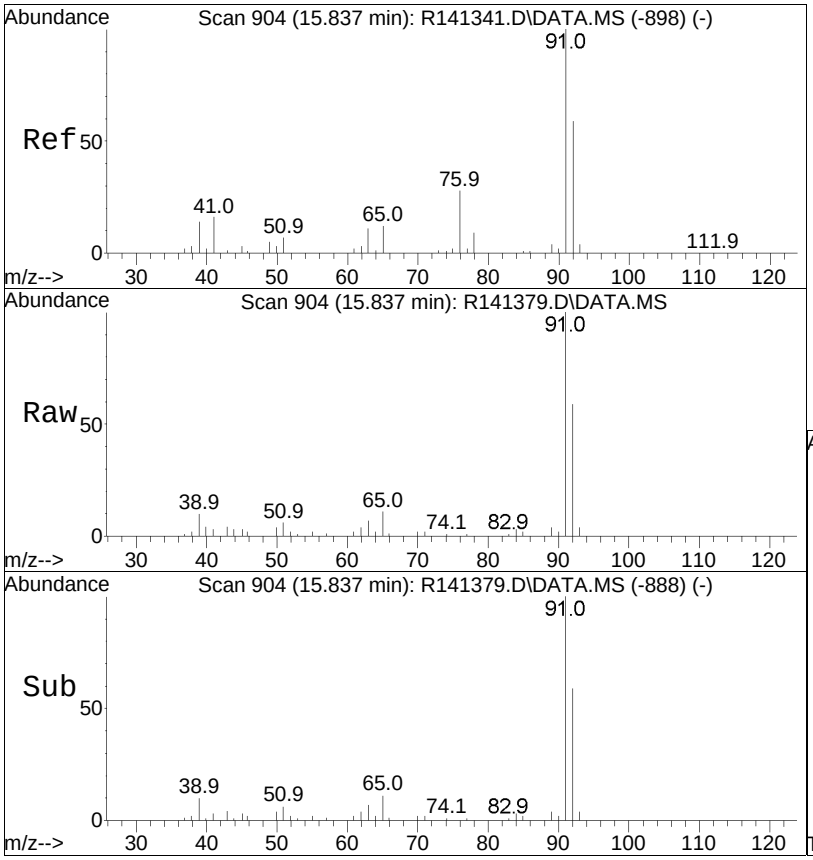


#62
heptane
Concen: 0.11 ppbV m
RT: 14.227 min Scan# 785
Delta R.T. -0.000 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 43 Resp: 3121

Ion	Ratio	Lower	Upper
43	100		
57	49.6	44.0	66.0
100	20.2	16.4	24.6

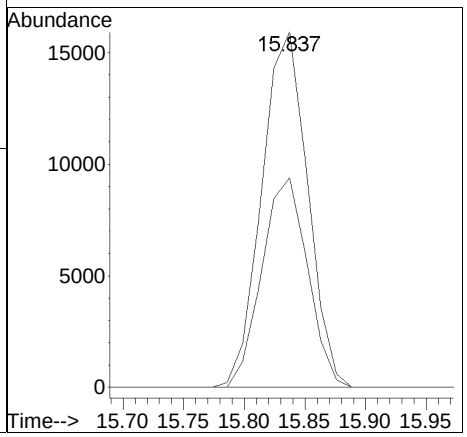


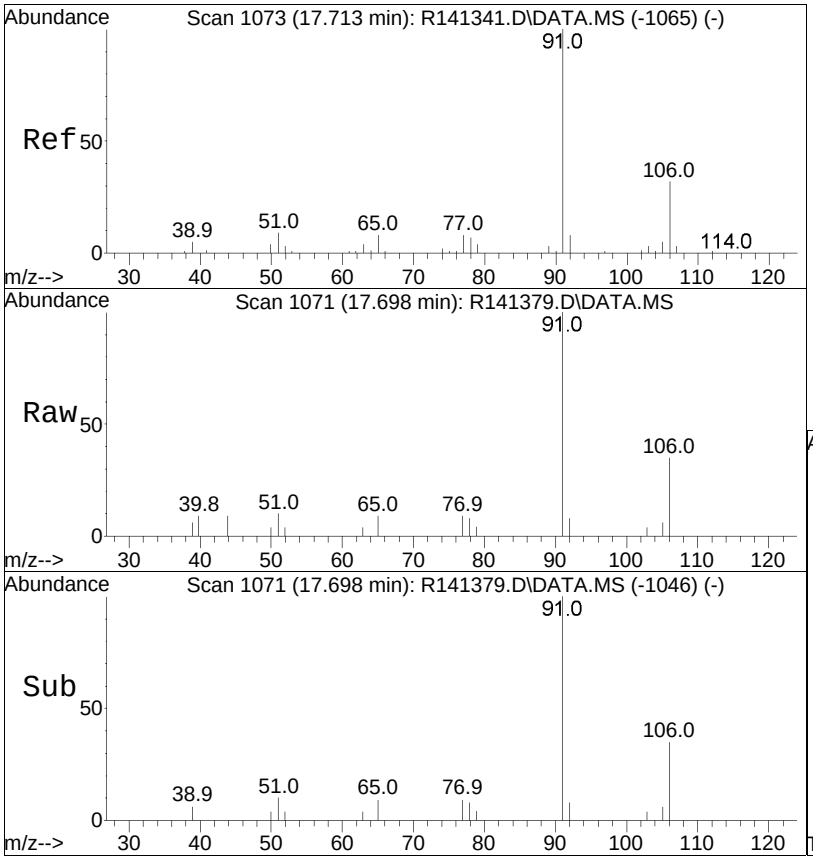


#68
toluene
Concen: 0.70 ppbV
RT: 15.837 min Scan# 904
Delta R.T. -0.000 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 91 Resp: 41884

Ion	Ratio	Lower	Upper
91	100		
92	59.0	47.3	70.9

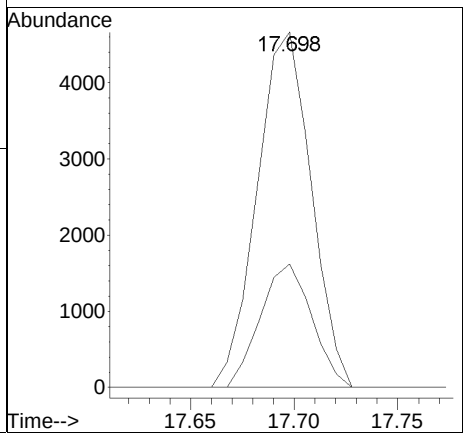


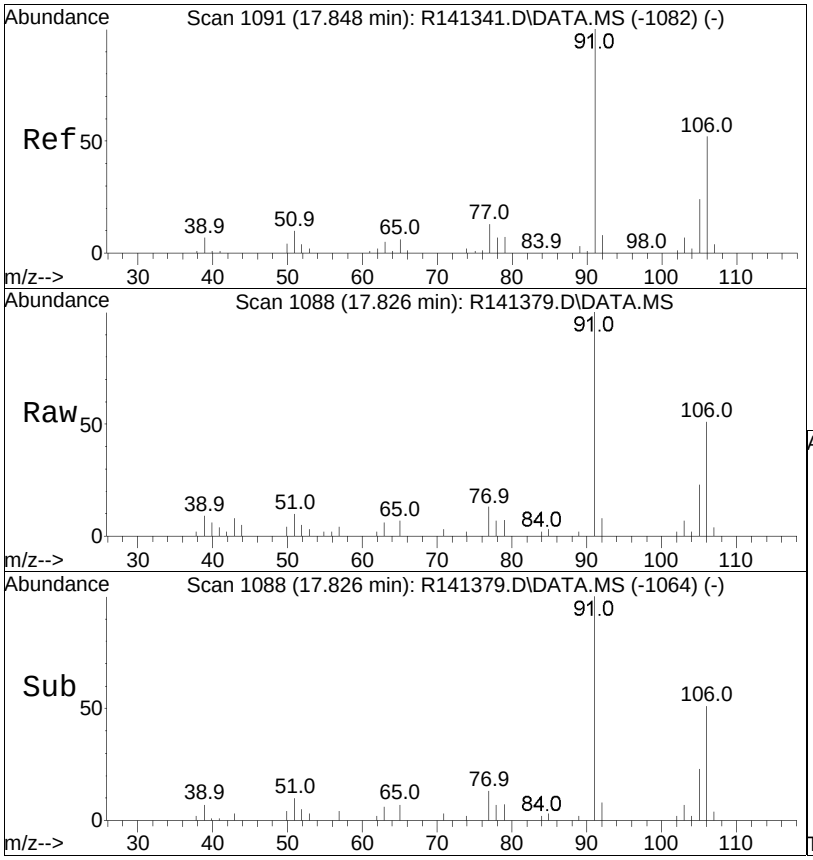


#81
ethylbenzene
Concen: 0.11 ppbV
RT: 17.698 min Scan# 1071
Delta R.T. -0.015 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 91 Resp: 8468

Ion	Ratio	Lower	Upper
91	100		
106	34.7	25.7	38.5

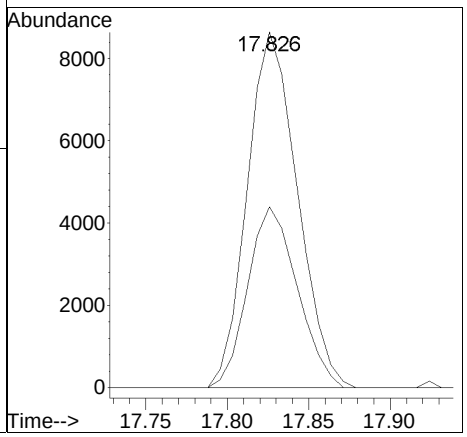


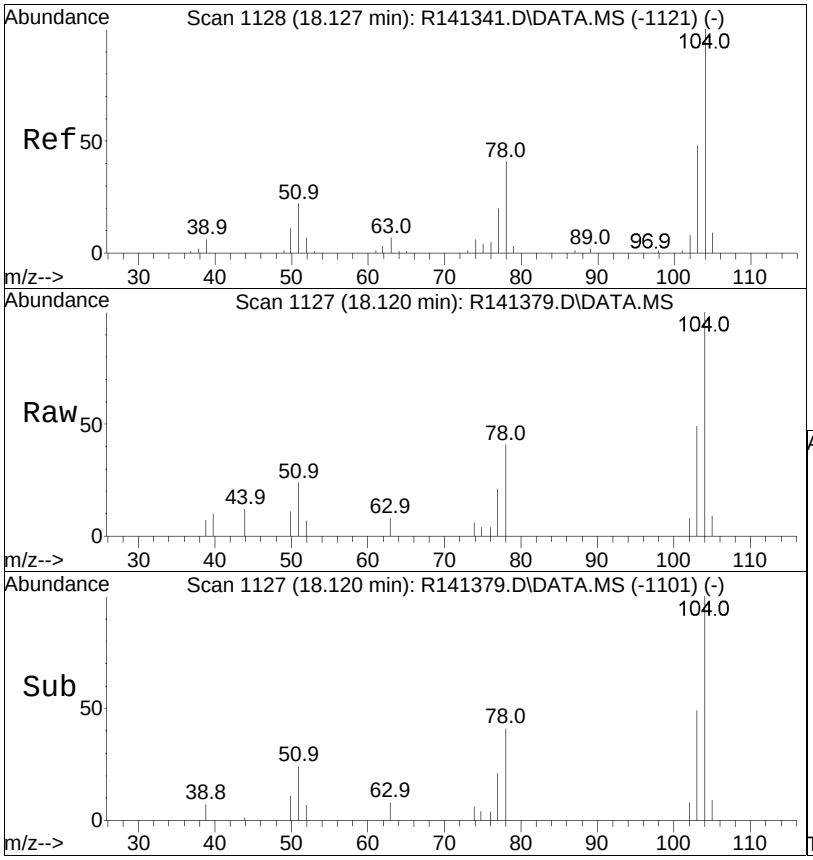


#83
m+p-xylene
Concen: 0.31 ppbV
RT: 17.826 min Scan# 1088
Delta R.T. -0.023 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 91 Resp: 18480

Ion	Ratio	Lower	Upper
91	100		
106	50.9	41.4	62.0

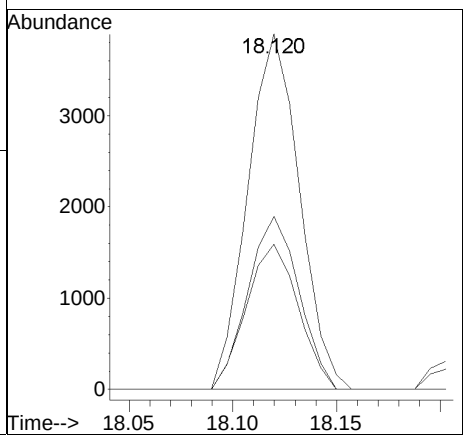


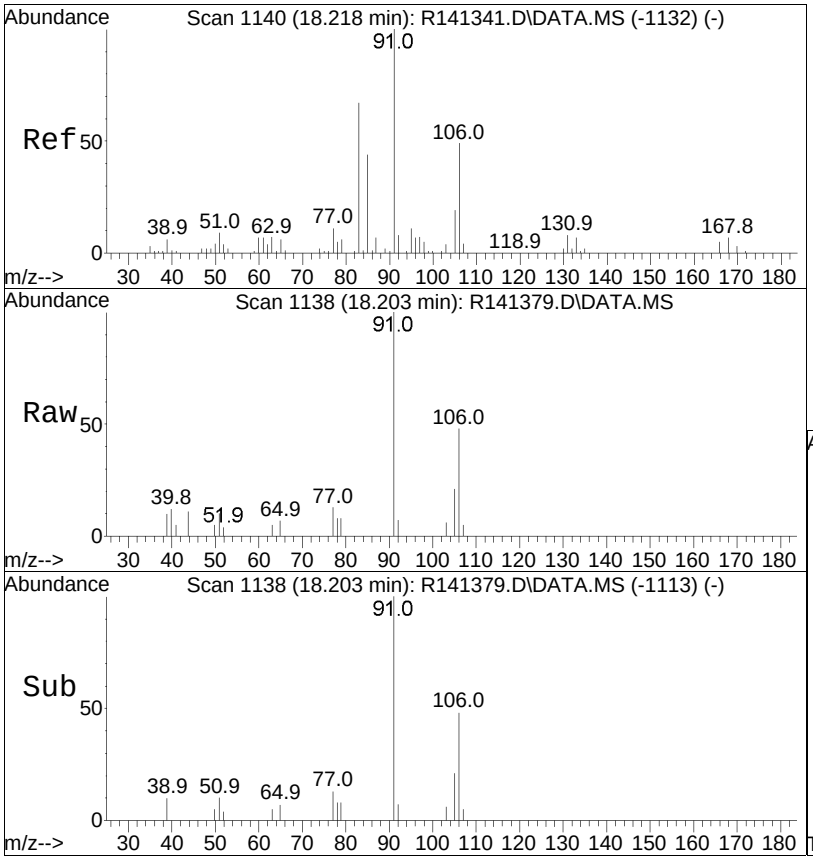


#85
styrene
Concen: 0.14 ppbV
RT: 18.120 min Scan# 1127
Delta R.T. -0.008 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion:104 Resp: 6754

Ion	Ratio	Lower	Upper
104	100		
103	48.7	38.2	57.4
78	40.8	33.1	49.7

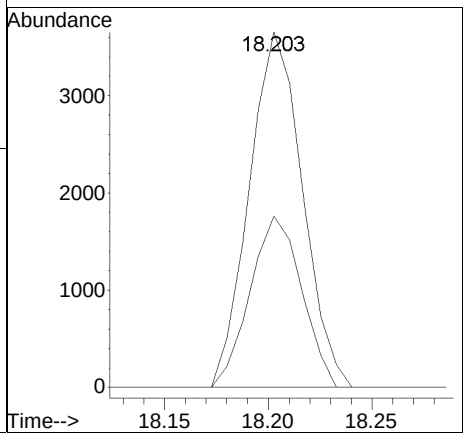


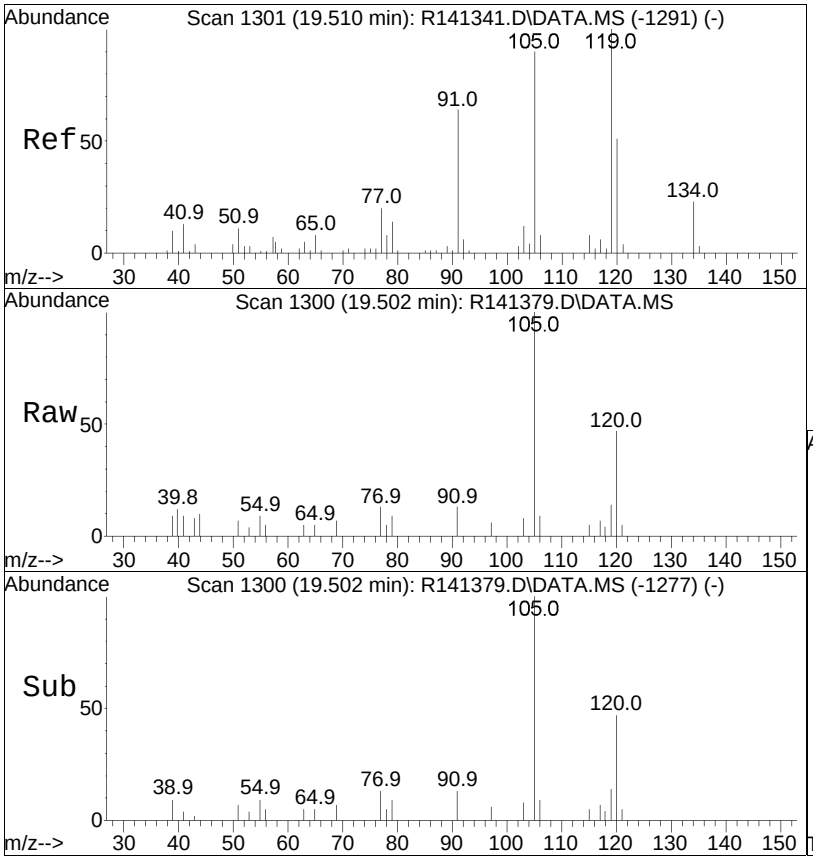


#87
o-xylene
Concen: 0.11 ppbV
RT: 18.203 min Scan# 1138
Delta R.T. -0.015 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion: 91 Resp: 6520

Ion	Ratio	Lower	Upper
91	100		
106	48.2	38.8	58.2

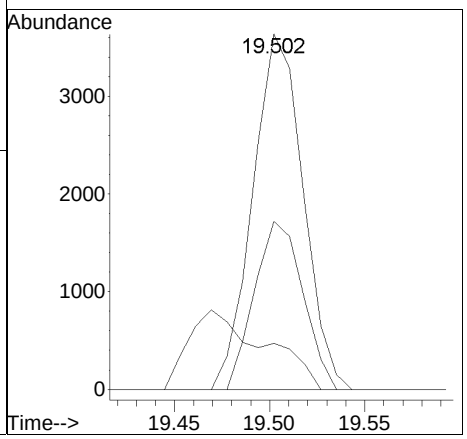




#99
1,2,4-trimethylbenzene
Concen: 0.09 ppbV
RT: 19.502 min Scan# 1300
Delta R.T. -0.008 min
Lab File: R141379.D
Acq: 05 Feb 2015 01:11 am

Tgt Ion:105 Resp: 6697

Ion	Ratio	Lower	Upper
105	100		
120	47.3	45.7	68.5
91	13.0	56.8	85.2#

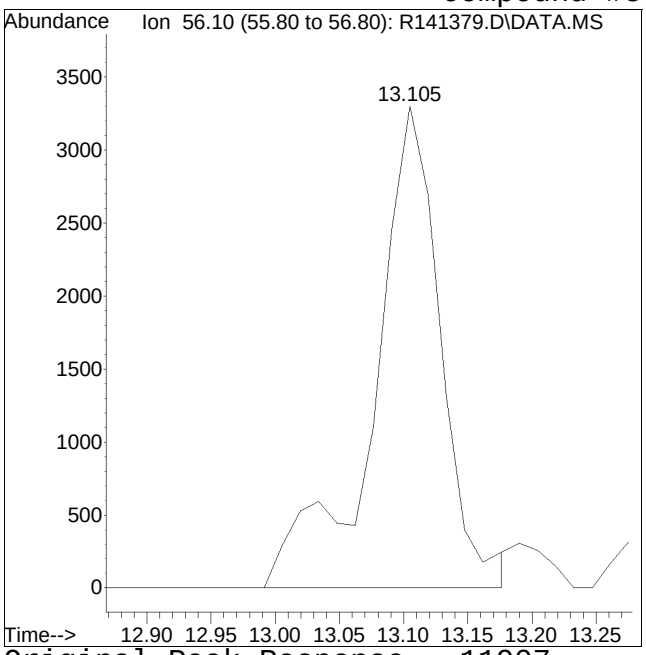


Manual Integration/Negative Proof Report

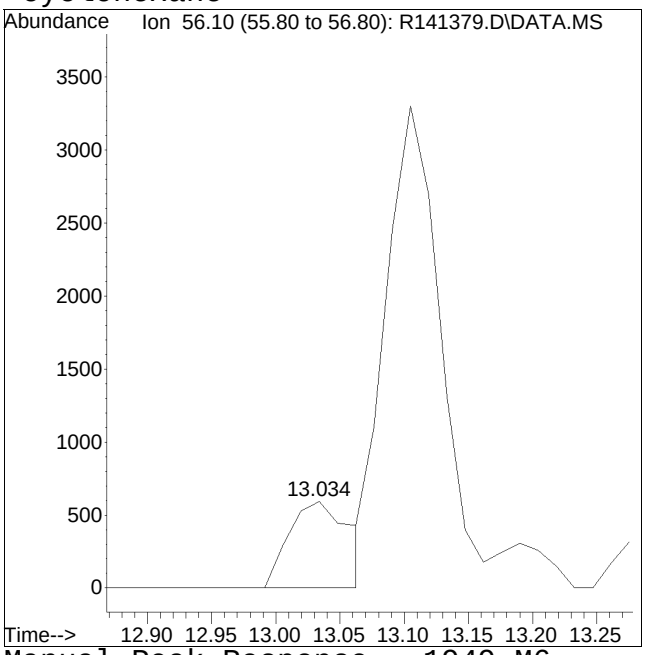
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141379.D
Date Inj'd : 2/5/2015 1:11 am
Sample : WG760633-5,3,250,250

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 2/5/2015 7:31 am

Compound #53: cyclohexane



Original Peak Response = 11907



Manual Peak Response = 1949 M6

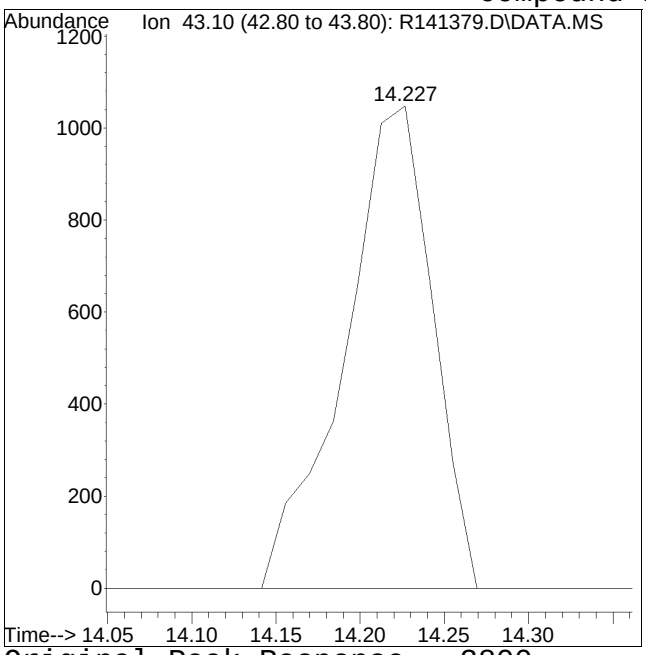
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

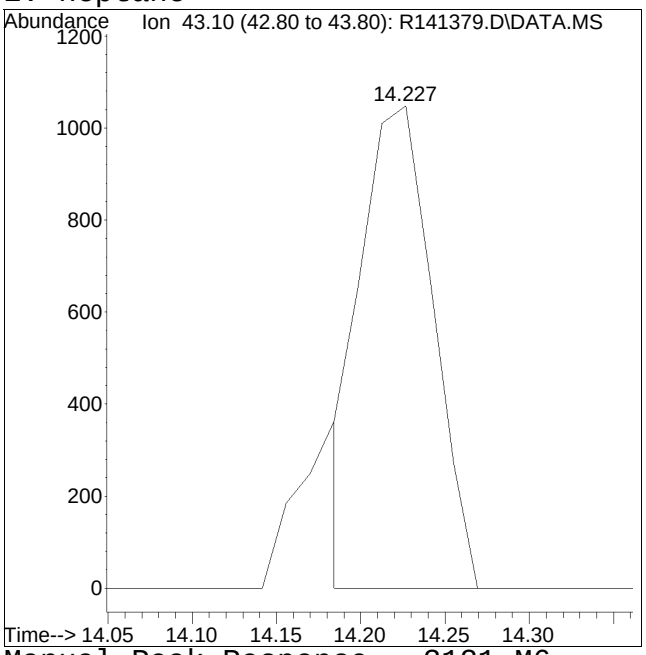
Data Path : O:\Forensics\Data\Airlab14\
Data File : R141379.D
Date Inj'd : 2/5/2015 1:11 am
Sample : WG760633-5,3,250,250

QMethod : TALL150120.M
Operator : AIRLAB14:MB
Instrument : Airlab 14
Quant Date : 2/5/2015 7:31 am

Compound #62: heptane



Original Peak Response = 3800



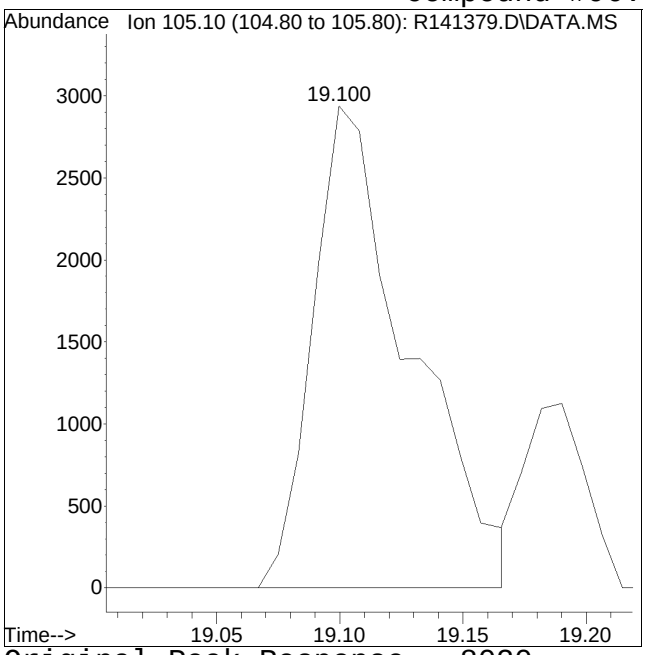
Manual Peak Response = 3121 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

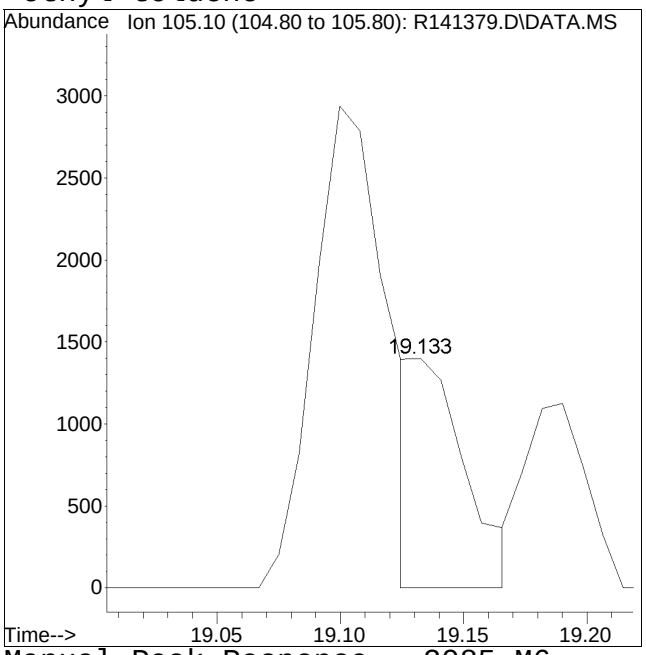
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab14\QMethod : TALL150120.M
Data File : R141379.D Operator : AIRLAB14:MB
Date Inj'd : 2/5/2015 1:11 am Instrument : Airlab 14
Sample : WG760633-5,3,250,250 Quant Date : 2/5/2015 7:31 am

Compound #96: 4-ethyl toluene



Original Peak Response = 8020



Manual Peak Response = 2085 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Clean Canister Certification Data

Quality Control Data Summary

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1430876 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	7.37	74	-	-	-		70-130
Propylene	10	NA	8.87	89	-	-	-		70-130
Propane	10	NA	7.26	73	-	-	-		70-130
Dichlorodifluoromethane	10	NA	7.40	74	-	-	-		70-130
Chloromethane	10	NA	7.85	78	-	-	-		70-130
Freon-114	10	NA	7.98	80	-	-	-		70-130
Methanol	50	NA	40.0	80	-	-	-		70-130
Vinyl chloride	10	NA	8.07	81	-	-	-		70-130
1,3-Butadiene	10	NA	8.68	87	-	-	-		70-130
Butane	10	NA	7.36	74	-	-	-		70-130
Bromomethane	10	NA	7.68	77	-	-	-		70-130
Chloroethane	10	NA	7.93	79	-	-	-		70-130
Ethanol	50	NA	42.5	85	-	-	-		70-130
Dichlorofluoromethane	10	NA	7.12	71	-	-	-		70-130
Vinyl bromide	10	NA	7.89	79	-	-	-		70-130
Acrolein	10	NA	7.47	75	-	-	-		70-130
Acetone	50	NA	42.0	84	-	-	-		70-130
Acetonitrile	10	NA	7.98	80	-	-	-		70-130
Trichlorofluoromethane	10	NA	7.63	76	-	-	-		70-130
Isopropanol	10	NA	8.29	83	-	-	-		70-130
Acrylonitrile	10	NA	7.62	76	-	-	-		70-130
Pentane	10	NA	8.02	80	-	-	-		70-130
Ethyl ether	10	NA	7.78	78	-	-	-		70-130
1,1-Dichloroethene	10	NA	7.94	79	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	7.66	77	-	-	-		70-130
Methylene chloride	10	NA	7.93	79	-	-	-		70-130
3-Chloropropene	10	NA	8.95	90	-	-	-		70-130
Carbon disulfide	10	NA	7.86	79	-	-	-		70-130
Freon-113	10	NA	8.05	80	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	7.95	80	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.56	86	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.44	84	-	-	-		70-130
Vinyl acetate	10	NA	14.1	141 *	-	-	-		70-130
2-Butanone	10	NA	8.60	86	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	9.36	94	-	-	-		70-130
Ethyl Acetate	10	NA	8.78	88	-	-	-		70-130
Chloroform	10	NA	8.46	85	-	-	-		70-130
Tetrahydrofuran	10	NA	8.65	86	-	-	-		70-130
2,2-Dichloropropane	10	NA	7.60	76	-	-	-		70-130
1,2-Dichloroethane	10	NA	8.30	83	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1430876 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	8.30	83	-	-	-		70-130
Diisopropyl Ether	10	NA	7.66	77	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	7.69	77	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	8.15	82	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.24	82	-	-	-		70-130
Benzene	10	NA	8.22	82	-	-	-		70-130
Carbon tetrachloride	10	NA	8.06	81	-	-	-		70-130
Cyclohexane	10	NA	8.43	84	-	-	-		70-130
tert-amyl methyl ether	10	NA	7.78	78	-	-	-		70-130
Dibromomethane	10	NA	7.61	76	-	-	-		70-130
1,2-Dichloropropane	10	NA	8.48	85	-	-	-		70-130
Bromodichloromethane	10	NA	8.30	83	-	-	-		70-130
1,4-Dioxane	10	NA	8.47	85	-	-	-		70-130
Trichloroethene	10	NA	8.21	82	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	8.32	83	-	-	-		70-130
Methyl methacrylate	10	NA	8.01	80	-	-	-		70-130
Heptane	10	NA	8.39	84	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	9.27	93	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	8.48	85	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.04	80	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	8.76	88	-	-	-		70-130
Toluene	10	NA	8.50	85	-	-	-		70-130
1,3-Dichloropropane	10	NA	7.98	80	-	-	-		70-130
2-Hexanone	10	NA	8.60	86	-	-	-		70-130
Dibromochloromethane	10	NA	8.56	86	-	-	-		70-130
1,2-Dibromoethane	10	NA	8.81	88	-	-	-		70-130
Butyl Acetate	10	NA	7.89	79	-	-	-		70-130
Octane	10	NA	8.04	80	-	-	-		70-130
Tetrachloroethene	10	NA	8.47	85	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	8.07	81	-	-	-		70-130
Chlorobenzene	10	NA	8.95	90	-	-	-		70-130
Ethylbenzene	10	NA	8.98	90	-	-	-		70-130
p/m-Xylene	20	NA	18.1	90	-	-	-		70-130
Bromoform	10	NA	8.68	87	-	-	-		70-130
Styrene	10	NA	9.19	92	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.49	95	-	-	-		70-130
o-Xylene	10	NA	9.39	94	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	8.43	84	-	-	-		70-130
Nonane	10	NA	8.24	82	-	-	-		70-130
Isopropylbenzene	10	NA	6.50	65 *	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1430876 Matrix: Air
Lab Control Sample: WG751505-3LCS Injected: 12/23/14 12:54 Lab File ID: R231817

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	8.38	84	-	-	-		70-130
2-Chlorotoluene	10	NA	8.24	82	-	-	-		70-130
n-Propylbenzene	10	NA	8.43	84	-	-	-		70-130
4-Chlorotoluene	10	NA	8.32	83	-	-	-		70-130
4-Ethyltoluene	10	NA	8.88	89	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.30	93	-	-	-		70-130
tert-Butylbenzene	10	NA	8.75	88	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.76	98	-	-	-		70-130
Decane	10	NA	8.54	85	-	-	-		70-130
Benzyl chloride	10	NA	9.64	96	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.56	96	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.53	95	-	-	-		70-130
sec-Butylbenzene	10	NA	8.71	87	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.12	81	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	9.71	97	-	-	-		70-130
n-Butylbenzene	10	NA	9.18	92	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.04	90	-	-	-		70-130
Undecane	10	NA	9.16	92	-	-	-		70-130
Dodecane	10	NA	10.4	104	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	10.7	107	-	-	-		70-130
Naphthalene	10	NA	10.3	103	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	9.92	99	-	-	-		70-130
Hexachlorobutadiene	10	NA	9.79	98	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG751505-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID: R231819 Lab Sample ID: WG751505-4

Date Analyzed: 12/23/14 Time Analyzed: 14:23

Instrument ID: AIRPIANO2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG751505-3LCS	WG751505-3	R231817	12/23/14 12:54
02	CAN 858 SHELF 14	L1430876-01	R231821	12/23/14 15:38
03	CAN 1590 SHELF 40	L1430876-02	R231822	12/23/14 16:10
04	CAN 966 SHELF 41	L1430876-03	R231823	12/23/14 16:42

COMMENTS: _____

FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG751505-4	Date Collected	: NA
Client ID	: WG751505-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/23/14 14:23
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231819	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	158431	10.000	ppbV	0.00
Standard Area = 179805			Recovery =	88.11%		
43) 1,4-difluorobenzene	12.549	114	553890	10.000	ppbV	0.00
Standard Area = 648252			Recovery =	85.44%		
67) chlorobenzene-D5	16.888	54	103647	10.000	ppbV	0.00
Standard Area = 122515			Recovery =	84.60%		
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	4.350		0	N.D.		
4) propane	4.399		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.941	31	2513	0.491	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.217		0	N.D.		
13) bromomethane	5.534		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.062	31	1609	0.148	ppbV #	85
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	6.509		0	N.D.		
19) acetone	6.709	43	2523M3	0.115	ppbV	
20) acetonitrile	0.000		0	N.D.	d	
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.	d	
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.325		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.844	49	1583	0.095	ppbV	89
29) 3-chloropropene	7.964		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.331		0		N.D.	
36) 2-butanone	9.750		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	12.166		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	0.000		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	13.637		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	14.416		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.334		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.514		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	0.000		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0	N.D.		
79) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.222		0	N.D.		
83) m+p-xylene	17.350		0	N.D.		
84) bromoform	0.000		0	N.D.		
85) styrene	17.646		0	N.D.		
86) 1,1,2,2-tetrachloroethane	17.731		0	N.D.		
87) o-xylene	17.727		0	N.D.		
88) 1,2,3-trichloropropane	0.000		0	N.D.		
89) nonane	17.855		0	N.D.		
91) isopropylbenzene	18.160		0	N.D.		
92) bromobenzene	18.246		0	N.D.		
93) 2-chlorotoluene	18.527		0	N.D.		
94) n-propylbenzene	18.536		0	N.D.		
95) 4-chlorotoluene	18.574		0	N.D.		
96) 4-ethyl toluene	18.617		0	N.D.		
97) 1,3,5-trimethylbenzene	18.688		0	N.D.		
98) tert-butylbenzene	18.998		0	N.D.		
99) 1,2,4-trimethylbenzene	19.003		0	N.D.		
100) decane	0.000		0	N.D.		
101) Benzyl Chloride	19.117		0	N.D.		
102) 1,3-dichlorobenzene	19.132		0	N.D.		
103) 1,4-dichlorobenzene	19.175		0	N.D.		
104) sec-butylbenzene	19.203		0	N.D.		
106) p-isopropyltoluene	19.313		0	N.D.		
107) 1,2-dichlorobenzene	19.446		0	N.D.		
108) n-butylbenzene	19.632		0	N.D.		
111) 1,2-dibromo-3-chloropr...	19.789		0	N.D.		
112) undecane	20.036		0	N.D.		
114) dodecane	20.861		0	N.D.		
115) 1,2,4-trichlorobenzene	20.861		0	N.D.		
116) naphthalene	21.032	128	7742M3	0.093	ppbV	
117) 1,2,3-trichlorobenzene	21.257	180	1596	0.051	ppbV #	42
119) hexachlorobutadiene	21.290		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

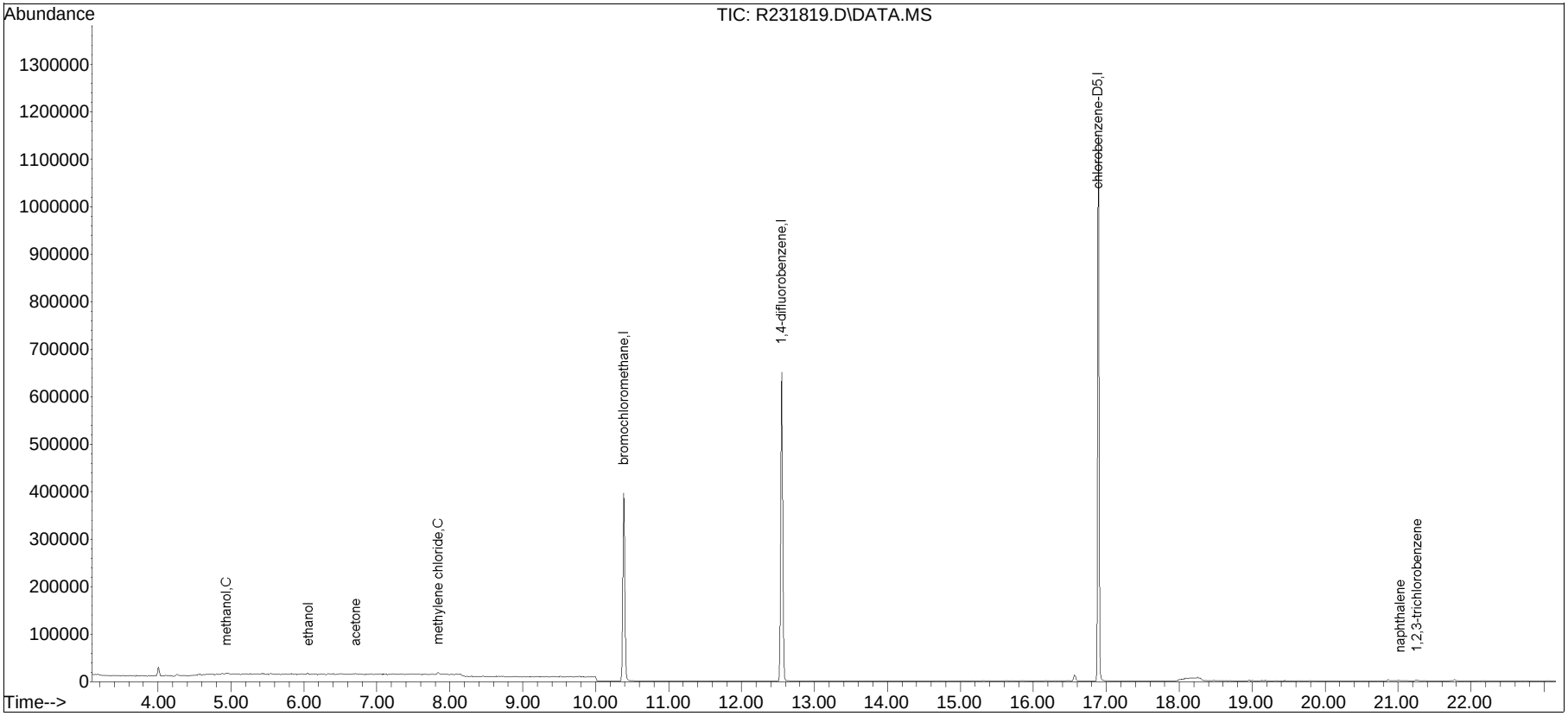
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

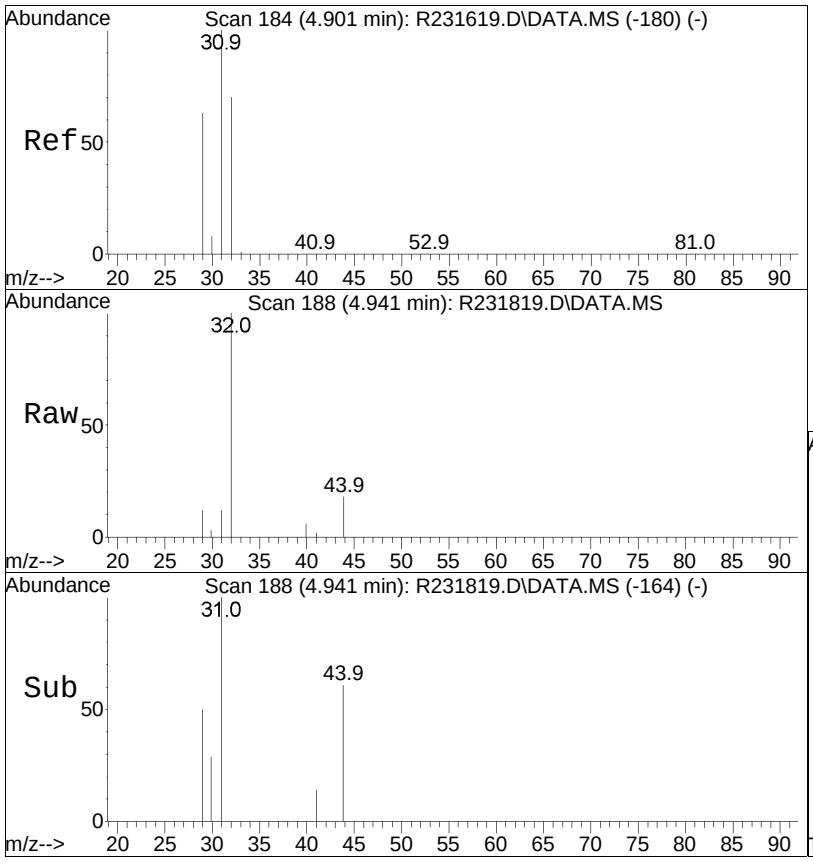
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:RY
Sample : WG751505-4,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 14:51:35 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

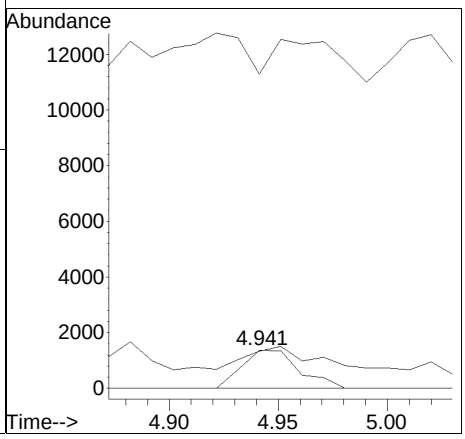


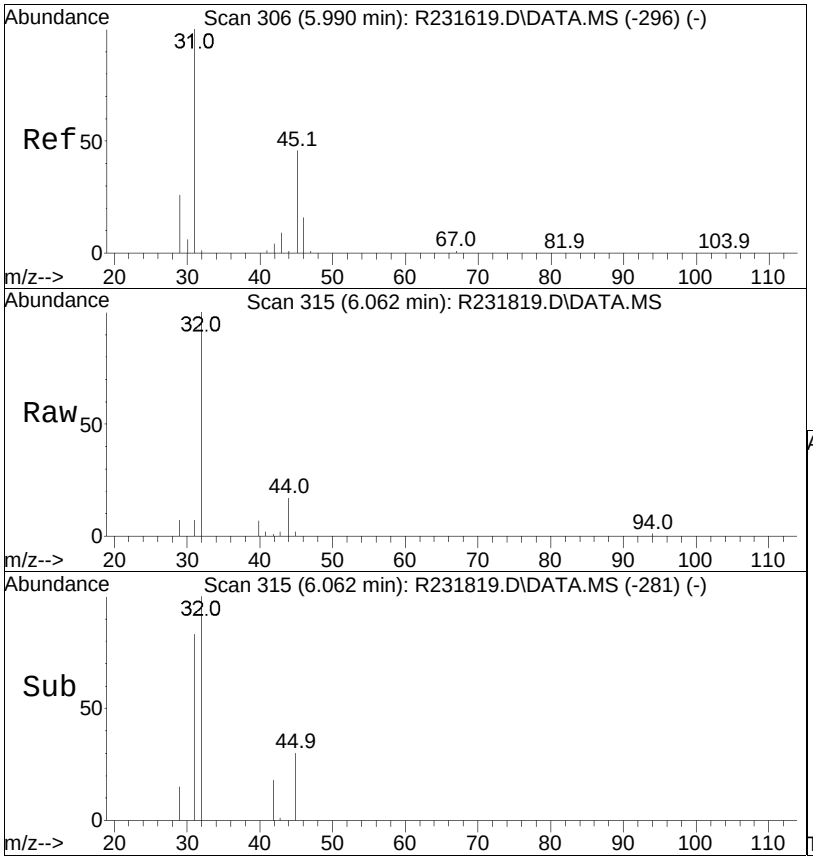


#8
methanol
Concen: 0.49 ppbV
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 31 Resp: 2513

Ion	Ratio	Lower	Upper
31	100		
32	828.9	63.3	94.9#
29	98.1	57.9	86.9#

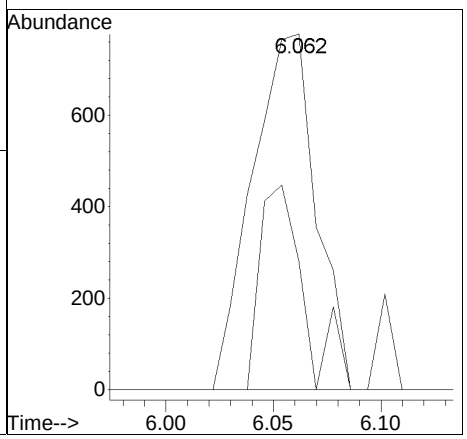


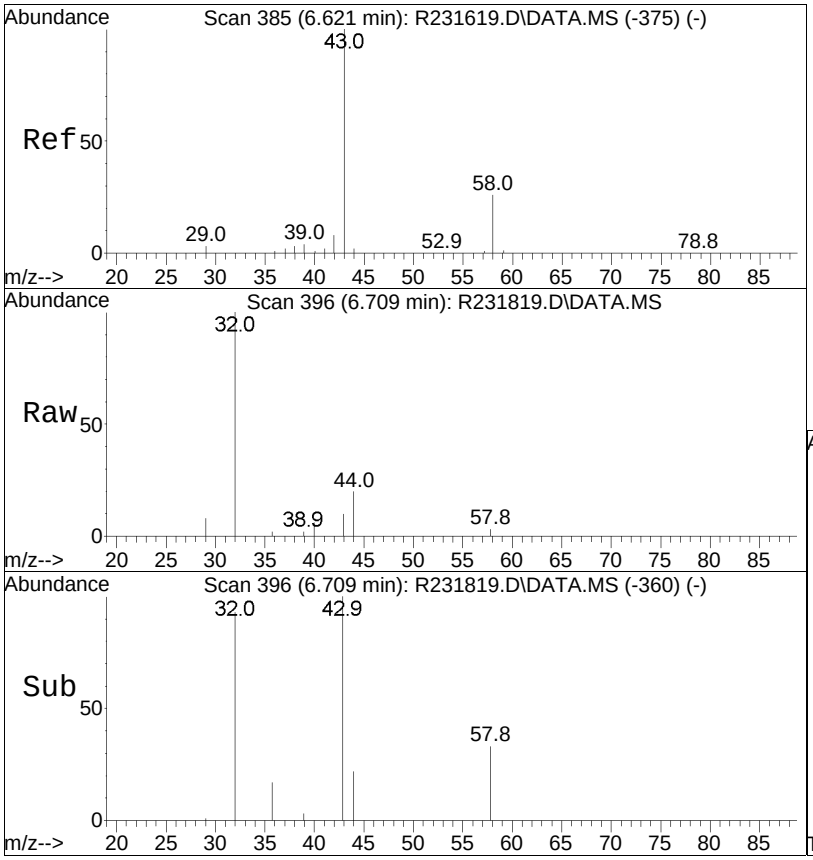


#15
ethanol
Concen: 0.15 ppbV
RT: 6.062 min Scan# 315
Delta R.T. 0.072 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 31 Resp: 1609

Ion	Ratio	Lower	Upper
31	100		
45	36.0	36.8	55.2#

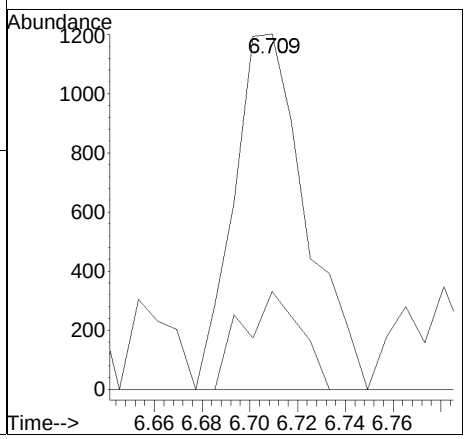


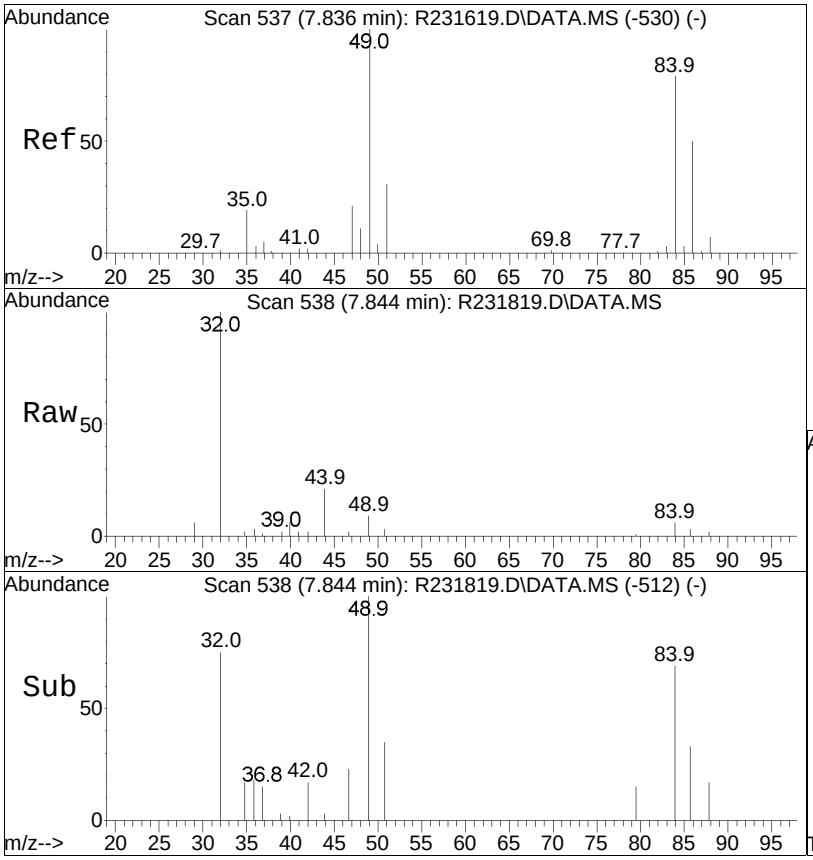


#19
acetone
Concen: 0.12 ppbV m
RT: 6.709 min Scan# 396
Delta R.T. 0.088 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 43 Resp: 2523

Ion	Ratio	Lower	Upper
43	100		
58	27.5	20.6	31.0
57	0.0	0.6	1.0#

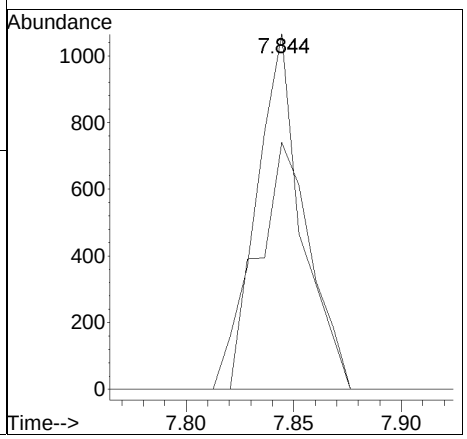


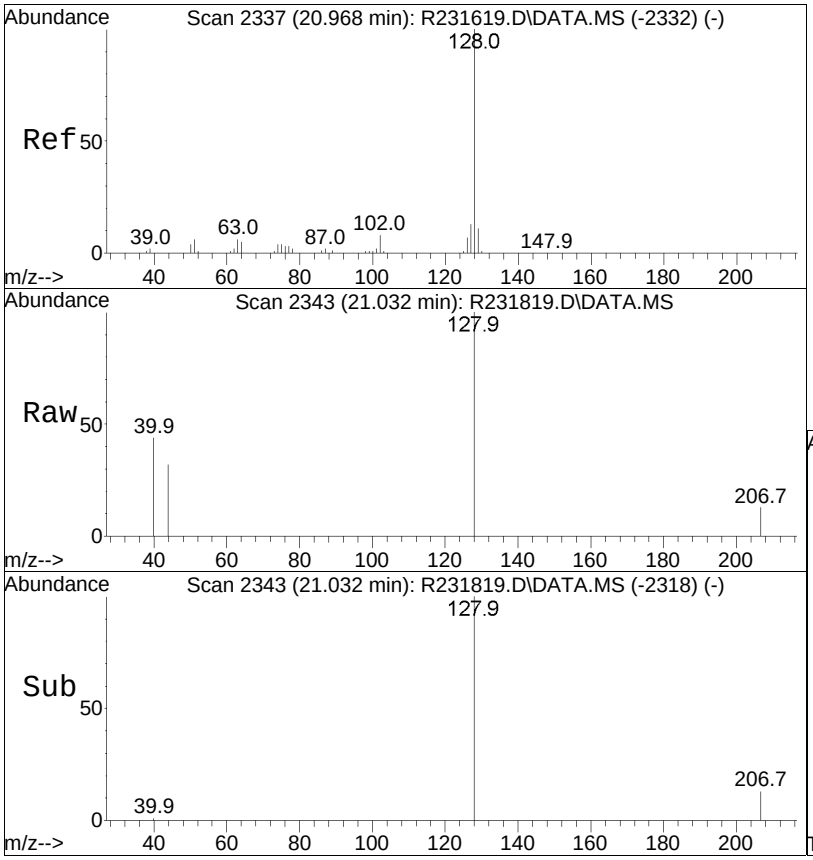


#28
methylene chloride
Concen: 0.09 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion: 49 Resp: 1583

Ion	Ratio	Lower	Upper
49	100		
84	69.5	63.3	94.9

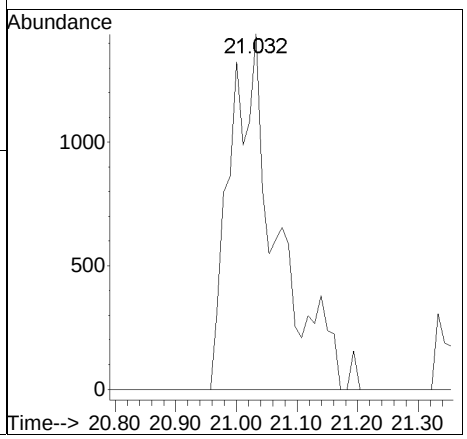


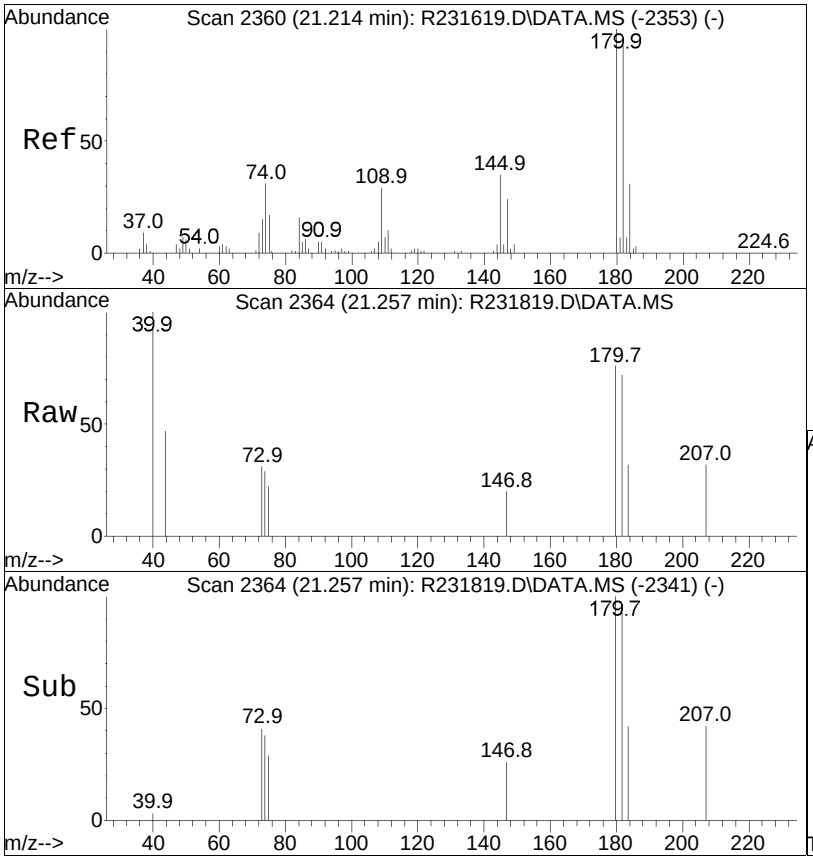


#116
naphthalene
Concen: 0.09 ppbV m
RT: 21.032 min Scan# 2343
Delta R.T. 0.065 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion:128 Resp: 7742

Ion	Ratio	Lower	Upper
128	100		
102	0.0	6.7	10.1#

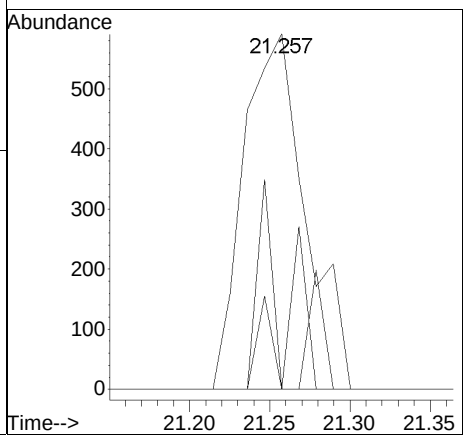




#117
1,2,3-trichlorobenzene
Concen: 0.05 ppbV
RT: 21.257 min Scan# 2364
Delta R.T. 0.043 min
Lab File: R231819.D
Acq: 23 Dec 2014 2:23 pm

Tgt Ion:180 Resp: 1596

Ion	Ratio	Lower	Upper
180	100		
145	0.0	28.2	42.4#
109	0.0	23.5	35.3#

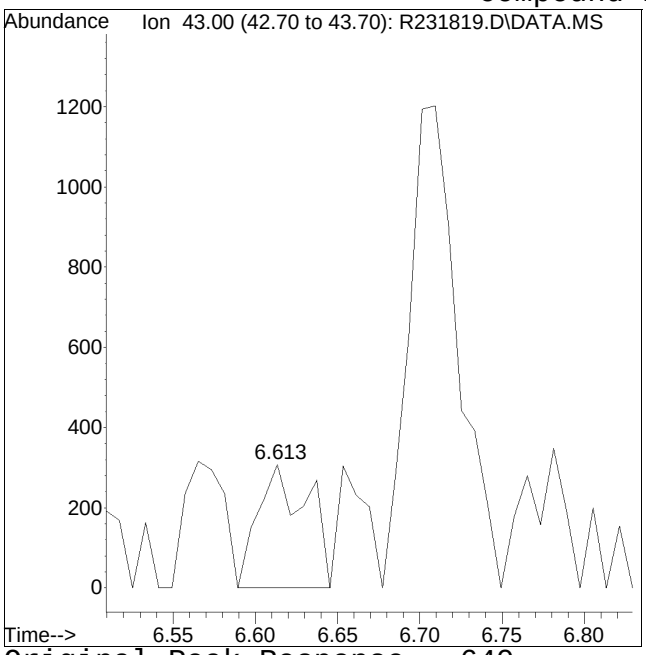


Manual Integration/Negative Proof Report

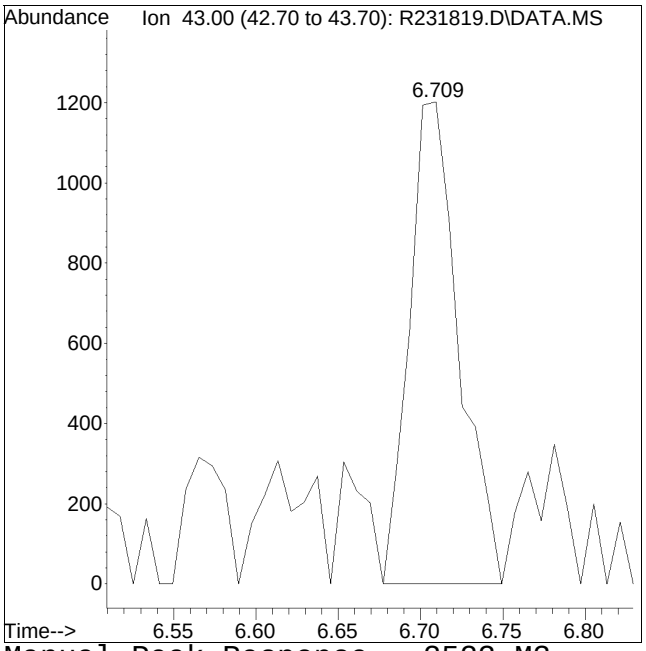
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #19: acetone



Original Peak Response = 640



Manual Peak Response = 2523 M3

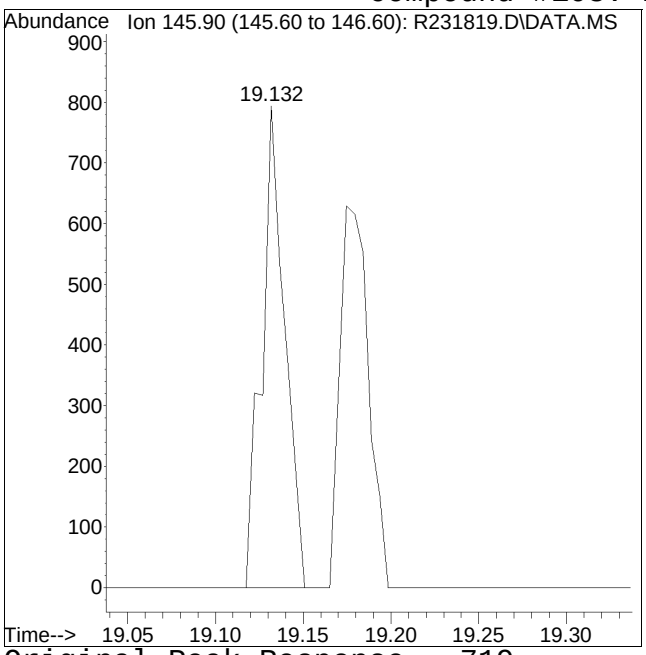
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

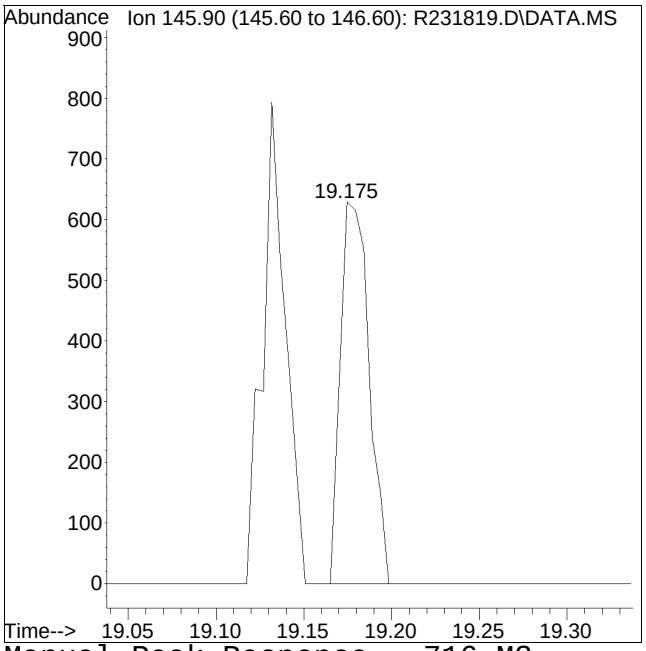
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 719



Manual Peak Response = 716 M3

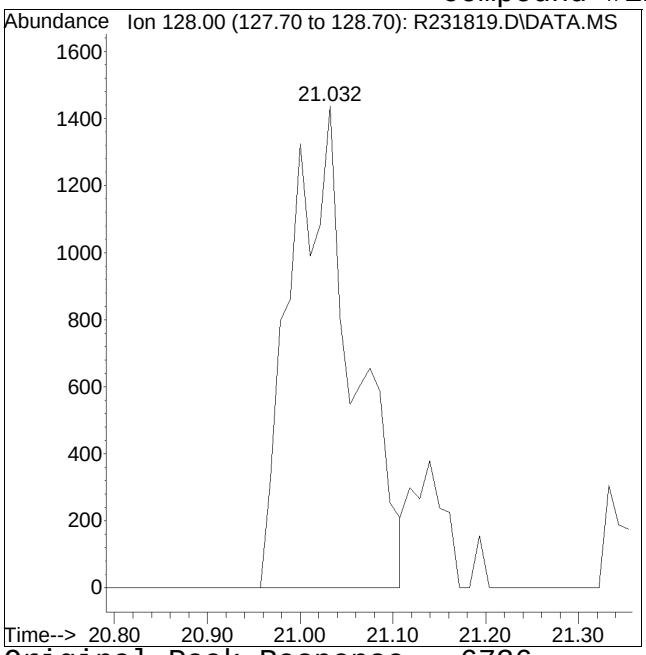
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

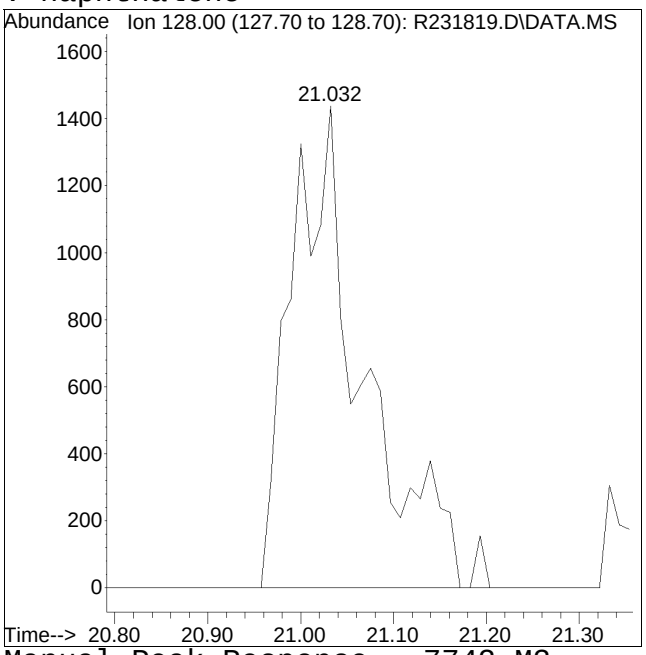
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231819.D
Date Inj'd : 12/23/2014 2:23 pm
Sample : WG751505-4,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:RY
Instrument : Air Piano 2
Quant Date : 12/23/2014 2:50 pm

Compound #116: naphthalene





Original Peak Response = 6736 Manual Peak Response = 7742 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1430876
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	WG751505-4	Date Collected	:	NA
Client ID	:	WG751505-4BLANK	Date Received	:	NA
Sample Location	:		Date Analyzed	:	12/23/14 14:23
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R231819	Instrument ID	:	AIRPIANO2
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231819.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.261	116	119	122	rBV	4198	8455	0.54%	0.231%
2	4.557	147	149	150	rBV2	2392	3721	0.24%	0.102%
3	4.803	172	174	177	rBV2	2920	4346	0.28%	0.119%
4	4.882	180	182	183	rBV2	3036	2670	0.17%	0.073%
5	7.836	534	537	542	rBV4	4777	9932	0.64%	0.271%
6	8.092	565	569	570	rBV2	2529	3968	0.25%	0.108%
7	9.880	816	819	823	rBV2	1898	3754	0.24%	0.103%
8	10.386	871	876	886	rBV	396270	757003	48.49%	20.680%
9	10.499	886	888	892	rVB2	1164	2164	0.14%	0.059%
10	10.799	918	920	926	rBV2	693	2280	0.15%	0.062%
11	12.549	1088	1093	1106	rVB	650419	1216131	77.91%	33.222%
12	14.665	1263	1266	1268	rBV2	869	2534	0.16%	0.069%
13	15.334	1334	1340	1343	rVB2	908	1838	0.12%	0.050%
14	15.641	1370	1374	1375	rBV2	1178	2055	0.13%	0.056%
15	16.156	1427	1431	1433	rBV2	933	2037	0.13%	0.056%
16	16.563	1473	1476	1481	rVB2	12984	31622	2.03%	0.864%
17	16.888	1530	1537	1554	rBV	1151045	1561039	100.00%	42.644%
18	17.974	1761	1765	1767	rBV	1921	2179	0.14%	0.060%
19	17.998	1767	1770	1771	rBV	2424	1880	0.12%	0.051%
20	18.074	1783	1786	1787	rVV	2300	1976	0.13%	0.054%
21	18.136	1797	1799	1801	rBV2	1575	1593	0.10%	0.044%
22	18.250	1820	1823	1826	rVB4	2165	1690	0.11%	0.046%
23	18.474	1866	1870	1872	rBV	1659	1732	0.11%	0.047%
24	18.956	1962	1969	1970	rBV4	2366	2201	0.14%	0.060%
25	19.003	1974	1979	1983	rBV2	1995	2047	0.13%	0.056%
26	19.132	2003	2006	2011	rVV3	1987	1797	0.12%	0.049%
27	19.175	2013	2015	2025	rVB4	2014	3249	0.21%	0.089%
28	19.446	2069	2072	2076	rVB3	2100	1885	0.12%	0.051%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.861	2324	2327	2329	rBV2	3905	5351	0.34%	0.146%
30	21.000	2336	2340	2342	rBV3	1723	3377	0.22%	0.092%
31	21.247	2360	2363	2370	rVB4	2601	6990	0.45%	0.191%
32	21.772	2409	2412	2419	rVB5	2959	7124	0.46%	0.195%

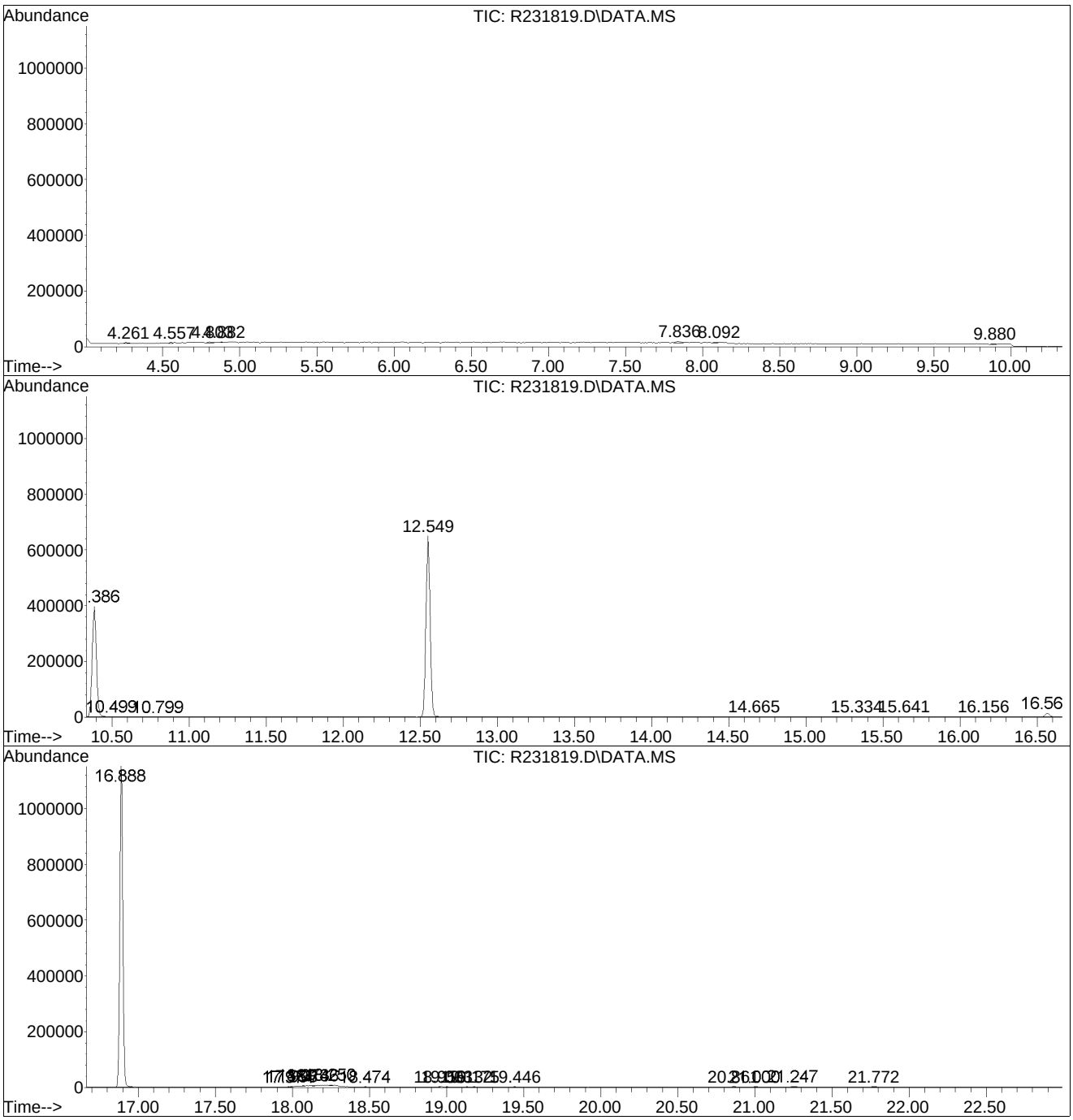
Sum of corrected areas: 3660620

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231819.D
Acq On : 23 Dec 2014 2:23 pm
Operator : AIRPIANO2:MB
Sample : WG751505-4,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID: R231611_tune BFB Injection Date: 12/14/14

Instrument ID: AIRPIANO2 BFB Injection Time: 10:25

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	19.4
75	30.0 - 66.0% of mass 95	51
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	84.4
175	4.0 - 9.0% of mass 174	6.2 (7.3)1
176	93.0 - 101% of mass 174	82.2 (97.4)1
177	5.0 - 9.0% of mass 176	5.2 (6.3)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R231615	12/14/14	14:35
02	0.5	0.5	R231616	12/14/14	15:07
03	1.0	1.0	R231617	12/14/14	15:39
04	5.0	5.0	R231618	12/14/14	16:10
05	10	10	R231619	12/14/14	16:42
06	20	20	R231620	12/14/14	17:14
07	50	50	R231621	12/14/14	17:45
08	100	100	R231622	12/14/14	18:17
09	ICV Quant	ICV Quant	R231625	12/15/14	08:05

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID: R231814_tune BFB Injection Date: 12/23/14

Instrument ID: AIRPIANO2 BFB Injection Time: 10:51

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	20
75	30.0 - 66.0% of mass 95	50.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	79.2
175	4.0 - 9.0% of mass 174	5.8 (7.4)1
176	93.0 - 101% of mass 174	78.1 (98.6)1
177	5.0 - 9.0% of mass 176	5.2 (6.7)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG751505-2	R231816	12/23/14	12:06
02	WG751505-3LCS	WG751505-3	R231817	12/23/14	12:54
03	WG751505-4BLANK	WG751505-4	R231819	12/23/14	14:23
04	CAN 858 SHELF 14	L1430876-01	R231821	12/23/14	15:38
05	CAN 1590 SHELF 4	L1430876-02	R231822	12/23/14	16:10
06	CAN 966 SHELF 41	L1430876-03	R231823	12/23/14	16:42

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Lab File ID (Standard): R231816 Date Analyzed: 12/23/14

Instrument ID : AIRPIANO2 Time Analyzed: 12:06

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	179805	10.38	648252	12.55	122515	16.89
	UPPER LIMIT	251727	10.71	907553	12.88	171521	17.22
	LOWER LIMIT	107883	10.05	388951	12.22	73509	16.56
	EPA SAMPLE NO.						
01	WG751505-3LCS	216073	10.38	777605	12.55	147246	16.89
02	WG751505-4BLANK	158431	10.39	553890	12.55	103647	16.89
03	CAN 858 SHELF 14	166118	10.39	593782	12.55	110360	16.89
04	CAN 1590 SHELF 40	160187	10.39	583030	12.55	108212	16.89
05	CAN 966 SHELF 41	159525	10.39	564007	12.55	104680	16.89

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-01	Date Collected	: 12/19/14 19:12
Client ID	: CAN 858 SHELF 14	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 15:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231821	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	166118	10.000	ppbV	0.00
Standard Area = 179805			Recovery = 92.39%			
43) 1,4-difluorobenzene	12.549	114	593782	10.000	ppbV	0.00
Standard Area = 648252			Recovery = 91.60%			
67) chlorobenzene-D5	16.893	54	110360	10.000	ppbV	0.00
Standard Area = 122515			Recovery = 90.08%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.300		0	N.D.		
3) propylene	4.330		0	N.D.		
4) propane	0.000		0	N.D.	d	
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.941	31	2552	0.475	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.247		0	N.D.		
13) bromomethane	5.534		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.054	31	1428	0.125	ppbV	90
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.709	43	2563M3	0.112	ppbV	
20) acetonitrile	6.261		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.037		0	N.D.		
23) acrylonitrile	7.269		0	N.D.		
24) pentane	7.317		0	N.D.		
25) ethyl ether	7.493		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.836	49	1712	0.098	ppbV	100
29) 3-chloropropene	8.004		0	N.D.		
30) carbon disulfide	8.164		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.420		0		N.D.	
36) 2-butanone	9.715		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	12.145		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	13.046		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	0.000		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.324		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.568		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	0.000		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.869		0		N.D.	
91) isopropylbenzene	18.141		0		N.D.	
92) bromobenzene	18.241		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	18.579		0		N.D.	
96) 4-ethyl toluene	18.507		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	19.008		0		N.D.	
99) 1,2,4-trimethylbenzene	19.013		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	19.117		0		N.D.	
102) 1,3-dichlorobenzene	19.127		0		N.D.	
103) 1,4-dichlorobenzene	19.179		0		N.D.	
104) sec-butylbenzene	19.322		0		N.D.	
106) p-isopropyltoluene	19.313		0		N.D.	
107) 1,2-dichlorobenzene	19.446		0		N.D.	
108) n-butylbenzene	19.641		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	21.075		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

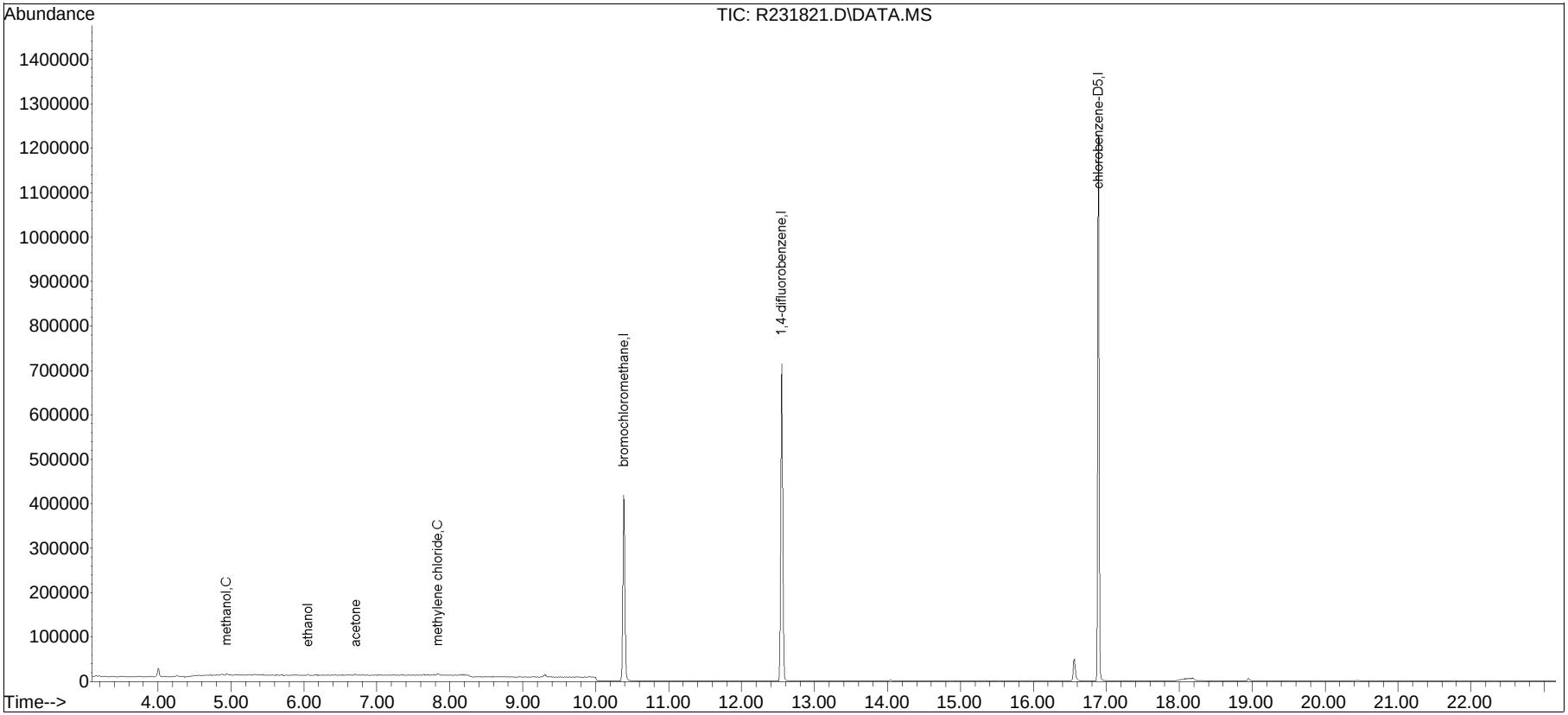
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

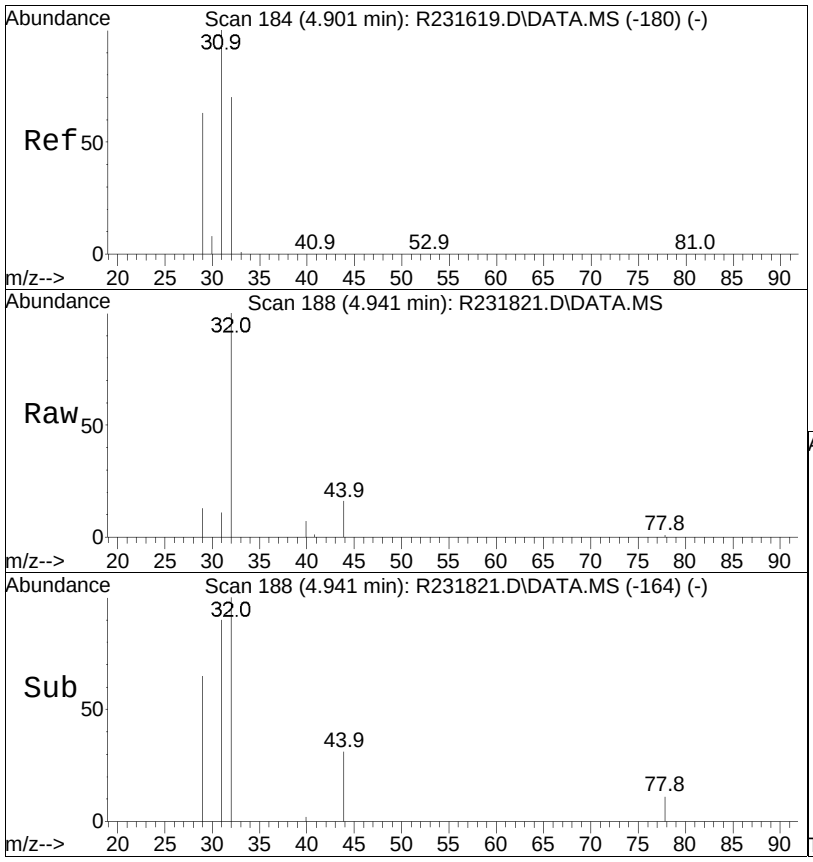
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 09:27:01 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

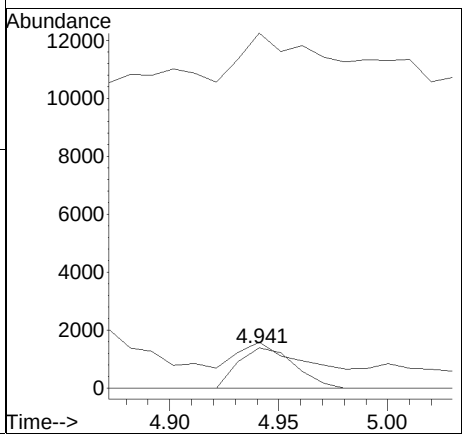


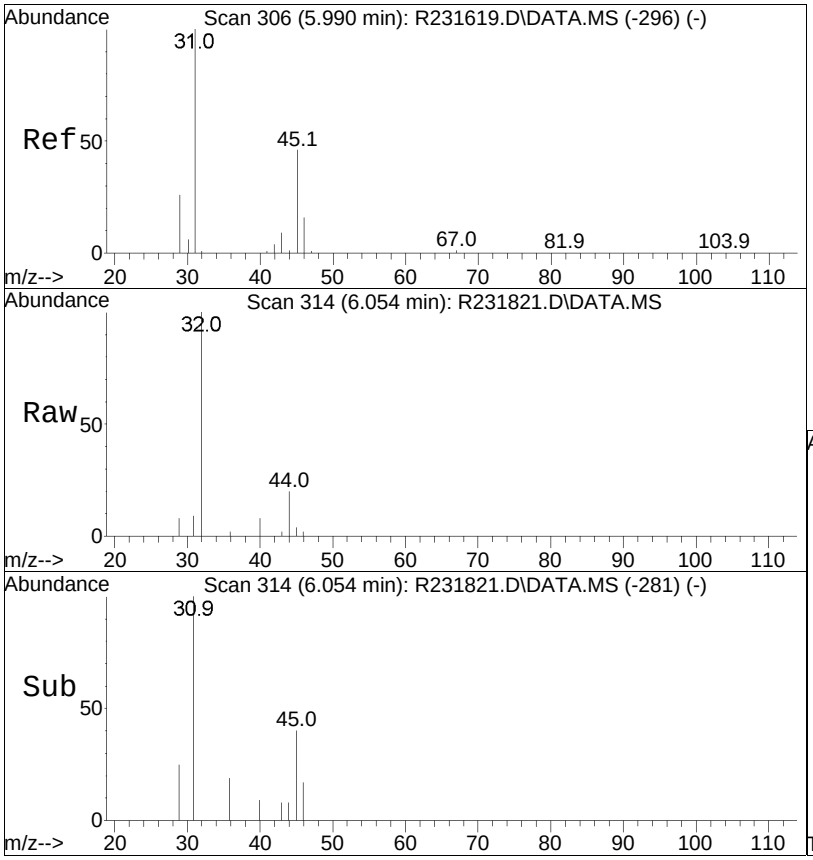


#8
methanol
Concen: 0.48 ppbV
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 31 Resp: 2552

Ion	Ratio	Lower	Upper
31	100		
32	876.1	63.3	94.9#
29	114.2	57.9	86.9#

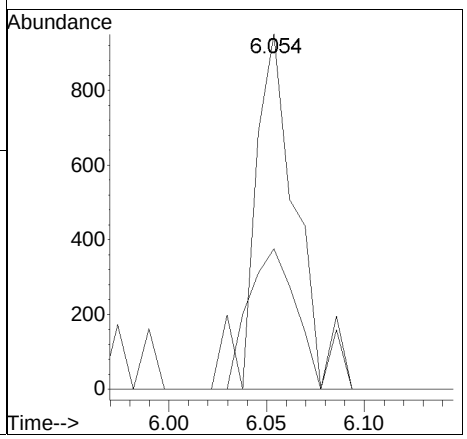


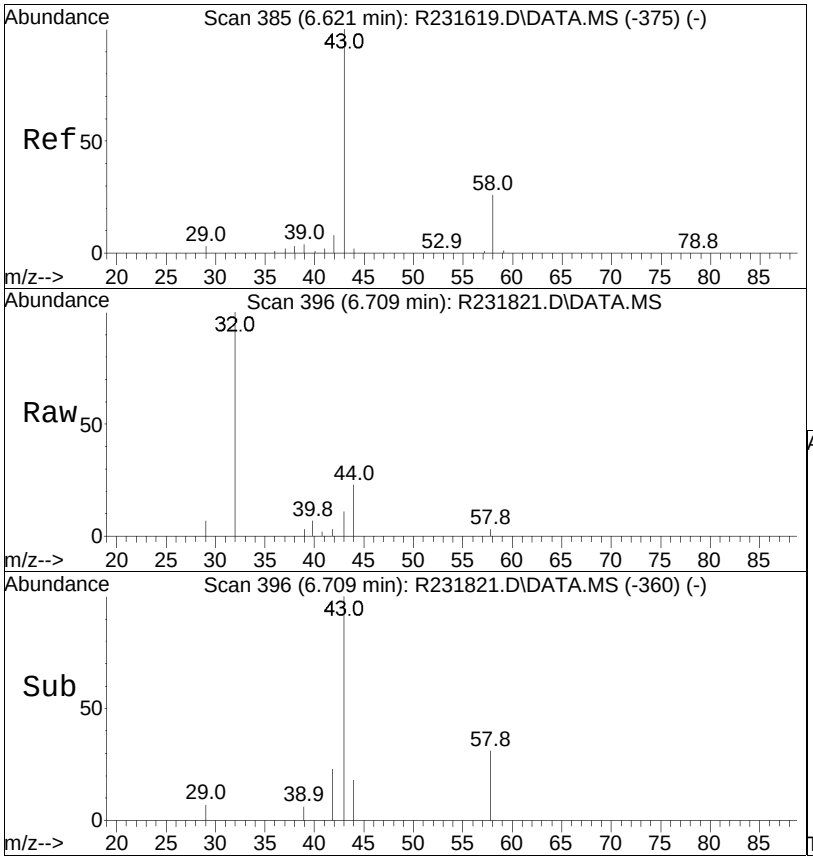


#15
ethanol
Concen: 0.13 ppbV
RT: 6.054 min Scan# 314
Delta R.T. 0.064 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 31 Resp: 1428

Ion	Ratio	Lower	Upper
31	100		
45	39.5	36.8	55.2

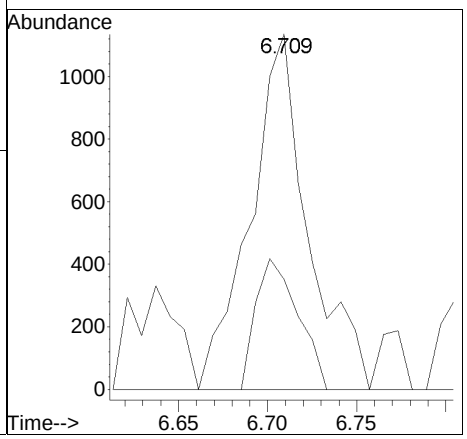


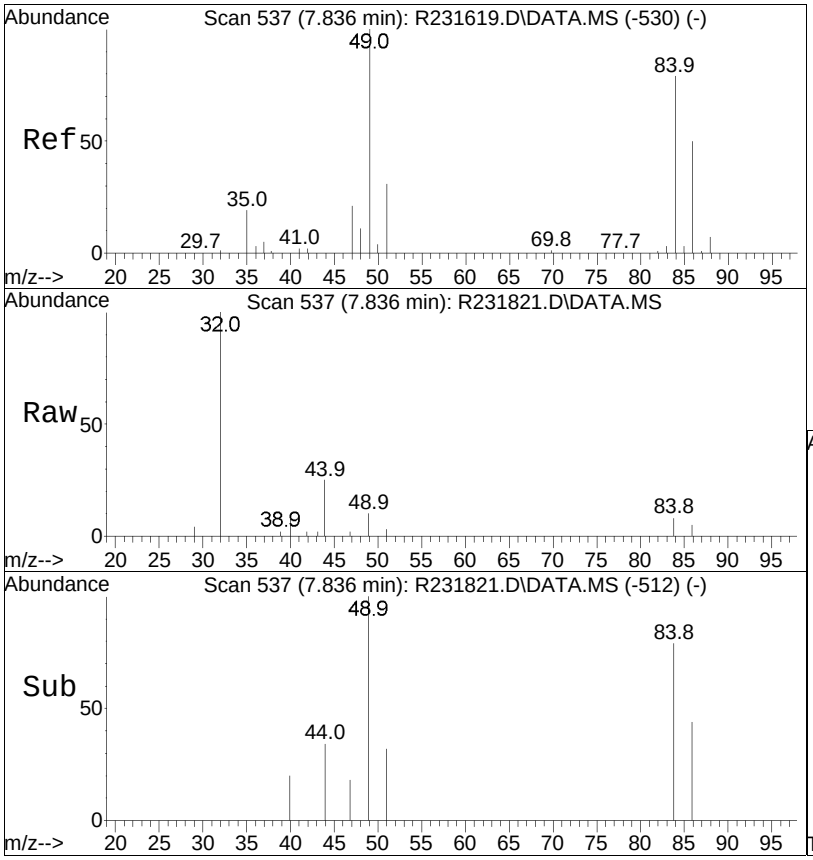


#19
acetone
Concen: 0.11 ppbV m
RT: 6.709 min Scan# 396
Delta R.T. 0.088 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 43 Resp: 2563

Ion	Ratio	Lower	Upper
43	100		
58	31.0	20.6	31.0#
57	0.0	0.6	1.0#

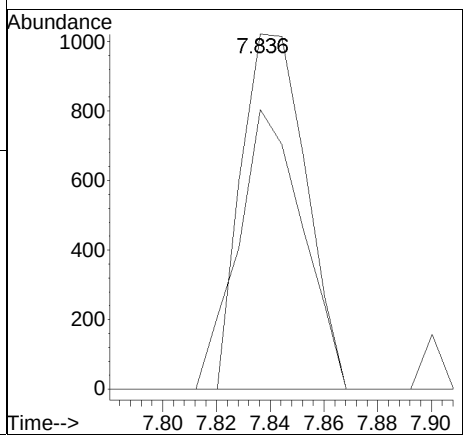




#28
methylene chloride
Concen: 0.10 ppbV
RT: 7.836 min Scan# 537
Delta R.T. 0.000 min
Lab File: R231821.D
Acq: 23 Dec 2014 3:38 pm

Tgt Ion: 49 Resp: 1712

Ion	Ratio	Lower	Upper
49	100		
84	78.7	63.3	94.9

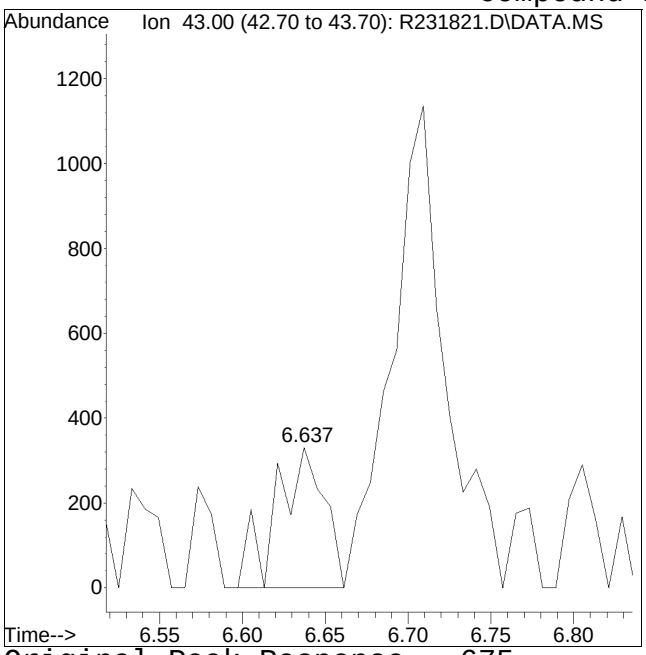


Manual Integration/Negative Proof Report

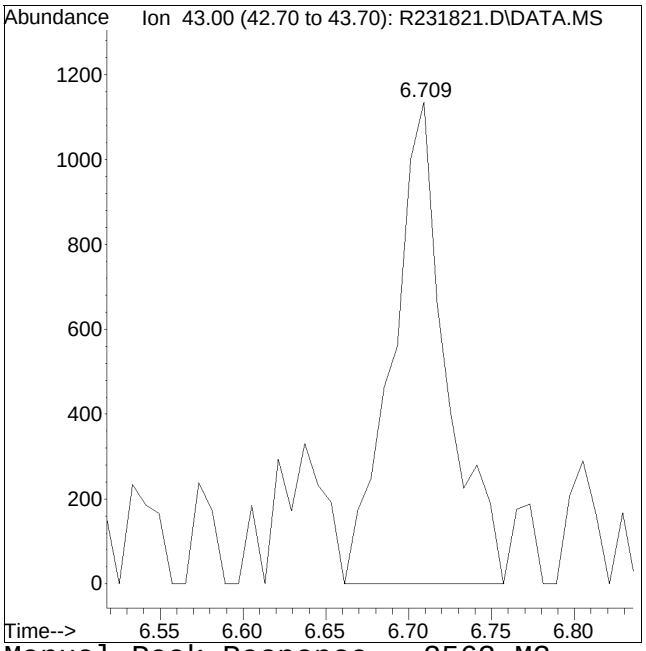
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231821.D
Date Inj'd : 12/23/2014 3:38 pm
Sample : L1430876-01,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:42 am

Compound #19: acetone



Original Peak Response = 675



Manual Peak Response = 2563 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1430876
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1430876-01	Date Collected	:	12/19/14 19:12
Client ID	:	CAN 858 SHELF 14	Date Received	:	12/22/14
Sample Location	:		Date Analyzed	:	12/23/14 15:38
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R231821	Instrument ID	:	AIRPIANO2
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231821.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.261	117	119	122	rVB	2563	3089	0.18%	0.078%
2	4.616	153	155	160	rBV3	2130	5206	0.31%	0.131%
3	4.941	186	188	192	rBV	4309	7587	0.45%	0.190%
4	6.054	312	314	317	rVB3	2512	3149	0.19%	0.079%
5	6.701	393	395	399	rVB2	2928	4181	0.25%	0.105%
6	8.212	582	584	588	rVB2	2555	3071	0.18%	0.077%
7	9.304	730	735	742	rVB2	6214	12643	0.75%	0.317%
8	10.386	871	876	887	rBV	419182	794326	47.11%	19.936%
9	12.549	1088	1093	1100	rBV	714112	1315364	78.02%	33.013%
10	14.035	1222	1227	1229	rBV2	2347	6597	0.39%	0.166%
11	16.563	1471	1476	1482	rVB	49643	111987	6.64%	2.811%
12	16.893	1530	1538	1549	rBV	1229743	1685977	100.00%	42.315%
13	18.041	1775	1779	1780	rBV3	1732	1813	0.11%	0.046%
14	18.107	1790	1793	1794	rBV3	2569	1894	0.11%	0.048%
15	18.946	1963	1967	1977	rVB5	6287	11769	0.70%	0.295%
16	20.436	2273	2280	2285	rBV3	1836	3604	0.21%	0.090%
17	21.096	2345	2349	2353	rBV2	996	3032	0.18%	0.076%
18	21.322	2367	2370	2374	rBV2	663	1783	0.11%	0.045%
19	21.761	2409	2411	2414	rVB	1814	3013	0.18%	0.076%
20	21.836	2414	2418	2421	rBV	957	2266	0.13%	0.057%
21	22.586	2485	2488	2491	rBV2	1159	2041	0.12%	0.051%

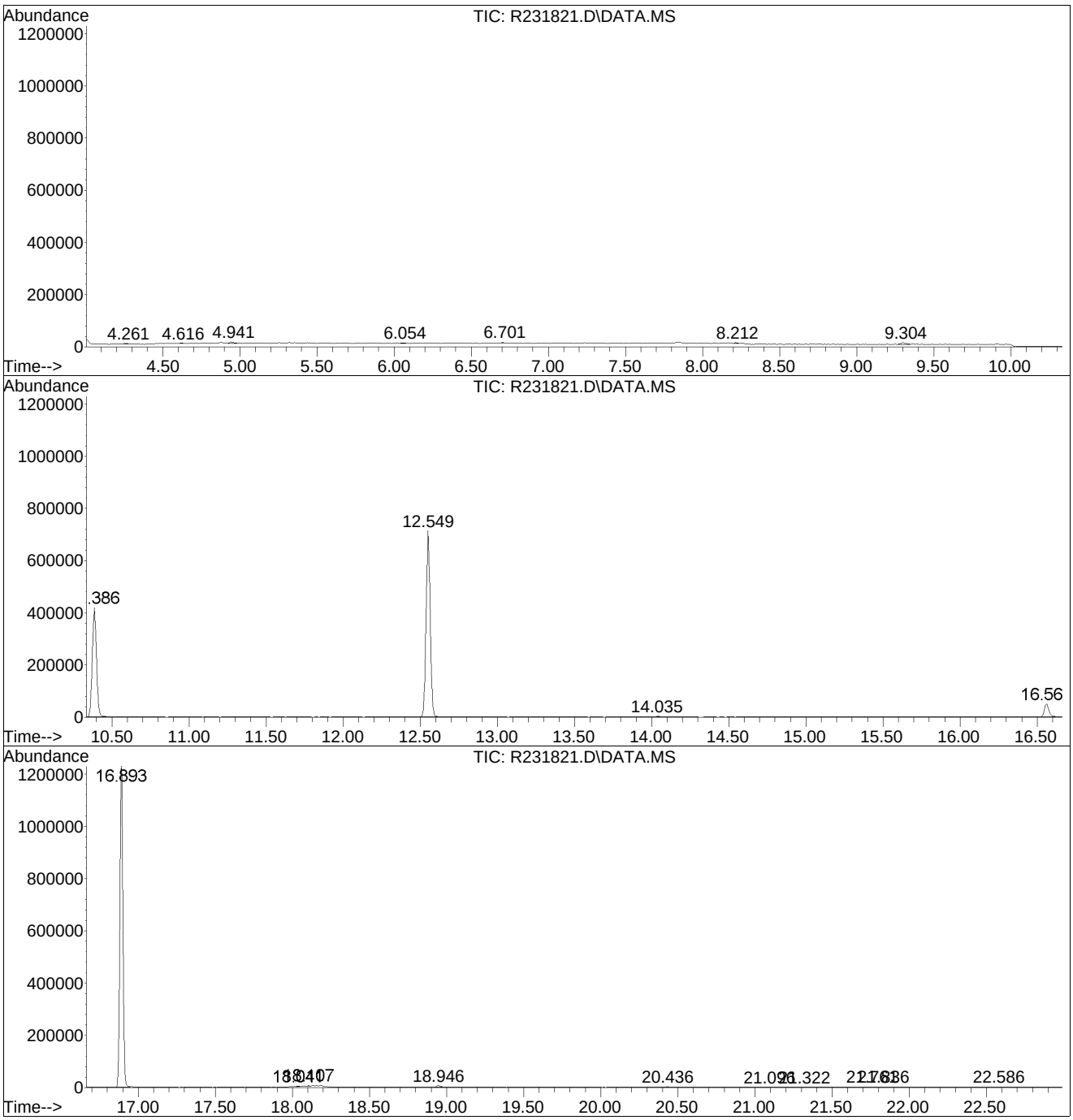
Sum of corrected areas: 3984392

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231821.D
Acq On : 23 Dec 2014 3:38 pm
Operator : AIRPIANO2:MB
Sample : L1430876-01,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	160187	10.000	ppbV	0.00
Standard Area = 179805			Recovery =	89.09%		
43) 1,4-difluorobenzene	12.549	114	583030	10.000	ppbV	0.00
Standard Area = 648252			Recovery =	89.94%		
67) chlorobenzene-D5	16.893	54	108212	10.000	ppbV	0.00
Standard Area = 122515			Recovery =	88.33%		
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	4.350		0	N.D.		
4) propane	0.000		0	N.D.	d	
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.941	31	2491M3	0.481	ppbV	
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.266		0	N.D.		
13) bromomethane	5.558		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.038	31	644	0.059	ppbV #	80
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.701	43	1949M3	0.088	ppbV	
20) acetonitrile	6.278		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.053		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.333		0	N.D.		
25) ethyl ether	7.245		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.844	49	2435	0.144	ppbV #	65
29) 3-chloropropene	7.980		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.427		0		N.D.	
36) 2-butanone	9.640		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	13.047		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	13.399		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	14.336		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.334		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.668		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	0.000		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.846		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	0.000		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	0.000		0		N.D.	
96) 4-ethyl toluene	18.484		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	18.956		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	19.141		0		N.D.	
103) 1,4-dichlorobenzene	19.141		0		N.D.	
104) sec-butylbenzene	0.000		0		N.D.	
106) p-isopropyltoluene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	0.000		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

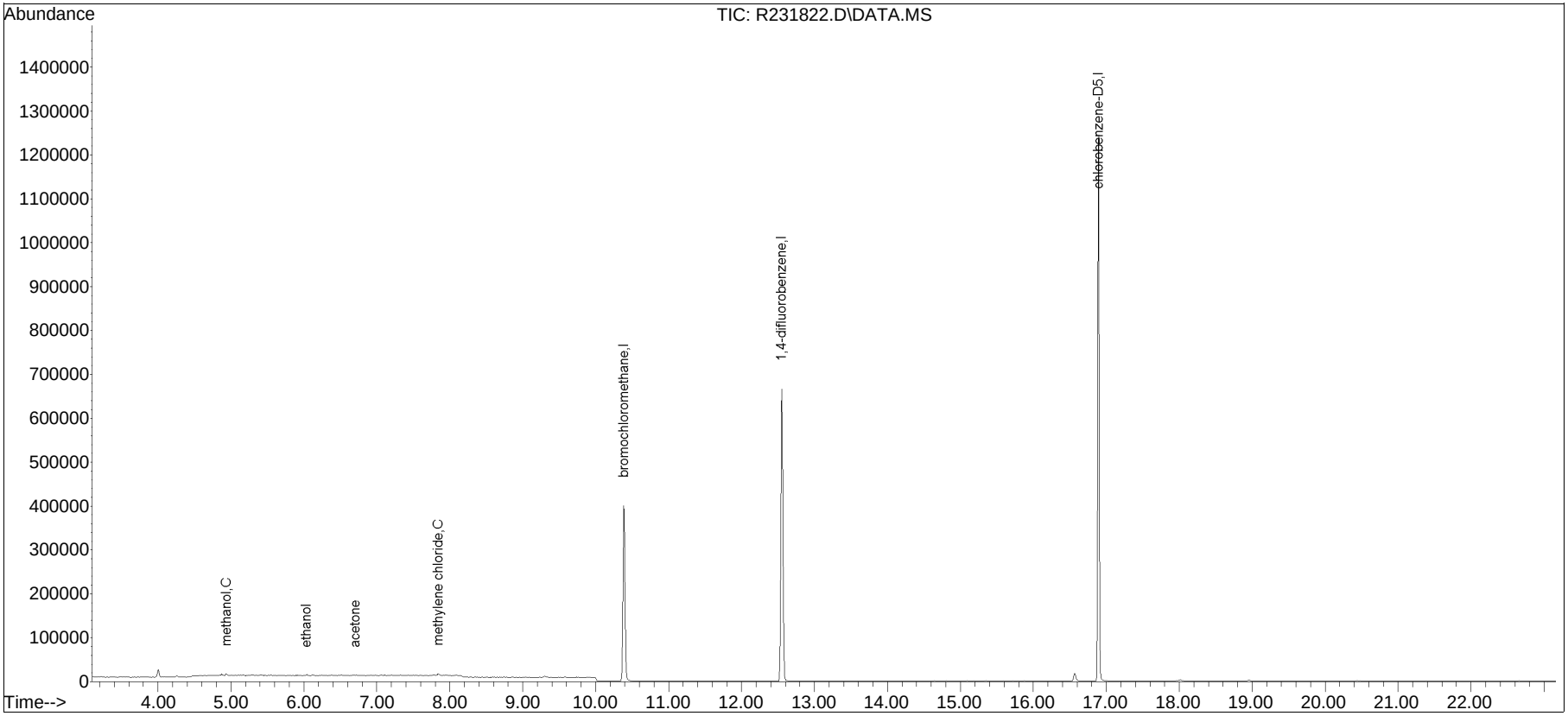
CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

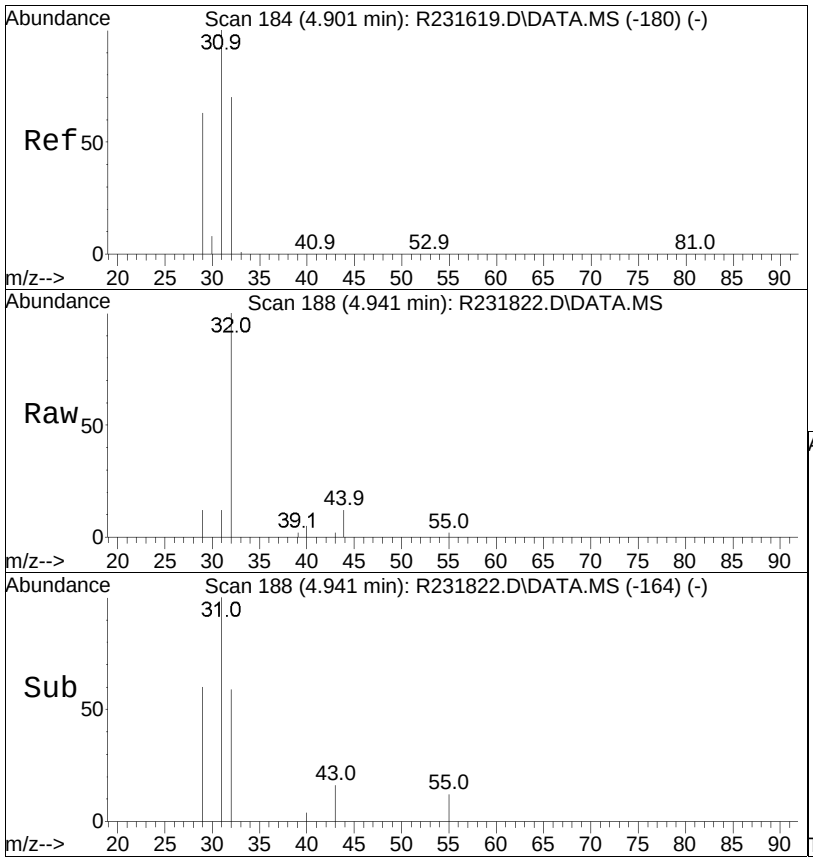
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 24 09:28:40 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

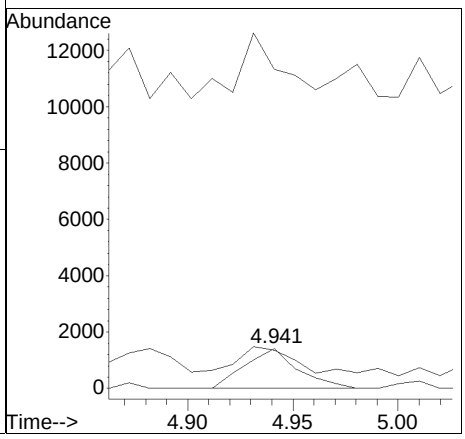


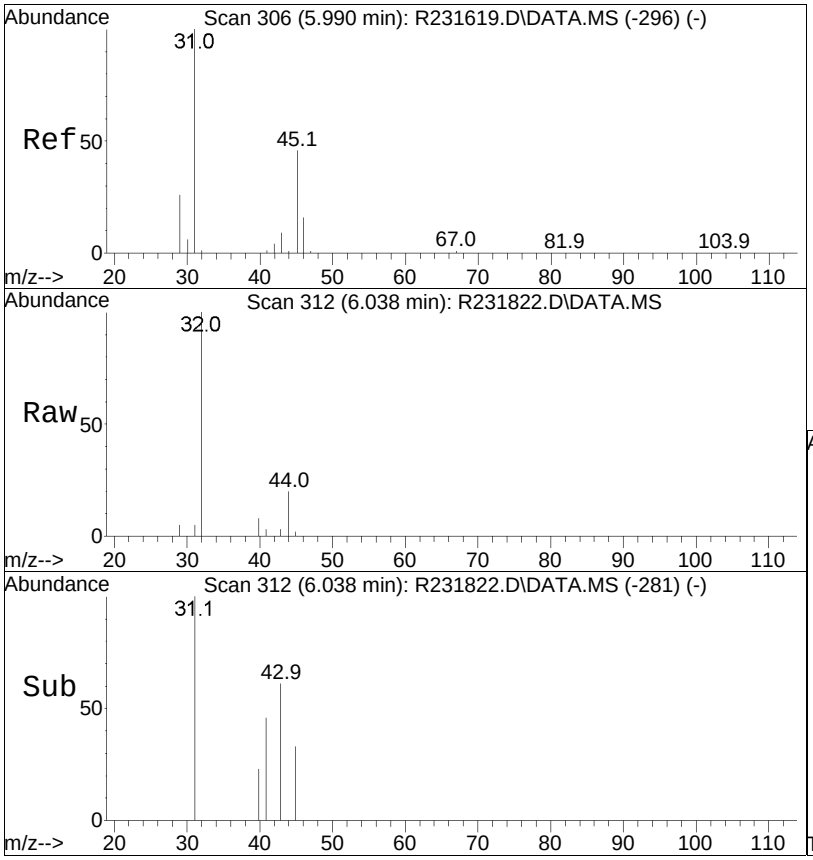


#8
methanol
Concen: 0.48 ppbV m
RT: 4.941 min Scan# 188
Delta R.T. 0.040 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 31 Resp: 2491

Ion	Ratio	Lower	Upper
31	100		
32	801.5	63.3	94.9#
29	95.9	57.9	86.9#

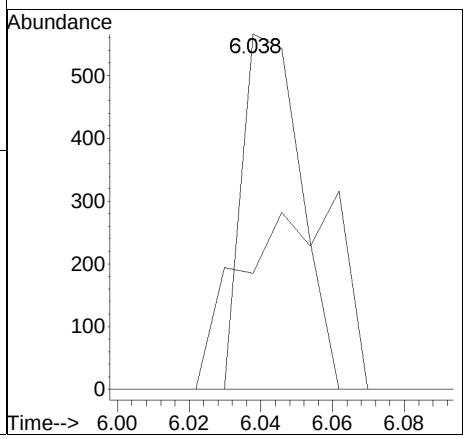


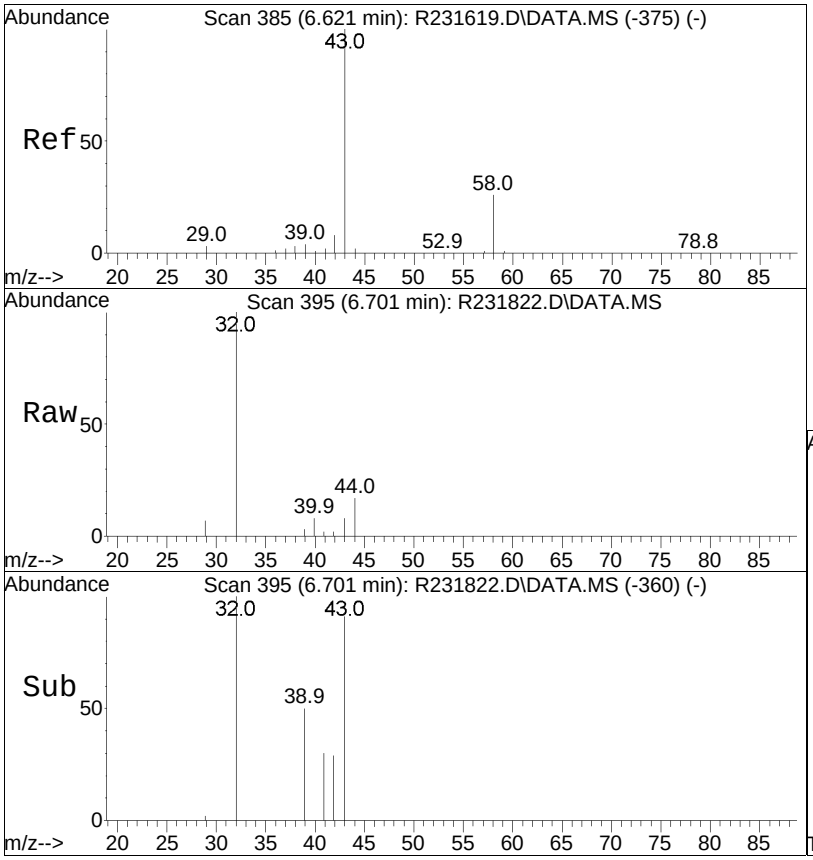


#15
ethanol
Concen: 0.06 ppbV
RT: 6.038 min Scan# 312
Delta R.T. 0.048 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 31 Resp: 644

Ion	Ratio	Lower	Upper
31	100		
45	32.7	36.8	55.2#

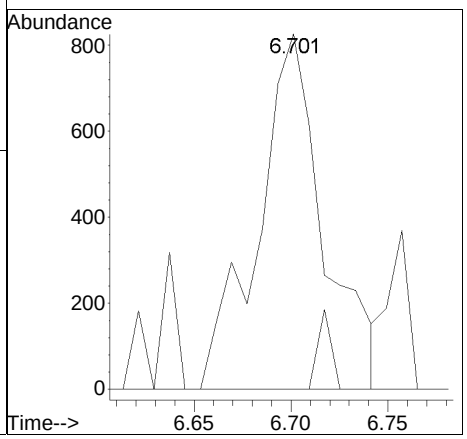


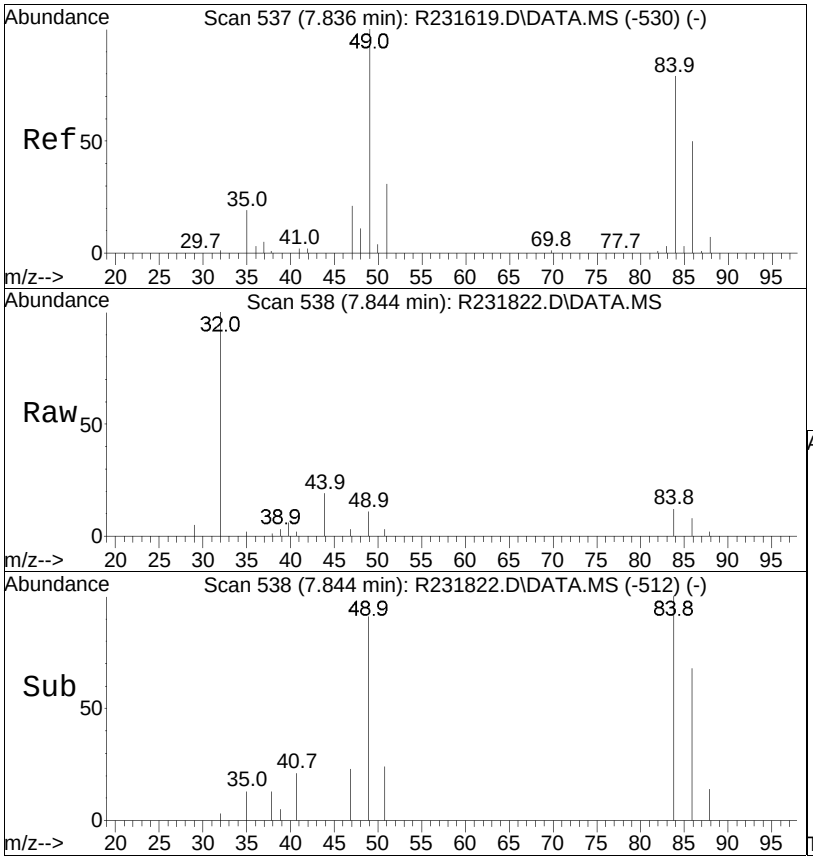


#19
acetone
Concen: 0.09 ppbV m
RT: 6.701 min Scan# 395
Delta R.T. 0.080 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 43 Resp: 1949

Ion	Ratio	Lower	Upper
43	100		
58	0.0	20.6	31.0#
57	0.0	0.6	1.0#

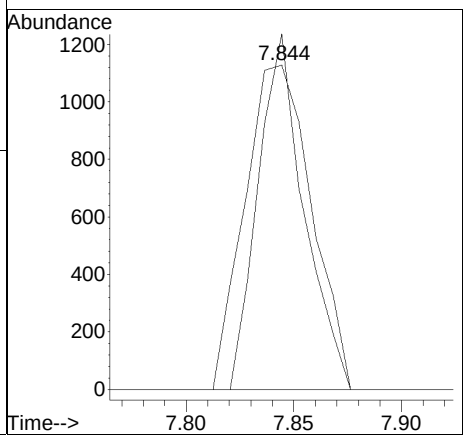




#28
methylene chloride
Concen: 0.14 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231822.D
Acq: 23 Dec 2014 4:10 pm

Tgt Ion: 49 Resp: 2435

Ion	Ratio	Lower	Upper
49	100		
84	109.6	63.3	94.9#

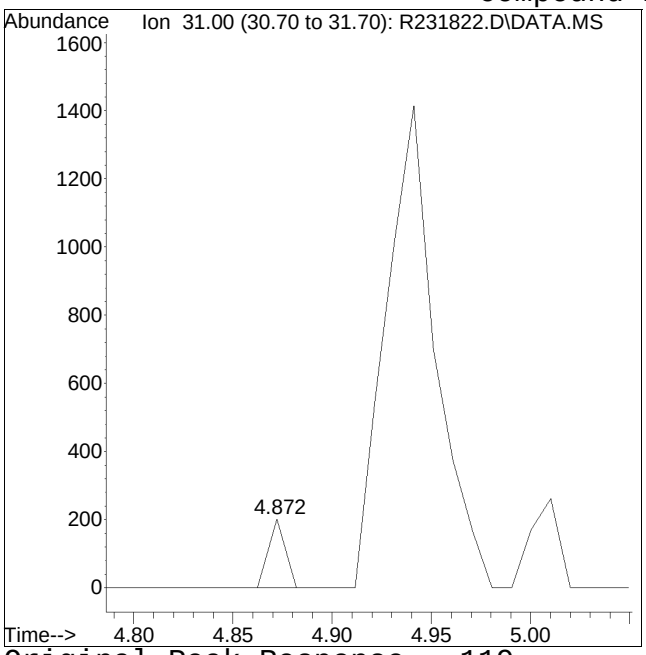


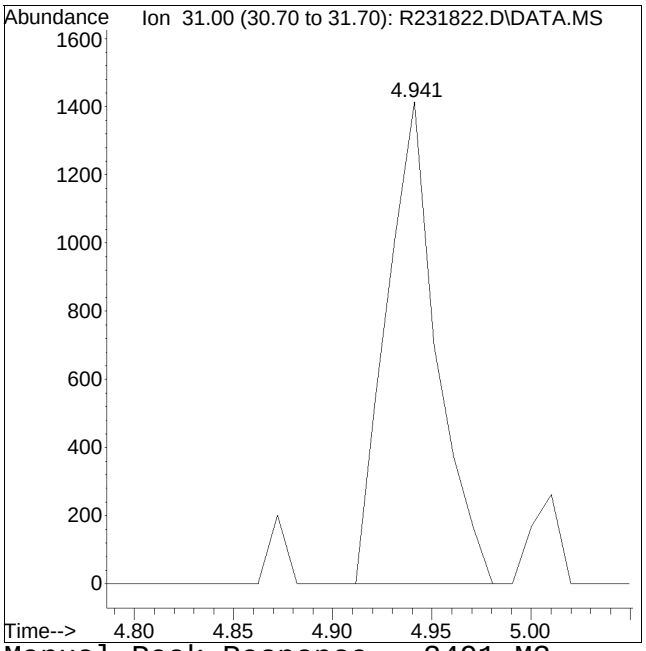
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231822.D
Date Inj'd : 12/23/2014 4:10 pm
Sample : L1430876-02,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:42 am

Compound #8: methanol





Original Peak Response = 119 Manual Peak Response = 2491 M3

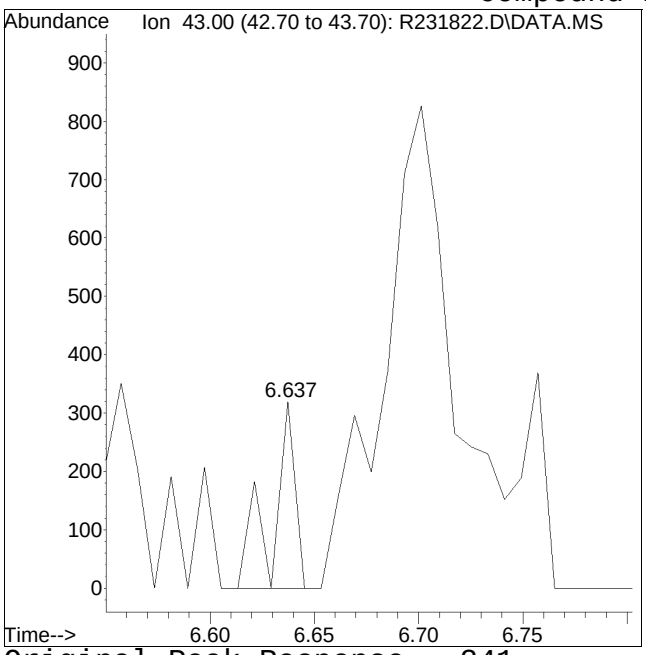
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

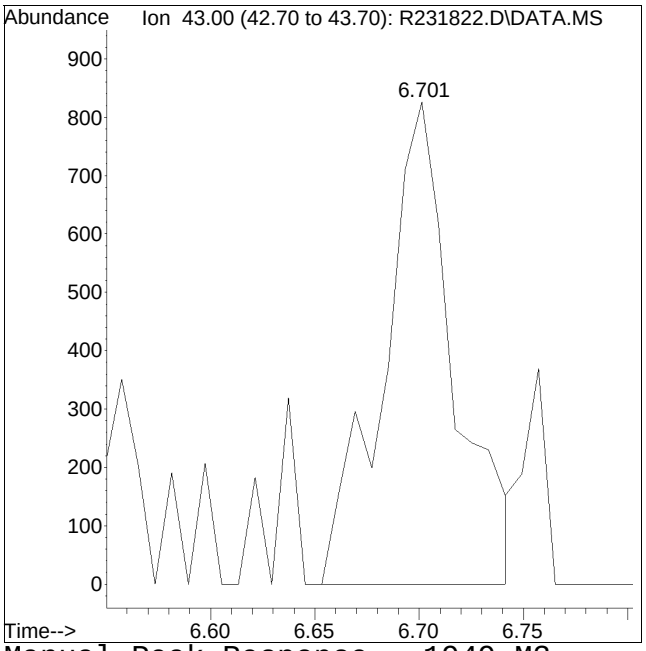
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231822.D
Date Inj'd : 12/23/2014 4:10 pm
Sample : L1430876-02,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:42 am

Compound #19: acetone



Original Peak Response = 241



Manual Peak Response = 1949 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-02	Date Collected	: 12/19/14 18:57
Client ID	: CAN 1590 SHELF 40	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231822	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231822.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.093	100	102	103	rBV	1653	1757	0.11%	0.046%
2	4.261	116	119	121	rBV2	2528	4823	0.29%	0.127%
3	4.931	186	187	190	rBV3	3755	4284	0.26%	0.113%
4	6.118	319	322	328	rBV4	2527	6272	0.38%	0.165%
5	7.836	533	537	543	rBV3	4739	10706	0.65%	0.282%
6	9.228	723	724	728	rBV	2306	2753	0.17%	0.072%
7	9.304	732	735	738	rVB2	2911	4236	0.26%	0.112%
8	9.585	772	776	779	rBV3	1979	4092	0.25%	0.108%
9	10.386	871	876	886	rBV	400169	759954	46.05%	20.009%
10	12.549	1089	1093	1104	rBV	665198	1275839	77.30%	33.591%
11	14.241	1237	1240	1243	rBV2	786	2787	0.17%	0.073%
12	16.563	1470	1476	1482	rVB	18760	43601	2.64%	1.148%
13	16.893	1530	1538	1554	rBV	1245019	1650443	100.00%	43.454%
14	18.012	1767	1773	1782	rVB2	2974	7014	0.42%	0.185%
15	18.951	1962	1968	1977	rBV5	3364	6457	0.39%	0.170%
16	20.431	2276	2279	2285	rVB3	1279	1715	0.10%	0.045%
17	21.214	2356	2360	2363	rBV3	809	2087	0.13%	0.055%
18	21.386	2375	2376	2380	rVB	1132	2074	0.13%	0.055%
19	21.943	2425	2428	2431	rBV2	833	1731	0.10%	0.046%
20	22.126	2442	2445	2448	rBV2	799	1685	0.10%	0.044%
21	22.276	2456	2459	2461	rBV2	812	1722	0.10%	0.045%
22	22.854	2509	2513	2516	rBV3	598	2097	0.13%	0.055%

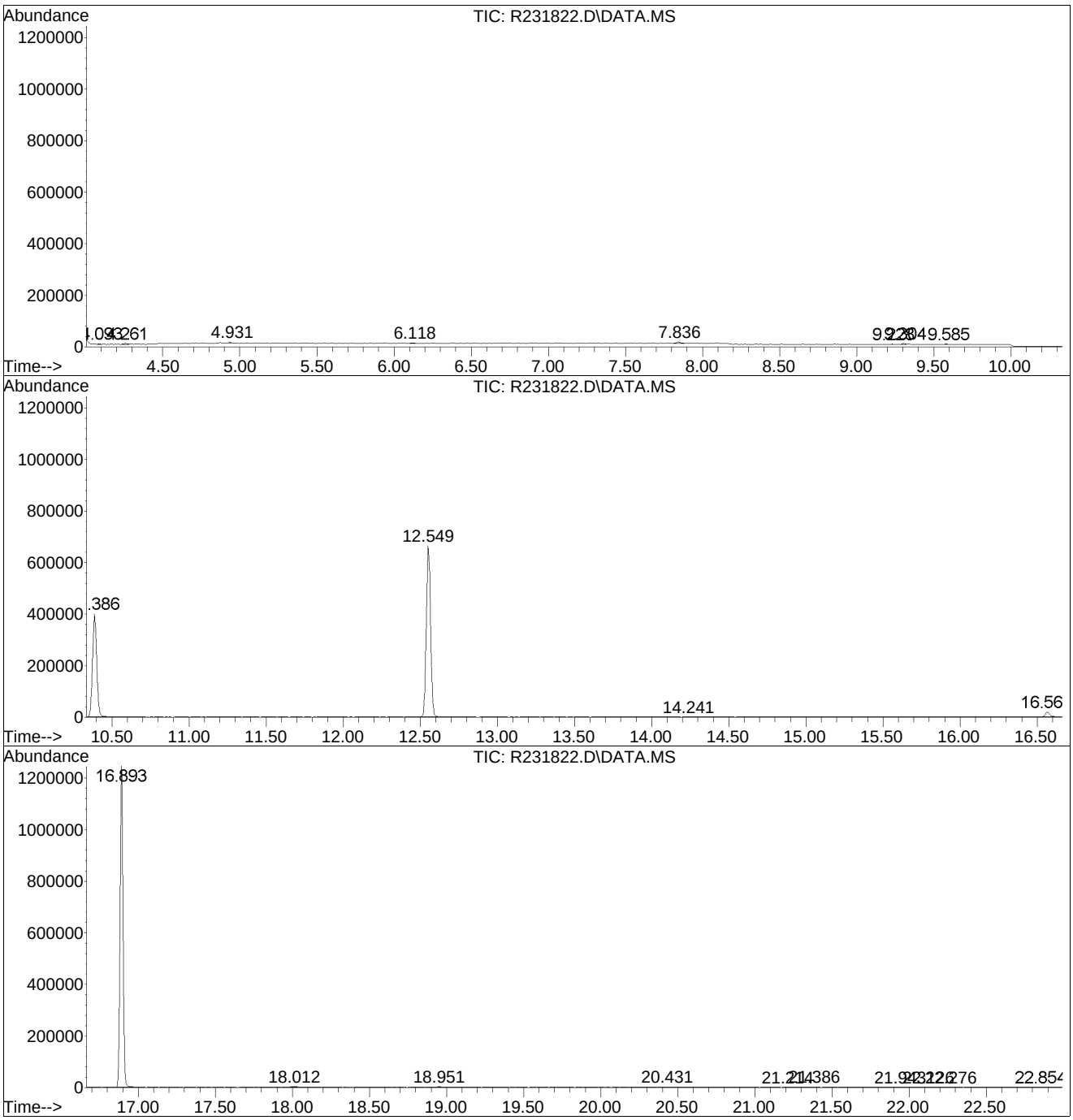
Sum of corrected areas: 3798129

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231822.D
Acq On : 23 Dec 2014 4:10 pm
Operator : AIRPIANO2:MB
Sample : L1430876-02,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
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Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
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Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U

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Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.386	49	159525	10.000	ppbV	0.00
Standard Area = 179805			Recovery =	88.72%		
43) 1,4-difluorobenzene	12.549	114	564007	10.000	ppbV	0.00
Standard Area = 648252			Recovery =	87.00%		
67) chlorobenzene-D5	16.893	54	104680	10.000	ppbV	0.00
Standard Area = 122515			Recovery =	85.44%		
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	4.290		0	N.D.		
3) propylene	4.478		0	N.D.		
4) propane	4.349		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.931	31	4175	0.810	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.247		0	N.D.		
13) bromomethane	5.550		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	6.054	31	923	0.084	ppbV #	86
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.709	43	1359M3	0.062	ppbV	
20) acetonitrile	6.253		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	7.037		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.309		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.844	49	2584	0.154	ppbV	90
29) 3-chloropropene	7.996		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.000		0		N.D.	
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	9.427		0		N.D.	
36) 2-butanone	0.000		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	10.395		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	13.057		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	0.000		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	15.324		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	15.523		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	16.065		0		N.D.	
77) octane	0.000		0		N.D.	

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.000		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
88) 1,2,3-trichloropropane	0.000		0		N.D.	
89) nonane	17.817		0		N.D.	
91) isopropylbenzene	0.000		0		N.D.	
92) bromobenzene	0.000		0		N.D.	
93) 2-chlorotoluene	0.000		0		N.D.	
94) n-propylbenzene	0.000		0		N.D.	
95) 4-chlorotoluene	18.541		0		N.D.	
96) 4-ethyl toluene	0.000		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
98) tert-butylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	19.013		0		N.D.	
100) decane	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	19.193		0		N.D.	
103) 1,4-dichlorobenzene	19.193		0		N.D.	
104) sec-butylbenzene	19.203		0		N.D.	
106) p-isopropyltoluene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
108) n-butylbenzene	0.000		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.000		0		N.D.	
112) undecane	0.000		0		N.D.	
114) dodecane	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	0.000		0		N.D.	
116) naphthalene	0.000		0		N.D.	
117) 1,2,3-trichlorobenzene	0.000		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2014\141223T\R231816.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : Default-LCS-AP2 - All compounds listed31816.D

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
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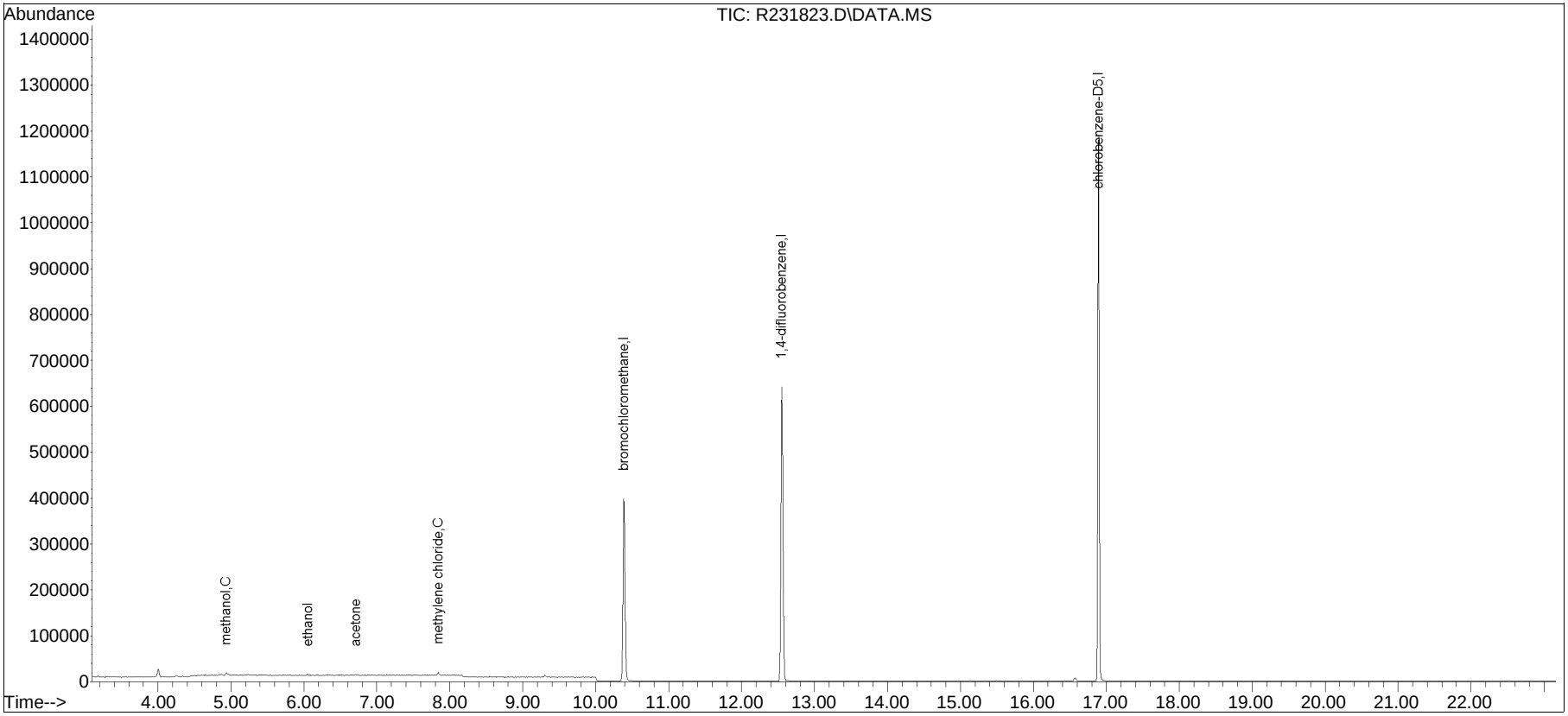
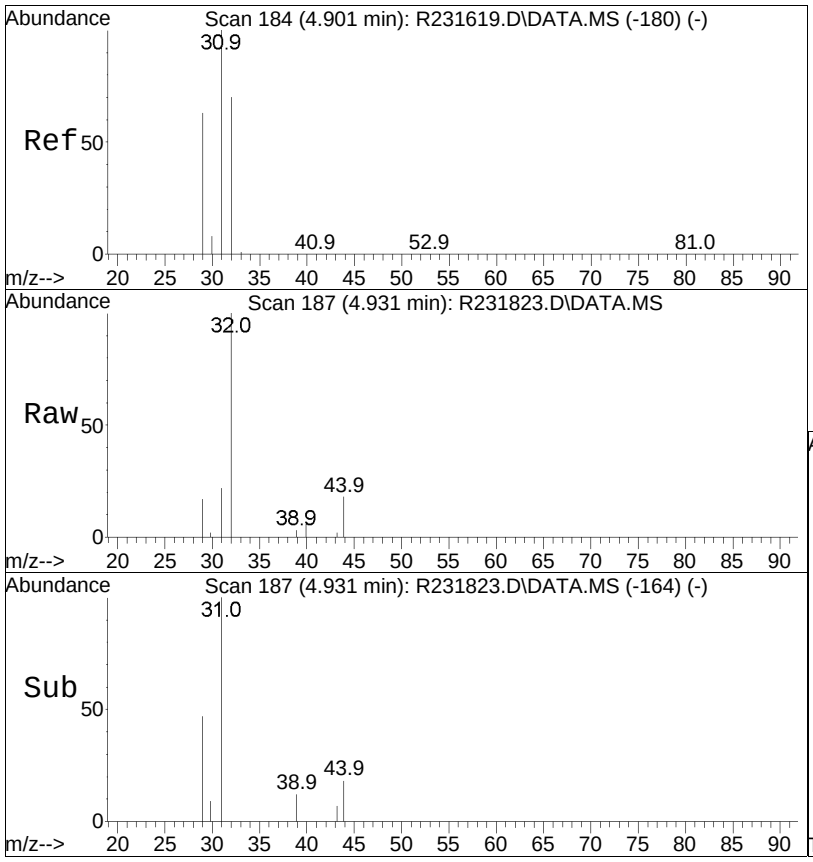
Sample : L1430876-03,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 24 09:33:56 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014
Response via : Initial Calibration

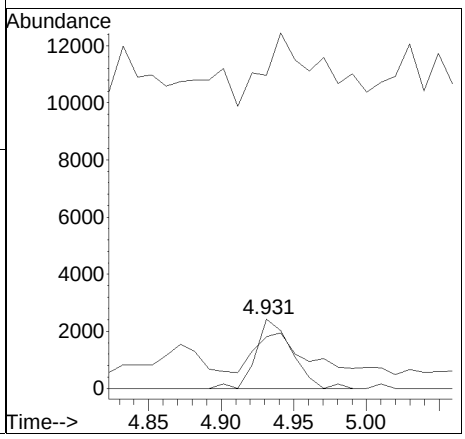


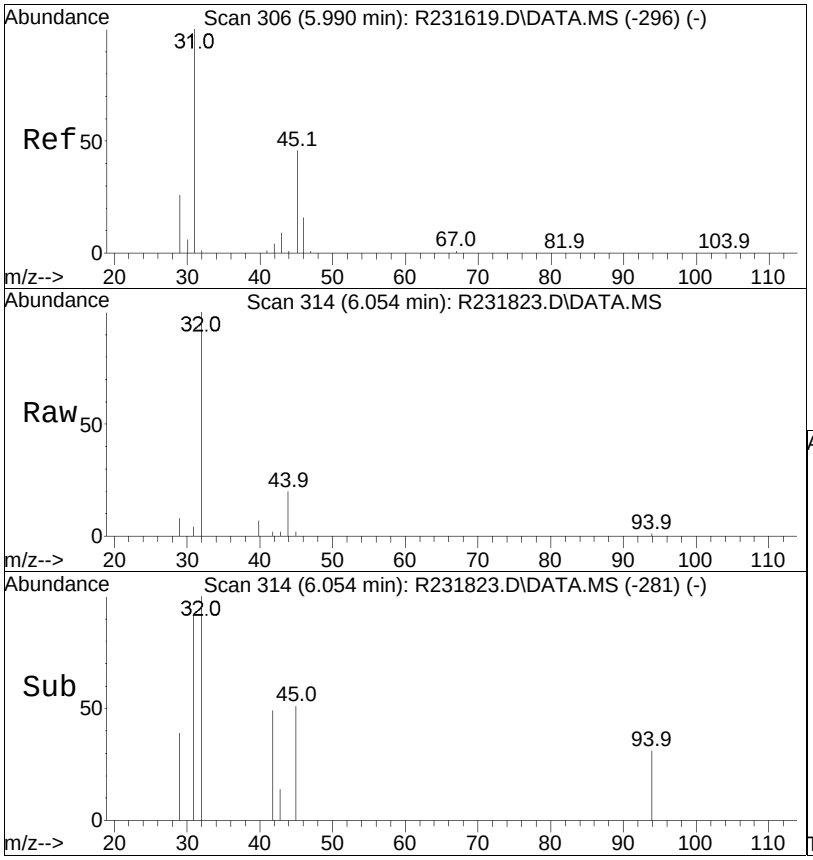


#8
methanol
Concen: 0.81 ppbV
RT: 4.931 min Scan# 187
Delta R.T. 0.030 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 31 Resp: 4175

Ion	Ratio	Lower	Upper
31	100		
32	452.3	63.3	94.9#
29	74.8	57.9	86.9

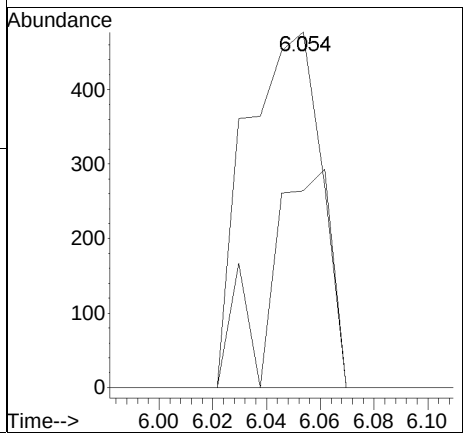


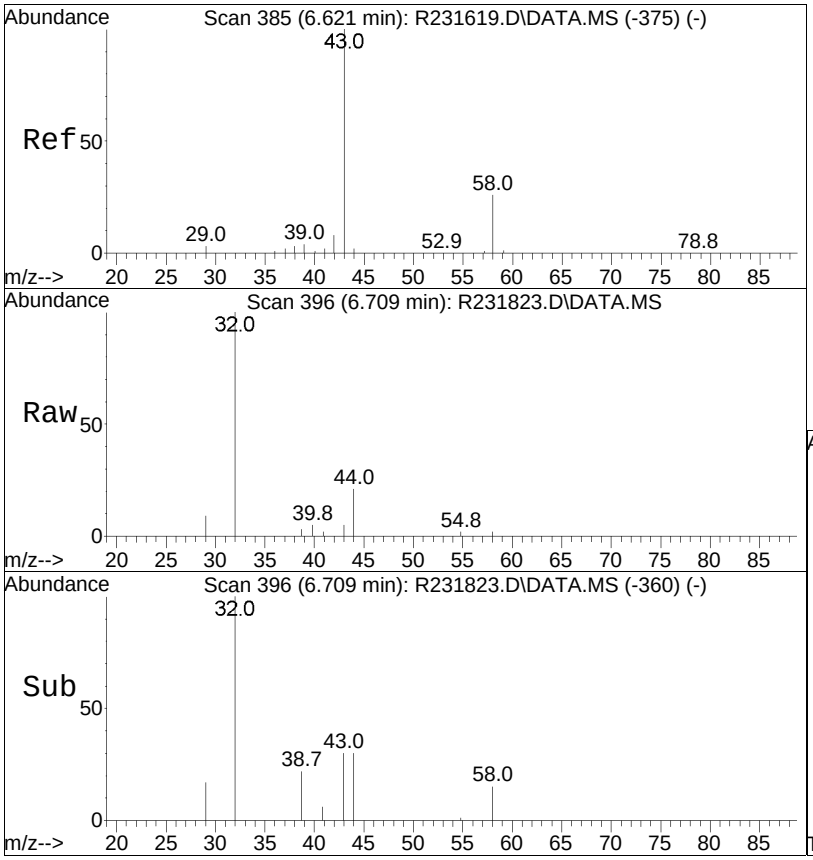


#15
ethanol
Concen: 0.08 ppbV
RT: 6.054 min Scan# 314
Delta R.T. 0.064 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 31 Resp: 923

Ion	Ratio	Lower	Upper
31	100		
45	55.3	36.8	55.2#

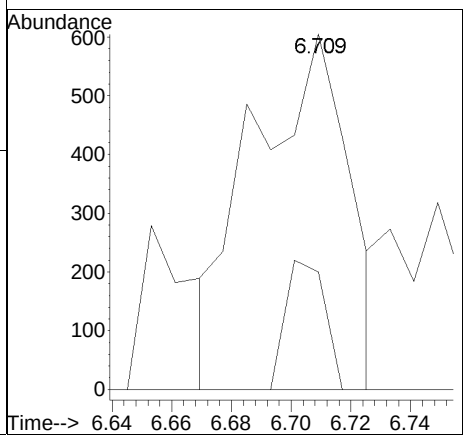


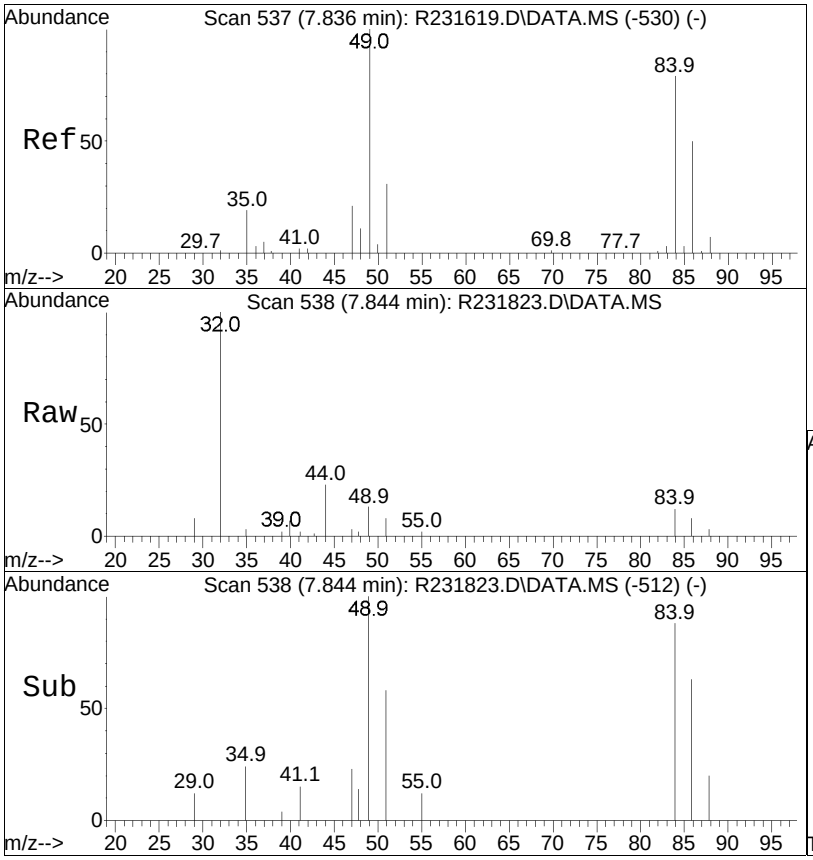


#19
acetone
Concen: 0.06 ppbV m
RT: 6.709 min Scan# 396
Delta R.T. 0.088 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 43 Resp: 1359

Ion	Ratio	Lower	Upper
43	100		
58	33.1	20.6	31.0#
57	0.0	0.6	1.0#

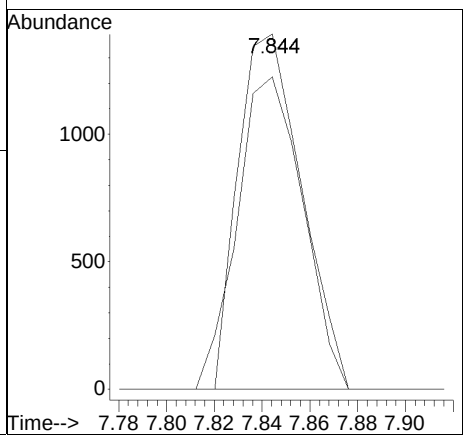




#28
methylene chloride
Concen: 0.15 ppbV
RT: 7.844 min Scan# 538
Delta R.T. 0.008 min
Lab File: R231823.D
Acq: 23 Dec 2014 4:42 pm

Tgt Ion: 49 Resp: 2584

Ion	Ratio	Lower	Upper
49	100		
84	87.9	63.3	94.9

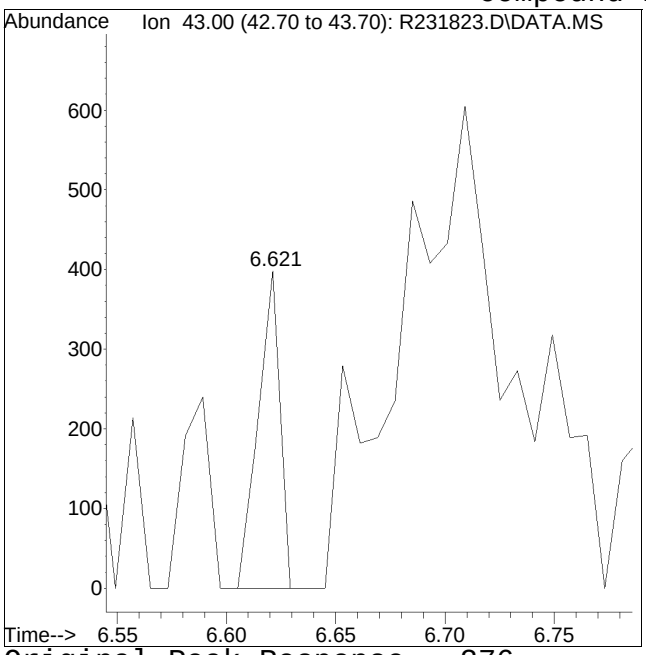


Manual Integration/Negative Proof Report

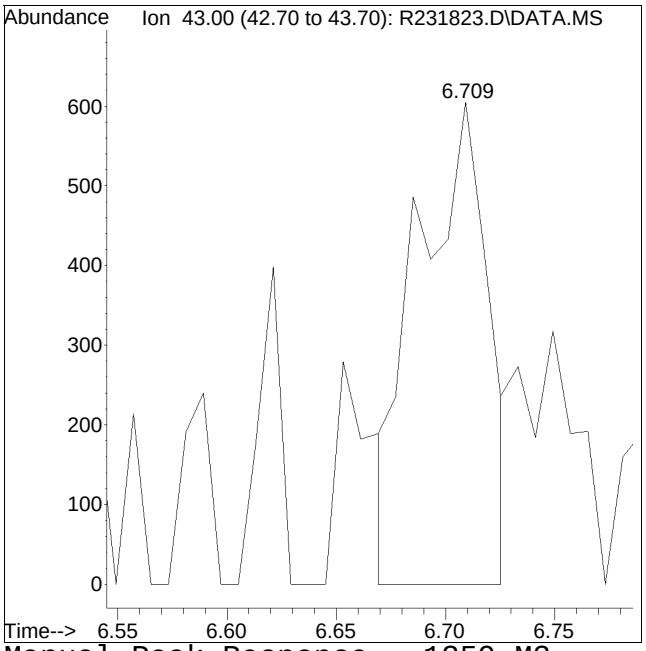
Data Path : O:\Forensics\Data\AIR2\2014Q
Data File : R231823.D
Date Inj'd : 12/23/2014 4:42 pm
Sample : L1430876-03,3,250,250

Method : TALL141214.M
Operator : AIRPIANO2:MB
Instrument : Air Piano 2
Quant Date : 12/24/2014 6:43 am

Compound #19: acetone



Original Peak Response = 276



Manual Peak Response = 1359 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1430876
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1430876-03	Date Collected	: 12/19/14 18:56
Client ID	: CAN 966 SHELF 41	Date Received	: 12/22/14
Sample Location	:	Date Analyzed	: 12/23/14 16:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R231823	Instrument ID	: AIRPIANO2
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R231823.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.251	116	118	121	rBV2	2310	3492	0.22%	0.096%
2	4.833	175	177	178	rBV	2438	2276	0.14%	0.062%
3	4.941	185	188	190	rBV	6460	11900	0.75%	0.326%
4	6.054	312	314	316	rVB2	3215	3075	0.19%	0.084%
5	6.805	406	408	410	rBV	2109	2297	0.15%	0.063%
6	7.844	535	538	544	rVB2	7007	11720	0.74%	0.321%
7	7.908	544	546	547	rBV	2112	1693	0.11%	0.046%
8	8.796	659	661	665	rVB2	1861	2007	0.13%	0.055%
9	9.496	762	763	765	rVB	2759	1676	0.11%	0.046%
10	9.523	765	767	768	rBV2	1608	1785	0.11%	0.049%
11	9.997	835	836	838	rVB	9424	7655	0.48%	0.209%
12	10.386	871	876	887	rBV	397688	755127	47.80%	20.664%
13	12.549	1089	1093	1099	rBV	641583	1241244	78.58%	33.967%
14	15.135	1314	1318	1320	rBV	1767	1984	0.13%	0.054%
15	15.342	1338	1341	1343	rBV	1126	1842	0.12%	0.050%
16	16.572	1473	1477	1483	rVB2	6605	17712	1.12%	0.485%
17	16.893	1530	1538	1556	rBV	1191092	1579667	100.00%	43.228%
18	20.978	2335	2338	2341	rVB3	716	1951	0.12%	0.053%
19	21.321	2367	2370	2373	rBV2	677	1746	0.11%	0.048%
20	22.286	2457	2460	2463	rVB3	808	1784	0.11%	0.049%
21	22.361	2463	2467	2469	rBV2	668	1612	0.10%	0.044%

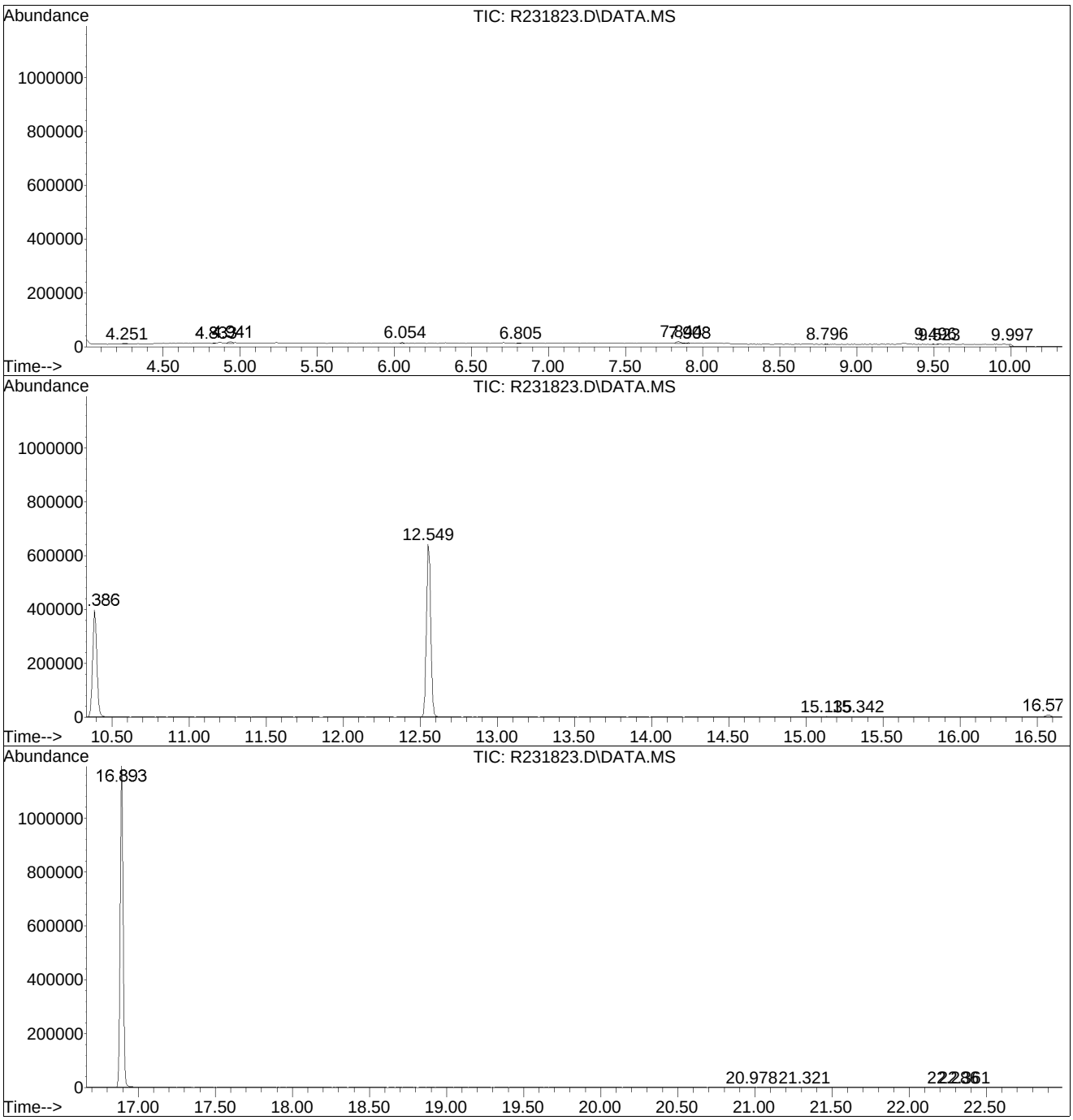
Sum of corrected areas: 3654245

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231823.D
Acq On : 23 Dec 2014 4:42 pm
Operator : AIRPIANO2:MB
Sample : L1430876-03,TIC3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

Calibration Files

0.2 =R231615.D 0.5 =R231616.D 1.0 =R231617.D 5.0 =R231618.D 10 =R231619.D 20 =R231620.D

50 =R231621.D 100 =R231622.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.663	1.375	1.287	1.187	1.178	1.114	1.089	1.027	1.2399	16.41
3)		propylene	0.788	0.673	0.627	0.569	0.566	0.530	0.525	0.488	0.5958	16.33
4)		propane	1.113	0.976	0.816	0.690	0.658	0.625	0.628	0.566	0.7590	25.55
5)		dichlorodifluoromethane	2.344	1.617	1.436	1.393	1.546	1.271	1.581	0.971	1.5198	25.83
6)	C	chloromethane	1.019	0.841	0.718	0.700	0.657	0.628	0.611	0.574	0.7185	20.38
7)		Freon-114	3.096	2.904	2.788	2.710	2.634	2.502	2.365	2.109	2.6386	11.82
8)	C	methanol			0.420	0.346	0.334	0.289	0.282	0.268	0.3232	17.50
9)	C	vinyl chloride	0.953	0.838	0.862	0.833	0.808	0.770	0.736	0.697	0.8121	9.80
10)	C	1,3-butadiene	0.639	0.652	0.590	0.608	0.581	0.542	0.526	0.496	0.5791	9.44
11)		butane	1.743	1.514	1.467	1.307	1.246	1.211	1.168	1.098	1.3442	15.98
12)	C	acetaldehyde			0.659	0.661	0.581	0.561	0.530	0.490	0.436	0.5597	14.90
13)	C	bromomethane	1.168	1.061	0.963	0.944	0.916	0.861	0.817	0.753	0.9353	14.24
14)	C	chloroethane	0.488	0.501	0.445	0.415	0.404	0.383	0.365	0.337	0.4173	13.82
15)		ethanol			0.762	0.719	0.723	0.691	0.666	0.649	0.599	0.6870	7.89
16)		dichlorofluoromethane	2.506	2.269	2.244	2.060	1.961	1.887	1.811	1.675	2.0517	13.36
17)	C	vinyl bromide	1.021	0.993	1.019	0.985	0.934	0.897	0.861	0.784	0.9367	9.01
18)	C	acrolein			0.397	0.360	0.323	0.324	0.313	0.305	0.288	0.3301	11.22
19)		acetone	1.587	1.596	1.476	1.383	1.355	1.294	1.243	1.126	1.3823	11.92
20)	C	acetonitrile	0.937	0.821	0.788	0.753	0.732	0.700	0.692	0.662	0.7607	11.58
21)		trichlorofluoromethane	3.334	3.342	3.192	3.026	2.951	2.788	2.656	2.367	2.9570	11.56
22)		isopropyl alcohol			2.014	1.839	1.474	1.400	1.323	1.289	1.205	1.5062	20.14
23)	C	acrylonitrile	0.847	0.594	0.626	0.604	0.576	0.555	0.540	0.506	0.6062	17.25
24)		pentane	1.756	1.631	1.563	1.542	1.474	1.391	1.394	1.301	1.5066	9.76
25)		ethyl ether	1.563	1.400	1.347	1.308	1.254	1.201	1.172	1.089	1.2917	11.48
26)	C	1,1-dichloroethene	1.751	1.567	1.550	1.477	1.432	1.370	1.331	1.231	1.4636	11.02
27)		tertiary butyl alcohol			2.028	1.921	1.822	1.736	1.709	1.651	1.558	1.7750	9.07
28)	C	methylene chloride			1.300	1.242	1.049	1.025	0.971	0.929	0.868	1.0547	15.20
29)	C	3-chloropropene	1.481	1.301	1.264	1.193	1.166	0.969	1.079	1.015	1.1835	14.10
30)	C	carbon disulfide	2.842	2.804	2.764	2.742	2.702	2.452	2.537	2.308	2.6439	7.20
31)		Freon 113	2.316	2.274	2.213	2.121	2.065	1.940	1.864	1.624	2.0522	11.37
32)		trans-1,2-dichloroethene	1.228	1.260	1.277	1.223	1.211	1.159	1.159	1.143	1.2075	4.11
33)	C	1,1-dichloroethane	1.607	1.555	1.515	1.472	1.435	1.389	1.371	1.332	1.4596	6.54
34)	C	MTBE	2.686	2.529	2.504	2.429	2.388	2.297	2.275	2.234	2.4178	6.28
35)	C	vinyl acetate	1.392	1.018	0.851	0.993	1.142	1.288	1.467	1.572	1.2153	20.94
36)	C	2-butanone	2.205	1.894	1.819	1.693	1.685	1.632	1.568	1.507	1.7505	12.70
37)		cis-1,2-dichloroethene	1.258	1.167	1.138	1.066	1.074	1.028	1.025	0.990	1.0934	8.14
38)		Ethyl Acetate	0.251	0.256	0.284	0.253	0.259	0.254	0.267	0.259	0.2605	4.13
39)	C	chloroform	2.223	2.212	2.076	2.035	1.994	1.931	1.944	1.836	2.0315	6.67
40)		Tetrahydrofuran	1.082	1.067	0.955	0.924	0.928	0.894	0.879	0.839	0.9459	9.18
41)		2,2-dichloropropane	1.892	1.786	1.753	1.734	1.693	1.672	1.714	1.653	1.7372	4.38
42)	C	1,2-dichloroethane	1.415	1.308	1.286	1.239	1.215	1.179	1.158	1.098	1.2373	7.99
43)	I	1,4-difluorobenzene	ISTD									

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.337	0.347	0.326	0.323	0.330	0.320	0.346	0.368	0.3371	4.84
45)		diisopropyl ether	0.207	0.198	0.207	0.188	0.197	0.189	0.201	0.205	0.1990	3.78
46)		tert-butyl ethyl ether	0.733	0.709	0.673	0.673	0.679	0.651	0.682	0.707	0.6882	3.77
47)	s	1,2-dichloroethane-D4	0.230	0.228	0.227	0.224	0.224	0.220	0.225	0.218	0.2245	1.74
48)	C	1,1,1-trichloroethane	0.762	0.695	0.709	0.669	0.675	0.631	0.651	0.688	0.6849	5.81
49)		1,1-dichloropropene	0.443	0.365	0.357	0.357	0.363	0.354	0.369	0.382	0.3738	7.88
50)	C	benzene	0.768	0.739	0.727	0.691	0.690	0.661	0.683	0.696	0.7068	4.95
51)		thiophene	0.546	0.496	0.510	0.490	0.497	0.481	0.506	0.524	0.5063	4.11
52)	C	carbon tetrachloride	0.671	0.649	0.673	0.666	0.687	0.665	0.707	0.706	0.6780	2.98
53)		cyclohexane	0.374	0.373	0.346	0.322	0.321	0.306	0.322	0.339	0.3378	7.42
54)		tert-amyl methyl ether	0.736	0.696	0.710	0.692	0.699	0.672	0.702	0.734	0.7053	3.05
55)		dibromomethane	0.406	0.364	0.338	0.349	0.357	0.348	0.365	0.365	0.3614	5.65
56)	C	1,2-dichloropropane	0.270	0.247	0.265	0.251	0.254	0.241	0.259	0.272	0.2575	4.28
57)		bromodichloromethane	0.659	0.649	0.643	0.642	0.659	0.634	0.673	0.679	0.6547	2.42
58)	C	1,4-dioxane	0.207	0.184	0.154	0.165	0.171	0.174	0.182	0.186	0.1778	8.80
59)	C	trichloroethene	0.407	0.411	0.373	0.389	0.384	0.380	0.385	0.378	0.3884	3.49
60)	C	2,2,4-trimethylpentane	1.171	1.101	1.091	1.131	1.149	1.068	1.142	1.208	1.1324	4.00
61)		methyl methacrylate	0.378	0.364	0.362	0.335	0.333	0.317	0.334	0.343	0.3458	5.84
62)		heptane	0.467	0.464	0.435	0.420	0.417	0.396	0.424	0.447	0.4336	5.62
63)	C	cis-1,3-dichloropropene	0.354	0.380	0.362	0.381	0.387	0.382	0.410	0.433	0.3860	6.55
64)	C	4-methyl-2-pentanone	0.721	0.615	0.614	0.583	0.600	0.578	0.608	0.638	0.6198	7.26
65)		trans-1,3-dichloropropene	0.483	0.496	0.483	0.507	0.523	0.518	0.548	0.579	0.5171	6.40
66)	C	1,1,2-trichloroethane	0.468	0.419	0.433	0.433	0.439	0.411	0.435	0.440	0.4347	3.84
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	7.004	6.934	6.525	6.453	6.454	6.293	6.377	6.500	6.5673	3.94
69)	s	toluene-D8	4.879	4.907	4.802	4.708	4.685	4.577	4.508	4.482	4.6935	3.46
70)		2-methylthiophene	6.033	5.949	5.925	5.843	5.809	5.717	5.777	5.876	5.8660	1.73
71)		1,3-dichloropropane	3.090	3.073	2.806	2.920	2.905	2.868	2.917	3.014	2.9492	3.40
72)		2-hexanone	4.211	4.159	3.969	3.847	3.931	3.821	4.004	4.189	4.0165	3.82
73)		3-methylthiophene	6.346	5.720	6.054	6.127	6.065	5.982	5.982	5.881	6.0197	3.03
74)		dibromochloromethane	4.933	4.799	5.018	5.292	5.449	5.239	5.280	4.986	5.1244	4.33
75)	C	1,2-dibromoethane	4.101	3.976	3.776	4.066	4.053	3.866	3.890	3.903	3.9541	2.88
76)		butyl acetate	0.638	0.670	0.634	0.633	0.651	0.628	0.652	0.674	0.6475	2.66
77)		octane	1.884	1.819	1.783	1.832	1.818	1.742	1.815	1.862	1.8193	2.42
78)	C	tetrachloroethene	3.750	3.314	3.290	3.351	3.363	3.240	3.226	3.148	3.3353	5.45
79)		1,1,1,2-tetrachloroethane	2.534	2.494	2.407	2.529	2.550	2.501	2.529	2.347	2.4864	2.88
80)	C	chlorobenzene	4.368	4.108	3.945	4.091	4.104	4.008	4.106	4.050	4.0976	3.01
81)	C	ethylbenzene	6.685	6.459	6.239	6.431	6.424	6.218	6.375	6.468	6.4121	2.28
82)		2-ethylthiophene	5.089	5.209	5.019	5.162	5.219	5.111	5.274	5.273	5.1694	1.77
83)	C	m+p-xylene	5.074	5.087	4.931	5.094	5.178	5.123	5.257	5.196	5.1174	1.92
84)	C	bromoform	3.186	3.016	2.927	3.419	3.639	3.584	3.671	3.486	3.3661	8.55
85)	C	styrene	4.105	3.966	3.809	3.970	4.022	3.914	4.013	4.008	3.9759	2.19
86)	C	1,1,2,2-tetrachloroethane	3.603	3.629	3.718	3.814	3.890	3.866	4.023	3.663	3.7759	3.89
87)	C	o-xylene	5.250	5.222	5.024	5.293	5.385	5.346	5.403	4.907	5.2289	3.38
88)		1,2,3-trichloropropane	2.851	2.743	2.666	2.754	2.805	2.741	2.887	3.013	2.8075	3.86
89)		nonane	3.458	3.194	3.166	3.291	3.274	3.231	3.441	3.568	3.3278	4.33
90)	s	bromofluorobenzene	2.251	2.315	2.469	2.667	2.495	2.393	2.396	2.117	2.3879	6.97

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date(s): 12/14/14 12/14/14

Calibration Times: 14:35 18:17

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	6.641	6.422	7.099	7.327	7.399	7.180	7.304	6.980	7.0440	4.94
92)		bromobenzene	4.125	3.607	3.393	3.519	3.625	3.572	3.743	3.864	3.6808	6.20
93)		2-chlorotoluene	2.167	2.103	1.929	2.043	2.063	2.036	2.043	1.971	2.0445	3.59
94)		n-propylbenzene	2.088	2.127	2.075	2.166	2.159	2.167	2.164	2.078	2.1280	1.96
95)		4-chlorotoluene	5.668	5.348	5.114	5.440	5.519	5.497	5.593	5.752	5.4911	3.61
96)		4-ethyl toluene	7.944	7.900	7.687	8.152	8.364	8.123	8.262	7.852	8.0357	2.83
97)		1,3,5-trimethylbenzene	6.335	6.135	6.005	6.333	6.407	6.345	6.545	6.353	6.3074	2.63
98)		tert-butylbenzene	6.959	6.744	6.775	7.080	7.320	7.226	6.881	5.727	6.8391	7.22
99)		1,2,4-trimethylbenzene	6.093	6.114	5.896	6.482	6.774	6.791	6.584	5.418	6.2691	7.60
100)		decane	3.165	3.087	3.114	3.261	3.430	3.403	3.754	3.818	3.3790	8.31
101)	C	Benzyl Chloride	4.066	4.191	4.388	5.298	5.764	6.071	6.681	6.432	5.3616	19.37
102)		1,3-dichlorobenzene	4.151	4.255	4.218	4.395	4.551	4.481	4.545	4.367	4.3705	3.46
103)	C	1,4-dichlorobenzene	4.364	4.138	4.264	4.437	4.653	4.631	4.574	4.245	4.4132	4.37
104)		sec-butylbenzene	9.096	8.990	8.813	9.355	9.703	9.547	9.719	8.350	9.1967	5.19
105)		1,2,3-trimethylbenzene	5.868	5.508	5.620	5.876	6.064	6.074	6.235	5.563	5.8511	4.56
106)		p-isopropyltoluene	8.454	8.300	8.094	8.700	9.033	8.875	8.741	7.508	8.4632	5.83
107)		1,2-dichlorobenzene	3.831	3.860	3.952	4.130	4.251	4.202	4.275	4.177	4.0848	4.34
108)		n-butylbenzene	6.797	6.996	6.964	7.528	7.746	7.704	7.944	7.538	7.4020	5.73
109)		indan	6.184	5.996	6.092	6.394	6.559	6.483	6.534	6.267	6.3138	3.35
110)		indene	4.069	4.200	4.196	4.407	4.484	4.549	4.732	4.688	4.4156	5.49
111)	C	1,2-dibromo-3-chloropropane	1.530	1.568	1.589	1.843	1.941	2.016	2.233	2.286	1.8758	15.83
112)		undecane	2.963	3.052	3.124	3.667	3.830	3.898	4.351	4.353	3.6547	15.29
113)		1,2,4,5-tetramethylbenzene	1.134	1.174	1.171	1.539	1.629	1.384	1.317	1.069	1.3022	15.53
114)		dodecane	2.202	2.679	2.849	3.721	4.035	4.426	4.749	3.907	3.5710	25.18
115)	C	1,2,4-trichlorobenzene	2.908	2.511	2.824	3.209	3.490	3.578	3.729	3.104	3.1693	13.11
116)		naphthalene	6.085	7.094	7.269	8.459	8.838	8.726	9.175	8.866	8.0640	13.71
117)		1,2,3-trichlorobenzene	2.356	2.704	2.665	2.973	3.204	3.264	3.548	3.611	3.0407	14.65
118)		benzothiophene		1.097	1.087	1.382	1.487	1.455	1.443	1.178	1.3041	13.56
119)	C	hexachlorobutadiene	2.125	2.341	2.328	2.645	2.836	2.866	3.246	3.151	2.6924	15.05
120)		2-methylnaphthalene		1.383	1.457	2.794	3.153	2.846	3.354	3.516	2.6431	33.07#
121)		1-methylnaphthalene		1.837	1.735	2.447	2.737	2.488	2.871	3.010	2.4465	20.16

FORM VI-TO15-LL

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1430876

Instrument ID: AIRPIANO2 Calibration Date: 12/23/2014 Time: 12:06

Lab File ID: R231816 Init. Calib. Date(s): 12/14/14 12/14/14

Sample No: WG751505-2,3,25 Init. Calib. Times : 14:35 18:17

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	99	0.00
2		chlorodifluoromethane	1.240	1.168	5.8	98	0.00
3		propylene	0.596	0.592	0.7	103	0.00
4		propane	0.759	0.665	12.4	100	0.00
5		dichlorodifluoromethane	1.520	1.446	4.9	93	0.00
6	C	chloromethane	0.718	0.647	9.9	97	0.00
7		Freon-114	2.639	2.437	7.7	92	0.00
8	C	methanol	0.323	0.334	-3.4	99	0.00
9	C	vinyl chloride	0.812	0.766	5.7	94	0.00
10	C	1,3-butadiene	0.579	0.559	3.5	95	0.00
11		butane	1.344	1.208	10.1	96	0.00
13	C	bromomethane	0.935	0.847	9.4	92	0.00
14	C	chloroethane	0.417	0.379	9.1	93	0.00
15		ethanol	0.687	0.684	0.4	98	0.00
16		dichlorofluoromethane	2.052	1.853	9.7	94	0.00
17	C	vinyl bromide	0.937	0.887	5.3	94	0.00
18	C	acrolein	0.330	0.305	7.6	93	0.00
19		acetone	1.382	1.311	5.1	96	0.00
20	C	acetonitrile	0.761	0.734	3.5	99	0.00
21		trichlorofluoromethane	2.957	2.697	8.8	90	0.00
22		isopropyl alcohol	1.506	1.373	8.8	97	0.00
23	C	acrylonitrile	0.606	0.566	6.6	97	0.00
24		pentane	1.507	1.550	-2.9	104	0.00
25		ethyl ether	1.292	1.301	-0.7	103	0.00
26	C	1,1-dichloroethene	1.464	1.360	7.1	94	0.00
27		tertiary butyl alcohol	1.775	1.621	8.7	92	0.00
28	C	methylene chloride	1.055	0.981	7.0	95	0.00
29	C	3-chloropropene	1.183	1.135	4.1	96	0.00
30	C	carbon disulfide	2.644	2.496	5.6	91	0.00
31		Freon 113	2.052	1.953	4.8	94	0.00
32		trans-1,2-dichloroethene	1.207	1.209	-0.2	99	0.00
33	C	1,1-dichloroethane	1.460	1.449	0.8	100	0.00
34	C	MTBE	2.418	2.353	2.7	98	0.00
35	C	vinyl acetate	1.215	1.705	-40.3#	148#	0.00
36	C	2-butanone	1.750	1.741	0.5	102	0.00
37		cis-1,2-dichloroethene	1.093	1.095	-0.2	101	0.00
38		Ethyl Acetate	0.261	0.267	-2.3	102	0.00
39	C	chloroform	2.031	1.990	2.0	99	0.00
40		Tetrahydrofuran	0.946	0.964	-1.9	103	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231816.D
Acq On : 23 Dec 2014 12:06 pm
Operator : AIRPIANO2:RY
Sample : WG751505-2,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 12:31:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.737	1.692	2.6	99	0.00
42	C	1,2-dichloroethane	1.237	1.216	1.7	99	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00
44	C	hexane	0.337	0.335	0.6	102	0.00
45		diisopropyl ether	0.199	0.195	2.0	99	0.00
46		tert-butyl ethyl ether	0.688	0.670	2.6	99	0.00
48	C	1,1,1-trichloroethane	0.685	0.638	6.9	95	0.00
49		1,1-dichloropropene	0.374	0.365	2.4	101	-0.01
50	C	benzene	0.707	0.693	2.0	101	0.00
52	C	carbon tetrachloride	0.678	0.648	4.4	94	-0.01
53		cyclohexane	0.338	0.328	3.0	102	0.00
54		tert-amyl methyl ether	0.705	0.689	2.3	99	0.00
55		dibromomethane	0.361	0.346	4.2	97	-0.01
56	C	1,2-dichloropropane	0.257	0.251	2.3	99	0.00
57		bromodichloromethane	0.655	0.629	4.0	96	0.00
58	C	1,4-dioxane	0.178	0.167	6.2	98	0.00
59	C	trichloroethene	0.388	0.370	4.6	96	-0.01
60	C	2,2,4-trimethylpentane	1.132	1.111	1.9	97	0.00
61		methyl methacrylate	0.346	0.340	1.7	102	0.00
62		heptane	0.434	0.429	1.2	103	0.00
63	C	cis-1,3-dichloropropene	0.386	0.393	-1.8	102	0.00
64	C	4-methyl-2-pentanone	0.620	0.615	0.8	103	0.00
65		trans-1,3-dichloropropene	0.517	0.524	-1.4	100	0.00
66	C	1,1,2-trichloroethane	0.435	0.428	1.6	98	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	99	0.00
68	C	toluene	6.567	6.493	1.1	100	0.00
71		1,3-dichloropropane	2.949	2.992	-1.5	102	0.00
72		2-hexanone	4.016	4.006	0.2	101	0.00
74		dibromochloromethane	5.124	5.104	0.4	93	0.00
75	C	1,2-dibromoethane	3.954	4.024	-1.8	98	0.00
76		butyl acetate	0.647	0.671	-3.7	102	0.00
77		octane	1.819	1.864	-2.5	102	0.00
78	C	tetrachloroethene	3.335	3.288	1.4	97	0.00
79		1,1,1,2-tetrachloroethane	2.486	2.469	0.7	96	0.00
80	C	chlorobenzene	4.098	4.171	-1.8	101	0.00
81	C	ethylbenzene	6.412	6.616	-3.2	102	0.00
83	C	m+p-xylene	5.117	5.334	-4.2	102	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR2\2014\141223T\
Data File : R231816.D
Acq On : 23 Dec 2014 12:06 pm
Operator : AIRPIANO2:RY
Sample : WG751505-2,3,250,250
Misc : WG751505,ICAL10499
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 12:31:19 2014
Quant Method : O:\Forensics\Data\AIR2\2014\141223T\TALL141214.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Dec 15 07:34:07 2014

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.366	3.401	-1.0	93	0.00
85	C	styrene	3.976	4.187	-5.3	103	0.00
86	C	1,1,2,2-tetrachloroethane	3.776	4.068	-7.7	104	0.00
87	C	o-xylene	5.229	5.541	-6.0	102	0.00
88		1,2,3-trichloropropane	2.807	2.930	-4.4	103	0.00
89		nonane	3.328	3.453	-3.8	104	0.00
91	C	isopropylbenzene	7.044	7.630	-8.3	102	0.00
92		bromobenzene	3.681	3.758	-2.1	103	0.00
93		2-chlorotoluene	2.045	2.084	-1.9	100	0.00
94		n-propylbenzene	2.128	2.248	-5.6	103	0.00
95		4-chlorotoluene	5.491	5.712	-4.0	102	0.00
96		4-ethyl toluene	8.036	8.561	-6.5	101	0.00
97		1,3,5-trimethylbenzene	6.307	6.767	-7.3	105	0.00
98		tert-butylbenzene	6.839	7.452	-9.0	101	0.00
99		1,2,4-trimethylbenzene	6.269	6.926	-10.5	101	0.00
100		decane	3.379	3.598	-6.5	104	0.00
101	C	Benzyl Chloride	5.362	5.962	-11.2	102	0.00
102		1,3-dichlorobenzene	4.371	4.657	-6.5	101	0.00
103	C	1,4-dichlorobenzene	4.413	4.698	-6.5	100	0.00
104		sec-butylbenzene	9.197	9.912	-7.8	101	0.00
106		p-isopropyltoluene	8.463	9.237	-9.1	101	0.00
107		1,2-dichlorobenzene	4.085	4.433	-8.5	103	0.00
108		n-butylbenzene	7.402	8.120	-9.7	104	0.00
111	C	1,2-dibromo-3-chloropropane	1.876	2.000	-6.6	102	0.00
112		undecane	3.655	4.032	-10.3	104	0.00
114		dodecane	3.571	4.116	-15.3	101	-0.01
115	C	1,2,4-trichlorobenzene	3.169	3.439	-8.5	98	0.00
116		naphthalene	8.064	8.859	-9.9	99	0.00
117		1,2,3-trichlorobenzene	3.041	3.167	-4.1	98	0.00
119	C	hexachlorobutadiene	2.692	2.839	-5.5	99	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Quality Control Data Summary

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500262 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	8.08	81	-	-	-		70-130
Propylene	10	NA	9.92	99	-	-	-		70-130
Propane	10	NA	7.58	76	-	-	-		70-130
Dichlorodifluoromethane	10	NA	8.02	80	-	-	-		70-130
Chloromethane	10	NA	8.63	86	-	-	-		70-130
Freon-114	10	NA	9.32	93	-	-	-		70-130
Methanol	50	NA	44.0	88	-	-	-		70-130
Vinyl chloride	10	NA	9.17	92	-	-	-		70-130
1,3-Butadiene	10	NA	9.30	93	-	-	-		70-130
Butane	10	NA	8.54	85	-	-	-		70-130
Bromomethane	10	NA	8.36	84	-	-	-		70-130
Chloroethane	10	NA	8.99	90	-	-	-		70-130
Ethanol	50	NA	43.9	88	-	-	-		70-130
Dichlorofluoromethane	10	NA	8.24	82	-	-	-		70-130
Vinyl bromide	10	NA	8.93	89	-	-	-		70-130
Acrolein	10	NA	7.33	73	-	-	-		70-130
Acetone	50	NA	46.7	93	-	-	-		70-130
Acetonitrile	10	NA	8.06	81	-	-	-		70-130
Trichlorofluoromethane	10	NA	8.94	89	-	-	-		70-130
Isopropanol	10	NA	9.16	92	-	-	-		70-130
Acrylonitrile	10	NA	8.55	86	-	-	-		70-130
Pentane	10	NA	8.37	84	-	-	-		70-130
Ethyl ether	10	NA	8.44	84	-	-	-		70-130
1,1-Dichloroethene	10	NA	9.00	90	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	8.72	87	-	-	-		70-130
Methylene chloride	10	NA	8.92	89	-	-	-		70-130
3-Chloropropene	10	NA	8.65	86	-	-	-		70-130
Carbon disulfide	10	NA	8.93	89	-	-	-		70-130
Freon-113	10	NA	8.93	89	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	8.54	85	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.99	90	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.90	89	-	-	-		70-130
Vinyl acetate	10	NA	11.5	115	-	-	-		70-130
2-Butanone	10	NA	9.22	92	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	10.4	104	-	-	-		70-130
Ethyl Acetate	10	NA	9.18	92	-	-	-		70-130
Chloroform	10	NA	9.18	92	-	-	-		70-130
Tetrahydrofuran	10	NA	8.09	81	-	-	-		70-130
2,2-Dichloropropane	10	NA	8.31	83	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.36	94	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500262 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	8.85	88	-	-	-		70-130
Diisopropyl Ether	10	NA	8.86	89	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.49	85	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	8.96	90	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.87	89	-	-	-		70-130
Benzene	10	NA	9.36	94	-	-	-		70-130
Carbon tetrachloride	10	NA	8.63	86	-	-	-		70-130
Cyclohexane	10	NA	8.74	87	-	-	-		70-130
tert-amyl methyl ether	10	NA	8.69	87	-	-	-		70-130
Dibromomethane	10	NA	8.82	88	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.55	96	-	-	-		70-130
Bromodichloromethane	10	NA	9.10	91	-	-	-		70-130
1,4-Dioxane	10	NA	9.68	97	-	-	-		70-130
Trichloroethene	10	NA	9.36	94	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	9.27	93	-	-	-		70-130
Methyl methacrylate	10	NA	8.75	88	-	-	-		70-130
Heptane	10	NA	8.29	83	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	9.99	100	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	8.96	90	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.49	85	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.18	92	-	-	-		70-130
Toluene	10	NA	9.38	94	-	-	-		70-130
1,3-Dichloropropane	10	NA	9.06	91	-	-	-		70-130
2-Hexanone	10	NA	10.1	101	-	-	-		70-130
Dibromochloromethane	10	NA	9.11	91	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.52	95	-	-	-		70-130
Butyl Acetate	10	NA	9.30	93	-	-	-		70-130
Octane	10	NA	8.53	85	-	-	-		70-130
Tetrachloroethene	10	NA	9.20	92	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	8.81	88	-	-	-		70-130
Chlorobenzene	10	NA	9.48	95	-	-	-		70-130
Ethylbenzene	10	NA	9.51	95	-	-	-		70-130
p/m-Xylene	20	NA	18.9	94	-	-	-		70-130
Bromoform	10	NA	9.03	90	-	-	-		70-130
Styrene	10	NA	9.62	96	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.76	98	-	-	-		70-130
o-Xylene	10	NA	9.68	97	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	9.07	91	-	-	-		70-130
Nonane	10	NA	8.65	86	-	-	-		70-130
Isopropylbenzene	10	NA	9.30	93	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500262 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	8.99	90	-	-	-		70-130
2-Chlorotoluene	10	NA	8.90	89	-	-	-		70-130
n-Propylbenzene	10	NA	9.26	93	-	-	-		70-130
4-Chlorotoluene	10	NA	8.92	89	-	-	-		70-130
4-Ethyltoluene	10	NA	9.16	92	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.74	97	-	-	-		70-130
tert-Butylbenzene	10	NA	9.03	90	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.85	98	-	-	-		70-130
Decane	10	NA	9.07	91	-	-	-		70-130
Benzyl chloride	10	NA	9.51	95	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.84	98	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.82	98	-	-	-		70-130
sec-Butylbenzene	10	NA	9.17	92	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.41	84	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	10.1	101	-	-	-		70-130
n-Butylbenzene	10	NA	9.92	99	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.09	91	-	-	-		70-130
Undecane	10	NA	9.75	98	-	-	-		70-130
Dodecane	10	NA	10.3	103	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	11.1	111	-	-	-		70-130
Naphthalene	10	NA	9.73	97	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	10.8	108	-	-	-		70-130
Hexachlorobutadiene	10	NA	10.5	105	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG754063-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Lab File ID: R138914 Lab Sample ID: WG754063-4

Date Analyzed: 01/07/15 Time Analyzed: 14:21

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG754063-3LCS	WG754063-3	R138913	01/07/15 13:12
02	CAN 337 SHELF 2	L1500262-01	R138922	01/07/15 19:42
03	CAN 687 SHELF 42	L1500262-02	R138923	01/07/15 20:14
04	CAN 954 SHELF 43	L1500262-03	R138924	01/07/15 20:47
05	SG-3DUP	WG754063-5D	R138929	01/07/15 23:26

COMMENTS: _____

_____

FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.23	49	112283	10.000	ppbV		0.00
Standard Area = 121341			Recovery = 92.54%				
43) 1,4-difluorobenzene	12.52	114	237190	10.000	ppbV		0.01
Standard Area = 247444			Recovery = 95.86%				
67) chlorobenzene-D5	16.97	54	50117	10.000	ppbV		0.00
Standard Area = 53179			Recovery = 94.24%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.00		0	N.D.			
3) propylene	0.00		0	N.D.	d		
4) propane	0.00		0	N.D.	d		
5) dichlorodifluoromethane	3.97		0	N.D.			
6) chloromethane	4.09		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	707	0.280	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.48		0	N.D.			
11) butane	4.69		0	N.D.			
13) bromomethane	0.00		0	N.D.	d		
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.49		0	N.D.			
16) dichlorofluoromethane	0.00		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	5.93		0	N.D.			
19) acetone	6.23	43	2556M3	0.226	ppbV		
20) acetonitrile	5.81	41	441	0.061	ppbV	#	36
21) trichlorofluoromethane	0.00		0	N.D.			
22) isopropyl alcohol	6.59		0	N.D.			
23) acrylonitrile	6.84		0	N.D.			
24) pentane	0.00		0	N.D.	d		
25) ethyl ether	7.11		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	7.47		0	N.D.			
28) methylene chloride	7.48	49	811	0.085	ppbV		92
29) 3-chloropropene	7.68		0	N.D.			
30) carbon disulfide	7.84		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
35) vinyl acetate	9.21		0	N.D.		
36) 2-butanone	9.45		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	0.00		0	N.D.		
39) chloroform	10.50		0	N.D.		
40) Tetrahydrofuran	10.78		0	N.D.		
41) 2,2-dichloropropane	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		
45) diisopropyl ether	0.00		0	N.D.		
46) tert-butyl ethyl ether	0.00		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		
49) 1,1-dichloropropene	0.00		0	N.D.		
50) benzene	0.00		0	N.D.		
52) carbon tetrachloride	0.00		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
54) tert-amyl methyl ether	0.00		0	N.D.		
55) dibromomethane	0.00		0	N.D.		
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	13.40		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	0.00		0	N.D.		
61) methyl methacrylate	13.58		0	N.D.		
62) heptane	13.69		0	N.D.		
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	14.32		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	15.37		0	N.D.		
71) 1,3-dichloropropane	0.00		0	N.D.		
72) 2-hexanone	15.64		0	N.D.		
74) dibromochloromethane	15.78		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
76) butyl acetate	0.00		0	N.D.		
77) octane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0	N.D.		
79) 1,1,1,2-tetrachloroethane	0.00		0	N.D.		
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	0.00		0	N.D.		
83) m+p-xylene	17.47		0	N.D.		
84) bromoform	0.00		0	N.D.		
85) styrene	17.75		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	17.81		0	N.D.		
88) 1,2,3-trichloropropane	0.00		0	N.D.		
89) nonane	17.93		0	N.D.		
91) isopropylbenzene	18.25		0	N.D.		
92) bromobenzene	18.36		0	N.D.		
93) 2-chlorotoluene	0.00		0	N.D.		
94) n-propylbenzene	18.75		0	N.D.		
95) 4-chlorotoluene	18.67		0	N.D.		
96) 4-ethyl toluene	18.74		0	N.D.		
97) 1,3,5-trimethylbenzene	18.79		0	N.D.		
98) tert-butylbenzene	19.10		0	N.D.		
99) 1,2,4-trimethylbenzene	19.10		0	N.D.		
100) decane	19.14		0	N.D.		
101) Benzyl Chloride	19.23		0	N.D.		
102) 1,3-dichlorobenzene	19.24		0	N.D.		
103) 1,4-dichlorobenzene	19.29		0	N.D.		
104) sec-butylbenzene	19.30		0	N.D.		
106) p-isopropyltoluene	19.41		0	N.D.		
107) 1,2-dichlorobenzene	19.55		0	N.D.		
108) n-butylbenzene	19.75		0	N.D.		
111) 1,2-dibromo-3-chloropr...	19.90		0	N.D.		
112) undecane	20.12		0	N.D.		
114) dodecane	21.04		0	N.D.		
115) 1,2,4-trichlorobenzene	21.04	180	1553	0.076	ppbV #	75
116) naphthalene	21.15	128	5560	0.109	ppbV #	92
117) 1,2,3-trichlorobenzene	21.41	180	1238	0.065	ppbV #	65
119) hexachlorobutadiene	21.48		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

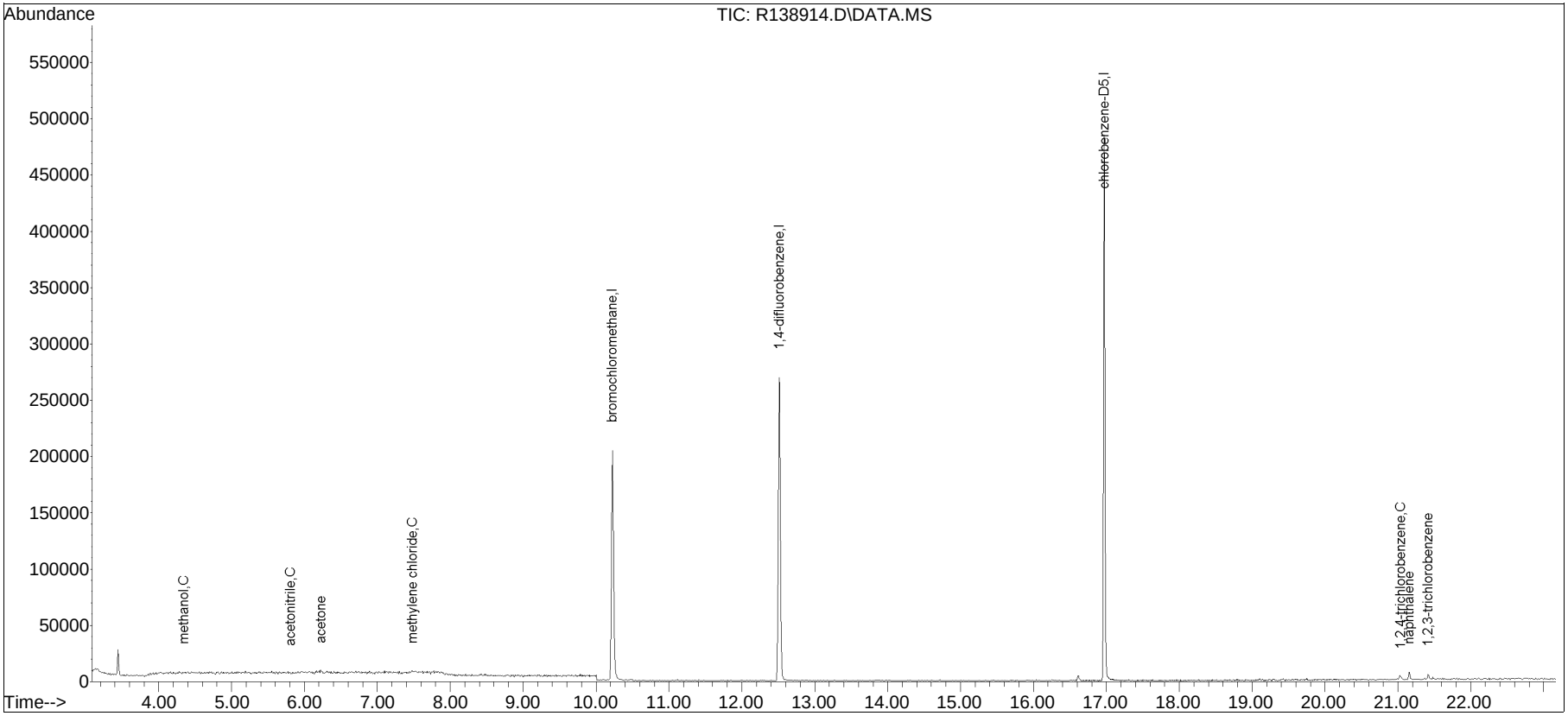
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

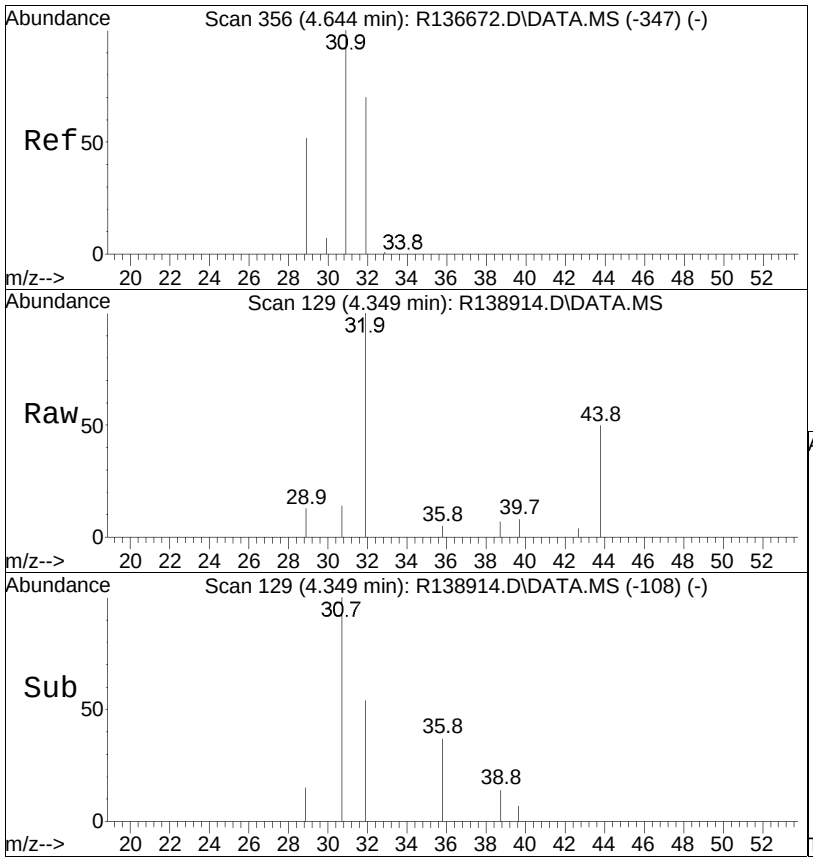
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38913.D

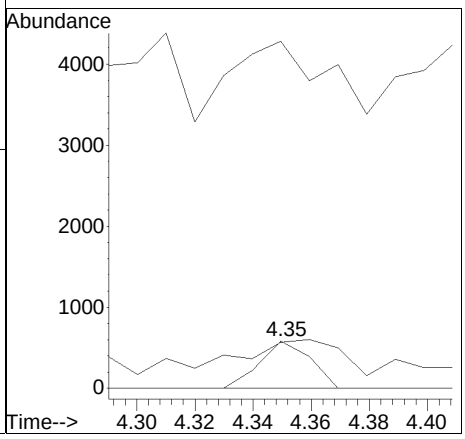


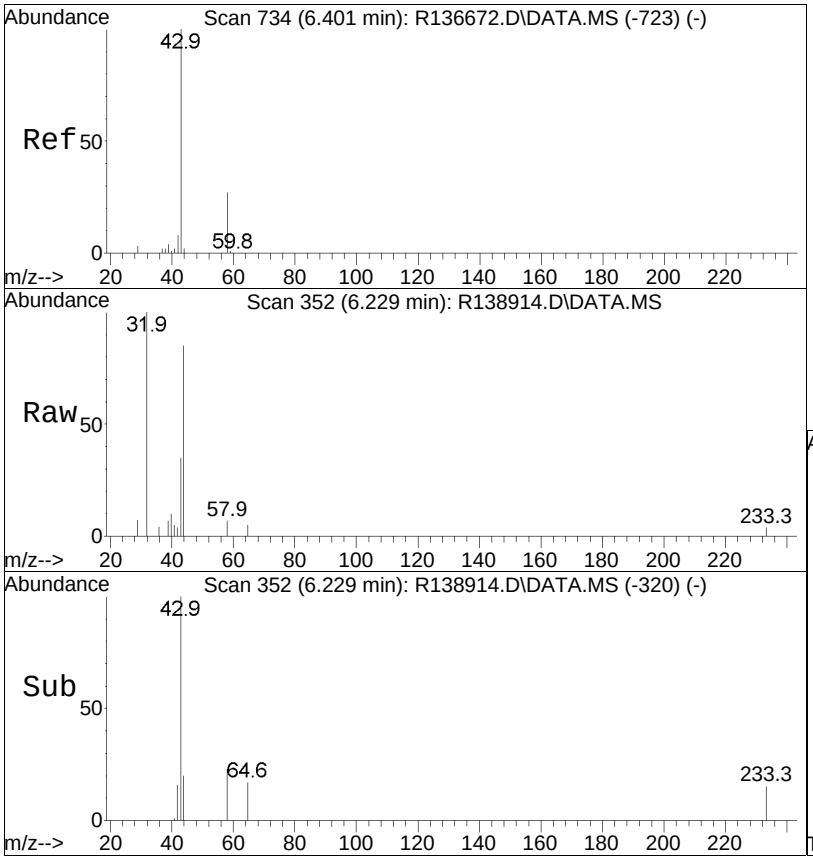


#8
methanol
Concen: 0.28 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 31 Resp: 707

Ion	Ratio	Lower	Upper
31	100		
32	734.6	59.9	89.9#
29	97.4	50.3	75.5#

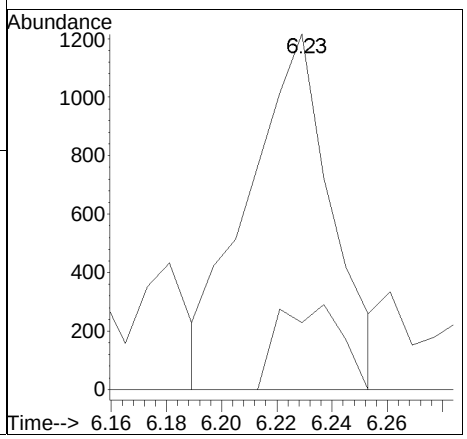


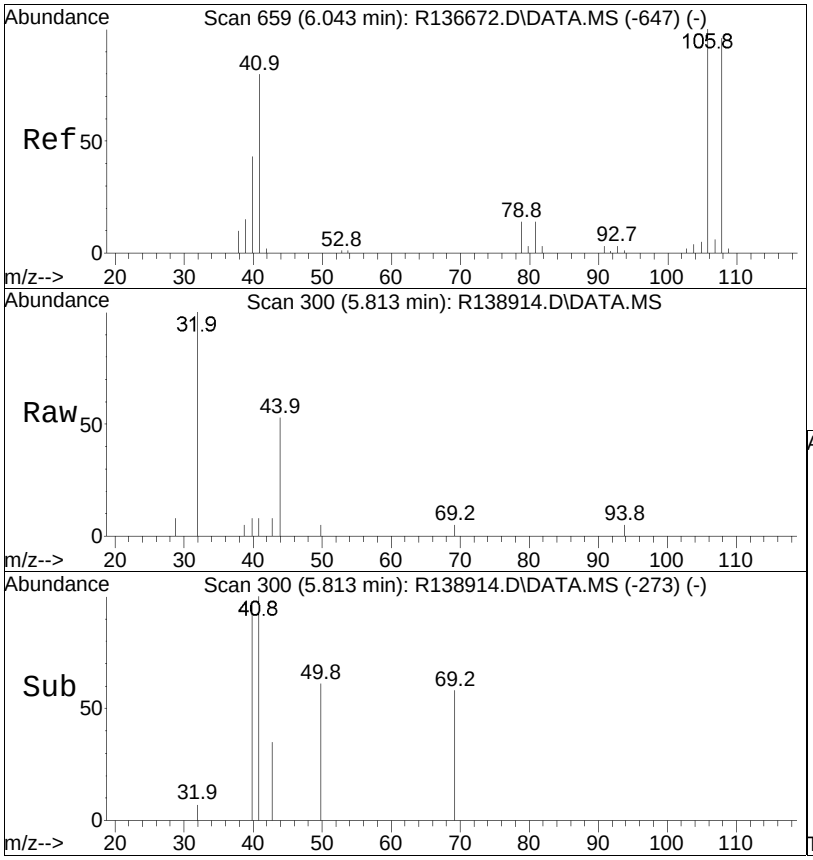


#19
acetone
Concen: 0.23 ppbV m
RT: 6.23 min Scan# 352
Delta R.T. 0.056 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 43 Resp: 2556

Ion	Ratio	Lower	Upper
43	100		
58	18.8	19.9	29.9#
57	0.0	0.6	0.8#

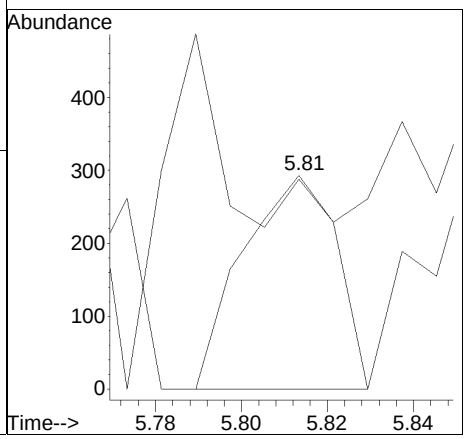


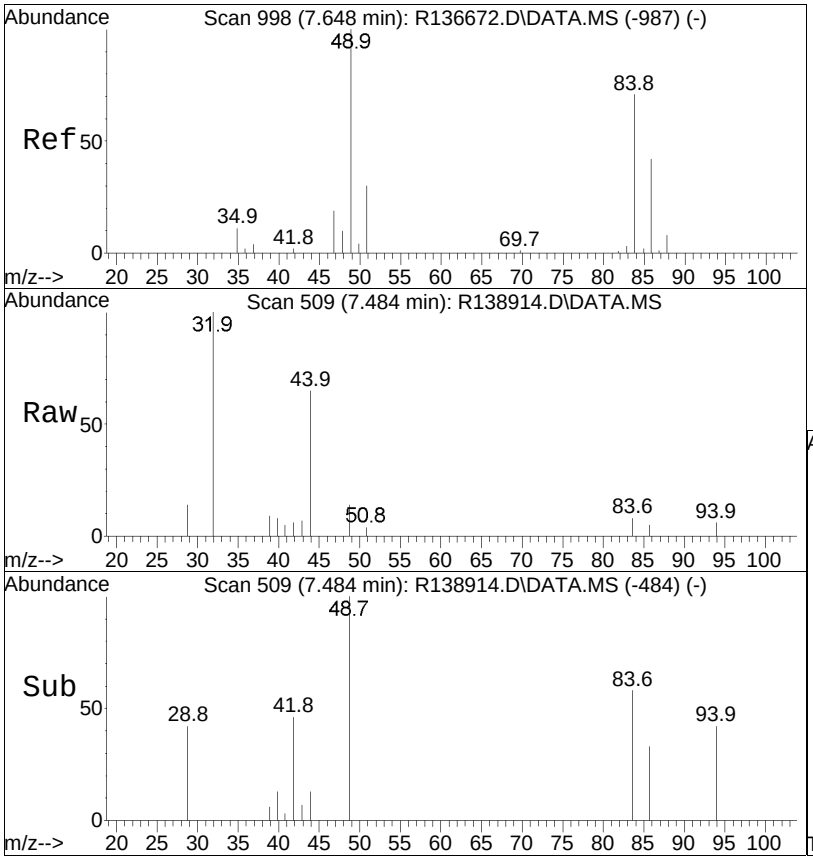


#20
acetonitrile
Concen: 0.06 ppbV
RT: 5.81 min Scan# 300
Delta R.T. 0.016 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 41 Resp: 441

Ion	Ratio	Lower	Upper
41	100		
40	98.3	42.2	63.4#

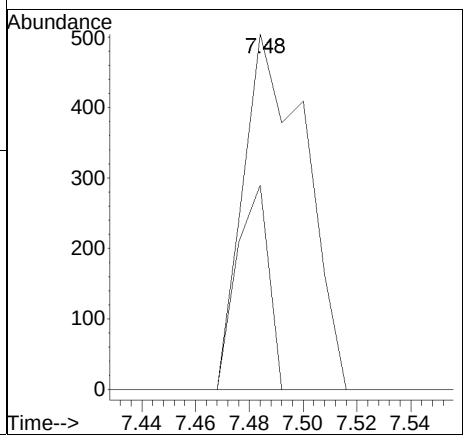


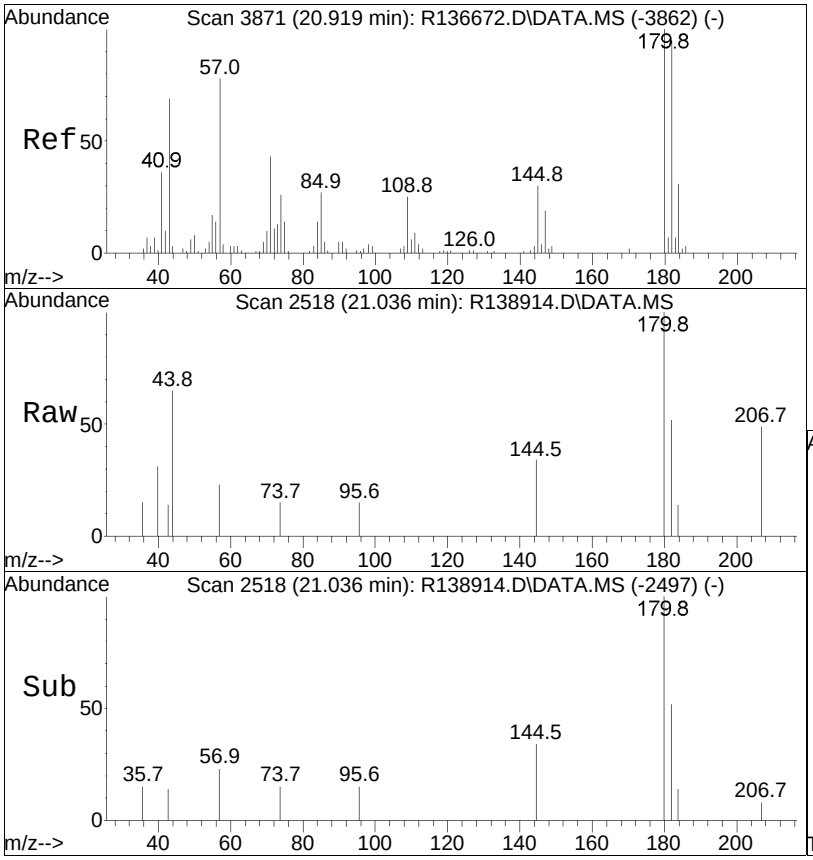


#28
methylene chloride
Concen: 0.08 ppbV
RT: 7.48 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 49 Resp: 811

Ion	Ratio	Lower	Upper
49	100		
84	57.5	50.8	76.2

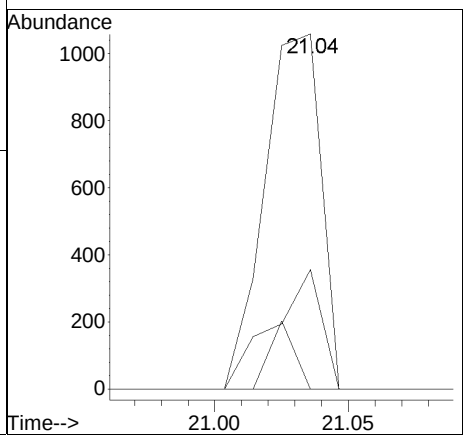


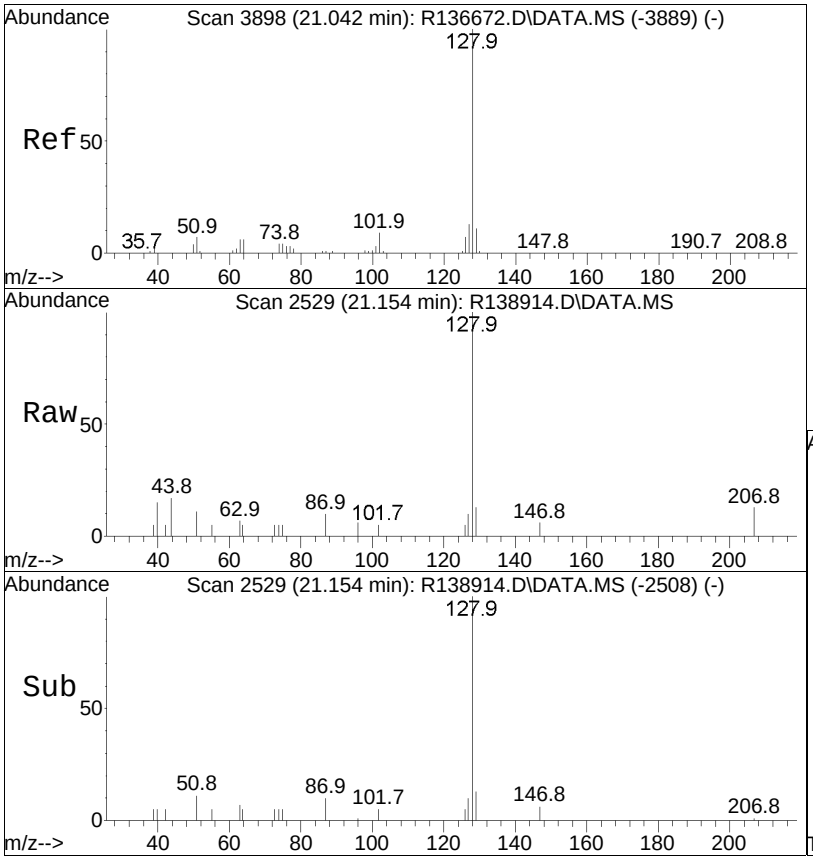


#115
1,2,4-trichlorobenzene
Concen: 0.08 ppbV
RT: 21.04 min Scan# 2518
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:180 Resp: 1553

Ion	Ratio	Lower	Upper
180	100		
145	33.7	23.7	35.5
109	0.0	18.3	27.5#

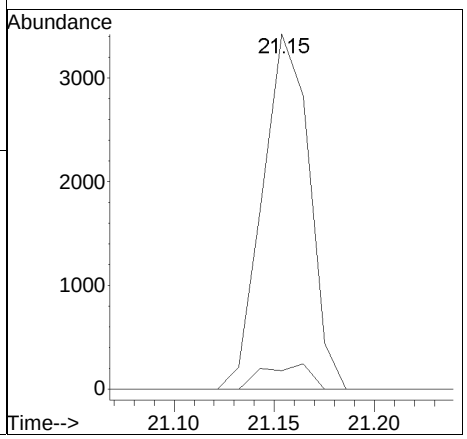


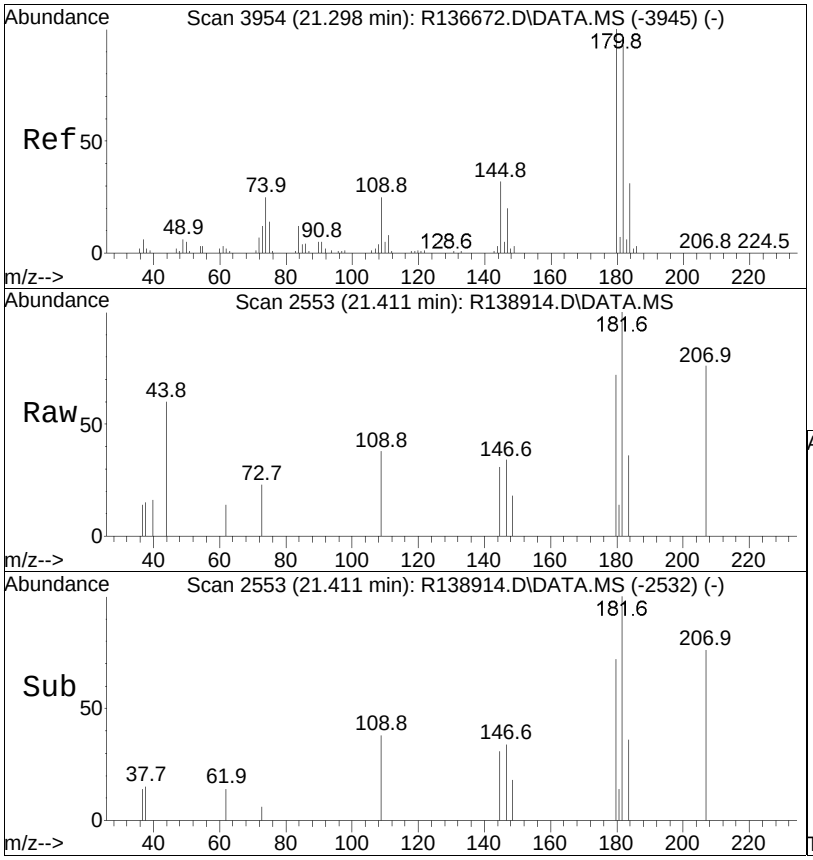


#116
naphthalene
Concen: 0.11 ppbV
RT: 21.15 min Scan# 2529
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:128 Resp: 5560

Ion	Ratio	Lower	Upper
128	100		
102	5.3	6.5	9.7#

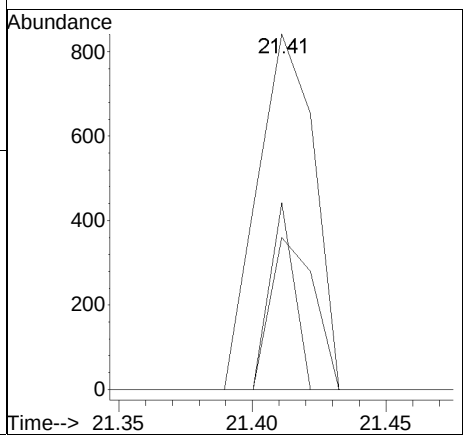




#117
1,2,3-trichlorobenzene
Concen: 0.06 ppbV
RT: 21.41 min Scan# 2553
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:180 Resp: 1238

Ion	Ratio	Lower	Upper
180	100		
145	42.8	26.2	39.2#
109	52.5	19.0	28.4#

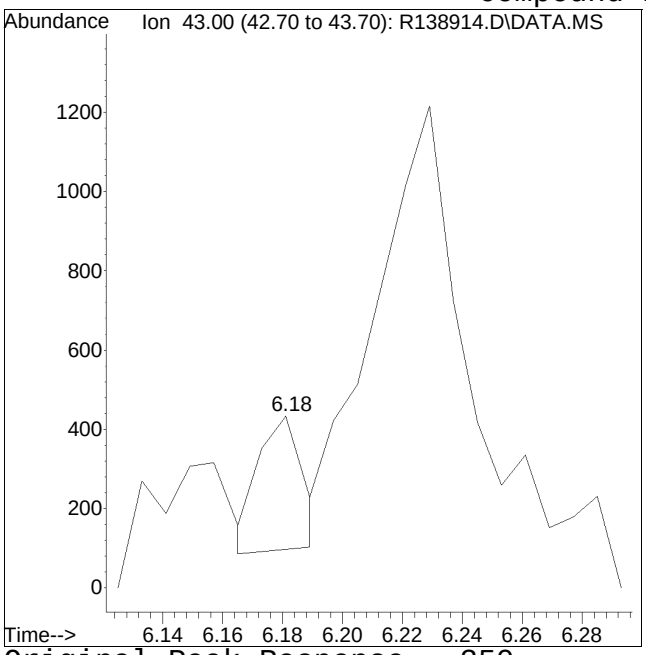


Manual Integration/Negative Proof Report

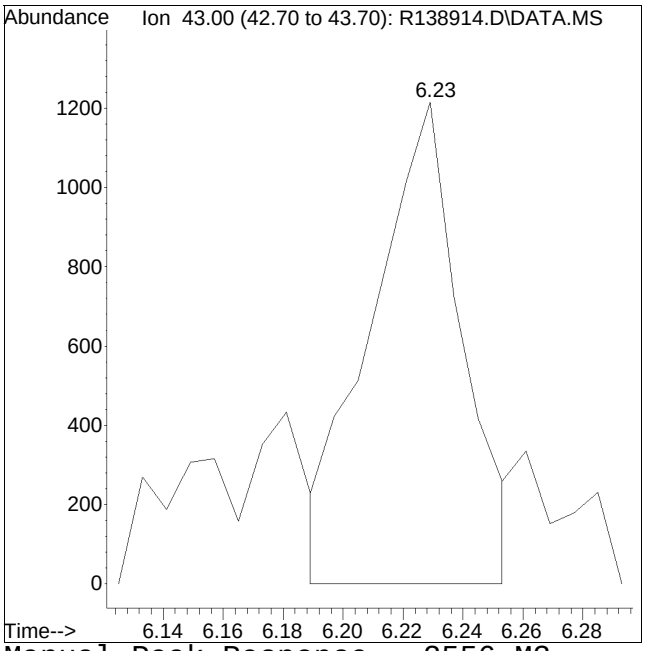
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138914.D
Date Inj'd : 1/7/2015 2:21 pm
Sample : WG754063-4,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 1/7/2015 2:53 pm

Compound #19: acetone



Original Peak Response = 350



Manual Peak Response = 2556 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138914.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.294	610	612	616	rBV2	1723	1478	0.22%	0.087%
2	8.836	689	691	692	rBV	1665	1096	0.16%	0.065%
3	8.891	697	699	700	rBV	1967	1370	0.20%	0.081%
4	9.344	763	765	768	rBV2	1585	1681	0.25%	0.099%
5	10.002	860	861	862	rVB2	4890	2015	0.30%	0.119%
6	10.094	869	871	874	rVB	840	1259	0.19%	0.074%
7	10.225	880	885	895	rBV	203554	398128	59.20%	23.494%
8	10.404	902	904	907	rBV2	1087	1651	0.25%	0.097%
9	10.469	907	911	913	rBV	891	1949	0.29%	0.115%
10	10.638	928	929	933	rVB	819	1364	0.20%	0.080%
11	11.408	1009	1011	1014	rBV2	1041	1220	0.18%	0.072%
12	11.577	1025	1029	1032	rVB2	465	1354	0.20%	0.080%
13	12.008	1067	1071	1072	rBV2	706	1407	0.21%	0.083%
14	12.516	1115	1120	1127	rBV	269249	527459	78.43%	31.126%
15	14.719	1302	1307	1308	rVB	864	1287	0.19%	0.076%
16	15.460	1386	1389	1391	rBV2	766	1241	0.18%	0.073%
17	15.605	1403	1405	1411	rVB2	762	2082	0.31%	0.123%
18	15.776	1421	1424	1427	rBV2	689	1350	0.20%	0.080%
19	16.508	1501	1505	1508	rBV2	540	1188	0.18%	0.070%
20	16.608	1514	1516	1517	rBV	4584	4426	0.66%	0.261%
21	16.855	1579	1583	1586	rBV2	635	692	0.10%	0.041%
22	16.970	1602	1614	1629	rBV	485147	672495	100.00%	39.684%
23	17.088	1644	1646	1650	rVB	1417	819	0.12%	0.048%
24	17.225	1680	1683	1686	rVB	979	678	0.10%	0.040%
25	18.267	1959	1965	1966	rBV2	852	808	0.12%	0.048%
26	18.747	2090	2095	2099	rVB2	977	1047	0.16%	0.062%
27	18.825	2114	2115	2119	rBV2	963	885	0.13%	0.052%
28	19.001	2147	2152	2154	rBV	854	1008	0.15%	0.059%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	19.101	2170	2173	2178	rVB2	2167	2260	0.34%	0.133%
30	19.139	2178	2181	2186	rBV	1310	1347	0.20%	0.079%
31	19.234	2198	2201	2209	rVB4	1453	2657	0.40%	0.157%
32	19.287	2209	2212	2219	rVV2	1951	3270	0.49%	0.193%
33	19.425	2238	2241	2245	rVB3	1636	1753	0.26%	0.103%
34	19.468	2248	2250	2252	rBV	950	809	0.12%	0.048%
35	19.549	2265	2267	2271	rVB3	1272	1409	0.21%	0.083%
36	19.592	2271	2276	2277	rBV	1100	1256	0.19%	0.074%
37	19.672	2290	2293	2296	rBV2	901	839	0.12%	0.050%
38	19.739	2303	2307	2308	rBV	1219	1410	0.21%	0.083%
39	19.749	2308	2309	2312	rVB3	1973	1235	0.18%	0.073%
40	19.825	2322	2325	2326	rVB2	1128	688	0.10%	0.041%
41	19.844	2326	2329	2332	rBV	1160	1195	0.18%	0.071%
42	19.863	2332	2333	2338	rBV	1037	1217	0.18%	0.072%
43	19.906	2341	2342	2347	rBV	915	1088	0.16%	0.064%
44	19.968	2351	2355	2357	rBV	1028	1037	0.15%	0.061%
45	20.068	2373	2376	2377	rBV3	1121	750	0.11%	0.044%
46	20.301	2421	2425	2426	rBV2	875	913	0.14%	0.054%
47	20.993	2511	2514	2515	rBV3	1187	2018	0.30%	0.119%
48	21.025	2515	2517	2523	rVB4	3764	7477	1.11%	0.441%
49	21.154	2527	2529	2532	rBV2	6675	9678	1.44%	0.571%
50	21.411	2551	2553	2558	rVB2	4560	7388	1.10%	0.436%
51	21.475	2558	2559	2564	rBV3	2096	2690	0.40%	0.159%
52	22.108	2616	2618	2621	rVB2	1117	1690	0.25%	0.100%
53	22.268	2632	2633	2635	rBV	1098	1443	0.21%	0.085%
54	22.558	2658	2660	2661	rBV	1368	2074	0.31%	0.122%
55	22.729	2674	2676	2677	rBV	1169	1586	0.24%	0.094%

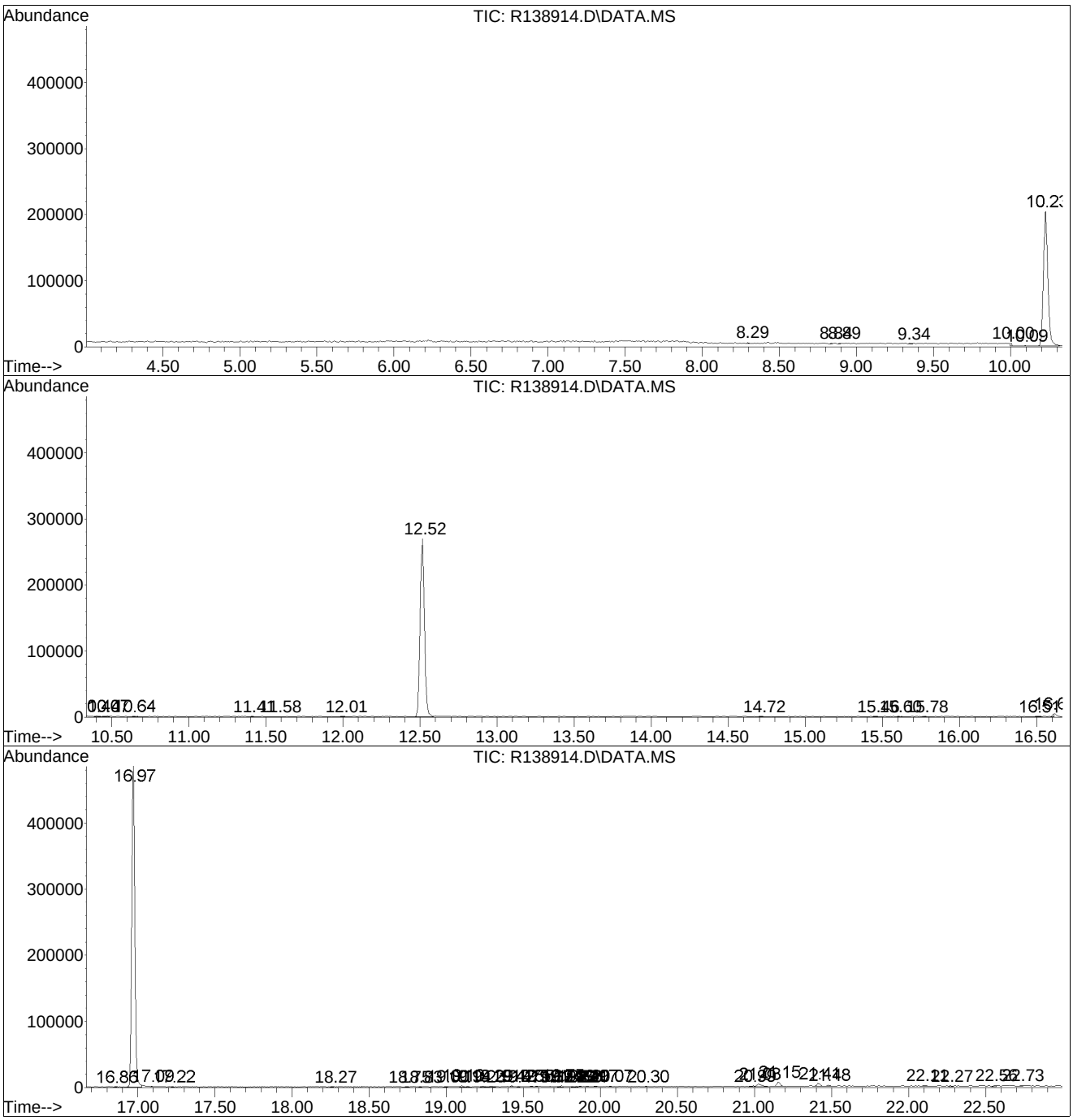
Sum of corrected areas: 1694614

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Lab File ID: R138797_tune BFB Injection Date: 01/01/15

Instrument ID: AIRPIANO1 BFB Injection Time: 18:23

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	91.3
175	4.0 - 9.0% of mass 174	7.1 (7.8)1
176	93.0 - 101% of mass 174	87.7 (96)1
177	5.0 - 9.0% of mass 176	5.5 (6.2)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.4	0.4	R138798	01/01/15	20:43
02	0.8	0.8	R138799	01/01/15	21:16
03	2.0	2.0	R138800	01/01/15	21:48
04	10	10	R138801	01/01/15	22:19
05	20	20	R138802	01/01/15	22:52
06	50	50	R138803	01/01/15	23:24
07	100.0	100.0	R138804	01/01/15	23:57
08	ICV QUANT REPORT	ICV QUANT REPO	R138807	01/02/15	09:08

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Lab File ID: R138909_tune BFB Injection Date: 01/07/15

Instrument ID: AIRPIANO1 BFB Injection Time: 11:01

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	19.9
75	30.0 - 66.0% of mass 95	45
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	90.5
175	4.0 - 9.0% of mass 174	6.4 (7.1)1
176	93.0 - 101% of mass 174	84.7 (93.6)1
177	5.0 - 9.0% of mass 176	6.5 (7.7)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG754063-2	R138913	01/07/15	13:12
02	WG754063-3LCS	WG754063-3	R138913	01/07/15	13:12
03	WG754063-4BLANK	WG754063-4	R138914	01/07/15	14:21
04	CAN 337 SHELF 2	L1500262-01	R138922	01/07/15	19:42
05	CAN 687 SHELF 42	L1500262-02	R138923	01/07/15	20:14
06	CAN 954 SHELF 43	L1500262-03	R138924	01/07/15	20:47
07	Duplicate Sample	WG754063-5D	R138929	01/07/15	23:26

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Lab File ID (Standard): R138913 Date Analyzed: 01/07/15

Instrument ID : AIRPIANO1 Time Analyzed: 13:12

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	121341	10.22	247444	12.51	53179	16.97
	UPPER LIMIT	169877	10.55	346422	12.84	74451	17.30
	LOWER LIMIT	72805	9.89	148466	12.18	31907	16.64
	EPA SAMPLE NO.						
01	WG754063-3LCS	121341	10.22	247444	12.51	53179	16.97
02	WG754063-4BLANK	112283	10.23	237190	12.52	50117	16.97
03	CAN 337 SHELF 2	107830	10.22	231682	12.51	49386	16.97
04	CAN 687 SHELF 42	98043	10.22	214893	12.51	49217	16.96
05	CAN 954 SHELF 43	96800	10.22	207362	12.51	48825	16.96
06	WG754063-5DUP	92428	10.22	194655	12.51	47195	16.97

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-01	Date Collected	: 01/06/15 18:00
Client ID	: CAN 337 SHELF 2	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 19:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138922	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-01	Date Collected	: 01/06/15 18:00
Client ID	: CAN 337 SHELF 2	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 19:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138922	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-01	Date Collected	: 01/06/15 18:00
Client ID	: CAN 337 SHELF 2	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 19:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138922	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-01	Date Collected	: 01/06/15 18:00
Client ID	: CAN 337 SHELF 2	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 19:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138922	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 08 09:20:40 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.22	49	107830	10.000	ppbV		0.00
Standard Area = 118855			Recovery = 90.72%				
43) 1,4-difluorobenzene	12.51	114	231682	10.000	ppbV		0.00
Standard Area = 249633			Recovery = 92.81%				
67) chlorobenzene-D5	16.97	54	49386	10.000	ppbV		0.00
Standard Area = 54542			Recovery = 90.55%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	3.85		0	N.D.			
3) propylene	3.61		0	N.D.			
4) propane	0.00		0	N.D.		d	
5) dichlorodifluoromethane	0.00		0	N.D.			
6) chloromethane	4.09		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.36	31	707	0.292	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.74		0	N.D.			
11) butane	0.00		0	N.D.		d	
13) bromomethane	5.00		0	N.D.			
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.52		0	N.D.			
16) dichlorofluoromethane	0.00		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	5.97		0	N.D.			
19) acetone	6.23	43	1219M3	0.112	ppbV		
20) acetonitrile	0.00		0	N.D.		d	
21) trichlorofluoromethane	0.00		0	N.D.			
22) isopropyl alcohol	6.58		0	N.D.			
23) acrylonitrile	6.72		0	N.D.			
24) pentane	6.93		0	N.D.			
25) ethyl ether	7.06		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	0.00		0	N.D.			
28) methylene chloride	7.48	49	533	0.058	ppbV		87
29) 3-chloropropene	7.72		0	N.D.			
30) carbon disulfide	7.84	76	1364	0.072	ppbV	#	1

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 08 09:20:40 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
35) vinyl acetate	9.13		0	N.D.		
36) 2-butanone	9.56		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	0.00		0	N.D.		
39) chloroform	0.00		0	N.D.		
40) Tetrahydrofuran	10.80		0	N.D.		
41) 2,2-dichloropropane	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		
45) diisopropyl ether	10.41		0	N.D.		
46) tert-butyl ethyl ether	0.00		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		
49) 1,1-dichloropropene	0.00		0	N.D.		
50) benzene	0.00		0	N.D.		
52) carbon tetrachloride	0.00		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
54) tert-amyl methyl ether	0.00		0	N.D.		
55) dibromomethane	13.06		0	N.D.		
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	0.00		0	N.D.		
61) methyl methacrylate	0.00		0	N.D.		
62) heptane	13.59		0	N.D.		
63) cis-1,3-dichloropropene	14.19		0	N.D.		
64) 4-methyl-2-pentanone	14.38		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	0.00		0	N.D.		
71) 1,3-dichloropropane	0.00		0	N.D.		
72) 2-hexanone	15.66		0	N.D.		
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
76) butyl acetate	0.00		0	N.D.		
77) octane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 08 09:20:40 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.00		0		N.D.	
80) chlorobenzene	0.00		0		N.D.	
81) ethylbenzene	0.00		0		N.D.	
83) m+p-xylene	0.00		0		N.D.	
84) bromoform	0.00		0		N.D.	
85) styrene	0.00		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0		N.D.	
87) o-xylene	0.00		0		N.D.	
88) 1,2,3-trichloropropane	0.00		0		N.D.	
89) nonane	17.92		0		N.D.	
91) isopropylbenzene	18.36		0		N.D.	
92) bromobenzene	0.00		0		N.D.	
93) 2-chlorotoluene	0.00		0		N.D.	
94) n-propylbenzene	0.00		0		N.D.	
95) 4-chlorotoluene	0.00		0		N.D.	
96) 4-ethyl toluene	0.00		0		N.D.	
97) 1,3,5-trimethylbenzene	0.00		0		N.D.	
98) tert-butylbenzene	0.00		0		N.D.	
99) 1,2,4-trimethylbenzene	0.00		0		N.D.	
100) decane	0.00		0		N.D.	
101) Benzyl Chloride	0.00		0		N.D.	
102) 1,3-dichlorobenzene	19.30		0		N.D.	
103) 1,4-dichlorobenzene	19.30		0		N.D.	
104) sec-butylbenzene	0.00		0		N.D.	
106) p-isopropyltoluene	0.00		0		N.D.	
107) 1,2-dichlorobenzene	0.00		0		N.D.	
108) n-butylbenzene	0.00		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.00		0		N.D.	
112) undecane	0.00		0		N.D.	
114) dodecane	21.02		0		N.D.	
115) 1,2,4-trichlorobenzene	21.01		0		N.D.	
116) naphthalene	21.14		0		N.D.	
117) 1,2,3-trichlorobenzene	0.00		0		N.D.	
119) hexachlorobutadiene	0.00		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 08 09:20:40 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

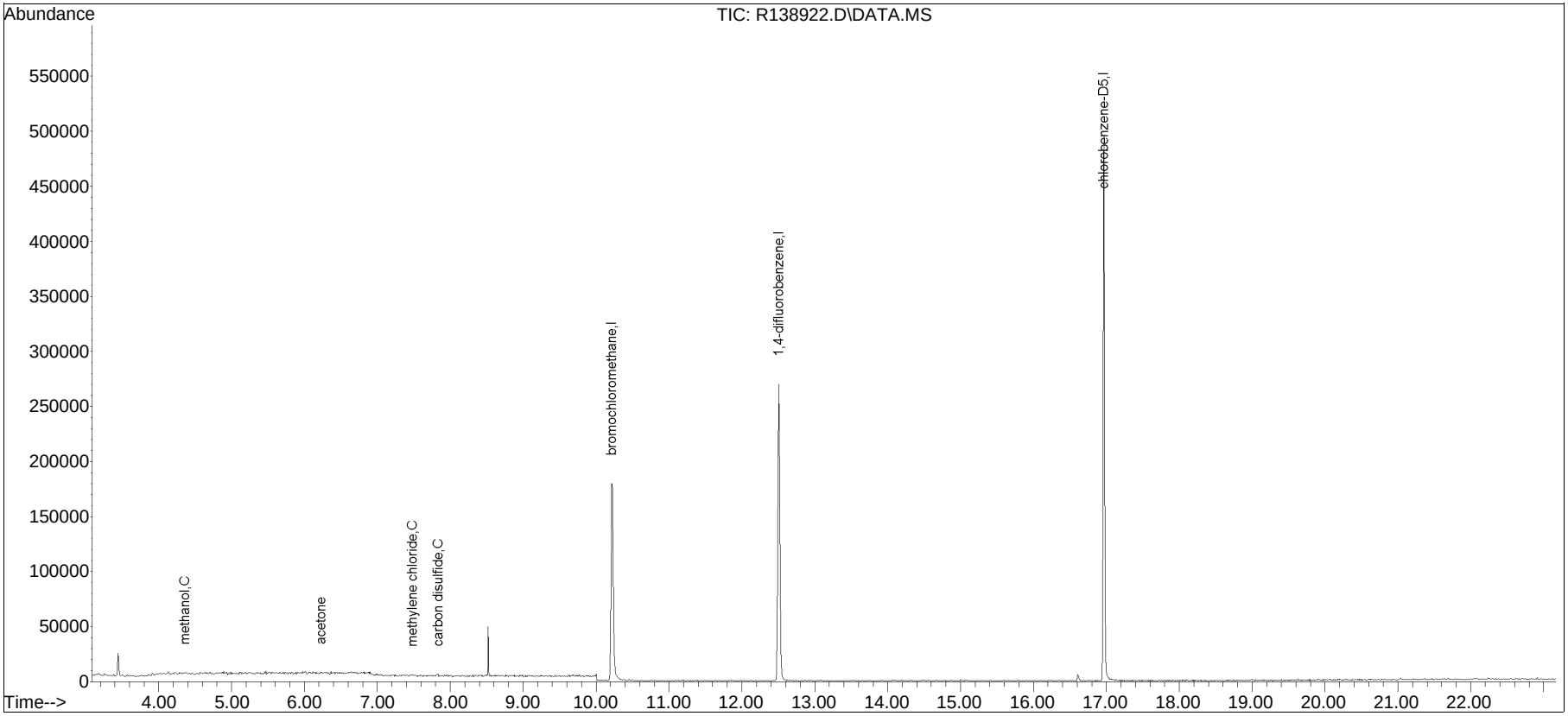
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

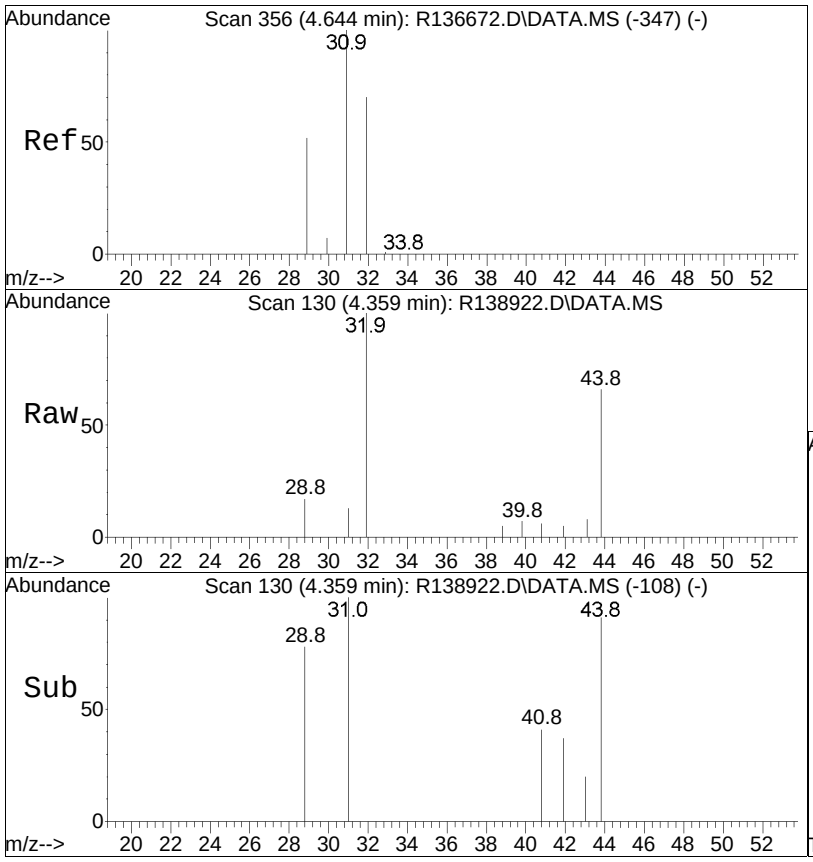
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 08 09:20:40 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38911.D

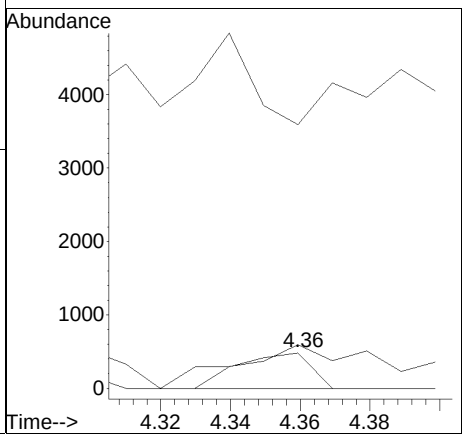


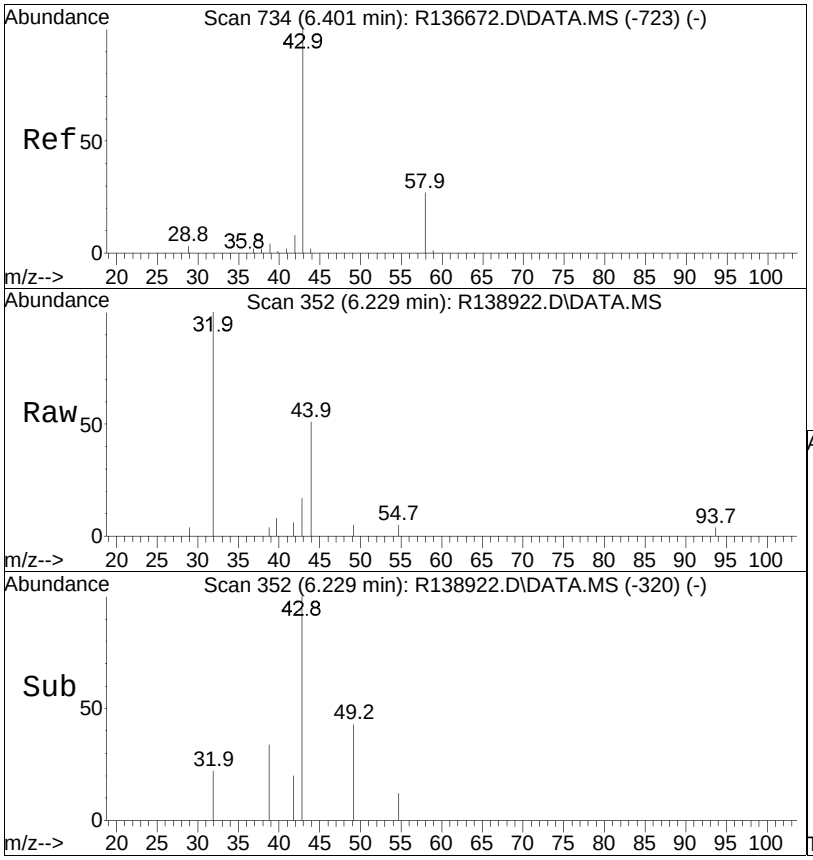


#8
methanol
Concen: 0.29 ppbV
RT: 4.36 min Scan# 130
Delta R.T. 0.020 min
Lab File: R138922.D
Acq: 7 Jan 2015 7:42 pm

Tgt Ion: 31 Resp: 707

Ion	Ratio	Lower	Upper
31	100		
32	743.7	59.9	89.9#
29	123.2	50.3	75.5#

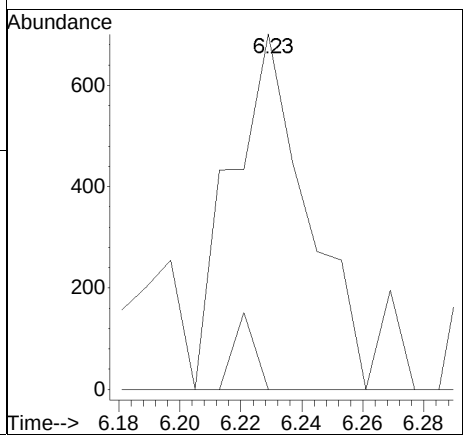


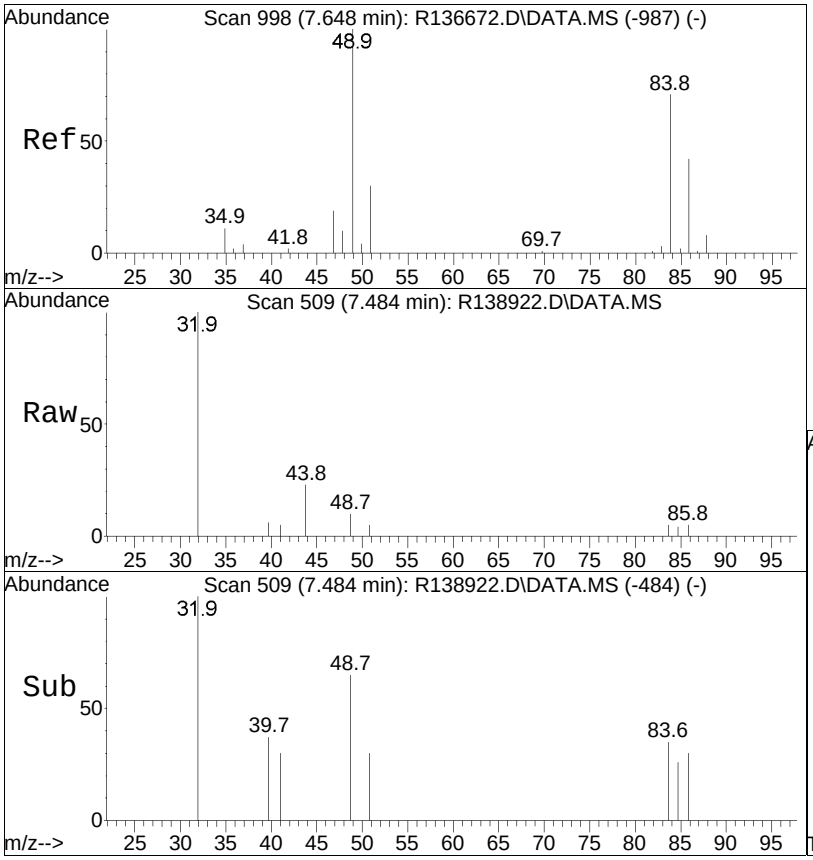


#19
acetone
Concen: 0.11 ppbV m
RT: 6.23 min Scan# 352
Delta R.T. 0.056 min
Lab File: R138922.D
Acq: 7 Jan 2015 7:42 pm

Tgt Ion: 43 Resp: 1219

Ion	Ratio	Lower	Upper
43	100		
58	0.0	19.9	29.9#
57	0.0	0.6	0.8#

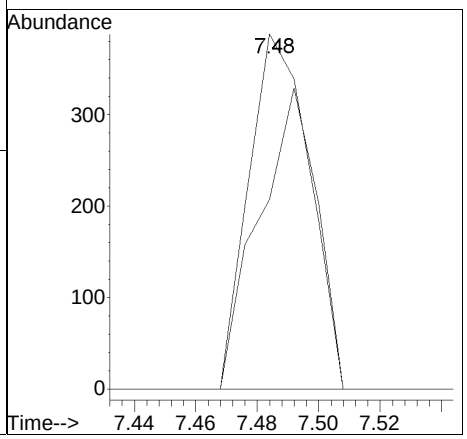


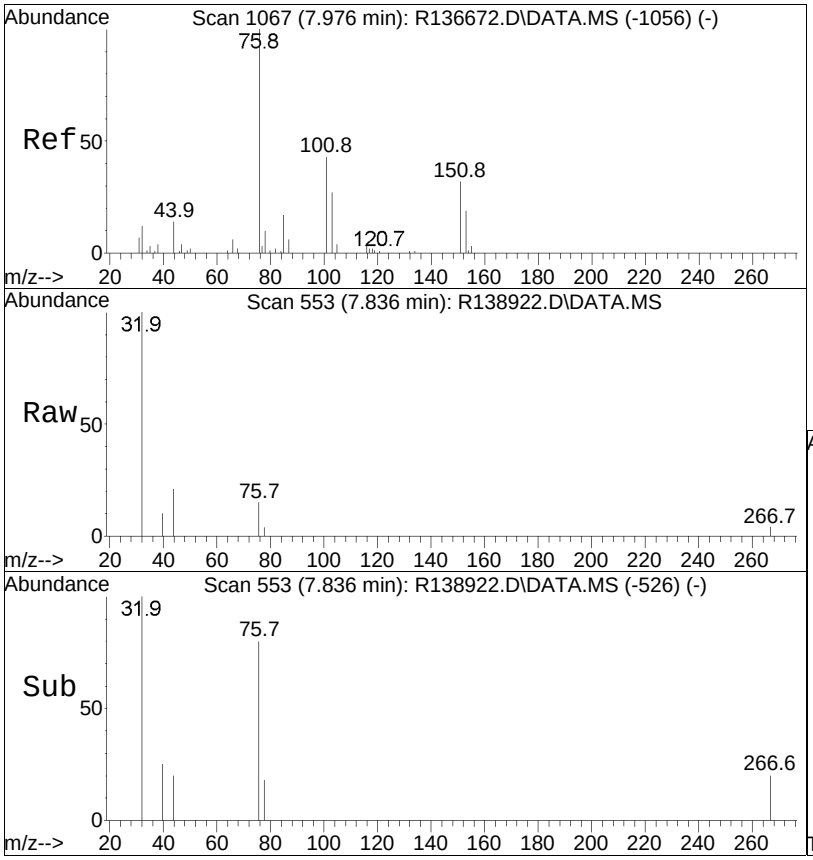


#28
methylene chloride
Concen: 0.06 ppbV
RT: 7.48 min Scan# 509
Delta R.T. -0.000 min
Lab File: R138922.D
Acq: 7 Jan 2015 7:42 pm

Tgt Ion: 49 Resp: 533

Ion	Ratio	Lower	Upper
49	100		
84	53.4	50.8	76.2

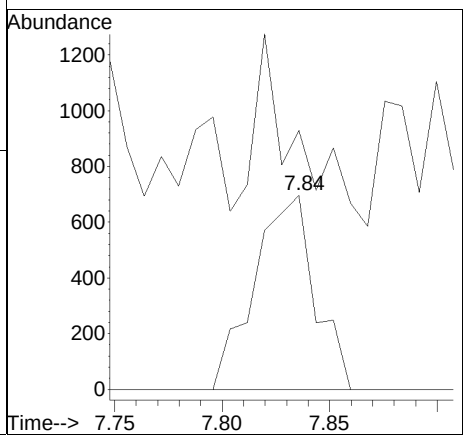




#30
carbon disulfide
Concen: 0.07 ppbV
RT: 7.84 min Scan# 553
Delta R.T. 0.016 min
Lab File: R138922.D
Acq: 7 Jan 2015 7:42 pm

Tgt Ion: 76 Resp: 1364

Ion	Ratio	Lower	Upper
76	100		
44	133.5	14.3	21.5#

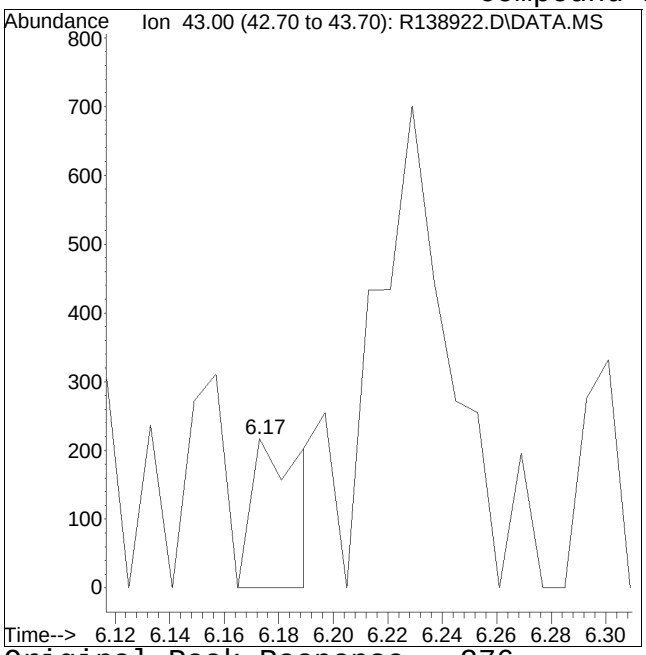


Manual Integration/Negative Proof Report

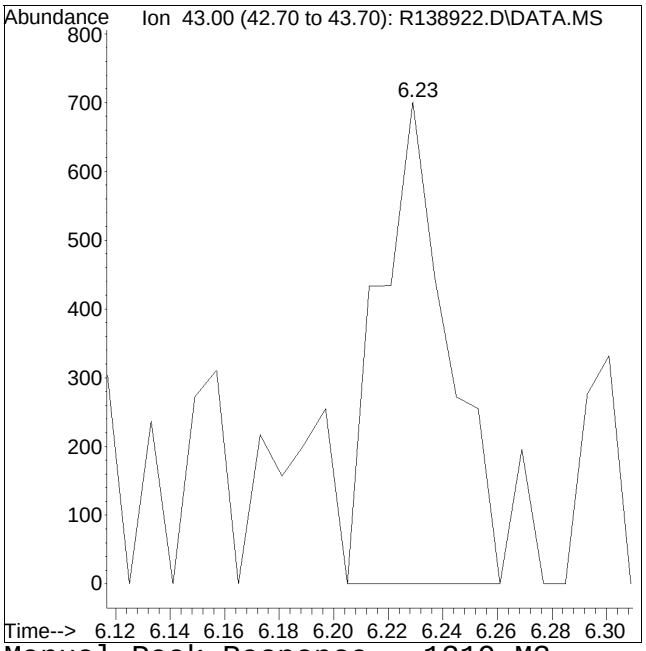
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138922.D
Date Inj'd : 1/7/2015 7:42 pm
Sample : L1500262-01,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 1/8/2015 5:59 am

Compound #19: acetone



Original Peak Response = 276



Manual Peak Response = 1219 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-01	Date Collected	: 01/06/15 18:00
Client ID	: CAN 337 SHELF 2	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 19:42
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138922	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138922.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.365	367	369	370	rBV2	2575	2222	0.33%	0.134%
2	8.520	644	645	647	rVB	44931	20022	2.96%	1.205%
3	9.069	723	725	728	rBV3	1573	2107	0.31%	0.127%
4	9.234	747	749	751	rBV	1608	1363	0.20%	0.082%
5	9.769	825	827	830	rVB2	1679	1862	0.28%	0.112%
6	10.002	859	861	863	rVB	6185	4738	0.70%	0.285%
7	10.216	880	884	896	rBV	178848	384729	56.94%	23.156%
8	10.450	907	909	913	rBV	1218	1518	0.22%	0.091%
9	11.361	1003	1006	1008	rBV	585	1286	0.19%	0.077%
10	11.436	1011	1014	1019	rBV2	722	1741	0.26%	0.105%
11	12.122	1081	1082	1086	rVB2	770	1365	0.20%	0.082%
12	12.506	1115	1119	1129	rVB	269412	515183	76.25%	31.007%
13	13.531	1217	1218	1223	rVB	679	1372	0.20%	0.083%
14	14.773	1309	1313	1315	rVB	942	1285	0.19%	0.077%
15	15.595	1401	1404	1407	rBV	1040	1691	0.25%	0.102%
16	15.903	1435	1438	1440	rVB	1165	1466	0.22%	0.088%
17	15.939	1440	1442	1447	rBV2	797	1530	0.23%	0.092%
18	16.228	1473	1474	1481	rBV2	678	1492	0.22%	0.090%
19	16.608	1514	1516	1524	rBV3	5893	8569	1.27%	0.516%
20	16.966	1604	1613	1634	rBV	496143	675662	100.00%	40.666%
21	17.162	1663	1666	1672	rVB2	821	878	0.13%	0.053%
22	18.640	2064	2066	2069	rBV	1033	740	0.11%	0.045%
23	18.906	2129	2132	2134	rBV	731	718	0.11%	0.043%
24	18.992	2147	2150	2153	rBV3	1339	1230	0.18%	0.074%
25	19.120	2173	2177	2182	rVB2	488	782	0.12%	0.047%
26	19.782	2313	2316	2318	rVB2	1294	1202	0.18%	0.072%
27	19.796	2318	2319	2321	rBV	1208	776	0.11%	0.047%
28	19.920	2343	2345	2350	rVB	926	884	0.13%	0.053%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

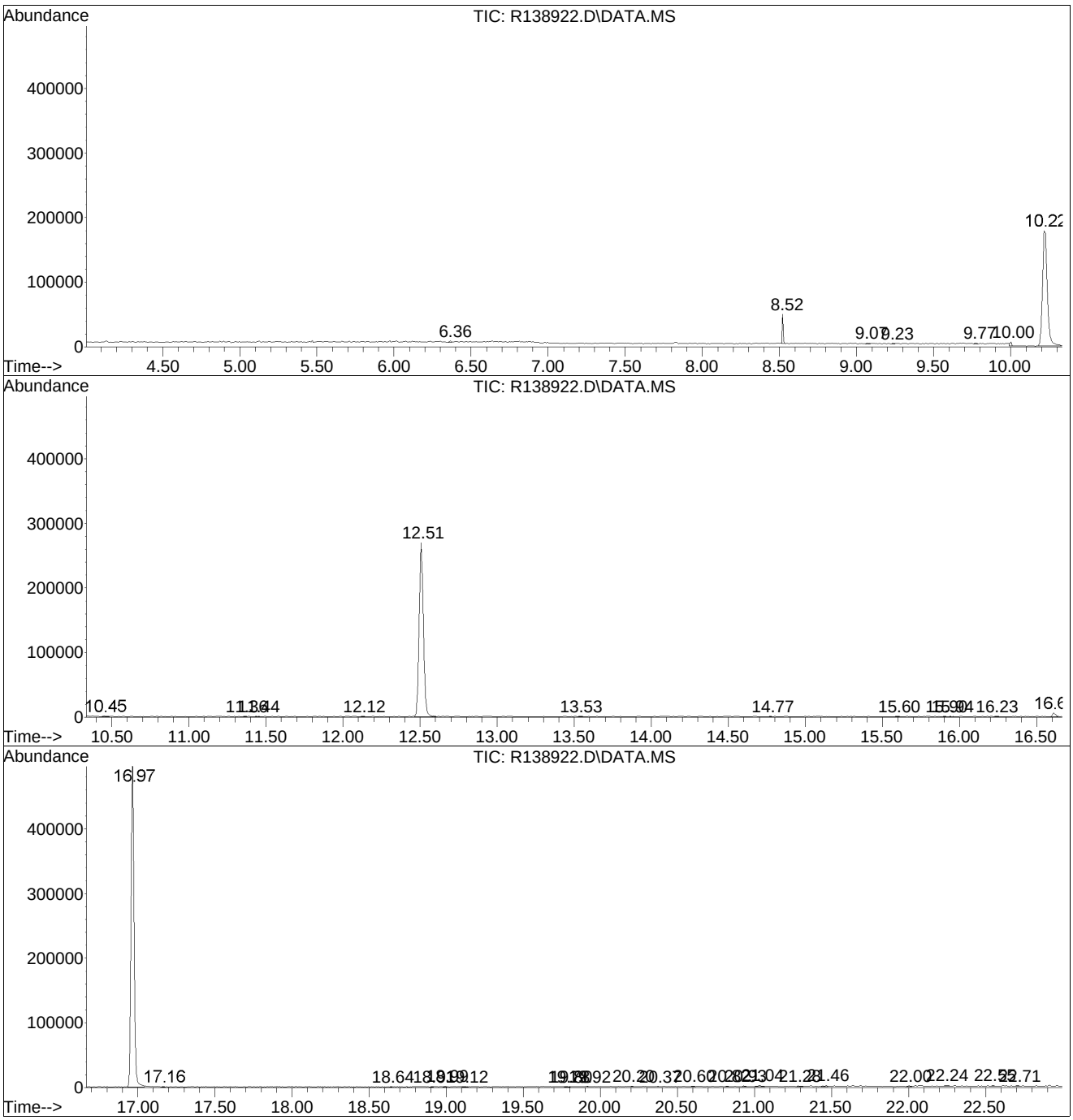
29	20.201	2403	2404	2408	rVB	987	767	0.11%	0.046%
30	20.372	2439	2440	2444	rBV2	750	717	0.11%	0.043%
31	20.596	2475	2477	2479	rBV	1198	1775	0.26%	0.107%
32	20.821	2496	2498	2501	rVB2	998	1587	0.23%	0.096%
33	20.929	2507	2508	2513	rVB2	1391	2471	0.37%	0.149%
34	21.036	2513	2518	2521	rBV3	1966	4640	0.69%	0.279%
35	21.282	2540	2541	2544	rBV2	1310	1997	0.30%	0.120%
36	21.464	2555	2558	2559	rBV	1264	1496	0.22%	0.090%
37	22.000	2606	2608	2610	rBV2	1111	1670	0.25%	0.101%
38	22.236	2629	2630	2634	rBV3	1187	1768	0.26%	0.106%
39	22.547	2657	2659	2662	rBV3	1266	2431	0.36%	0.146%
40	22.708	2671	2674	2676	rBV	931	1759	0.26%	0.106%

Sum of corrected areas: 1661491

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138922.D
Acq On : 7 Jan 2015 7:42 pm
Operator : AIRPIANO1:RY
Sample : L1500262-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-02	Date Collected	: 01/06/15 21:42
Client ID	: CAN 687 SHELF 42	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:14
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138923	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-02	Date Collected	: 01/06/15 21:42
Client ID	: CAN 687 SHELF 42	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:14
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138923	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-02	Date Collected	: 01/06/15 21:42
Client ID	: CAN 687 SHELF 42	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:14
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138923	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-02	Date Collected	: 01/06/15 21:42
Client ID	: CAN 687 SHELF 42	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:14
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138923	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 08 09:21:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.22	49	98043	10.000	ppbV	0.00
Standard Area = 118855			Recovery =		82.49%	
43) 1,4-difluorobenzene	12.51	114	214893	10.000	ppbV	0.00
Standard Area = 249633			Recovery =		86.08%	
67) chlorobenzene-D5	16.96	54	49217	10.000	ppbV	0.00
Standard Area = 54542			Recovery =		90.24%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.00		0	N.D.		
3) propylene	0.00		0	N.D.	d	
4) propane	0.00		0	N.D.	d	
5) dichlorodifluoromethane	3.94		0	N.D.		
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
8) methanol	4.35	31	832	0.378	ppbV #	1
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	4.64		0	N.D.		
11) butane	0.00		0	N.D.	d	
13) bromomethane	5.00		0	N.D.		
14) chloroethane	5.36		0	N.D.		
15) ethanol	5.53	31	704	0.144	ppbV #	76
16) dichlorofluoromethane	5.34		0	N.D.		
17) vinyl bromide	5.78		0	N.D.		
18) acrolein	5.97		0	N.D.		
19) acetone	0.00		0	N.D.	d	
20) acetonitrile	5.81		0	N.D.		
21) trichlorofluoromethane	0.00		0	N.D.		
22) isopropyl alcohol	6.55		0	N.D.		
23) acrylonitrile	6.96		0	N.D.		
24) pentane	0.00		0	N.D.	d	
25) ethyl ether	6.94		0	N.D.		
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.32		0	N.D.		
28) methylene chloride	7.48	49	596	0.071	ppbV	89
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 08 09:21:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	9.10		0		N.D.	
34) MTBE	0.00		0		N.D.	
35) vinyl acetate	9.23		0		N.D.	
36) 2-butanone	9.49		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	
38) Ethyl Acetate	0.00		0		N.D.	
39) chloroform	0.00		0		N.D.	
40) Tetrahydrofuran	11.00		0		N.D.	
41) 2,2-dichloropropane	0.00		0		N.D.	
42) 1,2-dichloroethane	0.00		0		N.D.	
44) hexane	0.00		0		N.D.	
45) diisopropyl ether	0.00		0		N.D.	
46) tert-butyl ethyl ether	0.00		0		N.D.	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
49) 1,1-dichloropropene	0.00		0		N.D.	
50) benzene	0.00		0		N.D.	
52) carbon tetrachloride	0.00		0		N.D.	
53) cyclohexane	0.00		0		N.D.	d
54) tert-amyl methyl ether	0.00		0		N.D.	
55) dibromomethane	0.00		0		N.D.	
56) 1,2-dichloropropane	13.19		0		N.D.	
57) bromodichloromethane	0.00		0		N.D.	
58) 1,4-dioxane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
60) 2,2,4-trimethylpentane	0.00		0		N.D.	
61) methyl methacrylate	13.57		0		N.D.	
62) heptane	13.50		0		N.D.	
63) cis-1,3-dichloropropene	0.00		0		N.D.	
64) 4-methyl-2-pentanone	14.37		0		N.D.	
65) trans-1,3-dichloropropene	0.00		0		N.D.	
66) 1,1,2-trichloroethane	0.00		0		N.D.	
68) toluene	0.00		0		N.D.	
71) 1,3-dichloropropane	0.00		0		N.D.	
72) 2-hexanone	15.60		0		N.D.	
74) dibromochloromethane	0.00		0		N.D.	
75) 1,2-dibromoethane	0.00		0		N.D.	
76) butyl acetate	0.00		0		N.D.	
77) octane	0.00		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 08 09:21:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.00		0		N.D.	
80) chlorobenzene	0.00		0		N.D.	
81) ethylbenzene	0.00		0		N.D.	
83) m+p-xylene	0.00		0		N.D.	
84) bromoform	0.00		0		N.D.	
85) styrene	17.72		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0		N.D.	
87) o-xylene	0.00		0		N.D.	
88) 1,2,3-trichloropropane	0.00		0		N.D.	
89) nonane	17.97		0		N.D.	
91) isopropylbenzene	0.00		0		N.D.	
92) bromobenzene	0.00		0		N.D.	
93) 2-chlorotoluene	0.00		0		N.D.	
94) n-propylbenzene	0.00		0		N.D.	
95) 4-chlorotoluene	0.00		0		N.D.	
96) 4-ethyl toluene	0.00		0		N.D.	
97) 1,3,5-trimethylbenzene	0.00		0		N.D.	
98) tert-butylbenzene	0.00		0		N.D.	
99) 1,2,4-trimethylbenzene	0.00		0		N.D.	
100) decane	19.19		0		N.D.	
101) Benzyl Chloride	0.00		0		N.D.	
102) 1,3-dichlorobenzene	0.00		0		N.D.	
103) 1,4-dichlorobenzene	0.00		0		N.D.	
104) sec-butylbenzene	0.00		0		N.D.	
106) p-isopropyltoluene	0.00		0		N.D.	
107) 1,2-dichlorobenzene	0.00		0		N.D.	
108) n-butylbenzene	0.00		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.00		0		N.D.	
112) undecane	20.04		0		N.D.	
114) dodecane	0.00		0		N.D.	
115) 1,2,4-trichlorobenzene	0.00		0		N.D.	
116) naphthalene	21.15		0		N.D.	
117) 1,2,3-trichlorobenzene	0.00		0		N.D.	
119) hexachlorobutadiene	0.00		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 08 09:21:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

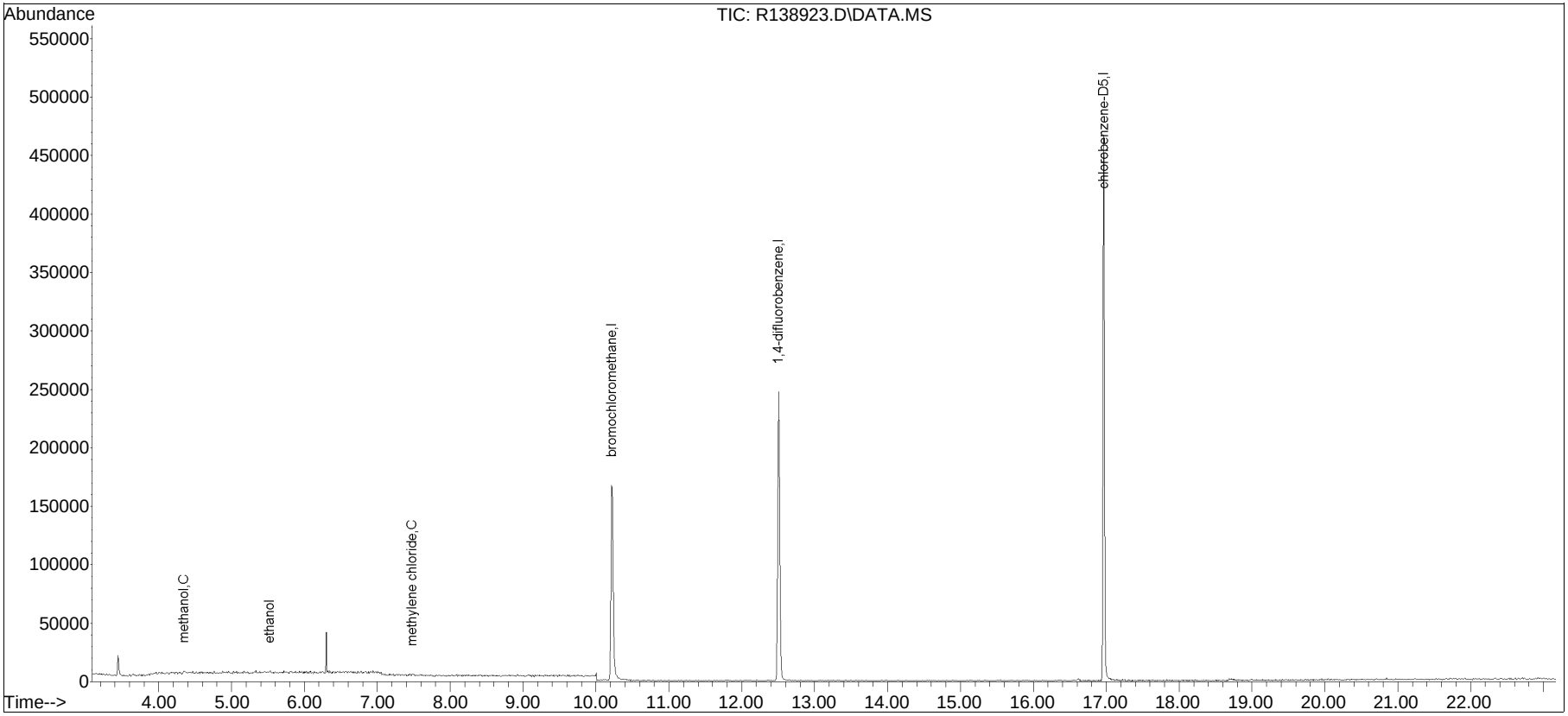
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

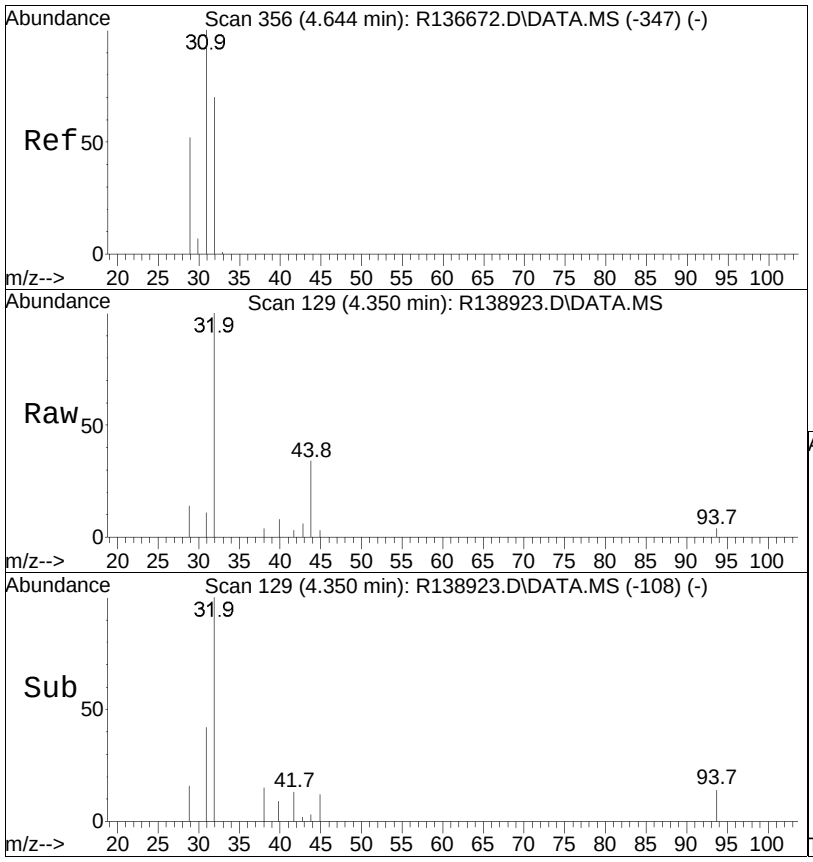
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 08 09:21:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38911.D

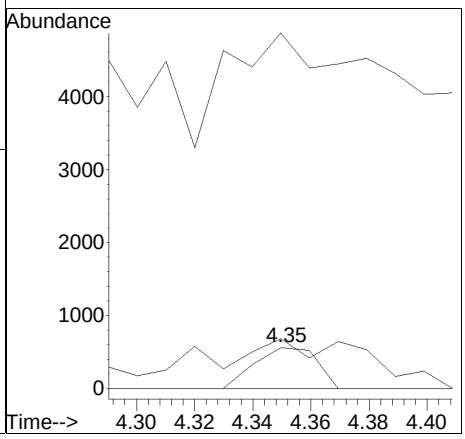


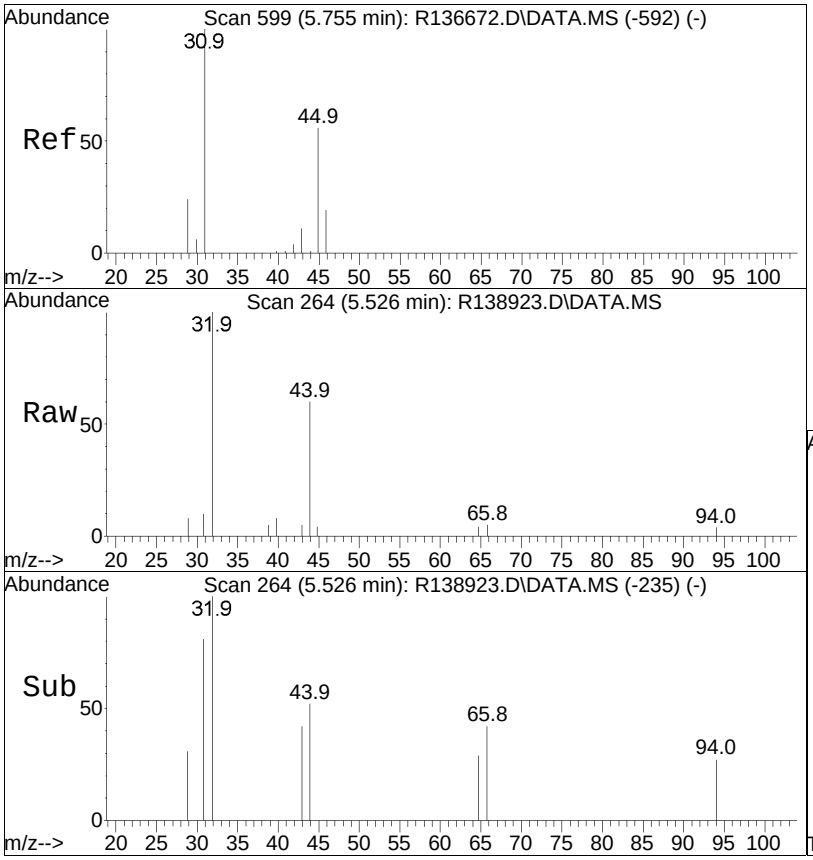


#8
methanol
Concen: 0.38 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138923.D
Acq: 7 Jan 2015 8:14 pm

Tgt Ion: 31 Resp: 832

Ion	Ratio	Lower	Upper
31	100		
32	871.6	59.9	89.9#
29	121.8	50.3	75.5#

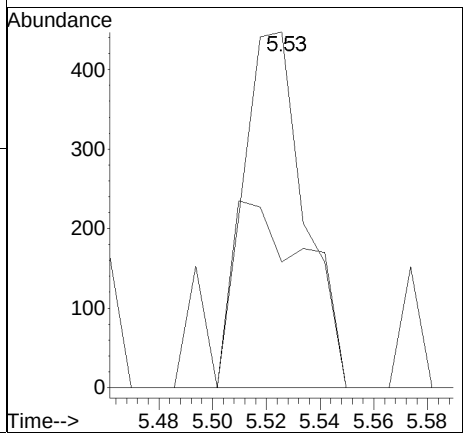


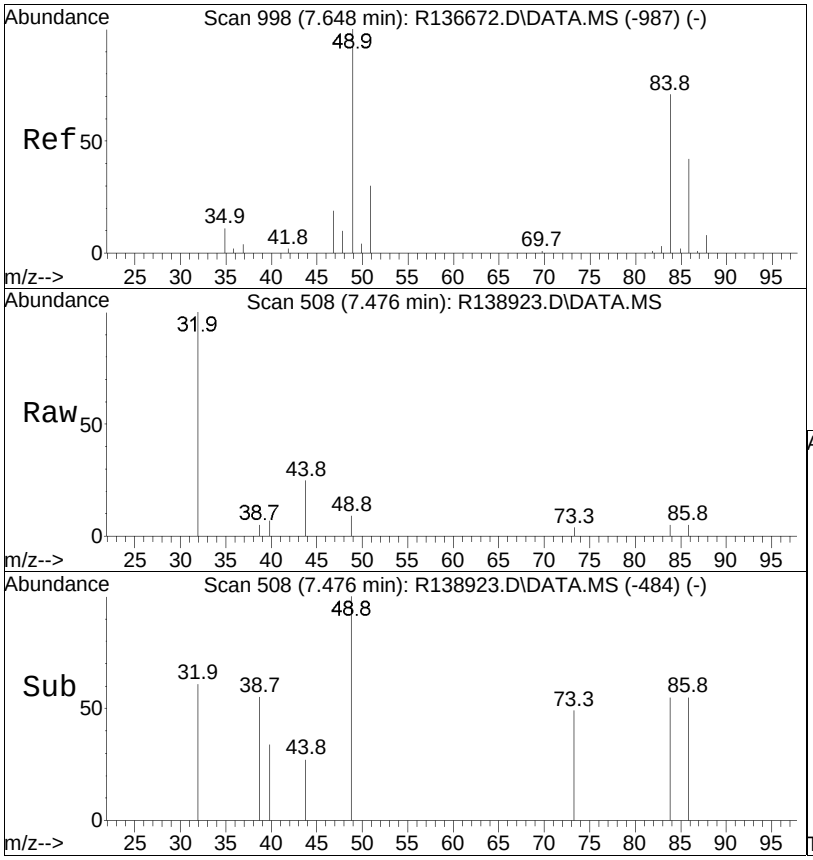


#15
ethanol
Concen: 0.14 ppbV
RT: 5.53 min Scan# 264
Delta R.T. 0.032 min
Lab File: R138923.D
Acq: 7 Jan 2015 8:14 pm

Tgt Ion: 31 Resp: 704

Ion	Ratio	Lower	Upper
31	100		
45	35.3	42.0	63.0#

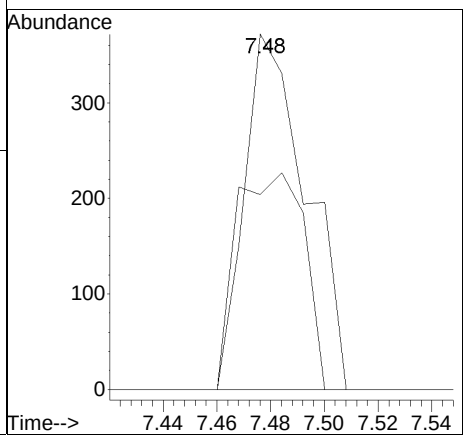




#28
methylene chloride
Concen: 0.07 ppbV
RT: 7.48 min Scan# 508
Delta R.T. -0.008 min
Lab File: R138923.D
Acq: 7 Jan 2015 8:14 pm

Tgt Ion: 49 Resp: 596

Ion	Ratio	Lower	Upper
49	100		
84	54.8	50.8	76.2



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150102.M
Data File	: R138923.D	Operator	: AIRPIANO1:RY
Date Inj'd	: 1/7/2015 8:14 pm	Instrument	: Air Piano 1
Sample	: L1500262-02,3,250,250	Quant Date	: 1/8/2015 5:59 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1500262
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1500262-02	Date Collected	:	01/06/15 21:42
Client ID	:	CAN 687 SHELF 42	Date Received	:	01/07/15
Sample Location	:		Date Analyzed	:	01/07/15 20:14
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138923	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138923.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.301	359	361	362	rBV	35465	18911	2.89%	1.188%
2	6.325	362	364	366	rVB3	1907	1700	0.26%	0.107%
3	7.484	507	509	513	rVB2	2210	3748	0.57%	0.235%
4	8.116	586	588	589	rBV	1389	1384	0.21%	0.087%
5	8.390	624	626	627	rBV	1390	901	0.14%	0.057%
6	9.131	732	734	737	rVB	2085	2559	0.39%	0.161%
7	9.165	737	739	741	rBV	1952	2390	0.36%	0.150%
8	10.002	860	861	862	rVB	6429	2649	0.40%	0.166%
9	10.216	879	884	893	rBV2	166662	354544	54.14%	22.265%
10	10.723	933	938	939	rBV2	798	1866	0.28%	0.117%
11	10.864	948	953	954	rBV2	530	1186	0.18%	0.074%
12	10.892	954	956	960	rVB2	782	1305	0.20%	0.082%
13	11.915	1057	1062	1064	rBV	760	2071	0.32%	0.130%
14	12.506	1115	1119	1128	rBV	246556	475934	72.68%	29.888%
15	13.075	1169	1174	1176	rVB	640	1638	0.25%	0.103%
16	13.562	1217	1221	1223	rBV2	745	1879	0.29%	0.118%
17	15.099	1344	1349	1350	rVB	553	1173	0.18%	0.074%
18	15.858	1429	1433	1435	rBV	582	1217	0.19%	0.076%
19	16.011	1446	1450	1452	rBV2	669	1422	0.22%	0.089%
20	16.554	1505	1510	1511	rBV	548	1336	0.20%	0.084%
21	16.617	1513	1517	1519	rVV	2109	3009	0.46%	0.189%
22	16.864	1579	1584	1587	rBV2	656	700	0.11%	0.044%
23	16.964	1602	1611	1631	rBV	467284	654858	100.00%	41.125%
24	17.046	1631	1633	1636	rVV3	1864	1518	0.23%	0.095%
25	17.101	1647	1648	1652	rVB2	1112	692	0.11%	0.043%
26	17.252	1685	1689	1692	rBV	1077	803	0.12%	0.050%
27	18.686	2074	2077	2080	rBV3	1609	1263	0.19%	0.079%
28	18.797	2104	2107	2109	rBV2	936	804	0.12%	0.050%

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	18.975	2141	2145	2146	rBV	680	665	0.10%	0.042%
30	18.999	2146	2150	2153	rVB3	1104	1234	0.19%	0.077%
31	19.413	2236	2237	2240	rBV	1228	716	0.11%	0.045%
32	19.456	2244	2246	2249	rVV2	1011	1019	0.16%	0.064%
33	19.499	2253	2255	2258	rVB2	982	769	0.12%	0.048%
34	19.556	2261	2267	2268	rVB2	1049	971	0.15%	0.061%
35	19.671	2290	2291	2298	rVB3	959	1052	0.16%	0.066%
36	19.732	2302	2304	2308	rBV	976	1031	0.16%	0.065%
37	20.004	2358	2361	2362	rBV	775	734	0.11%	0.046%
38	20.042	2366	2369	2373	rVB2	1599	1577	0.24%	0.099%
39	20.085	2376	2378	2383	rBV2	958	1235	0.19%	0.078%
40	20.309	2422	2425	2427	rBV3	703	749	0.11%	0.047%
41	20.361	2432	2436	2439	rBV2	1227	1391	0.21%	0.087%
42	20.513	2465	2468	2472	rBV3	1097	1720	0.26%	0.108%
43	20.642	2478	2480	2483	rVB	909	1700	0.26%	0.107%
44	20.685	2483	2484	2485	rBV	1203	1363	0.21%	0.086%
45	20.921	2503	2506	2507	rVB2	895	1377	0.21%	0.086%
46	21.135	2523	2526	2530	rBV	817	2098	0.32%	0.132%
47	21.521	2561	2562	2565	rBV2	1026	2099	0.32%	0.132%
48	21.714	2579	2580	2583	rBV2	1257	1792	0.27%	0.113%
49	21.800	2586	2588	2589	rVB2	1181	1310	0.20%	0.082%
50	21.842	2589	2592	2594	rBV2	1113	2122	0.32%	0.133%
51	21.917	2597	2599	2601	rVB2	1294	1503	0.23%	0.094%
52	22.293	2631	2634	2635	rBV	879	1543	0.24%	0.097%
53	22.528	2653	2656	2657	rVB	1472	1999	0.31%	0.126%
54	22.614	2661	2664	2665	rVB2	1711	2180	0.33%	0.137%
55	22.646	2665	2667	2670	rBV	1338	3014	0.46%	0.189%
56	22.711	2670	2673	2674	rVV3	1339	1756	0.27%	0.110%
57	22.732	2674	2675	2679	rVB3	1378	2468	0.38%	0.155%
58	22.807	2679	2682	2684	rBV3	999	2435	0.37%	0.153%
59	22.893	2688	2690	2691	rBV2	1369	1440	0.22%	0.090%
60	22.925	2691	2693	2694	rBV2	1365	1846	0.28%	0.116%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

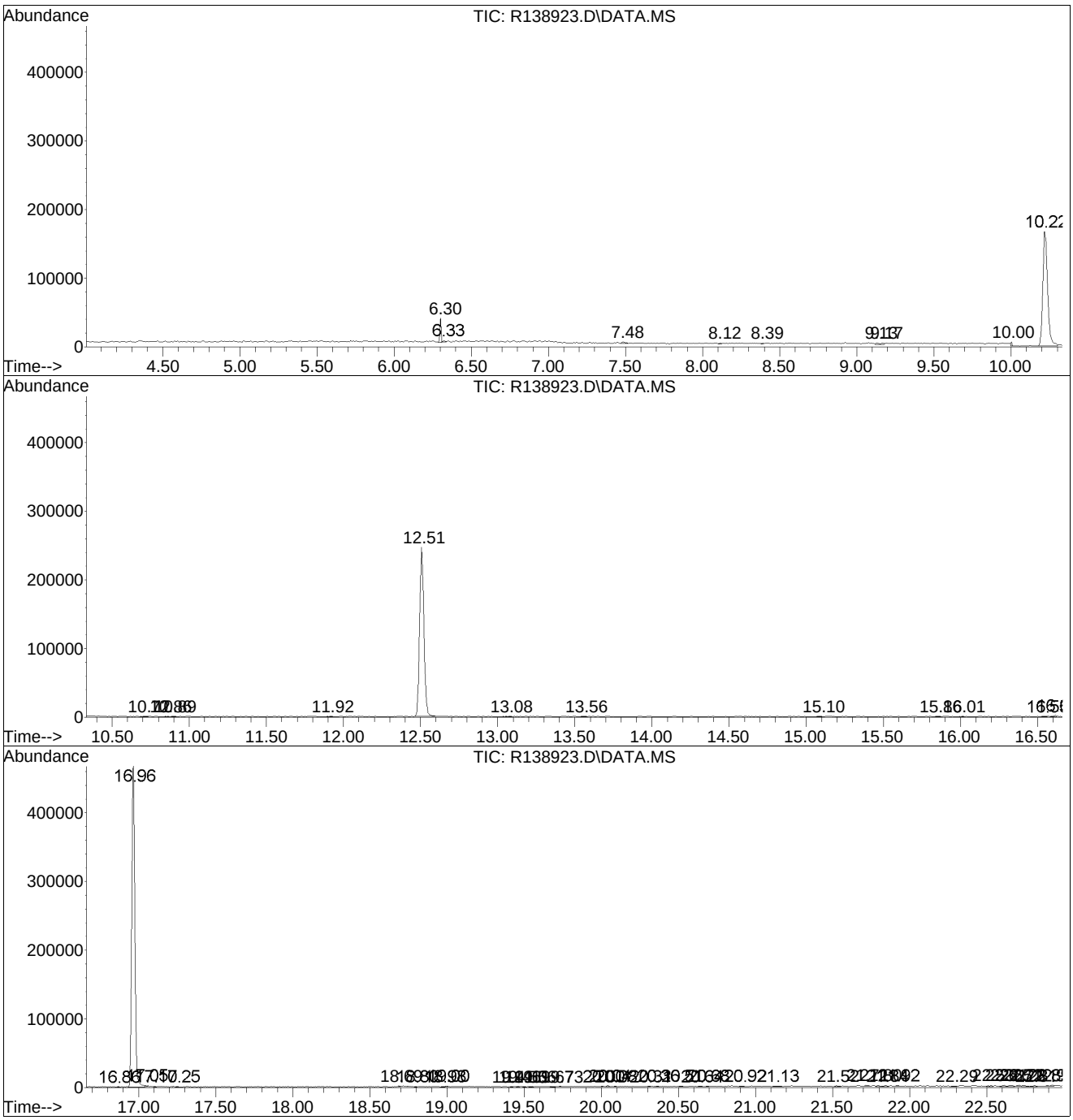
Sum of corrected areas: 1592368

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138923.D
Acq On : 7 Jan 2015 8:14 pm
Operator : AIRPIANO1:RY
Sample : L1500262-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-03	Date Collected	: 01/06/15 21:42
Client ID	: CAN 954 SHELF 43	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:47
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138924	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	3.32	2.50	--	6.26	4.71	--	
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	0.795	0.200	--	1.33	0.336	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	1.01	0.500	--	3.51	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-03	Date Collected	: 01/06/15 21:42
Client ID	: CAN 954 SHELF 43	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:47
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138924	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-03	Date Collected	: 01/06/15 21:42
Client ID	: CAN 954 SHELF 43	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:47
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138924	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500262
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500262-03	Date Collected	: 01/06/15 21:42
Client ID	: CAN 954 SHELF 43	Date Received	: 01/07/15
Sample Location	:	Date Analyzed	: 01/07/15 20:47
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138924	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 08 09:23:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.22	49	96800	10.000	ppbV		0.00
Standard Area = 118855			Recovery = 81.44%				
43) 1,4-difluorobenzene	12.51	114	207362	10.000	ppbV		0.00
Standard Area = 249633			Recovery = 83.07%				
67) chlorobenzene-D5	16.96	54	48825	10.000	ppbV		0.00
Standard Area = 54542			Recovery = 89.52%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	3.73		0	N.D.			
3) propylene	3.72		0	N.D.			
4) propane	0.00		0	N.D.		d	
5) dichlorodifluoromethane	0.00		0	N.D.			
6) chloromethane	4.01		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	2661	1.223	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.73		0	N.D.			
11) butane	4.67		0	N.D.			
13) bromomethane	5.01		0	N.D.			
14) chloroethane	5.39		0	N.D.			
15) ethanol	5.51	31	15991	3.323	ppbV		93
16) dichlorofluoromethane	5.35		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	5.94		0	N.D.			
19) acetone	0.00		0	N.D.		d	
20) acetonitrile	5.81	41	4950	0.795	ppbV		92
21) trichlorofluoromethane	0.00		0	N.D.			
22) isopropyl alcohol	0.00		0	N.D.		d	
23) acrylonitrile	6.71		0	N.D.			
24) pentane	0.00		0	N.D.		d	
25) ethyl ether	6.85		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	0.00		0	N.D.			
28) methylene chloride	7.48	49	8322	1.010	ppbV		96
29) 3-chloropropene	0.00		0	N.D.		d	
30) carbon disulfide	0.00		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 08 09:23:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
34) MTBE	0.00		0		N.D.	
35) vinyl acetate	9.19		0		N.D.	
36) 2-butanone	9.50		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	
38) Ethyl Acetate	10.35		0		N.D.	
39) chloroform	0.00		0		N.D.	
40) Tetrahydrofuran	0.00		0		N.D.	
41) 2,2-dichloropropane	0.00		0		N.D.	
42) 1,2-dichloroethane	0.00		0		N.D.	
44) hexane	10.27		0		N.D.	
45) diisopropyl ether	0.00		0		N.D.	
46) tert-butyl ethyl ether	0.00		0		N.D.	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
49) 1,1-dichloropropene	0.00		0		N.D.	
50) benzene	0.00		0		N.D.	
52) carbon tetrachloride	0.00		0		N.D.	
53) cyclohexane	0.00		0		N.D.	d
54) tert-amyl methyl ether	0.00		0		N.D.	
55) dibromomethane	0.00		0		N.D.	
56) 1,2-dichloropropane	0.00		0		N.D.	
57) bromodichloromethane	0.00		0		N.D.	
58) 1,4-dioxane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
60) 2,2,4-trimethylpentane	0.00		0		N.D.	
61) methyl methacrylate	13.63		0		N.D.	
62) heptane	13.62		0		N.D.	
63) cis-1,3-dichloropropene	0.00		0		N.D.	
64) 4-methyl-2-pentanone	0.00		0		N.D.	
65) trans-1,3-dichloropropene	0.00		0		N.D.	
66) 1,1,2-trichloroethane	0.00		0		N.D.	
68) toluene	0.00		0		N.D.	
71) 1,3-dichloropropane	0.00		0		N.D.	
72) 2-hexanone	15.59		0		N.D.	
74) dibromochloromethane	0.00		0		N.D.	
75) 1,2-dibromoethane	0.00		0		N.D.	
76) butyl acetate	16.07		0		N.D.	
77) octane	0.00		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 08 09:23:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.00		0		N.D.	
80) chlorobenzene	0.00		0		N.D.	
81) ethylbenzene	17.16		0		N.D.	
83) m+p-xylene	17.44		0		N.D.	
84) bromoform	0.00		0		N.D.	
85) styrene	0.00		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0		N.D.	
87) o-xylene	0.00		0		N.D.	
88) 1,2,3-trichloropropane	0.00		0		N.D.	
89) nonane	17.98		0		N.D.	
91) isopropylbenzene	18.41		0		N.D.	
92) bromobenzene	0.00		0		N.D.	
93) 2-chlorotoluene	0.00		0		N.D.	
94) n-propylbenzene	0.00		0		N.D.	
95) 4-chlorotoluene	18.67		0		N.D.	
96) 4-ethyl toluene	18.71		0		N.D.	
97) 1,3,5-trimethylbenzene	18.71		0		N.D.	
98) tert-butylbenzene	0.00		0		N.D.	
99) 1,2,4-trimethylbenzene	0.00		0		N.D.	
100) decane	19.02		0		N.D.	
101) Benzyl Chloride	0.00		0		N.D.	
102) 1,3-dichlorobenzene	0.00		0		N.D.	
103) 1,4-dichlorobenzene	0.00		0		N.D.	
104) sec-butylbenzene	0.00		0		N.D.	
106) p-isopropyltoluene	0.00		0		N.D.	
107) 1,2-dichlorobenzene	0.00		0		N.D.	
108) n-butylbenzene	0.00		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.00		0		N.D.	
112) undecane	20.09		0		N.D.	
114) dodecane	0.00		0		N.D.	
115) 1,2,4-trichlorobenzene	0.00		0		N.D.	
116) naphthalene	0.00		0		N.D.	
117) 1,2,3-trichlorobenzene	0.00		0		N.D.	
119) hexachlorobutadiene	0.00		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 08 09:23:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

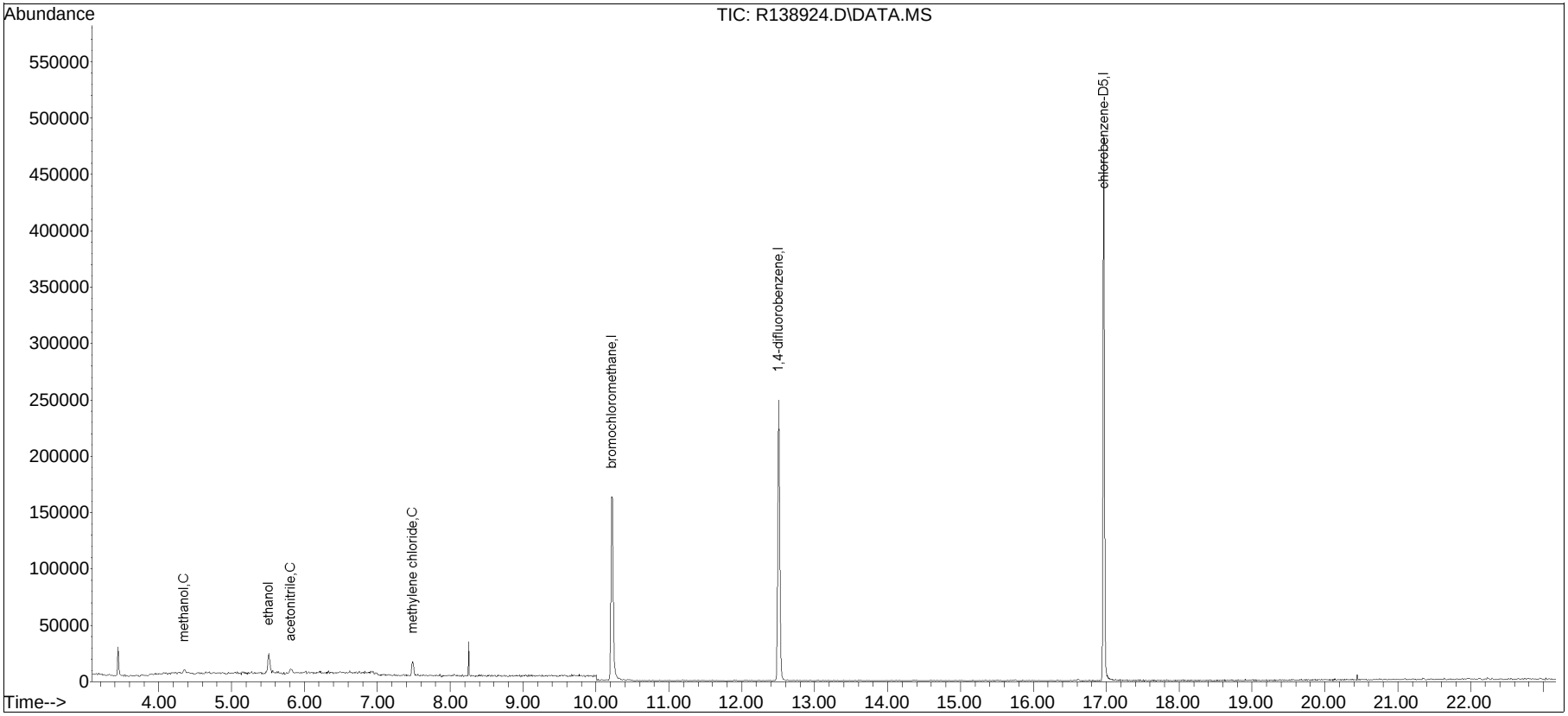
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

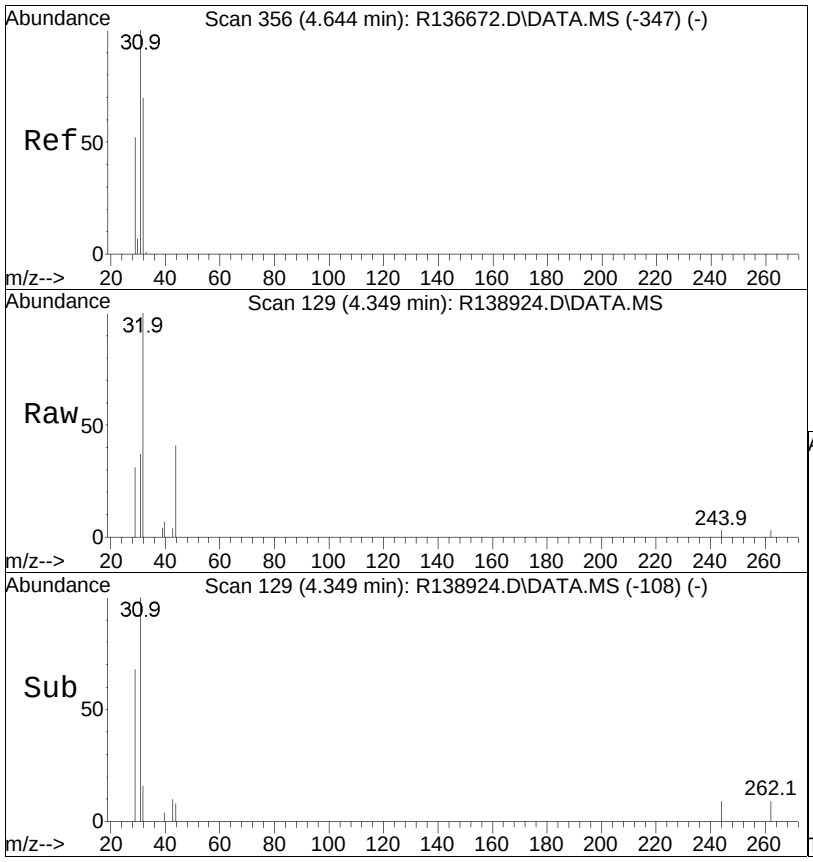
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 08 09:23:30 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38911.D

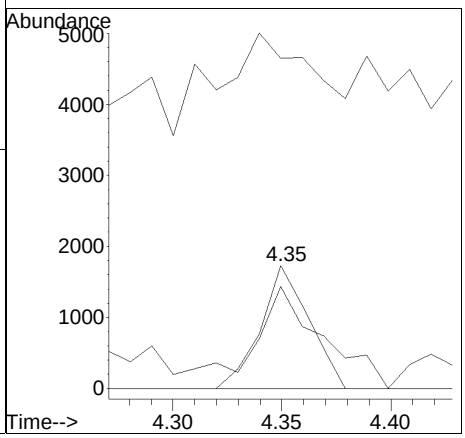


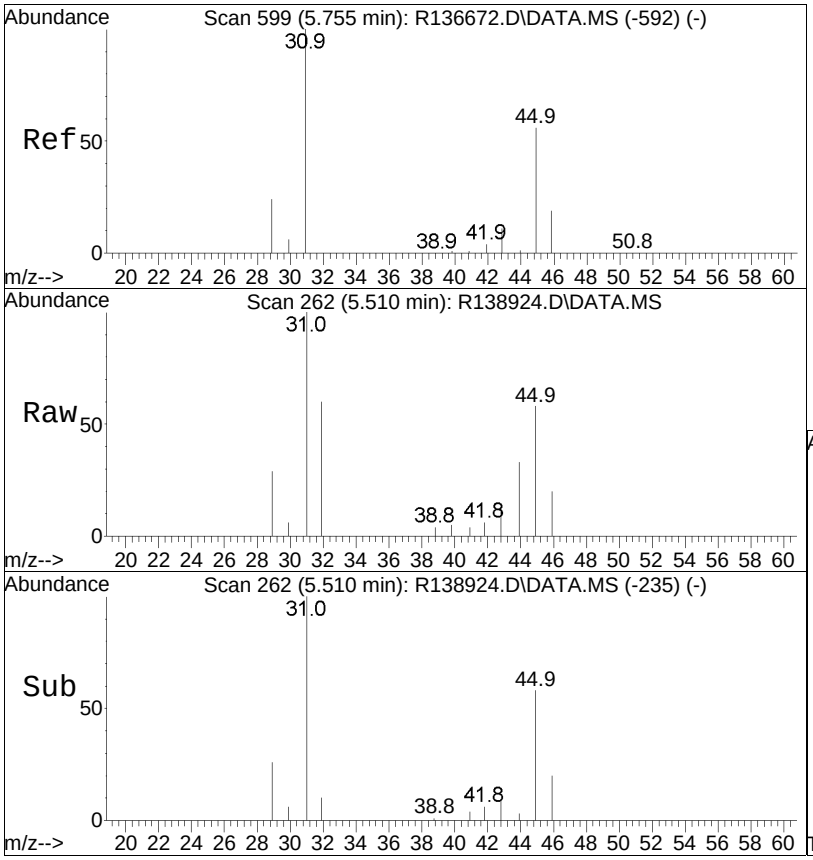


#8
methanol
Concen: 1.22 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138924.D
Acq: 7 Jan 2015 8:47 pm

Tgt Ion: 31 Resp: 2661

Ion	Ratio	Lower	Upper
31	100		
32	268.7	59.9	89.9#
29	82.9	50.3	75.5#

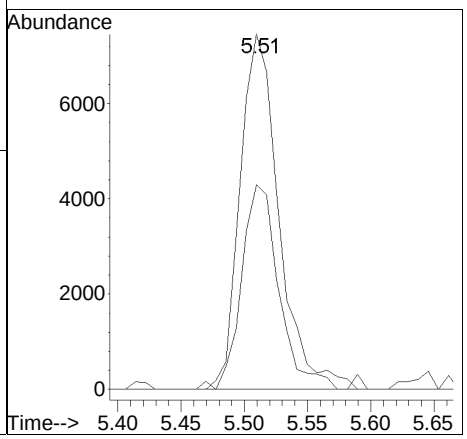


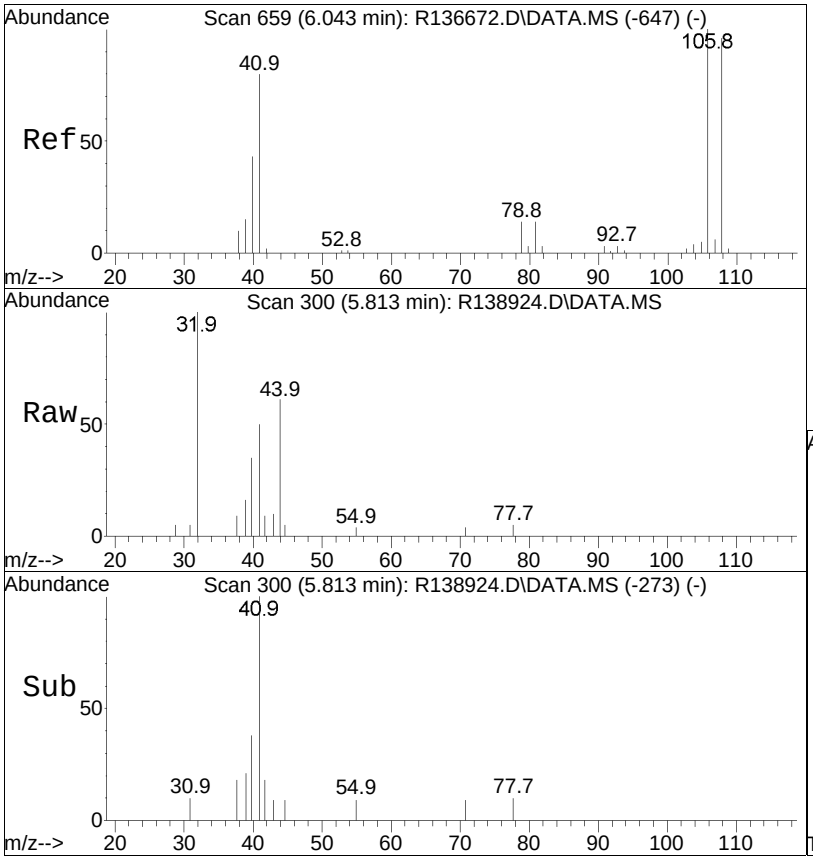


#15
ethanol
Concen: 3.32 ppbV
RT: 5.51 min Scan# 262
Delta R.T. 0.016 min
Lab File: R138924.D
Acq: 7 Jan 2015 8:47 pm

Tgt Ion: 31 Resp: 15991

Ion	Ratio	Lower	Upper
31	100		
45	57.6	42.0	63.0

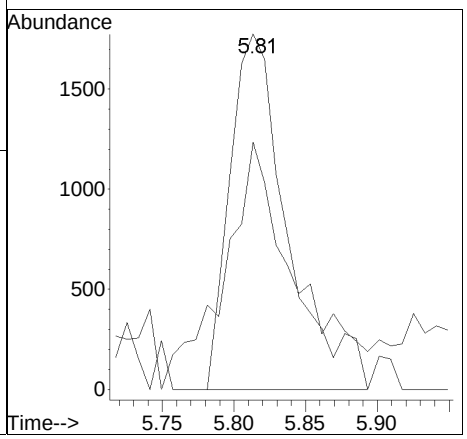


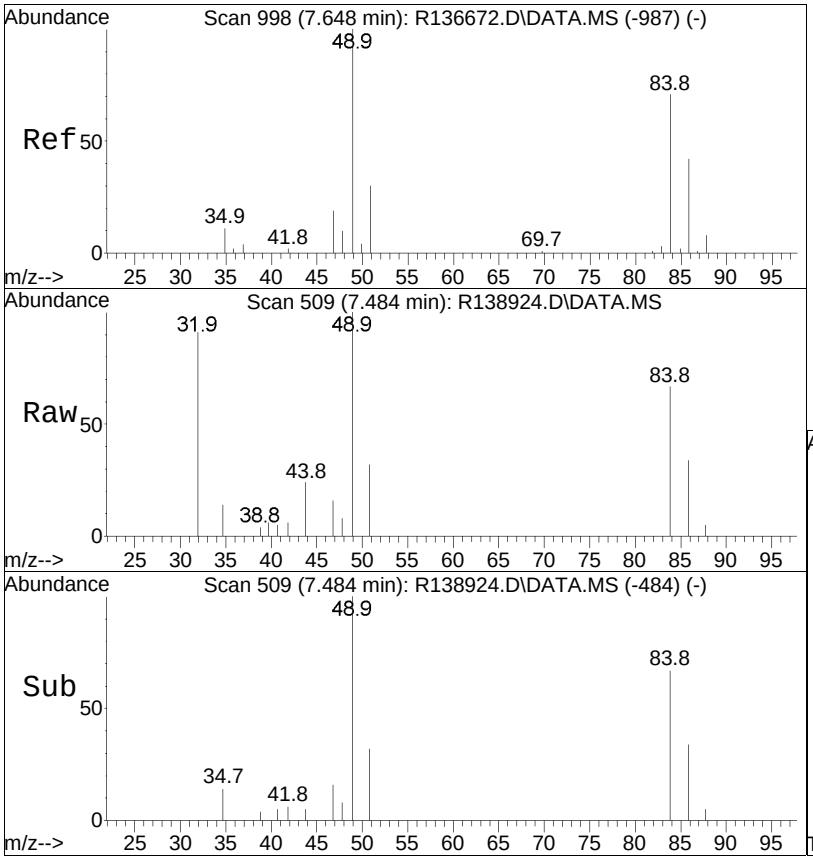


#20
acetonitrile
Concen: 0.80 ppbV
RT: 5.81 min Scan# 300
Delta R.T. 0.016 min
Lab File: R138924.D
Acq: 7 Jan 2015 8:47 pm

Tgt Ion: 41 Resp: 4950

Ion	Ratio	Lower	Upper
41	100		
40	58.8	42.2	63.4

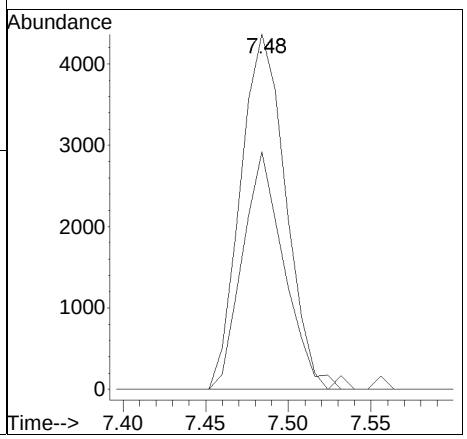




#28
methylene chloride
Concen: 1.01 ppbV
RT: 7.48 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138924.D
Acq: 7 Jan 2015 8:47 pm

Tgt Ion: 49 Resp: 8322

Ion	Ratio	Lower	Upper
49	100		
84	66.9	50.8	76.2



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150102.M
Data File	: R138924.D	Operator	: AIRPIANO1:RY
Date Inj'd	: 1/7/2015 8:47 pm	Instrument	: Air Piano 1
Sample	: L1500262-03,3,250,250	Quant Date	: 1/8/2015 5:59 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1500262
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1500262-03	Date Collected	:	01/06/15 21:42
Client ID	:	CAN 954 SHELF 43	Date Received	:	01/07/15
Sample Location	:		Date Analyzed	:	01/07/15 20:47
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138924	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138924.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.510	258	262	267	rVB2	17421	34923	5.31%	2.140%
2	5.565	267	269	271	rBV2	2329	2258	0.34%	0.138%
3	7.484	505	509	513	rBV2	12888	25464	3.87%	1.560%
4	8.253	605	606	608	rBV	30251	13597	2.07%	0.833%
5	9.076	724	726	728	rBV	1818	1125	0.17%	0.069%
6	9.769	826	827	828	rBV	2035	904	0.14%	0.055%
7	9.968	854	856	857	rBV	1798	1468	0.22%	0.090%
8	10.002	859	861	862	rVB	5177	3924	0.60%	0.240%
9	10.075	865	869	872	rBV	829	1636	0.25%	0.100%
10	10.216	880	884	893	rBV	163013	349810	53.17%	21.434%
11	10.441	904	908	909	rVB2	1013	1308	0.20%	0.080%
12	11.884	1058	1059	1062	rBV2	742	1416	0.22%	0.087%
13	12.506	1115	1119	1128	rVB	248871	469320	71.34%	28.756%
14	13.593	1223	1224	1227	rBV	632	1351	0.21%	0.083%
15	15.749	1419	1421	1424	rVB2	1176	1935	0.29%	0.119%
16	15.849	1431	1432	1435	rBV	1050	1625	0.25%	0.100%
17	16.328	1482	1485	1488	rBV	901	2171	0.33%	0.133%
18	16.400	1491	1493	1497	rBV	472	1155	0.18%	0.071%
19	16.617	1514	1517	1523	rVB3	1669	2563	0.39%	0.157%
20	16.909	1592	1596	1599	rBV	675	684	0.10%	0.042%
21	16.964	1601	1611	1623	rBV	484527	657906	100.00%	40.311%
22	17.127	1653	1655	1660	rVB2	1198	743	0.11%	0.046%
23	17.215	1675	1679	1681	rBV	722	660	0.10%	0.040%
24	17.622	1786	1789	1791	rBV2	1012	902	0.14%	0.055%
25	17.696	1806	1809	1811	rBV2	1004	747	0.11%	0.046%
26	18.498	2022	2026	2028	rBV	942	831	0.13%	0.051%
27	18.664	2066	2071	2072	rBV	735	669	0.10%	0.041%
28	18.909	2129	2131	2132	rBV	1516	658	0.10%	0.040%

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Sample : L1500262-03,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	19.032	2155	2157	2159	rVB	1116	660	0.10%	0.040%
30	19.056	2159	2162	2163	rBV	1386	858	0.13%	0.053%
31	19.337	2218	2221	2223	rBV	839	785	0.12%	0.048%
32	19.385	2227	2231	2232	rVB	704	755	0.11%	0.046%
33	19.542	2261	2264	2267	rBV2	1020	913	0.14%	0.056%
34	19.675	2290	2292	2296	rVB2	1097	765	0.12%	0.047%
35	19.923	2340	2344	2346	rVB2	743	693	0.11%	0.042%
36	20.094	2376	2380	2382	rVB2	1195	1332	0.20%	0.082%
37	20.123	2384	2386	2387	rBV2	1281	801	0.12%	0.049%
38	20.242	2408	2411	2415	rVB2	1059	1034	0.16%	0.063%
39	20.270	2415	2417	2420	rBV2	1233	871	0.13%	0.053%
40	20.308	2424	2425	2430	rVB2	815	840	0.13%	0.051%
41	20.342	2430	2432	2435	rBV	954	795	0.12%	0.049%
42	20.375	2437	2439	2442	rVV2	1314	947	0.14%	0.058%
43	20.418	2445	2448	2451	rVB2	939	883	0.13%	0.054%
44	20.442	2451	2453	2456	rBV	5209	2387	0.36%	0.146%
45	20.489	2461	2463	2466	rBV	677	889	0.14%	0.054%
46	20.749	2489	2490	2494	rVB	1122	2061	0.31%	0.126%
47	21.103	2520	2523	2524	rVB2	1244	1870	0.28%	0.115%
48	21.338	2544	2545	2550	rVB2	1543	2817	0.43%	0.173%
49	21.424	2550	2553	2554	rBV	883	1654	0.25%	0.101%
50	21.639	2572	2573	2576	rVB2	1832	2197	0.33%	0.135%
51	21.692	2576	2578	2579	rBV	950	1526	0.23%	0.094%
52	22.014	2607	2608	2610	rBV	1124	1410	0.21%	0.086%
53	22.132	2615	2619	2622	rVB2	1589	4323	0.66%	0.265%
54	22.196	2622	2625	2627	rBV2	1311	2843	0.43%	0.174%
55	22.228	2627	2628	2632	rVV3	2169	3295	0.50%	0.202%
56	22.292	2632	2634	2637	rVB2	1495	2355	0.36%	0.144%
57	22.550	2657	2658	2660	rVB	1345	1525	0.23%	0.093%
58	22.603	2660	2663	2665	rBV	790	1877	0.29%	0.115%
59	22.753	2674	2677	2678	rBV2	1108	1946	0.30%	0.119%
60	22.796	2678	2681	2682	rBV2	1171	2404	0.37%	0.147%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

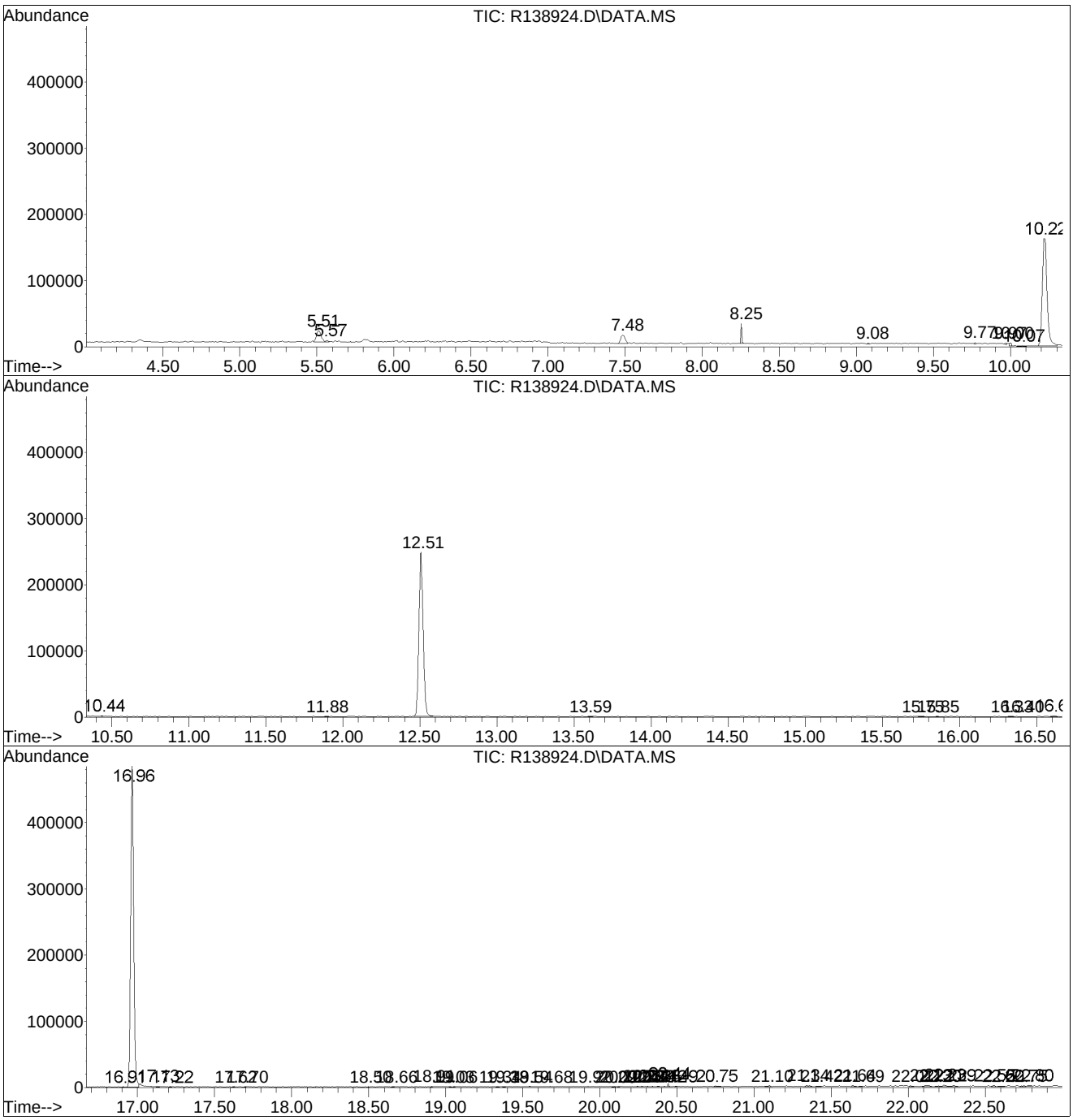
Sum of corrected areas: 1632064

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138924.D
Acq On : 7 Jan 2015 8:47 pm
Operator : AIRPIANO1:RY
Sample : L1500262-03,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards Data Summary

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Instrument ID: AIRPIANO1 Calibration Date(s): 01/02/15 01/03/15

Calibration Times: 20:57 00:45

Calibration Files

0.2 =R138813.D 0.5 =R138814.D 1.0 =R138815.D 5.0 =R138816.D 10 =R138817.D 20 =R138818.D

50 =R138819.D 100 =R138820.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.293	1.124	1.101	1.066	1.028	1.045	0.935	0.861	1.0566	12.21
3)		propylene		0.563	0.594	0.563	0.529	0.526	0.452	0.420	0.5210	12.13
4)		propane		0.803	0.758	0.654	0.594	0.634	0.551	0.474	0.6383	17.88
5)		dichlorodifluoromethane	1.507	1.292	1.300	1.184	0.849	1.189	0.850	0.681	1.1066	25.53
6)	C	chloromethane	0.838	0.682	0.599	0.566	0.555	0.552	0.490	0.457	0.5924	20.24
7)		Freon-114	1.926	1.782	1.772	1.685	1.583	1.612	1.368	1.139	1.6085	15.64
8)	C	methanol			0.276	0.243	0.235	0.224	0.195	0.176	0.2248	15.85
9)	C	vinyl chloride	0.730	0.573	0.599	0.602	0.600	0.600	0.536	0.487	0.5908	11.74
10)	C	1,3-butadiene	0.571	0.583	0.503	0.449	0.466	0.452	0.410	0.365	0.4748	15.79
11)		butane	1.172	1.236	1.149	1.014	1.002	0.973	0.903	0.798	1.0309	14.23
12)	C	acetaldehyde	0.540	0.438	0.415	0.390	0.383	0.370	0.329	0.285	0.3938	19.33
13)	C	bromomethane	0.921	0.773	0.729	0.595	0.582	0.602	0.530	0.489	0.6526	22.05
14)	C	chloroethane	0.439	0.309	0.263	0.270	0.287	0.280	0.255	0.229	0.2915	21.93
15)		ethanol		0.605	0.556	0.516	0.491	0.502	0.438	0.371	0.4971	15.36
16)		dichlorofluoromethane	1.526	1.404	1.314	1.294	1.281	1.284	1.151	1.053	1.2884	11.16
17)	C	vinyl bromide	0.744	0.652	0.665	0.630	0.622	0.644	0.571	0.523	0.6312	10.34
18)	C	acrolein	0.435	0.368	0.302	0.282	0.256	0.262	0.239	0.216	0.2949	24.68
19)		acetone	1.355	1.157	0.998	0.986	0.987	0.971	0.858	0.761	1.0091	17.90
20)	C	acetonitrile	0.794	0.808	0.763	0.605	0.594	0.581	0.528	0.472	0.6432	19.91
21)		trichlorofluoromethane	1.797	1.713	1.646	1.612	1.573	1.531	1.384	1.299	1.5694	10.46
22)		isopropyl alcohol		1.534	1.334	1.185	1.194	1.149	1.028	0.925	1.1926	16.66
23)	C	acrylonitrile	0.644	0.626	0.537	0.490	0.456	0.495	0.421	0.388	0.5071	18.05
24)		pentane	1.580	1.321	1.244	1.207	1.160	1.210	1.038	0.947	1.2135	15.62
25)		ethyl ether	1.331	1.235	0.961	0.963	0.903	0.992	0.885	0.713	0.9978	19.78
26)	C	1,1-dichloroethene	1.186	1.119	1.090	1.027	1.019	1.046	0.944	0.869	1.0374	9.59
27)		tertiary butyl alcohol		1.341	1.361	1.365	1.328	1.334	1.210	1.108	1.2926	7.49
28)	C	methylene chloride		1.021	0.943	0.878	0.850	0.821	0.752	0.695	0.8513	12.98
29)	C	3-chloropropene	1.698	1.314	1.130	0.956	0.941	0.972	0.860	0.788	1.0825	27.48
30)	C	carbon disulfide	1.984	1.880	1.840	1.791	1.735	1.790	1.596	1.504	1.7648	8.72
31)		Freon 113	1.457	1.417	1.326	1.309	1.268	1.297	1.183	1.104	1.2953	8.85
32)		trans-1,2-dichloroethene	1.043	0.980	1.037	1.012	1.001	0.999	0.910	0.836	0.9773	7.19
33)	C	1,1-dichloroethane	1.447	1.211	1.136	1.154	1.121	1.144	1.014	0.949	1.1470	12.85
34)	C	MTBE	1.971	1.907	1.837	1.727	1.695	1.700	1.542	1.438	1.7271	10.35
35)	C	vinyl acetate	1.076	1.577	1.590	1.724	1.741	1.775	1.639	1.510	1.5789	14.11
36)	C	2-butanone	1.451	1.553	1.508	1.514	1.582	1.561	1.434	1.285	1.4860	6.49
37)		cis-1,2-dichloroethene	1.236	1.129	1.035	1.067	1.049	1.034	0.972	0.900	1.0528	9.50
38)		Ethyl Acetate	0.281	0.281	0.257	0.267	0.270	0.270	0.251	0.230	0.2634	6.41
39)	C	chloroform	1.910	1.690	1.676	1.642	1.567	1.607	1.441	1.343	1.6096	10.59
40)		Tetrahydrofuran	1.640	1.083	1.033	0.968	0.900	0.913	0.818	0.752	1.0133	27.13
41)		2,2-dichloropropane	1.699	1.511	1.467	1.446	1.400	1.399	1.266	1.177	1.4207	11.05
42)	C	1,2-dichloroethane	0.878	0.897	0.906	0.902	0.923	0.925	0.822	0.754	0.8759	6.74
43)	I	1,4-difluorobenzene	ISTD									

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Instrument ID: AIRPIANO1 Calibration Date(s): 01/02/15 01/03/15

Calibration Times: 20:57 00:45

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.823	0.753	0.666	0.624	0.631	0.622	0.564	0.561	0.6555	13.85
45)		diisopropyl ether	0.361	0.293	0.315	0.289	0.301	0.299	0.278	0.277	0.3015	8.94
46)		tert-butyl ethyl ether	1.204	0.981	1.021	1.010	1.028	1.012	0.929	0.911	1.0121	8.79
47)	s	1,2-dichloroethane-D4	0.304	0.288	0.296	0.298	0.305	0.290	0.297	0.293	0.2963	2.07
48)	C	1,1,1-trichloroethane	0.745	0.663	0.658	0.666	0.667	0.667	0.609	0.618	0.6616	6.18
49)		1,1-dichloropropene	0.523	0.517	0.452	0.488	0.473	0.481	0.438	0.432	0.4755	7.06
50)	C	benzene	1.030	0.910	0.842	0.921	0.907	0.909	0.834	0.821	0.8969	7.48
51)		thiophene	0.774	0.704	0.645	0.605	0.614	0.625	0.576	0.566	0.6385	10.89
52)	C	carbon tetrachloride	0.801	0.731	0.696	0.691	0.700	0.707	0.645	0.649	0.7027	7.00
53)		cyclohexane	0.679	0.570	0.566	0.538	0.538	0.517	0.476	0.474	0.5447	11.99
54)		tert-amyl methyl ether	1.034	0.871	0.924	0.901	0.896	0.909	0.832	0.820	0.8982	7.35
55)		dibromomethane	0.393	0.374	0.370	0.372	0.380	0.381	0.359	0.352	0.3727	3.43
56)	C	1,2-dichloropropane	0.363	0.356	0.361	0.350	0.356	0.357	0.329	0.322	0.3492	4.36
57)		bromodichloromethane	0.778	0.760	0.765	0.722	0.756	0.743	0.685	0.679	0.7359	5.05
58)	C	1,4-dioxane	0.142	0.208	0.206	0.231	0.220	0.229	0.214	0.209	0.2072	13.57
59)	C	trichloroethene	0.513	0.440	0.455	0.455	0.473	0.471	0.439	0.435	0.4602	5.60
60)	C	2,2,4-trimethylpentane	1.968	1.699	1.759	1.685	1.681	1.677	1.546	1.497	1.6890	8.39
61)		methyl methacrylate	0.527	0.484	0.458	0.511	0.522	0.540	0.503	0.483	0.5035	5.42
62)		heptane	1.133	0.954	0.826	0.705	0.705	0.716	0.645	0.618	0.7877	22.31
63)	C	cis-1,3-dichloropropene	0.505	0.473	0.455	0.512	0.519	0.518	0.487	0.474	0.4930	4.91
64)	C	4-methyl-2-pentanone	1.237	0.885	0.989	0.990	0.959	0.965	0.870	0.849	0.9681	12.61
65)		trans-1,3-dichloropropene	0.367	0.444	0.499	0.517	0.520	0.525	0.501	0.497	0.4838	11.07
66)	C	1,1,2-trichloroethane	0.455	0.436	0.439	0.395	0.406	0.410	0.367	0.366	0.4093	7.95
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	6.110	5.507	5.224	5.073	4.972	5.091	4.784	4.641	5.1753	8.90
69)	s	toluene-D8	3.586	3.588	3.620	3.633	3.527	3.481	3.570	3.563	3.5708	1.37
70)		2-methylthiophene	5.086	4.776	5.011	4.860	4.603	4.818	4.505	4.402	4.7576	5.02
71)		1,3-dichloropropane	2.358	2.529	2.275	2.261	2.218	2.350	2.186	2.119	2.2870	5.52
72)		2-hexanone	3.448	3.261	4.046	4.168	3.925	4.141	3.772	3.596	3.7946	8.82
73)		3-methylthiophene	4.841	4.833	4.423	4.535	4.241	4.650	4.272	4.134	4.4911	6.01
74)		dibromochloromethane	3.928	3.637	3.608	3.810	3.621	3.885	3.648	3.640	3.7220	3.50
75)	C	1,2-dibromoethane	3.208	2.879	3.049	3.076	2.956	3.117	2.918	2.873	3.0096	4.05
76)		butyl acetate	0.540	0.506	0.500	0.569	0.538	0.568	0.500	0.504	0.5282	5.65
77)		octane	1.844	1.730	1.574	1.560	1.464	1.530	1.414	1.386	1.5627	10.02
78)	C	tetrachloroethene	3.315	2.829	2.785	2.730	2.525	2.659	2.515	2.528	2.7358	9.66
79)		1,1,1,2-tetrachloroethane	2.731	2.482	2.508	2.499	2.448	2.586	2.429	2.411	2.5118	4.14
80)	C	chlorobenzene	4.804	4.219	4.332	4.484	4.342	4.544	4.248	4.180	4.3942	4.73
81)	C	ethylbenzene	7.421	6.860	6.678	6.913	6.596	6.859	6.354	6.226	6.7383	5.50
82)		2-ethylthiophene	6.156	5.438	5.371	5.387	5.123	5.528	5.071	5.023	5.3872	6.72
83)	C	m+p-xylene	5.980	5.328	5.314	5.469	5.144	5.403	4.999	4.856	5.3116	6.42
84)	C	bromoform	3.556	3.564	3.509	3.747	3.615	3.878	3.692	3.666	3.6534	3.28
85)	C	styrene	4.217	3.966	4.214	4.287	4.143	4.359	4.085	4.048	4.1646	3.11
86)	C	1,1,2,2-tetrachloroethane	4.574	4.174	4.106	4.207	3.963	4.193	3.923	3.796	4.1169	5.74
87)	C	o-xylene	6.183	5.532	5.454	5.633	5.363	5.566	5.202	5.017	5.4939	6.28
88)		1,2,3-trichloropropane	3.230	3.296	3.118	3.236	3.062	3.170	2.977	2.930	3.1275	4.16
89)		nonane	6.384	5.375	4.888	4.935	4.619	4.816	4.373	4.106	4.9369	14.14
90)	s	bromofluorobenzene	2.647	2.652	2.666	2.711	2.644	2.686	2.666	2.687	2.6699	0.87

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Instrument ID: AIRPIANO1 Calibration Date(s): 01/02/15 01/03/15

Calibration Times: 20:57 00:45

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	7.983	7.506	7.579	7.657	7.429	7.768	7.257	7.196	7.5468	3.45
92)		bromobenzene	4.390	3.904	3.895	3.982	3.773	3.887	3.659	3.606	3.8869	6.20
93)		2-chlorotoluene	2.577	2.200	2.269	2.319	2.204	2.289	2.163	2.147	2.2710	6.07
94)		n-propylbenzene	2.512	2.303	2.391	2.442	2.311	2.395	2.325	2.308	2.3734	3.19
95)		4-chlorotoluene	6.250	6.152	5.891	5.926	5.674	5.922	5.546	5.397	5.8450	4.98
96)		4-ethyl toluene	8.656	7.940	8.420	8.781	8.341	8.608	8.179	8.093	8.3770	3.52
97)		1,3,5-trimethylbenzene	7.925	7.114	7.217	7.680	6.973	7.460	7.238	6.961	7.3209	4.69
98)		tert-butylbenzene	8.521	7.641	7.775	7.971	7.642	7.876	7.505	7.162	7.7617	5.08
99)		1,2,4-trimethylbenzene	7.056	6.585	6.493	6.831	6.564	6.806	6.450	6.199	6.6232	4.02
100)		decane	5.530	4.630	4.658	4.864	4.549	4.619	4.328	4.122	4.6623	8.93
101)	C	Benzyl Chloride	5.722	5.607	5.706	6.278	6.101	6.364	6.225	6.292	6.0371	5.10
102)		1,3-dichlorobenzene	5.428	4.903	4.937	5.268	5.009	5.150	4.974	4.850	5.0649	3.95
103)	C	1,4-dichlorobenzene	5.265	5.101	4.989	5.347	5.086	5.256	5.012	4.876	5.1166	3.14
104)		sec-butylbenzene	1.061	1.009	0.980	1.029	0.961	1.002	0.958	0.896	0.9870	5.10
105)		1,2,3-trimethylbenzene	6.616	5.906	6.077	5.948	5.645	5.805	5.631	5.535	5.8955	5.83
106)		p-isopropyltoluene	1.023	0.963	0.941	0.992	0.943	0.964	0.923	0.897	0.9556	4.12
107)		1,2-dichlorobenzene	5.022	4.790	4.725	5.018	4.808	4.816	4.661	4.666	4.8133	2.92
108)		n-butylbenzene	8.016	7.701	7.888	8.495	7.930	7.877	7.585	7.481	7.8715	3.95
109)		indan	7.201	6.439	6.573	6.705	6.372	6.578	6.415	6.359	6.5804	4.22
110)		indene	4.811	4.877	4.669	4.583	4.357	4.705	4.549	4.509	4.6324	3.64
111)	C	1,2-dibromo-3-chloropropane	2.109	2.125	2.086	2.235	2.161	2.072	2.090	2.061	2.1172	2.71
112)		undecane	5.525	5.473	5.280	5.866	5.474	4.863	4.862	4.761	5.2630	7.51
113)		1,2,4,5-tetramethylbenzene	1.204	1.198	1.189	1.389	1.370	1.154	1.190	1.190	1.2355	7.30
114)		dodecane	6.083	4.669	5.061	6.271	6.218	4.505	4.478	4.349	5.2040	16.23
115)	C	1,2,4-trichlorobenzene	3.682	4.040	3.737	4.583	4.680	3.649	3.921	4.145	4.0546	9.78
116)		naphthalene	1.373	0.962	0.946	1.131	1.064	0.824	0.873	0.947	1.0150	17.18
117)		1,2,3-trichlorobenzene	3.769	3.455	3.946	4.533	4.337	3.192	3.438	3.828	3.8122	12.01
118)		benzothiophene	7.684	7.577	8.222	9.370	9.011	7.270	7.875	8.606	8.2017	9.00
119)	C	hexachlorobutadiene	2.892	2.853	3.098	3.459	3.451	2.727	2.926	3.146	3.0689	8.88
120)		2-methylnaphthalene			2.424	3.786	4.041	2.437	2.634	3.037	3.0600	22.94
121)		1-methylnaphthalene		2.358	2.650	3.532	3.694	2.490	2.599	2.980	2.9003	18.09

FORM VI-TO15-LL

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500262

Instrument ID: AIRPIANO1 Calibration Date: 01/07/2015 Time: 13:12

Lab File ID: R138913 Init. Calib. Date(s): 01/01/15 01/01/15

Sample No: WG754063-2,3,25 Init. Calib. Times : 20:43 23:57

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	89	0.00
2		chlorodifluoromethane	1.057	0.854	19.2	74	0.00
3		propylene	0.521	0.517	0.8	87	0.00
4		propane	0.638	0.484	24.1	72	0.00
5		dichlorodifluoromethane	1.107	0.887	19.9	93	0.00
6	C	chloromethane	0.592	0.511	13.7	82	0.00
7		Freon-114	1.609	1.498	6.9	84	0.00
8	C	methanol	0.225	0.198	12.0	75	0.00
9	C	vinyl chloride	0.591	0.542	8.3	80	0.00
10	C	1,3-butadiene	0.475	0.442	6.9	84	0.00
11		butane	1.031	0.880	14.6	78	0.00
13	C	bromomethane	0.653	0.546	16.4	83	0.00
14	C	chloroethane	0.291	0.262	10.0	81	0.00
15		ethanol	0.497	0.436	12.3	79	0.00
16		dichlorofluoromethane	1.288	1.061	17.6	74	0.00
17	C	vinyl bromide	0.631	0.564	10.6	81	0.00
18	C	acrolein	0.295	0.216	26.8	75	0.00
19		acetone	1.009	0.942	6.6	85	0.00
20	C	acetonitrile	0.643	0.518	19.4	78	0.00
21		trichlorofluoromethane	1.569	1.404	10.5	79	0.00
22		isopropyl alcohol	1.193	1.092	8.5	81	0.00
23	C	acrylonitrile	0.507	0.434	14.4	85	0.00
24		pentane	1.214	1.016	16.3	78	0.00
25		ethyl ether	0.998	0.842	15.6	83	0.00
26	C	1,1-dichloroethene	1.037	0.934	9.9	82	0.00
27		tertiary butyl alcohol	1.293	1.127	12.8	75	0.00
28	C	methylene chloride	0.851	0.760	10.7	80	0.00
29	C	3-chloropropene	1.082	0.937	13.4	88	0.00
30	C	carbon disulfide	1.765	1.577	10.7	81	0.00
31		Freon 113	1.295	1.157	10.7	81	0.00
32		trans-1,2-dichloroethene	0.977	0.834	14.6	74	0.00
33	C	1,1-dichloroethane	1.147	1.031	10.1	82	0.00
34	C	MTBE	1.727	1.538	10.9	81	0.00
35	C	vinyl acetate	1.579	1.816	-15.0	93	0.00
36	C	2-butanone	1.486	1.370	7.8	77	0.00
37		cis-1,2-dichloroethene	1.053	1.095	-4.0	93	0.00
38		Ethyl Acetate	0.263	0.242	8.0	80	0.00
39	C	chloroform	1.610	1.478	8.2	84	0.00
40		Tetrahydrofuran	1.013	0.820	19.1	81	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138913.D
Acq On : 7 Jan 2015 1:12 pm
Operator : AIRPIANO1:RY
Sample : WG754063-2,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 07 13:34:37 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.421	1.181	16.9	75	0.00
42	C	1,2-dichloroethane	0.876	0.820	6.4	79	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	89	0.00
44	C	hexane	0.656	0.580	11.6	82	0.00
45		diisopropyl ether	0.301	0.267	11.3	79	0.00
46		tert-butyl ethyl ether	1.012	0.859	15.1	74	0.00
48	C	1,1,1-trichloroethane	0.662	0.593	10.4	79	0.00
49		1,1-dichloropropene	0.476	0.422	11.3	79	0.00
50	C	benzene	0.897	0.840	6.4	82	0.00
52	C	carbon tetrachloride	0.703	0.607	13.7	77	0.00
53		cyclohexane	0.545	0.476	12.7	78	0.00
54		tert-amyl methyl ether	0.898	0.780	13.1	77	0.00
55		dibromomethane	0.373	0.329	11.8	77	0.00
56	C	1,2-dichloropropane	0.349	0.334	4.3	83	0.00
57		bromodichloromethane	0.736	0.669	9.1	79	0.00
58	C	1,4-dioxane	0.207	0.201	2.9	81	0.00
59	C	trichloroethene	0.460	0.431	6.3	81	0.01
60	C	2,2,4-trimethylpentane	1.689	1.565	7.3	83	0.00
61		methyl methacrylate	0.503	0.441	12.3	75	0.00
62		heptane	0.788	0.653	17.1	82	0.00
63	C	cis-1,3-dichloropropene	0.493	0.492	0.2	84	0.00
64	C	4-methyl-2-pentanone	0.968	0.868	10.3	80	0.00
65		trans-1,3-dichloropropene	0.484	0.411	15.1	70	0.00
66	C	1,1,2-trichloroethane	0.409	0.376	8.1	82	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	82	0.00
68	C	toluene	5.175	4.853	6.2	80	0.00
71		1,3-dichloropropane	2.287	2.071	9.4	76	0.00
72		2-hexanone	3.795	3.839	-1.2	80	0.00
74		dibromochloromethane	3.722	3.390	8.9	77	0.00
75	C	1,2-dibromoethane	3.010	2.866	4.8	79	0.00
76		butyl acetate	0.528	0.491	7.0	75	0.00
77		octane	1.563	1.333	14.7	74	0.00
78	C	tetrachloroethene	2.736	2.516	8.0	81	0.00
79		1,1,1,2-tetrachloroethane	2.512	2.212	11.9	74	0.00
80	C	chlorobenzene	4.394	4.167	5.2	78	0.00
81	C	ethylbenzene	6.738	6.410	4.9	79	0.00
83	C	m+p-xylene	5.312	5.010	5.7	80	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138913.D
Acq On : 7 Jan 2015 1:12 pm
Operator : AIRPIANO1:RY
Sample : WG754063-2,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 07 13:34:37 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.653	3.300	9.7	75	0.00
85	C	styrene	4.165	4.008	3.8	79	0.00
86	C	1,1,2,2-tetrachloroethane	4.117	4.017	2.4	83	0.00
87	C	o-xylene	5.494	5.318	3.2	81	0.00
88		1,2,3-trichloropropane	3.128	2.838	9.3	76	0.00
89		nonane	4.937	4.271	13.5	76	0.00
91	C	isopropylbenzene	7.547	7.023	6.9	77	0.00
92		bromobenzene	3.887	3.493	10.1	76	0.00
93		2-chlorotoluene	2.271	2.020	11.1	75	0.00
94		n-propylbenzene	2.373	2.198	7.4	78	0.00
95		4-chlorotoluene	5.845	5.214	10.8	75	0.00
96		4-ethyl toluene	8.377	7.673	8.4	75	0.00
97		1,3,5-trimethylbenzene	7.321	7.131	2.6	84	0.00
98		tert-butylbenzene	7.762	7.012	9.7	75	0.00
99		1,2,4-trimethylbenzene	6.623	6.525	1.5	81	0.00
100		decane	4.662	4.228	9.3	76	0.00
101	C	Benzyl Chloride	6.037	5.740	4.9	77	0.00
102		1,3-dichlorobenzene	5.065	4.983	1.6	81	0.00
103	C	1,4-dichlorobenzene	5.117	5.026	1.8	81	0.00
104		sec-butylbenzene	9.870	9.055	8.3	77	0.00
106		p-isopropyltoluene	9.556	8.040	15.9	70	0.00
107		1,2-dichlorobenzene	4.813	4.853	-0.8	83	0.00
108		n-butylbenzene	7.872	7.807	0.8	81	0.00
111	C	1,2-dibromo-3-chloropropane	2.117	1.925	9.1	73	0.00
112		undecane	5.263	5.130	2.5	77	0.00
114		dodecane	5.204	5.358	-3.0	70	0.01
115	C	1,2,4-trichlorobenzene	4.055	4.518	-11.4	79	0.00
116		naphthalene	10.150	9.873	2.7	76	0.01
117		1,2,3-trichlorobenzene	3.812	4.125	-8.2	78	0.01
119	C	hexachlorobutadiene	3.069	3.230	-5.2	77	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Quality Control Data Summary

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500219 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	8.08	81	-	-	-		70-130
Propylene	10	NA	9.92	99	-	-	-		70-130
Propane	10	NA	7.58	76	-	-	-		70-130
Dichlorodifluoromethane	10	NA	8.02	80	-	-	-		70-130
Chloromethane	10	NA	8.63	86	-	-	-		70-130
Freon-114	10	NA	9.32	93	-	-	-		70-130
Methanol	50	NA	44.0	88	-	-	-		70-130
Vinyl chloride	10	NA	9.17	92	-	-	-		70-130
1,3-Butadiene	10	NA	9.30	93	-	-	-		70-130
Butane	10	NA	8.54	85	-	-	-		70-130
Bromomethane	10	NA	8.36	84	-	-	-		70-130
Chloroethane	10	NA	8.99	90	-	-	-		70-130
Ethanol	50	NA	43.9	88	-	-	-		70-130
Dichlorofluoromethane	10	NA	8.24	82	-	-	-		70-130
Vinyl bromide	10	NA	8.93	89	-	-	-		70-130
Acrolein	10	NA	7.33	73	-	-	-		70-130
Acetone	50	NA	46.7	93	-	-	-		70-130
Acetonitrile	10	NA	8.06	81	-	-	-		70-130
Trichlorofluoromethane	10	NA	8.94	89	-	-	-		70-130
Isopropanol	10	NA	9.16	92	-	-	-		70-130
Acrylonitrile	10	NA	8.55	86	-	-	-		70-130
Pentane	10	NA	8.37	84	-	-	-		70-130
Ethyl ether	10	NA	8.44	84	-	-	-		70-130
1,1-Dichloroethene	10	NA	9.00	90	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	8.72	87	-	-	-		70-130
Methylene chloride	10	NA	8.92	89	-	-	-		70-130
3-Chloropropene	10	NA	8.65	86	-	-	-		70-130
Carbon disulfide	10	NA	8.93	89	-	-	-		70-130
Freon-113	10	NA	8.93	89	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	8.54	85	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.99	90	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.90	89	-	-	-		70-130
Vinyl acetate	10	NA	11.5	115	-	-	-		70-130
2-Butanone	10	NA	9.22	92	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	10.4	104	-	-	-		70-130
Ethyl Acetate	10	NA	9.18	92	-	-	-		70-130
Chloroform	10	NA	9.18	92	-	-	-		70-130
Tetrahydrofuran	10	NA	8.09	81	-	-	-		70-130
2,2-Dichloropropane	10	NA	8.31	83	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.36	94	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500219 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	8.85	88	-	-	-		70-130
Diisopropyl Ether	10	NA	8.86	89	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.49	85	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	8.96	90	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.87	89	-	-	-		70-130
Benzene	10	NA	9.36	94	-	-	-		70-130
Carbon tetrachloride	10	NA	8.63	86	-	-	-		70-130
Cyclohexane	10	NA	8.74	87	-	-	-		70-130
tert-amyl methyl ether	10	NA	8.69	87	-	-	-		70-130
Dibromomethane	10	NA	8.82	88	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.55	96	-	-	-		70-130
Bromodichloromethane	10	NA	9.10	91	-	-	-		70-130
1,4-Dioxane	10	NA	9.68	97	-	-	-		70-130
Trichloroethene	10	NA	9.36	94	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	9.27	93	-	-	-		70-130
Methyl methacrylate	10	NA	8.75	88	-	-	-		70-130
Heptane	10	NA	8.29	83	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	9.99	100	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	8.96	90	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.49	85	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.18	92	-	-	-		70-130
Toluene	10	NA	9.38	94	-	-	-		70-130
1,3-Dichloropropane	10	NA	9.06	91	-	-	-		70-130
2-Hexanone	10	NA	10.1	101	-	-	-		70-130
Dibromochloromethane	10	NA	9.11	91	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.52	95	-	-	-		70-130
Butyl Acetate	10	NA	9.30	93	-	-	-		70-130
Octane	10	NA	8.53	85	-	-	-		70-130
Tetrachloroethene	10	NA	9.20	92	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	8.81	88	-	-	-		70-130
Chlorobenzene	10	NA	9.48	95	-	-	-		70-130
Ethylbenzene	10	NA	9.51	95	-	-	-		70-130
p/m-Xylene	20	NA	18.9	94	-	-	-		70-130
Bromoform	10	NA	9.03	90	-	-	-		70-130
Styrene	10	NA	9.62	96	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.76	98	-	-	-		70-130
o-Xylene	10	NA	9.68	97	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	9.07	91	-	-	-		70-130
Nonane	10	NA	8.65	86	-	-	-		70-130
Isopropylbenzene	10	NA	9.30	93	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

LAB CONTROL SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1500219 Matrix: Air
Lab Control Sample: WG754063-3LCS Injected: 01/07/15 13:12 Lab File ID: R138913

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	8.99	90	-	-	-		70-130
2-Chlorotoluene	10	NA	8.90	89	-	-	-		70-130
n-Propylbenzene	10	NA	9.26	93	-	-	-		70-130
4-Chlorotoluene	10	NA	8.92	89	-	-	-		70-130
4-Ethyltoluene	10	NA	9.16	92	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.74	97	-	-	-		70-130
tert-Butylbenzene	10	NA	9.03	90	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.85	98	-	-	-		70-130
Decane	10	NA	9.07	91	-	-	-		70-130
Benzyl chloride	10	NA	9.51	95	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.84	98	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.82	98	-	-	-		70-130
sec-Butylbenzene	10	NA	9.17	92	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.41	84	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	10.1	101	-	-	-		70-130
n-Butylbenzene	10	NA	9.92	99	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.09	91	-	-	-		70-130
Undecane	10	NA	9.75	98	-	-	-		70-130
Dodecane	10	NA	10.3	103	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	11.1	111	-	-	-		70-130
Naphthalene	10	NA	9.73	97	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	10.8	108	-	-	-		70-130
Hexachlorobutadiene	10	NA	10.5	105	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG754063-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID: R138914 Lab Sample ID: WG754063-4

Date Analyzed: 01/07/15 Time Analyzed: 14:21

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG754063-3LCS	WG754063-3	R138913	01/07/15 13:12
02	CAN 1809 SHELF 40	L1500219-01	R138920	01/07/15 18:38
03	CAN 634 SHELF 41	L1500219-02	R138921	01/07/15 19:10
04	SG-3DUP	WG754063-5D	R138929	01/07/15 23:26

COMMENTS: _____

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FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.23	49	112283	10.000	ppbV		0.00
Standard Area = 121341			Recovery = 92.54%				
43) 1,4-difluorobenzene	12.52	114	237190	10.000	ppbV		0.01
Standard Area = 247444			Recovery = 95.86%				
67) chlorobenzene-D5	16.97	54	50117	10.000	ppbV		0.00
Standard Area = 53179			Recovery = 94.24%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.00		0	N.D.			
3) propylene	0.00		0	N.D.		d	
4) propane	0.00		0	N.D.		d	
5) dichlorodifluoromethane	3.97		0	N.D.			
6) chloromethane	4.09		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	707	0.280	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.48		0	N.D.			
11) butane	4.69		0	N.D.			
13) bromomethane	0.00		0	N.D.		d	
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.49		0	N.D.			
16) dichlorofluoromethane	0.00		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	5.93		0	N.D.			
19) acetone	6.23	43	2556M3	0.226	ppbV		
20) acetonitrile	5.81	41	441	0.061	ppbV	#	36
21) trichlorofluoromethane	0.00		0	N.D.			
22) isopropyl alcohol	6.59		0	N.D.			
23) acrylonitrile	6.84		0	N.D.			
24) pentane	0.00		0	N.D.		d	
25) ethyl ether	7.11		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	7.47		0	N.D.			
28) methylene chloride	7.48	49	811	0.085	ppbV		92
29) 3-chloropropene	7.68		0	N.D.			
30) carbon disulfide	7.84		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
35) vinyl acetate	9.21		0	N.D.		
36) 2-butanone	9.45		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	0.00		0	N.D.		
39) chloroform	10.50		0	N.D.		
40) Tetrahydrofuran	10.78		0	N.D.		
41) 2,2-dichloropropane	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		
45) diisopropyl ether	0.00		0	N.D.		
46) tert-butyl ethyl ether	0.00		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		
49) 1,1-dichloropropene	0.00		0	N.D.		
50) benzene	0.00		0	N.D.		
52) carbon tetrachloride	0.00		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
54) tert-amyl methyl ether	0.00		0	N.D.		
55) dibromomethane	0.00		0	N.D.		
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	13.40		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	0.00		0	N.D.		
61) methyl methacrylate	13.58		0	N.D.		
62) heptane	13.69		0	N.D.		
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	14.32		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	15.37		0	N.D.		
71) 1,3-dichloropropane	0.00		0	N.D.		
72) 2-hexanone	15.64		0	N.D.		
74) dibromochloromethane	15.78		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
76) butyl acetate	0.00		0	N.D.		
77) octane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0	N.D.		
79) 1,1,1,2-tetrachloroethane	0.00		0	N.D.		
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	0.00		0	N.D.		
83) m+p-xylene	17.47		0	N.D.		
84) bromoform	0.00		0	N.D.		
85) styrene	17.75		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	17.81		0	N.D.		
88) 1,2,3-trichloropropane	0.00		0	N.D.		
89) nonane	17.93		0	N.D.		
91) isopropylbenzene	18.25		0	N.D.		
92) bromobenzene	18.36		0	N.D.		
93) 2-chlorotoluene	0.00		0	N.D.		
94) n-propylbenzene	18.75		0	N.D.		
95) 4-chlorotoluene	18.67		0	N.D.		
96) 4-ethyl toluene	18.74		0	N.D.		
97) 1,3,5-trimethylbenzene	18.79		0	N.D.		
98) tert-butylbenzene	19.10		0	N.D.		
99) 1,2,4-trimethylbenzene	19.10		0	N.D.		
100) decane	19.14		0	N.D.		
101) Benzyl Chloride	19.23		0	N.D.		
102) 1,3-dichlorobenzene	19.24		0	N.D.		
103) 1,4-dichlorobenzene	19.29		0	N.D.		
104) sec-butylbenzene	19.30		0	N.D.		
106) p-isopropyltoluene	19.41		0	N.D.		
107) 1,2-dichlorobenzene	19.55		0	N.D.		
108) n-butylbenzene	19.75		0	N.D.		
111) 1,2-dibromo-3-chloropr...	19.90		0	N.D.		
112) undecane	20.12		0	N.D.		
114) dodecane	21.04		0	N.D.		
115) 1,2,4-trichlorobenzene	21.04	180	1553	0.076	ppbV #	75
116) naphthalene	21.15	128	5560	0.109	ppbV #	92
117) 1,2,3-trichlorobenzene	21.41	180	1238	0.065	ppbV #	65
119) hexachlorobutadiene	21.48		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138913.D
Sub List : Default-LCS-AP2 - All compounds listed

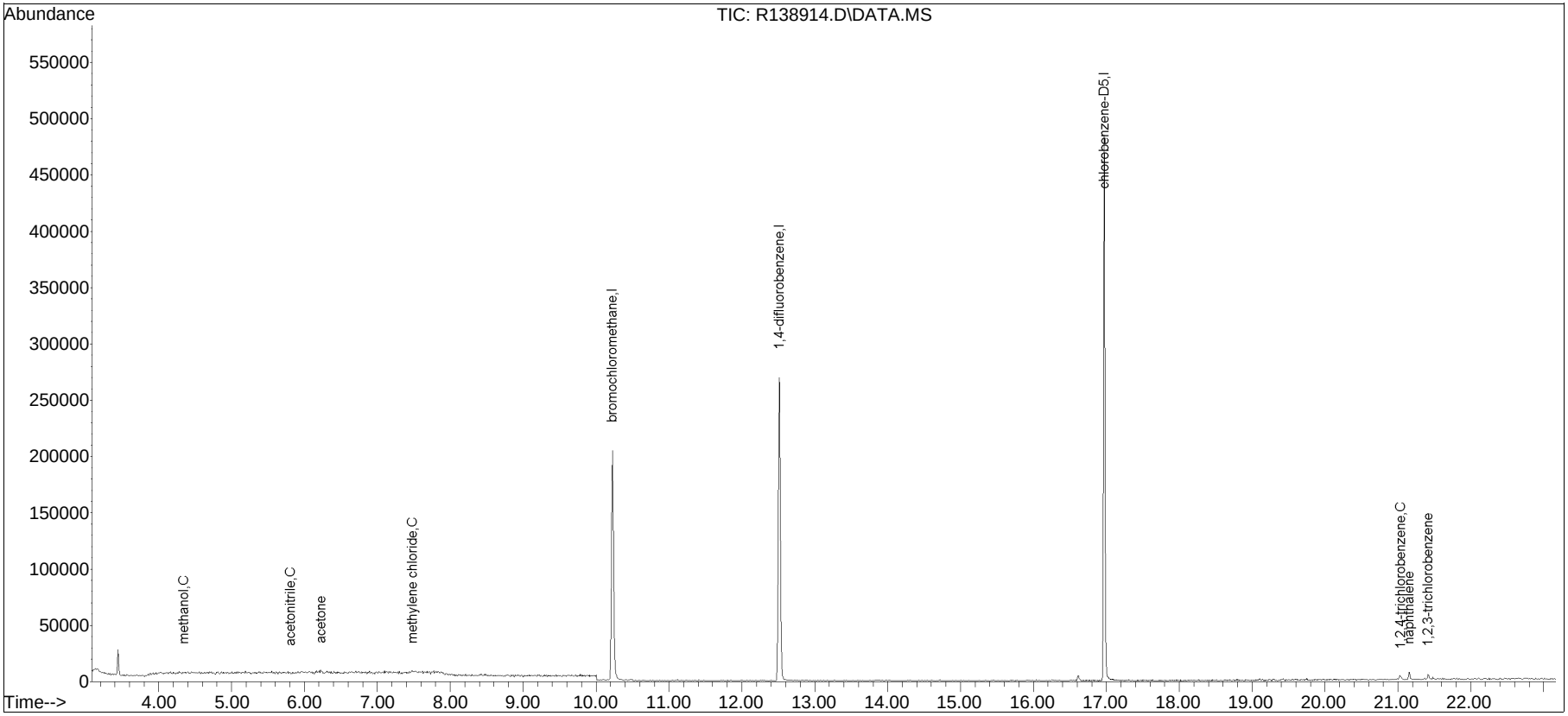
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

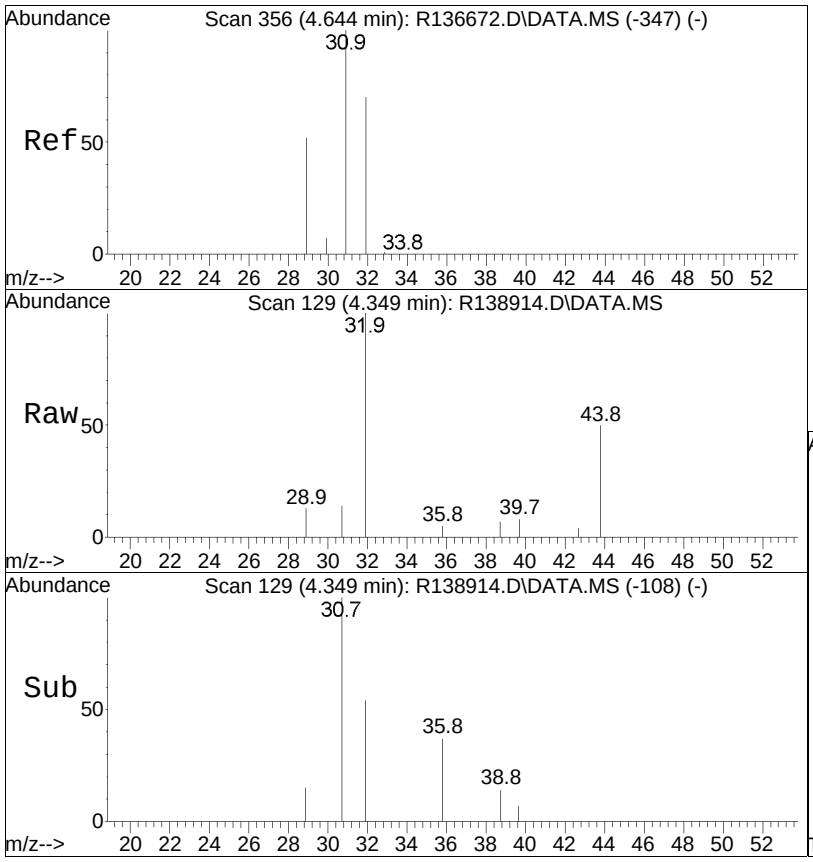
Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 07 14:54:26 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38913.D



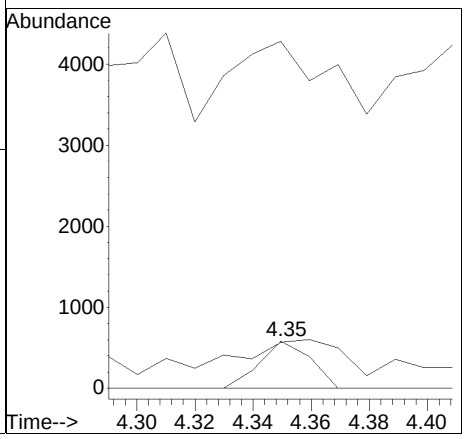
TALL150102.M Thu Jan 08 09:11:22 2015 Page 5

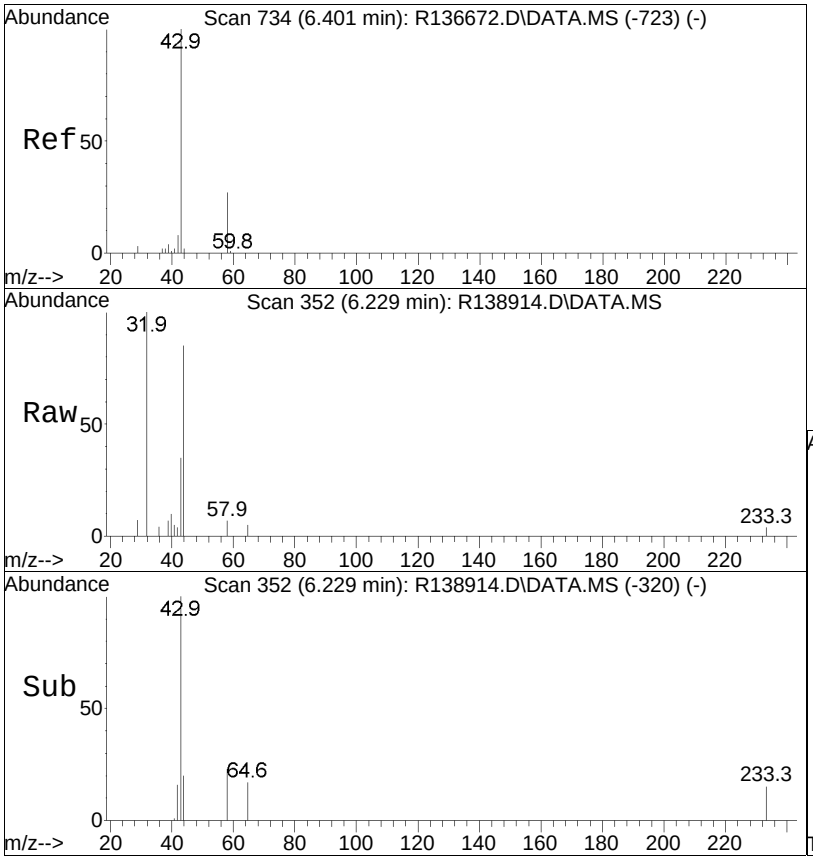


#8
methanol
Concen: 0.28 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 31 Resp: 707

Ion	Ratio	Lower	Upper
31	100		
32	734.6	59.9	89.9#
29	97.4	50.3	75.5#

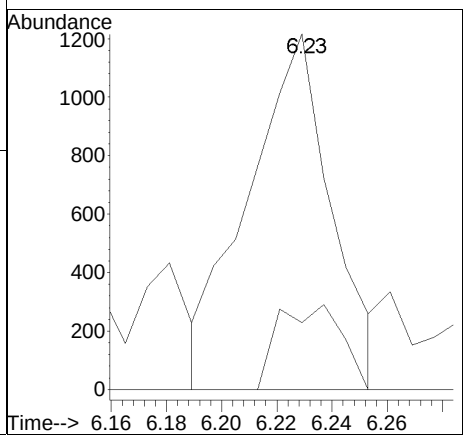


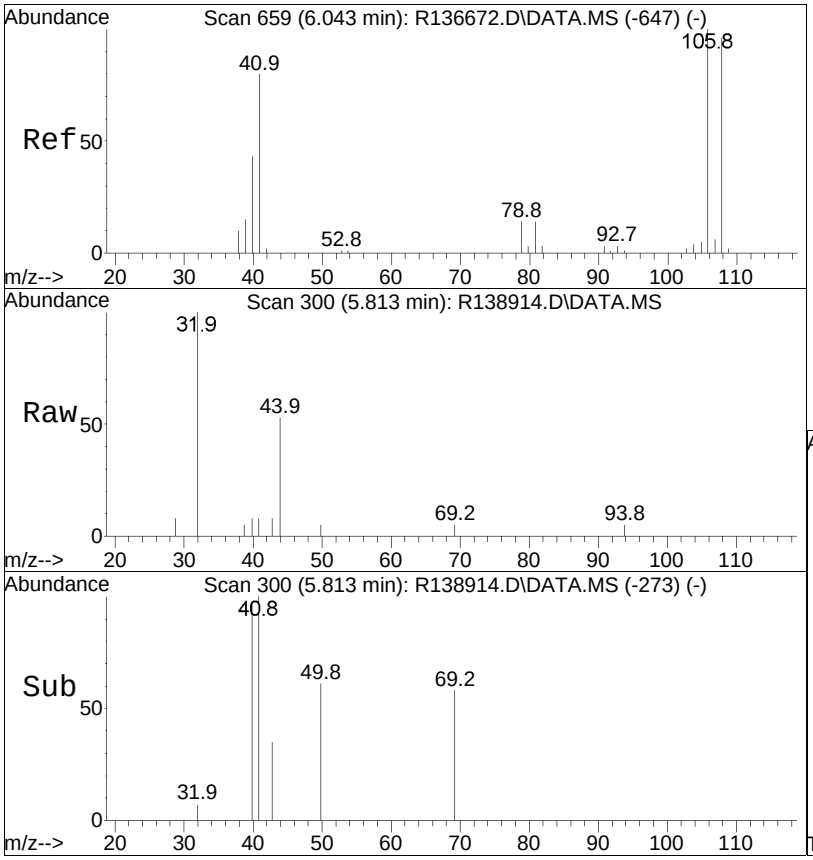


#19
acetone
Concen: 0.23 ppbV m
RT: 6.23 min Scan# 352
Delta R.T. 0.056 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 43 Resp: 2556

Ion	Ratio	Lower	Upper
43	100		
58	18.8	19.9	29.9#
57	0.0	0.6	0.8#

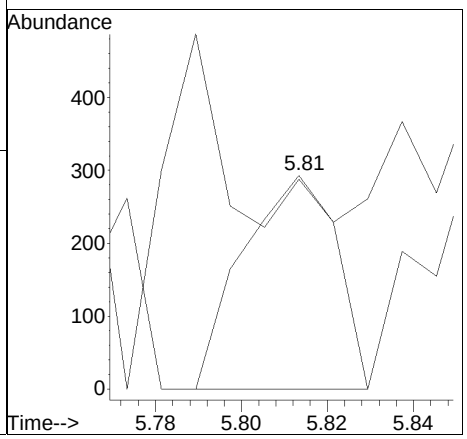


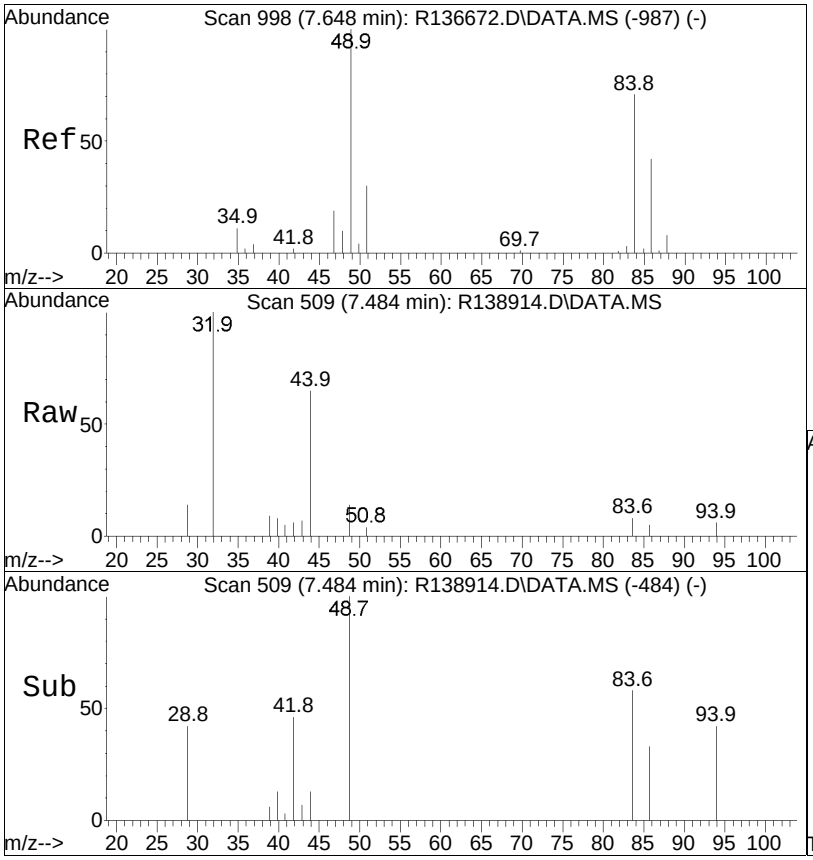


#20
acetonitrile
Concen: 0.06 ppbV
RT: 5.81 min Scan# 300
Delta R.T. 0.016 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 41 Resp: 441

Ion	Ratio	Lower	Upper
41	100		
40	98.3	42.2	63.4#

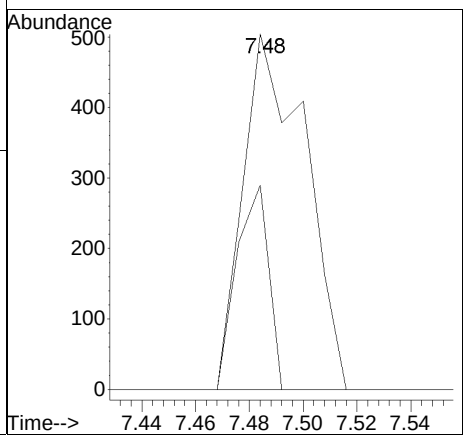


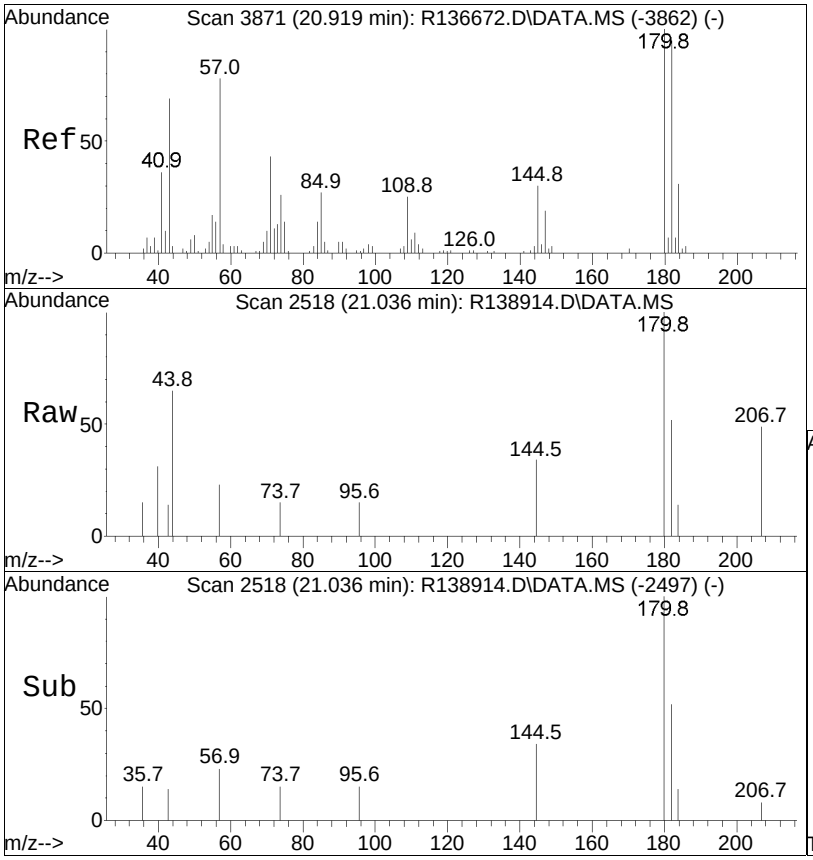


#28
methylene chloride
Concen: 0.08 ppbV
RT: 7.48 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion: 49 Resp: 811

Ion	Ratio	Lower	Upper
49	100		
84	57.5	50.8	76.2

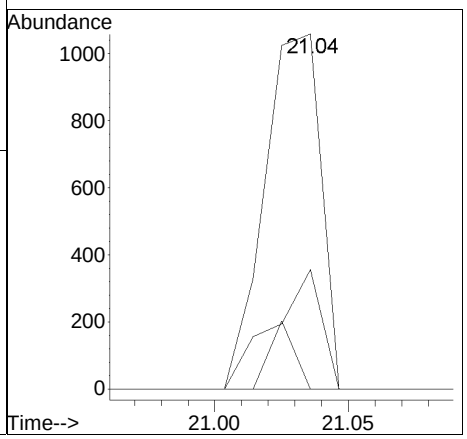


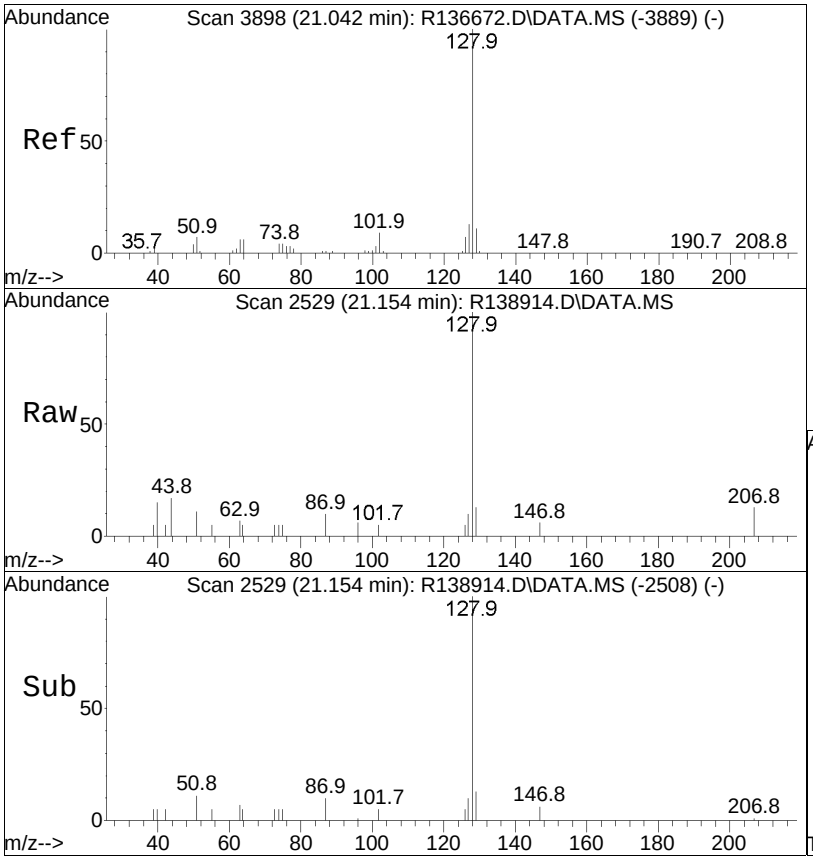


#115
1,2,4-trichlorobenzene
Concen: 0.08 ppbV
RT: 21.04 min Scan# 2518
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:180 Resp: 1553

Ion	Ratio	Lower	Upper
180	100		
145	33.7	23.7	35.5
109	0.0	18.3	27.5#

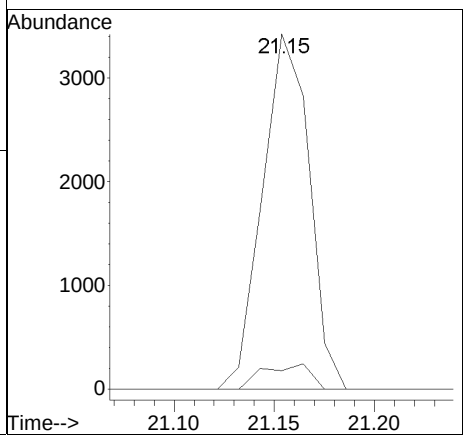


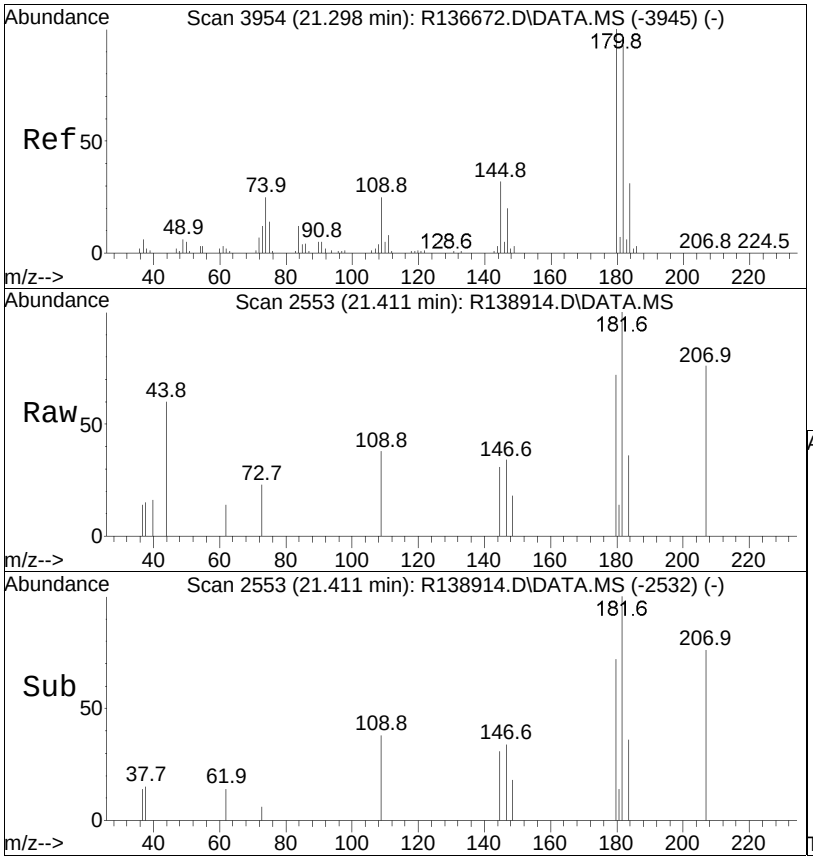


#116
naphthalene
Concen: 0.11 ppbV
RT: 21.15 min Scan# 2529
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:128 Resp: 5560

Ion	Ratio	Lower	Upper
128	100		
102	5.3	6.5	9.7#

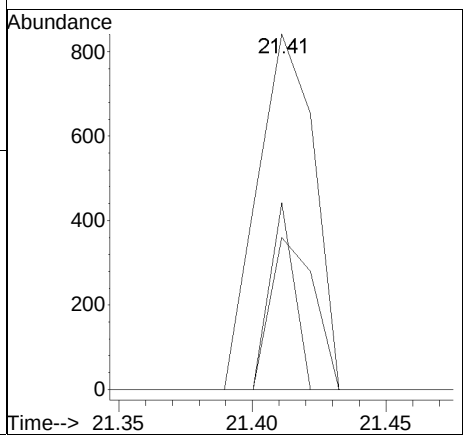




#117
1,2,3-trichlorobenzene
Concen: 0.06 ppbV
RT: 21.41 min Scan# 2553
Delta R.T. 0.021 min
Lab File: R138914.D
Acq: 7 Jan 2015 2:21 pm

Tgt Ion:180 Resp: 1238

Ion	Ratio	Lower	Upper
180	100		
145	42.8	26.2	39.2#
109	52.5	19.0	28.4#

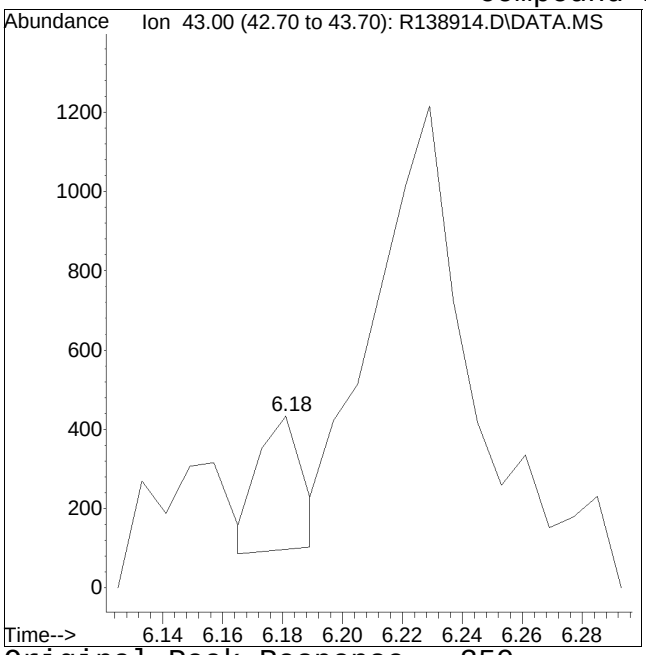


Manual Integration/Negative Proof Report

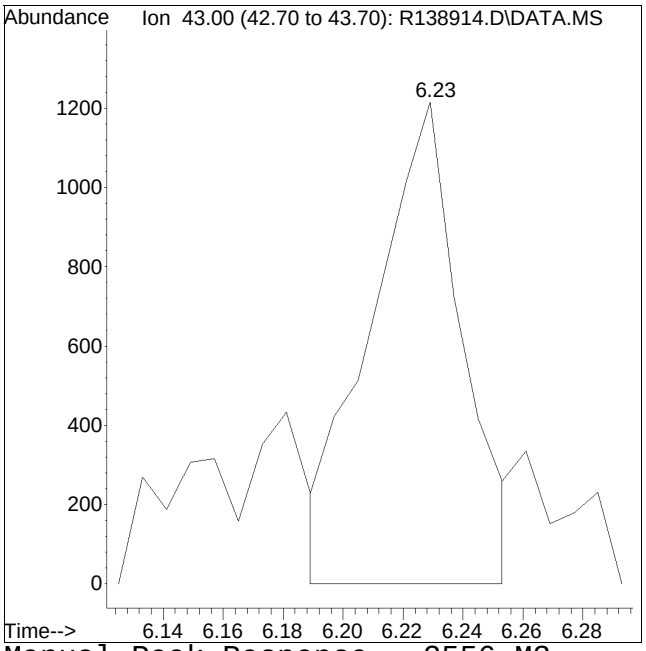
Data Path : O:\Forensics\Data\AIR1\2015Q
Data File : R138914.D
Date Inj'd : 1/7/2015 2:21 pm
Sample : WG754063-4,3,250,250

Method : TALL150102.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 1/7/2015 2:53 pm

Compound #19: acetone



Original Peak Response = 350



Manual Peak Response = 2556 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: WG754063-4	Date Collected	: NA
Client ID	: WG754063-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 01/07/15 14:21
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138914	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138914.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.294	610	612	616	rBV2	1723	1478	0.22%	0.087%
2	8.836	689	691	692	rBV	1665	1096	0.16%	0.065%
3	8.891	697	699	700	rBV	1967	1370	0.20%	0.081%
4	9.344	763	765	768	rBV2	1585	1681	0.25%	0.099%
5	10.002	860	861	862	rVB2	4890	2015	0.30%	0.119%
6	10.094	869	871	874	rVB	840	1259	0.19%	0.074%
7	10.225	880	885	895	rBV	203554	398128	59.20%	23.494%
8	10.404	902	904	907	rBV2	1087	1651	0.25%	0.097%
9	10.469	907	911	913	rBV	891	1949	0.29%	0.115%
10	10.638	928	929	933	rVB	819	1364	0.20%	0.080%
11	11.408	1009	1011	1014	rBV2	1041	1220	0.18%	0.072%
12	11.577	1025	1029	1032	rVB2	465	1354	0.20%	0.080%
13	12.008	1067	1071	1072	rBV2	706	1407	0.21%	0.083%
14	12.516	1115	1120	1127	rBV	269249	527459	78.43%	31.126%
15	14.719	1302	1307	1308	rVB	864	1287	0.19%	0.076%
16	15.460	1386	1389	1391	rBV2	766	1241	0.18%	0.073%
17	15.605	1403	1405	1411	rVB2	762	2082	0.31%	0.123%
18	15.776	1421	1424	1427	rBV2	689	1350	0.20%	0.080%
19	16.508	1501	1505	1508	rBV2	540	1188	0.18%	0.070%
20	16.608	1514	1516	1517	rBV	4584	4426	0.66%	0.261%
21	16.855	1579	1583	1586	rBV2	635	692	0.10%	0.041%
22	16.970	1602	1614	1629	rBV	485147	672495	100.00%	39.684%
23	17.088	1644	1646	1650	rVB	1417	819	0.12%	0.048%
24	17.225	1680	1683	1686	rVB	979	678	0.10%	0.040%
25	18.267	1959	1965	1966	rBV2	852	808	0.12%	0.048%
26	18.747	2090	2095	2099	rVB2	977	1047	0.16%	0.062%
27	18.825	2114	2115	2119	rBV2	963	885	0.13%	0.052%
28	19.001	2147	2152	2154	rBV	854	1008	0.15%	0.059%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	19.101	2170	2173	2178	rVB2	2167	2260	0.34%	0.133%
30	19.139	2178	2181	2186	rBV	1310	1347	0.20%	0.079%
31	19.234	2198	2201	2209	rVB4	1453	2657	0.40%	0.157%
32	19.287	2209	2212	2219	rVV2	1951	3270	0.49%	0.193%
33	19.425	2238	2241	2245	rVB3	1636	1753	0.26%	0.103%
34	19.468	2248	2250	2252	rBV	950	809	0.12%	0.048%
35	19.549	2265	2267	2271	rVB3	1272	1409	0.21%	0.083%
36	19.592	2271	2276	2277	rBV	1100	1256	0.19%	0.074%
37	19.672	2290	2293	2296	rBV2	901	839	0.12%	0.050%
38	19.739	2303	2307	2308	rBV	1219	1410	0.21%	0.083%
39	19.749	2308	2309	2312	rVB3	1973	1235	0.18%	0.073%
40	19.825	2322	2325	2326	rVB2	1128	688	0.10%	0.041%
41	19.844	2326	2329	2332	rBV	1160	1195	0.18%	0.071%
42	19.863	2332	2333	2338	rBV	1037	1217	0.18%	0.072%
43	19.906	2341	2342	2347	rBV	915	1088	0.16%	0.064%
44	19.968	2351	2355	2357	rBV	1028	1037	0.15%	0.061%
45	20.068	2373	2376	2377	rBV3	1121	750	0.11%	0.044%
46	20.301	2421	2425	2426	rBV2	875	913	0.14%	0.054%
47	20.993	2511	2514	2515	rBV3	1187	2018	0.30%	0.119%
48	21.025	2515	2517	2523	rVB4	3764	7477	1.11%	0.441%
49	21.154	2527	2529	2532	rBV2	6675	9678	1.44%	0.571%
50	21.411	2551	2553	2558	rVB2	4560	7388	1.10%	0.436%
51	21.475	2558	2559	2564	rBV3	2096	2690	0.40%	0.159%
52	22.108	2616	2618	2621	rVB2	1117	1690	0.25%	0.100%
53	22.268	2632	2633	2635	rBV	1098	1443	0.21%	0.085%
54	22.558	2658	2660	2661	rBV	1368	2074	0.31%	0.122%
55	22.729	2674	2676	2677	rBV	1169	1586	0.24%	0.094%

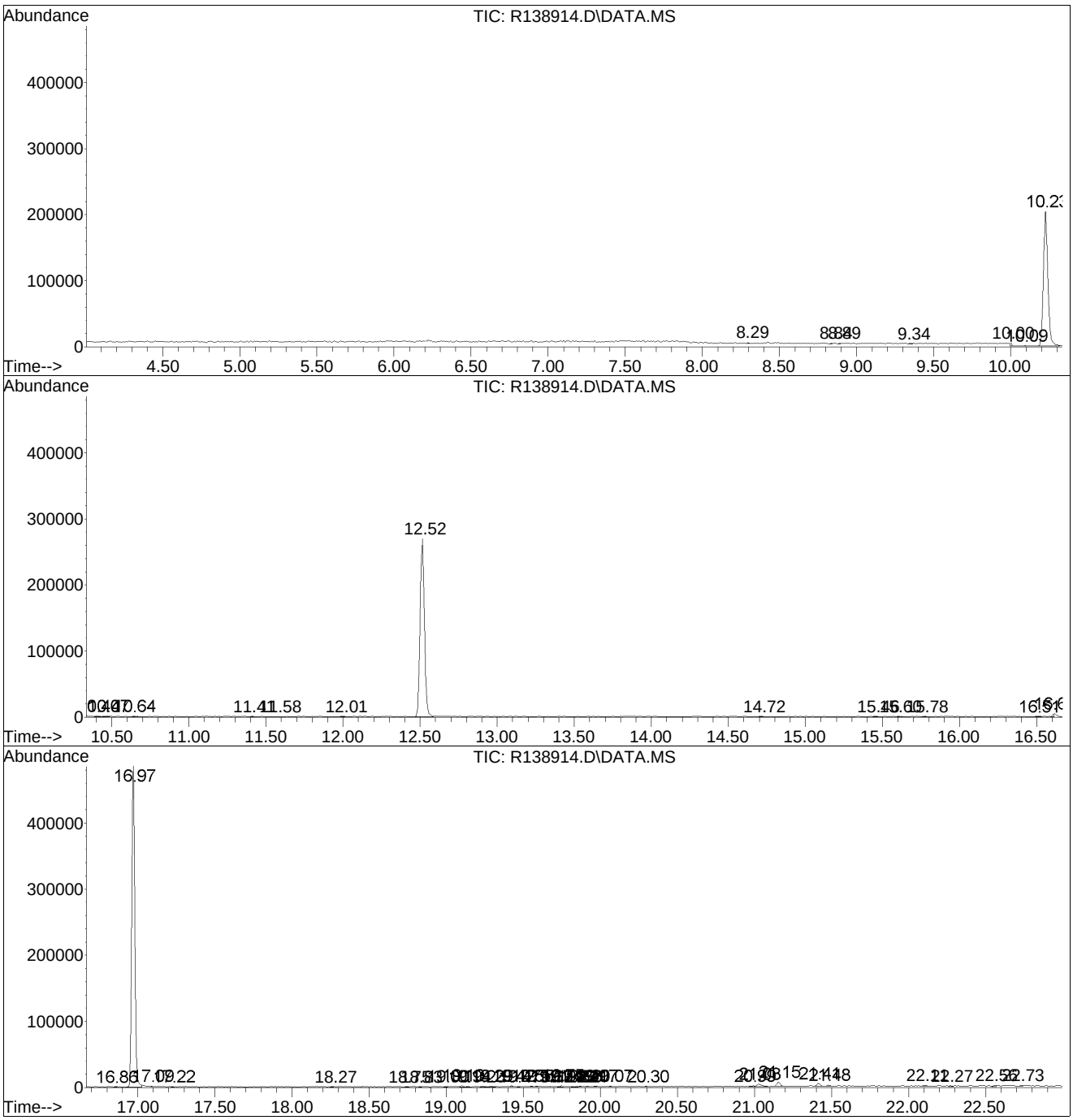
Sum of corrected areas: 1694614

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138914.D
Acq On : 7 Jan 2015 2:21 pm
Operator : AIRPIANO1:RY
Sample : WG754063-4,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID: R138797_tune BFB Injection Date: 01/01/15

Instrument ID: AIRPIANO1 BFB Injection Time: 18:23

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	91.3
175	4.0 - 9.0% of mass 174	7.1 (7.8)1
176	93.0 - 101% of mass 174	87.7 (96)1
177	5.0 - 9.0% of mass 176	5.5 (6.2)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.4	0.4	R138798	01/01/15	20:43
02	0.8	0.8	R138799	01/01/15	21:16
03	2.0	2.0	R138800	01/01/15	21:48
04	10	10	R138801	01/01/15	22:19
05	20	20	R138802	01/01/15	22:52
06	50	50	R138803	01/01/15	23:24
07	100.0	100.0	R138804	01/01/15	23:57
08	ICV QUANT REPORT	ICV QUANT REPO	R138807	01/02/15	09:08

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID: R138909_tune BFB Injection Date: 01/07/15

Instrument ID: AIRPIANO1 BFB Injection Time: 11:01

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	19.9
75	30.0 - 66.0% of mass 95	45
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	90.5
175	4.0 - 9.0% of mass 174	6.4 (7.1)1
176	93.0 - 101% of mass 174	84.7 (93.6)1
177	5.0 - 9.0% of mass 176	6.5 (7.7)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG754063-2	R138913	01/07/15	13:12
02	WG754063-3LCS	WG754063-3	R138913	01/07/15	13:12
03	WG754063-4BLANK	WG754063-4	R138914	01/07/15	14:21
04	CAN 1809 SHELF 4	L1500219-01	R138920	01/07/15	18:38
05	CAN 634 SHELF 41	L1500219-02	R138921	01/07/15	19:10
06	Duplicate Sample	WG754063-5D	R138929	01/07/15	23:26

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Lab File ID (Standard): R138913 Date Analyzed: 01/07/15

Instrument ID : AIRPIANO1 Time Analyzed: 13:12

		IS1		IS2		IS3	
		AREA	RT	AREA	RT	AREA	RT
	24 HOUR STD	121341	10.22	247444	12.51	53179	16.97
	UPPER LIMIT	169877	10.55	346422	12.84	74451	17.30
	LOWER LIMIT	72805	9.89	148466	12.18	31907	16.64
	EPA SAMPLE NO.						
01	WG754063-3LCS	121341	10.22	247444	12.51	53179	16.97
02	WG754063-4BLANK	112283	10.23	237190	12.52	50117	16.97
03	CAN 1809 SHELF 40	114716	10.23	233256	12.52	52377	16.97
04	CAN 634 SHELF 41	105977	10.22	229609	12.51	50248	16.97
05	WG754063-5DUP	92428	10.22	194655	12.51	47195	16.97

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-01	Date Collected	: 01/06/15 13:08
Client ID	: CAN 1809 SHELF 40	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 18:38
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138920	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.23	49	114716	10.000	ppbV		0.00
Standard Area = 118855			Recovery = 96.52%				
43) 1,4-difluorobenzene	12.52	114	233256	10.000	ppbV		0.01
Standard Area = 249633			Recovery = 93.44%				
67) chlorobenzene-D5	16.97	54	52377	10.000	ppbV		0.00
Standard Area = 54542			Recovery = 96.03%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.00		0	N.D.			
3) propylene	3.91		0	N.D.			
4) propane	0.00		0	N.D.		d	
5) dichlorodifluoromethane	0.00		0	N.D.			
6) chloromethane	4.10		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	627	0.243	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.56		0	N.D.			
11) butane	4.72		0	N.D.			
13) bromomethane	4.99		0	N.D.			
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.53		0	N.D.			
16) dichlorofluoromethane	5.56		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	5.95		0	N.D.			
19) acetone	0.00		0	N.D.		d	
20) acetonitrile	5.81		0	N.D.			
21) trichlorofluoromethane	6.32		0	N.D.			
22) isopropyl alcohol	6.60		0	N.D.			
23) acrylonitrile	7.02		0	N.D.			
24) pentane	6.92		0	N.D.			
25) ethyl ether	0.00		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	0.00		0	N.D.			
28) methylene chloride	7.50	49	690	0.071	ppbV		93
29) 3-chloropropene	7.61		0	N.D.			
30) carbon disulfide	7.84		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
34) MTBE	0.00		0		N.D.	
35) vinyl acetate	9.20		0		N.D.	
36) 2-butanone	9.52		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	
38) Ethyl Acetate	0.00		0		N.D.	
39) chloroform	10.24		0		N.D.	
40) Tetrahydrofuran	0.00		0		N.D.	
41) 2,2-dichloropropane	0.00		0		N.D.	
42) 1,2-dichloroethane	0.00		0		N.D.	
44) hexane	0.00		0		N.D.	
45) diisopropyl ether	0.00		0		N.D.	
46) tert-butyl ethyl ether	0.00		0		N.D.	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
49) 1,1-dichloropropene	0.00		0		N.D.	
50) benzene	0.00		0		N.D.	
52) carbon tetrachloride	0.00		0		N.D.	
53) cyclohexane	0.00		0		N.D.	d
54) tert-amyl methyl ether	0.00		0		N.D.	
55) dibromomethane	0.00		0		N.D.	
56) 1,2-dichloropropane	0.00		0		N.D.	
57) bromodichloromethane	0.00		0		N.D.	
58) 1,4-dioxane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
60) 2,2,4-trimethylpentane	0.00		0		N.D.	
61) methyl methacrylate	0.00		0		N.D.	
62) heptane	13.73		0		N.D.	
63) cis-1,3-dichloropropene	0.00		0		N.D.	
64) 4-methyl-2-pentanone	14.30		0		N.D.	
65) trans-1,3-dichloropropene	0.00		0		N.D.	
66) 1,1,2-trichloroethane	0.00		0		N.D.	
68) toluene	0.00		0		N.D.	
71) 1,3-dichloropropane	0.00		0		N.D.	
72) 2-hexanone	15.64		0		N.D.	
74) dibromochloromethane	0.00		0		N.D.	
75) 1,2-dibromoethane	0.00		0		N.D.	
76) butyl acetate	0.00		0		N.D.	
77) octane	0.00		0		N.D.	

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.00		0		N.D.	
80) chlorobenzene	0.00		0		N.D.	
81) ethylbenzene	17.20		0		N.D.	
83) m+p-xylene	17.58		0		N.D.	
84) bromoform	17.38		0		N.D.	
85) styrene	0.00		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0		N.D.	
87) o-xylene	0.00		0		N.D.	
88) 1,2,3-trichloropropane	0.00		0		N.D.	
89) nonane	17.94		0		N.D.	
91) isopropylbenzene	0.00		0		N.D.	
92) bromobenzene	0.00		0		N.D.	
93) 2-chlorotoluene	0.00		0		N.D.	
94) n-propylbenzene	0.00		0		N.D.	
95) 4-chlorotoluene	0.00		0		N.D.	
96) 4-ethyl toluene	0.00		0		N.D.	
97) 1,3,5-trimethylbenzene	0.00		0		N.D.	
98) tert-butylbenzene	0.00		0		N.D.	
99) 1,2,4-trimethylbenzene	0.00		0		N.D.	
100) decane	19.03		0		N.D.	
101) Benzyl Chloride	19.17		0		N.D.	
102) 1,3-dichlorobenzene	0.00		0		N.D.	
103) 1,4-dichlorobenzene	0.00		0		N.D.	
104) sec-butylbenzene	0.00		0		N.D.	
106) p-isopropyltoluene	0.00		0		N.D.	
107) 1,2-dichlorobenzene	0.00		0		N.D.	
108) n-butylbenzene	0.00		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.00		0		N.D.	
112) undecane	0.00		0		N.D.	
114) dodecane	0.00		0		N.D.	
115) 1,2,4-trichlorobenzene	0.00		0		N.D.	
116) naphthalene	21.15		0		N.D.	
117) 1,2,3-trichlorobenzene	0.00		0		N.D.	
119) hexachlorobutadiene	0.00		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

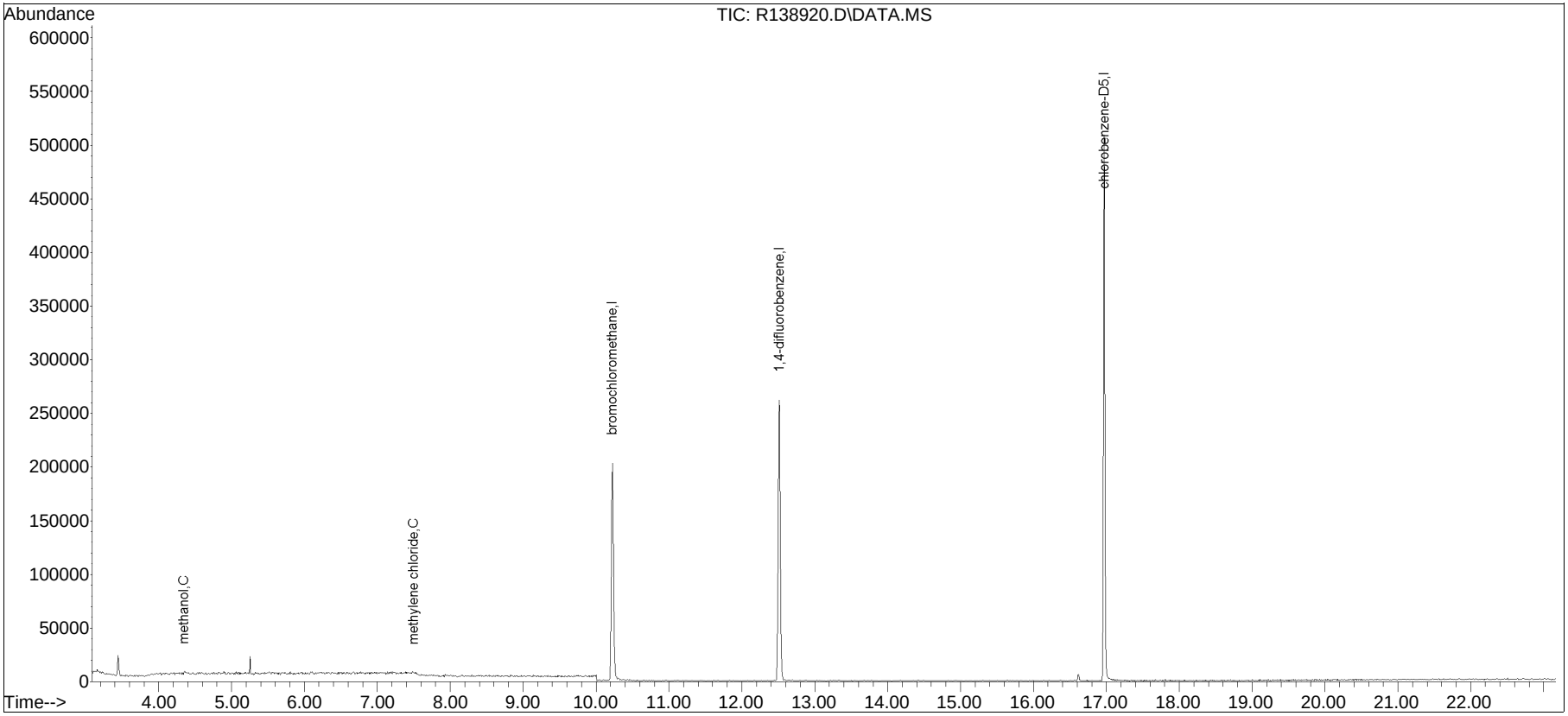
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

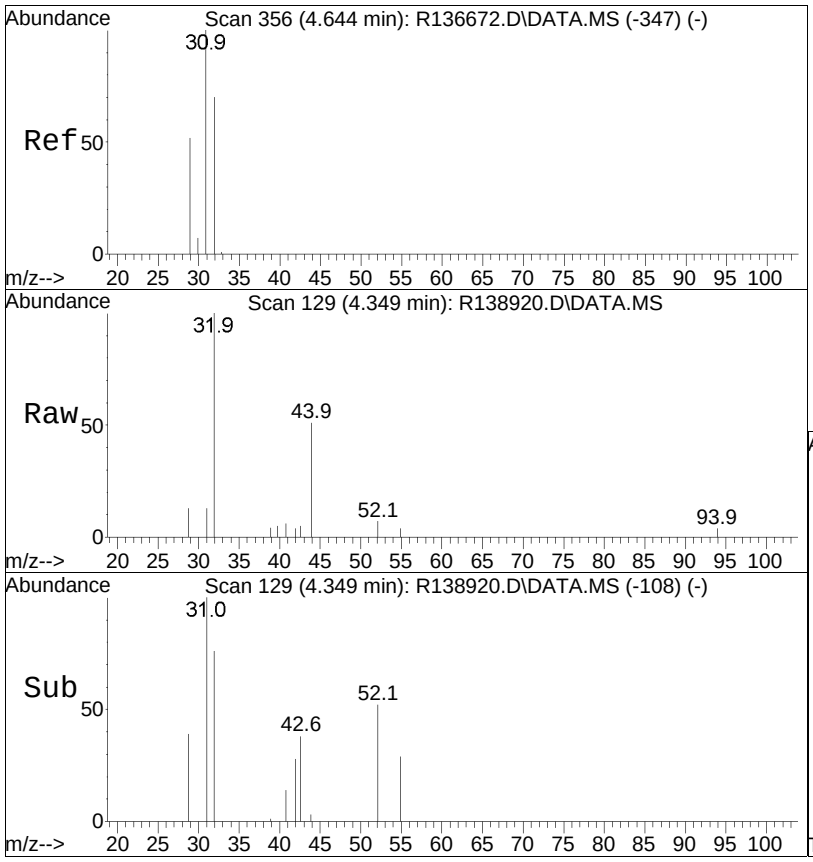
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 08 09:18:00 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:18 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38911.D

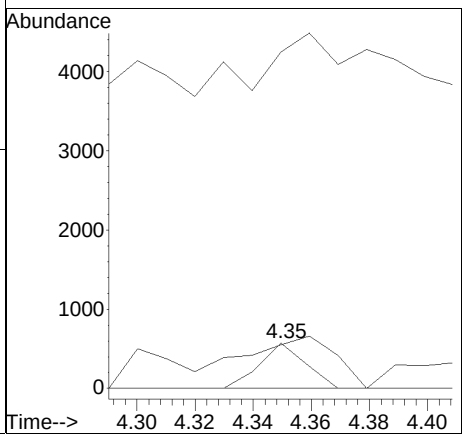


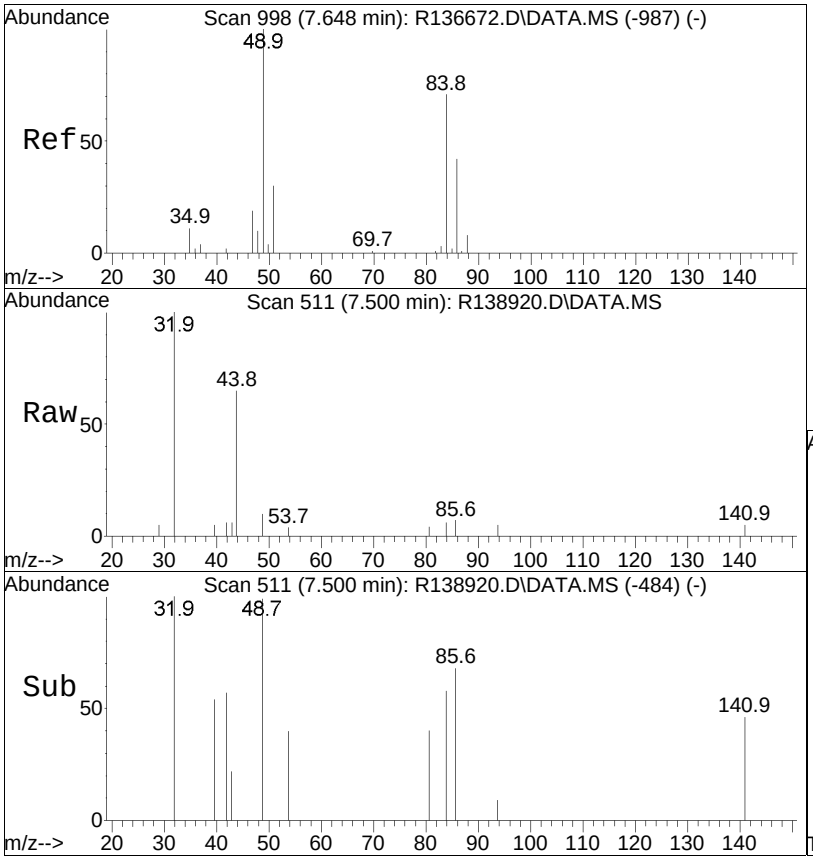


#8
methanol
Concen: 0.24 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138920.D
Acq: 7 Jan 2015 6:38 pm

Tgt Ion: 31 Resp: 627

Ion	Ratio	Lower	Upper
31	100		
32	740.8	59.9	89.9#
29	96.0	50.3	75.5#

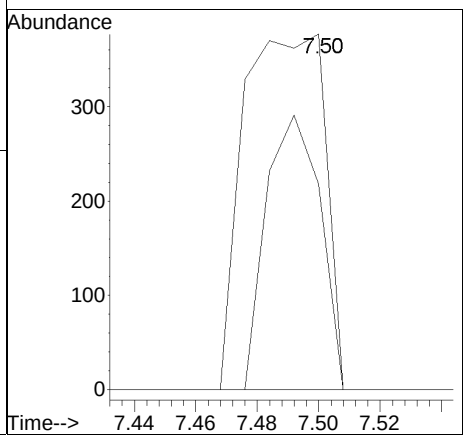




#28
methylene chloride
Concen: 0.07 ppbV
RT: 7.50 min Scan# 511
Delta R.T. 0.016 min
Lab File: R138920.D
Acq: 7 Jan 2015 6:38 pm

Tgt Ion: 49 Resp: 690

Ion	Ratio	Lower	Upper
49	100		
84	57.8	50.8	76.2



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150102.M
Data File	: R138920.D	Operator	: AIRPIANO1:RY
Date Inj'd	: 1/7/2015 6:38 pm	Instrument	: Air Piano 1
Sample	: L1500219-01,3,250,250	Quant Date	: 1/8/2015 5:59 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1500219
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1500219-01	Date Collected	:	01/06/15 13:08
Client ID	:	CAN 1809 SHELF 40	Date Received	:	01/06/15
Sample Location	:		Date Analyzed	:	01/07/15 18:38
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138920	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138920.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.359	128	130	132	rBV3	2927	5177	0.74%	0.303%
2	4.823	175	177	180	rBV3	2428	4380	0.63%	0.256%
3	5.062	205	206	209	rBV2	2509	2148	0.31%	0.126%
4	5.254	228	230	232	rBV	16559	8894	1.27%	0.520%
5	5.685	282	284	286	rBV	2193	3232	0.46%	0.189%
6	5.805	298	299	300	rBV	2554	1332	0.19%	0.078%
7	7.932	563	565	566	rBV2	2472	2449	0.35%	0.143%
8	8.829	688	690	695	rBV2	1880	3072	0.44%	0.180%
9	10.047	862	866	869	rVB	1022	1802	0.26%	0.105%
10	10.225	880	885	892	rBV	202431	410200	58.54%	23.998%
11	10.911	956	958	961	rBV2	753	1270	0.18%	0.074%
12	11.615	1031	1033	1036	rBV2	880	1408	0.20%	0.082%
13	12.516	1115	1120	1126	rBV	261836	524840	74.90%	30.705%
14	12.588	1126	1127	1130	rVB	1397	1434	0.20%	0.084%
15	12.640	1130	1132	1135	rBV	763	1554	0.22%	0.091%
16	14.927	1326	1330	1331	rBV	551	1282	0.18%	0.075%
17	15.126	1349	1352	1357	rVB	550	1592	0.23%	0.093%
18	16.364	1488	1489	1492	rBV	761	1217	0.17%	0.071%
19	16.615	1514	1518	1527	rVB3	6322	9748	1.39%	0.570%
20	16.970	1605	1614	1631	rBV	509004	700722	100.00%	40.995%
21	18.437	2005	2011	2015	rBV2	772	1018	0.15%	0.060%
22	19.220	2195	2198	2200	rVB2	1329	722	0.10%	0.042%
23	19.544	2264	2266	2270	rBV	694	742	0.11%	0.043%
24	19.830	2323	2326	2330	rVB	1391	1229	0.18%	0.072%
25	19.853	2330	2331	2333	rBV	1199	878	0.13%	0.051%
26	19.877	2335	2336	2339	rVV2	1265	787	0.11%	0.046%
27	20.034	2368	2369	2372	rBV2	1226	869	0.12%	0.051%
28	20.082	2377	2379	2380	rBV	1133	846	0.12%	0.049%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.139	2389	2391	2394	rVB3	929	711	0.10%	0.042%
30	20.420	2446	2450	2453	rVB2	1140	1242	0.18%	0.073%
31	20.853	2499	2501	2504	rVB2	865	1736	0.25%	0.102%
32	20.950	2507	2510	2513	rVB3	859	1838	0.26%	0.108%
33	21.507	2560	2562	2566	rVB2	744	1520	0.22%	0.089%
34	21.947	2599	2603	2605	rBV	883	2002	0.29%	0.117%
35	22.065	2613	2614	2617	rVB2	1239	1691	0.24%	0.099%
36	22.204	2625	2627	2628	rBV	1041	1647	0.24%	0.096%
37	22.837	2683	2686	2687	rBV	1280	2072	0.30%	0.121%

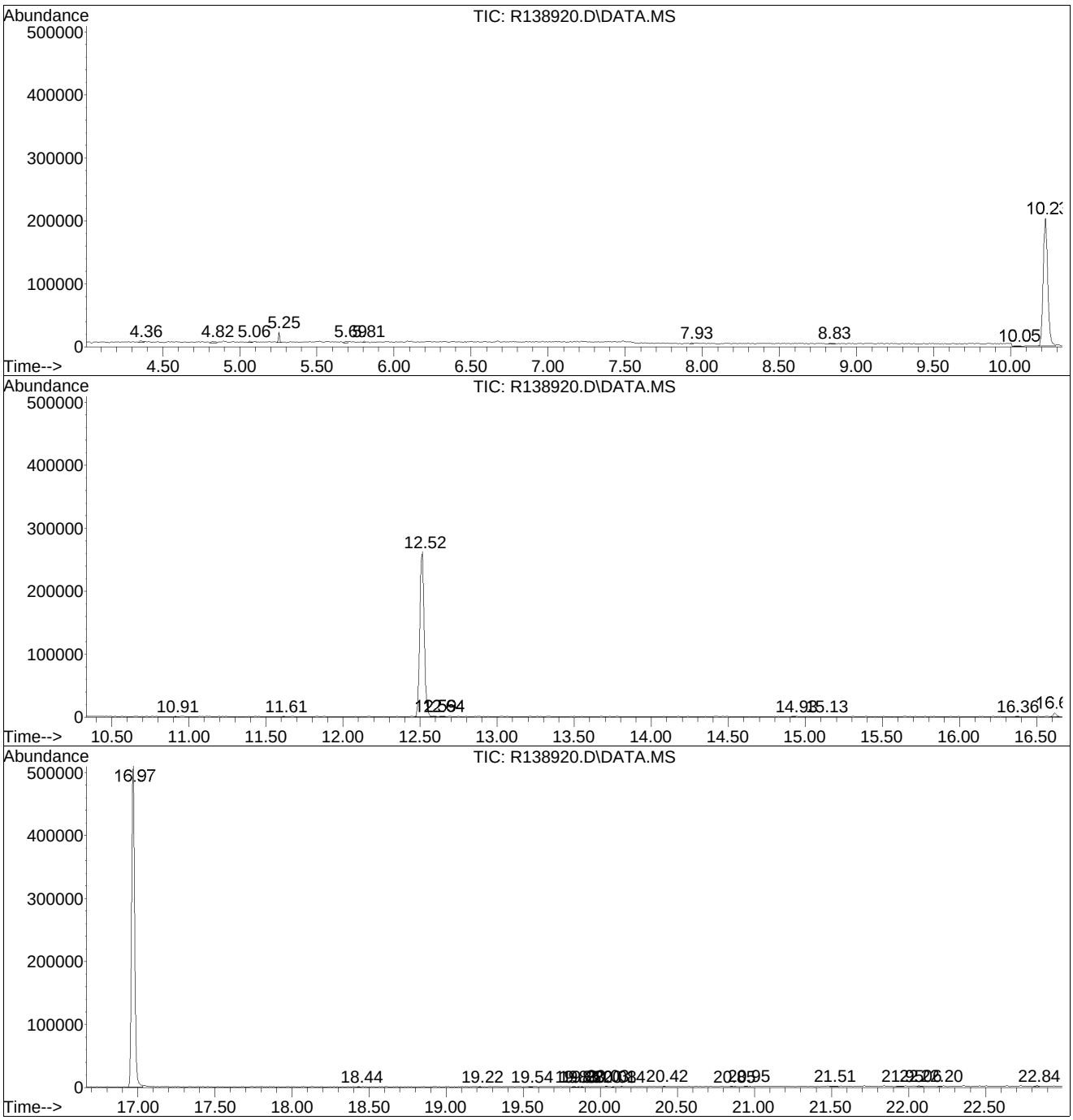
Sum of corrected areas: 1709303

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138920.D
Acq On : 7 Jan 2015 6:38 pm
Operator : AIRPIANO1:RY
Sample : L1500219-01,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.200	--	ND	0.434	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	0.200	--	ND	0.704	--	U
78-93-3	2-Butanone	ND	0.200	--	ND	0.590	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.200	--	ND	0.590	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1500219
Project Name	: BATCH CANISTER CERTIFICATION	Project Number	: CANISTER QC BAT
Lab ID	: L1500219-02	Date Collected	: 01/06/15 13:09
Client ID	: CAN 634 SHELF 41	Date Received	: 01/06/15
Sample Location	:	Date Analyzed	: 01/07/15 19:10
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R138921	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) bromochloromethane	10.22	49	105977	10.000	ppbV		0.00
Standard Area = 118855			Recovery = 89.16%				
43) 1,4-difluorobenzene	12.51	114	229609	10.000	ppbV		0.00
Standard Area = 249633			Recovery = 91.98%				
67) chlorobenzene-D5	16.97	54	50248	10.000	ppbV		0.00
Standard Area = 54542			Recovery = 92.13%				
System Monitoring Compounds							
Target Compounds							Qvalue
2) chlorodifluoromethane	0.00		0	N.D.			
3) propylene	3.88		0	N.D.			
4) propane	0.00		0	N.D.		d	
5) dichlorodifluoromethane	0.00		0	N.D.			
6) chloromethane	4.18		0	N.D.			
7) Freon-114	0.00		0	N.D.			
8) methanol	4.35	31	1058	0.444	ppbV	#	1
9) vinyl chloride	0.00		0	N.D.			
10) 1,3-butadiene	4.50		0	N.D.			
11) butane	0.00		0	N.D.		d	
13) bromomethane	5.00		0	N.D.			
14) chloroethane	0.00		0	N.D.			
15) ethanol	5.51	31	429	0.081	ppbV	#	26
16) dichlorofluoromethane	0.00		0	N.D.			
17) vinyl bromide	0.00		0	N.D.			
18) acrolein	6.01		0	N.D.			
19) acetone	0.00		0	N.D.		d	
20) acetonitrile	0.00		0	N.D.		d	
21) trichlorofluoromethane	0.00		0	N.D.			
22) isopropyl alcohol	6.54		0	N.D.			
23) acrylonitrile	6.77		0	N.D.			
24) pentane	0.00		0	N.D.		d	
25) ethyl ether	6.85		0	N.D.			
26) 1,1-dichloroethene	0.00		0	N.D.			
27) tertiary butyl alcohol	0.00		0	N.D.			
28) methylene chloride	7.48	49	918	0.102	ppbV		94
29) 3-chloropropene	7.60		0	N.D.			
30) carbon disulfide	7.81		0	N.D.			

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Freon 113	0.00		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
35) vinyl acetate	9.21		0	N.D.		
36) 2-butanone	9.33		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	0.00		0	N.D.		
39) chloroform	0.00		0	N.D.		
40) Tetrahydrofuran	0.00		0	N.D.		
41) 2,2-dichloropropane	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.19		0	N.D.		
45) diisopropyl ether	0.00		0	N.D.		
46) tert-butyl ethyl ether	10.97		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		
49) 1,1-dichloropropene	0.00		0	N.D.		
50) benzene	0.00		0	N.D.		
52) carbon tetrachloride	0.00		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
54) tert-amyl methyl ether	0.00		0	N.D.		
55) dibromomethane	0.00		0	N.D.		
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	0.00		0	N.D.		
61) methyl methacrylate	13.62		0	N.D.		
62) heptane	0.00		0	N.D.		
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	14.43		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	0.00		0	N.D.		
71) 1,3-dichloropropane	0.00		0	N.D.		
72) 2-hexanone	15.75		0	N.D.		
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
76) butyl acetate	0.00		0	N.D.		
77) octane	0.00		0	N.D.		

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) tetrachloroethene	0.00		0		N.D.	
79) 1,1,1,2-tetrachloroethane	0.00		0		N.D.	
80) chlorobenzene	0.00		0		N.D.	
81) ethylbenzene	0.00		0		N.D.	
83) m+p-xylene	0.00		0		N.D.	
84) bromoform	0.00		0		N.D.	
85) styrene	0.00		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0		N.D.	
87) o-xylene	0.00		0		N.D.	
88) 1,2,3-trichloropropane	17.92		0		N.D.	
89) nonane	17.95		0		N.D.	
91) isopropylbenzene	0.00		0		N.D.	
92) bromobenzene	0.00		0		N.D.	
93) 2-chlorotoluene	18.46		0		N.D.	
94) n-propylbenzene	0.00		0		N.D.	
95) 4-chlorotoluene	18.67		0		N.D.	
96) 4-ethyl toluene	0.00		0		N.D.	
97) 1,3,5-trimethylbenzene	0.00		0		N.D.	
98) tert-butylbenzene	0.00		0		N.D.	
99) 1,2,4-trimethylbenzene	0.00		0		N.D.	
100) decane	19.10		0		N.D.	
101) Benzyl Chloride	0.00		0		N.D.	
102) 1,3-dichlorobenzene	0.00		0		N.D.	
103) 1,4-dichlorobenzene	0.00		0		N.D.	
104) sec-butylbenzene	0.00		0		N.D.	
106) p-isopropyltoluene	0.00		0		N.D.	
107) 1,2-dichlorobenzene	19.56		0		N.D.	
108) n-butylbenzene	19.74		0		N.D.	
111) 1,2-dibromo-3-chloropr...	0.00		0		N.D.	
112) undecane	20.10		0		N.D.	
114) dodecane	0.00		0		N.D.	
115) 1,2,4-trichlorobenzene	0.00		0		N.D.	
116) naphthalene	0.00		0		N.D.	
117) 1,2,3-trichlorobenzene	0.00		0		N.D.	
119) hexachlorobutadiene	0.00		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150107T\R138911.D
Sub List : Default-LCS-AP2 - All compounds listed

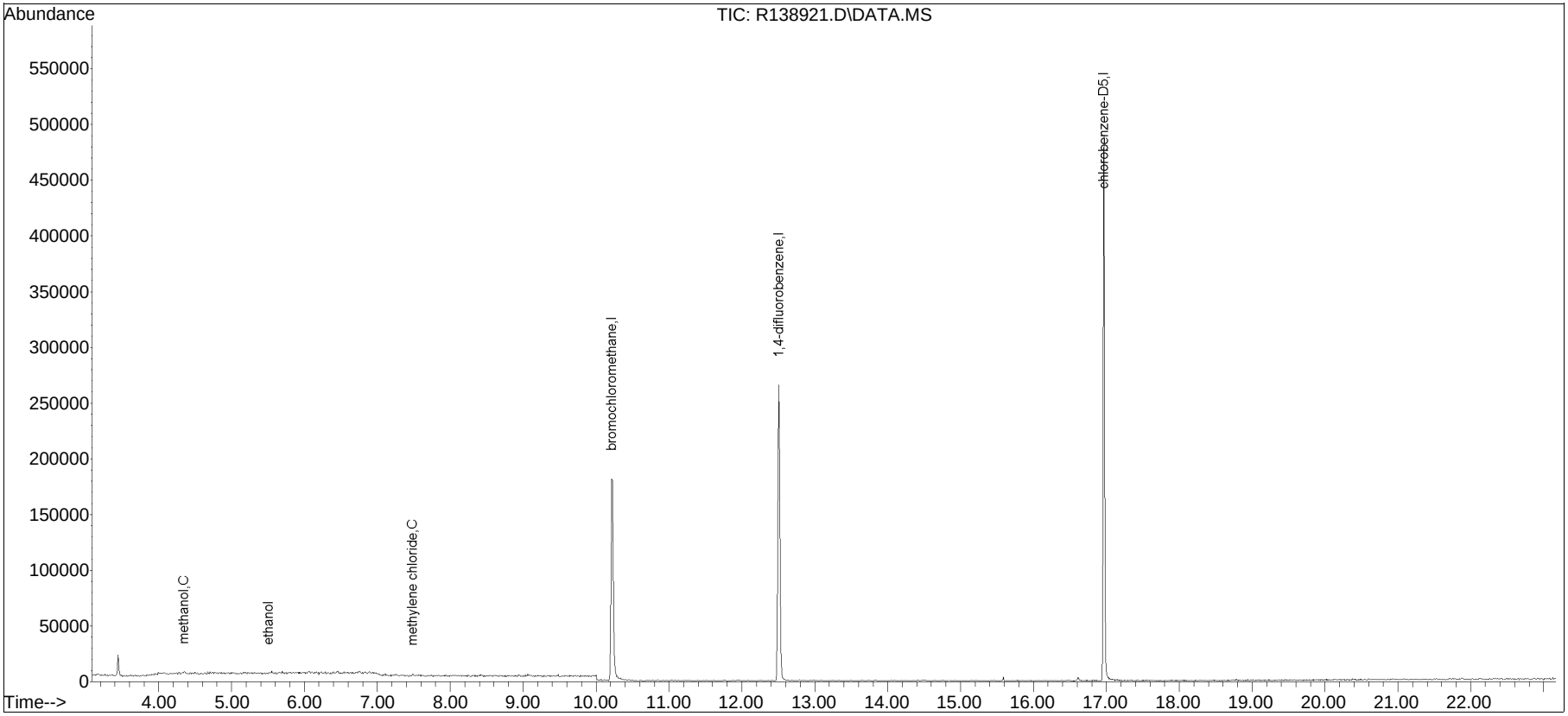
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

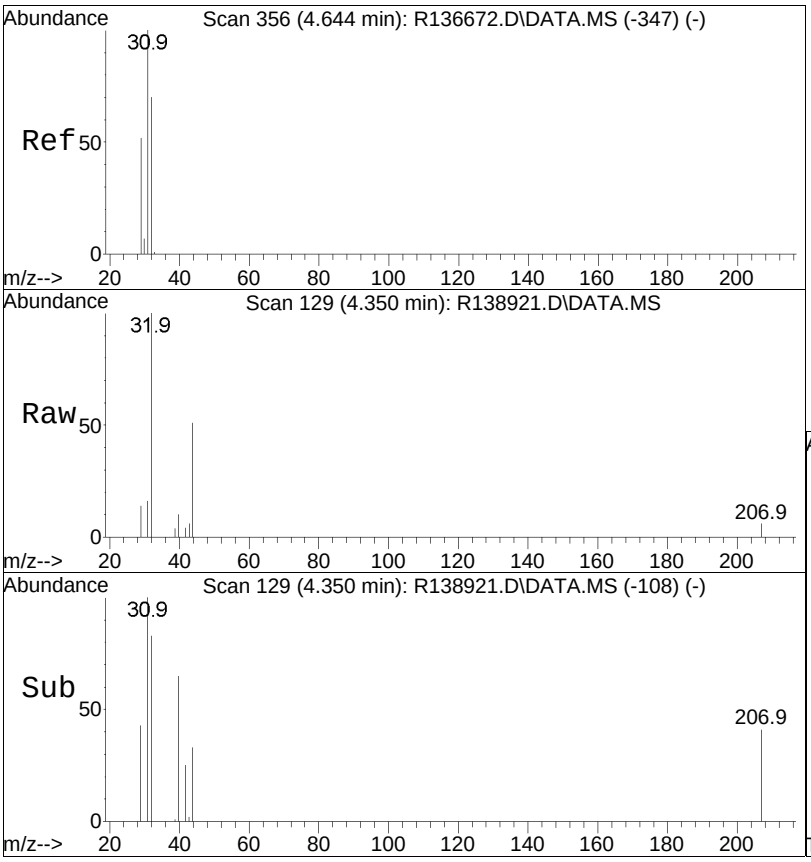
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 08 09:19:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed38911.D

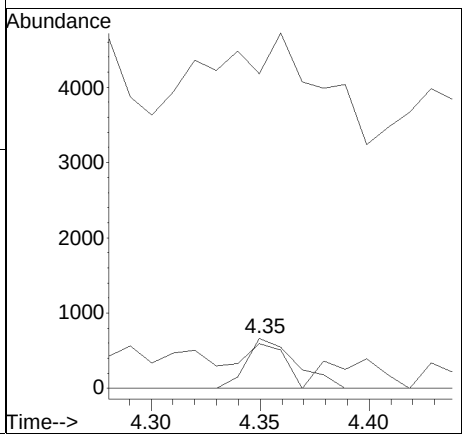


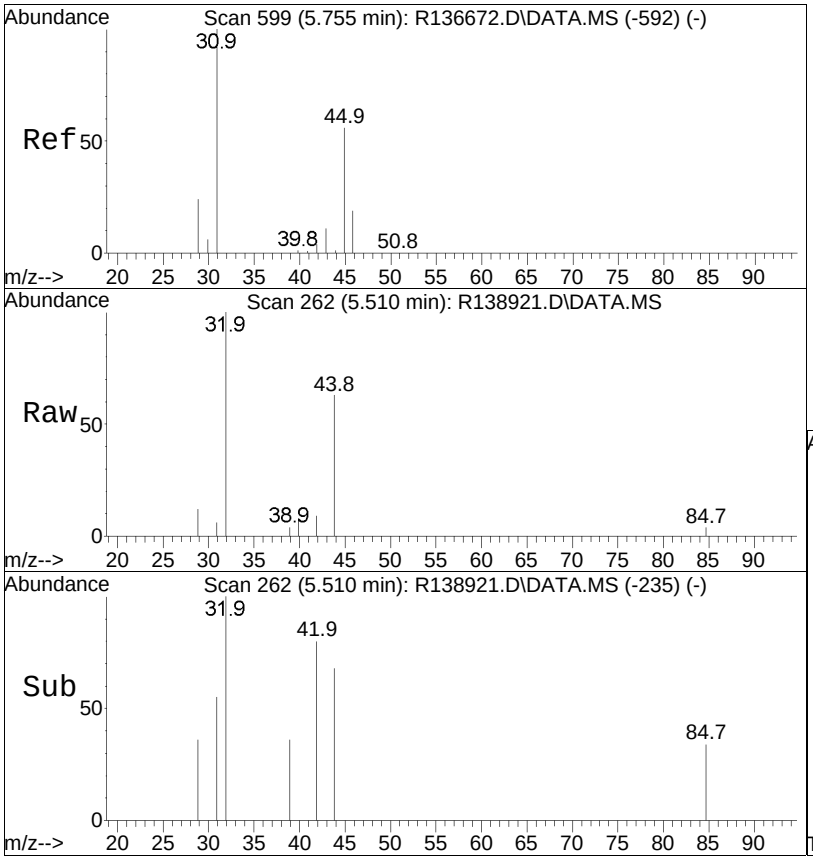


#8
methanol
Concen: 0.44 ppbV
RT: 4.35 min Scan# 129
Delta R.T. 0.010 min
Lab File: R138921.D
Acq: 7 Jan 2015 7:10 pm

Tgt Ion: 31 Resp: 1058

Ion	Ratio	Lower	Upper
31	100		
32	630.2	59.9	89.9#
29	89.6	50.3	75.5#

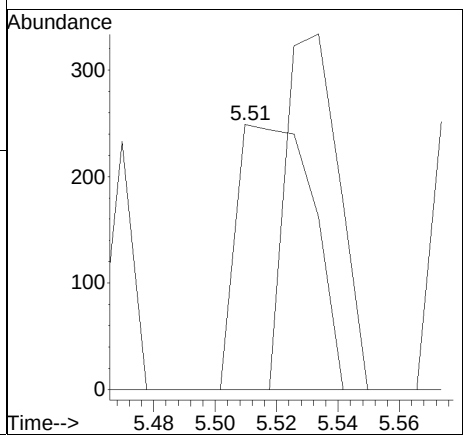


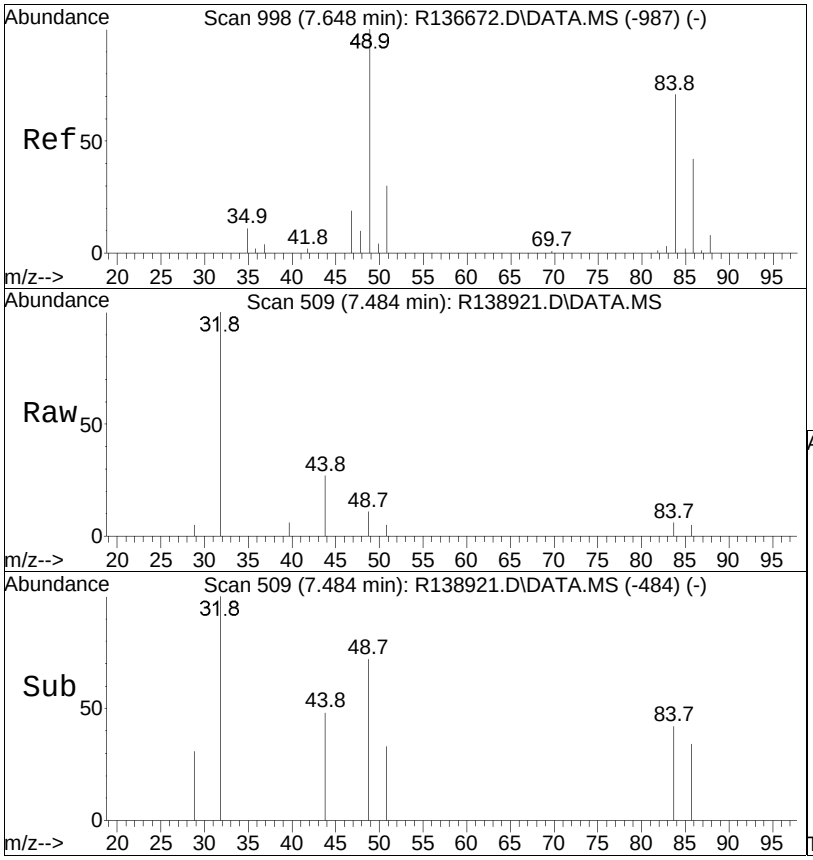


#15
ethanol
Concen: 0.08 ppbV
RT: 5.51 min Scan# 262
Delta R.T. 0.016 min
Lab File: R138921.D
Acq: 7 Jan 2015 7:10 pm

Tgt Ion: 31 Resp: 429

Ion	Ratio	Lower	Upper
31	100		
45	0.0	42.0	63.0#

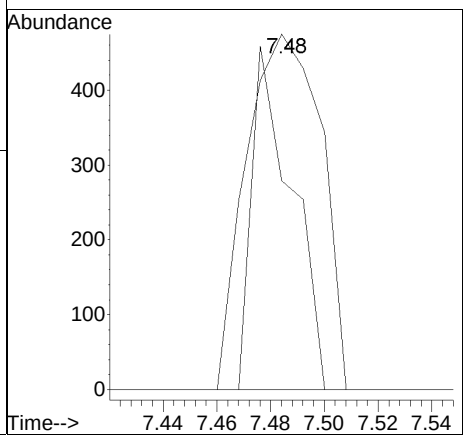




#28
methylene chloride
Concen: 0.10 ppbV
RT: 7.48 min Scan# 509
Delta R.T. 0.000 min
Lab File: R138921.D
Acq: 7 Jan 2015 7:10 pm

Tgt Ion: 49 Resp: 918

Ion	Ratio	Lower	Upper
49	100		
84	58.7	50.8	76.2



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150102.M
Data File	: R138921.D	Operator	: AIRPIANO1:RY
Date Inj'd	: 1/7/2015 7:10 pm	Instrument	: Air Piano 1
Sample	: L1500219-02,3,250,250	Quant Date	: 1/8/2015 5:59 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	:	Alpha Analytical	Lab Number	:	L1500219
Project Name	:	BATCH CANISTER CERTIFICATION	Project Number	:	CANISTER QC BAT
Lab ID	:	L1500219-02	Date Collected	:	01/06/15 13:09
Client ID	:	CAN 634 SHELF 41	Date Received	:	01/06/15
Sample Location	:		Date Analyzed	:	01/07/15 19:10
Sample Matrix	:	AIR	Dilution Factor	:	1
Analytical Method	:	48,TO-15	Analyst	:	RY
Lab File ID	:	R138921	Instrument ID	:	AIRPIANO1
Sample Amount	:	250 ml	GC Column	:	RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R138921.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.281	120	122	124	rVB2	2383	3187	0.47%	0.188%
2	4.675	161	162	164	rBV2	2170	1909	0.28%	0.113%
3	8.004	572	574	576	rBV	1469	1681	0.25%	0.099%
4	8.246	603	605	609	rBV3	1905	2536	0.38%	0.150%
5	9.035	718	720	722	rBV	1777	1306	0.19%	0.077%
6	9.062	722	724	725	rBV	1794	1193	0.18%	0.070%
7	9.275	753	755	757	rBV2	1453	1199	0.18%	0.071%
8	10.002	859	861	862	rVB	5105	3643	0.54%	0.215%
9	10.066	867	868	870	rVB	1215	1277	0.19%	0.075%
10	10.113	870	873	876	rBV	938	2337	0.35%	0.138%
11	10.216	879	884	895	rBV2	181093	398428	58.96%	23.521%
12	10.338	895	897	902	rVV	2180	4322	0.64%	0.255%
13	10.404	902	904	907	rVB	1007	1422	0.21%	0.084%
14	10.610	924	926	930	rVB	877	1798	0.27%	0.106%
15	11.023	967	970	974	rBV2	597	1268	0.19%	0.075%
16	11.389	1007	1009	1011	rBV	983	1287	0.19%	0.076%
17	11.615	1030	1033	1036	rVB	781	1412	0.21%	0.083%
18	11.760	1044	1047	1051	rVB2	771	2100	0.31%	0.124%
19	12.081	1074	1078	1081	rBV	932	2104	0.31%	0.124%
20	12.506	1115	1119	1129	rBV	265450	520337	77.00%	30.717%
21	12.785	1144	1146	1149	rBV2	1063	1537	0.23%	0.091%
22	13.096	1173	1176	1177	rVB2	1040	1421	0.21%	0.084%
23	13.843	1243	1247	1249	rVB2	732	2511	0.37%	0.148%
24	14.493	1285	1288	1291	rVB	855	2360	0.35%	0.139%
25	15.587	1401	1403	1405	rVB	3766	2326	0.34%	0.137%
26	15.704	1414	1416	1420	rBV2	878	2041	0.30%	0.120%
27	15.993	1446	1448	1450	rBV	744	1157	0.17%	0.068%
28	16.490	1500	1503	1506	rVB2	767	1352	0.20%	0.080%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	16.612	1513	1517	1519	rBV	3090	3838	0.57%	0.227%
30	16.966	1604	1613	1628	rBV	490139	675795	100.00%	39.895%
31	17.535	1764	1767	1770	rBV	1086	764	0.11%	0.045%
32	18.784	2100	2105	2108	rBV	1021	928	0.14%	0.055%
33	18.939	2136	2139	2143	rBV	1478	1222	0.18%	0.072%
34	18.982	2146	2148	2152	rVV	903	1228	0.18%	0.072%
35	19.011	2152	2154	2157	rVB	1094	702	0.10%	0.041%
36	19.139	2179	2181	2183	rBV	841	684	0.10%	0.040%
37	19.454	2243	2247	2248	rBV3	1043	863	0.13%	0.051%
38	19.687	2293	2296	2299	rVB	599	699	0.10%	0.041%
39	19.944	2348	2350	2351	rBV	906	702	0.10%	0.041%
40	20.006	2359	2363	2365	rBV2	1010	899	0.13%	0.053%
41	20.120	2384	2387	2388	rBV2	897	719	0.11%	0.042%
42	20.543	2470	2472	2475	rVB2	1135	1869	0.28%	0.110%
43	20.596	2475	2477	2478	rBV2	1571	1739	0.26%	0.103%
44	20.896	2504	2505	2507	rBV	1043	1507	0.22%	0.089%
45	21.079	2518	2522	2526	rBV3	1000	2214	0.33%	0.131%
46	21.186	2529	2532	2533	rBV	1006	1929	0.29%	0.114%
47	21.432	2554	2555	2558	rVB	1168	1952	0.29%	0.115%
48	21.497	2558	2561	2562	rBV2	1410	2467	0.37%	0.146%
49	21.700	2578	2580	2584	rBV2	815	1795	0.27%	0.106%
50	21.872	2594	2596	2601	rBV3	1708	3929	0.58%	0.232%
51	22.022	2608	2610	2612	rBV3	1545	2703	0.40%	0.160%
52	22.118	2617	2619	2622	rBV	1368	3470	0.51%	0.205%
53	22.258	2631	2632	2635	rVB3	1290	1567	0.23%	0.093%
54	22.461	2649	2651	2652	rBV	939	1556	0.23%	0.092%
55	22.654	2667	2669	2670	rVB2	1488	1839	0.27%	0.109%
56	22.687	2670	2672	2676	rBV3	1089	3201	0.47%	0.189%
57	22.762	2676	2679	2680	rBV2	1130	1717	0.25%	0.101%

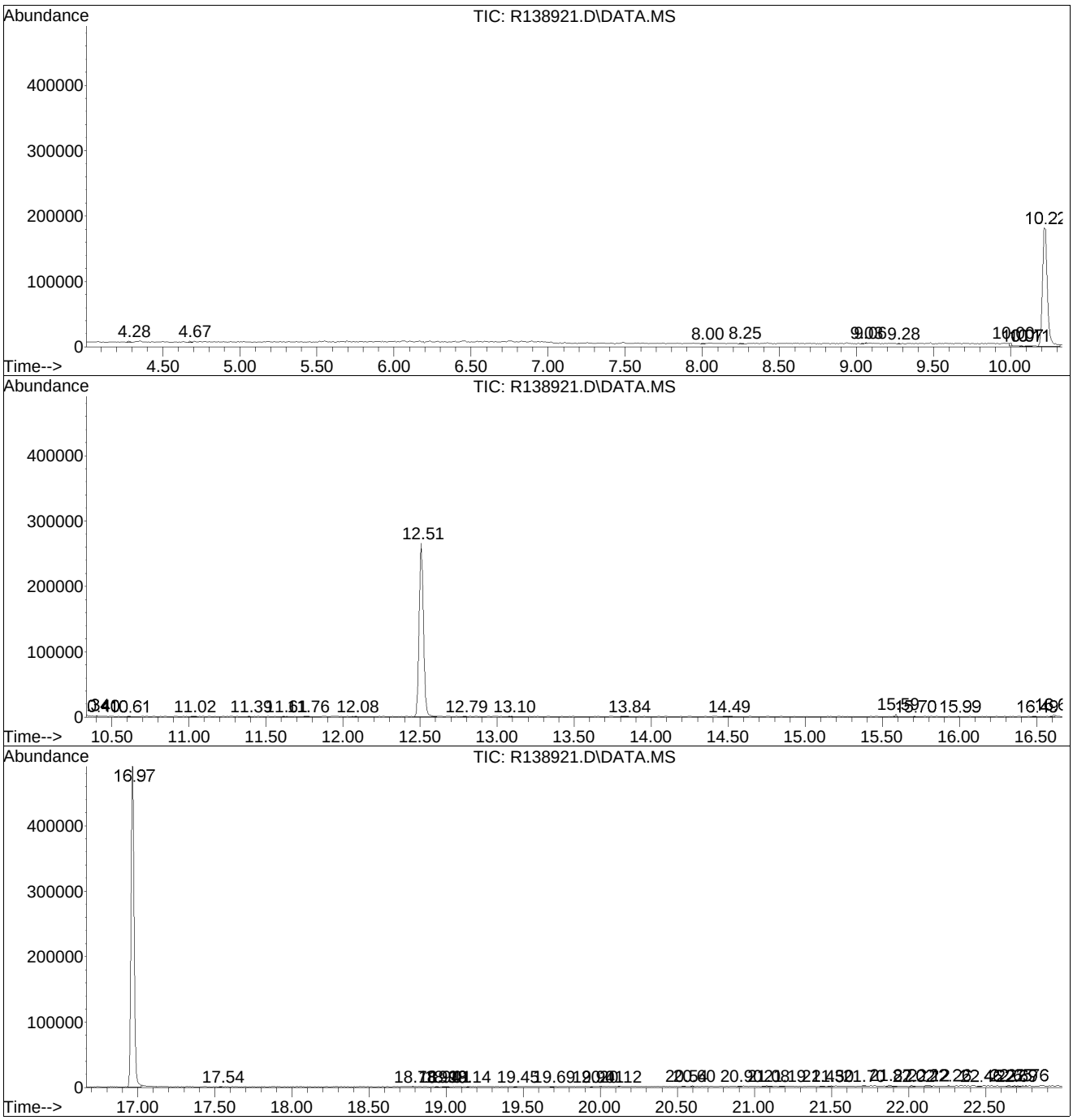
Sum of corrected areas: 1693948

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138921.D
Acq On : 7 Jan 2015 7:10 pm
Operator : AIRPIANO1:RY
Sample : L1500219-02,tic3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards Data Summary

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Instrument ID: AIRPIANO1 Calibration Date(s): 01/01/15 01/01/15

Calibration Times: 20:43 23:57

Calibration Files
0.4 =R138798.D 0.8 =R138799.D 2.0 =R138800.D 10 =R138801.D 20 =R138802.D 50 =R138803.D
100 =R138804.D

		Compound	0.4	0.8	2.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD								
2)	T	1,3-butadiene	0.477	0.463	0.487	0.393	0.390	0.408	0.390	0.4298	10.23
3)		isopentane	3.718	3.546	3.254	2.481	2.482	2.587	2.451	2.9312	18.97
4)	T	methyl tert butyl ether	1.015	0.969	1.067	0.891	0.846	0.906	0.870	0.9379	8.68
5)		hexane	4.622	3.720	3.730	2.890	2.820	3.042	2.902	3.3894	19.71
6)		cyclohexane	2.904	2.881	3.102	2.635	2.467	2.669	2.547	2.7437	8.23
7)	I	1,4-difluorobenzene	ISTD								
8)		2,3-dimethylpentane	0.763	0.714	0.758	0.650	0.583	0.633	0.628	0.6755	10.34
9)	T	benzene	0.284	0.282	0.326	0.256	0.247	0.267	0.260	0.2748	9.57
10)		heptane	0.658	0.664	0.783	0.628	0.587	0.629	0.606	0.6506	9.85
11)	H	C5-C8 Aliphatics Total	0.787	0.735	0.815	0.653	0.608	0.653	0.632	0.6976	11.64
12)	I	chlorobenzene-D5	ISTD								
13)		toluene	1.495	1.368	1.502	1.232	1.191	1.279	1.257	1.3321	9.44
14)		n-octane	3.497	3.281	3.669	2.971	2.900	3.080	2.931	3.1899	9.43
15)		2,3-dimethylheptane	3.926	3.754	4.091	3.253	3.255	3.435	3.228	3.5632	10.03
16)	T	ethyl benzene	1.599	1.527	1.707	1.426	1.413	1.527	1.470	1.5240	6.77
17)	T	m+p-xylene	1.314	1.233	1.328	1.122	1.076	1.189	1.145	1.2010	7.97
18)		n-nonane	3.751	3.484	3.797	3.171	3.132	3.318	3.122	3.3964	8.46
19)	T	o-xylene	1.281	1.262	1.393	1.130	1.130	1.223	1.176	1.2279	7.66
20)		decane	3.729	3.658	4.128	3.293	3.367	3.546	3.325	3.5780	8.25
21)		butylcyclohexane	4.220	4.233	4.479	3.642	3.639	4.110	3.650	3.9962	8.70
22)		n-undecane	3.527	3.318	4.118	3.528	3.534	3.657	3.477	3.5941	7.00
23)	T	naphthalene	1.564	1.604	1.770	1.569	1.647	1.869	1.808	1.6901	7.33
24)		n-dodecane	2.957	2.775	3.414	3.302	3.485	3.818	3.571	3.3316	10.80
25)	H	C9-C12 Aliphatics Total	3.653	3.505	3.988	3.370	3.413	3.656	3.409	3.5705	6.09
27)		C9-C10 Aromatics Total	0.599	0.555	0.631	0.527	0.520	0.572	0.555	0.5655	6.90
28)	s	bromochloromethane (TIC)	7.878	6.772	7.291	7.118	7.151	6.887	6.747	7.1206	5.50
29)	s	1,4-difluorobenzene (TIC)	1.062	1.041	0.988	0.980	1.027	1.013	0.998	1.0156	2.92
30)	s	chlorobenzene-D5 (TIC)	1.331	1.329	1.319	1.298	1.324	1.325	1.341	1.3240	1.01
31)	s	1,2-dichloroethane-D4 (TIC)	3.696	3.855	3.858	3.440	3.612	3.642	3.705	3.6867	3.94
32)	s	toluene-D8 (TIC)	1.016	1.071	1.075	1.115	1.133	1.237	1.229	1.1252	7.33
33)	s	bromofluorobenzene (TIC)	1.280	1.312	1.265	1.269	1.291	1.300	1.287	1.2865	1.31

FORM VI-TO15-LL

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1500219

Instrument ID: AIRPIANO1 Calibration Date: 01/07/2015 Time: 13:12

Lab File ID: R138913 Init. Calib. Date(s): 01/01/15 01/01/15

Sample No: WG754063-2,3,25 Init. Calib. Times : 20:43 23:57

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	89	0.00
2		chlorodifluoromethane	1.057	0.854	19.2	74	0.00
3		propylene	0.521	0.517	0.8	87	0.00
4		propane	0.638	0.484	24.1	72	0.00
5		dichlorodifluoromethane	1.107	0.887	19.9	93	0.00
6	C	chloromethane	0.592	0.511	13.7	82	0.00
7		Freon-114	1.609	1.498	6.9	84	0.00
8	C	methanol	0.225	0.198	12.0	75	0.00
9	C	vinyl chloride	0.591	0.542	8.3	80	0.00
10	C	1,3-butadiene	0.475	0.442	6.9	84	0.00
11		butane	1.031	0.880	14.6	78	0.00
13	C	bromomethane	0.653	0.546	16.4	83	0.00
14	C	chloroethane	0.291	0.262	10.0	81	0.00
15		ethanol	0.497	0.436	12.3	79	0.00
16		dichlorofluoromethane	1.288	1.061	17.6	74	0.00
17	C	vinyl bromide	0.631	0.564	10.6	81	0.00
18	C	acrolein	0.295	0.216	26.8	75	0.00
19		acetone	1.009	0.942	6.6	85	0.00
20	C	acetonitrile	0.643	0.518	19.4	78	0.00
21		trichlorofluoromethane	1.569	1.404	10.5	79	0.00
22		isopropyl alcohol	1.193	1.092	8.5	81	0.00
23	C	acrylonitrile	0.507	0.434	14.4	85	0.00
24		pentane	1.214	1.016	16.3	78	0.00
25		ethyl ether	0.998	0.842	15.6	83	0.00
26	C	1,1-dichloroethene	1.037	0.934	9.9	82	0.00
27		tertiary butyl alcohol	1.293	1.127	12.8	75	0.00
28	C	methylene chloride	0.851	0.760	10.7	80	0.00
29	C	3-chloropropene	1.082	0.937	13.4	88	0.00
30	C	carbon disulfide	1.765	1.577	10.7	81	0.00
31		Freon 113	1.295	1.157	10.7	81	0.00
32		trans-1,2-dichloroethene	0.977	0.834	14.6	74	0.00
33	C	1,1-dichloroethane	1.147	1.031	10.1	82	0.00
34	C	MTBE	1.727	1.538	10.9	81	0.00
35	C	vinyl acetate	1.579	1.816	-15.0	93	0.00
36	C	2-butanone	1.486	1.370	7.8	77	0.00
37		cis-1,2-dichloroethene	1.053	1.095	-4.0	93	0.00
38		Ethyl Acetate	0.263	0.242	8.0	80	0.00
39	C	chloroform	1.610	1.478	8.2	84	0.00
40		Tetrahydrofuran	1.013	0.820	19.1	81	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138913.D
Acq On : 7 Jan 2015 1:12 pm
Operator : AIRPIANO1:RY
Sample : WG754063-2,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 07 13:34:37 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.421	1.181	16.9	75	0.00
42	C	1,2-dichloroethane	0.876	0.820	6.4	79	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	89	0.00
44	C	hexane	0.656	0.580	11.6	82	0.00
45		diisopropyl ether	0.301	0.267	11.3	79	0.00
46		tert-butyl ethyl ether	1.012	0.859	15.1	74	0.00
48	C	1,1,1-trichloroethane	0.662	0.593	10.4	79	0.00
49		1,1-dichloropropene	0.476	0.422	11.3	79	0.00
50	C	benzene	0.897	0.840	6.4	82	0.00
52	C	carbon tetrachloride	0.703	0.607	13.7	77	0.00
53		cyclohexane	0.545	0.476	12.7	78	0.00
54		tert-amyl methyl ether	0.898	0.780	13.1	77	0.00
55		dibromomethane	0.373	0.329	11.8	77	0.00
56	C	1,2-dichloropropane	0.349	0.334	4.3	83	0.00
57		bromodichloromethane	0.736	0.669	9.1	79	0.00
58	C	1,4-dioxane	0.207	0.201	2.9	81	0.00
59	C	trichloroethene	0.460	0.431	6.3	81	0.01
60	C	2,2,4-trimethylpentane	1.689	1.565	7.3	83	0.00
61		methyl methacrylate	0.503	0.441	12.3	75	0.00
62		heptane	0.788	0.653	17.1	82	0.00
63	C	cis-1,3-dichloropropene	0.493	0.492	0.2	84	0.00
64	C	4-methyl-2-pentanone	0.968	0.868	10.3	80	0.00
65		trans-1,3-dichloropropene	0.484	0.411	15.1	70	0.00
66	C	1,1,2-trichloroethane	0.409	0.376	8.1	82	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	82	0.00
68	C	toluene	5.175	4.853	6.2	80	0.00
71		1,3-dichloropropane	2.287	2.071	9.4	76	0.00
72		2-hexanone	3.795	3.839	-1.2	80	0.00
74		dibromochloromethane	3.722	3.390	8.9	77	0.00
75	C	1,2-dibromoethane	3.010	2.866	4.8	79	0.00
76		butyl acetate	0.528	0.491	7.0	75	0.00
77		octane	1.563	1.333	14.7	74	0.00
78	C	tetrachloroethene	2.736	2.516	8.0	81	0.00
79		1,1,1,2-tetrachloroethane	2.512	2.212	11.9	74	0.00
80	C	chlorobenzene	4.394	4.167	5.2	78	0.00
81	C	ethylbenzene	6.738	6.410	4.9	79	0.00
83	C	m+p-xylene	5.312	5.010	5.7	80	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150107T\
Data File : R138913.D
Acq On : 7 Jan 2015 1:12 pm
Operator : AIRPIANO1:RY
Sample : WG754063-2,3,250,250
Misc : WG754063,ICAL10563
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 07 13:34:37 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150107T\TALL150102.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 03 12:56:19 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.653	3.300	9.7	75	0.00
85	C	styrene	4.165	4.008	3.8	79	0.00
86	C	1,1,2,2-tetrachloroethane	4.117	4.017	2.4	83	0.00
87	C	o-xylene	5.494	5.318	3.2	81	0.00
88		1,2,3-trichloropropane	3.128	2.838	9.3	76	0.00
89		nonane	4.937	4.271	13.5	76	0.00
91	C	isopropylbenzene	7.547	7.023	6.9	77	0.00
92		bromobenzene	3.887	3.493	10.1	76	0.00
93		2-chlorotoluene	2.271	2.020	11.1	75	0.00
94		n-propylbenzene	2.373	2.198	7.4	78	0.00
95		4-chlorotoluene	5.845	5.214	10.8	75	0.00
96		4-ethyl toluene	8.377	7.673	8.4	75	0.00
97		1,3,5-trimethylbenzene	7.321	7.131	2.6	84	0.00
98		tert-butylbenzene	7.762	7.012	9.7	75	0.00
99		1,2,4-trimethylbenzene	6.623	6.525	1.5	81	0.00
100		decane	4.662	4.228	9.3	76	0.00
101	C	Benzyl Chloride	6.037	5.740	4.9	77	0.00
102		1,3-dichlorobenzene	5.065	4.983	1.6	81	0.00
103	C	1,4-dichlorobenzene	5.117	5.026	1.8	81	0.00
104		sec-butylbenzene	9.870	9.055	8.3	77	0.00
106		p-isopropyltoluene	9.556	8.040	15.9	70	0.00
107		1,2-dichlorobenzene	4.813	4.853	-0.8	83	0.00
108		n-butylbenzene	7.872	7.807	0.8	81	0.00
111	C	1,2-dibromo-3-chloropropane	2.117	1.925	9.1	73	0.00
112		undecane	5.263	5.130	2.5	77	0.00
114		dodecane	5.204	5.358	-3.0	70	0.01
115	C	1,2,4-trichlorobenzene	4.055	4.518	-11.4	79	0.00
116		naphthalene	10.150	9.873	2.7	76	0.01
117		1,2,3-trichlorobenzene	3.812	4.125	-8.2	78	0.01
119	C	hexachlorobutadiene	3.069	3.230	-5.2	77	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Sample Preparation

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS14-015

Date: 01/20/15

Internal Standard/Surrogate Volume: NA

Analyst Initials: MB

Sequence File Name: 150120.S

SIM ICAL#10631 Full Scan ICAL# 10630 TO-12 ICAL# APH ICAL#

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ Sublist	Leak Check Pass ? Y/N
1	TA2012001	TO15_SFS	R232205	250mL	TUNE		NA
3	CA2012001	TO15_SFS	R232206	250mL SS14-040E 10.0	LL CC		NA
		Pause					
2	CTO15-LLSTD10	TO15_SFS	R232207	250ml SS14-038D 10.0	LL LCS		NA
2	CTO15-SIMSTD5.0	TO15_SFS	R232208	125ml SS14-038D 5.0	SIM LCS		NA
1	BA2012001	TO15_SFS	R232209	250mL	BLANK FAILED		NA
2	BA2012002	TO15_SFS	R232210	250mL	WRONG POSITION, RR		NA
1	BA2012003	TO15_SFS	R232211	250mL	BLANK		NA
		Pause					
2	L1500978-01,3,250,250	TO15_SFS	R232212	WG757004,ICAL10630		NJ_NEW	Y
3	L1500978-03,3,250,250	TO15_SFS	R232213	WG757004,ICAL10630		NJ_NEW	Y
4	L1500994-01,3,250,250	TO15_SFS	R232214	WG757004,ICAL10630		NJ_NEW	Y
5	L1500994-02,3,250,250	TO15_SFS	R232215	WG757004,ICAL10630		NJ_NEW	Y
6	L1500996-01,3,250,250	TO15_SFS	R232216	WG757004,ICAL10630		NJ_NEW	Y
7	L1500996-02,3,250,250	TO15_SFS	R232217	WG757004,ICAL10630		NJ_NEW	Y
8	L1500996-03,3,250,250	TO15_SFS	R232218	WG757004,ICAL10630		NJ_NEW	Y
9	L1500998-01,3,250,250	TO15_SFS	R232219	WG757004,ICAL10630		NJ_NEW	Y
10	L1500998-02,3,250,250	TO15_SFS	R232220	WG757004,ICAL10630		NJ_NEW	Y
11	L1500998-03,3,250,250	TO15_SFS	R232221	WG757004,ICAL10630		NJ_NEW	Y
12	L1500998-04,3,250,250	TO15_SFS	R232222	WG757004,ICAL10630		NJ_NEW	Y
13	L1500994-03D,3,116.6107,250	TO15_SFS	R232223	WG757004,ICAL10630		NJ_NEW	Y

Alpha Analytical Air Lab
Instrument Run Log

13	L1500994-03DDUP,3,116.6107,250	TO15_SFS	R232224	WG757004,ICAL10630	NJ-TO15 DUP	NJ_NEW	Y
14	L1500996-04D,3,117.0569,250	TO15_SFS	R232225	WG757004,ICAL10630		NJ_NEW	Y
15	L1500998-05D,3,119.0878,250	TO15_SFS	R232226	WG757004,ICAL10630		NJ_NEW	Y
16	L1500998-06D,3,33.8629,250	TO15_SFS	R232227	WG757004,ICAL10630	OVERDILUTED	NJ_NEW	Y
16	L1500998-06D,3,56.4381,250	TO15_SFS	R232228	WG757004,ICAL10630		NJ_NEW	Y

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airlab14

Internal Standard/Surrogate IDs: CSS13-004 / CSS14-005

Date: 02/04/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: RY / MB

Sequence File Name: 150204.S

SIM ICAL# 10656 Full Scan ICAL# 10650 APH ICAL#

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	TA14020401	TO15_SFS.m	R141366.D	250 mL	TUNE		NA
2	CA14020401	TO15_SFS.m	R141367.D	SS14-040E 250 mL	CC FAILED		NA
2	CA14020401	TO15_SFS.m	R141368.D	SS14-040E 250 mL	LL CC		NA
3	CTO15-LLSTD10.0	TO15_SFS.m	R141369.D	SS14-038C 250 mL	LL LCS		NA
1	BA14020401	TO15_SFS.m	R141370.D	250 mL	BLANK FAILED		NA
1	BA14020402	TO15_SFS.m	R141371.D	250 mL	BLANK		NA
4	L1502073-05,3,250,250	TO15_SFS.m	R141372.D	WG760633,ICAL10650	RR FOR CONFIRMATION	NJ_ NEW	Y
5	L1502073-01,3,250,250	TO15_SFS.m	R141373.D	WG760633,ICAL10650		NJ_ NEW	Y
6	L1502073-02,3,250,250	TO15_SFS.m	R141374.D	WG760633,ICAL10650		NJ_ NEW	Y
7	L1502073-03,3,250,250	TO15_SFS.m	R141375.D	WG760633,ICAL10650		NJ_ NEW	Y
8	L1502073-04,3,250,250	TO15_SFS.m	R141376.D	WG760633,ICAL10650		NJ_ NEW	Y
9	L1502074-04,3,250,250	TO15_SFS.m	R141377.D	WG760633,ICAL10650		NJ_ NEW	Y
10	L1502074-01,3,250,250	TO15_SFS.m	R141378.D	WG760633,ICAL10650		NJ_ NEW	Y
10	L1502074-01DUP,3,250,250	TO15_SFS.m	R141379.D	WG760633,ICAL10650	NJ-TO15 DUP	NJ_ NEW	Y
11	L1502074-02,3,250,250	TO15_SFS.m	R141380.D	WG760633,ICAL10650		NJ_ NEW	Y
12	L1502074-03,3,250,250	TO15_SFS.m	R141381.D	WG760633,ICAL10650		NJ_ NEW	Y
13	L1500978-02,3,250,250	TO15_SFS.m	R141382.D	WG760633,ICAL10650		NJ_ NEW	Y
4	L1502073-05,3,250,250	TO15_SFS.m	R141383.D	WG760633,ICAL10650	REPORT THIS RUN	NJ_ NEW	Y

Alpha Analytical Air Lab
Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) } L1301234-01,3,250,25

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS12-019

Date: 12/23/14

Internal Standard/Surrogate Volume: NA

Analyst Initials: RY

Sequence File Name: 141223.S

SIM ICAL# 10504 Full Scan ICAL#10499 TO-12 ICAL# APH ICAL# 10493

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ Sublist	Leak Check Pass ? Y/N
1	TA2122301	TO15_SFS	R231814	250mL	TUNE		NA
2	CA2122301	TO15_SFS	R231815	250ml SS14-027B1 10.0	CC FAILED		NA
		Pause					NA
2	CA2122302	TO15_SFS	R231816	250ml SS14-027F 10.0	CC		NA
		Pause					NA
3	CTO15-LLSTD10	TO15_SFS	R231817	250ml SS14-034E 10.0	LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R231818	250ml SS14-034E 10.0	SIM LCS		NA
		Pause					NA
1	BA2122301	TO15_SFS	R231819	250mL	LL BLANK; SIM FAILED		NA
1	BA2122302	TO15_SFS	R231820	250mL	SIM BLANK		NA
5	L1430876-01,3,250,250	TO15_SFS	R231821	WG751505,ICAL10499		LL, SIM	NA
6	L1430876-02,3,250,250	TO15_SFS	R231822	WG751505,ICAL10499		LL, SIM	NA
7	L1430876-03,3,250,250	TO15_SFS	R231823	WG751505,ICAL10499		LL, SIM	NA
5	L1431011-01,3,250,250	TO15_SFS	R231824	WG751505,ICAL10499		LL, SIM	NA
6	L1431011-02,3,250,250	TO15_SFS	R231825	WG751505,ICAL10499		LL, SIM	NA
7	L1431011-03,3,250,250	TO15_SFS	R231826	WG751505,ICAL10499		LL, SIM	NA
8	L1430642-05,3,250,250	TO15_SFS	R231827	WG751482,ICAL10499		NJ-NEW	Y
9	L1430642-01,3,250,250	TO15_SFS	R231828	WG751482,ICAL10499		NJ-NEW	Y
10	L1430642-02,3,250,250	TO15_SFS	R231829	WG751482,ICAL10499		NJ-NEW	Y
11	L1430642-03,3,250,250	TO15_SFS	R231830	WG751482,ICAL10499		NJ-NEW	Y
12	L1430642-04,3,250,250	TO15_SFS	R231831	WG751482,ICAL10499		NJ-NEW	Y
13	L1430278-01D,3,99.3266,250	TO15_SFS	R231832	WG751482,ICAL10499		NJ-NEW	Y

Alpha Analytical Air Lab
Instrument Run Log

13	L1430278-01DDUP,3,99.3266,250	TO15_SFS	R231833	WG751482,ICAL10499	NJ-TO15 DUP	NJ-NEW	Y
14	L1430278-02D,3,120.4013,250	TO15_SFS	R231834	WG751482,ICAL10499		NJ-NEW	Y
15	L1430278-03D,3,106.0606,250	TO15_SFS	R231835	WG751482,ICAL10499		NJ-NEW	Y
16	L1430278-04D,3,119.0878,250	TO15_SFS	R231836	WG751482,ICAL10499		NJ-NEW	Y
1	L1430278-05D,3,98.1544,250	TO15_SFS	R231837	WG751482,ICAL10499		NJ-NEW	Y
2	L1430278-06D,3,95.6376,250	TO15_SFS	R231838	WG751482,ICAL10499		NJ-NEW	Y
3	L1430278-07D,3,92.0608,250	TO15_SFS	R231839	WG751482,ICAL10499		NJ-NEW	Y
5	BA2122303	TO15_SFS	R231840	250mL			NA
6	L1431011-02,3,250,250	TO15_SFS	R231841	WG751505,ICAL10499		LL, SIM	NA

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 1

Internal Standard/Surrogate IDs: CSS13-005 / CSS12-019

Date: 01/07/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: RY

Sequence File Name: 150107.S

SIM ICAL# 10565 Full Scan ICAL# 10564 APH ICAL# 10563

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	TA1010701	TO15_SFS	R138909	250ml	TUNE		NA
2	CAPH-10STD10	TO15_SFS	R138910	SS14-039B2 125ML 10.0	APH CC		NA
3	CTO15-LLSTD10.0	TO15_SFS	R138911	SS14-038G 250ML 10.0	APH / LL LCS FAILED		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R138912	SS14-038G 125ML 5.0	SIM LCS		NA
3	CTO15-LLSTD10.0	TO15_SFS	R138913	SS14-038G 250ML 10.0	APH / LL LCS		NA
		Pause					NA
1	BA1010701	TO15_SFS	R138914	250ml	LL BLANK, SIM BLANK FAILED		NA
1	BA1010702	TO15_SFS	R138915	250ml	SIM BLANK		NA
1	L1500103-03,3,250,250	TO15_SFS	R138916	WG754063,ICAL10564		APH, LL, SIM	Y
2	L1500103-04,3,250,250	TO15_SFS	R138917	WG754063,ICAL10564		APH, LL, SIM	Y
3	L1500103-01,3,250,250	TO15_SFS	R138918	WG754063,ICAL10564		APH, LL, SIM	Y
4	L1500103-02,3,250,250	TO15_SFS	R138919	WG754063,ICAL10564		APH, LL, SIM	Y
5	L1500219-01,3,250,250	TO15_SFS	R138920	WG754063,ICAL10564		APH, LL, SIM	Y
6	L1500219-02,3,250,250	TO15_SFS	R138921	WG754063,ICAL10564		APH, LL, SIM	Y
7	L1500262-01,3,250,250	TO15_SFS	R138922	WG754063,ICAL10564		APH, LL, SIM	Y
8	L1500262-02,3,250,250	TO15_SFS	R138923	WG754063,ICAL10564		APH, LL, SIM	Y
9	L1500262-03,3,250,250	TO15_SFS	R138924	WG754063,ICAL10564		APH, LL, SIM	Y
10	L1431291-01,3,250,250	TO15_SFS	R138925	WG754063,ICAL10564		HDR_ FS/ SIM	Y
10	L1431291-01DUP,3,250,250	TO15_SFS	R138926	WG754063,ICAL10564	TO15-SIM DUP	HDR_ FS/ SIM	Y
11	L1431291-02,3,250,250	TO15_SFS	R138927	WG754063,ICAL10564		HDR_ FS/ SIM	Y
12	L1431172-01D,3,100,250	TO15_SFS	R138928	WG754063,ICAL10564		STD+ NAP	Y
12	L1431172-01DDUP,3,100,250	TO15_SFS	R138929	WG754063,ICAL10564	TO15-LL DUP	STD+ NAP	Y

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Instrument Run Log

13	L1431172-02D,3,25,250	TO15_SFS	R138930	WG754063,ICAL10564	OVERDILUTED	STD+ NAP	Y
14	L1431360-01D,3,50,250	TO15_SFS	R138931	WG754063,ICAL10564		NY	Y
15	L1431282-02D,3,113.7124,250	TO15_SFS	R138932	WG754064,ICAL10563		APH/ MCP	Y
16	L1431282-03D,3,113.2550,250	TO15_SFS	R138933	WG754064,ICAL10563		APH/ MCP	Y
1	L1431282-01D,3,58.5017,250	TO15_SFS	R138934	WG754064,ICAL10563		APH/ MCP	Y
1	L1431282-01DDUP,3,58.5017,250	TO15_SFS	R138935	WG754064,ICAL10563	APH / MCP-TO15 DUP	APH/ MCP	Y
13	L1431172-02D,3,50,250	TO15_SFS	R138936	WG754063,ICAL10564		STD+ NAP	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,2 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 1

Internal Standard/Surrogate IDs: CSS13-005 / CSS12-019

Date: 01/07/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: RY

Sequence File Name: 150107.S

SIM ICAL# 10565 Full Scan ICAL# 10564 APH ICAL# 10563

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	TA1010701	TO15_SFS	R138909	250ml	TUNE		NA
2	CAPH-10STD10	TO15_SFS	R138910	SS14-039B2 125ML 10.0	APH CC		NA
3	CTO15-LLSTD10.0	TO15_SFS	R138911	SS14-038G 250ML 10.0	APH / LL LCS FAILED		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R138912	SS14-038G 125ML 5.0	SIM LCS		NA
3	CTO15-LLSTD10.0	TO15_SFS	R138913	SS14-038G 250ML 10.0	APH / LL LCS		NA
		Pause					NA
1	BA1010701	TO15_SFS	R138914	250ml	LL BLANK, SIM BLANK FAILED		NA
1	BA1010702	TO15_SFS	R138915	250ml	SIM BLANK		NA
1	L1500103-03,3,250,250	TO15_SFS	R138916	WG754063,ICAL10564		APH, LL, SIM	Y
2	L1500103-04,3,250,250	TO15_SFS	R138917	WG754063,ICAL10564		APH, LL, SIM	Y
3	L1500103-01,3,250,250	TO15_SFS	R138918	WG754063,ICAL10564		APH, LL, SIM	Y
4	L1500103-02,3,250,250	TO15_SFS	R138919	WG754063,ICAL10564		APH, LL, SIM	Y
5	L1500219-01,3,250,250	TO15_SFS	R138920	WG754063,ICAL10564		APH, LL, SIM	Y
6	L1500219-02,3,250,250	TO15_SFS	R138921	WG754063,ICAL10564		APH, LL, SIM	Y
7	L1500262-01,3,250,250	TO15_SFS	R138922	WG754063,ICAL10564		APH, LL, SIM	Y
8	L1500262-02,3,250,250	TO15_SFS	R138923	WG754063,ICAL10564		APH, LL, SIM	Y
9	L1500262-03,3,250,250	TO15_SFS	R138924	WG754063,ICAL10564		APH, LL, SIM	Y
10	L1431291-01,3,250,250	TO15_SFS	R138925	WG754063,ICAL10564		HDR_ FS/ SIM	Y
10	L1431291-01DUP,3,250,250	TO15_SFS	R138926	WG754063,ICAL10564	TO15-SIM DUP	HDR_ FS/ SIM	Y
11	L1431291-02,3,250,250	TO15_SFS	R138927	WG754063,ICAL10564		HDR_ FS/ SIM	Y
12	L1431172-01D,3,100,250	TO15_SFS	R138928	WG754063,ICAL10564		STD+ NAP	Y
12	L1431172-01DDUP,3,100,250	TO15_SFS	R138929	WG754063,ICAL10564	TO15-LL DUP	STD+ NAP	Y

Alpha Analytical Air Lab
Instrument Run Log

13	L1431172-02D,3,25,250	TO15_SFS	R138930	WG754063,ICAL10564	OVERDILUTED	STD+ NAP	Y
14	L1431360-01D,3,50,250	TO15_SFS	R138931	WG754063,ICAL10564		NY	Y
15	L1431282-02D,3,113.7124,250	TO15_SFS	R138932	WG754064,ICAL10563		APH/ MCP	Y
16	L1431282-03D,3,113.2550,250	TO15_SFS	R138933	WG754064,ICAL10563		APH/ MCP	Y
1	L1431282-01D,3,58.5017,250	TO15_SFS	R138934	WG754064,ICAL10563		APH/ MCP	Y
1	L1431282-01DDUP,3,58.5017,250	TO15_SFS	R138935	WG754064,ICAL10563	APH / MCP-TO15 DUP	APH/ MCP	Y
13	L1431172-02D,3,50,250	TO15_SFS	R138936	WG754063,ICAL10564		STD+ NAP	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,2 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Project Name: FORMER LEC

Project Number: 117-0507600

Lab Number: L1500978

Report Date: 02/09/15

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1500978-01	CR011415-AMB-01	0099	#16 AMB	01/12/15	113468		-	-	-	Pass	3.0	3.0	0
L1500978-01	CR011415-AMB-01	1590	6.0L Can	01/12/15	113468	L1430876-02	Pass	-30.0	-3.0	-	-	-	-
L1500978-02	CR011415-IA-B3	0286	#16 AMB	01/12/15	113468		-	-	-	Pass	3.1	3.0	3
L1500978-02	CR011415-IA-B3	687	6.0L Can	01/12/15	113468	L1500262-02	Pass	-30.0	-6.3	-	-	-	-
L1500978-03	CR011415-IA-B6	0616	#16 AMB	01/12/15	113468		-	-	-	Pass	3.2	3.0	6
L1500978-03	CR011415-IA-B6	1809	6.0L Can	01/12/15	113468	L1500219-01	Pass	-30.0	-5.6	-	-	-	-

APPENDIX E

Laboratory Data Validation Reports

Tetra Tech Inc.
Data Validation Report
Former LEC

Laboratory	SDG	Sample Identification
Alpha Analytical	L1500977	CR011515-SS-B3, CR011515-SS-B6, CR011515-SS-DUP

Three air samples were collected January 15, 2015 and analyzed by Alpha Analytical for volatile compounds using Data of Known Quality (DKQ) protocol TO-15. A screening review was performed by a USEPA Region II certified data validator using the criteria specified in Data of Known Quality Protocols Technical Guidance, Data Quality Assessment and Data Usability Evaluation Technical Guidance, in conjunction with Standard Operating Procedure HW-31, Rev. 4, October 2006, and best professional judgment. Data qualifier definitions are as follows:

U The analyte was analyzed for, but not detected above the reported sample quantitation limit.

R The sample results are rejected (qualified as unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

J The analyte was positively identified. The associated value is an estimated quantity.

J- The result is an estimated quantity, but the result may be biased low.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Validation consisted of checking and verifying that the criteria listed below were within acceptable QC limits.

- Holding Time
- Laboratory Control Sample (LCS)
- Blank Contamination
- Instrument Tune
- Calibrations
- Internal Standards
- Duplicates
- Canister Integrity

Holding Times
All samples were analyzed within specified holding times.

Blank Contamination
No qualifications were required.

Duplicates
Precision between field duplicates was evaluated and deemed acceptable if the RPD was below 25% when both sample values were greater than 5 times the reporting limit (RL). Consequently, tetrachloroethene exceeded the limits of field precision and was qualified as estimated (J) in CR011515-SS-B6 and CR011515-SS-DUP. The laboratory duplicate analyses were satisfactory.

Instrument Tune
All criteria were met.

Laboratory Control Sample
The LCS analysis was acceptable.

Calibrations
Hexachlorobutadiene and 1,2,4-trichlorobenzene exceeded % difference (%D) criteria in the continuing calibration and were qualified as estimated (UJ) in samples CR011515-SS-B3, CR011515-SS-B6, and CR011515-SS-DUP.

Internal Standards
The area responses of all internal standards were within limits.

Canister Integrity
The canister leak test and canister certifications were acceptable.

Miscellaneous
The RPD value between the pre-sampling and post-sampling flow controller calibration checks exceeded 20% for sample CR011415-1A-B6. No action was taken.
The TICs identified as 'unknown siloxane' in CR011515-SS-B3, CR011515-SS-B6, and CR011515-SS-DUP were qualified as unusable (R) because they are common lab contaminants.
Because the lab stated that the presence of chloromethane could not be determined due to a non-target compound interfering with its integration, chloromethane was qualified as unusable (R) in CR011515-SS-B3, CR011515-SS-B6, and CR011515-SS-DUP.
All reporting limits (RLs) are acceptable to demonstrate compliance with the residential Soil Gas Screening Levels.

Reviewed by: Cecelia N. Minch — **Date:** 2/23/2015
Cecelia N. Minch

Project: 117-0507600
Field ID Number: CR011515-SS-B3
Laboratory ID Number: L1500977-01 D

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/16/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	0.79		4			
Chloromethane	74-87-3	50.5	0.67	U R	1			
Freon-114	76-14-2	170.9	0.67	U	5			
Vinyl chloride	75-01-4	62.5	0.67	U	2			
1,3-Butadiene	106-99-0	54.1	0.67	U	1			
Bromomethane	74-83-9	94.9	0.67	U	3			
Chloroethane	75-00-3	64.5	0.67	U	2			
Ethanol	64-17-5	46.1	20		38			
Vinyl bromide	593-60-2	106.9	0.67	U	3			
Acetone	67-64-1	58.1	21		50			
Trichlorofluoromethane	75-69-4	137.4	0.67	U	4			
Isopropanol	67-63-0	60.1	6.3		15			
1,1-Dichloroethene	75-35-4	96.9	0.67	U	3			
Tertiary butyl Alcohol	75-65-0	74.1	1.7	U	5			
Methylene chloride	75-09-2	84.9	1.7	U	6			
3-Chloropropene	107-05-1	76.5	0.67	U	2			
Carbon disulfide	75-15-0	76.1	0.67	U	2			
Freon-113	76-13-1	187.4	0.67	U	5			
trans-1,2-Dichloroethene	156-60-5	96.9	0.67	U	3			
1,1-Dichloroethane	75-34-3	99.0	0.67	U	3			
Methyl tert butyl ether	1634-04-4	88.2	0.67	U	2			
2-Butanone	78-93-3	72.1	2.0		6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.67	U	3			
Chloroform	67-66-3	119.4	150		730			
Tetrahydrofuran	109-99-9	72.1	0.67	U	2			
1,2-Dichloroethane	107-06-2	99.0	0.67	U	3			
n-Hexane	110-54-3	86.2	0.67	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.67	U	4			
Benzene	71-43-2	78.1	0.67	U	2			
Carbon tetrachloride	56-23-5	153.8	0.67	U	4			
Cyclohexane	110-82-7	84.2	0.67	U	2			
1,2-Dichloropropane	78-87-5	113.0	0.67	U	3			
Bromodichloromethane	75-27-4	163.8	0.67	U	4			
1,4-Dioxane	123-91-1	88.1	0.67	U	2			
Trichloroethene	79-01-6	131.4	1.7		9			
2,2,4-Trimethylpentane	540-84-1	114.2	0.67	U	3			
Methyl Methacrylate	80-62-6	100.1	1.7	U	7			
Heptane	142-82-5	100.2	0.67	U	3			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.67	U	3			
4-Methyl-2-pentanone	108-10-1	100.2	0.67	U	3			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.67	U	3			
1,1,2-Trichloroethane	79-00-5	133.4	0.67	U	4			
Toluene	108-88-3	92.1	1.0		4			
Dibromochloromethane	124-48-1	208.3	0.67	U	6			
1,2-Dibromoethane	106-93-4	187.9	0.67	U	5			
Tetrachloroethene	127-18-4	165.8	1.5		10			
Chlorobenzene	108-90-7	112.6	0.67	U	3			
Ethylbenzene	100-41-4	106.2	0.67	U	3			
p/m-Xylene	179601-23-1	106.2	1.3	U	6			
Bromoform	75-25-2	252.8	0.67	U	7			
Styrene	100-42-5	104.1	0.67	U	3			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.67	U	5			
o-Xylene	95-47-6	106.2	0.67	U	3			
2-Chlorotoluene	95-49-8	126.6	0.67	U	3			
4-Ethyltoluene	622-96-8	120.2	0.67	U	3			
1,3,5-Trimethylbenzene	108-67-8	120.2	0.67	U	3			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.67	U	3			
1,3-Dichlorobenzene	541-73-1	147.0	0.67	U	4			
1,4-Dichlorobenzene	106-46-7	147.0	0.67	U	4			
1,2-Dichlorobenzene	95-50-1	147.0	0.67	U	4			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.67	U J	5			
Hexachlorobutadiene	87-68-3	260.8	0.67	U J	7			

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

CW FEB 23

Project: 117-0507600
Field ID Number: CR011515-SS-B3
Laboratory ID Number: L1500977-01 D

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/16/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Volatile Tentatively Identified Compounds								
Norflurane	811-97-2		6.8	NJ		4.13		
Ethane, 1-chloro-1,1-difluoro-	75-68-3		36	NJ		4.64		
Methyl Alcohol	67-56-1		5.7	NJ		4.94		
Cyclotrisiloxane, Hexamethyl-	541-05-9		9.8	NJ		16.54		
unknown siloxane			68	J R		18.89		
unknown siloxane			13	J R		20.39		

CW FEB 23 2015

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Project: 117-0507600
Field ID Number: CR011515-SS-B6
Laboratory ID Number: L1500977-02

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/16/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	7.0		35			
Chloromethane	74-87-3	50.5	0.20	U R	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	6.2		12			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	11		26			
Trichlorofluoromethane	75-69-4	137.4	0.74		4			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.53		2			
Freon-113	76-13-1	187.4	18		140			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.24		0.7			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	51		270			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.54		2			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	1.0	J	7			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1,3,5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U J	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U J	2			

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

CW FEB 23 2015

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Volatile Tentatively Identified Compounds								
Ethane, 1-chloro-1,1-difluoro-	75-68-3		20	NJ		4.64		
Methyl Alcohol	67-56-1		2.6	NJ		4.94		
Cyclotrisiloxane, Hexamethyl-	541-05-9		1.8	NJ		16.55		
unknown siloxane			3.0	J R		18.9		
Nonanal	124-19-6		1.3	NJ		19.92		
unknown siloxane			4.4	J R		20.38		

CW
FEB 23 2015

Project: 117-0507600
Field ID Number: CR011515-SS-DUP
Laboratory ID Number: L1500977-03

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/16/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	6.8		34			
Chloromethane	74-87-3	50.5	0.20	UR	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	5.5		10			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	9.7		23			
Trichlorofluoromethane	75-69-4	137.4	0.76		4			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.53		2			
Freon-113	76-13-1	187.4	19		150			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.29		0.9			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	53		280			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.46		2			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	2.4	J	16			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1,3,5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	UJ	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	UJ	2			

CW FEB 23 2015

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Project: 117-0507600
Field ID Number: CR011515-SS-DUP
Laboratory ID Number: L1500977-03

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/16/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Volatile Tentatively Identified Compounds								
Ethane, 1-chloro-1,1-difluoro-	75-68-3		20	NJ		4.64		
Methyl Alcohol	67-56-1		2.7	NJ		4.94		
Cyclotrisiloxane, Hexamethyl-	541-05-9		1.9	NJ		16.55		
unknown siloxane			4.7	J R		18.9		
unknown siloxane			4.4	J R		20.38		

CM FEB 23 2015

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Tetra Tech Inc.
Data Validation Report
Former LEC

Laboratory	SDG	Sample Identification
Alpha Analytical	L1500978	CR011415-AMB-01, CR011415-IA-B3, CR011415-1A-B6

Three air samples were collected January 15, 2015 and analyzed by Alpha Analytical for volatile compounds using Data of Known Quality (DKQ) protocol TO-15. A screening review was performed by a USEPA Region II certified data validator using the criteria specified in Data of Known Quality Protocols Technical Guidance, Data Quality Assessment and Data Usability Evaluation Technical Guidance, in conjunction with Standard Operating Procedure HW-31, Rev. 4, October 2006, and best professional judgment. Data qualifier definitions are as follows:

U The analyte was analyzed for, but not detected above the reported sample quantitation limit.

R The sample results are rejected (qualified as unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

J The analyte was positively identified. The associated value is an estimated quantity.

J$^-$ The result is an estimated quantity, but the result may be biased low.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Validation consisted of checking and verifying that the criteria listed below were within acceptable QC limits.

- Holding Time
- Laboratory Control Sample (LCS)
- Blank Contamination
- Instrument Tune
- Calibrations
- Internal Standards
- Duplicates
- Canister Integrity

Holding Times
All samples were analyzed within specified holding times.

Blank Contamination
No qualifications were required.

Duplicates
Both duplicate analyses were within the limits of laboratory precision.

Instrument Tune
All criteria were met.

Laboratory Control Sample
The LCS analyses were analyzed with satisfactory results.

Calibrations
No qualifications were required.

Internal Standards
The area responses of all internal standards were within limits.

Canister Integrity
The canister leak test and canister certifications were acceptable.

Miscellaneous
The RPD value between the pre-sampling and post-sampling flow controller calibration checks was within limits (<20%) for all samples.
The TIC identified as 'unknown siloxane' in samples CR011414-AMB-01 and CR011415-1A-B6 was qualified as unusable (R) because it is a common lab contaminant.
The TIC identified as 'unknown' in sample CR011415-1A-B6 was qualified as unusable (R) because it was a duplicate reporting of the peak at retention time 4.63.
All reporting limits (RLs) are acceptable to demonstrate compliance with the residential Indoor Air Screening Levels.

Reviewed by: Cecelia N. Minch **Date:** 2/24/2015
Cecelia N. Minch

Project: 117-0507600
Field ID Number: CR011415-AMB-01
Laboratory ID Number: L1500978-01

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/20/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	0.42		2			
Chloromethane	74-87-3	50.5	0.53		1			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	2.5	U	5			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	1.6		4			
Trichlorofluoromethane	75-69-4	137.4	0.23		1			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.20	U	0.6			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.20		0.6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.23		0.7			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.33		1			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1,3,5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Project: 117-0507600
Field ID Number: CR011415-AMB-01
Laboratory ID Number: L1500978-01

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/20/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Volatile Tentatively Identified Compounds								
Cyclotrisiloxane, Hexamethyl-	541-05-9		1.4	NJ		16.55		
unknown siloxane			3.1	J R		18.9		

CW 2/24/15

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Project: 117-0507600
Field ID Number: CR011415-IA-B3
Laboratory ID Number: L1500978-02

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 02/05/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Chloroform	67-66-3	119.4	0.54		3			

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Project: 117-0507600
Field ID Number: CR011415-IA-B6
Laboratory ID Number: L1500978-03

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/20/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	0.36		2			
Chloromethane	74-87-3	50.5	0.28		0.6			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	26		49			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	4.3		10			
Trichlorofluoromethane	75-69-4	137.4	0.24		1			
Isopropanol	67-63-0	60.1	3.5		9			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.20	U	0.6			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.29		0.9			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.20	U	0.6			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.26		0.8			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.20	U	0.8			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.45		2			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1,3,5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Project: 117-0507600
Field ID Number: CR011415-IA-B6
Laboratory ID Number: L1500978-03

TARGET ANALYTES
AIR RESULTS

Sampling Date: 01/15/15
Analysis Date: 01/20/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Volatile Tentatively Identified Compounds								
Propane	74-98-6		1.1	NJ		4.36		
Unknown	NONE		11	J R		4.63		
Propane, 2,2-difluoro-	420-45-1		11	NJ		4.63		
Acetaldehyde	75-07-0		1.1	NJ		4.85		
Methyl Alcohol	67-56-1		4.5	NJ		4.92		
Butane	106-97-8		1.1	NJ		5.25		
unknown siloxane			2.4	J R		18.9		

CW 2/24/15

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