

August 31, 2020

Michael Squire
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7016

**RE: Annual Site Inspection and Indoor Air/ Soil Vapor
Sampling Letter Report
295 Locust Avenue
Bronx, New York
BCP Site No. C203053
Langan Project No.: 170312501**

Dear Mr. Squire:

In accordance with the April 2015 Site Management Plan (SMP) prepared by TechSolutions Engineering, P.C. (TechSolutions), Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) conducted annual indoor air/ soil vapor sampling and engineering control (EC) inspections at the 295 Locust Avenue site located in Bronx, New York (New York State Brownfield Cleanup Program [BCP] Site No. C203053) in 2019. In addition, Langan oversaw installation of new permanent soil vapor monitoring points on June 22, 2019 following approval from the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). A Site Location Map is provided as Figure 1.

Previous annual inspections and sampling results can be found in the following reports prepared by Langan:

- Periodic Review Report (PRR) and SMP Operation Report, dated July 20, 2017 (2015 to 2017 reporting period)
- PRR, dated September 27, 2018 (2017 to 2018 reporting period)

A copy of the SMP and previous reports are provided in Attachment A.

Following submission of the July 20, 2017 PRR and SMP Operation Report, NYSDEC approved a reduction in annual groundwater monitoring to every three years. The next groundwater monitoring event will be performed in the fall of 2020. In addition, following submission of the September 27, 2018 PRR, NYSDEC approved the reduction of PRR submissions to every five years, with the next PRR which will be submitted to NYSDEC by August 31, 2023. This letter

report will be included as an appendix in the 2023 PRR. NYSDEC correspondence documenting reporting frequency changes is provided in Attachment B.

Site Background

The about 80,000-square-foot site is located in the Port Morris neighborhood of the Bronx, New York (Bronx Borough Tax Map Block 2598, Lots 46, 74, and 86) and is bound by East 141st Street to the north, East 139th Street to the south, a vacant lot currently used for chemical and materials storage followed by Locust Avenue to the east, and one-story manufacturing/industrial buildings and Walnut Avenue to the west. On September 6, 2017, Block 2598 Lots 74 and 86 were merged into Lot 86. The site is improved with a 70,000-square-foot television and film production facility spanning the footprint of Lot 46, and a 10,000-square-foot vacant lot improved with asphalt cap (Lot 86). A site plan is provided as Figure 2.

The site was remediated under the BCP (Site No. C203053) and a Certificate of Completion (COC) was issued by the NYSDEC in July 2015. As the site was not remediated to Track 1 standards, engineering controls and institutional controls (EC/IC) were implemented. The ECs for the site include 1) a composite cover system for Tax Block 2598, Lots 46, and 86 consisting of concrete slabs and asphalt cover; and 2) an active sub-slab depressurization (SSD) system for Lot 46. The active SSD system consists of five wells connected via 6-inch-diameter polyvinyl chloride (PVC) pipes, which are routed to five Radonaway® RP380 blowers (B-1 through B-5) that are located on the eastern mezzanine level of the building. The blowers are connected to an 8-inch-diameter exhaust riser that discharges to the roof.

The ECs were inspected three times between June and December, 2019. The SMP provides for annual inspections of the ECs and annual soil vapor/ indoor air sampling. A summary of the EC inspections, annual soil vapor/ indoor air sampling, and installation of new permanent soil vapor monitoring points is provided below.

Soil Vapor Monitoring Point Installation

NYSDEC and NYSDOH Coordination

As documented in the September 27, 2018 PRR, permanent soil vapor monitoring points SVMF-01 and SVMF-06 were inaccessible for sampling and the seal for SVMF-04 appeared damaged in 2018. On May 2, 2019, Langan coordinated locations of three new permanent soil vapor monitoring points (SVMF-04A, SVMF-07, and SVMF-08) with NYSDEC and NYSDOH. On May 9, 2019, NYSDEC and NYSDOH approved the proposed locations for installation of the three new soil vapor monitoring points. Copies of regulatory agency correspondence are provided in Attachment B.

Soil Vapor Monitoring Point Installation

On June 22, 2019, Eastern Environmental Solutions Inc. (Eastern) mobilized to the site to install three new soil vapor monitoring points:

- SVMF-04A is located in the hallway in the central region of the site.
- SVMF-07 is located in Studio N4 in the western region of the site.
- SVMF-08 is located in Studio N1 in the eastern region of the site.

Eastern cored through the roughly 10-inch-thick concrete slab at the new soil vapor monitoring point locations. Using a Geoprobe® 420 direct-push limited access rig, Eastern installed the new soil vapor monitoring points to about 4.75 feet below grade surface (bgs). Each soil vapor monitoring point consisted of a 27-inch long Geoprobe® stainless steel soil vapor implant with new implant anchor, which was connected to Teflon tubing installed to grade. Each soil vapor monitoring point was backfilled with clean silica sand (surrounding the soil vapor implant/screen), and sealed with hydrated bentonite. A flush-mount, 4-inch-diameter manhole cover was installed and fitted within the concrete slab at each location.

Following installation of the three soil vapor monitoring points, an inert tracer gas (helium) was introduced into an above-grade sampling chamber to ensure that the soil vapor sampling points were properly sealed above the target sampling depth, preventing subsurface infiltration of ambient air. Each monitoring point passed the tracer gas test.

Field activities were recorded in a daily site observation report submitted to NYSDEC and NYSDOH, which is provided in Attachment C. Soil vapor monitoring point construction logs and results of the tracer gas test are provided in Attachment D. Photographs documenting construction work are provided in Attachment E.

Site Inspections

Annual Site Inspections

In accordance with the SMP monitoring requirements, Langan conducted an annual SMP site inspection on September 13, and December 30, 2019. The ECs (cover system and vapor mitigation) were documented to be in compliance with the SMP. Annual site inspection forms are provided in Attachment D.

SSD System Inspections

On June 22, September 13, and December 30, 2019, Langan inspected the active SSD system. The system is comprised of five wells connected via 6-inch-diameter PVC pipes routed to five Radonaway® RP380 blowers (B-1 through B-5), located on the eastern mezzanine level of the building. The blowers are connected to an 8-inch-diameter exhaust riser that discharges to the roof. A summary of the SSD system inspection events is provided below.

June 22, 2019 Inspection

Langan collected vacuum and PID readings at monitoring points SVMF-02, SVMF-04A, SVMF-07, and SVMF-08. Vacuum readings ranged from -0.05 to -0.12 inches of water column (in WC). Volatile organic compound (VOC) readings ranged from 0.8 parts per million (ppm) (SVMF-08) to 7.8 ppm (SVMF-04A).

September 13, 2019 Inspection

Langan returned to the site on September 13, 2019 to inspect site ECs and collect vacuum and PID readings at monitoring points SVMF-02, SVMF-04A, SVMF-05, SVMF-07, and SVMF-08. Vacuum readings ranged from -0.094 to -0.267 in WC. VOC readings ranged from 0.0 ppm (SVMF-04A) to 7.4 ppm (SVMF-02).

Langan collected flow rate, vacuum and PID readings at the influent of each blower. Flow rates ranged from 461 to 528 cubic feet per minute (cft/min). VOC readings ranged from 2.5 ppm (B-5) to 199.4 ppm (B-4).

December 30, 2019 Inspection

Langan returned to the site on December 30, 2020 to complete the annual indoor air/soil vapor sampling and to inspect the SSD system during the building heating season. Langan collected flow rate and PID readings at the influent of each blower. Flow rates ranged from 176 to 352 cft/min. VOC readings ranged from 0.1 ppm (B-5) to 12.3 ppm (B-4).

Additionally, Langan collected vacuum and PID data from soil vapor monitoring points SVMF-02, SVMF-04A, SVMF-05, SVMF-07 and SVMF-8, located on the first floor of the building. Vacuum readings ranged from -0.025 to -0.69 in WC. VOC readings ranged from 0.0 ppm (SVMF-04A) to 3.5 ppm (SVMF-05).

Photographs of the SSD system inspections are provided in Attachment E. Copies of the blower system inspection logs and soil vapor monitoring point readings are provided in Attachment F.

Indoor Air and Soil Vapor Sampling

A soil vapor investigation was conducted in general accordance with the 2006 NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York on December 30, 2019. Soil vapor samples were collected from four permanent soil vapor sample locations (SVMF-2, SVMF-04A, SVMF-07, and SVMF-08) in addition to collection of co-located indoor air samples. Permanent soil vapor sampling location SVMF-02 was previously installed by Tech Solutions in 2012, and SVMF-04A, SVMF-07, and SVMF-08 were installed by Eastern on June 22, 2019.

During the site inspection, the former soil vapor sampling location SVMF-05 appeared potentially tampered with and damaged. Although vacuum readings were able to be collected, a soil vapor sample was not collected from this location. Soil vapor and co-located indoor air sample locations are shown on Figure 3. Vapor sample point construction logs are included in Attachment D.

Soil Vapor Sampling and Analysis

Prior to sampling, Langan completed a chemical inventory on December 30, 2019 to identify substances in the building that may influence the results of indoor air quality (IAQ) and sub-slab soil vapor sampling. No chemicals were observed in areas of the building where soil vapor and indoor air samples were collected.

As a quality assurance/ quality control (QA/QC) measure, an inert tracer gas (helium) was introduced into an above-grade sampling chamber before and after soil vapor sampling to ensure that the soil vapor probes were properly sealed above the target sampling depth, thereby preventing infiltration of ambient air to the subsurface. The helium was introduced into an upside-down five-gallon container over the surface of the sampling location being tested. The edges of the bucket were sealed to the surface with hydrated bentonite to maintain a high concentration of helium within the container. The sample tubing from the vapor point was extended out of the probe hole through an air-tight fitting on the container and into a real-time helium monitoring instrument. With the sample train activated and drawing air at less than 0.2 liters per minute, the outlet air is monitored using a real-time helium monitoring instrument. A detection of helium would indicate that the seal was compromised and must be replaced.

A MultiRAE gas meter with a flow rate less than 0.2 liters per minute was attached to the polyethylene tubing, and a total volume of at least three times that of the tubing and screen setup was purged. The purged soil vapor was also monitored for VOCs and the value was recorded. After purging was complete, a laboratory-supplied 2.7-liter Summa[®] canister with a flow controller (with a laboratory-preset flow rate of 0.05 liters per minute) was attached to the polyethylene tubing. Sampling was started by fully opening the canister valve. The sample was collected over a period of approximately 2 hours. When about 2.7 liters of sample had been collected or the canister pressure dropped below 5 inches of mercury, the sample was stopped by closing the valve.

Soil vapor sampling locations are shown on Figure 3. The soil vapor sampling logs are included in Attachment H. The soil vapor mitigation system details provided by Tech Solutions are included in Attachment A.

Indoor and Ambient Air Sample Collection

On December 30, 2019, four indoor air samples (IA-02, IA-04A, IA-07 and IA-08) were collected at breathing level adjacent to the four soil vapor sample points SVMF-2, SVMF-04A, SVMF-07, and SVMF-08. In addition, one ambient air sample (AA-01) and duplicate sample were collected concurrently with soil vapor samples for QA/QC purposes. The 2.7-liter Summa[®] canisters were equipped with flow regulators calibrated for a two-hour sampling period.

Sample Chemical Analysis

Four soil vapor samples, four co-located indoor air samples, one ambient air sample, and one duplicate air sample (for QA/QC purposes) were labeled, placed in shipping containers, and

delivered to Alpha Analytical Inc. (an Environmental Laboratory Approval Program [ELAP]-approved laboratory) under standard chain-of-custody protocol for VOC analysis via United States Environmental Protection Agency (USEPA) Method TO-15.

Soil Vapor and Indoor Air Chemistry Results

A summary of detected soil vapor, co-located indoor air, and ambient air analytical results are presented in Table 1 and sample locations are shown on Figure 3. Laboratory analytical reports are included as Attachment J. No standard currently exists for soil vapor samples in New York State. Indoor air sample analytical results were compared to the NYSDOH Air Guideline Values (AGV) specified in the NYSDOH guidance document. No indoor air concentrations were identified above their respective AGVs. Analytical results are summarized below:

- Total VOCs in soil vapor samples ranged from 115.66 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in SVMF-02 to 23,077.10 $\mu\text{g}/\text{m}^3$ in SVMF-07, as compared to 52.57 $\mu\text{g}/\text{m}^3$ in the duplicate of the ambient air sample AA-01. Total VOCs in co-located indoor air samples ranged from 44.05 $\mu\text{g}/\text{m}^3$ in IA-04A to 162.56 $\mu\text{g}/\text{m}^3$ in IA-08.
- Tetrachloroethene (PCE) concentrations detected in soil vapor ranged from 10.8 $\mu\text{g}/\text{m}^3$ in SVMF-02 to 20,300 $\mu\text{g}/\text{m}^3$ in SVMF-07. PCE concentrations detected in co-located indoor air samples ranged from 0.258 $\mu\text{g}/\text{m}^3$ in IA-04A to 7.19 $\mu\text{g}/\text{m}^3$ in IA-08, compared to 0.312 $\mu\text{g}/\text{m}^3$ in the duplicate of the ambient air sample AA-01.
- PCE daughter products, trichloroethene (TCE) and cis-1,2-dichloroethene were detected in soil vapor samples. TCE concentrations detected in soil vapor ranged from non-detect in SVMF-02 to 1,260 $\mu\text{g}/\text{m}^3$ in SVMF-07. TCE was not detected in the co-located indoor air or ambient air samples. Cis-1,2-dichloroethene concentrations detected in soil vapor ranged from non-detect in SVMF-02 to 845 $\mu\text{g}/\text{m}^3$ in SVMF-07. Cis-1,2-dichloroethene was not detected in the co-located indoor air or ambient air samples.

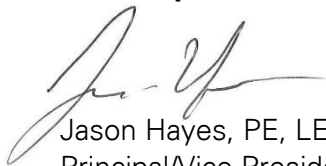
NYSDOH provides decision matrices for eight chlorinated VOCs (carbon tetrachloride, 1,1-dichloroethene, cis-1,2-dichloroethene, TCE, methylene chloride, PCE, 1,1,1-trichloroethane, and vinyl chloride). The decision matrices recommend a range of activities (e.g., monitor, mitigate) based on the sub-slab and indoor air sample results. Four of the eight VOCs that can be evaluated using the NYSDOH decision matrices were detected in soil vapor samples (cis-1,2-dichloroethene, methylene chloride, PCE, and TCE). The NYSDOH decision matrix recommendations ranged from "No Further Action" to "Mitigate".

Closing

The site has an operating soil vapor intrusion (SVI) mitigation system. We recommend that the SVI mitigation system continue operation in its current configuration without modification. The next annual indoor air/ soil vapor sampling event will be conducted during the 2020 heating season. Results will be submitted to NYSDEC and included in the 2023 PRR.

Sincerely,

**Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.**



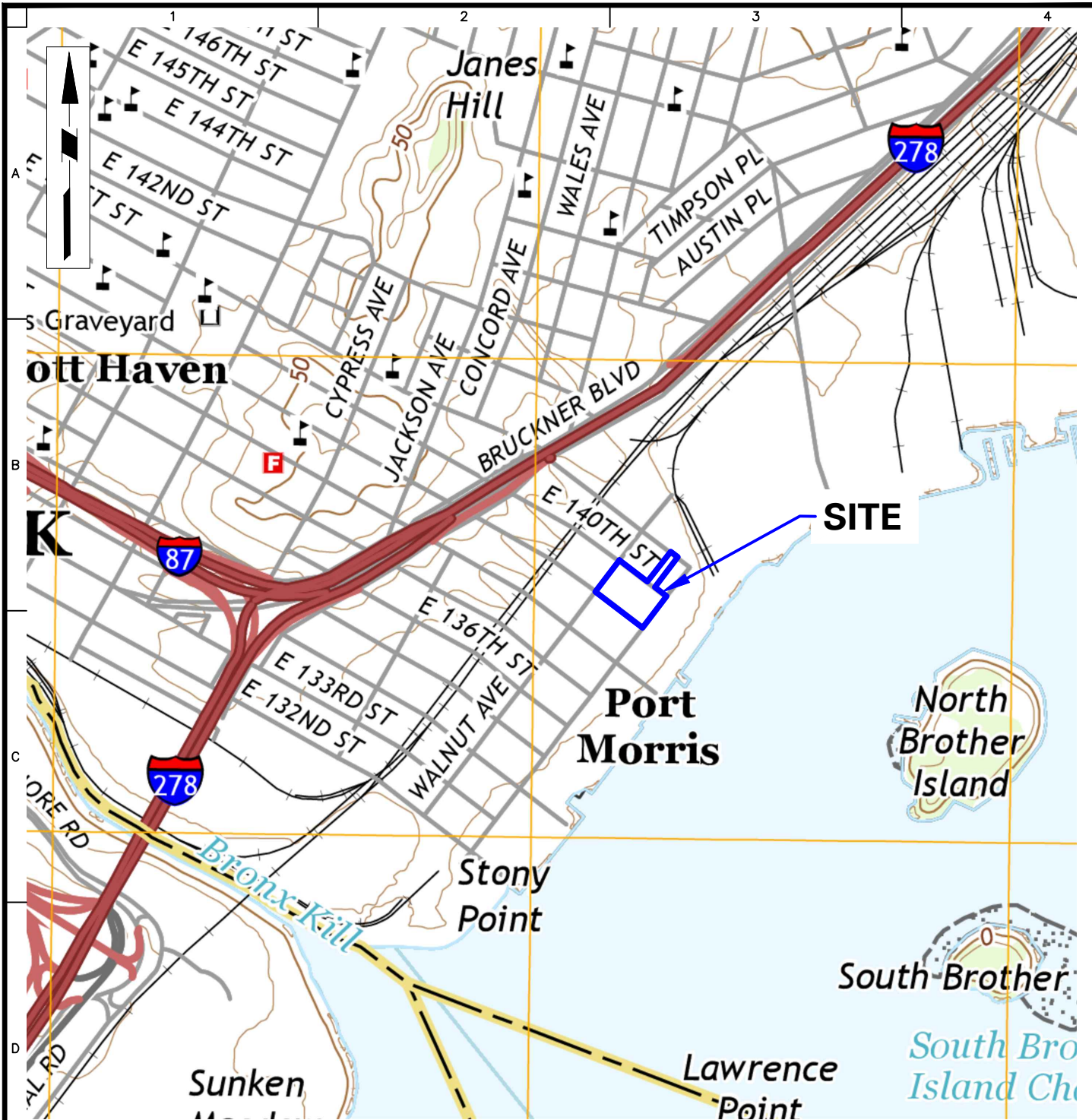
Jason Hayes, PE, LEED^{AP}
Principal/Vice President

Enclosure(s):

| | |
|--------------|---|
| Figure 1 | Site Location Map |
| Figure 2 | Site Plan |
| Figure 3 | Soil Vapor Sampling Plan |
| Table 1 | Soil Vapor, Indoor Air and Ambient Air Analytical Results |
| Attachment A | Previous Reports |
| Attachment B | NYSDEC Correspondence |
| Attachment C | Daily Field Reports |
| Attachment D | Soil Vapor Sample Point Construction Log |
| Attachment E | Photograph Log |
| Attachment F | Annual Site Inspection Forms |
| Attachment G | SSD System Blower Inspection Logs |
| Attachment H | Soil Vapor Sampling Logs |
| Attachment I | Laboratory Analytical Reports |

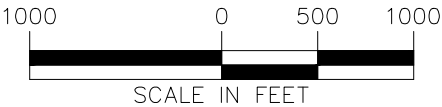
cc: J. Good, E. Snead – Langan

FIGURES

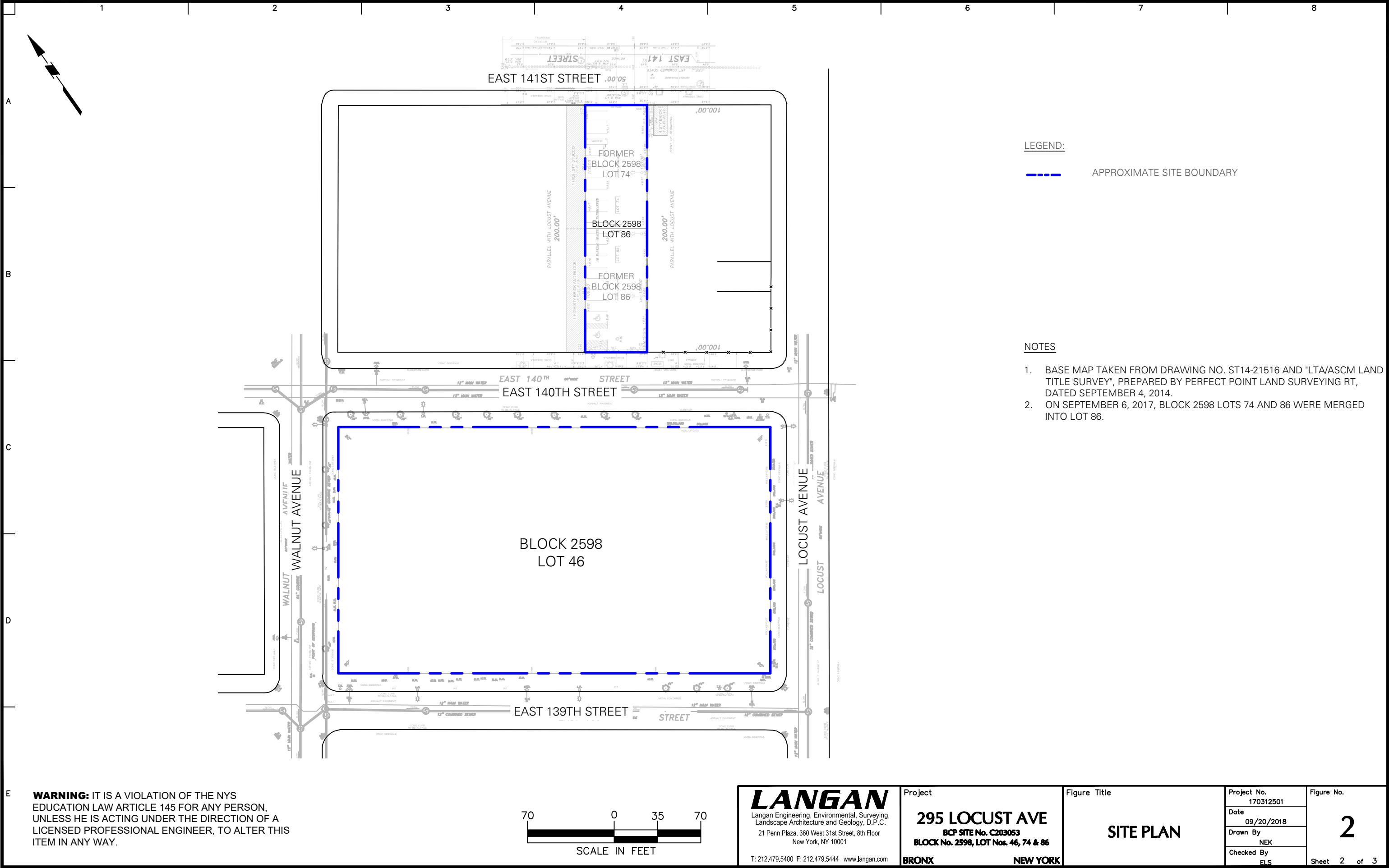


NOTE:
BASE MAP IS REFERENCED FROM USGS TOPOGRAPHIC MAP, CENTRAL PARK QUADRANGLE, 7.5-MINUTE SERIES, DATED AUGUST 2016.

WARNING: IT IS A VIOLATION OF THE NYS
EDUCATION LAW ARTICLE 145 FOR ANY
PERSON, UNLESS HE IS ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS ITEM IN ANY WAY.



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|--|---|---|---------------------------------|---|
| LANGAN Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com | Project 295 LOCUST AVENUE BCP SITE No. C20353 BLOCK No. 2598, LOT Nos. 46, 74 & 86 BRONXNEW YORK | Figure Title SITE LOCATION MAP | Project No. 170312501 | Figure No. 1 Sheet 1 of 3 |
| | | | Date 02/10/2020 | |
| | | | Drawn By NK | |
| | | | Checked By ES | |



TABLES

Table 1
Soil Vapor Sample Results Summary
Annual Inspection and Sampling Technical Memorandum

295 Locust Avenue
Bronx, New York
BCP Site No.: C203053
Langan Project No.: 170312501

| Location Sample ID Laboratory ID Sample Date Sample Type | NYSDOH AGVs | NYSDOH Decision Matrix | AA-01 AA-01_123019 L1962003-01 12/30/2019 AA | AA-01 DUP-01_123019 L1962003-02 12/30/2019 AA | IA-02 IA-02_123019 L1962003-03 12/30/2019 IA | SVMF-02 SVMF-02_123019 L1962003-04 12/30/2019 SV | IA-04A IA-04A_123019 L1962003-05 12/30/2019 IA | SVMF-04A SVMF-04A_123019 L1962003-06 12/30/2019 SV | IA-07 IA-07_123019 L1962003-07 12/30/2019 IA | SVMF-07 SVMF-07_123019 L1962003-08 12/30/2019 SV | IA-08 IA-08_123019 L1962003-09 12/30/2019 IA | SVMF-08 SVMF-08_123019 L1962003-10 12/30/2019 SV |
|--|----------------|------------------------------|--|---|--|--|--|--|--|--|--|--|
| Analyte | | | Result Q | Result Q | Result Q | Result Q | Result Q | Result Q | Result Q | Result Q | Result Q | Result Q |
| Volatile Organic Compounds (µg/m³) | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | ~ | B | 0.109 U | 0.109 U | 0.109 U | 1.09 U | 0.109 U | 1.09 U | 0.109 U | 41 U | 0.109 U | 1.09 U |
| 1,1,2,2-Tetrachloroethane | ~ | ~ | 1.37 U | 1.37 U | 1.37 U | 1.37 U | 1.37 U | 1.37 U | 1.37 U | 51.6 U | 1.37 U | 1.37 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ~ | ~ | 1.53 U | 1.53 U | 1.53 U | 1.53 U | 1.53 U | 1.53 U | 1.53 U | 57.6 U | 1.53 U | 1.53 U |
| 1,1,2-Trichloroethane | ~ | ~ | 1.09 U | 1.09 U | 1.09 U | 1.09 U | 1.09 U | 1.09 U | 1.09 U | 41 U | 1.09 U | 1.09 U |
| 1,1-Dichloroethane | ~ | ~ | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 30.4 U | 0.809 U | 0.809 U |
| 1,1-Dichloroethene | ~ | A | 0.079 U | 0.079 U | 0.079 U | 0.793 U | 0.079 U | 0.793 U | 0.079 U | 29.8 U | 0.079 U | 0.793 U |
| 1,2,4-Trichlorobenzene | ~ | ~ | 1.48 UJ | 1.48 UJ | 1.48 UJ | 1.48 UJ | 1.48 UJ | 1.48 UJ | 1.48 UJ | 55.7 UJ | 1.48 UJ | 1.48 UJ |
| 1,2,4-Trimethylbenzene | ~ | ~ | 0.983 U | 0.983 U | 0.983 U | 1.52 U | 1.02 U | 1.44 U | 0.983 U | 36.9 U | 0.983 U | 3.34 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | ~ | ~ | 1.54 U | 1.54 U | 1.54 U | 1.54 U | 1.54 U | 1.54 U | 1.54 U | 57.7 U | 1.54 U | 1.54 U |
| 1,2-Dichlorobenzene | ~ | ~ | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 45.2 U | 1.2 U | 1.2 U |
| 1,2-Dichloroethane | ~ | ~ | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 0.809 U | 30.4 U | 1.15 U | 0.809 U |
| 1,2-Dichloropropane | ~ | ~ | 0.924 U | 0.924 U | 0.924 U | 0.924 U | 0.924 U | 0.924 U | 0.924 U | 34.7 U | 0.924 U | 0.924 U |
| 1,2-Dichlorotetrafluoroethane | ~ | ~ | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 52.5 U | 1.4 U | 1.4 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | ~ | ~ | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 36.9 U | 0.983 U | 0.983 U |
| 1,3-Butadiene | ~ | ~ | 0.442 U | 0.442 U | 0.442 U | 0.442 U | 0.442 U | 0.442 U | 0.442 U | 16.6 U | 0.442 U | 0.442 U |
| 1,3-Dichlorobenzene | ~ | ~ | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 45.2 U | 1.2 U | 1.2 U |
| 1,4-Dichlorobenzene | ~ | ~ | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 45.2 U | 1.2 U | 1.2 U |
| 1,4-Dioxane (P-Dioxane) | ~ | ~ | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 27.1 U | 0.721 U | 0.721 U |
| 2,2,4-Trimethylpentane | ~ | ~ | 0.934 U | 0.934 U | 0.934 U | 0.934 U | 0.934 U | 0.934 U | 0.934 U | 35.1 U | 0.934 U | 0.934 U |
| 2-Hexanone | ~ | ~ | 0.82 U | 0.82 U | 0.82 U | 0.82 U | 0.82 U | 0.82 U | 0.82 U | 30.8 U | 0.82 U | 0.82 U |
| 4-Ethyltoluene | ~ | ~ | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 0.983 U | 36.9 U | 0.983 U | 0.983 U |
| Acetone | ~ | ~ | 5.91 U | 4.92 U | 4.94 U | 21.4 U | 5.11 U | 4.87 U | 24.9 U | 89.1 U | 20.7 U | 5.51 U |
| Allyl Chloride (3-Chloropropene) | ~ | ~ | 0.626 U | 0.626 U | 0.626 U | 0.626 U | 0.626 U | 0.626 U | 0.626 U | 23.5 U | 0.626 U | 0.626 U |
| Benzene | ~ | ~ | 0.901 U | 0.885 U | 0.891 U | 0.923 U | 1.49 U | 0.639 U | 0.668 U | 24 U | 0.738 U | 0.639 U |
| Benzyl Chloride | ~ | ~ | 1.04 UJ | 1.04 UJ | 1.04 UJ | 1.04 UJ | 1.04 UJ | 1.04 UJ | 1.04 UJ | 38.9 UJ | 1.04 UJ | 1.04 UJ |
| Bromodichloromethane | ~ | ~ | 1.34 U | 1.34 U | 1.34 U | 1.34 U | 1.34 U | 1.34 U | 1.34 U | 50.3 U | 1.34 U | 1.34 U |
| Bromoethene | ~ | ~ | 0.874 U | 0.874 U | 0.874 U | 0.874 U | 0.874 U | 0.874 U | 0.874 U | 32.8 U | 0.874 U | 0.874 U |
| Bromoform | ~ | ~ | 2.07 UJ | 2.07 UJ | 2.07 UJ | 2.07 UJ | 2.07 UJ | 2.07 UJ | 2.07 UJ | 77.6 UJ | 2.07 UJ | 2.07 UJ |
| Bromomethane | ~ | ~ | 0.777 U | 0.777 U | 0.777 U | 0.777 U | 0.777 U | 0.777 U | 0.777 U | 29.2 U | 0.777 U | 0.777 U |
| Carbon Disulfide | ~ | ~ | 0.623 U | 0.623 U | 0.623 U | 0.623 U | 0.623 U | 0.623 U | 0.623 U | 23.4 U | 0.623 U | 3.77 U |
| Carbon Tetrachloride | ~ | A | 0.478 U | 0.447 U | 0.39 U | 1.26 U | 0.453 U | 1.26 U | 0.396 U | 47.2 U | 0.371 U | 1.26 U |
| Chlorobenzene | ~ | ~ | 0.921 U | 0.921 U | 0.921 U | 0.921 U | 0.921 U | 0.921 U | 0.921 U | 34.6 U | 0.921 U | 0.921 U |
| Chloroethane | ~ | ~ | 0.528 U | 0.528 U | 0.528 U | 0.528 U | 0.528 U | 0.528 U | 0.528 U | 19.8 U | 0.528 U | 0.528 U |
| Chloroform | ~ | ~ | 0.977 U | 0.977 U | 0.977 U | 0.977 U | 0.977 U | 22.2 U | 0.977 U | 57.1 U | 0.977 U | 1.14 U |
| Chloromethane | ~ | ~ | 0.952 U | 0.997 U | 0.956 U | 0.987 U | 0.973 U | 0.413 U | 1.02 U | 15.5 U | 0.987 U | 0.413 U |
| Cis-1,2-Dichloroethene | ~ | A | 0.079 U | 0.079 U | 0.079 U | 0.793 U | 0.079 U | 16.6 U | 0.079 U | 845 U | 0.079 U | 30.3 U |
| Cis-1,3-Dichloropropene | ~ | ~ | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 34.1 U | 0.908 U | 0.908 U |
| Cyclohexane | ~ | ~ | 1.39 U | 1.42 U | 1.49 U | 1.49 U | 1.81 U | 1.07 U | 0.857 U | 25.9 U | 0.926 U | 0.688 U |
| Dibromochloromethane | ~ | ~ | 1.7 U | 1.7 U | 1.7 U | 1.7 U | 1.7 U | 1.7 U | 1.7 U | 64 U | 1.7 U | 1.7 U |
| Dichlorodifluoromethane | ~ | ~ | 1.86 U | 1.85 U | 1.96 U | 1.92 U | 1.97 U | 2.2 U | 1.88 U | 37.1 U | 2.13 U | 2.2 U |
| Ethanol | ~ | ~ | 29.4 U | 28.5 U | 31.3 U | 51.4 U | 15.1 U | 9.42 U | 72 U | 354 U | 98.9 U | 9.42 U |
| Ethyl Acetate | ~ | ~ | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 67.7 U | 1.8 U | 1.8 U |
| Ethylbenzene | ~ | ~ | 0.916 U | 0.925 U | 1.04 U | 1.38 U | 1.3 U | 0.869 U | 2.23 U | 32.6 U | 1.05 U | 0.869 U |
| Hexachlorobutadiene | ~ | ~ | 2.13 U | 2.13 U | 2.13 U | 2.13 U | 2.13 U | 2.13 U | 2.13 U | 80.1 U | 2.13 U | 2.13 U |
| Isopropanol | ~ | ~ | 1.42 U | 1.45 U | 1.3 U | 1.75 U | 1.23 U | 1.23 U | 5.75 U | 46.2 U | 6.88 U | 1.23 U |
| M,P-Xylene | ~ | ~ | 2.18 U | 2.28 U | 2.47 U | 3.74 U | 3.37 U | 1.74 U | 6.86 U | 65.2 U | 3 U | 1.83 U |
| Methyl Ethyl Ketone (2-Butanone) | ~ | ~ | 1.47 U | 1.47 U | 1.47 U | 2.75 U | 1.47 U | 1.47 U | 1.47 U | 55.4 U | 1.47 U | 1.47 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | ~ | ~ | 2.05 U | 2.05 U | 2.05 U | 2.41 U | 2.05 U | 2.05 U | 2.05 U | 77 U | 2.05 U | 2.05 U |
| Methylene Chloride | 60 | B | 3.13 U | 1.74 U | 1.74 U | 1.74 U | 1.74 U | 2.21 U | 53.5 U | 65.3 U | 12.9 U | 12.1 U |
| n-Heptane | ~ | ~ | 2.12 U | 2.25 U | 2.29 U | 2.42 U | 2.63 U | 1.07 U | 1.72 U | 30.8 U | 1.35 U | 0.82 U |
| n-Hexane | ~ | ~ | 2.45 U | 1.85 U | 1.89 U | 2.01 U | 2.34 U | 1.09 U | 1.06 U | 26.5 U | 1.25 U | 0.705 U |
| o-Xylene (1,2-Dimethylbenzene) | ~ | ~ | 0.869 U | 0.912 U | 0.995 U | 1.49 U | 1.33 U | 0.869 U | 1.87 U | 32.6 U | 1.01 U | 0.925 U |
| Styrene | ~ | ~ | 0.852 U | 0.852 U | 0.852 U | 0.852 U | 0.852 U | 0.852 U | 0.852 U | 32 U | 0.852 U | 0.852 U |
| Tert-Butyl Alcohol | ~ | ~ | 1.52 U | 1.52 U | 1.52 U | 1.52 U | 1.52 U | 1.52 U | 1.52 U | 57 U | 1.52 U | 1.52 U |
| Tert-Butyl Methyl Ether | ~ | ~ | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 0.721 U | 27.1 U | 0.721 U | 0.721 U |
| Tetrachloroethene (PCE) | 30 | B | 0.325 U | 0.312 U | 0.353 U | 10.8 U | 0.258 U | 164 U | 0.434 U | 20,300 U | 7.19 U | 191 U |
| Tetrahydrofuran | ~ | ~ | 1.47 U | 1.47 U | 1.47 U | 2.26 U | 1.47 U | 1.47 U | 1.47 U | 55.4 U | 1.47 U | 1.47 U |
| Toluene | ~ | ~ | 3.43 U | 3.57 U | 3.88 U | 5.01 U | 4.9 U | 1.84 U | 3.36 U | 28.3 U | 2.77 U | 0.859 U |
| Trans-1,2-Dichloroethene | ~ | ~ | 0.793 U | 0.793 U | 0.793 U | 0.793 U | 0.793 U | 8.29 U | 0.793 U | 615 U | 0.793 U | 18.1 U |
| Trans-1,3-Dichloropropene | ~ | ~ | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 0.908 U | 34.1 U | 0.908 U | 0.908 U |
| Trichloroethene (TCE) | 2 | A | 0.107 U | 0.107 U | 0.107 U | 1.07 U | 0.107 U | 111 U | 0.107 U | 1,260 U | 0.107 U | 30.4 U |
| Trichlorofluoromethane | ~ | ~ | 1.12 U | 1.12 U | 1.12 U | 1.12 U | 1.12 U | 2.95 U | 1.12 U | 42.2 U | 1.12 U | 3.93 U |
| Vinyl Chloride | ~ | C | 0.051 U | 0.051 U | 0.051 U | 0.511 U | 0.051 U | 0.511 U | 0.051 U | 19.2 U | 0.051 U | 0.511 U |
| Total VOCs | | | 56.86 | 52.57 | 56.15 | 115.66 | 44.05 | 340.83 | 178.51 | 23,077.10 | 162.56 | 305.40 |

Table 1
Soil Vapor Sample Results Summary
Annual Inspection and Sampling Technical Memorandum

295 Locust Avenue
Bronx, New York
BCP Site No.: C203053
Langan Project No.: 170312501

Notes:

- 1. Co-located Indoor air and sub-slab soil vapor sample analytical results are compared the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs) as set forth in the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (2013, 2015), the two ambient air samples, and the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).
- 2. Detected analytical results above the ambient air sample or DUP-01_123019 are bolded.
- 3. Detected analytical results above the NYSDOH AGVs sample are shaded.
- 4. Detected analytical results evaluated to recommend mitigation are red.
- 5. Detected analytical results evaluated to recommend monitor are underlined.
- 6. Analytical results with reporting limits (RL) above the AA samples are italicized.
- 7. Sample DUP-01_123019 is a duplicate of parent sample AA-01_123019.
- 8. ~ = Regulatory limit for this analyte does not exist
- 9. µg/m³ = micrograms per cubic meter
- 10. IA = Indoor Air
- 11. AA = Ambient Air
- 12. SV = Soil Vapor

Qualifiers:

UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

APPENDIX A
PREVIOUS REPORTS
(SEPARATE ATTACHMENT)

APPENDIX B
NYSDEC CORRESPONDENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C
625 Broadway, 11th Floor, Albany, NY 12233-7014
P: (518) 402-9662 | F: (518) 402-9679
www.dec.ny.gov

September 13, 2017

Mr. Joseph Good
Langan
21 Penn Plaza
360 West 31st St., 8th Floor
New York, NY 10001

RE: 295 Locust Avenue Site
Periodic Review Report
NYSDEC Site No. C203053
Bronx, Bronx County

Dear Mr. Good,

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the *Periodic Review Report and Site Management Plan Operation Report (PRR)* for the 295 Locust Avenue Brownfield Cleanup Program Site (site), dated July 20, 2017. The Departments understand that the remedy in place, currently in site management in the form of engineering and institutional controls, remains protective of human health and the environment. The Departments also understand that the remedy has demonstrated that it is effective in reducing groundwater contamination at the site, and that no exposure concerns exist with regard to remaining contamination; therefore, the request to decrease frequency of groundwater monitoring activities from annually to once every three years is considered acceptable to the Departments. We request that engineering and institutional controls continue to be monitored and reported to the Department annually, with the next certifying period being July 2017 through June 2018. Groundwater monitoring activities and reporting should be included in the June 2020 Periodic Review Report.

Should you have any questions or concerns, please feel free to contact me at 518.402.9809 or via email at alexandra.servis@dec.ny.gov.



Department of
Environmental
Conservation

Sincerely,

A handwritten signature in cursive script that reads "Alexander Seim".

Lexy Servis, Project Manager
Bureau C, Division of Environmental Remediation

ec: J. Hayes, P.E. – Langan – jahayes@langan.com
E. Snead – Langan – esnead@langan.com
G. Kesner – BPA North LLC – gkesner@silvercupstudios.com
A. Omorogbe – NYSDEC
S. Lawrence - NYSDOH
J. Deming – NYSDOH
D2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C

625 Broadway, 11th Floor, Albany, NY 12233-7014

P: (518) 402-9662 | F: (518) 402-9679

www.dec.ny.gov

November 13, 2018

Emily Sneed, PG
Project Scientist
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, New York 10001

RE: Periodic Review Report
NYSDEC Site No. C203053
295 Locust Avenue
The Bronx, New York

Dear Ms. Sneed:

The New York State Department of Environmental Conservation (Department) has reviewed the Periodic Review Report (PRR) for the 295 Locust Avenue site (the site), dated September 27, 2018. The report is consistent with the DEC approved Site Management Plan dated April 19, 2015 and is hereby approved.

The frequency of Periodic Reviews for this site is every five years, so the next PRR is due on August 31, 2023. A reminder letter will be sent out 45 days prior to the due date. Should you have any questions, please feel free to contact me at michael.squire@dec.ny.gov or at 518-402-9662.

Sincerely,



Michael Squire
Project Manager
Remedial Bureau C

ec: Amen Omorogbe, NYSDEC Central Office
Stephen Lawrence, NYSDOH
D2



Department of
Environmental
Conservation

Emily Snead

From: Emily Snead
Sent: Thursday, May 2, 2019 12:31 PM
To: 'Lawrence, Stephen (HEALTH)'; 'Squire, Michael H (DEC)'
Cc: Joseph Good; 'jhayes@langan.com'
Subject: RE: Conference call for C203053 295 Locust Ave
Attachments: Figure 1 - Proposed Soil Vapor Sample Location Plan_draft_04.29.2019.pdf

Michael and Stephen,

Following upon our call last week, I've provided an updated draft sketch of proposed vapor monitoring point locations at the 295 Locust Avenue property. As discussed, the former soil vapor monitoring point SVMF-04 will be closed/decommissioned and replaced with SVMF-07, located in the central corridor. This new soil vapor monitoring point will be sampled in accordance with the NYSDEC-approved Site Management Plan (SMP) for TO-15 volatile organic compounds (VOC), along with nearby SVMF-02 and SVMF-05 locations.

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Please let me know if you have comments or questions regarding the proposed vapor pin locations at the site. I am available Friday 5/3 and next week for a call if you would like to discuss.

Thank you,

Emily

Emily Snead, PG
Project Scientist
Direct: 212.479.5432
Mobile: 508.918.8558
[File Sharing Link](#)

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ABU DHABI ATHENS DOHA DUBAI LONDON PANAMA

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From: Emily Snead
Sent: Thursday, April 18, 2019 5:24 PM

To: 'Lawrence, Stephen (HEALTH)' <Stephen.Lawrence@health.ny.gov>; Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Cc: Joseph Good <jgood@Langan.com>; 'jhayes@langan.com' <jhayes@langan.com>
Subject: RE: Conference call for C203053 295 Locust Ave

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We propose installing a new soil vapor monitoring point about 45 feet south of SVMF-04 within an open corridor, which would greatly improve accessibility during annual sampling events. The attached figure highlights the new proposed location (SVMF-07). Alternately, a second open corridor is located about 80 feet east of the existing SVMF-04 vapor monitoring point, however it is likely in the vicinity of subgrade utilities.

I will circulate a call-in number for early next week – thank you in advance for your time.

Regards,
Emily

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To: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Cc: Emily Snead <esnead@langan.com>
Subject: RE: Conference call for C203053 295 Locust Ave

My schedule is open.

From: Squire, Michael H (DEC)
Sent: Thursday, April 18, 2019 2:26 PM

To: Lawrence, Stephen (HEALTH) <Stephen.Lawrence@health.ny.gov>

Cc: Emily Snead <esnead@langan.com>

Subject: Conference call for C203053 295 Locust Ave

Stephen,

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Michael Squire

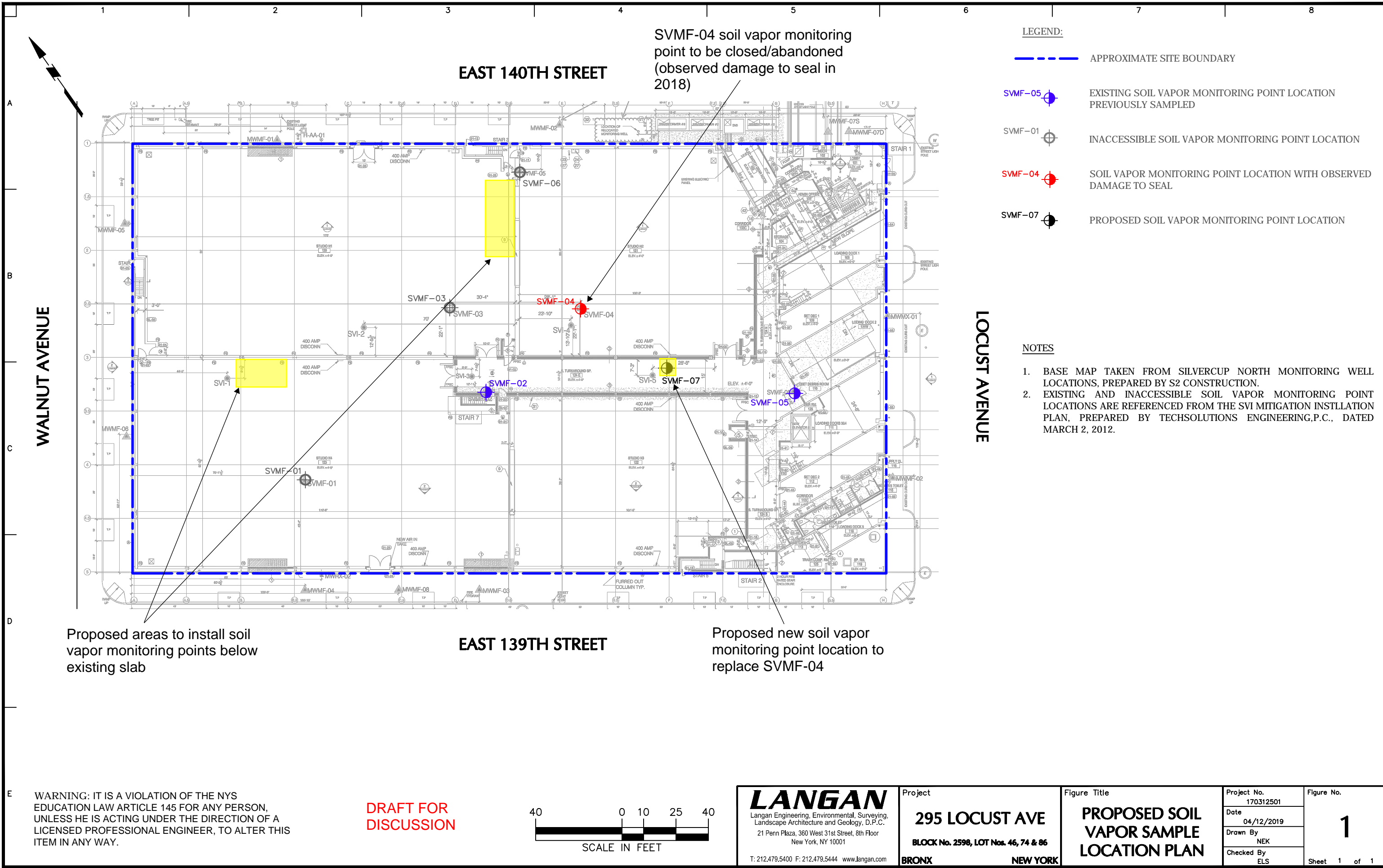
Assistant Engineer

Division of Environmental Remediation, Remedial Bureau C

New York State Department of Environmental Conservation

625 Broadway, Albany, NY 12233

P: (518) 402-9546 | michael.squire@dec.ny.gov



Emily Snead

From: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Sent: Thursday, May 9, 2019 10:39 AM
To: Emily Snead; Lawrence, Stephen (HEALTH)
Cc: Joseph Good; Jason Hayes
Subject: RE: Conference call for C203053 295 Locust Ave

Follow Up Flag: Follow up
Flag Status: Flagged

Emily,

I have no comments about the proposed locations as one is close to SVMF-06 and the other is somewhat close to SVMF-01 and further from the central hallway.

Michael

From: Emily Snead <esnead@langan.com>
Sent: Thursday, May 02, 2019 12:31 PM
To: Lawrence, Stephen (HEALTH) <Stephen.Lawrence@health.ny.gov>; Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Cc: Joseph Good <jgood@Langan.com>; Jason Hayes <jahayes@Langan.com>
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Assistant Engineer
Division of Environmental Remediation, Remedial Bureau C

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Emily Snead

From: Lawrence, Stephen (HEALTH) <Stephen.Lawrence@health.ny.gov>
Sent: Thursday, May 9, 2019 11:01 AM
To: Squire, Michael H (DEC); Emily Snead
Cc: Joseph Good; Jason Hayes
Subject: RE: Conference call for C203053 295 Locust Ave

Follow Up Flag: Follow up
Flag Status: Flagged

Michael and Emily,
I understand the limitation of potential locations within the studios, my hope is to verify that the entire slab is under vacuum. Since SVMF-01 and SVMF-06 are inaccessible these replacement points are our best locations, I find them acceptable.
Steve

Stephen Lawrence, Public Health Specialist
Bureau of Environmental Exposure Investigation
NYS Department of Health
ESP - Corning Tower, Room 1787
Albany, NY 12237
Phone: (518) 402-7860

From: Squire, Michael H (DEC)
Sent: Thursday, May 09, 2019 10:39 AM
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Subject: RE: Conference call for C203053 295 Locust Ave

My schedule is open.

From: Squire, Michael H (DEC)
Sent: Thursday, April 18, 2019 2:26 PM
To: Lawrence, Stephen (HEALTH) <Stephen.Lawrence@health.ny.gov>
Cc: Emily Snead <esnead@langan.com>
Subject: Conference call for C203053 295 Locust Ave

Stephen,

I received a call from Emily Snead, one of the consultants overseeing C203053 295 Locust Avenue today. She mentioned that one of the vapor monitoring points will need replacing, and they plan to use a new point since the current location is part of an active tv set and hard to access for most of the year. She'd like a conference call next week to provide a figure of potential new locations and see what comments or questions we have. I'm free except for Wednesday

morning, and she's free except for Tuesday and Wednesday afternoon. The call should take less than an hour tops. When can you be available?

Michael Squire

Assistant Engineer
Division of Environmental Remediation, Remedial Bureau C

New York State Department of Environmental Conservation

625 Broadway, Albany, NY 12233
P: (518) 402-9546 | michael.squire@dec.ny.gov

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APPENDIX C

DAILY FIELD REPORTS

| | | |
|--|--|--|
| PROJECT No.: 170312501 PROJECT: 295 Locust Avenue LOCATION: Bronx, New York BCP SITE ID: C203053 | CLIENT: BPA North LLC | DATE: Saturday, June 22, 2019 WEATHER: 70-80°F, Clear, Wind: S 10-15 mph TIME: 7:00 am – 3:00 pm MONITOR: Joshua Golding |
| EQUIPMENT: Hand Tools (hammer, screw driver, socket wrench) Geoprobe® 420M Limited Access Rig Concrete Coring Machine PPB-RAE 3000 Helium Leak Detector Kit TSI Velocicalc and Magnehelic Gauges | | PRESENT AT SITE: Langan: (Environmental Engineer)- Joshua Golding S2 Construction: (General Contractor)- Doug Petrullo Eastern Environmental Solutions, Inc.: (Drilling Contractor): Patrick Slavin |
| OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan was present to document environmental protocols in accordance with the Site Management Plan. | | |
| Site Activities <ul style="list-style-type: none"> Eastern Environmental Solutions Inc. (Eastern) mobilized to the site to install three new soil vapor monitoring points (SVMF-04A, SVMF-07 and SVMF-08) per discussions with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). <ul style="list-style-type: none"> SVMF-04A is located in the hallway in the central portion of the site. SVMF-07 is located in Studio N4 in the western portion of the site. SVMF-08 is located in Studio N1 in the eastern portion of the site. Soil vapor monitoring point SVMF-04 (broken seal formerly observed) was inaccessible due to production equipment and staging observed in Studio N2. This monitoring point will be decommissioned at a later date when the area is accessible. Existing soil vapor monitoring point SVMF-05 was inspected. Langan observed that the soil vapor monitoring point sample tubing were damaged. A vacuum reading was not collected from SVMF-05. Existing soil vapor monitoring point SVMF-02 was inspected and Langan collected a vacuum reading for documentation purposes. No damage to the soil vapor monitoring point was observed. Eastern cored through the about 10-inch thick concrete slab at the new SVMF-04A, SVMF-07 and SVMF-08 locations. Eastern used a Geoprobe® 420 direct-push limited access rig to install the new soil vapor monitoring points to about 4.75 feet below grade surface (bgs). Each soil vapor monitoring point consisted of a 27-inch long Geoprobe® stainless steel soil vapor implant with new implant anchor, which was connected to 3/8-inch OD X 5/16-inch ID Teflon tubing and installed to grade. Each soil vapor monitoring point was backfilled with clean silica sand (surrounding the soil vapor implant/screen), and sealed with hydrated bentonite. A flush-mount, 4-inch-diameter manhole cover was installed and fitted within the concrete slab at each location. Following installation of the soil vapor monitoring points SVMF-04A, SVMF-07 and SVMF-08, an inert tracer gas (helium) was introduced into an above-grade sampling chamber to ensure that the new soil vapor sampling points were properly sealed above the target sampling depth, preventing subsurface infiltration of ambient air. Each monitoring point passed the tracer gas test. | | |
| Cc: J. Good, J. Hayes, E. Snead - File | By: Joshua Golding Langan, D.P.C. | |

- Soil vapor monitoring points SVMF-02, SVMF-04A, SVMF-07 and SVMF-08 were screened with a TSI Velocicalc probe (vacuum) and photoionization detector (PID). The following readings were recorded:

| Monitoring Point ID | Vacuum (in. wc) | Explosive Gas (%LEL) | VOC by PID (ppm) |
|---------------------|-----------------|----------------------|------------------|
| SVMF-02 | -0.10 | 0% | 6.7 |
| SVMF-04A | -0.12 | 0% | 7.8 |
| SVMF-07 | -0.05 | 0% | 1.3 |
| SVMF-08 | -0.09 | 0% | 0.8 |

Material Tracking

- No material was exported from the site.
- No material was imported on-site.

Sampling

- No soil vapor or indoor air sampling was performed.

CAMP Activities

- CAMP was not implemented.
- No fugitive dust was observed leaving the property.

Anticipated Activities

- Langan will conduct the annual inspection of the sub-membrane depressurization system (SMDS) and perform annual indoor air and soil vapor sampling per the Site Management Plan (SMP).

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|-----|------------------------------------|-----|----------------|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Joshua Golding |
| | | | Langan, D.P.C. |

Site Photographs:



Photo 1: View of Eastern coring through the existing 10-inch-thick concrete slab, facing south.



Photo 2: View of Geoprobe® soil vapor implant anchor attached to stainless steel screen prior to installation.

| | | | |
|-----|------------------------------------|-----|----------------------------------|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Joshua Golding Langan, D.P.C. |
|-----|------------------------------------|-----|----------------------------------|



Photo 3: View of SVMF-04A installation using a direct push limited access rig, facing northeast.

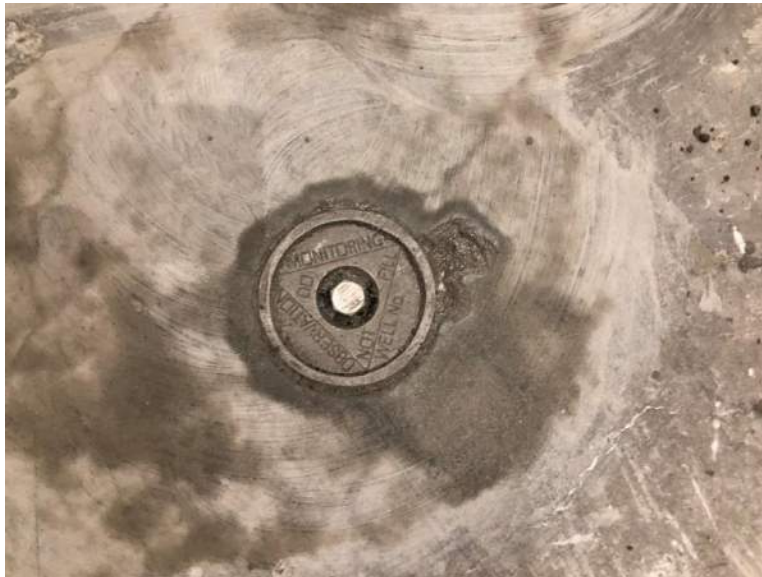


Photo 4: View of 4-inch manhole cover installation at soil vapor monitoring point SVMF-04A.

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| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Joshua Golding |
| | | | Langan, D.P.C. |

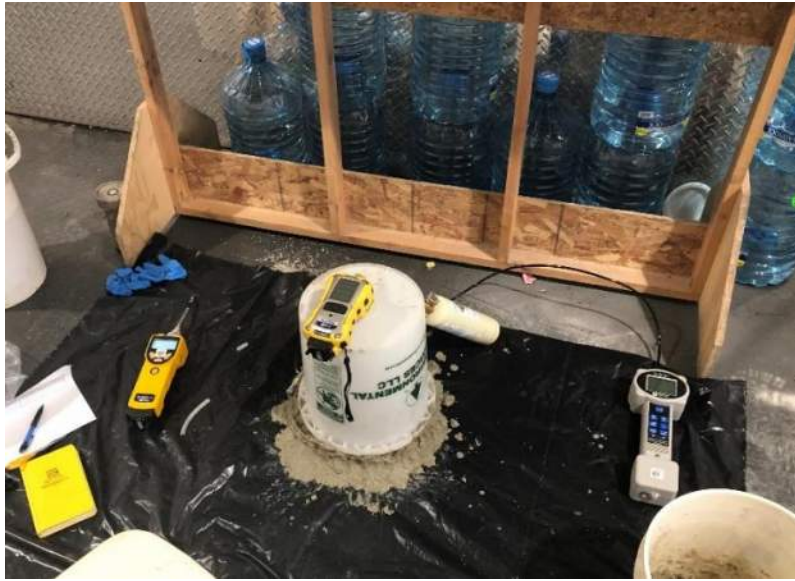


Photo 5: View of inert tracer gas test at SVMF-04A following installation of the monitoring point, facing northeast.

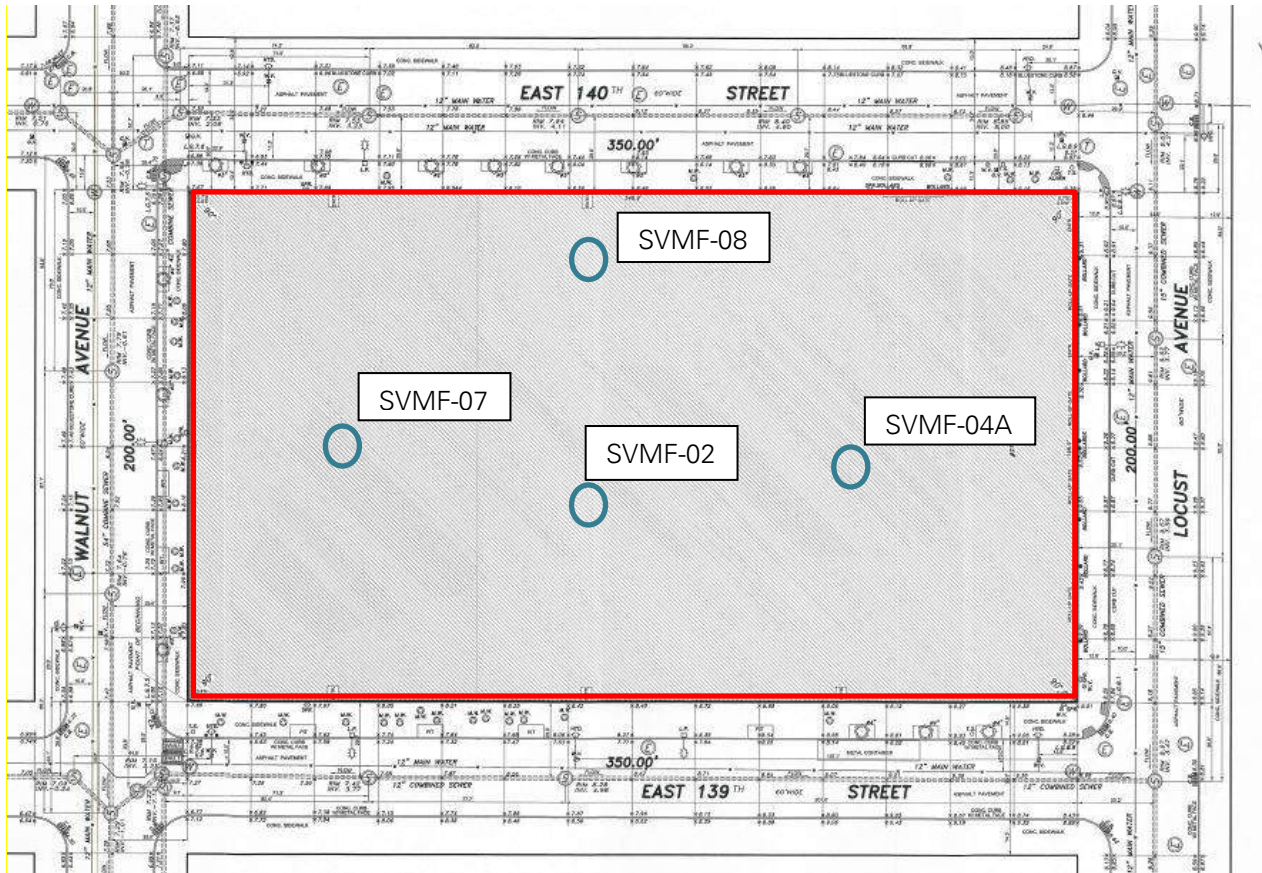
Cc: J. Good, J. Hayes, E. Snead - File

By: Joshua Golding



Langan, D.P.C.

Site Map:

Note: Drawing background from September 4, 2014 ALTA/ACSM Land Title Survey by Perfect Point Land Surveying RT



Legend

-  Approximate Site Boundary
-  Approximate Location of Work / Soil Vapor Monitoring Points

| | | | |
|-----|------------------------------------|-----|----------------------------------|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Joshua Golding Langan, D.P.C. |
|-----|------------------------------------|-----|----------------------------------|

| | | |
|---|---------------------------------|--|
| PROJECT No.: 170312501 | CLIENT: BPA North LLC | DATE: Friday, September 13, 2019 |
| PROJECT: 295 Locust Avenue | | WEATHER: 60-70°F, Partly cloudy Wind: W 5-10 mph |
| LOCATION: Bronx, New York | | TIME: 8:00 am – 12:00 pm |
| BCP SITE ID: C203053 | | MONITOR: Tyler Goodnough |
| EQUIPMENT: Hand Tools (hammer, screw driver, socket wrench) MiniRAE 3000 Photoionization Detector TSI Velocicalc Velocity Meter | | PRESENT AT SITE: Langan: (Environmental Engineer) – Tyler Goodnough Silvercup Studios North: (Building Manager) - Doug Petrullo |

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to perform the annual site/ cover system and sub-slab depressurization system (SSDS) inspections in accordance with the April 2015 Site Management Plan (SMP) prepared by TechSolutions Engineering, P.C. (TechSolutions).

Site Activities

- Langan performed the annual site/ cover system inspection at the site, including the parking lot between East 140th and East 141st Streets. No evidence of a breach in the cover system was observed.
- Langan was on site to inspect the SSDS, and to locate the on-site extraction wells and vapor monitoring points.
- Soil vapor monitoring points SVMF-02, SVMF-04A, SVMF-05, SVMF-07 and SVMF-08 were screened with a TSI Velocicalc velocity probe (vacuum) and photoionization detector (PID). Point SVMF-05 appeared to have been damaged (proposed point for future decommissioning); however a reading was still able to be obtained. The following readings were recorded:

| Monitoring Point ID | Vacuum/ Pressure (in. wc) | VOC by PID (ppm) |
|---------------------|---------------------------|------------------|
| SVMF-02 | -0.208 | 7.4 |
| SVMF-04A | -0.191 | 0.0 |
| SVMF-05 | -0.094 | 0.5 |
| SVMF-07 | -0.246 | 3.7 |
| SVMF-08 | -0.267 | 1.0 |

- Langan inspected the SSDS blower manifold system, located on the eastern mezzanine level. All blowers connected to the extraction wells appeared to be functioning. Langan inspected the horizontal risers for accumulated condensate; none was observed.
- The blower influent riser pipes as well as the effluent manifold on the east façade (accessible via the roof) were screened with the Velocicalc probe and PID.
- The following readings were recorded:

| | | | |
|------------|------------------------------------|------------|-----------------------|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Tyler Goodnough |
| | | | Langan, D.P.C. |

| Riser Pipe ID | Vacuum/ Pressure (in. wc) | Air Flow Velocity (ft/min) | VOC by PID (ppm) |
|-------------------|---------------------------|----------------------------|------------------|
| B-1 | -2.120 | 663 | 6.3 |
| B-2 | -2.397 | 678 | 6.1 |
| B-3 | -2.501 | 629 | 9.8 |
| B-4 | -2.390 | 604 | 199.4 |
| B-5 | -2.340 | 592 | 2.5 |
| Effluent Manifold | 0.058 | 161 | 12.6 |

Material Tracking

- No material was exported from the site.
- No material was imported to the site.

Sampling

- No sampling was performed.

CAMP Activities

- No intrusive activities were conducted, therefore the community air monitoring plan (CAMP) was not implemented.
- No fugitive dust was observed.

Anticipated Activities

- Langan will perform annual indoor air and soil vapor sampling per the SMP during the winter heating season.

| | | | |
|-----|------------------------------------|-----|-----------------------|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Tyler Goodnough |
| | | | Langan, D.P.C. |

Site Photographs:

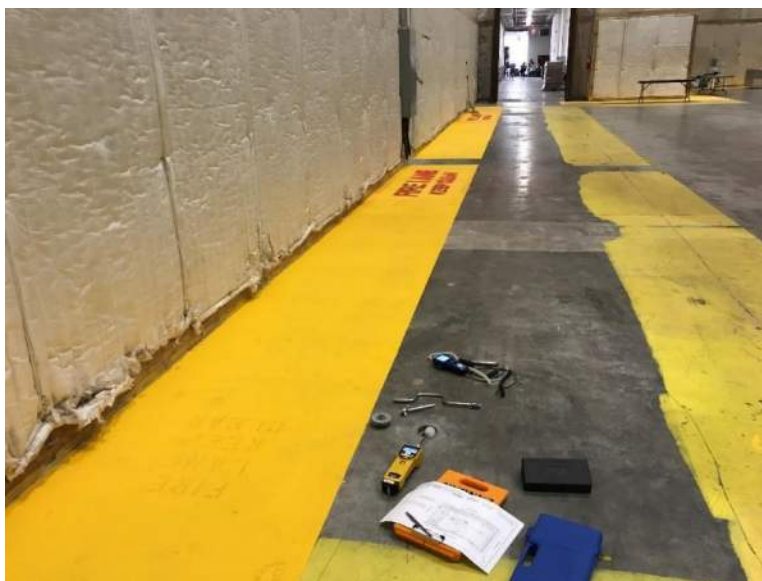


Photo 1: Vacuum gauging at SVMF-07



Photo 2: Collection of VOC readings from the SMD Riser Pipe

| | | | |
|-----|------------------------------------|-----|--|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Tyler Goodnough Langan, D.P.C. |
|-----|------------------------------------|-----|--|

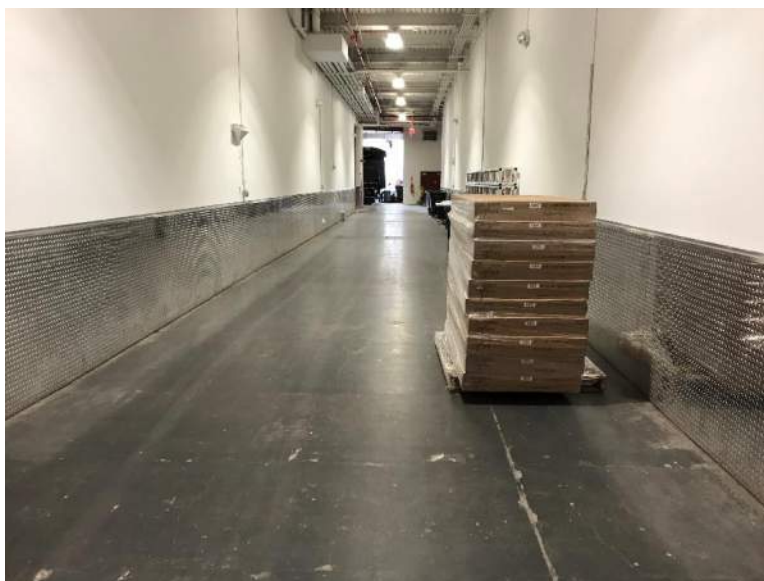


Photo 3: View of sire cover in first floor corridor



Photo 4: View of site cover in an unoccupied film studio

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|-----|------------------------------------|-----|--|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Tyler Goodnough Langan, D.P.C. |
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Photo 5: View of site cover in an occupied film studio

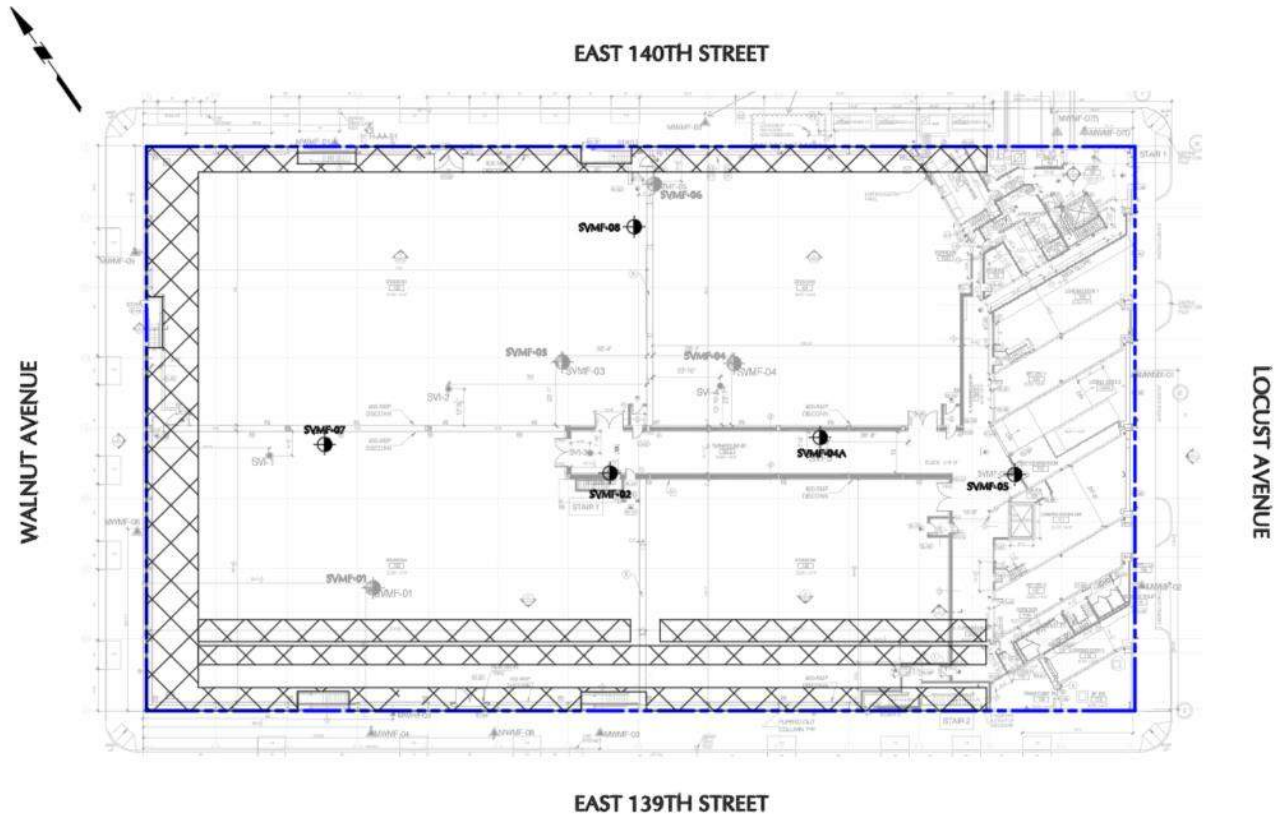


Photo 6: View of main loading area on the first floor

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| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Tyler Goodnough Langan, D.P.C. |
|-----|------------------------------------|-----|--|

Site Map:

Note: Base map taken from Silvercup North Monitoring Well Locations, prepared by S2 Construction.



LEGEND:

- APPROXIMATE SITE BOUNDARY
- SVMF-02 EXISTING SOIL VAPOR MONITORING POINT LOCATION

| | | | |
|-----|------------------------------------|-----|-----------------------------------|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Tyler Goodnough Langan, D.P.C. |
|-----|------------------------------------|-----|-----------------------------------|

| | | | | | | | | | | | | |
|--|--|--|---------------|----------------|----------------|------------------|------------------|----------------|-----------------|------------------|-------------------|----------------|
| PROJECT No.: 170312501 PROJECT: 295 Locust Avenue LOCATION: Bronx, New York BCP SITE ID: C203053 | CLIENT: BPA North LLC | DATE: Monday, December 30, 2019 WEATHER: 40-50°F, Partly cloudy Wind: NE 10-15 mph TIME: 7:00 am – 5:00 pm MONITOR: Jack Donelan, Adam Kaiser | | | | | | | | | | |
| EQUIPMENT: Hand Tools (hammer, screw driver, socket wrench) MiniRAE 3000 Photoionization Detector TSI Velocicalc Velocity Meter | | PRESENT AT SITE: Langan: (Environmental Engineer) – Jack Donelan, Adam Kaiser Silvercup Studios North: (Building Manager) - Doug Petrullo | | | | | | | | | | |
| OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan was present to perform the annual composite cover system and sub-slab depressurization (SSD) system inspections in accordance with the Site Management Plan (SMP). Site Activities <ul style="list-style-type: none"> Langan performed the annual site-wide composite cover system inspection at the site, including the parking lot between East 140th and East 141st Streets. No evidence of breaches in the cover systems were observed. Langan was on site to inspect the SSD system and permanent vapor monitoring points as part of the annual inspection. Soil vapor monitoring points SVMF-02, SVMF-04A, SVMF-05, SVMF-07 and SVMF-08 were screened with a TSI Velocicalc velocity probe (vacuum) and photoionization detector (PID). Point SVMF-05 appeared to have been damaged and may have also been partially blocked by debris; however a reading was still able to be obtained. Langan inspected blower manifold system, located on the eastern mezzanine level. All blowers connected to the extraction wells appeared to be functioning properly. The blower influent pipes were screened with the Velocicalc probe and PID. Material Tracking <ul style="list-style-type: none"> No material was exported from the site. No material was imported on-site. Sampling <ul style="list-style-type: none"> A total of 10 air samples were collected. Samples were collected from four permanent sub-slab soil vapor monitoring points with co-located indoor air samples collected about 3 feet above grade surface. In addition, one ambient air sample was collected along the site entrance at Locust Avenue. Flow regulators were set for a sampling time of two hours. The following samples were collected and analyzed for TO-15 volatile organic compound (VOC) analysis. <table border="0"> <tr> <td>○ AA01_123019</td> <td>○ IA-07_123019</td> </tr> <tr> <td>○ IA-02_123019</td> <td>○ SVMF-07_123019</td> </tr> <tr> <td>○ SVMF-02_123019</td> <td>○ IA-08_123019</td> </tr> <tr> <td>○ IA-04A_123019</td> <td>○ SVMF-08_123019</td> </tr> <tr> <td>○ SVMF-04A_123019</td> <td>○ DUP01_123019</td> </tr> </table> | | | ○ AA01_123019 | ○ IA-07_123019 | ○ IA-02_123019 | ○ SVMF-07_123019 | ○ SVMF-02_123019 | ○ IA-08_123019 | ○ IA-04A_123019 | ○ SVMF-08_123019 | ○ SVMF-04A_123019 | ○ DUP01_123019 |
| ○ AA01_123019 | ○ IA-07_123019 | | | | | | | | | | | |
| ○ IA-02_123019 | ○ SVMF-07_123019 | | | | | | | | | | | |
| ○ SVMF-02_123019 | ○ IA-08_123019 | | | | | | | | | | | |
| ○ IA-04A_123019 | ○ SVMF-08_123019 | | | | | | | | | | | |
| ○ SVMF-04A_123019 | ○ DUP01_123019 | | | | | | | | | | | |
| Cc: J. Good, J. Hayes, E. Snead - File | By: Jack Donelan Langan, D.P.C. | | | | | | | | | | | |

CAMP Activities

- CAMP was not implemented.
- No fugitive dust was observed leaving the property.

Anticipated Activities

- Langan will return during the 2020 heating season to perform the next annual indoor air and soil vapor sampling and groundwater monitoring event per the Site Management Plan (SMP).

| | | | |
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| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Jack Donelan Langan, D.P.C. |
|-----|------------------------------------|-----|---------------------------------------|

Site Photographs:



Photo 1: View of velocity gauging using a TSI Velocalc at the blower system manifold closet.

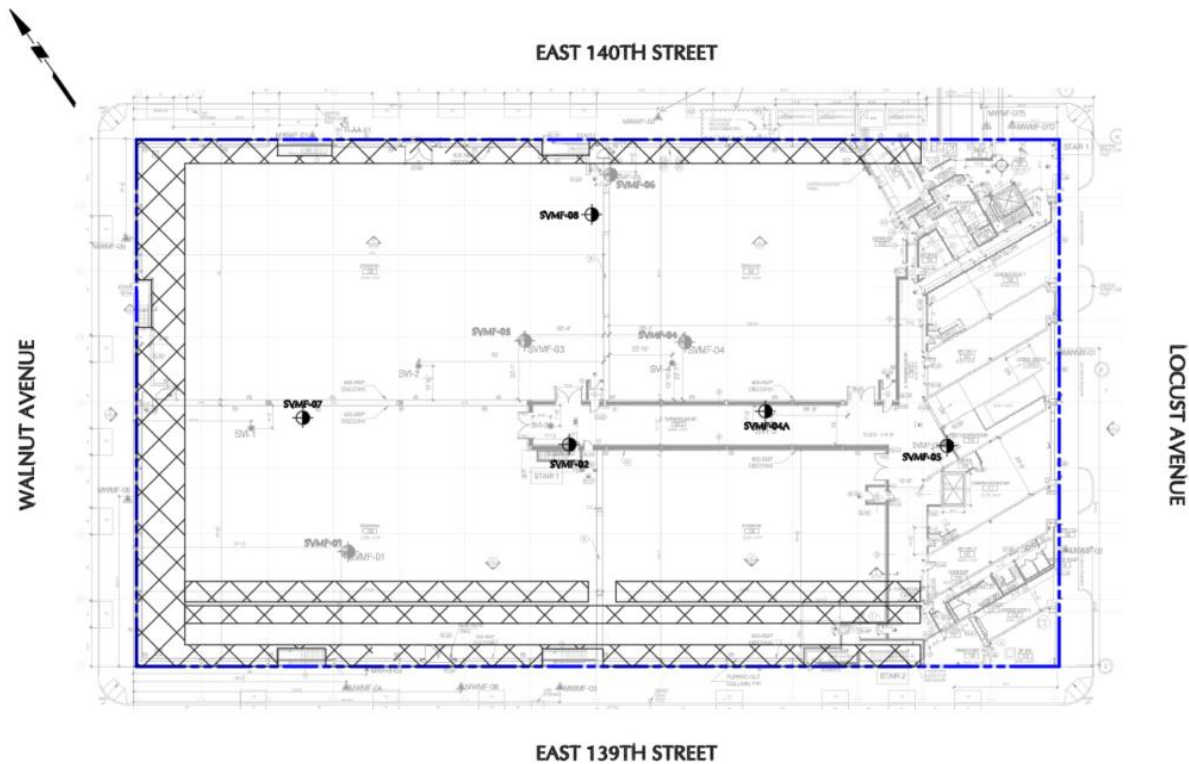


Photo 2: View of Helium shroud test prior to sample collection.

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| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Jack Donelan Langan, D.P.C. |
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Site Map:

Note: Base map taken from Silvercup North Monitoring Well Locations, prepared by S2 Construction.



LEGEND:

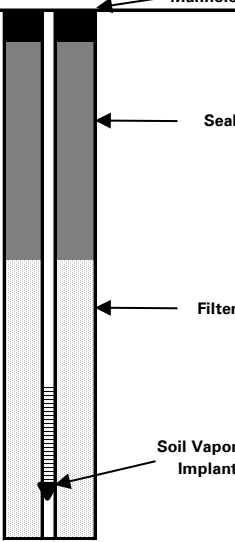
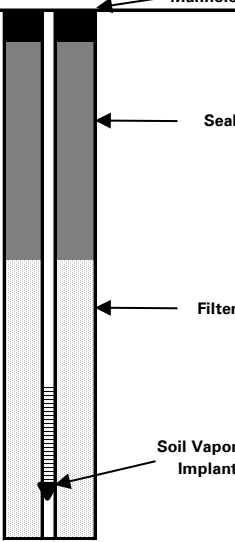
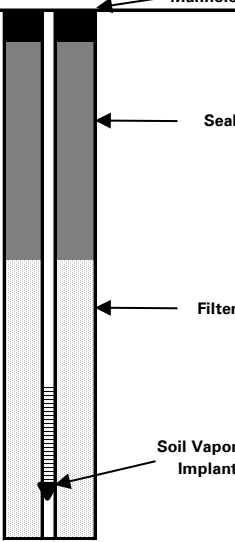
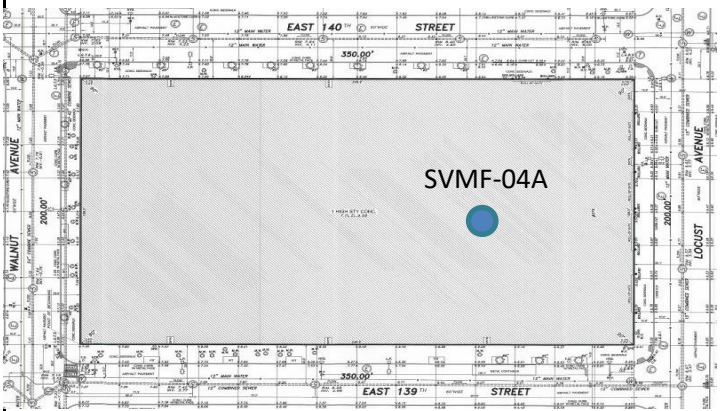
- APPROXIMATE SITE BOUNDARY
- SVMF-02 EXISTING SOIL VAPOR MONITORING POINT LOCATION

| | | | |
|-----|------------------------------------|-----|----------------|
| Cc: | J. Good, J. Hayes, E. Snead - File | By: | Jack Donelan |
| | | | Langan, D.P.C. |

APPENDIX D
SOIL VAPOR SAMPLE POINT
CONSTRUCTION LOG

SOIL VAPOR SAMPLING LOG SHEET

Soil Vapor Monitoring Point No. SVMF-04A

| PROJECT: 295 Locust Avenue | | PROJECT NO.: 170312501 | | | | | | | | | | | | | | | | | |
|---|---------------------|---|------------------------------------|--|---|---------------------|-------|---------|---|--|---|------|--|------|--|------|--|------|--|
| LOCATION: Bronx, New York | | SURFACE ELEVATION AND DATUM: el. 9.68 NAVD88 | | | | | | | | | | | | | | | | | |
| DRILLING FIRM OR LANGAN INSTALLER: Eastern Environmental Solutions, Inc. | | INSTALLATION DATE STARTED: 6/22/2019 | DATE FINISHED: 6/22/2019 | | | | | | | | | | | | | | | | |
| INSTALLATION FOREMAN: Patrick Slavin | | SAMPLE DATE STARTED: NA | DATE FINISHED: NA | | | | | | | | | | | | | | | | |
| INSTALLATION EQUIPMENT: Geoprobe® 420 M | | TYPE OF SAMPLING DEVICE: NA | | | | | | | | | | | | | | | | | |
| INSPECTOR: Joshua Golding | | SAMPLER: NA | | | | | | | | | | | | | | | | | |
| POTENTIAL SAMPLE INTERFERENCES: NA | | WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.): Temp: 70 degrees Wind: 4 mph North Precipitation: None Pressure: 29.88 inHg | | | | | | | | | | | | | | | | | |
| METHOD OF INSTALLATION AND PURGING: Eastern utilized a Geoprobe® 420 direct-push drill rig to drill an about 1-inch diameter by 5-foot-long conduit. A 27-inch long Geoprobe® soil vapor implant and new implant anchor was installed at about 4.75 feet below grade surface (bgs) per the Site Management Plan. 3/8-inch OD X 5/16-inch ID Teflon tubing was attached to the implant and installed up to grade. A 4-inch flush-mount manhole cover was installed and fitted within the concrete slab. Purging was conducted with a Multi-RAE in low-pump mode. | | | | | | | | | | | | | | | | | | | |
| TUBING TYPE/DIAMETER: 3/8-inch OD X 5/16-inch ID Teflon tubing | | TYPE OF MATERIAL ABOVE SEAL: Cover and grout to hold in place | | | | | | | | | | | | | | | | | |
| IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 27" VENTED TUBING 2-Inch Stainless Steel Probe | | SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.): Bentonite | | | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER: 4" | | FILTER PACK MATERIAL (Sand or Glass Beads): Sand | | | | | | | | | | | | | | | | | |
| PURGE VOLUME (L): 0.75 | | <table border="1"> <thead> <tr> <th>IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)</th> <th>DEPTH (FEET BGS)</th> <th>NOTES</th> </tr> </thead> <tbody> <tr> <td>SURFACE</td> <td>0</td> <td></td> </tr> <tr> <td rowspan="4">  </td> <td>0.33</td> <td></td> </tr> <tr> <td>2.83</td> <td></td> </tr> <tr> <td>4.75</td> <td></td> </tr> <tr> <td>5.83</td> <td></td> </tr> </tbody> </table> | | | IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.) | DEPTH (FEET BGS) | NOTES | SURFACE | 0 | |  | 0.33 | | 2.83 | | 4.75 | | 5.83 | |
| IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.) | DEPTH (FEET BGS) | | | | NOTES | | | | | | | | | | | | | | |
| SURFACE | 0 | | | | | | | | | | | | | | | | | | |
|  | 0.33 | | | | | | | | | | | | | | | | | | |
| | 2.83 | | | | | | | | | | | | | | | | | | |
| | 4.75 | | | | | | | | | | | | | | | | | | |
| | 5.83 | | | | | | | | | | | | | | | | | | |
| PURGE FLOW RATE (ML/MIN): 250 | | | | | | | | | | | | | | | | | | | |
| PID AFTER PURGE (PPM): 7.4 | | | | | | | | | | | | | | | | | | | |
| HELIUM TESTS Post-Installation | | | | | | | | | | | | | | | | | | | |
| HELIUM TEST IN BUCKET(%): 30.4% | | | | | | | | | | | | | | | | | | | |
| HELIUM TEST IN TUBE (PPM): <1% | | | | | | | | | | | | | | | | | | | |
| PURGE START TIME: 10:24 | | | | | | | | | | | | | | | | | | | |
| PURGE STOP TIME: 10:27 | | | | | | | | | | | | | | | | | | | |
| LOCATION SKETCH | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | | | |
| <p>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727</p> | | | | | | | | | | | | | | | | | | | |

SOIL VAPOR SAMPLING LOG SHEET

Soil Vapor Monitoring Point No. SVMF-07

| | | | | |
|---|--|--|------------------------------------|--------------|
| PROJECT: 295 Locust Avenue | | PROJECT NO.: 170312501 | | |
| LOCATION: Bronx, New York | | SURFACE ELEVATION AND DATUM: el. 9.68 NAVD88 | | |
| DRILLING FIRM OR LANGAN INSTALLER: Eastern Environmental Solutions, Inc. | | INSTALLATION DATE STARTED: 6/22/2019 | DATE FINISHED: 6/22/2019 | |
| INSTALLATION FOREMAN: Patrick Slavin | | SAMPLE DATE STARTED: NA | DATE FINISHED: NA | |
| INSTALLATION EQUIPMENT: Geoprobe® 420 M | | TYPE OF SAMPLING DEVICE: NA | | |
| INSPECTOR: Joshua Golding | | SAMPLER: NA | | |
| POTENTIAL SAMPLE INTERFERENCES: NA | | WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.): Temp: 70 degrees Wind: 4 mph North Precipitation: None Pressure: 29.88 inHg | | |
| METHOD OF INSTALLATION AND PURGING: Eastern utilized a Geoprobe® 420 direct-push drill rig to drill an about 1-inch diameter by 5-foot-long conduit. A 27-inch long Geoprobe® soil vapor implant and new implant anchor was installed at about 4.75 feet below grade surface (bgs) per the Site Management Plan. 3/8-inch OD X 5/16-inch ID Teflon tubing was attached to the implant and installed up to grade. A 4-inch flush-mount manhole cover was installed and fitted within the concrete slab. Purging was conducted with a Multi-RAE in low-pump mode. | | | | |
| TUBING TYPE/DIAMETER: 3/8-inch OD X 5/16-inch ID Teflon tubing | | TYPE OF MATERIAL ABOVE SEAL: Cover and grout to hold in place | | |
| IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 27" VENTED TUBING 2-Inch Stainless Steel Probe | | SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.): Bentonite | | |
| BOREHOLE DIAMETER: 4" | | FILTER PACK MATERIAL (Sand or Glass Beads): Sand | | |
| PURGE VOLUME (L): 0.75 | | IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.) | DEPTH (FEET BGS) | NOTES |
| PURGE FLOW RATE (ML/MIN): 250 | | | 0 | |
| PID AFTER PURGE (PPM): 1.6 | | | 0.33 | |
| HELIUM TESTS Post-Installation | | | | |
| HELIUM TEST IN BUCKET(%): 26.2% | | | | |
| HELIUM TEST IN TUBE (PPM): 0 | | | | |
| PURGE START TIME: 11:15 | | | 2.83 | |
| PURGE STOP TIME: 11:18 | | | 4.75 | |
| | | 5.83 | | |
| LOCATION SKETCH | | NOTES | | |
| | | | | |
| Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727 | | | | |

SOIL VAPOR SAMPLING LOG SHEET

Soil Vapor Monitoring Point No. SVMF-08

| | | | | |
|---|-------------------|--|------------------------------------|--------------|
| PROJECT: 295 Locust Avenue | | PROJECT NO.: 170312501 | | |
| LOCATION: Bronx, New York | | SURFACE ELEVATION AND DATUM: el. 9.68 NAVD88 | | |
| DRILLING FIRM OR LANGAN INSTALLER: Eastern Environmental Solutions, Inc. | | INSTALLATION DATE STARTED: 6/22/2019 | DATE FINISHED: 6/22/2019 | |
| INSTALLATION FOREMAN: Patrick Slavin | | SAMPLE DATE STARTED: NA | DATE FINISHED: NA | |
| INSTALLATION EQUIPMENT: Geoprobe® 420 M | | TYPE OF SAMPLING DEVICE: NA | | |
| INSPECTOR: Joshua Golding | | SAMPLER: NA | | |
| POTENTIAL SAMPLE INTERFERENCES: NA | | WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.): Temp: 70 degrees Wind: 4 mph North Precipitation: None Pressure: 29.88 inHg | | |
| METHOD OF INSTALLATION AND PURGING: Eastern utilized a Geoprobe® 420 direct-push drill rig to drill an about 1-inch diameter by 5-foot-long conduit. A 27-inch long Geoprobe® soil vapor implant and new implant anchor was installed at about 4.75 feet below grade surface (bgs) per the Site Management Plan. 3/8-inch OD X 5/16-inch ID Teflon tubing was attached to the implant and installed up to grade. A 4-inch flush-mount manhole cover was installed and fitted within the concrete slab. Purging was conducted with a Multi-RAE in low-pump mode. | | | | |
| TUBING TYPE/DIAMETER: 3/8-inch OD X 5/16-inch ID Teflon tubing | | TYPE OF MATERIAL ABOVE SEAL: Cover and grout to hold in place | | |
| IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 27" VENTED TUBING 2-Inch Stainless Steel Probe | | SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.): Bentonite | | |
| BOREHOLE DIAMETER: 4" | | FILTER PACK MATERIAL (Sand or Glass Beads): Sand | | |
| PURGE VOLUME (L): | 0.75 | | DEPTH (FEET BGS) | NOTES |
| PURGE FLOW RATE (ML/MIN): | 250 | | | |
| PID AFTER PURGE (PPM): | 0.7 | | | |
| HELIUM TESTS | Post-Installation | | | |
| HELIUM TEST IN BUCKET(%): | 37.2% | | | |
| HELIUM TEST IN TUBE (PPM): | 0 | | | |
| PURGE START TIME: | 10:48 | | | |
| PURGE STOP TIME: | 10:51 | | | |
| LOCATION SKETCH | | | | |
| | | | | |
| | | NOTES | | |
| <p>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727</p> | | | | |

APPENDIX E

PHOTOGRAPH LOG



Photo 1: View of Eastern Environmental coring through concrete for installation of SVMF-08, facing east. Taken on 06/22/2019.

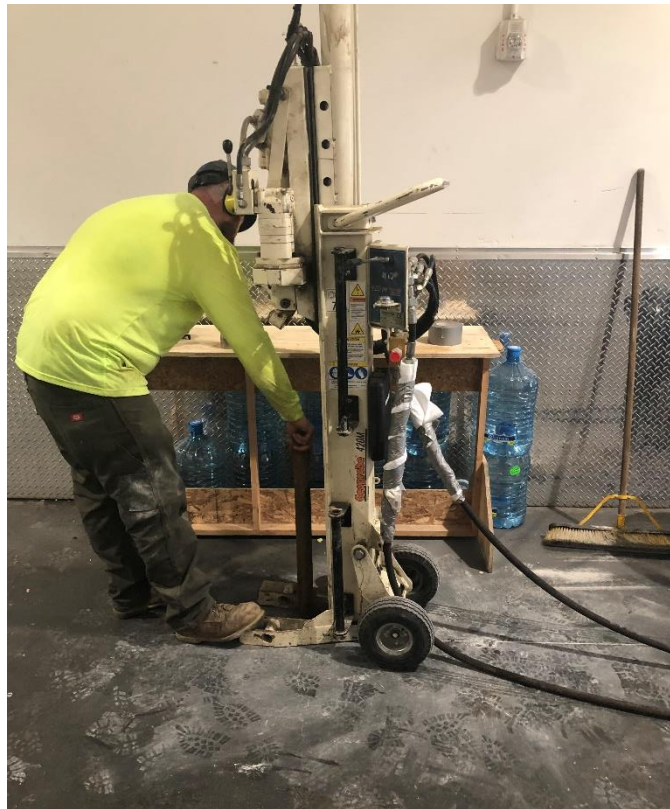


Photo 2: View of installation of SVMF-04A in the central hallway, facing north. Taken on 06/22/2019.



Photo 3: View of helium tracer test being performed on soil vapor point SVMF-07, facing north.
Taken on 06/22/2019.



Photo 4: View of SVMF-08, facing north. Taken on 06/22/2019.

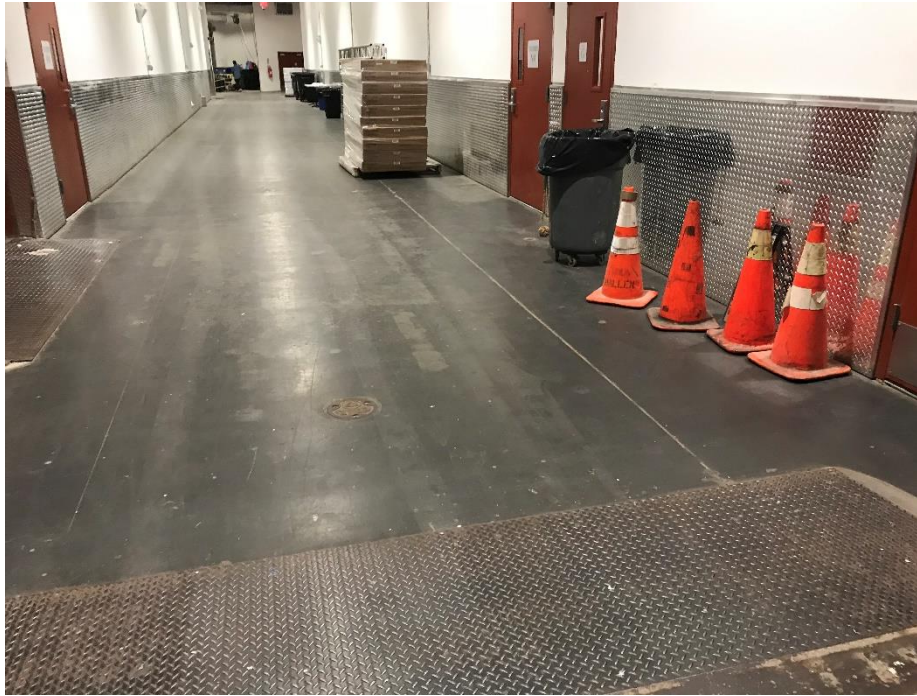


Photo 5: View of central hallway, facing east. Taken on 09/13/2019.



Photo 6: View of Studio 4 area of 295 Locust Avenue, facing south. Taken on 09/13/2019.



Photo 7: View of SSDS effluent exhaust stack on building roof, facing south. Taken on 09/13/2019.



Photo 8: View of helium tracer test at SVMF-07 prior to sampling. Taken on 12/30/2019.



Photo 9: View of central hallway and co-located soil vapor and indoor air sample at SVMF -04, facing west. Taken on 12/30/2019.



Photo 10: View of SSDS manifold control closet, located on the east mezzanine, facing northeast. Taken on 12/30/2019.



Photo 11: View of velocity reading collection from SSDS riser assembly, facing east. Taken on 12/30/2019.

APPENDIX F
ANNUAL SITE INSPECTION FORMS

SITE WIDE INSPECTION CHECKLIST

Site Name: **295 Locust Avenue** Location: **Bronx, New York**

Project Number: **1702312501**

Inspector Name: Tyler Goodnough Date: 9/13/2019

Weather: 60-70, partly cloudy, wind 5 mph W

Reason for Inspection (i.e., routine, severe condition, etc.): Routine

Site Management Plan Inspection Years: 2018-2019

Check one of the following: **Y**: Yes **N**: No **NA**: Not Applicable

| | | Y | N | NA | Normal Situation | Remarks |
|------------------------|---|---|---|----|------------------------------|---|
| General | | | | | | |
| 1 | What are the current site conditions? | | | | X | Silvercup Studios soundstages and offices |
| 2 | Are all applicable site records (e.g., documentation of construction activity, SSD or HVAC system maintenance and repair, most current easement, etc.) complete and up to date? | X | | | | |
| Easement | | | | | | |
| 3 | Has site use (commercial) remained the same? | X | | | | |
| 4 | Does it appear that all environmental easement restrictions have been followed? | X | | | | |
| Impermeable Cap | | | | | | |
| 5 | Are there any indications of a breach in the capping system at the time of this inspection? | | X | | | |
| 6 | Are there any cracks in the building slabs? | X | | | | Surficial cracks only |
| 7 | Are there any cracks in the building walls? | | X | | | |
| 8 | Is there any construction activity, or indication of any construction activity within the past certification year, that included the breaching of the capping system, on-site at the time of this inspection? | | X | | | |
| 9 | If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed? | | | NA | NA if N to 6/ Y if Y to 8 | |
| SSD Systems | | | | | | |
| 10 | Are all visible SSD system components intact and operational at the time of this inspection (i.e. fan(s), system drains, exhaust stack)? | X | | | | |
| 11 | Were any system repairs made within the past year? Were the corrective actions implemented to repair the sub-slab depressurization system? | | X | | | |

SITE WIDE INSPECTION CHECKLIST

Site Name: **295 Locust Avenue** Location: **Bronx, New York**

Project Number: **1702312501**

Inspector Name: Tyler Goodnough Date: 9/13/2019

Weather: 60-70, partly cloudy, wind 5 mph W

Reason for Inspection (i.e., routine, severe condition, etc.): Routine

Site Management Plan Inspection Years: 2018-2019

Check one of the following: **Y**: Yes **N**: No **NA**: Not Applicable

| | | Y | N | NA | Normal Situation | Remarks |
|--|--|---|---|----|------------------|---------|
| Groundwater Monitoring Well Network | | | | | | |
| 12 | Are all wells within the groundwater monitoring network intact and secured at the time of this inspection? | X | | | | |
| 13 | Have the minimum number of groundwater monitoring events been conducted for the certification year (i.e., annually)? | X | | | | |
| 14 | Is groundwater at the property being extracted for uses other than monitoring or remediation? | | X | | | |
| East 140th Street Parking Lot | | | | | | |
| 15 | Is the East 140th Street parking lot in place and covering accessible soil? | X | | | | |
| 16 | Were any repairs made to the parking lot during the reporting year? | | X | | | |

If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks:

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

SITE WIDE INSPECTION CHECKLIST

Site Name: **295 Locust Avenue**

Location: **Bronx, New York**

Project Number: **1702312501**

Inspectors: J. Donelan/A. Kaiser

Date: 12/30/2019

Weather: 40-50, rainy, wind NE @ 10-15 mph

Reason for Inspection (i.e., routine, severe condition, etc.): Routine

Site Management Plan Inspection Years: 2018-2019

Check one of the following: **Y**: Yes **N**: No **NA**: Not Applicable

| | | Y | N | NA | Normal Situation | Remarks |
|------------------------|---|---|---|----|------------------------------|--|
| General | | | | | | |
| 1 | What are the current site conditions? | | | | X | Silvercup Studios soundstages and offices |
| 2 | Are all applicable site records (e.g., documentation of construction activity, SSD or HVAC system maintenance and repair, most current easement, etc.) complete and up to date? | X | | | | |
| Easement | | | | | | |
| 3 | Has site use (commercial) remained the same? | X | | | | |
| 4 | Does it appear that all environmental easement restrictions have been followed? | X | | | | |
| Impermeable Cap | | | | | | |
| 5 | Are there any indications of a breach in the capping system at the time of this inspection? | | X | | | |
| 6 | Are there any cracks in the building slabs? | X | | | | Surficial cracks only |
| 7 | Are there any cracks in the building walls? | X | | | | Surficial crack observed above a doorway in the southern portion of the site |
| 8 | Is there any construction activity, or indication of any construction activity within the past certification year, that included the breaching of the capping system, on-site at the time of this inspection? | | X | | | |
| 9 | If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed? | | | NA | NA if N to 6/ Y if Y to 8 | |
| SSD Systems | | | | | | |
| 10 | Are all visible SSD system components intact and operational at the time of this inspection (i.e. fan(s), system drains, exhaust stack)? | X | | | | |
| 11 | Were any system repairs made within the past year? Were the corrective actions implemented to repair the sub-slab depressurization system? | | X | | | |

SITE WIDE INSPECTION CHECKLIST

Site Name: **295 Locust Avenue**

Location: **Bronx, New York**

Project Number: **1702312501**

Inspectors: J. Donelan/A. Kaiser

Date: 12/30/2019

Weather: 40-50, rainy, wind NE @ 10-15 mph

Reason for Inspection (i.e., routine, severe condition, etc.): Routine

Site Management Plan Inspection Years: 2018-2019

Check one of the following: **Y**: Yes **N**: No **NA**: Not Applicable

| | | Y | N | NA | Normal Situation | Remarks |
|--|--|---|---|----|------------------|---|
| Groundwater Monitoring Well Network | | | | | | |
| 12 | Are all wells within the groundwater monitoring network intact and secured at the time of this inspection? | X | | | | |
| 13 | Have the minimum number of groundwater monitoring events been conducted for the certification year (i.e., annually)? | X | | | | Per correspondence with NYSDEC on September 13, 2017, groundwater monitoring will be conducted every three years. The next groundwater monitoring event will be conducted in 2020. |
| 14 | Is groundwater at the property being extracted for uses other than monitoring or remediation? | | X | | | |
| East 140th Street Parking Lot | | | | | | |
| 15 | Is the East 140th Street parking lot in place and covering accessible soil? | X | | | | |
| 16 | Were any repairs made to the parking lot during the reporting year? | X | | | | Soil borings and test pits were advanced within Lots 74 and 86 during the November 2019 geotechnical and supplemental environmental investigation. Following the investigation, the impervious site cover was restored to grade with new asphalt. |

If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks:

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

APPENDIX G
SSD SYSTEM BLOWER INSPECTION LOGS

Soil Vapor Monitoring Point Readings
295 Locust Avenue
Bronx, New York
Langan Project No. 170312501

| | |
|--------------------|-------------------|
| Date: | 6/22/2019 |
| Location: | 295 Locust Avenue |
| Field Engineer: | Joshua Golding |
| Langan Project No: | 170312501 |

Existing Soil Vapor Monitoring Point Data Summary:

| Monitoring Point ID | Vacuum/ Pressure (in. wc) | Explosive Gas (%LEL) | VOC by PID (ppm) | Comments |
|---------------------|---------------------------|----------------------|------------------|--|
| SVMF-02 | -0.1 | 0% | 6.7 | By Stair G Doorway in central hallway |
| SVMF-03 | X | X | X | Broken monitoring point |
| SVMF-04 | X | X | X | In Studio N2 - inaccessible due to set |
| SVMF-05 | X | X | X | In central hallway - broken monitoring point |
| Indoor Air | 0.0 | 0% | 0.4 | Collected in first floor central hallway |
| Exterior - Upwind | 0.0 | 0% | 0.0 | At corner of Locust Ave. & E 140th Street |
| Exterior - Downwind | 0.0 | 0% | 0.0 | At corner of Walnut Ave. & E 139th Street |

Notes:

1. Vacuum readings are negative, pressure readings are positive

Newly Installed Soil Vapor Monitoring Point Data Summary:

| Monitoring Point ID | Vacuum/ Pressure (in. wc) | Explosive Gas (%LEL) | VOC by PID (ppm) | Comments |
|---------------------|---------------------------|----------------------|------------------|------------------------------|
| SVMF-04A | -0.12 | 0% | 7.8 | Central Hallway |
| SVMF-07 | -0.05 | 0% | 1.3 | Along fire exit in Studio N4 |
| SVMF-08 | -0.09 | 0% | 0.8 | Along fire exit in Studio N1 |

SMD System Blower Readings
295 Locust Avenue
Bronx, New York
Langan Project No. 170312501

| | |
|--------------------|-------------------|
| Date: | 9/13/2019 |
| Location: | 295 Locust Avenue |
| Field Engineer: | Tyler Goodnough |
| Langan Project No: | 170312501 |

Blower System Monitoring Data Summary:

| Monitoring Point ID | Vacuum/ Pressure (in. wc) | VOC by PID (ppm) | Actual Velocity (ft/ min) | Calculated Volumetric Flow (ACFM) | Calculated Volumetric Flow (SCFM) | Temperature (Deg. F) |
|---------------------|---------------------------|------------------|---------------------------|-----------------------------------|-----------------------------------|----------------------|
| B-1 Influent | -2.12 | 6.3 | 663 | 231.43 | 229.61 | 77.0 |
| B-2 Influent | -2.397 | 6.2 | 678 | 236.67 | 231.30 | 85.5 |
| B-3 Influent | -2.501 | 9.8 | 629 | 219.56 | 215.75 | 82.7 |
| B-4 Influent | -2.39 | 199.4 | 604 | 210.84 | 203.59 | 92.1 |
| B-5 Influent | -2.34 | 2.5 | 592 | 206.65 | 202.01 | 85.3 |
| Effluent Manifold | 0.058 | 12.6 | 161 | 56.20 | 55.66 | 75.1 |

Notes:

1. Vacuum readings are negative, pressure readings are positive

Soil Vapor Monitoring Point Readings
295 Locust Avenue
Bronx, New York
Langan Project No. 170312501

| | |
|--------------------|-------------------|
| Date: | 9/13/2019 |
| Location: | 295 Locust Avenue |
| Field Engineer: | Tyler Goodnough |
| Langan Project No: | 170312501 |

Existing Soil Vapor Monitoring Point Data Summary:

| Monitoring Point ID | Vacuum/ Pressure (in. wc) | VOC by PID (ppm) | Comments |
|---------------------|---------------------------|------------------|---|
| SVMF-02 | -0.208 | 7.4 | By Stair G Doorway in central hallway |
| SVMF-04A | -0.191 | 0.0 | Central Hallway |
| SVMF-05 | -0.094 | 0.5 | Central Hallway |
| SVMF-07 | -0.246 | 3.7 | In Studio N4 |
| SVMF-08 | -0.267 | 1.0 | In Studio N1 |
| Indoor Air | 0.0 | 0.3 | Collected in first floor central hallway |
| Exterior - Upwind | 0.0 | 0.0 | At corner of Locust Ave. & E 140th Street |
| Exterior - Downwind | 0.0 | 0.0 | At corner of Walnut Ave. & E 139th Street |

Notes:

1. Vacuum readings are negative, pressure readings are positive

SMD System Blower Readings
295 Locust Avenue
Bronx, New York
Langan Project No. 170312501

| | |
|--------------------|---------------------------|
| Date: | 12/30/2019 |
| Location: | 295 Locust Avenue |
| Field Engineer: | Jack Donelan, Adam Kaiser |
| Langan Project No: | 170312501 |

Blower System Monitoring Data Summary:

| Monitoring Point ID | Vacuum/ Pressure (in. wc) | VOC by PID (ppm) | Actual Velocity (ft/ min) | Calculated Volumetric Flow (ACFM) | Calculated Volumetric Flow (SCFM) | Temperature (Deg. F) |
|---------------------|---------------------------|------------------|---------------------------|-----------------------------------|-----------------------------------|----------------------|
| B-1 Influent | -2.03 | 1.1 | 451 | 157.43 | 159.21 | 66.7 |
| B-2 Influent | -2.52 | 0.7 | 429 | 149.75 | 152.23 | 64.6 |
| B-3 Influent | -2.54 | 2.1 | 440 | 153.59 | 156.32 | 64.0 |
| B-4 Influent | -2.52 | 12.3 | 226 | 78.89 | 80.34 | 63.7 |
| B-5 Influent | -2.48 | 0.1 | 414 | 144.51 | 147.04 | 64.1 |
| Effluent Manifold | 0.057 | 2.4 | 107 | 37.35 | 38.45 | 54.7 |

Notes:

1. Vacuum readings are negative, pressure readings are positive

Soil Vapor Monitoring Point Readings
295 Locust Avenue
Bronx, New York
Langan Project No. 170312501

| | |
|--------------------|--------------------------|
| Date: | 12/30/2019 |
| Location: | 295 Locust Avenue |
| Field Engineer: | Jack Donelan/Adam Kaiser |
| Langan Project No: | 170312501 |

Existing Soil Vapor Monitoring Point Data Summary:

| Monitoring Point ID | Vacuum/ Pressure (in. wc) | VOC by PID (ppm) | Comments |
|---------------------|---------------------------|------------------|---|
| SVMF-02 | -0.69 | 0.1 | By Stair G Doorway in central hallway |
| SVMF-04A | -0.151 | 0.0 | Central Hallway |
| SVMF-05 | -0.025 | 3.5 | Central Hallway |
| SVMF-07 | -0.056 | 3 | In Studio N4 |
| SVMF-08 | -0.271 | 0.0 | In Studio N1 |
| Indoor Air | 0.0 | 0.0 | Collected in first floor central hallway |
| Exterior - Upwind | 0.0 | 0.0 | At corner of Locust Ave. & E 140th Street |
| Exterior - Downwind | 0.0 | 0.0 | At corner of Walnut Ave. & E 139th Street |

Notes:

1. Vacuum readings are negative, pressure readings are positive

APPENDIX H

SOIL VAPOR SAMPLING LOGS

Soil Vapor Monitoring Point Installation Log
Post-Installation Leak Detection Testing
295 Locust Avenue
Bronx, New York
Langan Project No. 170312501

| Sample ID | Date | Weather (Atmospheric Pressure) | Pre-Purge PID Reading - Sample Tubing (ppm) | Pre-Purge Helium Reading Bucket (%) | Pre-Purge Helium Reading - Sample Tubing (ppm) | Post-Purge PID Reading - Sample Tubing (ppm) | Post- Purge/Install Helium Reading Bucket (%) | Post- Purge/Install Helium Reading - Sample Tubing (ppm) | Notes |
|-----------|-----------|--------------------------------------|--|---|---|---|--|--|-------|
| SVMF-04A | 6/22/2019 | 29.88 inHg | 7.8 | 34.5% | 0 | 7.4 | 30.4% | <1% | Pass |
| SVMF-07 | 6/22/2019 | 29.88 inHg | 1.3 | 35.4% | 0 | 1.6 | 26.2% | 0 | Pass |
| SVMF-08 | 6/22/2019 | 29.88 inHg | 0.8 | 40.6% | 0 | 0.7 | 37.2% | 0 | Pass |

Notes:

1. PID = photoionization detector
2. ppm = parts per million
3. in. Hg = inches mercury
4. ml/min - milliliters per minute
5. L = liters

| Sample ID | Date | Weather | Pre-Purge PID Reading - Sample Tubing (ppm) | Pre-Purge Helium Reading Bucket (%) | Pre-Purge Helium Reading - Sample Tubing (ppm) | Post-Purge PID Reading - Sample Tubing (ppm) | Summa Canister No. | Regulator No. | Regulator Volume Rate (mL/min) | Start Time | Summa Canister Start Pressure (in Hg) | Stop Time | Summa Canister Stop Pressure (in Hg) | Post-Sampling Helium Reading Bucket (%) | Post-Sampling Helium Reading - Sample Tubing (ppm) | Post-Sampling Reading - Sample Tubing (ppm) | Sample Location |
|-----------|------------|------------------------|---|--|--|---|--------------------------|------------------|--------------------------------------|------------|---|-----------|--|--|--|--|---------------------------------------|
| AA 01 | 12/30/2019 | Rainy (29.87 in Hg) | NA | | | | 2117 | 68 | 40.0 | 1133 | -29.31 | 1324 | -4.25 | - | - | - | Central Hallway |
| IA-02 | 12/30/2019 | | NA | | | | 1592 | 559 | 40.0 | 1124 | -29.74 | 1320 | -5.11 | - | - | - | By Stair G Doorway in central hallway |
| SVMF-02 | 12/30/2019 | | 0.0 | 12.7 | 0.0 | 0.0 | 1547 | 938 | 40.0 | 1123 | -30.26 | 1320 | -5.30 | 13.2 | 0.0 | 0.0 | By Stair G Doorway in central hallway |
| IA-04A | 12/30/2019 | | NA | | | | 1623 | 1011 | 40.0 | 1337 | -30.08 | 1533 | -5.01 | - | - | - | Central Hallway |
| SVMF-04A | 12/30/2019 | | 0.0 | 15.70 | 0.0 | 0.0 | 2282 | 954 | 40.0 | 1336 | -30.08 | 1500 | -4.95 | 14.1 | 0.0 | 0.0 | Central Hallway |
| IA-07 | 12/30/2019 | | NA | | | | 2640 | 1509 | 40.0 | 1114 | -29.73 | 1312 | -5.67 | - | - | - | In Studio N4 |
| SVMF-07 | 12/30/2019 | | 0.2 | 13.90 | 0.0 | 0.0 | 1830 | 1007 | 40.0 | 1115 | -29.43 | 1308 | -5.09 | 12.6 | 0 | 0.1 | In Studio N4 |
| IA-08 | 12/30/2019 | | NA | | | | 1659 | 404 | 40.0 | 1122 | -30.15 | 1310 | -5.04 | - | - | - | In Studio N1 |
| SVMF-08 | 12/30/2019 | | 3.3 | 13.50 | 0.0 | 0.0 | 1697 | 341 | 40.0 | 1121 | -29.82 | 1313 | -5.07 | 12.5 | 0 | 0 | In Studio N1 |

Notes:

- 1. in Hg = inches of mercury
- 2. PID = photoionization detector
- 3. ppm = parts per million
- 4. mL/min - milliliters per minute
- 5. mL/min = milliliter per minute
- 6. % = percent

APPENDIX I
LABORATORY ANALYTICAL REPORTS



www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L1962003

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Project Name: 295 LOCUST AVE.
Project Number: 170312501

Lab Number: L1962003
Report Date: 01/07/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|--------------------|-----------------|------------|--------------------|-------------------------|--------------|
| L1962003-01 | AA-01_123019 | AIR | BRONX, NY | 12/30/19 13:24 | 12/30/19 |
| L1962003-02 | DUP-01_123019 | AIR | BRONX, NY | 12/30/19 00:00 | 12/30/19 |
| L1962003-03 | IA-02_123019 | AIR | BRONX, NY | 12/30/19 13:20 | 12/30/19 |
| L1962003-04 | SVMF-02_123019 | SOIL_VAPOR | BRONX, NY | 12/30/19 13:20 | 12/30/19 |
| L1962003-05 | IA-04A_123019 | AIR | BRONX, NY | 12/30/19 15:33 | 12/30/19 |
| L1962003-06 | SVMF-04A_123019 | SOIL_VAPOR | BRONX, NY | 12/30/19 15:00 | 12/30/19 |
| L1962003-07 | IA-07_123019 | AIR | BRONX, NY | 12/30/19 13:12 | 12/30/19 |
| L1962003-08 | SVMF-07_123019 | SOIL_VAPOR | BRONX, NY | 12/30/19 13:08 | 12/30/19 |
| L1962003-09 | IA-08_123019 | AIR | BRONX, NY | 12/30/19 13:10 | 12/30/19 |
| L1962003-10 | SVMF-08_123019 | SOIL_VAPOR | BRONX, NY | 12/30/19 13:13 | 12/30/19 |
| L1962003-11 | UNUSED CAN 2627 | AIR | BRONX, NY | | 12/30/19 |
| L1962003-12 | UNUSED CAN 2710 | AIR | BRONX, NY | | 12/30/19 |

Project Name: 295 LOCUST AVE.
Project Number: 170312501

Lab Number: L1962003
Report Date: 01/07/20

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. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC 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. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, 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 table. 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 (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

Project Name: 295 LOCUST AVE.
Project Number: 170312501

Lab Number: L1962003
Report Date: 01/07/20

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on December 30, 2019. The canister certification results are provided as an addendum.


L1962003-08: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG1327071-3 LCS recovery for bromoform (133%) and 1,2,4-trichlorobenzene (140%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

Sample Receipt

The canister ID number for the sample designated SVMF-08_123019 (L1962003-10) is listed on the CoC 1692 as but should be 1697.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: 

Report Date: 01/07/20

Title: Technical Director/Representative

GLOSSARY

Acronyms

| | |
|----------|--|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

Footnotes

Report Format: Data Usability Report



Project Name: 295 LOCUST AVE.
Project Number: 170312501

Lab Number: L1962003
Report Date: 01/07/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- 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.
- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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 exceedances 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.

Report Format: Data Usability Report



Project Name: 295 LOCUST AVE.
Project Number: 170312501

Lab Number: L1962003
Report Date: 01/07/20

Data Qualifiers

RE - Analytical results are from sample re-extraction.
S - Analytical results are from modified screening analysis.
ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report





Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)
 Purge time: 11 min

Columns (length x ID x df):
 RTX-VMS 20m x 0.18mm x 1um
 RTX-VMS 30m x 0.25mm x 1.4um
 RTX-502.2 40m x 0.18mm x 1um

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)

Column Type: Restek RTX 502.2
 Column Length: 105 Meters
 df: 3.00 um
 ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: Tekmar Velocity / EST Encon
 Autosampler: Varian Archon / EST Centurion
 Purge time: 11 min

Column Type: DB-VRX
 Column Length: 60 Meters
 df: 1.40 um
 ID: 0.25 mm
 Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

Column Type: Haysep S Column
 Column Length: 2 Meters packed
 (100/200 mesh)

Autosampler: LEAP Headspace

Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200
 Autosampler: Entech 7016CA or 7016D

Column Type: Restek RTX-1
 Column Length: 60 Meters
 df: 1.00 um
 ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material

Trap 2: Tenax: manufacturer-Entech: 20 cm packing material



Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

| | |
|--------------------------------|--|
| Instrument: Agilent 5973N MSD | Injection volume: 1 μ L; 2 μ L LVI |
| Column Type: Restek RXI-5SILMS | df: 0.32 μ m |
| Column Length: 30 Meters | ID: 0.25 mm |

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

| | |
|--------------------------------|--|
| Instrument: Agilent 5973 MSD | Injection volume: 1 μ L; 2 μ L LVI |
| Column Type: Restek RXI-5SILMS | df: 0.25 μ m |
| Column Length: 30 Meters | ID: 0.25 mm |

Pesticides/PCB/Herbicides:

| | |
|--|-----------------------------|
| Instrument: Agilent 6890 w/Dual Micro ECDs | Injection Volume: 1 μ L |
| Column A: Restek RTX-CL/STX-CL | df: 0.32 |
| Column B: Restek RTX/STX-CLP Pesticide II | df: 0.25 |
| Column Length: 30 Meters | ID: 0.32 mm |

Petroleum/EPH:

| | |
|---|-----------------------------|
| Instrument: Agilent 6890 w/FID / HP 5890 w/ FID | Injection Volume: 1 μ L |
| Column: Restek RTX 5 | df: 0.25 |
| Column Length: 30 Meters | |
| ID: 0.32 mm | |



Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

| | |
|--------------------------------------|------------------------|
| Instrument: Agilent 5973N / 5975 MSD | Injection volume: 1 ul |
| Column Type: ZB-5 | df: 0.25 um |
| Column Length: 60 Meters | ID: 0.25 mm |

Semivolatile Organics (8270):

| | |
|--------------------------------------|------------------------|
| Instrument: Agilent 5973N / 5975 MSD | Injection volume: 2 ul |
| Column Type: ZB-Semivolatiles | df: 0.25 um |
| Column Length: 30 Meters | ID: 0.25 mm |

Semivolatile Organics (8270 SIM):

| | |
|--------------------------------------|------------------------|
| Instrument: Agilent 5973N / 5975 MSD | Injection volume: 3 ul |
| Column Type: ZB-5 | df: 0.25 um |
| Column Length: 30 Meters | ID: 0.25 mm |

Semivolatile Organics (1,4-Dioxane):

| | |
|---|------------------------|
| Instrument: Agilent 5973N / 5975 / 5977 MSD | Injection volume: 3 ul |
| Column Type: RTX-5 | df: 0.25um, 0.18 um |
| Column Length: 30 Meters | ID: 0.25um, 0.18 mm |

Semivolatile Organics (209 Congener):

| | |
|--------------------------------------|------------------------|
| Instrument: Agilent 5973N / 5975 MSD | Injection volume: 3 ul |
| Column Type: RTX-5, RTX-PCB | df: 0.25um, 0.18 um |
| Column Length: 60 Meters | ID: 0.25um, 0.18 mm |

Semivolatile Organics (8081):

| | |
|---------------------------------|------------------------|
| Instrument: Agilent 6890 / 7890 | Injection volume: 1 ul |
| Column Type: RTX-5 / RTX-CLP II | df: 0.25 um |
| Column Length: 60 Meters | ID: 0.25 mm |

Semivolatile Organics (8082):

| | |
|--|-----------------------|
| Instrument: Agilent 6890 w/Dual Micro ECDs | Injection Volume: 1uL |
| Column A: Restek RTX-CL/STX-CL | df: 0.32 |
| Column B: Restek RTX/STX-CLPPesticide II | df: 0.25 |
| Column Length: 30 Meters | ID: 0.32 mm |

Semivolatile Organics (SHC Extractables):

| | |
|--------------------------|------------------------|
| Instrument: Agilent 6890 | Injection volume: 1 ul |
| Column Type: RTX-5 | df: 0.25 um |
| Column Length: 60 Meters | ID: 0.25 mm |



Sample Delivery Group Summary

Alpha Job Number : L1962003

Received : 30-DEC-2019

Reviewer : Kelly ONeill

Account Name : Langan Engineering & Environmental

Project Number : 170312501

Project Name : 295 LOCUST AVE.

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

| Cooler | Seal/Seal# | Preservation | Temperature(°C) | Additional Information |
|--------|------------|--------------|-----------------|------------------------|
| N/A | Absent/ | | | |

Condition Information

| | |
|--|-----|
| 1) All samples on COC received? | YES |
| 2) Extra samples received? | NO |
| 3) Are there any sample container discrepancies? | NO |
| 4) Are there any discrepancies between sample labels & COC? | NO |
| 5) Are samples in appropriate containers for requested analysis? | YES |
| 6) Are samples properly preserved for requested analysis? | YES |
| 7) Are samples within holding time for requested analysis? | YES |
| 8) All sampling equipment returned? | YES |

Volatile Organics/VPH

| | |
|--|----|
| 1) Reagent Water Vials Frozen by Client? | NA |
|--|----|

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jan 07 2020, 04:49 pm

Login Number: L1962003

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170312501

Received: 30DEC19 Due Date: 07JAN20

| Sample # | Client ID | Mat PR Collected |
|--|----------------|---------------------|
| L1962003-01 | AA-01_123019 | 10 S0 30DEC19 13:24 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. TO15 SIM for 7 NYS DMCs ASP-B Package Due Date: 01/07/20 | | |
| ASP-B,CAN-RENT,FLOW-RENT,TO15-LL,TO15-SIM | | |
| L1962003-02 | DUP-01_123019 | 10 S0 30DEC19 00:00 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT,FLOW-RENT,TO15-LL,TO15-SIM | | |
| L1962003-03 | IA-02_123019 | 10 S0 30DEC19 13:20 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT,FLOW-RENT,TO15-LL,TO15-SIM | | |
| L1962003-04 | SVMF-02_123019 | 11 S0 30DEC19 13:20 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT,FLOW-RENT,TO15-LL | | |
| L1962003-05 | IA-04A_123019 | 10 S0 30DEC19 15:33 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT,FLOW-RENT,TO15-LL,TO15-SIM | | |

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jan 07 2020, 04:49 pm

Login Number: L1962003

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170312501

Received: 30DEC19 Due Date: 07JAN20

| Sample # | Client ID | Mat PR Collected |
|--|-----------------|---------------------|
| L1962003-06 | SVMF-04A_123019 | 11 S0 30DEC19 15:00 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT, FLOW-RENT, TO15-LL | | |
| L1962003-07 | IA-07_123019 | 10 S0 30DEC19 13:12 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT, FLOW-RENT, TO15-LL, TO15-SIM | | |
| L1962003-08 | SVMF-07_123019 | 11 S0 30DEC19 13:08 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT, FLOW-RENT, TO15-LL | | |
| L1962003-09 | IA-08_123019 | 10 S0 30DEC19 13:10 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT, FLOW-RENT, TO15-LL, TO15-SIM | | |
| L1962003-10 | SVMF-08_123019 | 11 S0 30DEC19 13:13 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |
| CAN-RENT, FLOW-RENT, TO15-LL | | |
| L1962003-11 | UNUSED CAN 2627 | 10 S0 |
| two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20 | | |

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jan 07 2020, 04:49 pm

Login Number: L1962003

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170312501

Received: 30DEC19 Due Date: 07JAN20

| Sample # | Client ID | Mat PR Collected |
|----------|-----------|------------------|
|----------|-----------|------------------|

CAN-RENT,CLEAN-FEE,FLOW-RENT

L1962003-12 UNUSED CAN 2710

10 S0

two extra set ups ordered by client, fees for these waived by Kevin Hoogerhyde. Third set failed in field, client not charged for that set in original invoice. Package Due Date: 01/07/20

CAN-RENT,CLEAN-FEE,FLOW-RENT



AIR ANALYSIS

CHAIN OF CUSTODY

PAGE 1 OF 1

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: **LANGAN, DPC**
Address:
Phone:
Fax: **JDonelan@LANGAN.COM**
Email: **ESNEAD@LANGAN.COM**

Project Information

Project Name: **295 Locust Avenue**
Project Location: **Bronx, NY**
Project #: **170312501**
Project Manager: **Emily Sneed**
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Date Rec'd in Lab: **12/31/19**

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: **CAT B**
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

ALPHA Job #: **L1962003**

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

| ALPHA Lab ID (Lab Use Only) | Sample ID | COLLECTION | | | | | | Sample Matrix* | Sampler's Initials | Can Size | ID Can | ID - Flow Controller | TO-15 | TO-15 SIM | APH | Fixed Gases | Subsides & Mercaptans by TO-15 | Sample Comments (i.e. PID) |
|--------------------------------|-----------------|------------|------------|----------|----------------|--------------|-----------|----------------|--------------------|----------|--------|----------------------|-------|-----------|-----|-------------|--------------------------------|----------------------------|
| | | End Date | Start Time | End Time | Initial Vacuum | Final Vacuum | | | | | | | | | | | | |
| 62003-01 | AA01-123019 | 12/30/19 | 11:33 | 13:24 | -29.31 | -4.25 | AA Indoor | JD | 6L | 2117 | 0068 | ✓ | | | | | | |
| -02 | DUP-01-123019 | 12/30/19 | — | — | -30.49 | -4.48 | — | | | 2639 | 0929 | ✓ | | | | | | DUPLICATE |
| -03 | IA-02-123019 | 12/30/19 | 11:24 | 13:20 | -29.74 | -5.11 | AA Indoor | | | 1592 | 0559 | ✓ | | | | | | |
| -04 | SVMF-02-123019 | 12/30/19 | 11:23 | 13:20 | -30.26 | -5.30 | SV | | | 1547 | 0938 | ✓ | | | | | | |
| -05 | IA-04A-123019 | 12/30/19 | 13:37 | 15:33 | -30.08 | -5.01 | AA Indoor | | | 1623 | 0101 | ✓ | | | | | | |
| -06 | SVMF-04A-123019 | 12/30/19 | 13:36 | 15:00 | -30.08 | -4.95 | SV | | | 2282 | 0954 | ✓ | | | | | | |
| -07 | IA-07-123019 | 12/30/19 | 11:14 | 13:12 | -29.73 | -5.67 | AA Indoor | | | 2640 | 0150 | ✓ | | | | | | |
| -08 | SVMF-07-123019 | 12/30/19 | 11:15 | 13:08 | -29.43 | -5.09 | SV | | | 1830 | 0100 | ✓ | | | | | | |
| -09 | IA-08-123019 | 12/30/19 | 11:22 | 13:10 | -30.15 | -5.04 | AA Indoor | | | 1659 | 0404 | ✓ | | | | | | |
| -10 | SVMF-08-123019 | 12/30/19 | 11:21 | 13:13 | -29.82 | -5.07 | SV | | | 1692 | 0341 | ✓ | | | | | | |

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:

Date/Time

Received By:

Date/Time

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

Supporting Documentation

Project Name: 295 LOCUST AVE.

Lab Number: L1962003

Project Number: 170312501

Report Date: 01/07/20

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 Controller Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|-------------|-----------------|----------|------------|---------------|--------------|-------------------|----------------|---------------------------|------------------------------|--------------------------|-----------------|----------------|-------|
| L1962003-01 | AA-01_123019 | 0068 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 44.9 | 12 |
| L1962003-01 | AA-01_123019 | 2117 | 6.0L Can | 12/30/19 | 310747 | L1960798-10 | Pass | -28.7 | -3.5 | - | - | - | - |
| L1962003-02 | DUP-01_123019 | 0929 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 49.9 | 22 |
| L1962003-02 | DUP-01_123019 | 2639 | 6.0L Can | 12/30/19 | 310747 | L1960798-09 | Pass | -28.7 | -3.2 | - | - | - | - |
| L1962003-03 | IA-02_123019 | 0559 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 46.1 | 14 |
| L1962003-03 | IA-02_123019 | 1592 | 6.0L Can | 12/30/19 | 310747 | L1960798-10 | Pass | -28.6 | -4.5 | - | - | - | - |
| L1962003-04 | SVMF-02_123019 | 0938 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 43.6 | 9 |
| L1962003-04 | SVMF-02_123019 | 1547 | 6.0L Can | 12/30/19 | 310747 | L1960798-09 | Pass | -28.3 | -4.5 | - | - | - | - |
| L1962003-05 | IA-04A_123019 | 01011 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 45.9 | 14 |
| L1962003-05 | IA-04A_123019 | 1623 | 6.0L Can | 12/30/19 | 310747 | L1960798-10 | Pass | -28.3 | -4.2 | - | - | - | - |
| L1962003-06 | SVMF-04A_123019 | 0954 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 44.1 | 10 |
| L1962003-06 | SVMF-04A_123019 | 2282 | 6.0L Can | 12/30/19 | 310747 | L1960798-09 | Pass | -29.1 | -4.1 | - | - | - | - |
| L1962003-07 | IA-07_123019 | 01509 | Flow 4 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 45.4 | 13 |
| L1962003-07 | IA-07_123019 | 2640 | 6.0L Can | 12/30/19 | 310747 | L1960798-10 | Pass | -28.7 | -5.5 | - | - | - | - |
| L1962003-08 | SVMF-07_123019 | 01007 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 46.2 | 14 |

Project Name: 295 LOCUST AVE.

Lab Number: L1962003

Project Number: 170312501

Report Date: 01/07/20

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 Controller Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|-------------|-----------------|----------|------------|---------------|--------------|-------------------|----------------|---------------------------|------------------------------|--------------------------|-----------------|----------------|-------|
| L1962003-08 | SVMF-07_123019 | 1830 | 6.0L Can | 12/30/19 | 310747 | L1960798-09 | Pass | -28.3 | -5.5 | - | - | - | - |
| L1962003-09 | IA-08_123019 | 0404 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 46.4 | 15 |
| L1962003-09 | IA-08_123019 | 1659 | 6.0L Can | 12/30/19 | 310747 | L1960798-09 | Pass | -28.8 | -3.9 | - | - | - | - |
| L1962003-10 | SVMF-08_123019 | 0341 | Flow 5 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 46.2 | 14 |
| L1962003-10 | SVMF-08_123019 | 1697 | 6.0L Can | 12/30/19 | 310747 | L1960798-09 | Pass | -28.8 | -4.3 | - | - | - | - |
| L1962003-11 | UNUSED CAN 2627 | 01443 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 72.0 | 57 |
| L1962003-11 | UNUSED CAN 2627 | 2627 | 6.0L Can | 12/30/19 | 310747 | L1960798-09 | Pass | -28.6 | -3.7 | - | - | - | - |
| L1962003-12 | UNUSED CAN 2710 | 0979 | Flow 2 | 12/30/19 | 310747 | | - | - | - | Pass | 40.0 | 47.3 | 17 |
| L1962003-12 | UNUSED CAN 2710 | 2710 | 6.0L Can | 12/30/19 | 310747 | L1960798-10 | Pass | -28.7 | 0.0 | - | - | - | - |

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-09
 Client ID: CAN 1570 SHELF 52
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 12/19/19 22:31
 Analyst: TS

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|--------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.500 | -- | ND | 0.902 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Methanol | ND | 5.00 | -- | ND | 6.55 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethanol | ND | 5.00 | -- | ND | 9.42 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-09
 Client ID: CAN 1570 SHELF 52
 Sample Location:

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|----------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 1.00 | -- | ND | 3.52 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| Xylenes, total | ND | 0.600 | -- | ND | 0.869 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Diisopropyl ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| tert-Butyl Ethyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,2-Dichloroethene (total) | ND | 1.00 | -- | ND | 1.00 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| tert-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-09
 Client ID: CAN 1570 SHELF 52
 Sample Location:

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-09
 Client ID: CAN 1570 SHELF 52
 Sample Location:

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|-----------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 2-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

| Results | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds | | | | |

No Tentatively Identified Compounds



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

| | | | |
|------------------|-------------------|-----------------|----------------|
| Lab ID: | L1960798-09 | Date Collected: | 12/19/19 09:00 |
| Client ID: | CAN 1570 SHELF 52 | Date Received: | 12/19/19 |
| Sample Location: | | Field Prep: | Not Specified |

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|--------------------------|------|-----|---------|-------|-----|--|-----------|-----------------|
| Results | RL | MDL | Results | RL | MDL | | | |
| Volatile Organics in Air | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 96 | | 60-140 |
| Bromochloromethane | 98 | | 60-140 |
| chlorobenzene-d5 | 94 | | 60-140 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-09
 Client ID: CAN 1570 SHELF 52
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 12/19/19 22:31
 Analyst: TS

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air by SIM | | | | | | | | |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Chloroethane | ND | 0.100 | -- | ND | 0.264 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Benzene | ND | 0.100 | -- | ND | 0.319 | -- | | 1 |
| Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-09
 Client ID: CAN 1570 SHELF 52
 Sample Location:

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air by SIM | | | | | | | | |
| 1,4-Dioxane | ND | 0.100 | -- | ND | 0.360 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Toluene | ND | 0.050 | -- | ND | 0.188 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| Chlorobenzene | ND | 0.100 | -- | ND | 0.461 | -- | | 1 |
| Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-09 Date Collected: 12/19/19 09:00
 Client ID: CAN 1570 SHELF 52 Date Received: 12/19/19
 Sample Location: Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air by SIM | | | | | | | | |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 95 | | 60-140 |
| bromochloromethane | 98 | | 60-140 |
| chlorobenzene-d5 | 93 | | 60-140 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10
Client ID: CAN 1882 SHELF 53
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 12/19/19 23:11
Analyst: TS

Date Collected: 12/19/19 09:00
Date Received: 12/19/19
Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|--------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.500 | -- | ND | 0.902 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Methanol | ND | 5.00 | -- | ND | 6.55 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethanol | ND | 5.00 | -- | ND | 9.42 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10 Date Collected: 12/19/19 09:00
 Client ID: CAN 1882 SHELF 53 Date Received: 12/19/19
 Sample Location: Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|----------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 1.00 | -- | ND | 3.52 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| Xylenes, total | ND | 0.600 | -- | ND | 0.869 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Diisopropyl ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| tert-Butyl Ethyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,2-Dichloroethene (total) | ND | 1.00 | -- | ND | 1.00 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| tert-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10
 Client ID: CAN 1882 SHELF 53
 Sample Location:

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10
 Client ID: CAN 1882 SHELF 53
 Sample Location:

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|-----------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 2-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

| Results | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds | | | | |

No Tentatively Identified Compounds



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10 Date Collected: 12/19/19 09:00
 Client ID: CAN 1882 SHELF 53 Date Received: 12/19/19
 Sample Location: Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|--------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 95 | | 60-140 |
| Bromochloromethane | 97 | | 60-140 |
| chlorobenzene-d5 | 93 | | 60-140 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10
 Client ID: CAN 1882 SHELF 53
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 12/19/19 23:11
 Analyst: TS

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air by SIM | | | | | | | | |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Chloroethane | ND | 0.100 | -- | ND | 0.264 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Benzene | ND | 0.100 | -- | ND | 0.319 | -- | | 1 |
| Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10
 Client ID: CAN 1882 SHELF 53
 Sample Location:

Date Collected: 12/19/19 09:00
 Date Received: 12/19/19
 Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air by SIM | | | | | | | | |
| 1,4-Dioxane | ND | 0.100 | -- | ND | 0.360 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Toluene | ND | 0.050 | -- | ND | 0.188 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| Chlorobenzene | ND | 0.100 | -- | ND | 0.461 | -- | | 1 |
| Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1960798
Report Date: 01/07/20

Air Canister Certification Results

Lab ID: L1960798-10 Date Collected: 12/19/19 09:00
 Client ID: CAN 1882 SHELF 53 Date Received: 12/19/19
 Sample Location: Field Prep: Not Specified

| Parameter | ppbV | | | ug/m3 | | | Qualifier | Dilution Factor |
|---------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
| | Results | RL | MDL | Results | RL | MDL | | |
| Volatile Organics in Air by SIM | | | | | | | | |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 94 | | 60-140 |
| bromochloromethane | 97 | | 60-140 |
| chlorobenzene-d5 | 92 | | 60-140 |



Organics

Volatile Organics in Air TO-15 Low Level

Volatiles QC Summary

Lab Duplicate Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Client Sample ID : IA-02_123019
Lab Sample ID : L1962003-03
Lab File ID : R1614696
Dup Sample ID : WG1327071-5

Lab Number : L1962003
Project Number : 170312501
Matrix : AIR
Analysis Date : 01/04/20 19:52
DUP File ID : r1614697
DUP Analysis Date : 01/04/20 20:32

| Parameter | Sample Concentration (ppbV) | Duplicate Concentration (ppbV) | RPD | RPD Limit |
|--------------------------|-----------------------------------|--------------------------------------|-----|--------------|
| Dichlorodifluoromethane | 0.397 | 0.396 | 0 | 25 |
| Chloromethane | 0.463 | 0.474 | 2 | 25 |
| Freon-114 | ND | ND | NC | 25 |
| 1,3-Butadiene | ND | ND | NC | 25 |
| Bromomethane | ND | ND | NC | 25 |
| Chloroethane | ND | ND | NC | 25 |
| Ethanol | 16.6 | 15.1 | 9 | 25 |
| Vinyl bromide | ND | ND | NC | 25 |
| Acetone | 2.08 | 1.88 | 10 | 25 |
| Trichlorofluoromethane | ND | ND | NC | 25 |
| Isopropanol | 0.527 | 0.542 | 3 | 25 |
| Tertiary butyl Alcohol | ND | ND | NC | 25 |
| Methylene chloride | ND | ND | NC | 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 | ND | ND | NC | 25 |
| Ethyl Acetate | ND | ND | NC | 25 |
| Chloroform | ND | ND | NC | 25 |
| Tetrahydrofuran | ND | ND | NC | 25 |
| 1,2-Dichloroethane | ND | ND | NC | 25 |
| n-Hexane | 0.535 | 0.546 | 2 | 25 |

Lab Duplicate Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Client Sample ID : IA-02_123019
Lab Sample ID : L1962003-03
Lab File ID : R1614696
Dup Sample ID : WG1327071-5

Lab Number : L1962003
Project Number : 170312501
Matrix : AIR
Analysis Date : 01/04/20 19:52
DUP File ID : r1614697
DUP Analysis Date : 01/04/20 20:32

| Parameter | Sample Concentration (ppbV) | Duplicate Concentration (ppbV) | RPD | RPD Limit |
|---------------------------|-----------------------------------|--------------------------------------|-----|--------------|
| Benzene | 0.279 | 0.283 | 1 | 25 |
| Cyclohexane | 0.434 | 0.427 | 2 | 25 |
| 1,2-Dichloropropane | ND | ND | NC | 25 |
| Bromodichloromethane | ND | ND | NC | 25 |
| 1,4-Dioxane | ND | ND | NC | 25 |
| 2,2,4-Trimethylpentane | ND | ND | NC | 25 |
| Heptane | 0.558 | 0.555 | 1 | 25 |
| cis-1,3-Dichloropropene | ND | ND | NC | 25 |
| 4-Methyl-2-pentanone | ND | ND | NC | 25 |
| trans-1,3-Dichloropropene | ND | ND | NC | 25 |
| 1,1,2-Trichloroethane | ND | ND | NC | 25 |
| Toluene | 1.03 | 1.06 | 3 | 25 |
| 2-Hexanone | ND | ND | NC | 25 |
| Dibromochloromethane | ND | ND | NC | 25 |
| 1,2-Dibromoethane | ND | ND | NC | 25 |
| Chlorobenzene | ND | ND | NC | 25 |
| Ethylbenzene | 0.239 | 0.250 | 4 | 25 |
| p/m-Xylene | 0.568 | 0.572 | 1 | 25 |
| Bromoform | ND | ND | NC | 25 |
| Styrene | ND | ND | NC | 25 |
| 1,1,2,2-Tetrachloroethane | ND | ND | NC | 25 |
| o-Xylene | 0.229 | 0.225 | 2 | 25 |
| 4-Ethyltoluene | ND | ND | NC | 25 |
| 1,3,5-Trimethylbenzene | ND | ND | NC | 25 |
| 1,2,4-Trimethylbenzene | ND | ND | NC | 25 |

Lab Duplicate Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Client Sample ID : IA-02_123019
 Lab Sample ID : L1962003-03
 Lab File ID : R1614696
 Dup Sample ID : WG1327071-5

Lab Number : L1962003
 Project Number : 170312501
 Matrix : AIR
 Analysis Date : 01/04/20 19:52
 DUP File ID : r1614697
 DUP Analysis Date : 01/04/20 20:32

| Parameter | Sample Concentration (ppbV) | Duplicate Concentration (ppbV) | RPD | RPD Limit |
|------------------------|-----------------------------------|--------------------------------------|-----|--------------|
| Benzyl chloride | 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 |

Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1962003
 Project Name : 295 LOCUST AVE. Project Number : 170312501
 Matrix : AIR
 LCS Sample ID : WG1327071-3 Analysis Date : 01/04/20 12:17 File ID : r1614690
 LCSD Sample ID : Analysis Date : File ID :

| Parameter | Laboratory Control Sample | | | Laboratory Control Duplicate | | | RPD | Recovery Limits | RPD Limit |
|--------------------------|---------------------------|--------------|-----|------------------------------|--------------|----|-----|-----------------|-----------|
| | True (ppbV) | Found (ppbV) | %R | True (ppbV) | Found (ppbV) | %R | | | |
| Dichlorodifluoromethane | 10 | 8.04 | 80 | | | | - | 70-130 | - |
| Chloromethane | 10 | 8.67 | 87 | | | | - | 70-130 | - |
| Freon-114 | 10 | 8.83 | 88 | | | | - | 70-130 | - |
| Vinyl chloride | 10 | 8.76 | 88 | | | | - | 70-130 | - |
| 1,3-Butadiene | 10 | 8.25 | 82 | | | | - | 70-130 | - |
| Bromomethane | 10 | 8.52 | 85 | | | | - | 70-130 | - |
| Chloroethane | 10 | 8.29 | 83 | | | | - | 70-130 | - |
| Ethanol | 50 | 39.5 | 79 | | | | - | 40-160 | - |
| Vinyl bromide | 10 | 8.08 | 81 | | | | - | 70-130 | - |
| Acetone | 50 | 36.0 | 72 | | | | - | 40-160 | - |
| Trichlorofluoromethane | 10 | 7.73 | 77 | | | | - | 70-130 | - |
| Isopropanol | 25 | 19.2 | 77 | | | | - | 40-160 | - |
| 1,1-Dichloroethene | 10 | 9.00 | 90 | | | | - | 70-130 | - |
| Tertiary butyl Alcohol | 10 | 8.18 | 82 | | | | - | 70-130 | - |
| Methylene chloride | 10 | 9.63 | 96 | | | | - | 70-130 | - |
| 3-Chloropropene | 10 | 9.79 | 98 | | | | - | 70-130 | - |
| Carbon disulfide | 10 | 9.48 | 95 | | | | - | 70-130 | - |
| Freon-113 | 10 | 9.94 | 99 | | | | - | 70-130 | - |
| trans-1,2-Dichloroethene | 10 | 8.92 | 89 | | | | - | 70-130 | - |
| 1,1-Dichloroethane | 10 | 9.25 | 92 | | | | - | 70-130 | - |
| Methyl tert butyl ether | 10 | 8.79 | 88 | | | | - | 70-130 | - |
| 2-Butanone | 10 | 9.72 | 97 | | | | - | 70-130 | - |
| cis-1,2-Dichloroethene | 10 | 9.42 | 94 | | | | - | 70-130 | - |
| Ethyl Acetate | 10 | 10.2 | 102 | | | | - | 70-130 | - |
| Chloroform | 10 | 9.30 | 93 | | | | - | 70-130 | - |
| Tetrahydrofuran | 10 | 9.57 | 96 | | | | - | 70-130 | - |



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1962003
 Project Name : 295 LOCUST AVE. Project Number : 170312501
 Matrix : AIR
 LCS Sample ID : WG1327071-3 Analysis Date : 01/04/20 12:17 File ID : r1614690
 LCSD Sample ID : Analysis Date : File ID :

| Parameter | Laboratory Control Sample | | | Laboratory Control Duplicate | | | RPD | Recovery Limits | RPD Limit |
|---------------------------|---------------------------|--------------|-------|------------------------------|--------------|----|-----|-----------------|-----------|
| | True (ppbV) | Found (ppbV) | %R | True (ppbV) | Found (ppbV) | %R | | | |
| 1,2-Dichloroethane | 10 | 8.10 | 81 | | | | - | 70-130 | - |
| n-Hexane | 10 | 9.29 | 93 | | | | - | 70-130 | - |
| 1,1,1-Trichloroethane | 10 | 8.66 | 87 | | | | - | 70-130 | - |
| Benzene | 10 | 9.42 | 94 | | | | - | 70-130 | - |
| Carbon tetrachloride | 10 | 9.03 | 90 | | | | - | 70-130 | - |
| Cyclohexane | 10 | 9.53 | 95 | | | | - | 70-130 | - |
| 1,2-Dichloropropane | 10 | 9.80 | 98 | | | | - | 70-130 | - |
| Bromodichloromethane | 10 | 9.48 | 95 | | | | - | 70-130 | - |
| 1,4-Dioxane | 10 | 9.99 | 100 | | | | - | 70-130 | - |
| Trichloroethene | 10 | 9.72 | 97 | | | | - | 70-130 | - |
| 2,2,4-Trimethylpentane | 10 | 9.43 | 94 | | | | - | 70-130 | - |
| Heptane | 10 | 9.78 | 98 | | | | - | 70-130 | - |
| cis-1,3-Dichloropropene | 10 | 9.91 | 99 | | | | - | 70-130 | - |
| 4-Methyl-2-pentanone | 10 | 10.0 | 100 | | | | - | 70-130 | - |
| trans-1,3-Dichloropropene | 10 | 8.05 | 80 | | | | - | 70-130 | - |
| 1,1,2-Trichloroethane | 10 | 10.3 | 103 | | | | - | 70-130 | - |
| Toluene | 10 | 11.0 | 110 | | | | - | 70-130 | - |
| 2-Hexanone | 10 | 11.4 | 114 | | | | - | 70-130 | - |
| Dibromochloromethane | 10 | 12.3 | 123 | | | | - | 70-130 | - |
| 1,2-Dibromoethane | 10 | 11.5 | 115 | | | | - | 70-130 | - |
| Tetrachloroethene | 10 | 13.0 | 130 | | | | - | 70-130 | - |
| Chlorobenzene | 10 | 11.3 | 113 | | | | - | 70-130 | - |
| Ethylbenzene | 10 | 11.4 | 114 | | | | - | 70-130 | - |
| p/m-Xylene | 20 | 22.4 | 112 | | | | - | 70-130 | - |
| Bromoform | 10 | 13.3 | 133 Q | | | | - | 70-130 | - |
| Styrene | 10 | 11.6 | 116 | | | | - | 70-130 | - |

Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1962003
 Project Name : 295 LOCUST AVE. Project Number : 170312501
 Matrix : AIR
 LCS Sample ID : WG1327071-3 Analysis Date : 01/04/20 12:17 File ID : r1614690
 LCSD Sample ID : Analysis Date : File ID :

| Parameter | Laboratory Control Sample | | | Laboratory Control Duplicate | | | RPD | Recovery Limits | RPD Limit |
|---------------------------|---------------------------|--------------|-------|------------------------------|--------------|----|-----|-----------------|-----------|
| | True (ppbV) | Found (ppbV) | %R | True (ppbV) | Found (ppbV) | %R | | | |
| 1,1,2,2-Tetrachloroethane | 10 | 12.5 | 125 | | | | - | 70-130 | - |
| o-Xylene | 10 | 11.5 | 115 | | | | - | 70-130 | - |
| 4-Ethyltoluene | 10 | 12.0 | 120 | | | | - | 70-130 | - |
| 1,3,5-Trimethylbenzene | 10 | 11.8 | 118 | | | | - | 70-130 | - |
| 1,2,4-Trimethylbenzene | 10 | 12.2 | 122 | | | | - | 70-130 | - |
| Benzyl chloride | 10 | 11.9 | 119 | | | | - | 70-130 | - |
| 1,3-Dichlorobenzene | 10 | 12.4 | 124 | | | | - | 70-130 | - |
| 1,4-Dichlorobenzene | 10 | 12.4 | 124 | | | | - | 70-130 | - |
| 1,2-Dichlorobenzene | 10 | 12.5 | 125 | | | | - | 70-130 | - |
| 1,2,4-Trichlorobenzene | 10 | 14.0 | 140 Q | | | | - | 70-130 | - |
| Hexachlorobutadiene | 10 | 12.6 | 126 | | | | - | 70-130 | - |

Method Blank Summary
Form 4
Air Volatiles

| | | | |
|---------------|--------------------------------------|----------------|------------------|
| Client | : Langan Engineering & Environmental | Lab Number | : L1962003 |
| Project Name | : 295 LOCUST AVE. | Project Number | : 170312501 |
| Lab Sample ID | : WG1327071-4 | Lab File ID | : r1614692 |
| Instrument ID | : AIRLAB16 | | |
| Matrix | : AIR | Analysis Date | : 01/04/20 14:59 |

| Client Sample No. | Lab Sample ID | Analysis Date |
|-------------------|---------------|----------------|
| WG1327071-3LCS | WG1327071-3 | 01/04/20 12:17 |
| AA-01_123019 | L1962003-01 | 01/04/20 18:32 |
| DUP-01_123019 | L1962003-02 | 01/04/20 19:12 |
| IA-02_123019 | L1962003-03 | 01/04/20 19:52 |
| IA-02_123019DUP | WG1327071-5 | 01/04/20 20:32 |
| IA-04A_123019 | L1962003-05 | 01/04/20 21:12 |
| IA-07_123019 | L1962003-07 | 01/04/20 21:51 |
| IA-08_123019 | L1962003-09 | 01/04/20 22:31 |
| SVMF-02_123019 | L1962003-04 | 01/04/20 23:11 |
| SVMF-04A_123019 | L1962003-06 | 01/04/20 23:51 |
| SVMF-07_123019 | L1962003-08D | 01/05/20 00:30 |
| SVMF-08_123019 | L1962003-10 | 01/05/20 01:10 |

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

| | |
|---|--------------------------------|
| Client : Langan Engineering & Environmental | Lab Number : L1962003 |
| Project Name : 295 LOCUST AVE. | Project Number : 170312501 |
| Instrument ID : AIRLAB16 | Analysis Date : 11/19/19 17:34 |
| Tune Standard : WG1312049-1 | Tune File ID : r1613934_tune |

| m/e | Ion Abundance Criteria | %Relative Abundance |
|-----|------------------------------------|---------------------|
| 50 | 8.0 - 40.0% of mass 95 | 15 |
| 75 | 30.0 - 66.0% of mass 95 | 38 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.4 (.5)1 |
| 174 | 50.0 - 120.0% of mass 95 | 68.6 |
| 175 | 4.0 - 9.0% of mass 174 | 4.6 (6.7)1 |
| 176 | 93.0 - 101% of mass 174 | 65.4 (95.3)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.3 (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 ID | Lab Sample ID | File ID | Analysis Date/Time |
|------------------|---------------|----------|--------------------|
| STD0.2 | R1257310-1 | R1613938 | 11/19/19 20:14 |
| STD0.5 | R1257310-2 | R1613939 | 11/19/19 20:54 |
| STD1.0 | R1257310-3 | R1613940 | 11/19/19 21:36 |
| STD5.0 | R1257310-4 | R1613941 | 11/19/19 22:16 |
| STD010 | R1257310-5 | R1613942 | 11/19/19 22:58 |
| STD020 | R1257310-6 | R1613943 | 11/19/19 23:37 |
| STD050 | R1257310-7 | R1613944 | 11/20/19 00:17 |
| STD100 | R1257310-8 | R1613945 | 11/20/19 00:59 |
| ICV Quant | R1257310-9 | R1613948 | 11/20/19 09:17 |

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

| | |
|---|--------------------------------|
| Client : Langan Engineering & Environmental | Lab Number : L1962003 |
| Project Name : 295 LOCUST AVE. | Project Number : 170312501 |
| Instrument ID : AIRLAB16 | Analysis Date : 01/04/20 11:34 |
| Tune Standard : WG1327071-1 | Tune File ID : r1614689_tune |

| m/e | Ion Abundance Criteria | %Relative Abundance |
|-----|------------------------------------|---------------------|
| 50 | 8.0 - 40.0% of mass 95 | 14.2 |
| 75 | 30.0 - 66.0% of mass 95 | 35.2 |
| 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 | 0.3 (.5)1 |
| 174 | 50.0 - 120.0% of mass 95 | 70.6 |
| 175 | 4.0 - 9.0% of mass 174 | 4.9 (7)1 |
| 176 | 93.0 - 101% of mass 174 | 69.1 (98)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.4 (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 ID | Lab Sample ID | File ID | Analysis Date/Time |
|------------------|---------------|----------|--------------------|
| WG1327071-2CCAL | WG1327071-2 | R1614690 | 01/04/20 12:17 |
| WG1327071-3LCS | WG1327071-3 | R1614690 | 01/04/20 12:17 |
| WG1327071-4BLANK | WG1327071-4 | R1614692 | 01/04/20 14:59 |
| AA-01_123019 | L1962003-01 | R1614694 | 01/04/20 18:32 |
| DUP-01_123019 | L1962003-02 | R1614695 | 01/04/20 19:12 |
| IA-02_123019 | L1962003-03 | R1614696 | 01/04/20 19:52 |
| WG1327071-5DUP | WG1327071-5 | R1614697 | 01/04/20 20:32 |
| IA-04A_123019 | L1962003-05 | R1614698 | 01/04/20 21:12 |
| IA-07_123019 | L1962003-07 | R1614699 | 01/04/20 21:51 |
| IA-08_123019 | L1962003-09 | R1614700 | 01/04/20 22:31 |
| SVMF-02_123019 | L1962003-04 | R1614701 | 01/04/20 23:11 |
| SVMF-04A_123019 | L1962003-06 | R1614702 | 01/04/20 23:51 |
| SVMF-07_123019 | L1962003-08D | R1614703 | 01/05/20 00:30 |
| SVMF-08_123019 | L1962003-10 | R1614704 | 01/05/20 01:10 |

Internal Standard Area and RT Summary

Form 8a

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Instrument ID : AIRLAB16
 Sample No : WG1327071-2

Lab Number : L1962003
 Project Number : 170312501
 Analysis Date : 01/04/20 12:17
 Lab File ID : R1614690

| | Bromochloromethane | | 1,4-Difluorobenzene | | Chlorobenzene-d5 | |
|-------------------|--------------------|------|---------------------|-------|------------------|-------|
| | Area | RT | Area | RT | Area | RT |
| WG1327071-2 | 223987 | 9.54 | 600707 | 11.83 | 75409 | 16.53 |
| Upper Limit | 313582 | 9.87 | 840990 | 12.16 | 105573 | 16.86 |
| Lower Limit | 134392 | 9.21 | 360424 | 11.50 | 45245 | 16.20 |
| Sample ID | | | | | | |
| WG1327071-3 LCS | 223987 | 9.54 | 600707 | 11.83 | 75409 | 16.53 |
| WG1327071-4 BLANK | 218188 | 9.54 | 592776 | 11.83 | 73101 | 16.53 |
| AA-01_123019 | 214098 | 9.54 | 585972 | 11.83 | 74416 | 16.54 |
| DUP-01_123019 | 209346 | 9.54 | 574711 | 11.83 | 70875 | 16.54 |
| IA-02_123019 | 208137 | 9.54 | 570820 | 11.83 | 70592 | 16.54 |
| IA-02_123019 DUP | 207980 | 9.54 | 572856 | 11.83 | 69798 | 16.54 |
| IA-04A_123019 | 207872 | 9.55 | 573494 | 11.83 | 69908 | 16.54 |
| IA-07_123019 | 205060 | 9.55 | 568472 | 11.83 | 69604 | 16.54 |
| IA-08_123019 | 200959 | 9.55 | 563758 | 11.83 | 69634 | 16.54 |
| SVMF-02_123019 | 201316 | 9.56 | 567051 | 11.84 | 69521 | 16.54 |
| SVMF-04A_123019 | 203345 | 9.55 | 572102 | 11.84 | 69807 | 16.54 |
| SVMF-07_123019 | 206242 | 9.56 | 582017 | 11.84 | 71977 | 16.54 |
| SVMF-08_123019 | 201072 | 9.56 | 564240 | 11.84 | 69985 | 16.55 |

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





Date Created: 11/22/19
Created By: Jason Hebert
File: PM7756-1
Page: 1

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

| Analyte | CAS # | RL | MDL | Units | LCS Criteria | LCS RPD | MS Criteria | MS RPD | Duplicate RPD | Surrogate Criteria | | |
|----------------------------|------------|-----|--------|-------|--------------|---------|-------------|--------|---------------|--------------------|--|--|
| 1,1,1-Trichloroethane | 71-55-6 | 0.2 | 0.0501 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.2 | 0.0614 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,1,2-Trichloroethane | 79-00-5 | 0.2 | 0.067 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,1-Dichloroethane | 75-34-3 | 0.2 | 0.0628 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,1-Dichloroethene | 75-35-4 | 0.2 | 0.0643 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2,3-Trimethylbenzene | 526-73-8 | 0.2 | 0.0576 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.2 | 0.0674 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.2 | 0.0368 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2,4,5-Tetramethylbenzene | 95-93-2 | 0.2 | 0.0604 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dibromoethane | 106-93-4 | 0.2 | 0.0561 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dichlorobenzene | 95-50-1 | 0.2 | 0.0628 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dichloroethane | 107-06-2 | 0.2 | 0.0602 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dichloropropane | 78-87-5 | 0.2 | 0.061 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.2 | 0.0675 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,3-Butadiene | 106-99-0 | 0.2 | 0.067 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,3-Dichlorobenzene | 541-73-1 | 0.2 | 0.0627 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,4-Dichlorobenzene | 106-46-7 | 0.2 | 0.0636 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,4-Dioxane | 123-91-1 | 0.2 | 0.0805 | ppbV | 70-130 | | | 25 | 25 | | | |
| 2,2,4-Trimethylpentane | 540-84-1 | 0.2 | 0.0361 | ppbV | 70-130 | | | 25 | 25 | | | |
| 2-Butanone | 78-93-3 | 0.5 | 0.0482 | ppbV | 70-130 | | | 25 | 25 | | | |
| 2-Hexanone | 591-78-6 | 0.2 | 0.0648 | ppbV | 70-130 | | | 25 | 25 | | | |
| 2-Methylthiophene | 554-14-3 | 0.2 | 0.0524 | ppbV | 70-130 | | | 25 | 25 | | | |
| 3-Methylthiophene | 616-44-4 | 0.2 | 0.0393 | ppbV | 70-130 | | | 25 | 25 | | | |
| 3-Chloropropene | 107-05-1 | 0.2 | 0.0585 | ppbV | 70-130 | | | 25 | 25 | | | |
| 2-Ethylthiophene | 872-55-9 | 0.2 | 0.0407 | ppbV | 70-130 | | | 25 | 25 | | | |
| 4-Ethyltoluene | 622-96-8 | 0.2 | 0.037 | ppbV | 70-130 | | | 25 | 25 | | | |
| Acetone | 67-64-1 | 1 | 0.689 | ppbV | 40-160 | | | 25 | 25 | | | |
| Benzene | 71-43-2 | 0.2 | 0.0487 | ppbV | 70-130 | | | 25 | 25 | | | |
| Benzyl chloride | 100-44-7 | 0.2 | 0.0482 | ppbV | 70-130 | | | 25 | 25 | | | |
| Benzothiophene | 95-15-8 | 0.5 | 0.077 | ppbV | 70-130 | | | 25 | 25 | | | |
| Bromodichloromethane | 75-27-4 | 0.2 | 0.0504 | ppbV | 70-130 | | | 25 | 25 | | | |
| Bromoform | 75-25-2 | 0.2 | 0.0641 | ppbV | 70-130 | | | 25 | 25 | | | |
| Bromomethane | 74-83-9 | 0.2 | 0.0773 | ppbV | 70-130 | | | 25 | 25 | | | |
| Carbon disulfide | 75-15-0 | 0.2 | 0.0559 | ppbV | 70-130 | | | 25 | 25 | | | |
| Carbon tetrachloride | 56-23-5 | 0.2 | 0.0499 | ppbV | 70-130 | | | 25 | 25 | | | |
| Chlorobenzene | 108-90-7 | 0.2 | 0.0624 | ppbV | 70-130 | | | 25 | 25 | | | |
| Chloroethane | 75-00-3 | 0.2 | 0.0805 | ppbV | 70-130 | | | 25 | 25 | | | |
| Chloroform | 67-66-3 | 0.2 | 0.0633 | ppbV | 70-130 | | | 25 | 25 | | | |
| Chloromethane | 74-87-3 | 0.2 | 0.0689 | ppbV | 70-130 | | | 25 | 25 | | | |
| cis-1,2-Dichloroethene | 156-59-2 | 0.2 | 0.117 | ppbV | 70-130 | | | 25 | 25 | | | |
| cis-1,3-Dichloropropene | 10061-01-5 | 0.2 | 0.0409 | ppbV | 70-130 | | | 25 | 25 | | | |
| Cyclohexane | 110-82-7 | 0.2 | 0.0368 | ppbV | 70-130 | | | 25 | 25 | | | |

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
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Date Created: 11/22/19
Created By: Jason Hebert
File: PM7756-1
Page: 2

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

| Analyte | CAS # | RL | MDL | Units | LCS Criteria | LCS RPD | MS Criteria | MS RPD | Duplicate RPD | Surrogate Criteria | | |
|--|-------------|-----|--------|-------|--------------|---------|-------------|--------|---------------|--------------------|--|--|
| Dibromochloromethane | 124-48-1 | 0.2 | 0.0614 | ppbV | 70-130 | | | 25 | 25 | | | |
| Dichlorodifluoromethane | 75-71-8 | 0.2 | 0.0583 | ppbV | 70-130 | | | 25 | 25 | | | |
| Ethyl Alcohol | 64-17-5 | 5 | 0.733 | ppbV | 40-160 | | | 25 | 25 | | | |
| Ethyl Acetate | 141-78-6 | 0.5 | 0.122 | ppbV | 70-130 | | | 25 | 25 | | | |
| Ethylbenzene | 100-41-4 | 0.2 | 0.0432 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 76-13-1 | 0.2 | 0.0656 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | 76-14-2 | 0.2 | 0.0591 | ppbV | 70-130 | | | 25 | 25 | | | |
| Hexachlorobutadiene | 87-68-3 | 0.2 | 0.0529 | ppbV | 70-130 | | | 25 | 25 | | | |
| iso-Propyl Alcohol | 67-63-0 | 0.5 | 0.478 | ppbV | 40-160 | | | 25 | 25 | | | |
| Methylene chloride | 75-09-2 | 0.5 | 0.134 | ppbV | 70-130 | | | 25 | 25 | | | |
| 4-Methyl-2-pentanone | 108-10-1 | 0.5 | 0.0421 | ppbV | 70-130 | | | 25 | 25 | | | |
| Methyl tert butyl ether | 1634-04-4 | 0.2 | 0.0525 | ppbV | 70-130 | | | 25 | 25 | | | |
| Methyl Methacrylate | 80-62-6 | 0.5 | 0.0697 | ppbV | 40-160 | | | 25 | 25 | | | |
| p/m-Xylene | 179601-23-1 | 0.4 | 0.091 | ppbV | 70-130 | | | 25 | 25 | | | |
| o-Xylene | 95-47-6 | 0.2 | 0.0453 | ppbV | 70-130 | | | 25 | 25 | | | |
| Xylene (Total) | 1330-20-7 | 0.2 | 0.0453 | ppbV | 70-130 | | | 25 | 25 | | | |
| Heptane | 142-82-5 | 0.2 | 0.047 | ppbV | 70-130 | | | 25 | 25 | | | |
| n-Heptane | 142-82-5 | 0.2 | 0.047 | ppbV | 70-130 | | | 25 | 25 | | | |
| n-Hexane | 110-54-3 | 0.2 | 0.0364 | ppbV | 70-130 | | | 25 | 25 | | | |
| Propylene | 115-07-1 | 0.5 | 0.0599 | ppbV | 70-130 | | | 25 | 25 | | | |
| Styrene | 100-42-5 | 0.2 | 0.0434 | ppbV | 70-130 | | | 25 | 25 | | | |
| Tetrachloroethene | 127-18-4 | 0.2 | 0.0655 | ppbV | 70-130 | | | 25 | 25 | | | |
| Thiophene | 110-02-1 | 0.2 | 0.0389 | ppbV | 70-130 | | | 25 | 25 | | | |
| Tetrahydrofuran | 109-99-9 | 0.5 | 0.0568 | ppbV | 70-130 | | | 25 | 25 | | | |
| Toluene | 108-88-3 | 0.2 | 0.052 | ppbV | 70-130 | | | 25 | 25 | | | |
| trans-1,2-Dichloroethene | 156-60-5 | 0.2 | 0.0643 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dichloroethene (total) | 540-59-0 | 0.2 | 0.0643 | ppbV | 70-130 | | | 25 | 25 | | | |
| trans-1,3-Dichloropropene | 10061-02-6 | 0.2 | 0.0436 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,3-Dichloropropene, Total | 542-75-6 | 0.2 | 0.0409 | ppbV | 70-130 | | | 25 | 25 | | | |
| Trichloroethene | 79-01-6 | 0.2 | 0.0505 | ppbV | 70-130 | | | 25 | 25 | | | |
| Trichlorofluoromethane | 75-69-4 | 0.2 | 0.0686 | ppbV | 70-130 | | | 25 | 25 | | | |
| Vinyl acetate | 108-05-4 | 1 | 0.0479 | ppbV | 70-130 | | | 25 | 25 | | | |
| Vinyl bromide | 593-60-2 | 0.2 | 0.0717 | ppbV | 70-130 | | | 25 | 25 | | | |
| Vinyl chloride | 75-01-4 | 0.2 | 0.0627 | ppbV | 70-130 | | | 25 | 25 | | | |
| Naphthalene | 91-20-3 | 0.2 | 0.0885 | ppbV | 70-130 | | | 25 | 25 | | | |
| Total HC As Hexane | NONE | 10 | 0.0364 | ppbV | 70-130 | | | 25 | 25 | | | |
| Total VOCs As Toluene | NONE | 10 | 0.052 | ppbV | 70-130 | | | 25 | 25 | | | |
| Propane | 74-98-6 | 0.5 | 0.132 | ppbV | 70-130 | | | 25 | 25 | | | |
| Acrylonitrile | 107-13-1 | 0.5 | 0.0555 | ppbV | 70-130 | | | 25 | 25 | | | |
| Acrolein | 107-02-8 | 0.5 | 0.0596 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 0.2 | 0.0561 | ppbV | 70-130 | | | 25 | 25 | | | |
| Isopropylbenzene | 98-82-8 | 0.2 | 0.0491 | ppbV | 70-130 | | | 25 | 25 | | | |

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Date Created: 11/22/19
 Created By: Jason Hebert
 File: PM7756-1
 Page: 3

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
 Container/Sample Preservation: 1 - Canister - 2.7 Liter

| Analyte | CAS # | RL | MDL | Units | LCS Criteria | LCS RPD | MS Criteria | MS RPD | Duplicate RPD | Surrogate Criteria | | |
|-----------------------------|------------|-----|--------|-------|--------------|---------|-------------|--------|---------------|--------------------|--------|--|
| 1,2,3-Trichloropropane | 96-18-4 | 0.2 | 0.061 | ppbV | 70-130 | | | 25 | 25 | | | |
| Acetonitrile | 75-05-8 | 0.2 | 0.082 | ppbV | 70-130 | | | 25 | 25 | | | |
| Bromobenzene | 108-86-1 | 0.2 | 0.0613 | ppbV | 70-130 | | | 25 | 25 | | | |
| Chlorodifluoromethane | 75-45-6 | 0.2 | 0.0584 | ppbV | 70-130 | | | 25 | 25 | | | |
| Dichlorofluoromethane | 75-43-4 | 0.2 | 0.0807 | ppbV | 70-130 | | | 25 | 25 | | | |
| Dibromomethane | 74-95-3 | 0.2 | 0.0563 | ppbV | 70-130 | | | 25 | 25 | | | |
| Pentane | 109-66-0 | 0.2 | 0.0659 | ppbV | 70-130 | | | 25 | 25 | | | |
| Octane | 111-65-9 | 0.2 | 0.0445 | ppbV | 70-130 | | | 25 | 25 | | | |
| Tertiary-Amyl Methyl Ether | 994-05-8 | 0.2 | 0.0476 | ppbV | 70-130 | | | 25 | 25 | | | |
| o-Chlorotoluene | 95-49-8 | 0.2 | 0.0486 | ppbV | 70-130 | | | 25 | 25 | | | |
| p-Chlorotoluene | 106-43-4 | 0.2 | 0.056 | ppbV | 70-130 | | | 25 | 25 | | | |
| 2,2-Dichloropropane | 594-20-7 | 0.2 | 0.0458 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,1-Dichloropropene | 563-58-6 | 0.2 | 0.0457 | ppbV | 70-130 | | | 25 | 25 | | | |
| Isopropyl Ether | 108-20-3 | 0.2 | 0.0621 | ppbV | 70-130 | | | 25 | 25 | | | |
| Ethyl-Tert-Butyl-Ether | 637-92-3 | 0.2 | 0.0422 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2,3-Trichlorobenzene | 87-61-6 | 0.2 | 0.0715 | ppbV | 70-130 | | | 25 | 25 | | | |
| Ethyl ether | 60-29-7 | 0.2 | 0.0737 | ppbV | 70-130 | | | 25 | 25 | | | |
| n-Butylbenzene | 104-51-8 | 0.2 | 0.044 | ppbV | 70-130 | | | 25 | 25 | | | |
| sec-Butylbenzene | 135-98-8 | 0.2 | 0.0429 | ppbV | 70-130 | | | 25 | 25 | | | |
| tert-Butylbenzene | 98-06-6 | 0.2 | 0.042 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 0.2 | 0.0495 | ppbV | 70-130 | | | 25 | 25 | | | |
| p-Isopropyltoluene | 99-87-6 | 0.2 | 0.052 | ppbV | 70-130 | | | 25 | 25 | | | |
| n-Propylbenzene | 103-65-1 | 0.2 | 0.0419 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,3-Dichloropropane | 142-28-9 | 0.2 | 0.106 | ppbV | 70-130 | | | 25 | 25 | | | |
| Methanol | 67-56-1 | 5 | 1.84 | ppbV | 70-130 | | | 25 | 25 | | | |
| Acetaldehyde | 75-07-0 | 2.5 | 0.444 | ppbV | 70-130 | | | 25 | 25 | | | |
| Butane | 106-97-8 | 0.2 | 0.0646 | ppbV | 70-130 | | | 25 | 25 | | | |
| Nonane (C9) | 111-84-2 | 0.2 | 0.0463 | ppbV | 70-130 | | | 25 | 25 | | | |
| Decane (C10) | 124-18-5 | 0.2 | 0.0404 | ppbV | 70-130 | | | 25 | 25 | | | |
| Undecane | 1120-21-4 | 0.2 | 0.0427 | ppbV | 70-130 | | | 25 | 25 | | | |
| Indane | 496-11-7 | 0.2 | 0.0507 | ppbV | 70-130 | | | 25 | 25 | | | |
| Indene | 95-13-6 | 0.2 | 0.0433 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1-Methylnaphthalene | 90-12-0 | 1 | 0.466 | ppbV | 70-130 | | | 25 | 25 | | | |
| Dodecane (C12) | 112-40-3 | 0.2 | 0.0658 | ppbV | 70-130 | | | 25 | 25 | | | |
| Butyl Acetate | 123-86-4 | 0.5 | 0.126 | ppbV | 70-130 | | | 25 | 25 | | | |
| tert-Butyl Alcohol | 75-65-0 | 0.5 | 0.0466 | ppbV | 70-130 | | | 25 | 25 | | | |
| 2-Methylnaphthalene | 91-57-6 | 1 | 0.393 | ppbV | 70-130 | | | 25 | 25 | | | |
| 1,2-Dichloroethane-d4 | 17060-07-0 | | | | | | | | | | 70-130 | |
| Toluene-d8 | 2037-26-5 | | | | | | | | | | 70-130 | |
| Bromofluorobenzene | 460-00-4 | | | | | | | | | | 70-130 | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

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Volatiles Sample Data

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-01
 Client ID : AA-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614694
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:24
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 18:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.377 | 0.200 | -- | 1.86 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.461 | 0.200 | -- | 0.952 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | 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 | 15.6 | 5.00 | -- | 29.4 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 2.49 | 1.00 | -- | 5.91 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | 0.578 | 0.500 | -- | 1.42 | 1.23 | -- | |
| 75-65-0 | Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | U |
| 75-09-2 | Methylene chloride | 0.902 | 0.500 | -- | 3.13 | 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.696 | 0.200 | -- | 2.45 | 0.705 | -- | |
| 71-43-2 | Benzene | 0.282 | 0.200 | -- | 0.901 | 0.639 | -- | |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-01
 Client ID : AA-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614694
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:24
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 18:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 110-82-7 | Cyclohexane | 0.404 | 0.200 | -- | 1.39 | 0.688 | -- | |
| 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 |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.517 | 0.200 | -- | 2.12 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 0.910 | 0.200 | -- | 3.43 | 0.754 | -- | |
| 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 |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.211 | 0.200 | -- | 0.916 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 0.502 | 0.400 | -- | 2.18 | 1.74 | -- | |
| 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 |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-01
 Client ID : AA-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614694
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:24
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 18:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-02
 Client ID : DUP-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614695
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 00:00
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.375 | 0.200 | -- | 1.85 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.483 | 0.200 | -- | 0.997 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | 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 | 15.1 | 5.00 | -- | 28.5 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 2.07 | 1.00 | -- | 4.92 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | 0.590 | 0.500 | -- | 1.45 | 1.23 | -- | |
| 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.525 | 0.200 | -- | 1.85 | 0.705 | -- | |
| 71-43-2 | Benzene | 0.277 | 0.200 | -- | 0.885 | 0.639 | -- | |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-02
 Client ID : DUP-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614695
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 00:00
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 110-82-7 | Cyclohexane | 0.412 | 0.200 | -- | 1.42 | 0.688 | -- | |
| 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 |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.549 | 0.200 | -- | 2.25 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 0.948 | 0.200 | -- | 3.57 | 0.754 | -- | |
| 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 |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.213 | 0.200 | -- | 0.925 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 0.524 | 0.400 | -- | 2.28 | 1.74 | -- | |
| 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 | 0.210 | 0.200 | -- | 0.912 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-02
 Client ID : DUP-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614695
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 00:00
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-03
 Client ID : IA-02_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614696
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:52
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.397 | 0.200 | -- | 1.96 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.463 | 0.200 | -- | 0.956 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | 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 | 16.6 | 5.00 | -- | 31.3 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 2.08 | 1.00 | -- | 4.94 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | 0.527 | 0.500 | -- | 1.30 | 1.23 | -- | |
| 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.535 | 0.200 | -- | 1.89 | 0.705 | -- | |
| 71-43-2 | Benzene | 0.279 | 0.200 | -- | 0.891 | 0.639 | -- | |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-03
 Client ID : IA-02_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614696
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:52
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 110-82-7 | Cyclohexane | 0.434 | 0.200 | -- | 1.49 | 0.688 | -- | |
| 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 |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.558 | 0.200 | -- | 2.29 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 1.03 | 0.200 | -- | 3.88 | 0.754 | -- | |
| 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 |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.239 | 0.200 | -- | 1.04 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 0.568 | 0.400 | -- | 2.47 | 1.74 | -- | |
| 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 | 0.229 | 0.200 | -- | 0.995 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-03
 Client ID : IA-02_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614696
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:52
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-04
 Client ID : SVMF-02_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614701
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 23:11
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.389 | 0.200 | -- | 1.92 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.478 | 0.200 | -- | 0.987 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | 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 |
| 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 | 27.3 | 5.00 | -- | 51.4 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 9.00 | 1.00 | -- | 21.4 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | 0.713 | 0.500 | -- | 1.75 | 1.23 | -- | |
| 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 |
| 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 |
| 78-93-3 | 2-Butanone | 0.933 | 0.500 | -- | 2.75 | 1.47 | -- | |
| 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 | 0.767 | 0.500 | -- | 2.26 | 1.47 | -- | |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-04
 Client ID : SVMF-02_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614701
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 23:11
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.571 | 0.200 | -- | 2.01 | 0.705 | -- | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | U |
| 71-43-2 | Benzene | 0.289 | 0.200 | -- | 0.923 | 0.639 | -- | |
| 56-23-5 | Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | U |
| 110-82-7 | Cyclohexane | 0.434 | 0.200 | -- | 1.49 | 0.688 | -- | |
| 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 |
| 142-82-5 | Heptane | 0.590 | 0.200 | -- | 2.42 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | 0.588 | 0.500 | -- | 2.41 | 2.05 | -- | |
| 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 | 1.33 | 0.200 | -- | 5.01 | 0.754 | -- | |
| 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 |
| 127-18-4 | Tetrachloroethene | 1.59 | 0.200 | -- | 10.8 | 1.36 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.317 | 0.200 | -- | 1.38 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 0.860 | 0.400 | -- | 3.74 | 1.74 | -- | |
| 75-25-2 | Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | U |
| 100-42-5 | Styrene | ND | 0.200 | -- | ND | 0.852 | -- | U |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-04
 Client ID : SVMF-02_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614701
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 23:11
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | U |
| 95-47-6 | o-Xylene | 0.344 | 0.200 | -- | 1.49 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.309 | 0.200 | -- | 1.52 | 0.983 | -- | |
| 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 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-05
 Client ID : IA-04A_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614698
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 15:33
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.398 | 0.200 | -- | 1.97 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.471 | 0.200 | -- | 0.973 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | 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 | 8.00 | 5.00 | -- | 15.1 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 2.15 | 1.00 | -- | 5.11 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.663 | 0.200 | -- | 2.34 | 0.705 | -- | |
| 71-43-2 | Benzene | 0.467 | 0.200 | -- | 1.49 | 0.639 | -- | |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-05
 Client ID : IA-04A_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614698
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 15:33
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 110-82-7 | Cyclohexane | 0.525 | 0.200 | -- | 1.81 | 0.688 | -- | |
| 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 |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.642 | 0.200 | -- | 2.63 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 1.30 | 0.200 | -- | 4.90 | 0.754 | -- | |
| 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 |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.299 | 0.200 | -- | 1.30 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 0.777 | 0.400 | -- | 3.37 | 1.74 | -- | |
| 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 | 0.307 | 0.200 | -- | 1.33 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.207 | 0.200 | -- | 1.02 | 0.983 | -- | |
| 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-05
 Client ID : IA-04A_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614698
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 15:33
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-06
 Client ID : SVMF-04A_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614702
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 15:00
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 23:51
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.445 | 0.200 | -- | 2.20 | 0.989 | -- | |
| 74-87-3 | Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | U |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | 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 |
| 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 | 5.00 | -- | ND | 9.42 | -- | U |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 2.05 | 1.00 | -- | 4.87 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | 0.525 | 0.200 | -- | 2.95 | 1.12 | -- | |
| 67-63-0 | Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | 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 | 0.636 | 0.500 | -- | 2.21 | 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 |
| 76-13-1 | Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | U |
| 156-60-5 | trans-1,2-Dichloroethene | 2.09 | 0.200 | -- | 8.29 | 0.793 | -- | |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | 4.18 | 0.200 | -- | 16.6 | 0.793 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 67-66-3 | Chloroform | 4.55 | 0.200 | -- | 22.2 | 0.977 | -- | |
| 109-99-9 | Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | U |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-06
 Client ID : SVMF-04A_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614702
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 15:00
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 23:51
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.308 | 0.200 | -- | 1.09 | 0.705 | -- | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | 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 | 0.310 | 0.200 | -- | 1.07 | 0.688 | -- | |
| 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 | 20.7 | 0.200 | -- | 111 | 1.07 | -- | |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.262 | 0.200 | -- | 1.07 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 0.487 | 0.200 | -- | 1.84 | 0.754 | -- | |
| 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 |
| 127-18-4 | Tetrachloroethene | 24.2 | 0.200 | -- | 164 | 1.36 | -- | |
| 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-06
 Client ID : SVMF-04A_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614702
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 15:00
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 23:51
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 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 |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.293 | 0.200 | -- | 1.44 | 0.983 | -- | |
| 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 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-07
 Client ID : IA-07_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614699
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:12
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:51
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.380 | 0.200 | -- | 1.88 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.496 | 0.200 | -- | 1.02 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | 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 | 38.2 | 5.00 | -- | 72.0 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 10.5 | 1.00 | -- | 24.9 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | 2.34 | 0.500 | -- | 5.75 | 1.23 | -- | |
| 75-65-0 | Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | U |
| 75-09-2 | Methylene chloride | 15.4 | 0.500 | -- | 53.5 | 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.301 | 0.200 | -- | 1.06 | 0.705 | -- | |
| 71-43-2 | Benzene | 0.209 | 0.200 | -- | 0.668 | 0.639 | -- | |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-07
 Client ID : IA-07_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614699
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:12
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:51
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 110-82-7 | Cyclohexane | 0.249 | 0.200 | -- | 0.857 | 0.688 | -- | |
| 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 |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.420 | 0.200 | -- | 1.72 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 0.892 | 0.200 | -- | 3.36 | 0.754 | -- | |
| 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 |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.513 | 0.200 | -- | 2.23 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 1.58 | 0.400 | -- | 6.86 | 1.74 | -- | |
| 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 | 0.431 | 0.200 | -- | 1.87 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-07
 Client ID : IA-07_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614699
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:12
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:51
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-08D
 Client ID : SVMF-07_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614703
 Sample Amount : 6.66 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:08
 Date Received : 12/30/19
 Date Analyzed : 01/05/20 00:30
 Dilution Factor : 37.54
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | ND | 7.51 | -- | ND | 37.1 | -- | U |
| 74-87-3 | Chloromethane | ND | 7.51 | -- | ND | 15.5 | -- | U |
| 76-14-2 | Freon-114 | ND | 7.51 | -- | ND | 52.5 | -- | U |
| 75-01-4 | Vinyl chloride | ND | 7.51 | -- | ND | 19.2 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 7.51 | -- | ND | 16.6 | -- | U |
| 74-83-9 | Bromomethane | ND | 7.51 | -- | ND | 29.2 | -- | U |
| 75-00-3 | Chloroethane | ND | 7.51 | -- | ND | 19.8 | -- | U |
| 64-17-5 | Ethanol | ND | 188 | -- | ND | 354 | -- | U |
| 593-60-2 | Vinyl bromide | ND | 7.51 | -- | ND | 32.8 | -- | U |
| 67-64-1 | Acetone | ND | 37.5 | -- | ND | 89.1 | -- | U |
| 75-69-4 | Trichlorofluoromethane | ND | 7.51 | -- | ND | 42.2 | -- | U |
| 67-63-0 | Isopropanol | ND | 18.8 | -- | ND | 46.2 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 7.51 | -- | ND | 29.8 | -- | U |
| 75-65-0 | Tertiary butyl Alcohol | ND | 18.8 | -- | ND | 57.0 | -- | U |
| 75-09-2 | Methylene chloride | ND | 18.8 | -- | ND | 65.3 | -- | U |
| 107-05-1 | 3-Chloropropene | ND | 7.51 | -- | ND | 23.5 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 7.51 | -- | ND | 23.4 | -- | U |
| 76-13-1 | Freon-113 | ND | 7.51 | -- | ND | 57.6 | -- | U |
| 156-60-5 | trans-1,2-Dichloroethene | 155 | 7.51 | -- | 615 | 29.8 | -- | |
| 75-34-3 | 1,1-Dichloroethane | ND | 7.51 | -- | ND | 30.4 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 7.51 | -- | ND | 27.1 | -- | U |
| 78-93-3 | 2-Butanone | ND | 18.8 | -- | ND | 55.4 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | 213 | 7.51 | -- | 845 | 29.8 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 18.8 | -- | ND | 67.7 | -- | U |
| 67-66-3 | Chloroform | 11.7 | 7.51 | -- | 57.1 | 36.7 | -- | |
| 109-99-9 | Tetrahydrofuran | ND | 18.8 | -- | ND | 55.4 | -- | U |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-08D
 Client ID : SVMF-07_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614703
 Sample Amount : 6.66 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:08
 Date Received : 12/30/19
 Date Analyzed : 01/05/20 00:30
 Dilution Factor : 37.54
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 107-06-2 | 1,2-Dichloroethane | ND | 7.51 | -- | ND | 30.4 | -- | U |
| 110-54-3 | n-Hexane | ND | 7.51 | -- | ND | 26.5 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 7.51 | -- | ND | 41.0 | -- | U |
| 71-43-2 | Benzene | ND | 7.51 | -- | ND | 24.0 | -- | U |
| 56-23-5 | Carbon tetrachloride | ND | 7.51 | -- | ND | 47.2 | -- | U |
| 110-82-7 | Cyclohexane | ND | 7.51 | -- | ND | 25.9 | -- | U |
| 78-87-5 | 1,2-Dichloropropane | ND | 7.51 | -- | ND | 34.7 | -- | U |
| 75-27-4 | Bromodichloromethane | ND | 7.51 | -- | ND | 50.3 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 7.51 | -- | ND | 27.1 | -- | U |
| 79-01-6 | Trichloroethene | 235 | 7.51 | -- | 1260 | 40.4 | -- | |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 7.51 | -- | ND | 35.1 | -- | U |
| 142-82-5 | Heptane | ND | 7.51 | -- | ND | 30.8 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 7.51 | -- | ND | 34.1 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 18.8 | -- | ND | 77.0 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 7.51 | -- | ND | 34.1 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 7.51 | -- | ND | 41.0 | -- | U |
| 108-88-3 | Toluene | ND | 7.51 | -- | ND | 28.3 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 7.51 | -- | ND | 30.8 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 7.51 | -- | ND | 64.0 | -- | U |
| 106-93-4 | 1,2-Dibromoethane | ND | 7.51 | -- | ND | 57.7 | -- | U |
| 127-18-4 | Tetrachloroethene | 3000 | 7.51 | -- | 20300 | 50.9 | -- | |
| 108-90-7 | Chlorobenzene | ND | 7.51 | -- | ND | 34.6 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 7.51 | -- | ND | 32.6 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 15.0 | -- | ND | 65.2 | -- | U |
| 75-25-2 | Bromoform | ND | 7.51 | -- | ND | 77.6 | -- | U |
| 100-42-5 | Styrene | ND | 7.51 | -- | ND | 32.0 | -- | U |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-08D
 Client ID : SVMF-07_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614703
 Sample Amount : 6.66 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:08
 Date Received : 12/30/19
 Date Analyzed : 01/05/20 00:30
 Dilution Factor : 37.54
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|---------------------------|---------|------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 7.51 | -- | ND | 51.6 | -- | U |
| 95-47-6 | o-Xylene | ND | 7.51 | -- | ND | 32.6 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 7.51 | -- | ND | 36.9 | -- | U |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 7.51 | -- | ND | 36.9 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 7.51 | -- | ND | 36.9 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 7.51 | -- | ND | 38.9 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 7.51 | -- | ND | 45.2 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 7.51 | -- | ND | 45.2 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 7.51 | -- | ND | 45.2 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 7.51 | -- | ND | 55.7 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 7.51 | -- | ND | 80.1 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-09
 Client ID : IA-08_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614700
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:10
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 22:31
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.431 | 0.200 | -- | 2.13 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.478 | 0.200 | -- | 0.987 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | 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 | 52.5 | 5.00 | -- | 98.9 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 8.71 | 1.00 | -- | 20.7 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | 2.80 | 0.500 | -- | 6.88 | 1.23 | -- | |
| 75-65-0 | Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | U |
| 75-09-2 | Methylene chloride | 3.70 | 0.500 | -- | 12.9 | 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | 0.285 | 0.200 | -- | 1.15 | 0.809 | -- | |
| 110-54-3 | n-Hexane | 0.355 | 0.200 | -- | 1.25 | 0.705 | -- | |
| 71-43-2 | Benzene | 0.231 | 0.200 | -- | 0.738 | 0.639 | -- | |

Results Summary Form 1 Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-09
 Client ID : IA-08_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614700
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:10
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 22:31
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 110-82-7 | Cyclohexane | 0.269 | 0.200 | -- | 0.926 | 0.688 | -- | |
| 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 |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.330 | 0.200 | -- | 1.35 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 0.735 | 0.200 | -- | 2.77 | 0.754 | -- | |
| 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 |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.241 | 0.200 | -- | 1.05 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 0.690 | 0.400 | -- | 3.00 | 1.74 | -- | |
| 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 | 0.232 | 0.200 | -- | 1.01 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-09
 Client ID : IA-08_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614700
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:10
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 22:31
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary Form 1 Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-10
 Client ID : SVMF-08_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614704
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:13
 Date Received : 12/30/19
 Date Analyzed : 01/05/20 01:10
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.445 | 0.200 | -- | 2.20 | 0.989 | -- | |
| 74-87-3 | Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | U |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | 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 |
| 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 | 5.00 | -- | ND | 9.42 | -- | U |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 2.32 | 1.00 | -- | 5.51 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | 0.699 | 0.200 | -- | 3.93 | 1.12 | -- | |
| 67-63-0 | Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | 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 | 3.48 | 0.500 | -- | 12.1 | 1.74 | -- | |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | 1.21 | 0.200 | -- | 3.77 | 0.623 | -- | |
| 76-13-1 | Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | U |
| 156-60-5 | trans-1,2-Dichloroethene | 4.56 | 0.200 | -- | 18.1 | 0.793 | -- | |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | 7.64 | 0.200 | -- | 30.3 | 0.793 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 67-66-3 | Chloroform | 0.233 | 0.200 | -- | 1.14 | 0.977 | -- | |
| 109-99-9 | Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | U |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-10
 Client ID : SVMF-08_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614704
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:13
 Date Received : 12/30/19
 Date Analyzed : 01/05/20 01:10
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 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 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | 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 |
| 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 | 5.65 | 0.200 | -- | 30.4 | 1.07 | -- | |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 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 | 0.500 | -- | ND | 2.05 | -- | 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 | 0.228 | 0.200 | -- | 0.859 | 0.754 | -- | |
| 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 |
| 127-18-4 | Tetrachloroethene | 28.2 | 0.200 | -- | 191 | 1.36 | -- | |
| 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 | 0.422 | 0.400 | -- | 1.83 | 1.74 | -- | |
| 75-25-2 | Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | U |
| 100-42-5 | Styrene | ND | 0.200 | -- | ND | 0.852 | -- | U |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-10
 Client ID : SVMF-08_123019
 Sample Location : BRONX, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1614704
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:13
 Date Received : 12/30/19
 Date Analyzed : 01/05/20 01:10
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | U |
| 95-47-6 | o-Xylene | 0.213 | 0.200 | -- | 0.925 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.680 | 0.200 | -- | 3.34 | 0.983 | -- | |
| 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 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327071-4
 Client ID : WG1327071-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614692
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 01/04/20 14:59
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 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 |
| 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 |
| 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 | 5.00 | -- | ND | 9.42 | -- | U |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | ND | 1.00 | -- | ND | 2.38 | -- | U |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327071-4
 Client ID : WG1327071-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614692
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 01/04/20 14:59
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 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 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | 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 |
| 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 |
| 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 | 0.500 | -- | ND | 2.05 | -- | 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 |
| 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 |
| 127-18-4 | Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327071-4
 Client ID : WG1327071-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614692
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 01/04/20 14:59
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 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 |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | 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 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | U |

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327071-5
 Client ID : IA-02_123019DUP
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614697
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 20:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-----------|--------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-71-8 | Dichlorodifluoromethane | 0.396 | 0.200 | -- | 1.96 | 0.989 | -- | |
| 74-87-3 | Chloromethane | 0.474 | 0.200 | -- | 0.979 | 0.413 | -- | |
| 76-14-2 | Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | 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 | 15.1 | 5.00 | -- | 28.5 | 9.42 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 1.88 | 1.00 | -- | 4.47 | 2.38 | -- | |
| 75-69-4 | Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | U |
| 67-63-0 | Isopropanol | 0.542 | 0.500 | -- | 1.33 | 1.23 | -- | |
| 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 |
| 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 |
| 78-93-3 | 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | 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 | 0.500 | -- | ND | 1.47 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | U |
| 110-54-3 | n-Hexane | 0.546 | 0.200 | -- | 1.92 | 0.705 | -- | |
| 71-43-2 | Benzene | 0.283 | 0.200 | -- | 0.904 | 0.639 | -- | |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327071-5
 Client ID : IA-02_123019DUP
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614697
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 20:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|-------------|---------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 110-82-7 | Cyclohexane | 0.427 | 0.200 | -- | 1.47 | 0.688 | -- | |
| 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 |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.555 | 0.200 | -- | 2.27 | 0.820 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | 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 | 1.06 | 0.200 | -- | 3.99 | 0.754 | -- | |
| 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 |
| 108-90-7 | Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | U |
| 100-41-4 | Ethylbenzene | 0.250 | 0.200 | -- | 1.09 | 0.869 | -- | |
| 179601-23-1 | p/m-Xylene | 0.572 | 0.400 | -- | 2.48 | 1.74 | -- | |
| 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 | 0.225 | 0.200 | -- | 0.977 | 0.869 | -- | |
| 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 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | 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 |



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327071-5
 Client ID : IA-02_123019DUP
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1614697
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 20:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | U |
| 120-82-1 | 1,2,4-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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614694.D
 Acq On : 4 Jan 2020 6:32 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-01,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:10:00 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|-------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 214098 | 10.000 | ppbV | 0.03 |
| Standard Area = 223987 | | | Recovery = | 95.59% | | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 585972 | 10.000 | ppbV | 0.03 |
| Standard Area = 600707 | | | Recovery = | 97.55% | | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 74416 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery = | 98.68% | | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 5) dichlorodifluoromethane | 3.92 | 85 | 5981 | 0.377 | ppbV | 98 |
| 6) chloromethane | 4.10 | 50 | 4450 | 0.461 | ppbV | 95 |
| 7) Freon-114 | 0.00 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 4.52 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.23 | 31 | 107561 | 15.582 | ppbV | 88 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 31865M4 | 2.493 | ppbV | |
| 21) trichlorofluoromethane | 6.02 | 101 | 2297 | 0.180 | ppbV | 96 |
| 22) isopropyl alcohol | 6.15 | 45 | 9510 | 0.578 | ppbV | 99 |
| 27) tertiary butyl alcohol | 6.90 | | 0 | N.D. | | |
| 28) methylene chloride | 6.96 | 49 | 11771 | 0.902 | ppbV | 97 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.26 | 76 | 4118 | 0.119 | ppbV # | 55 |
| 31) Freon 113 | 7.30 | 101 | 1316 | 0.070 | ppbV # | 74 |
| 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 | 8.86 | 43 | 4835 | 0.195 | ppbV # | 95 |
| 38) Ethyl Acetate | 9.68 | 61 | 185 | 0.052 | ppbV # | 35 |
| 39) chloroform | 0.00 | | 0 | N.D. | d | |
| 40) Tetrahydrofuran | 0.00 | | 0 | N.D. | d | |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |
| 44) hexane | 9.62 | 57 | 12371 | 0.696 | ppbV # | 48 |
| 50) benzene | 11.39 | 78 | 10654 | 0.282 | ppbV | 99 |
| 53) cyclohexane | 11.71 | 56 | 7633 | 0.404 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614694.D
 Acq On : 4 Jan 2020 6:32 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-01,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:10:00 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|-------|--------|----------|----|
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | | |
| 57) bromodichloromethane | 12.58 | | 0 | | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | | |
| 60) 2,2,4-trimethylpentane | 12.68 | 57 | 4148 | 0.073 | ppbV # | | 57 |
| 62) heptane | 13.00 | 43 | 13811 | 0.517 | ppbV | | 96 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 64) 4-methyl-2-pentanone | 13.71 | 43 | 5715M4 | 0.185 | ppbV | | |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | | N.D. | | |
| 68) toluene | 14.78 | 91 | 32293 | 0.910 | ppbV | | 97 |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. | d | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | | |
| 80) chlorobenzene | 16.52 | | 0 | | N.D. | | |
| 81) ethylbenzene | 16.92 | 91 | 9375 | 0.211 | ppbV | | 97 |
| 83) m+p-xylene | 17.07 | 91 | 18290 | 0.502 | ppbV | | 96 |
| 84) bromoform | 0.00 | | 0 | | N.D. | | |
| 85) styrene | 17.41 | | 0 | | N.D. | | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | | N.D. | d | |
| 87) o-xylene | 17.50 | 91 | 6922 | 0.189 | ppbV | | 98 |
| 96) 4-ethyl toluene | 18.58 | | 0 | | N.D. | | |
| 97) 1,3,5-trimethylbenzene | 18.64 | | 0 | | N.D. | | |
| 99) 1,2,4-trimethylbenzene | 18.99 | 105 | 6358 | 0.140 | ppbV # | | 59 |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. | d | |
| 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 | 21.04 | | 0 | | N.D. | | |
| 119) hexachlorobutadiene | 0.00 | | 0 | | N.D. | | |

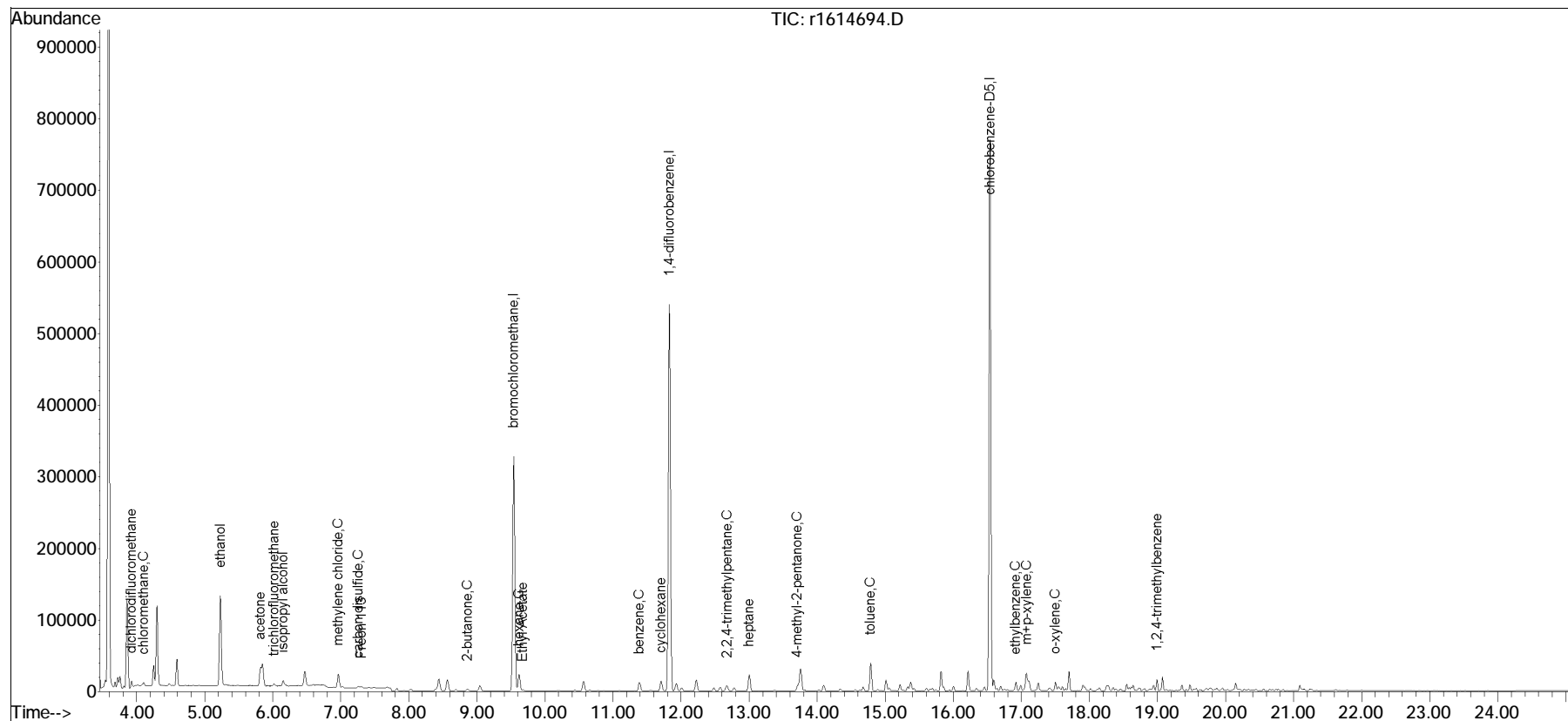
(#) = qualifier out of range (m) = manual integration (+) = signals summed

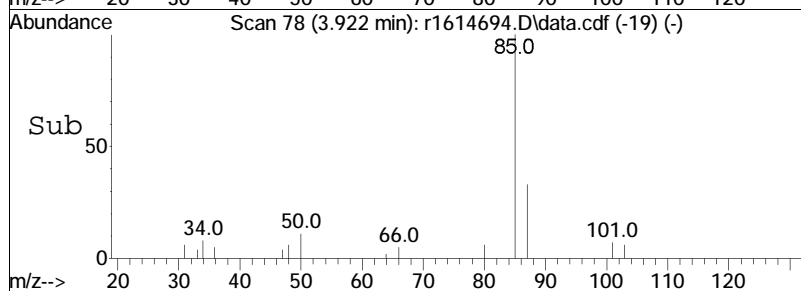
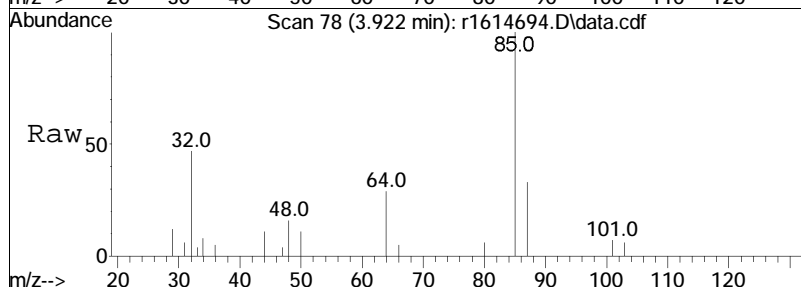
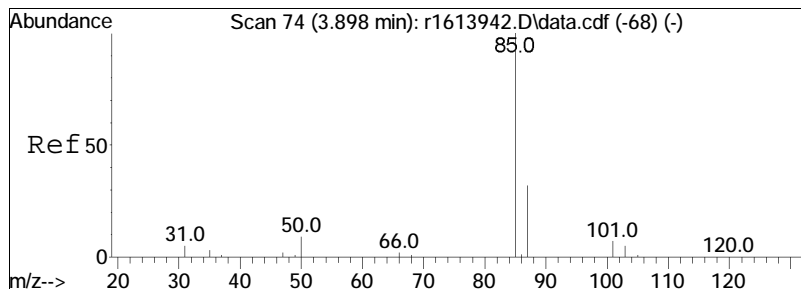
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614694.D
 Acq On : 4 Jan 2020 6:32 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-01,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:10:00 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

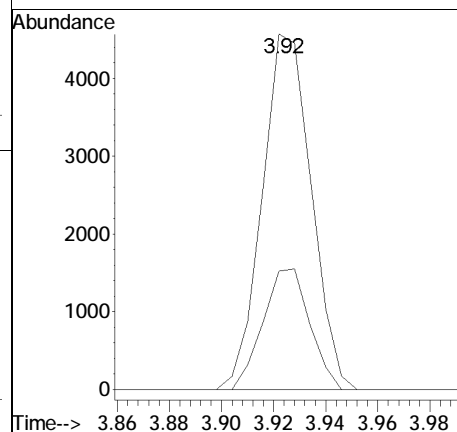
Sub List : TO15-NY-7-SIM - .\Airlab16\2020\01-JAN\200104T\r1614690.D

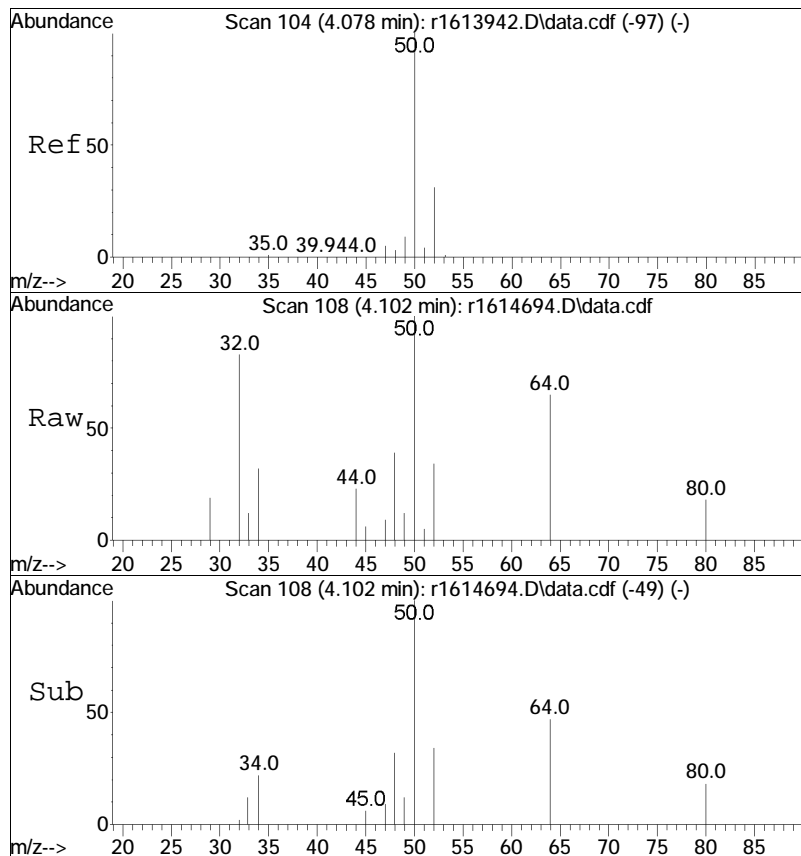




#5
dichlorodifluoromethane
Concen: 0.38 ppbV
RT: 3.92 min Scan# 78
Delta R.T. 0.024 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

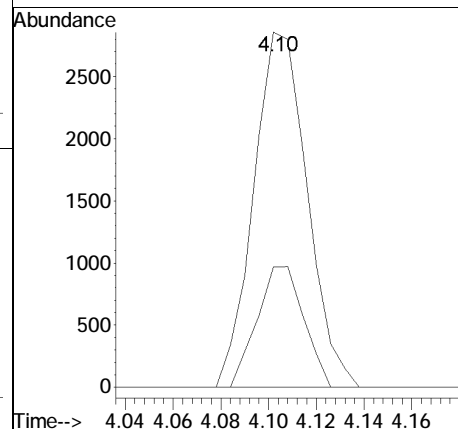
Tgt Ion: 85 Resp: 5981
Ion Ratio Lower Upper
85 100
87 33.3 25.5 38.3

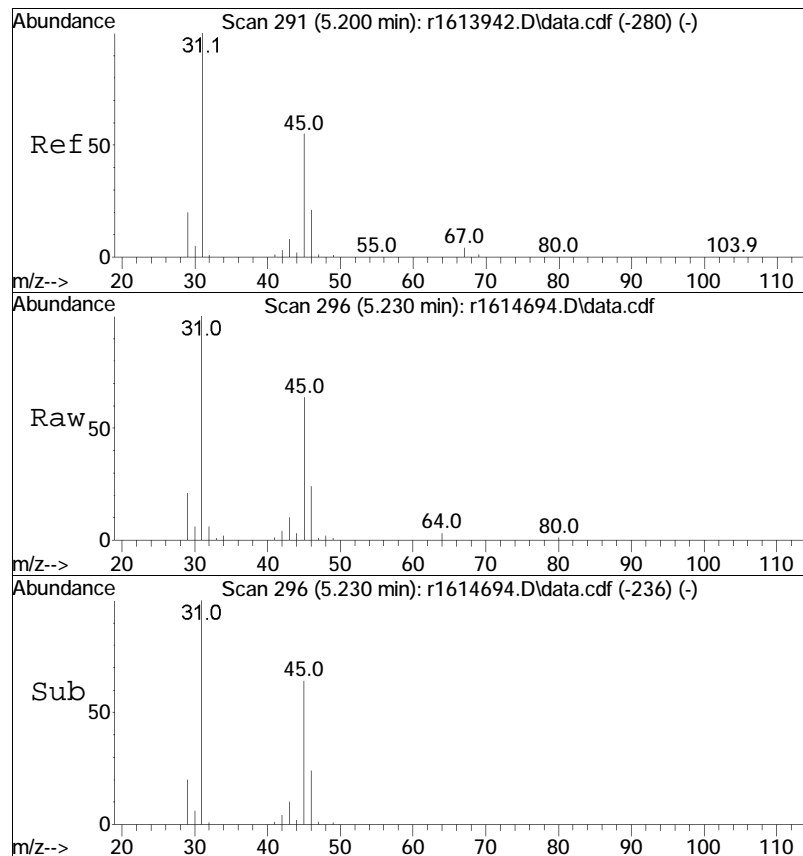




#6
 chloromethane
 Concen: 0.46 ppbV
 RT: 4.10 min Scan# 108
 Delta R.T. 0.024 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

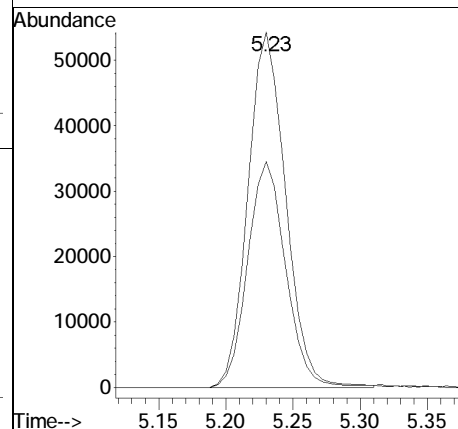
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 50 | 100 | | | |
| 52 | 33.8 | 24.8 | 37.2 | |

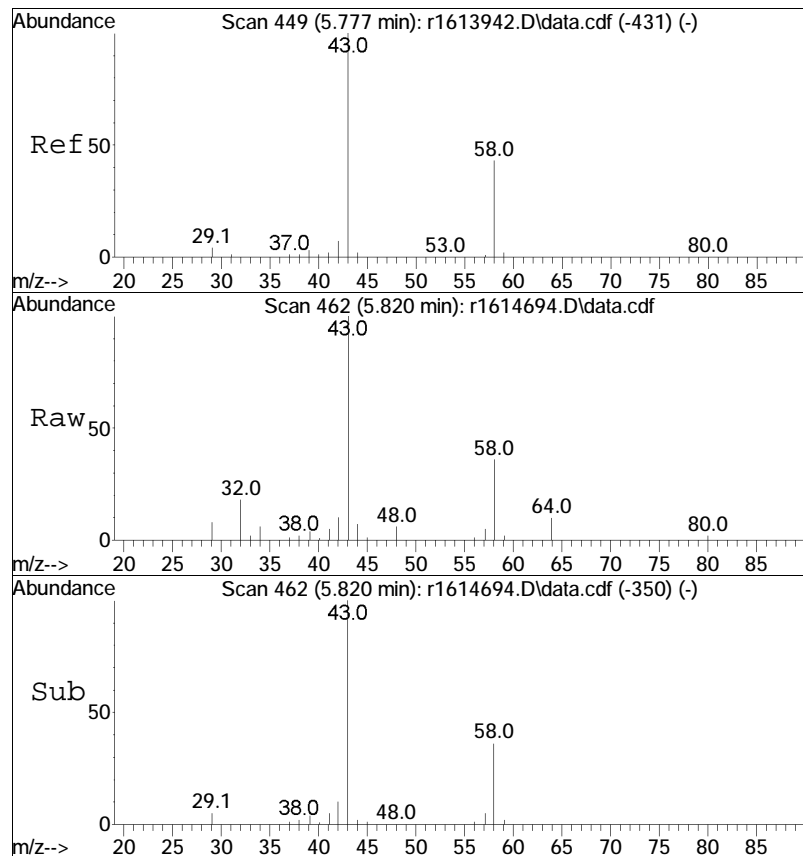




#15
ethanol
Concen: 15.58 ppbV
RT: 5.23 min Scan# 296
Delta R.T. 0.030 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

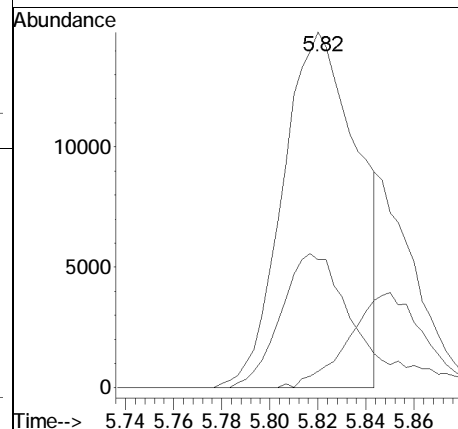
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 63.6 | 43.7 | 65.5 |

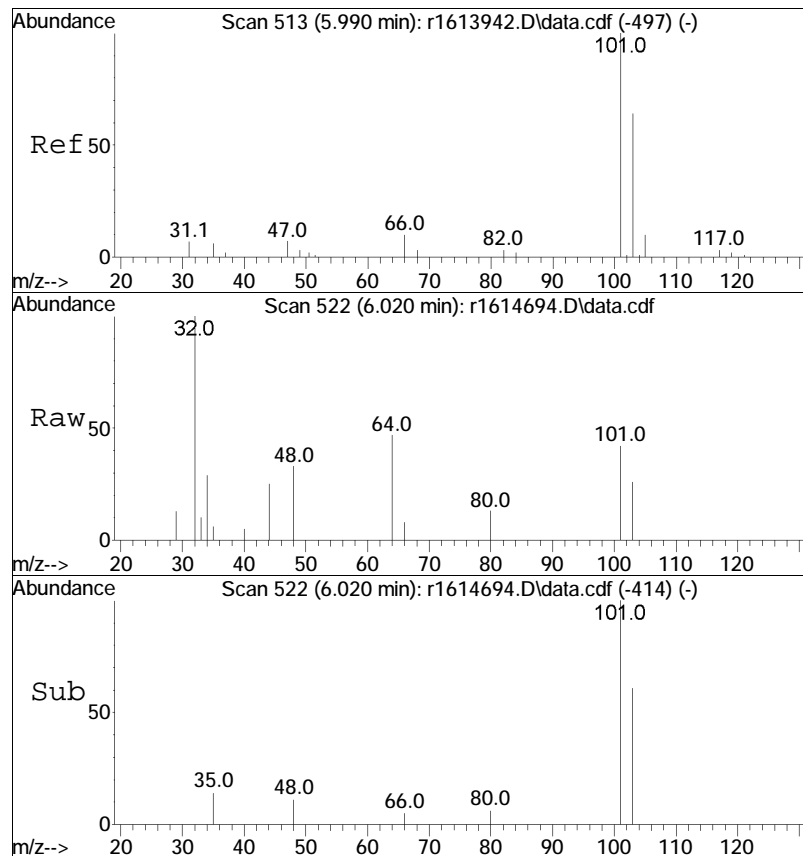




#19
acetone
Concen: 2.49 ppbV m
RT: 5.82 min Scan# 462
Delta R.T. 0.043 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

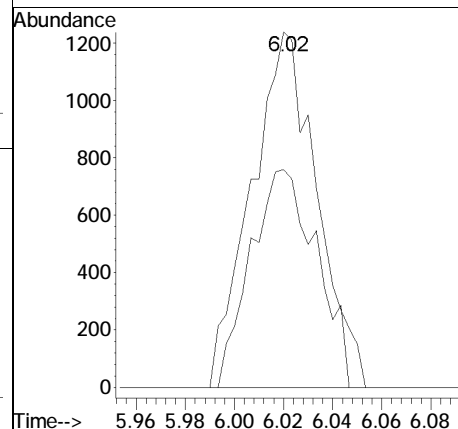
| | | | |
|-----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 31865 |
| Ion Ratio | Lower | Upper | |
| 43 | 100 | | |
| 58 | 35.9 | 34.4 | 51.6 |
| 57 | 4.5 | 0.9 | 1.3# |

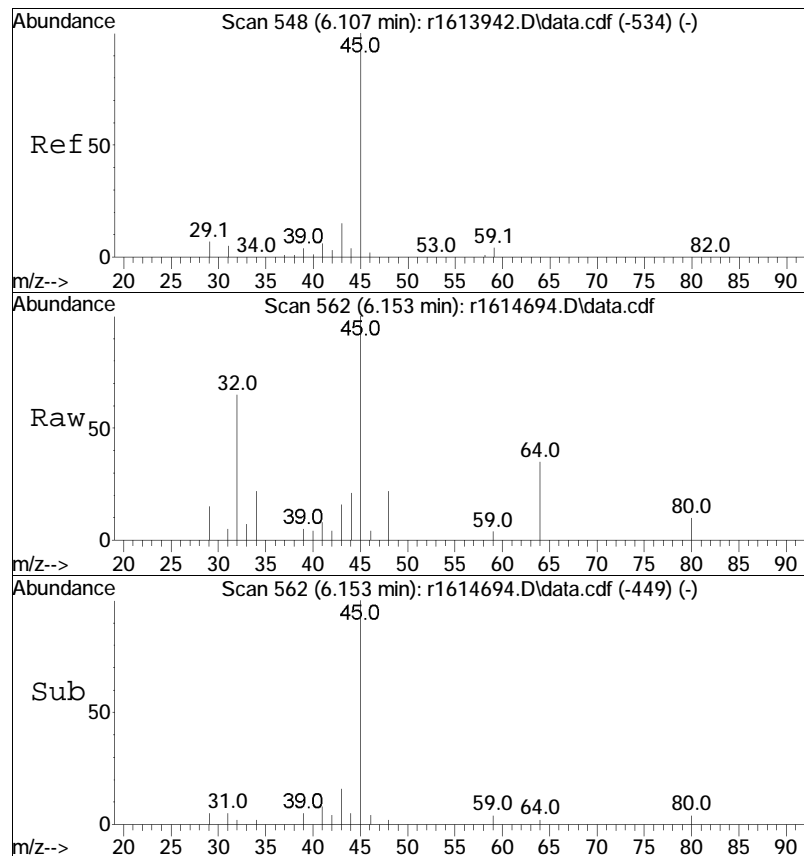




#21
 trichlorofluoromethane
 Concen: 0.18 ppbV
 RT: 6.02 min Scan# 522
 Delta R.T. 0.030 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

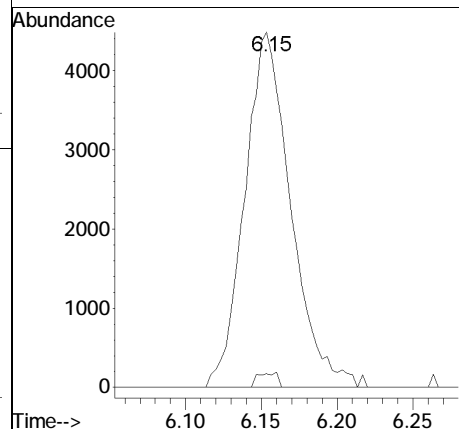
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 61.3 | 51.4 | 77.2 | |

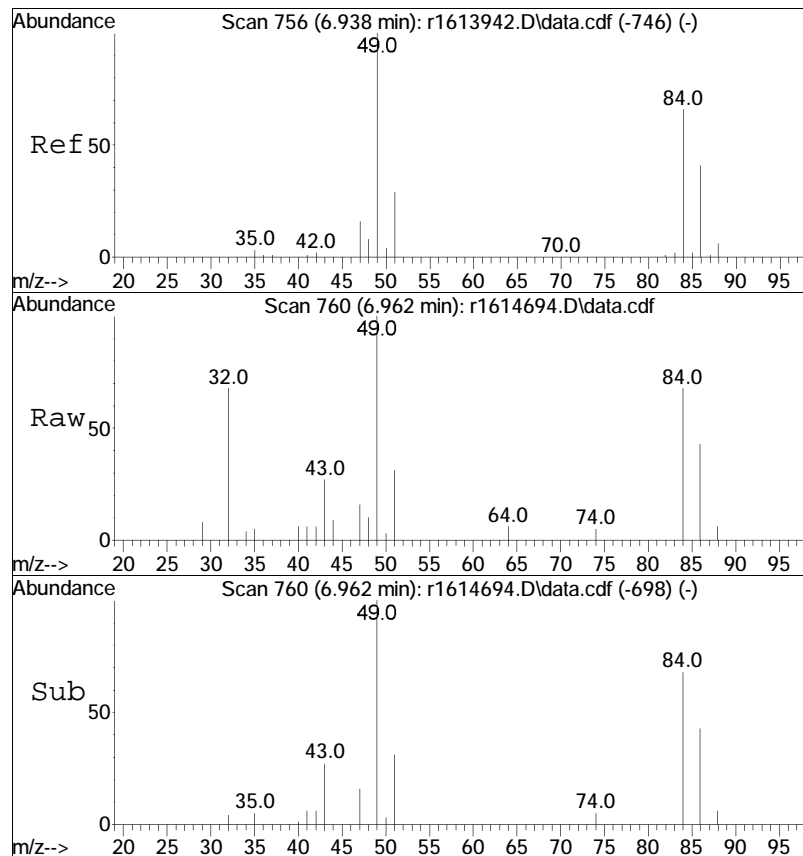




#22
isopropyl alcohol
Concen: 0.58 ppbV
RT: 6.15 min Scan# 562
Delta R.T. 0.047 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

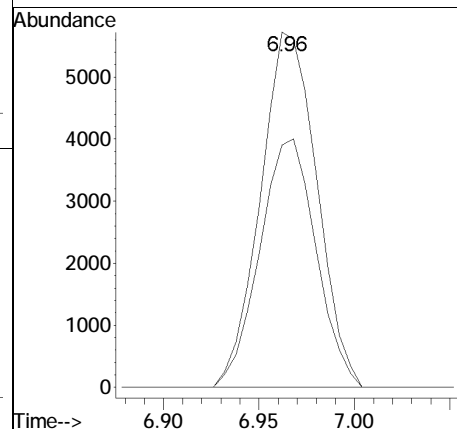
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 3.8 | 3.2 | 4.8 |

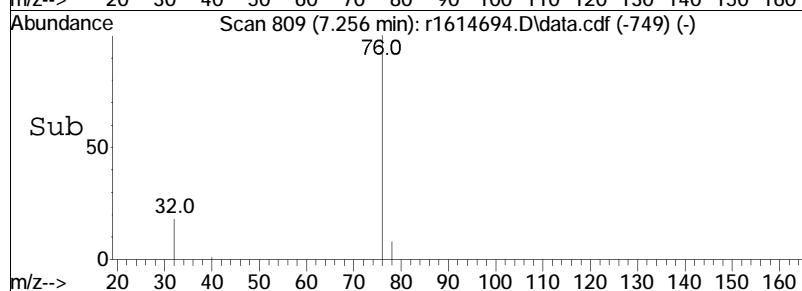
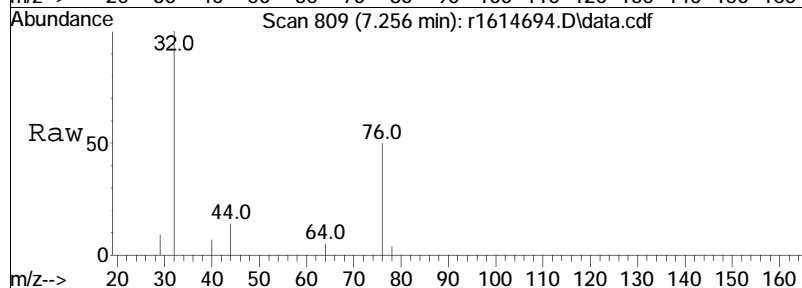
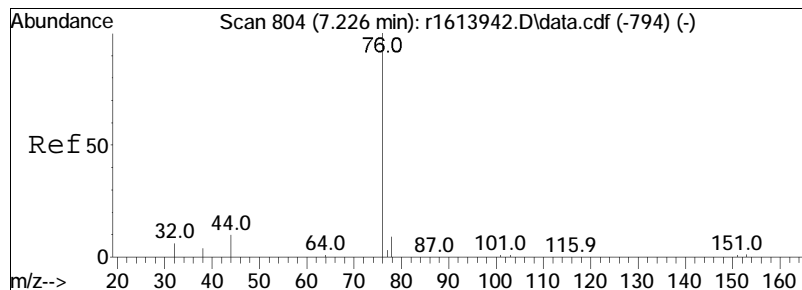




#28
 methylene chloride
 Concen: 0.90 ppbV
 RT: 6.96 min Scan# 760
 Delta R.T. 0.024 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

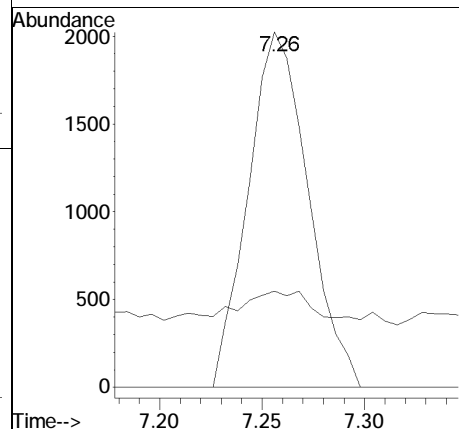
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49 | 100 | | |
| 84 | 68.2 | 53.0 | 79.4 |

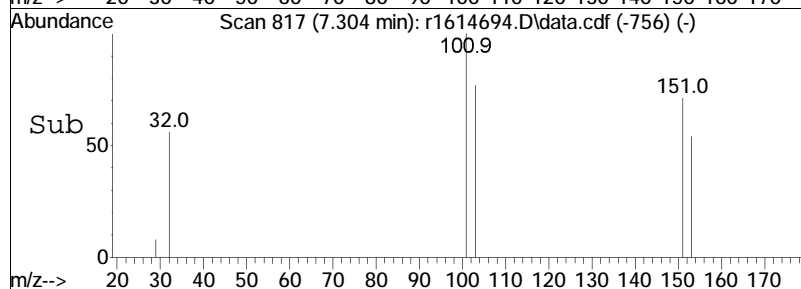
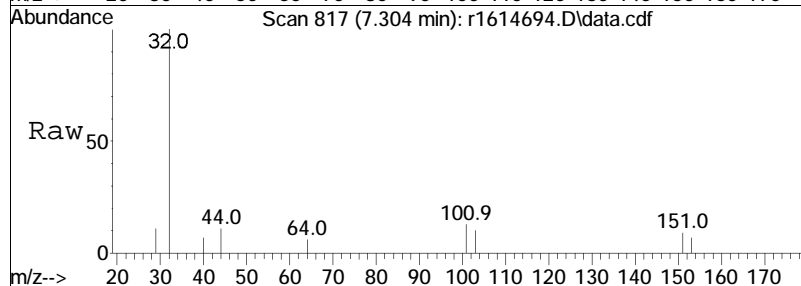
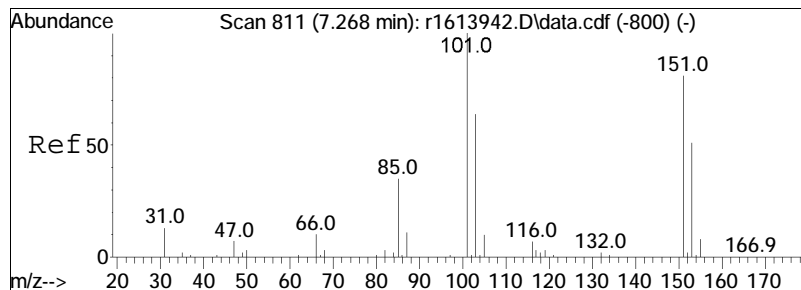




#30
carbon disulfide
Concen: 0.12 ppbV
RT: 7.26 min Scan# 809
Delta R.T. 0.030 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

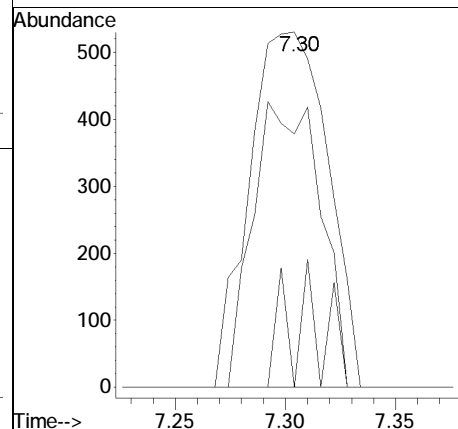
Tgt Ion: 76 Resp: 4118
Ion Ratio Lower Upper
76 100
44 27.1 8.3 12.5#

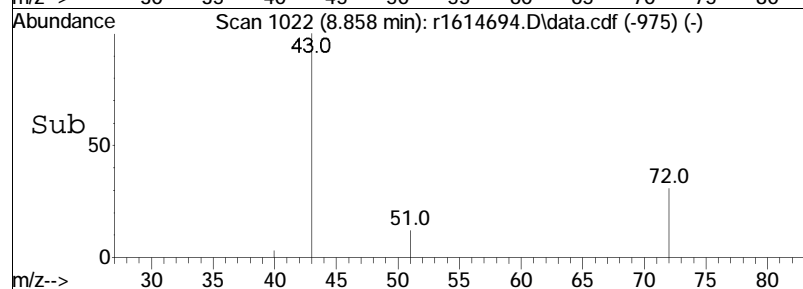
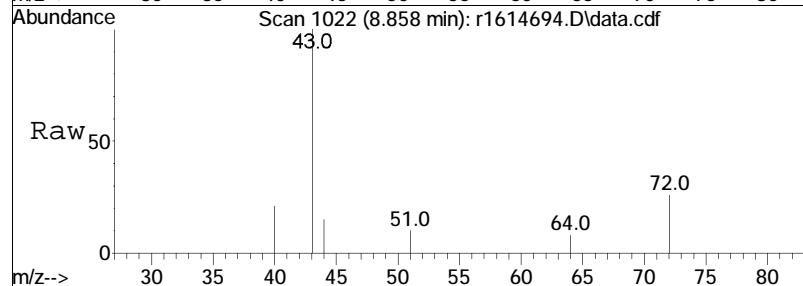
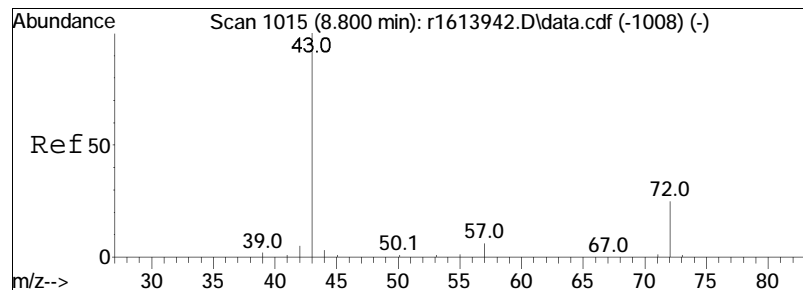




#31
 Freon 113
 Concen: 0.07 ppbV
 RT: 7.30 min Scan# 817
 Delta R.T. 0.036 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

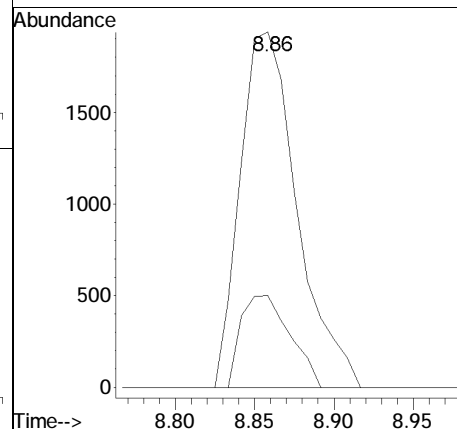
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101 | 100 | | |
| 85 | 0.0 | 27.8 | 41.6# |
| 151 | 71.3 | 65.0 | 97.6 |

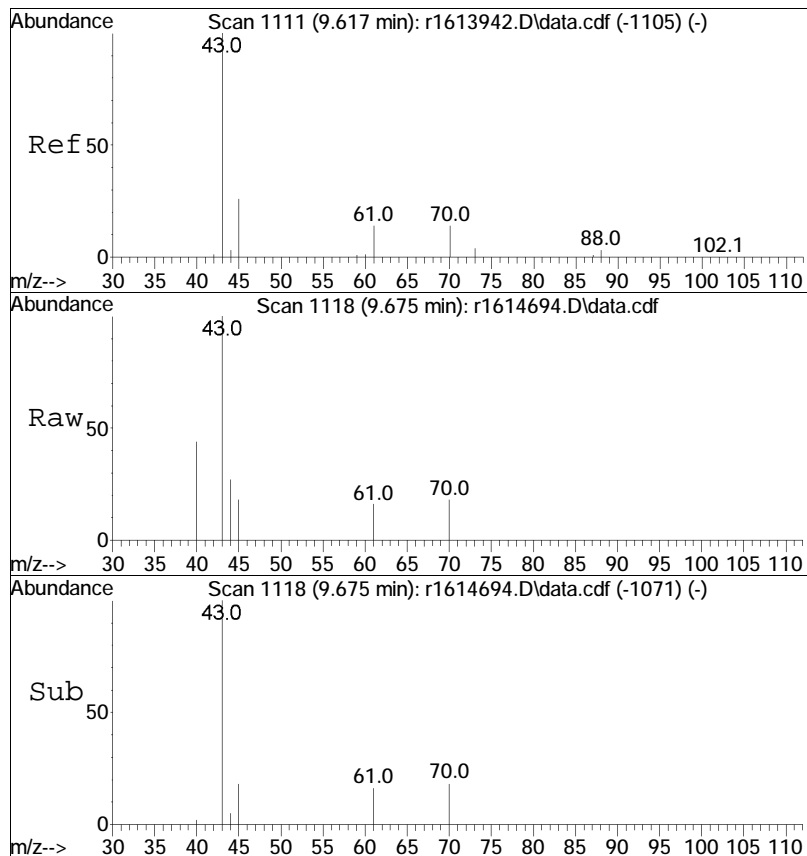




#36
2-butanone
Concen: 0.19 ppbV
RT: 8.86 min Scan# 1022
Delta R.T. 0.058 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

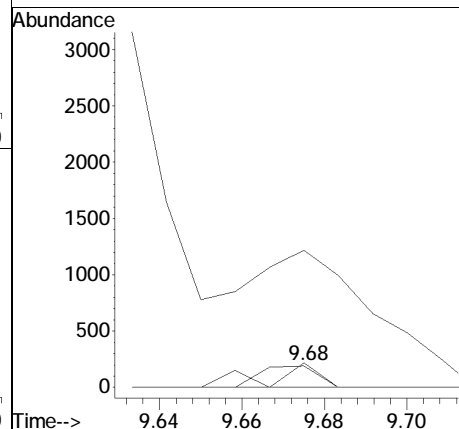
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 25.8 | 19.8 | 29.6 |
| 57 | 0.0 | 4.8 | 7.2# |

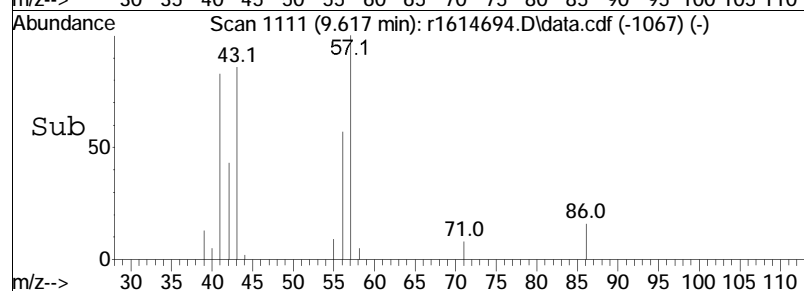
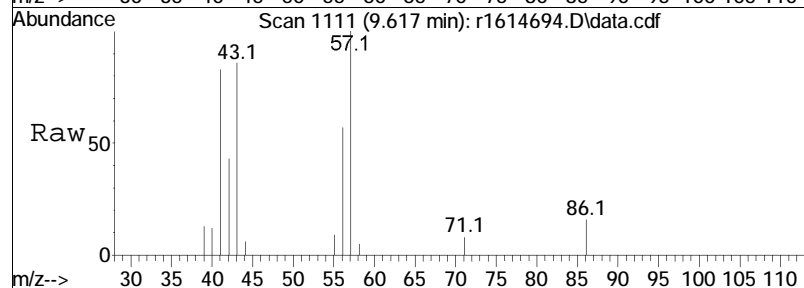
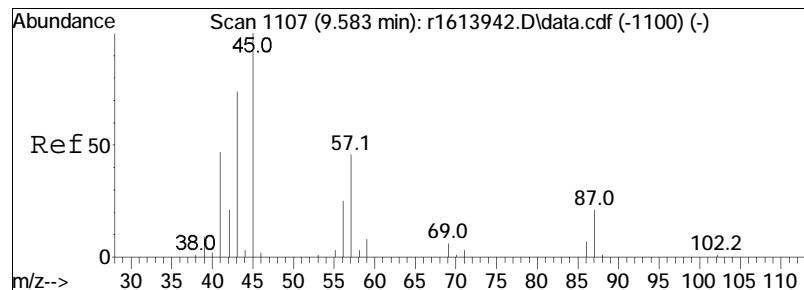




#38
 Ethyl Acetate
 Concen: 0.05 ppbV
 RT: 9.68 min Scan# 1118
 Delta R.T. 0.058 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

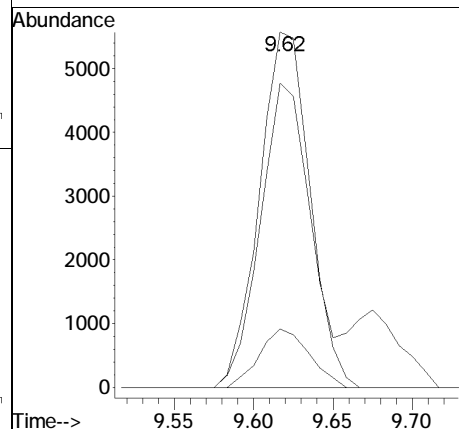
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|---------|
| 61 | 100 | | |
| 70 | 114.7 | 85.6 | 128.4 |
| 43 | 641.1 | 757.7 | 1136.5# |

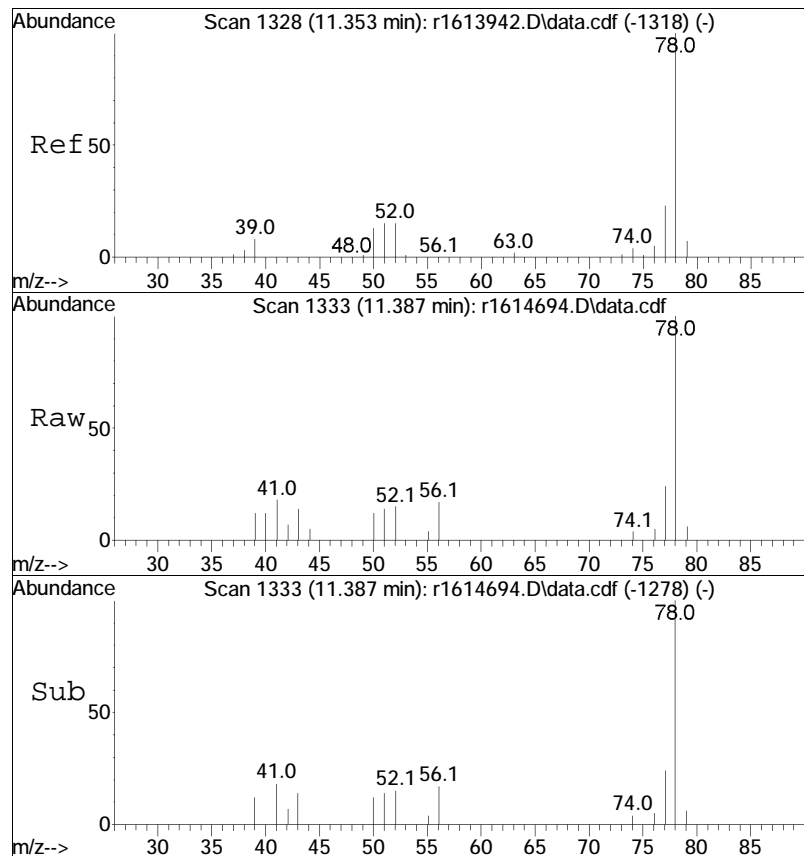




#44
hexane
Concen: 0.70 ppbV
RT: 9.62 min Scan# 1111
Delta R.T. 0.033 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

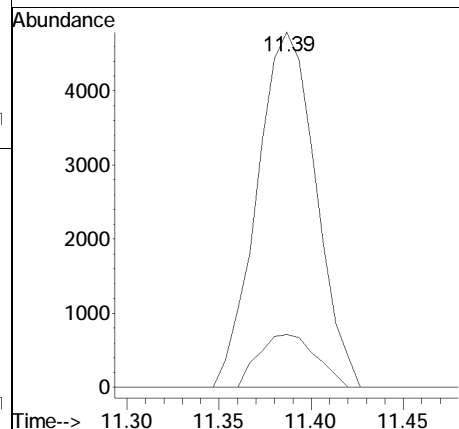
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 85.6 | 129.6 | 194.4# |
| 86 | 16.4 | 12.8 | 19.2 |

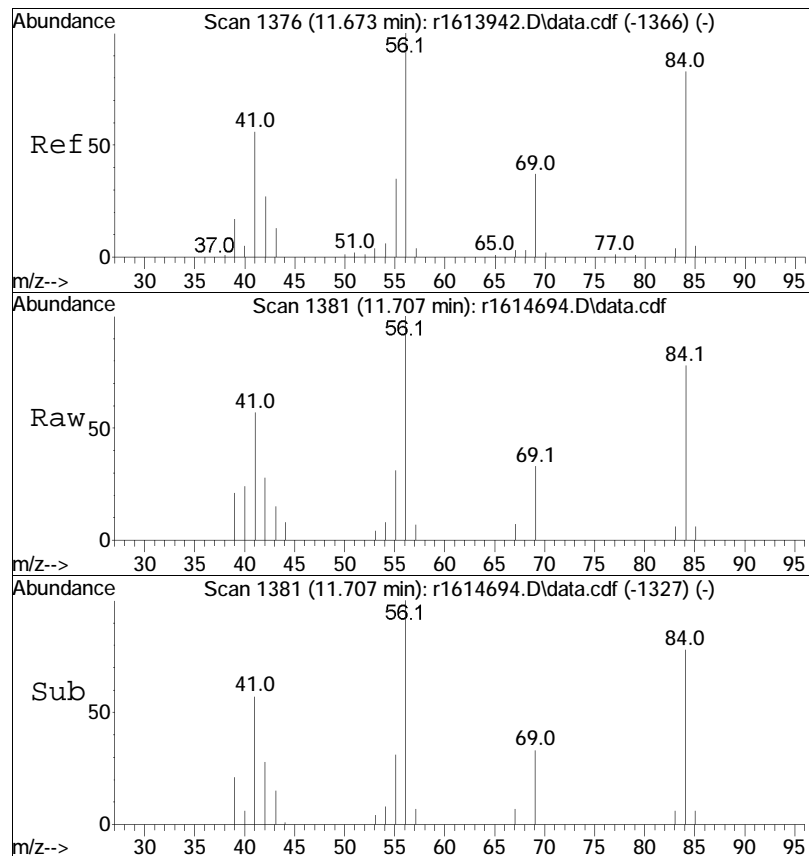




#50
benzene
Concen: 0.28 ppbV
RT: 11.39 min Scan# 1333
Delta R.T. 0.033 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

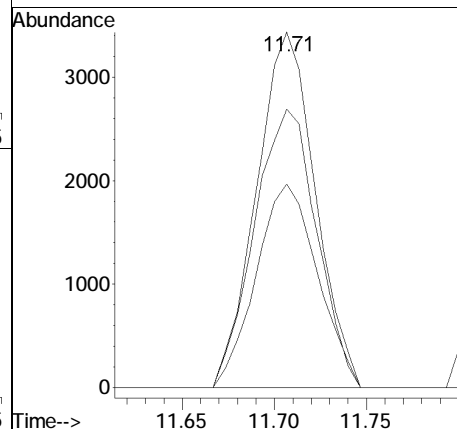
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 100 | | |
| 52 | 14.9 | 12.2 | 18.2 |

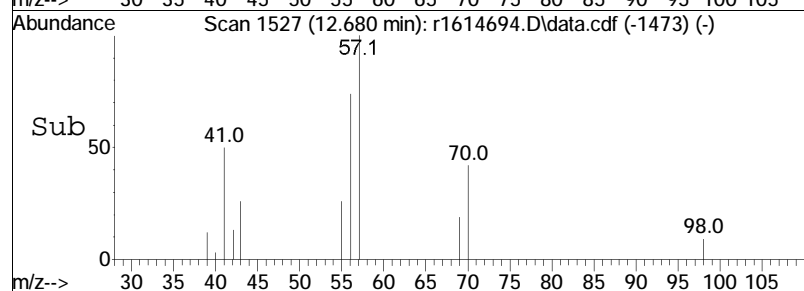
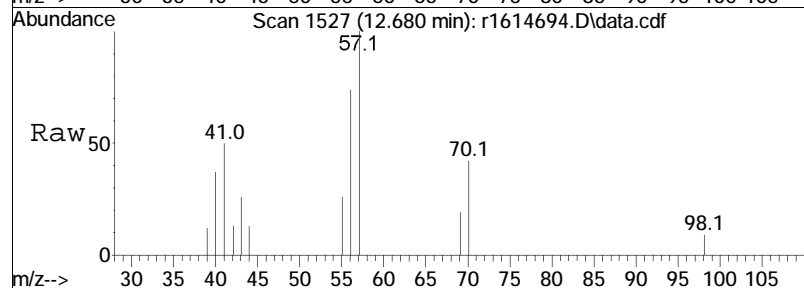
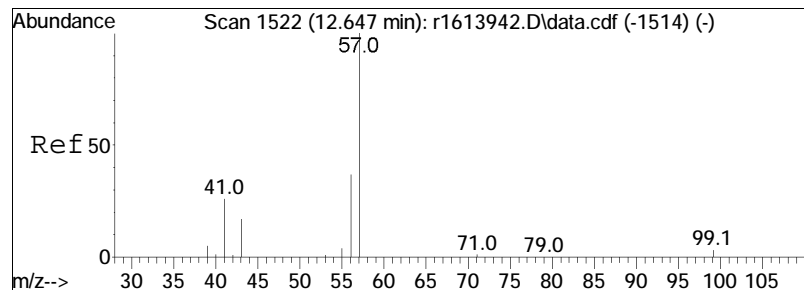




#53
cyclohexane
Concen: 0.40 ppbV
RT: 11.71 min Scan# 1381
Delta R.T. 0.033 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

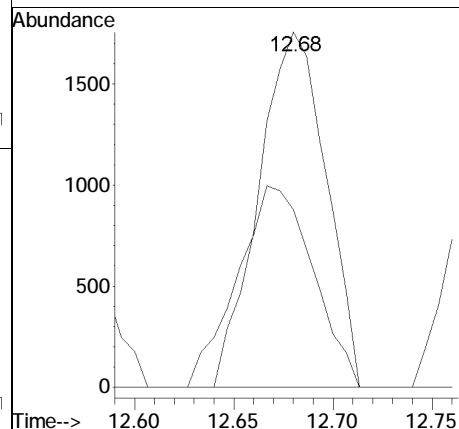
| | | | | |
|-----|-------|-------|-------|------|
| Tgt | Ion: | 56 | Resp: | 7633 |
| Ion | Ratio | Lower | Upper | |
| 56 | 100 | | | |
| 84 | 78.3 | 66.2 | 99.2 | |
| 41 | 57.2 | 45.2 | 67.8 | |

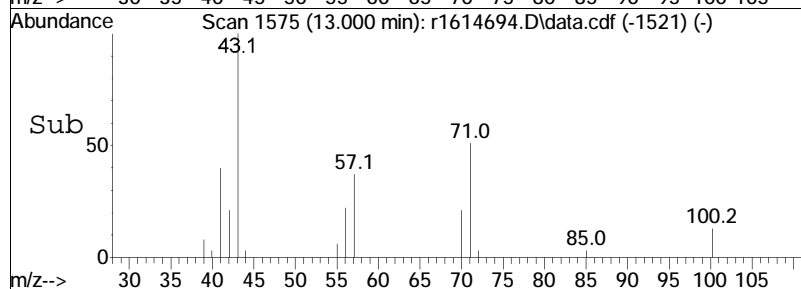
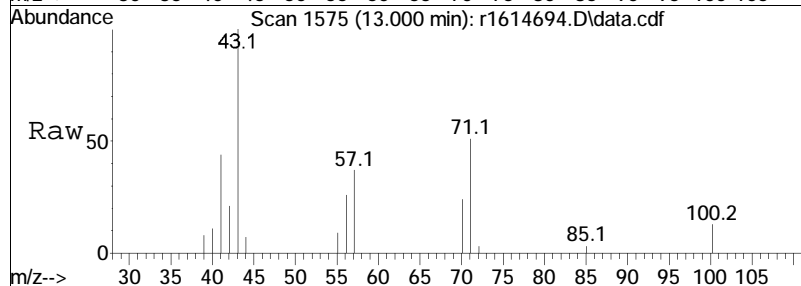
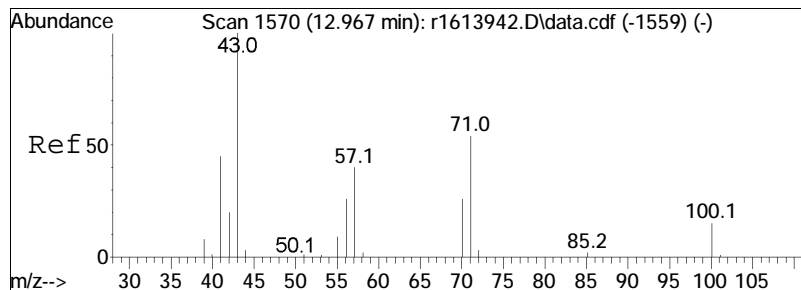




#60
 2,2,4-trimethylpentane
 Concen: 0.07 ppbV
 RT: 12.68 min Scan# 1527
 Delta R.T. 0.033 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

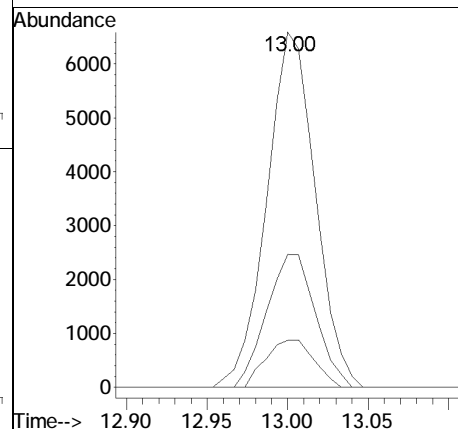
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 0.0 | 4.6 | 6.8# |
| 41 | 50.1 | 20.2 | 30.4# |

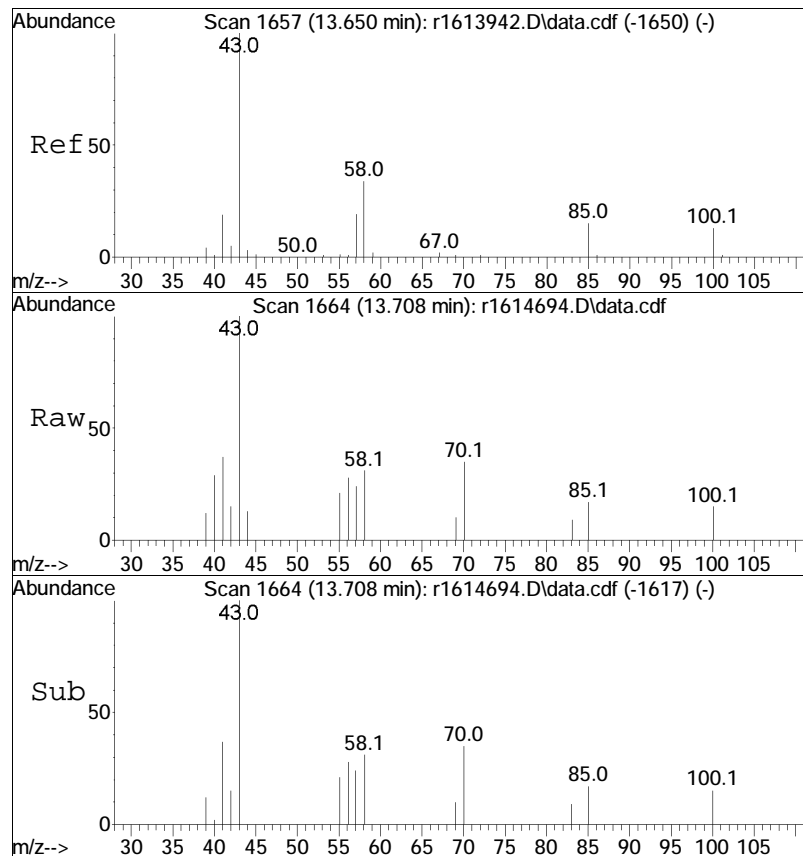




#62
heptane
Concen: 0.52 ppbV
RT: 13.00 min Scan# 1575
Delta R.T. 0.033 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

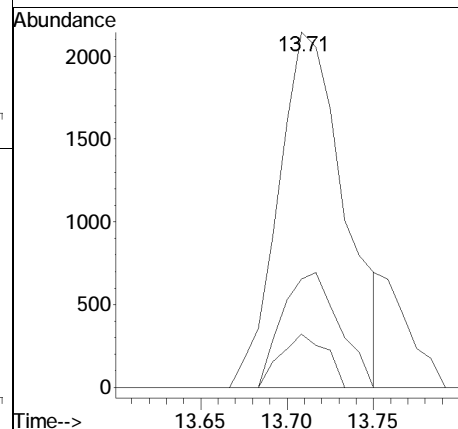
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 37.4 | 32.2 | 48.4 |
| 100 | 13.3 | 11.9 | 17.9 |

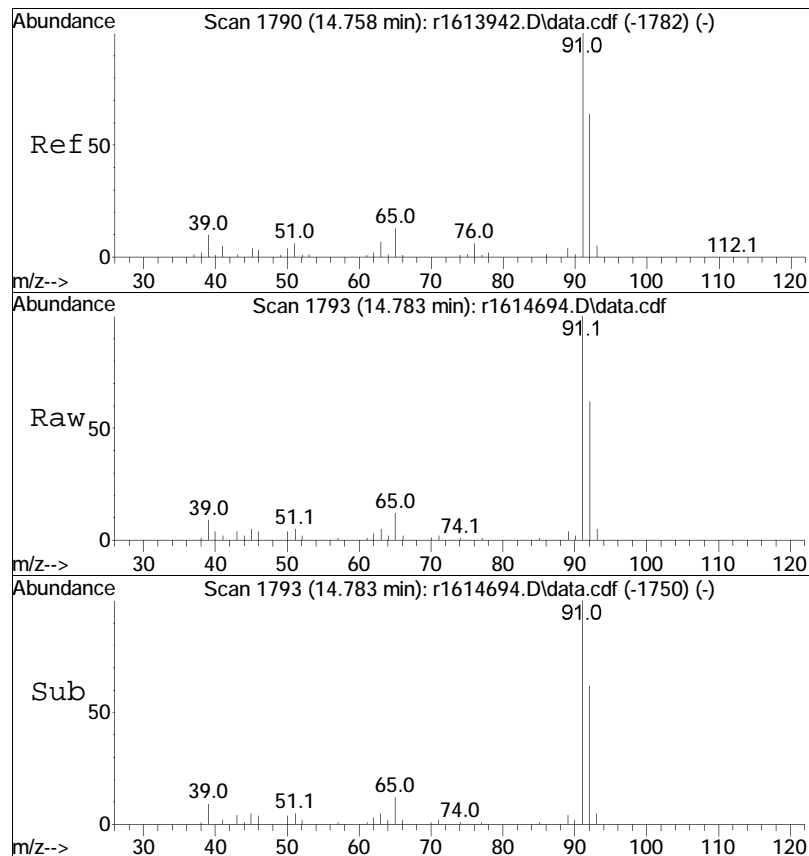




#64
 4-methyl-2-pentanone
 Concen: 0.19 ppbV m
 RT: 13.71 min Scan# 1664
 Delta R.T. 0.058 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

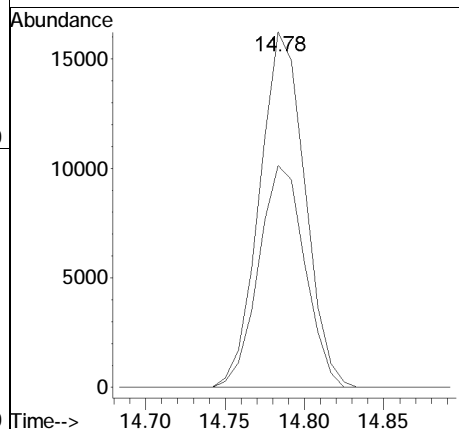
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 5715 |
| Ion | Ratio | Lower | Upper |
| 43 | 100 | | |
| 58 | 30.5 | 27.1 | 40.7 |
| 100 | 15.0 | 10.6 | 16.0 |

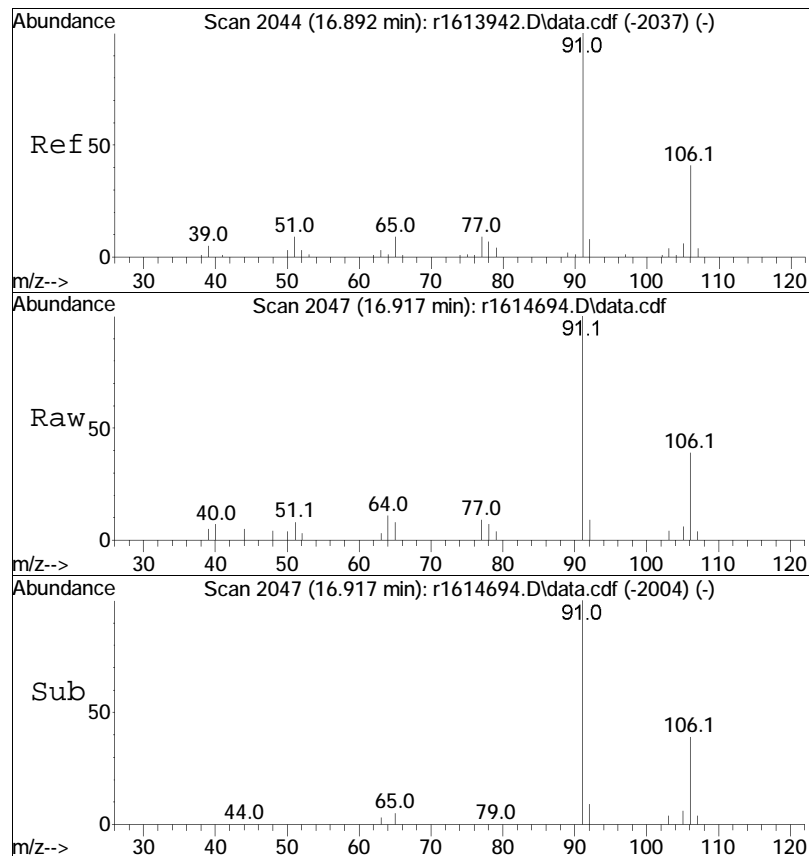




#68
toluene
Concen: 0.91 ppbV
RT: 14.78 min Scan# 1793
Delta R.T. 0.025 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

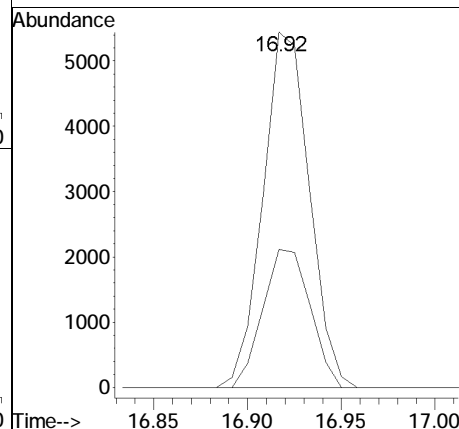
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 62.4 | 51.5 | 77.3 |

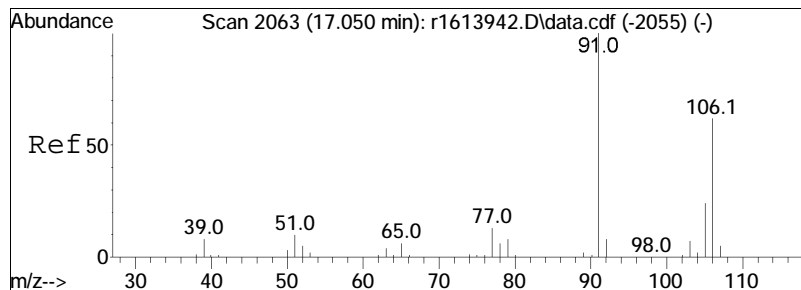




#81
ethylbenzene
Concen: 0.21 ppbV
RT: 16.92 min Scan# 2047
Delta R.T. 0.025 min
Lab File: r1614694.D
Acq: 4 Jan 2020 6:32 PM

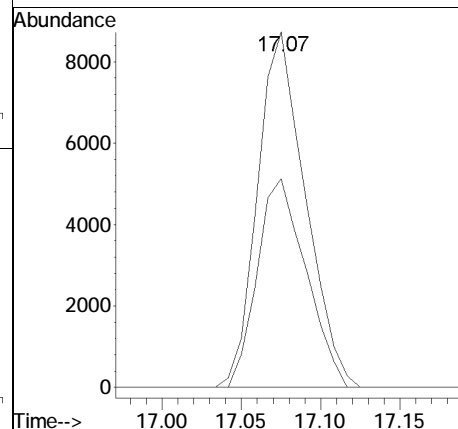
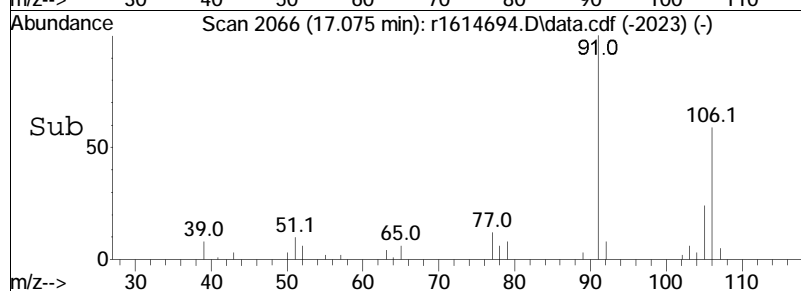
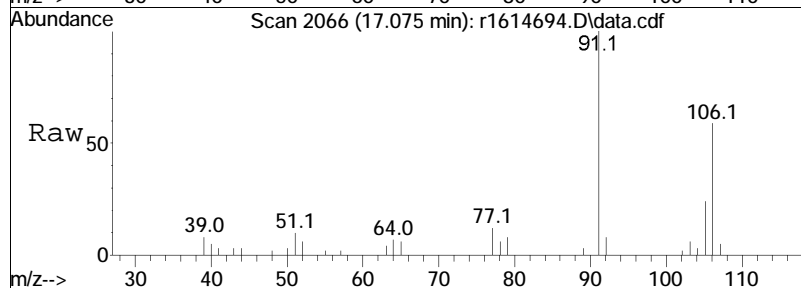
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 38.8 | 32.5 | 48.7 |

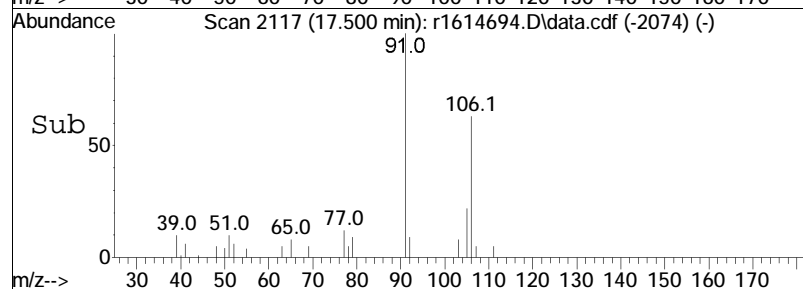
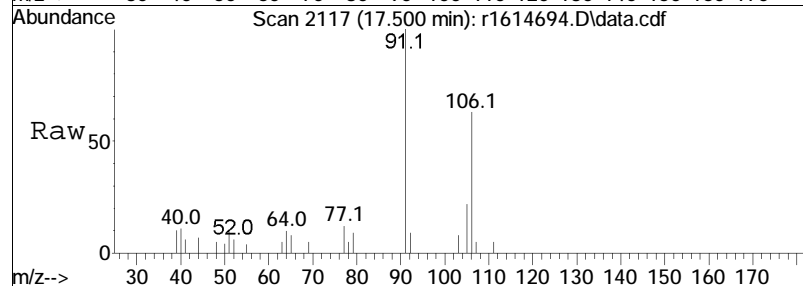
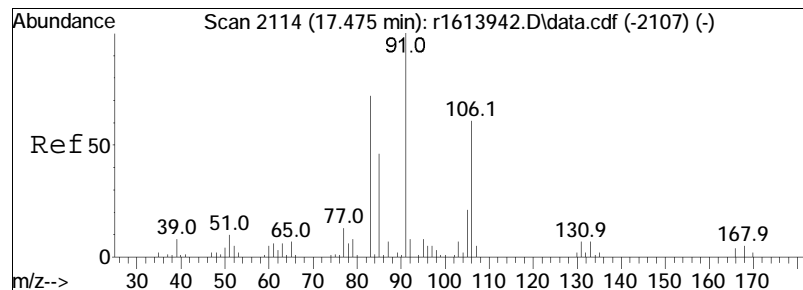




#83
 m+p-xylene
 Concen: 0.50 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

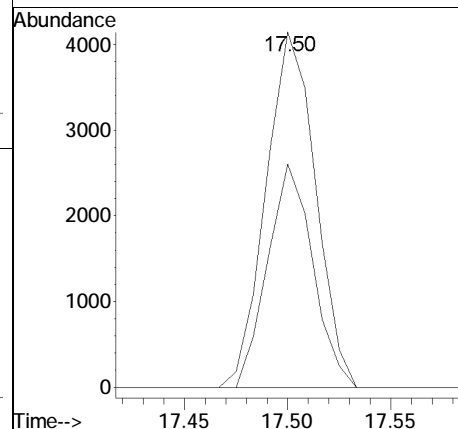
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 58.7 | 49.8 | 74.6 |

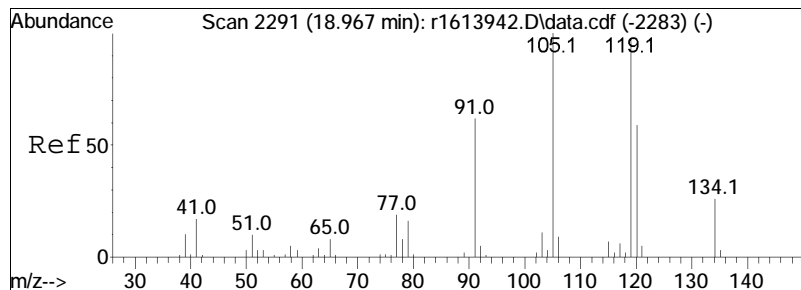




#87
 o-xylene
 Concen: 0.19 ppbV
 RT: 17.50 min Scan# 2117
 Delta R.T. 0.025 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

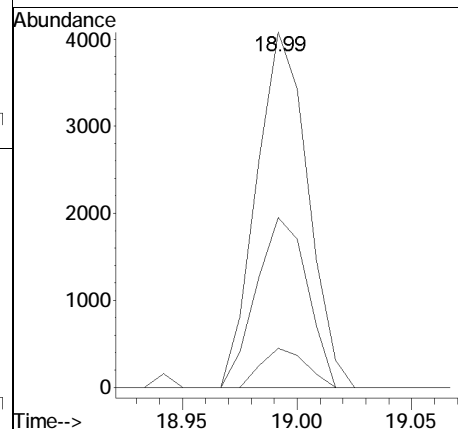
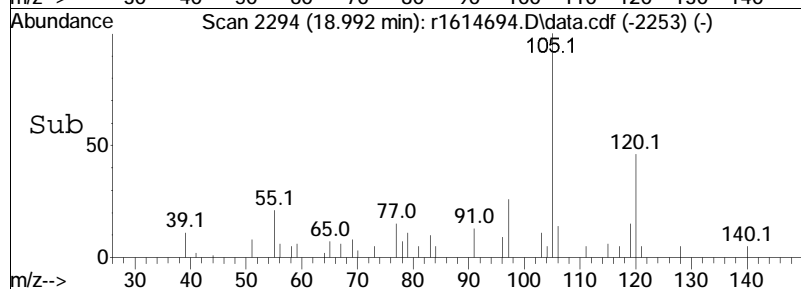
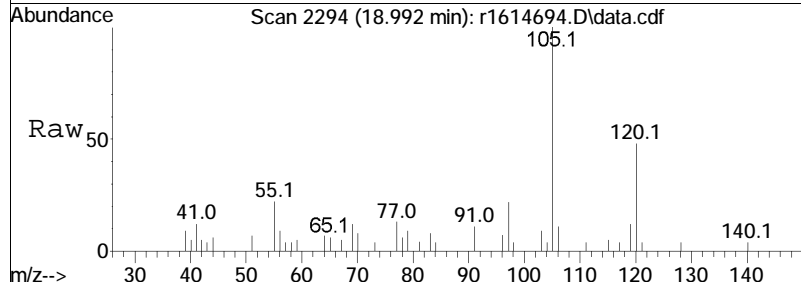
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 91 | 100 | | |
| 106 | 62.9 | 48.8 | 73.2 |





#99
 1,2,4-trimethylbenzene
 Concen: 0.14 ppbV
 RT: 18.99 min Scan# 2294
 Delta R.T. 0.025 min
 Lab File: r1614694.D
 Acq: 4 Jan 2020 6:32 PM

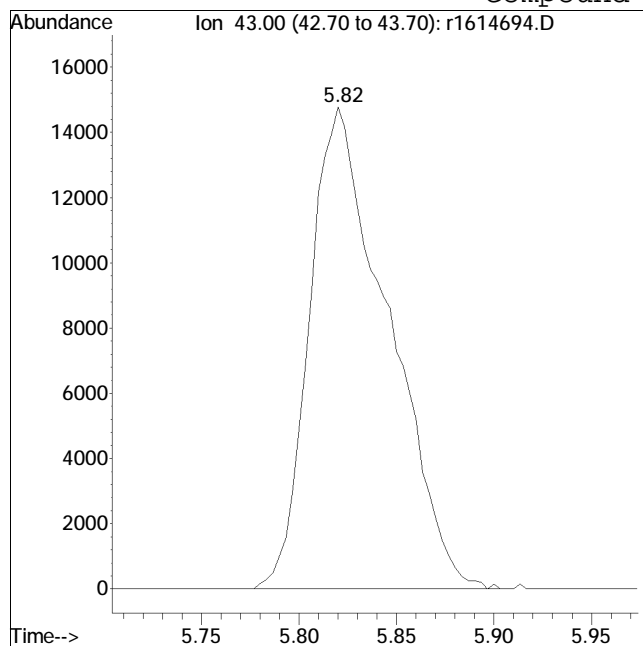
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 47.8 | 46.9 | 70.3 |
| 91 | 11.0 | 49.3 | 73.9# |



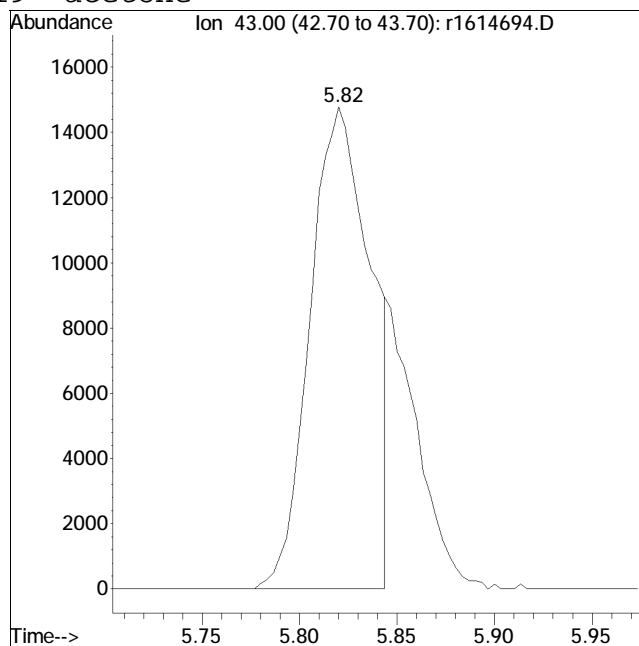
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614694.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:6: 2 Instrument :
Sample : L1962003-01,3,250,250 Quant Date : 1/5/2020 8:28 am

Compound #19: acetone



Original Peak Response = 41298



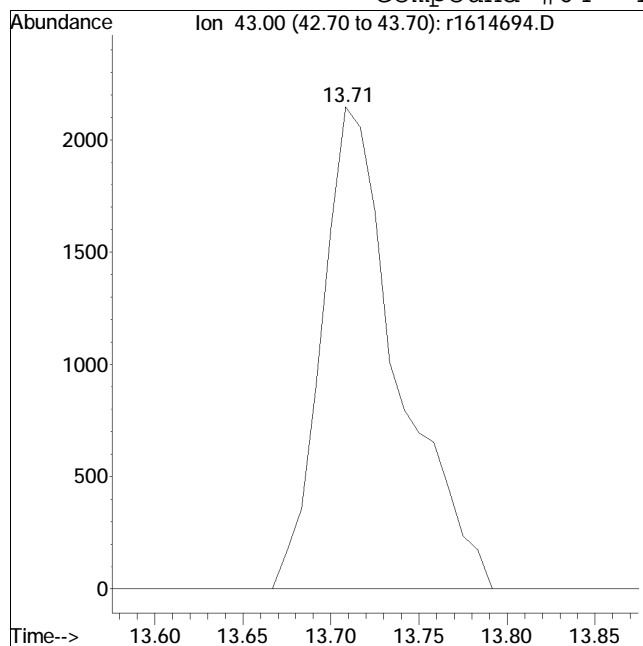
Manual Peak Response = 31865 M4

M4 = Poor automated baseline construction.

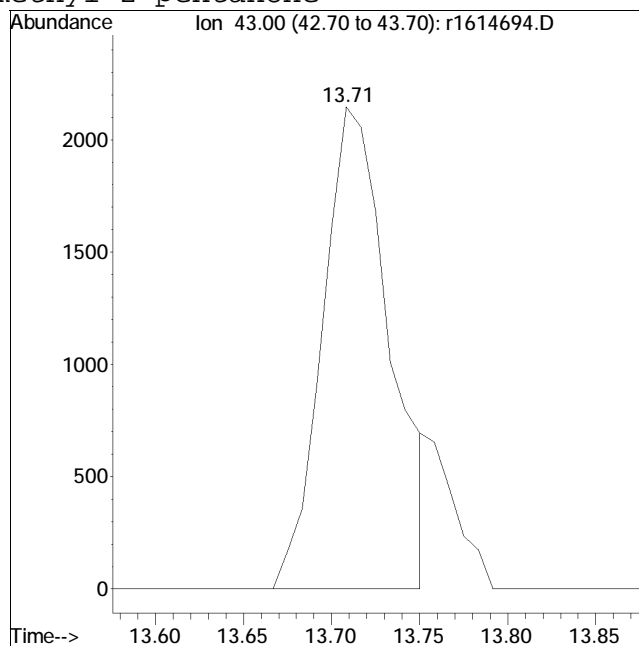
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614694.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:6: 2 Instrument :
Sample : L1962003-01,3,250,250 Quant Date : 1/5/2020 8:28 am

Compound #64: 4-methyl-2-pentanone



Original Peak Response = 6474



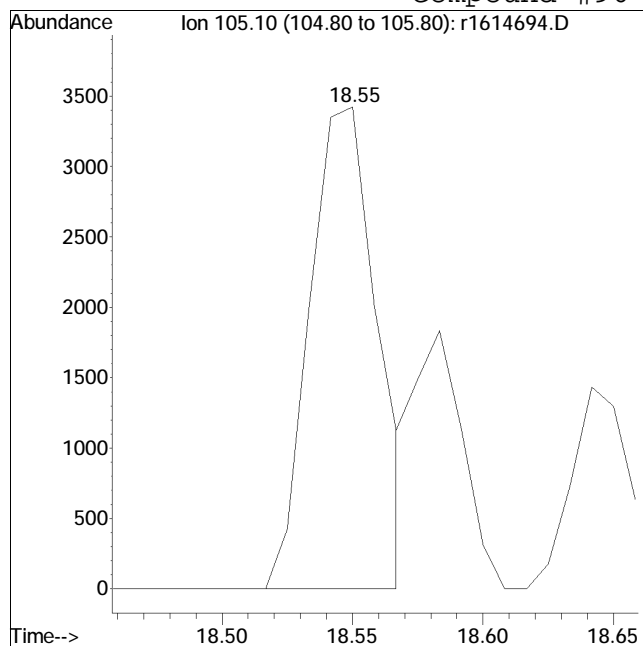
Manual Peak Response = 5715 M4

M4 = Poor automated baseline construction.

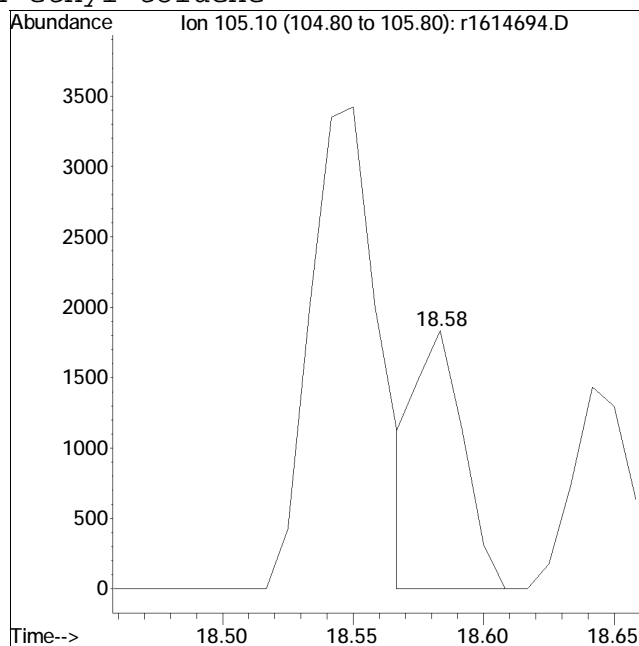
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614694.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:6: 2 Instrument :
 Sample : L1962003-01,3,250,250 Quant Date : 1/5/2020 8:28 am

Compound #96: 4-ethyl toluene



Original Peak Response = 6168



Manual Peak Response = 2388 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614695.D
 Acq On : 4 Jan 2020 7:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-02,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:11:54 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|-------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 209346 | 10.000 | ppbV | 0.03 |
| Standard Area = 223987 | | | Recovery = | 93.46% | | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 574711 | 10.000 | ppbV | 0.04 |
| Standard Area = 600707 | | | Recovery = | 95.67% | | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 70875 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery = | 93.99% | | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 5) dichlorodifluoromethane | 3.92 | 85 | 5830 | 0.375 | ppbV | 98 |
| 6) chloromethane | 4.10 | 50 | 4559 | 0.483 | ppbV | 91 |
| 7) Freon-114 | 4.23 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 4.52 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.23 | 31 | 102145 | 15.134 | ppbV | 85 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 25916M6 | 2.074 | ppbV | |
| 21) trichlorofluoromethane | 6.02 | 101 | 2102 | 0.168 | ppbV | 87 |
| 22) isopropyl alcohol | 6.16 | 45 | 9502 | 0.590 | ppbV | 98 |
| 27) tertiary butyl alcohol | 6.91 | | 0 | N.D. | | |
| 28) methylene chloride | 6.97 | 49 | 2500 | 0.196 | ppbV | 94 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.26 | 76 | 2546 | 0.076 | ppbV # | 16 |
| 31) Freon 113 | 7.31 | 101 | 1337 | 0.073 | ppbV | 89 |
| 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 | 8.86 | 43 | 4280 | 0.176 | ppbV # | 90 |
| 38) Ethyl Acetate | 9.68 | 61 | 247 | 0.070 | ppbV # | 28 |
| 39) chloroform | 0.00 | | 0 | N.D. | | |
| 40) Tetrahydrofuran | 10.20 | | 0 | N.D. | | |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |
| 44) hexane | 9.63 | 57 | 9150 | 0.525 | ppbV # | 49 |
| 50) benzene | 11.39 | 78 | 10271 | 0.277 | ppbV | 99 |
| 53) cyclohexane | 11.71 | 56 | 7641 | 0.412 | ppbV | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614695.D
 Acq On : 4 Jan 2020 7:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-02,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:11:54 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|-------|--------|----------|----|
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | | |
| 57) bromodichloromethane | 12.58 | | 0 | | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | | |
| 60) 2,2,4-trimethylpentane | 12.69 | 57 | 4048 | 0.072 | ppbV # | | 65 |
| 62) heptane | 13.01 | 43 | 14374 | 0.549 | ppbV | | 97 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 64) 4-methyl-2-pentanone | 13.72 | 43 | 5611M4 | 0.185 | ppbV | | |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 66) 1,1,2-trichloroethane | 14.33 | | 0 | | N.D. | | |
| 68) toluene | 14.79 | 91 | 32045 | 0.948 | ppbV | | 99 |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. | d | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | | |
| 80) chlorobenzene | 16.52 | | 0 | | N.D. | | |
| 81) ethylbenzene | 16.92 | 91 | 9008 | 0.213 | ppbV | | 97 |
| 83) m+p-xylene | 17.07 | 91 | 18153 | 0.524 | ppbV | | 94 |
| 84) bromoform | 0.00 | | 0 | | N.D. | | |
| 85) styrene | 17.41 | | 0 | | N.D. | | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | | N.D. | d | |
| 87) o-xylene | 17.50 | 91 | 7333 | 0.210 | ppbV | | 91 |
| 96) 4-ethyl toluene | 18.58 | | 0 | | N.D. | | |
| 97) 1,3,5-trimethylbenzene | 18.64 | | 0 | | N.D. | | |
| 99) 1,2,4-trimethylbenzene | 18.99 | 105 | 6096 | 0.141 | ppbV # | | 58 |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. | d | |
| 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 | 0.00 | | 0 | | N.D. | | |
| 119) hexachlorobutadiene | 0.00 | | 0 | | N.D. | | |

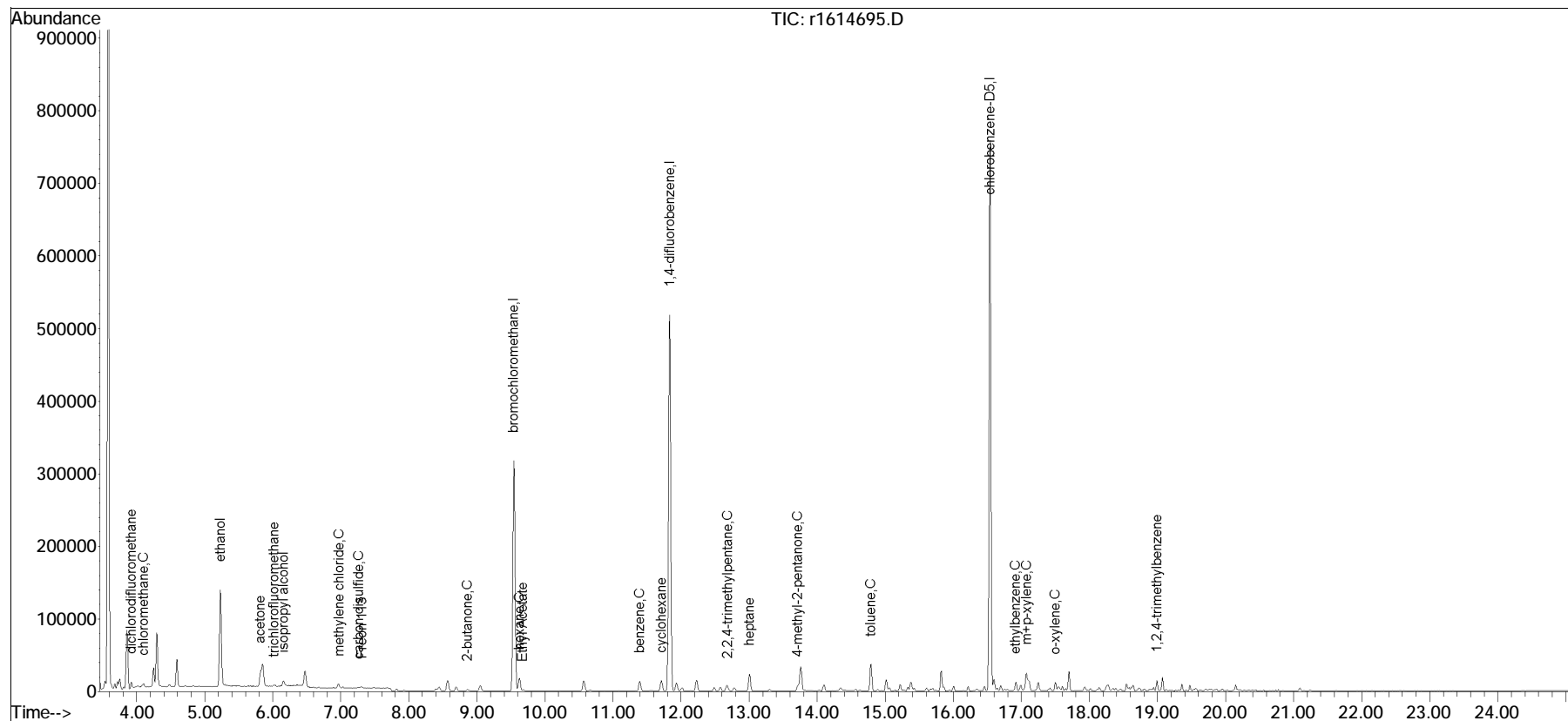
(#) = qualifier out of range (m) = manual integration (+) = signals summed

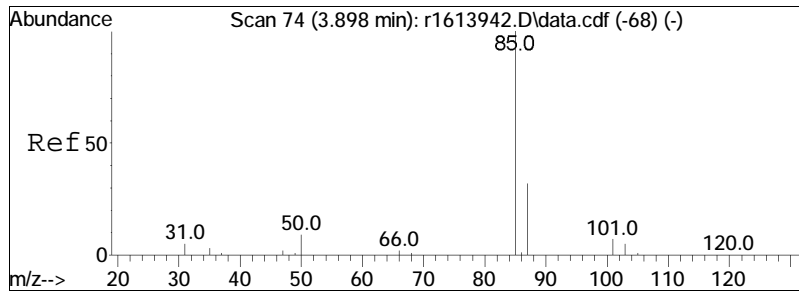
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614695.D
 Acq On : 4 Jan 2020 7:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-02,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:11:54 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

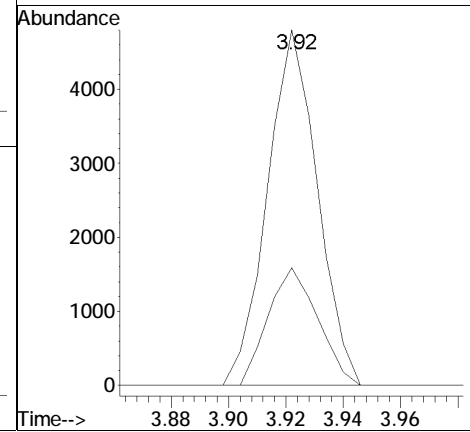
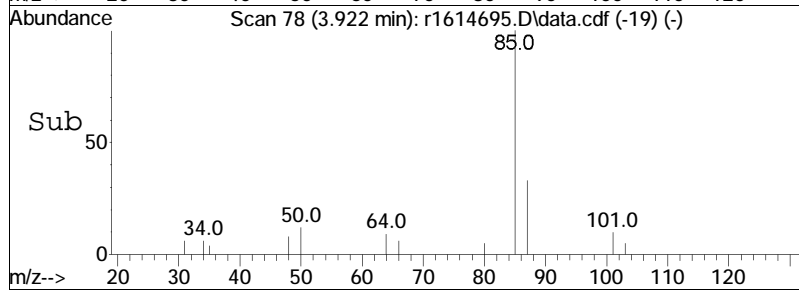
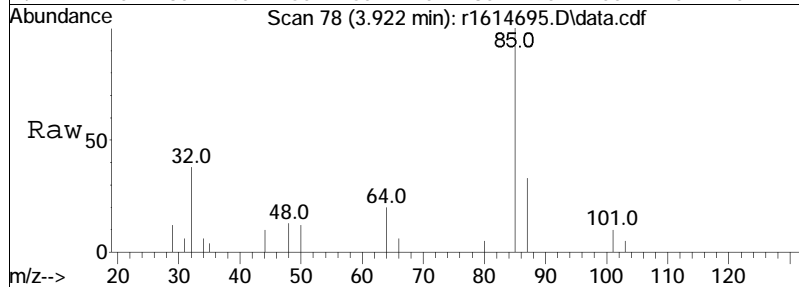
Sub List : TO15-NY-7-SIM - .\Airlab16\2020\01-JAN\200104T\r1614690.D

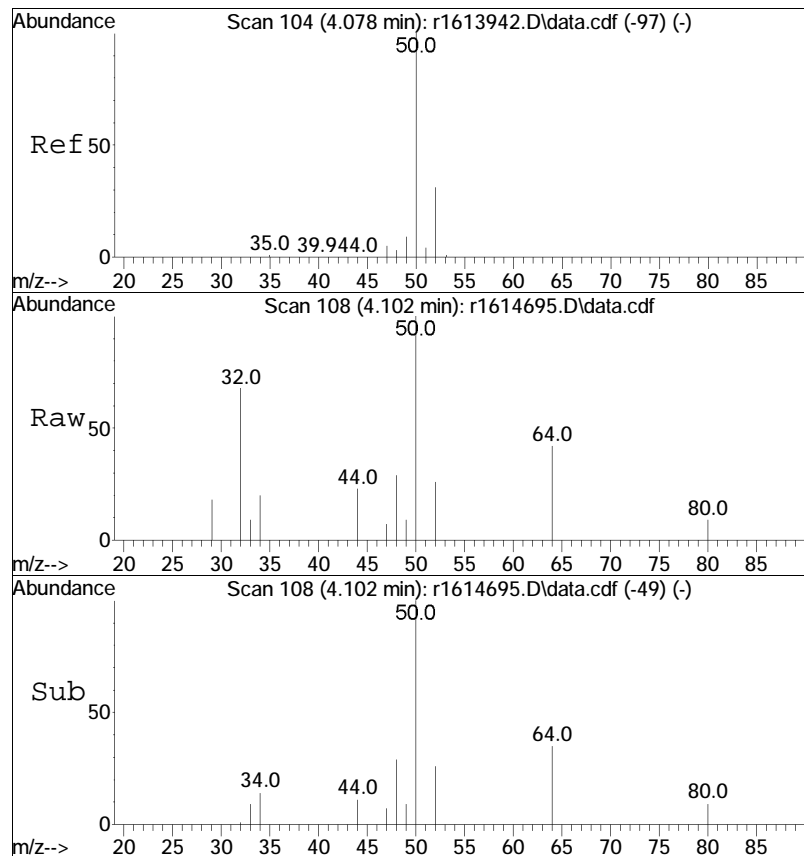




#5
dichlorodifluoromethane
Concen: 0.38 ppbV
RT: 3.92 min Scan# 78
Delta R.T. 0.024 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

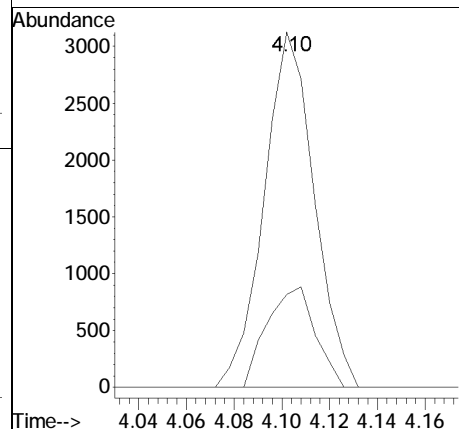
Tgt Ion: 85 Resp: 5830
Ion Ratio Lower Upper
85 100
87 33.1 25.5 38.3

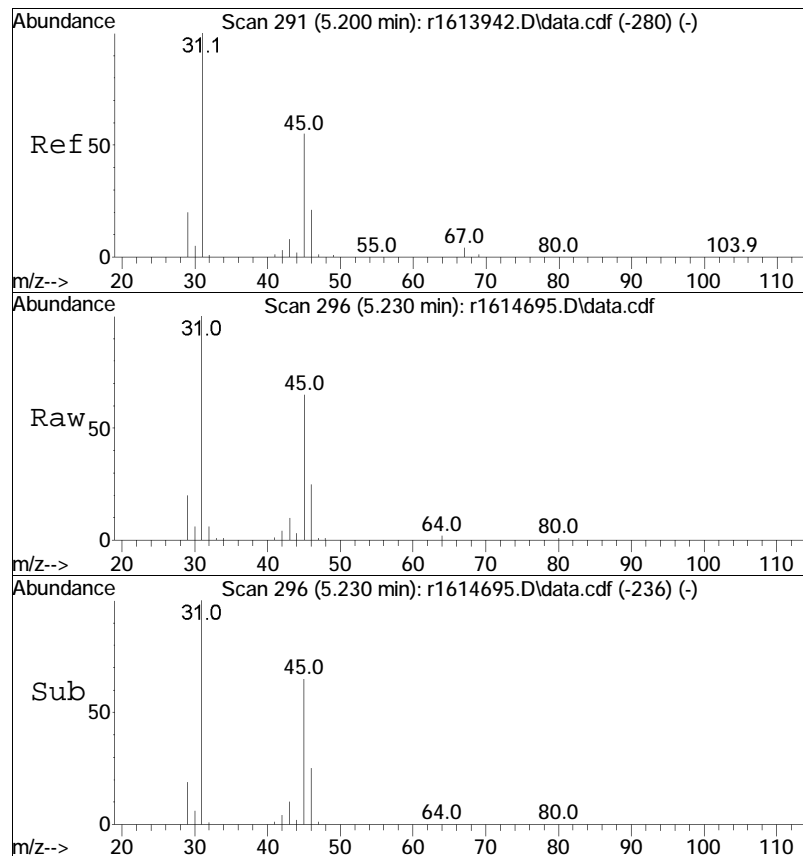




#6
 chloromethane
 Concen: 0.48 ppbV
 RT: 4.10 min Scan# 108
 Delta R.T. 0.024 min
 Lab File: r1614695.D
 Acq: 4 Jan 2020 7:12 PM

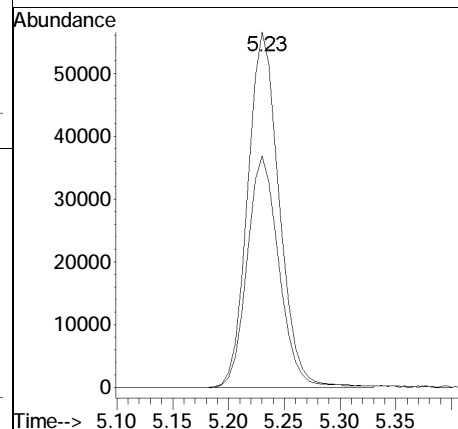
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 26.2 | 24.8 | 37.2 |

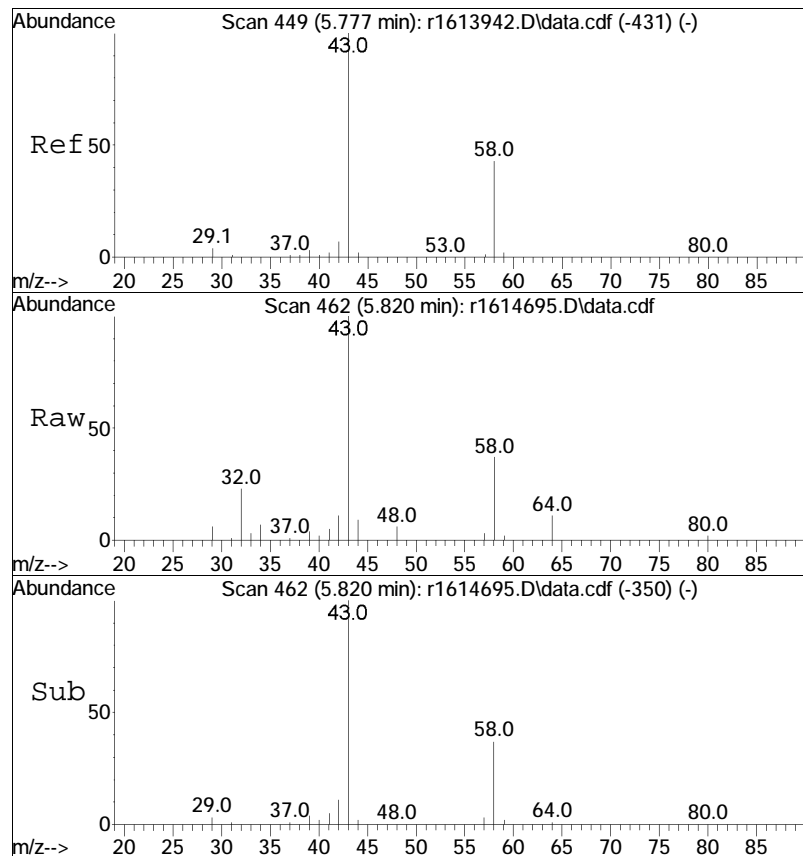




#15
ethanol
Concen: 15.13 ppbV
RT: 5.23 min Scan# 296
Delta R.T. 0.030 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

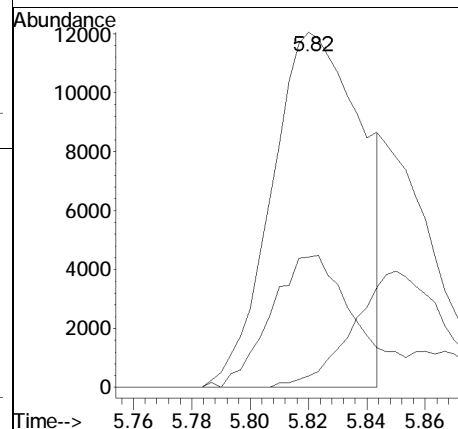
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 65.2 | 43.7 | 65.5 |

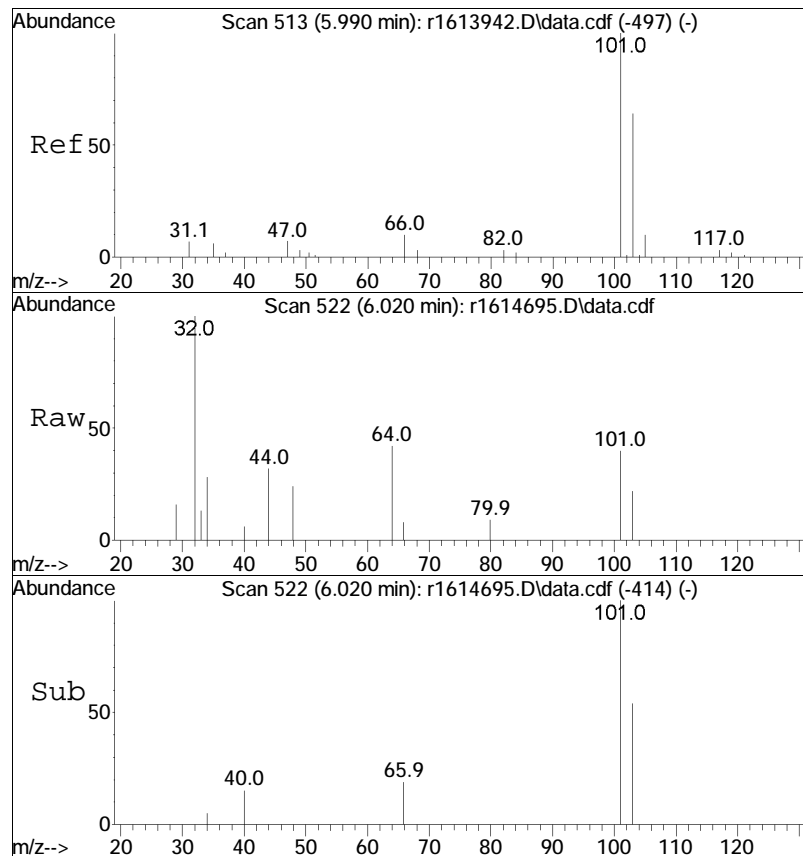




#19
acetone
Concen: 2.07 ppbV m
RT: 5.82 min Scan# 462
Delta R.T. 0.043 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

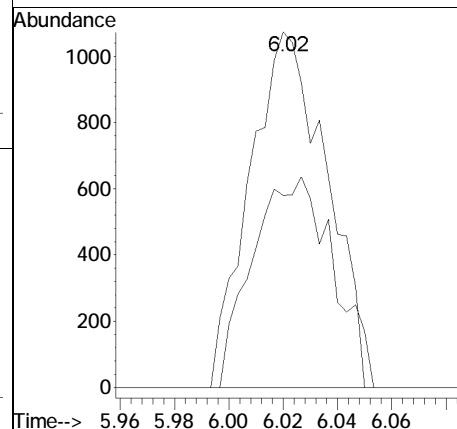
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 25916 |
| Ion | Ratio | Lower | Upper |
| 43 | 100 | | |
| 58 | 36.7 | 34.4 | 51.6 |
| 57 | 3.2 | 0.9 | 1.3# |

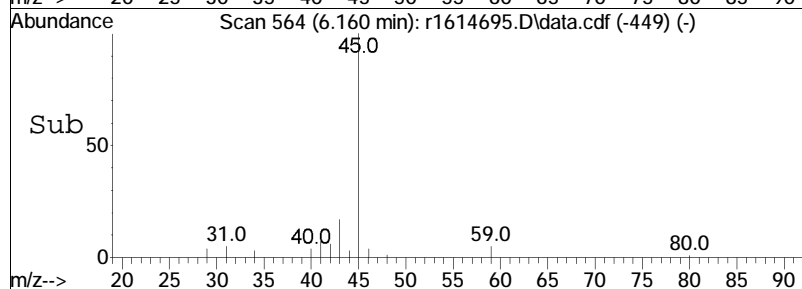
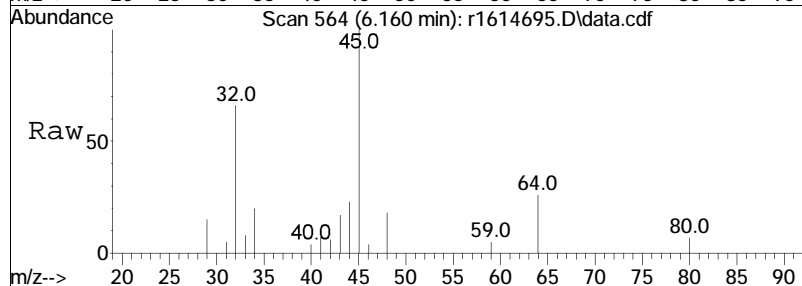
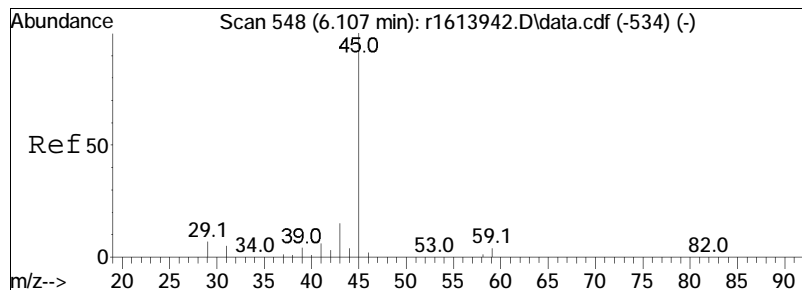




#21
trichlorofluoromethane
Concen: 0.17 ppbV
RT: 6.02 min Scan# 522
Delta R.T. 0.030 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

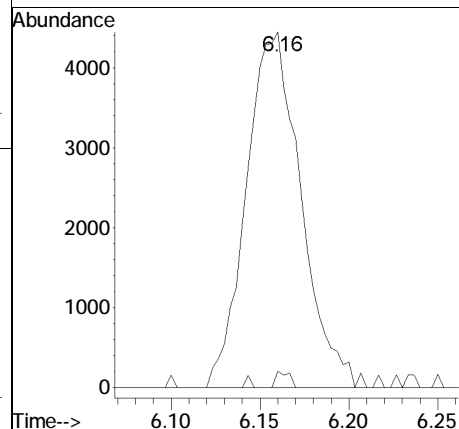
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 2102 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 103 | 54.1 | 51.4 | 77.2 |

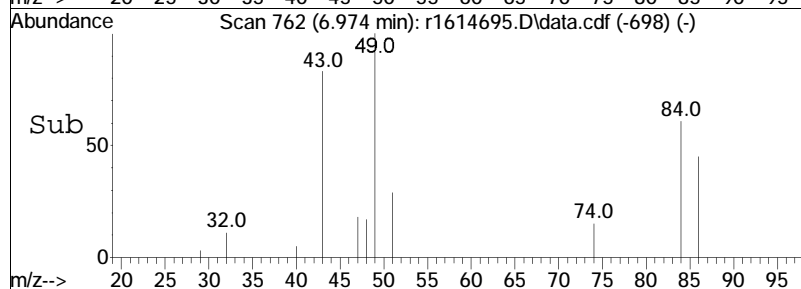
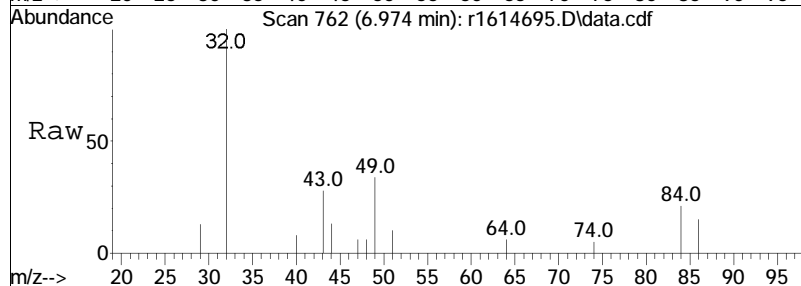
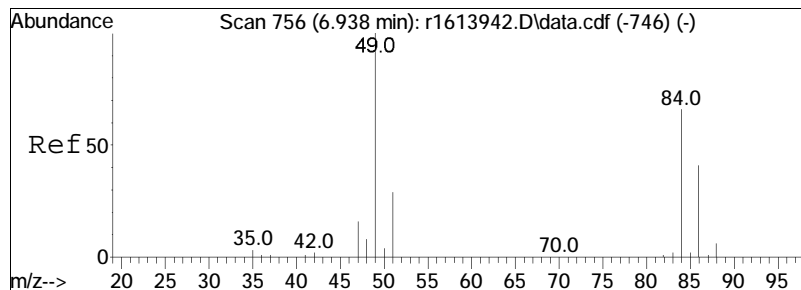




#22
isopropyl alcohol
Concen: 0.59 ppbV
RT: 6.16 min Scan# 564
Delta R.T. 0.053 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

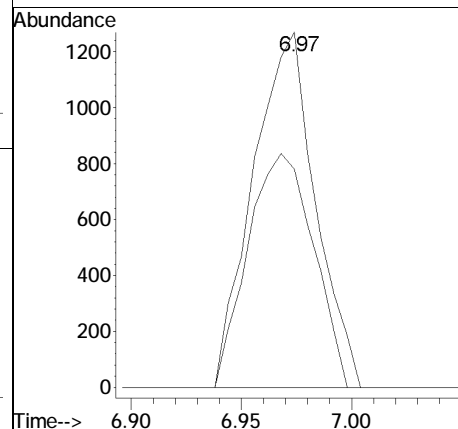
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 4.5 | 3.2 | 4.8 |

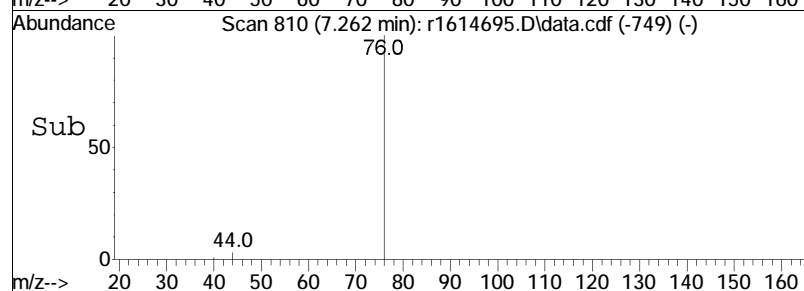
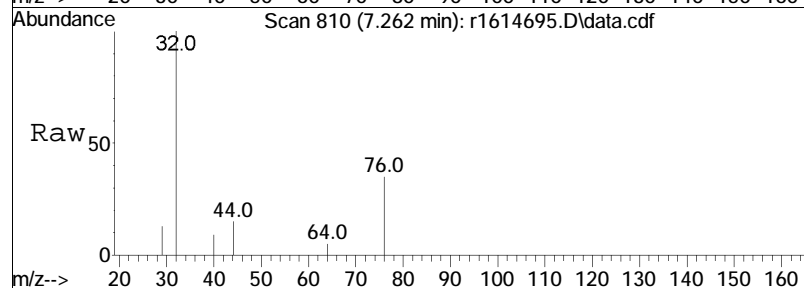
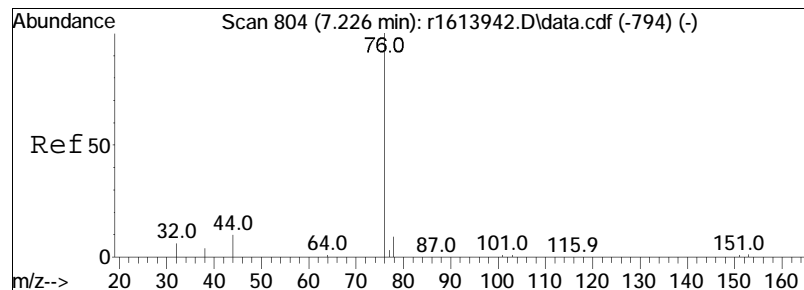




#28
methylene chloride
Concen: 0.20 ppbV
RT: 6.97 min Scan# 762
Delta R.T. 0.036 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

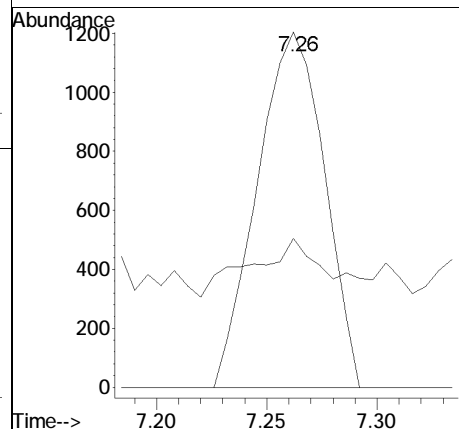
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49 | 100 | | |
| 84 | 61.4 | 53.0 | 79.4 |

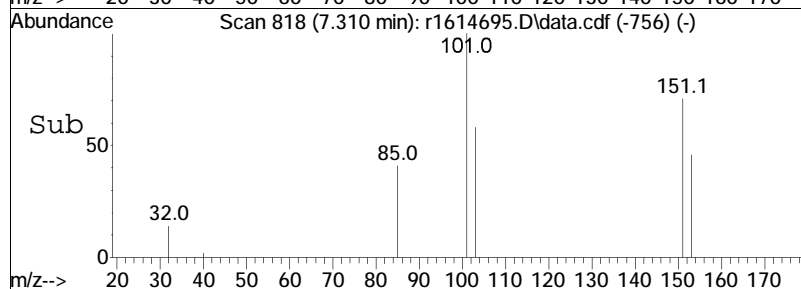
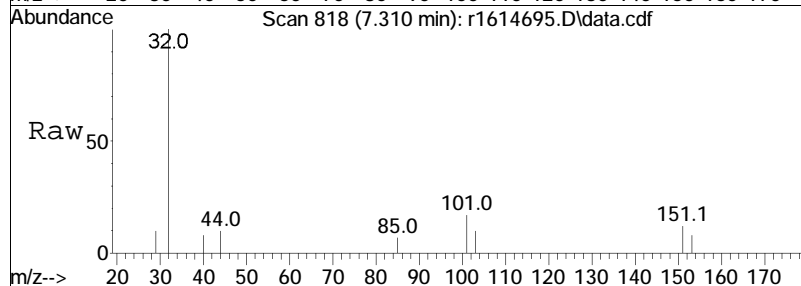
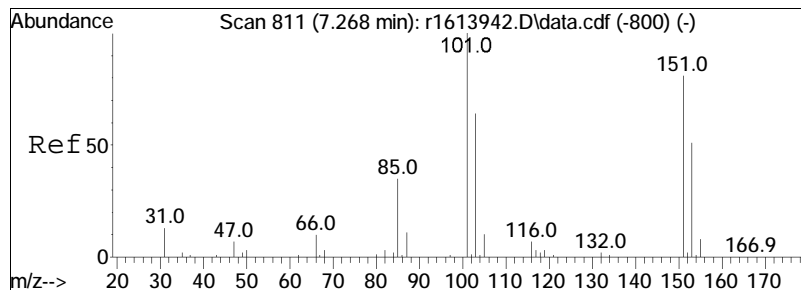




#30
carbon disulfide
Concen: 0.08 ppbV
RT: 7.26 min Scan# 810
Delta R.T. 0.036 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

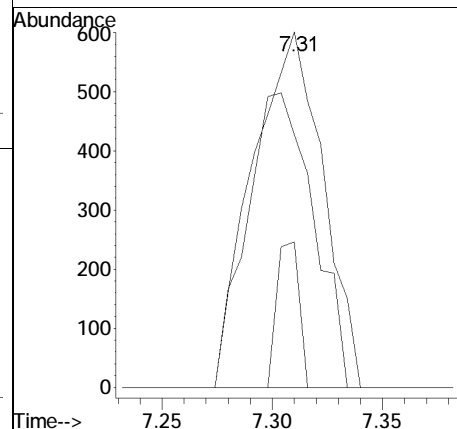
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 41.9 | 8.3 | 12.5# |

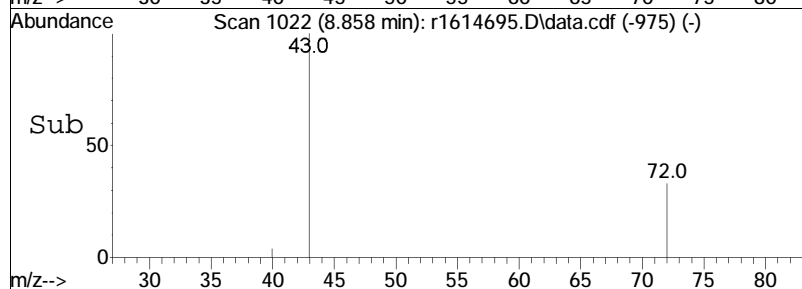
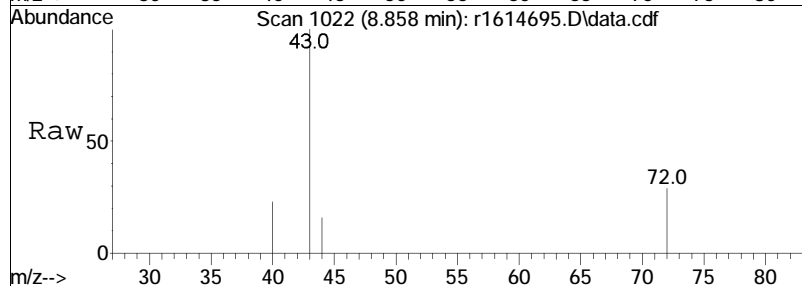
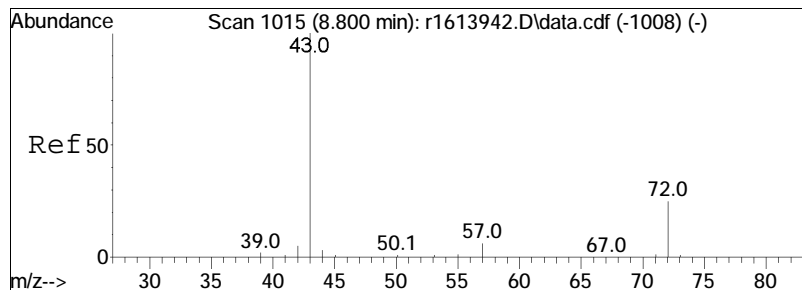




#31
 Freon 113
 Concen: 0.07 ppbV
 RT: 7.31 min Scan# 818
 Delta R.T. 0.042 min
 Lab File: r1614695.D
 Acq: 4 Jan 2020 7:12 PM

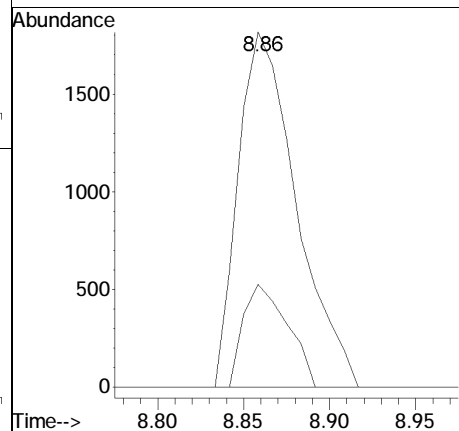
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 1337 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 85 | 40.9 | 27.8 | 41.6 |
| 151 | 71.0 | 65.0 | 97.6 |

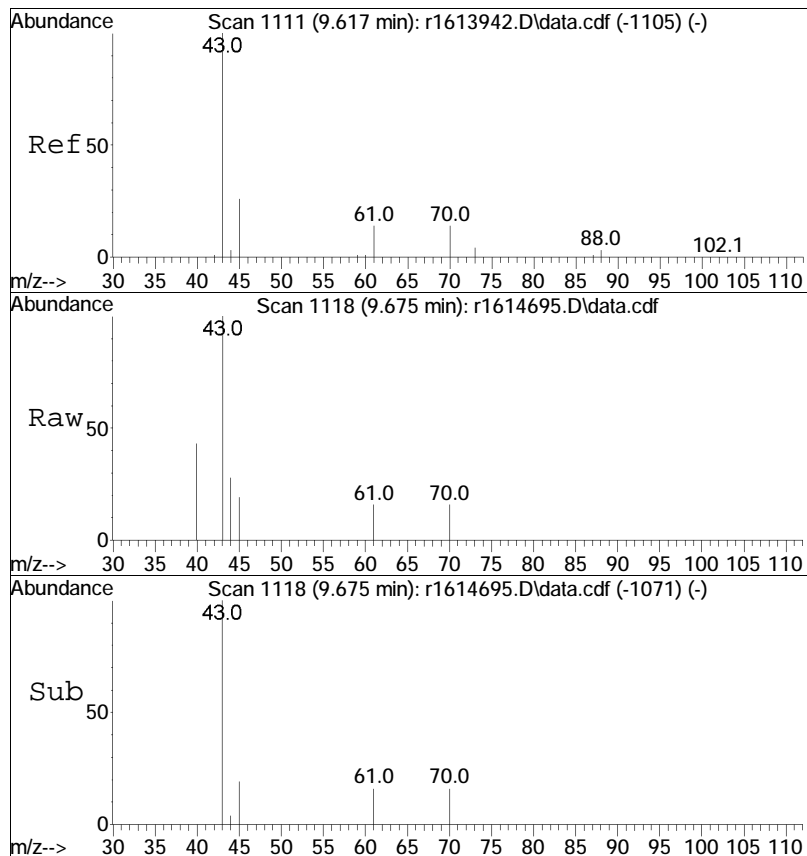




#36
2-butanone
Concen: 0.18 ppbV
RT: 8.86 min Scan# 1022
Delta R.T. 0.058 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

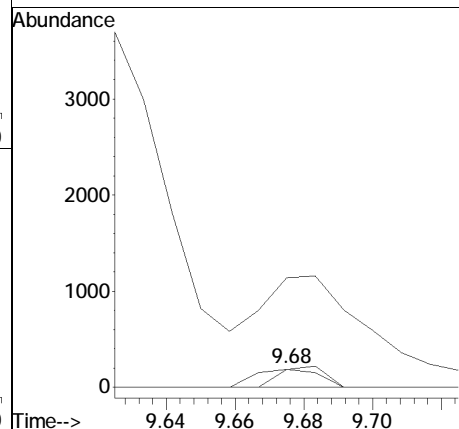
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 28.9 | 19.8 | 29.6 |
| 57 | 0.0 | 4.8 | 7.2# |

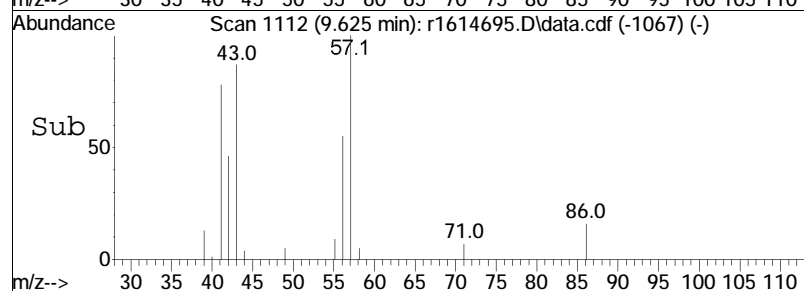
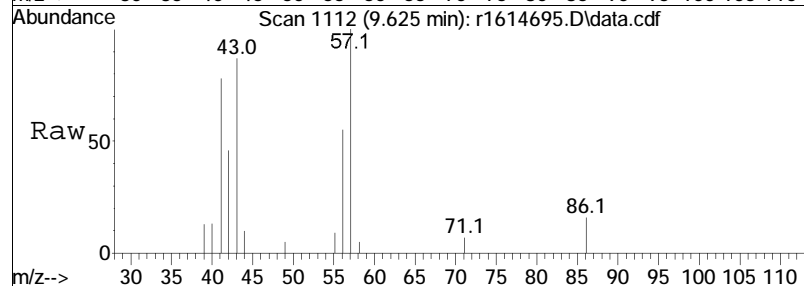
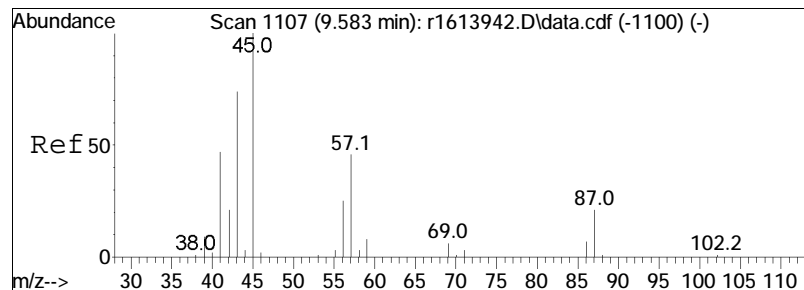




#38
Ethyl Acetate
Concen: 0.07 ppbV
RT: 9.68 min Scan# 1118
Delta R.T. 0.058 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

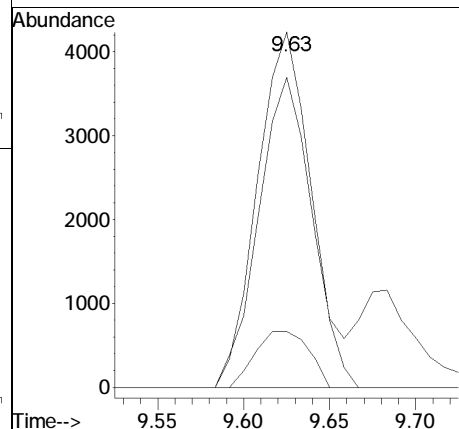
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|---------|
| 61 | 100 | | |
| 70 | 98.9 | 85.6 | 128.4 |
| 43 | 606.9 | 757.7 | 1136.5# |

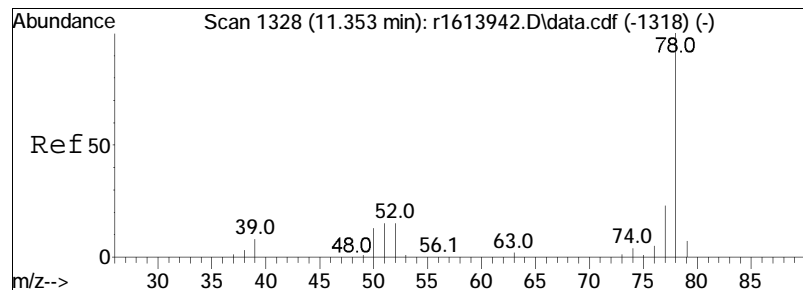




#44
hexane
Concen: 0.52 ppbV
RT: 9.63 min Scan# 1112
Delta R.T. 0.042 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

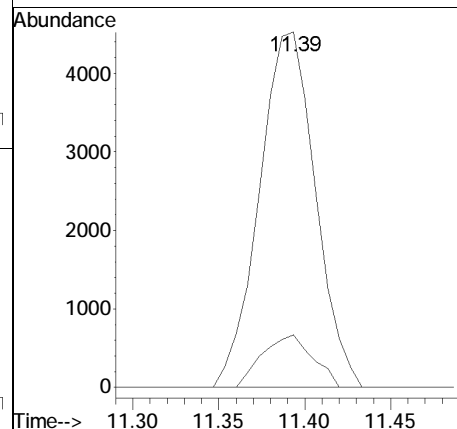
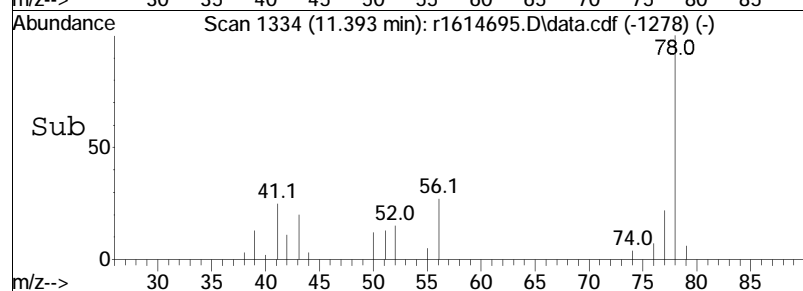
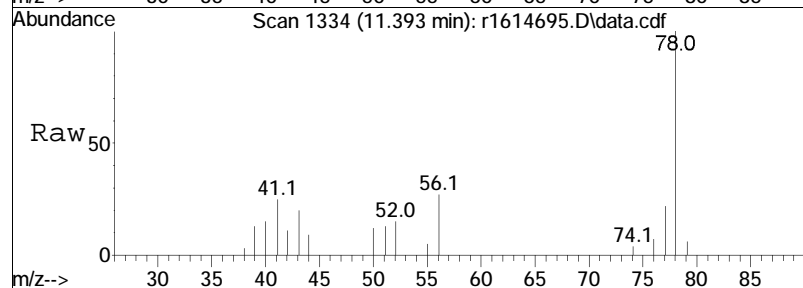
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 87.2 | 129.6 | 194.4# |
| 86 | 15.7 | 12.8 | 19.2 |

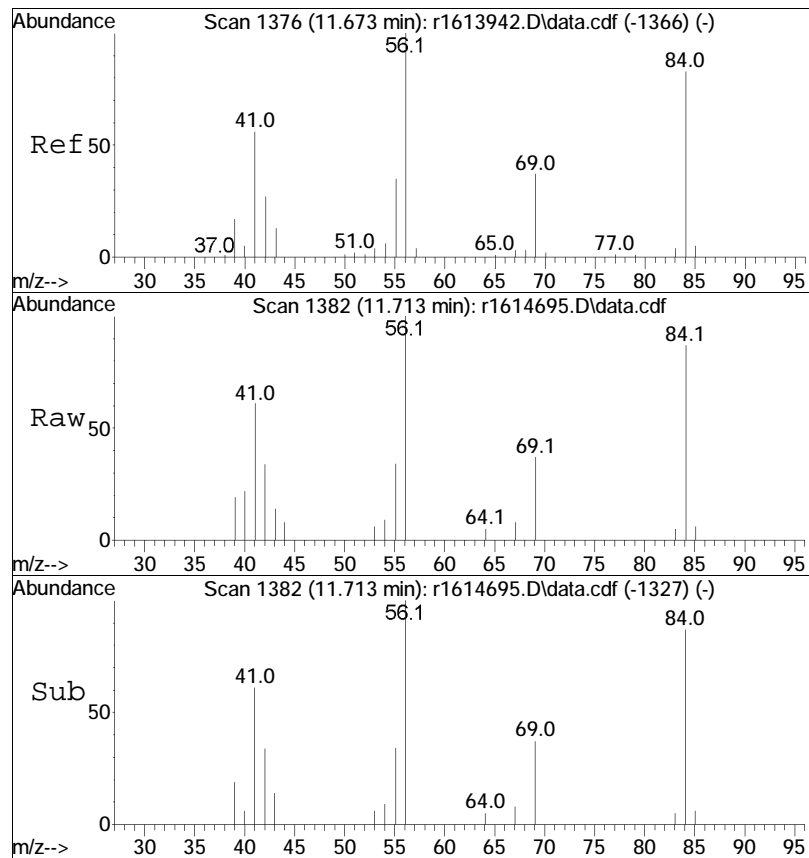




#50
benzene
Concen: 0.28 ppbV
RT: 11.39 min Scan# 1334
Delta R.T. 0.040 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

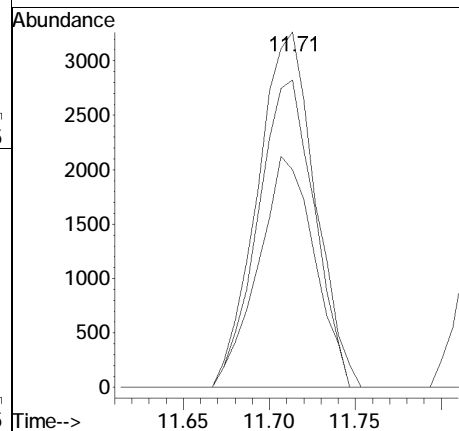
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 100 | | |
| 52 | 14.8 | 12.2 | 18.2 |

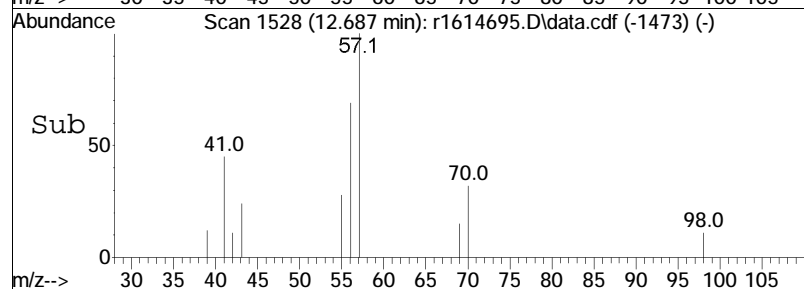
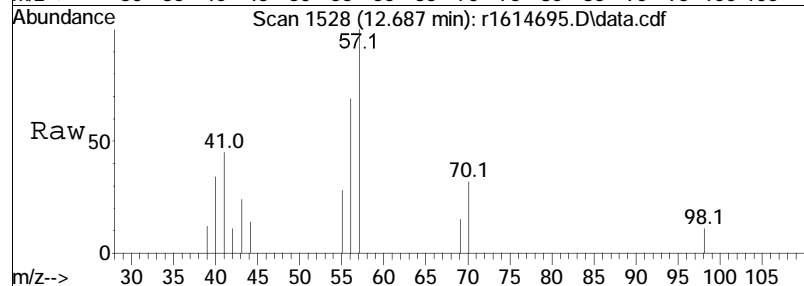
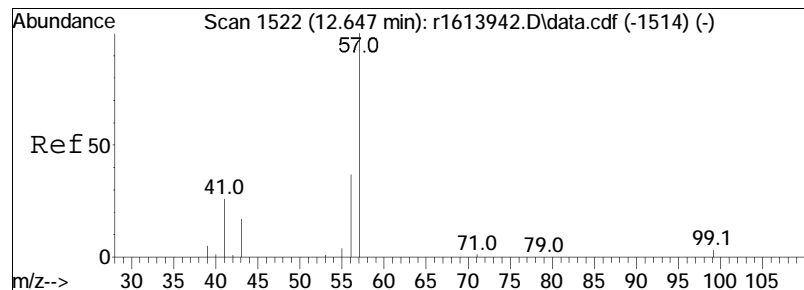




#53
cyclohexane
Concen: 0.41 ppbV
RT: 11.71 min Scan# 1382
Delta R.T. 0.040 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

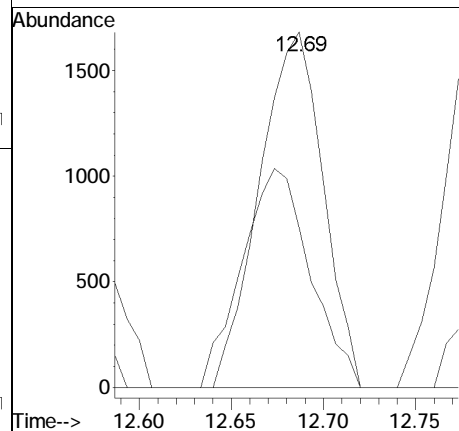
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 56 | 100 | | | |
| 84 | 86.5 | | 66.2 | 99.2 |
| 41 | 61.2 | | 45.2 | 67.8 |

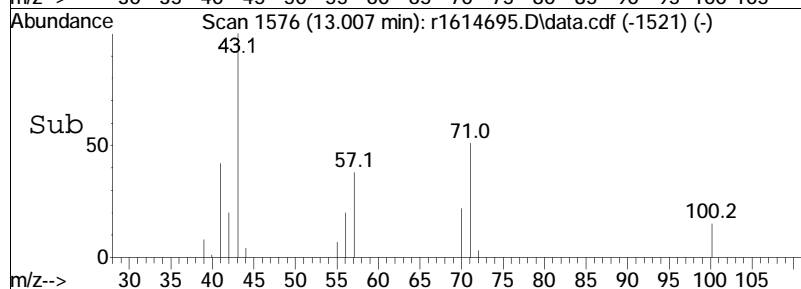
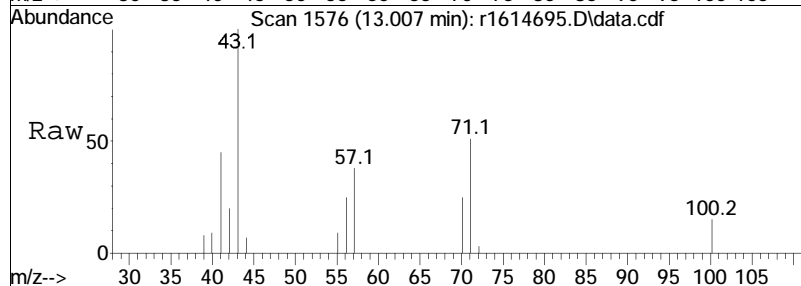
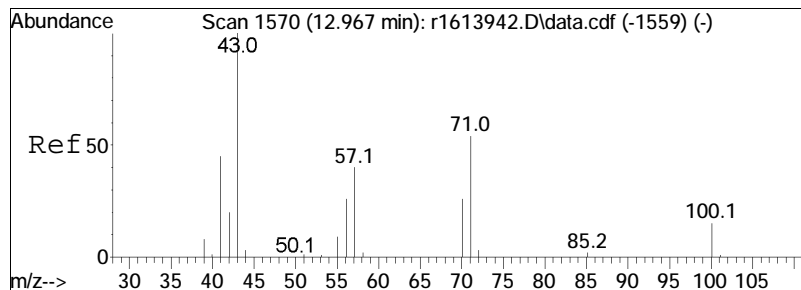




#60
 2,2,4-trimethylpentane
 Concen: 0.07 ppbV
 RT: 12.69 min Scan# 1528
 Delta R.T. 0.040 min
 Lab File: r1614695.D
 Acq: 4 Jan 2020 7:12 PM

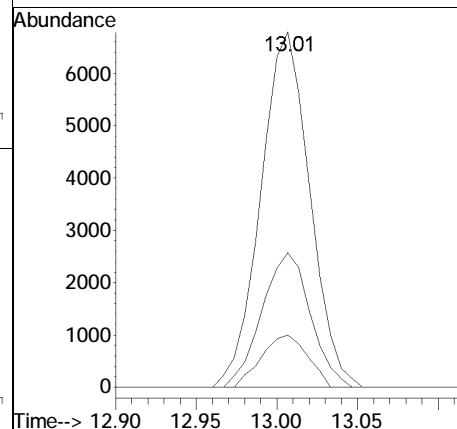
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 0.0 | 4.6 | 6.8# |
| 41 | 45.1 | 20.2 | 30.4# |

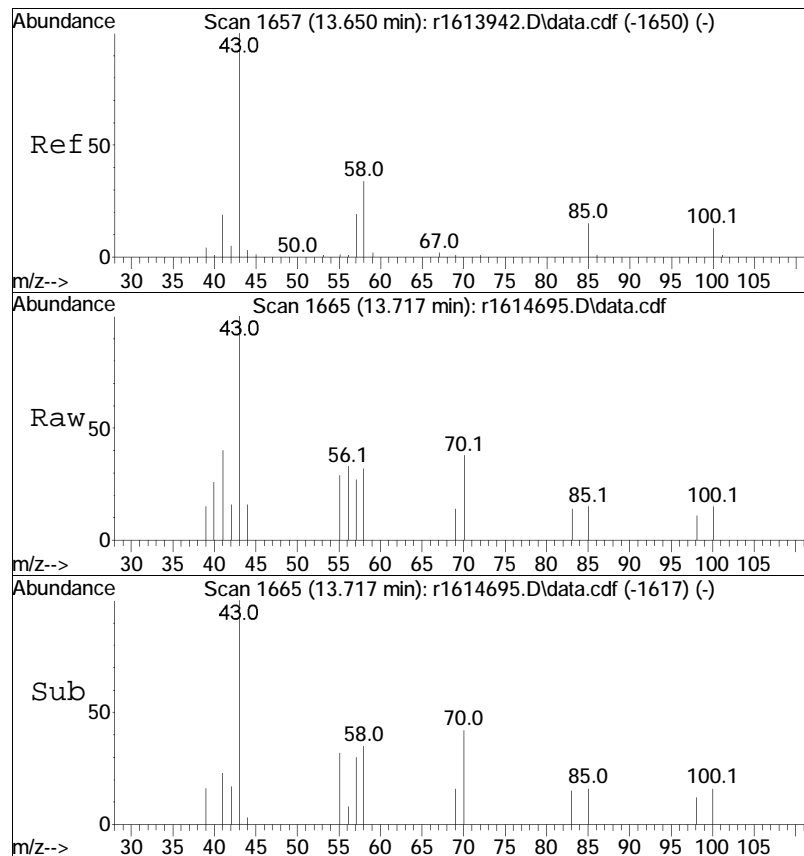




#62
heptane
Concen: 0.55 ppbV
RT: 13.01 min Scan# 1576
Delta R.T. 0.040 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

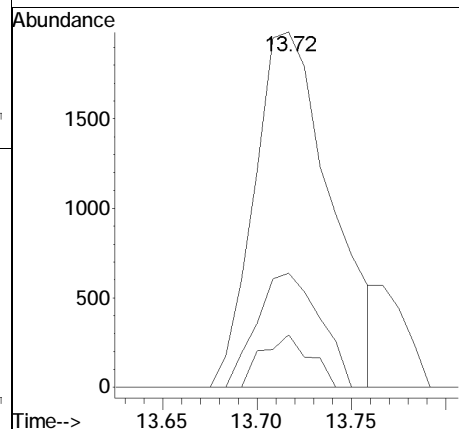
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 37.9 | 32.2 | 48.4 |
| 100 | 14.7 | 11.9 | 17.9 |

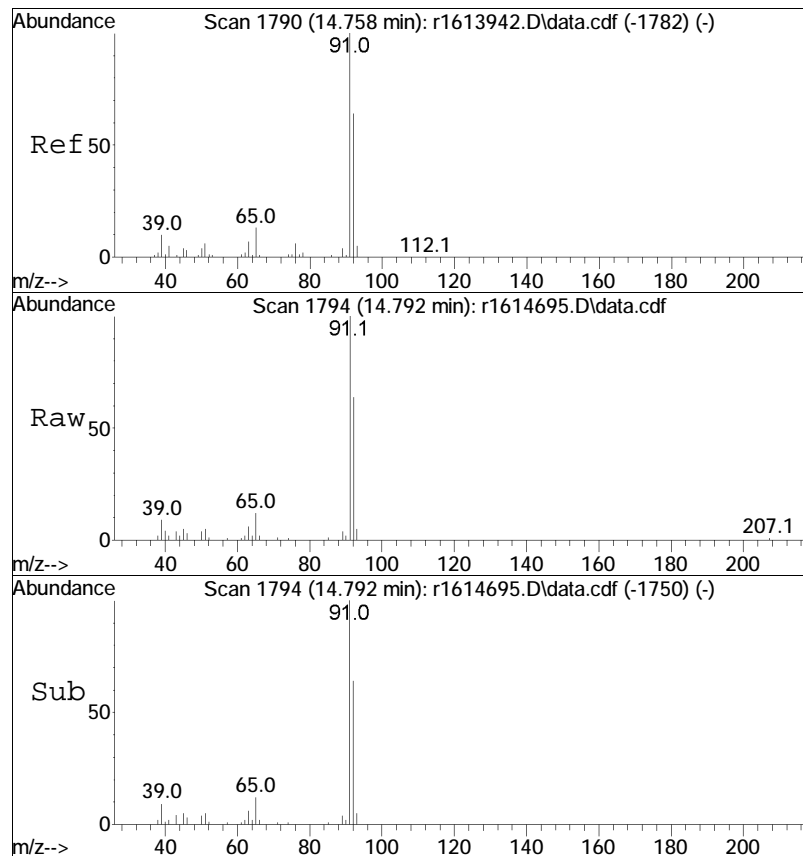




#64
 4-methyl-2-pentanone
 Concen: 0.19 ppbV m
 RT: 13.72 min Scan# 1665
 Delta R.T. 0.067 min
 Lab File: r1614695.D
 Acq: 4 Jan 2020 7:12 PM

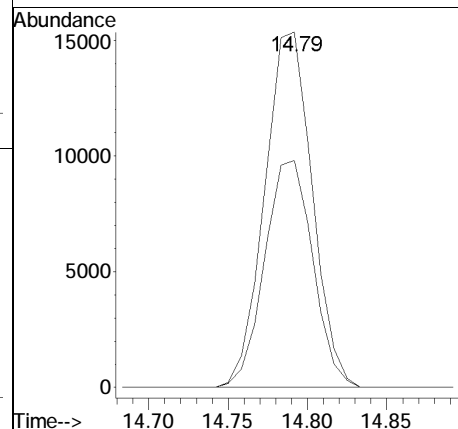
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 32.1 | 27.1 | 40.7 |
| 100 | 14.8 | 10.6 | 16.0 |

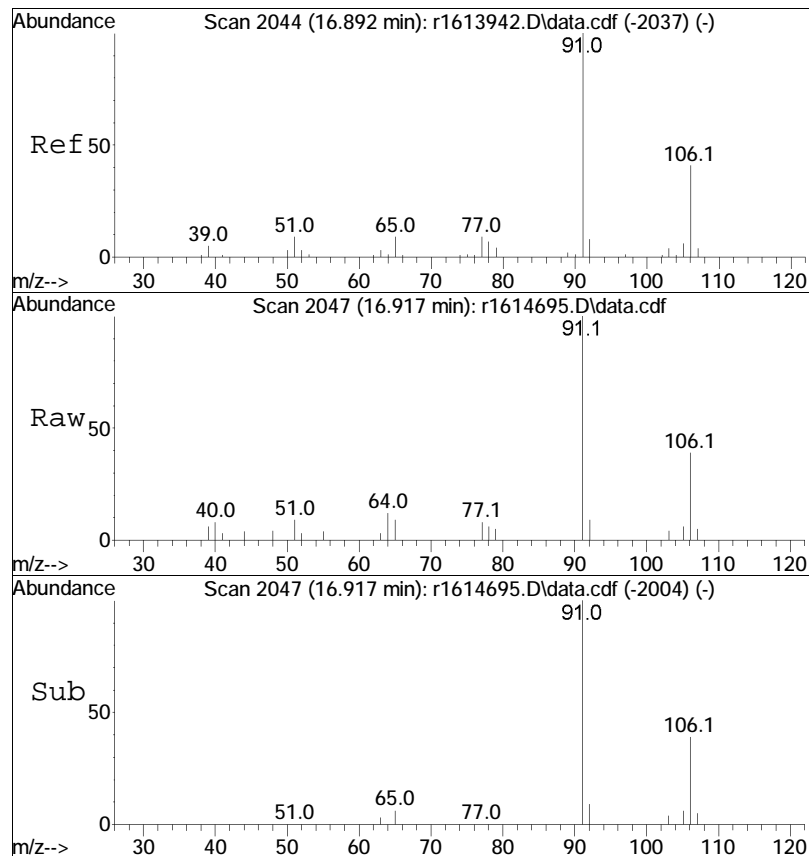




#68
toluene
Concen: 0.95 ppbV
RT: 14.79 min Scan# 1794
Delta R.T. 0.033 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

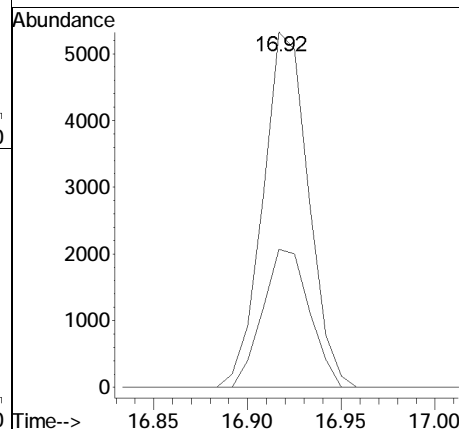
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 63.9 | 51.5 | 77.3 |

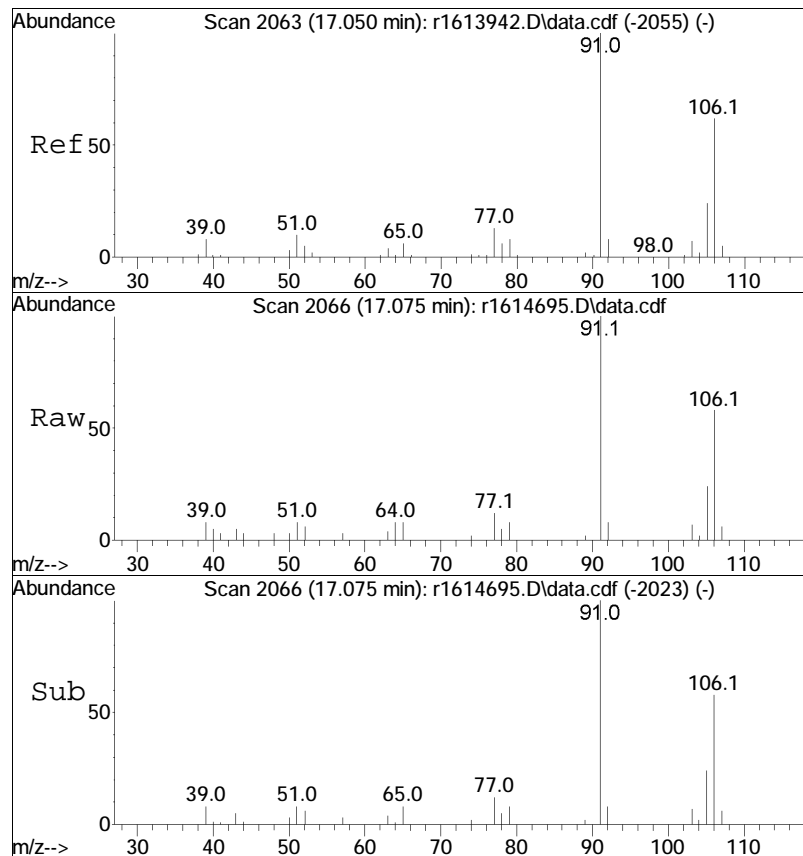




#81
ethylbenzene
Concen: 0.21 ppbV
RT: 16.92 min Scan# 2047
Delta R.T. 0.025 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

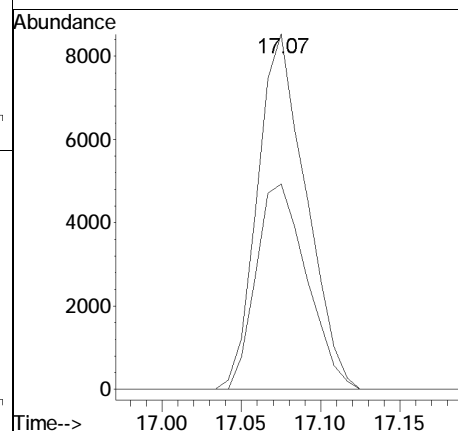
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 38.9 | 32.5 | 48.7 |

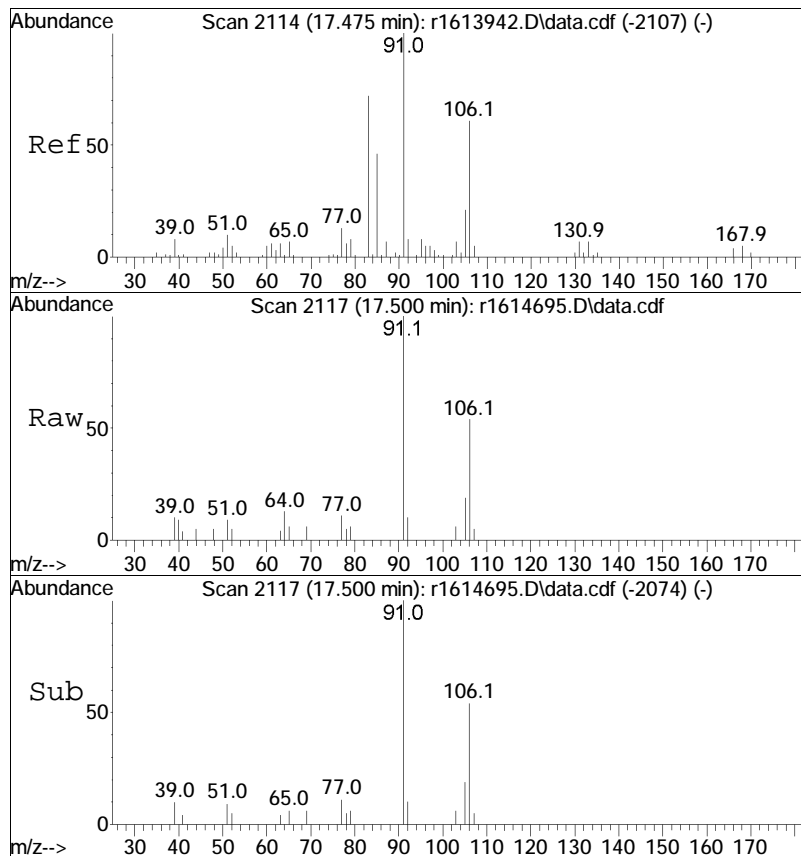




#83
 m+p-xylene
 Concen: 0.52 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614695.D
 Acq: 4 Jan 2020 7:12 PM

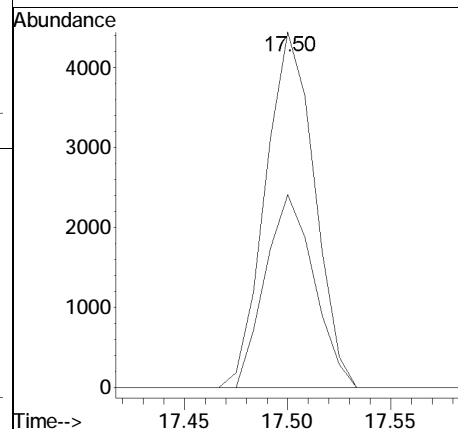
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 57.8 | 49.8 | 74.6 |

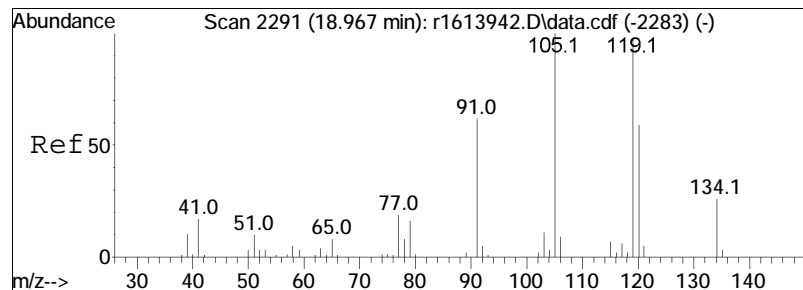




#87
o-xylene
Concen: 0.21 ppbV
RT: 17.50 min Scan# 2117
Delta R.T. 0.025 min
Lab File: r1614695.D
Acq: 4 Jan 2020 7:12 PM

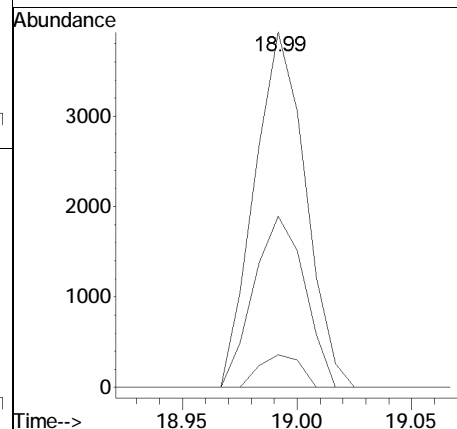
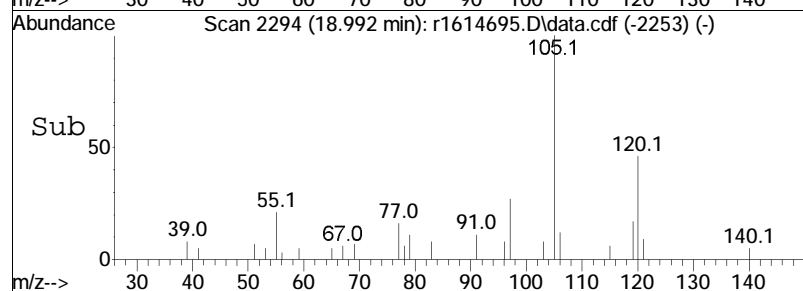
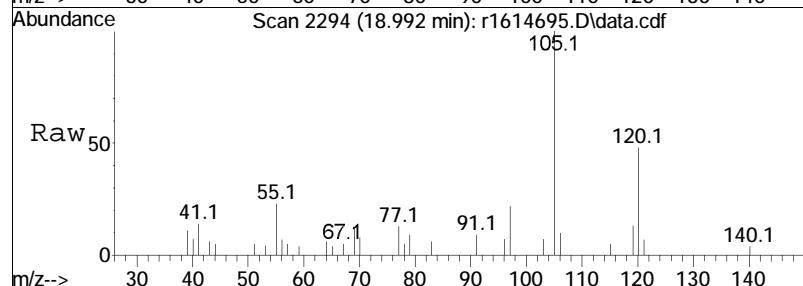
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 54.2 | 48.8 | 73.2 |





#99
 1,2,4-trimethylbenzene
 Concen: 0.14 ppbV
 RT: 18.99 min Scan# 2294
 Delta R.T. 0.025 min
 Lab File: r1614695.D
 Acq: 4 Jan 2020 7:12 PM

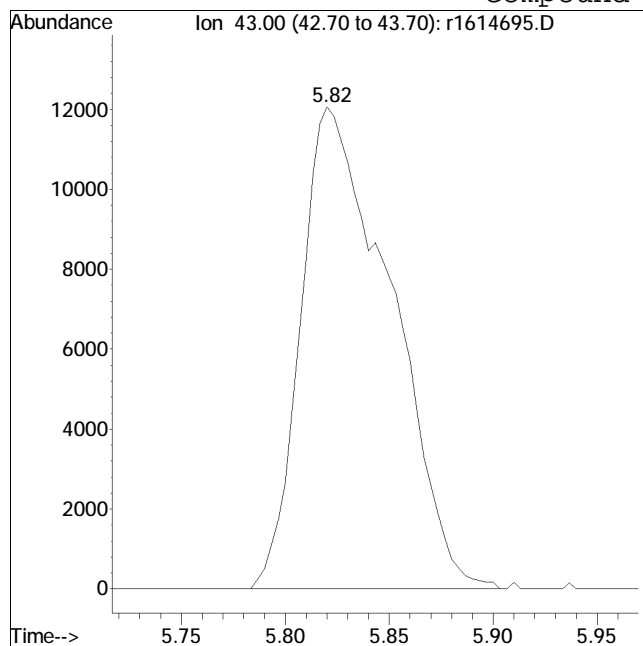
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 48.1 | 46.9 | 70.3 |
| 91 | 9.2 | 49.3 | 73.9# |



Manual Integration/Negative Proof Report

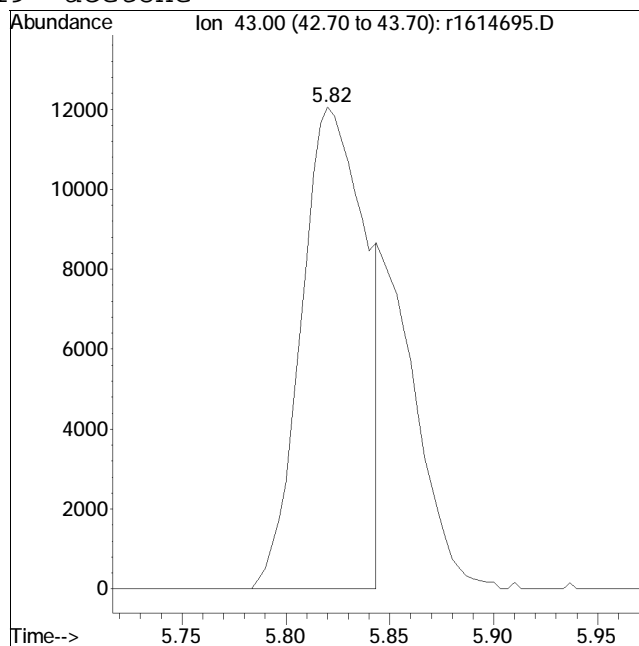
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614695.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:7: 2 Instrument :
 Sample : L1962003-02,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #19: acetone



Original Peak Response = 36236

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

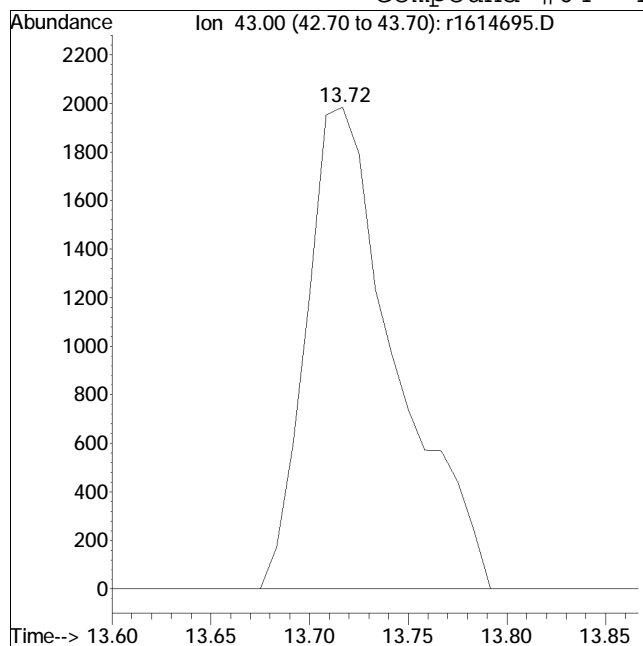


Manual Peak Response = 25916 M6

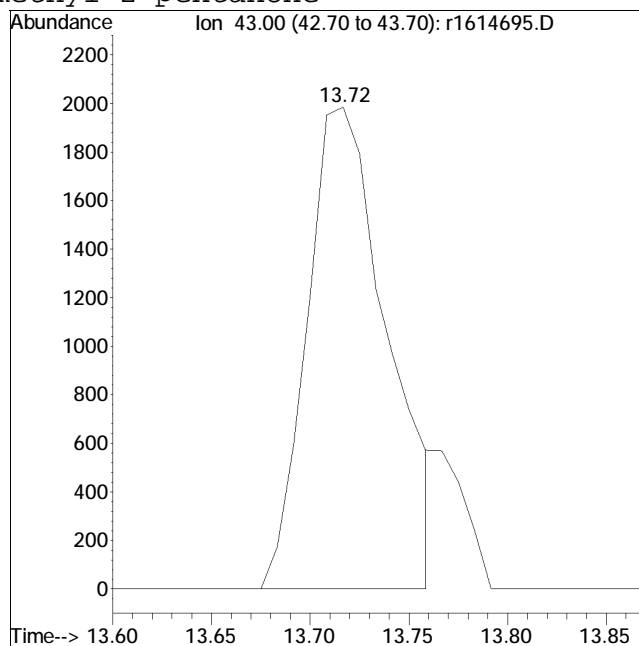
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614695.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:7: 2 Instrument :
Sample : L1962003-02,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #64: 4-methyl-2-pentanone



Original Peak Response = 6236



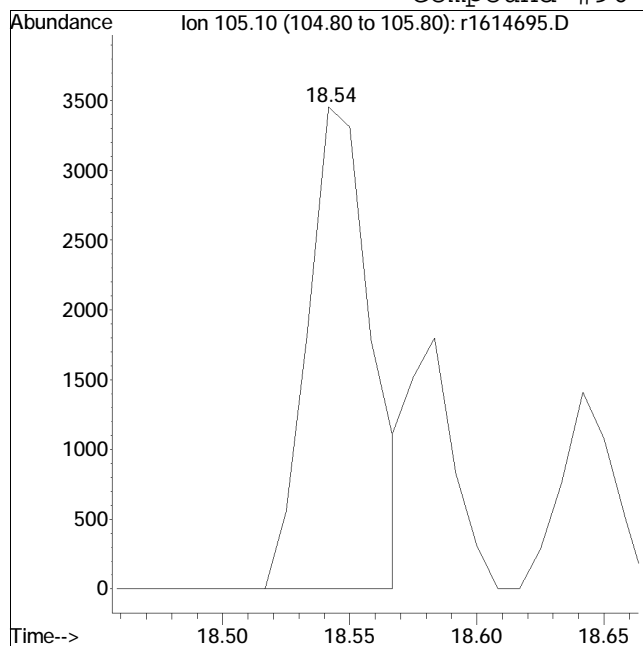
Manual Peak Response = 5611 M4

M4 = Poor automated baseline construction.

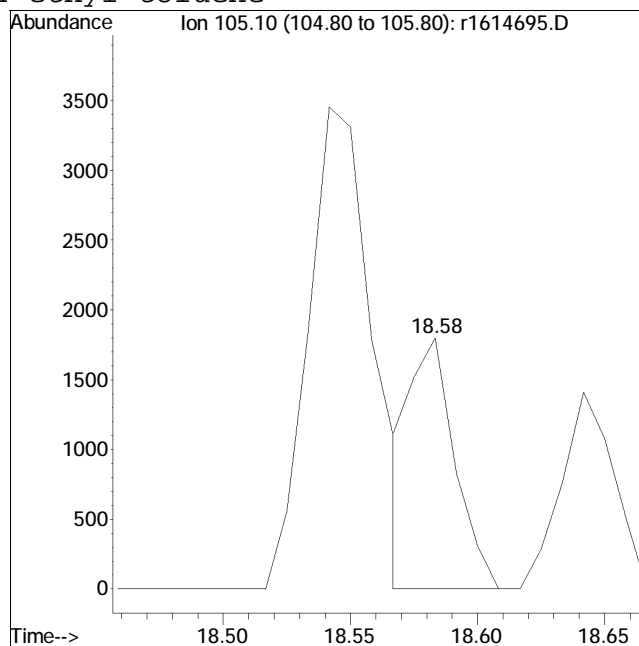
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614695.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:7: 2 Instrument :
 Sample : L1962003-02,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #96: 4-ethyl toluene



Original Peak Response = 6029



Manual Peak Response = 2228 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614696.D
 Acq On : 4 Jan 2020 7:52 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-03,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:13:49 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 208137 | 10.000 | ppbV | 0.03 |
| Standard Area = 223987 | | | Recovery | = | 92.92% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 570820 | 10.000 | ppbV | 0.03 |
| Standard Area = 600707 | | | Recovery | = | 95.02% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 70592 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery | = | 93.61% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 5) dichlorodifluoromethane | 3.92 | 85 | 6124 | 0.397 | ppbV | 99 |
| 6) chloromethane | 4.10 | 50 | 4348 | 0.463 | ppbV | 95 |
| 7) Freon-114 | 0.00 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 4.52 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.22 | 31 | 111098 | 16.556 | ppbV # | 83 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 25848M6 | 2.080 | ppbV | |
| 21) trichlorofluoromethane | 6.02 | 101 | 2279 | 0.183 | ppbV # | 81 |
| 22) isopropyl alcohol | 6.15 | 45 | 8440 | 0.527 | ppbV # | 88 |
| 27) tertiary butyl alcohol | 6.90 | | 0 | N.D. | | |
| 28) methylene chloride | 6.96 | 49 | 2861 | 0.226 | ppbV | 90 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.26 | 76 | 1793 | 0.054 | ppbV # | 1 |
| 31) Freon 113 | 7.29 | 101 | 2030 | 0.111 | ppbV # | 90 |
| 32) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 33) 1,1-dichloroethane | 0.00 | | 0 | N.D. | | |
| 34) MTBE | 8.44 | | 0 | N.D. | | |
| 36) 2-butanone | 8.86 | 43 | 4269 | 0.177 | ppbV # | 96 |
| 38) Ethyl Acetate | 9.68 | | 0 | N.D. | | |
| 39) chloroform | 9.71 | | 0 | N.D. | | |
| 40) Tetrahydrofuran | 10.18 | 42 | 1700 | 0.116 | ppbV | 93 |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |
| 44) hexane | 9.62 | 57 | 9273 | 0.535 | ppbV # | 48 |
| 50) benzene | 11.39 | 78 | 10267 | 0.279 | ppbV | 99 |
| 53) cyclohexane | 11.71 | 56 | 7980 | 0.434 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614696.D
 Acq On : 4 Jan 2020 7:52 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-03,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:13:49 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | |
| 57) bromodichloromethane | 12.58 | | 0 | | N.D. | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | |
| 60) 2,2,4-trimethylpentane | 12.68 | 57 | 4439 | 0.080 | ppbV # | 50 |
| 62) heptane | 13.00 | 43 | 14512 | 0.558 | ppbV | 100 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | | N.D. | |
| 64) 4-methyl-2-pentanone | 13.71 | 43 | 6170 | 0.205 | ppbV | 98 |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | | N.D. | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | | N.D. | |
| 68) toluene | 14.78 | 91 | 34726 | 1.031 | ppbV | 97 |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. d | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | |
| 80) chlorobenzene | 0.00 | | 0 | | N.D. d | |
| 81) ethylbenzene | 16.92 | 91 | 10077 | 0.239 | ppbV | 99 |
| 83) m+p-xylene | 17.07 | 91 | 19625 | 0.568 | ppbV | 97 |
| 84) bromoform | 0.00 | | 0 | | N.D. | |
| 85) styrene | 17.41 | | 0 | | N.D. | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | | N.D. d | |
| 87) o-xylene | 17.50 | 91 | 7941 | 0.229 | ppbV | 92 |
| 96) 4-ethyl toluene | 18.57 | | 0 | | N.D. | |
| 97) 1,3,5-trimethylbenzene | 18.64 | 105 | 2341 | 0.052 | ppbV # | 91 |
| 99) 1,2,4-trimethylbenzene | 18.99 | 105 | 7426M3 | 0.172 | ppbV | |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. d | |
| 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 | 0.00 | | 0 | | N.D. | |
| 119) hexachlorobutadiene | 0.00 | | 0 | | N.D. | |

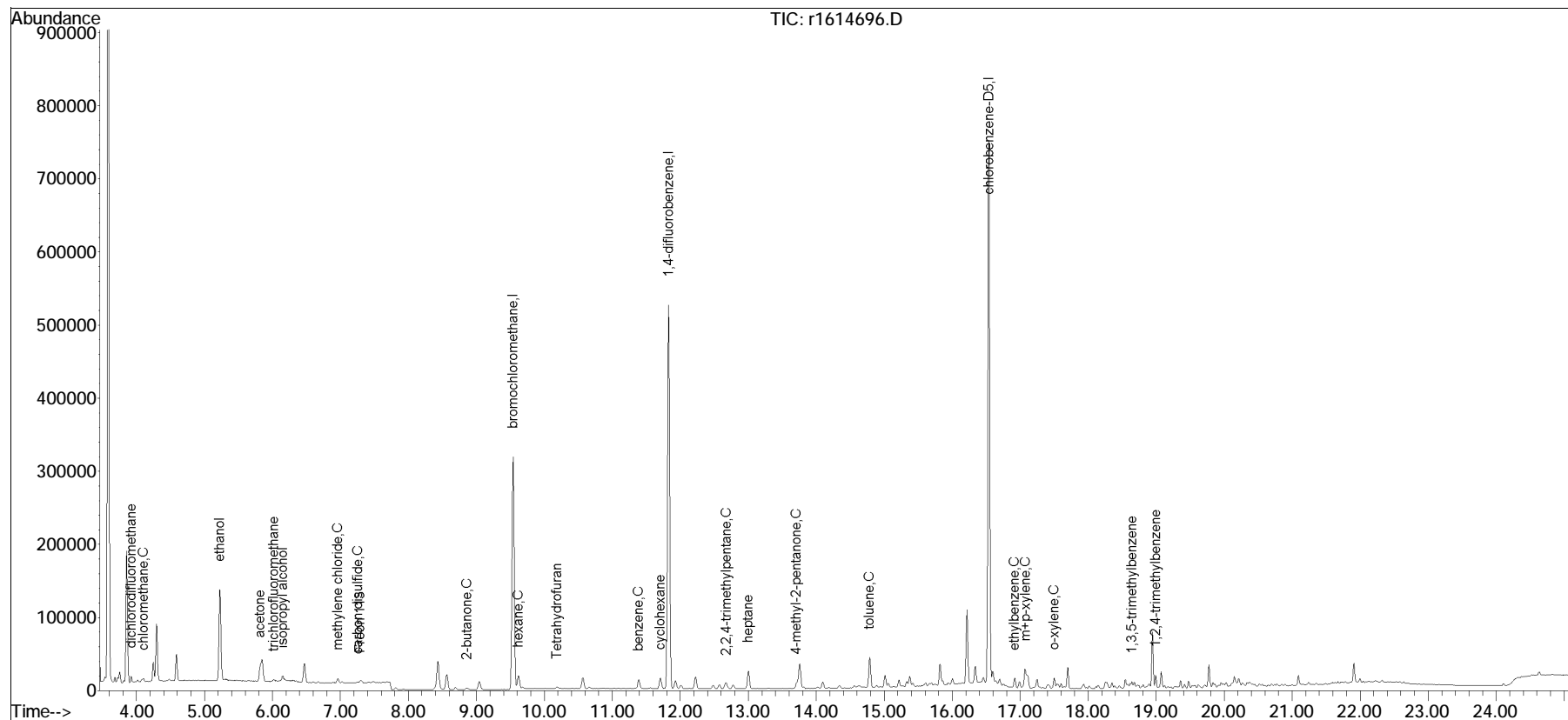
(#) = qualifier out of range (m) = manual integration (+) = signals summed

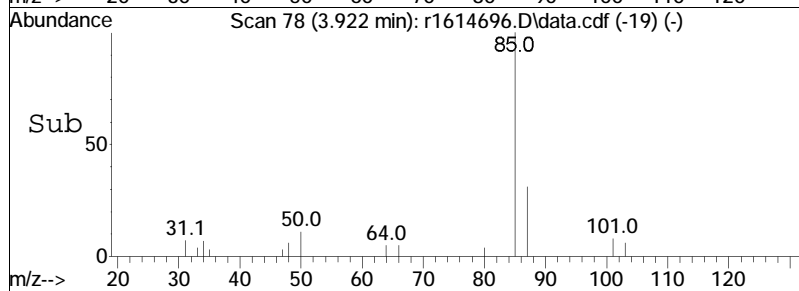
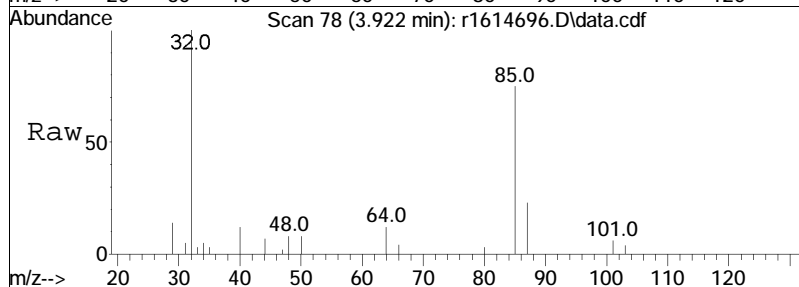
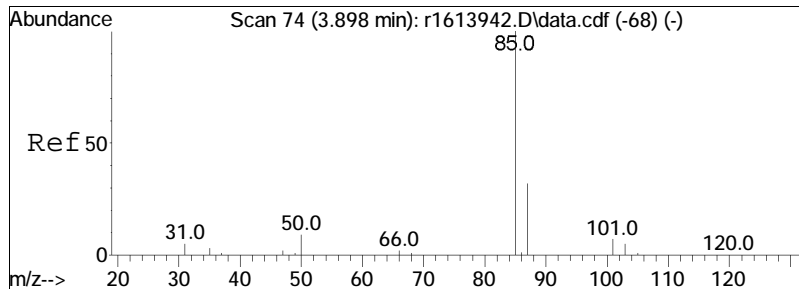
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614696.D
 Acq On : 4 Jan 2020 7:52 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-03,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:13:49 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

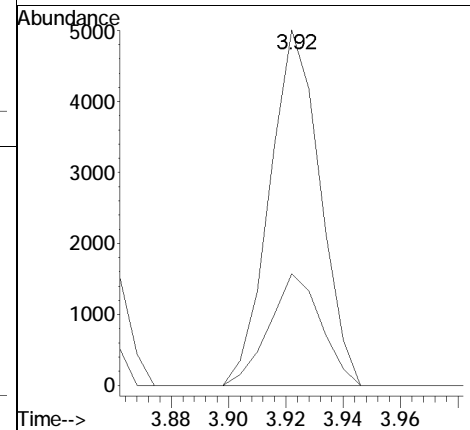
Sub List : TO15-NY-7-SIM - .\Airlab16\2020\01-JAN\200104T\r1614690.D

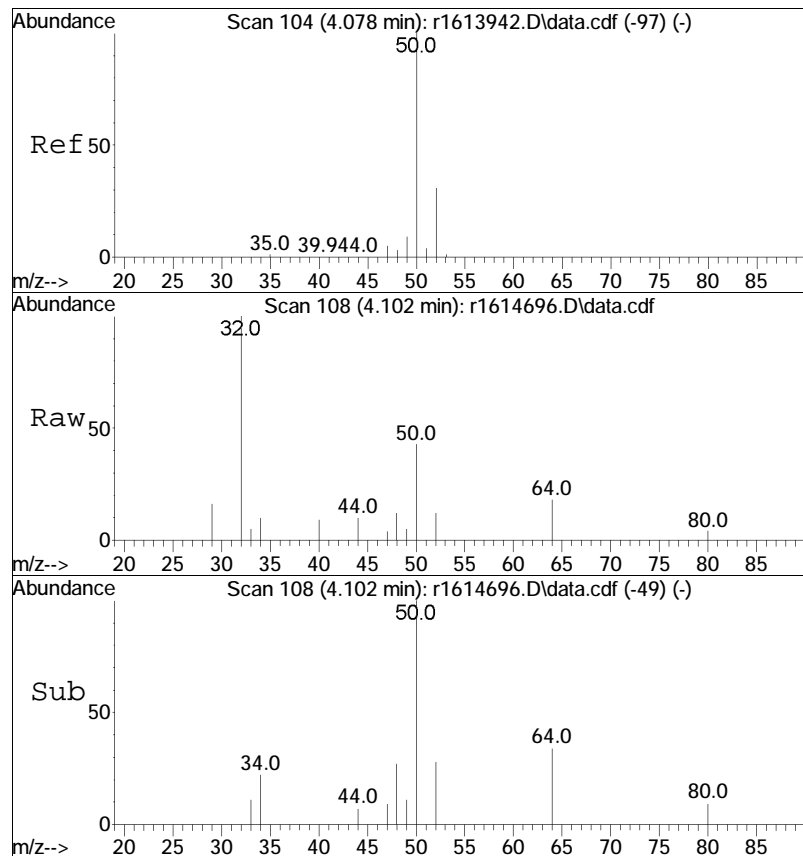




#5
dichlorodifluoromethane
Concen: 0.40 ppbV
RT: 3.92 min Scan# 78
Delta R.T. 0.024 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

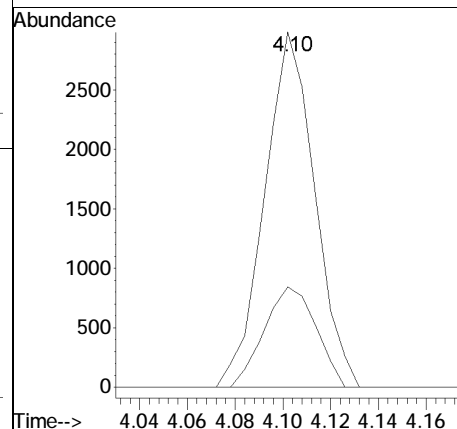
Tgt Ion: 85 Resp: 6124
Ion Ratio Lower Upper
85 100
87 31.4 25.5 38.3

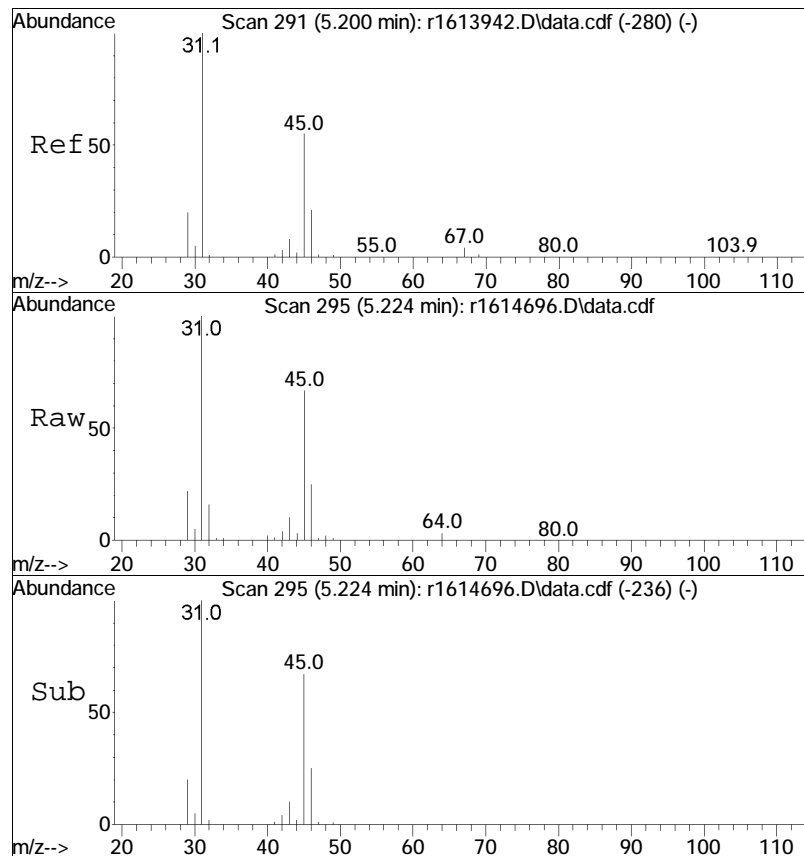




#6
 chloromethane
 Concen: 0.46 ppbV
 RT: 4.10 min Scan# 108
 Delta R.T. 0.024 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

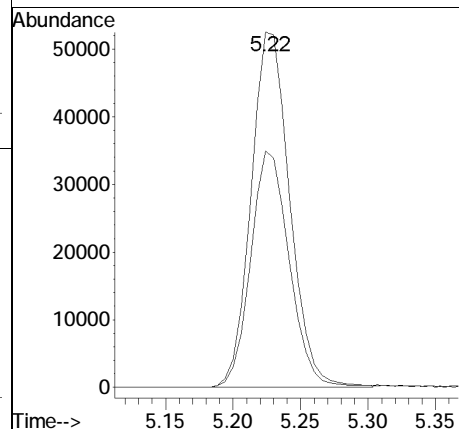
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 28.3 | 24.8 | 37.2 |

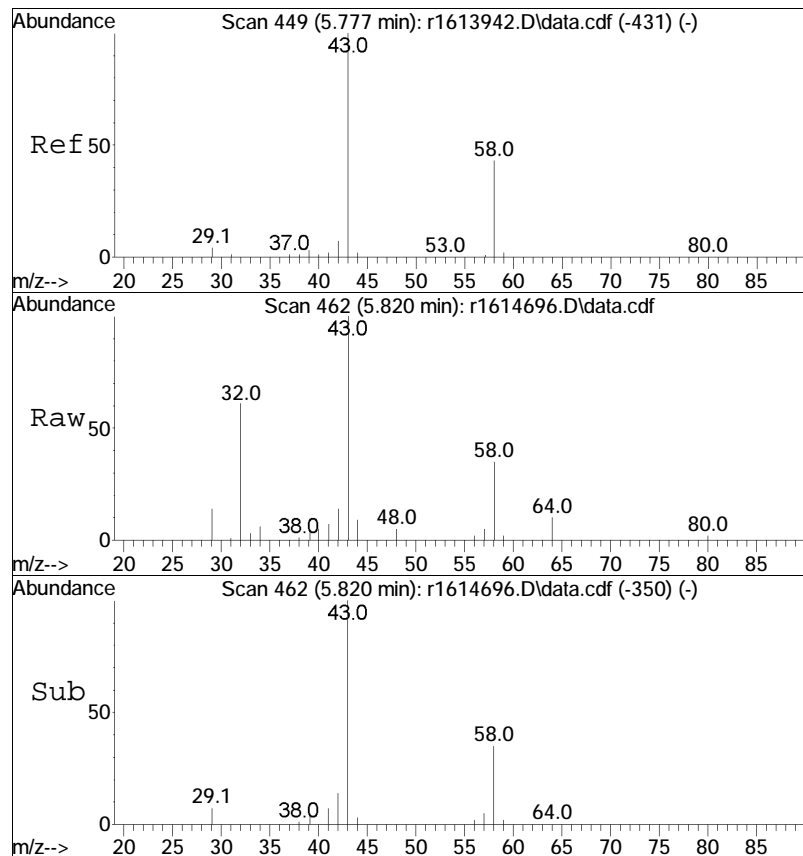




#15
 ethanol
 Concen: 16.56 ppbV
 RT: 5.22 min Scan# 295
 Delta R.T. 0.024 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

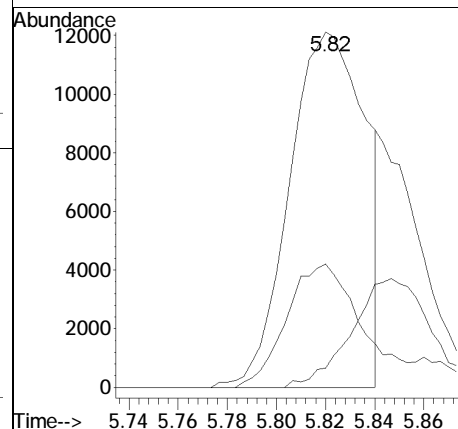
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 66.6 | 43.7 | 65.5# |

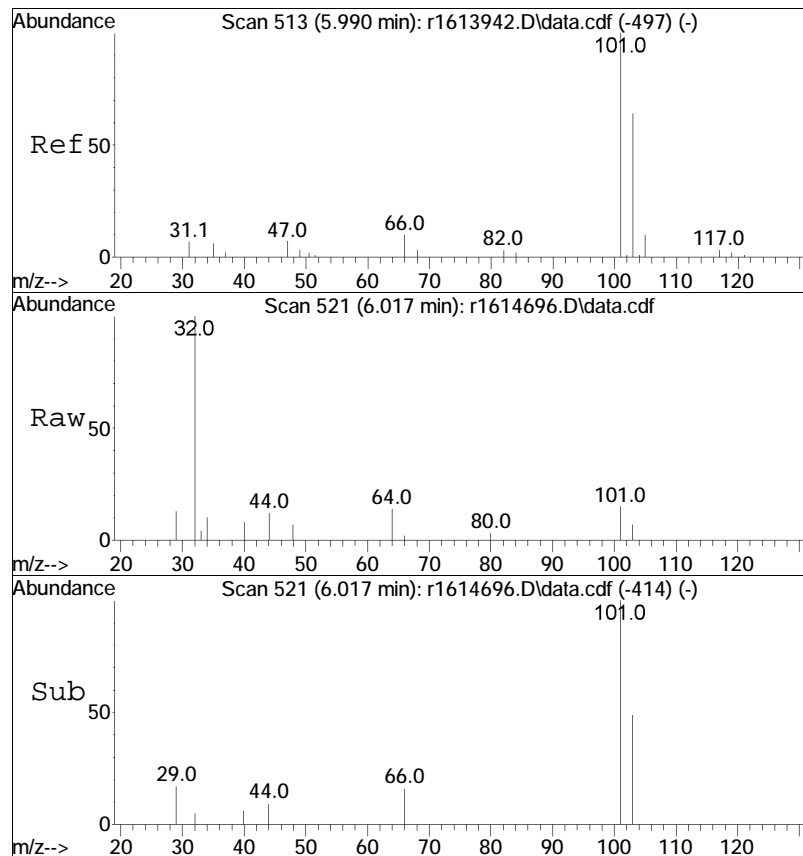




#19
acetone
Concen: 2.08 ppbV m
RT: 5.82 min Scan# 462
Delta R.T. 0.043 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

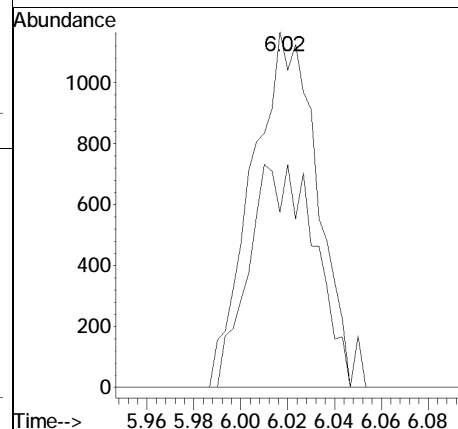
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 34.7 | 34.4 | 51.6 |
| 57 | 5.4 | 0.9 | 1.3# |

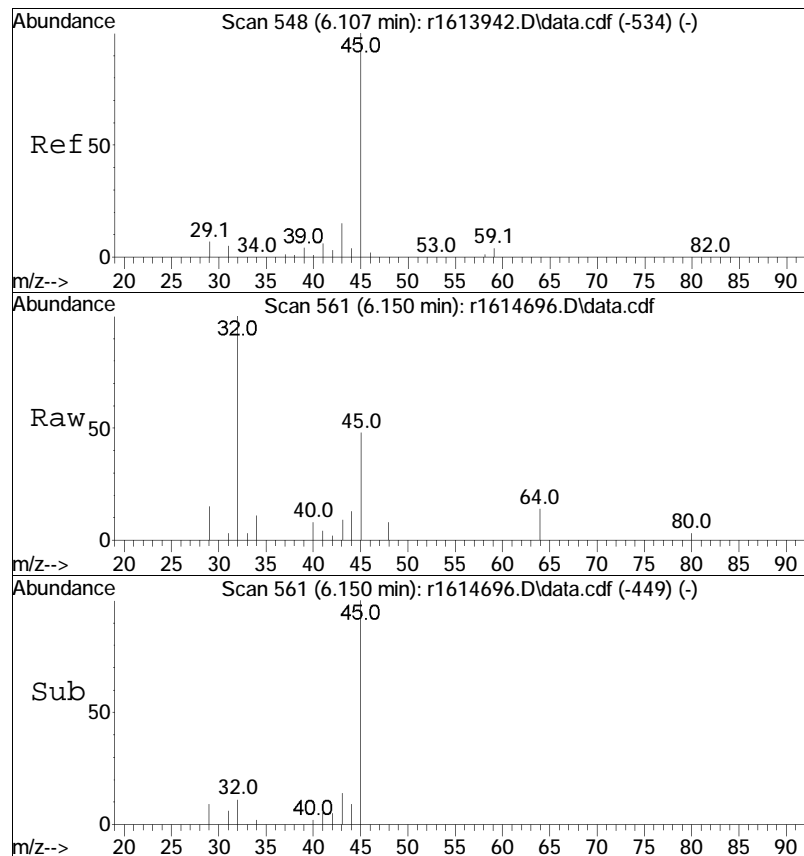




#21
 trichlorofluoromethane
 Concen: 0.18 ppbV
 RT: 6.02 min Scan# 521
 Delta R.T. 0.027 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

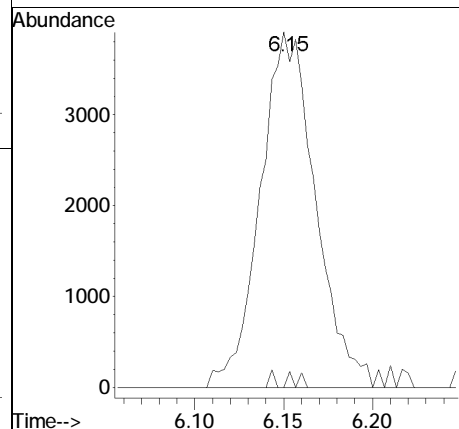
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 49.3 | 51.4 | 77.2# | |

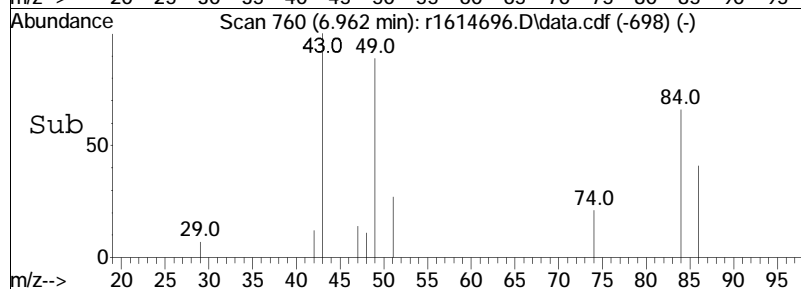
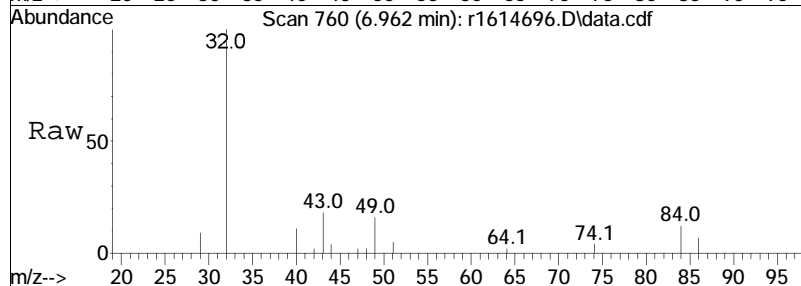
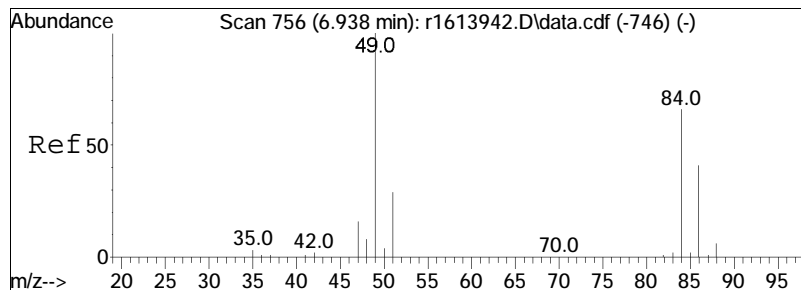




#22
isopropyl alcohol
Concen: 0.53 ppbV
RT: 6.15 min Scan# 561
Delta R.T. 0.043 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

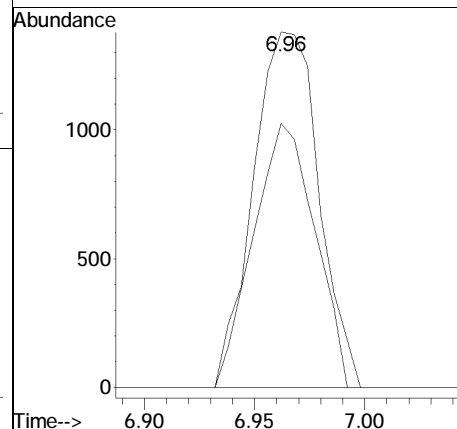
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 0.0 | 3.2 | 4.8# |

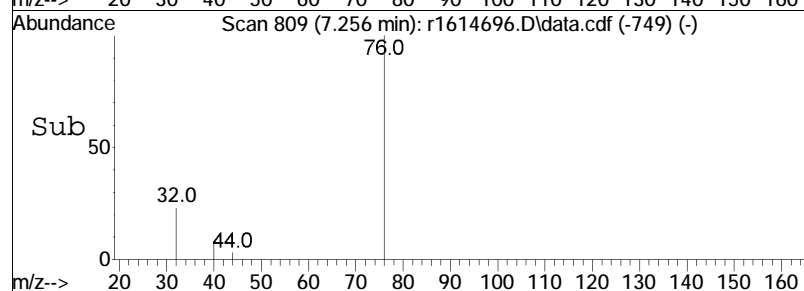
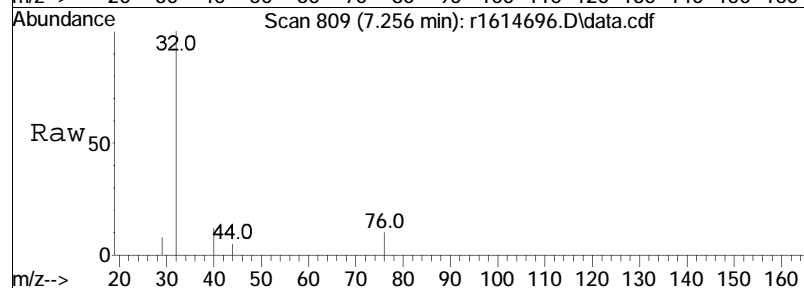
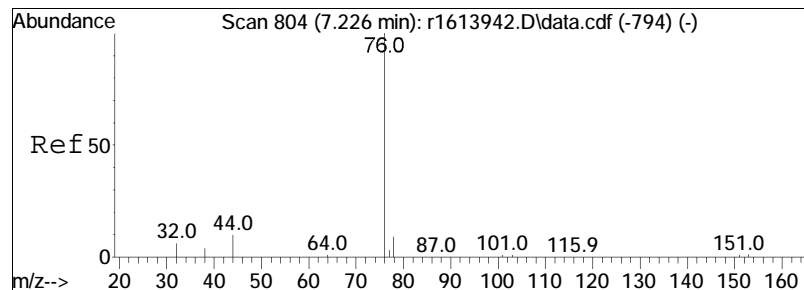




#28
methylene chloride
Concen: 0.23 ppbV
RT: 6.96 min Scan# 760
Delta R.T. 0.024 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

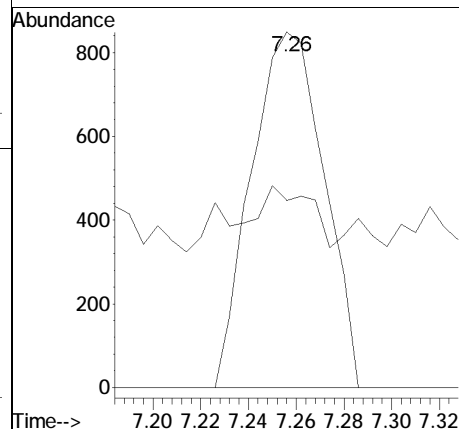
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49 | 100 | | |
| 84 | 74.3 | 53.0 | 79.4 |

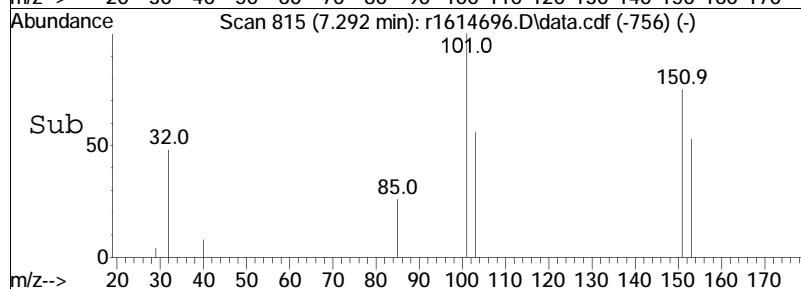
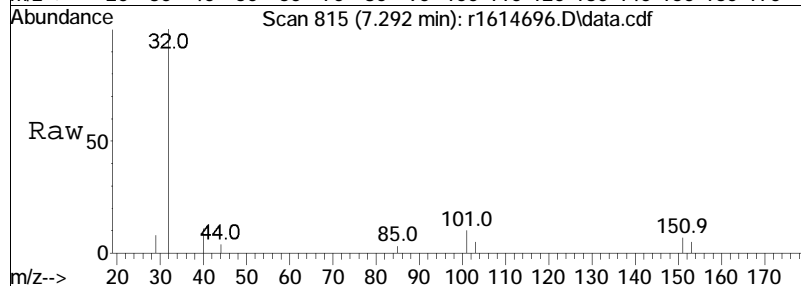
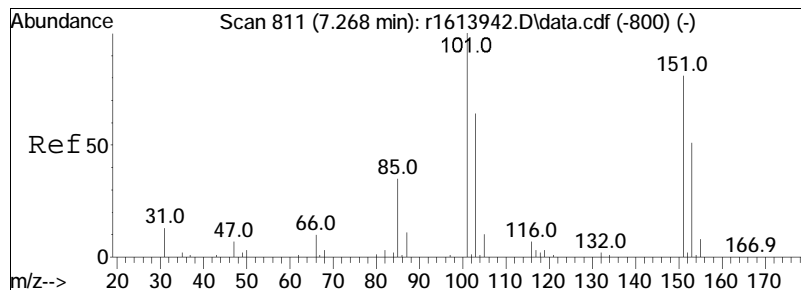




#30
carbon disulfide
Concen: 0.05 ppbV
RT: 7.26 min Scan# 809
Delta R.T. 0.030 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

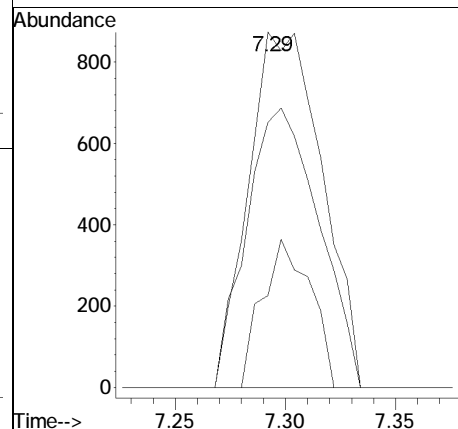
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 52.7 | 8.3 | 12.5# |

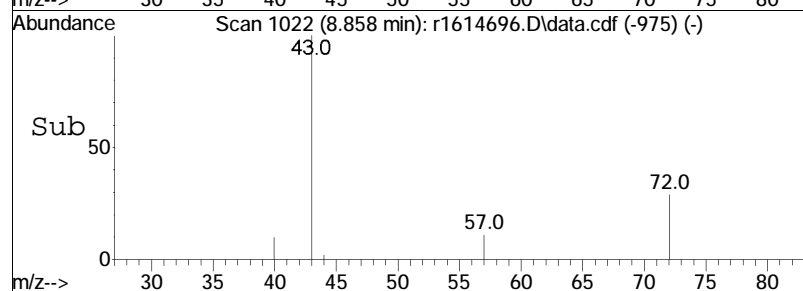
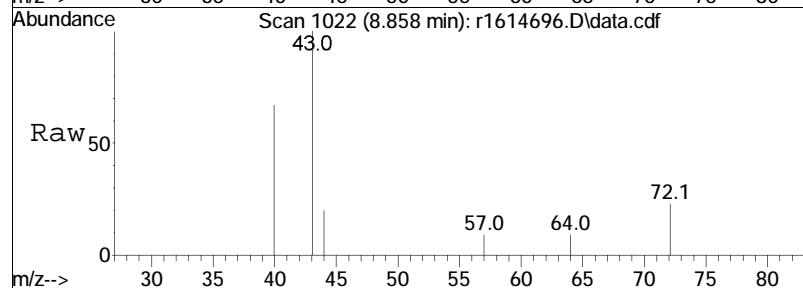
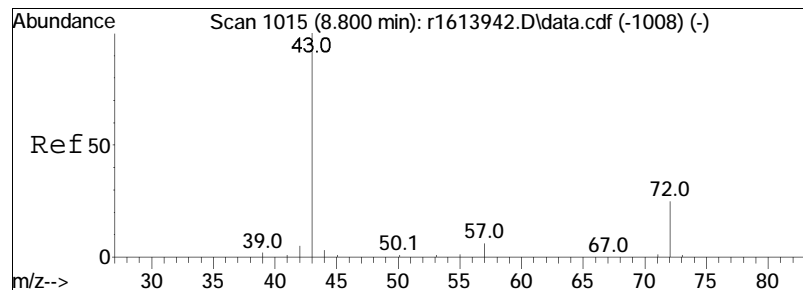




#31
 Freon 113
 Concen: 0.11 ppbV
 RT: 7.29 min Scan# 815
 Delta R.T. 0.024 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

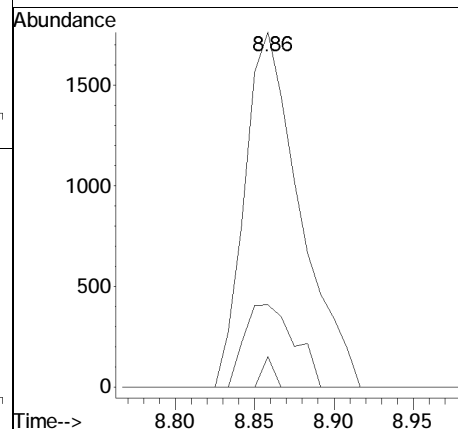
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101 | 100 | | |
| 85 | 25.9 | 27.8 | 41.6# |
| 151 | 74.6 | 65.0 | 97.6 |

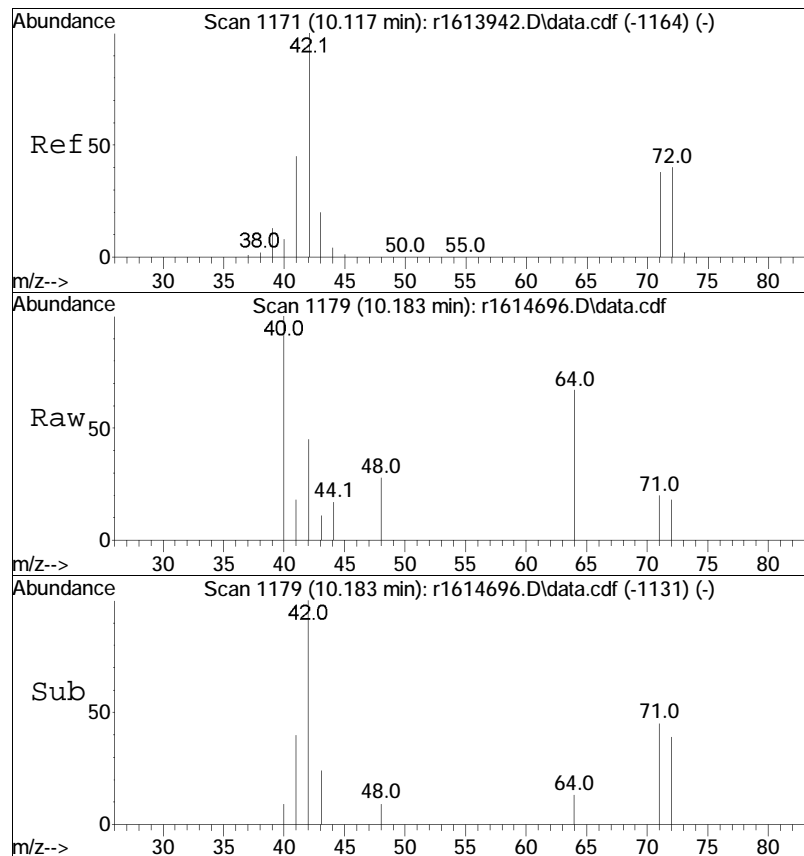




#36
2-butanone
Concen: 0.18 ppbV
RT: 8.86 min Scan# 1022
Delta R.T. 0.058 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

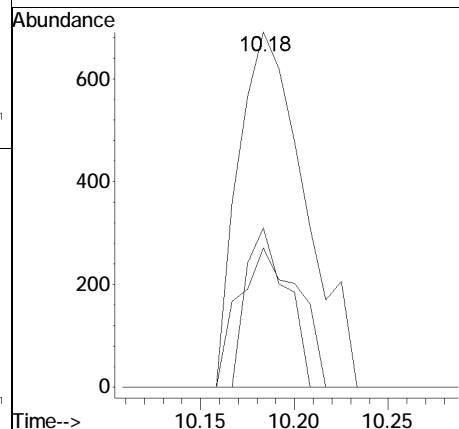
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 23.2 | 19.8 | 29.6 |
| 57 | 8.7 | 4.8 | 7.2# |

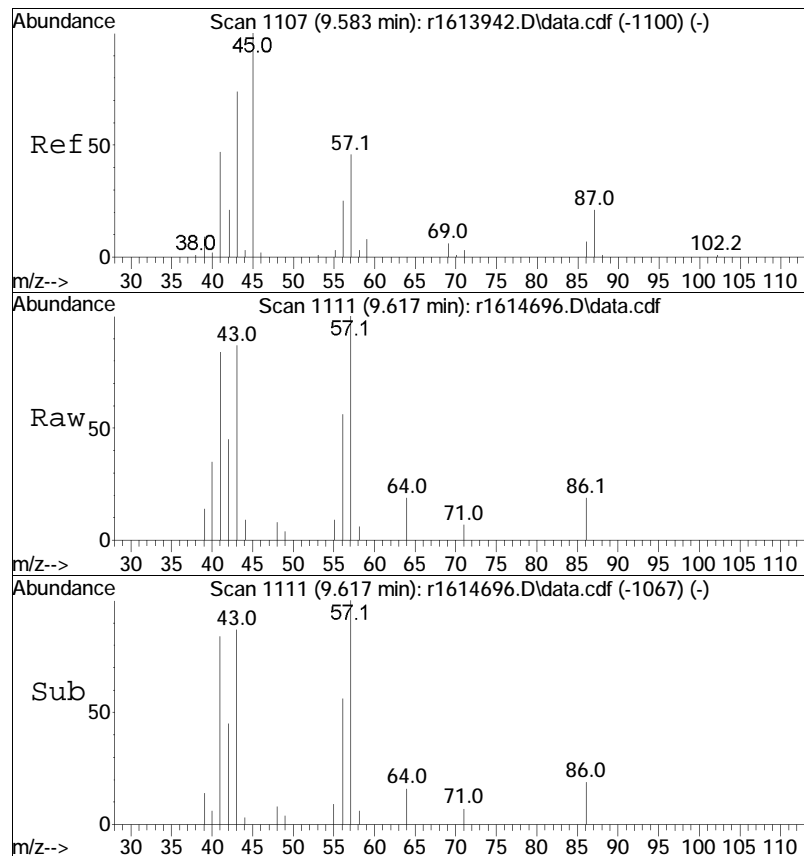




#40
 Tetrahydrofuran
 Concen: 0.12 ppbV
 RT: 10.18 min Scan# 1179
 Delta R.T. 0.067 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

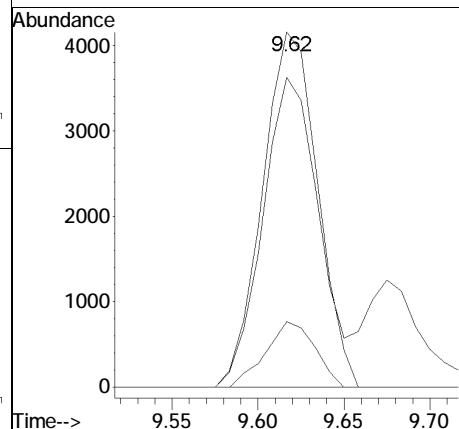
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 42 | Resp: | 1700 |
| Ion | Ratio | Lower | Upper |
| 42 | 100 | | |
| 71 | 44.9 | 30.0 | 45.0 |
| 72 | 39.2 | 31.9 | 47.9 |

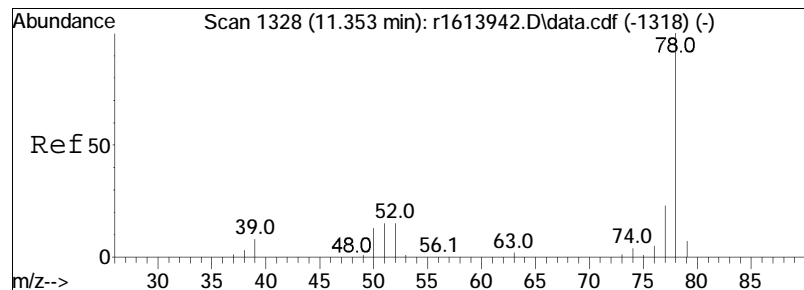




#44
hexane
Concen: 0.54 ppbV
RT: 9.62 min Scan# 1111
Delta R.T. 0.033 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

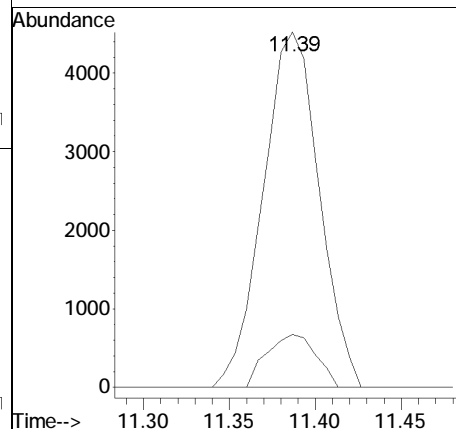
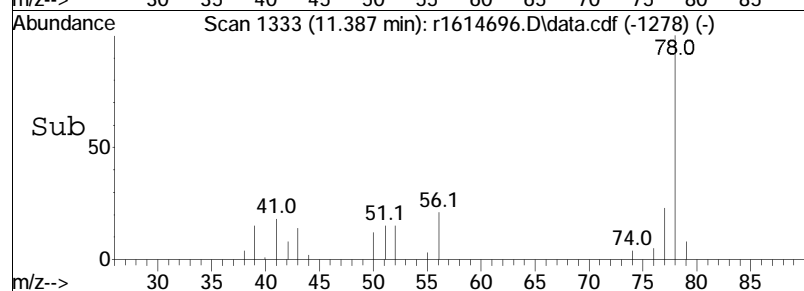
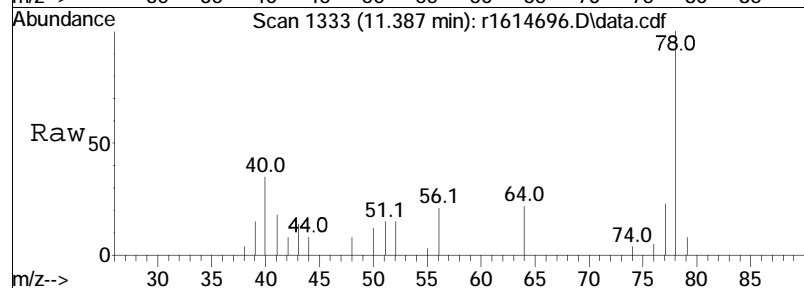
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 87.2 | 129.6 | 194.4# |
| 86 | 18.5 | 12.8 | 19.2 |

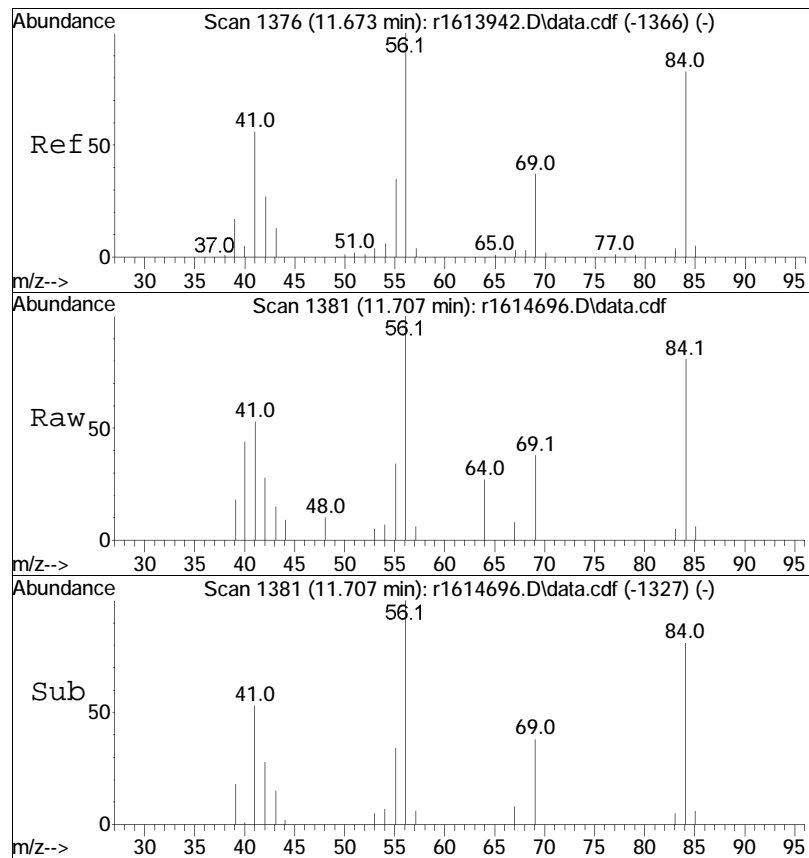




#50
benzene
Concen: 0.28 ppbV
RT: 11.39 min Scan# 1333
Delta R.T. 0.033 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

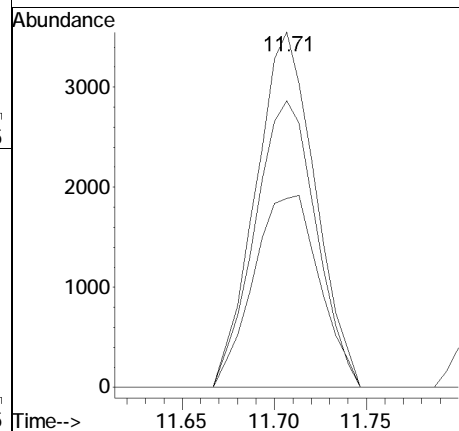
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 100 | | |
| 52 | 14.9 | 12.2 | 18.2 |

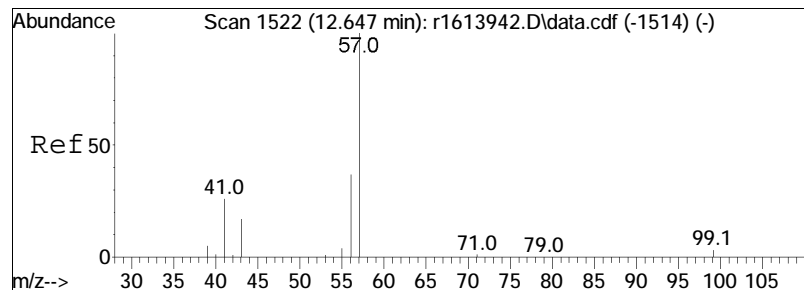




#53
cyclohexane
Concen: 0.43 ppbV
RT: 11.71 min Scan# 1381
Delta R.T. 0.033 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

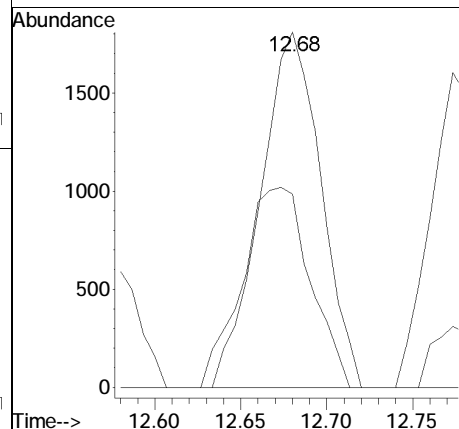
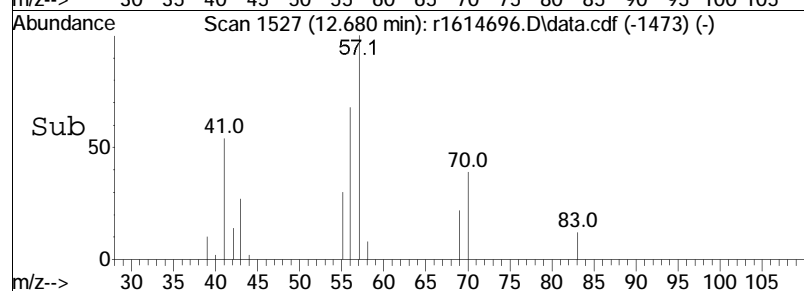
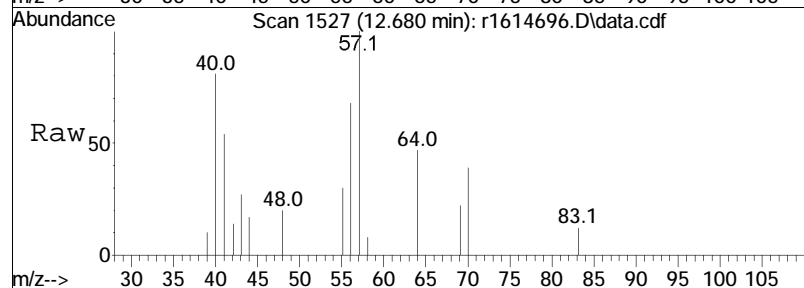
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 56 | Resp: | 7980 |
| Ion Ratio | Lower | Upper | |
| 56 | 100 | | |
| 84 | 80.6 | 66.2 | 99.2 |
| 41 | 53.2 | 45.2 | 67.8 |

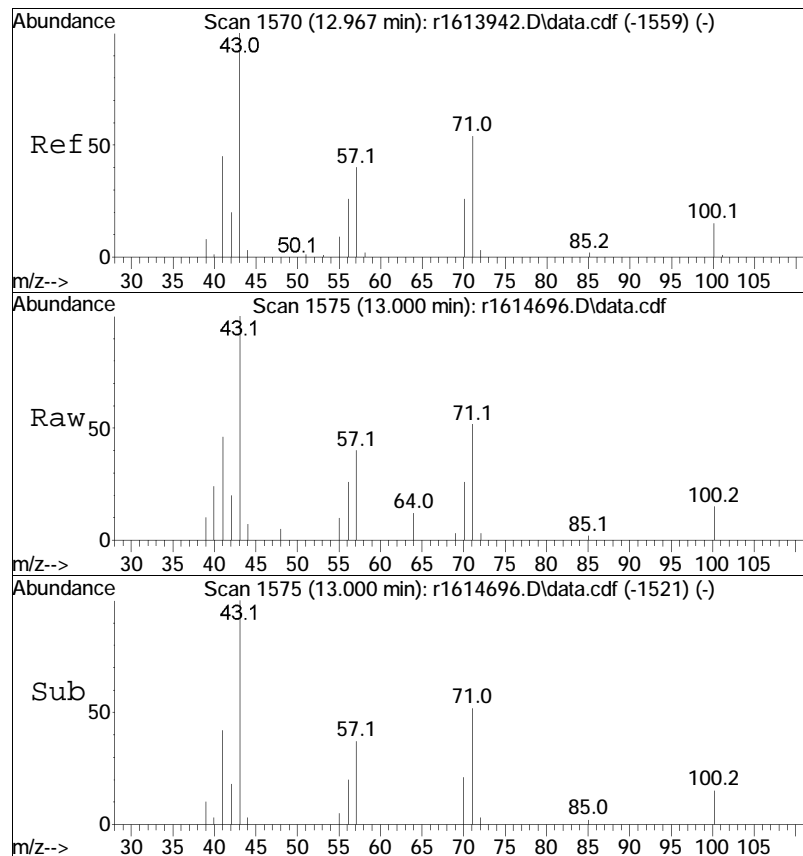




#60
 2,2,4-trimethylpentane
 Concen: 0.08 ppbV
 RT: 12.68 min Scan# 1527
 Delta R.T. 0.033 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

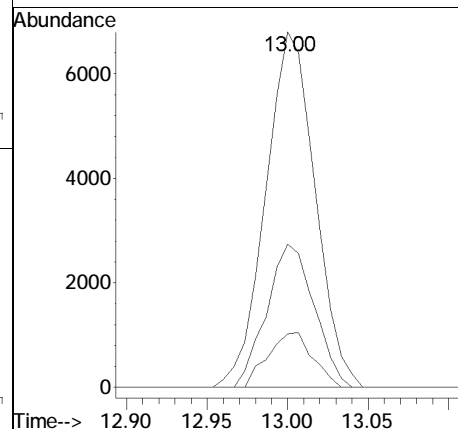
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 0.0 | 4.6 | 6.8# |
| 41 | 54.4 | 20.2 | 30.4# |

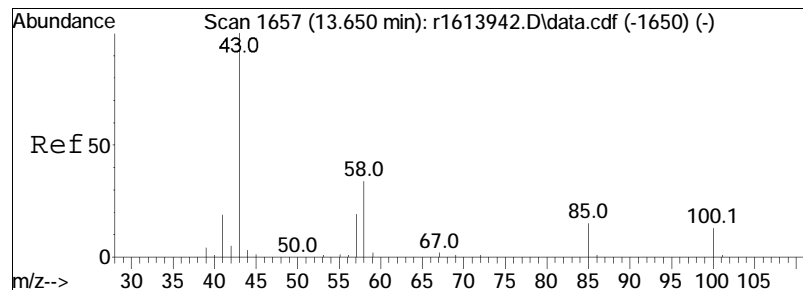




#62
 heptane
 Concen: 0.56 ppbV
 RT: 13.00 min Scan# 1575
 Delta R.T. 0.033 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

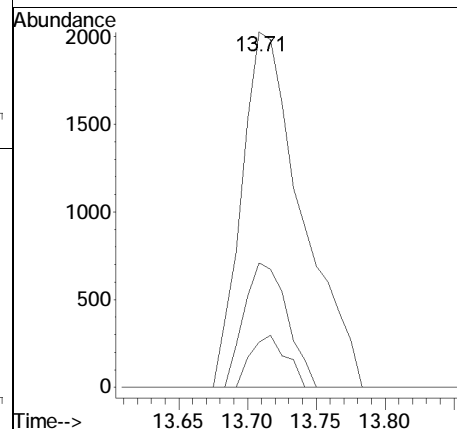
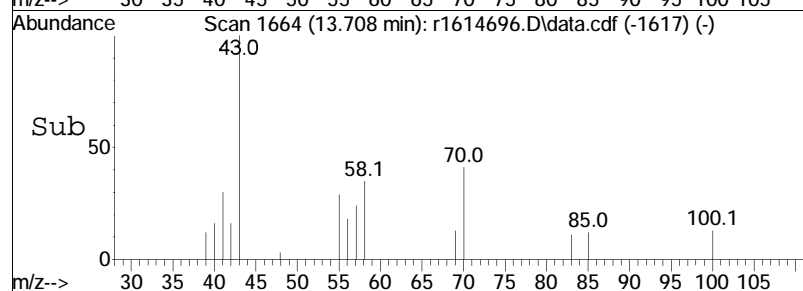
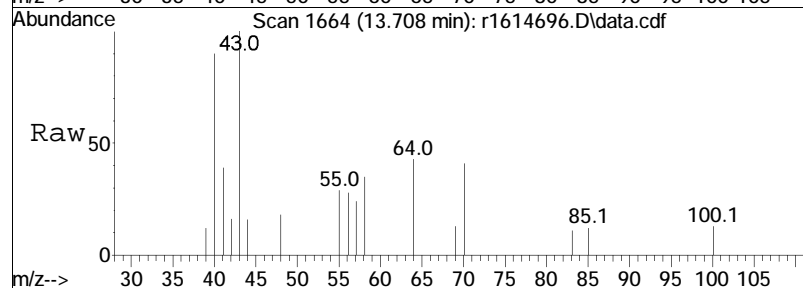
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 14512 |
| Ion | Ratio | Lower | Upper |
| 43 | 100 | | |
| 57 | 40.3 | 32.2 | 48.4 |
| 100 | 15.1 | 11.9 | 17.9 |

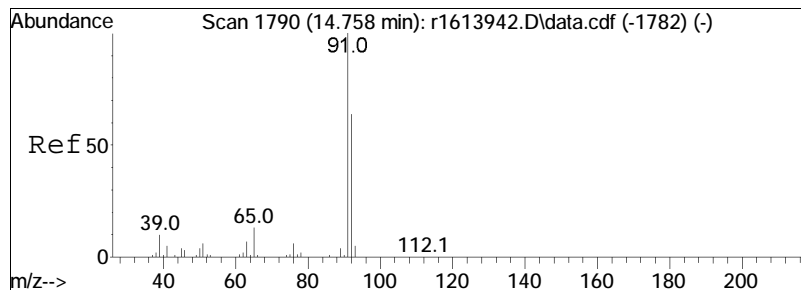




#64
 4-methyl-2-pentanone
 Concen: 0.21 ppbV
 RT: 13.71 min Scan# 1664
 Delta R.T. 0.058 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

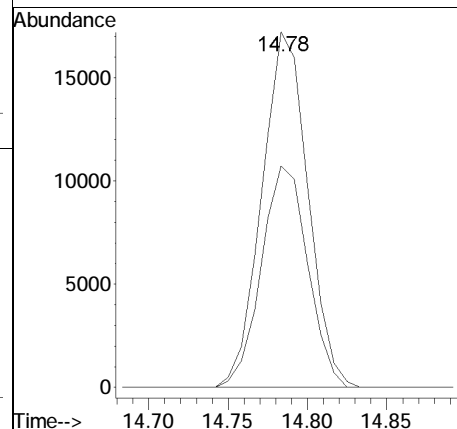
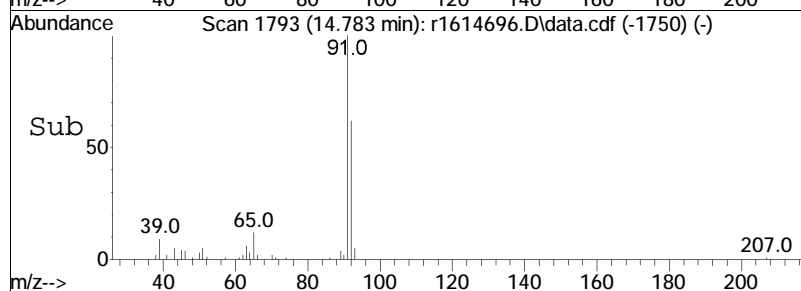
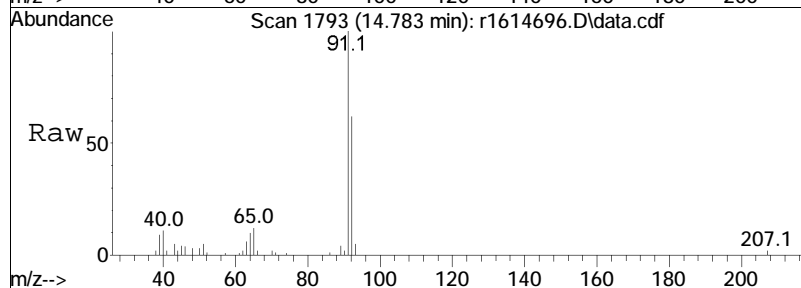
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 35.0 | 27.1 | 40.7 |
| 100 | 12.7 | 10.6 | 16.0 |

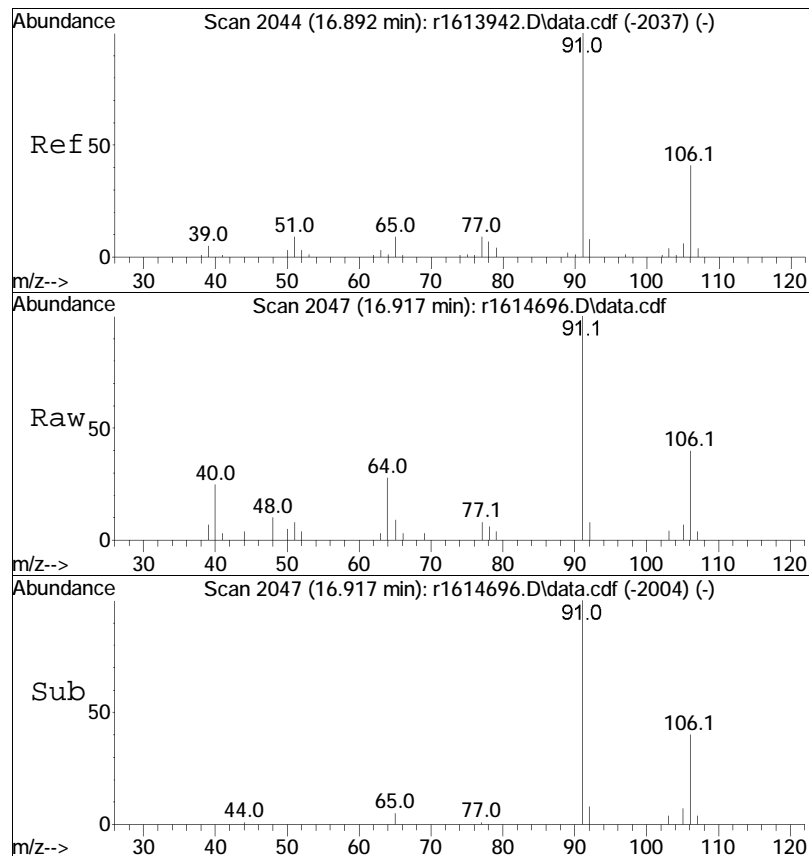




#68
toluene
Concen: 1.03 ppbV
RT: 14.78 min Scan# 1793
Delta R.T. 0.025 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

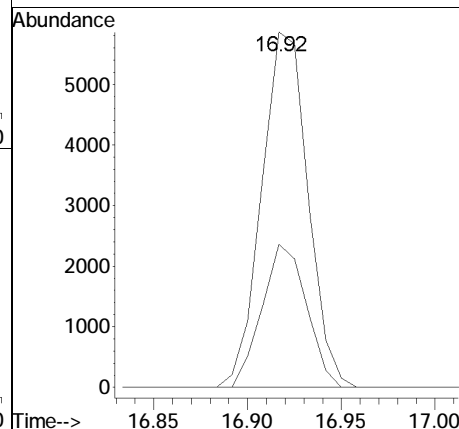
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 62.4 | 51.5 | 77.3 |

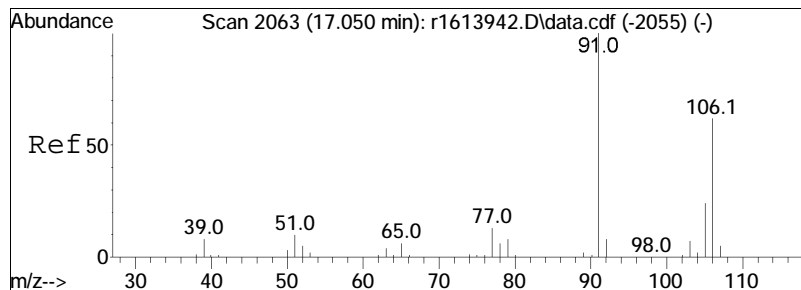




#81
ethylbenzene
Concen: 0.24 ppbV
RT: 16.92 min Scan# 2047
Delta R.T. 0.025 min
Lab File: r1614696.D
Acq: 4 Jan 2020 7:52 PM

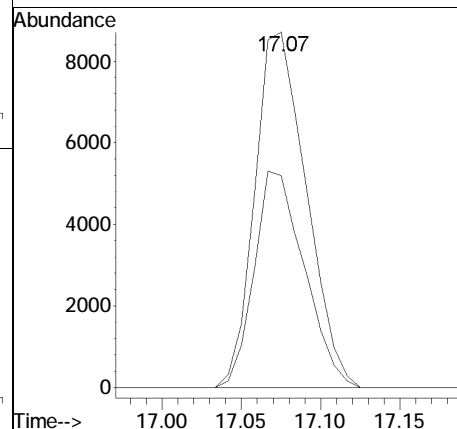
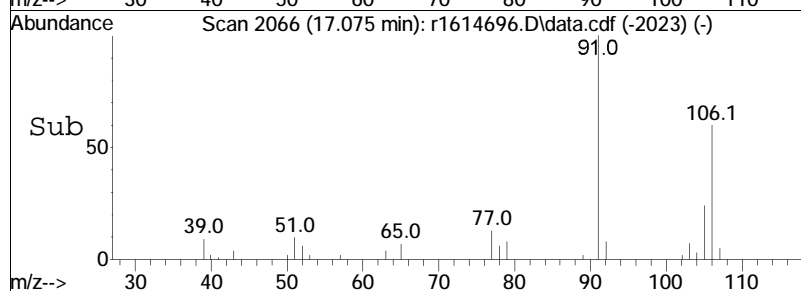
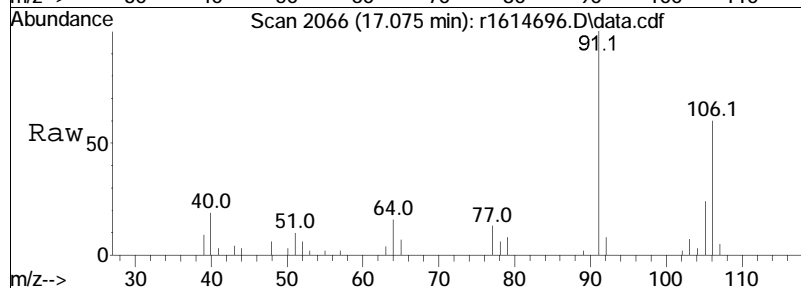
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 40.3 | 32.5 | 48.7 |

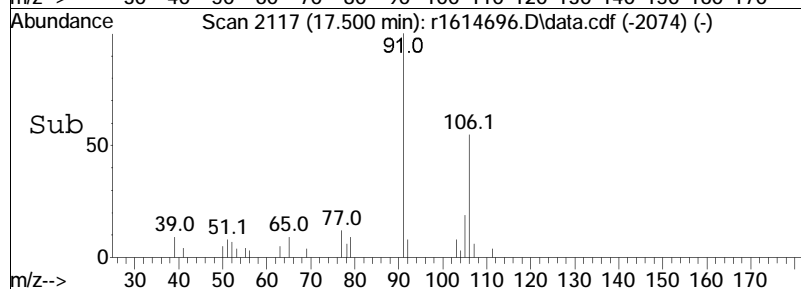
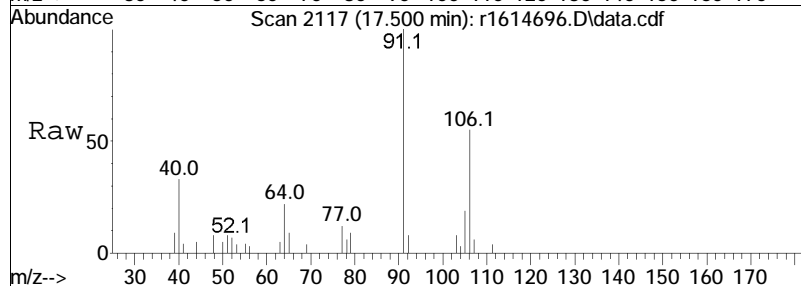
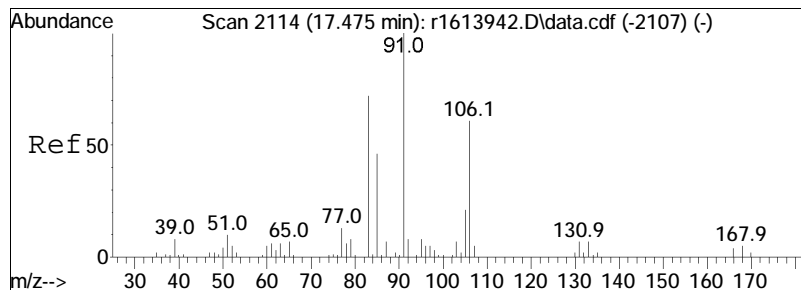




#83
 m+p-xylene
 Concen: 0.57 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

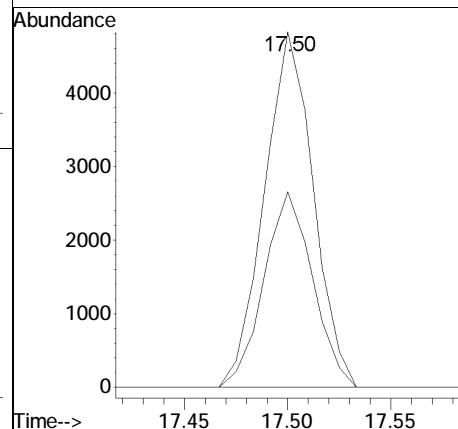
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 59.6 | 49.8 | 74.6 |

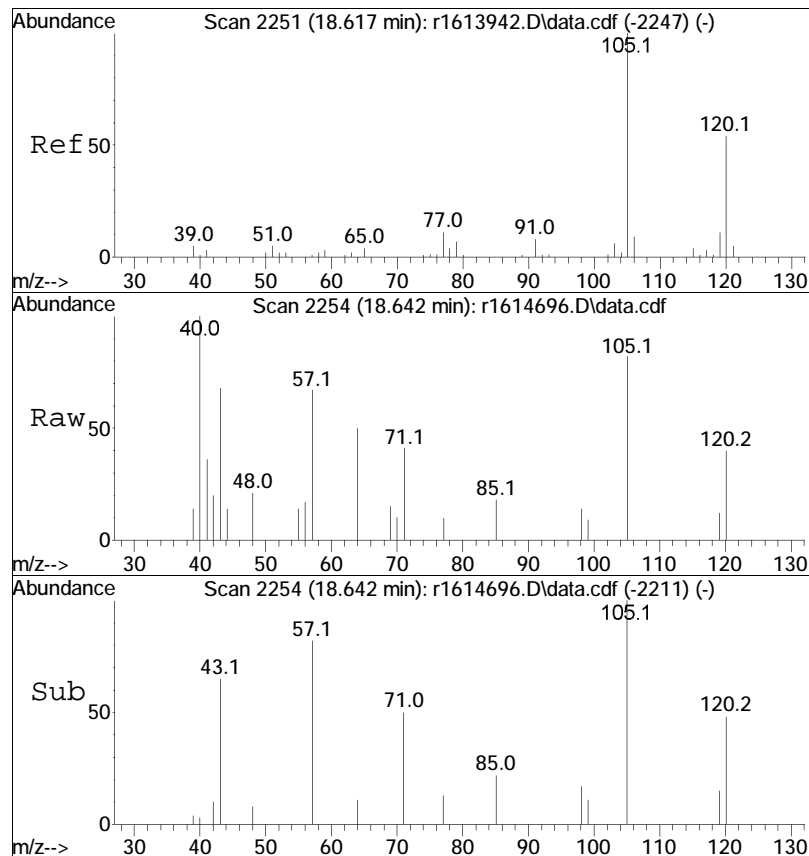




#87
 o-xylene
 Concen: 0.23 ppbV
 RT: 17.50 min Scan# 2117
 Delta R.T. 0.025 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

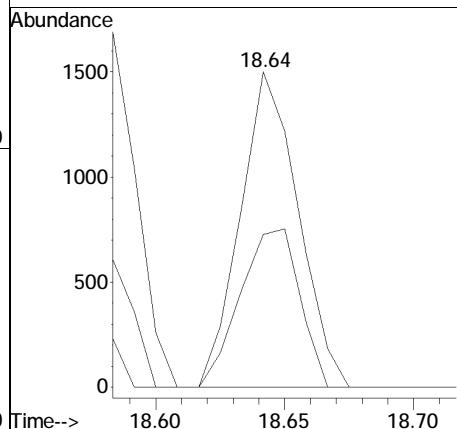
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 55.0 | 48.8 | 73.2 |

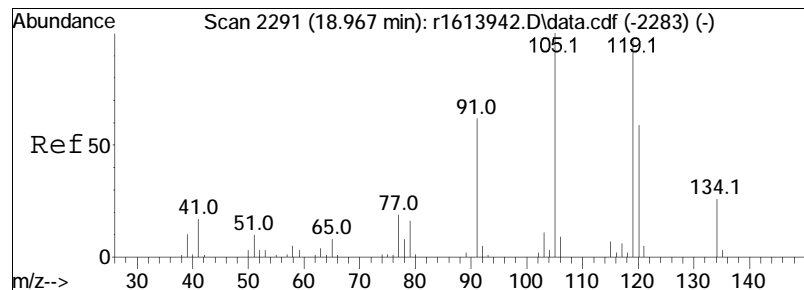




#97
 1,3,5-trimethylbenzene
 Concen: 0.05 ppbV
 RT: 18.64 min Scan# 2254
 Delta R.T. 0.025 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

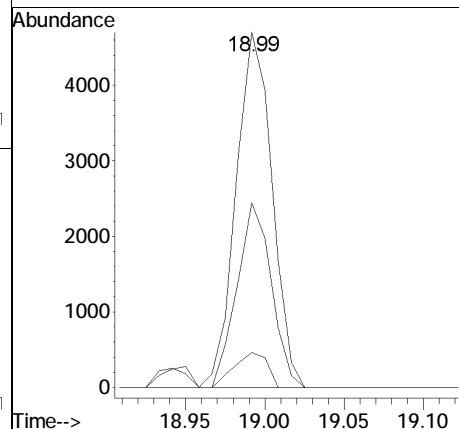
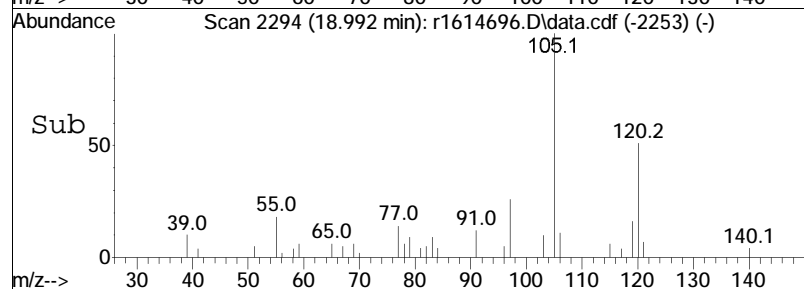
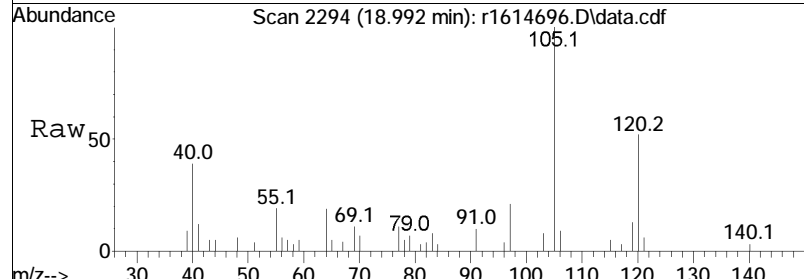
| Tgt | Ion | Ratio | Lower | Upper |
|-----|-----|-------|-------|-------|
| 105 | 105 | 100 | | |
| 120 | 120 | 48.5 | 42.9 | 64.3 |
| 91 | 91 | 0.0 | 6.6 | 9.8# |





#99
 1,2,4-trimethylbenzene
 Concen: 0.17 ppbV m
 RT: 18.99 min Scan# 2294
 Delta R.T. 0.025 min
 Lab File: r1614696.D
 Acq: 4 Jan 2020 7:52 PM

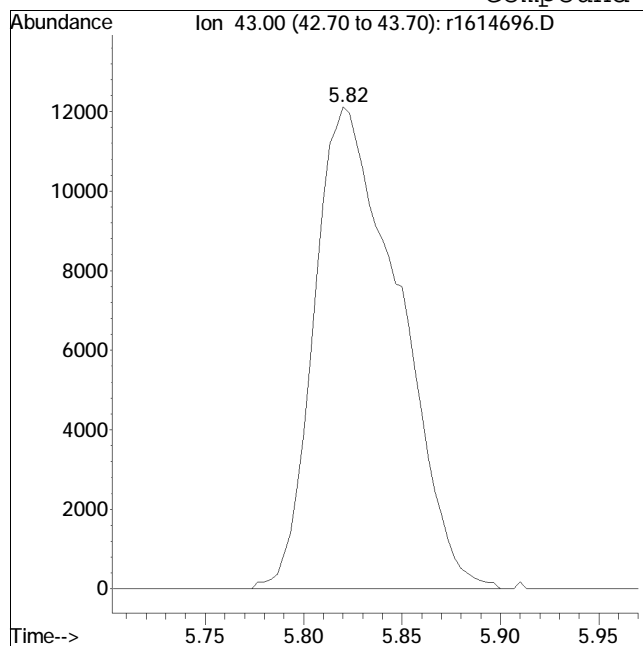
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 52.0 | 46.9 | 70.3 |
| 91 | 9.8 | 49.3 | 73.9# |



Manual Integration/Negative Proof Report

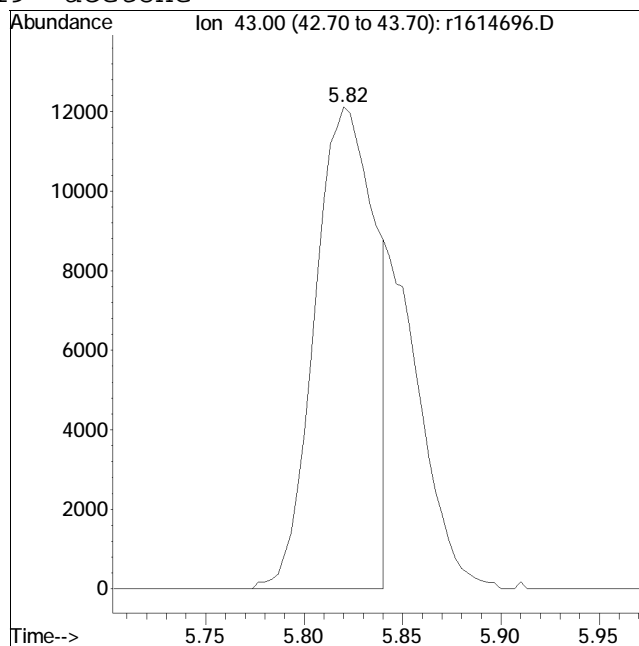
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614696.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:7: 2 Instrument :
Sample : L1962003-03,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #19: acetone



Original Peak Response = 36156

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

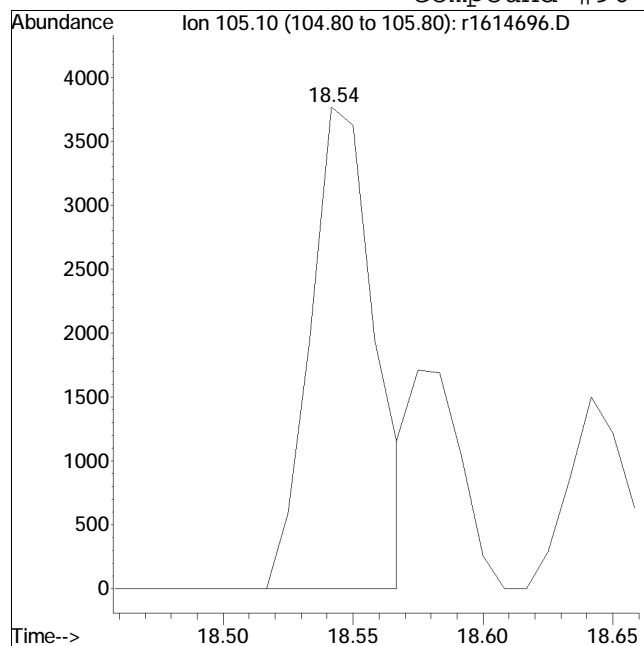


Manual Peak Response = 25848 M6

Manual Integration/Negative Proof Report

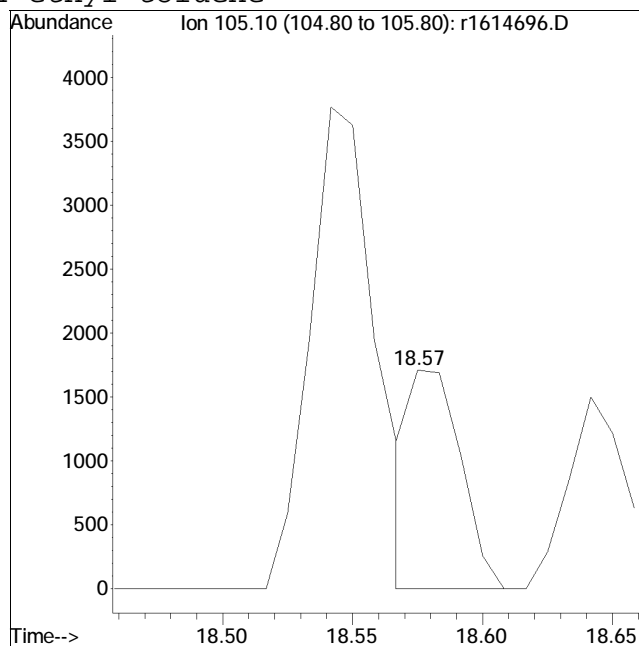
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614696.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:7: 2 Instrument :
Sample : L1962003-03,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #96: 4-ethyl toluene



Original Peak Response = 6519

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

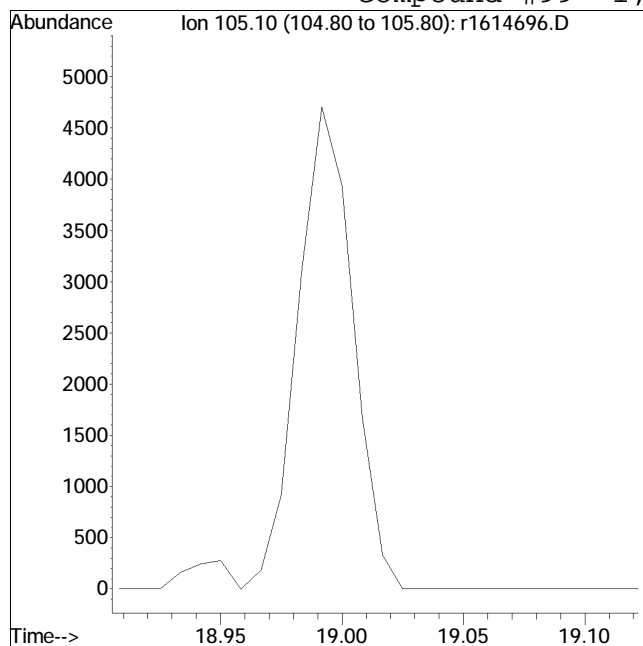


Manual Peak Response = 2351 M6

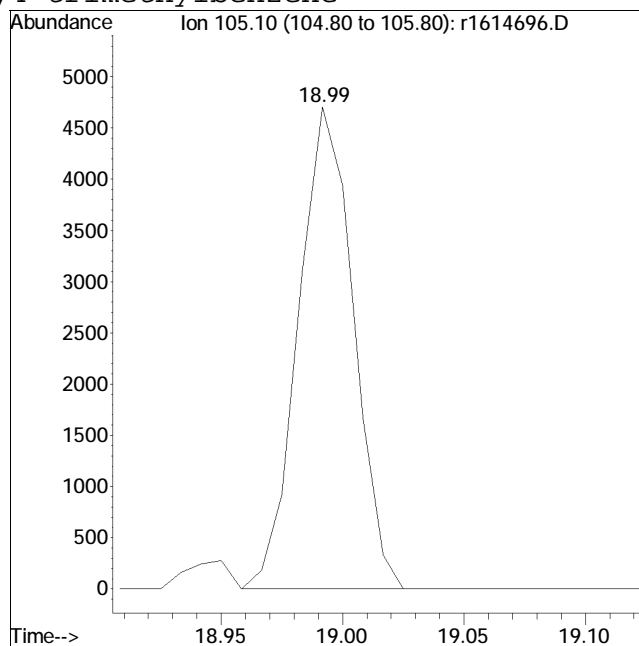
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614696.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:7: 2 Instrument :
 Sample : L1962003-03,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response =



Manual Peak Response = 7426 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614698.D
 Acq On : 4 Jan 2020 9:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-05,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:17:59 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.55 | 49 | 207872 | 10.000 | ppbV | 0.04 |
| Standard Area = 223987 | | | Recovery = | | 92.81% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 573494 | 10.000 | ppbV | 0.04 |
| Standard Area = 600707 | | | Recovery = | | 95.47% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 69908 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery = | | 92.71% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|-------|--------|--------|
| 5) dichlorodifluoromethane | 3.93 | 85 | 6132 | 0.398 | ppbV | 95 |
| 6) chloromethane | 4.11 | 50 | 4409 | 0.471 | ppbV | 97 |
| 7) Freon-114 | 4.23 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 4.53 | 54 | 745 | 0.090 | ppbV # | 71 |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.24 | 31 | 53613 | 8.000 | ppbV # | 81 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 26626M4 | 2.146 | ppbV | |
| 21) trichlorofluoromethane | 6.02 | 101 | 2080 | 0.167 | ppbV | 87 |
| 22) isopropyl alcohol | 6.16 | 45 | 5122 | 0.320 | ppbV # | 88 |
| 27) tertiary butyl alcohol | 6.92 | | 0 | N.D. | | |
| 28) methylene chloride | 6.97 | 49 | 2111 | 0.167 | ppbV | 90 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.26 | 76 | 1842 | 0.055 | ppbV # | 6 |
| 31) Freon 113 | 7.32 | 101 | 1203 | 0.066 | ppbV | 96 |
| 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 | 8.87 | 43 | 3749 | 0.156 | ppbV # | 95 |
| 38) Ethyl Acetate | 0.00 | | 0 | N.D. | | |
| 39) chloroform | 0.00 | | 0 | N.D. | | |
| 40) Tetrahydrofuran | 10.19 | 42 | 883 | 0.060 | ppbV # | 56 |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |
| 44) hexane | 9.63 | 57 | 11537 | 0.663 | ppbV # | 48 |
| 50) benzene | 11.39 | 78 | 17274 | 0.467 | ppbV | 96 |
| 53) cyclohexane | 11.71 | 56 | 9704 | 0.525 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614698.D
 Acq On : 4 Jan 2020 9:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-05,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:17:59 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|-------|-------|----------|----|
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | | |
| 57) bromodichloromethane | 12.58 | | 0 | | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | | |
| 60) 2,2,4-trimethylpentane | 12.69 | 57 | 5607 | 0.100 | ppbV | # | 58 |
| 62) heptane | 13.01 | 43 | 16796 | 0.642 | ppbV | | 97 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 64) 4-methyl-2-pentanone | 13.72 | 43 | 6263 | 0.207 | ppbV | # | 96 |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | | N.D. | | |
| 68) toluene | 14.79 | 91 | 43475 | 1.304 | ppbV | | 99 |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. | d | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | | |
| 80) chlorobenzene | 16.52 | | 0 | | N.D. | | |
| 81) ethylbenzene | 16.93 | 91 | 12483 | 0.299 | ppbV | | 93 |
| 83) m+p-xylene | 17.07 | 91 | 26565 | 0.777 | ppbV | | 95 |
| 84) bromoform | 0.00 | | 0 | | N.D. | | |
| 85) styrene | 17.41 | 104 | 1570 | 0.050 | ppbV | | 97 |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | | N.D. | d | |
| 87) o-xylene | 17.51 | 91 | 10534 | 0.307 | ppbV | | 86 |
| 96) 4-ethyl toluene | 18.58 | | 0 | | N.D. | | |
| 97) 1,3,5-trimethylbenzene | 18.65 | 105 | 3154 | 0.071 | ppbV | # | 99 |
| 99) 1,2,4-trimethylbenzene | 19.00 | 105 | 8841 | 0.207 | ppbV | # | 59 |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. | d | |
| 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 | 0.00 | | 0 | | N.D. | | |
| 119) hexachlorobutadiene | 0.00 | | 0 | | N.D. | | |

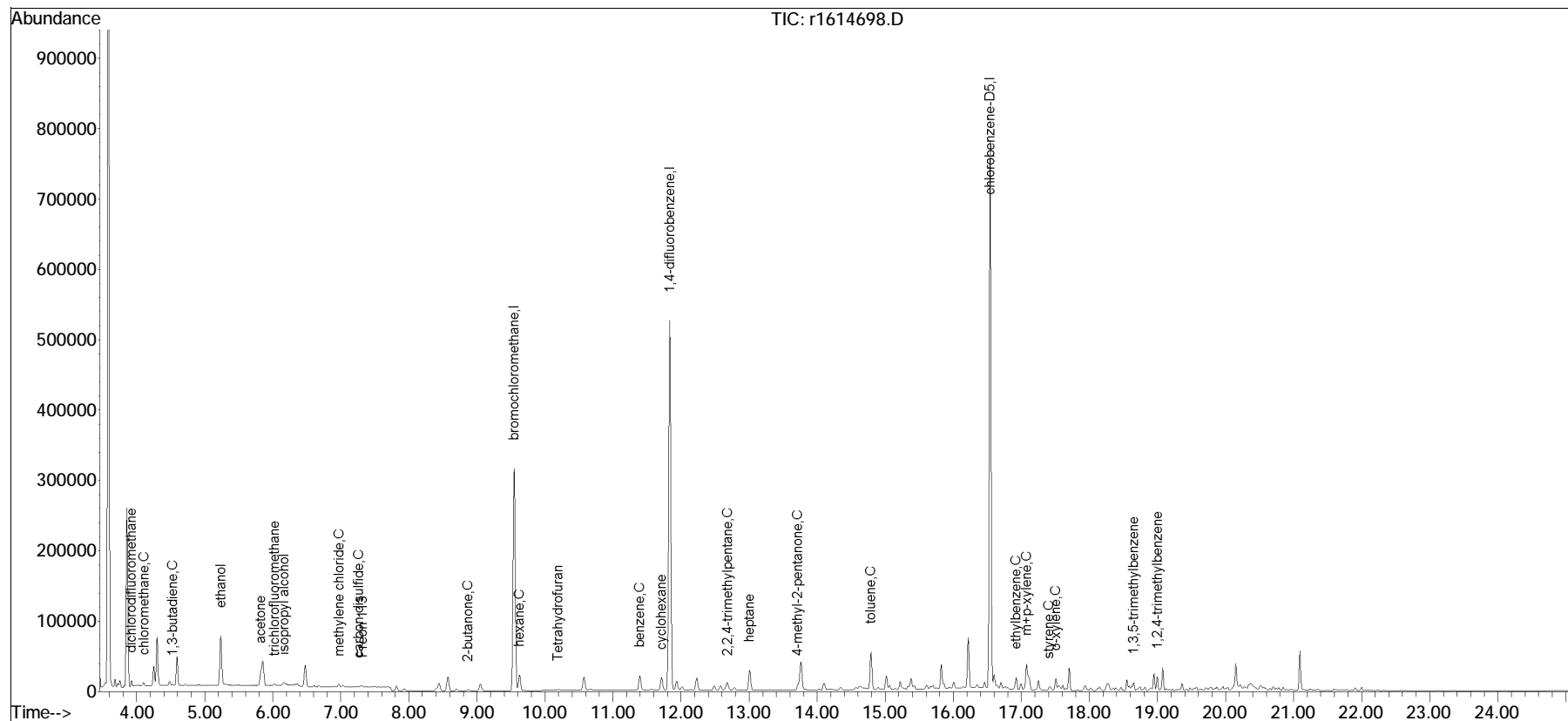
(#) = qualifier out of range (m) = manual integration (+) = signals summed

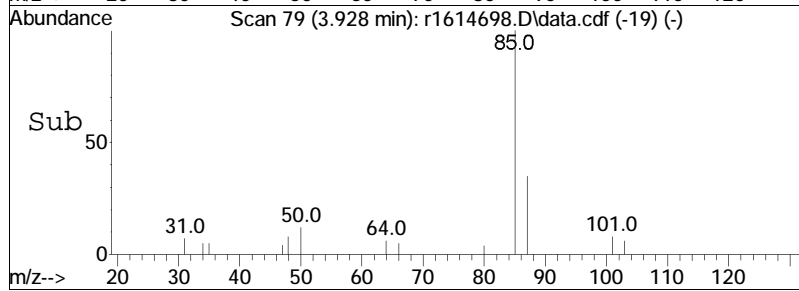
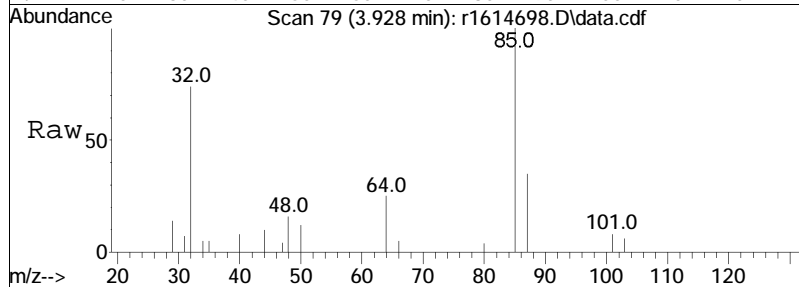
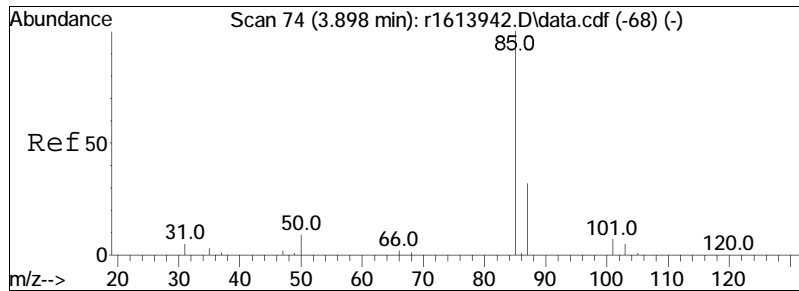
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614698.D
 Acq On : 4 Jan 2020 9:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-05,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:17:59 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

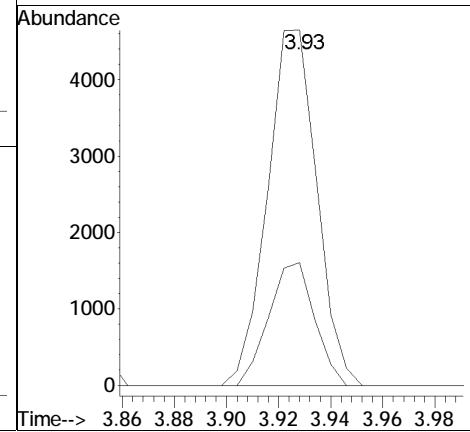
Sub List : TO15-NY-7-SIM - .\Airlab16\2020\01-JAN\200104T\r1614690.D

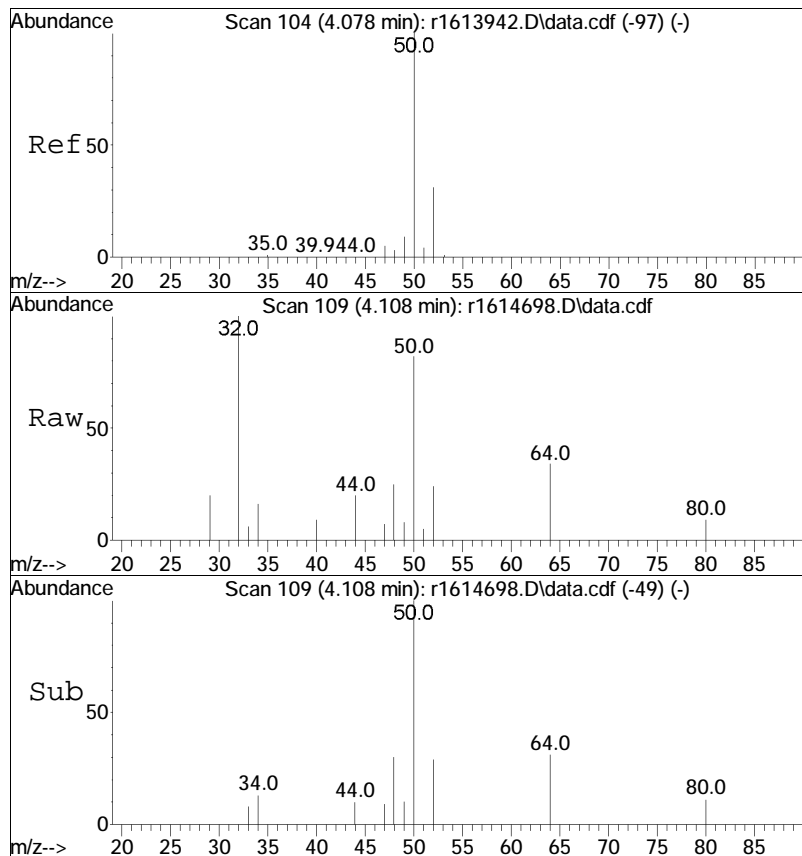




#5
dichlorodifluoromethane
Concen: 0.40 ppbV
RT: 3.93 min Scan# 79
Delta R.T. 0.030 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

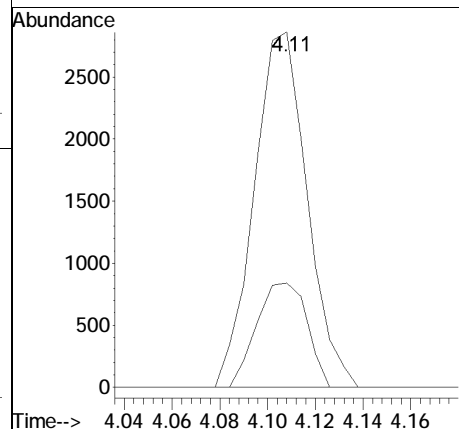
Tgt Ion: 85 Resp: 6132
Ion Ratio Lower Upper
85 100
87 34.6 25.5 38.3

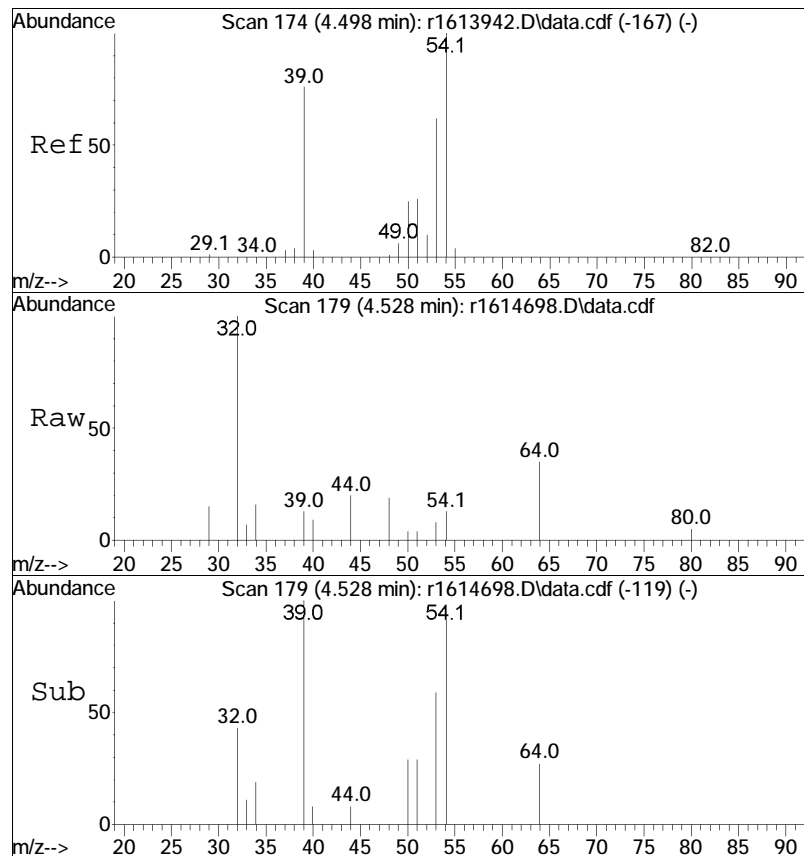




#6
 chloromethane
 Concen: 0.47 ppbV
 RT: 4.11 min Scan# 109
 Delta R.T. 0.030 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

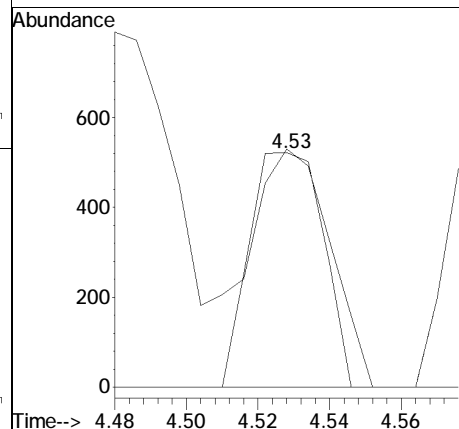
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 29.4 | 24.8 | 37.2 |

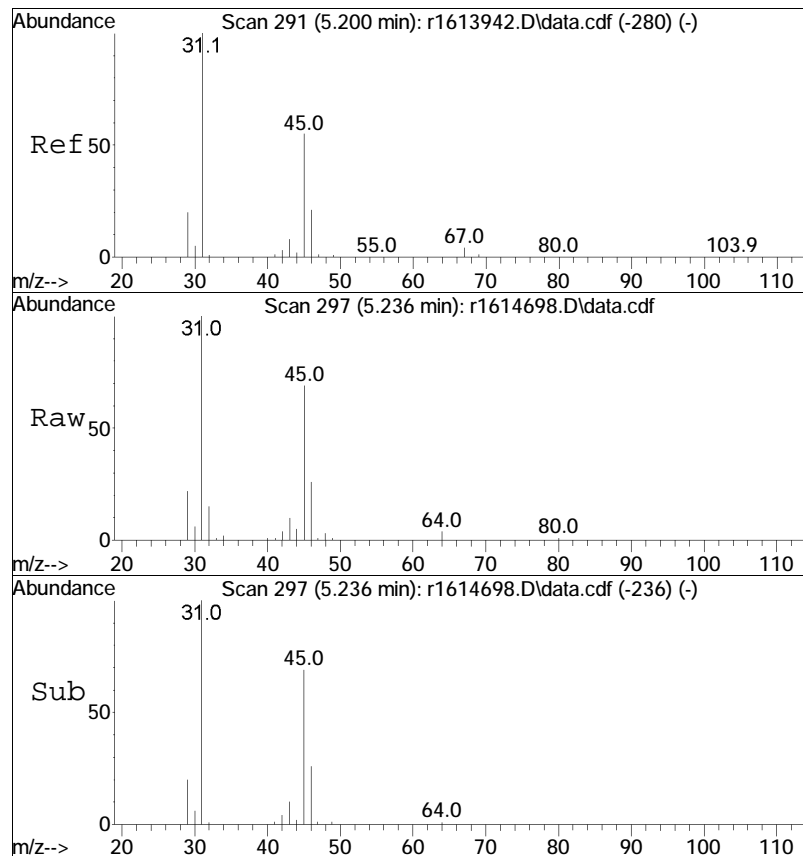




#10
 1,3-butadiene
 Concen: 0.09 ppbV
 RT: 4.53 min Scan# 179
 Delta R.T. 0.030 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

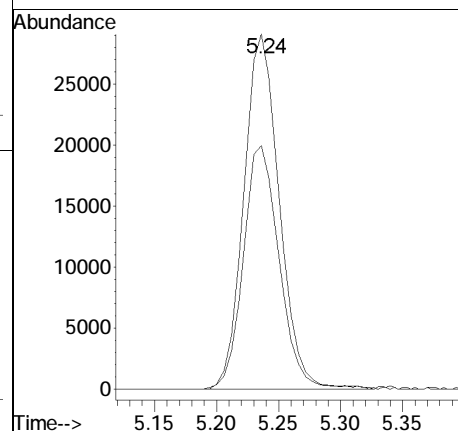
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 54 | 100 | | |
| 39 | 101.5 | 61.1 | 91.7# |

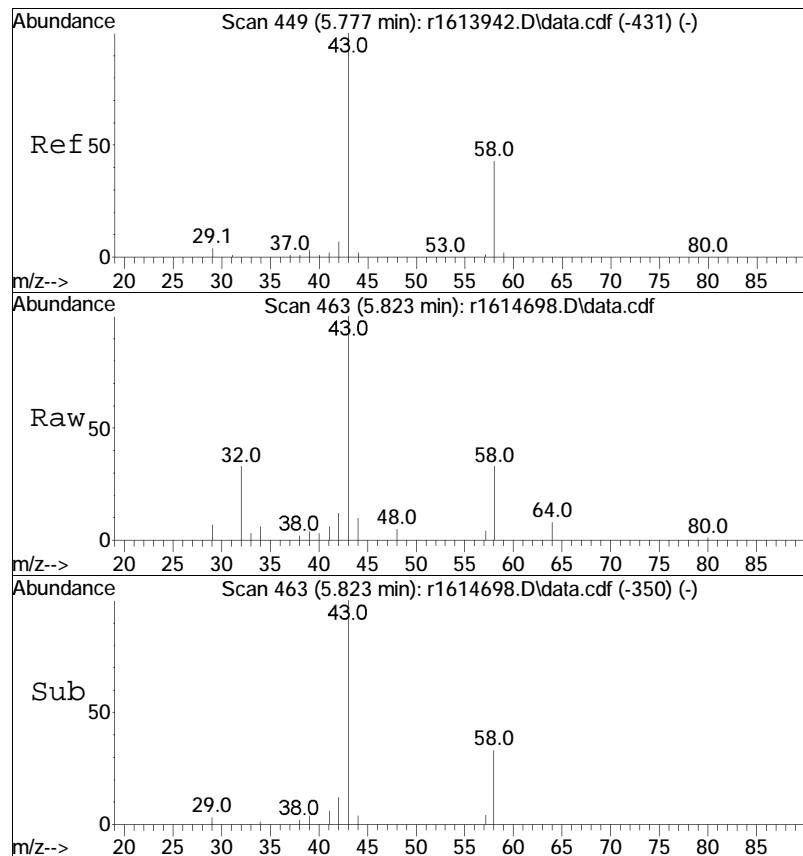




#15
ethanol
Concen: 8.00 ppbV
RT: 5.24 min Scan# 297
Delta R.T. 0.036 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

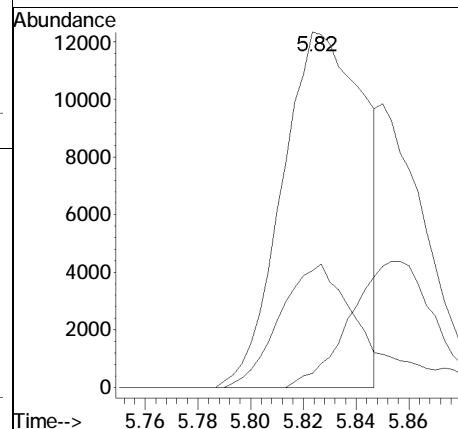
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 68.6 | 43.7 | 65.5# |

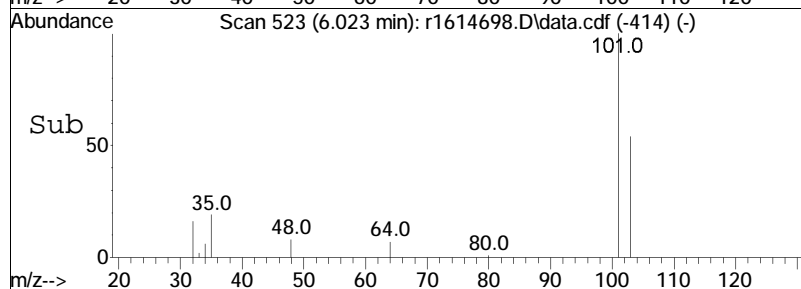
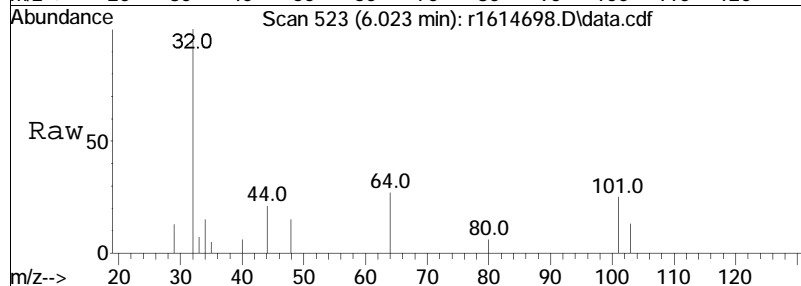
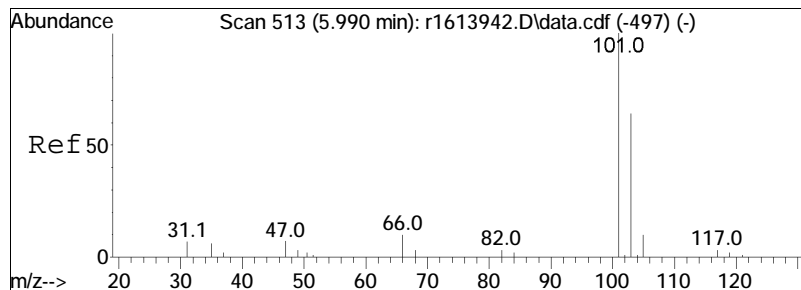




#19
acetone
Concen: 2.15 ppbV m
RT: 5.82 min Scan# 463
Delta R.T. 0.047 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

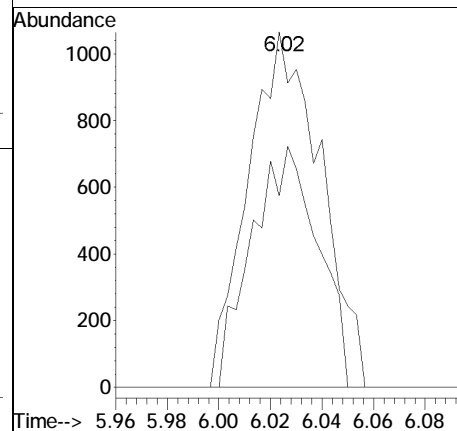
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 32.9 | 34.4 | 51.6# |
| 57 | 3.9 | 0.9 | 1.3# |

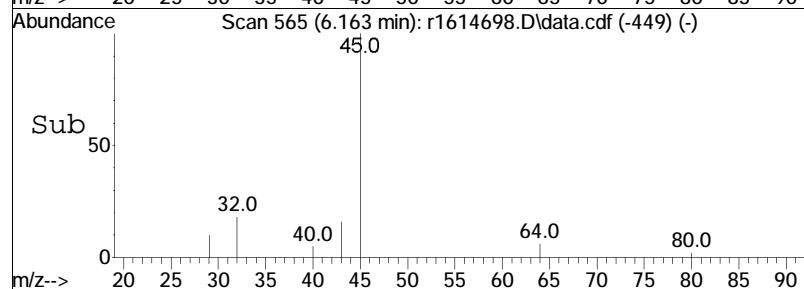
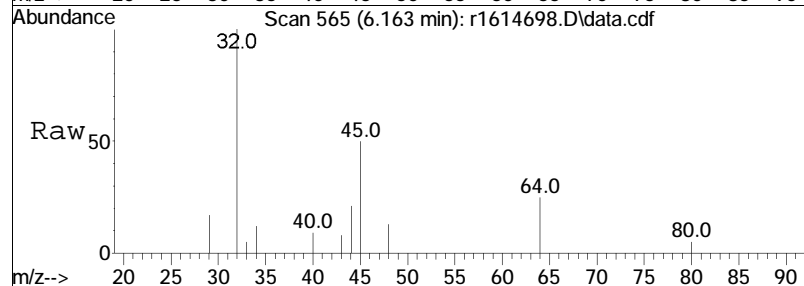
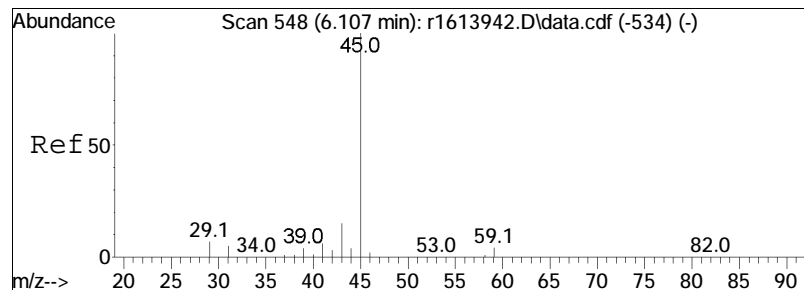




#21
trichlorofluoromethane
Concen: 0.17 ppbV
RT: 6.02 min Scan# 523
Delta R.T. 0.033 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

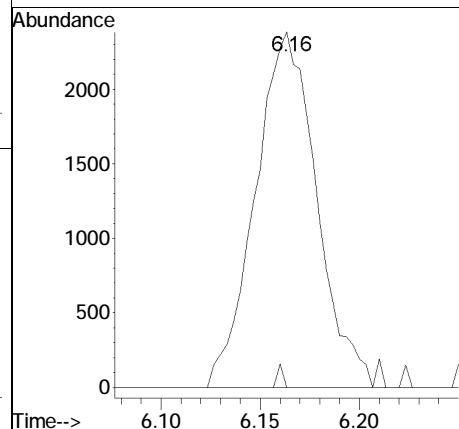
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101 | 100 | | |
| 103 | 53.9 | 51.4 | 77.2 |

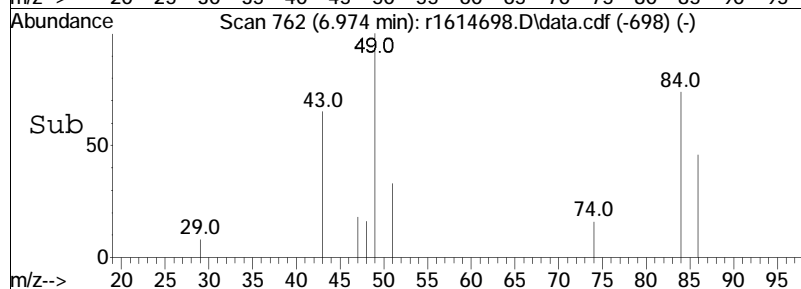
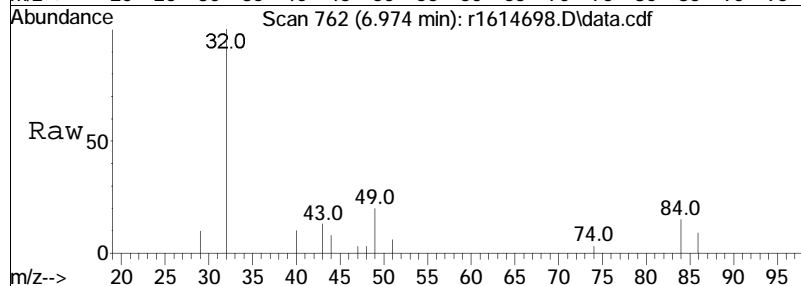
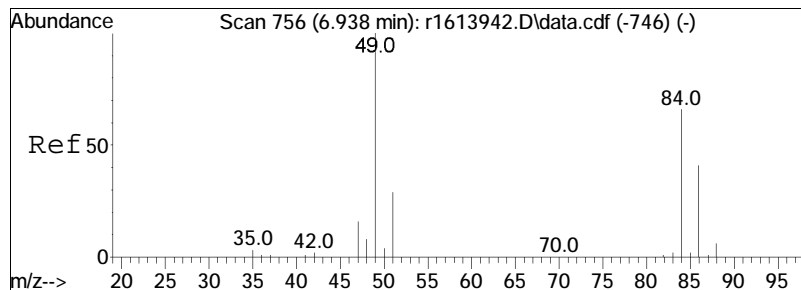




#22
isopropyl alcohol
Concen: 0.32 ppbV
RT: 6.16 min Scan# 565
Delta R.T. 0.057 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

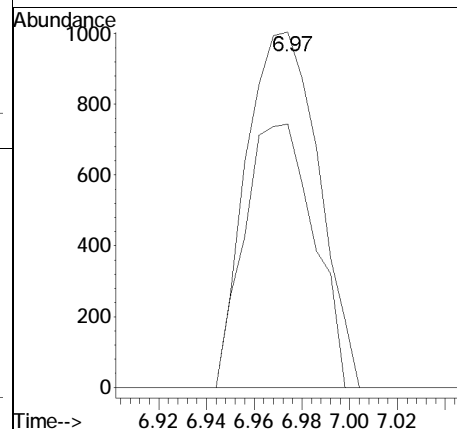
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 0.0 | 3.2 | 4.8# |

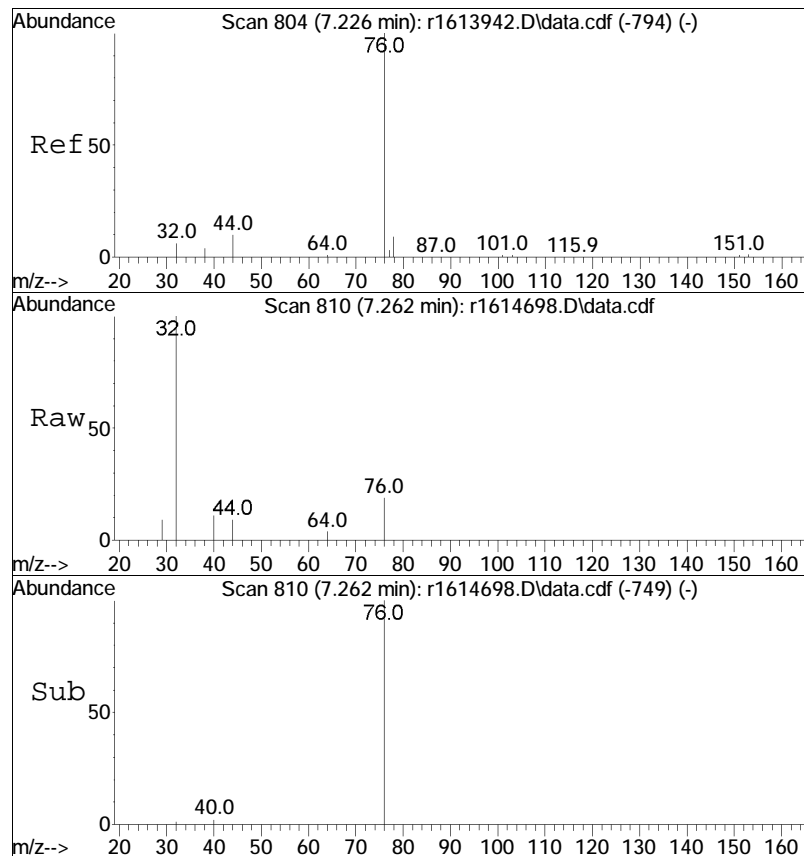




#28
methylene chloride
Concen: 0.17 ppbV
RT: 6.97 min Scan# 762
Delta R.T. 0.036 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

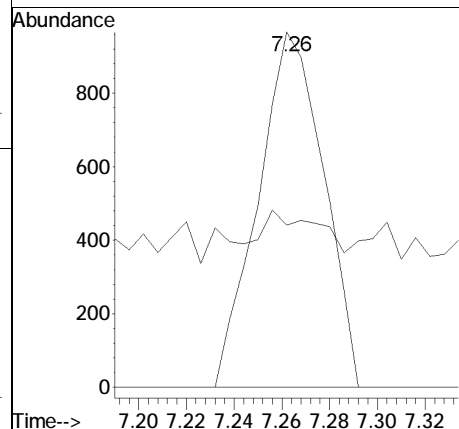
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49 | 100 | | |
| 84 | 74.1 | 53.0 | 79.4 |

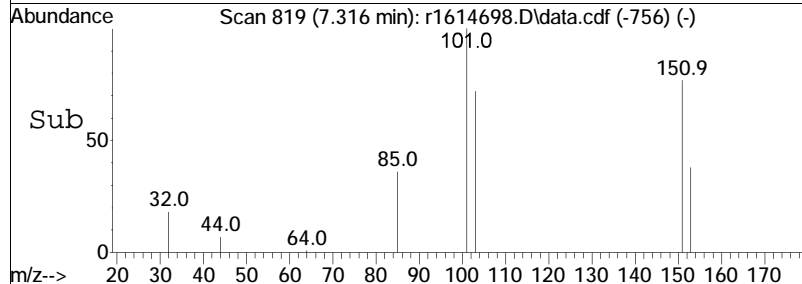
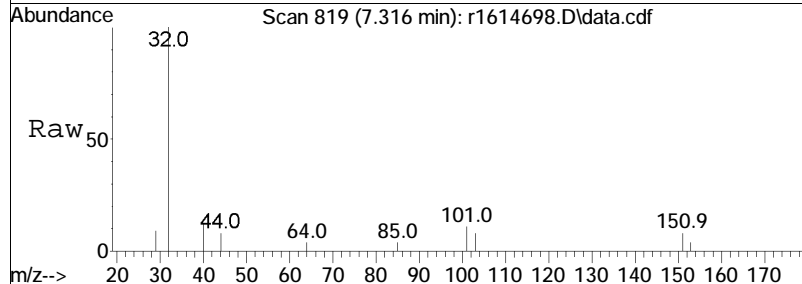
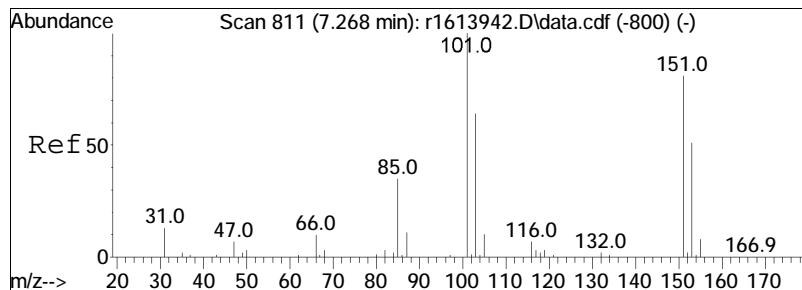




#30
 carbon disulfide
 Concen: 0.06 ppbV
 RT: 7.26 min Scan# 810
 Delta R.T. 0.036 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

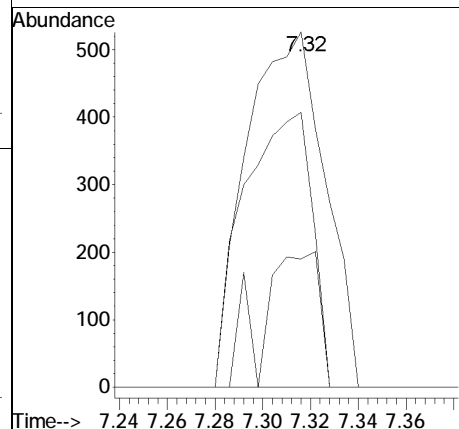
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 45.7 | 8.3 | 12.5# |

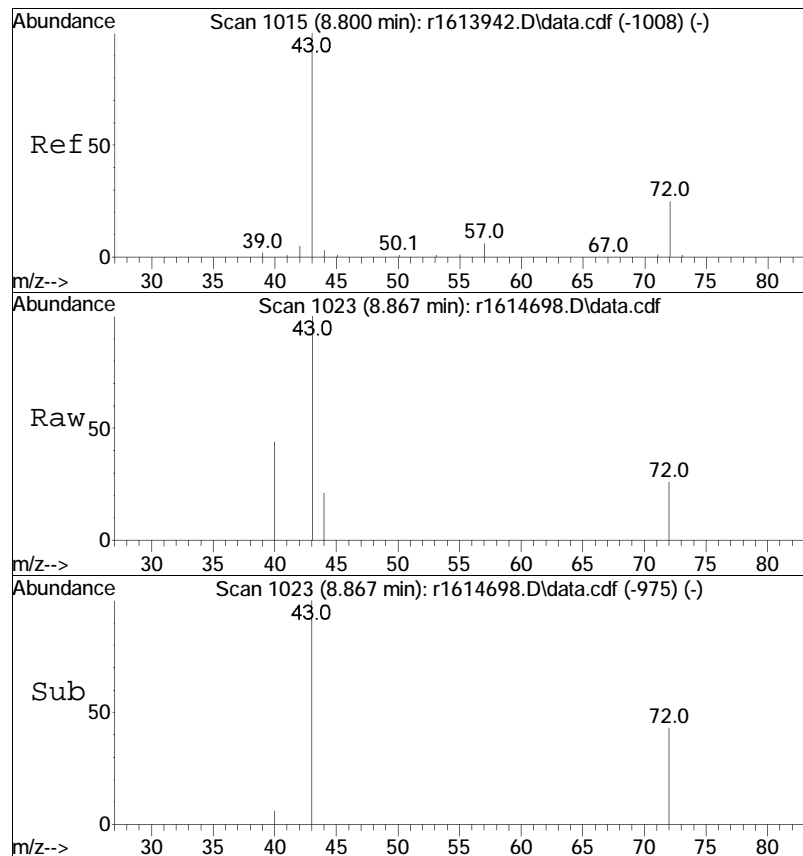




#31
 Freon 113
 Concen: 0.07 ppbV
 RT: 7.32 min Scan# 819
 Delta R.T. 0.048 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

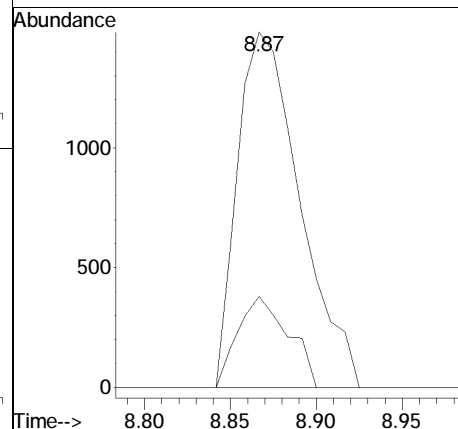
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 1203 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 85 | 36.1 | 27.8 | 41.6 |
| 151 | 77.4 | 65.0 | 97.6 |

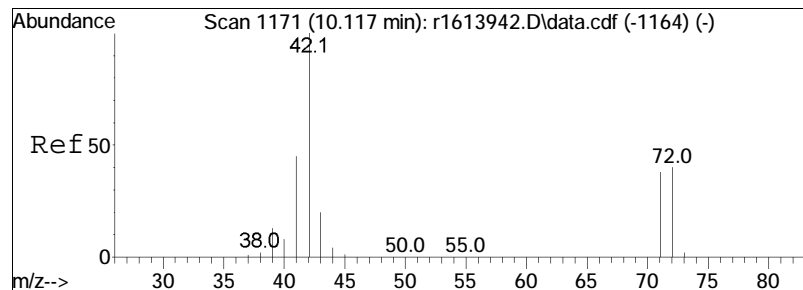




#36
 2-butanone
 Concen: 0.16 ppbV
 RT: 8.87 min Scan# 1023
 Delta R.T. 0.067 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 3749 |
| Ion | Ratio | Lower | Upper |
| 43 | 100 | | |
| 72 | 25.6 | 19.8 | 29.6 |
| 57 | 0.0 | 4.8 | 7.2# |

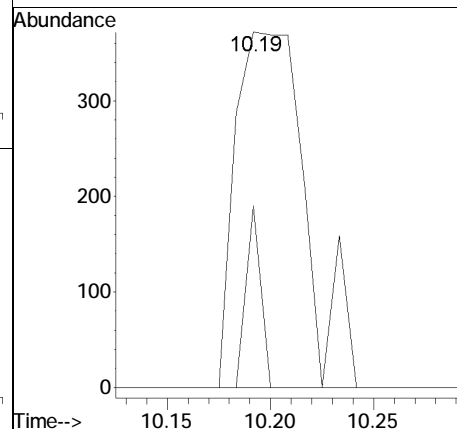
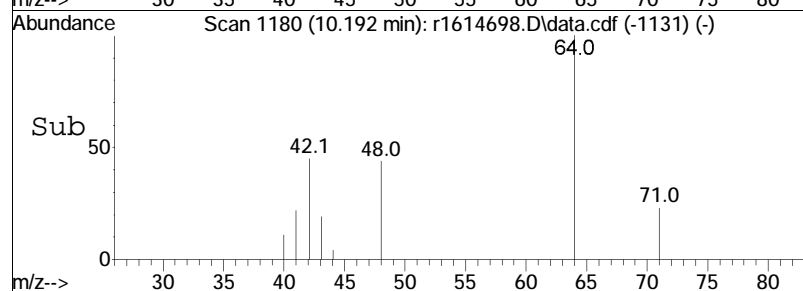
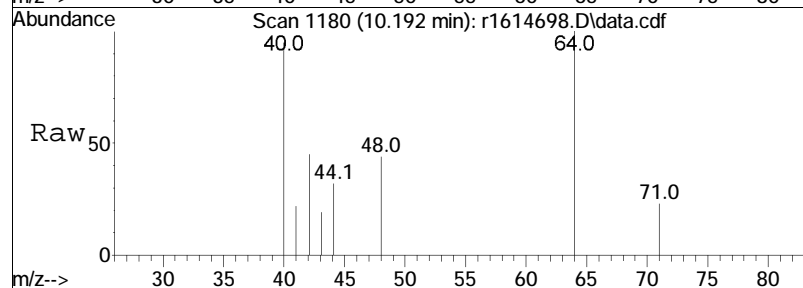


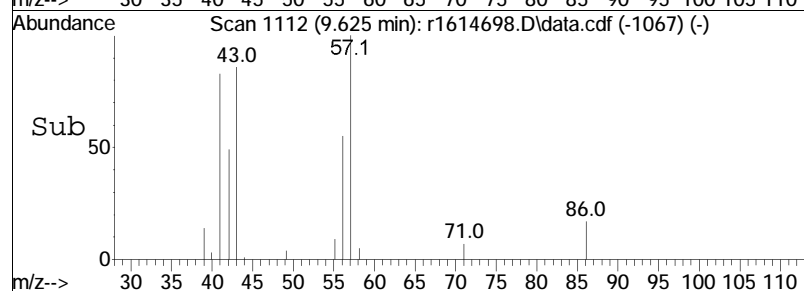
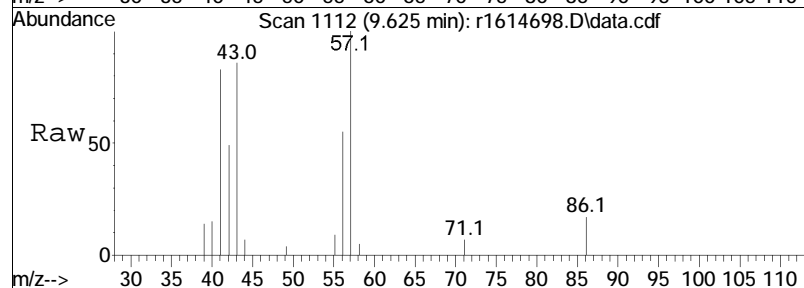
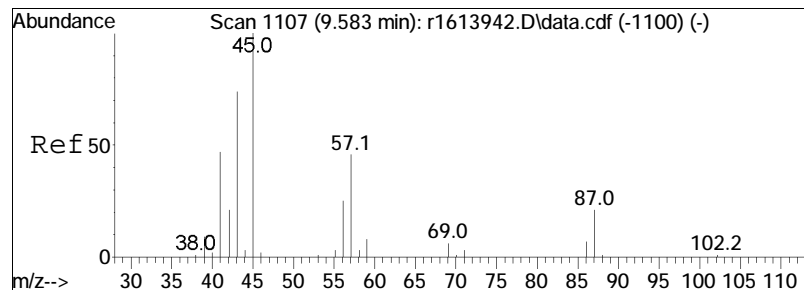


#40
Tetrahydrofuran
Concen: 0.06 ppbV
RT: 10.19 min Scan# 1180
Delta R.T. 0.075 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

Tgt Ion: 42 Resp: 883

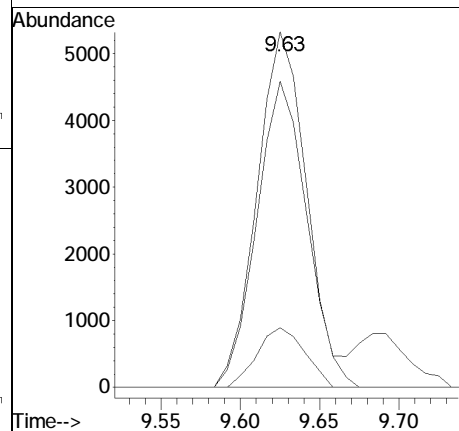
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 42 | 100 | | |
| 71 | 51.1 | 30.0 | 45.0# |
| 72 | 0.0 | 31.9 | 47.9# |

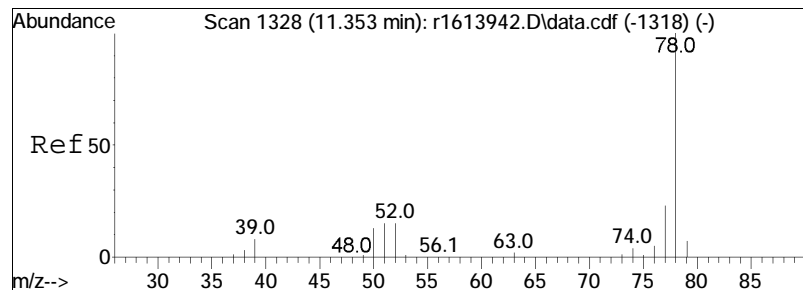




#44
hexane
Concen: 0.66 ppbV
RT: 9.63 min Scan# 1112
Delta R.T. 0.042 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

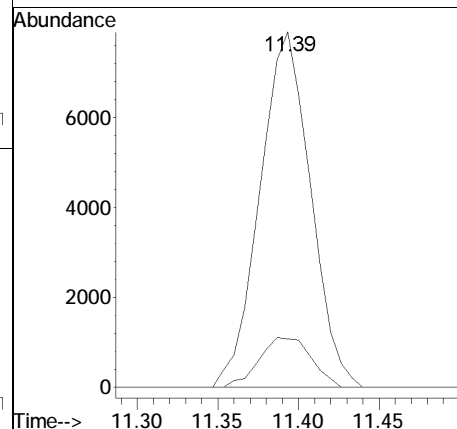
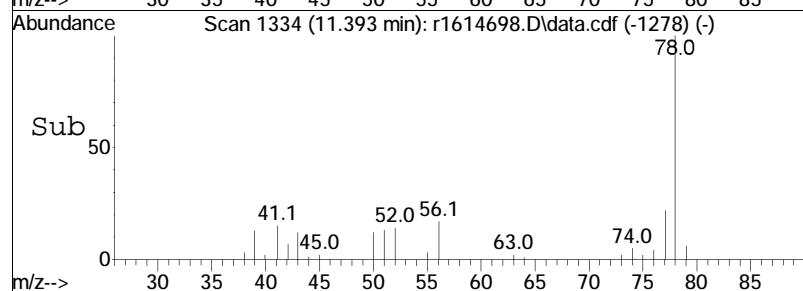
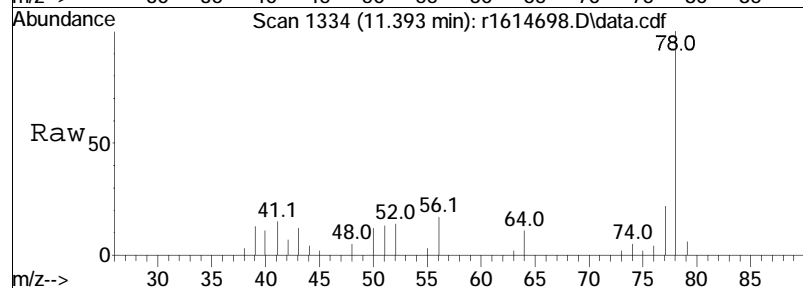
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 86.1 | 129.6 | 194.4# |
| 86 | 16.8 | 12.8 | 19.2 |

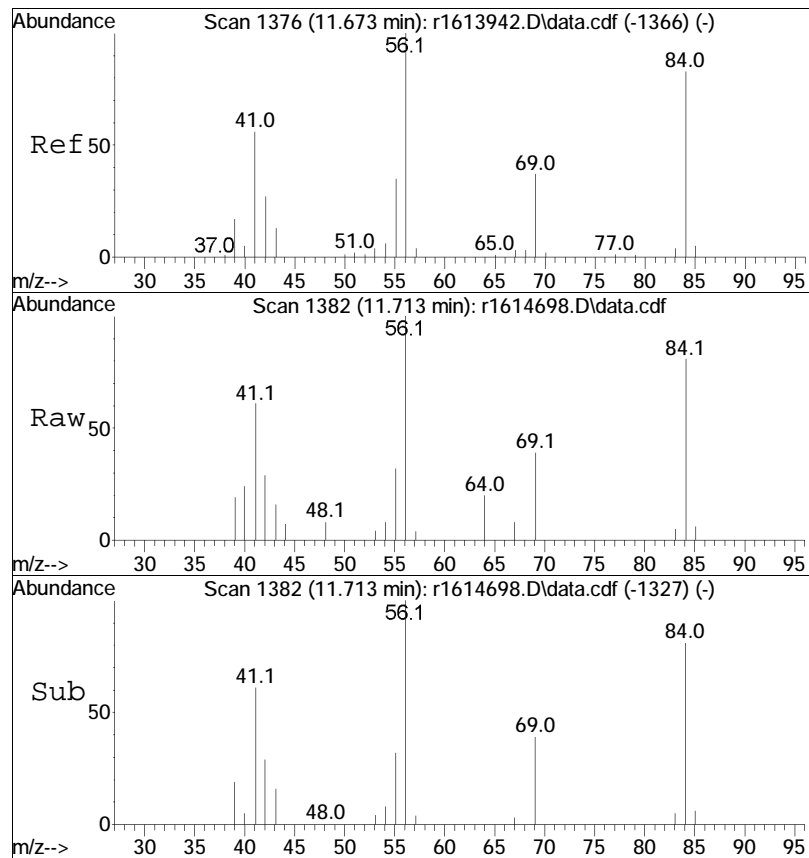




#50
benzene
Concen: 0.47 ppbV
RT: 11.39 min Scan# 1334
Delta R.T. 0.040 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

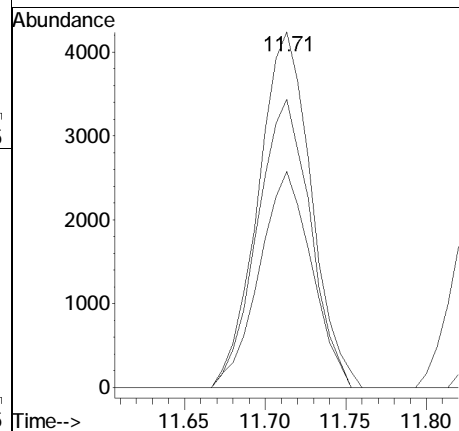
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 100 | | |
| 52 | 13.6 | 12.2 | 18.2 |

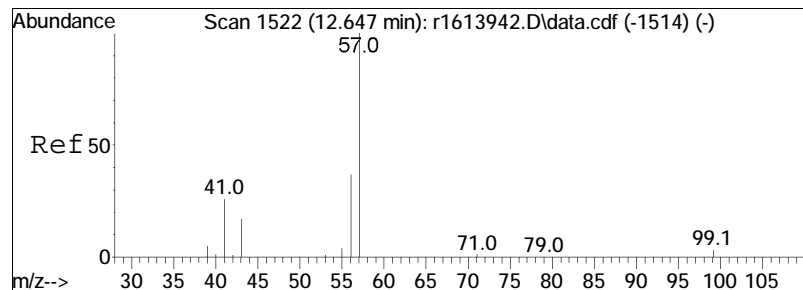




#53
cyclohexane
Concen: 0.52 ppbV
RT: 11.71 min Scan# 1382
Delta R.T. 0.040 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

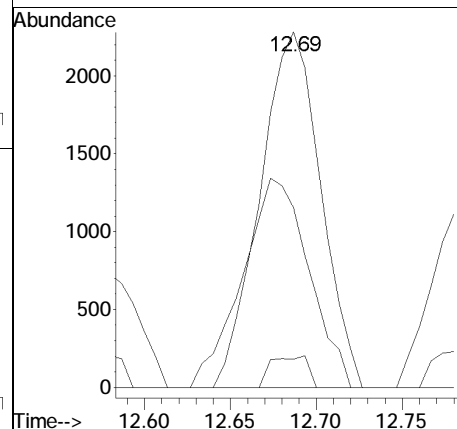
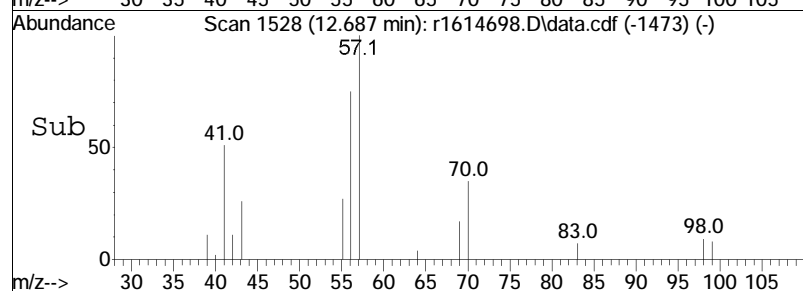
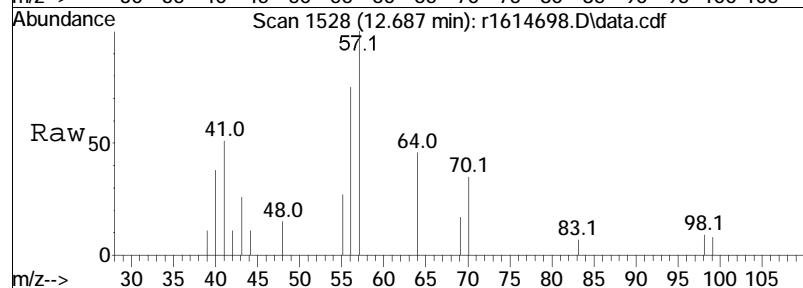
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 56 | Resp: | 9704 |
| Ion | Ratio | Lower | Upper |
| 56 | 100 | | |
| 84 | 81.1 | 66.2 | 99.2 |
| 41 | 60.7 | 45.2 | 67.8 |

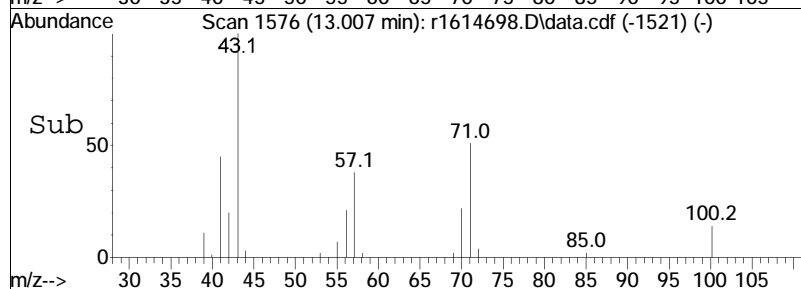
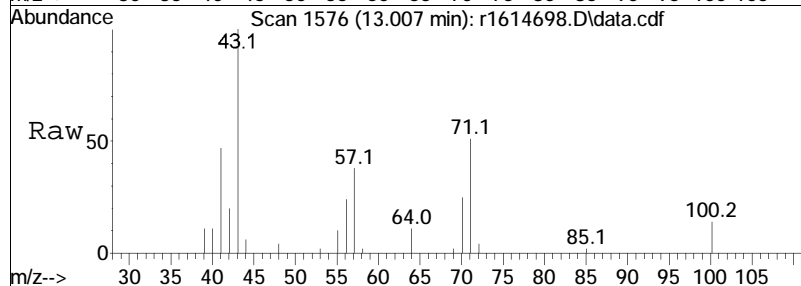
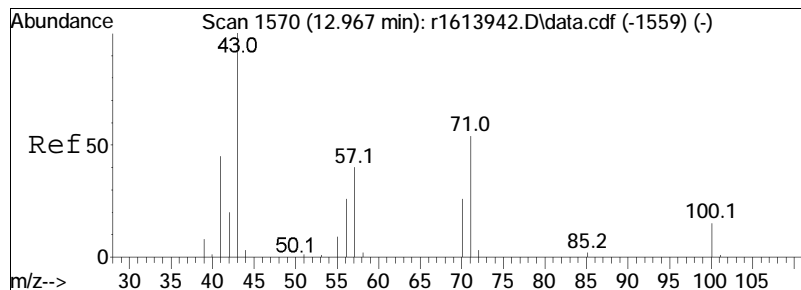




#60
 2,2,4-trimethylpentane
 Concen: 0.10 ppbV
 RT: 12.69 min Scan# 1528
 Delta R.T. 0.040 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

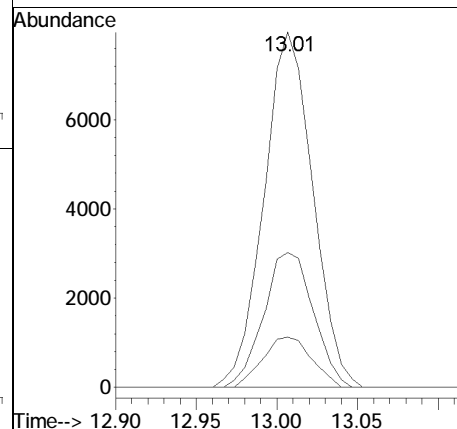
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 8.0 | 4.6 | 6.8# |
| 41 | 50.6 | 20.2 | 30.4# |

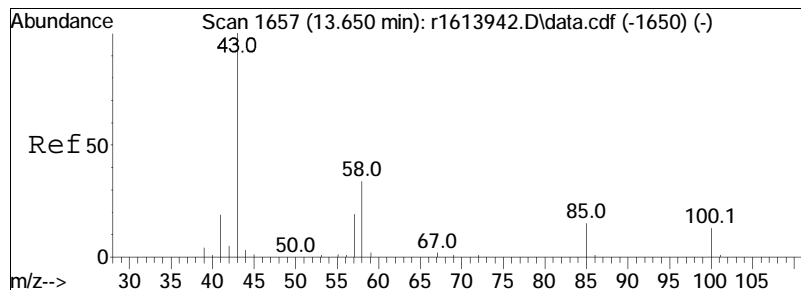




#62
heptane
Concen: 0.64 ppbV
RT: 13.01 min Scan# 1576
Delta R.T. 0.040 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

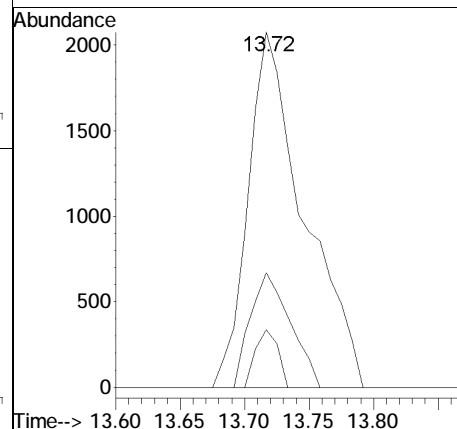
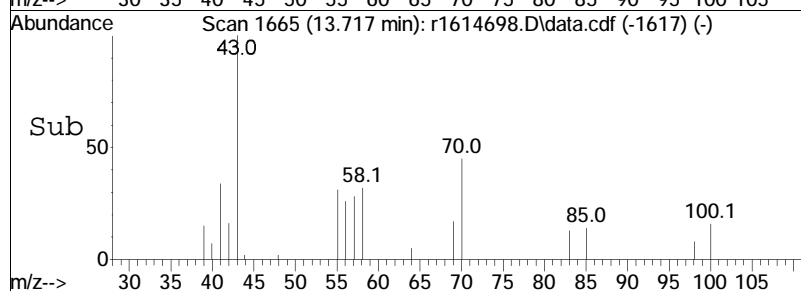
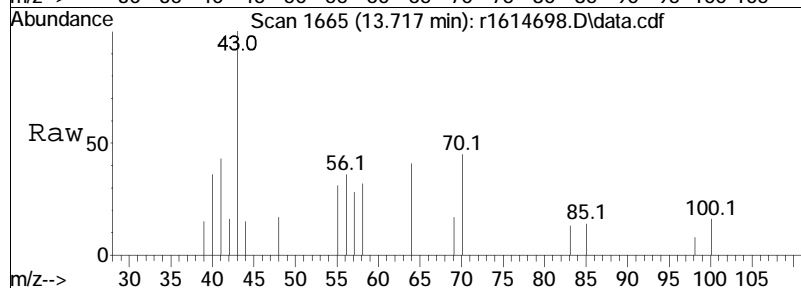
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 37.9 | 32.2 | 48.4 |
| 100 | 14.2 | 11.9 | 17.9 |

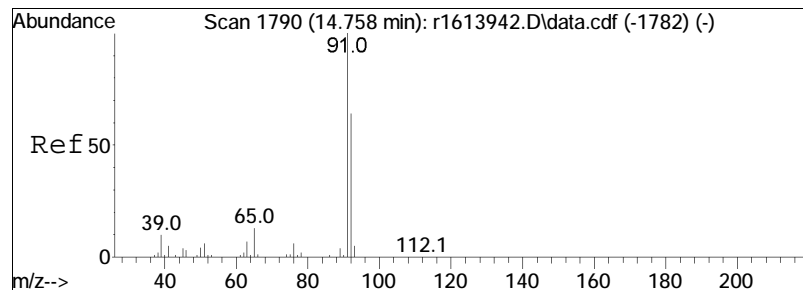




#64
 4-methyl-2-pentanone
 Concen: 0.21 ppbV
 RT: 13.72 min Scan# 1665
 Delta R.T. 0.067 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

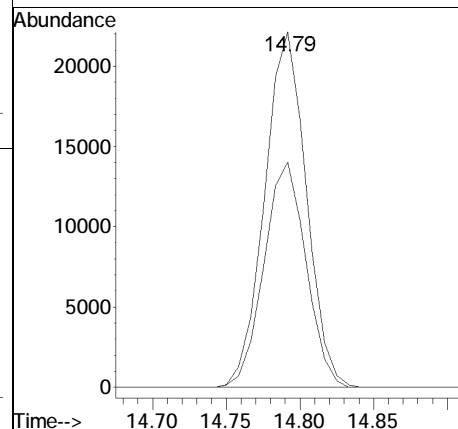
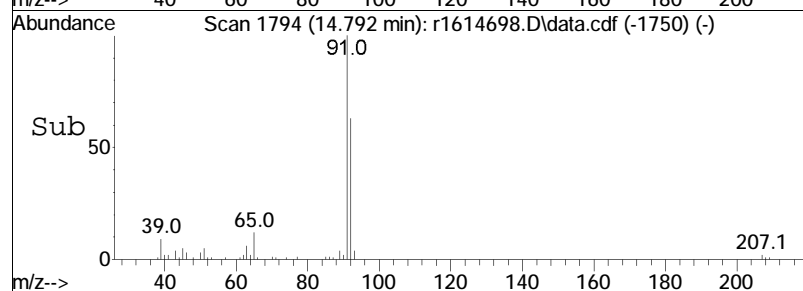
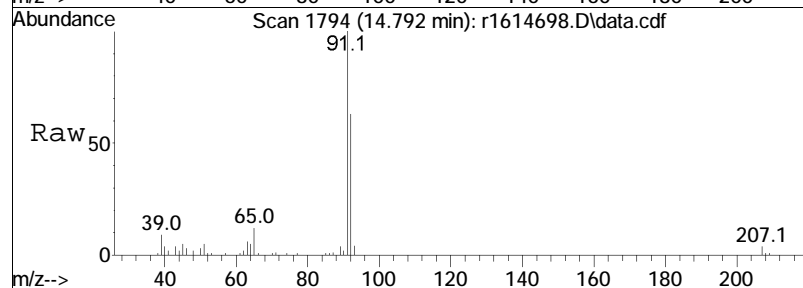
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 32.3 | 27.1 | 40.7 |
| 100 | 16.2 | 10.6 | 16.0# |

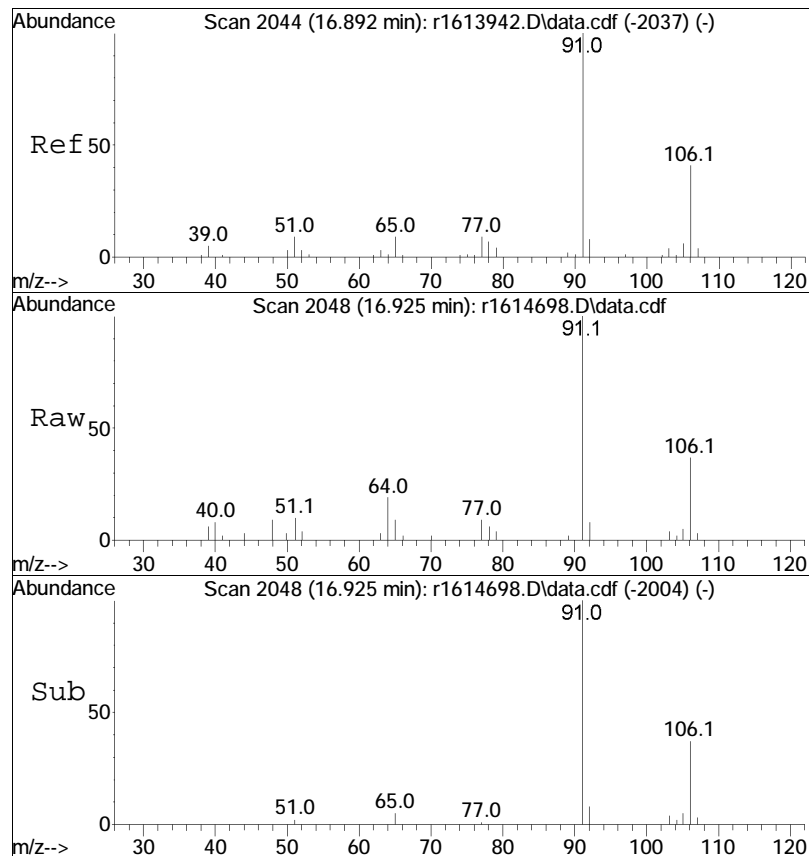




#68
toluene
Concen: 1.30 ppbV
RT: 14.79 min Scan# 1794
Delta R.T. 0.033 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

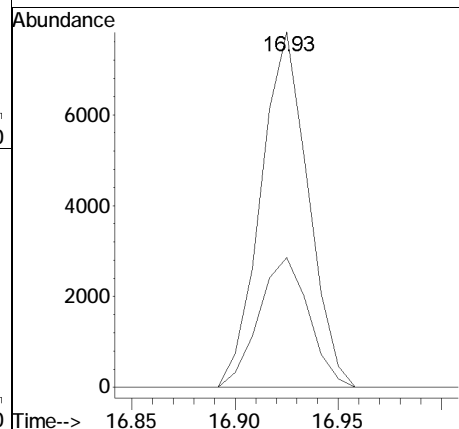
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 63.4 | 51.5 | 77.3 |

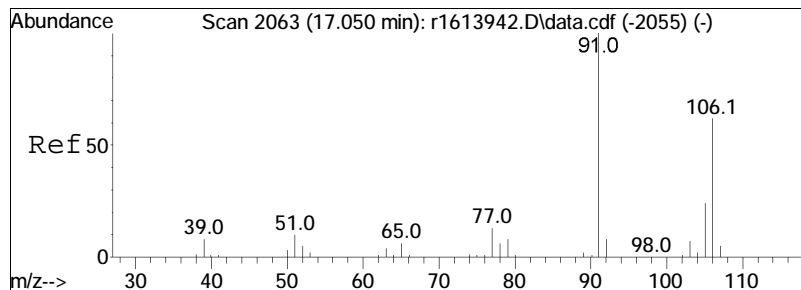




#81
ethylbenzene
Concen: 0.30 ppbV
RT: 16.93 min Scan# 2048
Delta R.T. 0.033 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

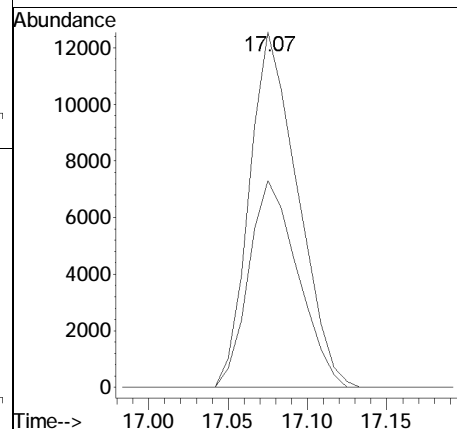
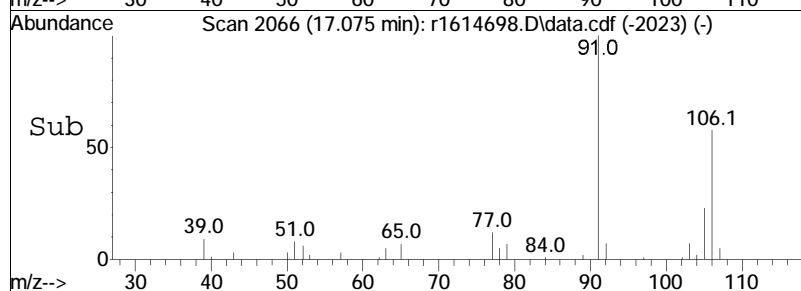
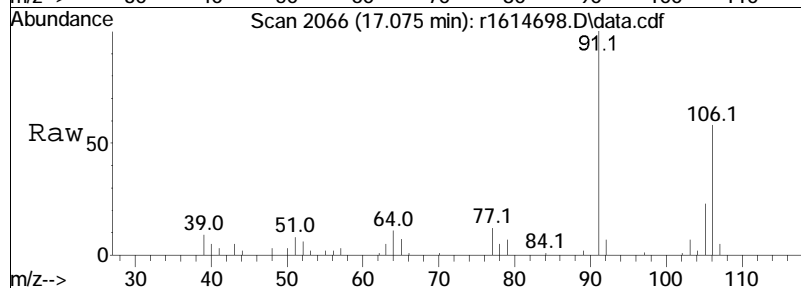
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 36.5 | 32.5 | 48.7 |

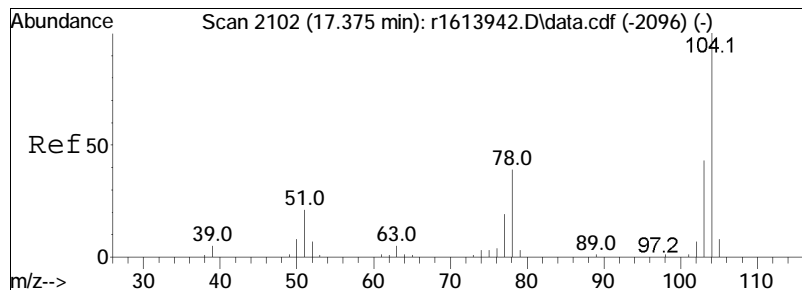




#83
 m+p-xylene
 Concen: 0.78 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

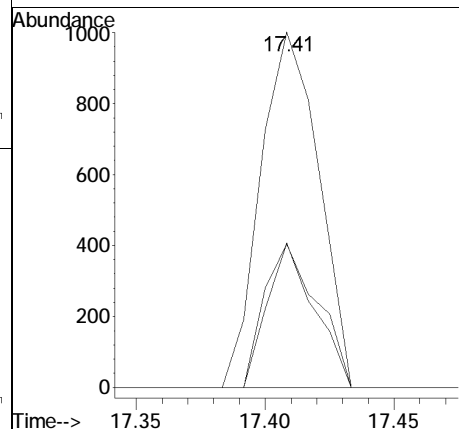
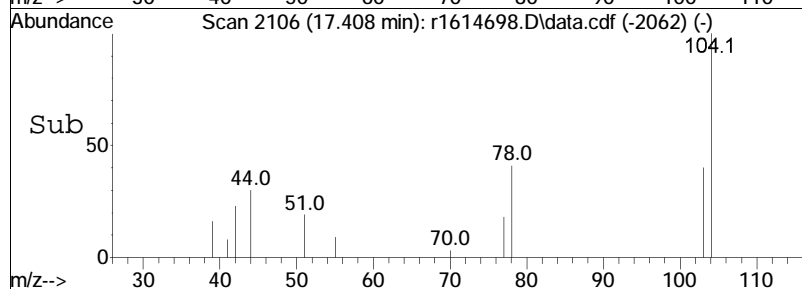
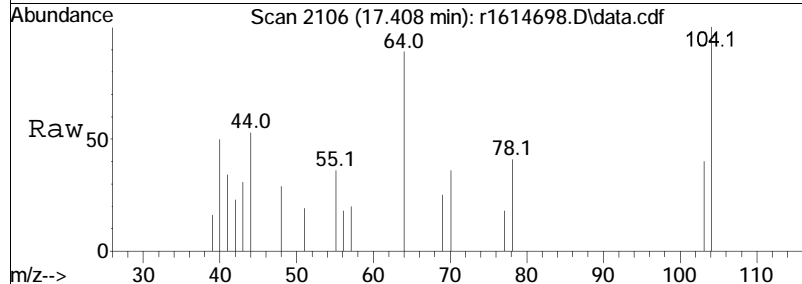
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 58.2 | 49.8 | 74.6 |

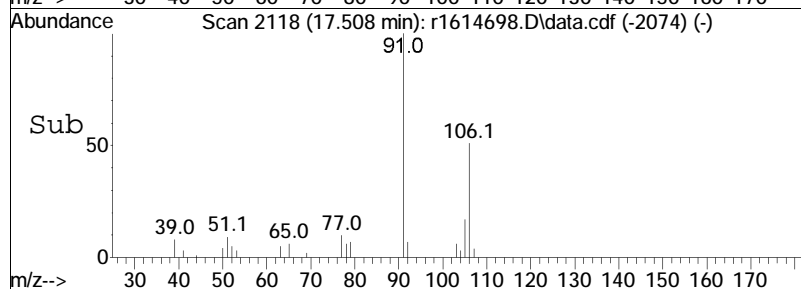
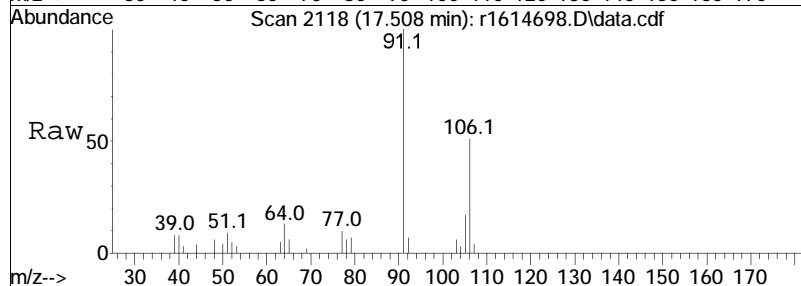
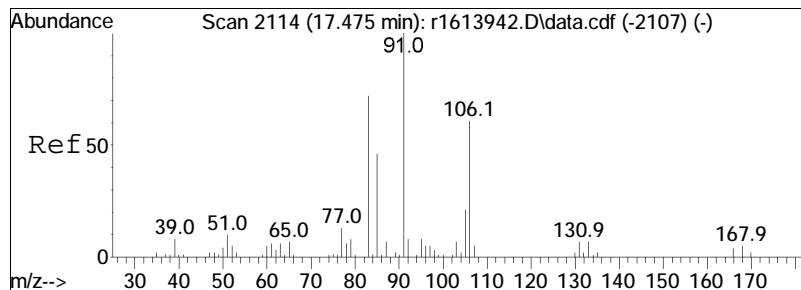




#85
styrene
Concen: 0.05 ppbV
RT: 17.41 min Scan# 2106
Delta R.T. 0.033 min
Lab File: r1614698.D
Acq: 4 Jan 2020 9:12 PM

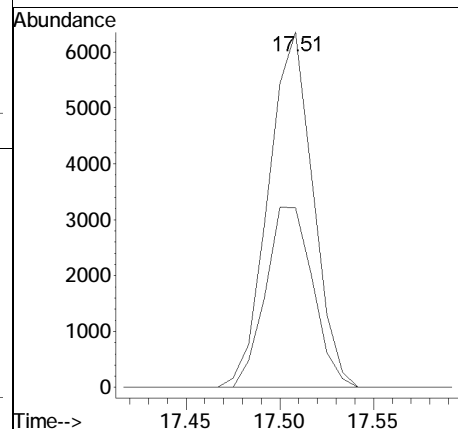
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104 | 100 | | |
| 103 | 40.3 | 34.2 | 51.2 |
| 78 | 40.6 | 31.2 | 46.8 |

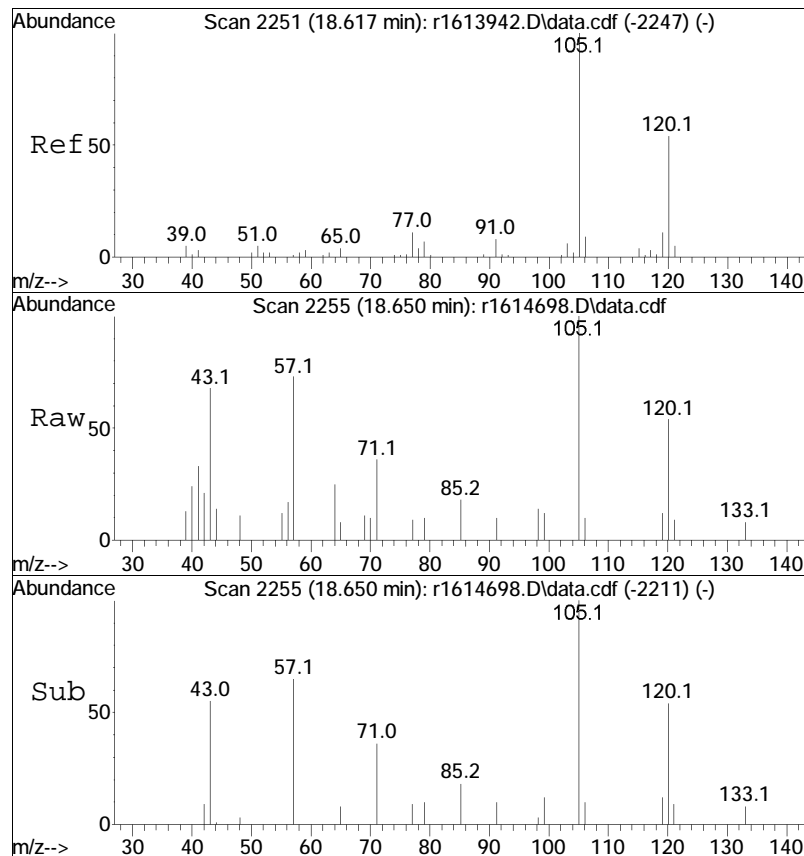




#87
 o-xylene
 Concen: 0.31 ppbV
 RT: 17.51 min Scan# 2118
 Delta R.T. 0.033 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

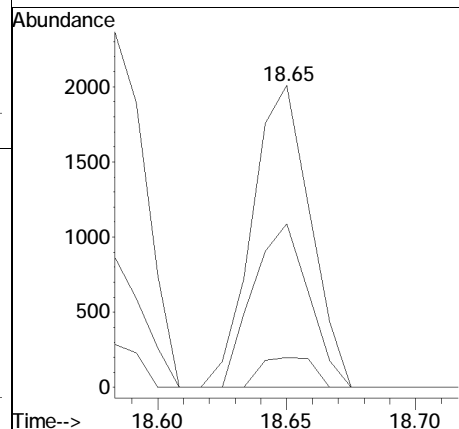
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 50.5 | 48.8 | 73.2 |

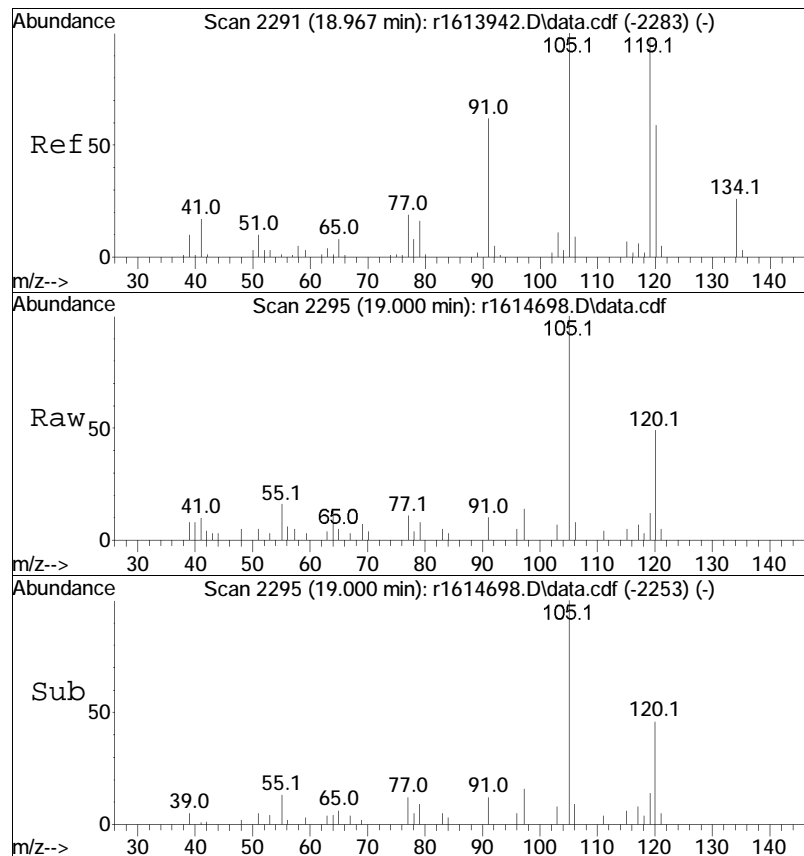




#97
 1,3,5-trimethylbenzene
 Concen: 0.07 ppbV
 RT: 18.65 min Scan# 2255
 Delta R.T. 0.033 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

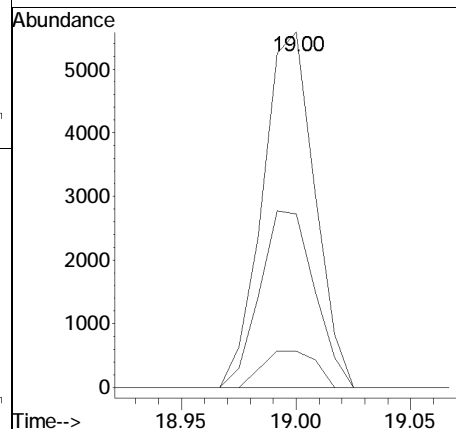
| | | | |
|-----|---------|-------|-------|
| Tgt | Ion:105 | Resp: | 3154 |
| Ion | Ratio | Lower | Upper |
| 105 | 100 | | |
| 120 | 54.2 | 42.9 | 64.3 |
| 91 | 9.9 | 6.6 | 9.8# |





#99
 1,2,4-trimethylbenzene
 Concen: 0.21 ppbV
 RT: 19.00 min Scan# 2295
 Delta R.T. 0.033 min
 Lab File: r1614698.D
 Acq: 4 Jan 2020 9:12 PM

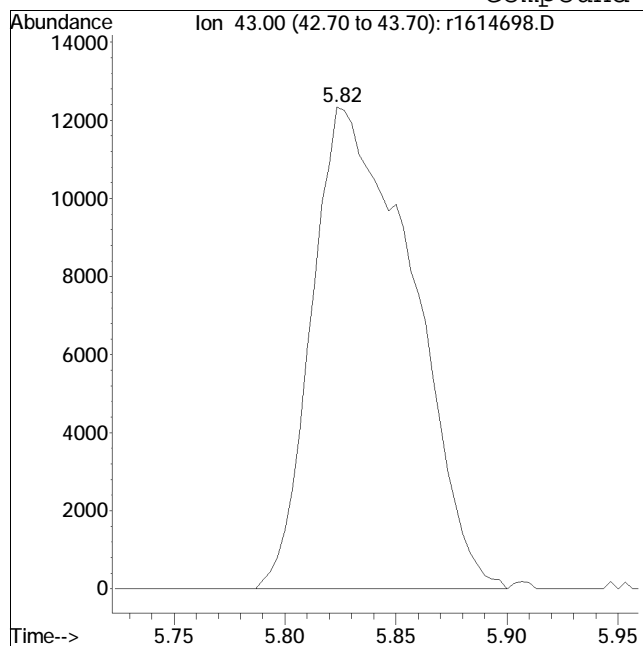
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 105 | 100 | | | |
| 120 | 48.8 | 8841 | 46.9 | 70.3 |
| 91 | 10.2 | | 49.3 | 73.9# |



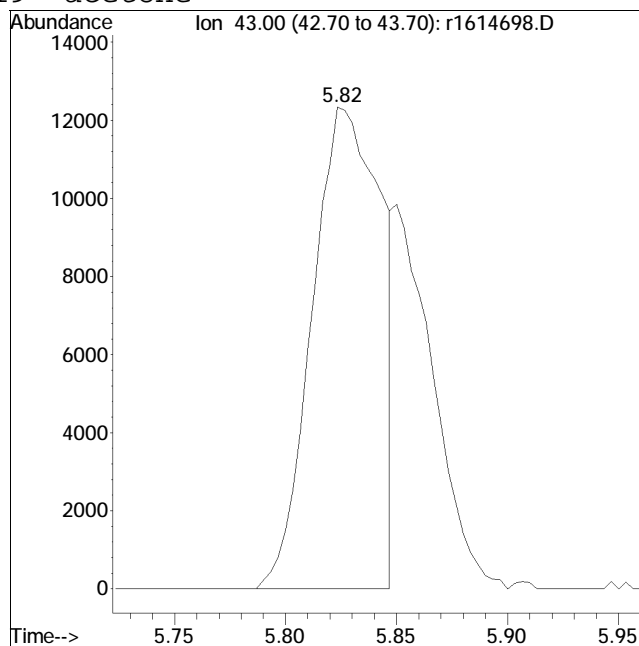
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614698.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:9: 2 Instrument :
Sample : L1962003-05,3,250,250 Quant Date : 1/5/2020 8:30 am

Compound #19: acetone



Original Peak Response = 38687



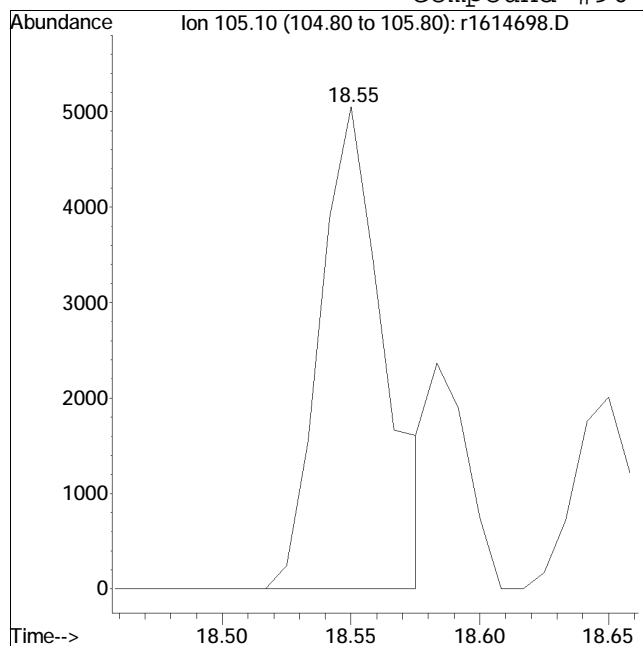
Manual Peak Response = 26626 M4

M4 = Poor automated baseline construction.

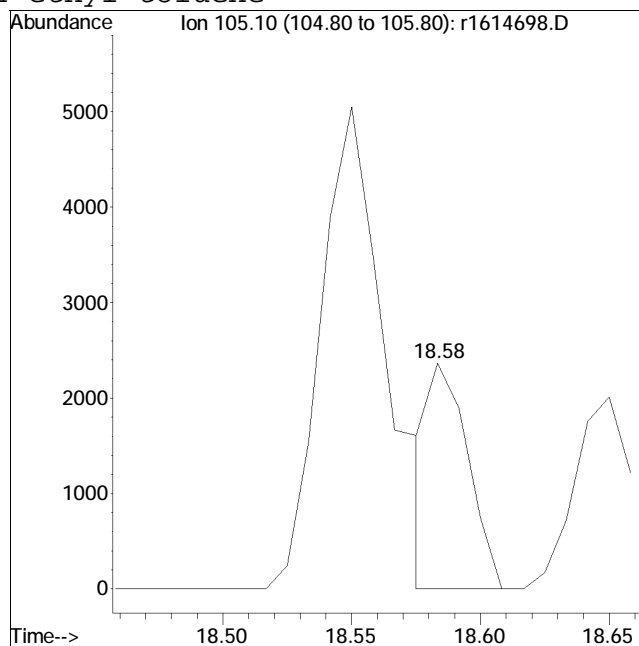
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614698.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:9: 2 Instrument :
 Sample : L1962003-05,3,250,250 Quant Date : 1/5/2020 8:30 am

Compound #96: 4-ethyl toluene



Original Peak Response = 8750



Manual Peak Response = 2502 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614699.D
 Acq On : 4 Jan 2020 9:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-07,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:21:14 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.55 | 49 | 205060 | 10.000 | ppbV | 0.04 |
| Standard Area = 223987 | | | Recovery | = | 91.55% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 568472 | 10.000 | ppbV | 0.04 |
| Standard Area = 600707 | | | Recovery | = | 94.63% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 69604 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery | = | 92.30% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 5) dichlorodifluoromethane | 3.93 | 85 | 5774 | 0.380 | ppbV | 99 |
| 6) chloromethane | 4.11 | 50 | 4584 | 0.496 | ppbV | 97 |
| 7) Freon-114 | 0.00 | | 0 | N.D. | d | |
| 10) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.24 | 31 | 252355 | 38.170 | ppbV # | 84 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 128315 | 10.482 | ppbV | 92 |
| 21) trichlorofluoromethane | 6.03 | 101 | 1995 | 0.163 | ppbV | 95 |
| 22) isopropyl alcohol | 6.15 | 45 | 36930 | 2.342 | ppbV | 99 |
| 27) tertiary butyl alcohol | 6.90 | 59 | 3208 | 0.213 | ppbV # | 72 |
| 28) methylene chloride | 6.97 | 49 | 192640 | 15.419 | ppbV | 93 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.27 | 76 | 2941 | 0.089 | ppbV # | 36 |
| 31) Freon 113 | 7.31 | 101 | 1273 | 0.071 | ppbV | 98 |
| 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 | 8.87 | 43 | 6918 | 0.291 | ppbV | 98 |
| 38) Ethyl Acetate | 9.69 | 61 | 274 | 0.080 | ppbV # | 16 |
| 39) chloroform | 9.72 | 83 | 869 | 0.054 | ppbV # | 89 |
| 40) Tetrahydrofuran | 10.19 | 42 | 1905 | 0.132 | ppbV | 100 |
| 42) 1,2-dichloroethane | 10.57 | | 0 | N.D. | | |
| 44) hexane | 9.63 | 57 | 5190 | 0.301 | ppbV # | 44 |
| 50) benzene | 11.39 | 78 | 7664 | 0.209 | ppbV | 99 |
| 53) cyclohexane | 11.71 | 56 | 4571 | 0.249 | ppbV | 88 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614699.D
 Acq On : 4 Jan 2020 9:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-07,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:21:14 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|-------|--------|----------|----|
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | | |
| 57) bromodichloromethane | 12.59 | | 0 | | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | | |
| 60) 2,2,4-trimethylpentane | 12.69 | 57 | 2771 | 0.050 | ppbV # | | 58 |
| 62) heptane | 13.01 | 43 | 10896 | 0.420 | ppbV | | 97 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 64) 4-methyl-2-pentanone | 13.72 | 43 | 6530 | 0.218 | ppbV | | 94 |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | | N.D. | | |
| 68) toluene | 14.79 | 91 | 29621 | 0.892 | ppbV | | 96 |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. | d | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | | |
| 80) chlorobenzene | 0.00 | | 0 | | N.D. | d | |
| 81) ethylbenzene | 16.93 | 91 | 21328 | 0.513 | ppbV | | 95 |
| 83) m+p-xylene | 17.07 | 91 | 53877 | 1.582 | ppbV | | 93 |
| 84) bromoform | 0.00 | | 0 | | N.D. | | |
| 85) styrene | 17.42 | | 0 | | N.D. | | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | | N.D. | d | |
| 87) o-xylene | 17.51 | 91 | 14762 | 0.431 | ppbV | | 94 |
| 96) 4-ethyl toluene | 18.58 | | 0 | | N.D. | | |
| 97) 1,3,5-trimethylbenzene | 18.65 | | 0 | | N.D. | | |
| 99) 1,2,4-trimethylbenzene | 19.00 | 105 | 6337M3 | 0.149 | ppbV | | |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. | d | |
| 102) 1,3-dichlorobenzene | 0.00 | | 0 | | N.D. | d | |
| 103) 1,4-dichlorobenzene | 19.19 | | 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. | | |

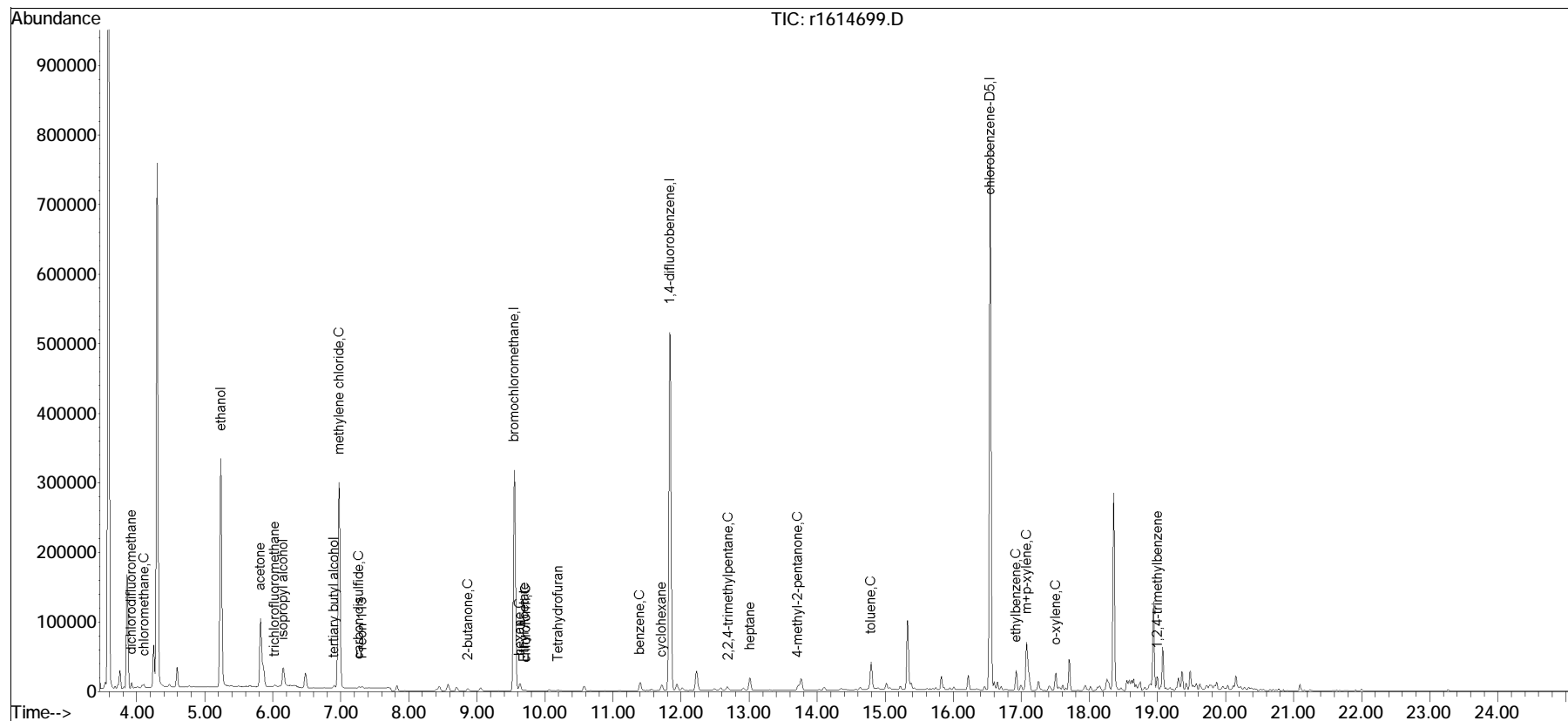
(#) = qualifier out of range (m) = manual integration (+) = signals summed

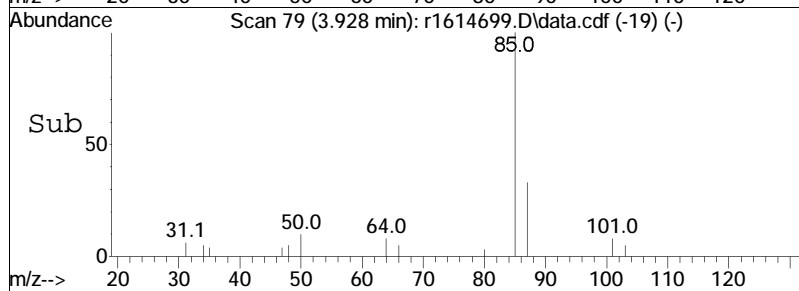
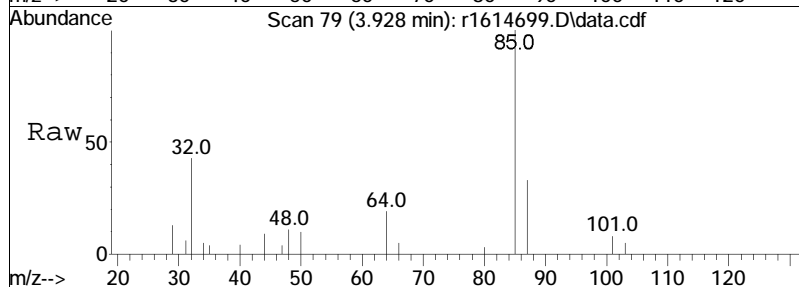
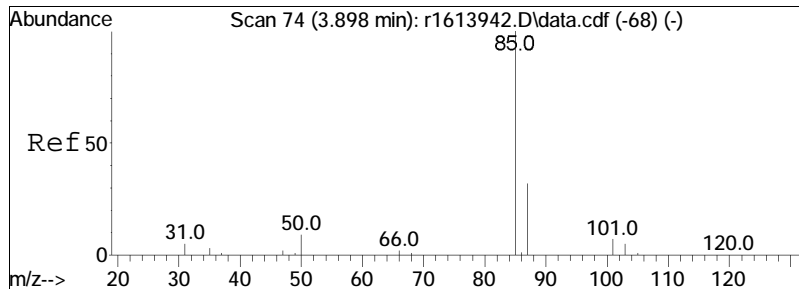
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614699.D
 Acq On : 4 Jan 2020 9:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-07,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:21:14 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

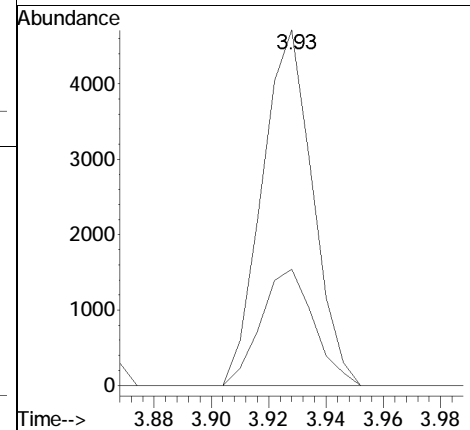
Sub List : TO15-NY-7-SIM - .\Airlab16\2020\01-JAN\200104T\r1614690.D

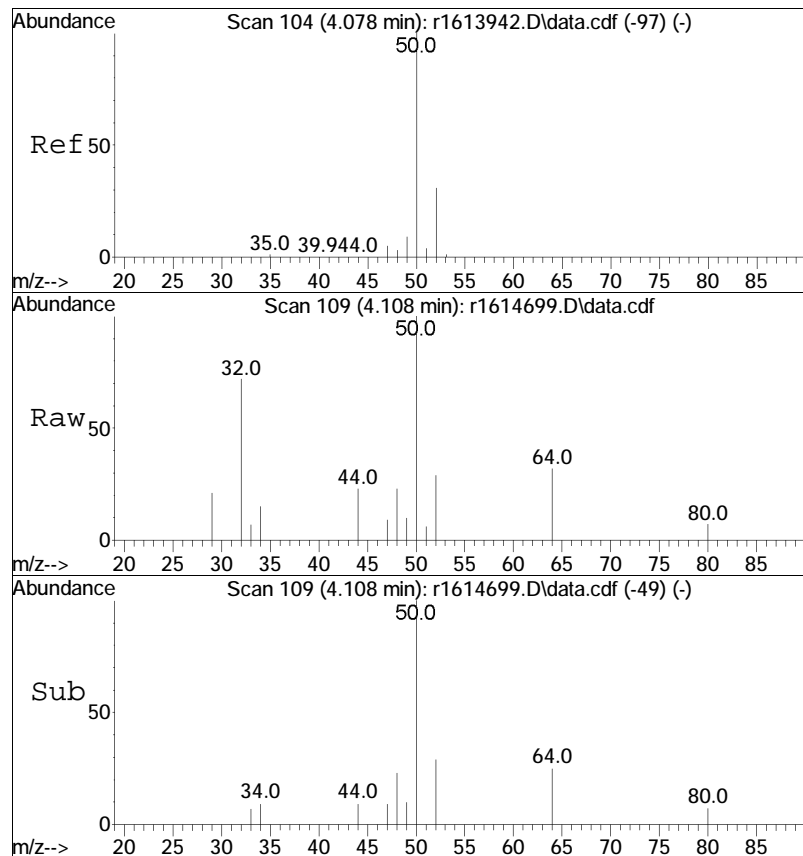




#5
dichlorodifluoromethane
Concen: 0.38 ppbV
RT: 3.93 min Scan# 79
Delta R.T. 0.030 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

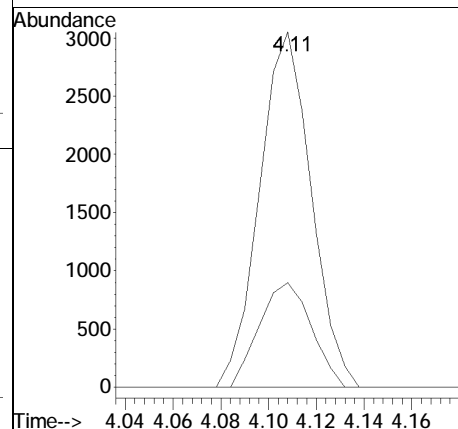
Tgt Ion: 85 Resp: 5774
Ion Ratio Lower Upper
85 100
87 32.7 25.5 38.3

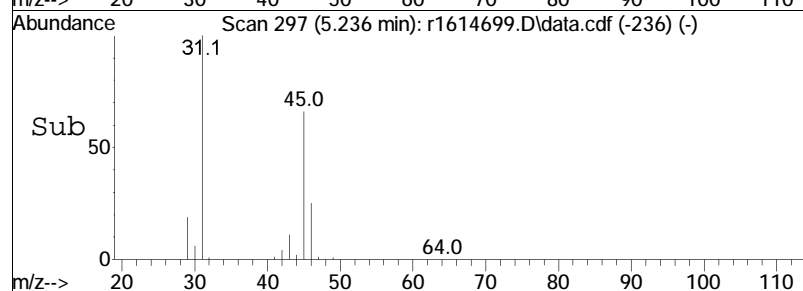
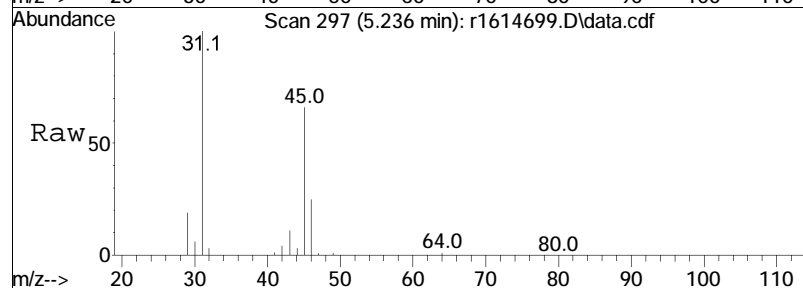
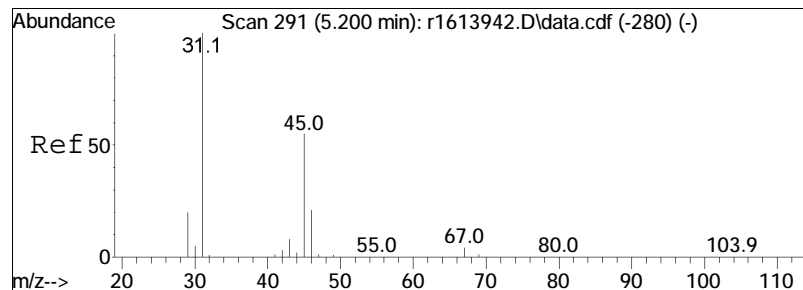




#6
 chloromethane
 Concen: 0.50 ppbV
 RT: 4.11 min Scan# 109
 Delta R.T. 0.030 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

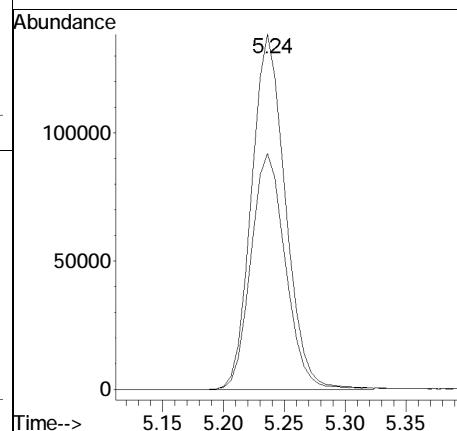
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 29.4 | 24.8 | 37.2 |

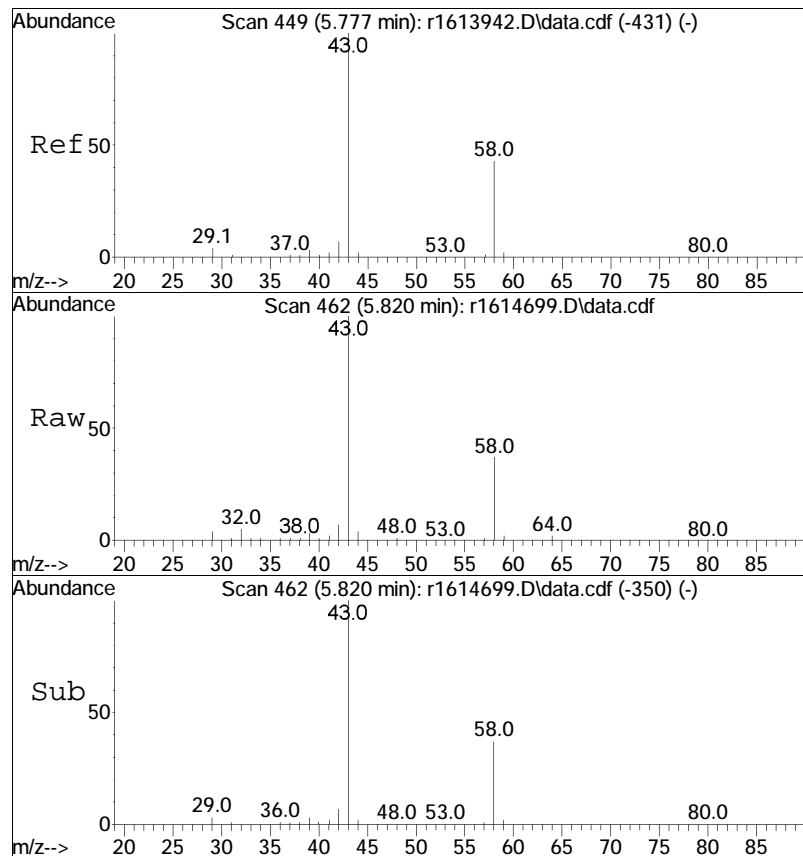




#15
ethanol
Concen: 38.17 ppbV
RT: 5.24 min Scan# 297
Delta R.T. 0.036 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

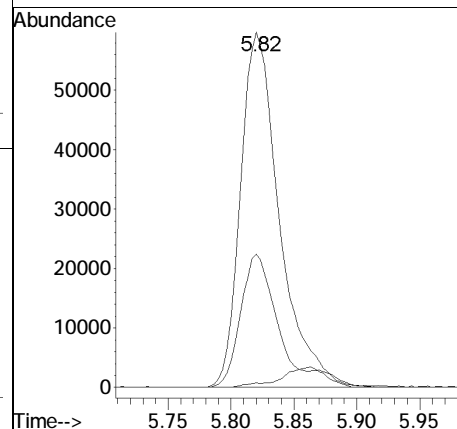
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 31 | 100 | | | |
| 45 | 66.4 | 43.7 | 65.5# | |

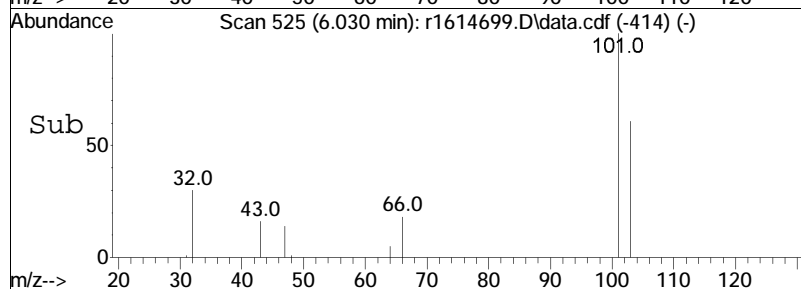
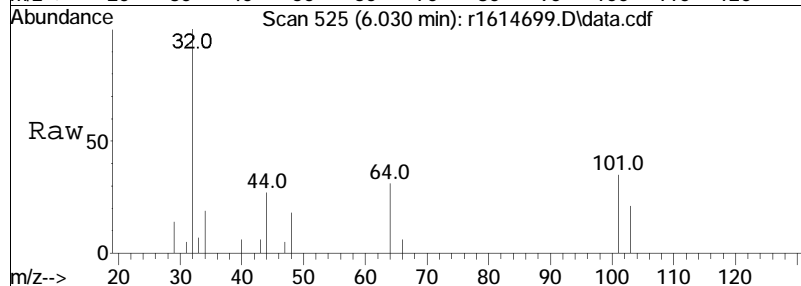
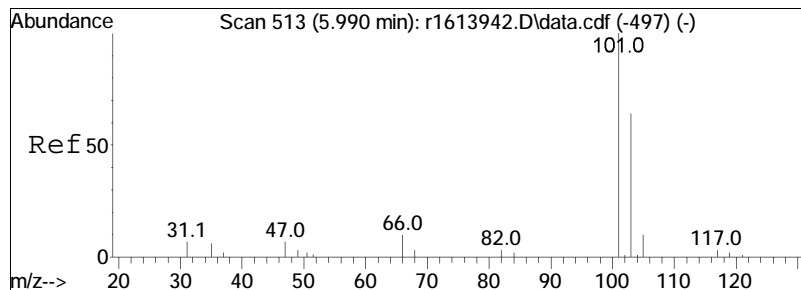




#19
acetone
Concen: 10.48 ppbV
RT: 5.82 min Scan# 462
Delta R.T. 0.043 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

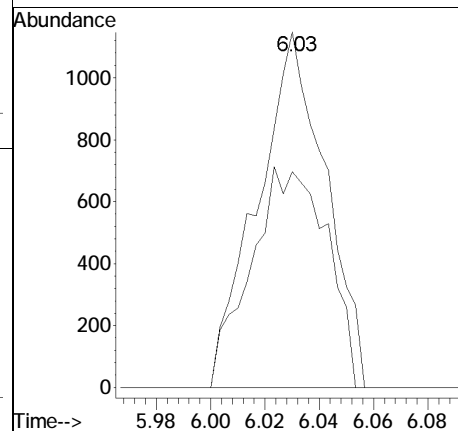
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 37.5 | 34.4 | 51.6 |
| 57 | 1.3 | 0.9 | 1.3 |

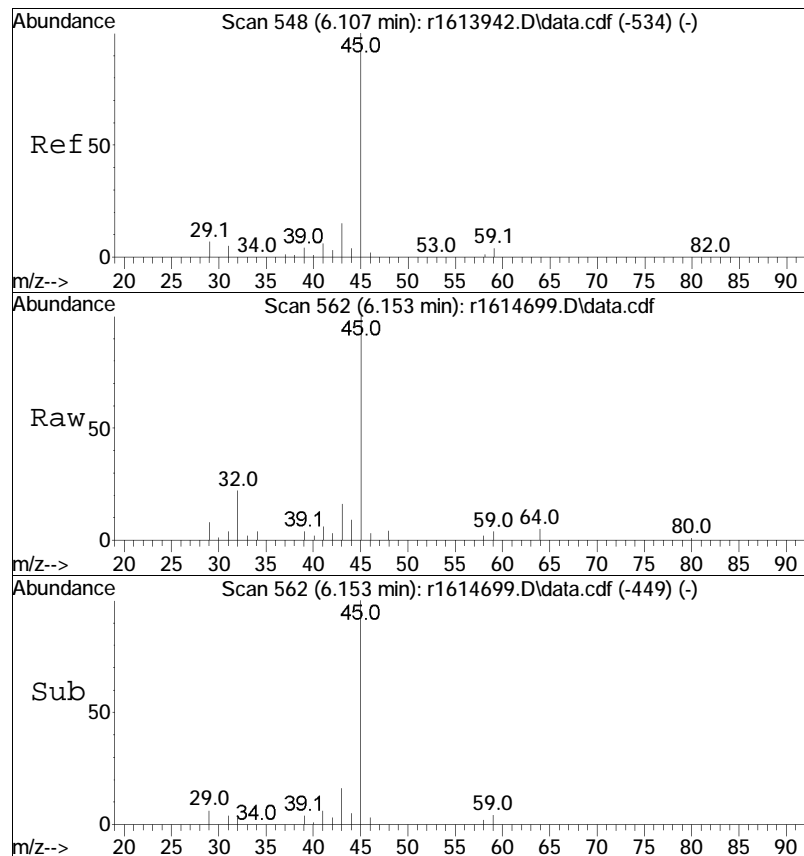




#21
trichlorofluoromethane
Concen: 0.16 ppbV
RT: 6.03 min Scan# 525
Delta R.T. 0.040 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

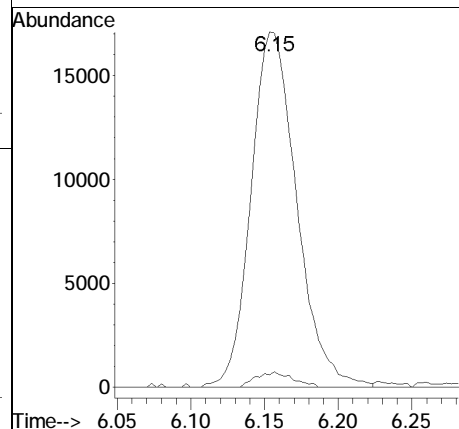
| Tgt | Ion | Ratio | Lower | Upper |
|-----|-----|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 103 | 60.7 | 51.4 | 77.2 |

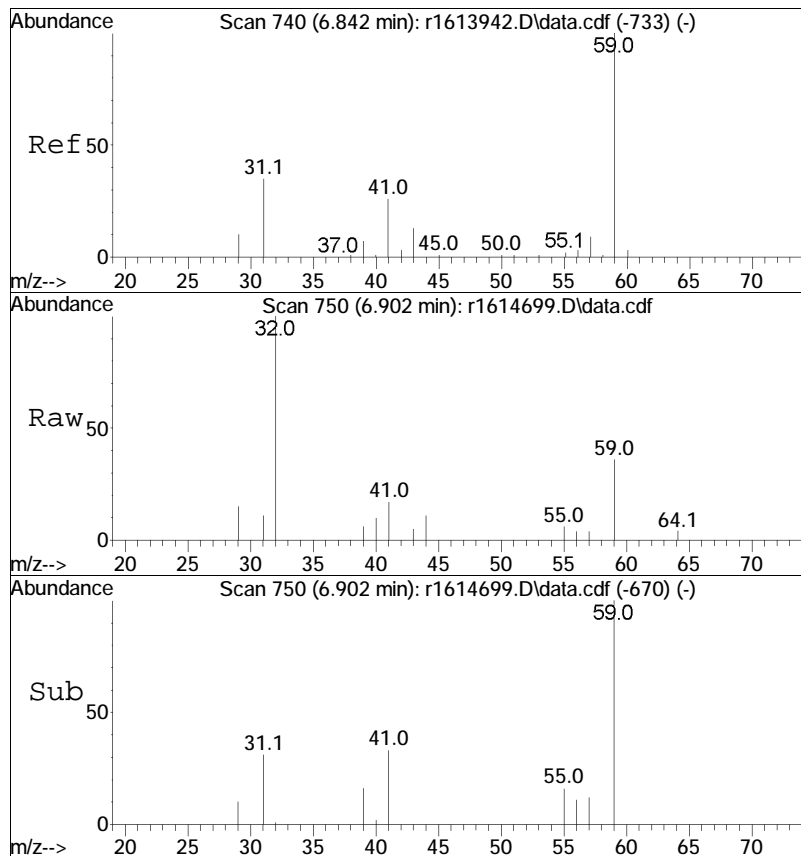




#22
isopropyl alcohol
Concen: 2.34 ppbV
RT: 6.15 min Scan# 562
Delta R.T. 0.047 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

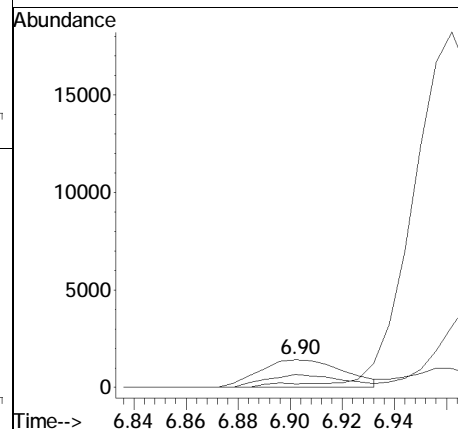
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 3.6 | 3.2 | 4.8 |

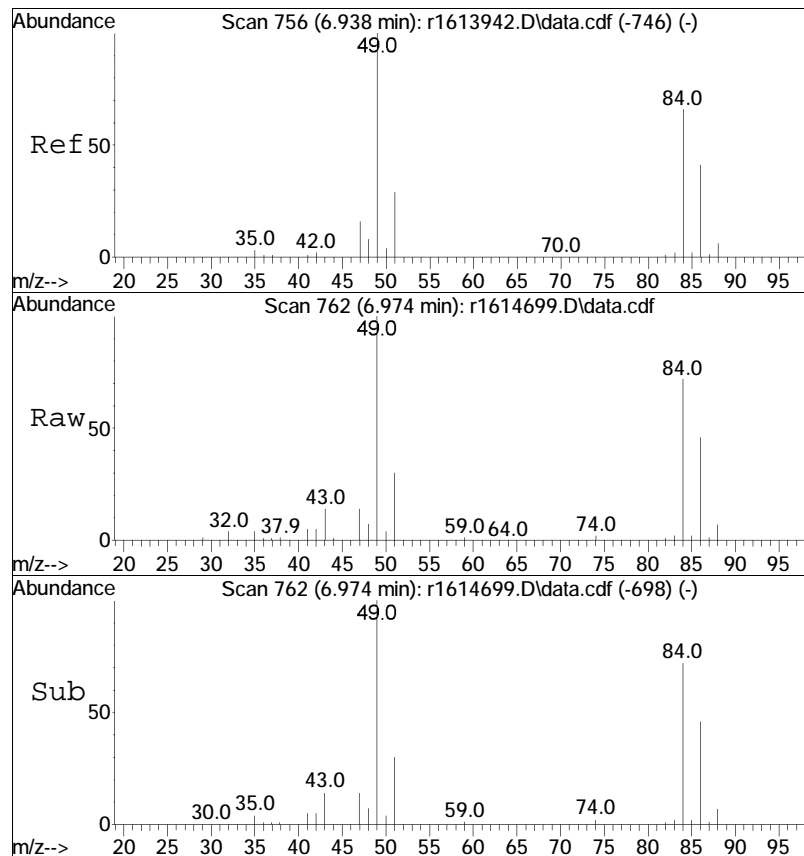




#27
 tertiary butyl alcohol
 Concen: 0.21 ppbV
 RT: 6.90 min Scan# 750
 Delta R.T. 0.060 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

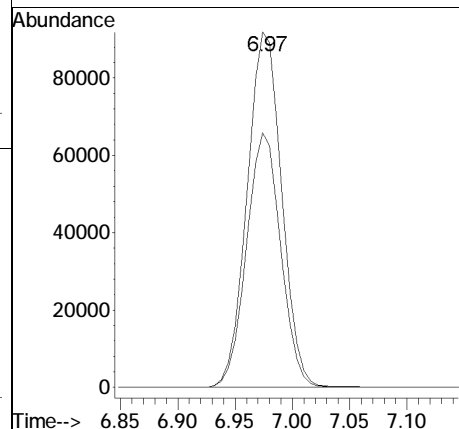
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59 | 100 | | |
| 41 | 47.2 | 20.8 | 31.2# |
| 43 | 12.8 | 10.4 | 15.6 |

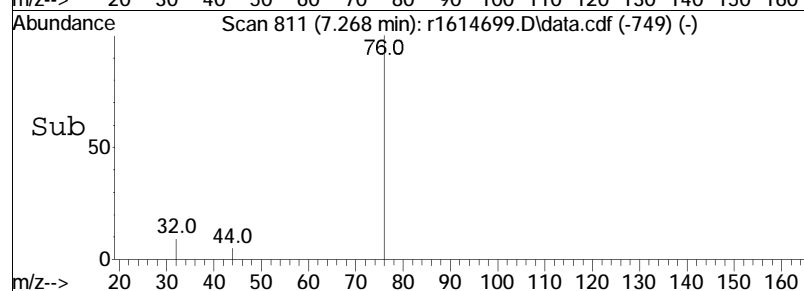
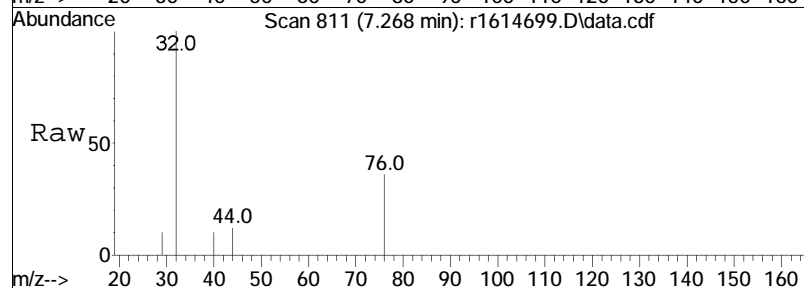
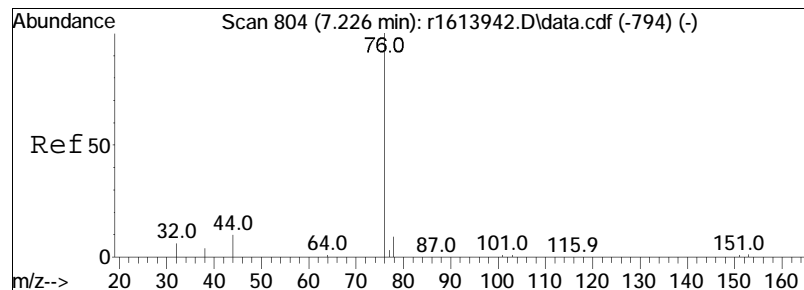




#28
 methylene chloride
 Concen: 15.42 ppbV
 RT: 6.97 min Scan# 762
 Delta R.T. 0.036 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

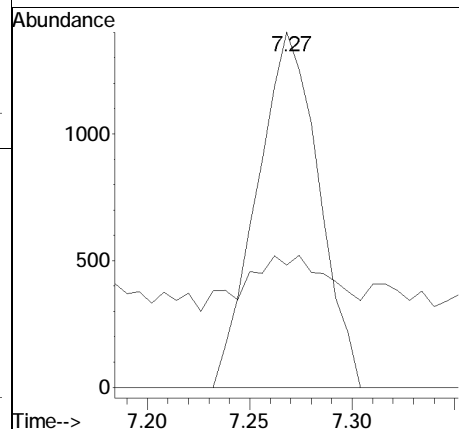
| Tgt Ion: | 49 | 84 | Resp: | 192640 | 71.7 | 53.0 | 79.4 |
|-----------|-----|----|-------|--------|------|------|------|
| Ion Ratio | 100 | | | | | | |
| Lower | | | | | | | |
| Upper | | | | | | | |

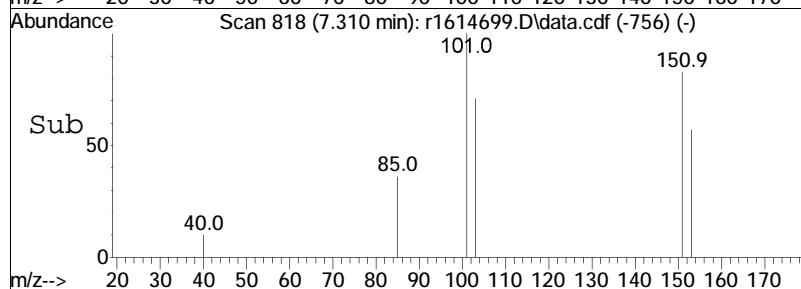
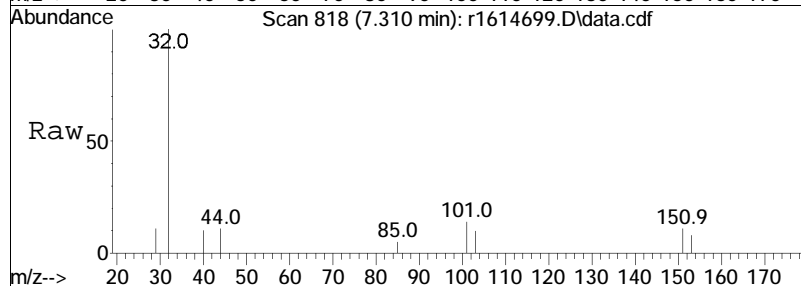
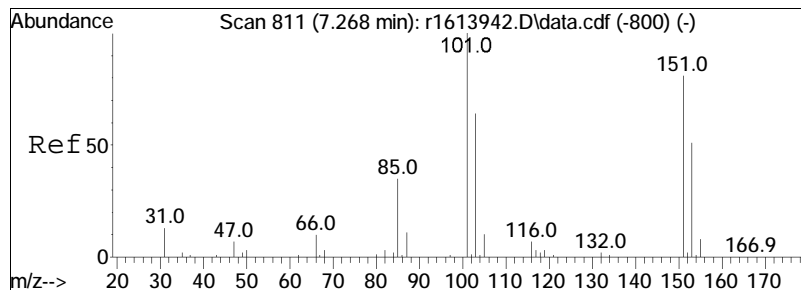




#30
carbon disulfide
Concen: 0.09 ppbV
RT: 7.27 min Scan# 811
Delta R.T. 0.042 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

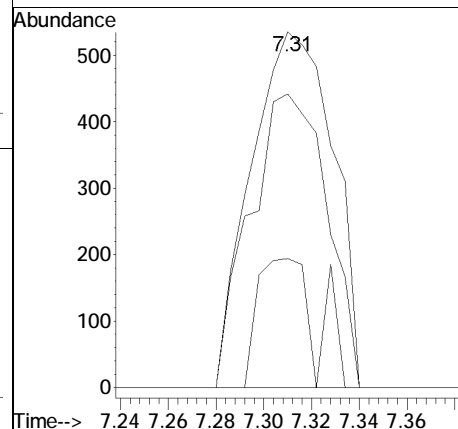
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 34.5 | 8.3 | 12.5# |

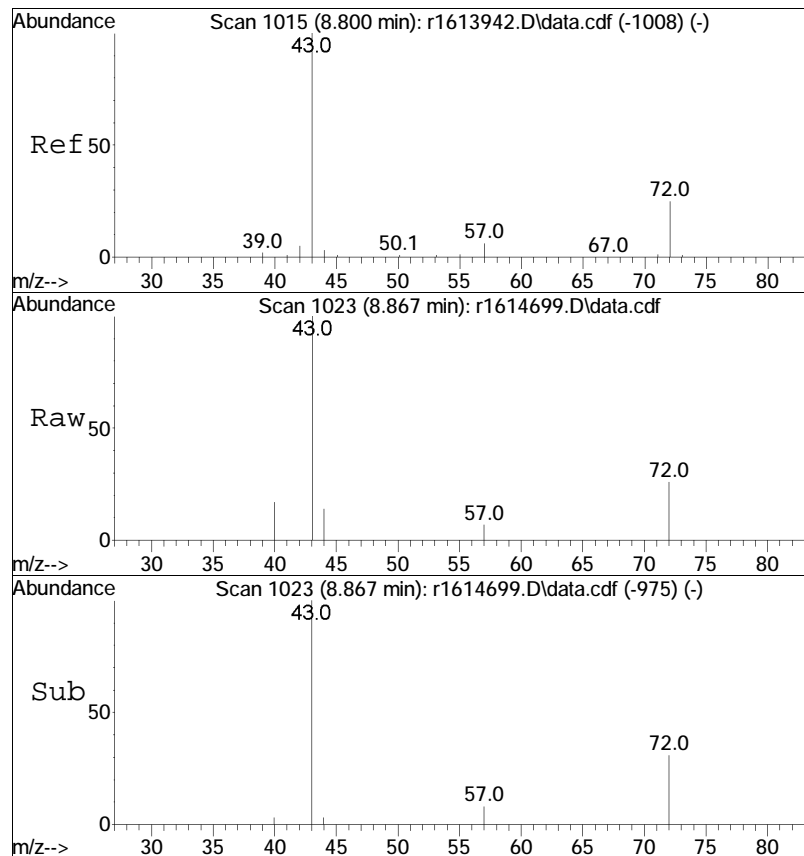




#31
 Freon 113
 Concen: 0.07 ppbV
 RT: 7.31 min Scan# 818
 Delta R.T. 0.042 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

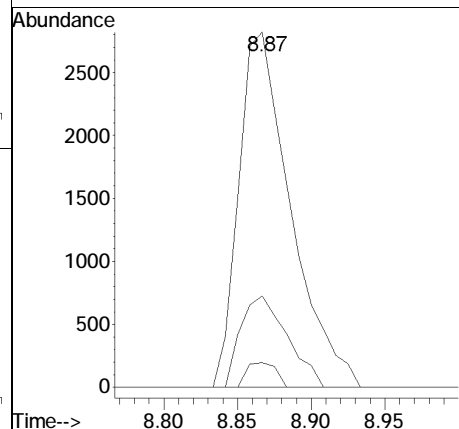
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101 | 100 | | |
| 85 | 36.3 | 27.8 | 41.6 |
| 151 | 82.6 | 65.0 | 97.6 |

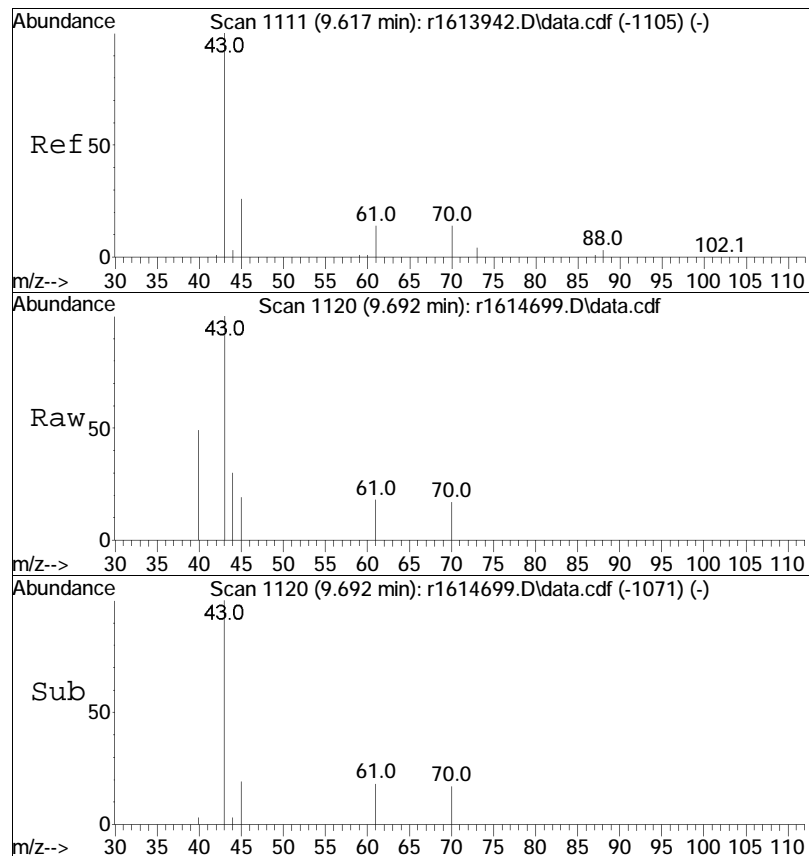




#36
 2-butanone
 Concen: 0.29 ppbV
 RT: 8.87 min Scan# 1023
 Delta R.T. 0.067 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

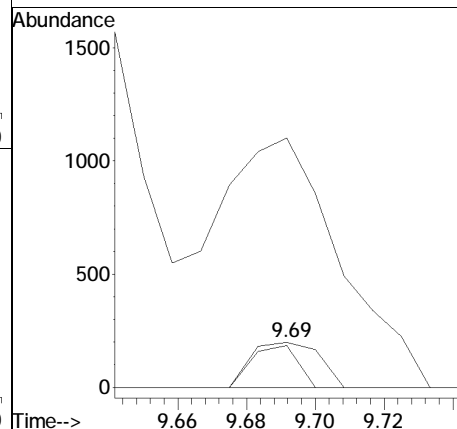
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 6918 |
| Ion | Ratio | Lower | Upper |
| 43 | 100 | | |
| 72 | 25.7 | 19.8 | 29.6 |
| 57 | 6.9 | 4.8 | 7.2 |

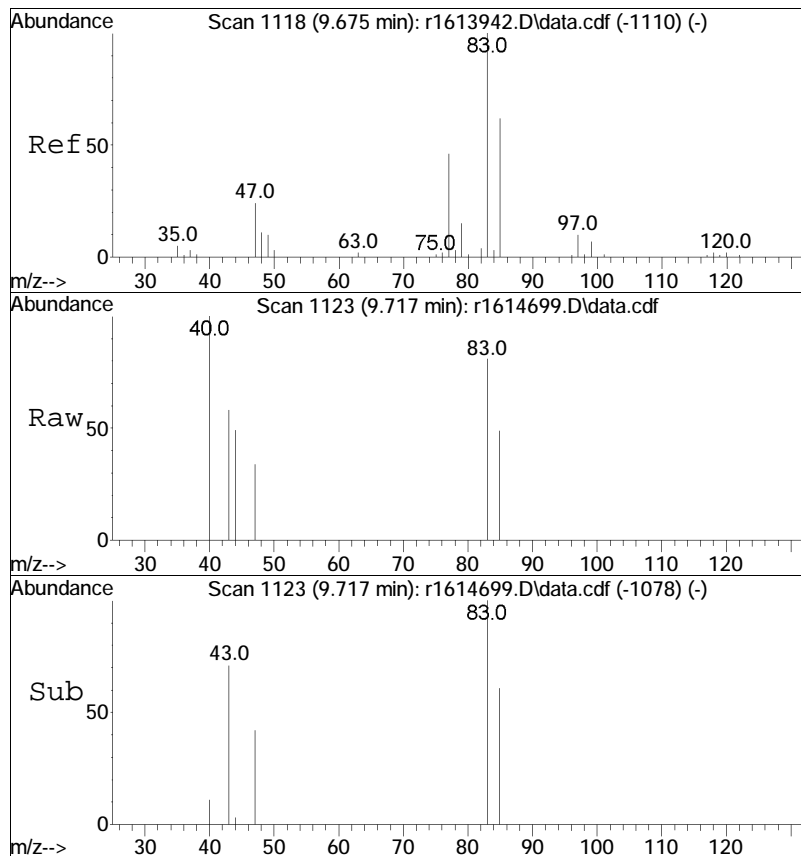




#38
 Ethyl Acetate
 Concen: 0.08 ppbV
 RT: 9.69 min Scan# 1120
 Delta R.T. 0.075 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

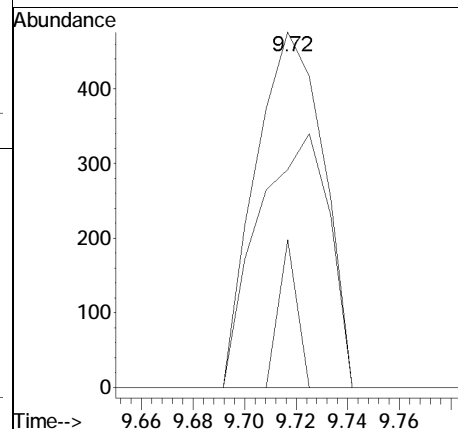
| | | | |
|-----------|-------|-------|---------|
| Tgt Ion: | 61 | Resp: | 274 |
| Ion Ratio | Lower | Upper | |
| 61 | 100 | | |
| 70 | 93.0 | 85.6 | 128.4 |
| 43 | 553.3 | 757.7 | 1136.5# |

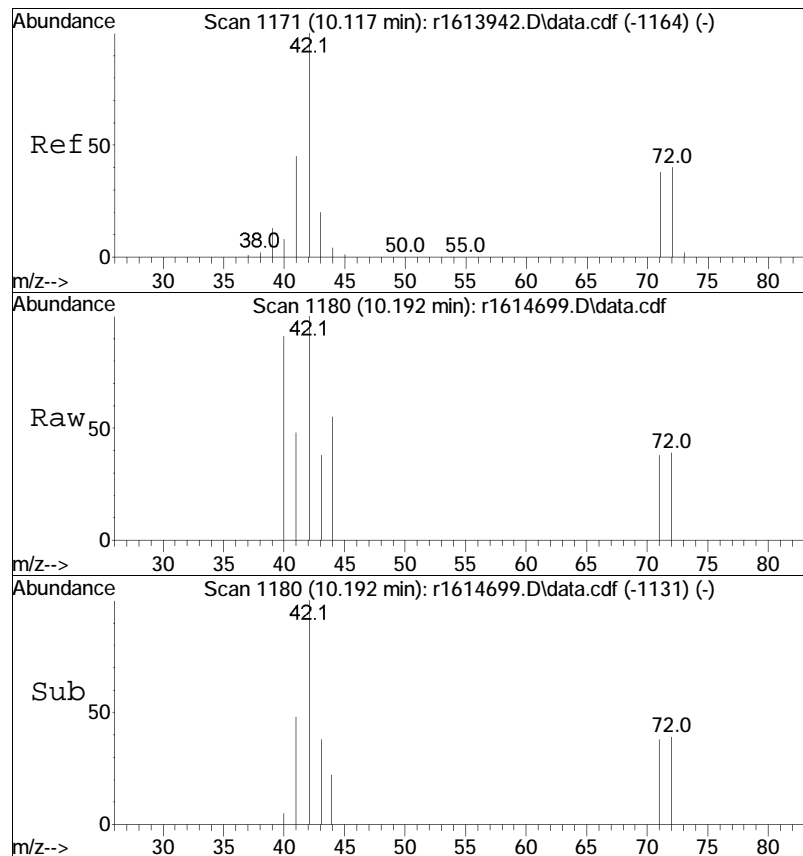




#39
 chloroform
 Concen: 0.05 ppbV
 RT: 9.72 min Scan# 1123
 Delta R.T. 0.042 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

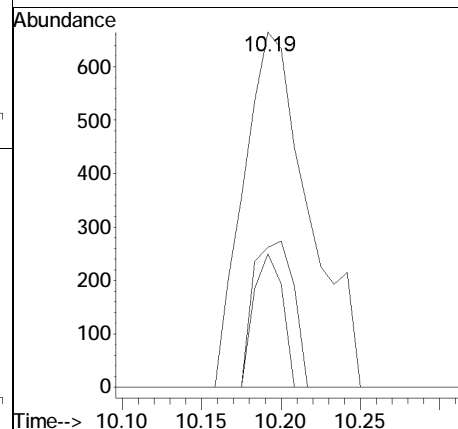
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 83 | Resp: | 869 |
| Ion | Ratio | Lower | Upper |
| 83 | 100 | | |
| 85 | 61.3 | 50.1 | 75.1 |
| 47 | 41.6 | 19.3 | 28.9# |

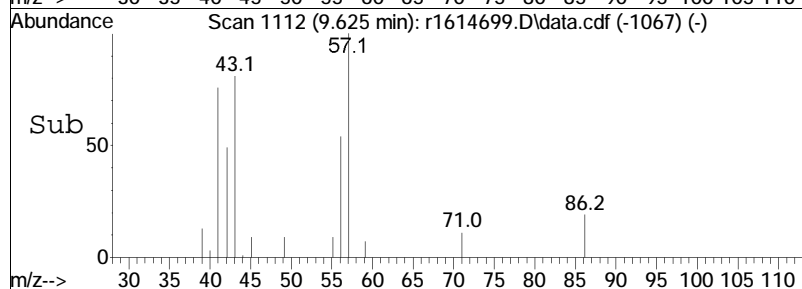
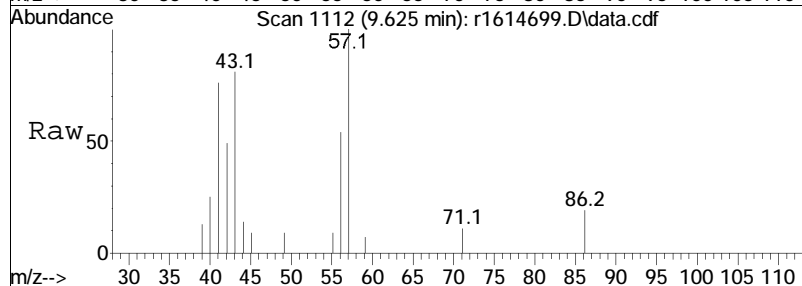
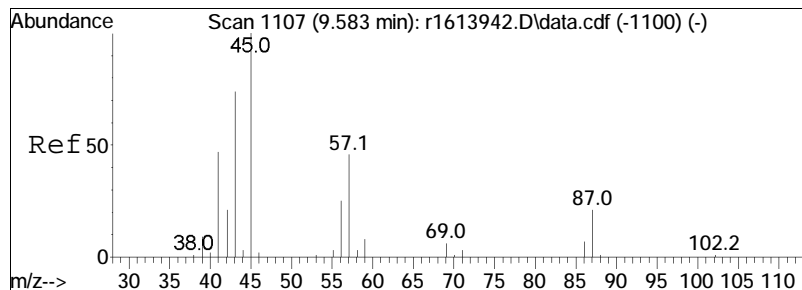




#40
Tetrahydrofuran
Concen: 0.13 ppbV
RT: 10.19 min Scan# 1180
Delta R.T. 0.075 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

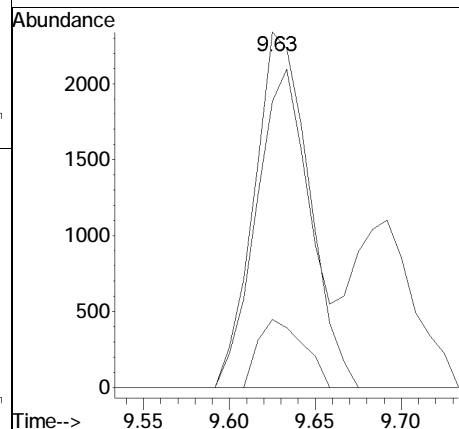
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 42 | Resp: | 1905 |
| Ion | Ratio | Lower | Upper |
| 42 | 100 | | |
| 71 | 37.6 | 30.0 | 45.0 |
| 72 | 39.4 | 31.9 | 47.9 |

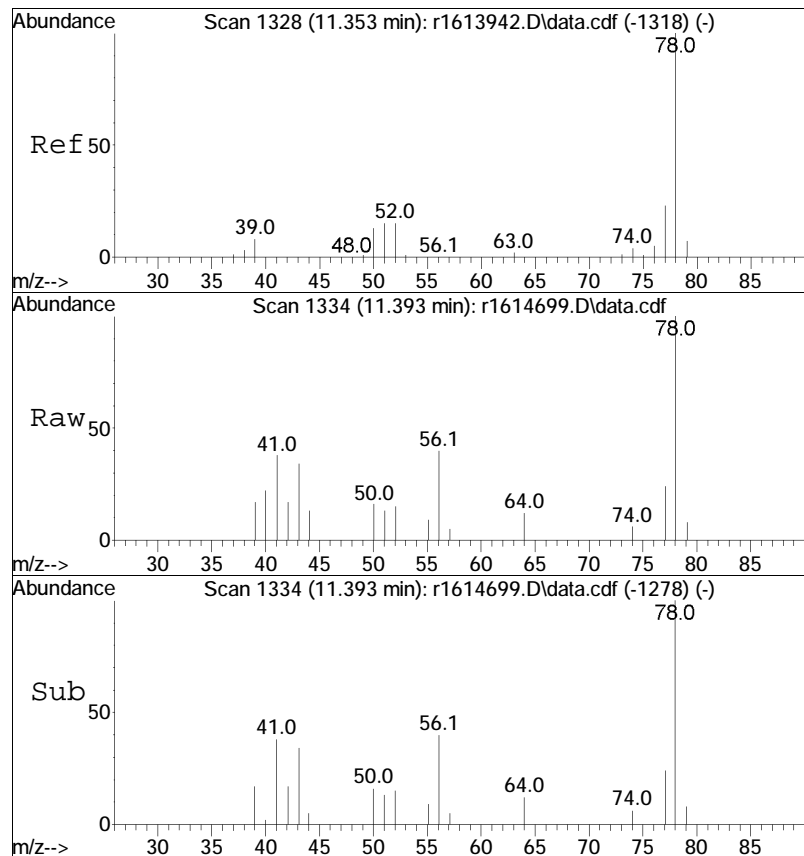




#44
hexane
Concen: 0.30 ppbV
RT: 9.63 min Scan# 1112
Delta R.T. 0.042 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

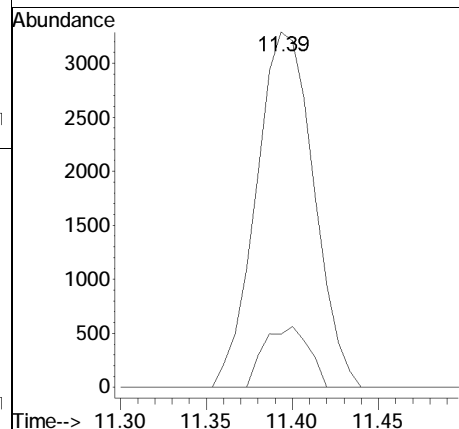
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 80.5 | 129.6 | 194.4# |
| 86 | 19.1 | 12.8 | 19.2 |

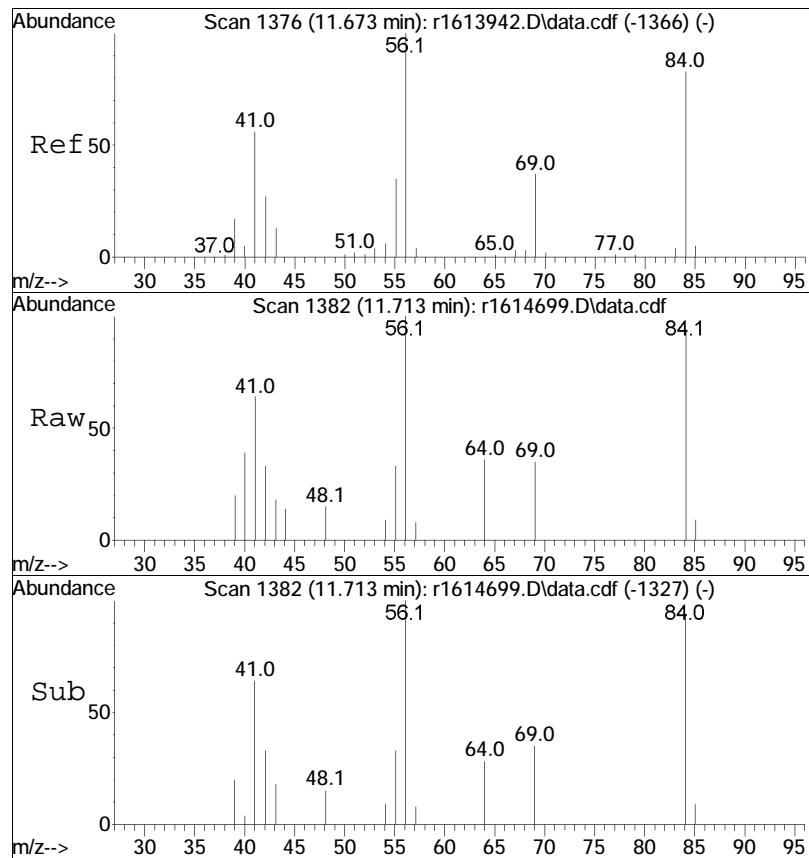




#50
benzene
Concen: 0.21 ppbV
RT: 11.39 min Scan# 1334
Delta R.T. 0.040 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

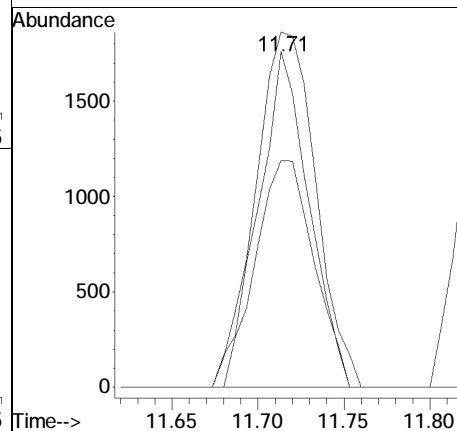
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 100 | | |
| 52 | 15.0 | 12.2 | 18.2 |

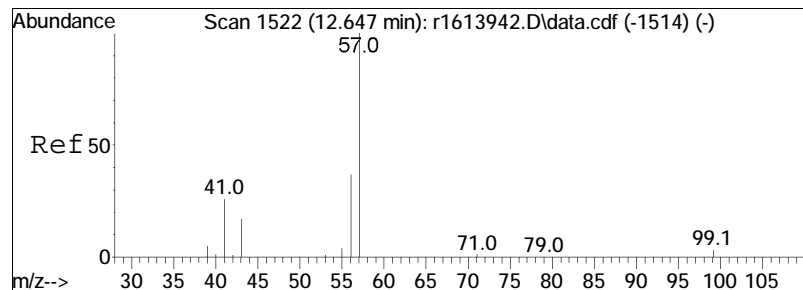




#53
cyclohexane
Concen: 0.25 ppbV
RT: 11.71 min Scan# 1382
Delta R.T. 0.040 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

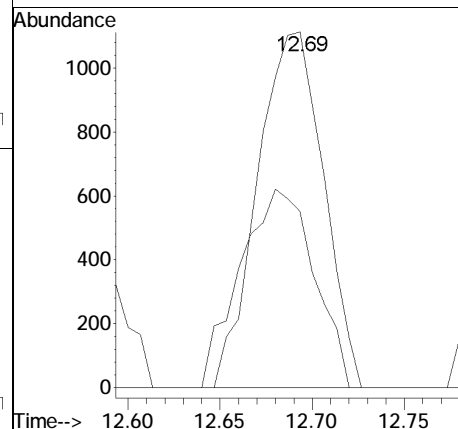
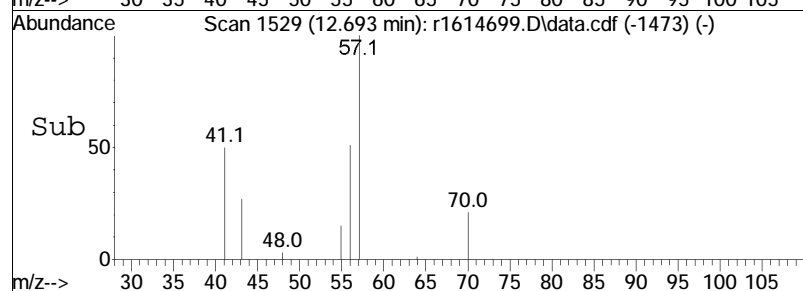
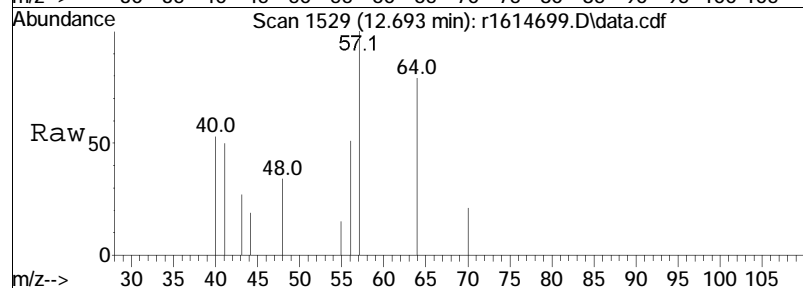
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 56 | Resp: | 4571 |
| Ion | Ratio | Lower | Upper |
| 56 | 100 | | |
| 84 | 94.5 | 66.2 | 99.2 |
| 41 | 63.9 | 45.2 | 67.8 |

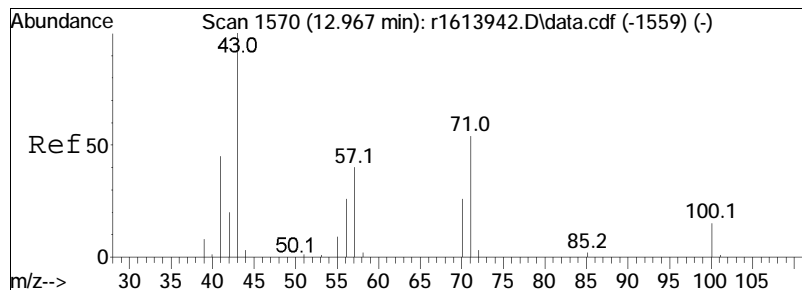




#60
 2,2,4-trimethylpentane
 Concen: 0.05 ppbV
 RT: 12.69 min Scan# 1529
 Delta R.T. 0.047 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

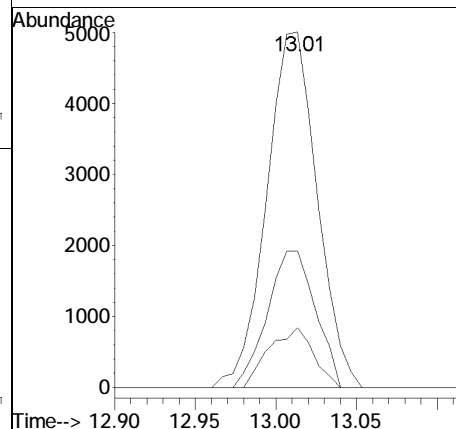
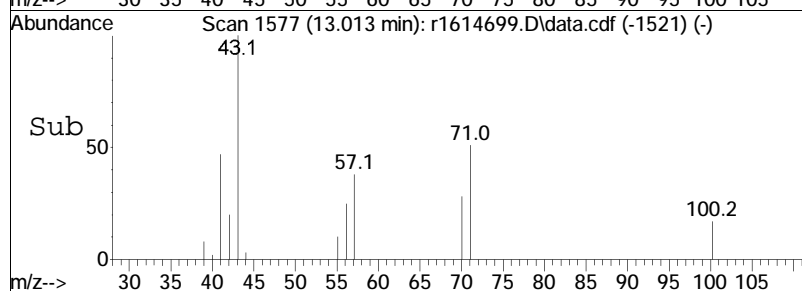
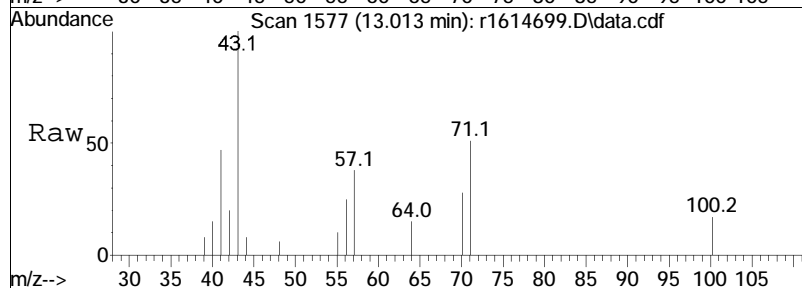
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 0.0 | 4.6 | 6.8# |
| 41 | 49.5 | 20.2 | 30.4# |

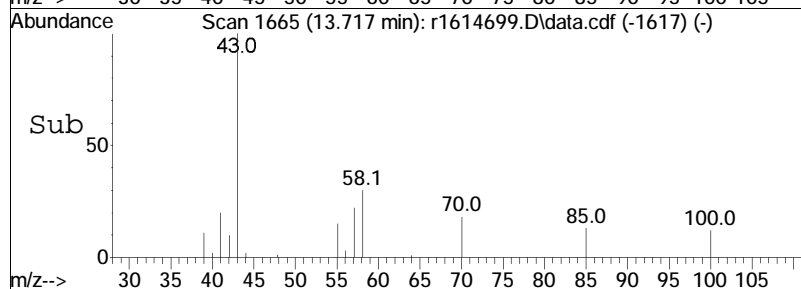
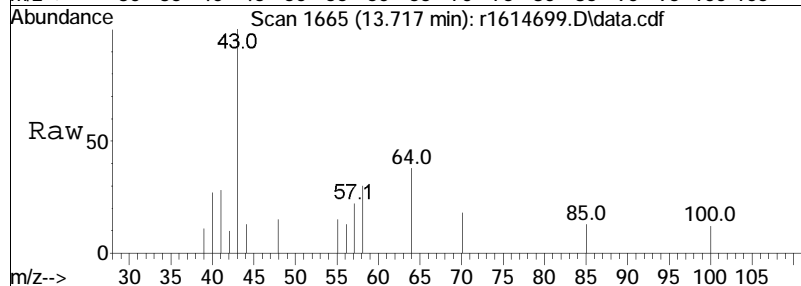
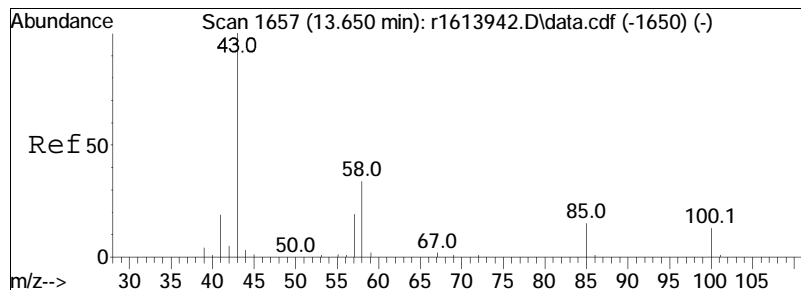




#62
heptane
Concen: 0.42 ppbV
RT: 13.01 min Scan# 1577
Delta R.T. 0.047 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

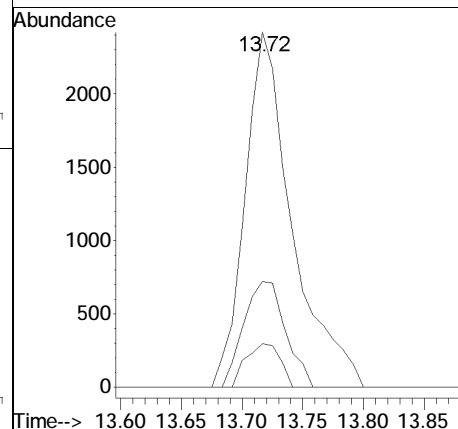
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 38.4 | 32.2 | 48.4 |
| 100 | 16.8 | 11.9 | 17.9 |

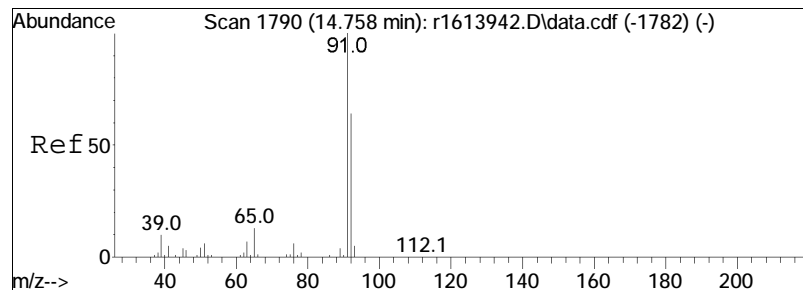




#64
 4-methyl-2-pentanone
 Concen: 0.22 ppbV
 RT: 13.72 min Scan# 1665
 Delta R.T. 0.067 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

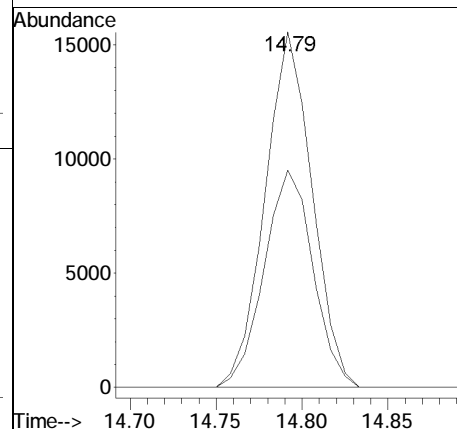
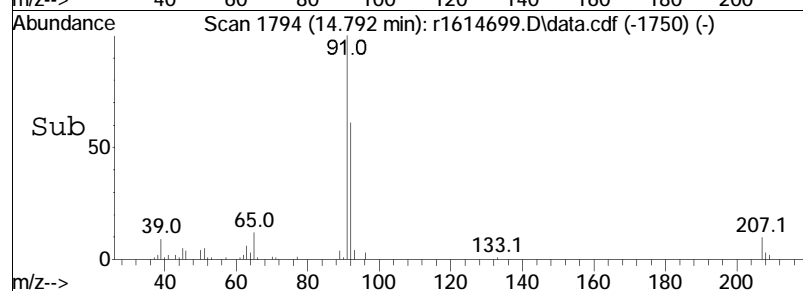
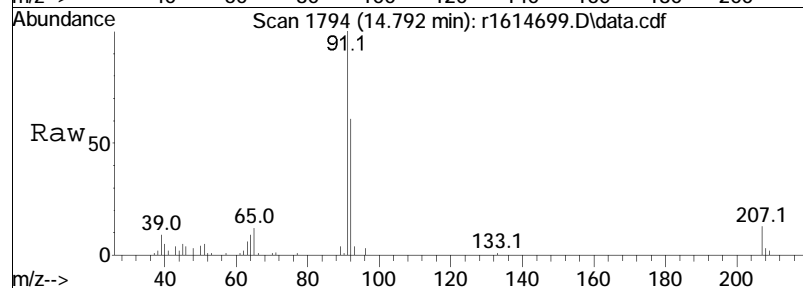
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 29.8 | 27.1 | 40.7 |
| 100 | 12.3 | 10.6 | 16.0 |

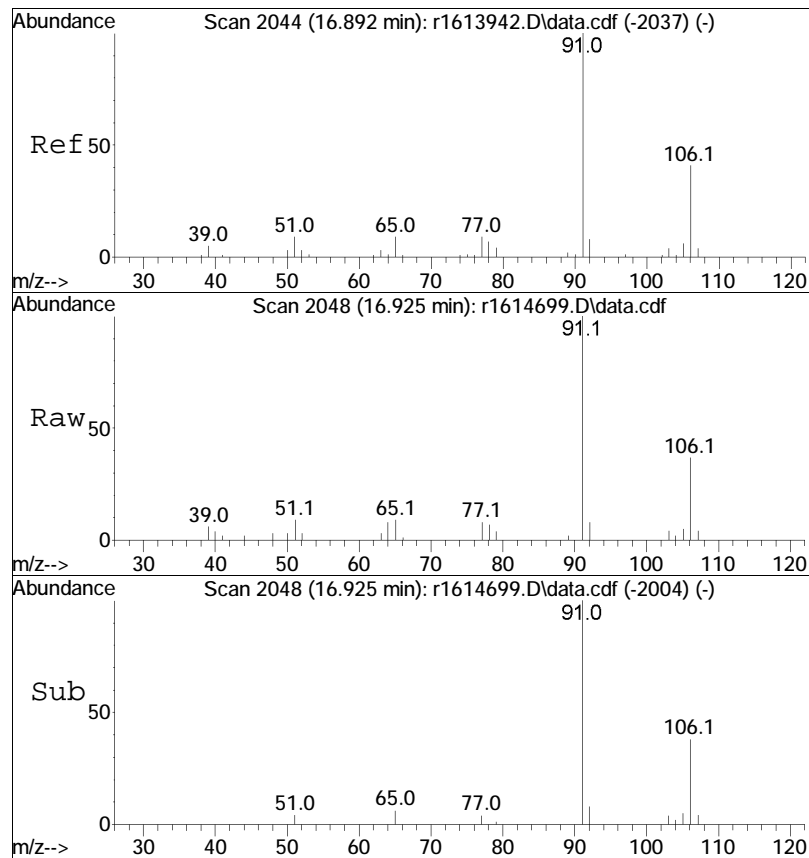




#68
toluene
Concen: 0.89 ppbV
RT: 14.79 min Scan# 1794
Delta R.T. 0.033 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

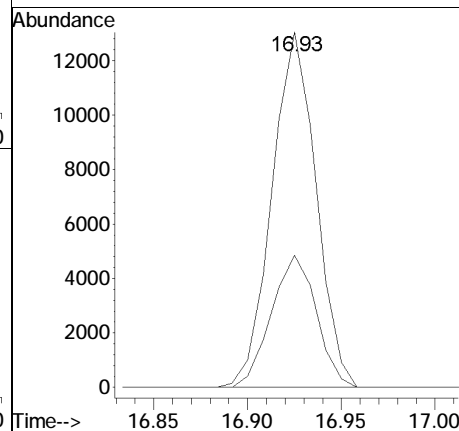
Tgt Ion: 91 Resp: 29621
Ion Ratio Lower Upper
91 100
92 61.1 51.5 77.3

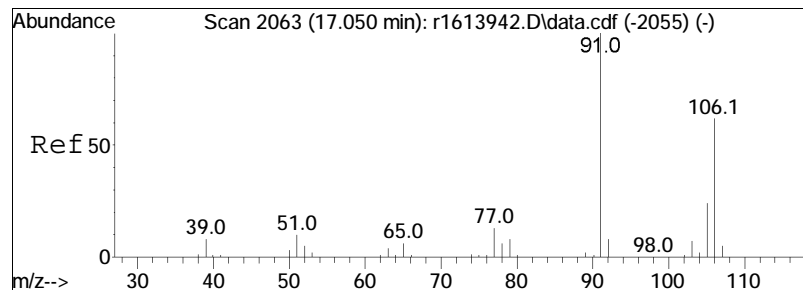




#81
ethylbenzene
Concen: 0.51 ppbV
RT: 16.93 min Scan# 2048
Delta R.T. 0.033 min
Lab File: r1614699.D
Acq: 4 Jan 2020 9:51 PM

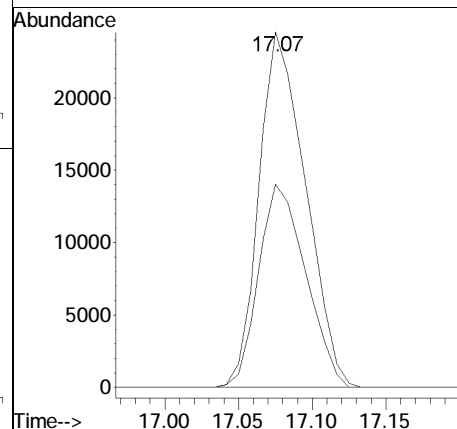
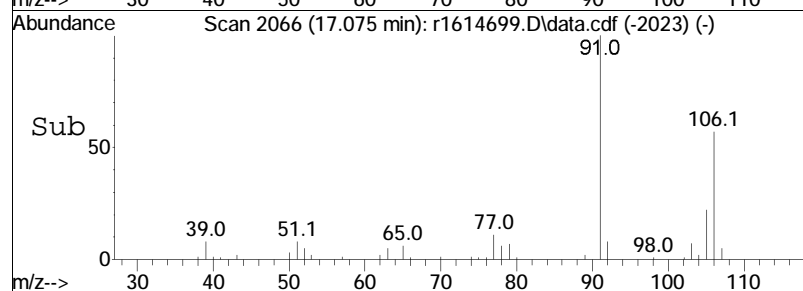
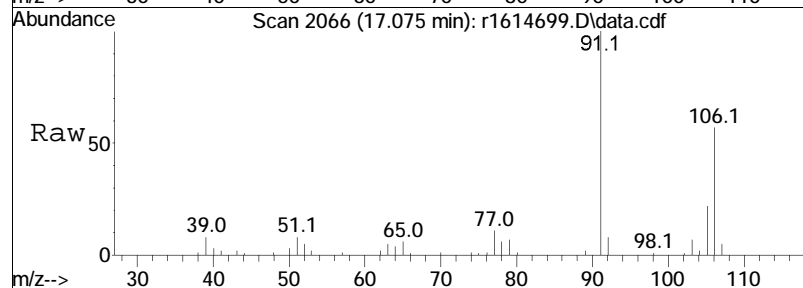
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 37.2 | 32.5 | 48.7 |

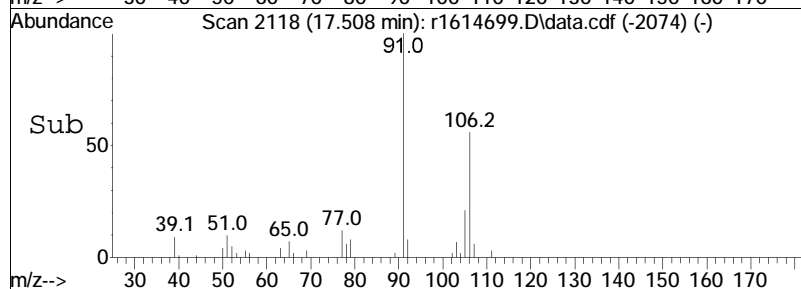
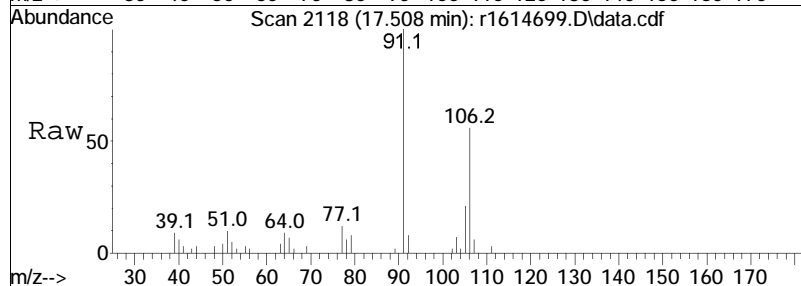
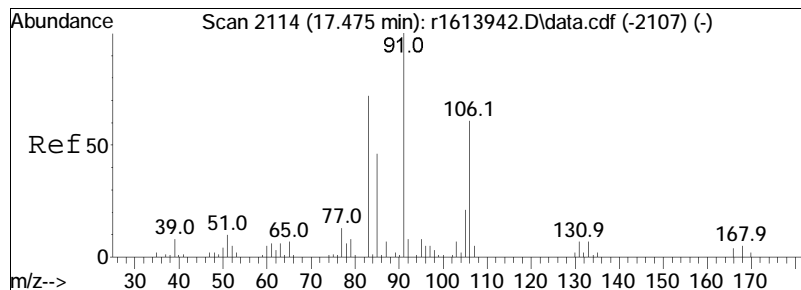




#83
 m+p-xylene
 Concen: 1.58 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

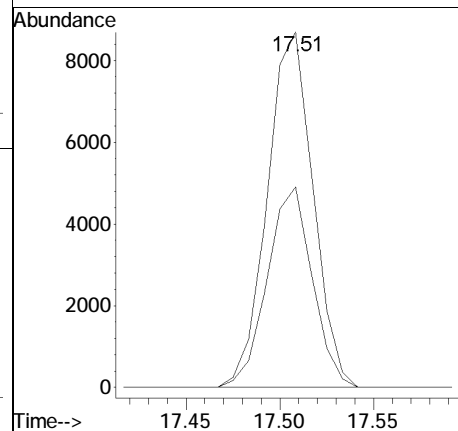
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 57.2 | 49.8 | 74.6 |

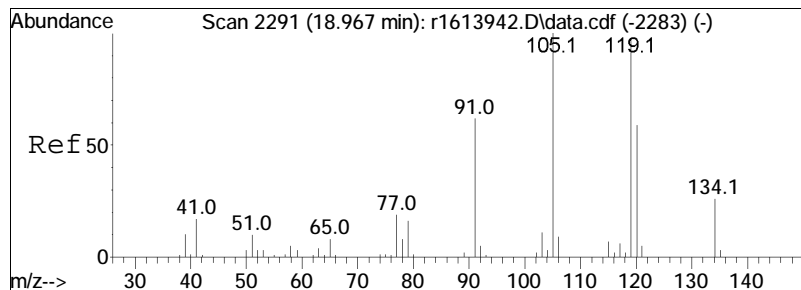




#87
 o-xylene
 Concen: 0.43 ppbV
 RT: 17.51 min Scan# 2118
 Delta R.T. 0.033 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

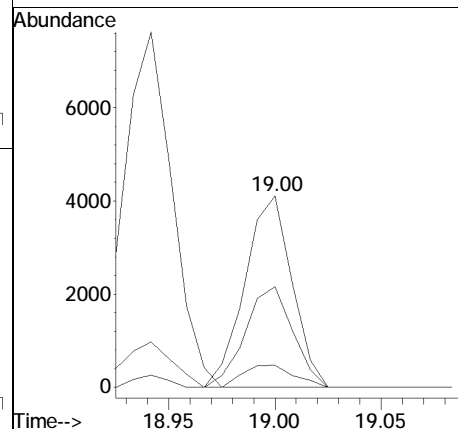
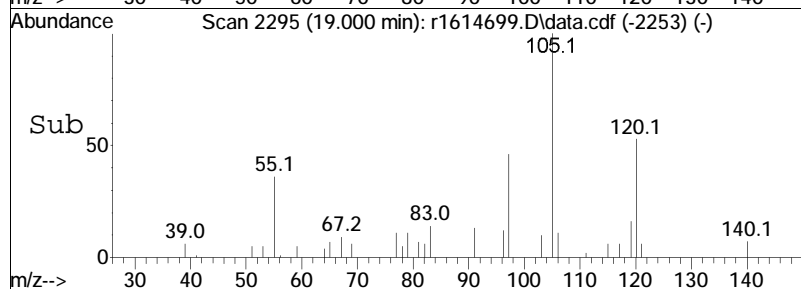
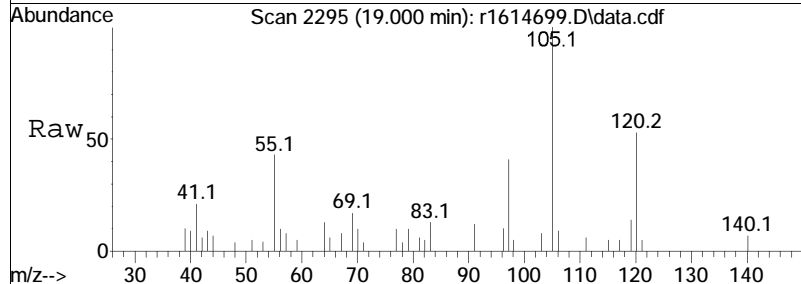
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 56.4 | 48.8 | 73.2 |





#99
 1,2,4-trimethylbenzene
 Concen: 0.15 ppbV m
 RT: 19.00 min Scan# 2295
 Delta R.T. 0.033 min
 Lab File: r1614699.D
 Acq: 4 Jan 2020 9:51 PM

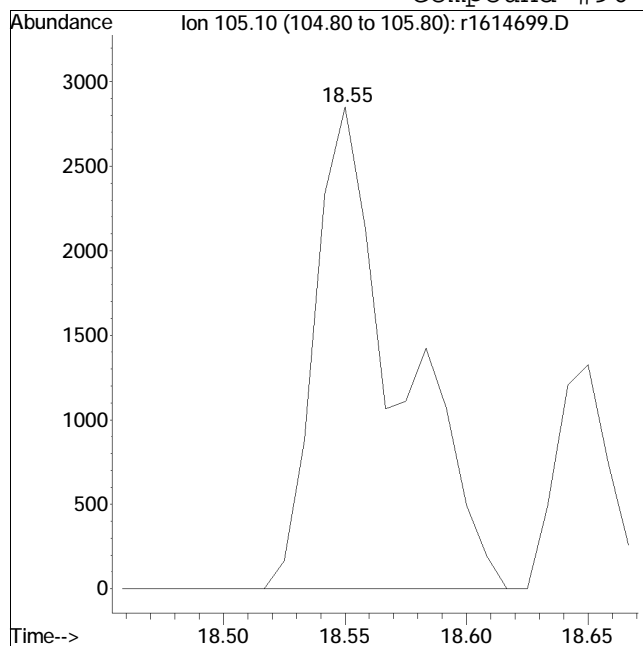
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 52.6 | 46.9 | 70.3 |
| 91 | 11.6 | 49.3 | 73.9# |



Manual Integration/Negative Proof Report

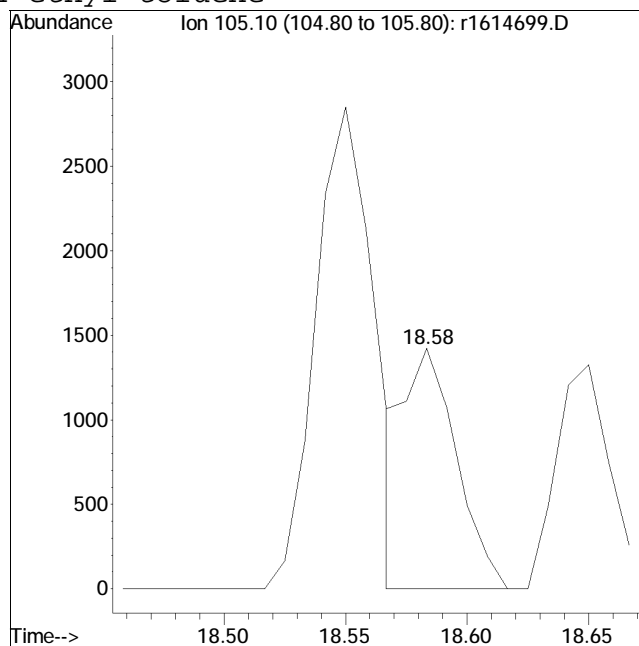
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614699.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:9: 1 Instrument :
 Sample : L1962003-07,3,250,250 Quant Date : 1/5/2020 8:30 am

Compound #96: 4-ethyl toluene



Original Peak Response = 6865

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

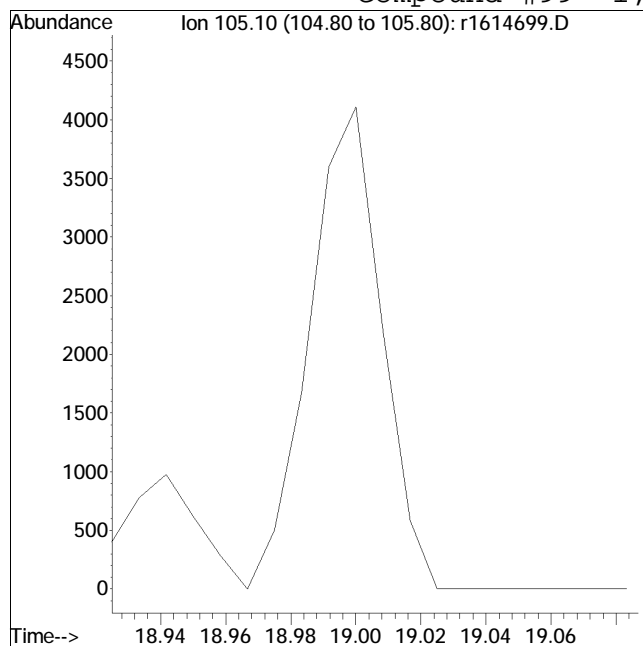


Manual Peak Response = 2146 M6

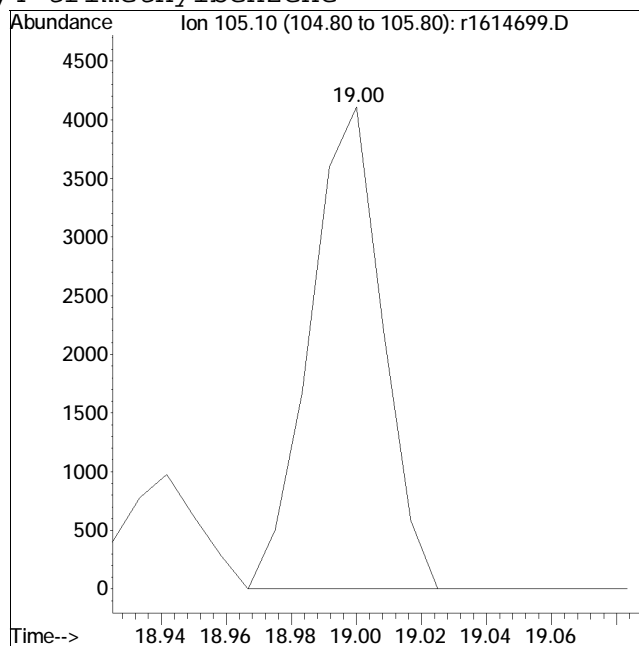
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614699.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:9: 1 Instrument :
 Sample : L1962003-07,3,250,250 Quant Date : 1/5/2020 8:30 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response =



Manual Peak Response = 6337 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614700.D
 Acq On : 4 Jan 2020 10:31 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-09,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:22:40 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.55 | 49 | 200959 | 10.000 | ppbV | 0.04 |
| Standard Area = 223987 | | | Recovery | = | 89.72% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 563758 | 10.000 | ppbV | 0.04 |
| Standard Area = 600707 | | | Recovery | = | 93.85% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 69634 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery | = | 92.34% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 5) dichlorodifluoromethane | 3.93 | 85 | 6420 | 0.431 | ppbV | 96 |
| 6) chloromethane | 4.10 | 50 | 4334 | 0.478 | ppbV | 92 |
| 7) Freon-114 | 4.23 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 4.53 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 5.06 | | 0 | N.D. | | |
| 15) ethanol | 5.23 | 31 | 340366 | 52.533 | ppbV # | 81 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 104496 | 8.710 | ppbV | 89 |
| 21) trichlorofluoromethane | 6.02 | 101 | 2116 | 0.176 | ppbV | 92 |
| 22) isopropyl alcohol | 6.15 | 45 | 43204 | 2.796 | ppbV | 99 |
| 27) tertiary butyl alcohol | 6.90 | 59 | 2500 | 0.169 | ppbV # | 79 |
| 28) methylene chloride | 6.97 | 49 | 45310 | 3.701 | ppbV | 99 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.27 | 76 | 1663 | 0.051 | ppbV # | 1 |
| 31) Freon 113 | 7.31 | 101 | 1209 | 0.069 | ppbV | 88 |
| 32) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 33) 1,1-dichloroethane | 0.00 | | 0 | N.D. | | |
| 34) MTBE | 8.44 | | 0 | N.D. | | |
| 36) 2-butanone | 8.86 | 43 | 6948 | 0.298 | ppbV | 92 |
| 38) Ethyl Acetate | 9.68 | 61 | 496 | 0.147 | ppbV # | 44 |
| 39) chloroform | 9.72 | 83 | 1478 | 0.094 | ppbV | 92 |
| 40) Tetrahydrofuran | 10.19 | 42 | 1829 | 0.129 | ppbV # | 86 |
| 42) 1,2-dichloroethane | 10.57 | 62 | 2413 | 0.285 | ppbV # | 90 |
| 44) hexane | 9.63 | 57 | 6079 | 0.355 | ppbV # | 48 |
| 50) benzene | 11.39 | 78 | 8423 | 0.231 | ppbV | 98 |
| 53) cyclohexane | 11.71 | 56 | 4897 | 0.269 | ppbV | 92 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614700.D
 Acq On : 4 Jan 2020 10:31 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-09,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:22:40 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|-------|--------|----------|----|
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | | |
| 57) bromodichloromethane | 12.58 | | 0 | | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | | |
| 60) 2,2,4-trimethylpentane | 12.69 | 57 | 3562 | 0.065 | ppbV # | | 71 |
| 62) heptane | 13.01 | 43 | 8488 | 0.330 | ppbV | | 96 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 64) 4-methyl-2-pentanone | 13.72 | 43 | 5345 | 0.180 | ppbV | | 93 |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | | N.D. | | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | | N.D. | | |
| 68) toluene | 14.79 | 91 | 24419 | 0.735 | ppbV | | 98 |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. | d | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | | |
| 80) chlorobenzene | 16.60 | | 0 | | N.D. | | |
| 81) ethylbenzene | 16.93 | 91 | 10011 | 0.241 | ppbV | | 93 |
| 83) m+p-xylene | 17.07 | 91 | 23508 | 0.690 | ppbV | | 97 |
| 84) bromoform | 0.00 | | 0 | | N.D. | | |
| 85) styrene | 17.41 | | 0 | | N.D. | | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | | N.D. | d | |
| 87) o-xylene | 17.51 | 91 | 7925 | 0.232 | ppbV | | 95 |
| 96) 4-ethyl toluene | 18.58 | | 0 | | N.D. | | |
| 97) 1,3,5-trimethylbenzene | 18.65 | 105 | 2992 | 0.067 | ppbV # | | 96 |
| 99) 1,2,4-trimethylbenzene | 19.00 | 105 | 8211M3 | 0.193 | ppbV | | |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. | d | |
| 102) 1,3-dichlorobenzene | 19.18 | | 0 | | N.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. | | |

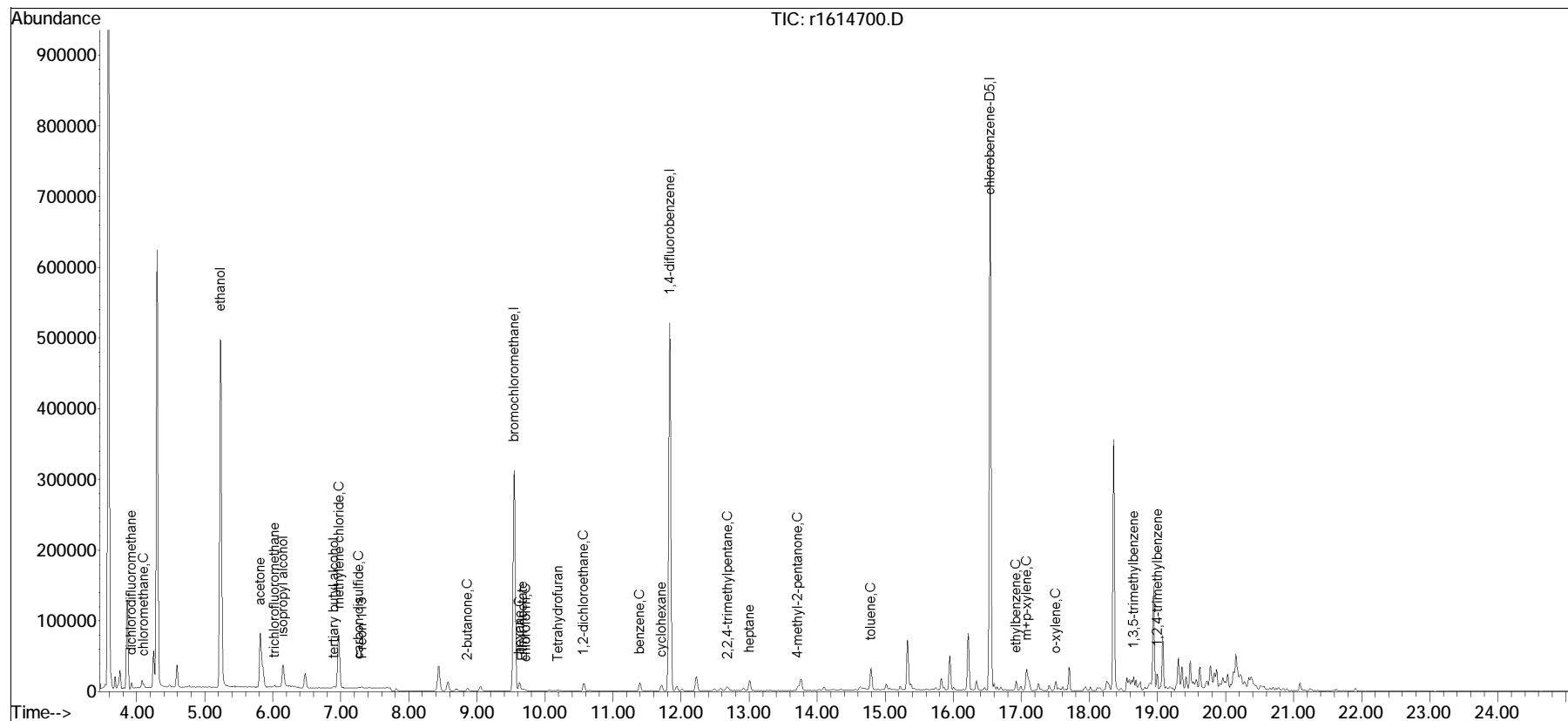
(#) = qualifier out of range (m) = manual integration (+) = signals summed

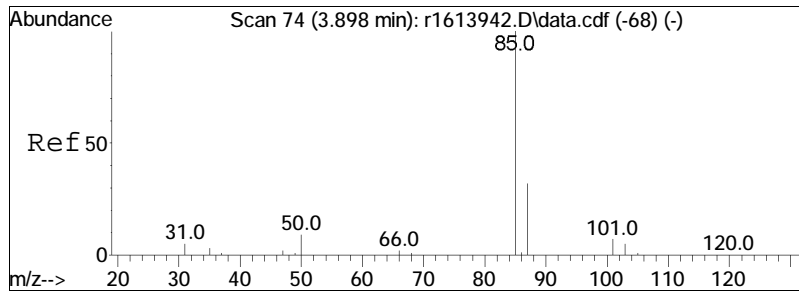
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614700.D
 Acq On : 4 Jan 2020 10:31 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-09,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:22:40 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

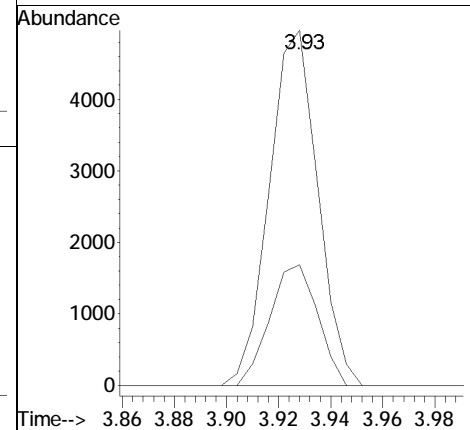
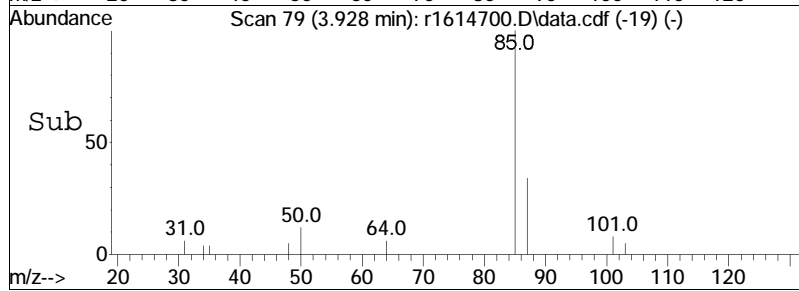
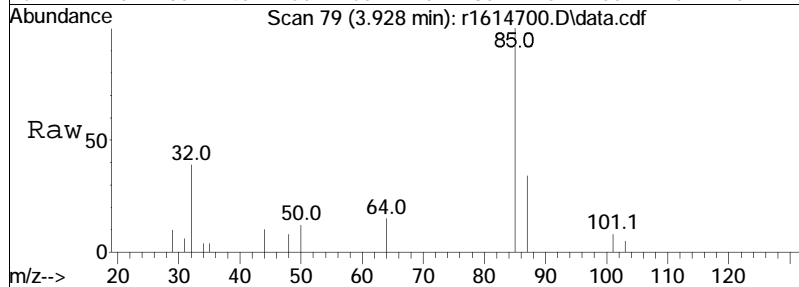
Sub List : TO15-NY-7-SIM - .\Airlab16\2020\01-JAN\200104T\r1614690.D

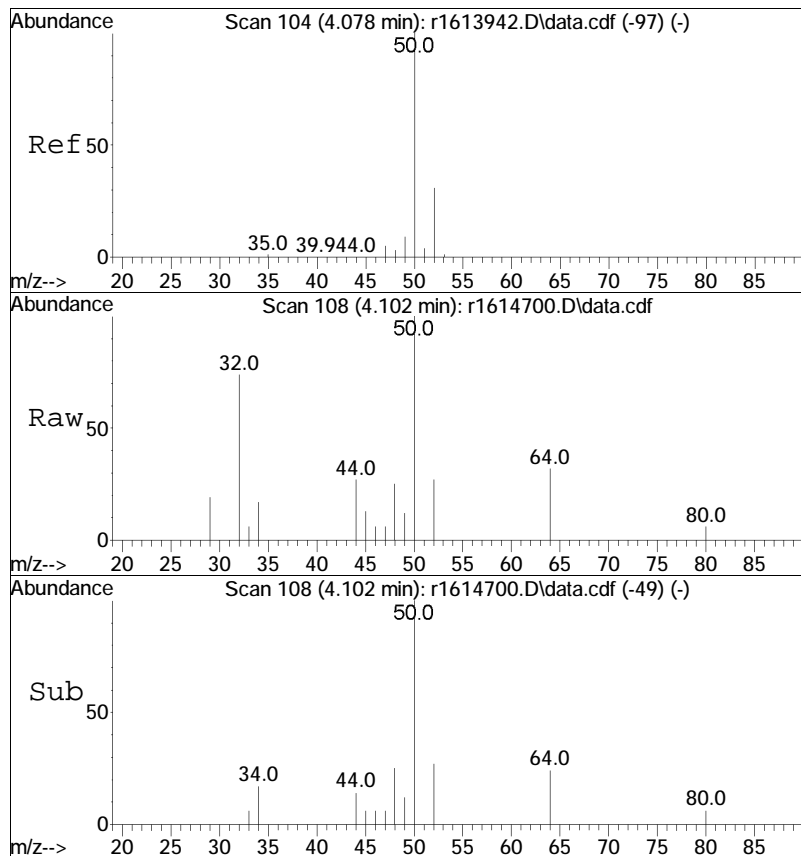




#5
 dichlorodifluoromethane
 Concen: 0.43 ppbV
 RT: 3.93 min Scan# 79
 Delta R.T. 0.030 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

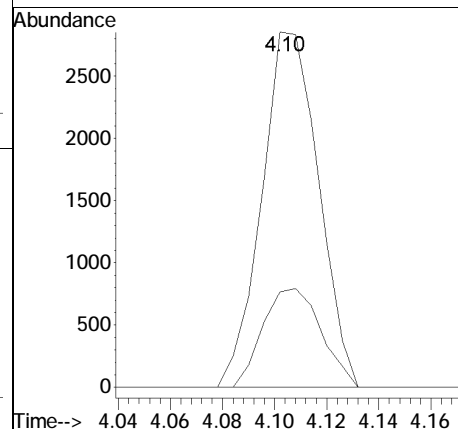
Tgt Ion: 85 Resp: 6420
 Ion Ratio Lower Upper
 85 100
 87 34.0 25.5 38.3

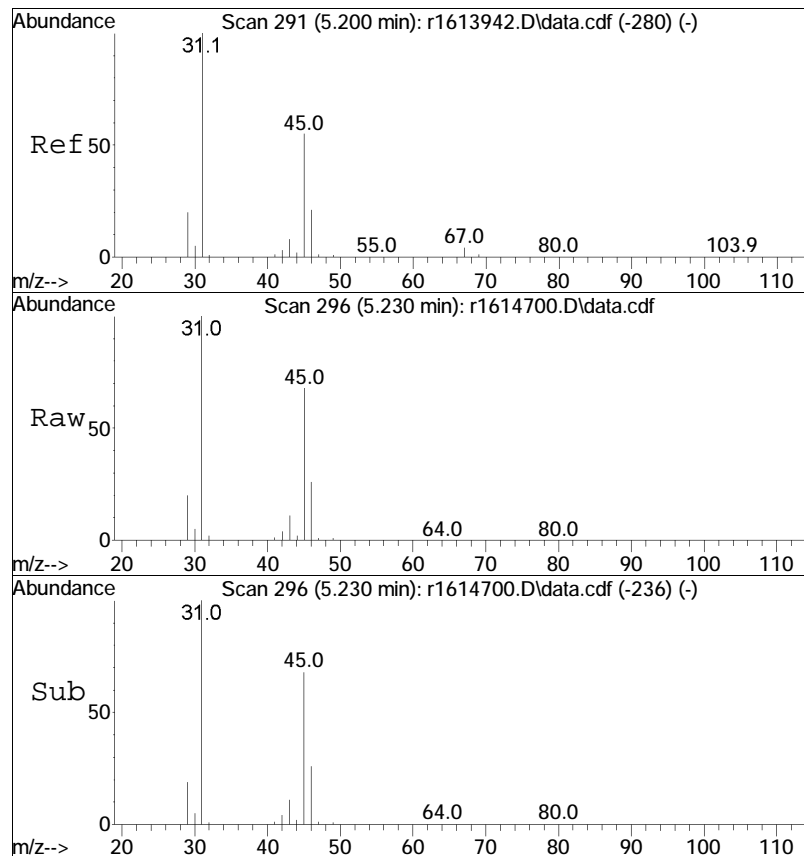




#6
 chloromethane
 Concen: 0.48 ppbV
 RT: 4.10 min Scan# 108
 Delta R.T. 0.024 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

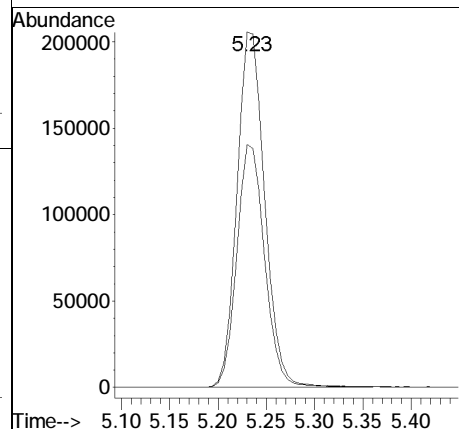
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 26.9 | 24.8 | 37.2 |

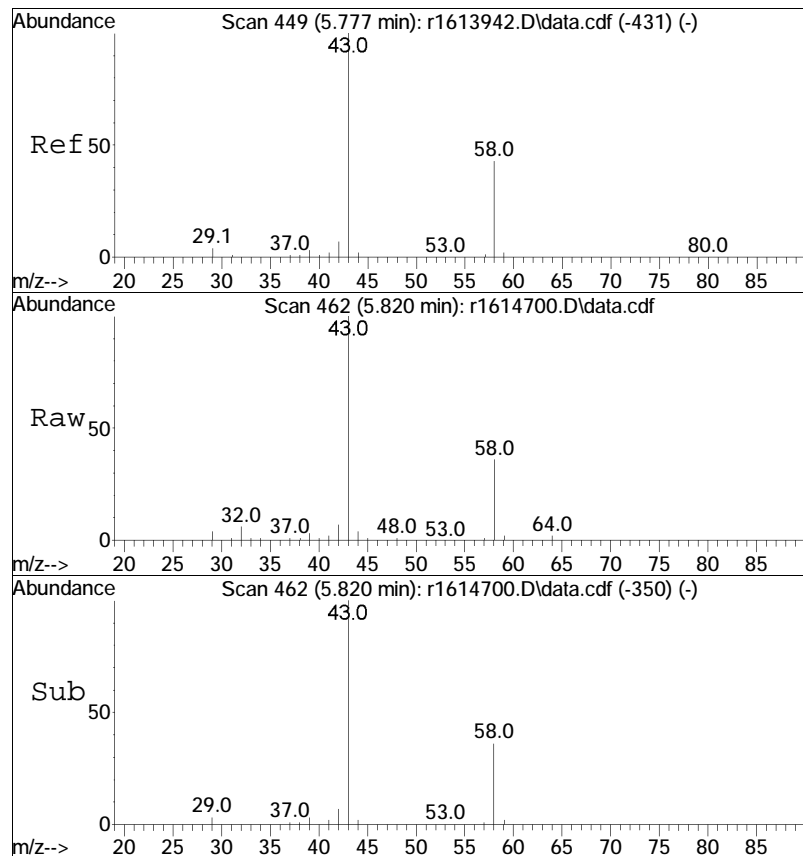




#15
ethanol
Concen: 52.53 ppbV
RT: 5.23 min Scan# 296
Delta R.T. 0.030 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

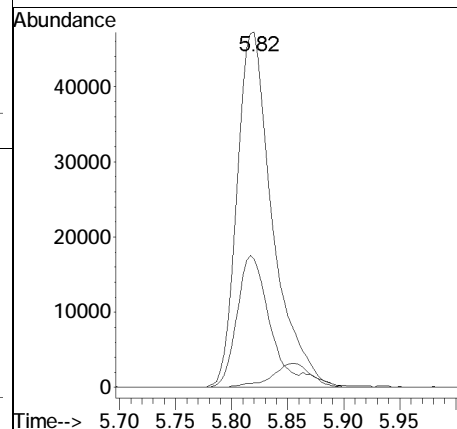
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 68.4 | 43.7 | 65.5# |

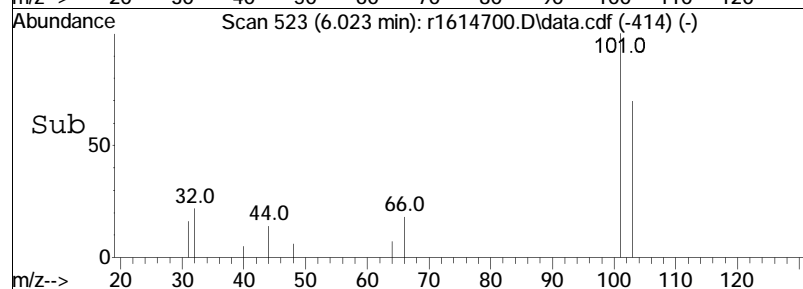
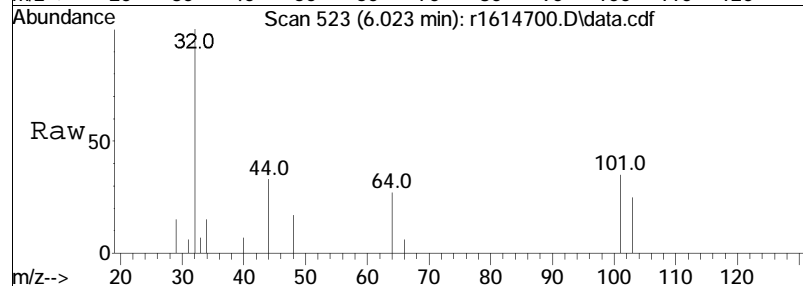
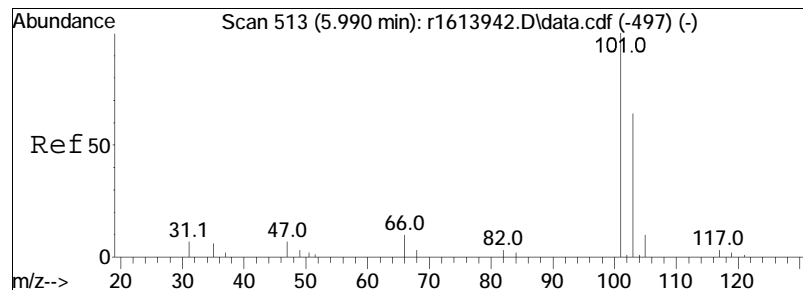




#19
acetone
Concen: 8.71 ppbV
RT: 5.82 min Scan# 462
Delta R.T. 0.043 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

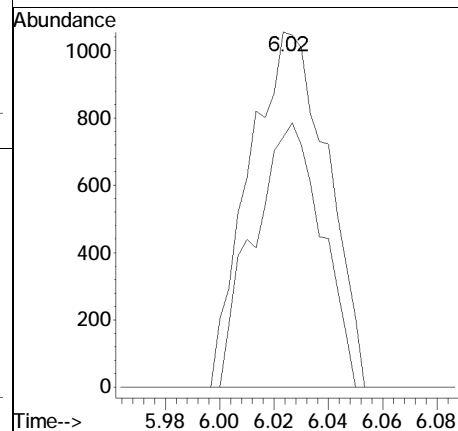
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 43 | 100 | | | |
| 58 | 36.1 | | 34.4 | 51.6 |
| 57 | 1.2 | | 0.9 | 1.3 |

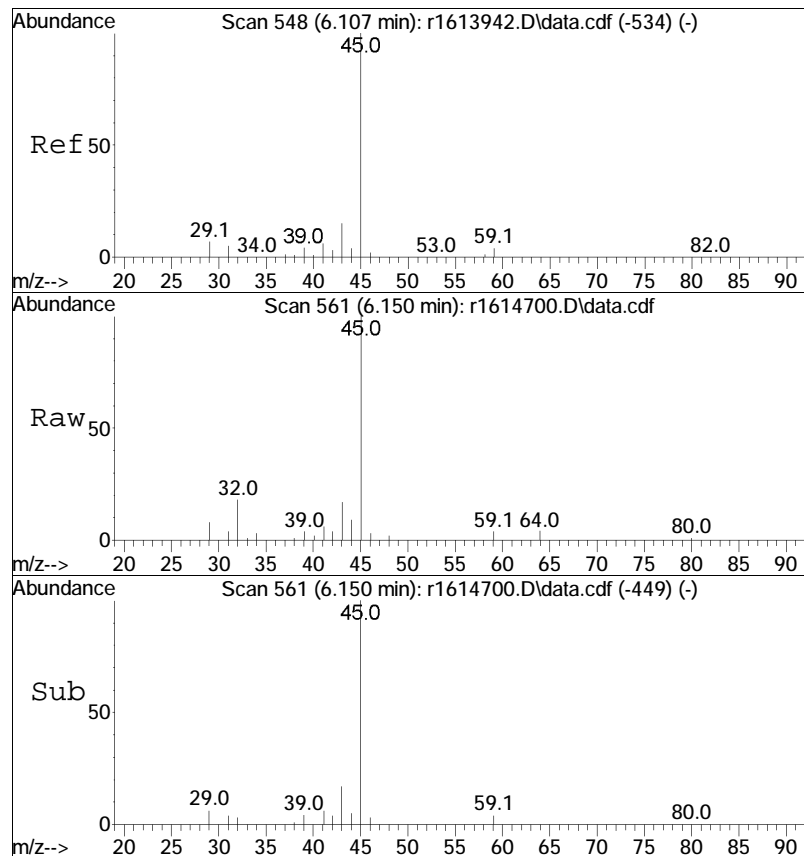




#21
 trichlorofluoromethane
 Concen: 0.18 ppbV
 RT: 6.02 min Scan# 523
 Delta R.T. 0.033 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

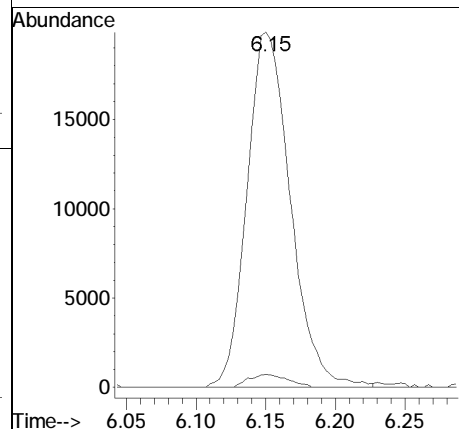
| Tgt | Ion | Ratio | Lower | Upper |
|-----|-----|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 103 | 70.4 | 51.4 | 77.2 |

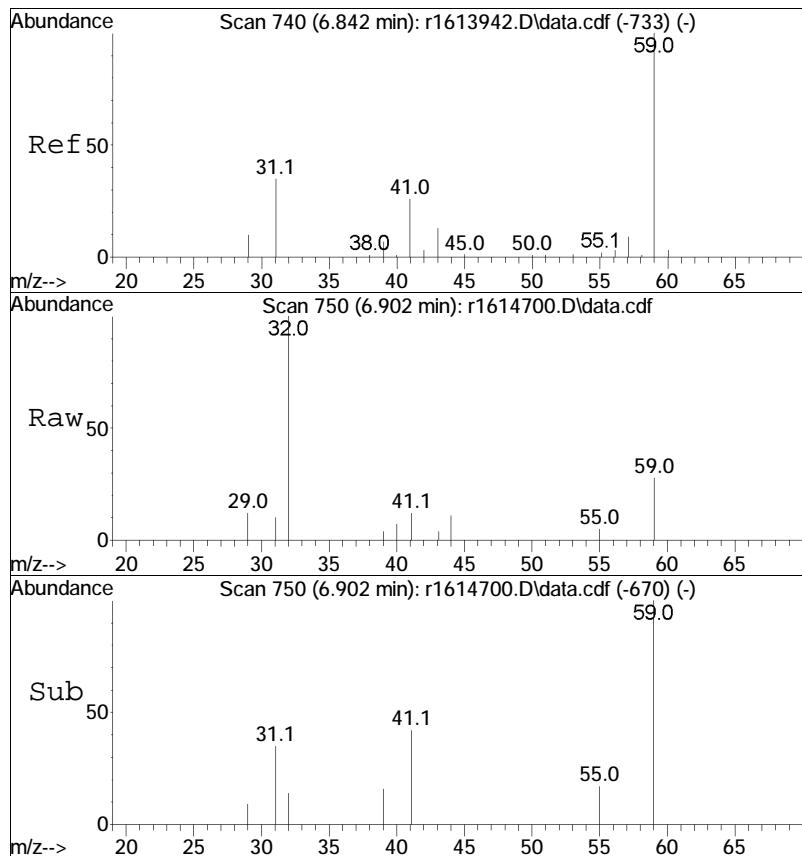




#22
isopropyl alcohol
Concen: 2.80 ppbV
RT: 6.15 min Scan# 561
Delta R.T. 0.043 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

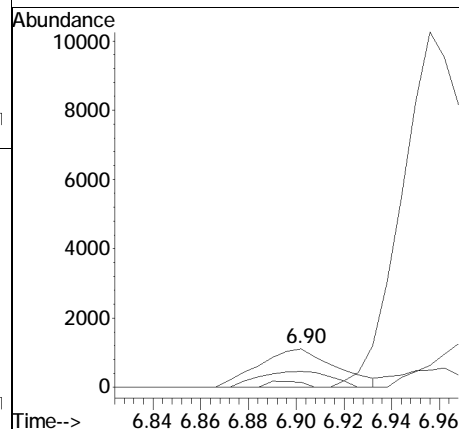
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 3.6 | 3.2 | 4.8 |

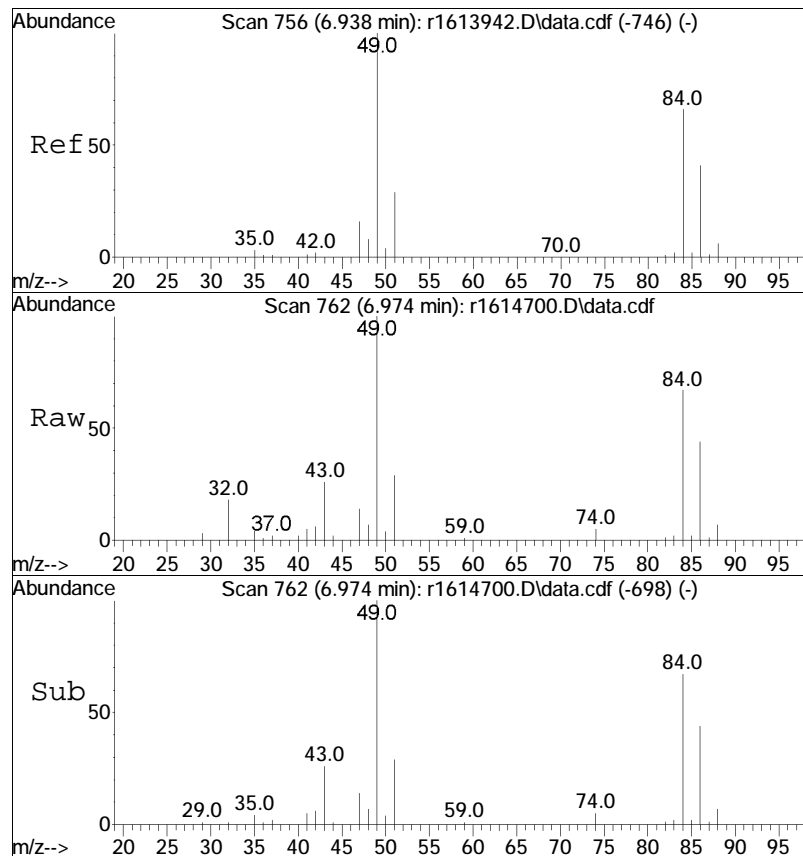




#27
 tertiary butyl alcohol
 Concen: 0.17 ppbV
 RT: 6.90 min Scan# 750
 Delta R.T. 0.060 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

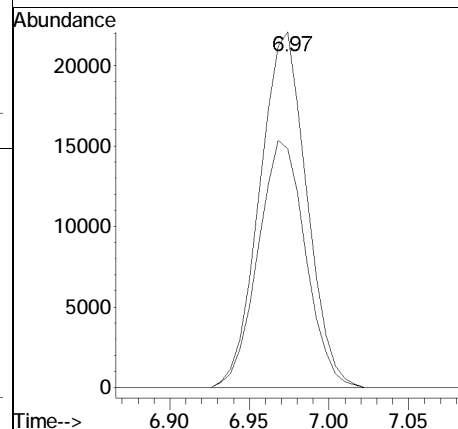
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 59 | Resp: | 2500 |
| Ion | Ratio | Lower | Upper |
| 59 | 100 | | |
| 41 | 41.5 | 20.8 | 31.2# |
| 43 | 13.6 | 10.4 | 15.6 |

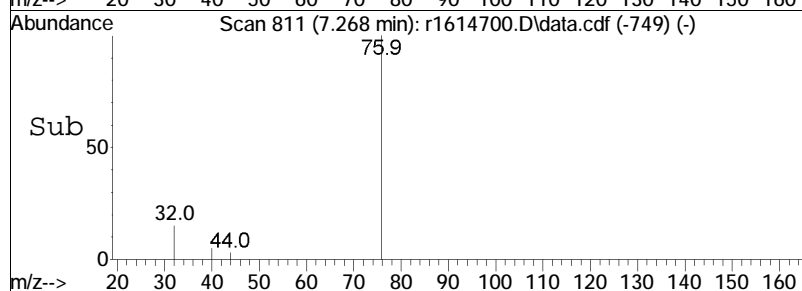
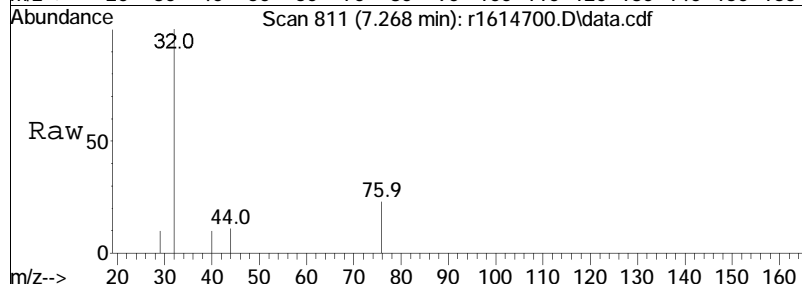
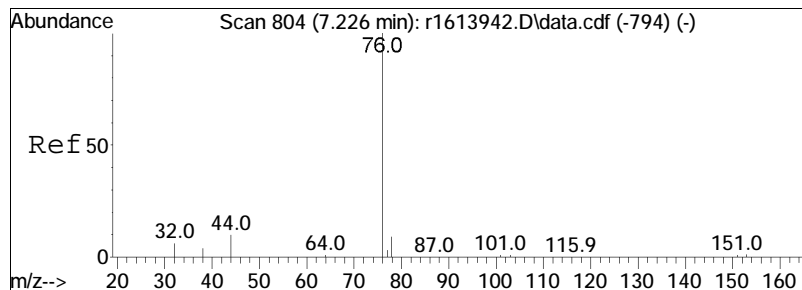




#28
 methylene chloride
 Concen: 3.70 ppbV
 RT: 6.97 min Scan# 762
 Delta R.T. 0.036 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

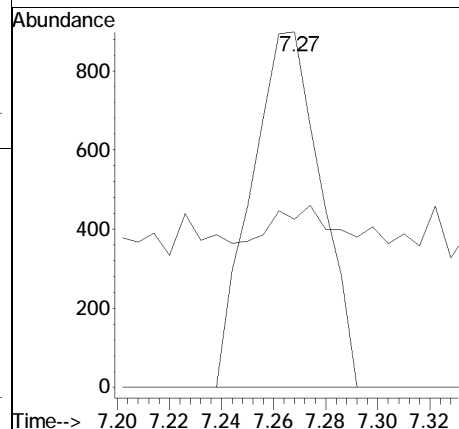
| Tgt Ion: | 49 | 84 | Ratio | Lower | Upper |
|----------|-------|------|-------|-------|-------|
| Resp: | 45310 | | | | |
| | 100 | 67.1 | | 53.0 | 79.4 |

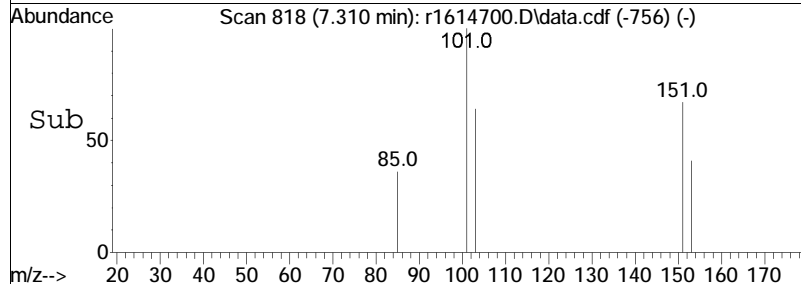
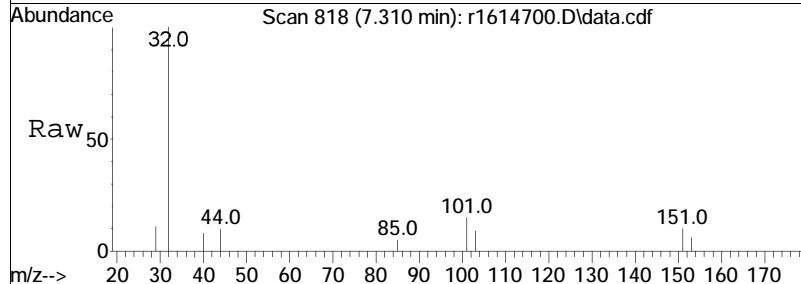
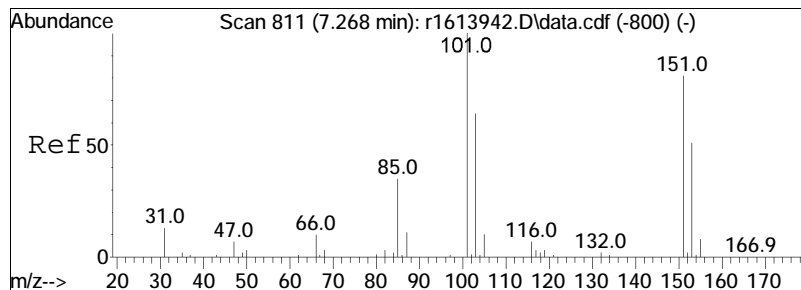




#30
carbon disulfide
Concen: 0.05 ppbV
RT: 7.27 min Scan# 811
Delta R.T. 0.042 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

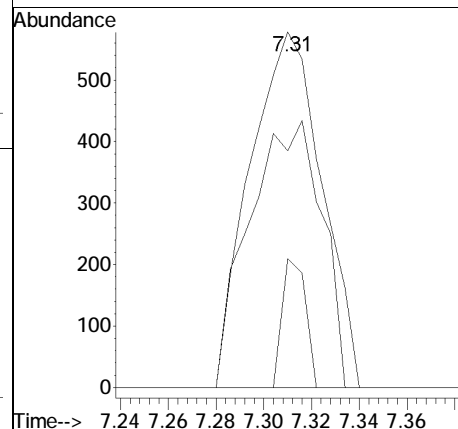
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 47.3 | 8.3 | 12.5# |

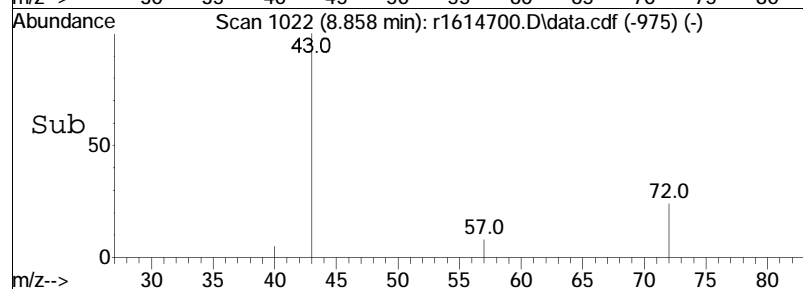
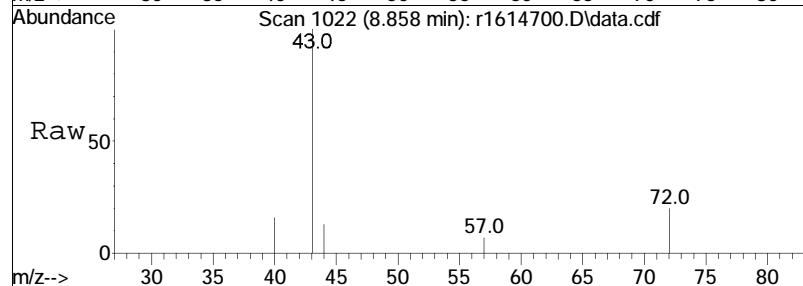
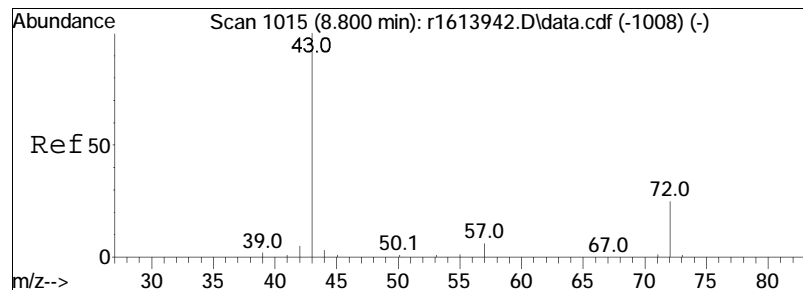




#31
 Freon 113
 Concen: 0.07 ppbV
 RT: 7.31 min Scan# 818
 Delta R.T. 0.042 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

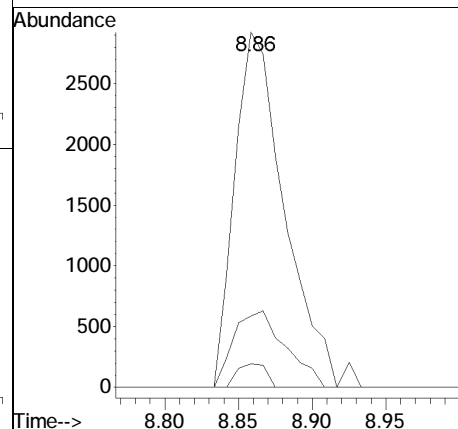
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 1209 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 85 | 36.3 | 27.8 | 41.6 |
| 151 | 66.6 | 65.0 | 97.6 |

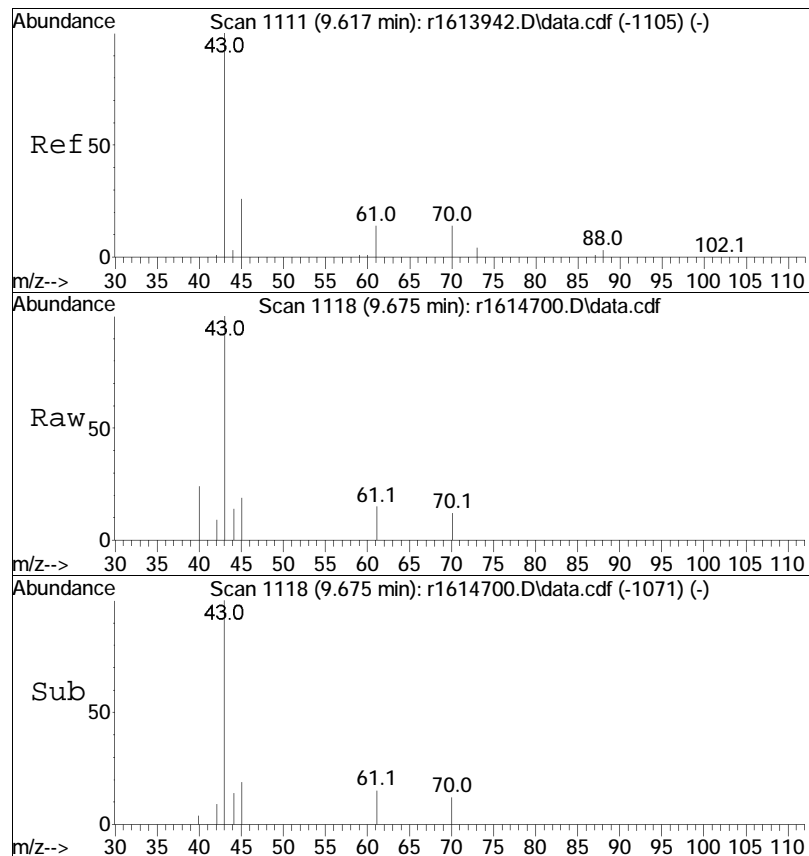




#36
 2-butanone
 Concen: 0.30 ppbV
 RT: 8.86 min Scan# 1022
 Delta R.T. 0.058 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

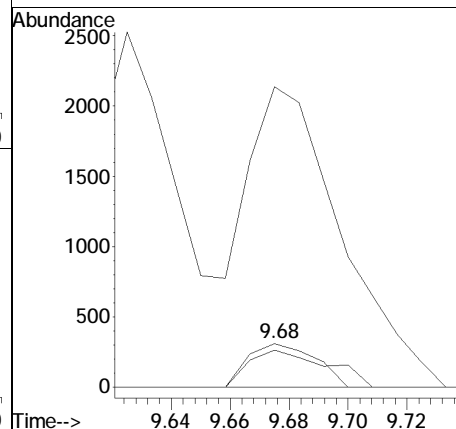
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 20.1 | 19.8 | 29.6 |
| 57 | 6.6 | 4.8 | 7.2 |

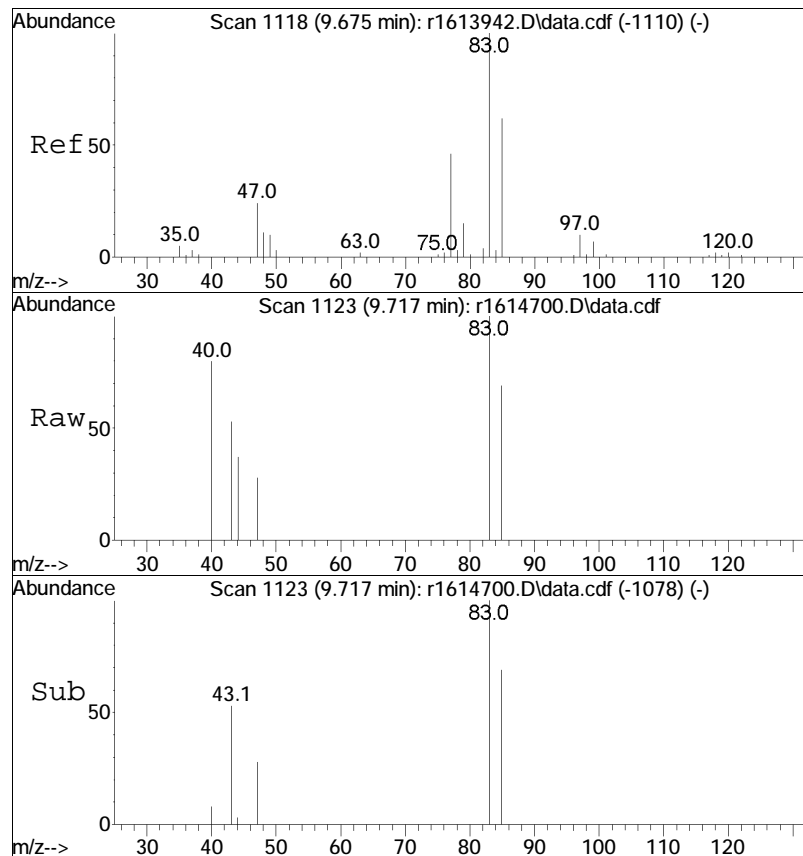




#38
Ethyl Acetate
Concen: 0.15 ppbV
RT: 9.68 min Scan# 1118
Delta R.T. 0.058 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

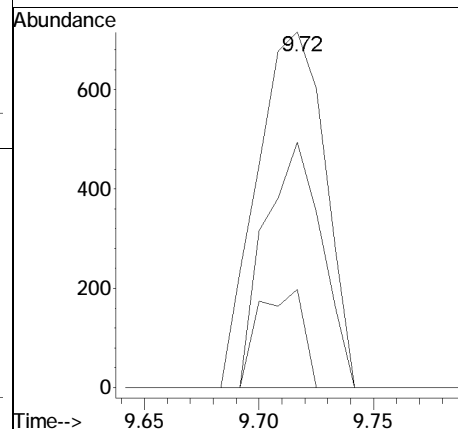
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|---------|
| 61 | 100 | | |
| 70 | 85.2 | 85.6 | 128.4# |
| 43 | 687.5 | 757.7 | 1136.5# |

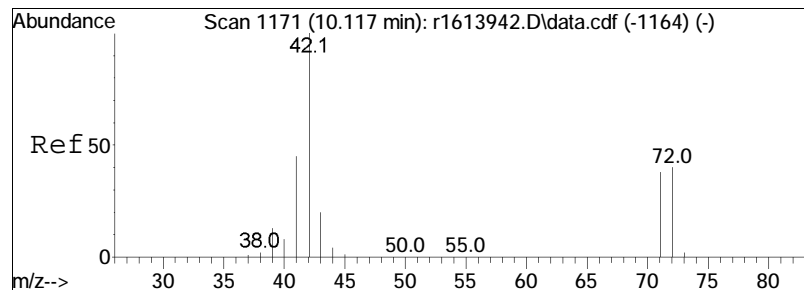




#39
 chloroform
 Concen: 0.09 ppbV
 RT: 9.72 min Scan# 1123
 Delta R.T. 0.042 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

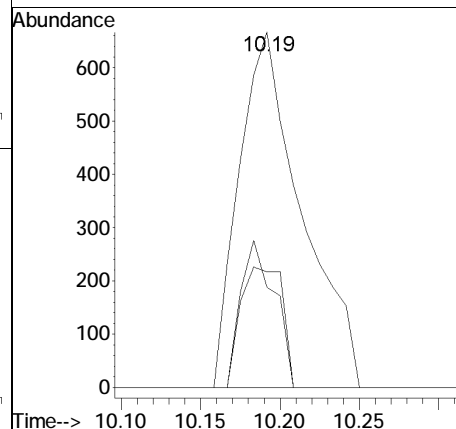
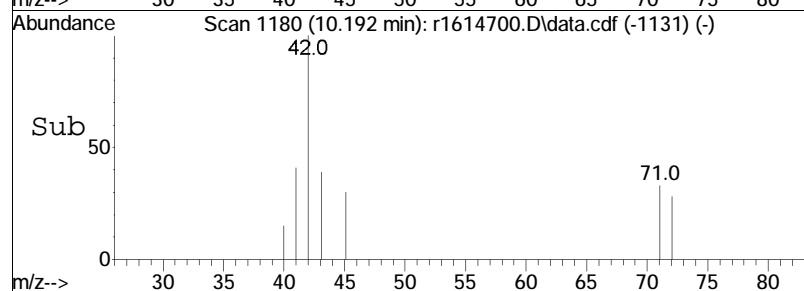
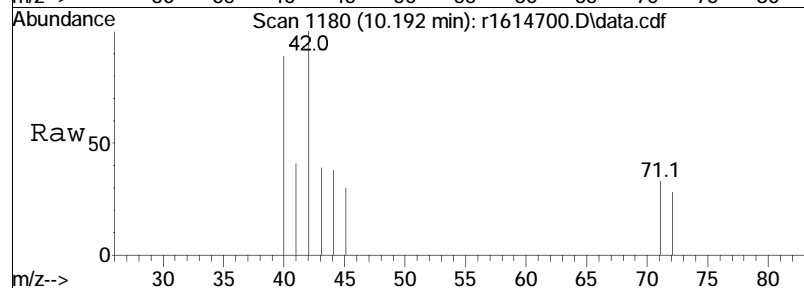
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83 | 100 | | |
| 85 | 69.0 | 50.1 | 75.1 |
| 47 | 27.7 | 19.3 | 28.9 |

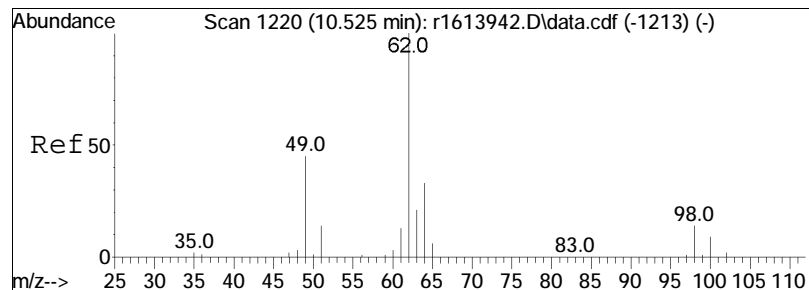




#40
Tetrahydrofuran
Concen: 0.13 ppbV
RT: 10.19 min Scan# 1180
Delta R.T. 0.075 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

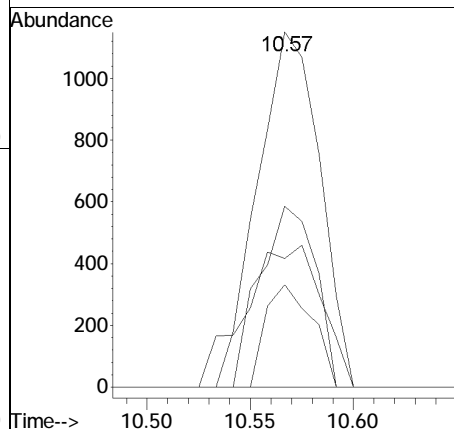
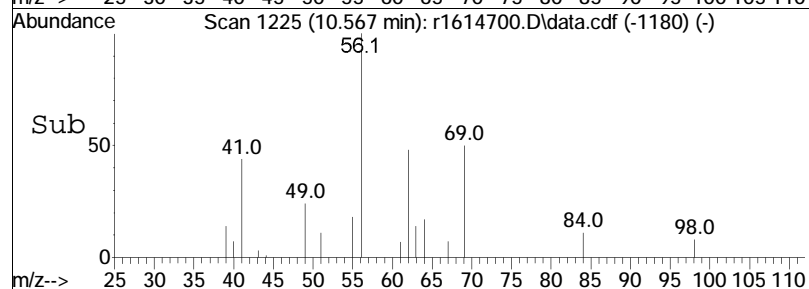
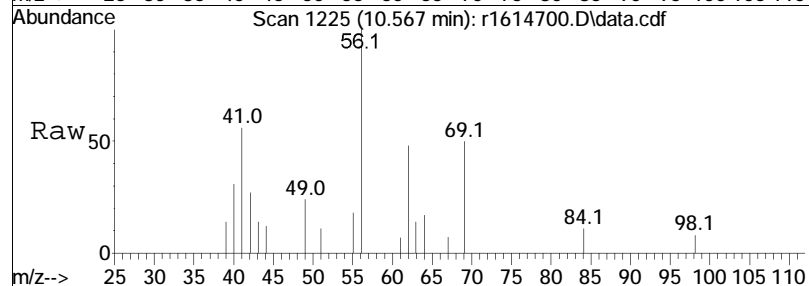
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42 | 100 | | |
| 71 | 32.5 | 30.0 | 45.0 |
| 72 | 28.2 | 31.9 | 47.9# |

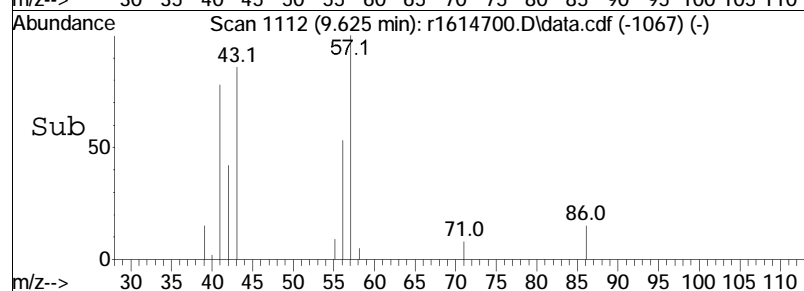
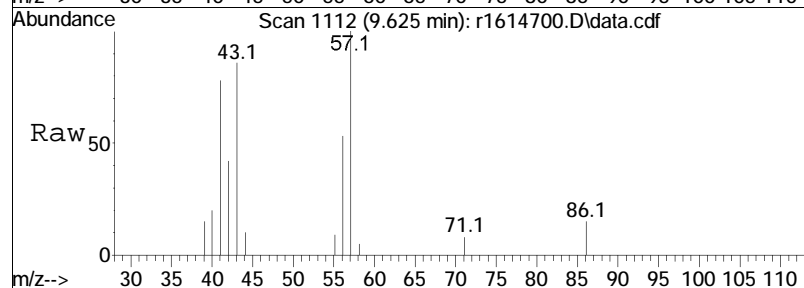
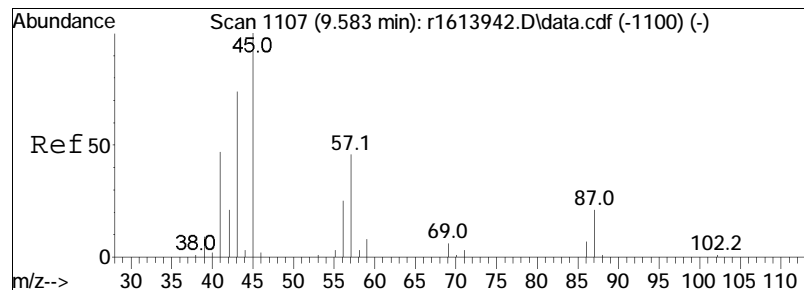




#42
 1,2-dichloroethane
 Concen: 0.28 ppbV
 RT: 10.57 min Scan# 1225
 Delta R.T. 0.042 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

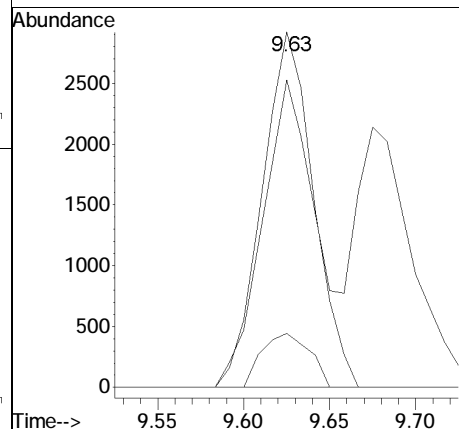
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 62 | Resp: | 2413 |
| Ion | Ratio | Lower | Upper |
| 62 | 100 | | |
| 64 | 36.3 | 26.2 | 39.4 |
| 49 | 51.0 | 36.0 | 54.0 |
| 63 | 28.9 | 17.1 | 25.7# |

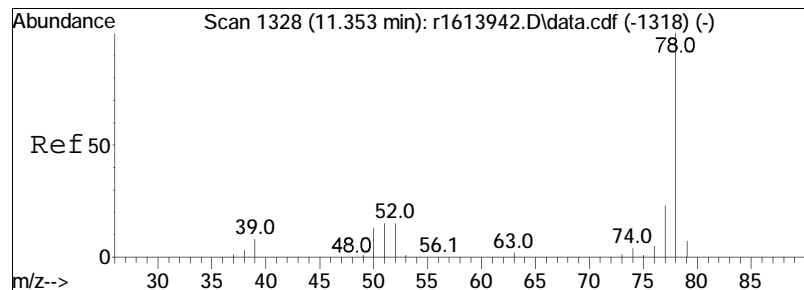




#44
hexane
Concen: 0.36 ppbV
RT: 9.63 min Scan# 1112
Delta R.T. 0.042 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

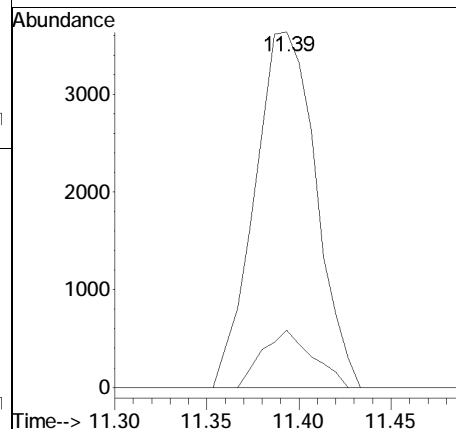
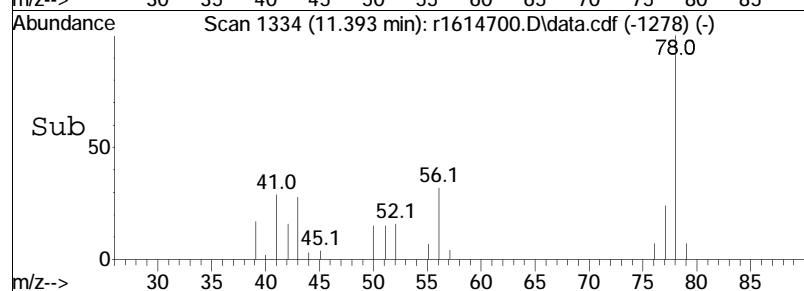
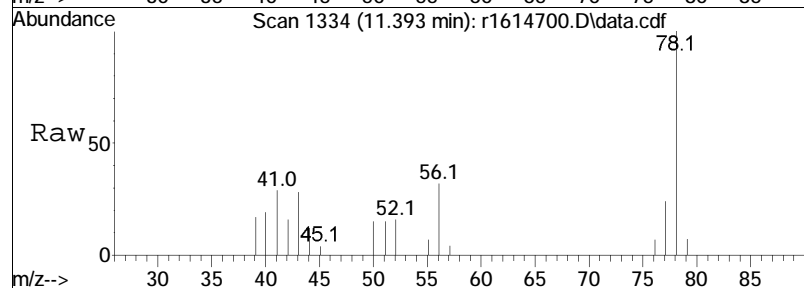
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 86.5 | 129.6 | 194.4# |
| 86 | 15.2 | 12.8 | 19.2 |

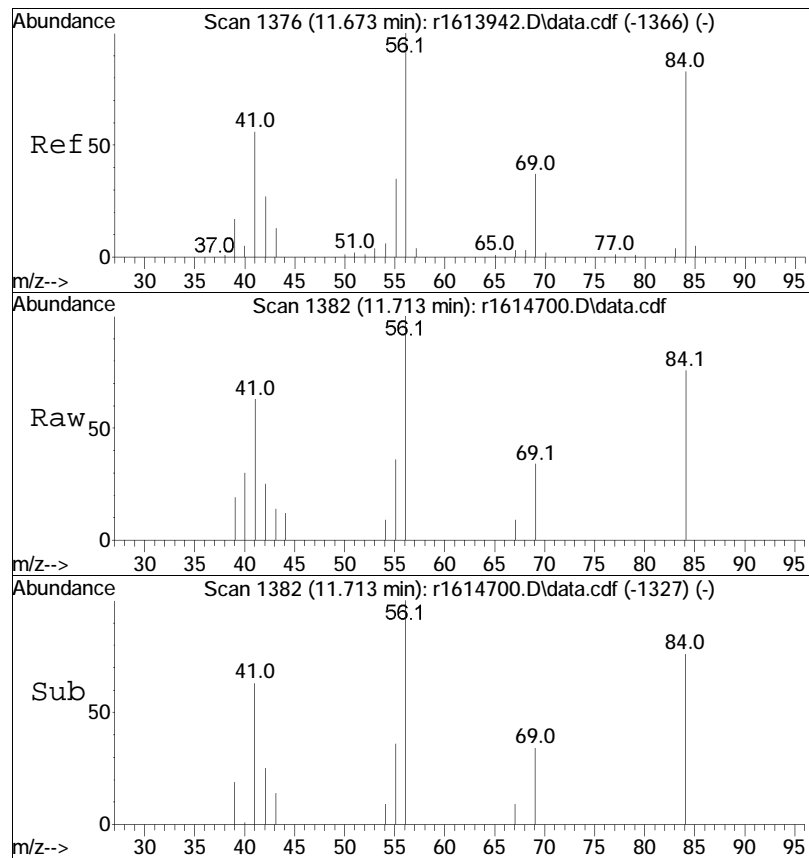




#50
benzene
Concen: 0.23 ppbV
RT: 11.39 min Scan# 1334
Delta R.T. 0.040 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

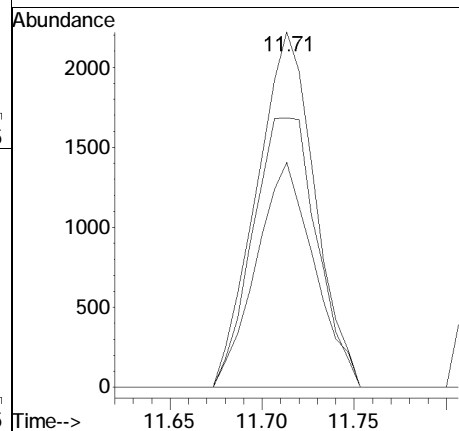
Tgt Ion: 78 Resp: 8423
Ion Ratio Lower Upper
78 100
52 16.1 12.2 18.2

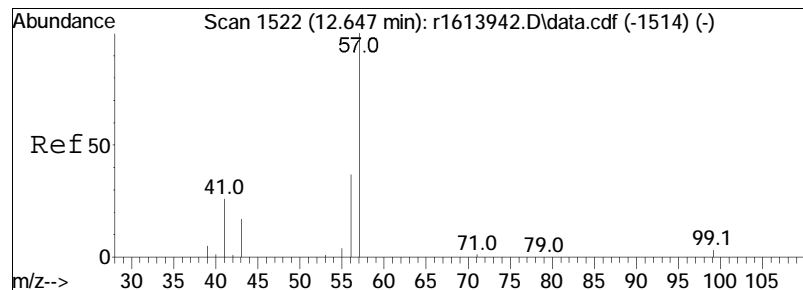




#53
cyclohexane
Concen: 0.27 ppbV
RT: 11.71 min Scan# 1382
Delta R.T. 0.040 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

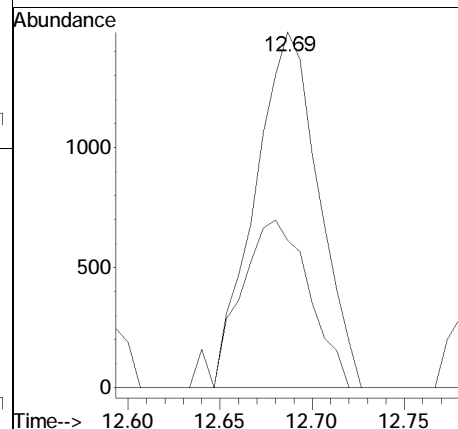
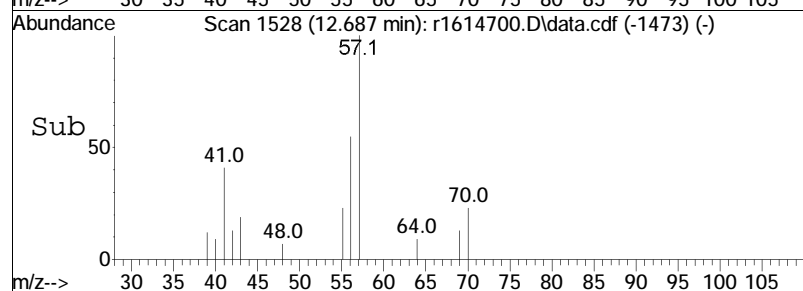
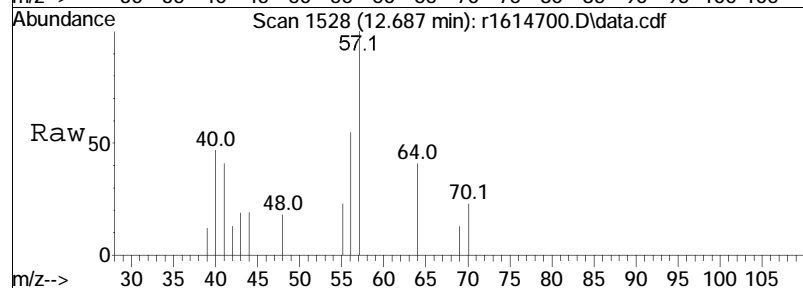
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56 | 100 | | |
| 84 | 75.9 | 66.2 | 99.2 |
| 41 | 63.3 | 45.2 | 67.8 |

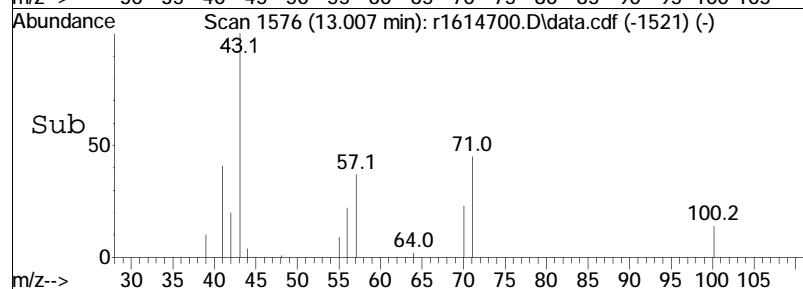
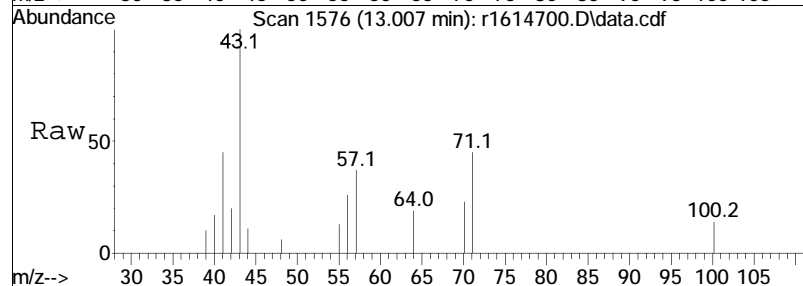
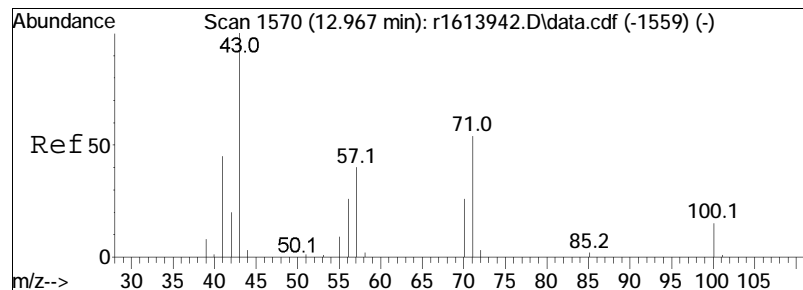




#60
 2,2,4-trimethylpentane
 Concen: 0.06 ppbV
 RT: 12.69 min Scan# 1528
 Delta R.T. 0.040 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

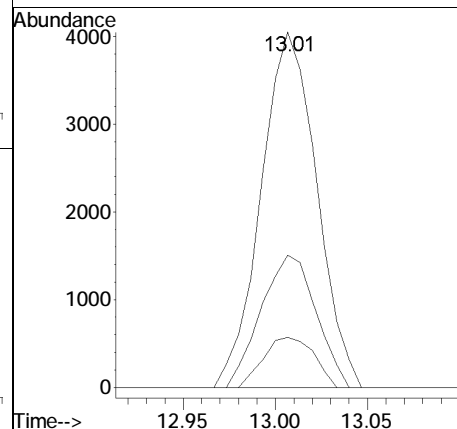
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 0.0 | 4.6 | 6.8# |
| 41 | 41.3 | 20.2 | 30.4# |

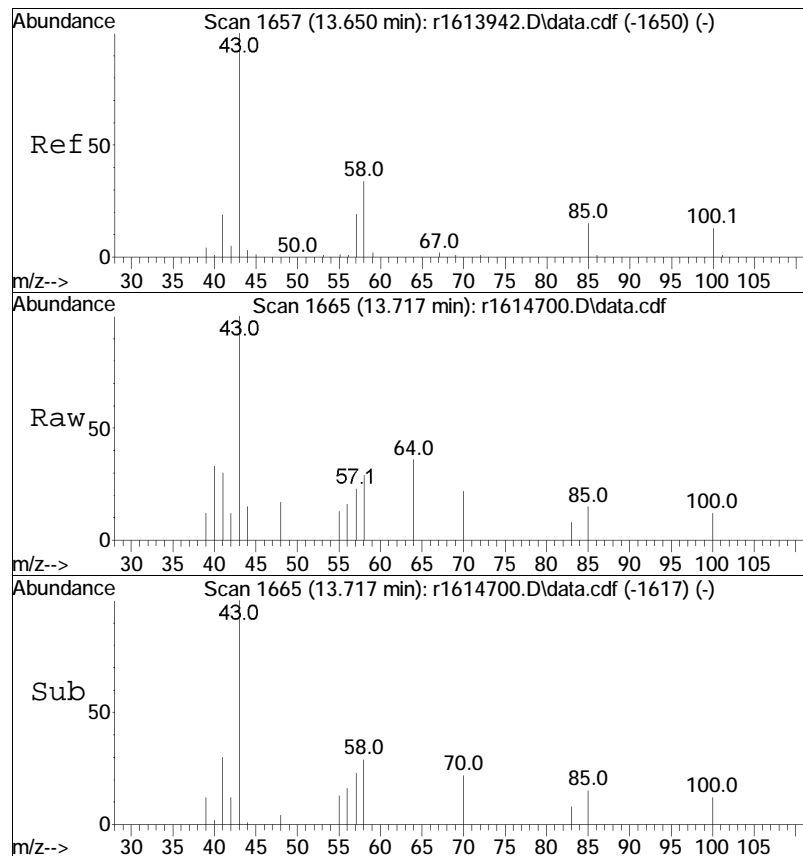




#62
heptane
Concen: 0.33 ppbV
RT: 13.01 min Scan# 1576
Delta R.T. 0.040 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

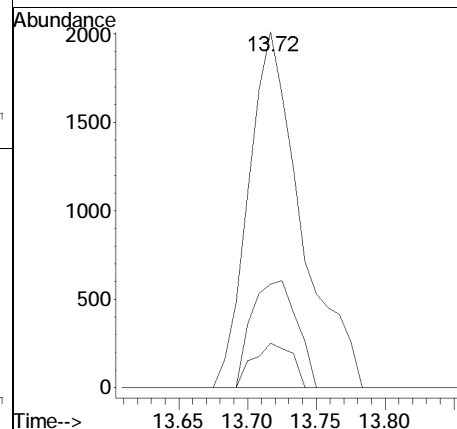
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 37.2 | 32.2 | 48.4 |
| 100 | 14.1 | 11.9 | 17.9 |

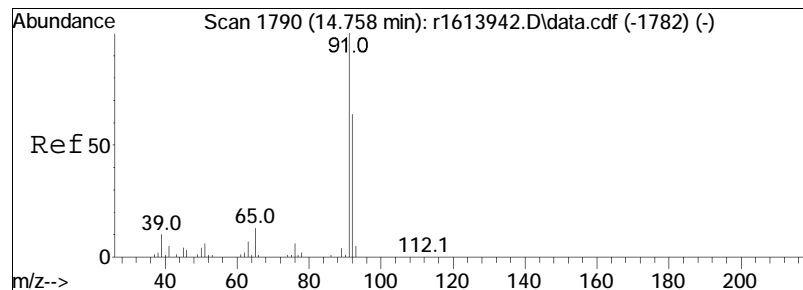




#64
 4-methyl-2-pentanone
 Concen: 0.18 ppbV
 RT: 13.72 min Scan# 1665
 Delta R.T. 0.067 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

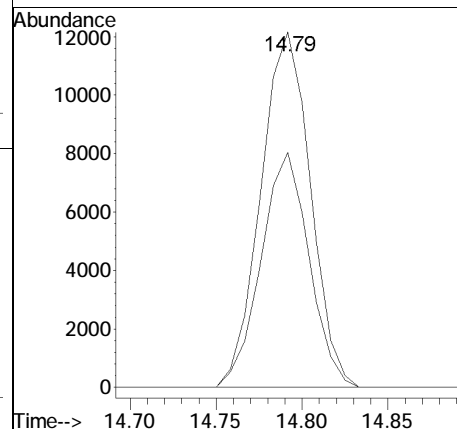
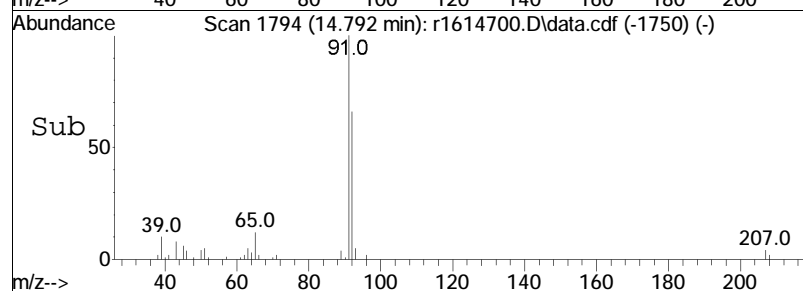
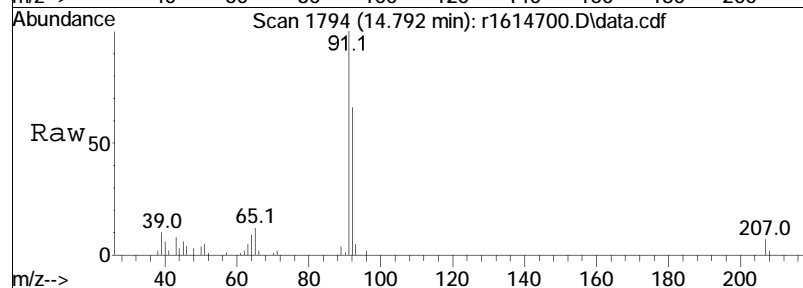
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 5345 |
| Ion | Ratio | Lower | Upper |
| 43 | 100 | | |
| 58 | 29.1 | 27.1 | 40.7 |
| 100 | 12.4 | 10.6 | 16.0 |

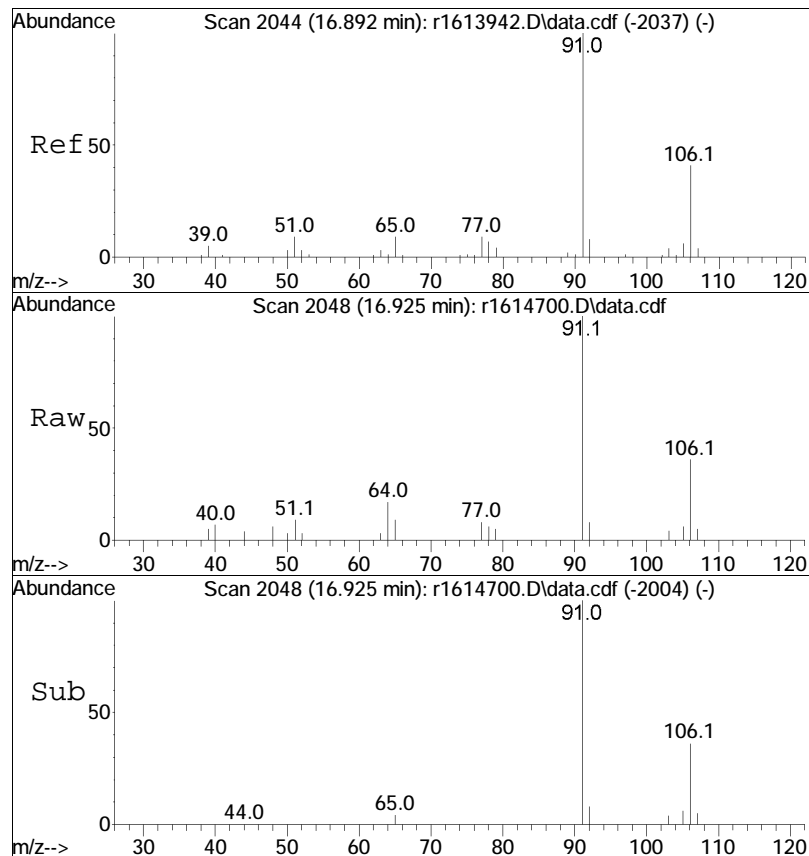




#68
toluene
Concen: 0.74 ppbV
RT: 14.79 min Scan# 1794
Delta R.T. 0.033 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

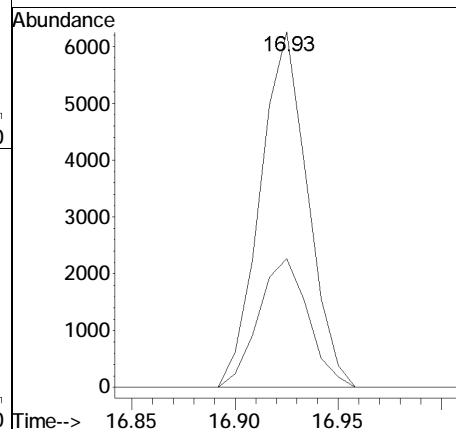
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 66.2 | 51.5 | 77.3 |

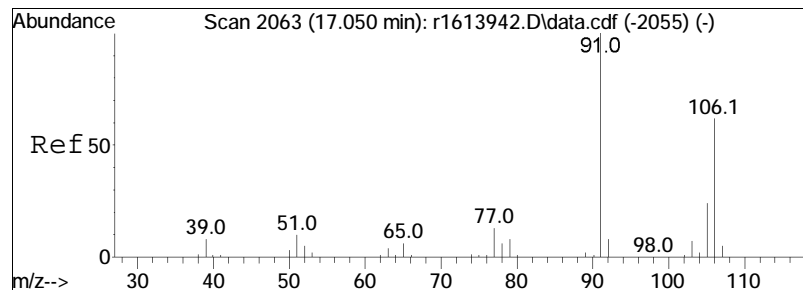




#81
ethylbenzene
Concen: 0.24 ppbV
RT: 16.93 min Scan# 2048
Delta R.T. 0.033 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

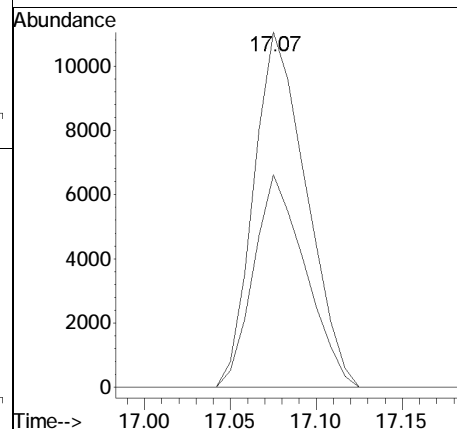
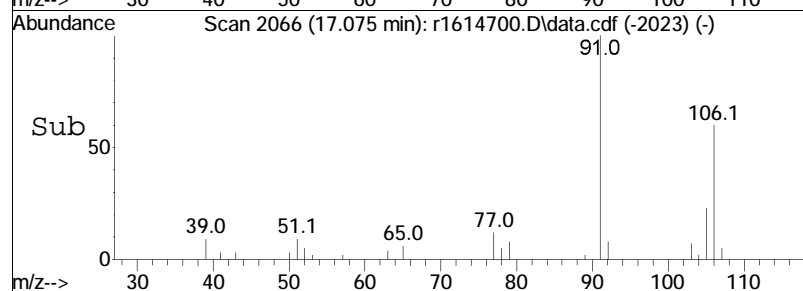
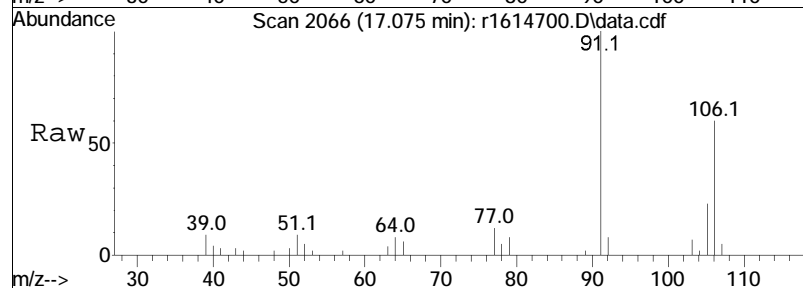
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 36.2 | 32.5 | 48.7 |

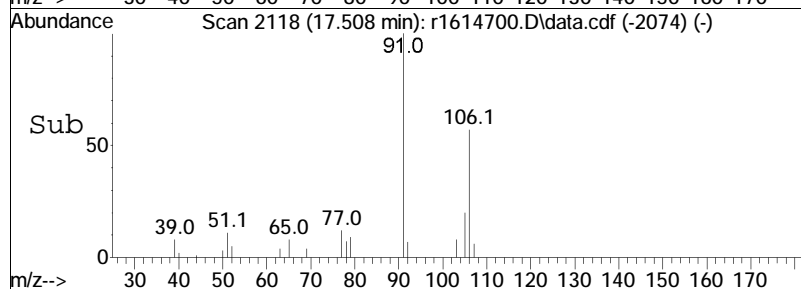
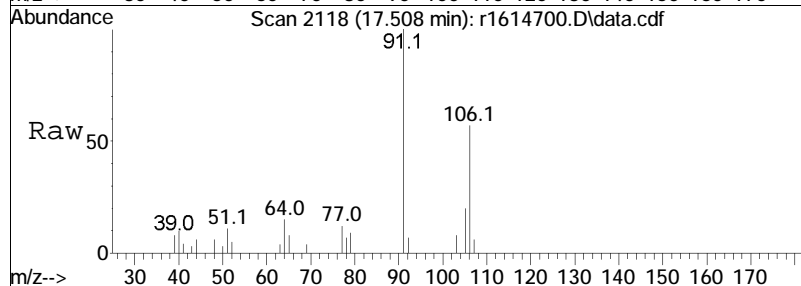
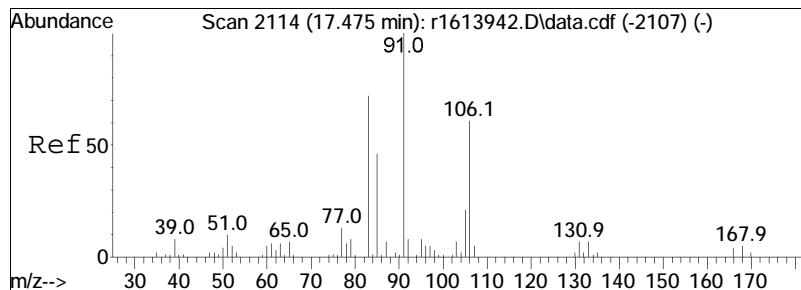




#83
 m+p-xylene
 Concen: 0.69 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

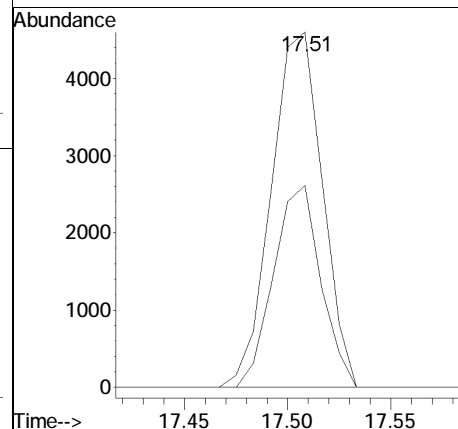
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 59.9 | 49.8 | 74.6 |

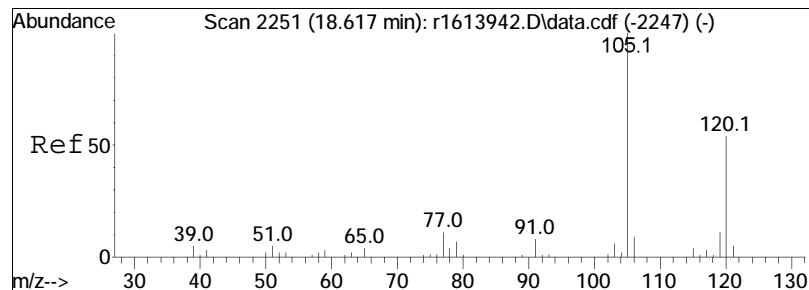




#87
o-xylene
Concen: 0.23 ppbV
RT: 17.51 min Scan# 2118
Delta R.T. 0.033 min
Lab File: r1614700.D
Acq: 4 Jan 2020 10:31 PM

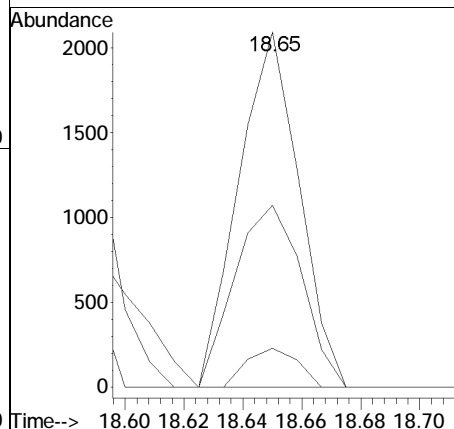
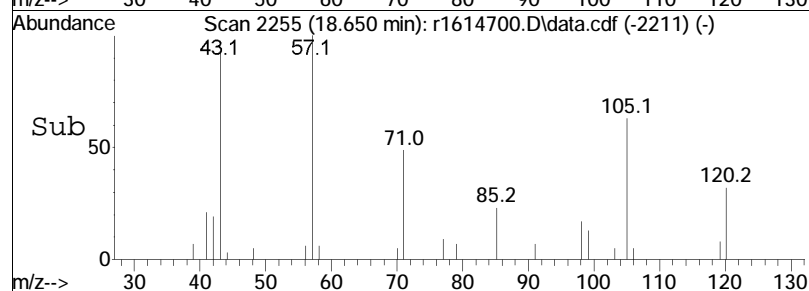
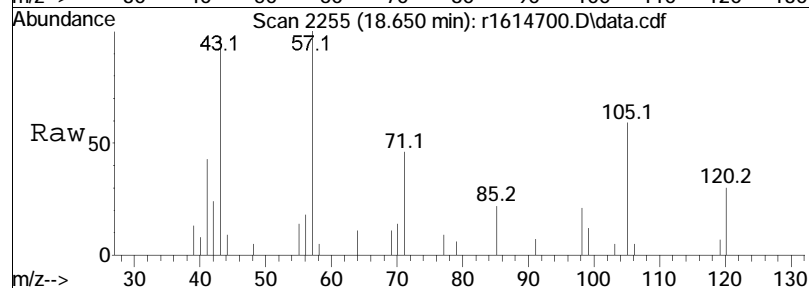
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 56.8 | 48.8 | 73.2 |

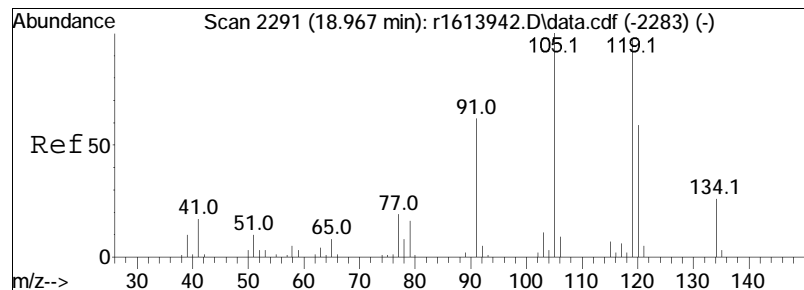




#97
 1,3,5-trimethylbenzene
 Concen: 0.07 ppbV
 RT: 18.65 min Scan# 2255
 Delta R.T. 0.033 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

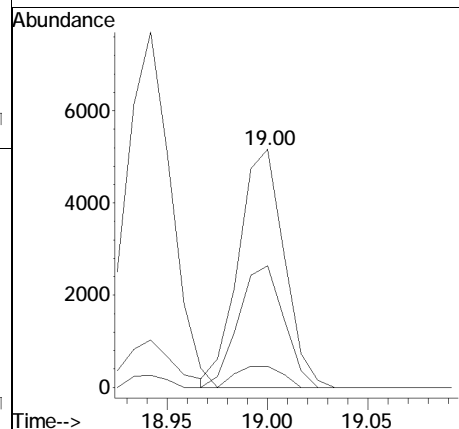
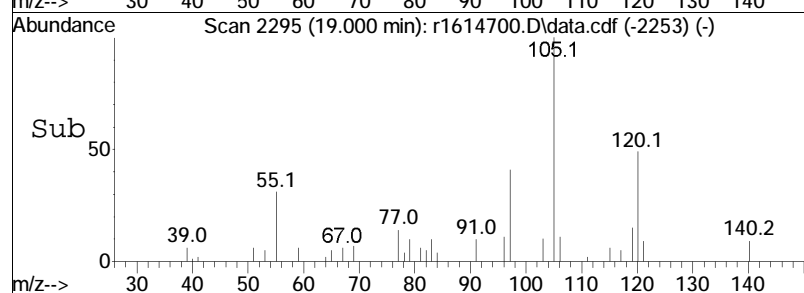
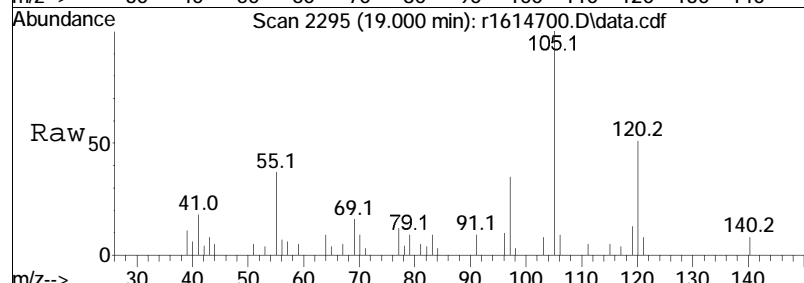
| | | | |
|-----|---------|-------|-------|
| Tgt | Ion:105 | Resp: | 2992 |
| Ion | Ratio | Lower | Upper |
| 105 | 100 | | |
| 120 | 51.2 | 42.9 | 64.3 |
| 91 | 11.0 | 6.6 | 9.8# |





#99
 1,2,4-trimethylbenzene
 Concen: 0.19 ppbV m
 RT: 19.00 min Scan# 2295
 Delta R.T. 0.033 min
 Lab File: r1614700.D
 Acq: 4 Jan 2020 10:31 PM

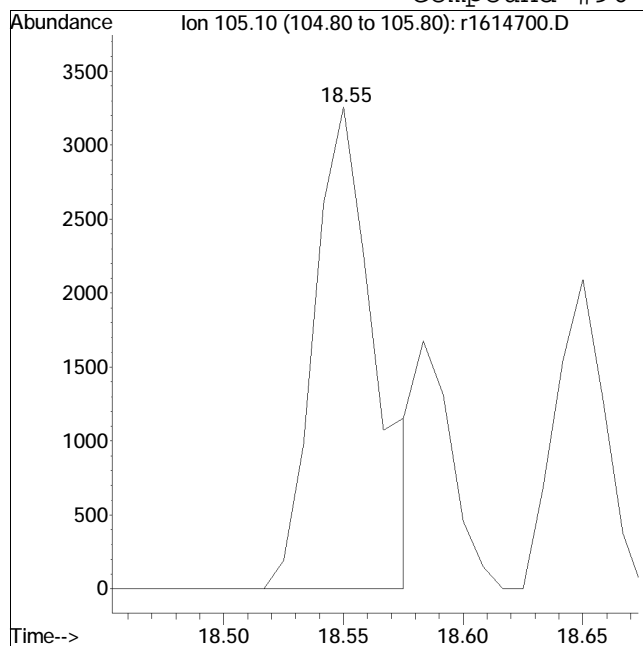
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 51.1 | 46.9 | 70.3 |
| 91 | 9.0 | 49.3 | 73.9# |



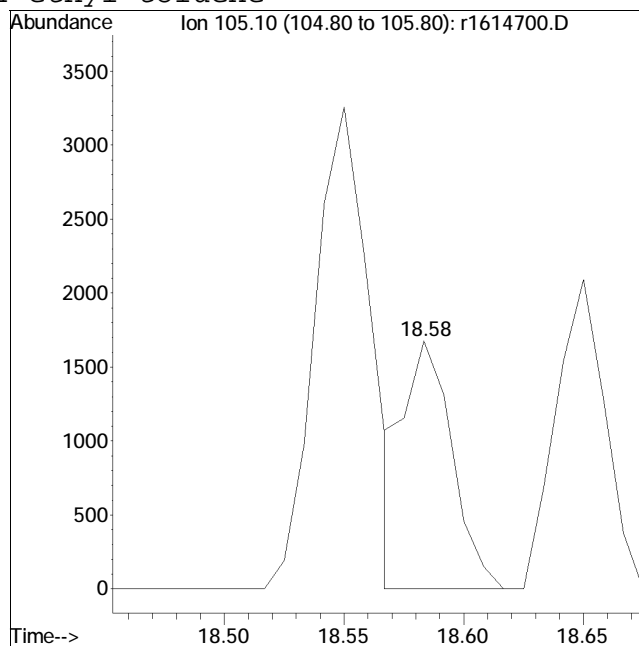
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614700.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:0: 1 Instrument :
 Sample : L1962003-09,3,250,250 Quant Date : 1/5/2020 8:31 am

Compound #96: 4-ethyl toluene



Original Peak Response = 5766



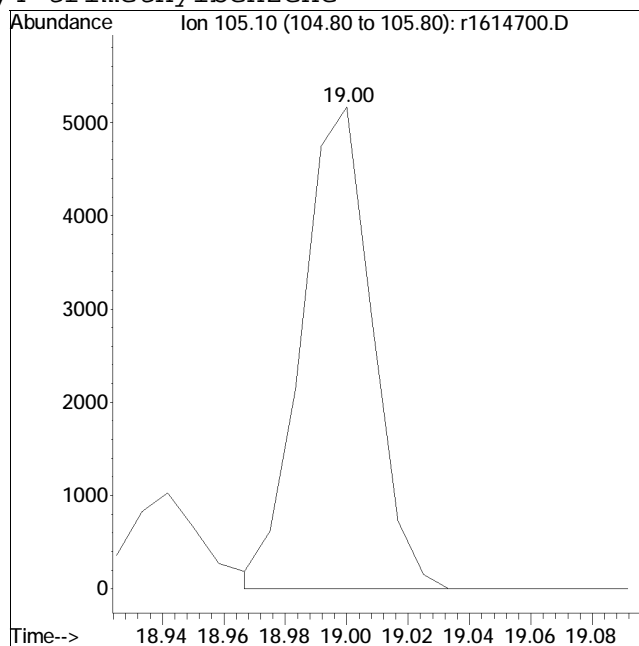
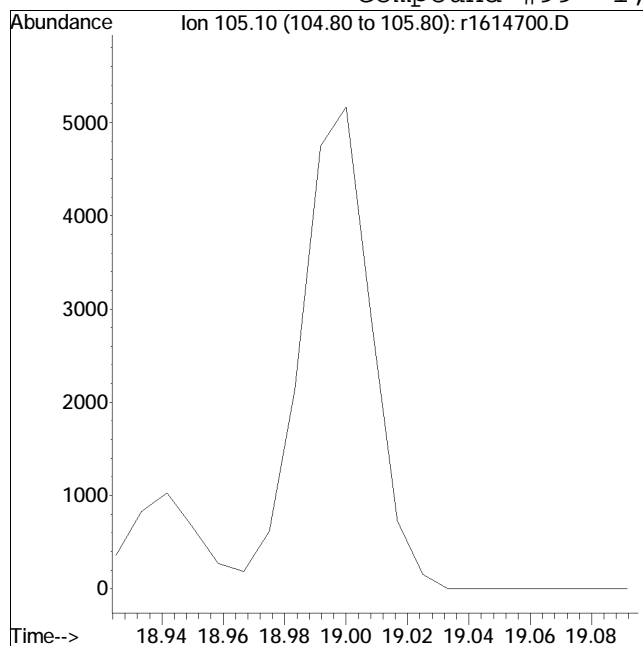
Manual Peak Response = 2376 M3

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\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614700.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:0: 1 Instrument :
 Sample : L1962003-09,3,250,250 Quant Date : 1/5/2020 8:31 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response =

Manual Peak Response = 8211 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614701.D
 Acq On : 4 Jan 2020 11:11 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-04,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:24:10 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.56 | 49 | 201316 | 10.000 | ppbV | 0.05 |
| Standard Area = 223987 | | | Recovery | = | 89.88% | |
| 43) 1,4-difluorobenzene | 11.84 | 114 | 567051 | 10.000 | ppbV | 0.05 |
| Standard Area = 600707 | | | Recovery | = | 94.40% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 69521 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery | = | 92.19% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 5) dichlorodifluoromethane | 3.93 | 85 | 5805 | 0.389 | ppbV | 100 |
| 6) chloromethane | 4.11 | 50 | 4334 | 0.478 | ppbV | 95 |
| 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 | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.24 | 31 | 177076 | 27.282 | ppbV # | 80 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 108213 | 9.004 | ppbV | 88 |
| 21) trichlorofluoromethane | 6.03 | 101 | 2113 | 0.176 | ppbV # | 80 |
| 22) isopropyl alcohol | 6.16 | 45 | 11042 | 0.713 | ppbV # | 88 |
| 26) 1,1-dichloroethene | 0.00 | | 0 | N.D. | | |
| 27) tertiary butyl alcohol | 6.91 | 59 | 1482 | 0.100 | ppbV # | 51 |
| 28) methylene chloride | 6.97 | 49 | 2648 | 0.216 | ppbV | 91 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.27 | 76 | 3468 | 0.107 | ppbV # | 34 |
| 31) Freon 113 | 7.32 | 101 | 1283 | 0.073 | ppbV # | 82 |
| 32) trans-1,2-dichloroethene | 8.12 | | 0 | N.D. | | |
| 33) 1,1-dichloroethane | 0.00 | | 0 | N.D. | | |
| 34) MTBE | 8.46 | | 0 | N.D. | | |
| 36) 2-butanone | 8.86 | 43 | 21765 | 0.933 | ppbV | 99 |
| 37) cis-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 38) Ethyl Acetate | 9.68 | 61 | 1217 | 0.361 | ppbV # | 31 |
| 39) chloroform | 9.72 | | 0 | N.D. | | |
| 40) Tetrahydrofuran | 10.18 | 42 | 10867 | 0.767 | ppbV | 96 |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614701.D
 Acq On : 4 Jan 2020 11:11 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-04,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:24:10 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|-------|-------|----------|-----|
| 44) hexane | 9.63 | 57 | 9817 | 0.571 | ppbV | # | 47 |
| 48) 1,1,1-trichloroethane | 0.00 | | 0 | N.D. | | | |
| 50) benzene | 11.40 | 78 | 10592 | 0.289 | ppbV | | 95 |
| 52) carbon tetrachloride | 11.57 | 117 | 801 | 0.062 | ppbV | # | 78 |
| 53) cyclohexane | 11.72 | 56 | 7928 | 0.434 | ppbV | | 95 |
| 56) 1,2-dichloropropane | 0.00 | | 0 | N.D. | | | |
| 57) bromodichloromethane | 12.59 | | 0 | N.D. | | | |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | | |
| 59) trichloroethene | 12.64 | 130 | 951 | 0.064 | ppbV | | 94 |
| 60) 2,2,4-trimethylpentane | 12.69 | 57 | 4472 | 0.081 | ppbV | # | 63 |
| 62) heptane | 13.01 | 43 | 15252 | 0.590 | ppbV | | 97 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | N.D. | | | |
| 64) 4-methyl-2-pentanone | 13.72 | 43 | 17564 | 0.588 | ppbV | | 98 |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | N.D. | | | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | N.D. | | | |
| 68) toluene | 14.79 | 91 | 44077 | 1.329 | ppbV | | 100 |
| 72) 2-hexanone | 0.00 | | 0 | N.D. | d | | |
| 74) dibromochloromethane | 0.00 | | 0 | N.D. | | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | N.D. | | | |
| 78) tetrachloroethene | 15.95 | 166 | 23241 | 1.590 | ppbV | | 99 |
| 80) chlorobenzene | 0.00 | | 0 | N.D. | d | | |
| 81) ethylbenzene | 16.93 | 91 | 13171 | 0.317 | ppbV | | 94 |
| 83) m+p-xylene | 17.07 | 91 | 29250 | 0.860 | ppbV | | 93 |
| 84) bromoform | 0.00 | | 0 | N.D. | | | |
| 85) styrene | 17.42 | | 0 | N.D. | | | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | N.D. | d | | |
| 87) o-xylene | 17.51 | 91 | 11758 | 0.344 | ppbV | | 90 |
| 96) 4-ethyl toluene | 18.58 | 105 | 3421M3 | 0.064 | ppbV | | |
| 97) 1,3,5-trimethylbenzene | 18.65 | 105 | 3909 | 0.088 | ppbV | # | 99 |
| 99) 1,2,4-trimethylbenzene | 19.00 | 105 | 13139 | 0.309 | ppbV | # | 62 |
| 101) Benzyl Chloride | 0.00 | | 0 | N.D. | d | | |
| 102) 1,3-dichlorobenzene | 19.19 | | 0 | N.D. | | | |
| 103) 1,4-dichlorobenzene | 19.19 | | 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614701.D
 Acq On : 4 Jan 2020 11:11 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-04,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:24:10 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

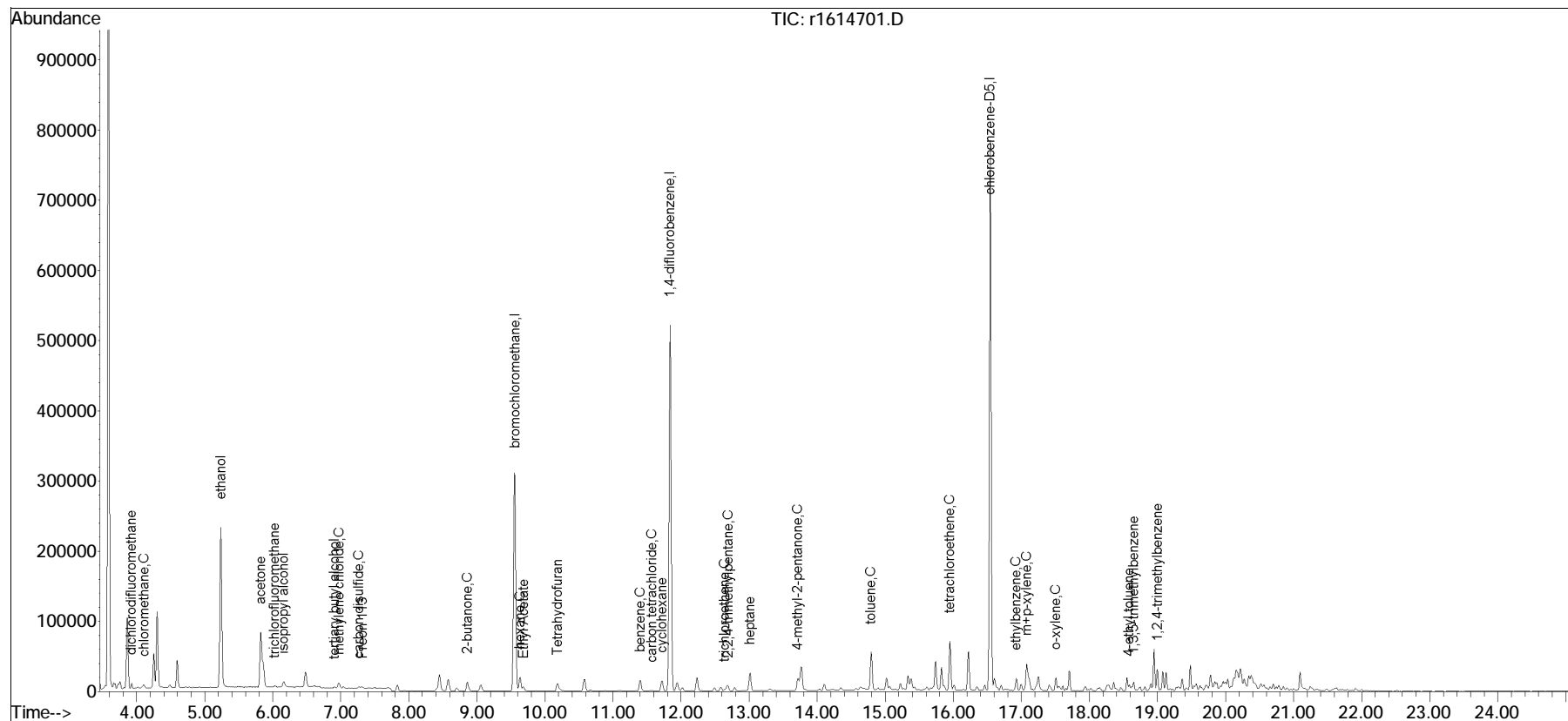
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

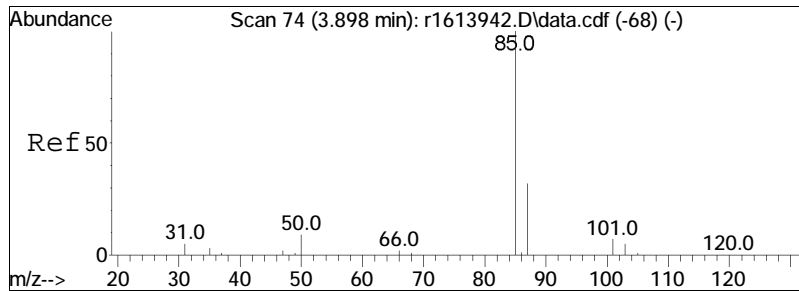
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614701.D
 Acq On : 4 Jan 2020 11:11 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-04,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:24:10 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

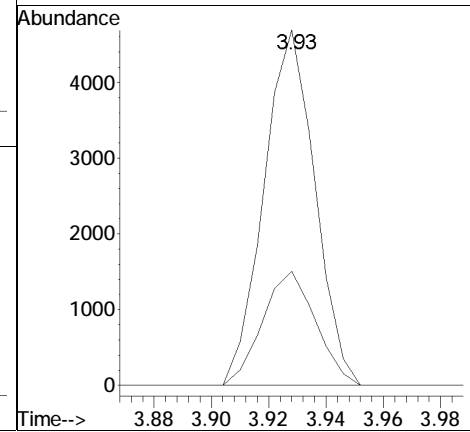
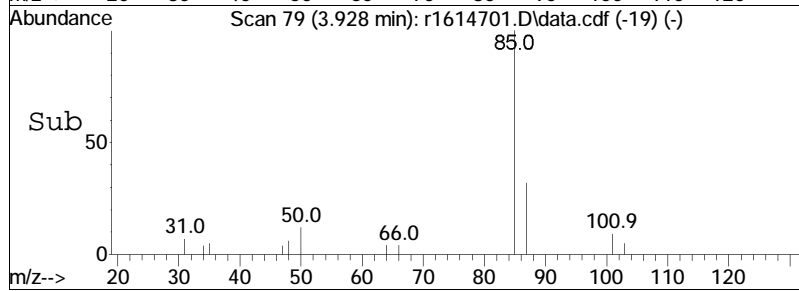
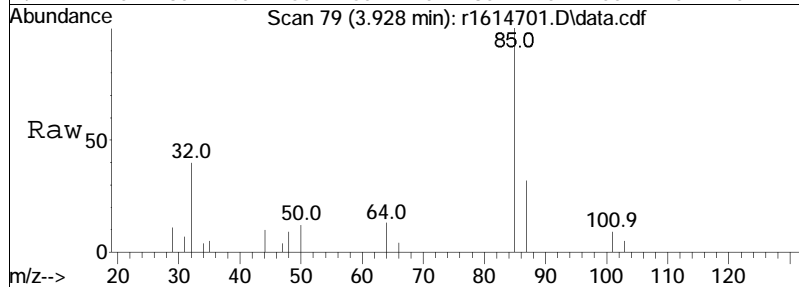
Sub List : TO15-NY - .s\Data\Airlab16\2020\01-JAN\200104T\r1614690.D

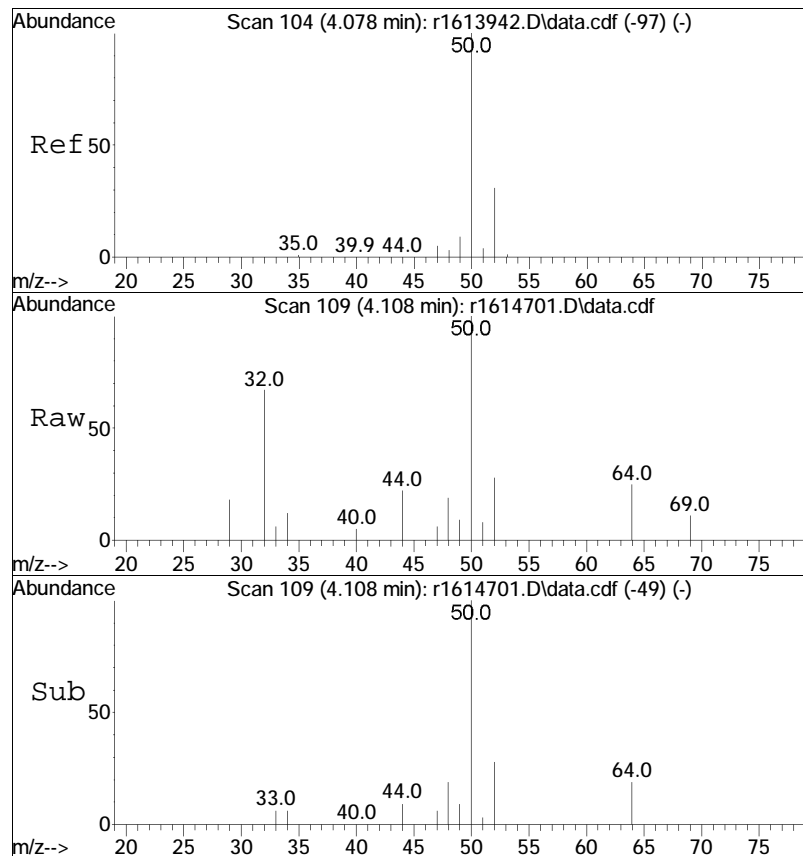




#5
dichlorodifluoromethane
Concen: 0.39 ppbV
RT: 3.93 min Scan# 79
Delta R.T. 0.030 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

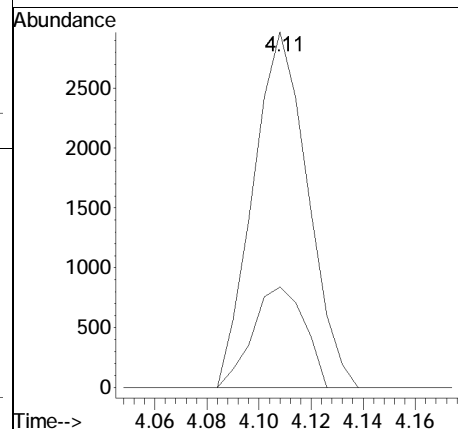
Tgt Ion: 85 Resp: 5805
Ion Ratio Lower Upper
85 100
87 32.1 25.5 38.3

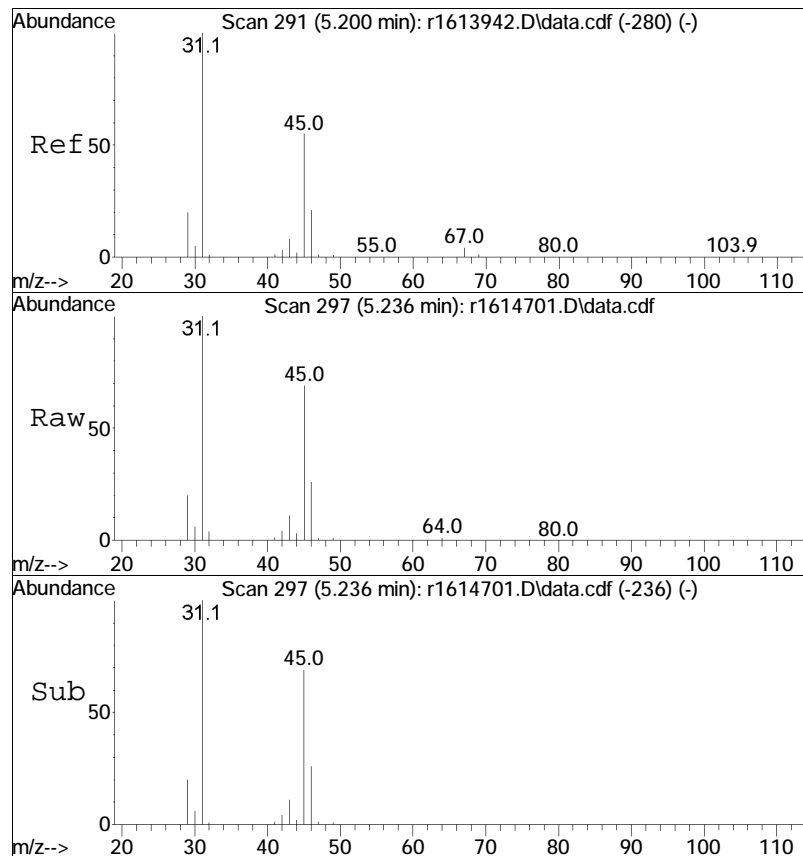




#6
 chloromethane
 Concen: 0.48 ppbV
 RT: 4.11 min Scan# 109
 Delta R.T. 0.030 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

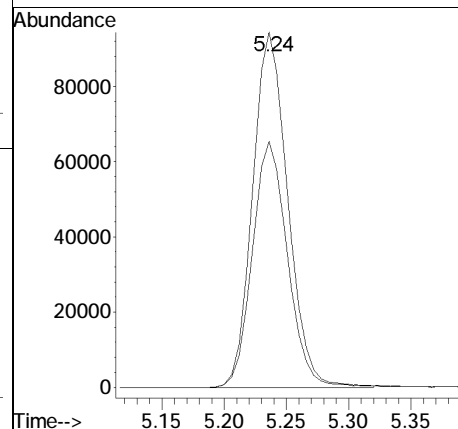
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 28.2 | 24.8 | 37.2 |

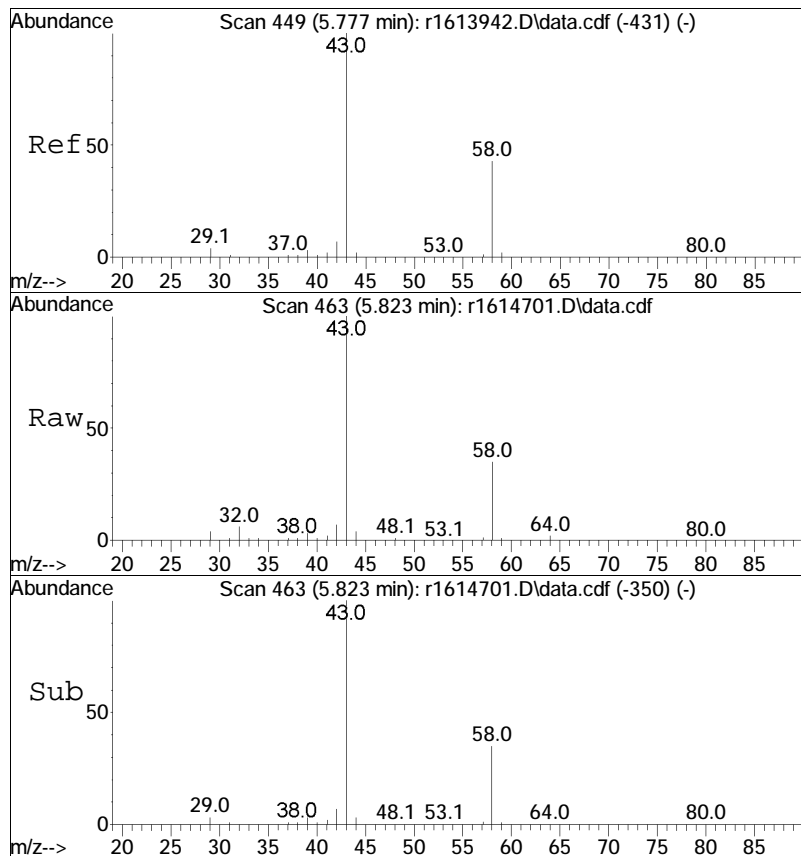




#15
ethanol
Concen: 27.28 ppbV
RT: 5.24 min Scan# 297
Delta R.T. 0.036 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

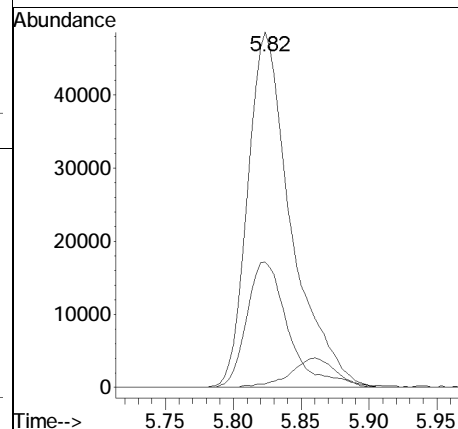
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 31 | 100 | | | |
| 45 | 69.3 | 43.7 | 65.5# | |

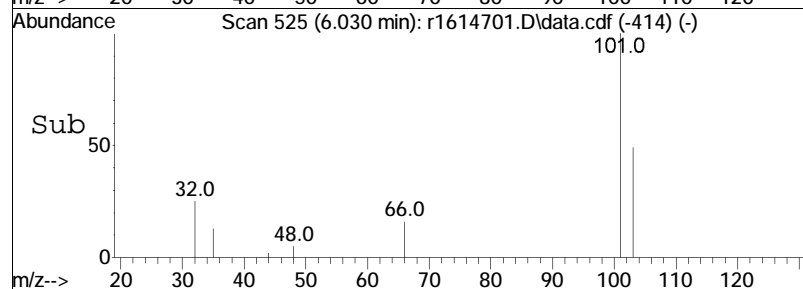
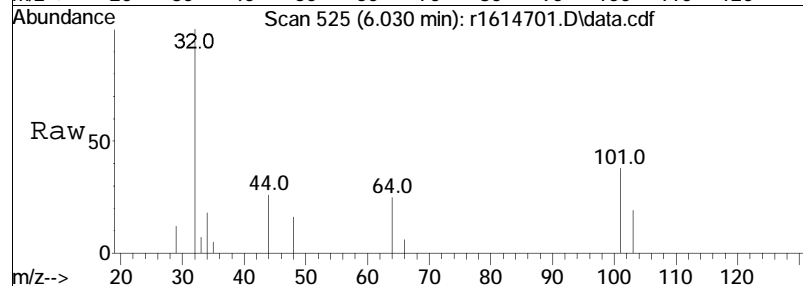
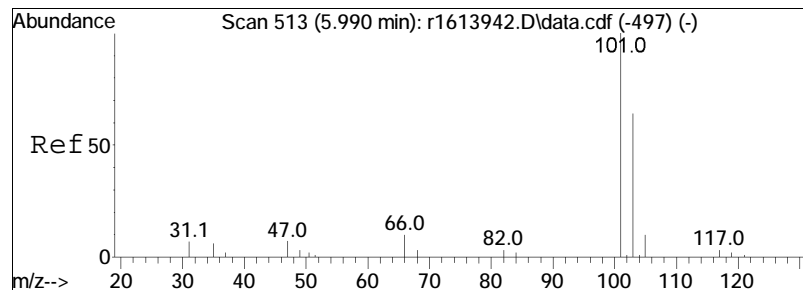




#19
acetone
Concen: 9.00 ppbV
RT: 5.82 min Scan# 463
Delta R.T. 0.047 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

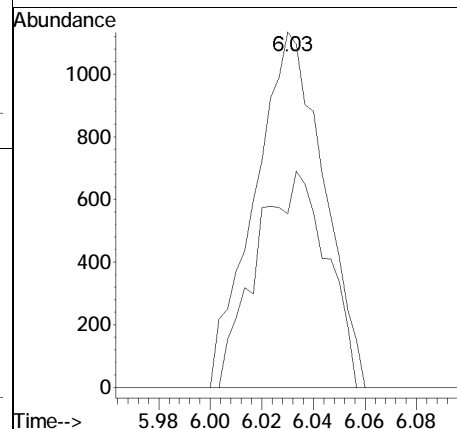
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 43 | 100 | | | |
| 58 | 35.3 | | 34.4 | 51.6 |
| 57 | 1.0 | | 0.9 | 1.3 |

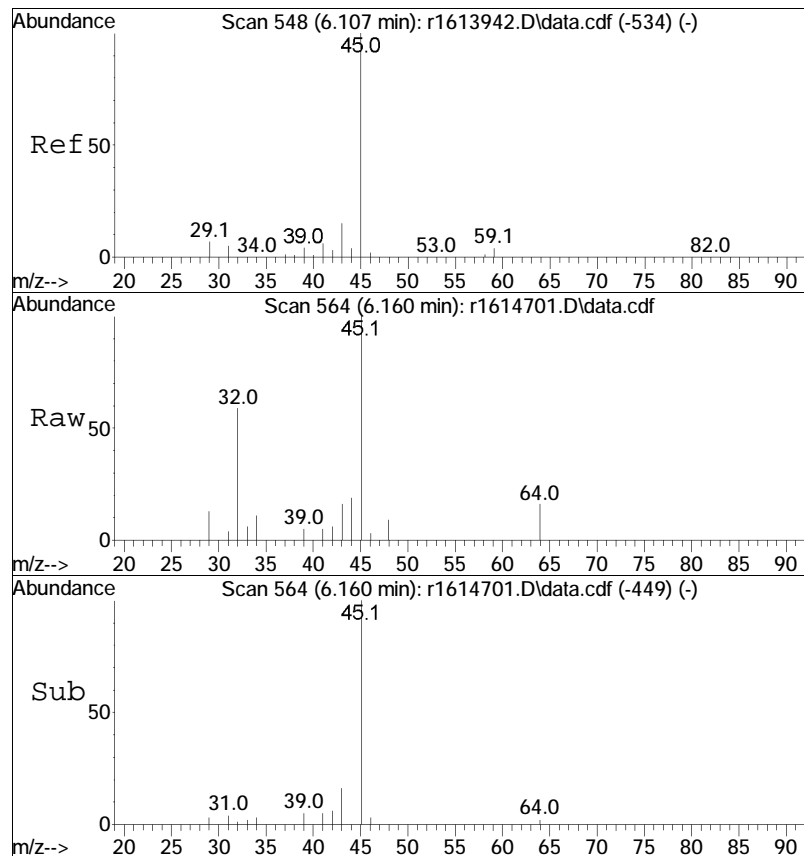




#21
trichlorofluoromethane
Concen: 0.18 ppbV
RT: 6.03 min Scan# 525
Delta R.T. 0.040 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

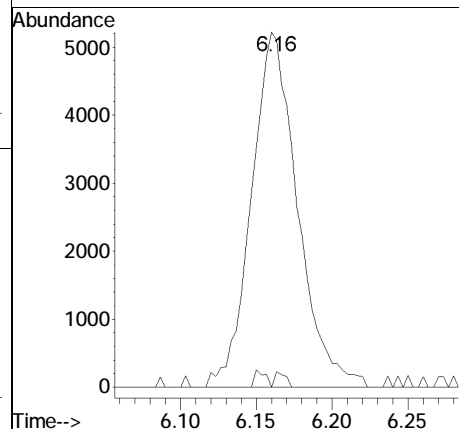
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 48.9 | 51.4 | 77.2# | |

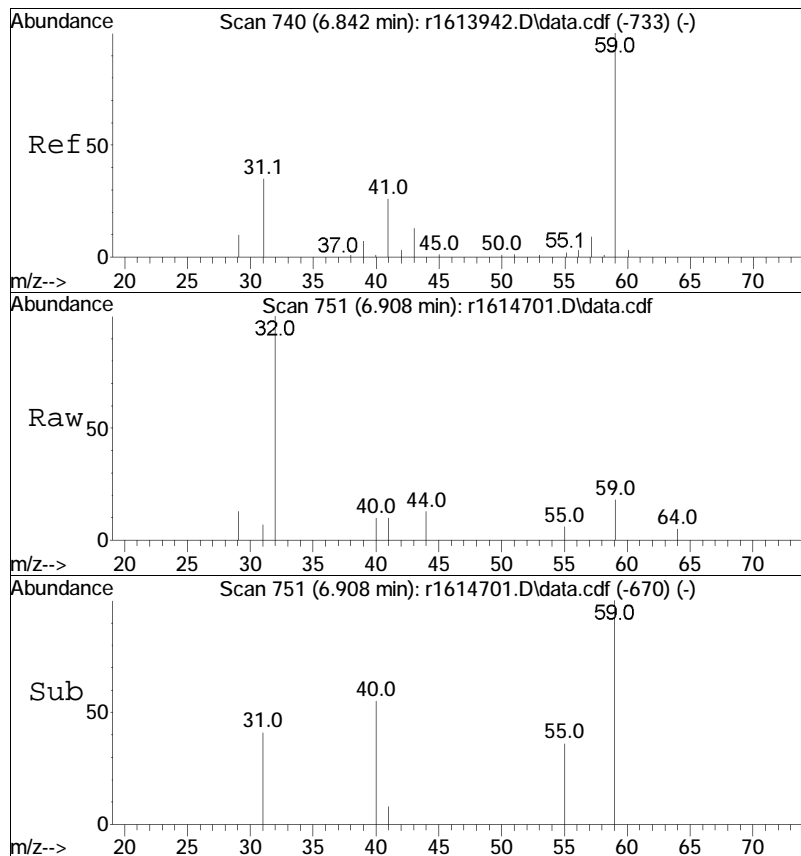




#22
isopropyl alcohol
Concen: 0.71 ppbV
RT: 6.16 min Scan# 564
Delta R.T. 0.053 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

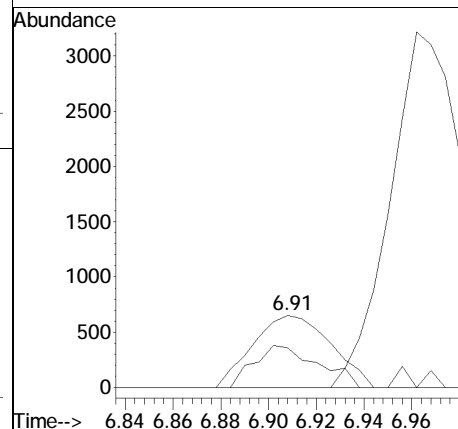
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 0.0 | 3.2 | 4.8# |

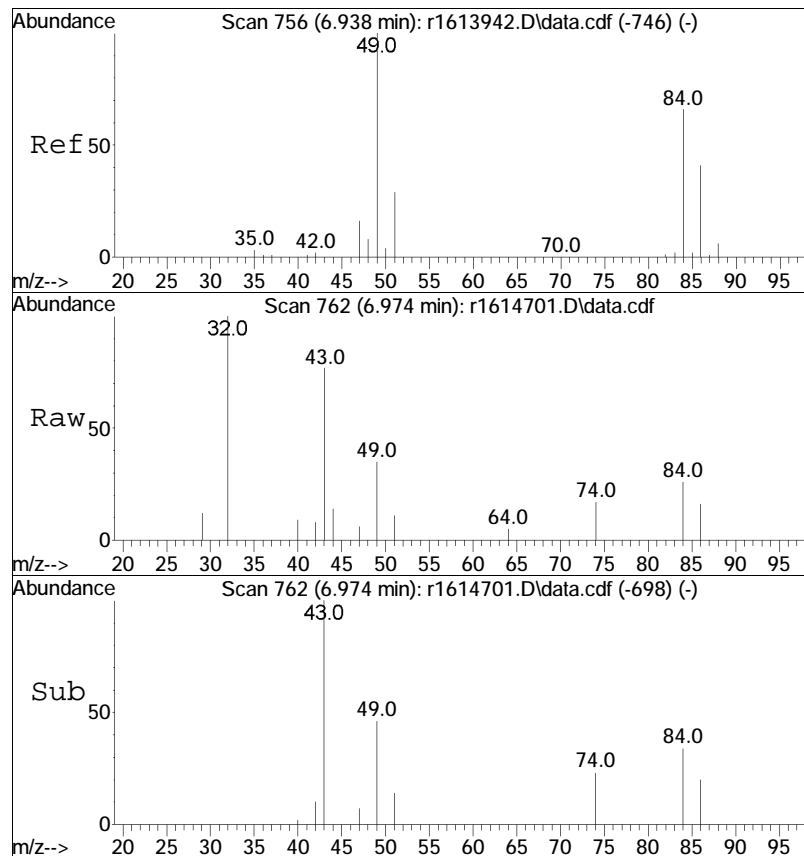




#27
 tertiary butyl alcohol
 Concen: 0.10 ppbV
 RT: 6.91 min Scan# 751
 Delta R.T. 0.066 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

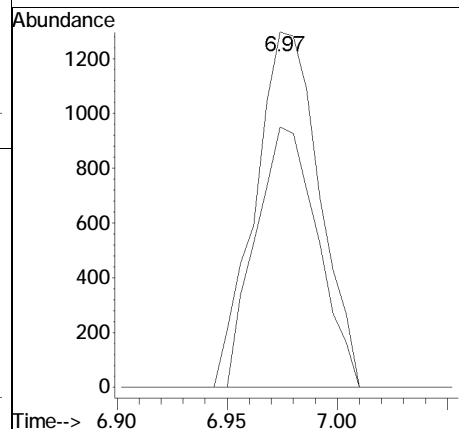
| | | | |
|-----------|-------|-------|-------|
| Tgt Ion: | 59 | Resp: | 1482 |
| Ion Ratio | Lower | Upper | |
| 59 | 100 | | |
| 41 | 54.9 | 20.8 | 31.2# |
| 43 | 0.0 | 10.4 | 15.6# |

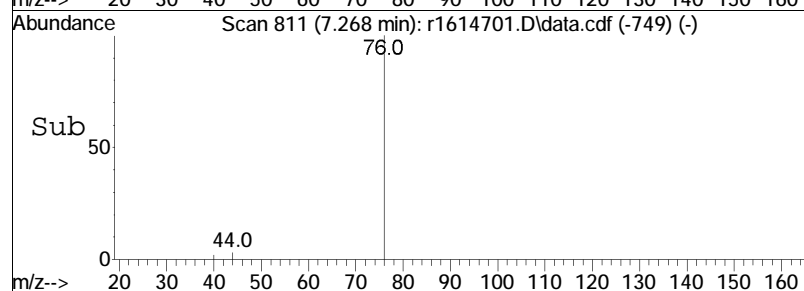
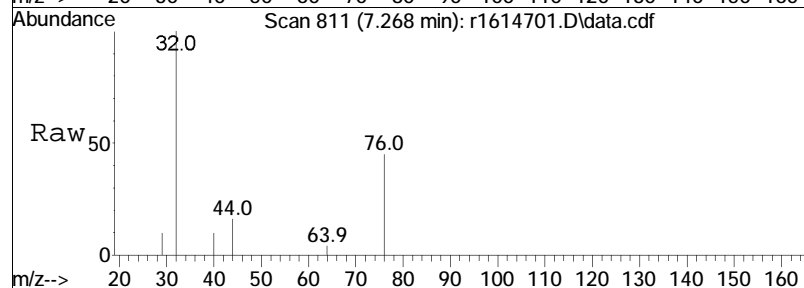
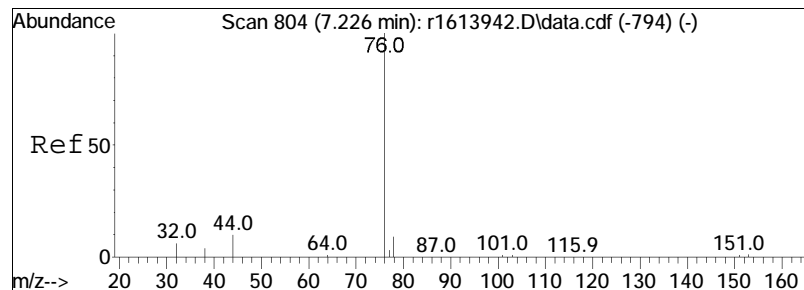




#28
 methylene chloride
 Concen: 0.22 ppbV
 RT: 6.97 min Scan# 762
 Delta R.T. 0.036 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

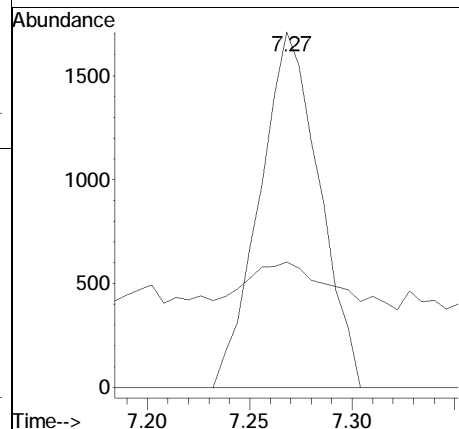
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49 | 100 | | |
| 84 | 73.2 | 53.0 | 79.4 |

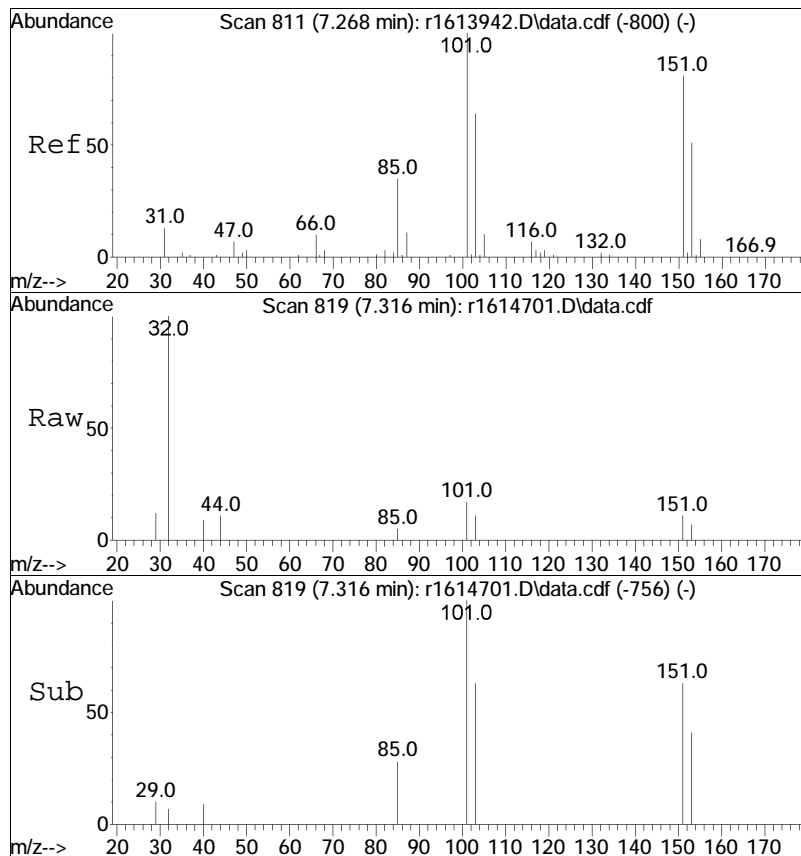




#30
carbon disulfide
Concen: 0.11 ppbV
RT: 7.27 min Scan# 811
Delta R.T. 0.042 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

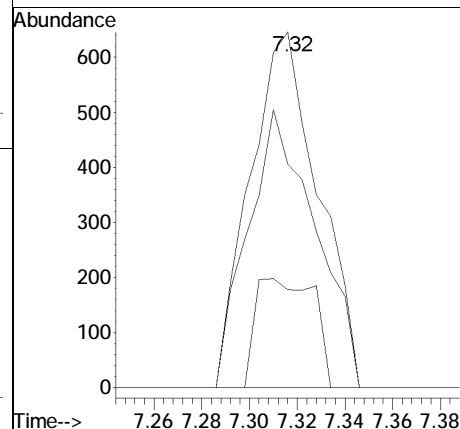
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 35.3 | 8.3 | 12.5# |

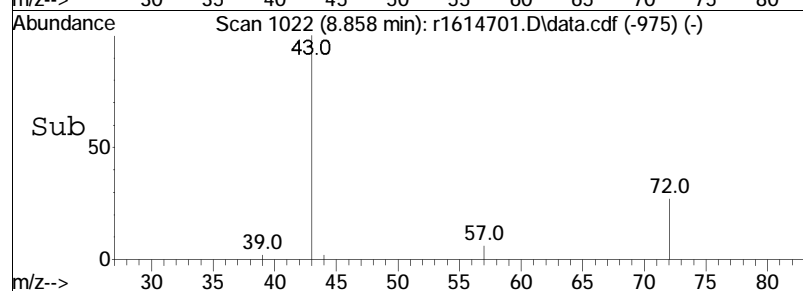
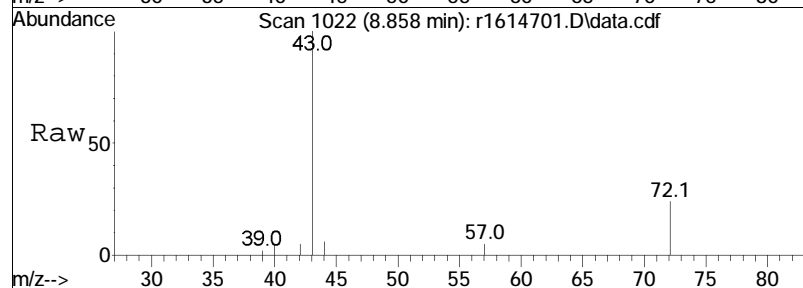
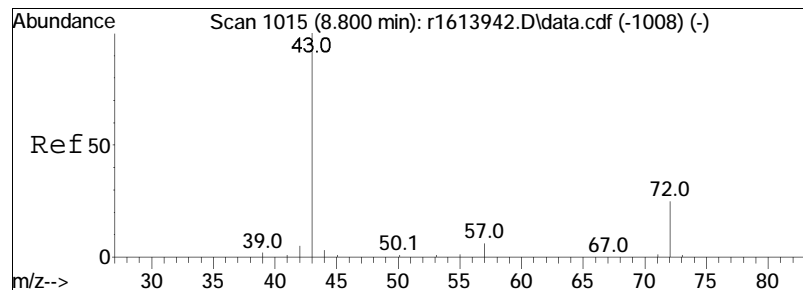




#31
 Freon 113
 Concen: 0.07 ppbV
 RT: 7.32 min Scan# 819
 Delta R.T. 0.048 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

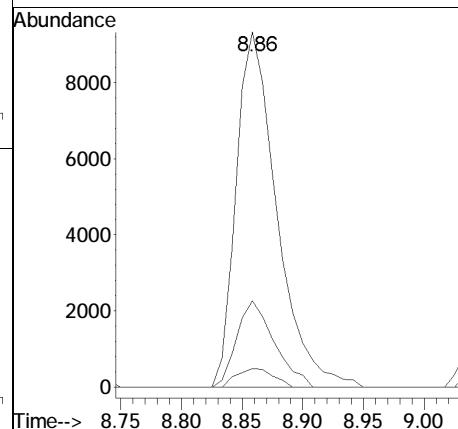
| Tgt | Ion | Ratio | Lower | Upper |
|-----|-----|-------|-------|-------|
| 101 | 101 | 100 | | |
| 85 | 85 | 27.6 | 27.8 | 41.6# |
| 151 | 151 | 62.8 | 65.0 | 97.6# |

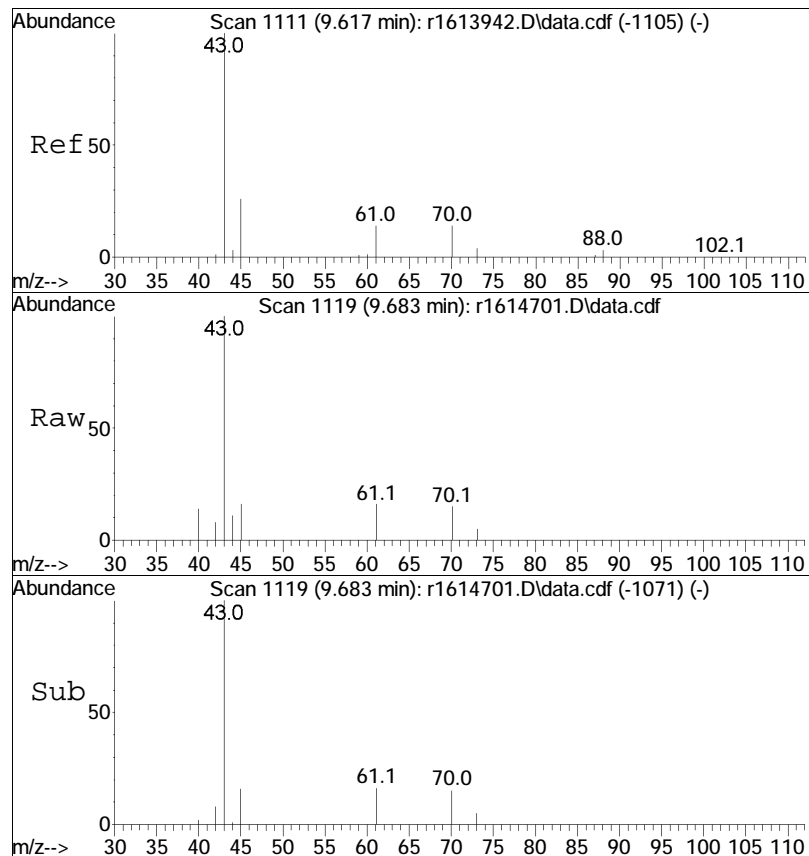




#36
 2-butanone
 Concen: 0.93 ppbV
 RT: 8.86 min Scan# 1022
 Delta R.T. 0.058 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

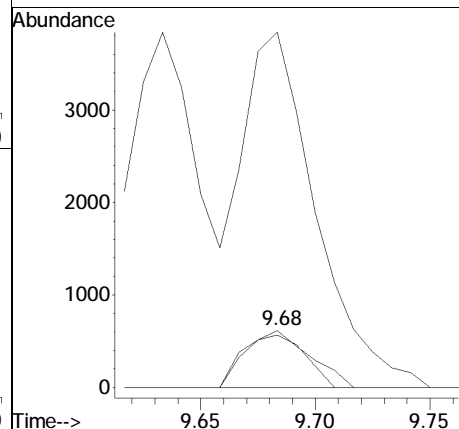
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 24.4 | 19.8 | 29.6 |
| 57 | 5.3 | 4.8 | 7.2 |

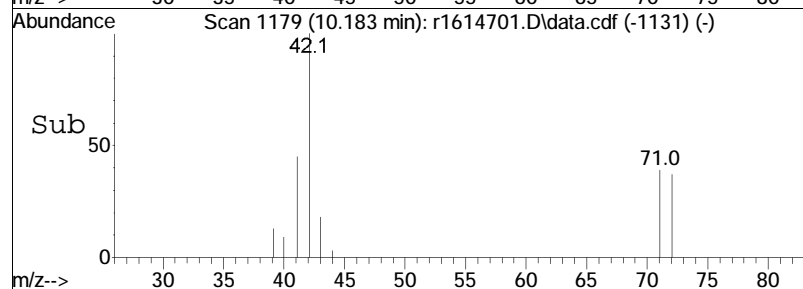
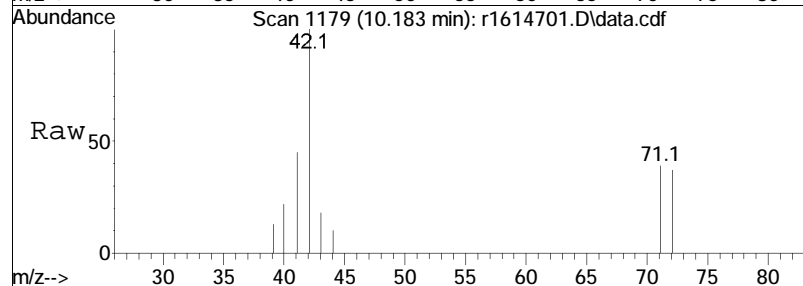
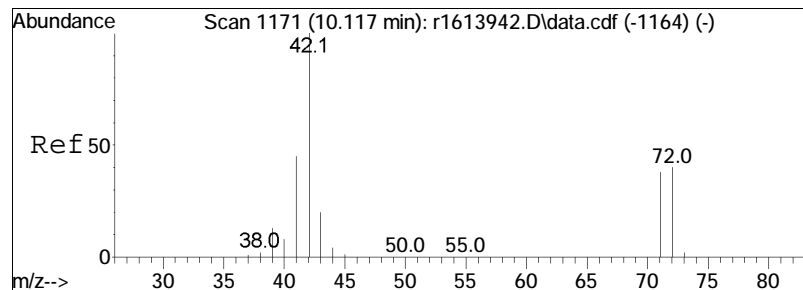




#38
Ethyl Acetate
Concen: 0.36 ppbV
RT: 9.68 min Scan# 1119
Delta R.T. 0.067 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

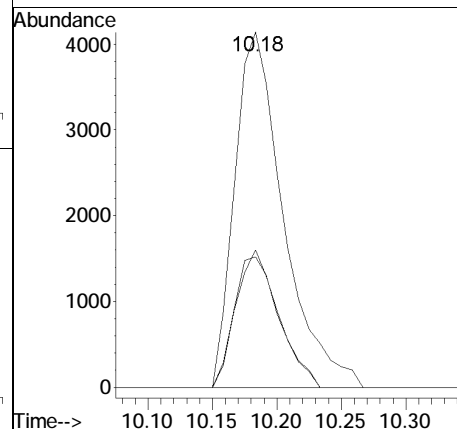
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|---------|
| 61 | 100 | | |
| 70 | 92.2 | 85.6 | 128.4 |
| 43 | 625.9 | 757.7 | 1136.5# |

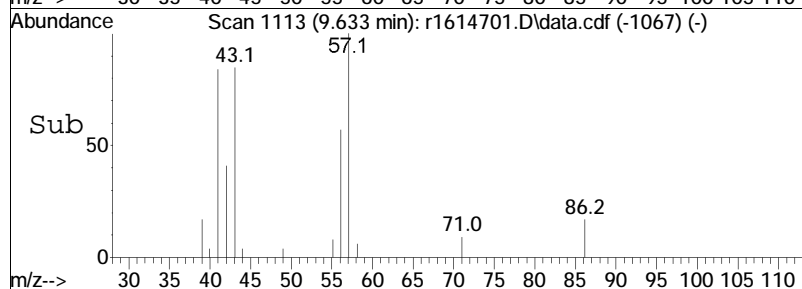
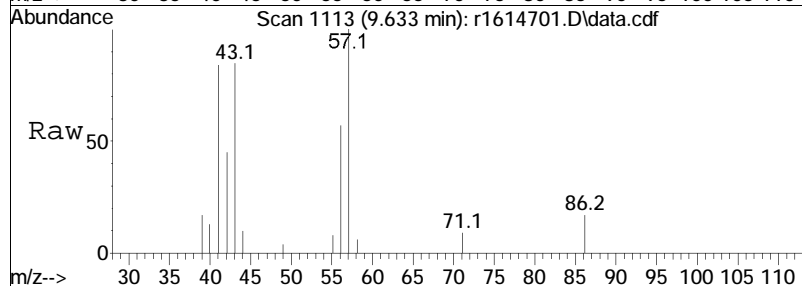
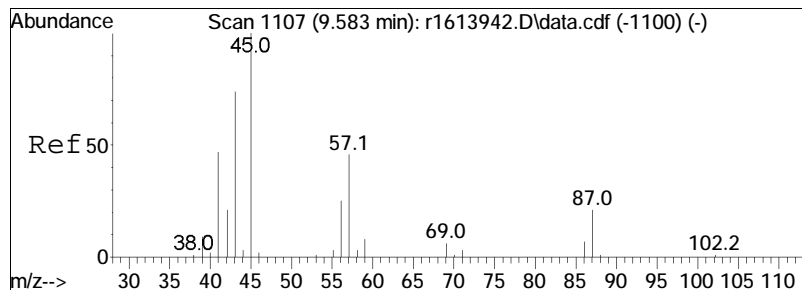




#40
Tetrahydrofuran
Concen: 0.77 ppbV
RT: 10.18 min Scan# 1179
Delta R.T. 0.067 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

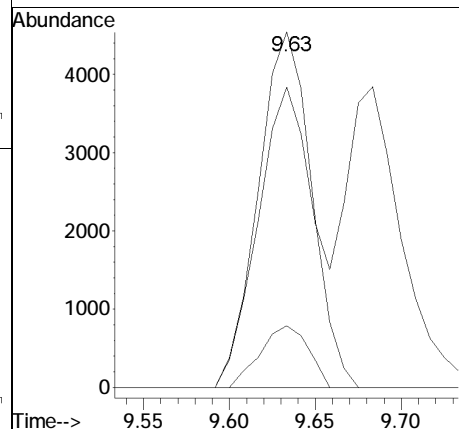
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42 | 100 | | |
| 71 | 38.7 | 30.0 | 45.0 |
| 72 | 36.8 | 31.9 | 47.9 |

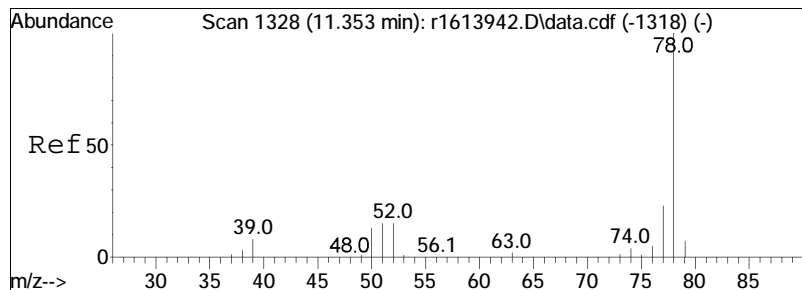




#44
hexane
Concen: 0.57 ppbV
RT: 9.63 min Scan# 1113
Delta R.T. 0.050 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

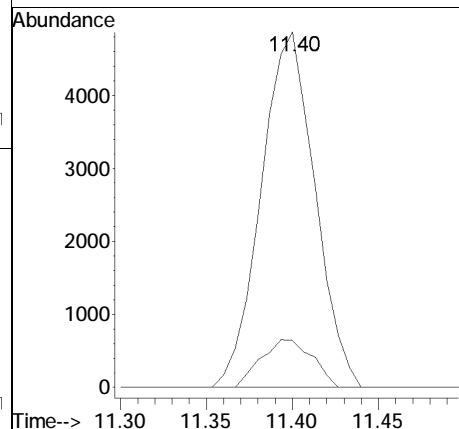
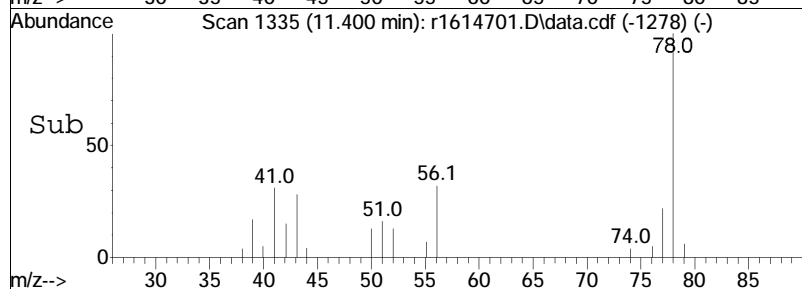
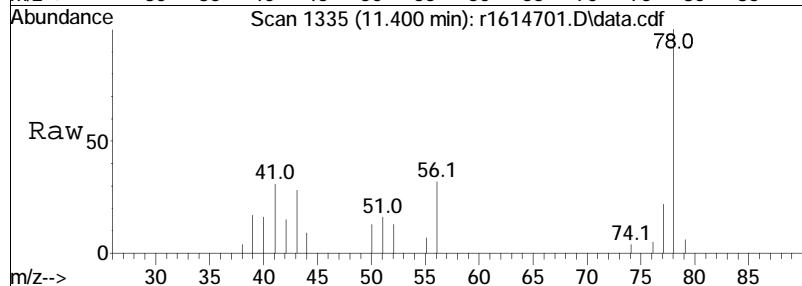
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 84.5 | 129.6 | 194.4# |
| 86 | 17.3 | 12.8 | 19.2 |

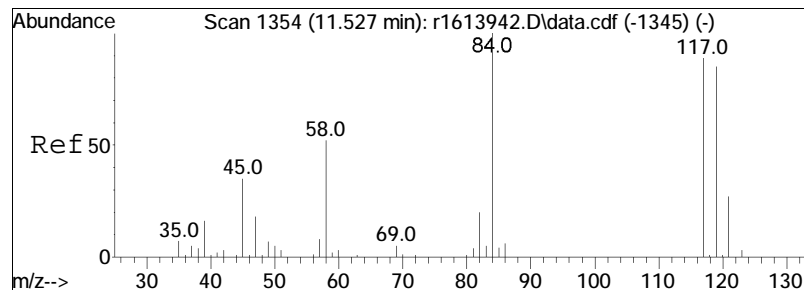




#50
benzene
Concen: 0.29 ppbV
RT: 11.40 min Scan# 1335
Delta R.T. 0.047 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

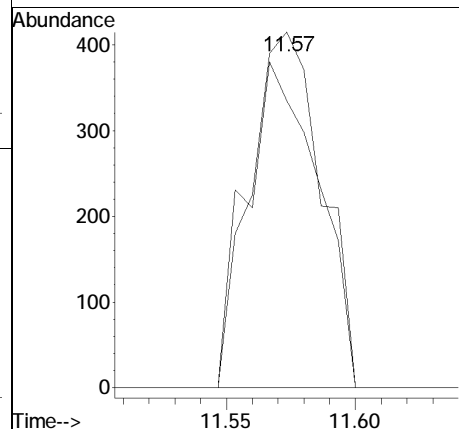
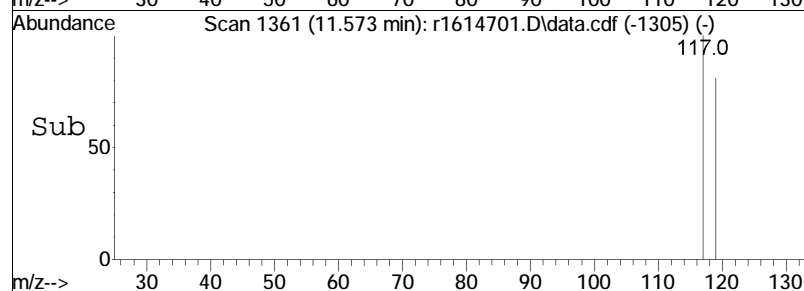
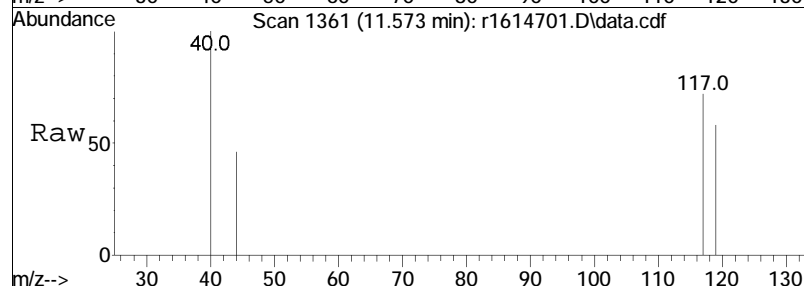
| Tgt Ion | Resp | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 10592 | | |
| 52 | 13.2 | 12.2 | 18.2 |

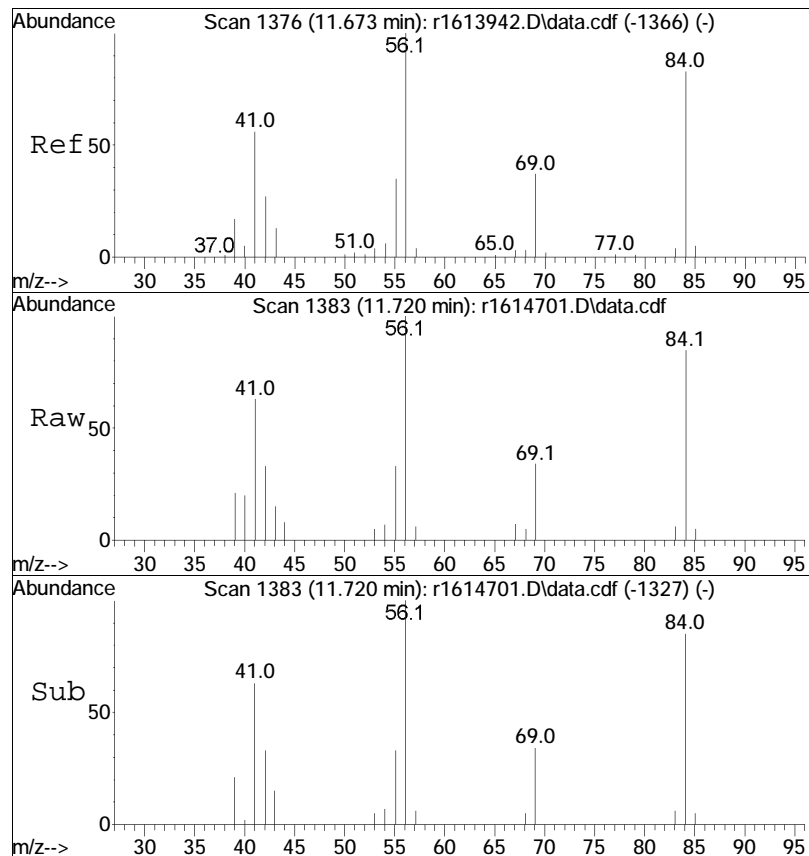




#52
 carbon tetrachloride
 Concen: 0.06 ppbV
 RT: 11.57 min Scan# 1361
 Delta R.T. 0.047 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

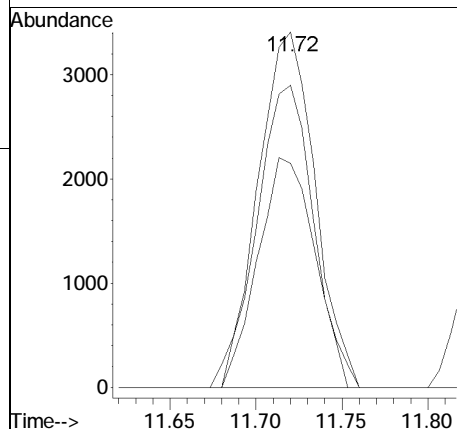
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117 | 100 | | |
| 119 | 80.7 | 76.4 | 114.6 |
| 82 | 0.0 | 18.7 | 28.1# |

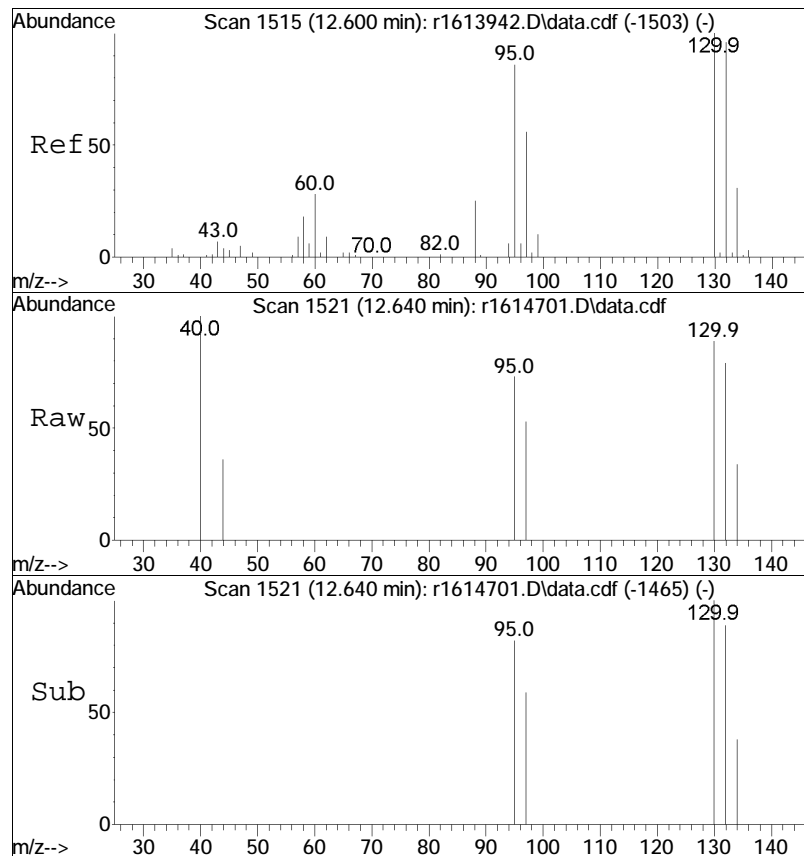




#53
cyclohexane
Concen: 0.43 ppbV
RT: 11.72 min Scan# 1383
Delta R.T. 0.047 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

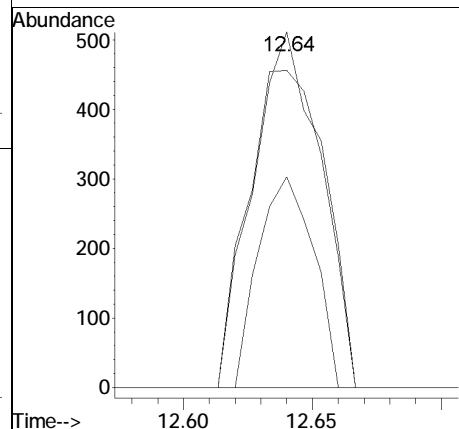
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 56 | Resp: | 7928 |
| Ion | Ratio | Lower | Upper |
| 56 | 100 | | |
| 84 | 85.0 | 66.2 | 99.2 |
| 41 | 63.0 | 45.2 | 67.8 |

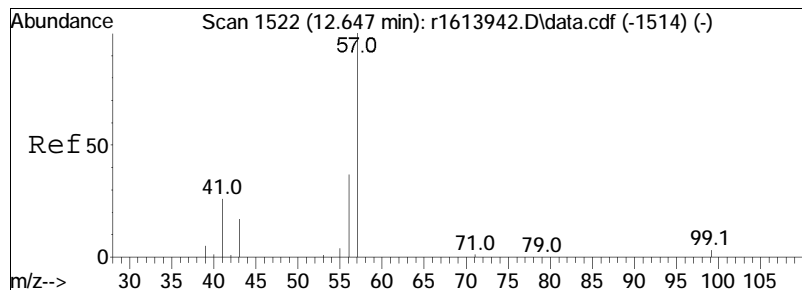




#59
trichloroethene
Concen: 0.06 ppbV
RT: 12.64 min Scan# 1521
Delta R.T. 0.040 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

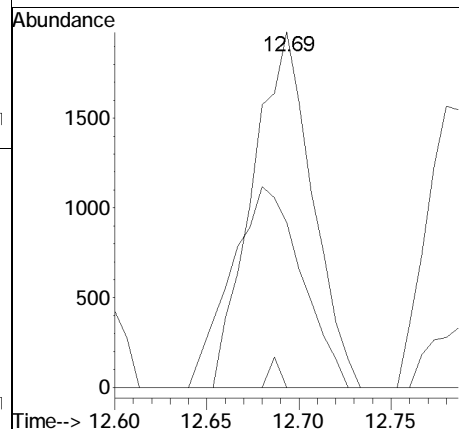
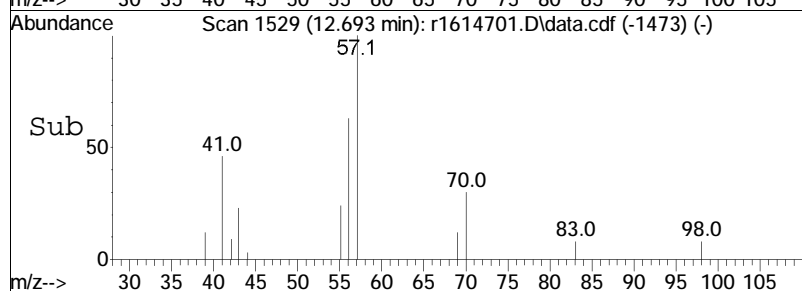
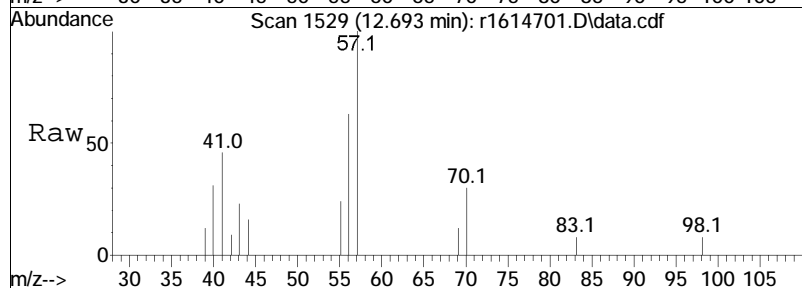
| | | |
|-------------|-------|------------|
| Tgt Ion:130 | Resp: | 951 |
| Ion Ratio | Lower | Upper |
| 130 | 100 | |
| 132 | 89.2 | 76.7 115.1 |
| 97 | 59.3 | 45.2 67.8 |

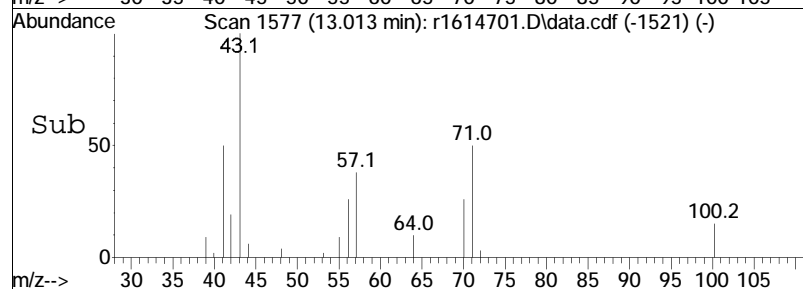
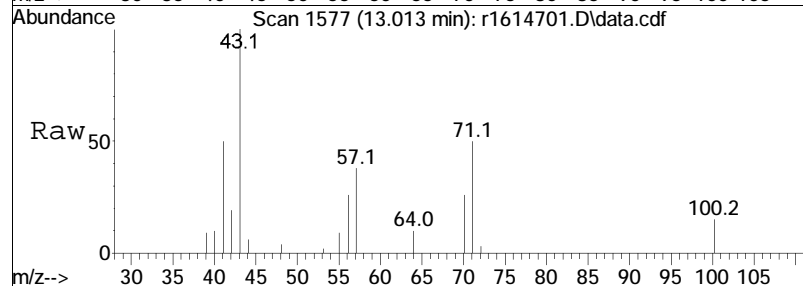
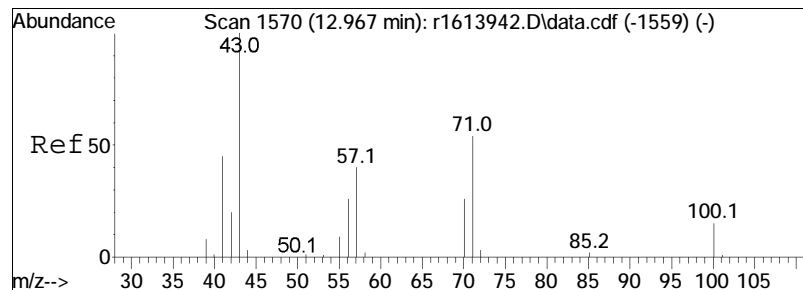




#60
 2,2,4-trimethylpentane
 Concen: 0.08 ppbV
 RT: 12.69 min Scan# 1529
 Delta R.T. 0.047 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

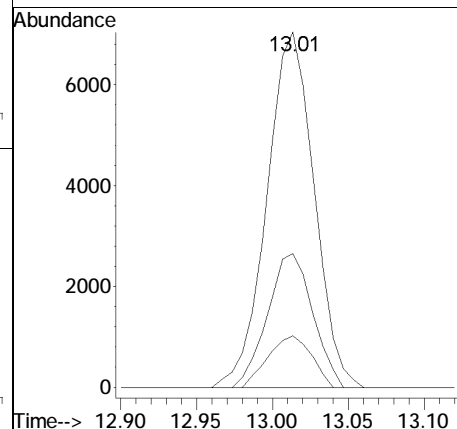
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 0.0 | 4.6 | 6.8# |
| 41 | 46.4 | 20.2 | 30.4# |

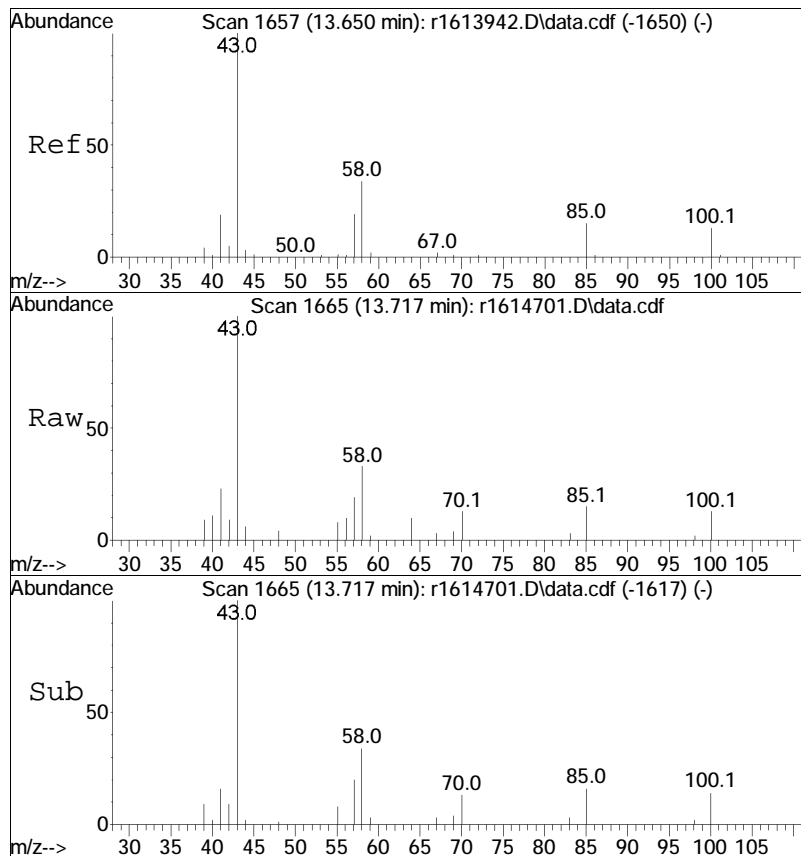




#62
heptane
Concen: 0.59 ppbV
RT: 13.01 min Scan# 1577
Delta R.T. 0.047 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

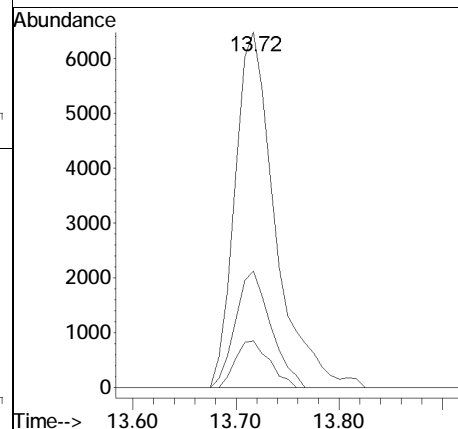
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 37.6 | 32.2 | 48.4 |
| 100 | 14.6 | 11.9 | 17.9 |

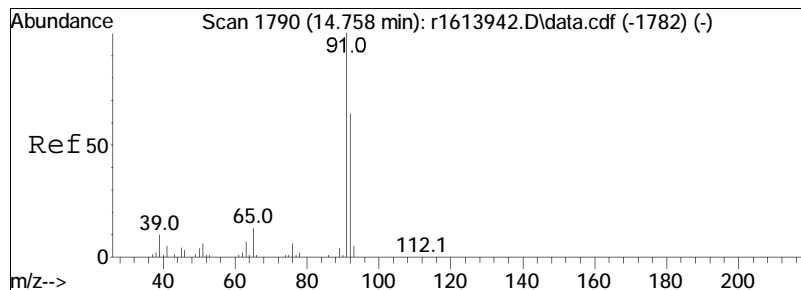




#64
 4-methyl-2-pentanone
 Concen: 0.59 ppbV
 RT: 13.72 min Scan# 1665
 Delta R.T. 0.067 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

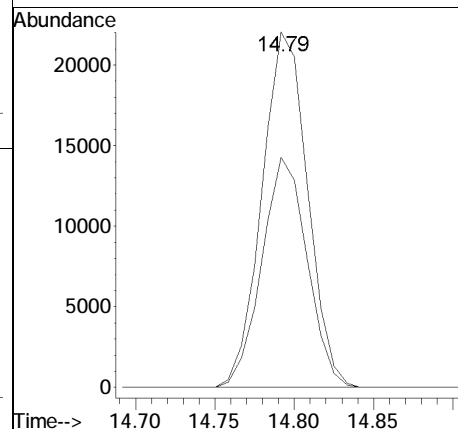
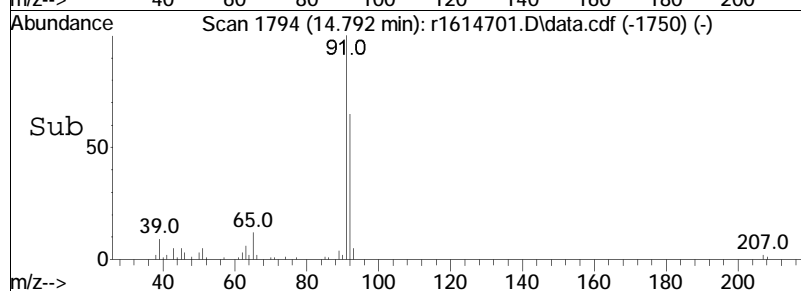
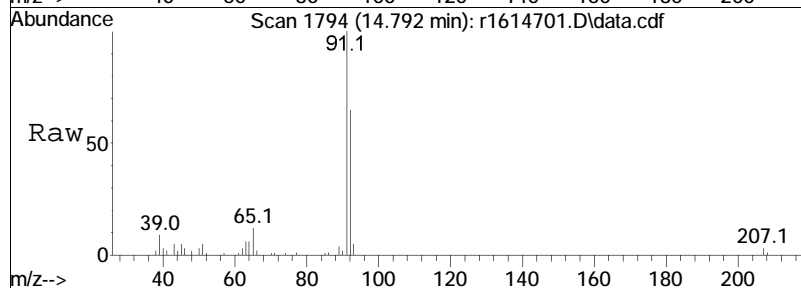
| | | | |
|-----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 17564 |
| Ion Ratio | Lower | Upper | |
| 43 | 100 | | |
| 58 | 32.8 | 27.1 | 40.7 |
| 100 | 13.1 | 10.6 | 16.0 |

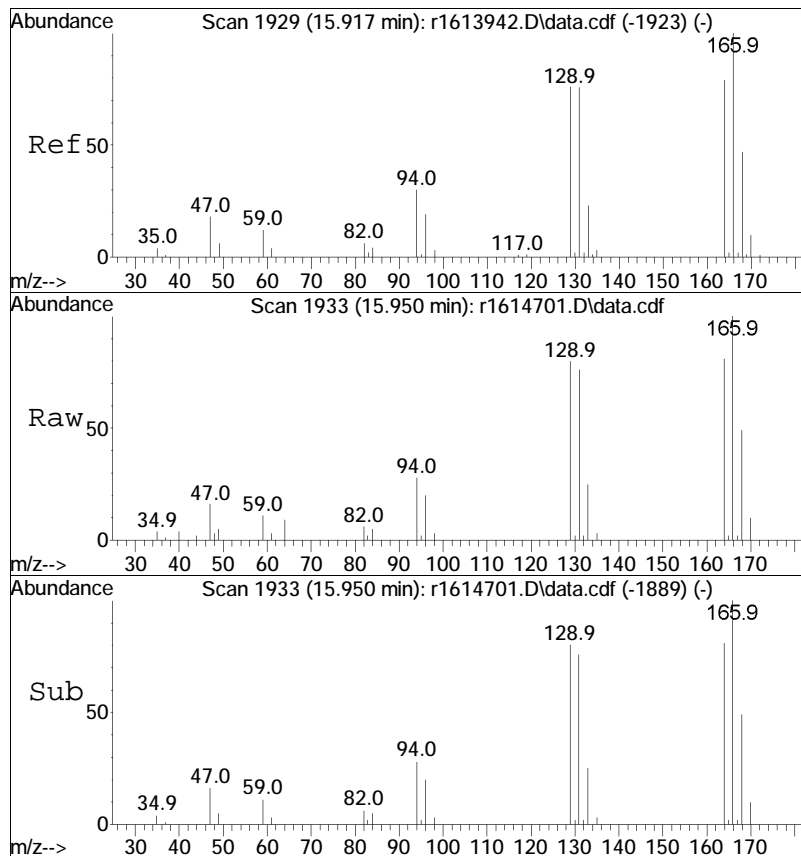




#68
toluene
Concen: 1.33 ppbV
RT: 14.79 min Scan# 1794
Delta R.T. 0.033 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

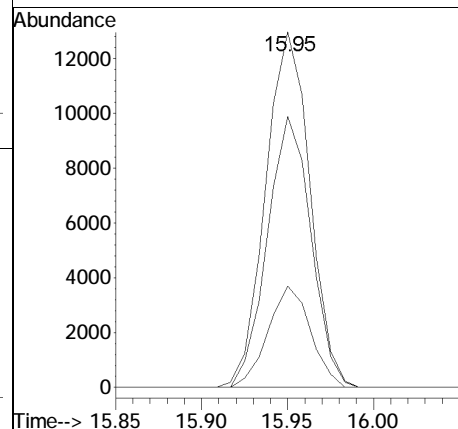
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 64.7 | 51.5 | 77.3 |

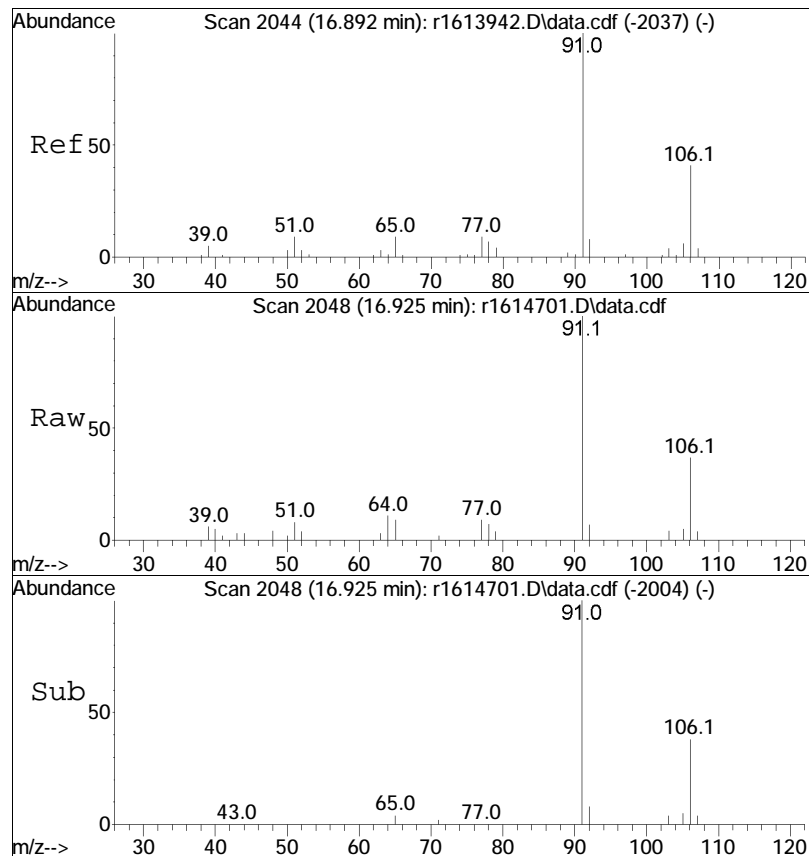




#78
 tetrachloroethene
 Concen: 1.59 ppbV
 RT: 15.95 min Scan# 1933
 Delta R.T. 0.033 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

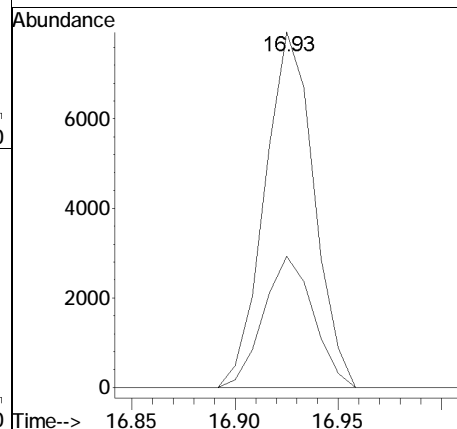
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 166 | 100 | | | |
| 131 | 76.3 | 60.6 | 91.0 | |
| 94 | 28.5 | 24.0 | 36.0 | |

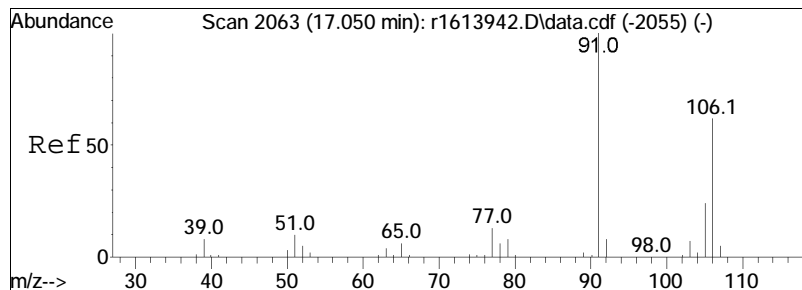




#81
ethylbenzene
Concen: 0.32 ppbV
RT: 16.93 min Scan# 2048
Delta R.T. 0.033 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

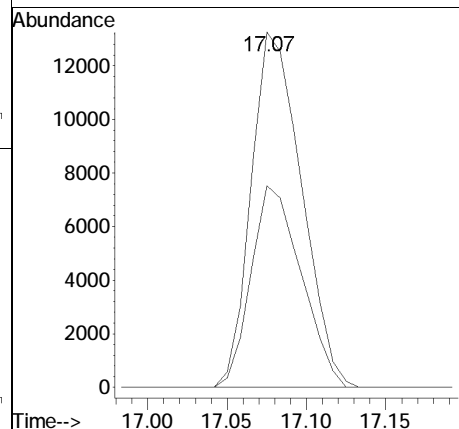
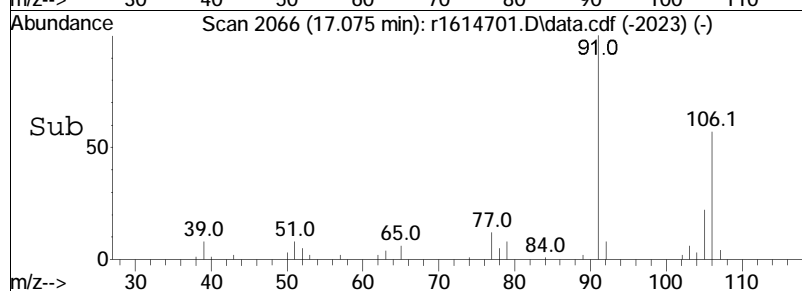
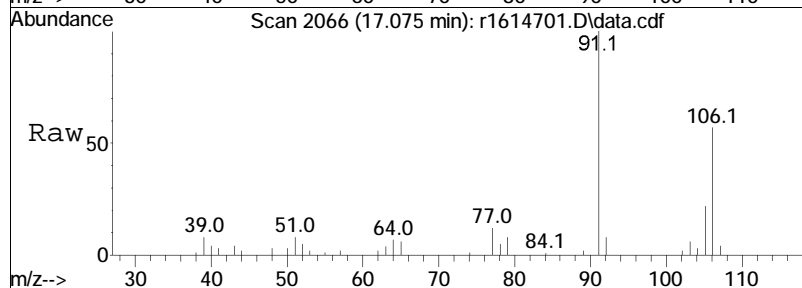
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 36.9 | 32.5 | 48.7 |

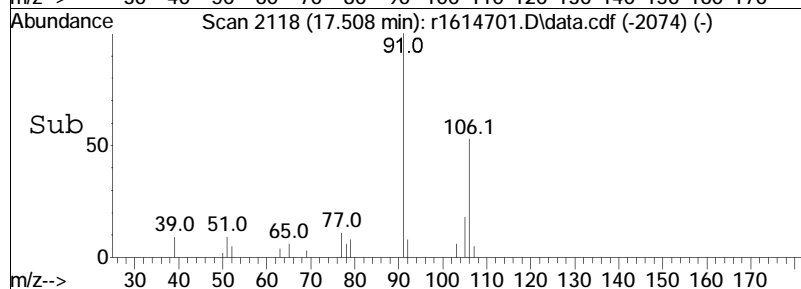
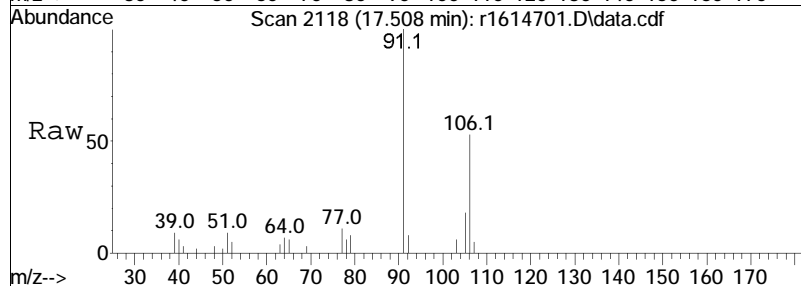
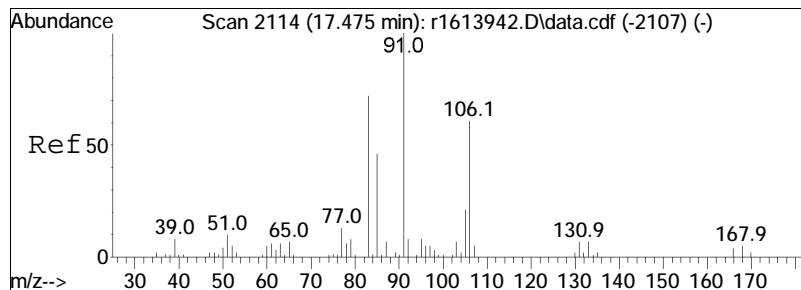




#83
 m+p-xylene
 Concen: 0.86 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

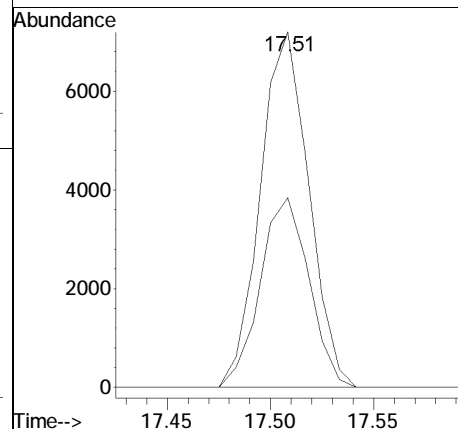
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 56.8 | 49.8 | 74.6 |

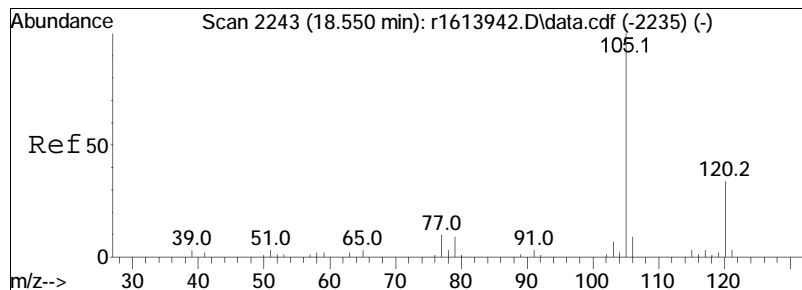




#87
o-xylene
Concen: 0.34 ppbV
RT: 17.51 min Scan# 2118
Delta R.T. 0.033 min
Lab File: r1614701.D
Acq: 4 Jan 2020 11:11 PM

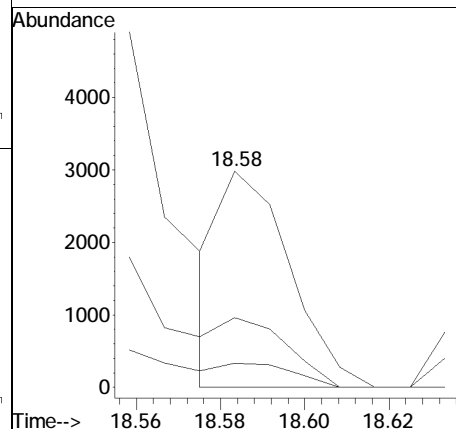
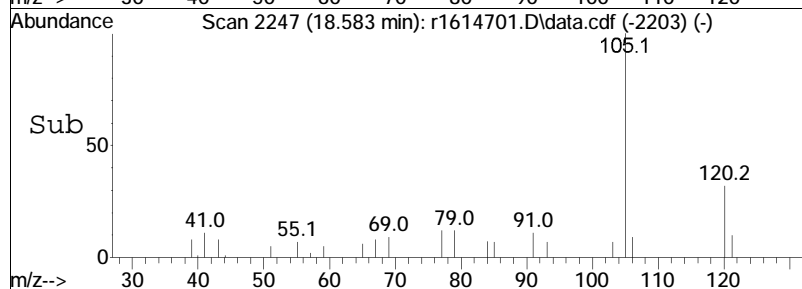
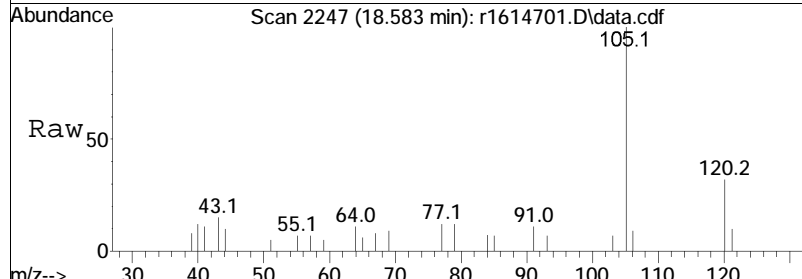
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 53.4 | 48.8 | 73.2 |

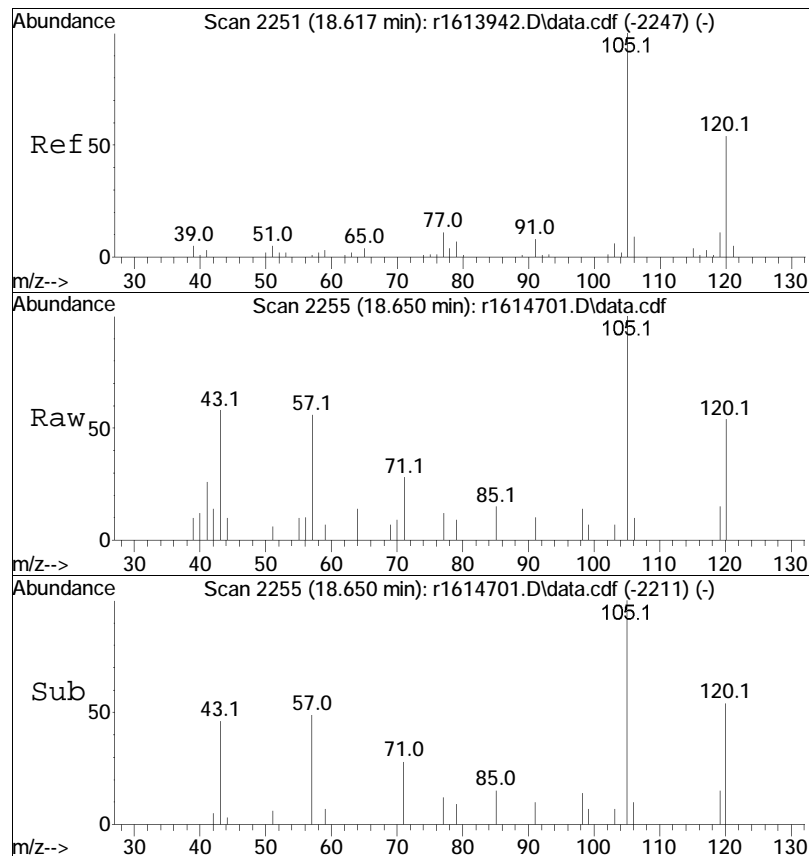




#96
 4-ethyl toluene
 Concen: 0.06 ppbV m
 RT: 18.58 min Scan# 2247
 Delta R.T. 0.033 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

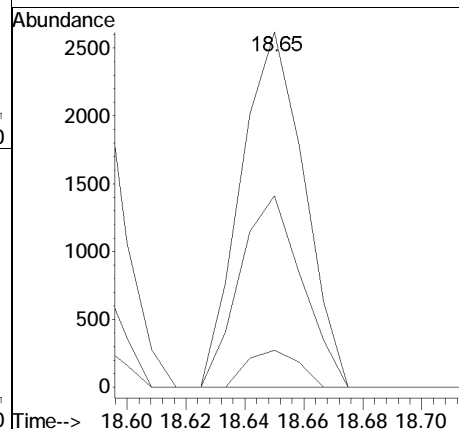
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 32.3 | 27.0 | 40.6 |
| 91 | 11.2 | 6.9 | 10.3# |

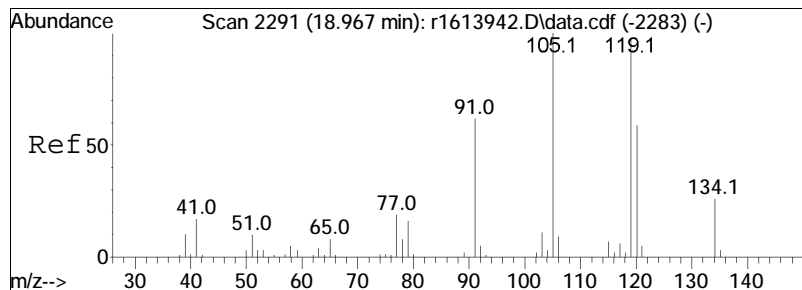




#97
 1,3,5-trimethylbenzene
 Concen: 0.09 ppbV
 RT: 18.65 min Scan# 2255
 Delta R.T. 0.033 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

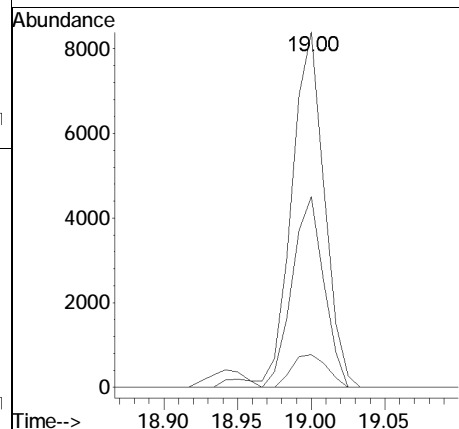
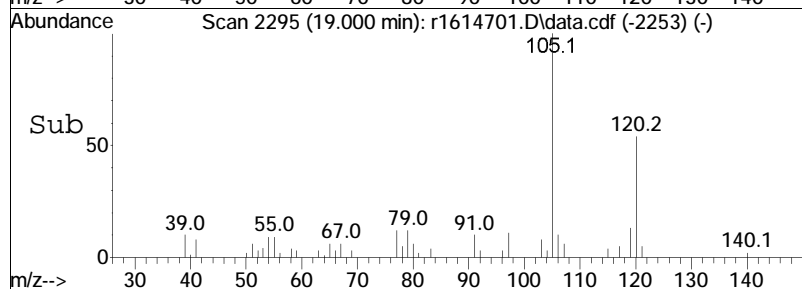
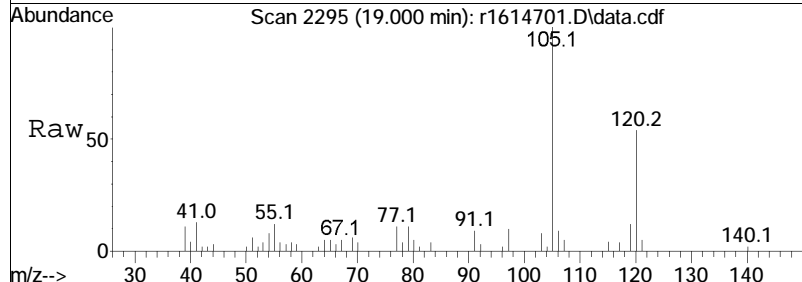
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 105 | 100 | | | |
| 120 | 53.9 | 42.9 | 64.3 | |
| 91 | 10.5 | 6.6 | 9.8 | |





#99
 1,2,4-trimethylbenzene
 Concen: 0.31 ppbV
 RT: 19.00 min Scan# 2295
 Delta R.T. 0.033 min
 Lab File: r1614701.D
 Acq: 4 Jan 2020 11:11 PM

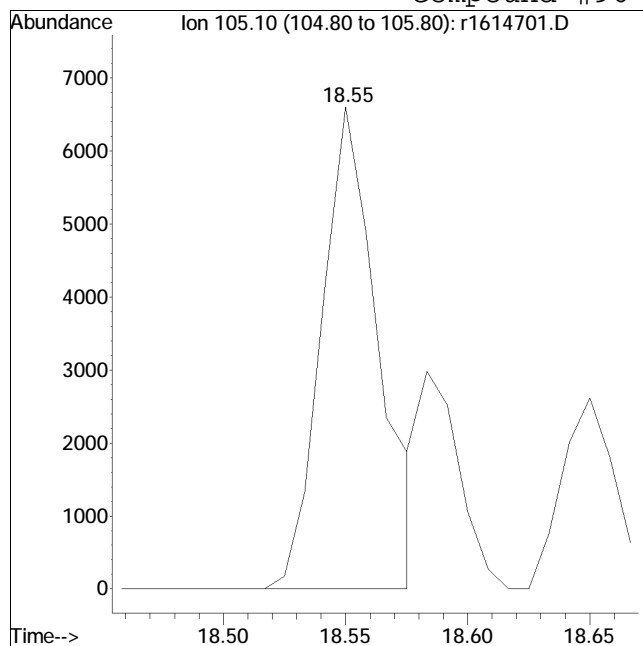
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 53.7 | 46.9 | 70.3 |
| 91 | 9.2 | 49.3 | 73.9# |



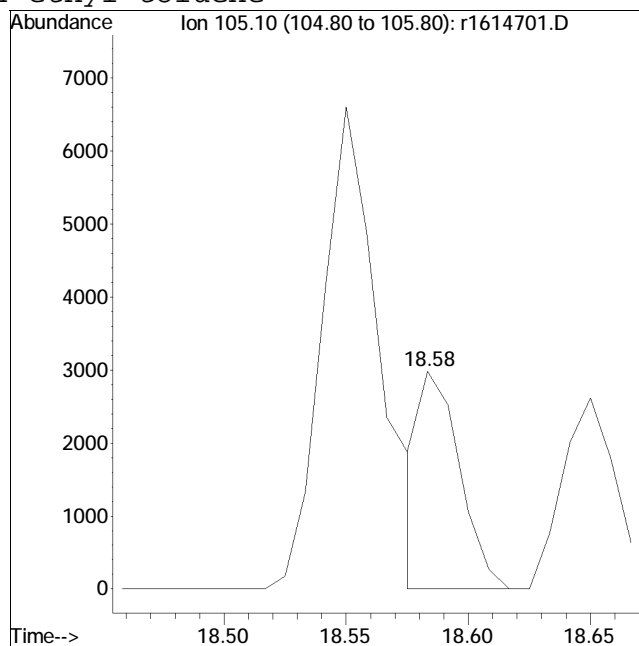
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614701.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:1: 1 Instrument :
 Sample : L1962003-04,3,250,250 Quant Date : 1/5/2020 8:31 am

Compound #96: 4-ethyl toluene



Original Peak Response = 10714



Manual Peak Response = 3421 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614702.D
 Acq On : 4 Jan 2020 11:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-06,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:25:55 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.55 | 49 | 203345 | 10.000 | ppbV | 0.04 |
| Standard Area = 223987 | | | Recovery = | | 90.78% | |
| 43) 1,4-difluorobenzene | 11.84 | 114 | 572102 | 10.000 | ppbV | 0.05 |
| Standard Area = 600707 | | | Recovery = | | 95.24% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 69807 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery = | | 92.57% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|-------|--------|--------|
| 5) dichlorodifluoromethane | 3.93 | 85 | 6711 | 0.445 | ppbV | 98 |
| 6) chloromethane | 4.11 | 50 | 917M6 | 0.100 | ppbV | |
| 7) Freon-114 | 0.00 | | 0 | N.D. | d | |
| 9) vinyl chloride | 0.00 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 5.06 | | 0 | N.D. | | |
| 15) ethanol | 5.24 | 31 | 28067 | 4.281 | ppbV # | 78 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.83 | 43 | 24835M4 | 2.046 | ppbV | |
| 21) trichlorofluoromethane | 6.03 | 101 | 6383 | 0.525 | ppbV | 99 |
| 22) isopropyl alcohol | 6.17 | 45 | 4705 | 0.301 | ppbV # | 88 |
| 26) 1,1-dichloroethene | 0.00 | | 0 | N.D. | | |
| 27) tertiary butyl alcohol | 6.91 | | 0 | N.D. | | |
| 28) methylene chloride | 6.97 | 49 | 7884 | 0.636 | ppbV | 88 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.27 | 76 | 2433 | 0.074 | ppbV # | 1 |
| 31) Freon 113 | 7.31 | 101 | 1221 | 0.068 | ppbV | 95 |
| 32) trans-1,2-dichloroethene | 8.12 | 61 | 27721 | 2.087 | ppbV | 94 |
| 33) 1,1-dichloroethane | 0.00 | | 0 | N.D. | | |
| 34) MTBE | 8.46 | | 0 | N.D. | | |
| 36) 2-butanone | 8.88 | 43 | 3734 | 0.159 | ppbV # | 95 |
| 37) cis-1,2-dichloroethene | 9.36 | 61 | 48412 | 4.175 | ppbV | 98 |
| 38) Ethyl Acetate | 0.00 | | 0 | N.D. | | |
| 39) chloroform | 9.72 | 83 | 72707 | 4.551 | ppbV | 96 |
| 40) Tetrahydrofuran | 10.20 | 42 | 1738 | 0.121 | ppbV | 95 |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614702.D
 Acq On : 4 Jan 2020 11:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-06,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:25:55 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|--------|-------|----------|----|
| 44) hexane | 9.63 | 57 | 5352 | 0.308 | ppbV | # | 54 |
| 48) 1,1,1-trichloroethane | 0.00 | | 0 | N.D. | | | |
| 50) benzene | 11.40 | 78 | 6863 | 0.186 | ppbV | | 99 |
| 52) carbon tetrachloride | 11.57 | 117 | 683 | 0.052 | ppbV | # | 84 |
| 53) cyclohexane | 11.71 | 56 | 5718 | 0.310 | ppbV | # | 88 |
| 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 | 12.64 | 130 | 311855 | 20.735 | ppbV | | 99 |
| 60) 2,2,4-trimethylpentane | 0.00 | | 0 | N.D. | d | | |
| 62) heptane | 13.01 | 43 | 6834 | 0.262 | ppbV | # | 91 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | N.D. | | | |
| 64) 4-methyl-2-pentanone | 13.73 | 43 | 3254 | 0.108 | ppbV | # | 89 |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | N.D. | | | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | N.D. | | | |
| 68) toluene | 14.79 | 91 | 16222 | 0.487 | ppbV | | 99 |
| 72) 2-hexanone | 0.00 | | 0 | N.D. | d | | |
| 74) dibromochloromethane | 0.00 | | 0 | N.D. | | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | N.D. | | | |
| 78) tetrachloroethene | 15.95 | 166 | 355499 | 24.226 | ppbV | | 97 |
| 80) chlorobenzene | 0.00 | | 0 | N.D. | d | | |
| 81) ethylbenzene | 16.93 | 91 | 6106 | 0.146 | ppbV | | 96 |
| 83) m+p-xylene | 17.07 | 91 | 13206 | 0.387 | ppbV | | 93 |
| 84) bromoform | 0.00 | | 0 | N.D. | | | |
| 85) styrene | 17.42 | | 0 | N.D. | | | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | N.D. | d | | |
| 87) o-xylene | 17.51 | 91 | 5879 | 0.171 | ppbV | | 93 |
| 96) 4-ethyl toluene | 18.58 | | 0 | N.D. | | | |
| 97) 1,3,5-trimethylbenzene | 18.65 | 105 | 3080 | 0.069 | ppbV | | 98 |
| 99) 1,2,4-trimethylbenzene | 19.00 | 105 | 12493 | 0.293 | ppbV | # | 62 |
| 101) Benzyl Chloride | 0.00 | | 0 | N.D. | d | | |
| 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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614702.D
 Acq On : 4 Jan 2020 11:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-06,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:25:55 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

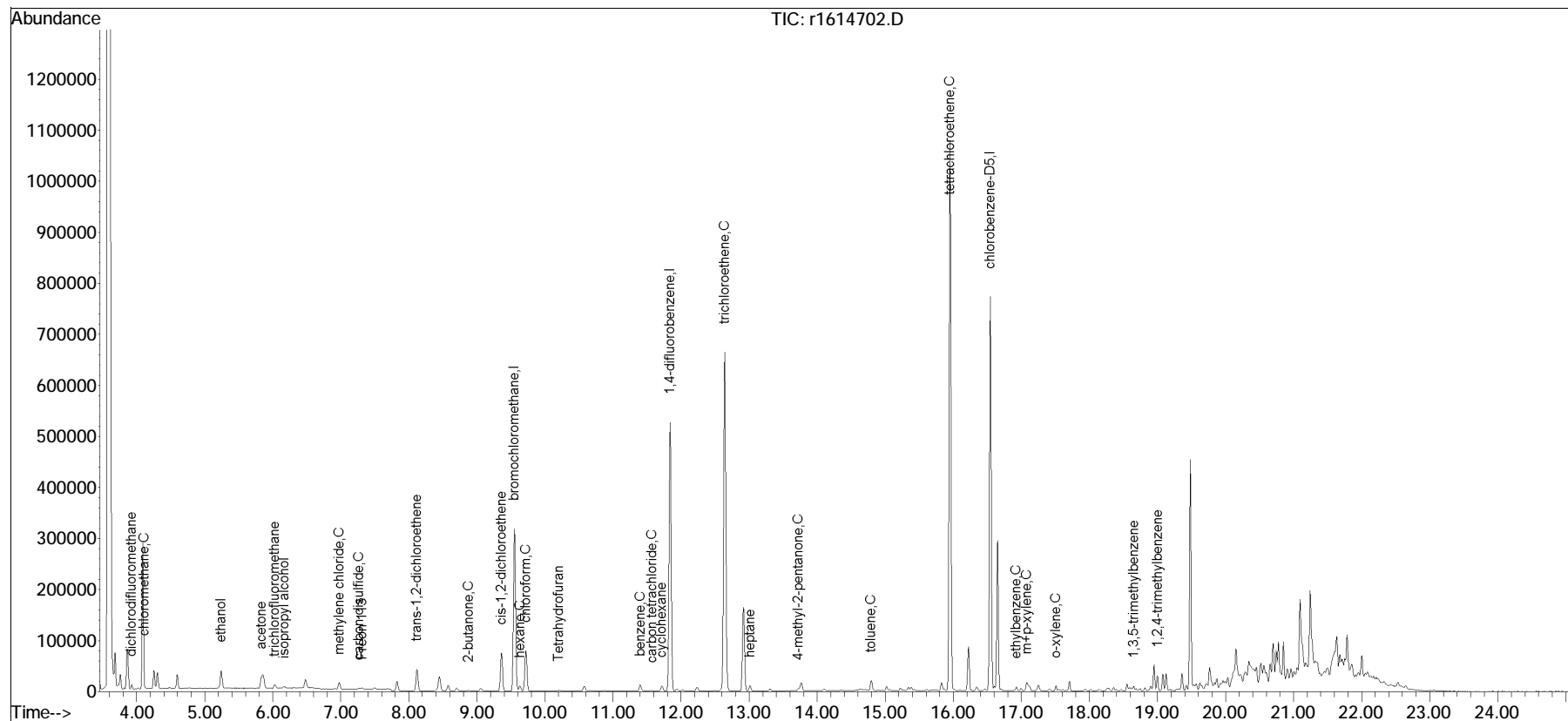
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

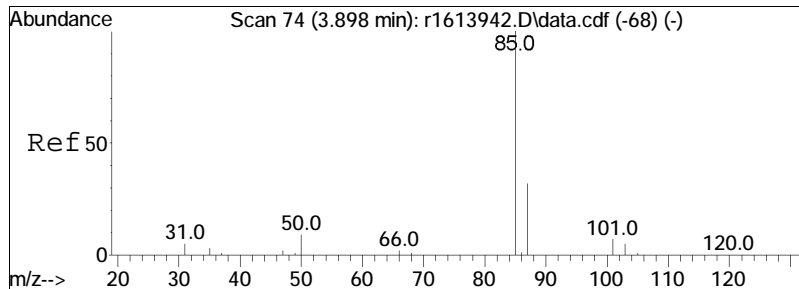
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614702.D
 Acq On : 4 Jan 2020 11:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-06,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:25:55 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

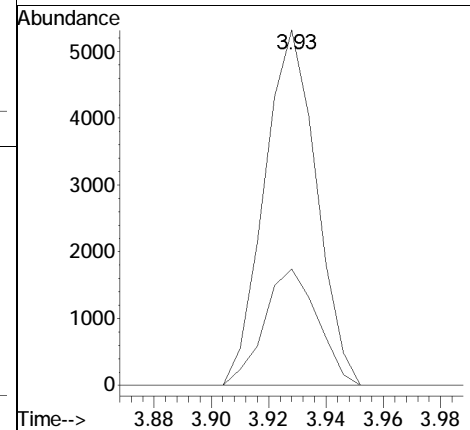
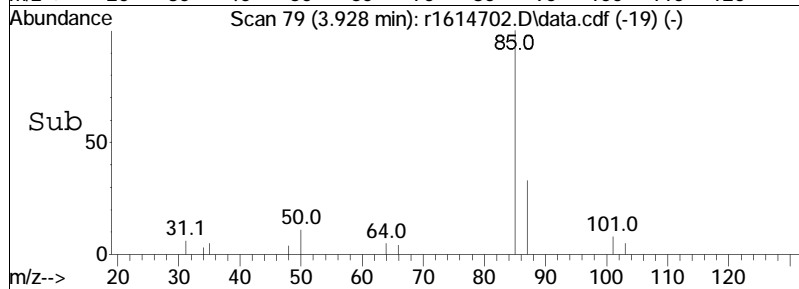
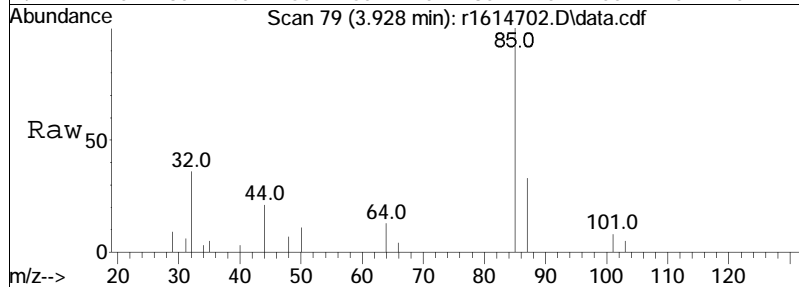
Sub List : TO15-NY - .s\Data\Airlab16\2020\01-JAN\200104T\r1614690.D

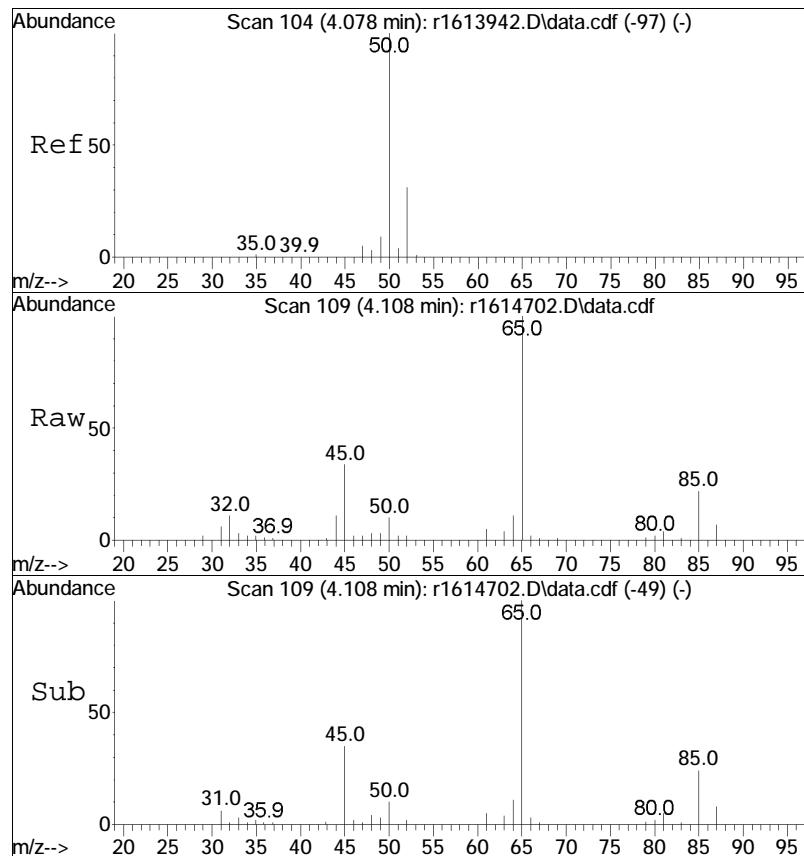




#5
dichlorodifluoromethane
Concen: 0.44 ppbV
RT: 3.93 min Scan# 79
Delta R.T. 0.030 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

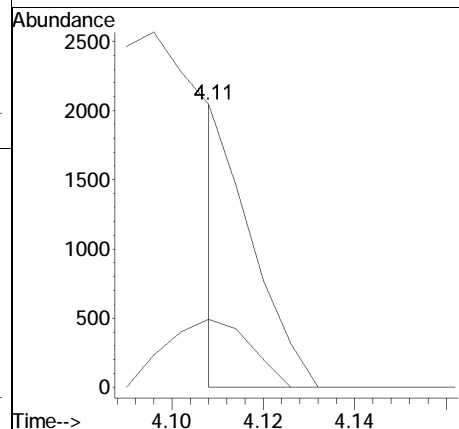
Tgt Ion: 85 Resp: 6711
Ion Ratio Lower Upper
85 100
87 32.8 25.5 38.3

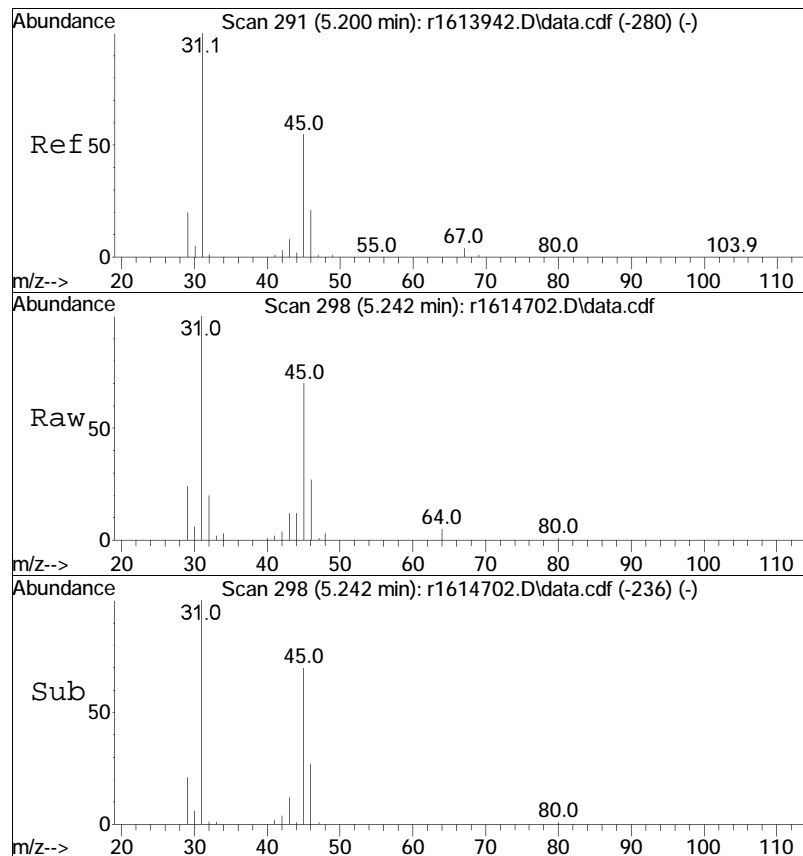




#6
 chloromethane
 Concen: 0.10 ppbV m
 RT: 4.11 min Scan# 109
 Delta R.T. 0.030 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

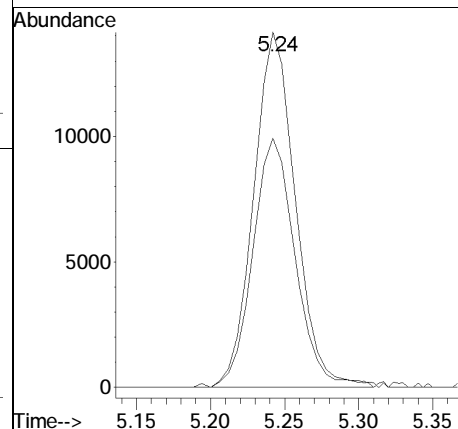
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 24.0 | 24.8 | 37.2# |

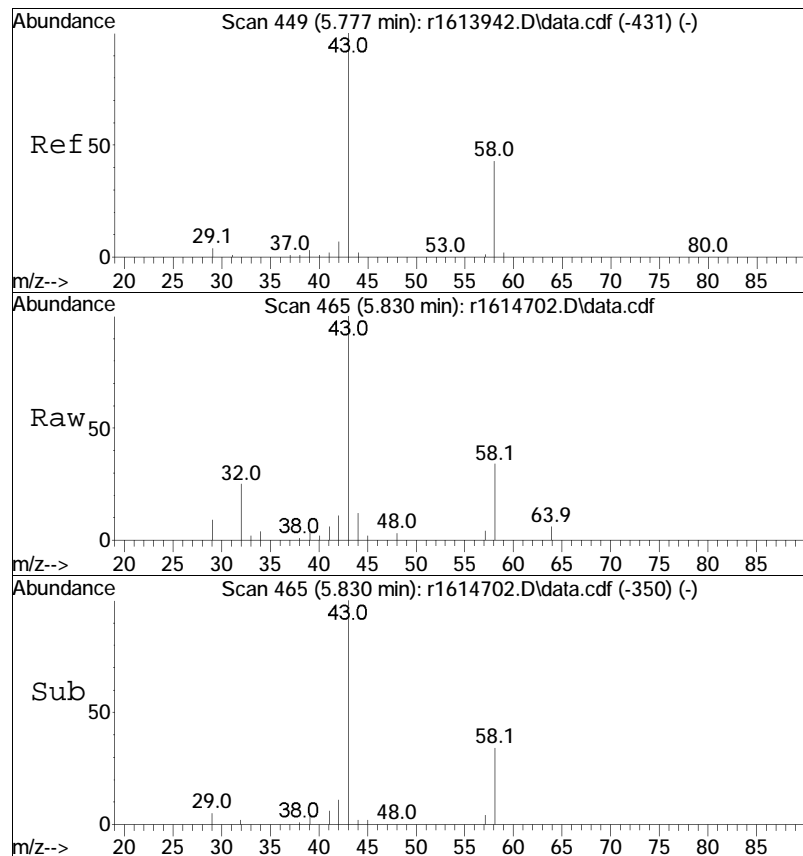




#15
ethanol
Concen: 4.28 ppbV
RT: 5.24 min Scan# 298
Delta R.T. 0.042 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

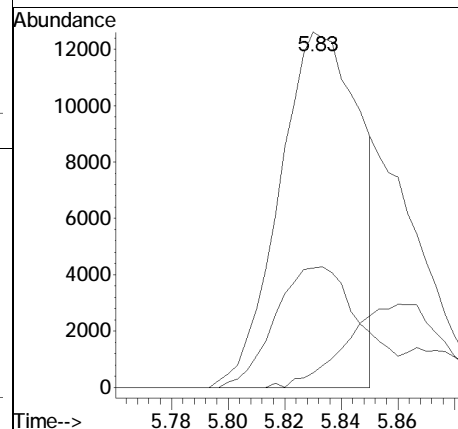
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 70.1 | 43.7 | 65.5# |

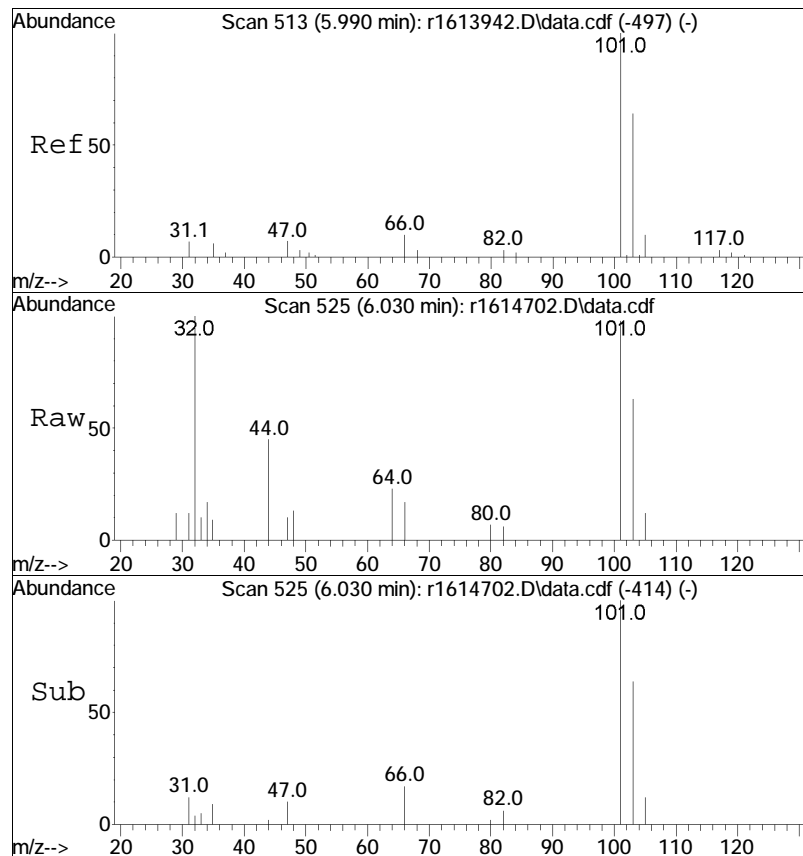




#19
acetone
Concen: 2.05 ppbV m
RT: 5.83 min Scan# 465
Delta R.T. 0.053 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

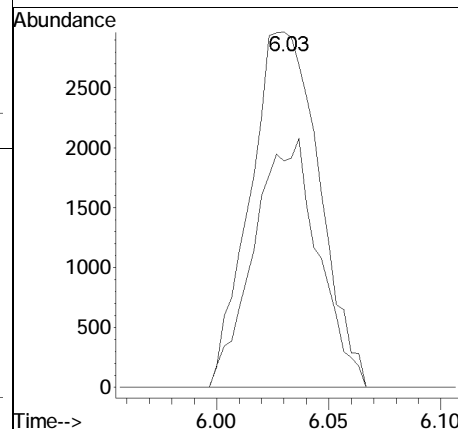
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 33.6 | 34.4 | 51.6# |
| 57 | 4.1 | 0.9 | 1.3# |

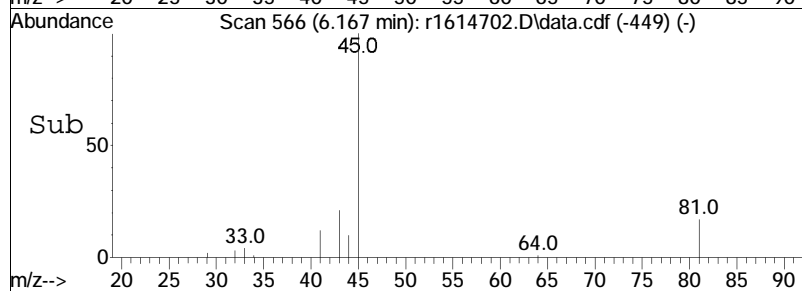
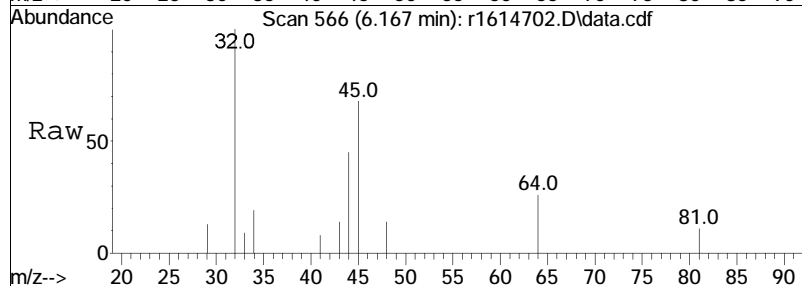
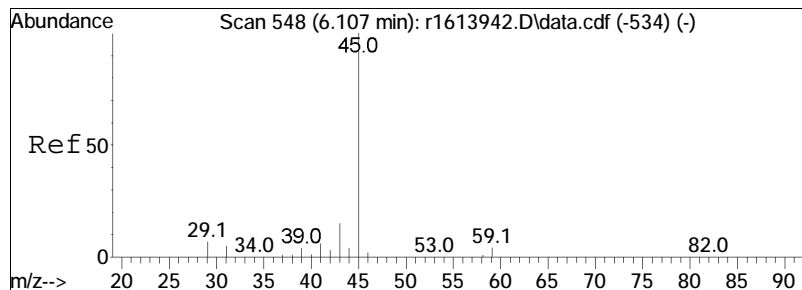




#21
trichlorofluoromethane
Concen: 0.53 ppbV
RT: 6.03 min Scan# 525
Delta R.T. 0.040 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

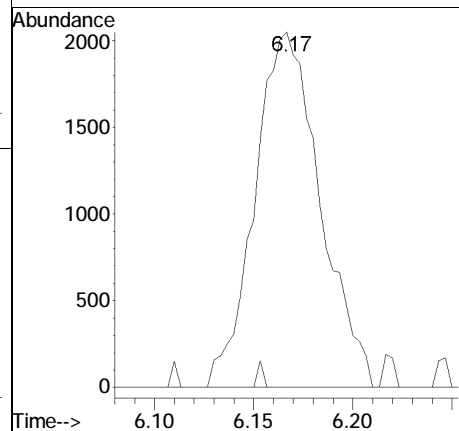
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 63.7 | 51.4 | 77.2 | |

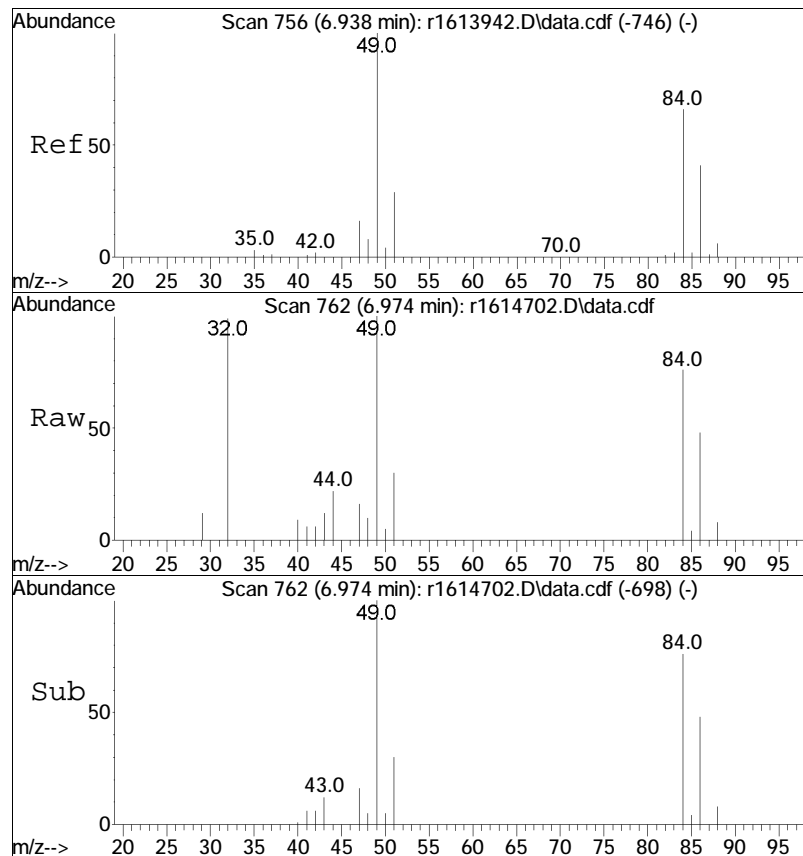




#22
isopropyl alcohol
Concen: 0.30 ppbV
RT: 6.17 min Scan# 566
Delta R.T. 0.060 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

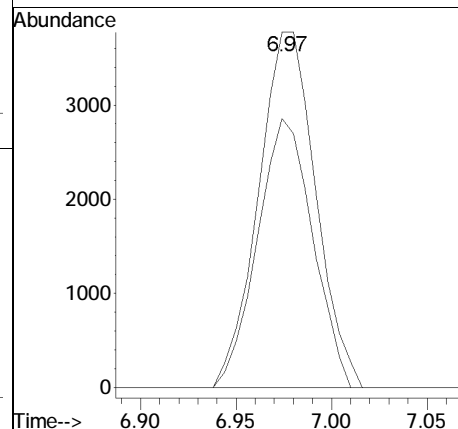
| Tgt | Ion | Resp | Lower | Upper |
|-----|-----|------|-------|-------|
| 45 | 100 | | | |
| 59 | 0.0 | 3.2 | 4.8# | |

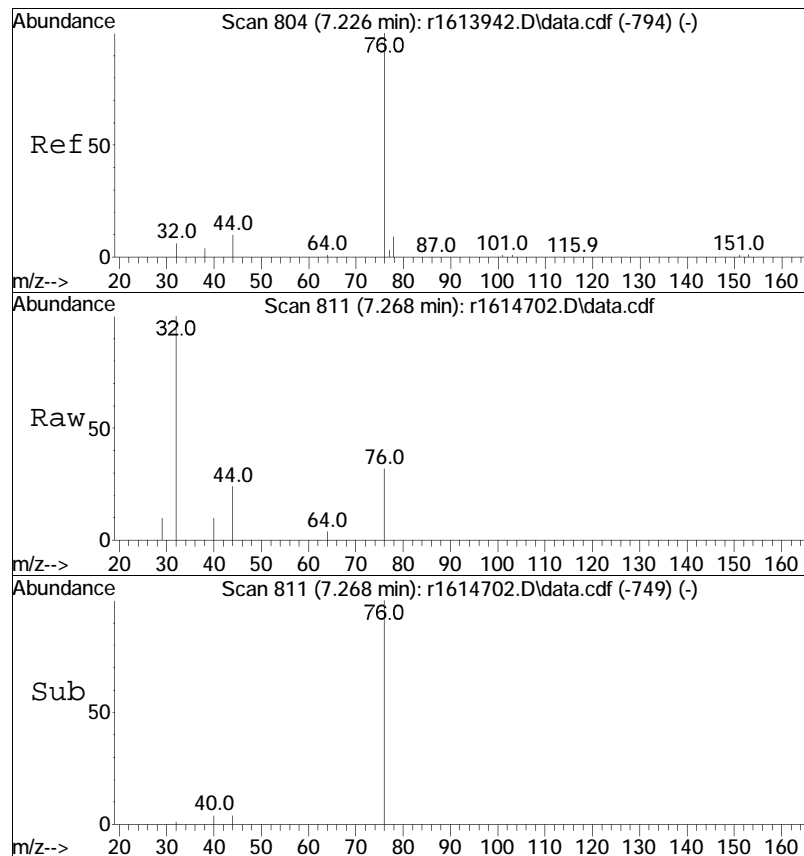




#28
 methylene chloride
 Concen: 0.64 ppbV
 RT: 6.97 min Scan# 762
 Delta R.T. 0.036 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

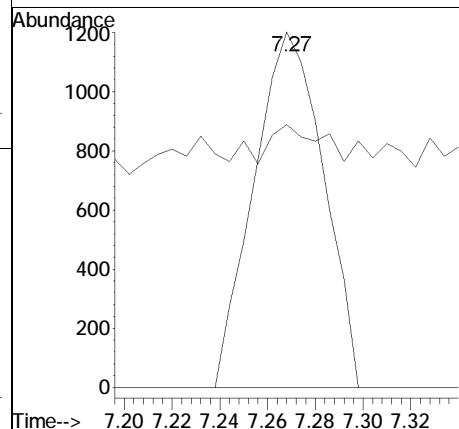
| Tgt Ion: | 49 | 84 | Ratio | Lower | Upper |
|----------|------|------|-------|-------|-------|
| Resp: | 7884 | | | | |
| | 100 | | | | |
| | 75.7 | 53.0 | | | 79.4 |

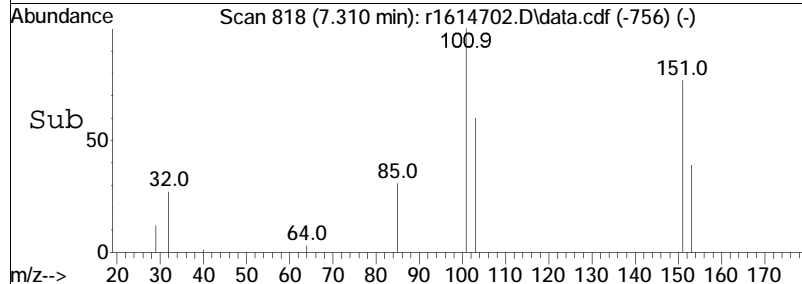
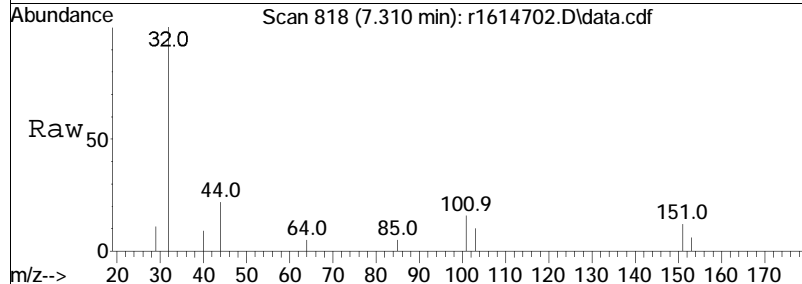
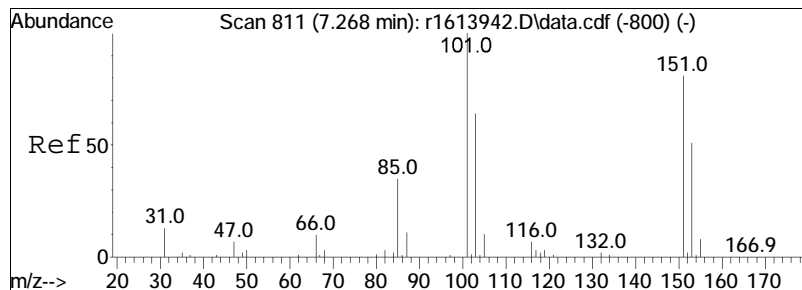




#30
 carbon disulfide
 Concen: 0.07 ppbV
 RT: 7.27 min Scan# 811
 Delta R.T. 0.042 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

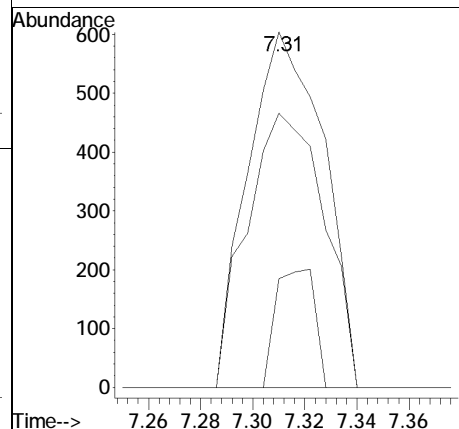
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 74.0 | 8.3 | 12.5# |

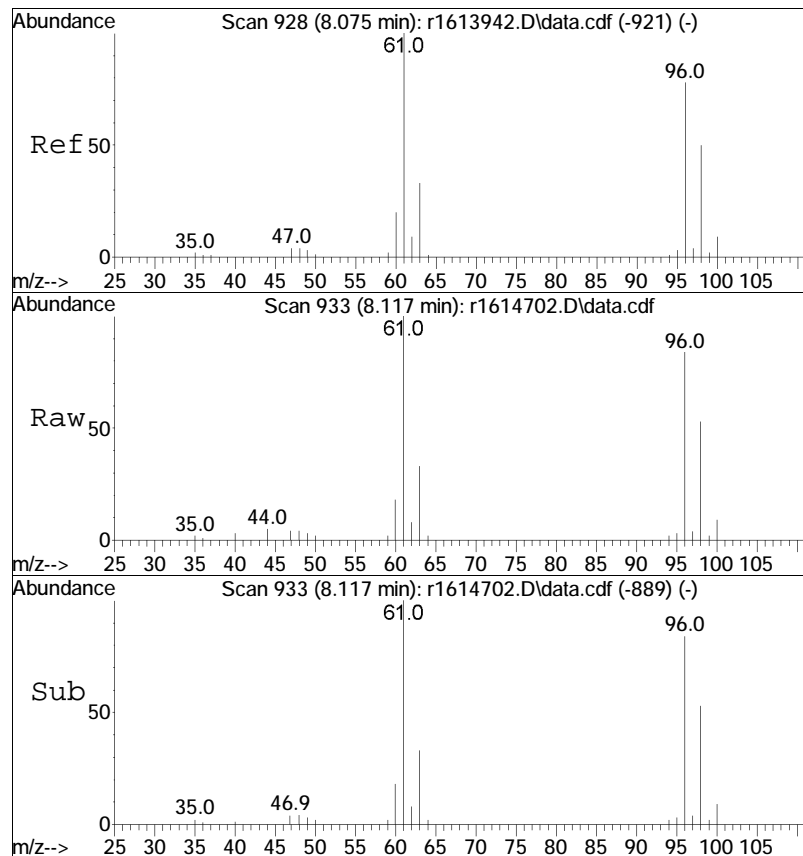




#31
 Freon 113
 Concen: 0.07 ppbV
 RT: 7.31 min Scan# 818
 Delta R.T. 0.042 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

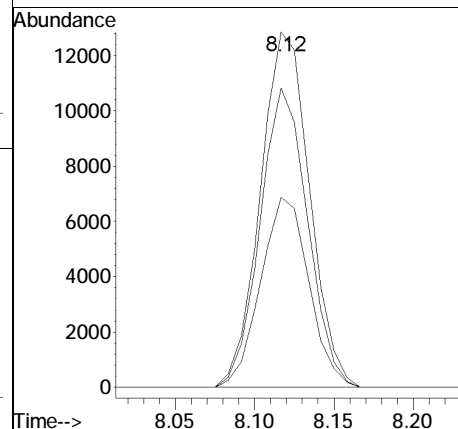
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 1221 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 85 | 30.6 | 27.8 | 41.6 |
| 151 | 77.2 | 65.0 | 97.6 |

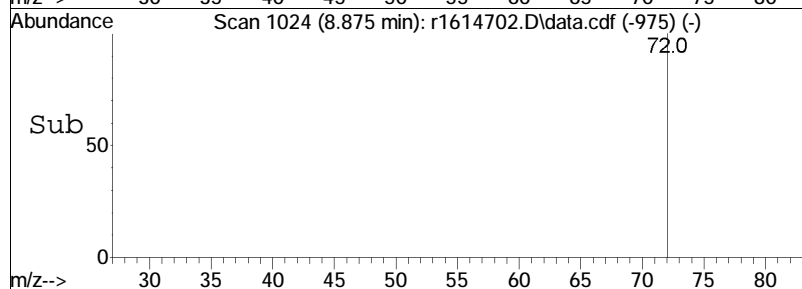
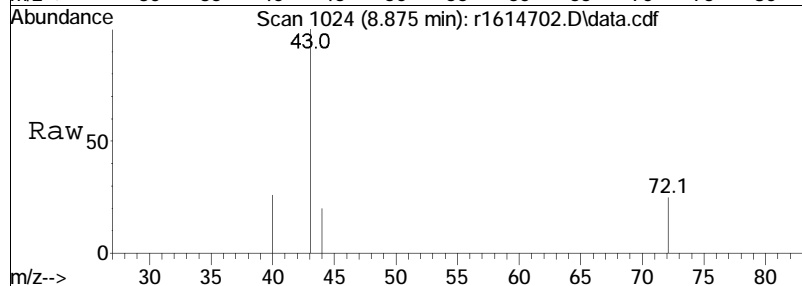
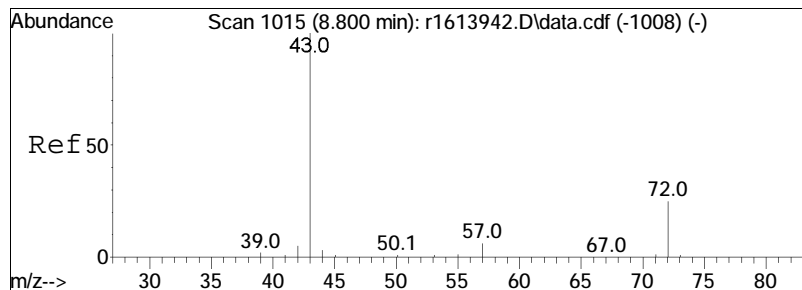




#32
 trans-1,2-dichloroethene
 Concen: 2.09 ppbV
 RT: 8.12 min Scan# 933
 Delta R.T. 0.042 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

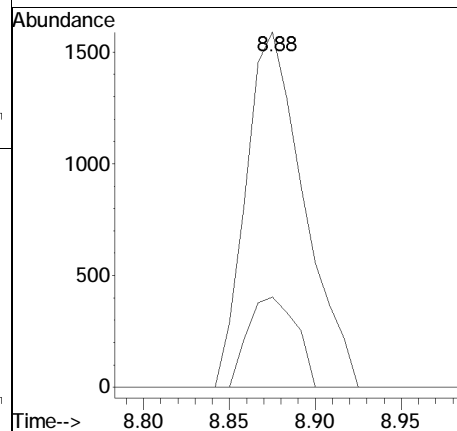
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 61 | Resp: | 27721 |
| Ion | Ratio | Lower | Upper |
| 61 | 100 | | |
| 96 | 84.3 | 62.8 | 94.2 |
| 98 | 53.5 | 40.2 | 60.2 |

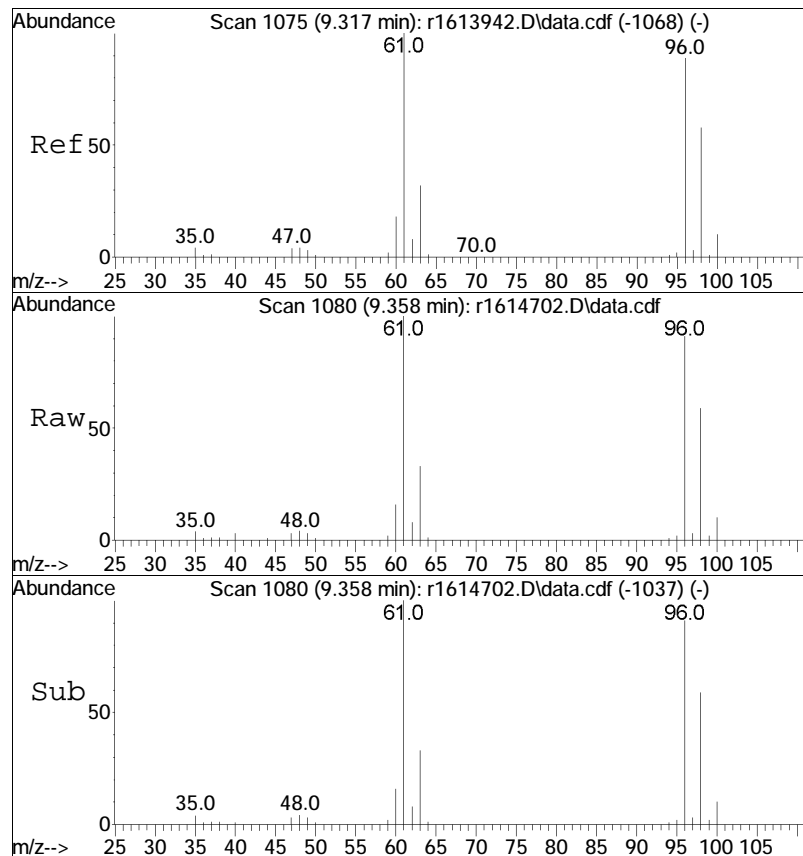




#36
2-butanone
Concen: 0.16 ppbV
RT: 8.88 min Scan# 1024
Delta R.T. 0.075 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

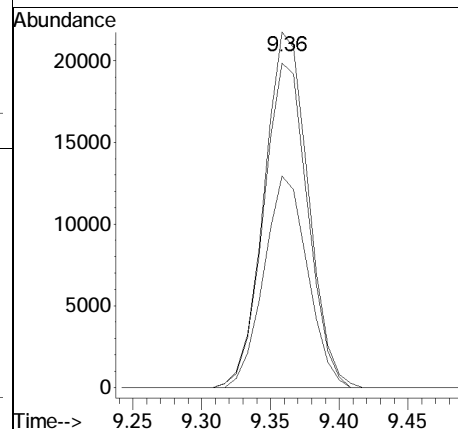
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 25.4 | 19.8 | 29.6 |
| 57 | 0.0 | 4.8 | 7.2# |

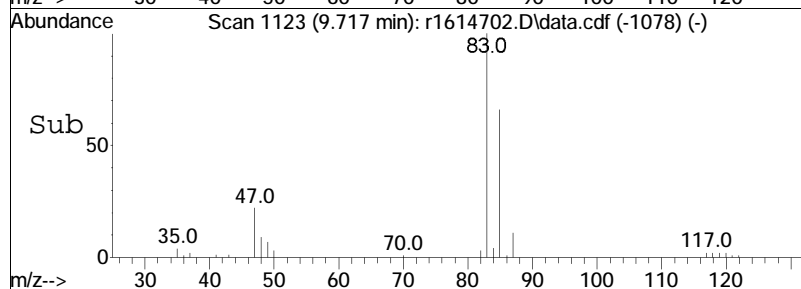
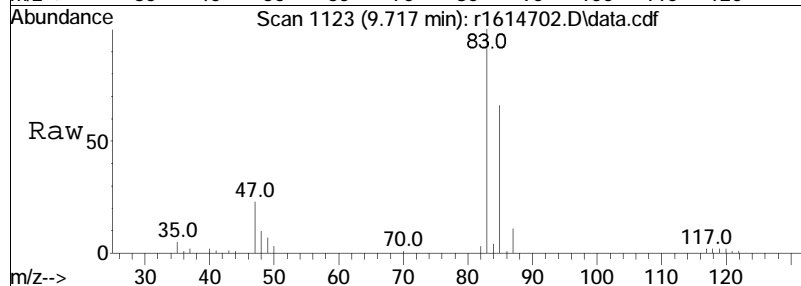
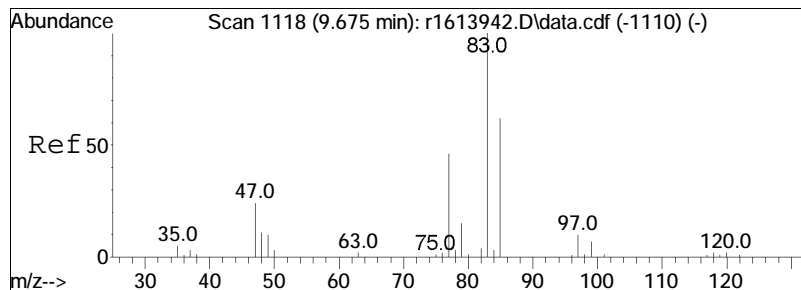




#37
 cis-1,2-dichloroethene
 Concen: 4.17 ppbV
 RT: 9.36 min Scan# 1080
 Delta R.T. 0.042 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

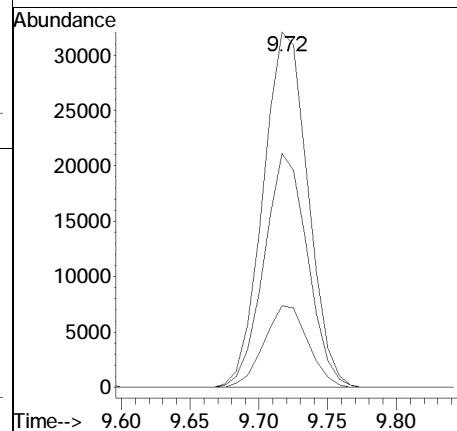
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 61 | Resp: | 48412 |
| Ion | Ratio | Lower | Upper |
| 61 | 100 | | |
| 96 | 91.3 | 71.3 | 106.9 |
| 98 | 59.5 | 46.5 | 69.7 |

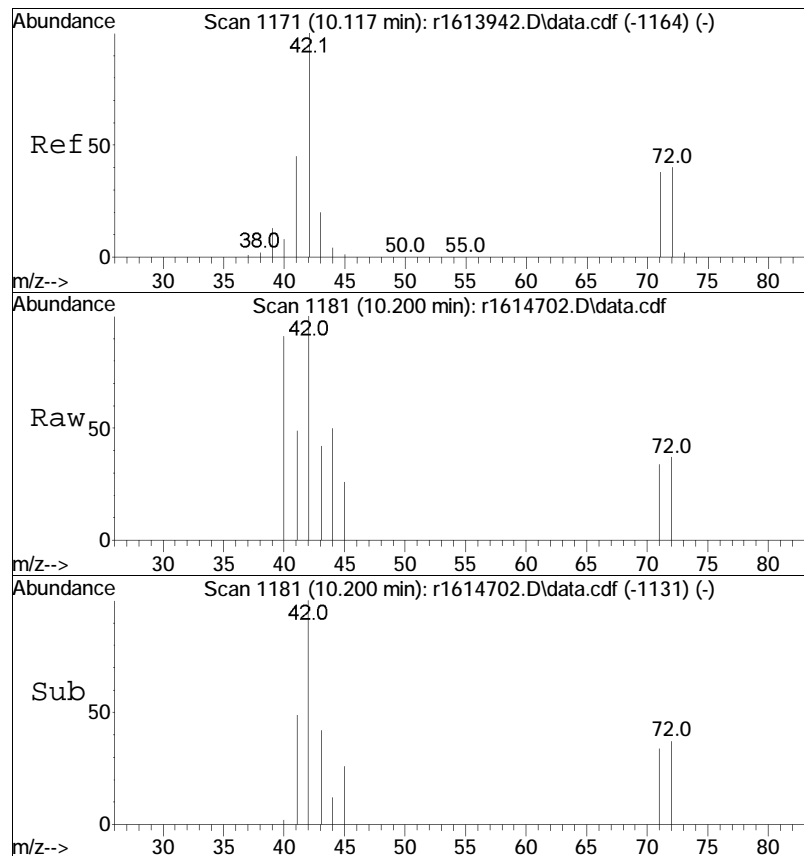




#39
chloroform
Concen: 4.55 ppbV
RT: 9.72 min Scan# 1123
Delta R.T. 0.042 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

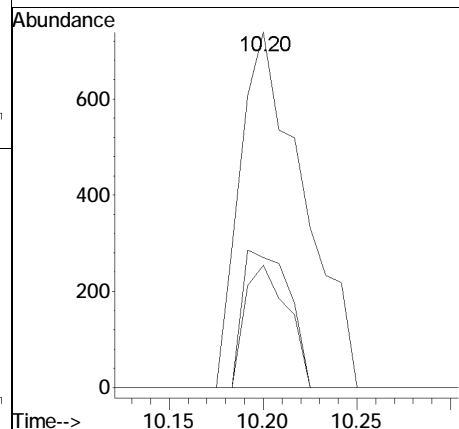
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83 | 100 | | |
| 85 | 65.8 | 50.1 | 75.1 |
| 47 | 23.0 | 19.3 | 28.9 |

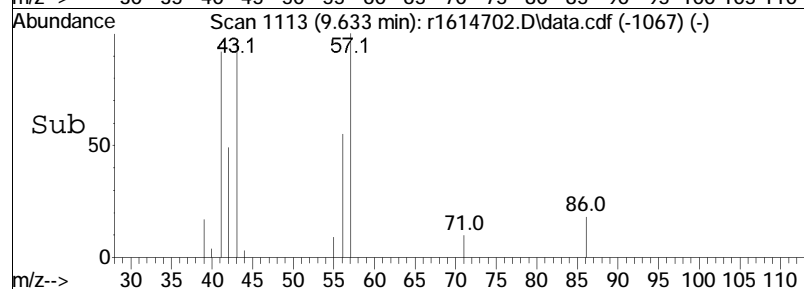
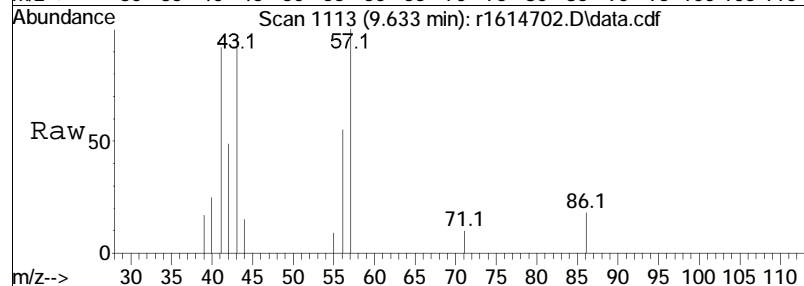
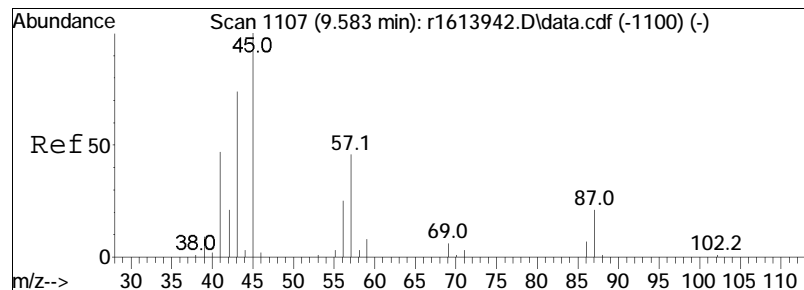




#40
 Tetrahydrofuran
 Concen: 0.12 ppbV
 RT: 10.20 min Scan# 1181
 Delta R.T. 0.083 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

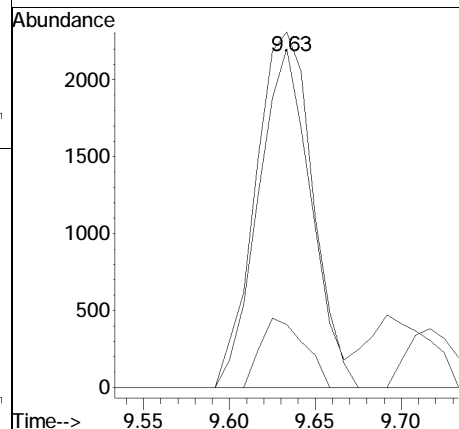
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 42 | Resp: | 1738 |
| Ion | Ratio | Lower | Upper |
| 42 | 100 | | |
| 71 | 34.4 | 30.0 | 45.0 |
| 72 | 36.5 | 31.9 | 47.9 |

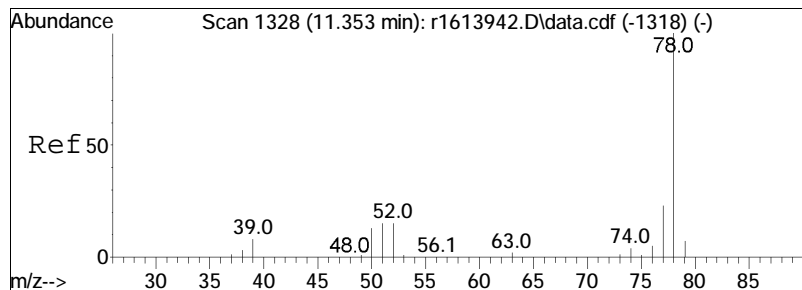




#44
hexane
Concen: 0.31 ppbV
RT: 9.63 min Scan# 1113
Delta R.T. 0.050 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

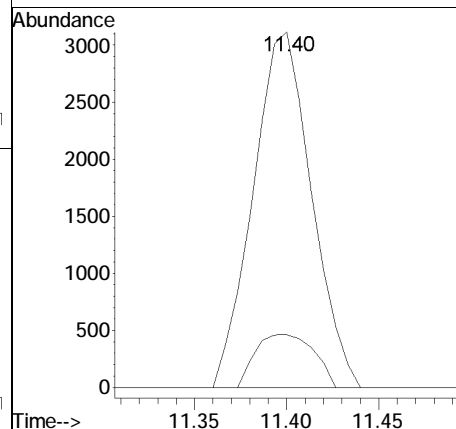
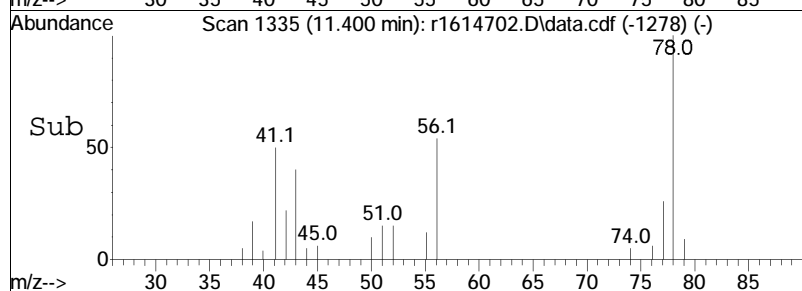
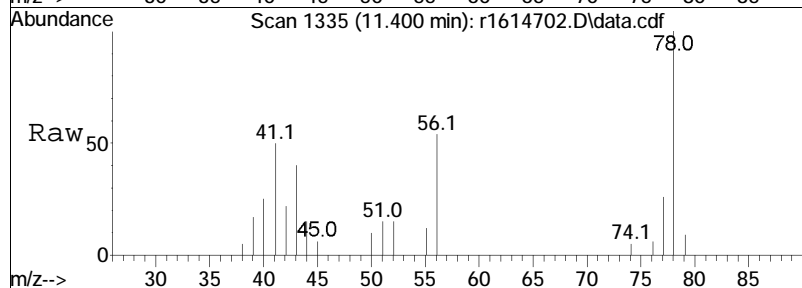
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 95.3 | 129.6 | 194.4# |
| 86 | 17.7 | 12.8 | 19.2 |

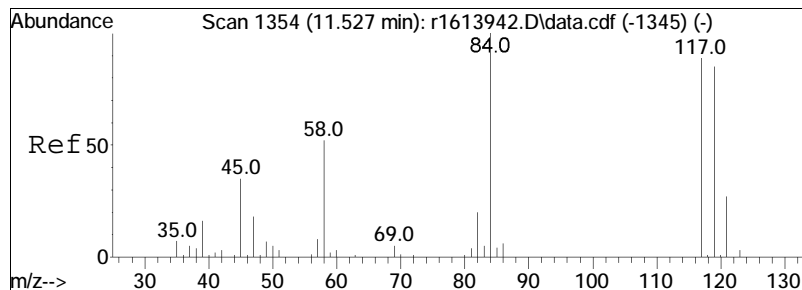




#50
benzene
Concen: 0.19 ppbV
RT: 11.40 min Scan# 1335
Delta R.T. 0.047 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

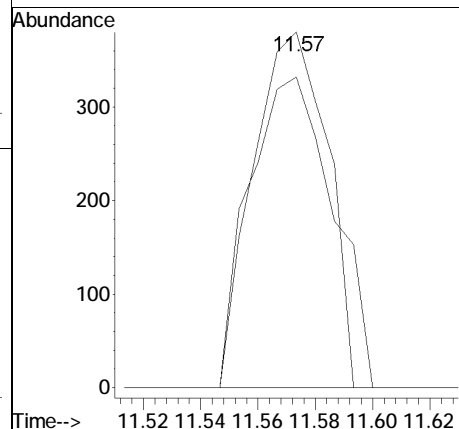
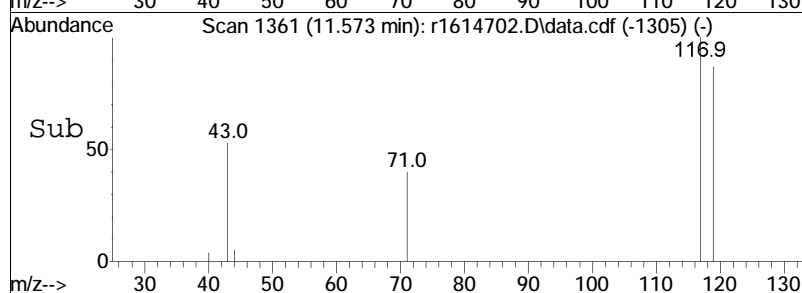
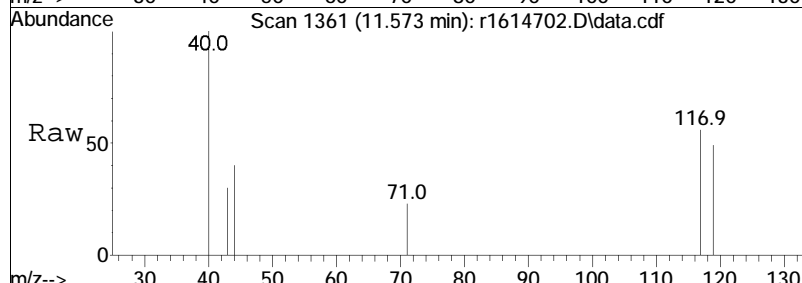
Tgt Ion: 78 Resp: 6863
Ion Ratio Lower Upper
78 100
52 14.8 12.2 18.2

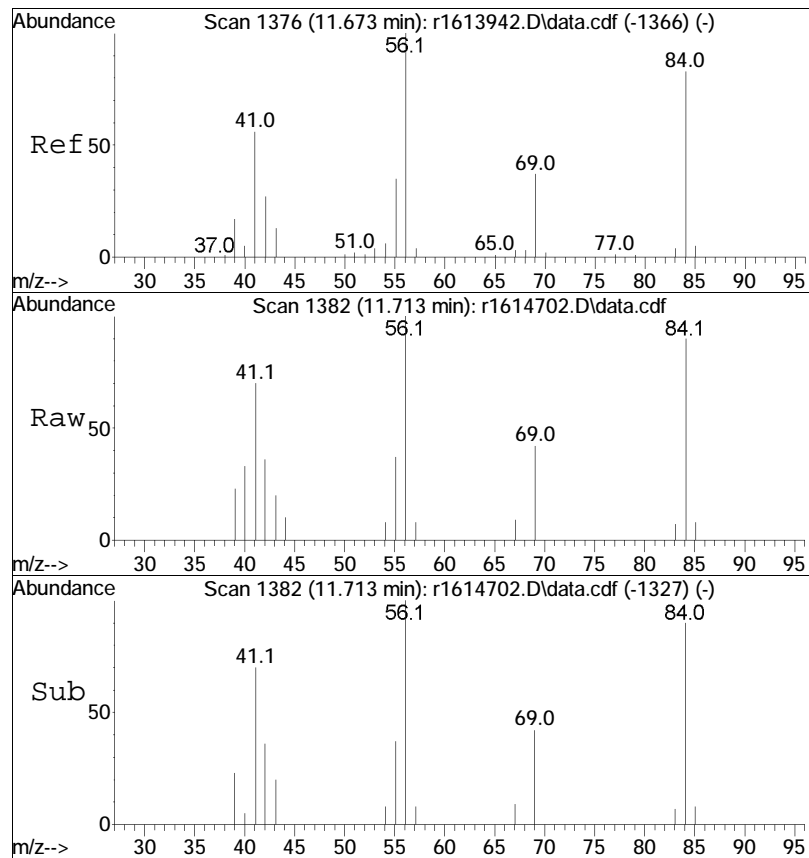




#52
 carbon tetrachloride
 Concen: 0.05 ppbV
 RT: 11.57 min Scan# 1361
 Delta R.T. 0.047 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

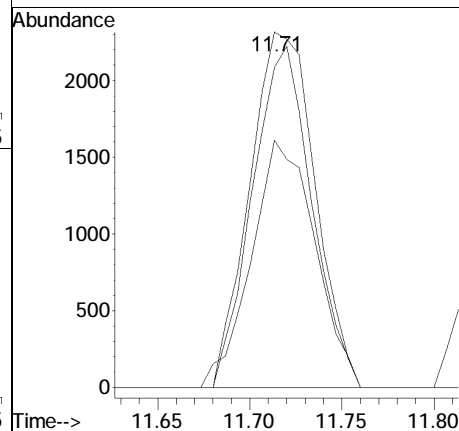
Tgt Ion: 117 Resp: 683
 Ion Ratio Lower Upper
 117 100
 119 87.4 76.4 114.6
 82 0.0 18.7 28.1#

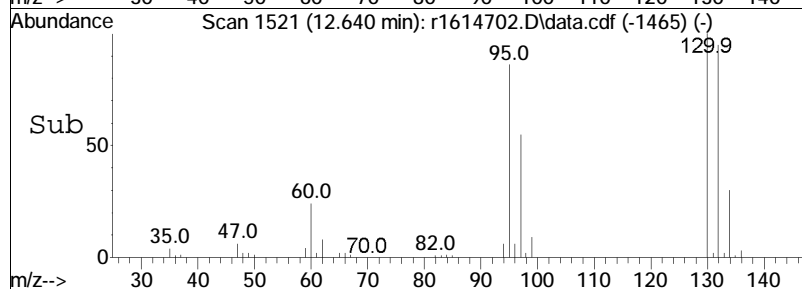
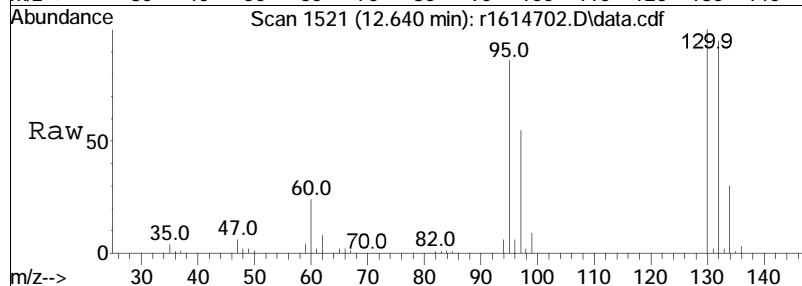
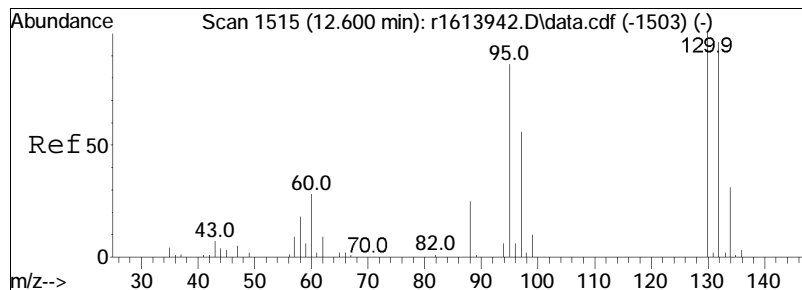




#53
cyclohexane
Concen: 0.31 ppbV
RT: 11.71 min Scan# 1382
Delta R.T. 0.040 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

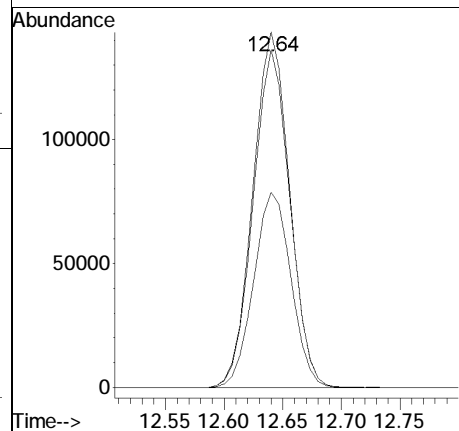
| | | | | |
|-----|-------|-------|-------|------|
| Tgt | Ion: | 56 | Resp: | 5718 |
| Ion | Ratio | Lower | Upper | |
| 56 | 100 | | | |
| 84 | 90.1 | 66.2 | 99.2 | |
| 41 | 69.5 | 45.2 | 67.8 | # |

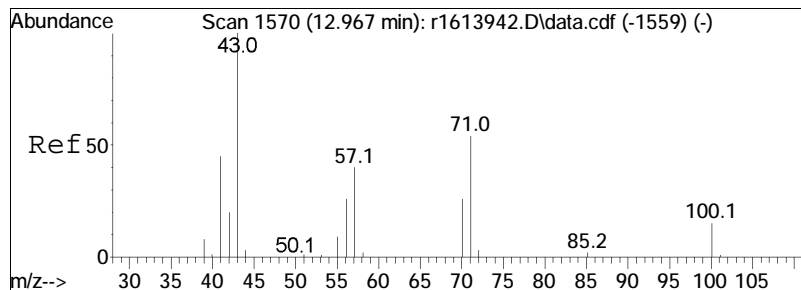




#59
trichloroethene
Concen: 20.73 ppbV
RT: 12.64 min Scan# 1521
Delta R.T. 0.040 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

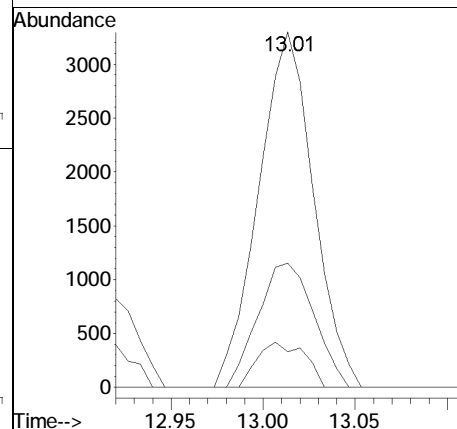
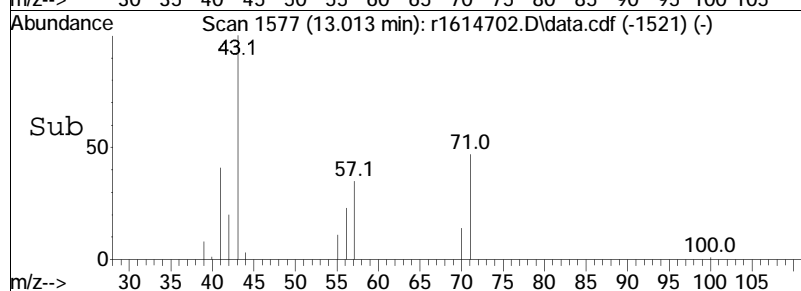
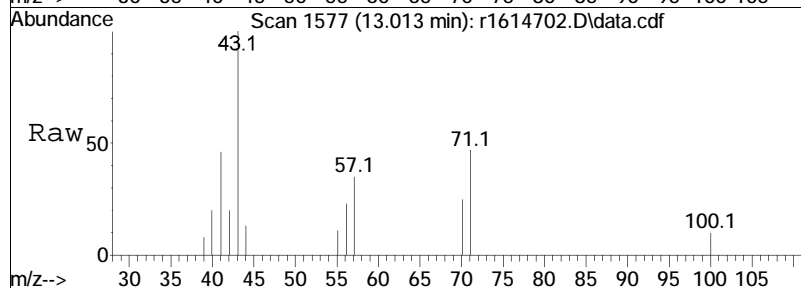
| Tgt | Ion | Ratio | Resp | Lower | Upper |
|-----|------|-------|--------|-------|-------|
| 130 | 100 | | 311855 | | |
| 132 | 95.1 | 76.7 | | 115.1 | |
| 97 | 54.9 | 45.2 | | 67.8 | |

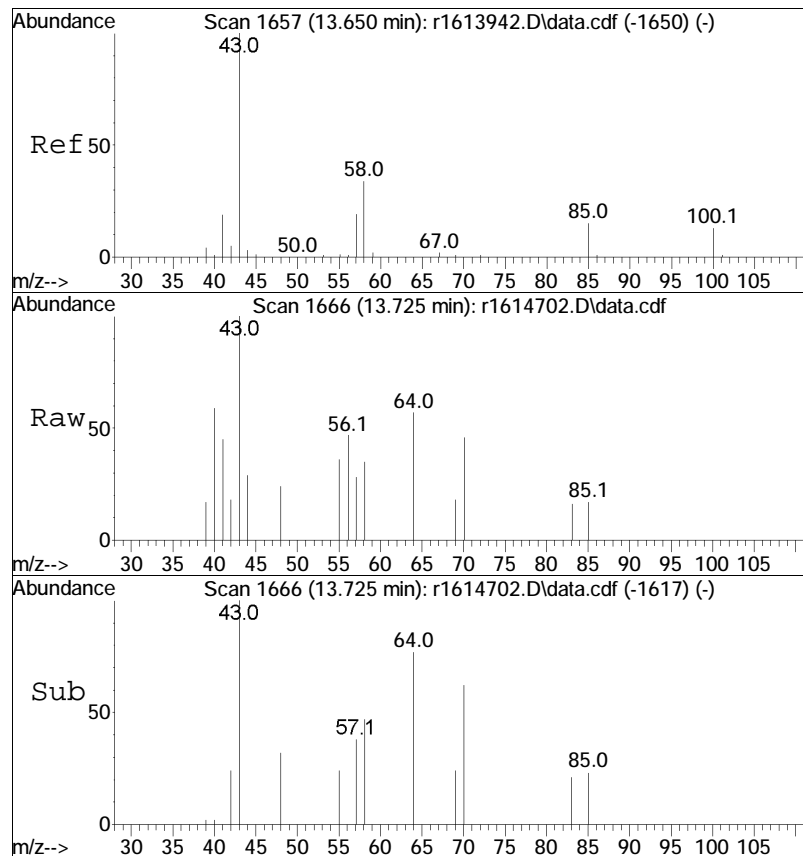




#62
heptane
Concen: 0.26 ppbV
RT: 13.01 min Scan# 1577
Delta R.T. 0.047 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

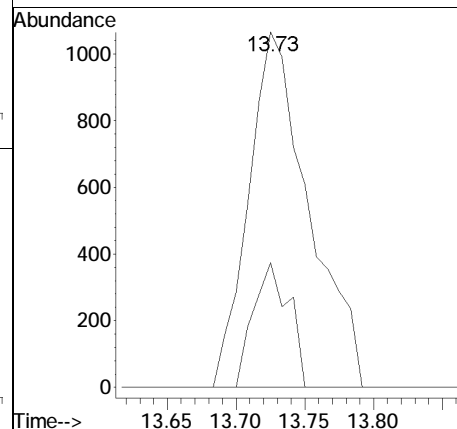
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 35.0 | 32.2 | 48.4 |
| 100 | 10.0 | 11.9 | 17.9# |

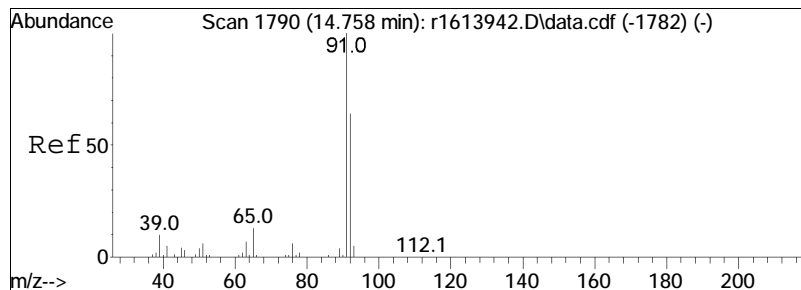




#64
 4-methyl-2-pentanone
 Concen: 0.11 ppbV
 RT: 13.73 min Scan# 1666
 Delta R.T. 0.075 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

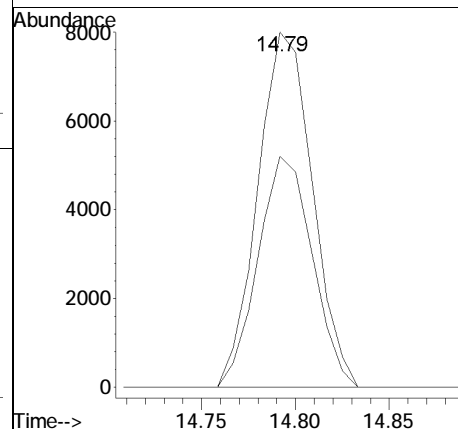
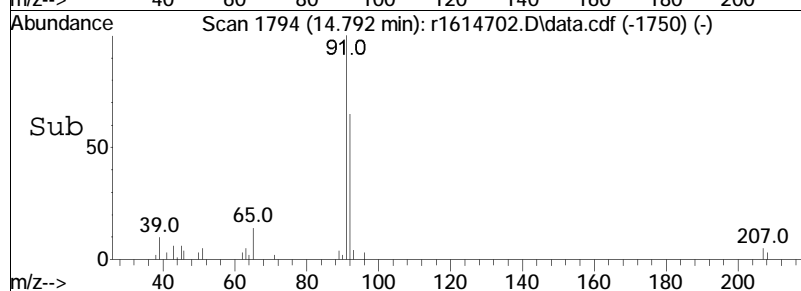
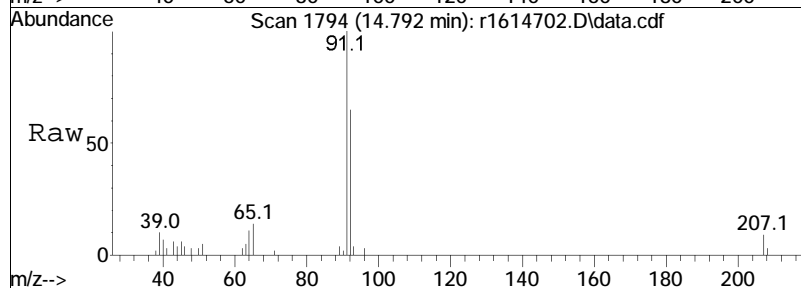
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 43 | Resp: | 3254 |
| Ion | Ratio | Lower | Upper |
| 43 | 100 | | |
| 58 | 35.1 | 27.1 | 40.7 |
| 100 | 0.0 | 10.6 | 16.0# |

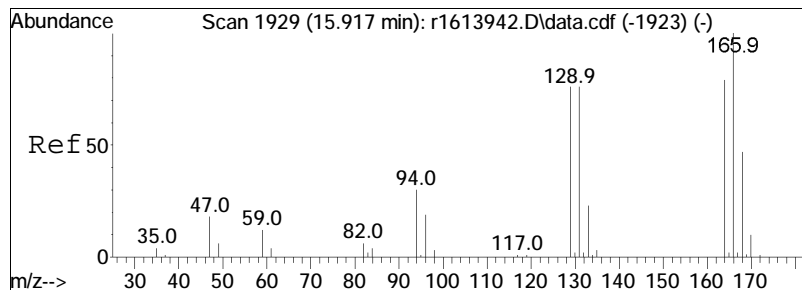




#68
toluene
Concen: 0.49 ppbV
RT: 14.79 min Scan# 1794
Delta R.T. 0.033 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

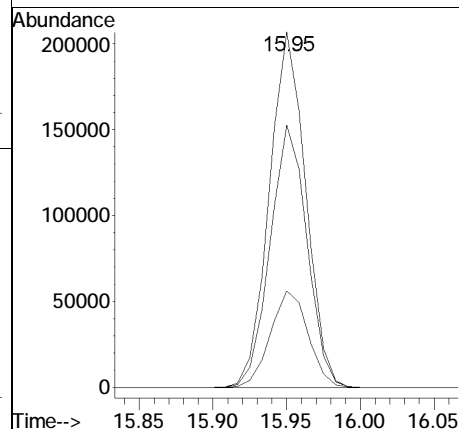
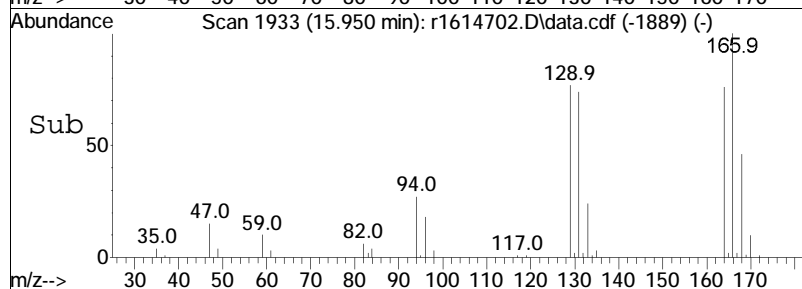
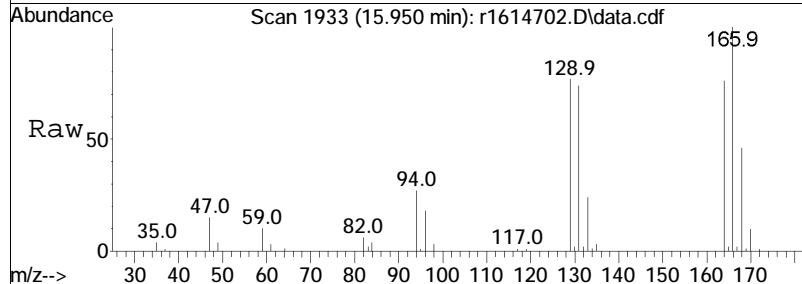
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 65.0 | 51.5 | 77.3 |

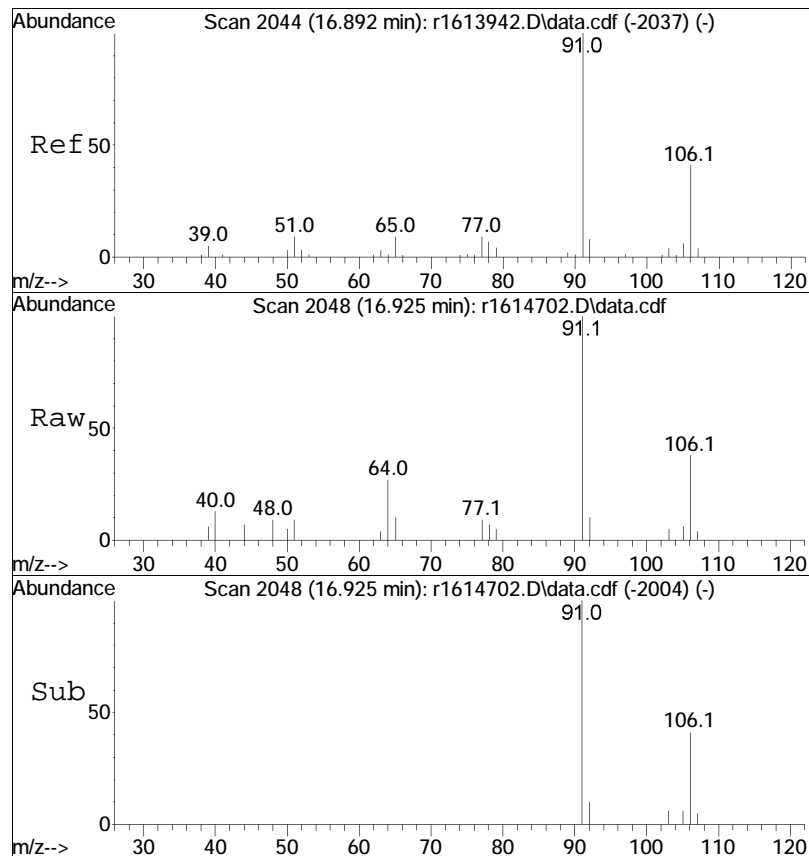




#78
 tetrachloroethene
 Concen: 24.23 ppbV
 RT: 15.95 min Scan# 1933
 Delta R.T. 0.033 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

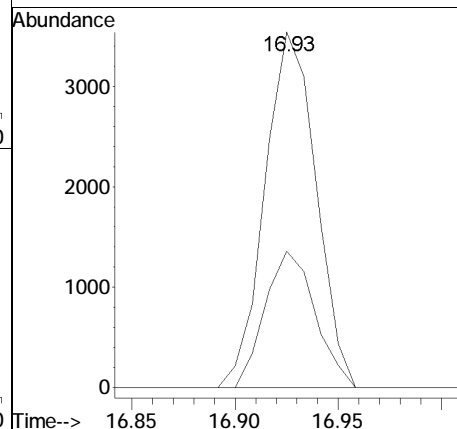
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166 | 100 | | |
| 131 | 73.8 | 60.6 | 91.0 |
| 94 | 27.2 | 24.0 | 36.0 |

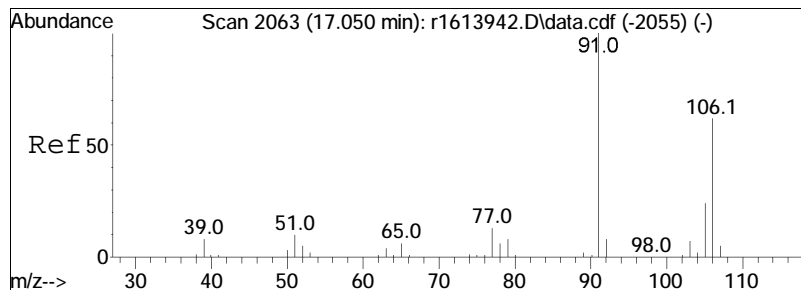




#81
ethylbenzene
Concen: 0.15 ppbV
RT: 16.93 min Scan# 2048
Delta R.T. 0.033 min
Lab File: r1614702.D
Acq: 4 Jan 2020 11:51 PM

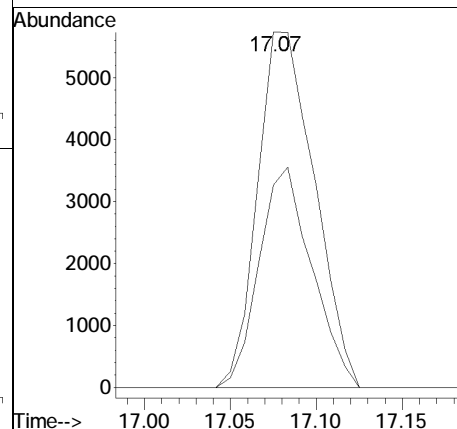
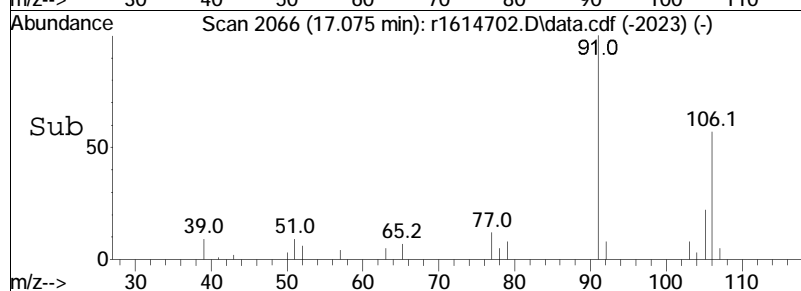
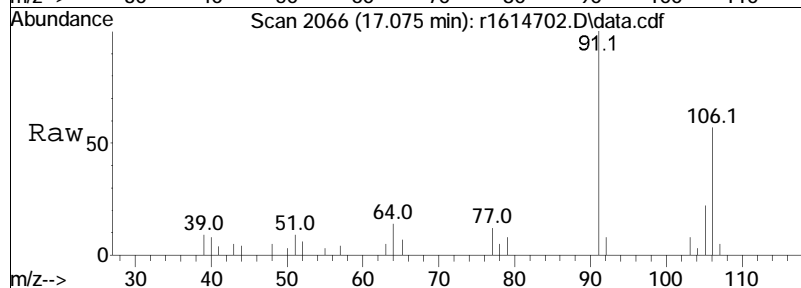
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 38.3 | 32.5 | 48.7 |

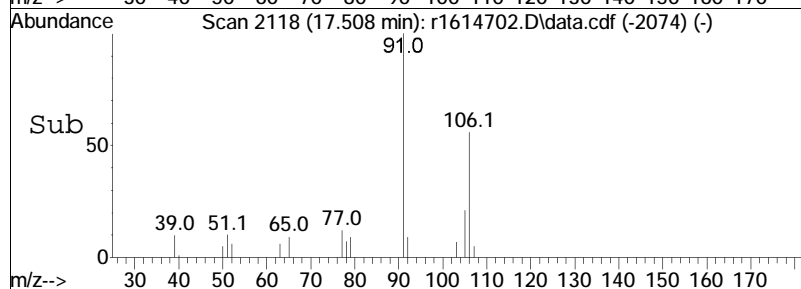
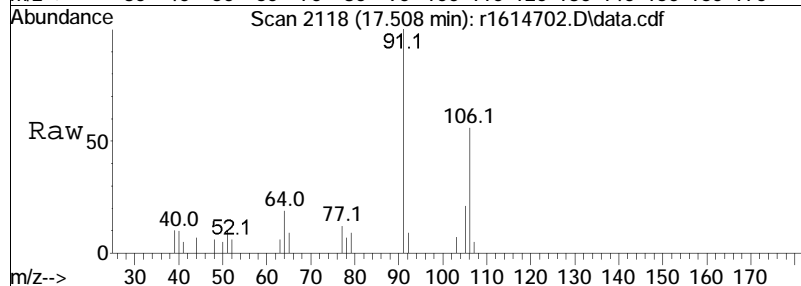
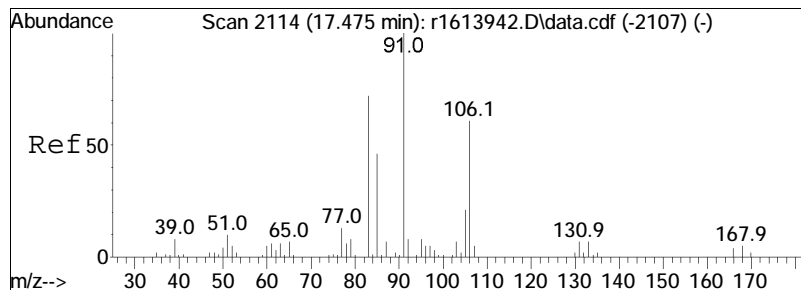




#83
 m+p-xylene
 Concen: 0.39 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

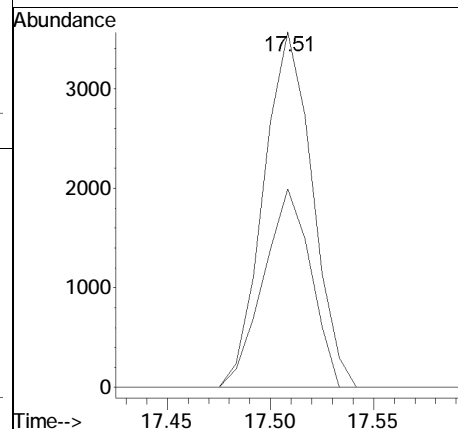
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 56.9 | 49.8 | 74.6 |

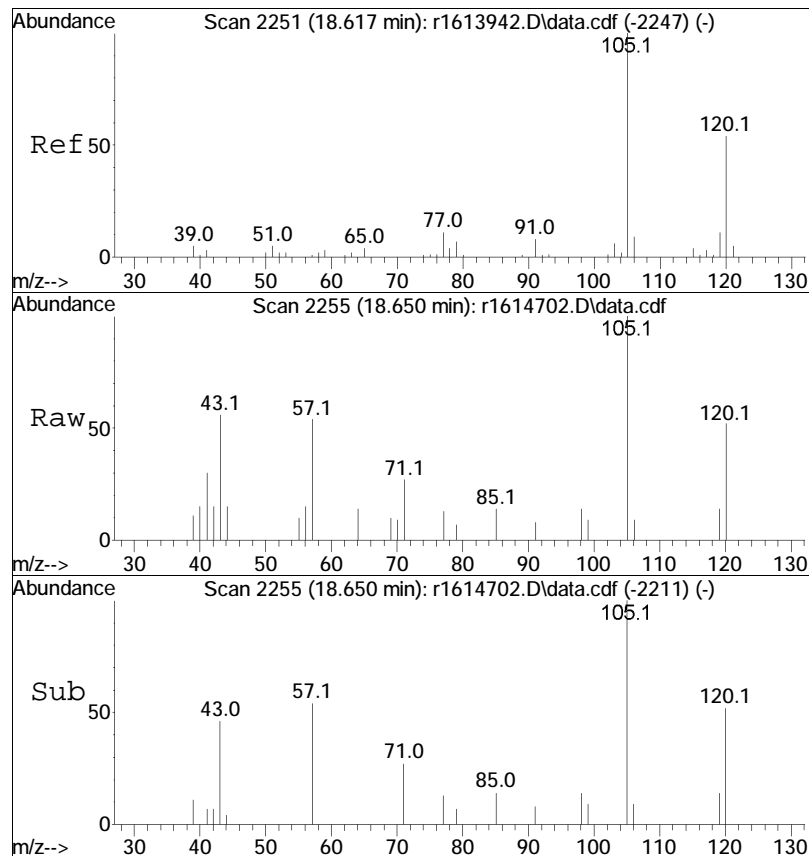




#87
 o-xylene
 Concen: 0.17 ppbV
 RT: 17.51 min Scan# 2118
 Delta R.T. 0.033 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

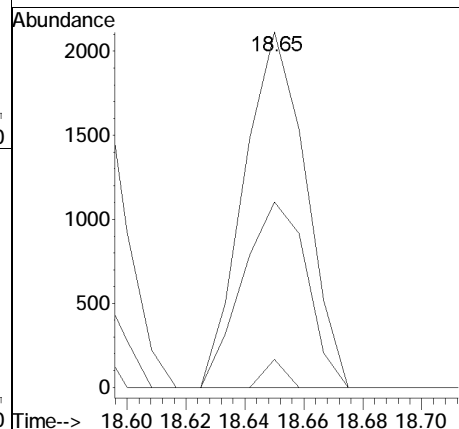
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 55.9 | 48.8 | 73.2 |

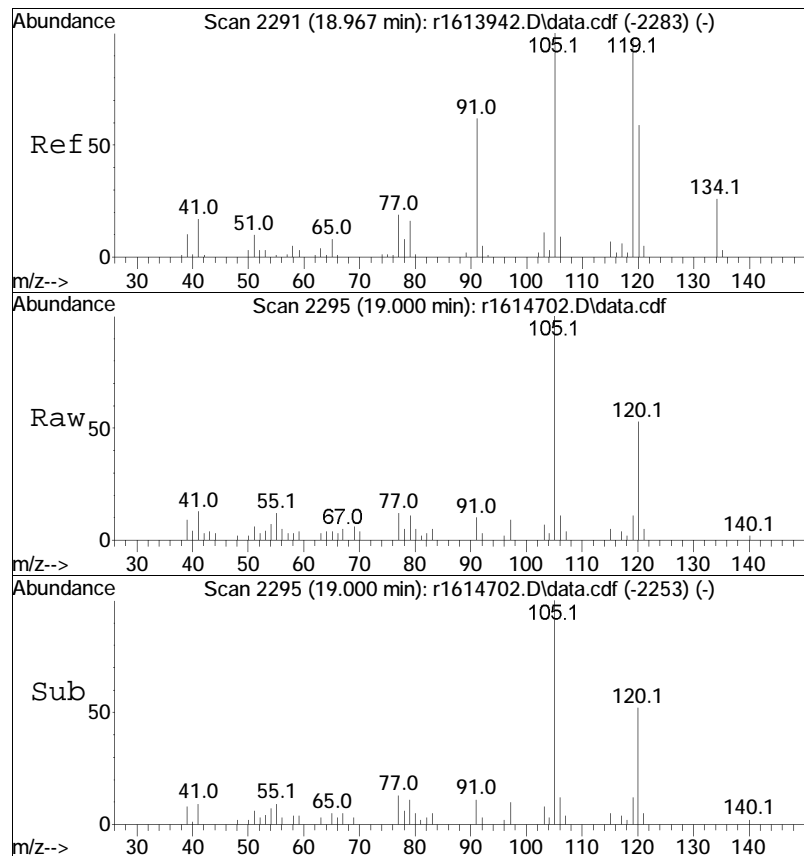




#97
 1,3,5-trimethylbenzene
 Concen: 0.07 ppbV
 RT: 18.65 min Scan# 2255
 Delta R.T. 0.033 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

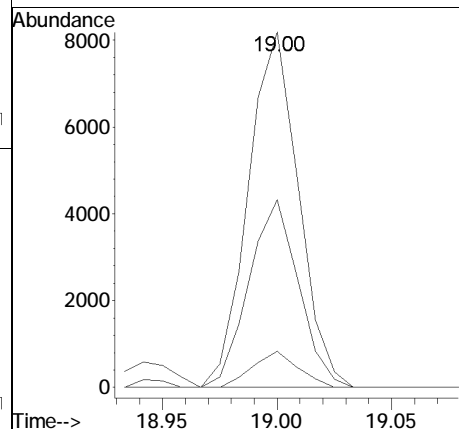
| Tgt | Ion | Ratio | Lower | Upper |
|-----|-----|-------|-------|-------|
| 105 | 105 | 100 | | |
| 120 | 120 | 52.2 | 42.9 | 64.3 |
| 91 | 91 | 7.9 | 6.6 | 9.8 |





#99
 1,2,4-trimethylbenzene
 Concen: 0.29 ppbV
 RT: 19.00 min Scan# 2295
 Delta R.T. 0.033 min
 Lab File: r1614702.D
 Acq: 4 Jan 2020 11:51 PM

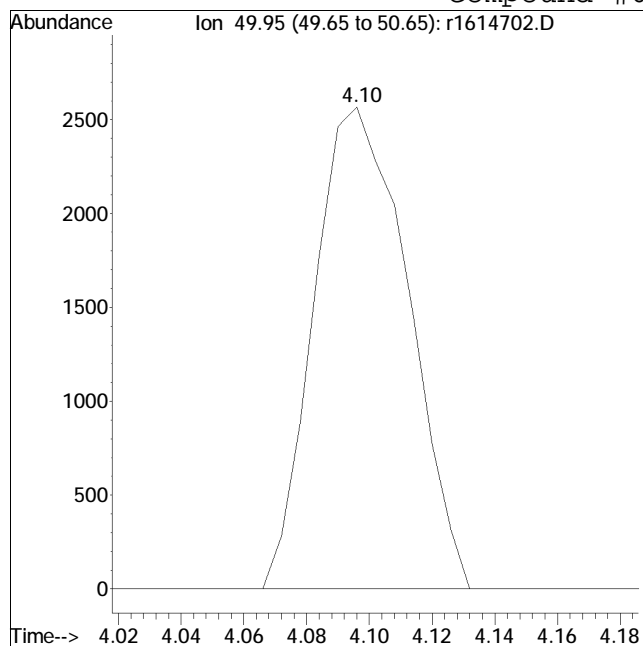
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 52.8 | 46.9 | 70.3 |
| 91 | 10.2 | 49.3 | 73.9# |



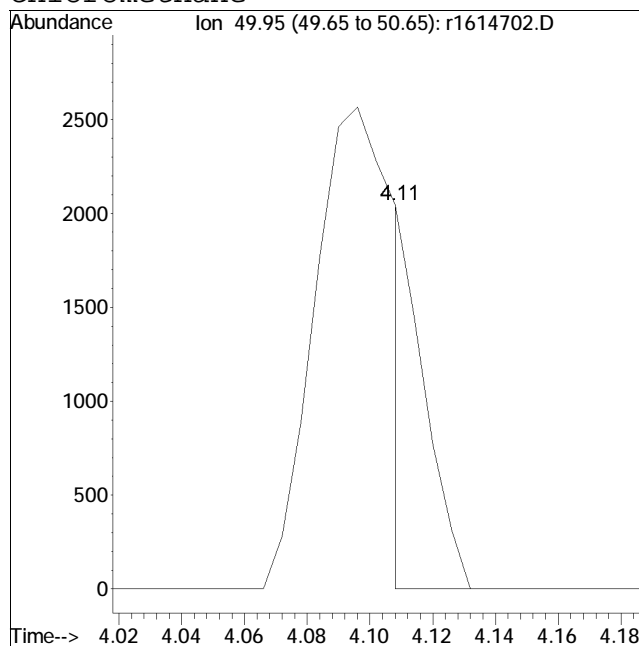
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614702.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:1: 1 Instrument :
Sample : L1962003-06,3,250,250 Quant Date : 1/5/2020 8:31 am

Compound #6: chloromethane



Original Peak Response = 5344



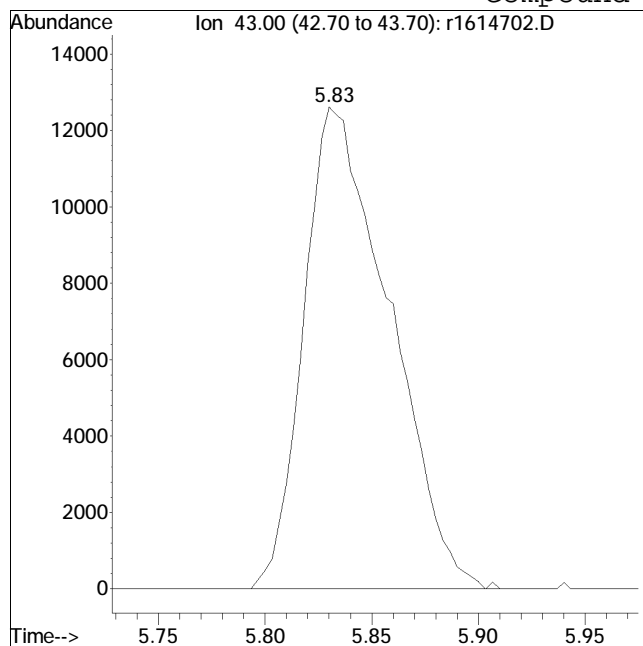
Manual Peak Response = 917 M6

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

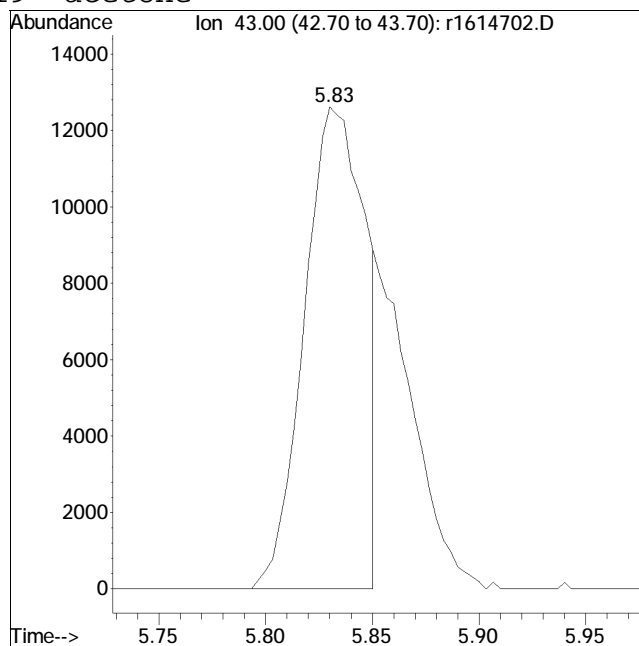
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614702.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:1: 1 Instrument :
Sample : L1962003-06,3,250,250 Quant Date : 1/5/2020 8:31 am

Compound #19: acetone



Original Peak Response = 35115



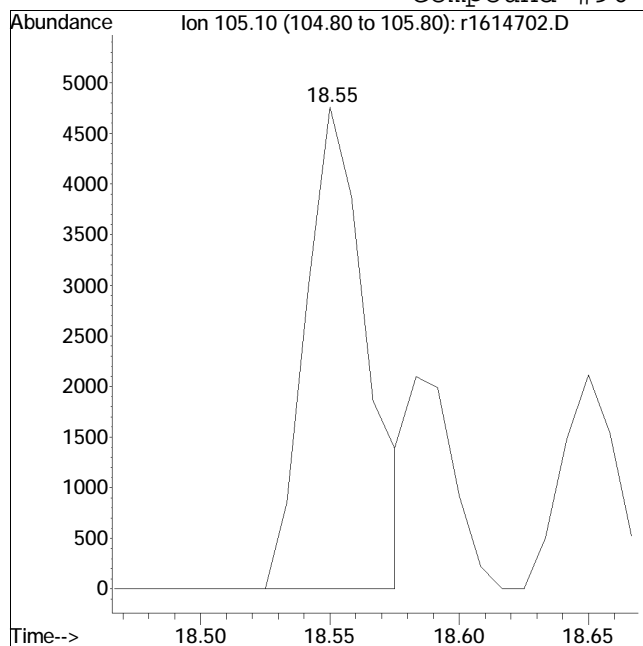
Manual Peak Response = 24835 M4

M4 = Poor automated baseline construction.

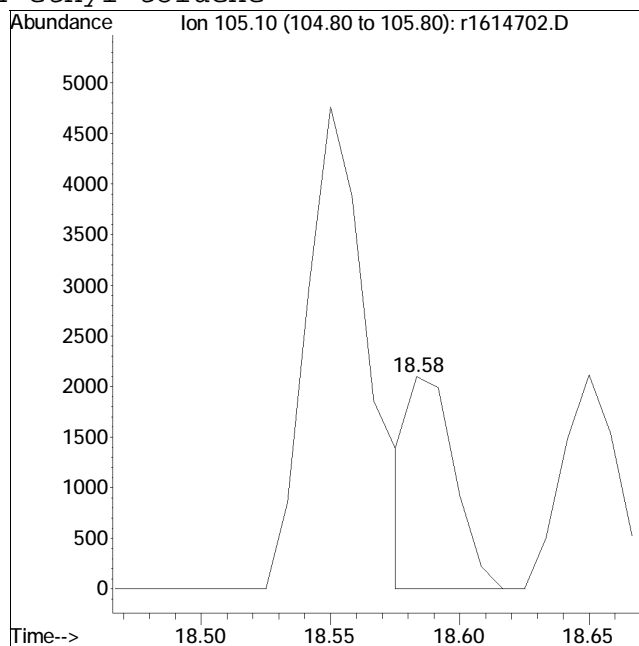
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614702.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:1: 1 Instrument :
 Sample : L1962003-06,3,250,250 Quant Date : 1/5/2020 8:31 am

Compound #96: 4-ethyl toluene



Original Peak Response = 7862



Manual Peak Response = 2615 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614703.D
 Acq On : 5 Jan 2020 12:30 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-08D,3,6.66,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:26:53 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.56 | 49 | 206242 | 10.000 | ppbV | 0.05 |
| Standard Area = 223987 | | | Recovery = | | 92.08% | |
| 43) 1,4-difluorobenzene | 11.84 | 114 | 582017 | 10.000 | ppbV | 0.05 |
| Standard Area = 600707 | | | Recovery = | | 96.89% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 71977 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery = | | 95.45% | |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue | |
|------------------------------|------|-----|-------|-------|--------|----|
| 5) dichlorodifluoromethane | 3.93 | | 0 | N.D. | | |
| 6) chloromethane | 4.09 | | 0 | N.D. | | |
| 7) Freon-114 | 0.00 | | 0 | N.D. | d | |
| 9) vinyl chloride | 4.37 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.25 | 31 | 778 | 0.117 | ppbV # | 78 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.84 | 43 | 3680 | 0.299 | ppbV # | 85 |
| 21) trichlorofluoromethane | 6.04 | 101 | 888 | 0.072 | ppbV # | 67 |
| 22) isopropyl alcohol | 6.17 | | 0 | N.D. | | |
| 26) 1,1-dichloroethene | 0.00 | | 0 | N.D. | | |
| 27) tertiary butyl alcohol | 0.00 | | 0 | N.D. | | |
| 28) methylene chloride | 6.98 | 49 | 4499 | 0.358 | ppbV | 89 |
| 29) 3-chloropropene | 6.98 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.27 | | 0 | N.D. | | |
| 31) Freon 113 | 0.00 | | 0 | N.D. | | |
| 32) trans-1,2-dichloroethene | 8.13 | 61 | 55590 | 4.127 | ppbV | 96 |
| 33) 1,1-dichloroethane | 0.00 | | 0 | N.D. | | |
| 34) MTBE | 8.44 | | 0 | N.D. | | |
| 36) 2-butanone | 0.00 | | 0 | N.D. | d | |
| 37) cis-1,2-dichloroethene | 9.37 | 61 | 66825 | 5.681 | ppbV | 99 |
| 38) Ethyl Acetate | 0.00 | | 0 | N.D. | | |
| 39) chloroform | 9.72 | 83 | 5036 | 0.311 | ppbV | 97 |
| 40) Tetrahydrofuran | 0.00 | | 0 | N.D. | | |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614703.D
 Acq On : 5 Jan 2020 12:30 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-08D,3,6.66,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:26:53 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 44) hexane | 0.00 | | 0 | | N.D. | |
| 48) 1,1,1-trichloroethane | 0.00 | | 0 | | N.D. | |
| 50) benzene | 11.39 | | 0 | | N.D. | |
| 52) carbon tetrachloride | 0.00 | | 0 | | N.D. | |
| 53) cyclohexane | 0.00 | | 0 | | N.D. | |
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | |
| 57) bromodichloromethane | 12.65 | | 0 | | N.D. | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | |
| 59) trichloroethene | 12.64 | 130 | 95729 | 6.256 | ppbV | 100 |
| 60) 2,2,4-trimethylpentane | 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 | 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 | 14.80 | | 0 | | N.D. | |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | |
| 78) tetrachloroethene | 15.95 | 166 | 1211440 | 80.067 | ppbV | 96 |
| 80) chlorobenzene | 0.00 | | 0 | | N.D. | |
| 81) ethylbenzene | 16.93 | | 0 | | N.D. | |
| 83) m+p-xylene | 17.08 | | 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 | 17.51 | | 0 | | N.D. | |
| 96) 4-ethyl toluene | 18.55 | | 0 | | N.D. | |
| 97) 1,3,5-trimethylbenzene | 18.65 | | 0 | | N.D. | |
| 99) 1,2,4-trimethylbenzene | 19.00 | | 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. | |
| 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614703.D
 Acq On : 5 Jan 2020 12:30 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-08D,3,6.66,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:26:53 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

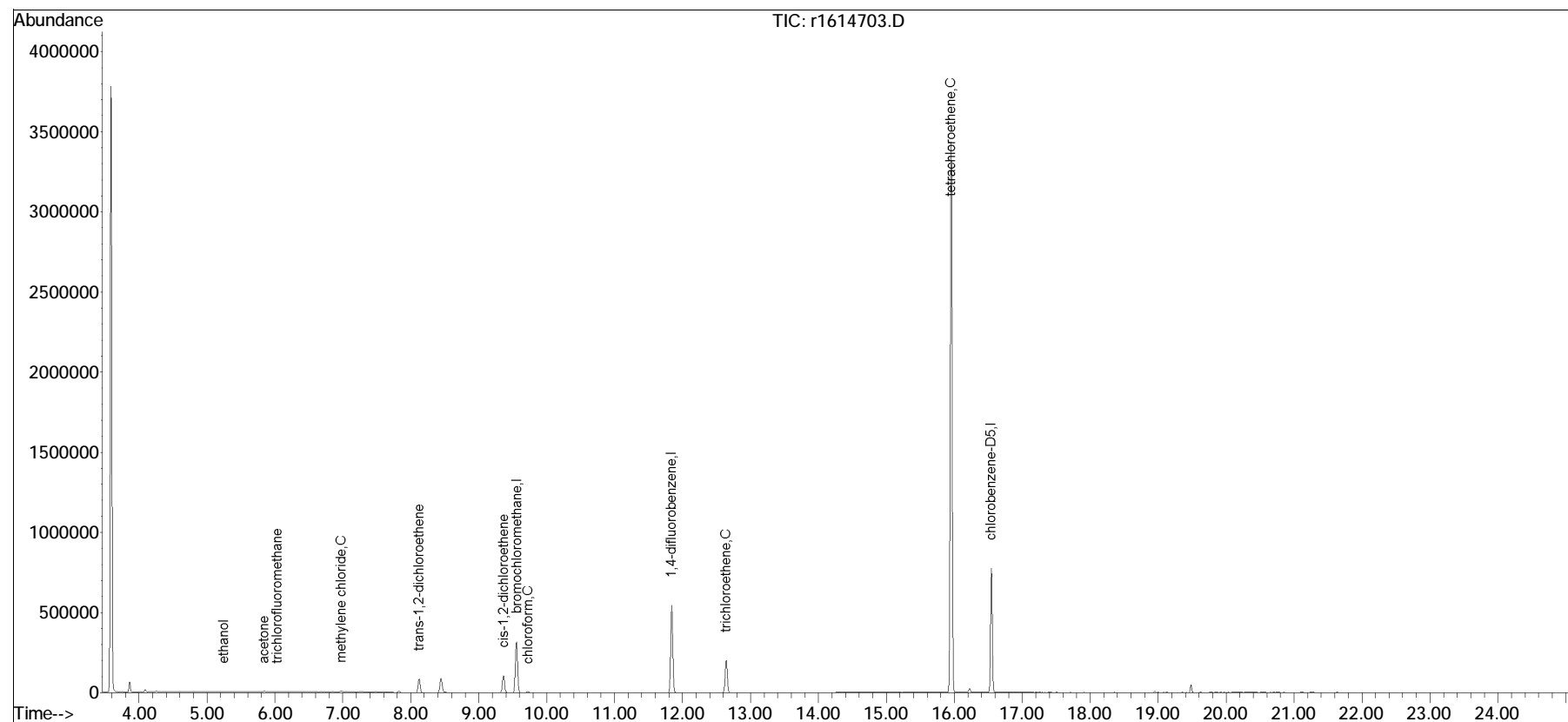
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

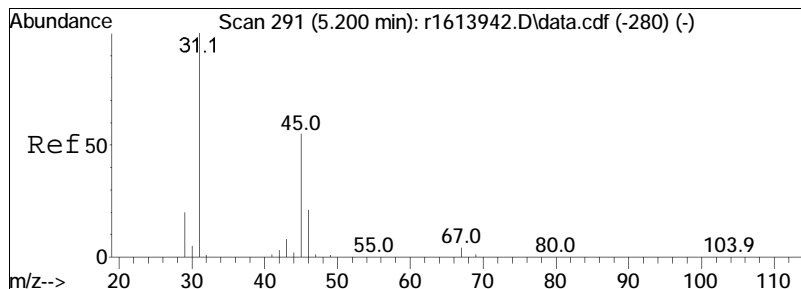
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614703.D
 Acq On : 5 Jan 2020 12:30 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-08D,3,6.66,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:26:53 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

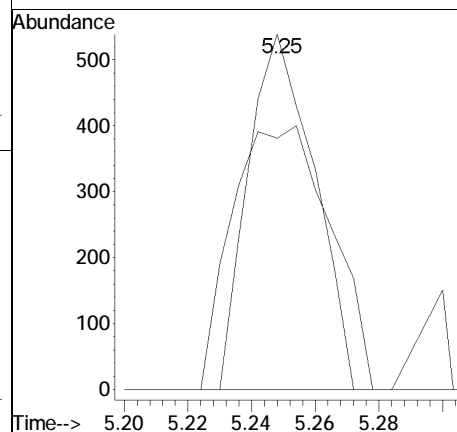
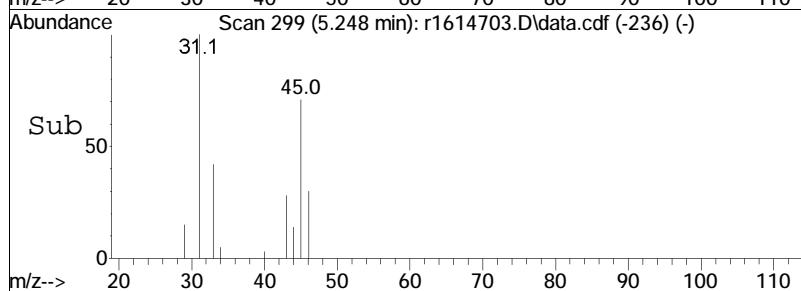
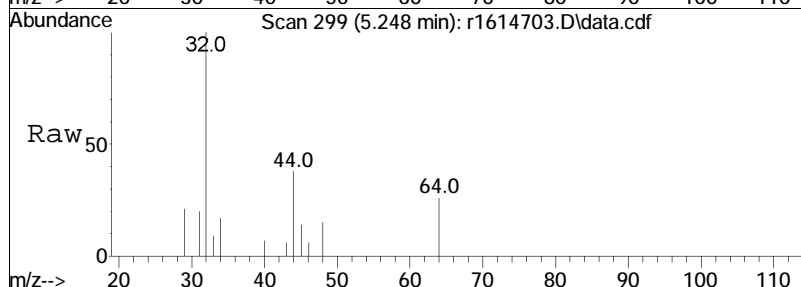
Sub List : TO15-NY - .s\Data\Airlab16\2020\01-JAN\200104T\r1614690.D

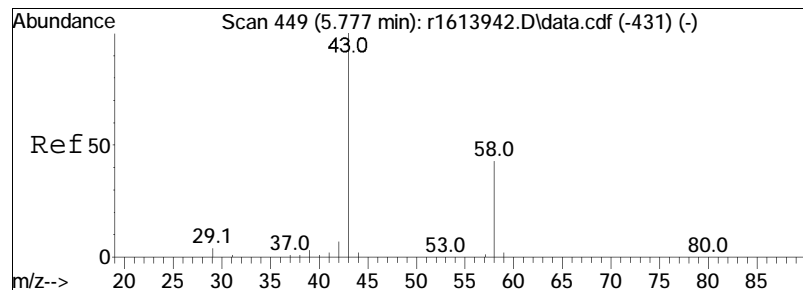




#15
ethanol
Concen: 0.12 ppbV
RT: 5.25 min Scan# 299
Delta R.T. 0.048 min
Lab File: r1614703.D
Acq: 5 Jan 2020 12:30 AM

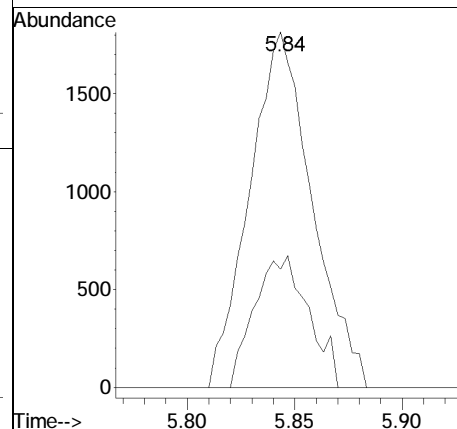
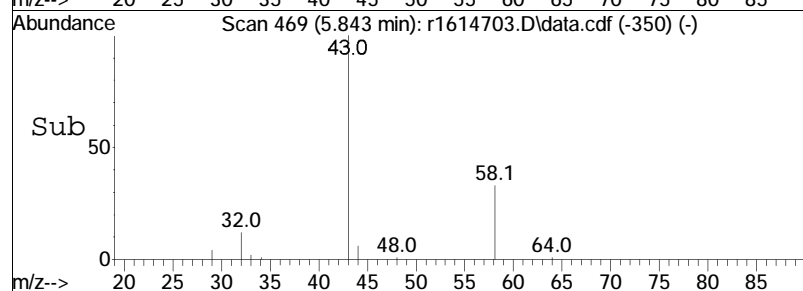
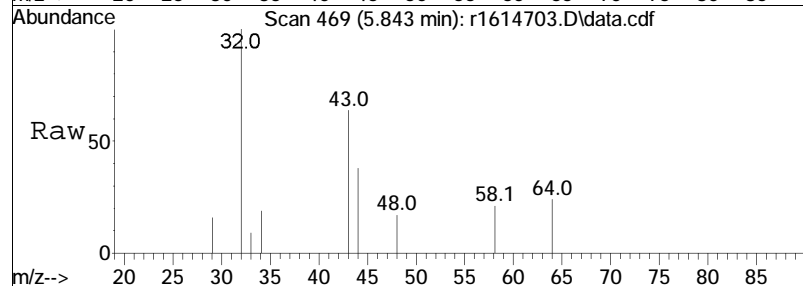
Tgt Ion: 31 Resp: 778
Ion Ratio Lower Upper
31 100
45 70.7 43.7 65.5#

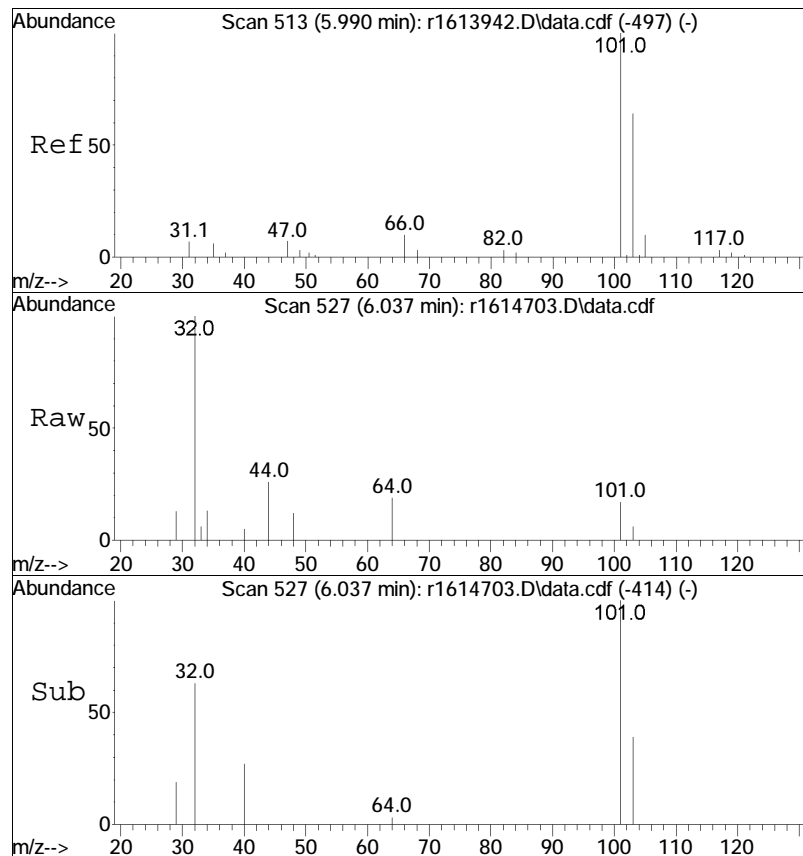




#19
acetone
Concen: 0.30 ppbV
RT: 5.84 min Scan# 469
Delta R.T. 0.067 min
Lab File: r1614703.D
Acq: 5 Jan 2020 12:30 AM

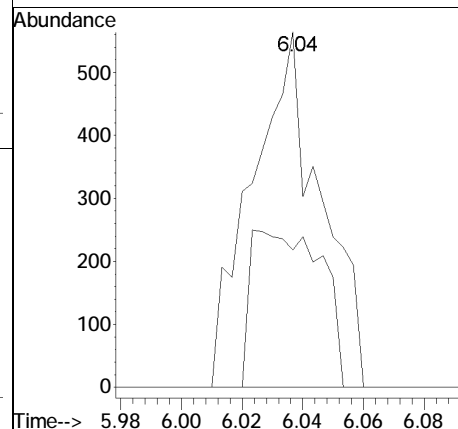
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 33.3 | 34.4 | 51.6# |
| 57 | 0.0 | 0.9 | 1.3# |

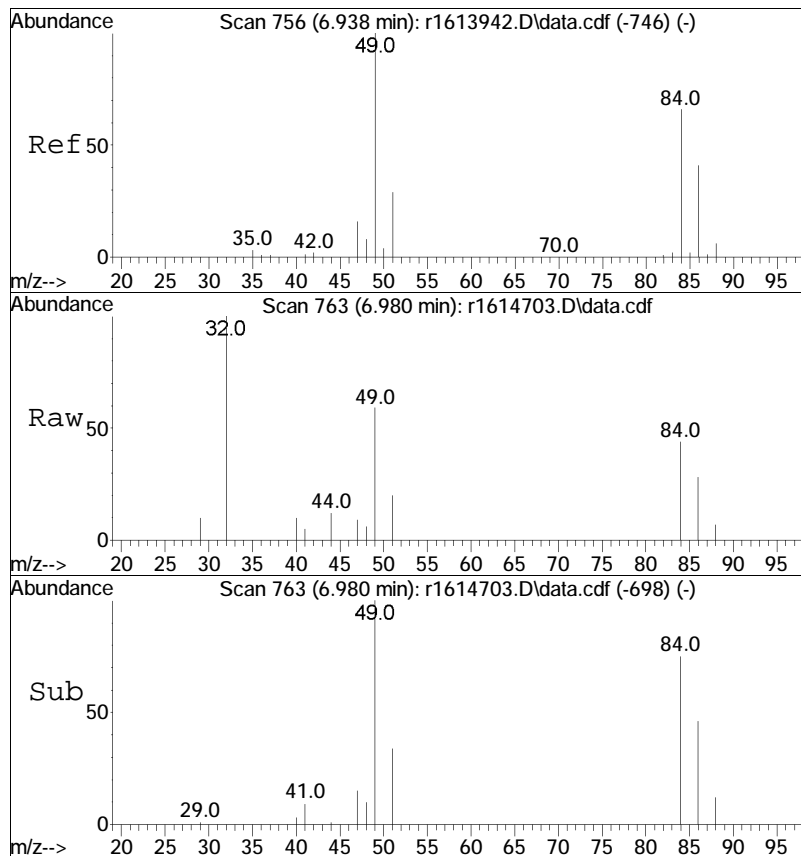




#21
trichlorofluoromethane
Concen: 0.07 ppbV
RT: 6.04 min Scan# 527
Delta R.T. 0.047 min
Lab File: r1614703.D
Acq: 5 Jan 2020 12:30 AM

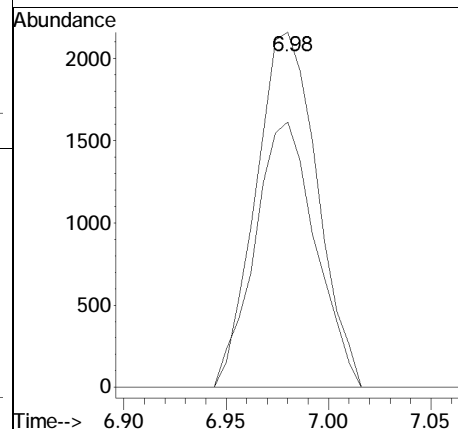
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 101 | 100 | 888 | | |
| 103 | 38.7 | 51.4 | 77.2# | |

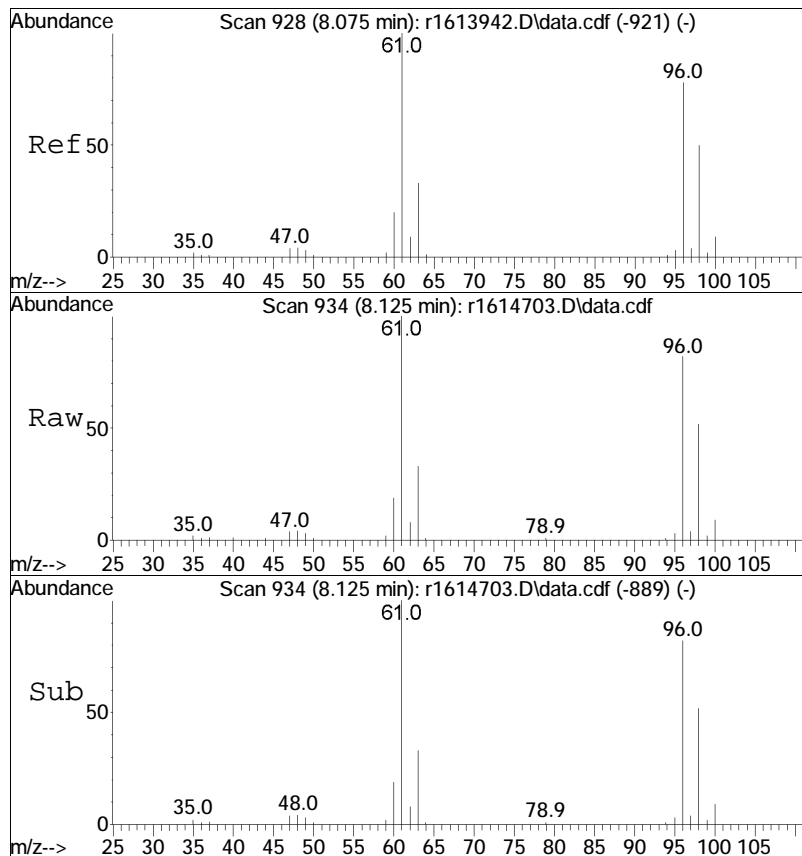




#28
 methylene chloride
 Concen: 0.36 ppbV
 RT: 6.98 min Scan# 763
 Delta R.T. 0.042 min
 Lab File: r1614703.D
 Acq: 5 Jan 2020 12:30 AM

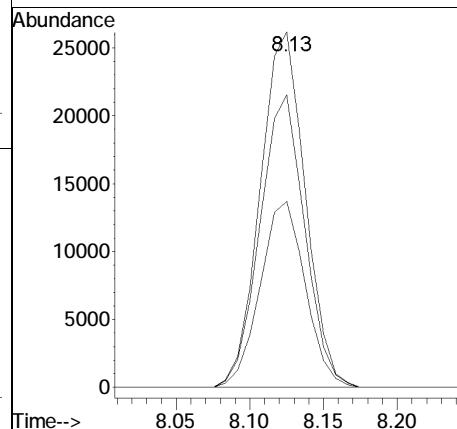
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49 | 100 | | |
| 84 | 74.7 | 53.0 | 79.4 |

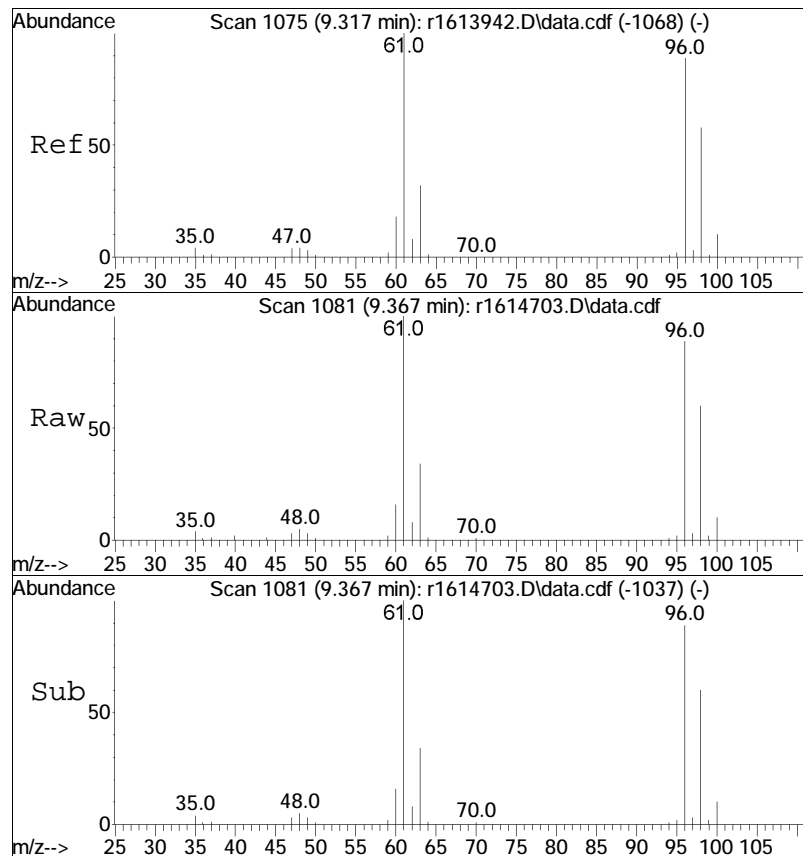




#32
 trans-1,2-dichloroethene
 Concen: 4.13 ppbV
 RT: 8.13 min Scan# 934
 Delta R.T. 0.050 min
 Lab File: r1614703.D
 Acq: 5 Jan 2020 12:30 AM

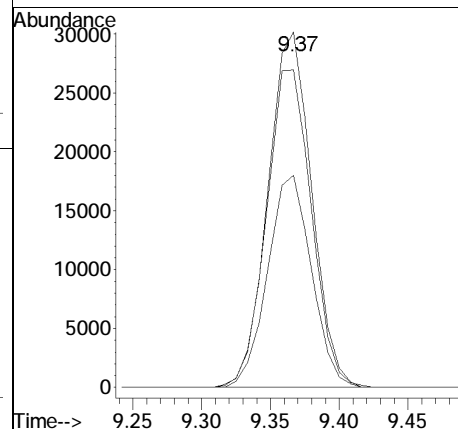
| | | | |
|-----------|-------|-------|-------|
| Tgt Ion: | 61 | Resp: | 55590 |
| Ion Ratio | Lower | Upper | |
| 61 | 100 | | |
| 96 | 82.3 | 62.8 | 94.2 |
| 98 | 52.3 | 40.2 | 60.2 |

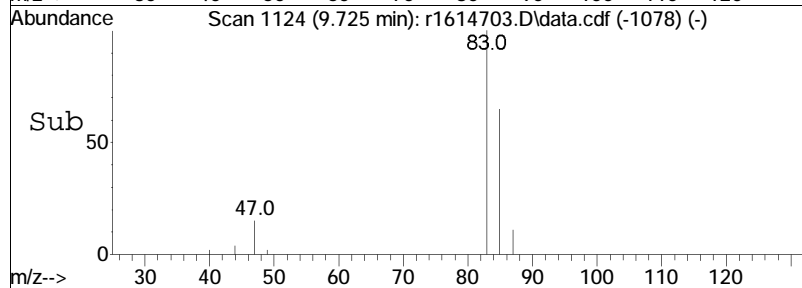
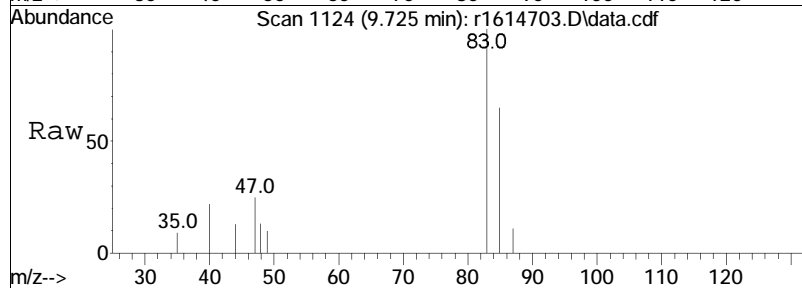
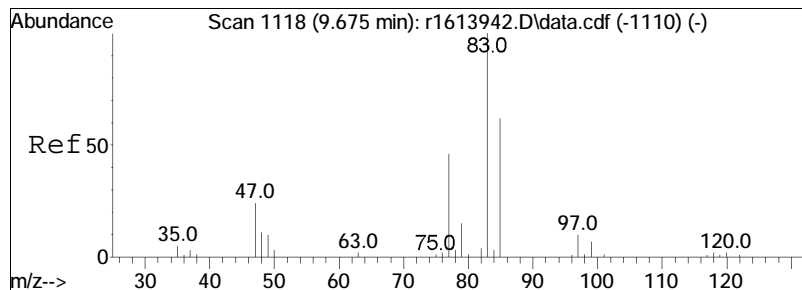




#37
 cis-1,2-dichloroethene
 Concen: 5.68 ppbV
 RT: 9.37 min Scan# 1081
 Delta R.T. 0.050 min
 Lab File: r1614703.D
 Acq: 5 Jan 2020 12:30 AM

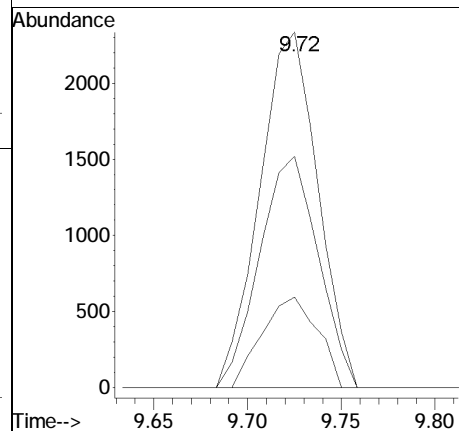
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61 | 100 | | |
| 96 | 89.3 | 71.3 | 106.9 |
| 98 | 59.7 | 46.5 | 69.7 |

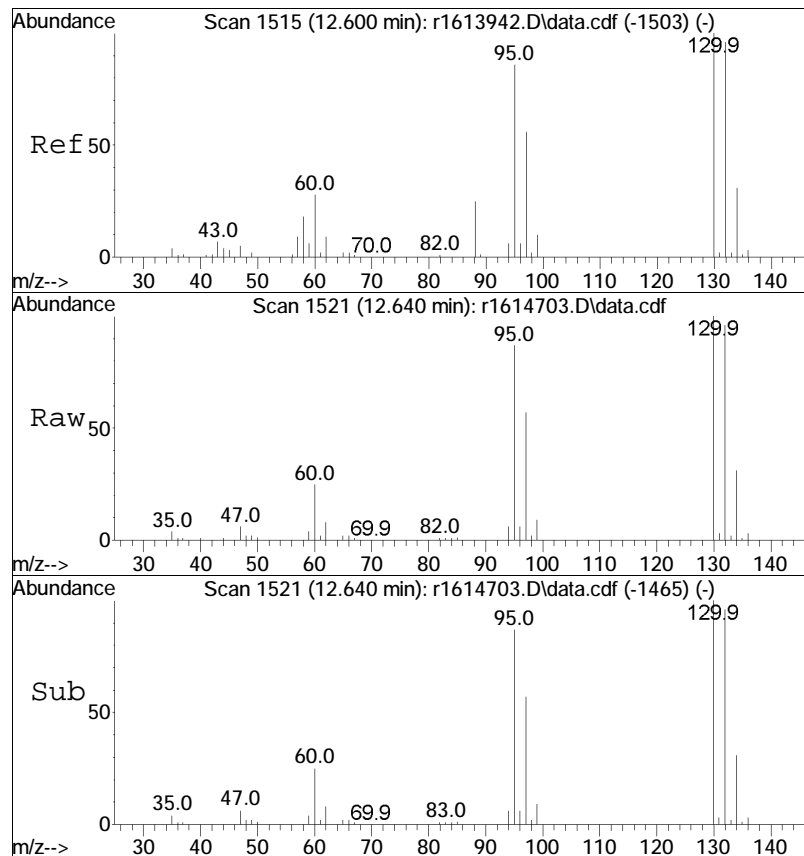




#39
chloroform
Concen: 0.31 ppbV
RT: 9.72 min Scan# 1124
Delta R.T. 0.050 min
Lab File: r1614703.D
Acq: 5 Jan 2020 12:30 AM

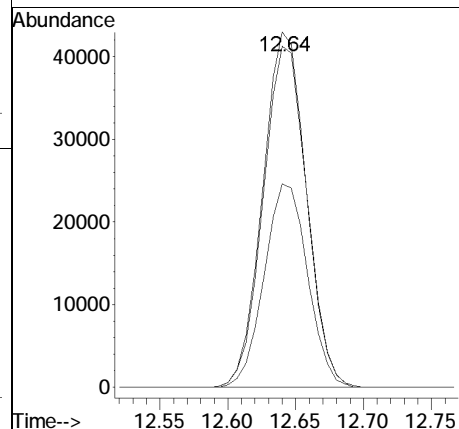
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83 | 100 | | |
| 85 | 65.0 | 50.1 | 75.1 |
| 47 | 25.4 | 19.3 | 28.9 |

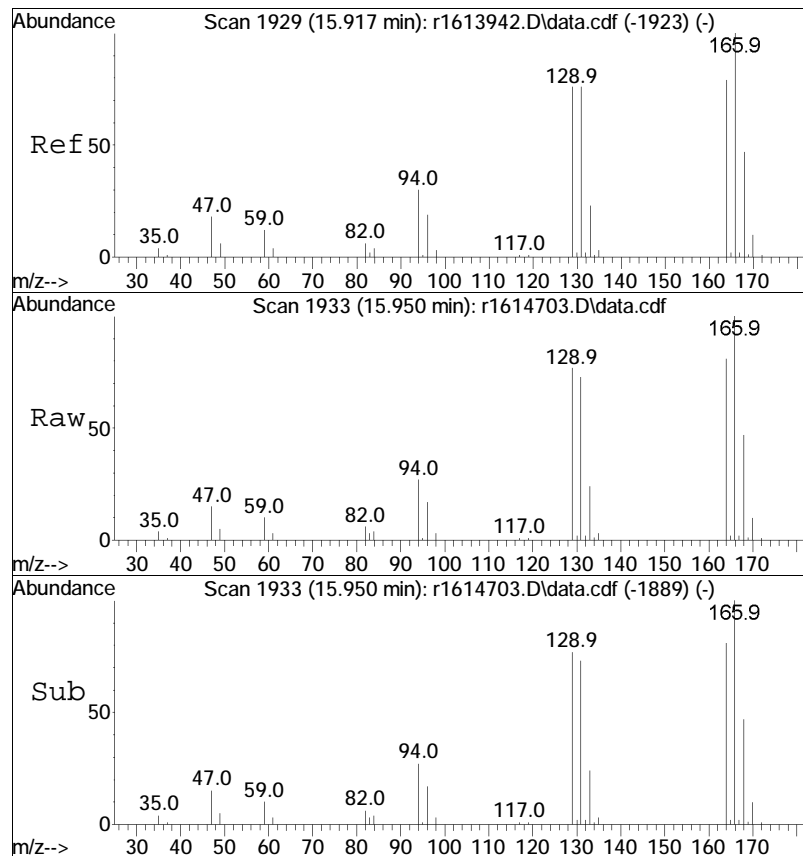




#59
trichloroethene
Concen: 6.26 ppbV
RT: 12.64 min Scan# 1521
Delta R.T. 0.040 min
Lab File: r1614703.D
Acq: 5 Jan 2020 12:30 AM

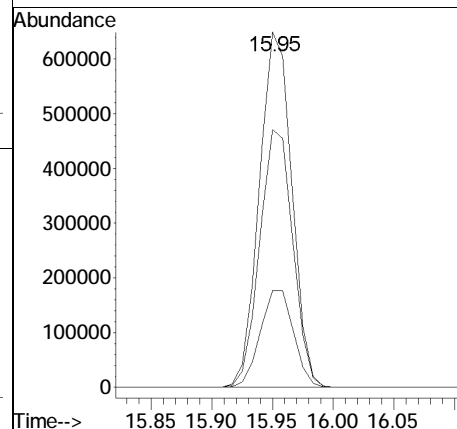
| | | | |
|-----|---------|-------|-------|
| Tgt | Ion:130 | Resp: | 95729 |
| Ion | Ratio | Lower | Upper |
| 130 | 100 | | |
| 132 | 96.0 | 76.7 | 115.1 |
| 97 | 57.3 | 45.2 | 67.8 |





#78
 tetrachloroethene
 Concen: 80.07 ppbV
 RT: 15.95 min Scan# 1933
 Delta R.T. 0.033 min
 Lab File: r1614703.D
 Acq: 5 Jan 2020 12:30 AM

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166 | 100 | | |
| 131 | 72.6 | 60.6 | 91.0 |
| 94 | 27.3 | 24.0 | 36.0 |



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614703.D Operator : AIRLAB16:RY
Date Inj'd : 1/5/2020 0:2: 0 Instrument :
Sample : L1962003-08D,3,6.66,250 Quant Date : 1/5/2020 8:32 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614704.D
 Acq On : 5 Jan 2020 1:10 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-10,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:28:47 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.56 | 49 | 201072 | 10.000 | ppbV | 0.05 |
| Standard Area = 223987 | | | Recovery | = | 89.77% | |
| 43) 1,4-difluorobenzene | 11.84 | 114 | 564240 | 10.000 | ppbV | 0.05 |
| Standard Area = 600707 | | | Recovery | = | 93.93% | |
| 67) chlorobenzene-D5 | 16.55 | 54 | 69985 | 10.000 | ppbV | 0.04 |
| Standard Area = 75409 | | | Recovery | = | 92.81% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|-------|--------|--------|
| 5) dichlorodifluoromethane | 3.93 | 85 | 6644 | 0.445 | ppbV | 99 |
| 6) chloromethane | 0.00 | | 0 | N.D. | d | |
| 7) Freon-114 | 0.00 | | 0 | N.D. | d | |
| 9) vinyl chloride | 4.37 | 62 | 1095 | 0.130 | ppbV # | 1 |
| 10) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.25 | 31 | 11276 | 1.739 | ppbV # | 70 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.84 | 43 | 27908M4 | 2.325 | ppbV | |
| 21) trichlorofluoromethane | 6.04 | 101 | 8395 | 0.699 | ppbV | 100 |
| 22) isopropyl alcohol | 6.17 | 45 | 5819 | 0.376 | ppbV # | 88 |
| 26) 1,1-dichloroethene | 0.00 | | 0 | N.D. | | |
| 27) tertiary butyl alcohol | 6.91 | 59 | 1819 | 0.123 | ppbV # | 78 |
| 28) methylene chloride | 6.98 | 49 | 42604 | 3.478 | ppbV | 90 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.27 | 76 | 39297 | 1.214 | ppbV # | 90 |
| 31) Freon 113 | 7.32 | 101 | 1414 | 0.080 | ppbV | 99 |
| 32) trans-1,2-dichloroethene | 8.13 | 61 | 59867 | 4.559 | ppbV | 96 |
| 33) 1,1-dichloroethane | 0.00 | | 0 | N.D. | | |
| 34) MTBE | 8.45 | | 0 | N.D. | | |
| 36) 2-butanone | 8.88 | 43 | 2963 | 0.127 | ppbV # | 81 |
| 37) cis-1,2-dichloroethene | 9.37 | 61 | 87619 | 7.641 | ppbV | 99 |
| 38) Ethyl Acetate | 0.00 | | 0 | N.D. | | |
| 39) chloroform | 9.72 | 83 | 3680 | 0.233 | ppbV | 98 |
| 40) Tetrahydrofuran | 10.21 | 42 | 1657 | 0.117 | ppbV # | 86 |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | d | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614704.D
 Acq On : 5 Jan 2020 1:10 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-10,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:28:47 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|--------|-------|----------|-----|
| 44) hexane | 9.63 | 57 | 1594 | 0.093 | ppbV | # | 47 |
| 48) 1,1,1-trichloroethane | 10.88 | | 0 | N.D. | | | |
| 50) benzene | 11.40 | 78 | 4106 | 0.113 | ppbV | # | 92 |
| 52) carbon tetrachloride | 11.58 | | 0 | N.D. | | | |
| 53) cyclohexane | 11.72 | 56 | 1016 | 0.056 | ppbV | | 93 |
| 56) 1,2-dichloropropane | 0.00 | | 0 | N.D. | | | |
| 57) bromodichloromethane | 12.65 | | 0 | N.D. | | | |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | | |
| 59) trichloroethene | 12.65 | 130 | 83790 | 5.649 | ppbV | | 100 |
| 60) 2,2,4-trimethylpentane | 12.70 | | 0 | N.D. | | | |
| 62) heptane | 13.01 | 43 | 1378 | 0.054 | ppbV | # | 83 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | N.D. | | | |
| 64) 4-methyl-2-pentanone | 13.73 | | 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 | 14.80 | 91 | 7597 | 0.228 | ppbV | | 100 |
| 72) 2-hexanone | 0.00 | | 0 | N.D. | d | | |
| 74) dibromochloromethane | 0.00 | | 0 | N.D. | | | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | N.D. | | | |
| 78) tetrachloroethene | 15.95 | 166 | 414186 | 28.154 | ppbV | | 99 |
| 80) chlorobenzene | 0.00 | | 0 | N.D. | | | |
| 81) ethylbenzene | 16.93 | 91 | 4869 | 0.117 | ppbV | | 89 |
| 83) m+p-xylene | 17.08 | 91 | 14459 | 0.422 | ppbV | | 94 |
| 84) bromoform | 0.00 | | 0 | N.D. | | | |
| 85) styrene | 17.42 | 104 | 1639 | 0.052 | ppbV | | 94 |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | N.D. | | | |
| 87) o-xylene | 17.51 | 91 | 7333 | 0.213 | ppbV | | 92 |
| 96) 4-ethyl toluene | 18.58 | 105 | 5208M3 | 0.097 | ppbV | | |
| 97) 1,3,5-trimethylbenzene | 18.65 | 105 | 7063 | 0.158 | ppbV | | 99 |
| 99) 1,2,4-trimethylbenzene | 19.00 | 105 | 29110 | 0.680 | ppbV | # | 60 |
| 101) Benzyl Chloride | 0.00 | | 0 | N.D. | d | | |
| 102) 1,3-dichlorobenzene | 19.13 | 146 | 2200 | 0.075 | ppbV | | 96 |
| 103) 1,4-dichlorobenzene | 0.00 | | 0 | N.D. | 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614704.D
 Acq On : 5 Jan 2020 1:10 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-10,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:28:47 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY - .

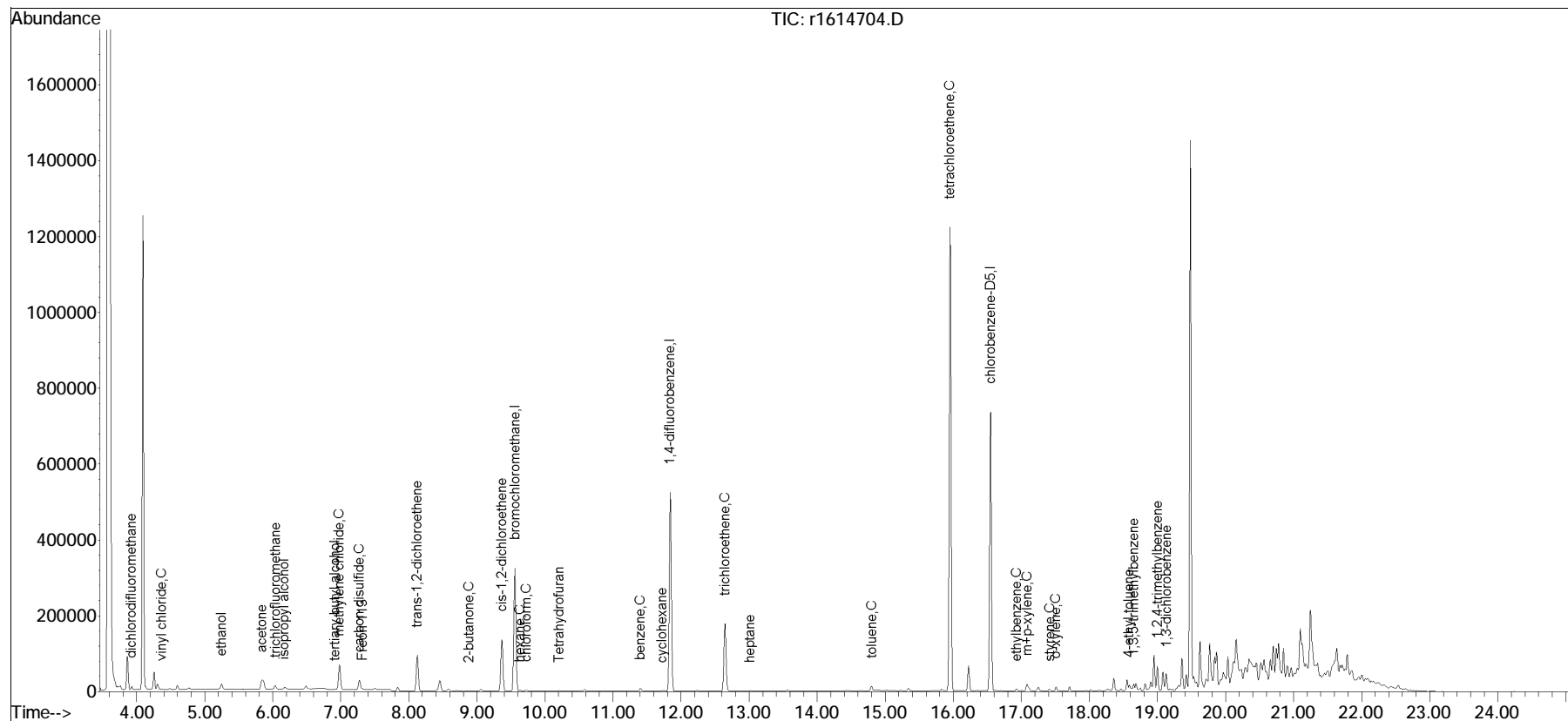
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

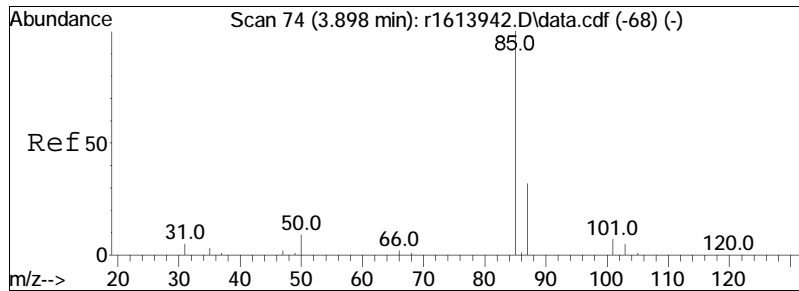
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614704.D
 Acq On : 5 Jan 2020 1:10 AM
 Operator : AIRLAB16:RY
 Sample : L1962003-10,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:28:47 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

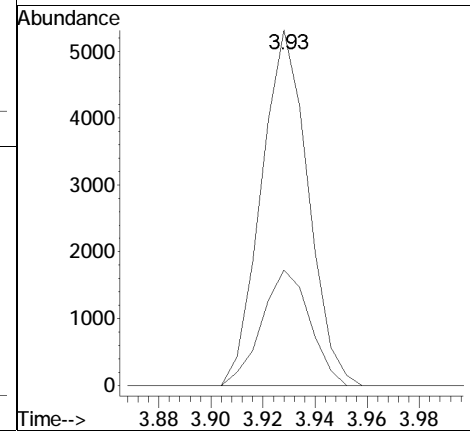
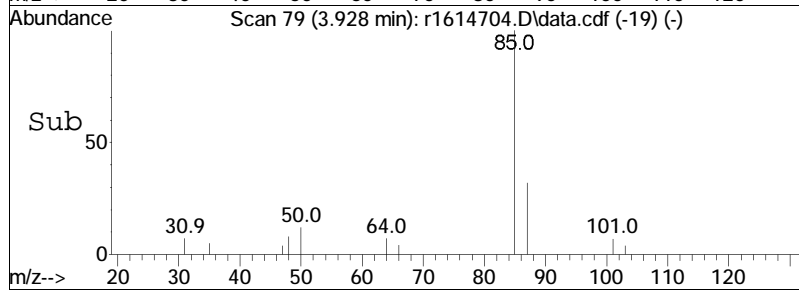
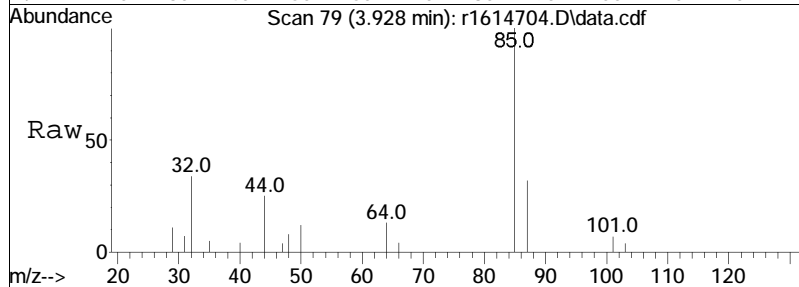
Sub List : TO15-NY - .s\Data\Airlab16\2020\01-JAN\200104T\r1614690.D

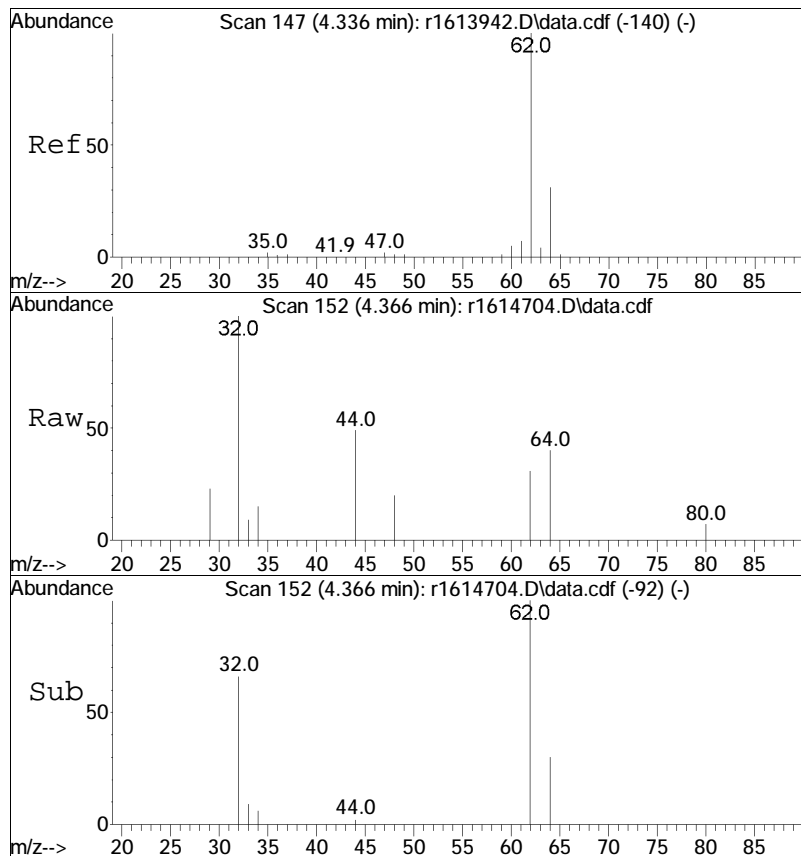




#5
 dichlorodifluoromethane
 Concen: 0.45 ppbV
 RT: 3.93 min Scan# 79
 Delta R.T. 0.030 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

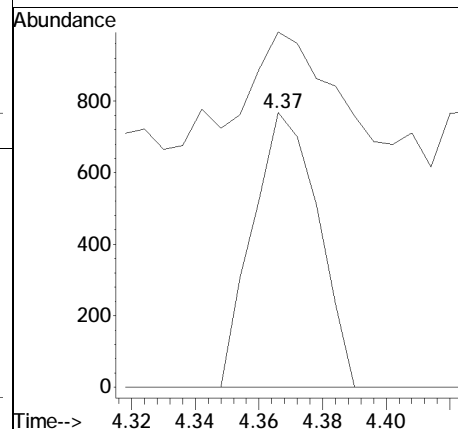
Tgt Ion: 85 Resp: 6644
 Ion Ratio Lower Upper
 85 100
 87 32.5 25.5 38.3

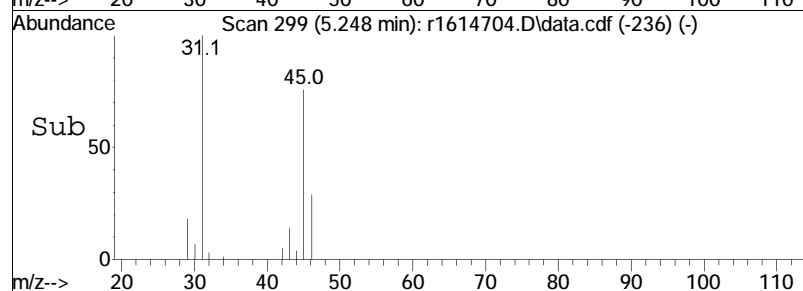
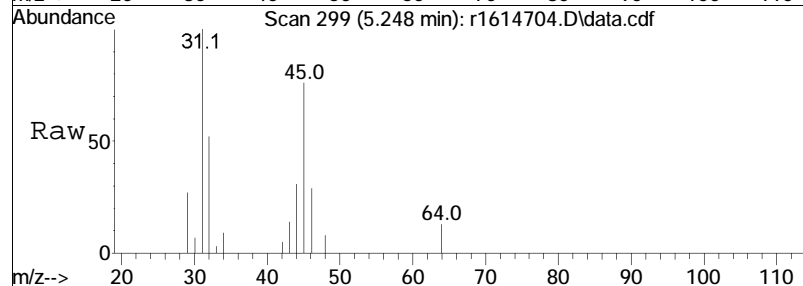
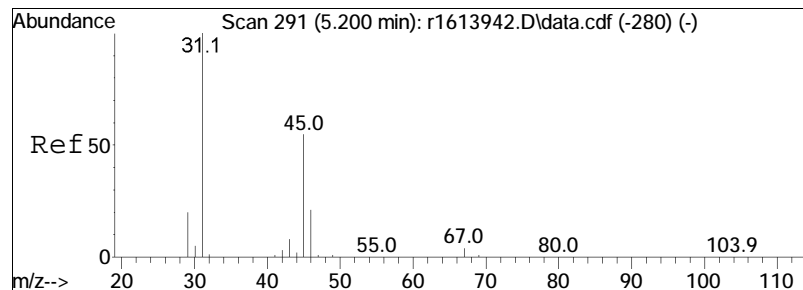




#9
vinyl chloride
Concen: 0.13 ppbV
RT: 4.37 min Scan# 152
Delta R.T. 0.030 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

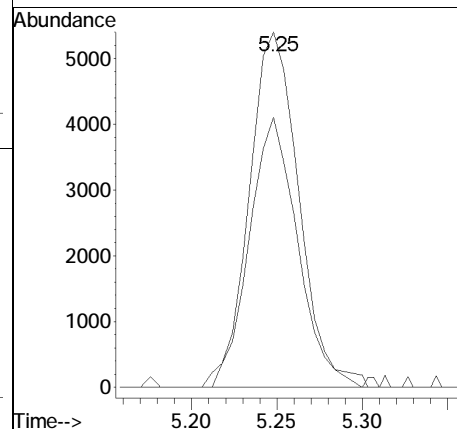
Tgt Ion: 62 Resp: 1095
Ion Ratio Lower Upper
62 100
64 129.3 24.9 37.3#

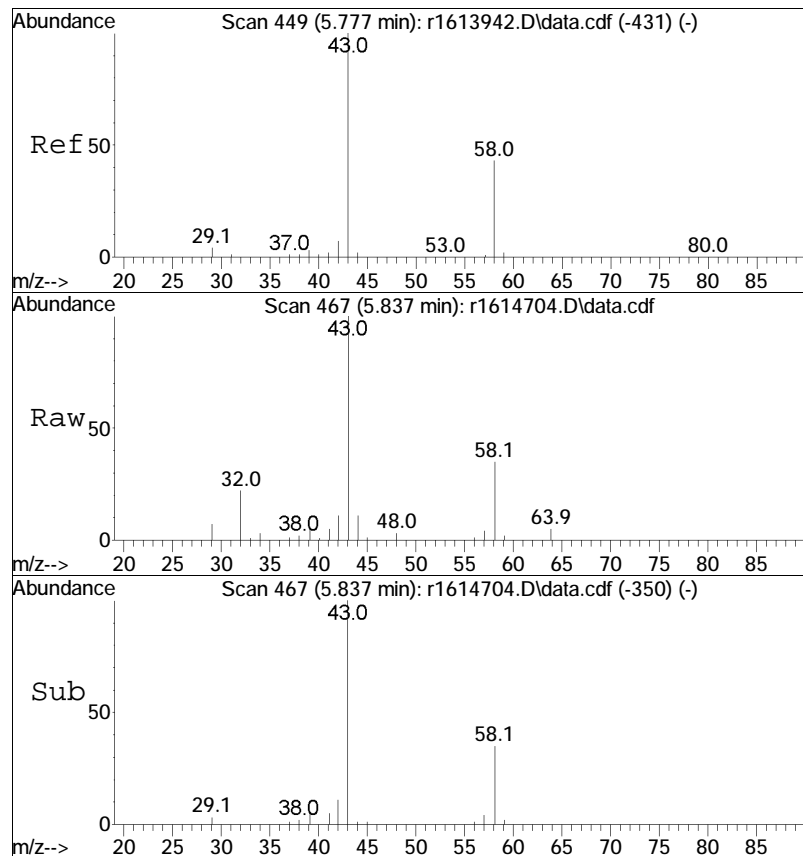




#15
ethanol
Concen: 1.74 ppbV
RT: 5.25 min Scan# 299
Delta R.T. 0.048 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

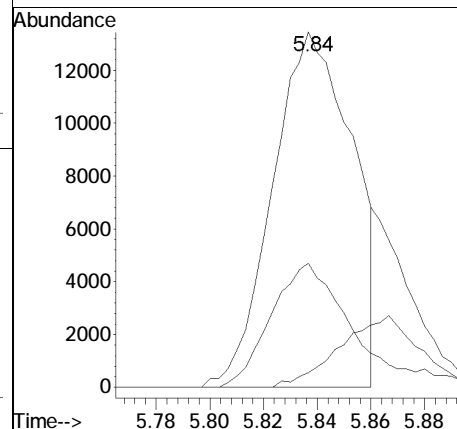
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 76.0 | 43.7 | 65.5# |

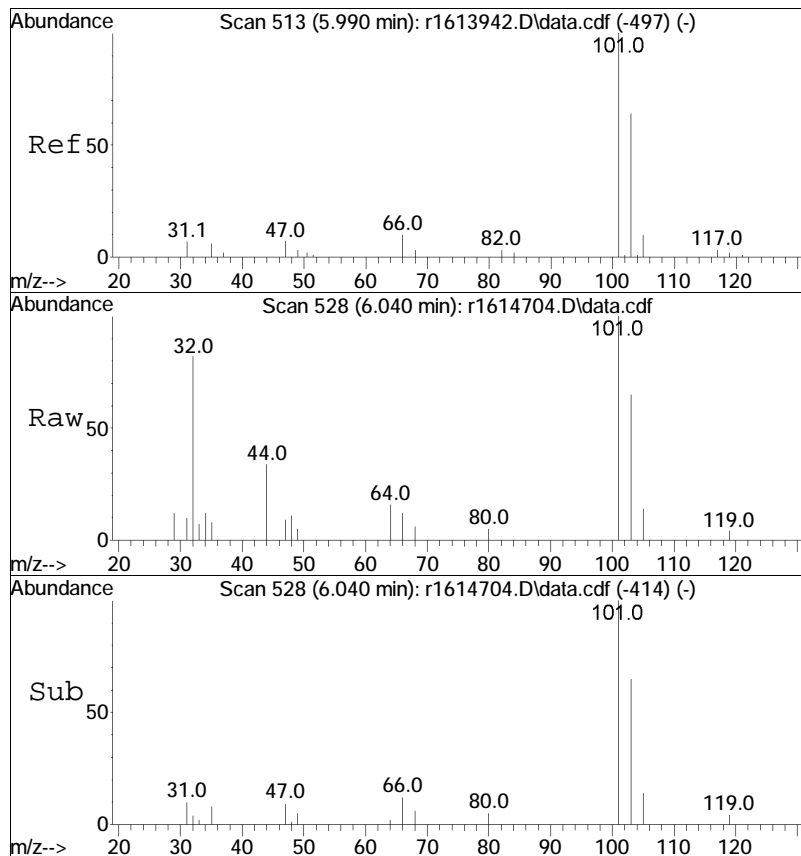




#19
acetone
Concen: 2.32 ppbV m
RT: 5.84 min Scan# 467
Delta R.T. 0.060 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

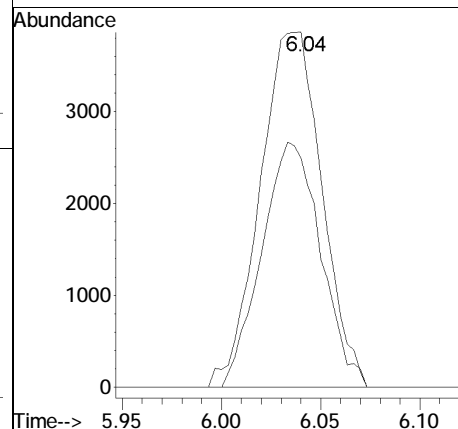
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 35.0 | 34.4 | 51.6 |
| 57 | 4.1 | 0.9 | 1.3# |

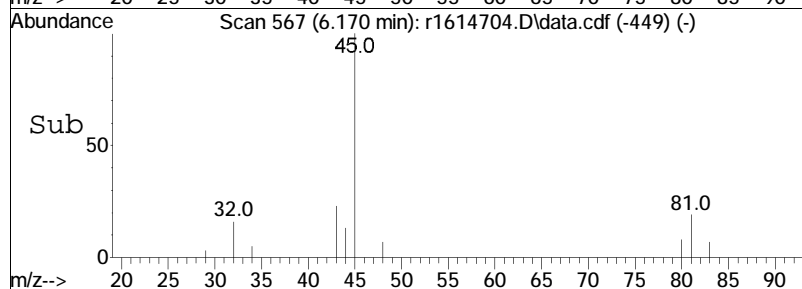
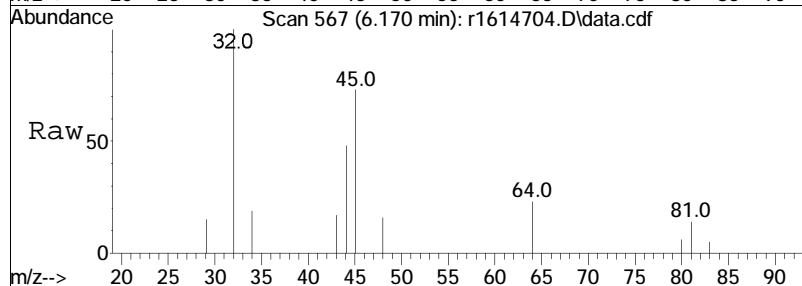
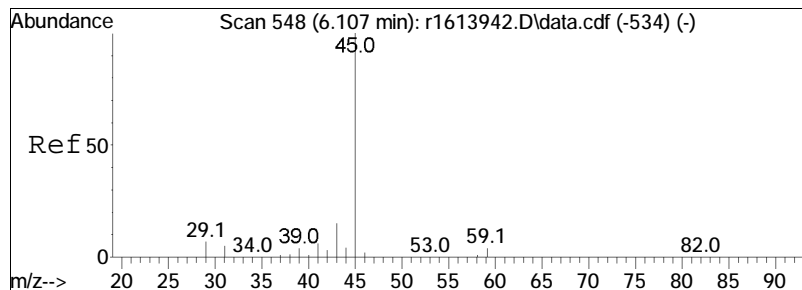




#21
trichlorofluoromethane
Concen: 0.70 ppbV
RT: 6.04 min Scan# 528
Delta R.T. 0.050 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

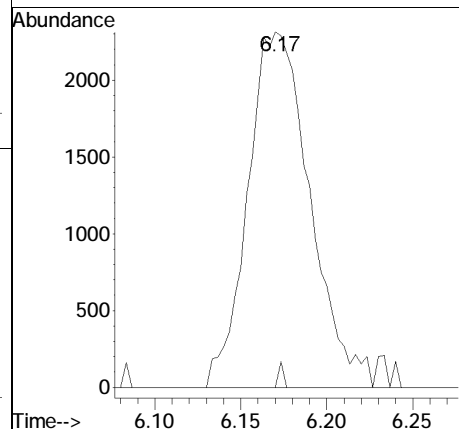
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 8395 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 103 | 64.6 | 51.4 | 77.2 |

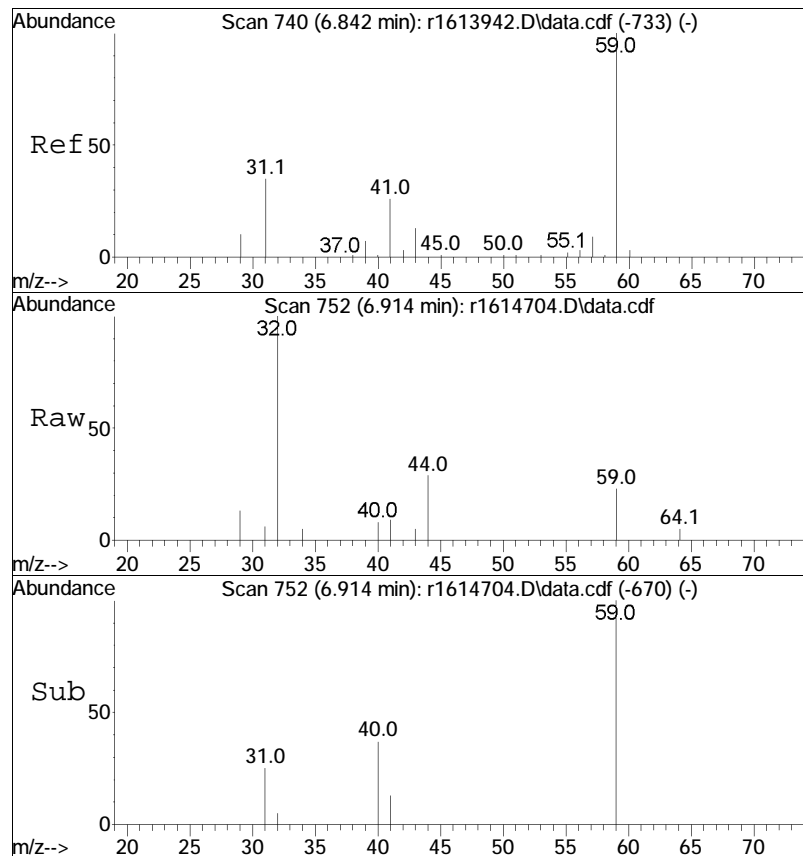




#22
isopropyl alcohol
Concen: 0.38 ppbV
RT: 6.17 min Scan# 567
Delta R.T. 0.063 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

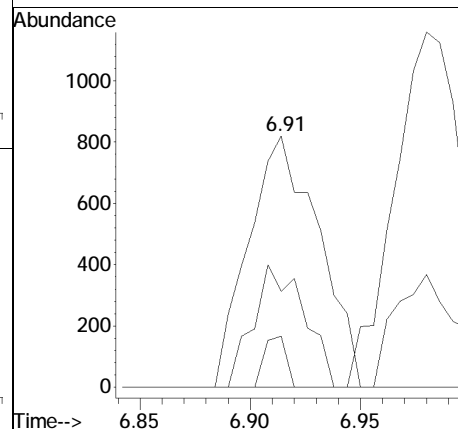
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 0.0 | 3.2 | 4.8# |

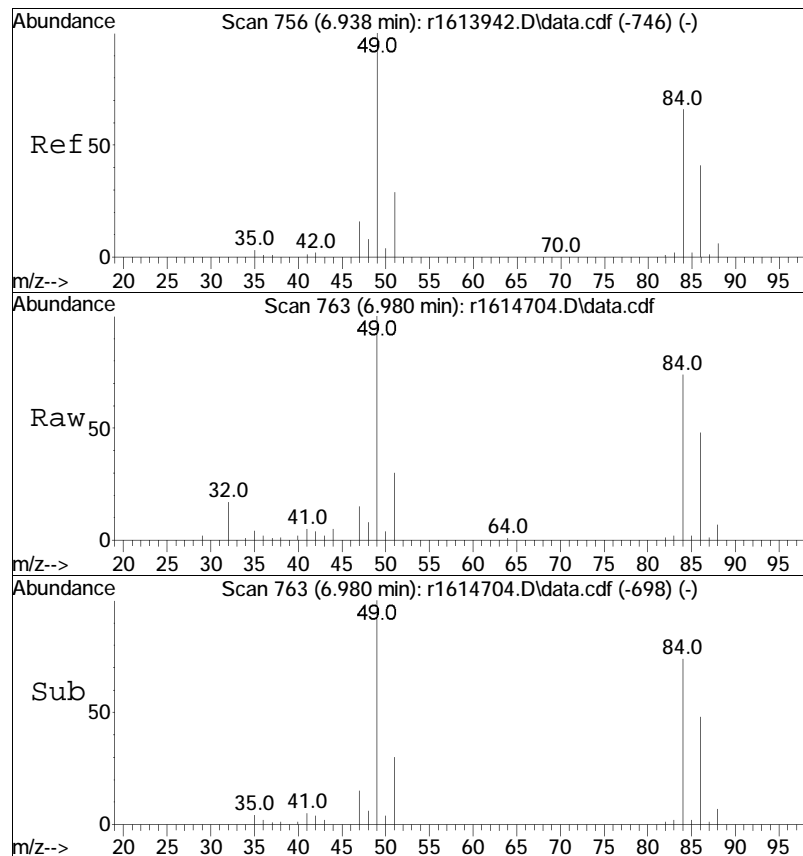




#27
 tertiary butyl alcohol
 Concen: 0.12 ppbV
 RT: 6.91 min Scan# 752
 Delta R.T. 0.072 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

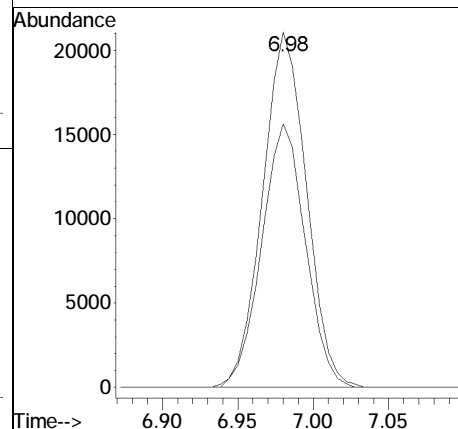
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 59 | Resp: | 1819 |
| Ion | Ratio | Lower | Upper |
| 59 | 100 | | |
| 41 | 38.2 | 20.8 | 31.2# |
| 43 | 20.4 | 10.4 | 15.6# |

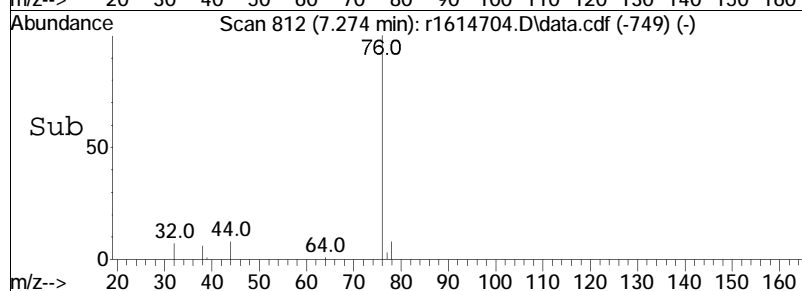
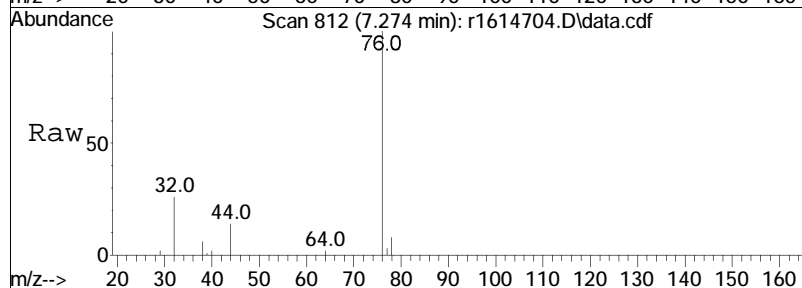
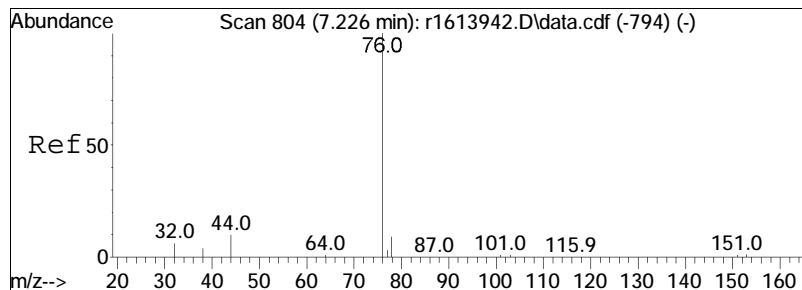




#28
 methylene chloride
 Concen: 3.48 ppbV
 RT: 6.98 min Scan# 763
 Delta R.T. 0.042 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

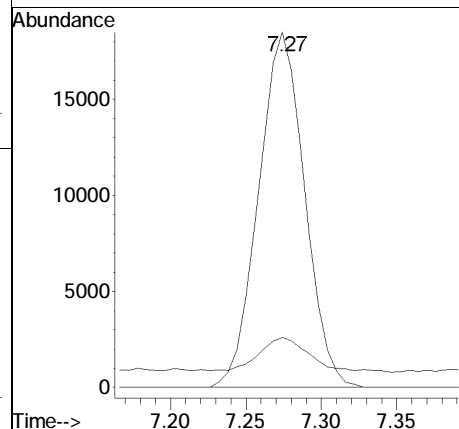
| Tgt Ion: | 49 | 84 | Ratio | Lower | Upper |
|----------|-------|------|-------|-------|-------|
| Resp: | 42604 | | | | |
| | 100 | 74.2 | | 53.0 | 79.4 |

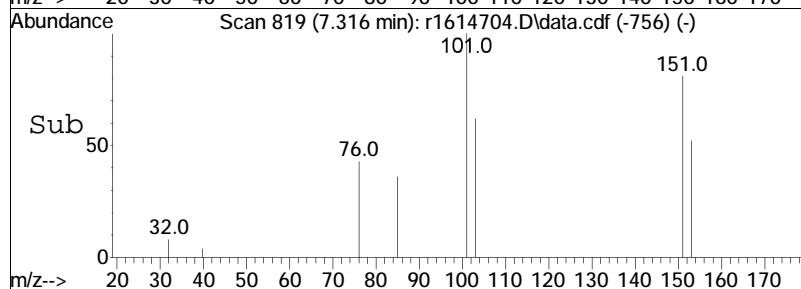
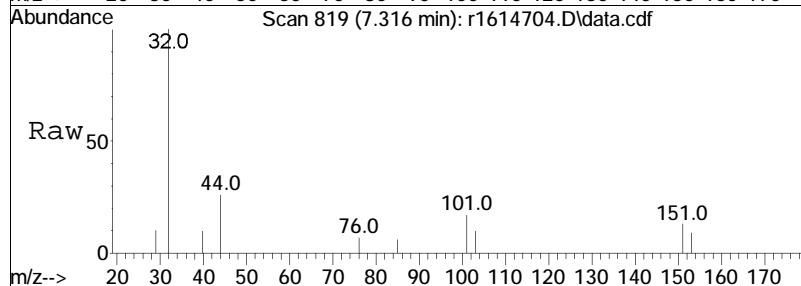
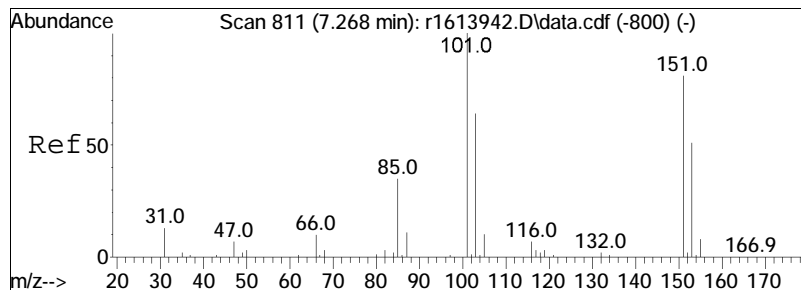




#30
carbon disulfide
Concen: 1.21 ppbV
RT: 7.27 min Scan# 812
Delta R.T. 0.048 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

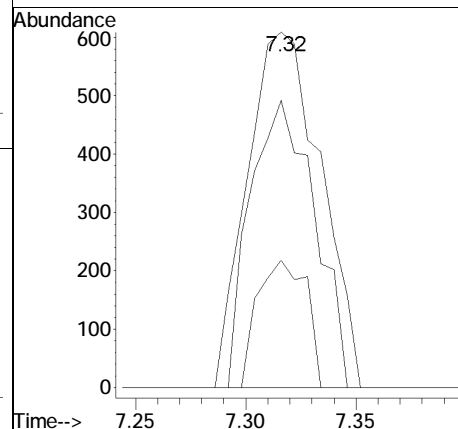
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 14.0 | 8.3 | 12.5# |

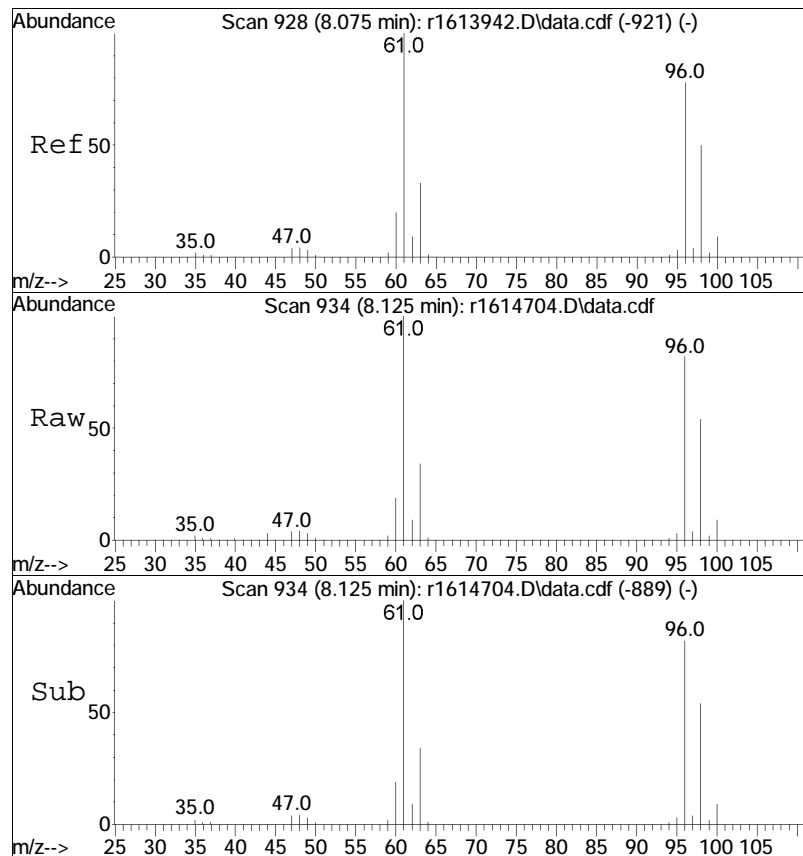




#31
 Freon 113
 Concen: 0.08 ppbV
 RT: 7.32 min Scan# 819
 Delta R.T. 0.048 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

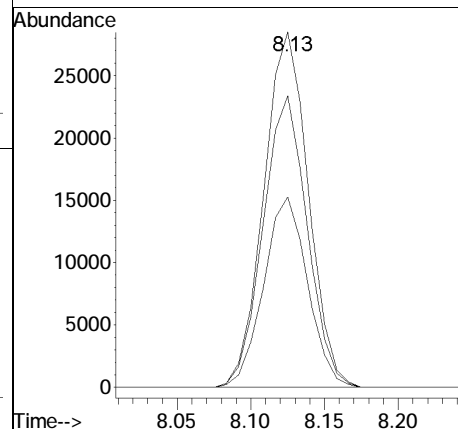
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 1414 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 85 | 35.8 | 27.8 | 41.6 |
| 151 | 80.8 | 65.0 | 97.6 |

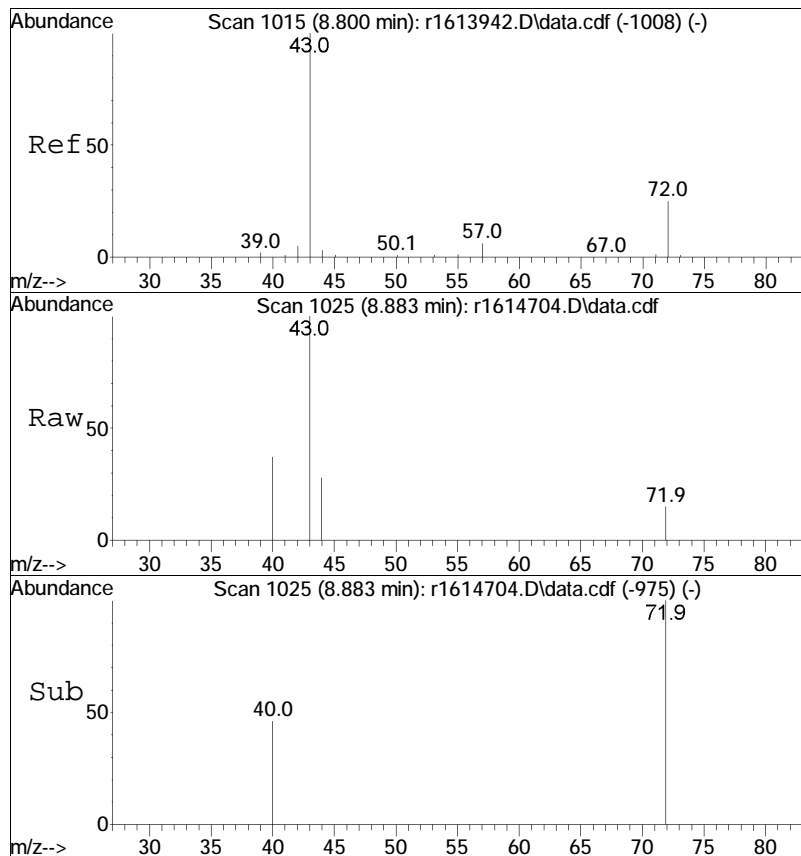




#32
 trans-1,2-dichloroethene
 Concen: 4.56 ppbV
 RT: 8.13 min Scan# 934
 Delta R.T. 0.050 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

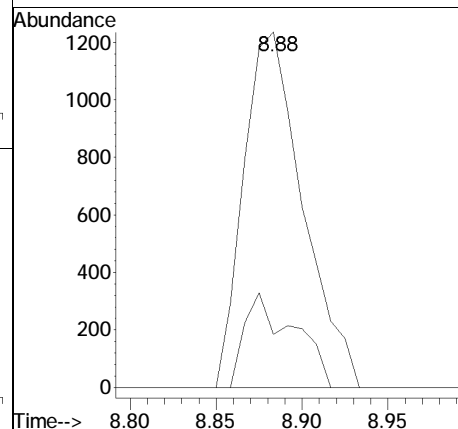
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61 | 100 | | |
| 96 | 82.1 | 62.8 | 94.2 |
| 98 | 53.6 | 40.2 | 60.2 |

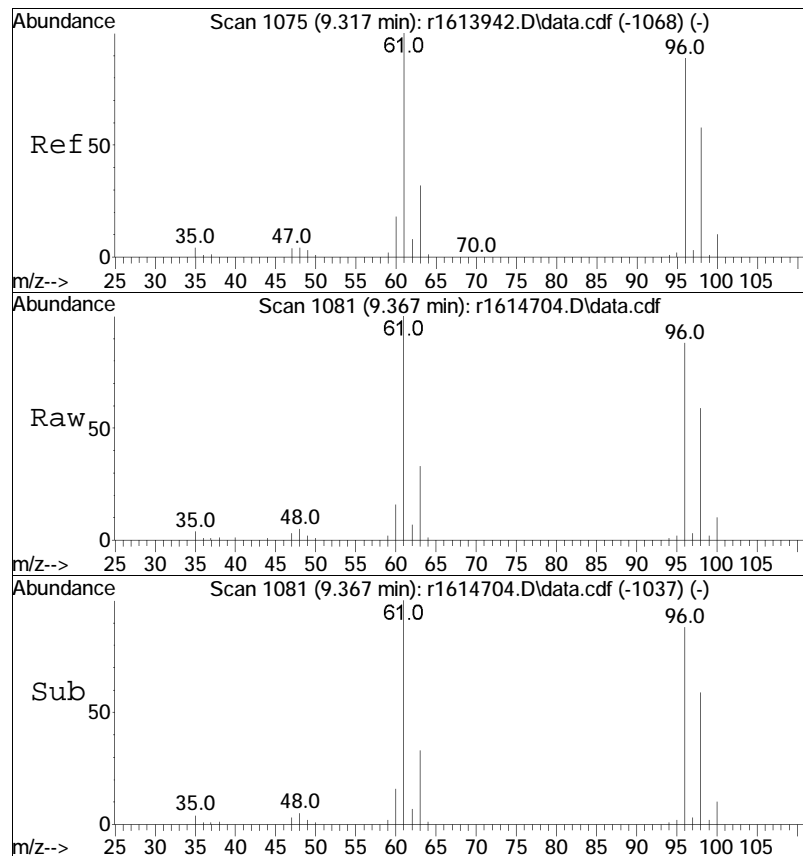




#36
 2-butanone
 Concen: 0.13 ppbV
 RT: 8.88 min Scan# 1025
 Delta R.T. 0.083 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

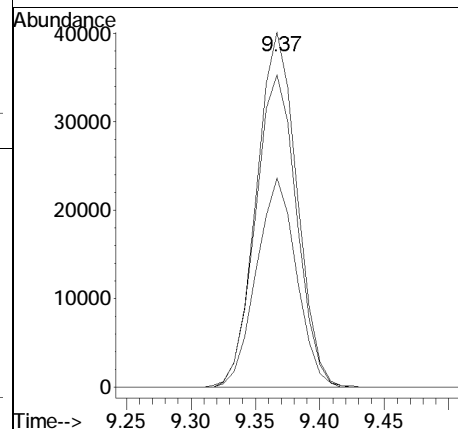
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 15.0 | 19.8 | 29.6# |
| 57 | 0.0 | 4.8 | 7.2# |

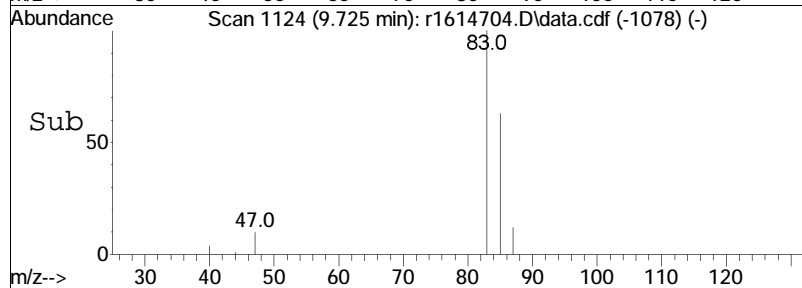
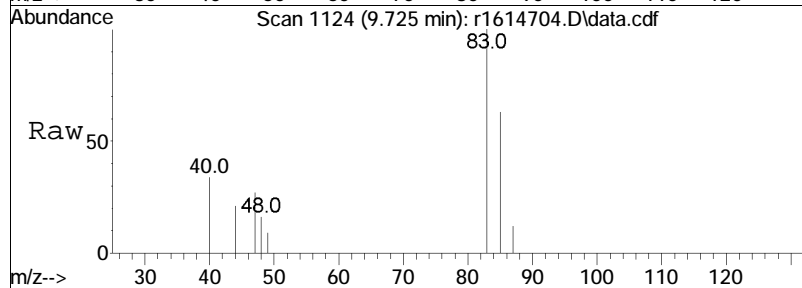
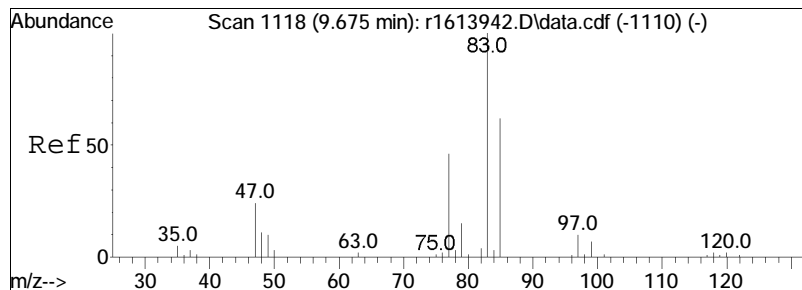




#37
 cis-1,2-dichloroethene
 Concen: 7.64 ppbV
 RT: 9.37 min Scan# 1081
 Delta R.T. 0.050 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

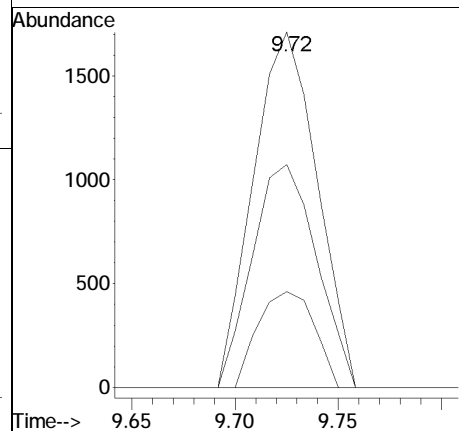
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61 | 100 | | |
| 96 | 88.0 | 71.3 | 106.9 |
| 98 | 58.9 | 46.5 | 69.7 |

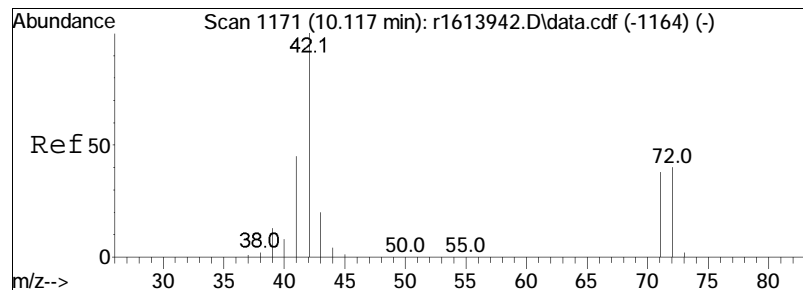




#39
chloroform
Concen: 0.23 ppbV
RT: 9.72 min Scan# 1124
Delta R.T. 0.050 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

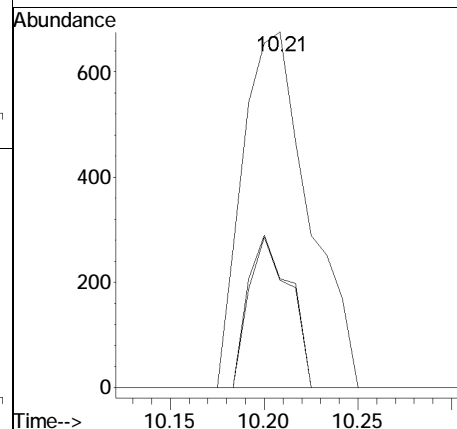
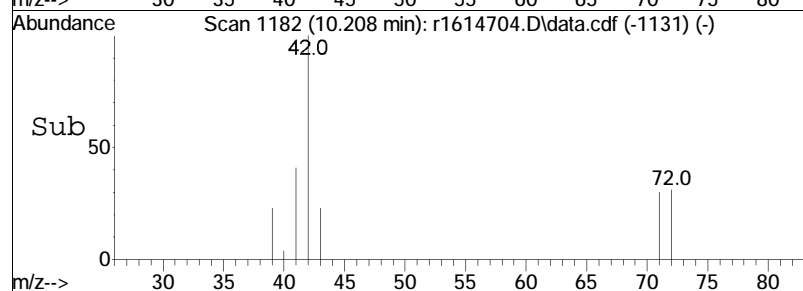
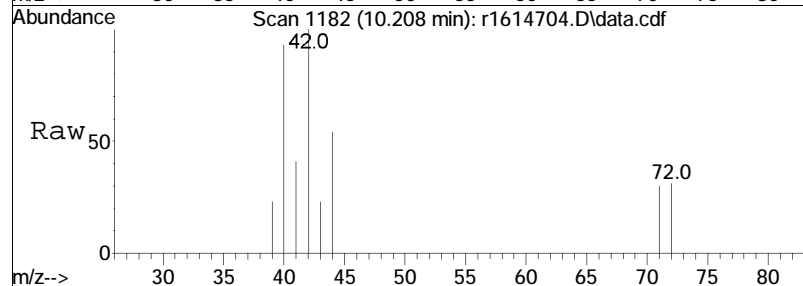
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83 | 100 | | |
| 85 | 62.7 | 50.1 | 75.1 |
| 47 | 27.0 | 19.3 | 28.9 |

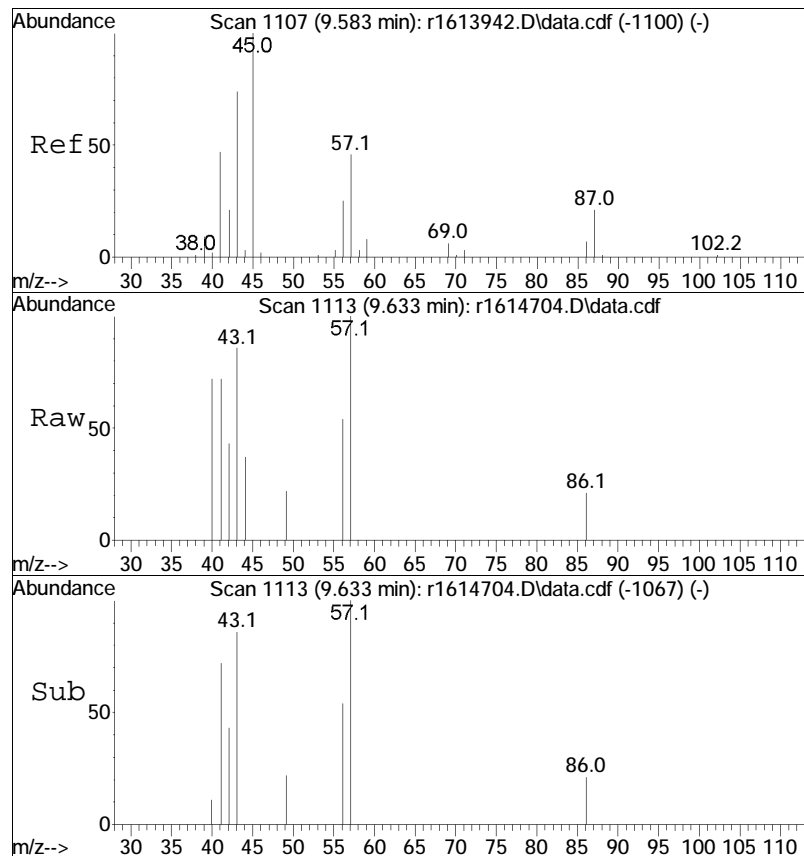




#40
Tetrahydrofuran
Concen: 0.12 ppbV
RT: 10.21 min Scan# 1182
Delta R.T. 0.092 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

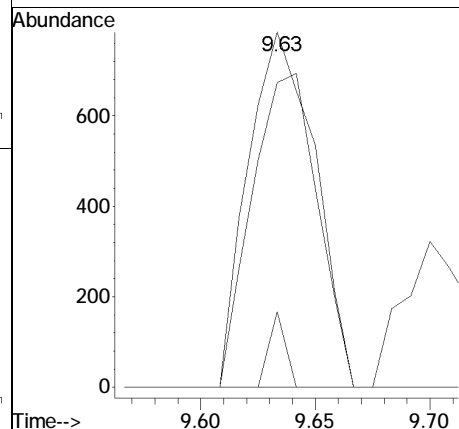
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42 | 100 | | |
| 71 | 30.2 | 30.0 | 45.0 |
| 72 | 30.6 | 31.9 | 47.9# |

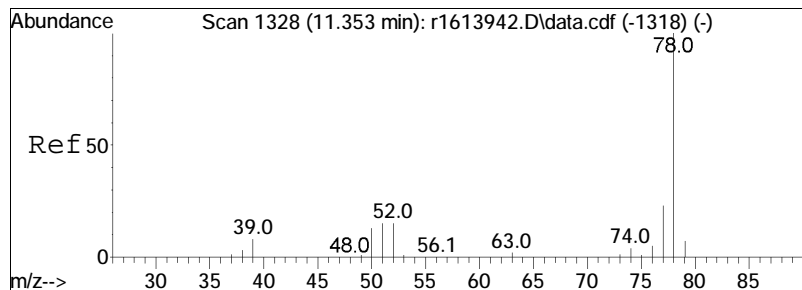




#44
 hexane
 Concen: 0.09 ppbV
 RT: 9.63 min Scan# 1113
 Delta R.T. 0.050 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

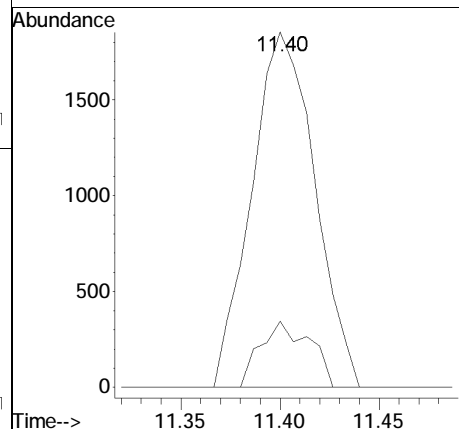
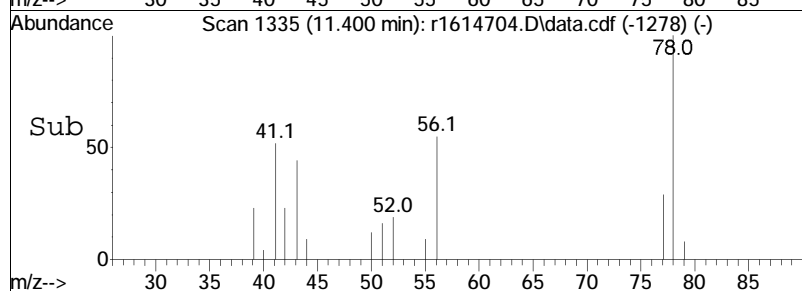
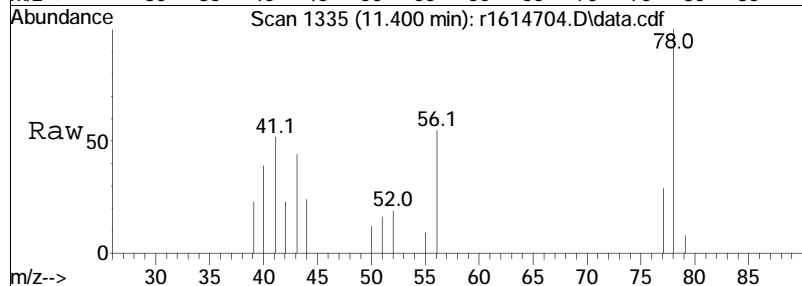
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 57 | Resp: | 1594 |
| Ion Ratio | Lower | Upper | |
| 57 | 100 | | |
| 43 | 85.7 | 129.6 | 194.4# |
| 86 | 21.3 | 12.8 | 19.2# |

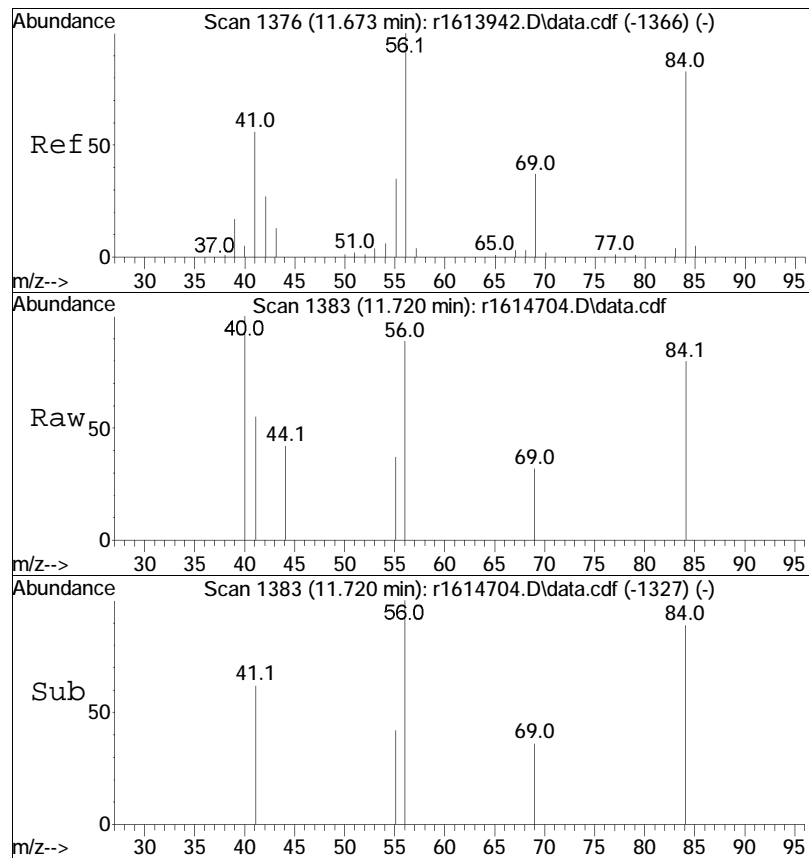




#50
benzene
Concen: 0.11 ppbV
RT: 11.40 min Scan# 1335
Delta R.T. 0.047 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

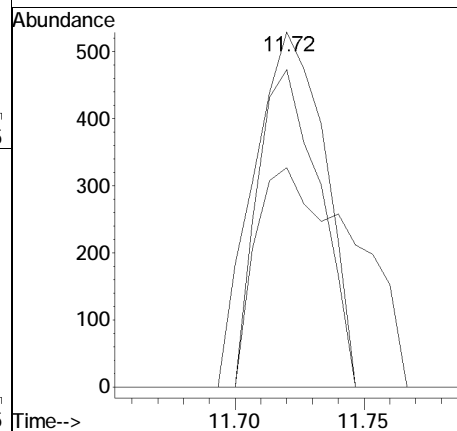
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 100 | | |
| 52 | 18.6 | 12.2 | 18.2# |

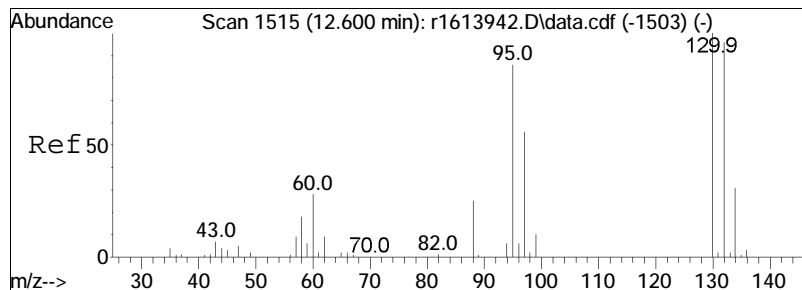




#53
 cyclohexane
 Concen: 0.06 ppbV
 RT: 11.72 min Scan# 1383
 Delta R.T. 0.047 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

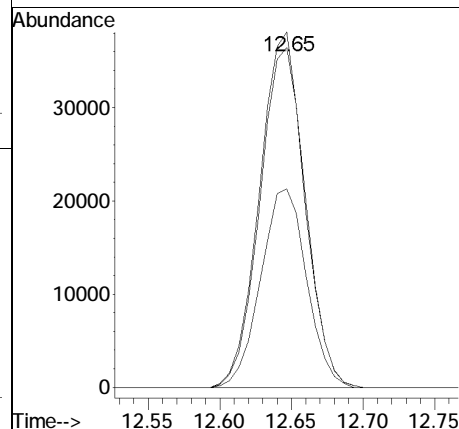
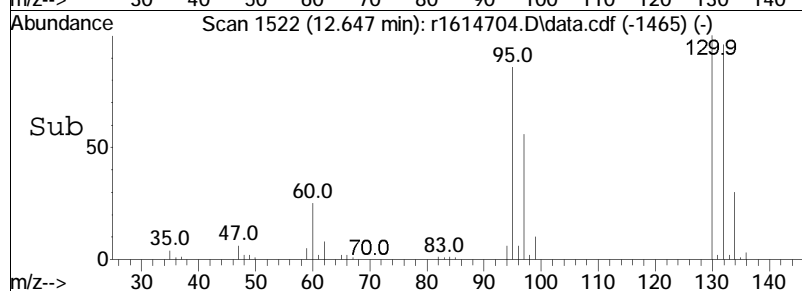
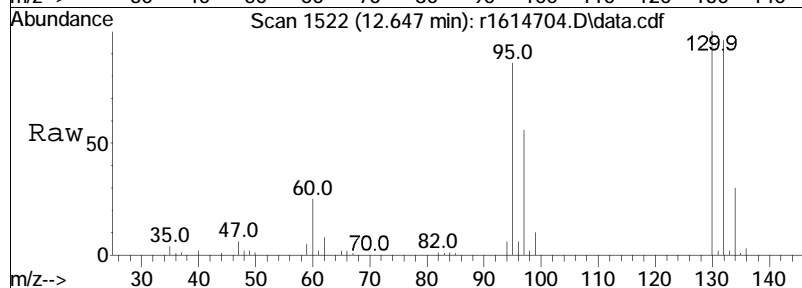
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 56 | Resp: | 1016 |
| Ion | Ratio | Lower | Upper |
| 56 | 100 | | |
| 84 | 89.4 | 66.2 | 99.2 |
| 41 | 61.8 | 45.2 | 67.8 |

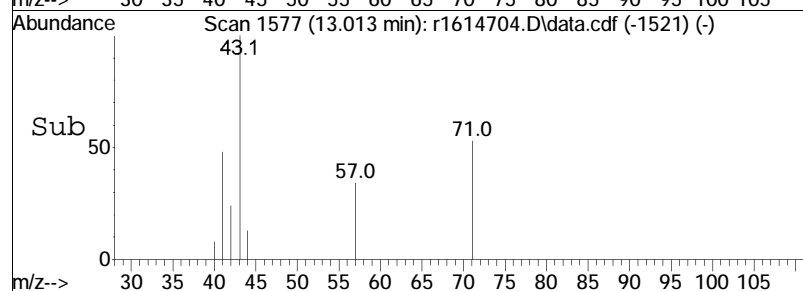
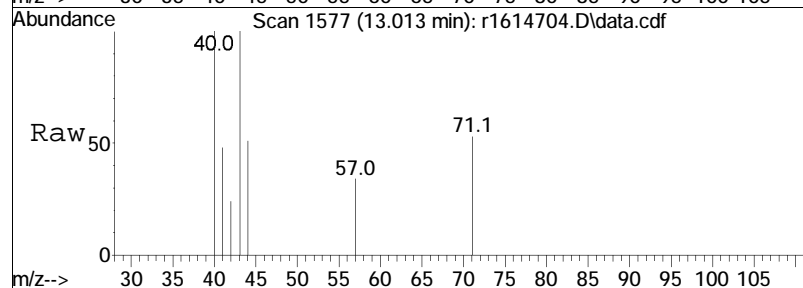
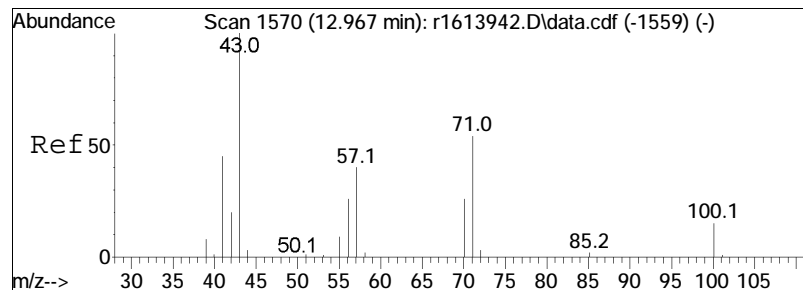




#59
trichloroethene
Concen: 5.65 ppbV
RT: 12.65 min Scan# 1522
Delta R.T. 0.047 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

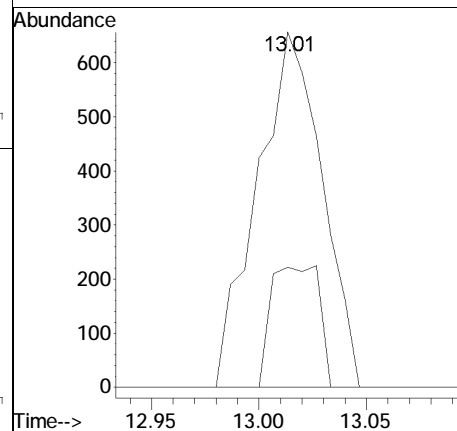
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 130 | 100 | | | |
| 132 | 95.6 | 76.7 | 115.1 | |
| 97 | 55.9 | 45.2 | 67.8 | |

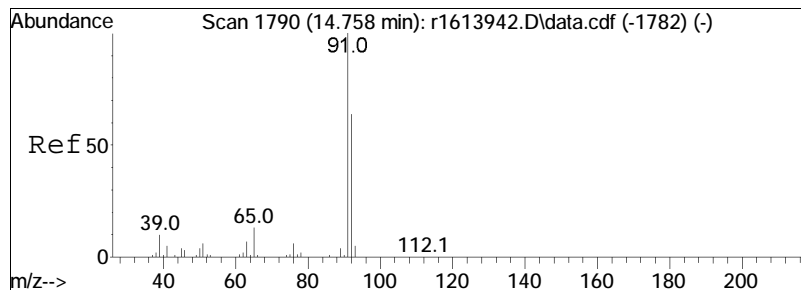




#62
heptane
Concen: 0.05 ppbV
RT: 13.01 min Scan# 1577
Delta R.T. 0.047 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

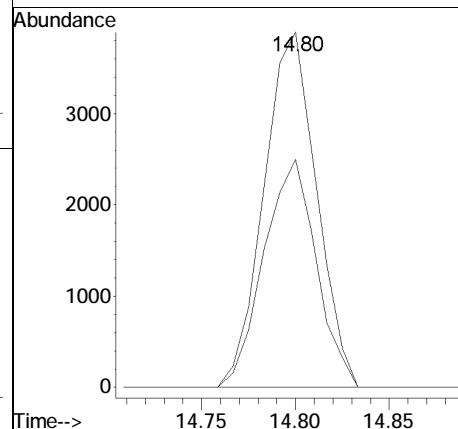
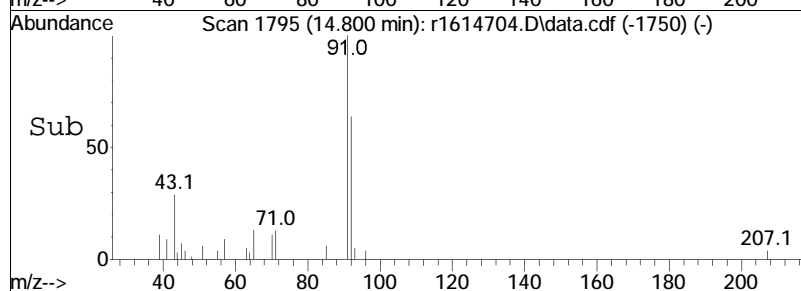
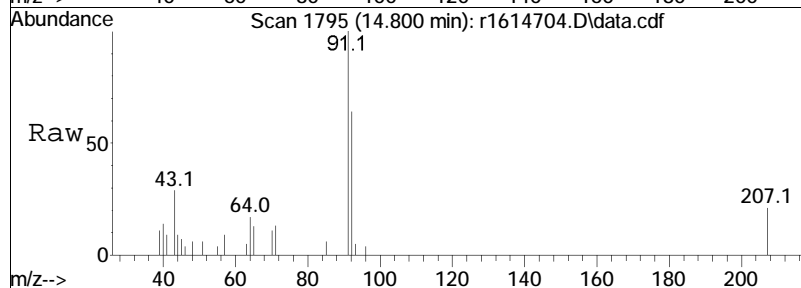
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 33.8 | 32.2 | 48.4 |
| 100 | 0.0 | 11.9 | 17.9# |

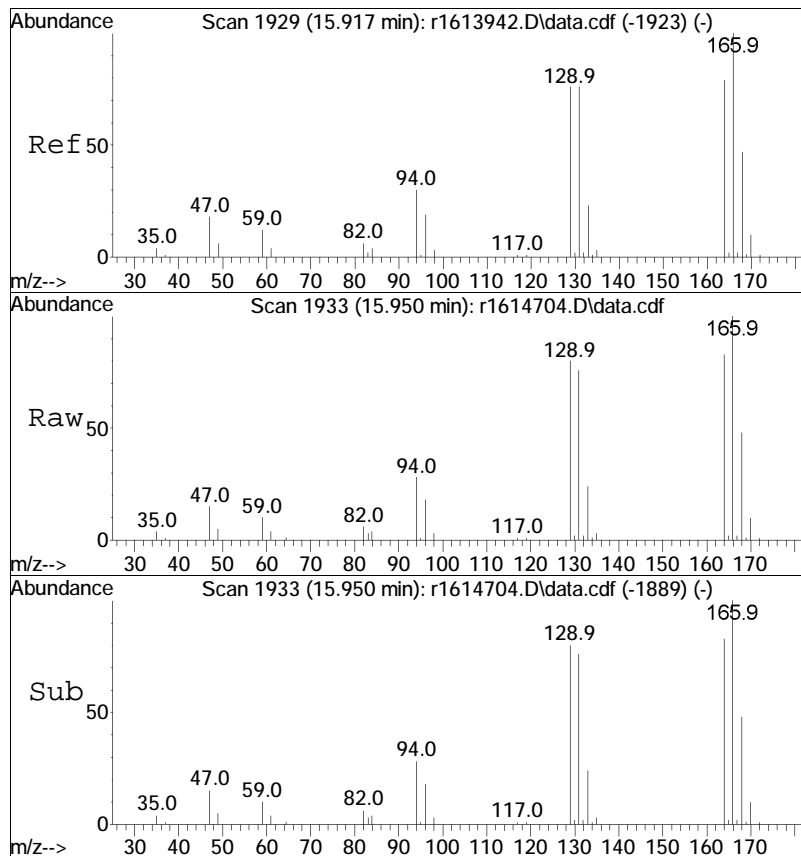




#68
toluene
Concen: 0.23 ppbV
RT: 14.80 min Scan# 1795
Delta R.T. 0.042 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

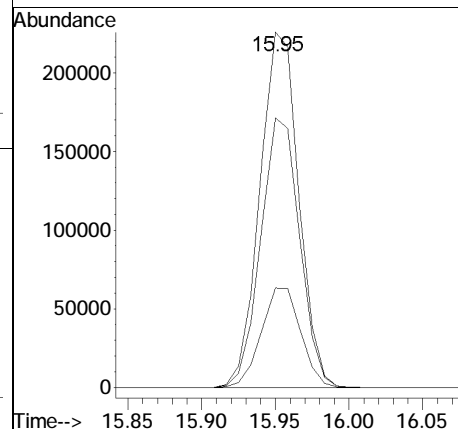
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 64.1 | 51.5 | 77.3 |

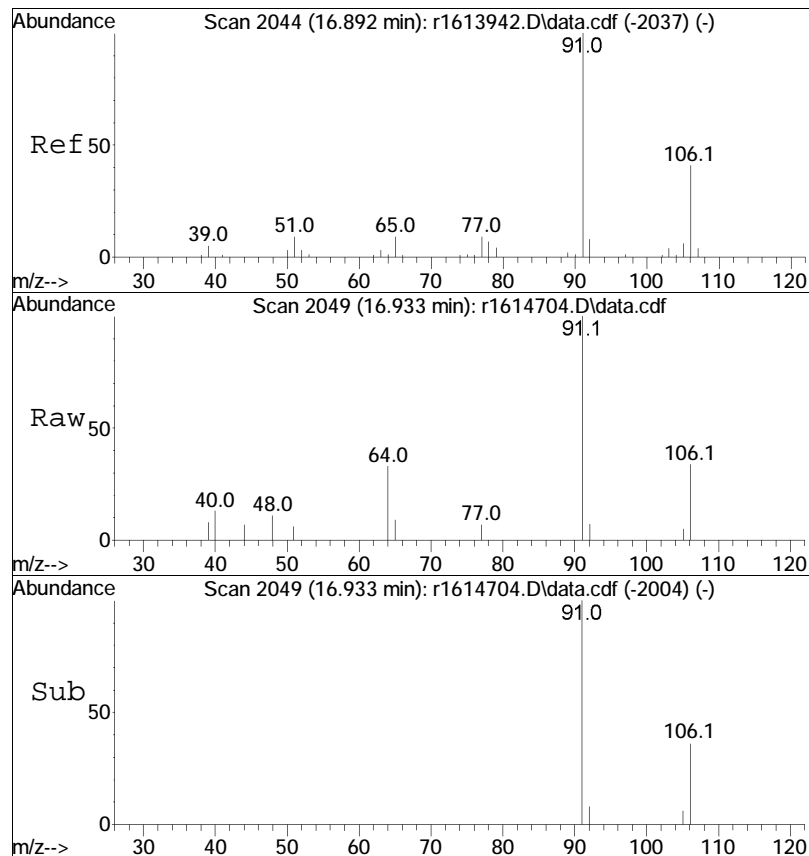




#78
 tetrachloroethene
 Concen: 28.15 ppbV
 RT: 15.95 min Scan# 1933
 Delta R.T. 0.033 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

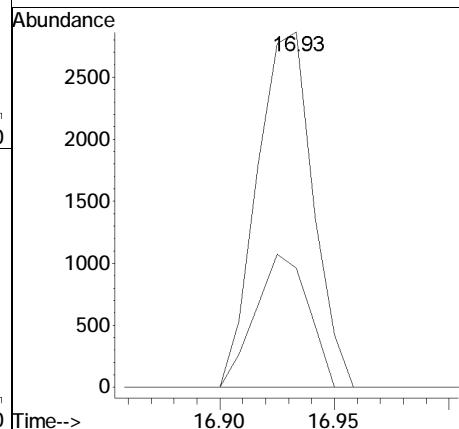
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 166 | 100 | | | |
| 131 | 75.9 | 60.6 | 91.0 | |
| 94 | 28.0 | 24.0 | 36.0 | |

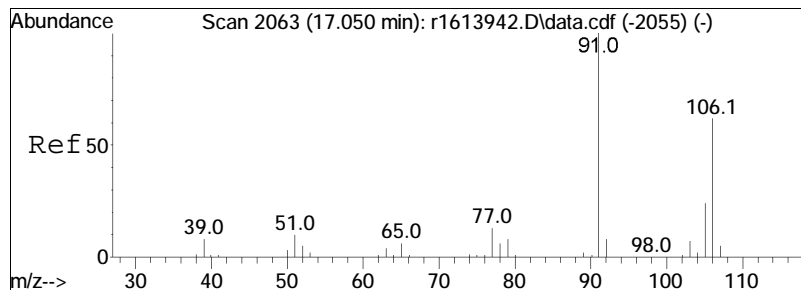




#81
ethylbenzene
Concen: 0.12 ppbV
RT: 16.93 min Scan# 2049
Delta R.T. 0.042 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

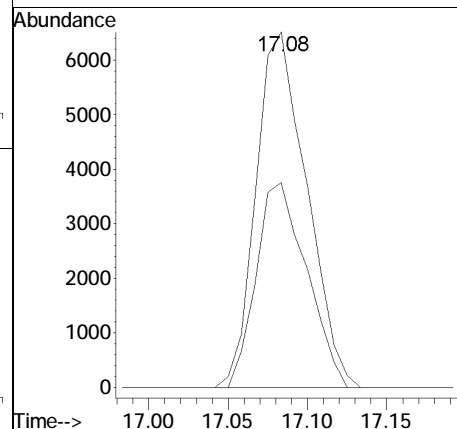
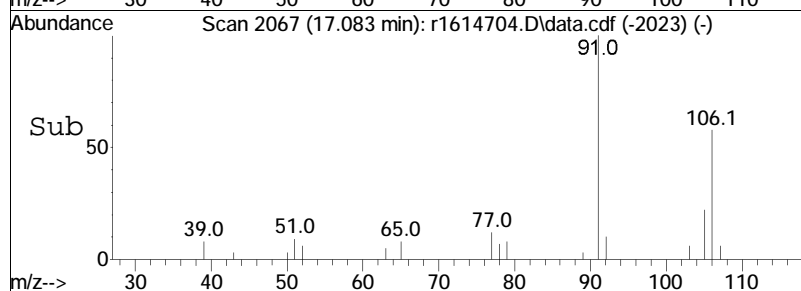
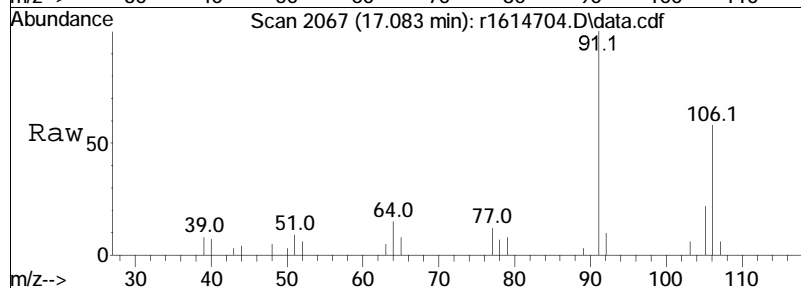
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 33.6 | 32.5 | 48.7 |

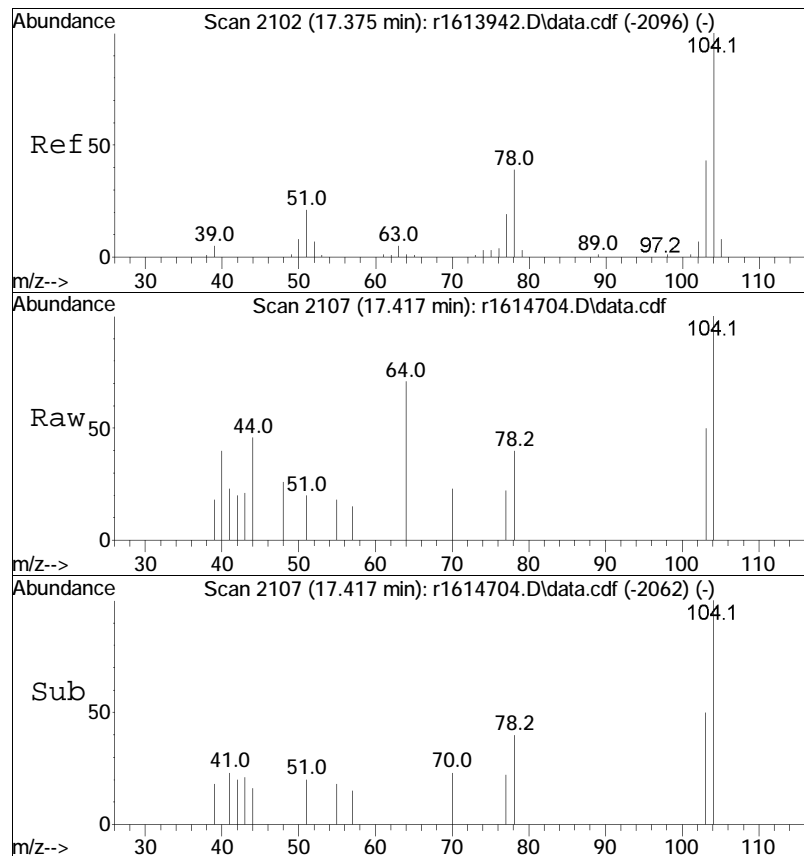




#83
 m+p-xylene
 Concen: 0.42 ppbV
 RT: 17.08 min Scan# 2067
 Delta R.T. 0.033 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

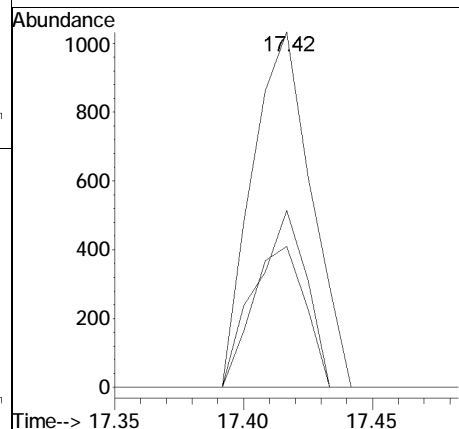
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 57.6 | 49.8 | 74.6 |

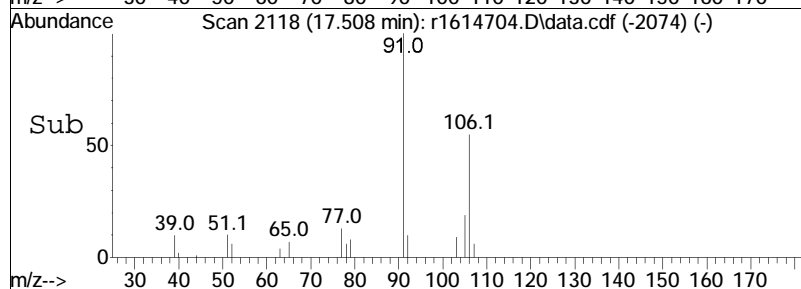
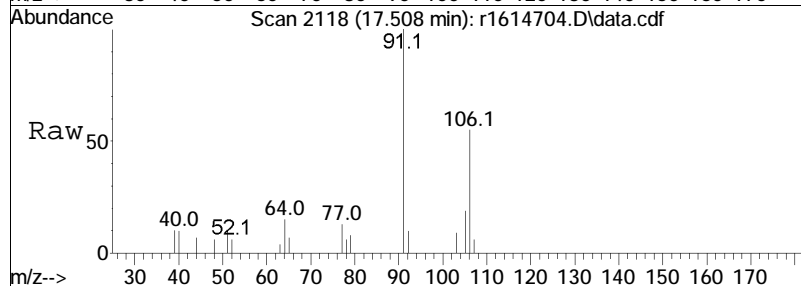
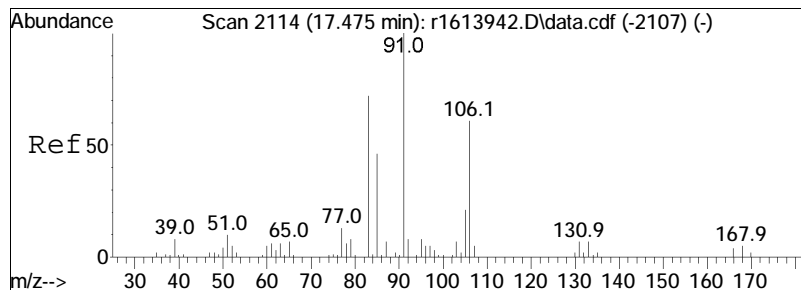




#85
styrene
Concen: 0.05 ppbV
RT: 17.42 min Scan# 2107
Delta R.T. 0.042 min
Lab File: r1614704.D
Acq: 5 Jan 2020 1:10 AM

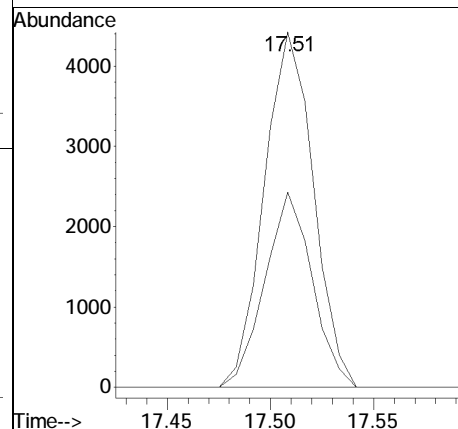
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 104 | Resp: | 1639 |
| Ion Ratio | Lower | Upper | |
| 104 | 100 | | |
| 103 | 49.8 | 34.2 | 51.2 |
| 78 | 39.7 | 31.2 | 46.8 |

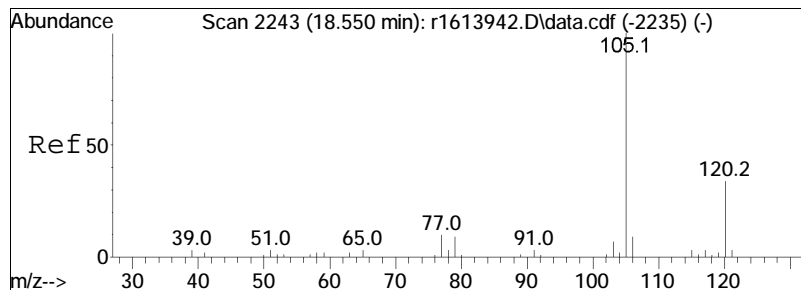




#87
 o-xylene
 Concen: 0.21 ppbV
 RT: 17.51 min Scan# 2118
 Delta R.T. 0.033 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

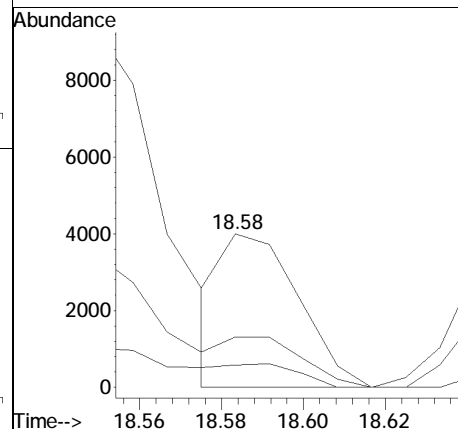
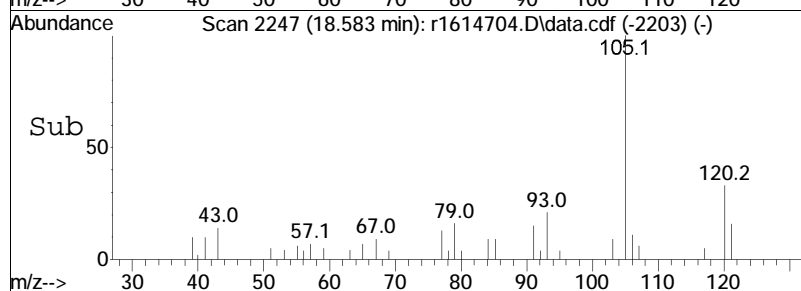
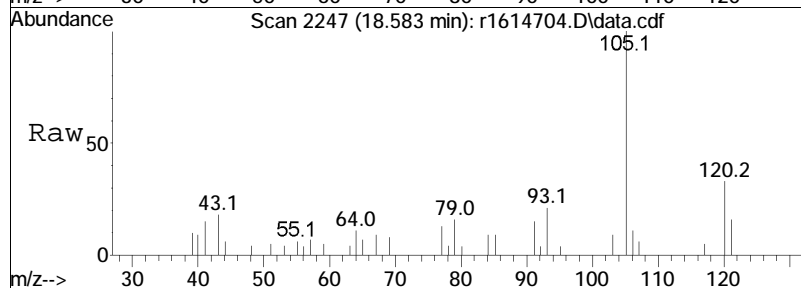
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 55.0 | 48.8 | 73.2 |

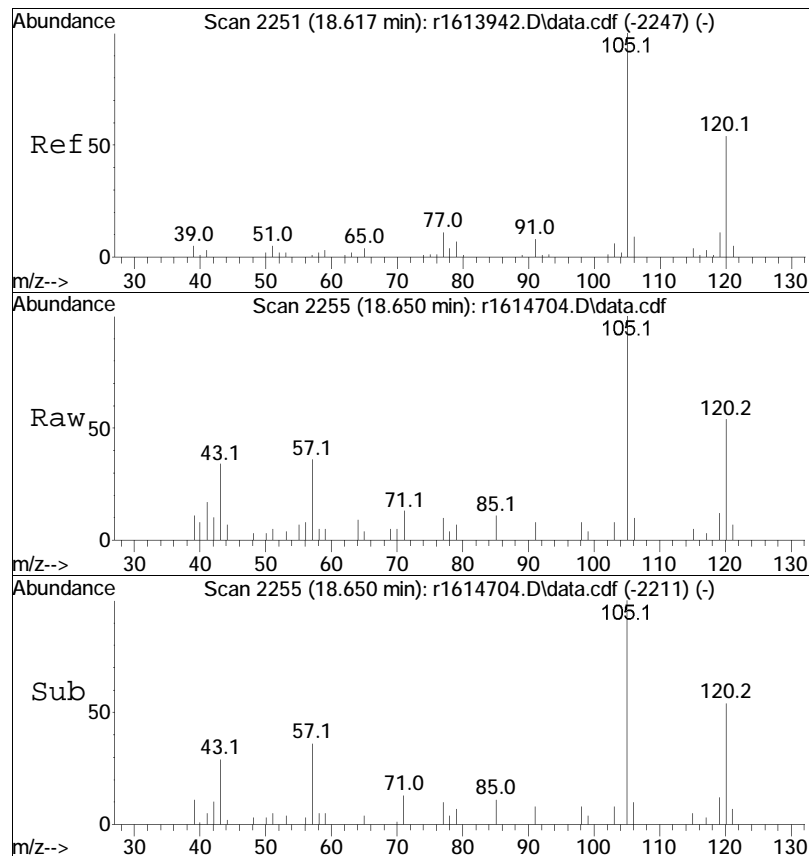




#96
 4-ethyl toluene
 Concen: 0.10 ppbV m
 RT: 18.58 min Scan# 2247
 Delta R.T. 0.033 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

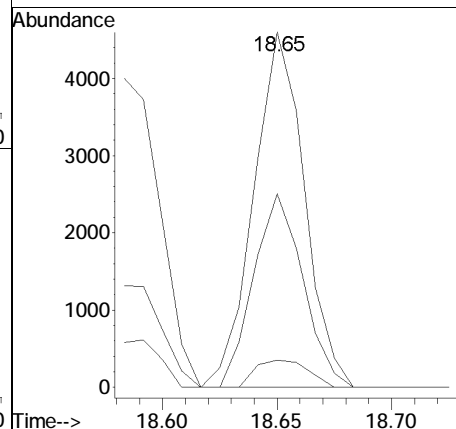
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 32.9 | 27.0 | 40.6 |
| 91 | 14.6 | 6.9 | 10.3# |

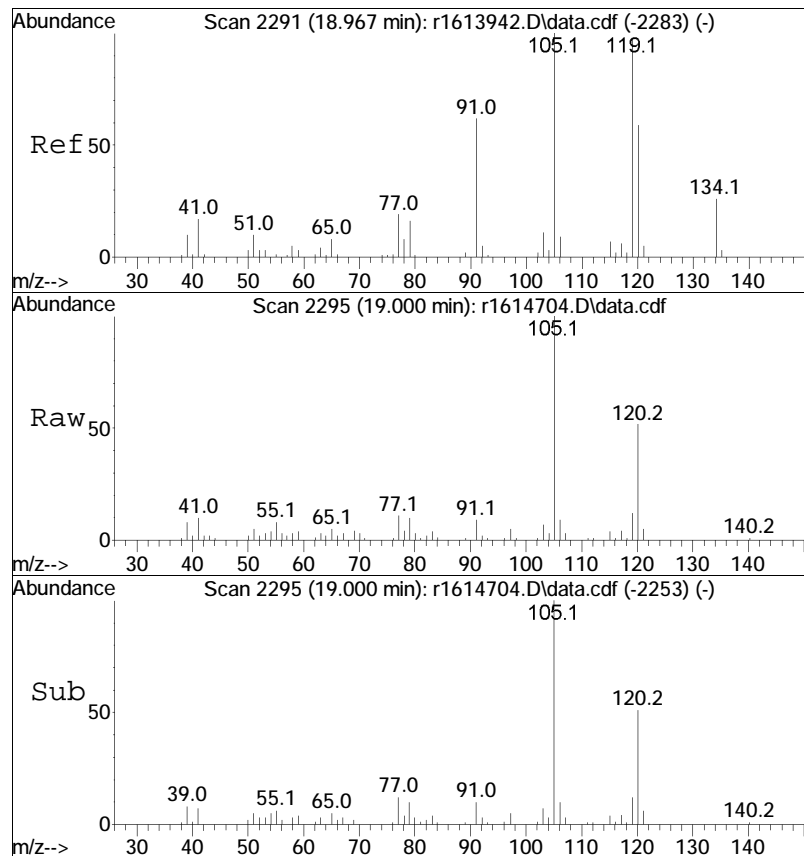




#97
 1,3,5-trimethylbenzene
 Concen: 0.16 ppbV
 RT: 18.65 min Scan# 2255
 Delta R.T. 0.033 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

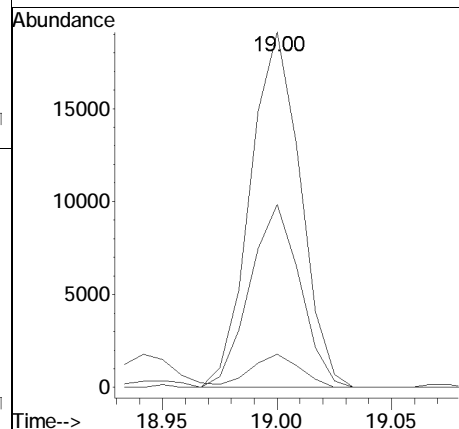
| | | | |
|-----|---------|-------|-------|
| Tgt | Ion:105 | Resp: | 7063 |
| Ion | Ratio | Lower | Upper |
| 105 | 100 | | |
| 120 | 54.5 | 42.9 | 64.3 |
| 91 | 7.7 | 6.6 | 9.8 |

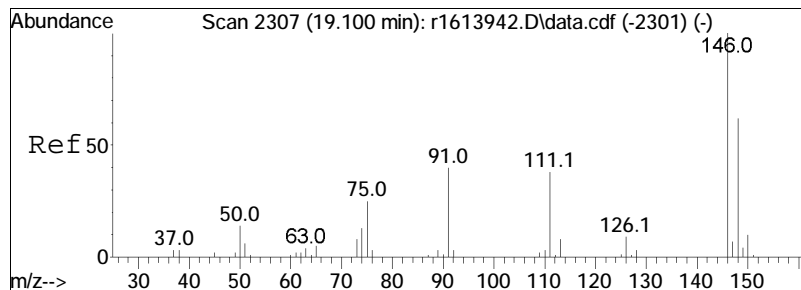




#99
 1,2,4-trimethylbenzene
 Concen: 0.68 ppbV
 RT: 19.00 min Scan# 2295
 Delta R.T. 0.033 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

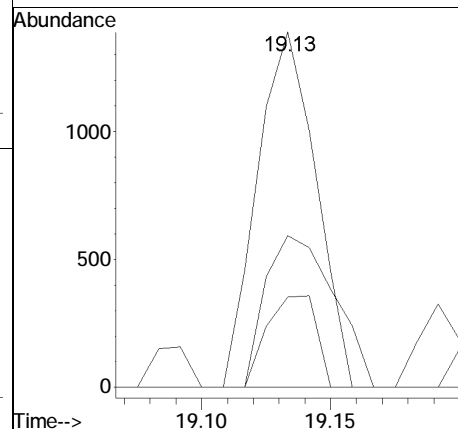
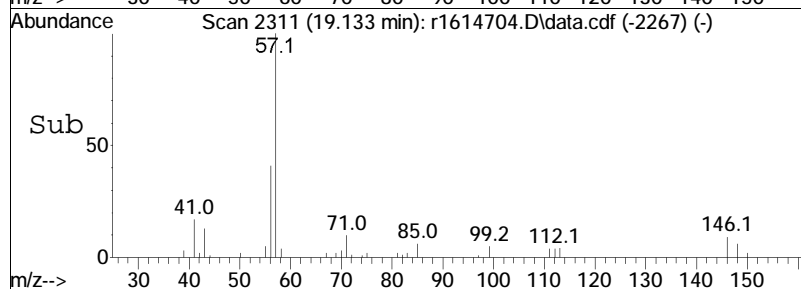
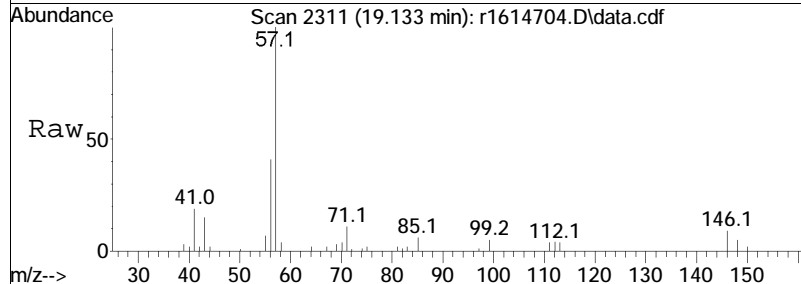
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|-------|-------|-------|
| 105 | 100 | 29110 | | |
| 120 | 51.5 | 46.9 | 70.3 | |
| 91 | 9.3 | 49.3 | 73.9# | |





#102
 1,3-dichlorobenzene
 Concen: 0.07 ppbV
 RT: 19.13 min Scan# 2311
 Delta R.T. 0.033 min
 Lab File: r1614704.D
 Acq: 5 Jan 2020 1:10 AM

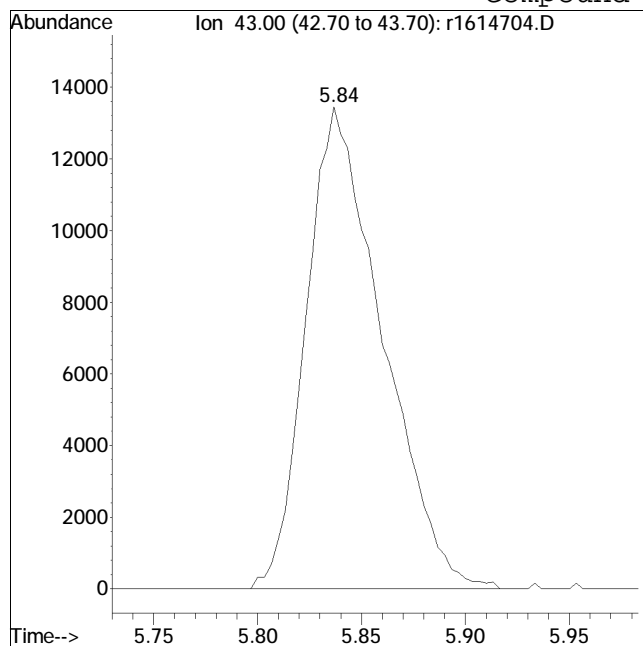
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146 | 100 | | |
| 111 | 42.7 | 30.9 | 46.3 |
| 75 | 25.4 | 20.4 | 30.6 |



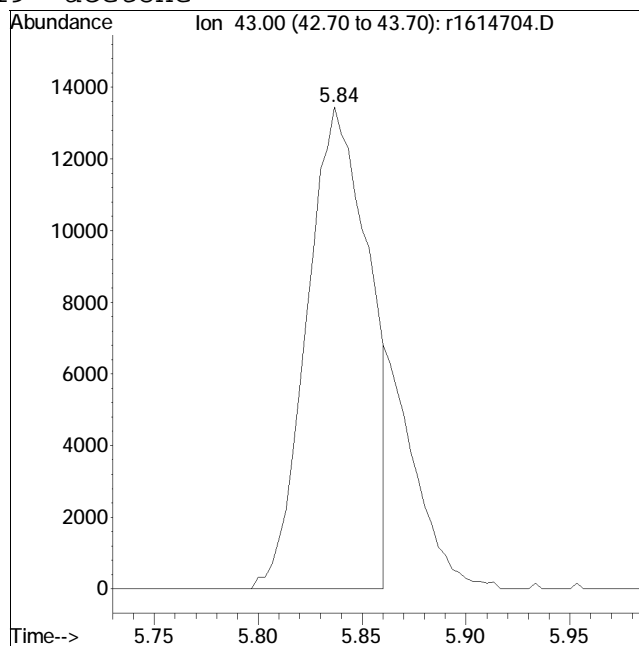
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614704.D Operator : AIRLAB16:RY
Date Inj'd : 1/5/2020 0:1: 0 Instrument :
Sample : L1962003-10,3,250,250 Quant Date : 1/5/2020 8:32 am

Compound #19: acetone



Original Peak Response = 34325



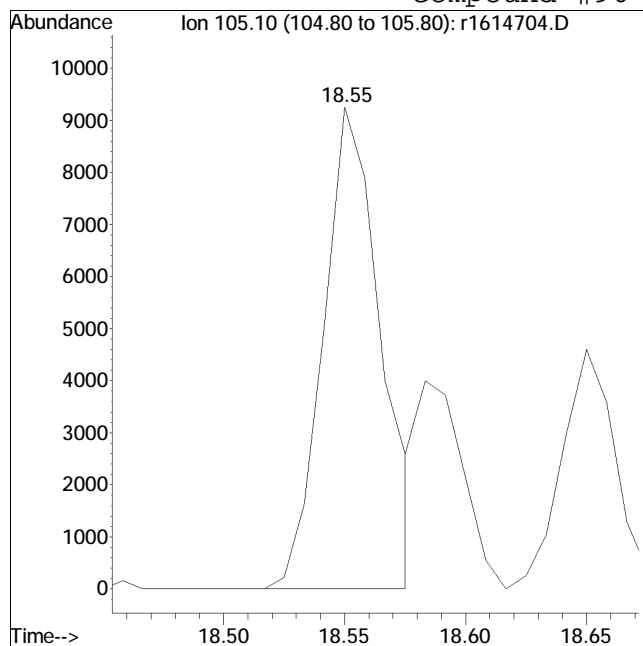
Manual Peak Response = 27908 M4

M4 = Poor automated baseline construction.

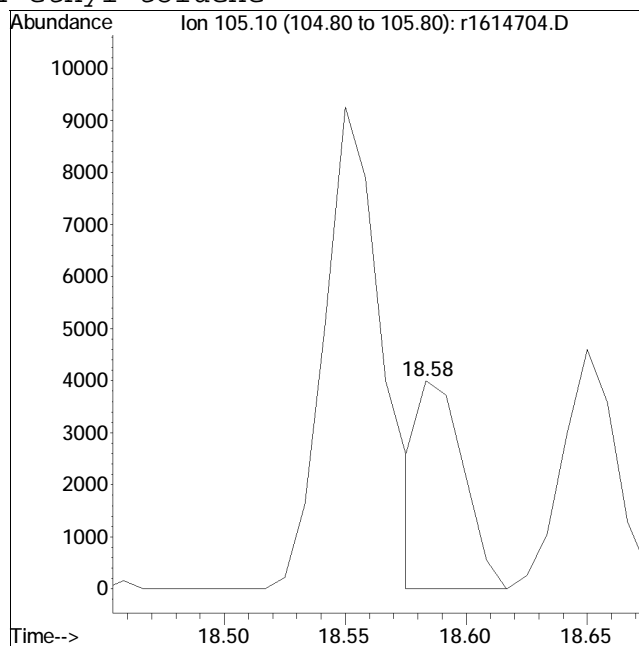
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614704.D Operator : AIRLAB16:RY
 Date Inj'd : 1/5/2020 0:1: 0 Instrument :
 Sample : L1962003-10,3,250,250 Quant Date : 1/5/2020 8:32 am

Compound #96: 4-ethyl toluene



Original Peak Response = 15342



Manual Peak Response = 5208 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.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Instrument ID : AIRLAB16
Calibration dates : 11/19/19 20:14 11/20/19 00:59
Lab Number : L1962003
Project Number : 170312501
Ical Ref : ICAL16311

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
 50 =r1613944.D 100 =r1613945.D

| Compound | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 1) I bromochloromethane | -----ISTD----- | | | | | | | | | |
| 2) chlorodifluoromethane | 0.760 | 0.791 | 0.793 | 0.735 | 0.726 | 0.658 | 0.653 | 0.610 | 0.7159 | 9.51 |
| 3) propylene | | 0.454 | 0.461 | 0.422 | 0.405 | 0.371 | 0.342 | 0.324 | 0.3970 | 13.45 |
| 4) propane | | 0.591 | 0.584 | 0.529 | 0.521 | 0.479 | 0.474 | 0.452 | 0.5185 | 10.42 |
| 5) dichlorodifluoromethane | 0.798 | 0.861 | 0.853 | 0.798 | 0.768 | 0.677 | 0.638 | 0.542 | 0.7418 | 15.18 |
| 6) C chloromethane | 0.498 | 0.511 | 0.503 | 0.476 | 0.456 | 0.402 | 0.400 | 0.361 | 0.4508 | 12.51 |
| 7) Freon-114 | 1.115 | 1.159 | 1.152 | 1.066 | 1.021 | 0.891 | 0.840 | 0.710 | 0.9944 | 16.46 |
| 8) C methanol | | | 0.242 | 0.212 | 0.202 | 0.168 | 0.169 | 0.155 | 0.1913 | 17.36 |
| 9) C vinyl chloride | 0.442 | 0.467 | 0.465 | 0.444 | 0.423 | 0.379 | 0.378 | 0.348 | 0.4183 | 10.65 |
| 10) C 1,3-butadiene | 0.441 | 0.444 | 0.451 | 0.414 | 0.401 | 0.363 | 0.357 | 0.330 | 0.4000 | 11.40 |
| 11) butane | 0.817 | 0.802 | 0.784 | 0.729 | 0.693 | 0.606 | 0.595 | 0.525 | 0.6939 | 15.60 |
| 12) C acetaldehyde | | 0.283 | 0.276 | 0.280 | 0.267 | 0.208 | 0.198 | 0.168 | 0.2398 | 19.73 |
| 13) C bromomethane | 0.418 | 0.412 | 0.426 | 0.394 | 0.377 | 0.334 | 0.332 | 0.299 | 0.3740 | 12.55 |
| 14) C chloroethane | 0.239 | 0.223 | 0.228 | 0.212 | 0.205 | 0.221 | 0.182 | 0.169 | 0.2098 | 11.30 |
| 15) ethanol | | | 0.416 | 0.384 | 0.340 | 0.285 | 0.269 | 0.240 | 0.3224 | 21.47 |
| 16) dichlorofluoromethane | 0.824 | 0.830 | 0.826 | 0.772 | 0.745 | 0.797 | 0.662 | 0.587 | 0.7554 | 11.68 |
| 17) C vinyl bromide | 0.435 | 0.447 | 0.453 | 0.427 | 0.411 | 0.416 | 0.354 | 0.319 | 0.4077 | 11.51 |
| 18) C acrolein | | 0.252 | 0.246 | 0.213 | 0.210 | 0.194 | 0.185 | 0.175 | 0.2109 | 13.84 |
| 19) acetone | 0.687 | 0.669 | 0.659 | 0.655 | 0.628 | 0.628 | 0.455 | 0.396 | 0.5970 | 18.25 |
| 20) C acetonitrile | 0.541 | 0.476 | 0.439 | 0.400 | 0.383 | 0.414 | 0.323 | 0.296 | 0.4087 | 19.33 |
| 21) trichlorofluoromethane | 0.628 | 0.661 | 0.658 | 0.617 | 0.596 | 0.643 | 0.509 | 0.468 | 0.5975 | 11.92 |
| 22) isopropyl alcohol | 0.819 | 0.849 | 0.807 | 0.841 | 0.804 | 0.802 | 0.686 | 0.542 | 0.7689 | 13.59 |
| 23) C acrylonitrile | 0.433 | 0.445 | 0.445 | 0.412 | 0.408 | 0.387 | 0.389 | 0.349 | 0.4085 | 8.10 |
| 24) pentane | 1.044 | 0.862 | 0.903 | 0.831 | 0.827 | 0.884 | 0.856 | 0.766 | 0.8715 | 9.30 |
| 25) ethyl ether | 0.790 | 0.781 | 0.787 | 0.734 | 0.769 | 0.725 | 0.722 | 0.696 | 0.7505 | 4.75 |
| 26) C 1,1-dichloroethene | 0.603 | 0.665 | 0.669 | 0.631 | 0.620 | 0.550 | 0.545 | 0.512 | 0.5994 | 9.66 |
| 27) tertiary butyl alcohol | | 0.773 | 0.764 | 0.763 | 0.752 | 0.699 | 0.705 | 0.683 | 0.7341 | 5.04 |
| 28) C methylene chloride | | 0.678 | 0.678 | 0.626 | 0.617 | 0.570 | 0.563 | 0.533 | 0.6093 | 9.31 |
| 29) C 3-chloropropene | 0.767 | 0.798 | 0.809 | 0.770 | 0.757 | 0.640 | 0.624 | 0.569 | 0.7167 | 12.75 |
| 30) C carbon disulfide | 1.680 | 1.733 | 1.764 | 1.679 | 1.663 | 1.512 | 1.480 | 1.366 | 1.6097 | 8.69 |
| 31) Freon 113 | 0.935 | 0.974 | 0.973 | 0.913 | 0.902 | 0.802 | 0.794 | 0.731 | 0.8781 | 10.34 |
| 32) trans-1,2-dichloroethene | 0.668 | 0.723 | 0.735 | 0.682 | 0.673 | 0.599 | 0.589 | 0.556 | 0.6531 | 9.96 |
| 33) C 1,1-dichloroethane | 0.841 | 0.864 | 0.883 | 0.827 | 0.810 | 0.714 | 0.698 | 0.657 | 0.7867 | 10.78 |
| 34) C MTBE | 1.310 | 1.386 | 1.405 | 1.355 | 1.342 | 1.200 | 1.176 | 1.095 | 1.2836 | 8.77 |
| 35) C vinyl acetate | | | 1.368 | 1.319 | 1.311 | 1.138 | 1.113 | 1.021 | 1.2118 | 11.51 |
| 36) C 2-butanone | | 1.274 | 1.310 | 1.251 | 1.231 | 1.054 | 1.040 | 0.948 | 1.1584 | 12.18 |



Initial Calibration Summary

Form 6

Air Volatiles

| | |
|---|--|
| Client : Langan Engineering & Environmental Project Name : 295 LOCUST AVE. Instrument ID : AIRLAB16 Calibration dates : 11/19/19 20:14 11/20/19 00:59 | Lab Number : L1962003 Project Number : 170312501 Ical Ref : ICAL16311 |
|---|--|

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
 50 =r1613944.D 100 =r1613945.D

| | Compound | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|-------|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 37) | cis-1,2-dichloroethene | 0.590 | 0.622 | 0.631 | 0.601 | 0.590 | 0.522 | 0.517 | 0.488 | 0.5703 | 9.35 |
| 38) | Ethyl Acetate | | 0.183 | 0.186 | 0.178 | 0.175 | 0.153 | 0.154 | 0.145 | 0.1676 | 9.82 |
| 39) C | chloroform | 0.833 | 0.839 | 0.876 | 0.817 | 0.807 | 0.732 | 0.717 | 0.665 | 0.7856 | 9.24 |
| 40) | Tetrahydrofuran | | 0.764 | 0.794 | 0.756 | 0.751 | 0.645 | 0.634 | 0.581 | 0.7037 | 11.63 |
| 41) | 2,2-dichloropropane | 0.647 | 0.707 | 0.711 | 0.668 | 0.664 | 0.602 | 0.590 | 0.546 | 0.6417 | 9.09 |
| 42) C | 1,2-dichloroethane | 0.438 | 0.457 | 0.469 | 0.449 | 0.438 | 0.385 | 0.377 | 0.357 | 0.4214 | 9.96 |
| 43) I | 1,4-difluorobenzene | -----ISTD----- | | | | | | | | | |
| 44) C | hexane | 0.320 | 0.322 | 0.328 | 0.309 | 0.307 | 0.285 | 0.283 | 0.274 | 0.3034 | 6.64 |
| 45) | diisopropyl ether | 0.159 | 0.165 | 0.169 | 0.163 | 0.164 | 0.153 | 0.156 | 0.152 | 0.1600 | 3.77 |
| 46) | tert-butyl ethyl ether | 0.513 | 0.546 | 0.554 | 0.524 | 0.524 | 0.481 | 0.480 | 0.468 | 0.5112 | 6.22 |
| 47) s | 1,2-dichloroethane-D4 | 0.156 | 0.154 | 0.159 | 0.153 | 0.152 | 0.145 | 0.143 | 0.139 | 0.1503 | 4.59 |
| 48) C | 1,1,1-trichloroethane | 0.238 | 0.253 | 0.259 | 0.244 | 0.244 | 0.222 | 0.220 | 0.216 | 0.2371 | 6.78 |
| 49) | 1,1-dichloropropene | 0.291 | 0.301 | 0.308 | 0.290 | 0.291 | 0.268 | 0.264 | 0.255 | 0.2834 | 6.71 |
| 50) C | benzene | 0.672 | 0.689 | 0.697 | 0.656 | 0.652 | 0.609 | 0.605 | 0.584 | 0.6457 | 6.44 |
| 51) | thiophene | 1.332 | 1.384 | 1.410 | 1.321 | 1.318 | 1.239 | 1.204 | 1.069 | 1.2847 | 8.61 |
| 52) C | carbon tetrachloride | 0.233 | 0.237 | 0.242 | 0.235 | 0.239 | 0.223 | 0.221 | 0.205 | 0.2294 | 5.30 |
| 53) | cyclohexane | 0.318 | 0.346 | 0.349 | 0.327 | 0.326 | 0.303 | 0.306 | 0.304 | 0.3224 | 5.63 |
| 54) | tert-amyl methyl ether | 0.585 | 0.606 | 0.626 | 0.590 | 0.592 | 0.547 | 0.542 | 0.516 | 0.5755 | 6.43 |
| 55) | dibromomethane | 0.189 | 0.193 | 0.197 | 0.182 | 0.180 | 0.163 | 0.163 | 0.159 | 0.1782 | 8.33 |
| 56) C | 1,2-dichloropropane | 0.207 | 0.228 | 0.228 | 0.213 | 0.212 | 0.190 | 0.189 | 0.182 | 0.2061 | 8.57 |
| 57) | bromodichloromethane | 0.327 | 0.334 | 0.344 | 0.328 | 0.330 | 0.308 | 0.311 | 0.301 | 0.3229 | 4.50 |
| 58) C | 1,4-dioxane | 0.135 | 0.142 | 0.141 | 0.142 | 0.141 | 0.128 | 0.133 | 0.131 | 0.1366 | 4.11 |
| 59) C | trichloroethene | 0.268 | 0.278 | 0.288 | 0.268 | 0.267 | 0.247 | 0.246 | 0.241 | 0.2629 | 6.27 |
| 60) C | 2,2,4-trimethylpentane | 1.008 | 1.050 | 1.074 | 1.017 | 0.983 | 0.901 | 0.896 | 0.866 | 0.9744 | 7.97 |
| 61) | methyl methacrylate | | 0.321 | 0.332 | 0.361 | 0.357 | 0.287 | 0.283 | 0.267 | 0.3154 | 11.81 |
| 62) | heptane | 0.478 | 0.500 | 0.512 | 0.481 | 0.476 | 0.423 | 0.407 | 0.370 | 0.4558 | 10.94 |
| 63) C | cis-1,3-dichloropropene | 0.312 | 0.334 | 0.338 | 0.325 | 0.328 | 0.304 | 0.305 | 0.295 | 0.3177 | 5.00 |
| 64) C | 4-methyl-2-pentanone | | 0.565 | 0.579 | 0.562 | 0.559 | 0.494 | 0.484 | 0.447 | 0.5271 | 9.71 |
| 65) | trans-1,3-dichloropropene | 0.279 | 0.298 | 0.306 | 0.294 | 0.300 | 0.278 | 0.281 | 0.273 | 0.2884 | 4.23 |
| 66) C | 1,1,2-trichloroethane | 0.244 | 0.246 | 0.248 | 0.233 | 0.230 | 0.211 | 0.209 | 0.201 | 0.2276 | 8.09 |
| 67) I | chlorobenzene-D5 | -----ISTD----- | | | | | | | | | |
| 68) C | toluene | 5.213 | 5.194 | 5.165 | 4.886 | 4.835 | 4.449 | 4.314 | 4.102 | 4.7697 | 9.06 |
| 69) s | toluene-D8 | 4.621 | 4.564 | 4.713 | 4.618 | 4.660 | 4.591 | 4.510 | 4.293 | 4.5713 | 2.79 |
| 70) | 2-methylthiophene | 1.598 | 1.640 | 1.696 | 1.590 | 1.539 | 1.396 | 1.251 | 1.025 | 1.4671 | 15.60 |
| 71) | 1,3-dichloropropane | 2.516 | 2.590 | 2.700 | 2.561 | 2.535 | 2.354 | 2.299 | 2.115 | 2.4588 | 7.68 |
| 72) | 2-hexanone | 3.090 | 3.344 | 3.567 | 3.617 | 3.665 | 3.151 | 2.850 | 2.288 | 3.1965 | 14.55 |



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Instrument ID : AIRLAB16
Calibration dates : 11/19/19 20:14 11/20/19 00:59
Lab Number : L1962003
Project Number : 170312501
Ical Ref : ICAL16311

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
 50 =r1613944.D 100 =r1613945.D

| | Compound | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 73) | 3-methylthiophene | 1.620 | 1.700 | 1.755 | 1.632 | 1.579 | 1.420 | 1.267 | 1.009 | 1.4977 | 16.84 |
| 74) | dibromochloromethane | 2.170 | 2.293 | 2.426 | 2.425 | 2.433 | 2.281 | 2.248 | 2.107 | 2.2978 | 5.37 |
| 75) C | 1,2-dibromoethane | 2.506 | 2.709 | 2.759 | 2.668 | 2.648 | 2.432 | 2.370 | 2.170 | 2.5328 | 7.94 |
| 76) | butyl acetate | | 0.559 | 0.610 | 0.651 | 0.659 | 0.608 | 0.614 | 0.585 | 0.6123 | 5.71 |
| 77) | octane | 1.806 | 1.886 | 1.915 | 1.831 | 1.819 | 1.714 | 1.711 | 1.638 | 1.7900 | 5.29 |
| 78) C | tetrachloroethene | 2.200 | 2.167 | 2.281 | 2.174 | 2.163 | 2.011 | 1.989 | 1.833 | 2.1021 | 6.92 |
| 79) | 1,1,1,2-tetrachloroethane | 1.741 | 1.818 | 1.884 | 1.828 | 1.861 | 1.723 | 1.710 | 1.541 | 1.7632 | 6.28 |
| 80) C | chlorobenzene | 4.213 | 4.395 | 4.493 | 4.338 | 4.359 | 4.034 | 3.919 | 3.447 | 4.1497 | 8.26 |
| 81) C | ethylbenzene | 6.158 | 6.372 | 6.539 | 6.288 | 6.202 | 5.617 | 5.450 | 5.145 | 5.9713 | 8.38 |
| 82) | 2-ethylthiophene | 1.743 | 1.855 | 1.903 | 1.790 | 1.730 | 1.553 | 1.357 | 1.042 | 1.6215 | 18.05 |
| 83) C | m+p-xylene | 5.296 | 5.281 | 5.353 | 5.080 | 5.022 | 4.591 | 4.441 | 4.072 | 4.8920 | 9.61 |
| 84) C | bromoform | 1.680 | 1.805 | 1.880 | 1.970 | 2.072 | 1.983 | 1.985 | 1.866 | 1.9052 | 6.51 |
| 85) C | styrene | 4.426 | 4.599 | 4.750 | 4.730 | 4.715 | 4.410 | 4.269 | 3.831 | 4.4662 | 6.97 |
| 86) C | 1,1,2,2-tetrachloroethane | 3.460 | 3.727 | 3.880 | 3.795 | 3.790 | 3.581 | 3.543 | 3.104 | 3.6099 | 6.92 |
| 87) C | o-xylene | 5.151 | 5.350 | 5.548 | 5.187 | 5.087 | 4.656 | 4.459 | 3.892 | 4.9160 | 11.07 |
| 88) | 1,2,3-trichloropropane | 2.695 | 3.084 | 3.230 | 3.095 | 3.108 | 2.894 | 2.853 | 2.637 | 2.9495 | 7.22 |
| 89) | nonane | 5.212 | 5.338 | 5.490 | 5.211 | 5.134 | 4.663 | 4.280 | 3.591 | 4.8649 | 13.31 |
| 90) s | bromofluorobenzene | 3.119 | 3.151 | 3.201 | 3.226 | 3.264 | 3.247 | 3.276 | 3.110 | 3.1993 | 2.04 |
| 91) C | isopropylbenzene | 7.315 | 7.666 | 8.028 | 7.608 | 7.570 | 6.924 | 6.493 | 5.683 | 7.1608 | 10.67 |
| 92) | bromobenzene | 3.594 | 3.866 | 3.971 | 3.875 | 3.930 | 3.682 | 3.671 | 3.370 | 3.7448 | 5.43 |
| 93) | 2-chlorotoluene | 2.093 | 2.186 | 2.187 | 2.143 | 2.195 | 2.023 | 2.031 | 1.944 | 2.1002 | 4.44 |
| 94) | n-propylbenzene | 2.008 | 2.324 | 2.447 | 2.427 | 2.430 | 2.280 | 2.308 | 2.190 | 2.3017 | 6.43 |
| 95) | 4-chlorotoluene | 1.777 | 2.018 | 2.139 | 2.108 | 2.093 | 1.965 | 1.968 | 1.904 | 1.9964 | 6.02 |
| 96) | 4-ethyl toluene | 6.954 | 7.841 | 8.486 | 8.419 | 8.374 | 7.669 | 7.178 | 6.252 | 7.6466 | 10.50 |
| 97) | 1,3,5-trimethylbenzene | 6.342 | 6.809 | 7.055 | 6.838 | 6.817 | 6.259 | 5.846 | 5.078 | 6.3805 | 10.32 |
| 98) | tert-butylbenzene | 6.305 | 6.751 | 7.031 | 6.885 | 6.805 | 6.317 | 6.031 | 4.870 | 6.3743 | 10.95 |
| 99) | 1,2,4-trimethylbenzene | 5.905 | 6.324 | 6.888 | 6.802 | 6.791 | 6.123 | 5.538 | 4.573 | 6.1182 | 12.85 |
| 100) | decane | 4.441 | 4.797 | 5.104 | 4.904 | 4.890 | 4.467 | 4.392 | 4.092 | 4.6360 | 7.31 |
| 101) C | Benzyl Chloride | 1.603 | 2.102 | 2.975 | 3.984 | 4.419 | 4.034 | 4.314 | 4.095 | 3.4409 | 31.42# |
| 102) | 1,3-dichlorobenzene | 3.328 | 4.155 | 4.493 | 4.627 | 4.641 | 4.342 | 4.246 | 3.736 | 4.1960 | 10.89 |
| 103) C | 1,4-dichlorobenzene | 3.131 | 3.990 | 4.295 | 4.433 | 4.543 | 4.183 | 4.077 | 3.700 | 4.0438 | 11.22 |
| 104) | sec-butylbenzene | 0.910 | 0.963 | 1.009 | 0.987 | 0.977 | 0.894 | 0.823 | 0.704 | 0.9085 | 11.28 |
| 105) | 1,2,3-trimethylbenzene | 5.711 | 6.087 | 6.329 | 6.919 | 6.799 | 5.602 | 5.117 | 4.252 | 5.8520 | 15.15 |
| 106) | p-isopropyltoluene | 7.712 | 8.194 | 8.365 | 8.307 | 8.327 | 7.729 | 7.263 | 5.719 | 7.7019 | 11.58 |
| 107) | 1,2-dichlorobenzene | 3.128 | 3.938 | 4.283 | 4.370 | 4.384 | 3.995 | 3.920 | 3.596 | 3.9517 | 10.82 |
| 108) | n-butylbenzene | 5.174 | 6.080 | 6.584 | 6.748 | 6.855 | 6.175 | 5.944 | 5.498 | 6.1324 | 9.68 |



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Instrument ID : AIRLAB16
Calibration dates : 11/19/19 20:14 11/20/19 00:59
Lab Number : L1962003
Project Number : 170312501
Ical Ref : ICAL16311

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
 50 =r1613944.D 100 =r1613945.D

| | Compound | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|--------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 109) | indan | 5.188 | 5.983 | 6.394 | 7.076 | 7.050 | 5.899 | 5.727 | 5.164 | 6.0600 | 12.21 |
| 110) | indene | 3.573 | 4.242 | 4.877 | 5.537 | 5.681 | 4.694 | 4.752 | 4.404 | 4.7200 | 14.46 |
| 111) C | 1,2-dibromo-3-chloropropane | 0.958 | 1.239 | 1.386 | 1.514 | 1.638 | 1.504 | 1.545 | 1.441 | 1.4029 | 15.33 |
| 112) | undecane | 4.151 | 5.261 | 5.571 | 5.361 | 5.528 | 5.014 | 4.952 | 4.566 | 5.0504 | 9.74 |
| 113) | 1,2,4,5-tetramethylbenzene | 7.409 | 9.082 | 9.648 | 9.298 | 9.883 | 8.377 | 8.236 | 7.089 | 8.6278 | 11.87 |
| 114) | dodecane | 2.144 | 3.762 | 4.700 | 4.447 | 5.421 | 4.701 | 5.098 | 4.430 | 4.3380 | 23.35 |
| 115) C | 1,2,4-trichlorobenzene | 0.631 | 1.205 | 1.546 | 2.005 | 2.611 | 2.344 | 2.643 | 2.583 | 1.9459 | 38.52# |
| 116) | naphthalene | 4.119 | 5.479 | 6.355 | 7.501 | 8.687 | 7.367 | 7.774 | 7.349 | 6.8290 | 21.25 |
| 117) | 1,2,3-trichlorobenzene | 0.902 | 1.613 | 1.976 | 2.071 | 2.596 | 2.338 | 2.608 | 2.505 | 2.0762 | 28.24 |
| 118) | benzothiophene | 1.707 | 3.177 | 4.383 | 4.643 | 6.387 | 6.480 | 7.413 | 7.122 | 5.1639 | 39.35# |
| 119) C | hexachlorobutadiene | 1.414 | 2.060 | 2.270 | 2.016 | 2.355 | 2.110 | 2.125 | 1.878 | 2.0284 | 14.22 |
| 120) | 2-methylnaphthalene | | | 0.547 | 0.267 | 0.562 | 0.462 | 0.825 | 0.924 | 0.5979 | 40.27# |
| 121) | 1-methylnaphthalene | | | 1.121 | 0.520 | 1.047 | 0.763 | 1.257 | 1.352 | 1.0098 | 31.10# |

Response Factor Report

Method Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Method File : TFS16_191119.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 21 15:01:46 2019
 Response Via : Initial Calibration

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
 50 =r1613944.D 100 =r1613945.D

| Compound | | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|----------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| -----ISTD----- | | | | | | | | | | | |
| 1) I | bromochloromethane | | | | | | | | | | |
| 2) | chlorodifluoromethane | 0.760 | 0.791 | 0.793 | 0.735 | 0.726 | 0.658 | 0.653 | 0.610 | 0.7159 | 9.51 |
| 3) | propylene | | 0.454 | 0.461 | 0.422 | 0.405 | 0.371 | 0.342 | 0.324 | 0.3970 | 13.45 |
| 4) | propane | | 0.591 | 0.584 | 0.529 | 0.521 | 0.479 | 0.474 | 0.452 | 0.5185 | 10.42 |
| 5) | dichlorodifluoromethane | 0.798 | 0.861 | 0.853 | 0.798 | 0.768 | 0.677 | 0.638 | 0.542 | 0.7418 | 15.18 |
| 6) C | chloromethane | 0.498 | 0.511 | 0.503 | 0.476 | 0.456 | 0.402 | 0.400 | 0.361 | 0.4508 | 12.51 |
| 7) | Freon-114 | 1.115 | 1.159 | 1.152 | 1.066 | 1.021 | 0.891 | 0.840 | 0.710 | 0.9944 | 16.46 |
| 8) C | methanol | | | 0.242 | 0.212 | 0.202 | 0.168 | 0.169 | 0.155 | 0.1913 | 17.36 |
| 9) C | vinyl chloride | 0.442 | 0.467 | 0.465 | 0.444 | 0.423 | 0.379 | 0.378 | 0.348 | 0.4183 | 10.65 |
| 10) C | 1,3-butadiene | 0.441 | 0.444 | 0.451 | 0.414 | 0.401 | 0.363 | 0.357 | 0.330 | 0.4000 | 11.40 |
| 11) | butane | 0.817 | 0.802 | 0.784 | 0.729 | 0.693 | 0.606 | 0.595 | 0.525 | 0.6939 | 15.60 |
| 12) C | acetaldehyde | | 0.283 | 0.276 | 0.280 | 0.267 | 0.208 | 0.198 | 0.168 | 0.2398 | 19.73 |
| 13) C | bromomethane | 0.418 | 0.412 | 0.426 | 0.394 | 0.377 | 0.334 | 0.332 | 0.299 | 0.3740 | 12.55 |
| 14) C | chloroethane | 0.239 | 0.223 | 0.228 | 0.212 | 0.205 | 0.221 | 0.182 | 0.169 | 0.2098 | 11.30 |
| 15) | ethanol | | | 0.416 | 0.384 | 0.340 | 0.285 | 0.269 | 0.240 | 0.3224 | 21.47 |
| 16) | dichlorofluoromethane | 0.824 | 0.830 | 0.826 | 0.772 | 0.745 | 0.797 | 0.662 | 0.587 | 0.7554 | 11.68 |
| 17) C | vinyl bromide | 0.435 | 0.447 | 0.453 | 0.427 | 0.411 | 0.416 | 0.354 | 0.319 | 0.4077 | 11.51 |
| 18) C | acrolein | | 0.252 | 0.246 | 0.213 | 0.210 | 0.194 | 0.185 | 0.175 | 0.2109 | 13.84 |
| 19) | acetone | 0.687 | 0.669 | 0.659 | 0.655 | 0.628 | 0.628 | 0.455 | 0.396 | 0.5970 | 18.25 |
| 20) C | acetonitrile | 0.541 | 0.476 | 0.439 | 0.400 | 0.383 | 0.414 | 0.323 | 0.296 | 0.4087 | 19.33 |
| 21) | trichlorofluoromethane | 0.628 | 0.661 | 0.658 | 0.617 | 0.596 | 0.643 | 0.509 | 0.468 | 0.5975 | 11.92 |
| 22) | isopropyl alcohol | 0.819 | 0.849 | 0.807 | 0.841 | 0.804 | 0.802 | 0.686 | 0.542 | 0.7689 | 13.59 |
| 23) C | acrylonitrile | 0.433 | 0.445 | 0.445 | 0.412 | 0.408 | 0.387 | 0.389 | 0.349 | 0.4085 | 8.10 |
| 24) | pentane | 1.044 | 0.862 | 0.903 | 0.831 | 0.827 | 0.884 | 0.856 | 0.766 | 0.8715 | 9.30 |
| 25) | ethyl ether | 0.790 | 0.781 | 0.787 | 0.734 | 0.769 | 0.725 | 0.722 | 0.696 | 0.7505 | 4.75 |
| 26) C | 1,1-dichloroethene | 0.603 | 0.665 | 0.669 | 0.631 | 0.620 | 0.550 | 0.545 | 0.512 | 0.5994 | 9.66 |
| 27) | tertiary butyl alcohol | | 0.773 | 0.764 | 0.763 | 0.752 | 0.699 | 0.705 | 0.683 | 0.7341 | 5.04 |
| 28) C | methylene chloride | | 0.678 | 0.678 | 0.626 | 0.617 | 0.570 | 0.563 | 0.533 | 0.6093 | 9.31 |
| 29) C | 3-chloropropene | 0.767 | 0.798 | 0.809 | 0.770 | 0.757 | 0.640 | 0.624 | 0.569 | 0.7167 | 12.75 |
| 30) C | carbon disulfide | 1.680 | 1.733 | 1.764 | 1.679 | 1.663 | 1.512 | 1.480 | 1.366 | 1.6097 | 8.69 |
| 31) | Freon 113 | 0.935 | 0.974 | 0.973 | 0.913 | 0.902 | 0.802 | 0.794 | 0.731 | 0.8781 | 10.34 |

Response Factor Report

Method Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Method File : TFS16_191119.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 21 15:01:46 2019
 Response Via : Initial Calibration

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
 50 =r1613944.D 100 =r1613945.D

| Compound | | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|----------|--------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 32) | trans-1,2-dichloroethene | 0.668 | 0.723 | 0.735 | 0.682 | 0.673 | 0.599 | 0.589 | 0.556 | 0.6531 | 9.96 |
| 33) C | 1,1-dichloroethane | 0.841 | 0.864 | 0.883 | 0.827 | 0.810 | 0.714 | 0.698 | 0.657 | 0.7867 | 10.78 |
| 34) C | MTBE | 1.310 | 1.386 | 1.405 | 1.355 | 1.342 | 1.200 | 1.176 | 1.095 | 1.2836 | 8.77 |
| 35) C | vinyl acetate | | | 1.368 | 1.319 | 1.311 | 1.138 | 1.113 | 1.021 | 1.2118 | 11.51 |
| 36) C | 2-butanone | | 1.274 | 1.310 | 1.251 | 1.231 | 1.054 | 1.040 | 0.948 | 1.1584 | 12.18 |
| 37) | cis-1,2-dichloroethene | 0.590 | 0.622 | 0.631 | 0.601 | 0.590 | 0.522 | 0.517 | 0.488 | 0.5703 | 9.35 |
| 38) | Ethyl Acetate | | 0.183 | 0.186 | 0.178 | 0.175 | 0.153 | 0.154 | 0.145 | 0.1676 | 9.82 |
| 39) C | chloroform | 0.833 | 0.839 | 0.876 | 0.817 | 0.807 | 0.732 | 0.717 | 0.665 | 0.7856 | 9.24 |
| 40) | Tetrahydrofuran | | 0.764 | 0.794 | 0.756 | 0.751 | 0.645 | 0.634 | 0.581 | 0.7037 | 11.63 |
| 41) | 2,2-dichloropropane | 0.647 | 0.707 | 0.711 | 0.668 | 0.664 | 0.602 | 0.590 | 0.546 | 0.6417 | 9.09 |
| 42) C | 1,2-dichloroethane | 0.438 | 0.457 | 0.469 | 0.449 | 0.438 | 0.385 | 0.377 | 0.357 | 0.4214 | 9.96 |
| 43) I | 1,4-difluorobenzene | -----ISTD----- | | | | | | | | | |
| 44) C | hexane | 0.320 | 0.322 | 0.328 | 0.309 | 0.307 | 0.285 | 0.283 | 0.274 | 0.3034 | 6.64 |
| 45) | diisopropyl ether | 0.159 | 0.165 | 0.169 | 0.163 | 0.164 | 0.153 | 0.156 | 0.152 | 0.1600 | 3.77 |
| 46) | tert-butyl ethyl ether | 0.513 | 0.546 | 0.554 | 0.524 | 0.524 | 0.481 | 0.480 | 0.468 | 0.5112 | 6.22 |
| 47) s | 1,2-dichloroethane-D4 | 0.156 | 0.154 | 0.159 | 0.153 | 0.152 | 0.145 | 0.143 | 0.139 | 0.1503 | 4.59 |
| 48) C | 1,1,1-trichloroethane | 0.238 | 0.253 | 0.259 | 0.244 | 0.244 | 0.222 | 0.220 | 0.216 | 0.2371 | 6.78 |
| 49) | 1,1-dichloropropene | 0.291 | 0.301 | 0.308 | 0.290 | 0.291 | 0.268 | 0.264 | 0.255 | 0.2834 | 6.71 |
| 50) C | benzene | 0.672 | 0.689 | 0.697 | 0.656 | 0.652 | 0.609 | 0.605 | 0.584 | 0.6457 | 6.44 |
| 51) | thiophene | 1.332 | 1.384 | 1.410 | 1.321 | 1.318 | 1.239 | 1.204 | 1.069 | 1.2847 | 8.61 |
| 52) C | carbon tetrachloride | 0.233 | 0.237 | 0.242 | 0.235 | 0.239 | 0.223 | 0.221 | 0.205 | 0.2294 | 5.30 |
| 53) | cyclohexane | 0.318 | 0.346 | 0.349 | 0.327 | 0.326 | 0.303 | 0.306 | 0.304 | 0.3224 | 5.63 |
| 54) | tert-amyl methyl ether | 0.585 | 0.606 | 0.626 | 0.590 | 0.592 | 0.547 | 0.542 | 0.516 | 0.5755 | 6.43 |
| 55) | dibromomethane | 0.189 | 0.193 | 0.197 | 0.182 | 0.180 | 0.163 | 0.163 | 0.159 | 0.1782 | 8.33 |
| 56) C | 1,2-dichloropropane | 0.207 | 0.228 | 0.228 | 0.213 | 0.212 | 0.190 | 0.189 | 0.182 | 0.2061 | 8.57 |
| 57) | bromodichloromethane | 0.327 | 0.334 | 0.344 | 0.328 | 0.330 | 0.308 | 0.311 | 0.301 | 0.3229 | 4.50 |
| 58) C | 1,4-dioxane | 0.135 | 0.142 | 0.141 | 0.142 | 0.141 | 0.128 | 0.133 | 0.131 | 0.1366 | 4.11 |
| 59) C | trichloroethene | 0.268 | 0.278 | 0.288 | 0.268 | 0.267 | 0.247 | 0.246 | 0.241 | 0.2629 | 6.27 |
| 60) C | 2,2,4-trimethylpentane | 1.008 | 1.050 | 1.074 | 1.017 | 0.983 | 0.901 | 0.896 | 0.866 | 0.9744 | 7.97 |
| 61) | methyl methacrylate | | 0.321 | 0.332 | 0.361 | 0.357 | 0.287 | 0.283 | 0.267 | 0.3154 | 11.81 |
| 62) | heptane | 0.478 | 0.500 | 0.512 | 0.481 | 0.476 | 0.423 | 0.407 | 0.370 | 0.4558 | 10.94 |

Response Factor Report

Method Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Method File : TFS16_191119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Thu Nov 21 15:01:46 2019
Response Via : Initial Calibration

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
50 =r1613944.D 100 =r1613945.D

| | Compound | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|-------|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 63) C | cis-1,3-dichloropropene | 0.312 | 0.334 | 0.338 | 0.325 | 0.328 | 0.304 | 0.305 | 0.295 | 0.3177 | 5.00 |
| 64) C | 4-methyl-2-pentanone | | 0.565 | 0.579 | 0.562 | 0.559 | 0.494 | 0.484 | 0.447 | 0.5271 | 9.71 |
| 65) | trans-1,3-dichloropropene | 0.279 | 0.298 | 0.306 | 0.294 | 0.300 | 0.278 | 0.281 | 0.273 | 0.2884 | 4.23 |
| 66) C | 1,1,2-trichloroethane | 0.244 | 0.246 | 0.248 | 0.233 | 0.230 | 0.211 | 0.209 | 0.201 | 0.2276 | 8.09 |
| 67) I | chlorobenzene-D5 | -----ISTD----- | | | | | | | | | |
| 68) C | toluene | 5.213 | 5.194 | 5.165 | 4.886 | 4.835 | 4.449 | 4.314 | 4.102 | 4.7697 | 9.06 |
| 69) s | toluene-D8 | 4.621 | 4.564 | 4.713 | 4.618 | 4.660 | 4.591 | 4.510 | 4.293 | 4.5713 | 2.79 |
| 70) | 2-methylthiophene | 1.598 | 1.640 | 1.696 | 1.590 | 1.539 | 1.396 | 1.251 | 1.025 | 1.4671 | 15.60 |
| 71) | 1,3-dichloropropane | 2.516 | 2.590 | 2.700 | 2.561 | 2.535 | 2.354 | 2.299 | 2.115 | 2.4588 | 7.68 |
| 72) | 2-hexanone | 3.090 | 3.344 | 3.567 | 3.617 | 3.665 | 3.151 | 2.850 | 2.288 | 3.1965 | 14.55 |
| 73) | 3-methylthiophene | 1.620 | 1.700 | 1.755 | 1.632 | 1.579 | 1.420 | 1.267 | 1.009 | 1.4977 | 16.84 |
| 74) | dibromochloromethane | 2.170 | 2.293 | 2.426 | 2.425 | 2.433 | 2.281 | 2.248 | 2.107 | 2.2978 | 5.37 |
| 75) C | 1,2-dibromoethane | 2.506 | 2.709 | 2.759 | 2.668 | 2.648 | 2.432 | 2.370 | 2.170 | 2.5328 | 7.94 |
| 76) | butyl acetate | | 0.559 | 0.610 | 0.651 | 0.659 | 0.608 | 0.614 | 0.585 | 0.6123 | 5.71 |
| 77) | octane | 1.806 | 1.886 | 1.915 | 1.831 | 1.819 | 1.714 | 1.711 | 1.638 | 1.7900 | 5.29 |
| 78) C | tetrachloroethene | 2.200 | 2.167 | 2.281 | 2.174 | 2.163 | 2.011 | 1.989 | 1.833 | 2.1021 | 6.92 |
| 79) | 1,1,1,2-tetrachloroethane | 1.741 | 1.818 | 1.884 | 1.828 | 1.861 | 1.723 | 1.710 | 1.541 | 1.7632 | 6.28 |
| 80) C | chlorobenzene | 4.213 | 4.395 | 4.493 | 4.338 | 4.359 | 4.034 | 3.919 | 3.447 | 4.1497 | 8.26 |
| 81) C | ethylbenzene | 6.158 | 6.372 | 6.539 | 6.288 | 6.202 | 5.617 | 5.450 | 5.145 | 5.9713 | 8.38 |
| 82) | 2-ethylthiophene | 1.743 | 1.855 | 1.903 | 1.790 | 1.730 | 1.553 | 1.357 | 1.042 | 1.6215 | 18.05 |
| 83) C | m+p-xylene | 5.296 | 5.281 | 5.353 | 5.080 | 5.022 | 4.591 | 4.441 | 4.072 | 4.8920 | 9.61 |
| 84) C | bromoform | 1.680 | 1.805 | 1.880 | 1.970 | 2.072 | 1.983 | 1.985 | 1.866 | 1.9052 | 6.51 |
| 85) C | styrene | 4.426 | 4.599 | 4.750 | 4.730 | 4.715 | 4.410 | 4.269 | 3.831 | 4.4662 | 6.97 |
| 86) C | 1,1,2,2-tetrachloroethane | 3.460 | 3.727 | 3.880 | 3.795 | 3.790 | 3.581 | 3.543 | 3.104 | 3.6099 | 6.92 |
| 87) C | o-xylene | 5.151 | 5.350 | 5.548 | 5.187 | 5.087 | 4.656 | 4.459 | 3.892 | 4.9160 | 11.07 |
| 88) | 1,2,3-trichloropropane | 2.695 | 3.084 | 3.230 | 3.095 | 3.108 | 2.894 | 2.853 | 2.637 | 2.9495 | 7.22 |
| 89) | nonane | 5.212 | 5.338 | 5.490 | 5.211 | 5.134 | 4.663 | 4.280 | 3.591 | 4.8649 | 13.31 |
| 90) s | bromofluorobenzene | 3.119 | 3.151 | 3.201 | 3.226 | 3.264 | 3.247 | 3.276 | 3.110 | 3.1993 | 2.04 |
| 91) C | isopropylbenzene | 7.315 | 7.666 | 8.028 | 7.608 | 7.570 | 6.924 | 6.493 | 5.683 | 7.1608 | 10.67 |
| 92) | bromobenzene | 3.594 | 3.866 | 3.971 | 3.875 | 3.930 | 3.682 | 3.671 | 3.370 | 3.7448 | 5.43 |
| 93) | 2-chlorotoluene | 2.093 | 2.186 | 2.187 | 2.143 | 2.195 | 2.023 | 2.031 | 1.944 | 2.1002 | 4.44 |

Response Factor Report

Method Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Method File : TFS16_191119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Thu Nov 21 15:01:46 2019
Response Via : Initial Calibration

Calibration Files

0.2 =r1613938.D 0.5 =r1613939.D 1.0 =r1613940.D 5.0 =r1613941.D 10 =r1613942.D 20 =r1613943.D
50 =r1613944.D 100 =r1613945.D

| | Compound | 0.2 | 0.5 | 1.0 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|--------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 94) | n-propylbenzene | 2.008 | 2.324 | 2.447 | 2.427 | 2.430 | 2.280 | 2.308 | 2.190 | 2.3017 | 6.43 |
| 95) | 4-chlorotoluene | 1.777 | 2.018 | 2.139 | 2.108 | 2.093 | 1.965 | 1.968 | 1.904 | 1.9964 | 6.02 |
| 96) | 4-ethyl toluene | 6.954 | 7.841 | 8.486 | 8.419 | 8.374 | 7.669 | 7.178 | 6.252 | 7.6466 | 10.50 |
| 97) | 1,3,5-trimethylbenzene | 6.342 | 6.809 | 7.055 | 6.838 | 6.817 | 6.259 | 5.846 | 5.078 | 6.3805 | 10.32 |
| 98) | tert-butylbenzene | 6.305 | 6.751 | 7.031 | 6.885 | 6.805 | 6.317 | 6.031 | 4.870 | 6.3743 | 10.95 |
| 99) | 1,2,4-trimethylbenzene | 5.905 | 6.324 | 6.888 | 6.802 | 6.791 | 6.123 | 5.538 | 4.573 | 6.1182 | 12.85 |
| 100) | decane | 4.441 | 4.797 | 5.104 | 4.904 | 4.890 | 4.467 | 4.392 | 4.092 | 4.6360 | 7.31 |
| 101) C | Benzyl Chloride | 1.603 | 2.102 | 2.975 | 3.984 | 4.419 | 4.034 | 4.314 | 4.095 | 3.4409 | 31.42# |
| 102) | 1,3-dichlorobenzene | 3.328 | 4.155 | 4.493 | 4.627 | 4.641 | 4.342 | 4.246 | 3.736 | 4.1960 | 10.89 |
| 103) C | 1,4-dichlorobenzene | 3.131 | 3.990 | 4.295 | 4.433 | 4.543 | 4.183 | 4.077 | 3.700 | 4.0438 | 11.22 |
| 104) | sec-butylbenzene | 0.910 | 0.963 | 1.009 | 0.987 | 0.977 | 0.894 | 0.823 | 0.704 | 0.9085 | 11.28 |
| 105) | 1,2,3-trimethylbenzene | 5.711 | 6.087 | 6.329 | 6.919 | 6.799 | 5.602 | 5.117 | 4.252 | 5.8520 | 15.15 |
| 106) | p-isopropyltoluene | 7.712 | 8.194 | 8.365 | 8.307 | 8.327 | 7.729 | 7.263 | 5.719 | 7.7019 | 11.58 |
| 107) | 1,2-dichlorobenzene | 3.128 | 3.938 | 4.283 | 4.370 | 4.384 | 3.995 | 3.920 | 3.596 | 3.9517 | 10.82 |
| 108) | n-butylbenzene | 5.174 | 6.080 | 6.584 | 6.748 | 6.855 | 6.175 | 5.944 | 5.498 | 6.1324 | 9.68 |
| 109) | indan | 5.188 | 5.983 | 6.394 | 7.076 | 7.050 | 5.899 | 5.727 | 5.164 | 6.0600 | 12.21 |
| 110) | indene | 3.573 | 4.242 | 4.877 | 5.537 | 5.681 | 4.694 | 4.752 | 4.404 | 4.7200 | 14.46 |
| 111) C | 1,2-dibromo-3-chloropropane | 0.958 | 1.239 | 1.386 | 1.514 | 1.638 | 1.504 | 1.545 | 1.441 | 1.4029 | 15.33 |
| 112) | undecane | 4.151 | 5.261 | 5.571 | 5.361 | 5.528 | 5.014 | 4.952 | 4.566 | 5.0504 | 9.74 |
| 113) | 1,2,4,5-tetramethylbenzene | 7.409 | 9.082 | 9.648 | 9.298 | 9.883 | 8.377 | 8.236 | 7.089 | 8.6278 | 11.87 |
| 114) | dodecane | 2.144 | 3.762 | 4.700 | 4.447 | 5.421 | 4.701 | 5.098 | 4.430 | 4.3380 | 23.35 |
| 115) C | 1,2,4-trichlorobenzene | 0.631 | 1.205 | 1.546 | 2.005 | 2.611 | 2.344 | 2.643 | 2.583 | 1.9459 | 38.52# |
| 116) | naphthalene | 4.119 | 5.479 | 6.355 | 7.501 | 8.687 | 7.367 | 7.774 | 7.349 | 6.8290 | 21.25 |
| 117) | 1,2,3-trichlorobenzene | 0.902 | 1.613 | 1.976 | 2.071 | 2.596 | 2.338 | 2.608 | 2.505 | 2.0762 | 28.24 |
| 118) | benzothiophene | 1.707 | 3.177 | 4.383 | 4.643 | 6.387 | 6.480 | 7.413 | 7.122 | 5.1639 | 39.35# |
| 119) C | hexachlorobutadiene | 1.414 | 2.060 | 2.270 | 2.016 | 2.355 | 2.110 | 2.125 | 1.878 | 2.0284 | 14.22 |
| 120) | 2-methylnaphthalene | | | 0.547 | 0.267 | 0.562 | 0.462 | 0.825 | 0.924 | 0.5979 | 40.27# |
| 121) | 1-methylnaphthalene | | | 1.121 | 0.520 | 1.047 | 0.763 | 1.257 | 1.352 | 1.0098 | 31.10# |

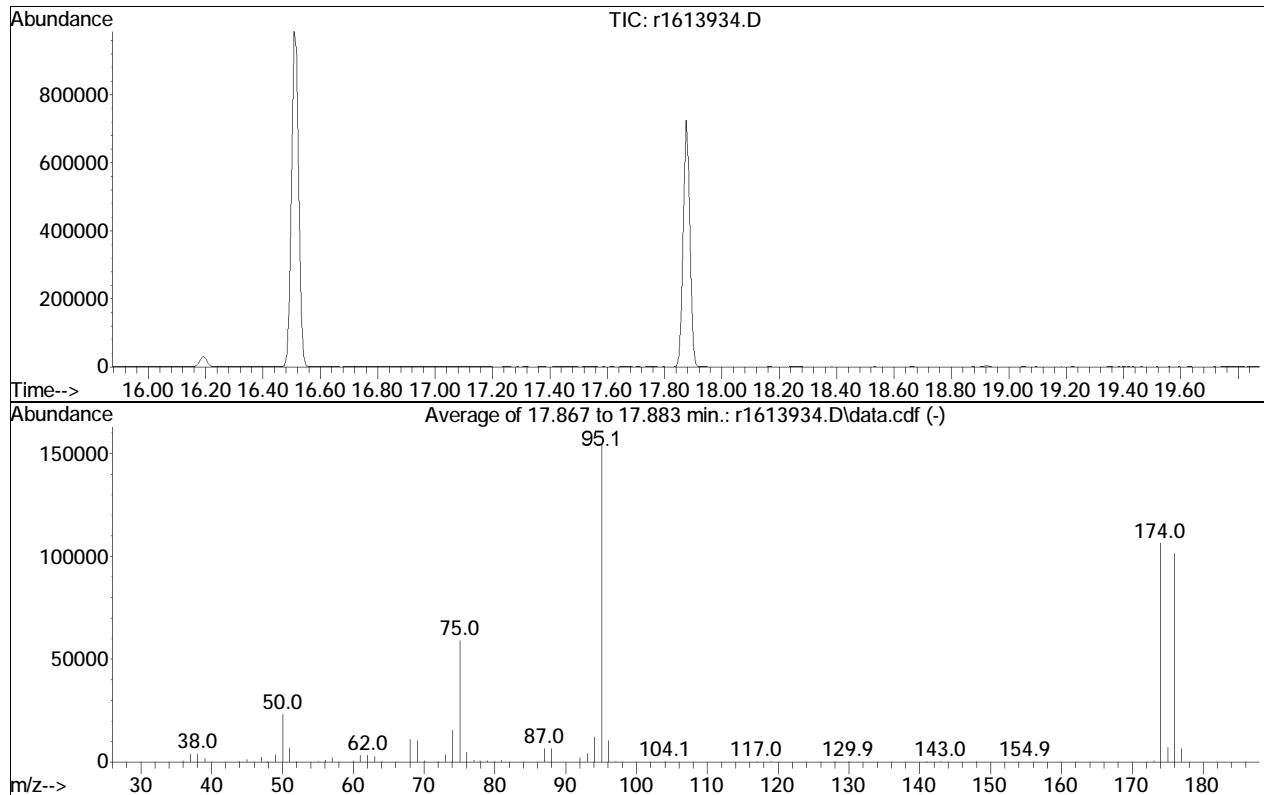
(#) = Out of Range

BFB

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613934.D
 Acq On : 19 Nov 2019 5:34 PM
 Operator : AIRLAB16:RY
 Sample : WG1312049-1,3,250,250
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 21 15:01:46 2019



Spectrum Information: Average of 17.867 to 17.883 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50 | 95 | 8 | 40 | 15.0 | 23222 | PASS |
| 75 | 95 | 30 | 66 | 38.0 | 59043 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 155326 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 10493 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 571 | PASS |
| 174 | 95 | 50 | 120 | 68.6 | 106593 | PASS |
| 175 | 174 | 4 | 9 | 6.7 | 7171 | PASS |
| 176 | 174 | 93 | 101 | 95.3 | 101627 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 6607 | PASS |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613938.D
 Acq On : 19 Nov 2019 8:14 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD0.2
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:50:49 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|---------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 267506 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery | = | 100.23% | |
| 43) 1,4-difluorobenzene | 11.79 | 114 | 712445 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery | = | 101.00% | |
| 67) chlorobenzene-D5 | 16.51 | 54 | 100942 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery | = | 101.52% | |
| | | | | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.41 | 65 | 111050 | 10.241 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 102.41% | |
| 69) toluene-D8 | 14.64 | 98 | 466448 | 9.916 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 99.16% | |
| 90) bromofluorobenzene | 17.88 | 95 | 314823 | 9.554 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 95.54% | |
| | | | | | | |
| Target Compounds | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 4068 | 0.209 | ppbV | 97 |
| 3) propylene | 3.82 | 41 | 2404M6 | 0.222 | ppbV | |
| 4) propane | 3.84 | 29 | 3261 | 0.234 | ppbV # | 94 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 4269 | 0.208 | ppbV | 95 |
| 6) chloromethane | 4.08 | 50 | 2663 | 0.218 | ppbV | 99 |
| 7) Freon-114 | 4.20 | 85 | 5967 | 0.219 | ppbV | 95 |
| 8) methanol | 4.28 | 31 | 6602 | 1.220 | ppbV # | 49 |
| 9) vinyl chloride | 4.34 | 62 | 2367 | 0.209 | ppbV | 98 |
| 10) 1,3-butadiene | 4.50 | 54 | 2358 | 0.220 | ppbV | 91 |
| 11) butane | 4.56 | 43 | 4370 | 0.236 | ppbV # | 94 |
| 12) acetaldehyde | 4.22 | 29 | 8123 | 1.138 | ppbV # | 71 |
| 13) bromomethane | 4.82 | 94 | 2235 | 0.222 | ppbV | 89 |
| 14) chloroethane | 5.03 | 64 | 1280 | 0.234 | ppbV | 89 |
| 15) ethanol | 5.21 | 31 | 10751 | 1.181 | ppbV | 90 |
| 16) dichlorofluoromethane | 5.18 | 67 | 4411 | 0.221 | ppbV | 99 |
| 17) vinyl bromide | 5.47 | 106 | 2326 | 0.212 | ppbV | 82 |
| 18) acrolein | 5.63 | 56 | 1475 | 0.262 | ppbV # | 32 |
| 19) acetone | 5.79 | 43 | 18371 | 1.094 | ppbV # | 98 |
| 20) acetonitrile | 5.47 | 41 | 2892 | 0.282 | ppbV | 99 |
| 21) trichlorofluoromethane | 5.99 | 101 | 3359 | 0.211 | ppbV | 96 |
| 22) isopropyl alcohol | 6.12 | 45 | 10960 | 0.509 | ppbV | 99 |
| 23) acrylonitrile | 6.37 | 53 | 2316 | 0.212 | ppbV | 96 |
| 24) pentane | 6.44 | 43 | 5585M4 | 0.252 | ppbV | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613938.D
 Acq On : 19 Nov 2019 8:14 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD0.2
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:50:49 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) | |
|-------------------------------|-------|------|----------|-------|-------|----------|----|
| 25) ethyl ether | 6.49 | 31 | 4227 | 0.205 | ppbV | # | 91 |
| 26) 1,1-dichloroethene | 6.78 | 61 | 3228 | 0.195 | ppbV | | 95 |
| 27) tertiary butyl alcohol | 6.87 | 59 | 3952 | 0.197 | ppbV | # | 92 |
| 28) methylene chloride | 6.94 | 49 | 3720 | 0.225 | ppbV | | 98 |
| 29) 3-chloropropene | 7.08 | 41 | 4104 | 0.203 | ppbV | | 98 |
| 30) carbon disulfide | 7.23 | 76 | 8990 | 0.202 | ppbV | # | 38 |
| 31) Freon 113 | 7.27 | 101 | 5000 | 0.207 | ppbV | | 97 |
| 32) trans-1,2-dichloroethene | 8.07 | 61 | 3575 | 0.199 | ppbV | | 93 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 4499 | 0.208 | ppbV | | 95 |
| 34) MTBE | 8.42 | 73 | 7008 | 0.195 | ppbV | | 95 |
| 35) vinyl acetate | 8.54 | 43 | 7010 | 0.200 | ppbV | # | 93 |
| 36) 2-butanone | 8.82 | 43 | 6698 | 0.203 | ppbV | | 98 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 3157 | 0.200 | ppbV | | 92 |
| 38) Ethyl Acetate | 9.63 | 61 | 809 | 0.173 | ppbV | | 64 |
| 39) chloroform | 9.68 | 83 | 4454 | 0.206 | ppbV | | 98 |
| 40) Tetrahydrofuran | 10.15 | 42 | 4015 | 0.200 | ppbV | | 92 |
| 41) 2,2-dichloropropane | 9.69 | 77 | 3460 | 0.195 | ppbV | | 94 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 2344 | 0.200 | ppbV | | 95 |
| 44) hexane | 9.59 | 57 | 4559 | 0.209 | ppbV | | 86 |
| 45) diisopropyl ether | 9.61 | 87 | 2260 | 0.194 | ppbV | | 96 |
| 46) tert-butyl ethyl ether | 10.24 | 59 | 7303 | 0.196 | ppbV | | 95 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 3391 | 0.195 | ppbV | # | 94 |
| 49) 1,1-dichloropropene | 11.19 | 75 | 4153 | 0.201 | ppbV | | 96 |
| 50) benzene | 11.35 | 78 | 9571 | 0.206 | ppbV | | 99 |
| 51) thiophene | 11.51 | 84 | 18973 | 0.202 | ppbV | | 99 |
| 52) carbon tetrachloride | 11.53 | 117 | 3313 | 0.195 | ppbV | | 94 |
| 53) cyclohexane | 11.67 | 56 | 4531 | 0.195 | ppbV | | 98 |
| 54) tert-amyl methyl ether | 12.08 | 73 | 8340 | 0.198 | ppbV | | 99 |
| 55) dibromomethane | 12.28 | 93 | 2698 | 0.211 | ppbV | | 96 |
| 56) 1,2-dichloropropane | 12.32 | 63 | 2950 | 0.195 | ppbV | # | 93 |
| 57) bromodichloromethane | 12.55 | 83 | 4664 | 0.198 | ppbV | | 99 |
| 58) 1,4-dioxane | 12.61 | 88 | 1920 | 0.191 | ppbV | | 99 |
| 59) trichloroethene | 12.60 | 130 | 3821 | 0.201 | ppbV | | 99 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 14367 | 0.205 | ppbV | | 98 |
| 61) methyl methacrylate | 12.86 | 41 | 4371 | 0.172 | ppbV | | 98 |
| 62) heptane | 12.97 | 43 | 6810 | 0.201 | ppbV | | 97 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 4439 | 0.190 | ppbV | | 97 |
| 64) 4-methyl-2-pentanone | 13.68 | 43 | 7661 | 0.192 | ppbV | | 96 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 3982 | 0.187 | ppbV | | 95 |
| 66) 1,1,2-trichloroethane | 14.44 | 97 | 3474 | 0.212 | ppbV | | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613938.D
 Acq On : 19 Nov 2019 8:14 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD0.2
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:50:49 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 68) toluene | 14.76 | 91 | 10524 | 0.216 | ppbV | 98 |
| 70) 2-methylthiophene | 14.82 | 97 | 32267 | 0.208 | ppbV | 99 |
| 71) 1,3-dichloropropane | 14.79 | 76 | 5080 | 0.198 | ppbV | 97 |
| 72) 2-hexanone | 15.06 | 43 | 6239 | 0.169 | ppbV | 96 |
| 73) 3-methylthiophene | 15.02 | 97 | 32699 | 0.205 | ppbV | 97 |
| 74) dibromochloromethane | 15.21 | 129 | 4381 | 0.178 | ppbV | 97 |
| 75) 1,2-dibromoethane | 15.46 | 107 | 5060 | 0.189 | ppbV | 95 |
| 76) butyl acetate | 15.71 | 73 | 1031 | 0.155 | ppbV | 93 |
| 77) octane | 15.79 | 85 | 3647 | 0.199 | ppbV | 94 |
| 78) tetrachloroethene | 15.92 | 166 | 4441 | 0.203 | ppbV | 97 |
| 79) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 3515 | 0.187 | ppbV | 96 |
| 80) chlorobenzene | 16.55 | 112 | 8506 | 0.193 | ppbV | 96 |
| 81) ethylbenzene | 16.89 | 91 | 12432 | 0.199 | ppbV | 99 |
| 82) 2-ethylthiophene | 16.93 | 97 | 35185 | 0.202 | ppbV | 98 |
| 83) m+p-xylene | 17.06 | 91 | 21384 | 0.422 | ppbV | 98 |
| 84) bromoform | 17.12 | 173 | 3391 | 0.162 | ppbV | 96 |
| 85) styrene | 17.38 | 104 | 8935 | 0.188 | ppbV | 96 |
| 86) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 6985 | 0.183 | ppbV | 99 |
| 87) o-xylene | 17.48 | 91 | 10399 | 0.203 | ppbV | 99 |
| 88) 1,2,3-trichloropropane | 17.58 | 75 | 5441 | 0.173 | ppbV | 97 |
| 89) nonane | 17.67 | 43 | 10523 | 0.203 | ppbV | 99 |
| 91) isopropylbenzene | 17.99 | 105 | 14767 | 0.193 | ppbV | 99 |
| 92) bromobenzene | 18.07 | 77 | 7256 | 0.183 | ppbV | 96 |
| 93) 2-chlorotoluene | 18.40 | 126 | 4225 | 0.191 | ppbV | 87 |
| 94) n-propylbenzene | 18.43 | 120 | 4053 | 0.165 | ppbV | 99 |
| 95) 4-chlorotoluene | 18.46 | 126 | 3587 | 0.170 | ppbV | 87 |
| 96) 4-ethyl toluene | 18.55 | 105 | 14039 | 0.166 | ppbV # | 96 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 12803 | 0.186 | ppbV | 100 |
| 98) tert-butylbenzene | 18.97 | 119 | 12728 | 0.185 | ppbV | 98 |
| 99) 1,2,4-trimethylbenzene | 18.97 | 105 | 11922 | 0.174 | ppbV | 96 |
| 100) decane | 19.05 | 57 | 8965 | 0.182 | ppbV | 97 |
| 101) Benzyl Chloride | 19.08 | 91 | 3237 | 0.073 | ppbV | 99 |
| 102) 1,3-dichlorobenzene | 19.10 | 146 | 6719 | 0.143 | ppbV | 97 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 6320 | 0.138 | ppbV | 98 |
| 104) sec-butylbenzene | 19.19 | 105 | 18379 | 0.186 | ppbV | 97 |
| 105) 1,2,3-trimethylbenzene | 19.32 | 105 | 11530 | 0.168 | ppbV | 100 |
| 106) p-isopropyltoluene | 19.32 | 119 | 15569 | 0.185 | ppbV | 99 |
| 107) 1,2-dichlorobenzene | 19.45 | 146 | 6315 | 0.143 | ppbV | 96 |
| 108) n-butylbenzene | 19.68 | 91 | 10446 | 0.151 | ppbV | 98 |
| 109) indan | 19.50 | 117 | 10473 | 0.147 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613938.D
 Acq On : 19 Nov 2019 8:14 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.2
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:50:49 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 110) indene | 19.58 | 115 | 7214 | 0.126 | ppbV | 99 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 1935 | 0.117 | ppbV | 92 |
| 112) undecane | 20.13 | 57 | 8380 | 0.150 | ppbV # | 96 |
| 113) 1,2,4,5-tetramethylben... | 20.36 | 119 | 14957 | 0.150 | ppbV | 99 |
| 114) dodecane | 21.07 | 57 | 4328 | 0.079 | ppbV | 96 |
| 115) 1,2,4-trichlorobenzene | 21.02 | | 0 | N.D. | | |
| 116) naphthalene | 21.13 | 128 | 8316 | 0.095 | ppbV | 98 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 1822 | 0.070 | ppbV | 96 |
| 118) benzothiophene | 21.19 | 134 | 3446 | 0.053 | ppbV # | 78 |
| 119) hexachlorobutadiene | 21.45 | 225 | 2854 | 0.120 | ppbV # | 93 |
| 120) 2-methylnaphthalene | 0.00 | | 0 | N.D. | | |
| 121) 1-methylnaphthalene | 0.00 | | 0 | N.D. | | |

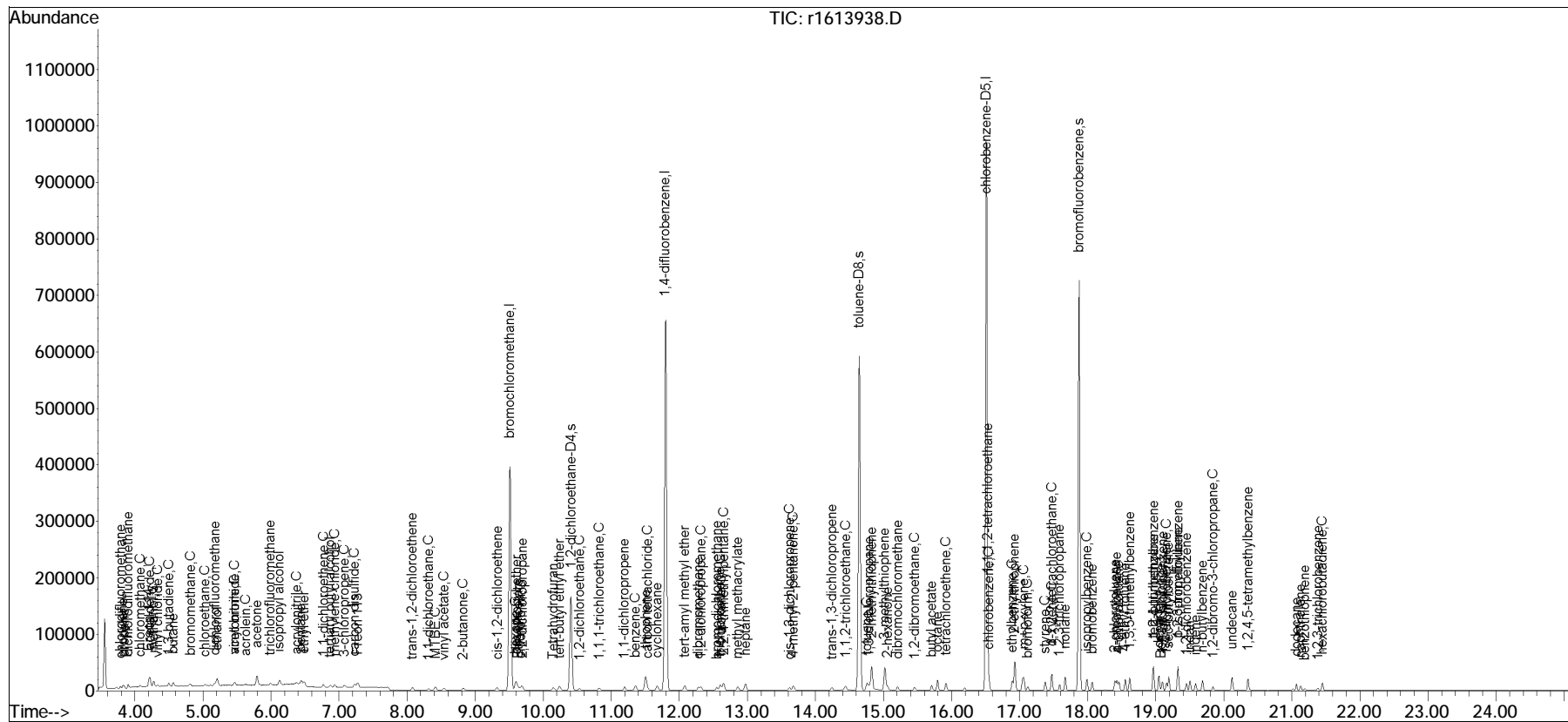
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

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Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Data File : r1613938.D
Acq On    : 19 Nov 2019    8:14 PM
Operator  : AIRLAB16:RY
Sample    : ITO15-LLSTD0.2
Misc      : WG1312049
ALS Vial  : 0    Sample Multiplier: 1
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Quant Time: Nov 21 14:50:49 2019
Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Nov 20 06:36:37 2019
Response via : Initial Calibration

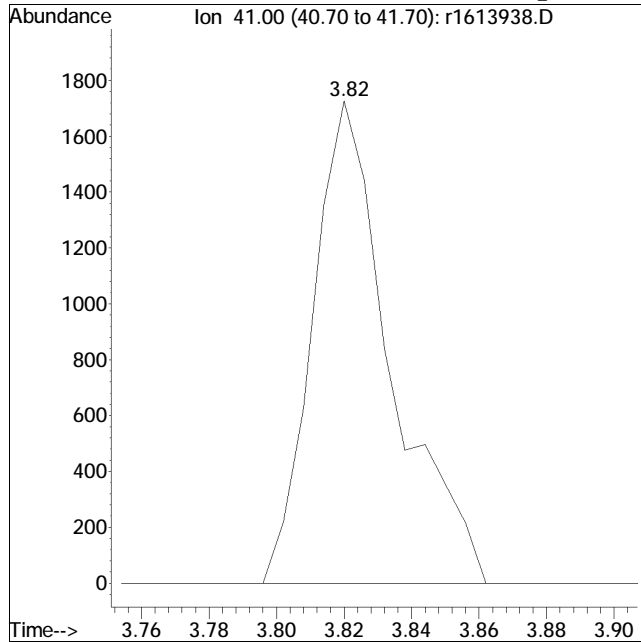
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



Manual Integration/Negative Proof Report

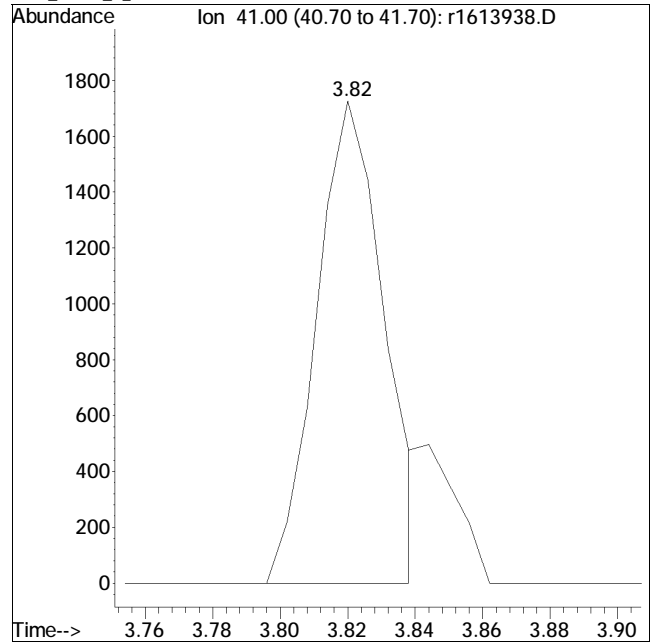
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613938.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 8:14 PM Instrument :
Sample : ITO15-LLSTD0.2 Quant Date : 11/20/2019 6:37 am

Compound #3: propylene



Original Peak Response = 2788

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

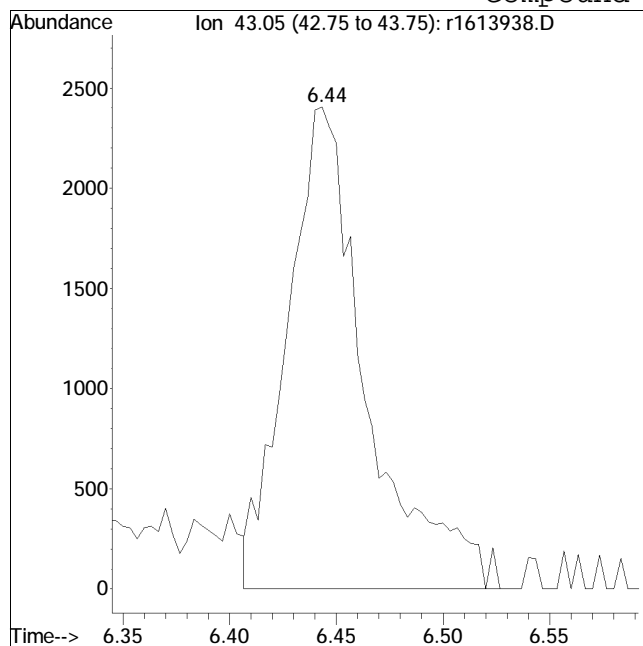


Manual Peak Response = 2404 M6

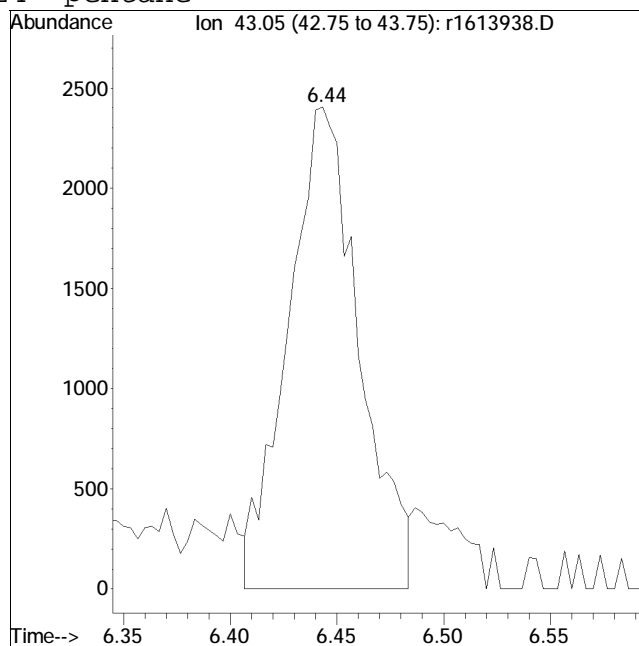
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613938.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 8:14 PM Instrument :
Sample : ITO15-LLSTD0.2 Quant Date : 11/20/2019 6:37 am

Compound #24: pentane



Original Peak Response = 6240



Manual Peak Response = 5585 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613939.D
 Acq On : 19 Nov 2019 8:54 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD0.5
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:52:17 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|---------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 267259 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery | = | 100.13% | |
| 43) 1,4-difluorobenzene | 11.79 | 114 | 713085 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery | = | 101.09% | |
| 67) chlorobenzene-D5 | 16.51 | 54 | 101567 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery | = | 102.15% | |
| | | | | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.40 | 65 | 110146 | 10.148 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 101.48% | |
| 69) toluene-D8 | 14.64 | 98 | 463519 | 9.793 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 97.93% | |
| 90) bromofluorobenzene | 17.88 | 95 | 320075 | 9.654 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 96.54% | |
| | | | | | | |
| Target Compounds | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 10572 | 0.545 | ppbV | 100 |
| 3) propylene | 3.82 | 41 | 6066M4 | 0.561 | ppbV | |
| 4) propane | 3.84 | 29 | 7891 | 0.566 | ppbV | 98 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 11505 | 0.560 | ppbV | 100 |
| 6) chloromethane | 4.08 | 50 | 6827 | 0.560 | ppbV | 98 |
| 7) Freon-114 | 4.20 | 85 | 15493 | 0.568 | ppbV | 99 |
| 8) methanol | 4.27 | 31 | 16574 | 3.066 | ppbV # | 79 |
| 9) vinyl chloride | 4.34 | 62 | 6234 | 0.551 | ppbV | 99 |
| 10) 1,3-butadiene | 4.50 | 54 | 5933 | 0.553 | ppbV | 97 |
| 11) butane | 4.56 | 43 | 10714 | 0.579 | ppbV | 98 |
| 12) acetaldehyde | 4.22 | 29 | 18907 | 2.652 | ppbV | 89 |
| 13) bromomethane | 4.81 | 94 | 5511 | 0.547 | ppbV | 98 |
| 14) chloroethane | 5.03 | 64 | 2978 | 0.545 | ppbV | 96 |
| 15) ethanol | 5.21 | 31 | 26373 | 2.900 | ppbV | 96 |
| 16) dichlorofluoromethane | 5.17 | 67 | 11085 | 0.557 | ppbV | 98 |
| 17) vinyl bromide | 5.47 | 106 | 5972 | 0.544 | ppbV | 97 |
| 18) acrolein | 5.62 | 56 | 3361 | 0.598 | ppbV # | 67 |
| 19) acetone | 5.79 | 43 | 44678 | 2.662 | ppbV # | 98 |
| 20) acetonitrile | 5.46 | 41 | 6356 | 0.621 | ppbV | 100 |
| 21) trichlorofluoromethane | 5.99 | 101 | 8827 | 0.554 | ppbV | 97 |
| 22) isopropyl alcohol | 6.12 | 45 | 28363 | 1.319 | ppbV | 99 |
| 23) acrylonitrile | 6.37 | 53 | 5942 | 0.545 | ppbV | 95 |
| 24) pentane | 6.44 | 43 | 11524 | 0.521 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613939.D
 Acq On : 19 Nov 2019 8:54 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.5
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:52:17 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 25) ethyl ether | 6.48 | 31 | 10435 | 0.508 | ppbV | 96 |
| 26) 1,1-dichloroethene | 6.76 | 61 | 8883 | 0.536 | ppbV | 98 |
| 27) tertiary butyl alcohol | 6.86 | 59 | 10326 | 0.514 | ppbV | 94 |
| 28) methylene chloride | 6.93 | 49 | 9058 | 0.549 | ppbV | 98 |
| 29) 3-chloropropene | 7.08 | 41 | 10666 | 0.527 | ppbV | 98 |
| 30) carbon disulfide | 7.23 | 76 | 23160 | 0.521 | ppbV # | 71 |
| 31) Freon 113 | 7.27 | 101 | 13020 | 0.540 | ppbV | 97 |
| 32) trans-1,2-dichloroethene | 8.07 | 61 | 9658 | 0.537 | ppbV | 97 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 11548 | 0.534 | ppbV | 99 |
| 34) MTBE | 8.41 | 73 | 18519 | 0.516 | ppbV | 97 |
| 35) vinyl acetate | 8.54 | 43 | 18022 | 0.514 | ppbV | 98 |
| 36) 2-butanone | 8.82 | 43 | 17028 | 0.518 | ppbV | 100 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 8313 | 0.527 | ppbV | 94 |
| 38) Ethyl Acetate | 9.63 | 61 | 2439 | 0.523 | ppbV | 78 |
| 39) chloroform | 9.68 | 83 | 11212 | 0.520 | ppbV | 97 |
| 40) Tetrahydrofuran | 10.13 | 42 | 10215 | 0.509 | ppbV | 97 |
| 41) 2,2-dichloropropane | 9.69 | 77 | 9446 | 0.533 | ppbV | 95 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 6113 | 0.522 | ppbV | 97 |
| 44) hexane | 9.58 | 57 | 11463 | 0.524 | ppbV # | 76 |
| 45) diisopropyl ether | 9.60 | 87 | 5866 | 0.502 | ppbV | 98 |
| 46) tert-butyl ethyl ether | 10.23 | 59 | 19459 | 0.521 | ppbV | 100 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 9037 | 0.519 | ppbV | 100 |
| 49) 1,1-dichloropropene | 11.19 | 75 | 10733 | 0.518 | ppbV | 99 |
| 50) benzene | 11.35 | 78 | 24554 | 0.528 | ppbV | 99 |
| 51) thiophene | 11.50 | 84 | 49356 | 0.525 | ppbV | 97 |
| 52) carbon tetrachloride | 11.53 | 117 | 8455 | 0.497 | ppbV | 100 |
| 53) cyclohexane | 11.67 | 56 | 12344 | 0.531 | ppbV | 98 |
| 54) tert-amyl methyl ether | 12.07 | 73 | 21604 | 0.512 | ppbV | 99 |
| 55) dibromomethane | 12.28 | 93 | 6877 | 0.537 | ppbV | 95 |
| 56) 1,2-dichloropropane | 12.32 | 63 | 8120 | 0.536 | ppbV | 96 |
| 57) bromodichloromethane | 12.55 | 83 | 11905 | 0.506 | ppbV | 100 |
| 58) 1,4-dioxane | 12.60 | 88 | 5069 | 0.505 | ppbV | 98 |
| 59) trichloroethene | 12.59 | 130 | 9911 | 0.521 | ppbV | 97 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 37442 | 0.534 | ppbV | 99 |
| 61) methyl methacrylate | 12.85 | 41 | 11443 | 0.449 | ppbV | 97 |
| 62) heptane | 12.97 | 43 | 17812 | 0.525 | ppbV | 98 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 11909 | 0.509 | ppbV | 98 |
| 64) 4-methyl-2-pentanone | 13.67 | 43 | 20141 | 0.505 | ppbV | 100 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 10620 | 0.497 | ppbV | 97 |
| 66) 1,1,2-trichloroethane | 14.44 | 97 | 8759 | 0.533 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613939.D
 Acq On : 19 Nov 2019 8:54 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD0.5
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:52:17 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|-------|----------|
| 68) toluene | 14.75 | 91 | 26377 | 0.537 | ppbV | 99 |
| 70) 2-methylthiophene | 14.82 | 97 | 83289 | 0.533 | ppbV | 100 |
| 71) 1,3-dichloropropane | 14.78 | 76 | 13153 | 0.511 | ppbV | 94 |
| 72) 2-hexanone | 15.05 | 43 | 16982 | 0.456 | ppbV | 96 |
| 73) 3-methylthiophene | 15.02 | 97 | 86336 | 0.538 | ppbV | 99 |
| 74) dibromochloromethane | 15.20 | 129 | 11645 | 0.471 | ppbV | 97 |
| 75) 1,2-dibromoethane | 15.45 | 107 | 13757 | 0.511 | ppbV | 98 |
| 76) butyl acetate | 15.70 | 73 | 2837 | 0.424 | ppbV | 87 |
| 77) octane | 15.79 | 85 | 9578 | 0.519 | ppbV | 97 |
| 78) tetrachloroethene | 15.92 | 166 | 11006 | 0.501 | ppbV | 99 |
| 79) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 9234 | 0.489 | ppbV | 97 |
| 80) chlorobenzene | 16.55 | 112 | 22319 | 0.504 | ppbV | 99 |
| 81) ethylbenzene | 16.89 | 91 | 32359 | 0.514 | ppbV | 99 |
| 82) 2-ethylthiophene | 16.93 | 97 | 94196 | 0.536 | ppbV | 96 |
| 83) m+p-xylene | 17.06 | 91 | 53633 | 1.051 | ppbV | 99 |
| 84) bromoform | 17.12 | 173 | 9166 | 0.436 | ppbV | 98 |
| 85) styrene | 17.38 | 104 | 23357 | 0.488 | ppbV | 98 |
| 86) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 18928 | 0.492 | ppbV | 97 |
| 87) o-xylene | 17.48 | 91 | 27168 | 0.526 | ppbV | 96 |
| 88) 1,2,3-trichloropropane | 17.59 | 75 | 15662 | 0.496 | ppbV | 94 |
| 89) nonane | 17.68 | 43 | 27109 | 0.520 | ppbV | 99 |
| 91) isopropylbenzene | 17.99 | 105 | 38929 | 0.506 | ppbV | 100 |
| 92) bromobenzene | 18.07 | 77 | 19633 | 0.492 | ppbV | 98 |
| 93) 2-chlorotoluene | 18.40 | 126 | 11099 | 0.498 | ppbV | 98 |
| 94) n-propylbenzene | 18.43 | 120 | 11802 | 0.478 | ppbV | 93 |
| 95) 4-chlorotoluene | 18.46 | 126 | 10246 | 0.482 | ppbV | 93 |
| 96) 4-ethyl toluene | 18.55 | 105 | 39821 | 0.468 | ppbV | 97 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 34578 | 0.499 | ppbV | 96 |
| 98) tert-butylbenzene | 18.97 | 119 | 34283 | 0.496 | ppbV | 100 |
| 99) 1,2,4-trimethylbenzene | 18.97 | 105 | 32117 | 0.466 | ppbV | 97 |
| 100) decane | 19.05 | 57 | 24363 | 0.491 | ppbV | 100 |
| 101) Benzyl Chloride | 19.09 | 91 | 10674 | 0.238 | ppbV | 93 |
| 102) 1,3-dichlorobenzene | 19.10 | 146 | 21099 | 0.448 | ppbV | 98 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 20261 | 0.439 | ppbV | 99 |
| 104) sec-butylbenzene | 19.19 | 105 | 48913 | 0.493 | ppbV | 99 |
| 105) 1,2,3-trimethylbenzene | 19.32 | 105 | 30913 | 0.448 | ppbV | 100 |
| 106) p-isopropyltoluene | 19.32 | 119 | 41610 | 0.492 | ppbV | 100 |
| 107) 1,2-dichlorobenzene | 19.45 | 146 | 19998 | 0.449 | ppbV | 97 |
| 108) n-butylbenzene | 19.68 | 91 | 30878 | 0.443 | ppbV | 100 |
| 109) indan | 19.50 | 117 | 30385 | 0.424 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613939.D
 Acq On : 19 Nov 2019 8:54 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.5
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:52:17 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 110) indene | 19.58 | 115 | 21540 | 0.373 | ppbV | 100 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 6291 | 0.378 | ppbV # | 92 |
| 112) undecane | 20.12 | 57 | 26716 | 0.476 | ppbV | 95 |
| 113) 1,2,4,5-tetramethylben... | 20.36 | 119 | 46124 | 0.459 | ppbV | 98 |
| 114) dodecane | 21.06 | 57 | 19105 | 0.347 | ppbV | 100 |
| 115) 1,2,4-trichlorobenzene | 21.01 | 180 | 6117 | 0.231 | ppbV | 95 |
| 116) naphthalene | 21.13 | 128 | 27826 | 0.315 | ppbV | 99 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 8191 | 0.311 | ppbV | 97 |
| 118) benzothiophene | 21.18 | 134 | 16136 | 0.249 | ppbV | 99 |
| 119) hexachlorobutadiene | 21.44 | 225 | 10459 | 0.437 | ppbV | 98 |
| 120) 2-methylnaphthalene | 22.23 | 142 | 1424 | 0.250 | ppbV | 87 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 3078 | 0.290 | ppbV | 96 |

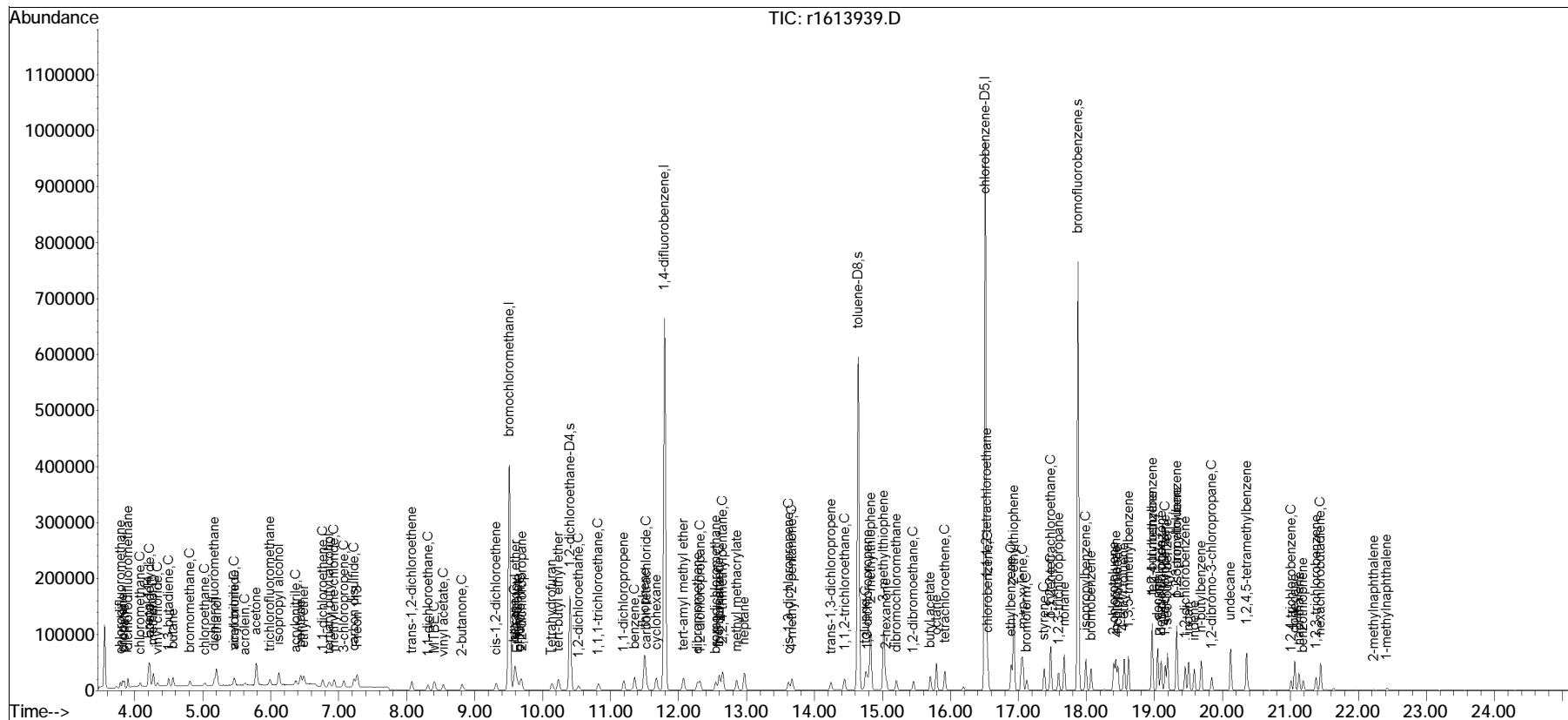
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

```
Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Data File : r1613939.D
Acq On    : 19 Nov 2019      8:54 PM
Operator  : AIRLAB16:RY
Sample    : ITO15-LLSTD0.5
Misc      : WG1312049
ALS Vial  : 0      Sample Multiplier: 1
```

Quant Time: Nov 21 14:52:17 2019
Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Nov 20 06:36:37 2019
Response via : Initial Calibration

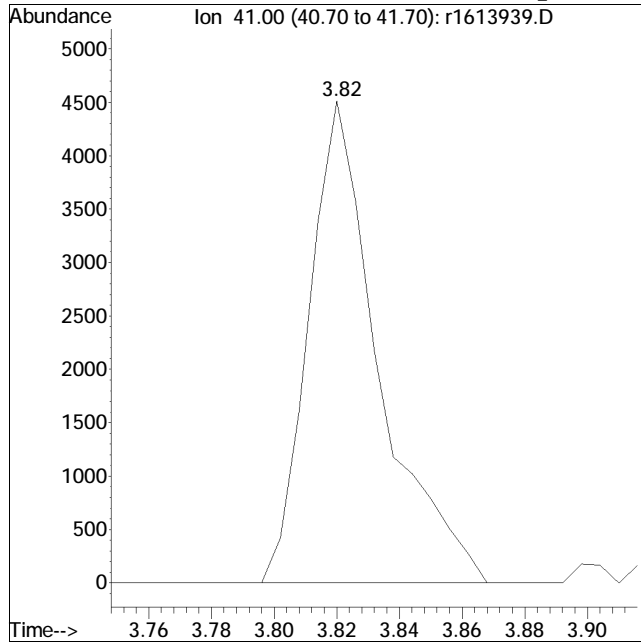
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



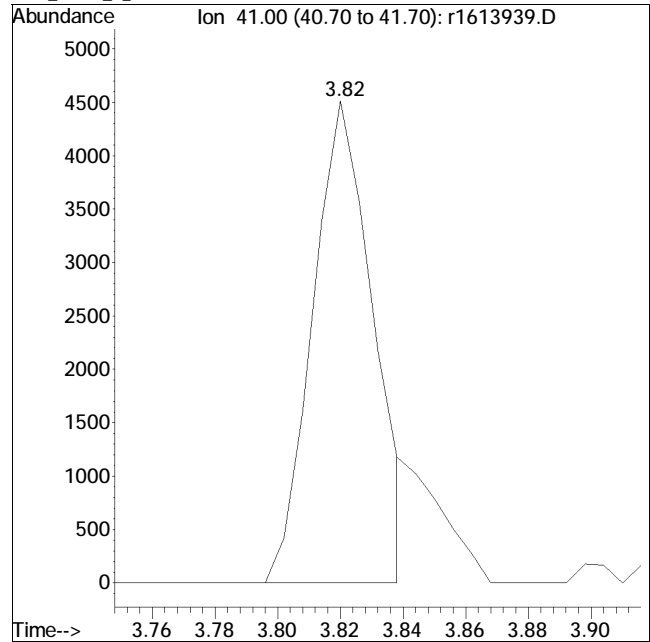
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613939.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 8:54 PM Instrument :
Sample : ITO15-LLSTD0.5 Quant Date : 11/20/2019 6:37 am

Compound #3: propylene



Original Peak Response = 6998



Manual Peak Response = 6066 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613940.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD1.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:53:41 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 266422 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery = | 99.82% | | |
| 43) 1,4-difluorobenzene | 11.79 | 114 | 706446 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery = | 100.15% | | |
| 67) chlorobenzene-D5 | 16.51 | 54 | 99739 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery = | 100.31% | | |
| | | | | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.40 | 65 | 112309 | 10.445 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 104.45% | | |
| 69) toluene-D8 | 14.64 | 98 | 470059 | 10.114 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 101.14% | | |
| 90) bromofluorobenzene | 17.88 | 95 | 319254 | 9.805 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 98.05% | | |
| | | | | | | |
| Target Compounds | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 21120 | 1.091 | ppbV | 99 |
| 3) propylene | 3.82 | 41 | 12289M4 | 1.139 | ppbV | |
| 4) propane | 3.84 | 29 | 15552 | 1.120 | ppbV | 97 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 22731 | 1.111 | ppbV | 99 |
| 6) chloromethane | 4.08 | 50 | 13407 | 1.104 | ppbV | 98 |
| 7) Freon-114 | 4.20 | 85 | 30684 | 1.128 | ppbV | 99 |
| 8) methanol | 4.27 | 31 | 32229 | 5.982 | ppbV | 88 |
| 9) vinyl chloride | 4.34 | 62 | 12383 | 1.098 | ppbV | 98 |
| 10) 1,3-butadiene | 4.50 | 54 | 12012 | 1.124 | ppbV | 99 |
| 11) butane | 4.56 | 43 | 20900 | 1.133 | ppbV | 98 |
| 12) acetaldehyde | 4.22 | 29 | 36741 | 5.170 | ppbV | 94 |
| 13) bromomethane | 4.81 | 94 | 11343 | 1.129 | ppbV | 100 |
| 14) chloroethane | 5.03 | 64 | 6063 | 1.112 | ppbV | 97 |
| 15) ethanol | 5.20 | 31 | 55419 | 6.114 | ppbV | 96 |
| 16) dichlorofluoromethane | 5.17 | 67 | 22005 | 1.109 | ppbV | 100 |
| 17) vinyl bromide | 5.46 | 106 | 12067 | 1.103 | ppbV | 100 |
| 18) acrolein | 5.62 | 56 | 6564 | 1.172 | ppbV # | 85 |
| 19) acetone | 5.78 | 43 | 87806 | 5.249 | ppbV | 97 |
| 20) acetonitrile | 5.46 | 41 | 11684 | 1.145 | ppbV | 96 |
| 21) trichlorofluoromethane | 5.99 | 101 | 17521 | 1.103 | ppbV | 99 |
| 22) isopropyl alcohol | 6.11 | 45 | 53724 | 2.507 | ppbV | 99 |
| 23) acrylonitrile | 6.37 | 53 | 11861 | 1.091 | ppbV | 92 |
| 24) pentane | 6.44 | 43 | 24047 | 1.091 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613940.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD1.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:53:41 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|-------|----------|
| 25) ethyl ether | 6.49 | 31 | 20974 | 1.023 | ppbV | 99 |
| 26) 1,1-dichloroethene | 6.76 | 61 | 17818 | 1.079 | ppbV | 99 |
| 27) tertiary butyl alcohol | 6.85 | 59 | 20342 | 1.016 | ppbV | 98 |
| 28) methylene chloride | 6.93 | 49 | 18065 | 1.099 | ppbV | 97 |
| 29) 3-chloropropene | 7.08 | 41 | 21544 | 1.069 | ppbV | 99 |
| 30) carbon disulfide | 7.23 | 76 | 46989 | 1.061 | ppbV | # 86 |
| 31) Freon 113 | 7.27 | 101 | 25932 | 1.080 | ppbV | 96 |
| 32) trans-1,2-dichloroethene | 8.07 | 61 | 19583 | 1.092 | ppbV | 98 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 23517 | 1.090 | ppbV | 98 |
| 34) MTBE | 8.40 | 73 | 37435 | 1.047 | ppbV | 98 |
| 35) vinyl acetate | 8.54 | 43 | 36439 | 1.043 | ppbV | 99 |
| 36) 2-butanone | 8.81 | 43 | 34911 | 1.064 | ppbV | 99 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 16805 | 1.068 | ppbV | 98 |
| 38) Ethyl Acetate | 9.63 | 61 | 4968 | 1.068 | ppbV | 63 |
| 39) chloroform | 9.68 | 83 | 23345 | 1.086 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.13 | 42 | 21149 | 1.057 | ppbV | 99 |
| 41) 2,2-dichloropropane | 9.69 | 77 | 18942 | 1.071 | ppbV | 99 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 12502 | 1.072 | ppbV | 98 |
| 44) hexane | 9.59 | 57 | 23158 | 1.069 | ppbV | 98 |
| 45) diisopropyl ether | 9.60 | 87 | 11925 | 1.030 | ppbV | 91 |
| 46) tert-butyl ethyl ether | 10.23 | 59 | 39161 | 1.058 | ppbV | 99 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 18295 | 1.060 | ppbV | 96 |
| 49) 1,1-dichloropropene | 11.19 | 75 | 21748 | 1.059 | ppbV | 95 |
| 50) benzene | 11.35 | 78 | 49266 | 1.069 | ppbV | 100 |
| 51) thiophene | 11.50 | 84 | 99639 | 1.070 | ppbV | 98 |
| 52) carbon tetrachloride | 11.53 | 117 | 17116 | 1.015 | ppbV | 98 |
| 53) cyclohexane | 11.67 | 56 | 24662 | 1.072 | ppbV | 99 |
| 54) tert-amyl methyl ether | 12.07 | 73 | 44225 | 1.058 | ppbV | 99 |
| 55) dibromomethane | 12.28 | 93 | 13914 | 1.097 | ppbV | 97 |
| 56) 1,2-dichloropropane | 12.32 | 63 | 16126 | 1.075 | ppbV | 98 |
| 57) bromodichloromethane | 12.55 | 83 | 24290 | 1.042 | ppbV | 99 |
| 58) 1,4-dioxane | 12.59 | 88 | 9996 | 1.005 | ppbV | 96 |
| 59) trichloroethene | 12.60 | 130 | 20311 | 1.078 | ppbV | 98 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 75884 | 1.092 | ppbV | 99 |
| 61) methyl methacrylate | 12.85 | 41 | 23425 | 0.928 | ppbV | 98 |
| 62) heptane | 12.97 | 43 | 36204 | 1.077 | ppbV | 100 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 23905 | 1.031 | ppbV | 98 |
| 64) 4-methyl-2-pentanone | 13.67 | 43 | 40934 | 1.037 | ppbV | 98 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 21593 | 1.020 | ppbV | 97 |
| 66) 1,1,2-trichloroethane | 14.44 | 97 | 17504 | 1.075 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613940.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD1.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:53:41 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|-------|----------|
| 68) toluene | 14.76 | 91 | 51515 | 1.068 | ppbV | 98 |
| 70) 2-methylthiophene | 14.82 | 97 | 169153 | 1.102 | ppbV | 100 |
| 71) 1,3-dichloropropane | 14.78 | 76 | 26929 | 1.065 | ppbV | 98 |
| 72) 2-hexanone | 15.05 | 43 | 35576 | 0.973 | ppbV | 98 |
| 73) 3-methylthiophene | 15.02 | 97 | 175087 | 1.111 | ppbV | 99 |
| 74) dibromochloromethane | 15.21 | 129 | 24197 | 0.997 | ppbV | 98 |
| 75) 1,2-dibromoethane | 15.46 | 107 | 27521 | 1.042 | ppbV | 99 |
| 76) butyl acetate | 15.70 | 73 | 6083 | 0.925 | ppbV | 86 |
| 77) octane | 15.79 | 85 | 19098 | 1.053 | ppbV | 98 |
| 78) tetrachloroethene | 15.92 | 166 | 22746 | 1.055 | ppbV | 99 |
| 79) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 18795 | 1.013 | ppbV | 98 |
| 80) chlorobenzene | 16.55 | 112 | 44815 | 1.031 | ppbV | 99 |
| 81) ethylbenzene | 16.89 | 91 | 65220 | 1.054 | ppbV | 99 |
| 82) 2-ethylthiophene | 16.93 | 97 | 189824 | 1.100 | ppbV | 95 |
| 83) m+p-xylene | 17.05 | 91 | 106783 | 2.132 | ppbV | 98 |
| 84) bromoform | 17.12 | 173 | 18755 | 0.907 | ppbV | 97 |
| 85) styrene | 17.38 | 104 | 47381 | 1.008 | ppbV | 100 |
| 86) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 38702 | 1.024 | ppbV | 99 |
| 87) o-xylene | 17.48 | 91 | 55333 | 1.091 | ppbV | 96 |
| 88) 1,2,3-trichloropropane | 17.58 | 75 | 32214 | 1.039 | ppbV | 99 |
| 89) nonane | 17.67 | 43 | 54757 | 1.069 | ppbV | 99 |
| 91) isopropylbenzene | 17.99 | 105 | 80072 | 1.061 | ppbV | 99 |
| 92) bromobenzene | 18.07 | 77 | 39602 | 1.010 | ppbV | 99 |
| 93) 2-chlorotoluene | 18.40 | 126 | 21815 | 0.996 | ppbV | 95 |
| 94) n-propylbenzene | 18.43 | 120 | 24410 | 1.007 | ppbV | 93 |
| 95) 4-chlorotoluene | 18.46 | 126 | 21338 | 1.022 | ppbV | 95 |
| 96) 4-ethyl toluene | 18.55 | 105 | 84638 | 1.013 | ppbV | 100 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 70366 | 1.035 | ppbV | 100 |
| 98) tert-butylbenzene | 18.97 | 119 | 70127 | 1.033 | ppbV | 100 |
| 99) 1,2,4-trimethylbenzene | 18.97 | 105 | 68704 | 1.014 | ppbV | 96 |
| 100) decane | 19.04 | 57 | 50908 | 1.044 | ppbV | 98 |
| 101) Benzyl Chloride | 19.08 | 91 | 29677 | 0.673 | ppbV | 98 |
| 102) 1,3-dichlorobenzene | 19.10 | 146 | 44814 | 0.968 | ppbV | 100 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 42833 | 0.945 | ppbV | 99 |
| 104) sec-butylbenzene | 19.19 | 105 | 100601 | 1.032 | ppbV | 99 |
| 105) 1,2,3-trimethylbenzene | 19.32 | 105 | 63125 | 0.931 | ppbV | 99 |
| 106) p-isopropyltoluene | 19.32 | 119 | 83430 | 1.005 | ppbV | 99 |
| 107) 1,2-dichlorobenzene | 19.45 | 146 | 42720 | 0.977 | ppbV | 99 |
| 108) n-butylbenzene | 19.68 | 91 | 65668 | 0.960 | ppbV | 97 |
| 109) indan | 19.50 | 117 | 63777 | 0.907 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613940.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD1.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:53:41 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|-------|-------|----------|
| 110) indene | 19.58 | 115 | 48647 | 0.859 | ppbV | 97 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 13823 | 0.846 | ppbV | 96 |
| 112) undecane | 20.12 | 57 | 55562 | 1.008 | ppbV | 98 |
| 113) 1,2,4,5-tetramethylben... | 20.35 | 119 | 96228 | 0.976 | ppbV | 98 |
| 114) dodecane | 21.07 | 57 | 46881 | 0.867 | ppbV | 98 |
| 115) 1,2,4-trichlorobenzene | 21.01 | 180 | 15422 | 0.592 | ppbV | 97 |
| 116) naphthalene | 21.13 | 128 | 63388 | 0.732 | ppbV | 100 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 19713 | 0.761 | ppbV | 98 |
| 118) benzothiophene | 21.19 | 134 | 43715 | 0.686 | ppbV | 99 |
| 119) hexachlorobutadiene | 21.45 | 225 | 22643 | 0.964 | ppbV | 95 |
| 120) 2-methylnaphthalene | 22.23 | 142 | 5456 | 0.974 | ppbV | 97 |
| 121) 1-methylnaphthalene | 22.43 | 142 | 11180 | 1.071 | ppbV | 94 |

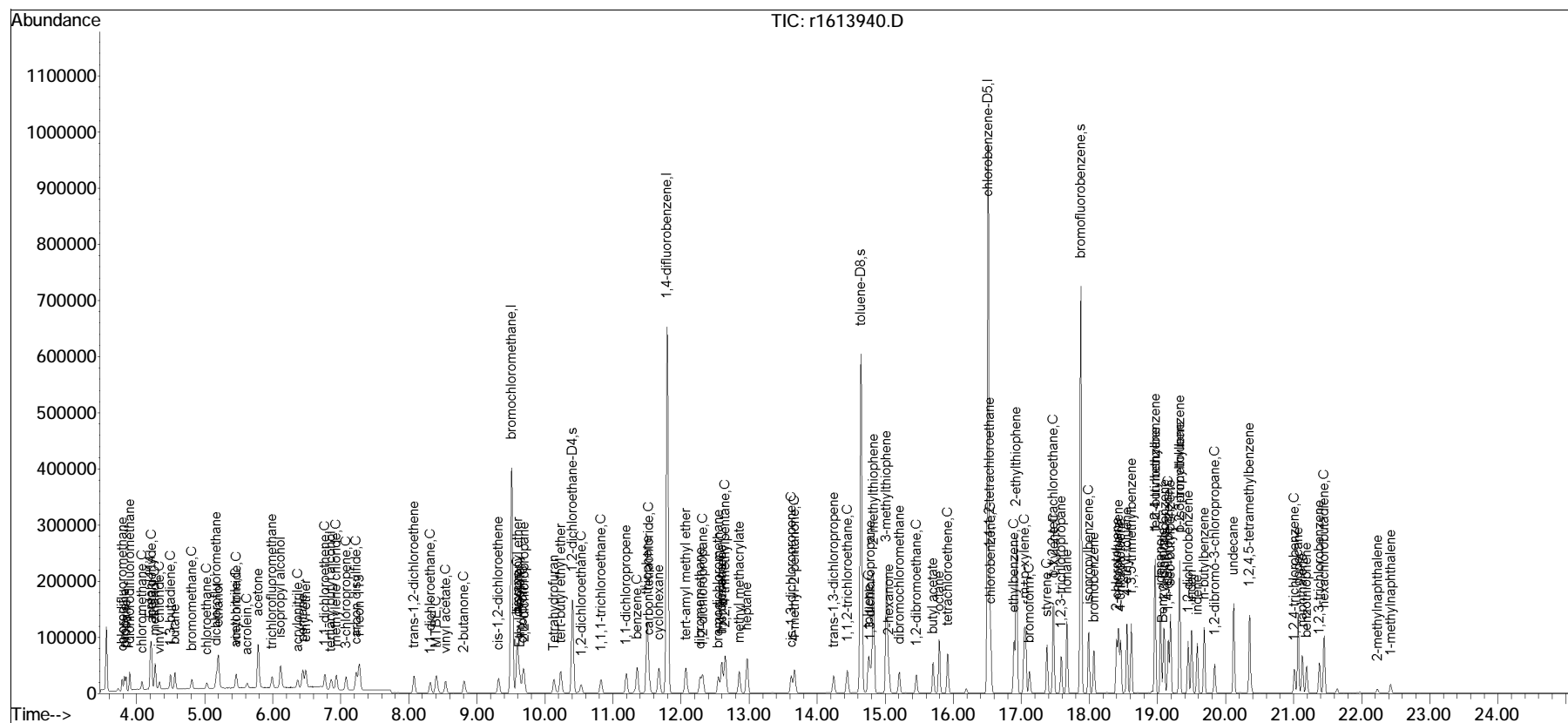
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613940.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD1.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:53:41 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

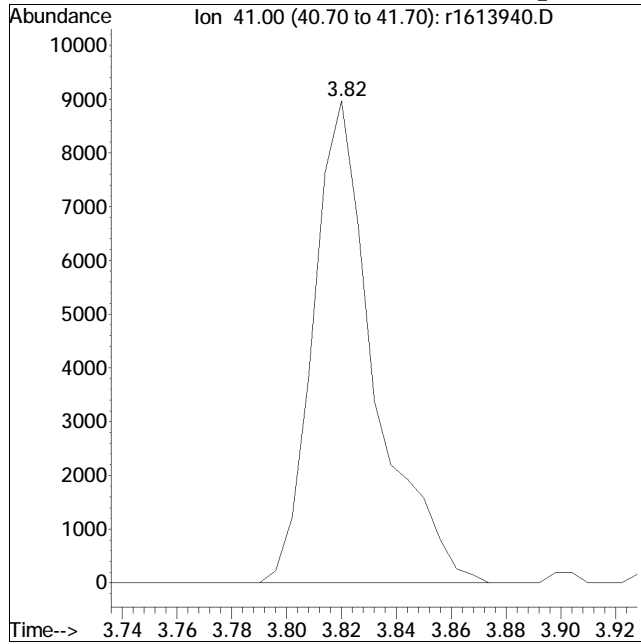
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



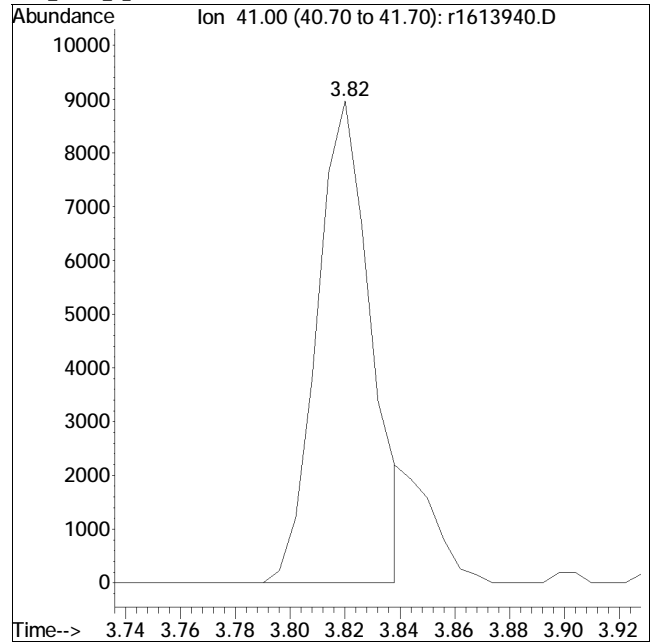
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613940.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 9:36 PM Instrument :
Sample : ITO15-LLSTD1.0 Quant Date : 11/20/2019 6:37 am

Compound #3: propylene



Original Peak Response = 13992



Manual Peak Response = 12289 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613941.D
 Acq On : 19 Nov 2019 10:16 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD5.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:55:15 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.52 | 49 | 266902 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery = | 100.00% | | |
| 43) 1,4-difluorobenzene | 11.80 | 114 | 711743 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery = | 100.90% | | |
| 67) chlorobenzene-D5 | 16.51 | 54 | 99745 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery = | 100.32% | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.41 | 65 | 108853 | 10.048 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 100.48% | | |
| 69) toluene-D8 | 14.64 | 98 | 460613 | 9.910 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 99.10% | | |
| 90) bromofluorobenzene | 17.88 | 95 | 321754 | 9.882 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 98.82% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 98116 | 5.062 | ppbV | 99 |
| 3) propylene | 3.82 | 41 | 56265M4 | 5.207 | ppbV | |
| 4) propane | 3.84 | 29 | 70581 | 5.072 | ppbV | 100 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 106517 | 5.195 | ppbV | 99 |
| 6) chloromethane | 4.08 | 50 | 63472 | 5.215 | ppbV | 100 |
| 7) Freon-114 | 4.20 | 85 | 142325 | 5.225 | ppbV | 99 |
| 8) methanol | 4.27 | 31 | 141637 | 26.240 | ppbV | 98 |
| 9) vinyl chloride | 4.34 | 62 | 59272 | 5.247 | ppbV | 99 |
| 10) 1,3-butadiene | 4.50 | 54 | 55211 | 5.156 | ppbV | 100 |
| 11) butane | 4.56 | 43 | 97282 | 5.263 | ppbV | 100 |
| 12) acetaldehyde | 4.22 | 29 | 186538 | 26.200 | ppbV | 99 |
| 13) bromomethane | 4.82 | 94 | 52581 | 5.225 | ppbV | 98 |
| 14) chloroethane | 5.03 | 64 | 28242 | 5.173 | ppbV | 97 |
| 15) ethanol | 5.20 | 31 | 256357 | 28.229 | ppbV | 98 |
| 16) dichlorofluoromethane | 5.18 | 67 | 103080 | 5.186 | ppbV | 99 |
| 17) vinyl bromide | 5.47 | 106 | 56974 | 5.199 | ppbV | 100 |
| 18) acrolein | 5.62 | 56 | 28463 | 5.073 | ppbV | 96 |
| 19) acetone | 5.78 | 43 | 436923 | 26.071 | ppbV | 100 |
| 20) acetonitrile | 5.46 | 41 | 53347 | 5.219 | ppbV | 97 |
| 21) trichlorofluoromethane | 5.99 | 101 | 82303 | 5.171 | ppbV | 98 |
| 22) isopropyl alcohol | 6.11 | 45 | 280731 | 13.077 | ppbV | 100 |
| 23) acrylonitrile | 6.37 | 53 | 55035 | 5.054 | ppbV | 99 |
| 24) pentane | 6.44 | 43 | 110900 | 5.024 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613941.D
 Acq On : 19 Nov 2019 10:16 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD5.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:55:15 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|-------|----------|
| 25) ethyl ether | 6.48 | 31 | 97970 | 4.772 | ppbV | 98 |
| 26) 1,1-dichloroethene | 6.77 | 61 | 84150 | 5.085 | ppbV | 99 |
| 27) tertiary butyl alcohol | 6.85 | 59 | 101873 | 5.077 | ppbV | 100 |
| 28) methylene chloride | 6.94 | 49 | 83550 | 5.073 | ppbV | 99 |
| 29) 3-chloropropene | 7.08 | 41 | 102804 | 5.090 | ppbV | 99 |
| 30) carbon disulfide | 7.23 | 76 | 224042 | 5.049 | ppbV | 99 |
| 31) Freon 113 | 7.27 | 101 | 121863 | 5.064 | ppbV | 98 |
| 32) trans-1,2-dichloroethene | 8.08 | 61 | 91022 | 5.066 | ppbV | 98 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 110424 | 5.109 | ppbV | 99 |
| 34) MTBE | 8.40 | 73 | 180823 | 5.048 | ppbV | 99 |
| 35) vinyl acetate | 8.54 | 43 | 176082 | 5.030 | ppbV | 100 |
| 36) 2-butanone | 8.80 | 43 | 166981 | 5.082 | ppbV | 100 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 80221 | 5.090 | ppbV | 98 |
| 38) Ethyl Acetate | 9.63 | 61 | 23722 | 5.093 | ppbV | 88 |
| 39) chloroform | 9.68 | 83 | 108992 | 5.059 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.13 | 42 | 100872 | 5.031 | ppbV | 99 |
| 41) 2,2-dichloropropane | 9.69 | 77 | 89193 | 5.035 | ppbV | 97 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 59964 | 5.132 | ppbV | 99 |
| 44) hexane | 9.59 | 57 | 109868 | 5.032 | ppbV | 95 |
| 45) diisopropyl ether | 9.60 | 87 | 58145 | 4.984 | ppbV | 90 |
| 46) tert-butyl ethyl ether | 10.23 | 59 | 186312 | 4.997 | ppbV | 98 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 86926 | 5.001 | ppbV | 99 |
| 49) 1,1-dichloropropene | 11.20 | 75 | 103221 | 4.991 | ppbV | 97 |
| 50) benzene | 11.36 | 78 | 233581 | 5.030 | ppbV | 99 |
| 51) thiophene | 11.51 | 84 | 470112 | 5.010 | ppbV | 99 |
| 52) carbon tetrachloride | 11.53 | 117 | 83496 | 4.915 | ppbV | 99 |
| 53) cyclohexane | 11.67 | 56 | 116311 | 5.017 | ppbV | 99 |
| 54) tert-amyl methyl ether | 12.07 | 73 | 210081 | 4.987 | ppbV | 100 |
| 55) dibromomethane | 12.28 | 93 | 64607 | 5.054 | ppbV | 99 |
| 56) 1,2-dichloropropane | 12.32 | 63 | 75660 | 5.006 | ppbV | 99 |
| 57) bromodichloromethane | 12.55 | 83 | 116555 | 4.963 | ppbV | 97 |
| 58) 1,4-dioxane | 12.59 | 88 | 50427 | 5.033 | ppbV | 98 |
| 59) trichloroethene | 12.60 | 130 | 95507 | 5.033 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 361918 | 5.172 | ppbV | 100 |
| 61) methyl methacrylate | 12.85 | 41 | 128402 | 5.048 | ppbV | 99 |
| 62) heptane | 12.97 | 43 | 171067 | 5.051 | ppbV | 100 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 115718 | 4.953 | ppbV | 99 |
| 64) 4-methyl-2-pentanone | 13.66 | 43 | 199845 | 5.023 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 104503 | 4.900 | ppbV | 98 |
| 66) 1,1,2-trichloroethane | 14.44 | 97 | 82801 | 5.049 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613941.D
 Acq On : 19 Nov 2019 10:16 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD5.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:55:15 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 06:36:37 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 68) toluene | 14.76 | 91 | 243669 | 5.053 | ppbV | 100 |
| 70) 2-methylthiophene | 14.82 | 97 | 793039 | 5.165 | ppbV | 100 |
| 71) 1,3-dichloropropane | 14.78 | 76 | 127723 | 5.051 | ppbV | 99 |
| 72) 2-hexanone | 15.04 | 43 | 180376 | 4.934 | ppbV | 98 |
| 73) 3-methylthiophene | 15.02 | 97 | 813814 | 5.166 | ppbV | 99 |
| 74) dibromochloromethane | 15.21 | 129 | 120924 | 4.983 | ppbV | 99 |
| 75) 1,2-dibromoethane | 15.46 | 107 | 133079 | 5.038 | ppbV | 97 |
| 76) butyl acetate | 15.70 | 73 | 32469 | 4.938 | ppbV | 100 |
| 77) octane | 15.79 | 85 | 91329 | 5.035 | ppbV | 99 |
| 78) tetrachloroethene | 15.92 | 166 | 108418 | 5.026 | ppbV | 99 |
| 79) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 91170 | 4.913 | ppbV | 99 |
| 80) chlorobenzene | 16.55 | 112 | 216326 | 4.975 | ppbV | 100 |
| 81) ethylbenzene | 16.89 | 91 | 313609 | 5.069 | ppbV | 100 |
| 82) 2-ethylthiophene | 16.93 | 97 | 892852 | 5.175 | ppbV | 97 |
| 83) m+p-xylene | 17.06 | 91 | 506742 | 10.116 | ppbV | 100 |
| 84) bromoform | 17.13 | 173 | 98251 | 4.753 | ppbV | 98 |
| 85) styrene | 17.38 | 104 | 235884 | 5.016 | ppbV | 99 |
| 86) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 189245 | 5.006 | ppbV | 100 |
| 87) o-xylene | 17.48 | 91 | 258701 | 5.099 | ppbV | 98 |
| 88) 1,2,3-trichloropropane | 17.59 | 75 | 154364 | 4.980 | ppbV | 98 |
| 89) nonane | 17.68 | 43 | 259906 | 5.076 | ppbV | 98 |
| 91) isopropylbenzene | 17.99 | 105 | 379451 | 5.026 | ppbV | 99 |
| 92) bromobenzene | 18.07 | 77 | 193245 | 4.930 | ppbV | 97 |
| 93) 2-chlorotoluene | 18.41 | 126 | 106866 | 4.881 | ppbV | 87 |
| 94) n-propylbenzene | 18.43 | 120 | 121059 | 4.995 | ppbV | 96 |
| 95) 4-chlorotoluene | 18.47 | 126 | 105122 | 5.036 | ppbV | 97 |
| 96) 4-ethyl toluene | 18.56 | 105 | 419868 | 5.027 | ppbV | 99 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 341025 | 5.015 | ppbV | 99 |
| 98) tert-butylbenzene | 18.97 | 119 | 343380 | 5.059 | ppbV | 100 |
| 99) 1,2,4-trimethylbenzene | 18.97 | 105 | 339247 | 5.008 | ppbV | 97 |
| 100) decane | 19.05 | 57 | 244588 | 5.014 | ppbV | 99 |
| 101) Benzyl Chloride | 19.09 | 91 | 198675 | 4.507 | ppbV | 95 |
| 102) 1,3-dichlorobenzene | 19.10 | 146 | 230750 | 4.984 | ppbV | 99 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 221096 | 4.879 | ppbV | 98 |
| 104) sec-butylbenzene | 19.19 | 105 | 492454 | 5.051 | ppbV | 100 |
| 105) 1,2,3-trimethylbenzene | 19.33 | 105 | 345060 | 5.088 | ppbV | 97 |
| 106) p-isopropyltoluene | 19.32 | 119 | 414309 | 4.988 | ppbV | 99 |
| 107) 1,2-dichlorobenzene | 19.45 | 146 | 217920 | 4.983 | ppbV | 98 |
| 108) n-butylbenzene | 19.69 | 91 | 336515 | 4.921 | ppbV | 96 |
| 109) indan | 19.51 | 117 | 352881 | 5.018 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613941.D
 Acq On : 19 Nov 2019 10:16 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD5.0
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:55:15 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|-------|-------|----------|
| 110) indene | 19.59 | 115 | 276141 | 4.873 | ppbV | 99 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 75488 | 4.622 | ppbV | 95 |
| 112) undecane | 20.13 | 57 | 267359 | 4.849 | ppbV | 99 |
| 113) 1,2,4,5-tetramethylben... | 20.36 | 119 | 463725 | 4.704 | ppbV | 99 |
| 114) dodecane | 21.06 | 57 | 221805 | 4.102 | ppbV | 100 |
| 115) 1,2,4-trichlorobenzene | 21.01 | 180 | 100000 | 3.839 | ppbV | 99 |
| 116) naphthalene | 21.13 | 128 | 374078 | 4.317 | ppbV | 100 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 103295 | 3.989 | ppbV | 97 |
| 118) benzothiophene | 21.18 | 134 | 231557 | 3.635 | ppbV | 99 |
| 119) hexachlorobutadiene | 21.44 | 225 | 100538 | 4.280 | ppbV | 97 |
| 120) 2-methylnaphthalene | 22.23 | 142 | 13315 | 2.376 | ppbV | 96 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 25913 | 2.482 | ppbV | 92 |

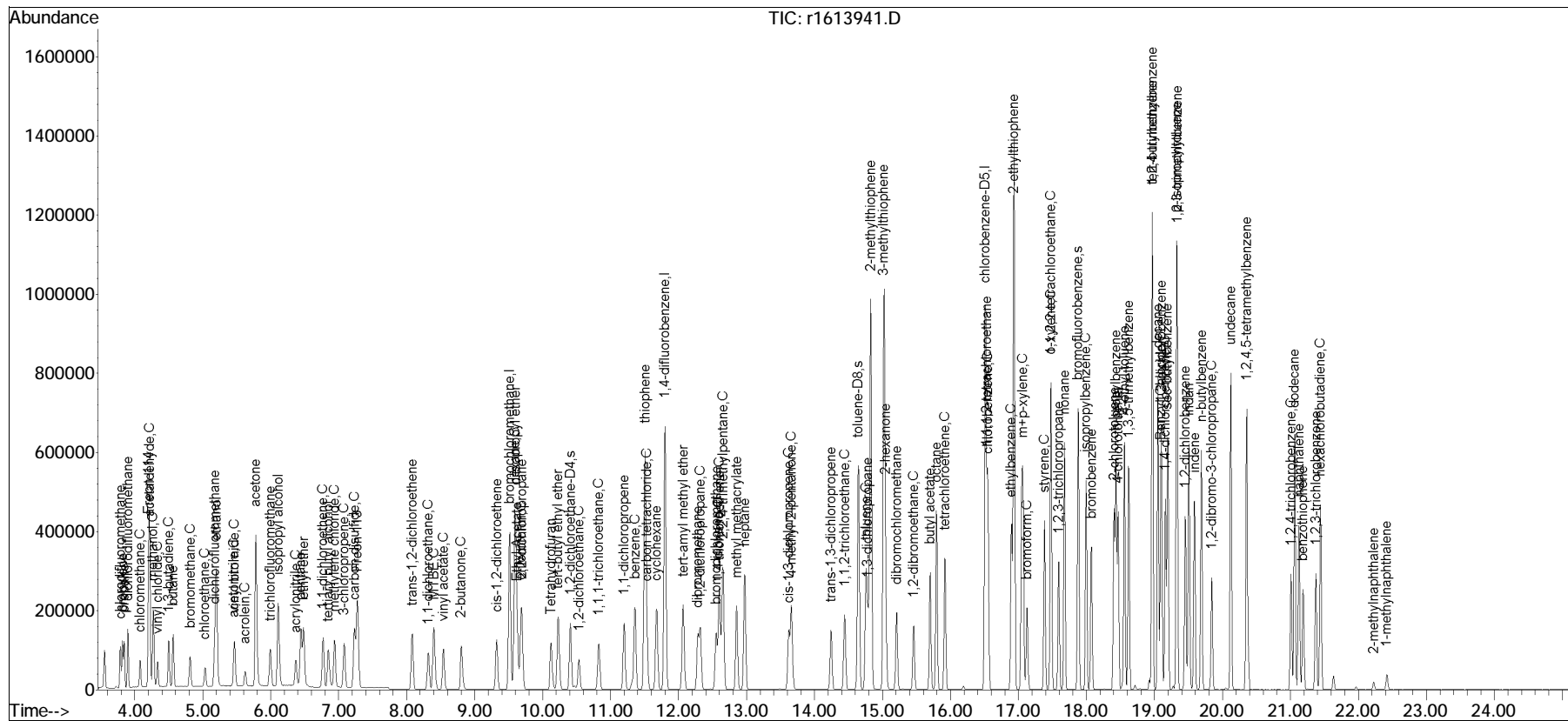
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

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Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Data File : r1613941.D
Acq On    : 19 Nov 2019   10:16 PM
Operator  : AIRLAB16:RY
Sample    : ITO15-LLSTD5.0
Misc      : WG1312049
ALS Vial  : 0      Sample Multiplier: 1
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Quant Time: Nov 21 14:55:15 2019
Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Nov 20 06:36:37 2019
Response via : Initial Calibration

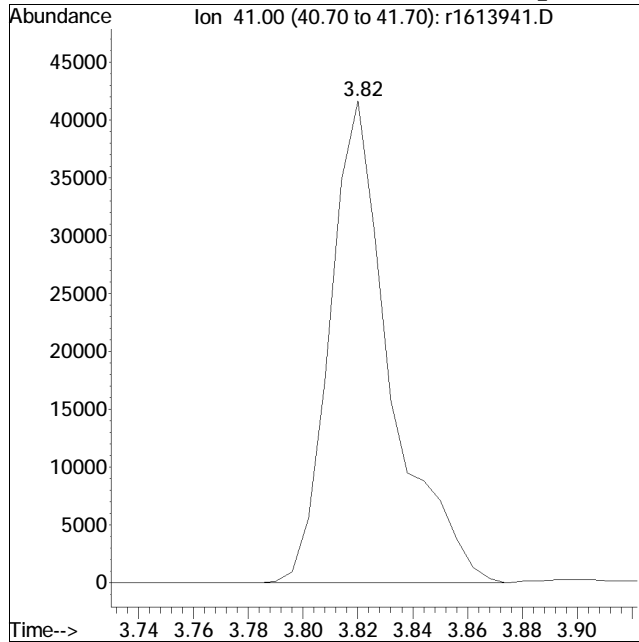
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



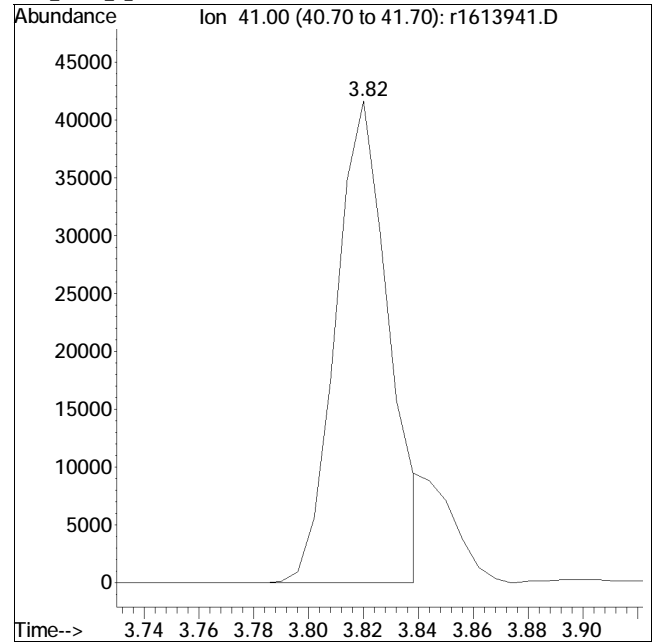
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613941.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 10:16 PM Instrument :
Sample : ITO15-LLSTD5.0 Quant Date : 11/20/2019 6:37 am

Compound #3: propylene



Original Peak Response = 63999



Manual Peak Response = 56265 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613942.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 06:32:35 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Sep 18 14:44:15 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|---------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 266901 | 10.000 | ppbV | 0.03 |
| Standard Area = 266901 | | | Recovery | = | 100.00% | |
| 43) 1,4-difluorobenzene | 11.79 | 114 | 705404 | 10.000 | ppbV | 0.01 |
| Standard Area = 705404 | | | Recovery | = | 100.00% | |
| 67) chlorobenzene-D5 | 16.51 | 54 | 99431 | 10.000 | ppbV | # 0.00 |
| Standard Area = 99431 | | | Recovery | = | 100.00% | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.41 | 65 | 107368 | 8.627 | ppbV | 0.03 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 86.27% | |
| 69) toluene-D8 | 14.64 | 98 | 463343 | 11.878 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 118.78% | |
| 90) bromofluorobenzene | 17.88 | 95 | 324584 | 11.881 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 118.81% | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 193846 | 9.247 | ppbV | 98 |
| 3) propylene | 3.82 | 41 | 108057M6 | 9.870 | ppbV | |
| 4) propane | 3.84 | 29 | 139152 | 8.850 | ppbV | 94 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 205034 | 8.455 | ppbV | 98 |
| 6) chloromethane | 4.08 | 50 | 121707 | 10.557 | ppbV | 98 |
| 7) Freon-114 | 4.20 | 85 | 272391 | 9.990 | ppbV | 98 |
| 8) methanol | 4.27 | 31 | 269888 | 50.100 | ppbV | 99 |
| 9) vinyl chloride | 4.34 | 62 | 112965 | 9.313 | ppbV | 99 |
| 10) 1,3-butadiene | 4.50 | 54 | 107084 | 9.887 | ppbV | 95 |
| 11) butane | 4.56 | 43 | 184832 | 10.192 | ppbV | 97 |
| 12) acetaldehyde | 4.22 | 29 | 355988 | 52.004 | ppbV | 90 |
| 13) bromomethane | 4.81 | 94 | 100628 | 9.990 | ppbV | 99 |
| 14) chloroethane | 5.03 | 64 | 54599 | 9.258 | ppbV | 99 |
| 15) ethanol | 5.20 | 31 | 454061 | 43.303 | ppbV | 97 |
| 16) dichlorofluoromethane | 5.18 | 67 | 198760 | 8.088 | ppbV | 98 |
| 17) vinyl bromide | 5.47 | 106 | 109581 | 9.099 | ppbV | 96 |
| 18) acrolein | 5.62 | 56 | 56110 | 8.842 | ppbV | 96 |
| 19) acetone | 5.78 | 43 | 837947 | 40.298 | ppbV | 94 |
| 20) acetonitrile | 5.46 | 41 | 102222 | 8.133 | ppbV | 99 |
| 21) trichlorofluoromethane | 5.99 | 101 | 159174 | 7.590 | ppbV | 98 |
| 22) isopropyl alcohol | 6.11 | 45 | 536667 | 22.474 | ppbV | 100 |
| 23) acrylonitrile | 6.37 | 53 | 108888 | 8.953 | ppbV | 98 |
| 24) pentane | 6.44 | 43 | 220757 | 8.268 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613942.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 06:32:35 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Sep 18 14:44:15 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 25) ethyl ether | 6.48 | 31 | 205297 | 8.420 | ppbV | 97 |
| 26) 1,1-dichloroethene | 6.77 | 61 | 165482 | 8.895 | ppbV | 95 |
| 27) tertiary butyl alcohol | 6.84 | 59 | 200643 | 8.715 | ppbV | 96 |
| 28) methylene chloride | 6.94 | 49 | 164710 | 9.585 | ppbV | 99 |
| 29) 3-chloropropene | 7.08 | 41 | 201953 | 10.322 | ppbV | 95 |
| 30) carbon disulfide | 7.23 | 76 | 443733 | 10.318 | ppbV | 100 |
| 31) Freon 113 | 7.27 | 101 | 240637 | 9.715 | ppbV | 97 |
| 32) trans-1,2-dichloroethene | 8.07 | 61 | 179668 | 9.150 | ppbV | 93 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 216139 | 9.267 | ppbV | 100 |
| 34) MTBE | 8.39 | 73 | 358197 | 9.926 | ppbV | 95 |
| 35) vinyl acetate | 8.53 | 43 | 350031 | 10.683 | ppbV | 98 |
| 36) 2-butanone | 8.80 | 43 | 328590 | 10.332 | ppbV | 98 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 157596 | 9.001 | ppbV | 91 |
| 38) Ethyl Acetate | 9.62 | 61 | 46579 | 10.165 | ppbV | 82 |
| 39) chloroform | 9.68 | 83 | 215434 | 9.208 | ppbV | 98 |
| 40) Tetrahydrofuran | 10.12 | 42 | 200510 | 10.356 | ppbV | 97 |
| 41) 2,2-dichloropropane | 9.69 | 77 | 177151 | 9.321 | ppbV | 97 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 116847 | 8.358 | ppbV | 97 |
| 44) hexane | 9.58 | 57 | 216386 | 8.274 | ppbV | 86 |
| 45) diisopropyl ether | 9.59 | 87 | 115629 | 8.783 | ppbV | 85 |
| 46) tert-butyl ethyl ether | 10.23 | 59 | 369539 | 8.116 | ppbV | 99 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 172274 | 8.576 | ppbV | 98 |
| 49) 1,1-dichloropropene | 11.19 | 75 | 204976 | 9.336 | ppbV | 95 |
| 50) benzene | 11.35 | 78 | 460274 | 9.133 | ppbV | 97 |
| 51) thiophene | 11.50 | 84 | 929963 | 8.955 | ppbV | 96 |
| 52) carbon tetrachloride | 11.53 | 117 | 168356 | 9.663 | ppbV | 99 |
| 53) cyclohexane | 11.67 | 56 | 229762 | 8.108 | ppbV | 93 |
| 54) tert-amyl methyl ether | 12.06 | 73 | 417520 | 9.290 | ppbV | 96 |
| 55) dibromomethane | 12.28 | 93 | 126702 | 8.656 | ppbV | 94 |
| 56) 1,2-dichloropropane | 12.31 | 63 | 149782 | 8.944 | ppbV | 97 |
| 57) bromodichloromethane | 12.55 | 83 | 232742 | 9.050 | ppbV | 97 |
| 58) 1,4-dioxane | 12.58 | 88 | 99296 | 8.805 | ppbV | 99 |
| 59) trichloroethene | 12.60 | 130 | 188068 | 9.122 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 693578 | 8.098 | ppbV | 97 |
| 61) methyl methacrylate | 12.85 | 41 | 252093 | 10.063 | ppbV | 95 |
| 62) heptane | 12.97 | 43 | 335639 | 9.352 | ppbV | 93 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 231562 | 9.383 | ppbV | 94 |
| 64) 4-methyl-2-pentanone | 13.65 | 43 | 394297 | 9.545 | ppbV | 95 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 211368 | 9.130 | ppbV | 95 |
| 66) 1,1,2-trichloroethane | 14.44 | 97 | 162525 | 9.107 | ppbV | 94 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613942.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 06:32:35 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Sep 18 14:44:15 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 68) toluene | 14.76 | 91 | 480729 | 10.575 | ppbV | 98 |
| 70) 2-methylthiophene | 14.82 | 97 | 1530476 | 11.616 | ppbV | 98 |
| 71) 1,3-dichloropropane | 14.78 | 76 | 252093 | 11.746 | ppbV | 97 |
| 72) 2-hexanone | 15.04 | 43 | 364448 | 12.562 | ppbV | 93 |
| 73) 3-methylthiophene | 15.02 | 97 | 1570379 | 11.727 | ppbV | 98 |
| 74) dibromochloromethane | 15.21 | 129 | 241924 | 12.715 | ppbV | 98 |
| 75) 1,2-dibromoethane | 15.46 | 107 | 263304 | 12.209 | ppbV | 98 |
| 76) butyl acetate | 15.70 | 73 | 65544 | 12.912 | ppbV | 85 |
| 77) octane | 15.79 | 85 | 180824 | 10.693 | ppbV | 93 |
| 78) tetrachloroethene | 15.92 | 166 | 215030 | 11.729 | ppbV | 97 |
| 79) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 184995 | 12.146 | ppbV | 98 |
| 80) chlorobenzene | 16.55 | 112 | 433458 | 12.127 | ppbV | 96 |
| 81) ethylbenzene | 16.89 | 91 | 616673 | 10.806 | ppbV | 92 |
| 82) 2-ethylthiophene | 16.93 | 97 | 1719771 | 11.784 | ppbV | 96 |
| 83) m+p-xylene | 17.05 | 91 | 998727 | 21.521 | ppbV | 91 |
| 84) bromoform | 17.12 | 173 | 206042 | 14.476 | ppbV | 98 |
| 85) styrene | 17.38 | 104 | 468769 | 12.351 | ppbV | 94 |
| 86) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 376857 | 11.351 | ppbV | 98 |
| 87) o-xylene | 17.48 | 91 | 505779 | 10.836 | ppbV | 88 |
| 88) 1,2,3-trichloropropane | 17.58 | 75 | 309014 | 11.740 | ppbV # | 94 |
| 89) nonane | 17.68 | 43 | 510457 | 11.534 | ppbV | 94 |
| 91) isopropylbenzene | 17.99 | 105 | 752658 | 12.073 | ppbV | 97 |
| 92) bromobenzene | 18.07 | 77 | 390729 | 11.306 | ppbV | 97 |
| 93) 2-chlorotoluene | 18.40 | 126 | 218267 | 11.735 | ppbV | 98 |
| 94) n-propylbenzene | 18.43 | 120 | 241585 | 11.791 | ppbV | 93 |
| 95) 4-chlorotoluene | 18.46 | 126 | 208094 | 11.658 | ppbV | 90 |
| 96) 4-ethyl toluene | 18.55 | 105 | 832613 | 12.406 | ppbV | 98 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 677851 | 12.012 | ppbV | 97 |
| 98) tert-butylbenzene | 18.97 | 119 | 676664 | 11.361 | ppbV | 96 |
| 99) 1,2,4-trimethylbenzene | 18.97 | 105 | 675262 | 12.445 | ppbV | 92 |
| 100) decane | 19.05 | 57 | 486238 | 11.092 | ppbV | 95 |
| 101) Benzyl Chloride | 19.08 | 91 | 439392 | 12.787 | ppbV | 93 |
| 102) 1,3-dichlorobenzene | 19.10 | 146 | 461505 | 12.365 | ppbV | 99 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 451755 | 12.400 | ppbV | 99 |
| 104) sec-butylbenzene | 19.19 | 105 | 971892 | 12.221 | ppbV | 100 |
| 105) 1,2,3-trimethylbenzene | 19.32 | 105 | 676008 | 13.092 | ppbV | 100 |
| 106) p-isopropyltoluene | 19.32 | 119 | 827981 | 11.568 | ppbV | 97 |
| 107) 1,2-dichlorobenzene | 19.45 | 146 | 435912 | 12.426 | ppbV | 99 |
| 108) n-butylbenzene | 19.68 | 91 | 681618 | 11.887 | ppbV | 90 |
| 109) indan | 19.50 | 117 | 700961 | 12.651 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613942.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 06:32:35 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Sep 18 14:44:15 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 110) indene | 19.58 | 115 | 564848 | 13.218 | ppbV | 99 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 162824 | 12.765 | ppbV | 92 |
| 112) undecane | 20.12 | 57 | 549625 | 11.538 | ppbV # | 95 |
| 113) 1,2,4,5-tetramethylben... | 20.35 | 119 | 982714 | 11.644 | ppbV | 92 |
| 114) dodecane | 21.07 | 57 | 539005 | 12.273 | ppbV | 95 |
| 115) 1,2,4-trichlorobenzene | 21.01 | 180 | 259639 | 15.054 | ppbV | 96 |
| 116) naphthalene | 21.13 | 128 | 863774 | 14.107 | ppbV | 99 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 258111 | 14.495 | ppbV | 95 |
| 118) benzothiophene | 21.19 | 134 | 635026 | 12.326 | ppbV | 97 |
| 119) hexachlorobutadiene | 21.44 | 225 | 234159 | 12.800 | ppbV | 93 |
| 120) 2-methylnaphthalene | 22.23 | 142 | 55855 | 8.535 | ppbV | 96 |
| 121) 1-methylnaphthalene | 22.43 | 142 | 104075 | 9.683 | ppbV | 97 |

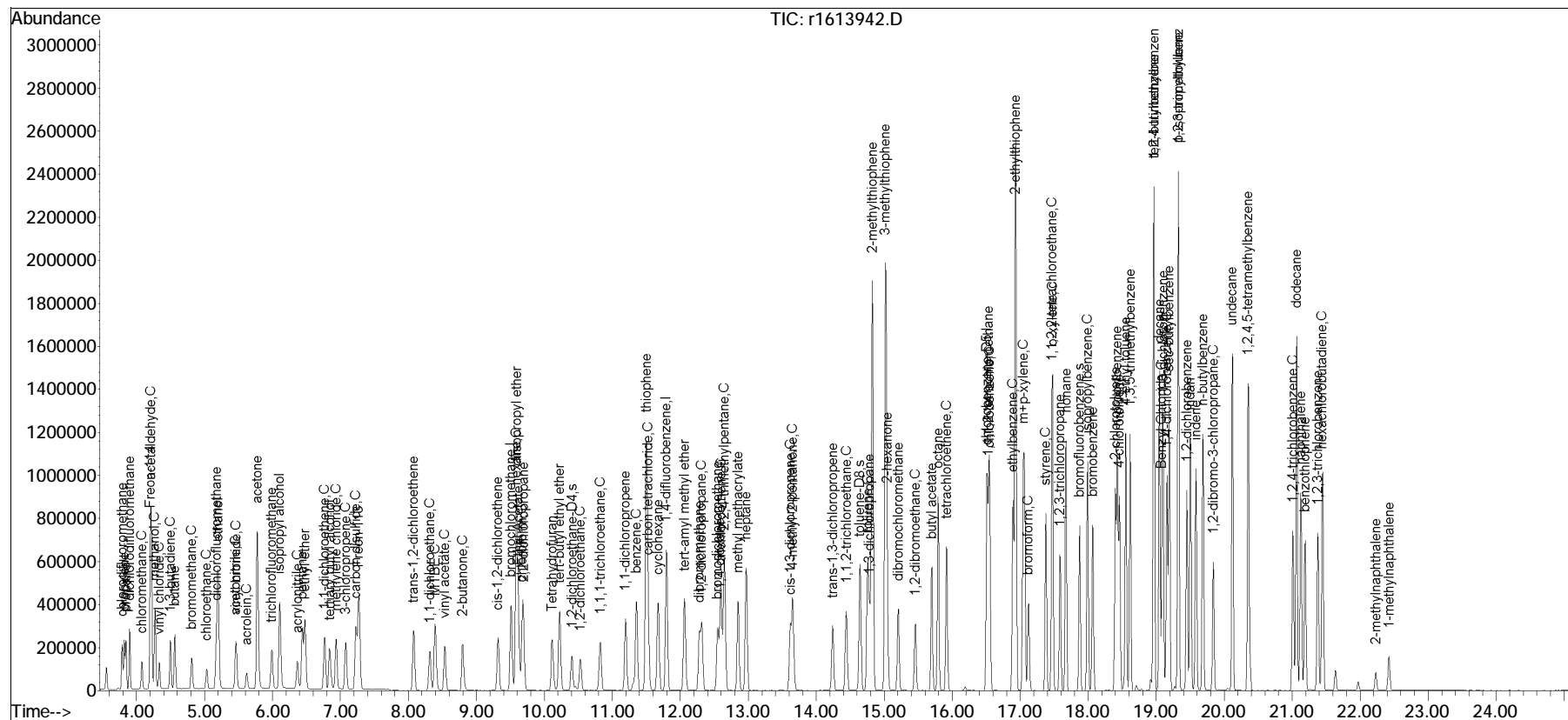
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613942.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 06:32:35 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Sep 18 14:44:15 2019
 Response via : Initial Calibration

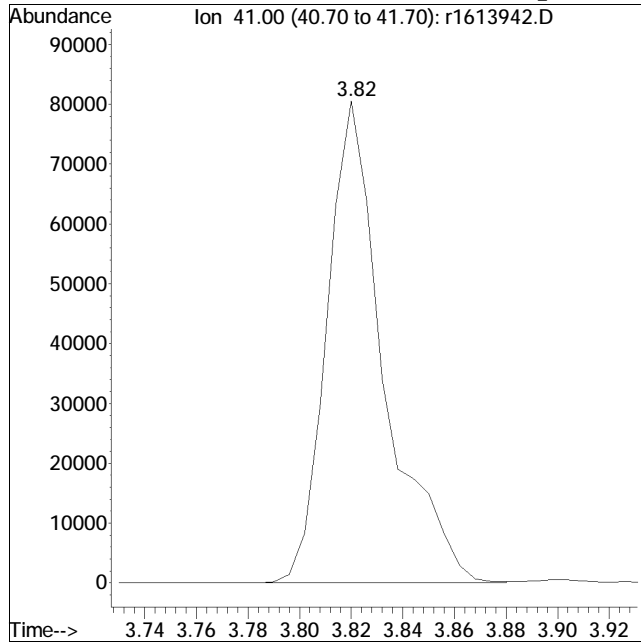
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



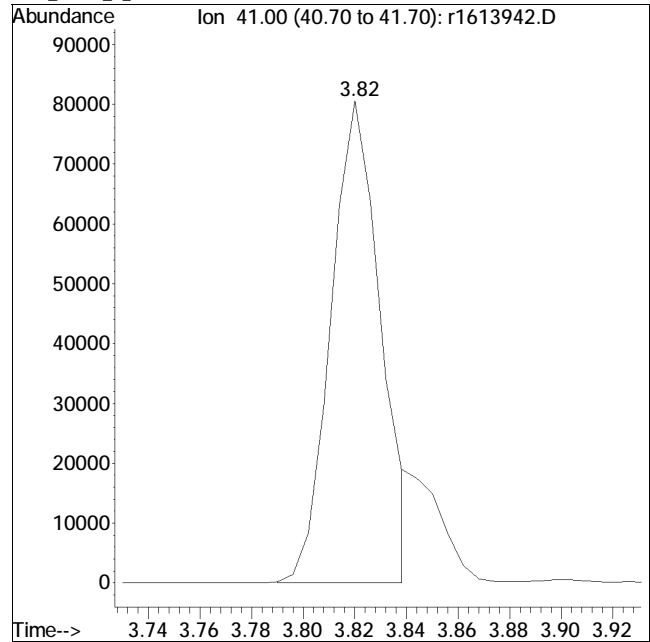
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613942.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 10:58 PM Instrument :
Sample : ITO15-LLSTD010 Quant Date : 11/20/2019 6:32 am

Compound #3: propylene



Original Peak Response = 124268



Manual Peak Response = 108057 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613943.D
 Acq On : 19 Nov 2019 11:37 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD020
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:56:57 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 270554 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery = | 101.37% | | |
| 43) 1,4-difluorobenzene | 11.79 | 114 | 705223 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery = | 99.97% | | |
| 67) chlorobenzene-D5 | 16.51 | 54 | 99142 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery = | 99.71% | | |
| | | | | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.41 | 65 | 102197 | 9.521 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 95.21% | | |
| 69) toluene-D8 | 14.64 | 98 | 455174 | 9.852 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 98.52% | | |
| 90) bromofluorobenzene | 17.88 | 95 | 321870 | 9.945 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 99.45% | | |
| | | | | | | |
| Target Compounds | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 356172 | 18.126 | ppbV | 100 |
| 3) propylene | 3.82 | 41 | 200917M4 | 18.343 | ppbV | |
| 4) propane | 3.85 | 29 | 258924 | 18.356 | ppbV | 98 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 366421 | 17.630 | ppbV | 100 |
| 6) chloromethane | 4.08 | 50 | 217406 | 17.622 | ppbV | 100 |
| 7) Freon-114 | 4.21 | 85 | 482162 | 17.462 | ppbV | 100 |
| 8) methanol | 4.28 | 31 | 454148 | 83.000 | ppbV | 99 |
| 9) vinyl chloride | 4.34 | 62 | 205262 | 17.925 | ppbV | 100 |
| 10) 1,3-butadiene | 4.50 | 54 | 196381 | 18.091 | ppbV | 100 |
| 11) butane | 4.56 | 43 | 328121 | 17.513 | ppbV | 98 |
| 12) acetaldehyde | 4.22 | 29 | 561737 | 77.833 | ppbV | 97 |
| 13) bromomethane | 4.82 | 94 | 180892 | 17.734 | ppbV | 100 |
| 14) chloroethane | 5.03 | 64 | 119681 | 21.624 | ppbV | 99 |
| 15) ethanol | 5.20 | 31 | 770958 | 83.750 | ppbV | 91 |
| 16) dichlorofluoromethane | 5.18 | 67 | 431504 | 21.417 | ppbV | 99 |
| 17) vinyl bromide | 5.47 | 106 | 225234 | 20.277 | ppbV | 98 |
| 18) acrolein | 5.62 | 56 | 105161 | 18.489 | ppbV | 96 |
| 19) acetone | 5.77 | 43 | 1699357 | 100.031 | ppbV | 92 |
| 20) acetonitrile | 5.46 | 41 | 223948 | 21.612 | ppbV | 99 |
| 21) trichlorofluoromethane | 6.00 | 101 | 348094 | 21.574 | ppbV | 98 |
| 22) isopropyl alcohol | 6.10 | 45 | 1084960 | 49.859 | ppbV | 99 |
| 23) acrylonitrile | 6.37 | 53 | 209468 | 18.977 | ppbV | 98 |
| 24) pentane | 6.45 | 43 | 478256 | 21.372 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613943.D
 Acq On : 19 Nov 2019 11:37 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD020
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:56:57 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 25) ethyl ether | 6.48 | 31 | 392039 | 18.838 | ppbV | 99 |
| 26) 1,1-dichloroethene | 6.77 | 61 | 297842 | 17.755 | ppbV | 99 |
| 27) tertiary butyl alcohol | 6.82 | 59 | 378287 | 18.599 | ppbV | 98 |
| 28) methylene chloride | 6.94 | 49 | 308387 | 18.470 | ppbV | 99 |
| 29) 3-chloropropene | 7.08 | 41 | 346230 | 16.913 | ppbV | 98 |
| 30) carbon disulfide | 7.23 | 76 | 818248 | 18.191 | ppbV | 98 |
| 31) Freon 113 | 7.27 | 101 | 434205 | 17.800 | ppbV | 98 |
| 32) trans-1,2-dichloroethene | 8.08 | 61 | 324011 | 17.790 | ppbV | 100 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 386298 | 17.631 | ppbV | 100 |
| 34) MTBE | 8.38 | 73 | 649247 | 17.881 | ppbV | 99 |
| 35) vinyl acetate | 8.53 | 43 | 615802 | 17.355 | ppbV | 99 |
| 36) 2-butanone | 8.79 | 43 | 570337 | 17.123 | ppbV | 99 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 282682 | 17.695 | ppbV | 99 |
| 38) Ethyl Acetate | 9.62 | 61 | 82628 | 17.500 | ppbV | 88 |
| 39) chloroform | 9.68 | 83 | 395833 | 18.126 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.11 | 42 | 349257 | 17.183 | ppbV | 97 |
| 41) 2,2-dichloropropane | 9.69 | 77 | 325516 | 18.127 | ppbV | 98 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 208400 | 17.594 | ppbV | 96 |
| 44) hexane | 9.59 | 57 | 401732 | 18.570 | ppbV | 79 |
| 45) diisopropyl ether | 9.59 | 87 | 216440 | 18.723 | ppbV | 94 |
| 46) tert-butyl ethyl ether | 10.22 | 59 | 678510 | 18.366 | ppbV | 97 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 313538 | 18.205 | ppbV | 99 |
| 49) 1,1-dichloropropene | 11.20 | 75 | 377340 | 18.414 | ppbV | 99 |
| 50) benzene | 11.35 | 78 | 859081 | 18.669 | ppbV | 100 |
| 51) thiophene | 11.50 | 84 | 1747268 | 18.793 | ppbV | 98 |
| 52) carbon tetrachloride | 11.53 | 117 | 315206 | 18.727 | ppbV | 99 |
| 53) cyclohexane | 11.67 | 56 | 427608 | 18.616 | ppbV | 97 |
| 54) tert-amyl methyl ether | 12.06 | 73 | 770997 | 18.471 | ppbV | 99 |
| 55) dibromomethane | 12.28 | 93 | 229908 | 18.150 | ppbV | 97 |
| 56) 1,2-dichloropropane | 12.31 | 63 | 268247 | 17.914 | ppbV | 100 |
| 57) bromodichloromethane | 12.55 | 83 | 434058 | 18.655 | ppbV | 98 |
| 58) 1,4-dioxane | 12.57 | 88 | 180698 | 18.203 | ppbV | 97 |
| 59) trichloroethene | 12.60 | 130 | 348030 | 18.510 | ppbV | 98 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 1270751 | 18.326 | ppbV | 98 |
| 61) methyl methacrylate | 12.85 | 41 | 405139 | 16.075 | ppbV | 99 |
| 62) heptane | 12.97 | 43 | 596367 | 17.773 | ppbV | 99 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 428447 | 18.507 | ppbV | 99 |
| 64) 4-methyl-2-pentanone | 13.65 | 43 | 697089 | 17.684 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 391406 | 18.523 | ppbV | 98 |
| 66) 1,1,2-trichloroethane | 14.44 | 97 | 296950 | 18.276 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613943.D
 Acq On : 19 Nov 2019 11:37 PM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD020
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:56:57 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 68) toluene | 14.76 | 91 | 882129 | 18.403 | ppbV | 100 |
| 70) 2-methylthiophene | 14.82 | 97 | 2768750 | 18.144 | ppbV | 99 |
| 71) 1,3-dichloropropane | 14.78 | 76 | 466789 | 18.571 | ppbV | 97 |
| 72) 2-hexanone | 15.04 | 43 | 624851 | 17.195 | ppbV | 96 |
| 73) 3-methylthiophene | 15.03 | 97 | 2814673 | 17.976 | ppbV | 100 |
| 74) dibromochloromethane | 15.21 | 129 | 452325 | 18.751 | ppbV | 99 |
| 75) 1,2-dibromoethane | 15.46 | 107 | 482197 | 18.367 | ppbV | 98 |
| 76) butyl acetate | 15.70 | 73 | 120583 | 18.451 | ppbV | 95 |
| 77) octane | 15.79 | 85 | 339925 | 18.853 | ppbV | 94 |
| 78) tetrachloroethene | 15.92 | 166 | 398748 | 18.598 | ppbV | 95 |
| 79) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 341603 | 18.519 | ppbV | 99 |
| 80) chlorobenzene | 16.55 | 112 | 799787 | 18.505 | ppbV | 100 |
| 81) ethylbenzene | 16.89 | 91 | 1113718 | 18.113 | ppbV | 98 |
| 82) 2-ethylthiophene | 16.93 | 97 | 3079402 | 17.958 | ppbV | 98 |
| 83) m+p-xylene | 17.06 | 91 | 1820592 | 36.565 | ppbV | 99 |
| 84) bromoform | 17.13 | 173 | 393195 | 19.139 | ppbV | 98 |
| 85) styrene | 17.38 | 104 | 874523 | 18.710 | ppbV | 99 |
| 86) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 710025 | 18.896 | ppbV | 100 |
| 87) o-xylene | 17.48 | 91 | 923126 | 18.305 | ppbV | 99 |
| 88) 1,2,3-trichloropropane | 17.58 | 75 | 573801 | 18.623 | ppbV | 99 |
| 89) nonane | 17.68 | 43 | 924561 | 18.165 | ppbV | 97 |
| 91) isopropylbenzene | 17.99 | 105 | 1372857 | 18.293 | ppbV | 98 |
| 92) bromobenzene | 18.07 | 77 | 730033 | 18.738 | ppbV | 95 |
| 93) 2-chlorotoluene | 18.40 | 126 | 401204 | 18.435 | ppbV | 97 |
| 94) n-propylbenzene | 18.43 | 120 | 452016 | 18.765 | ppbV | 95 |
| 95) 4-chlorotoluene | 18.46 | 126 | 389687 | 18.781 | ppbV | 100 |
| 96) 4-ethyl toluene | 18.56 | 105 | 1520554 | 18.316 | ppbV | 99 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 1241083 | 18.362 | ppbV | 99 |
| 98) tert-butylbenzene | 18.97 | 119 | 1252563 | 18.565 | ppbV | 100 |
| 99) 1,2,4-trimethylbenzene | 18.97 | 105 | 1214047 | 18.031 | ppbV | 96 |
| 100) decane | 19.05 | 57 | 885674 | 18.268 | ppbV | 99 |
| 101) Benzyl Chloride | 19.09 | 91 | 799857 | 18.257 | ppbV | 98 |
| 102) 1,3-dichlorobenzene | 19.10 | 146 | 860851 | 18.707 | ppbV | 99 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 829334 | 18.412 | ppbV | 99 |
| 104) sec-butylbenzene | 19.19 | 105 | 1773163 | 18.298 | ppbV | 99 |
| 105) 1,2,3-trimethylbenzene | 19.32 | 105 | 1110696 | 16.478 | ppbV | 94 |
| 106) p-isopropyltoluene | 19.32 | 119 | 1532490 | 18.563 | ppbV | 100 |
| 107) 1,2-dichlorobenzene | 19.45 | 146 | 792241 | 18.227 | ppbV | 99 |
| 108) n-butylbenzene | 19.69 | 91 | 1224478 | 18.017 | ppbV | 98 |
| 109) indan | 19.51 | 117 | 1169592 | 16.734 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613943.D
 Acq On : 19 Nov 2019 11:37 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD020
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:56:57 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 110) indene | 19.58 | 115 | 930760 | 16.526 | ppbV | 99 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 298202 | 18.368 | ppbV | 98 |
| 112) undecane | 20.13 | 57 | 994273 | 18.143 | ppbV | 99 |
| 113) 1,2,4,5-tetramethylben... | 20.36 | 119 | 1660969 | 16.951 | ppbV | 99 |
| 114) dodecane | 21.07 | 57 | 932166 | 17.345 | ppbV | 98 |
| 115) 1,2,4-trichlorobenzene | 21.01 | 180 | 464738 | 17.952 | ppbV | 98 |
| 116) naphthalene | 21.13 | 128 | 1460751 | 16.961 | ppbV | 100 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 463577 | 18.013 | ppbV | 100 |
| 118) benzothiophene | 21.19 | 134 | 1284848 | 20.292 | ppbV | 100 |
| 119) hexachlorobutadiene | 21.44 | 225 | 418285 | 17.915 | ppbV | 99 |
| 120) 2-methylnaphthalene | 22.23 | 142 | 91673 | 16.461 | ppbV | 98 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 151262 | 14.576 | ppbV | 98 |

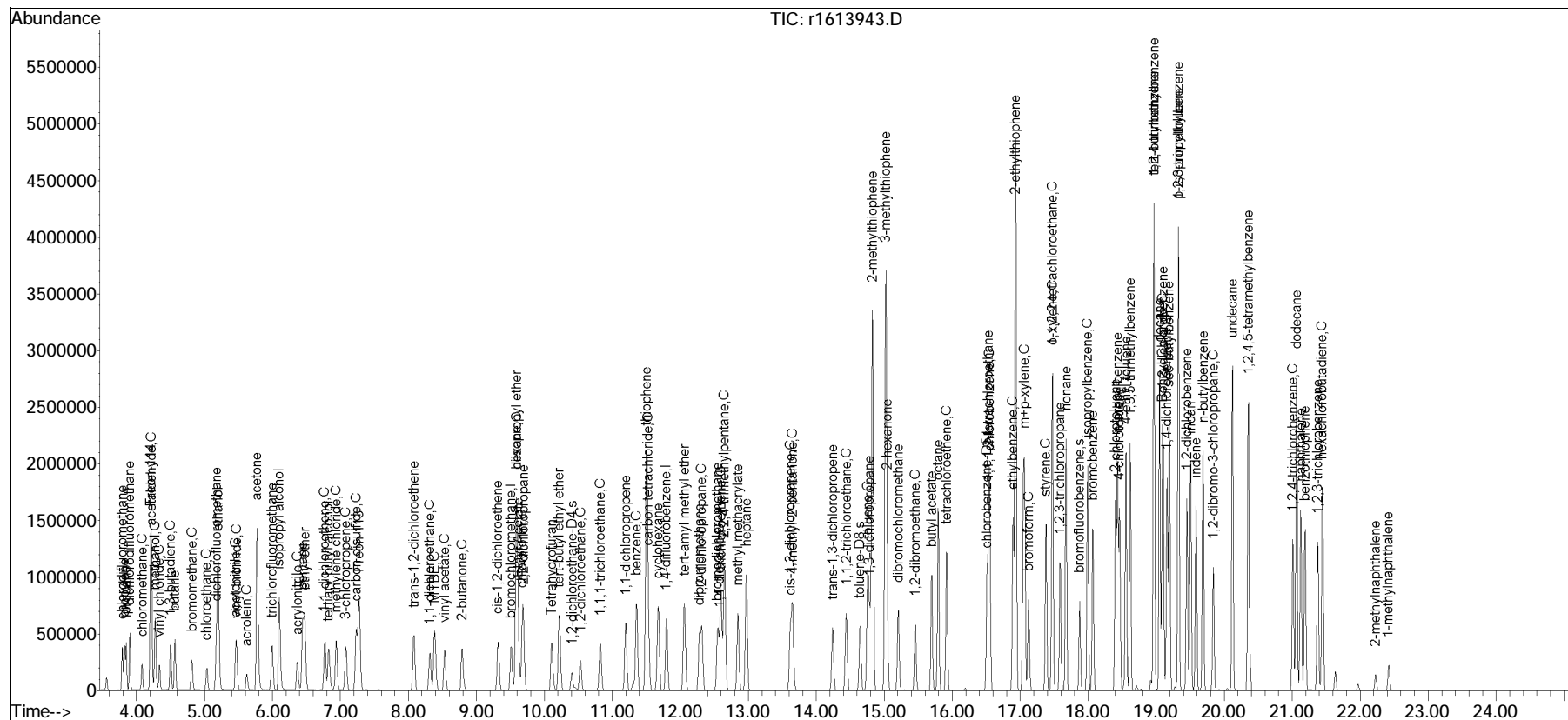
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Data File   : r1613943.D
Acq On      : 19 Nov 2019   11:37 PM
Operator    : AIRLAB16:RY
Sample      : ITO15-LLSTD020
Misc        : WG1312049
ALS Vial    : 0      Sample Multiplier: 1
```

Quant Time: Nov 21 14:56:57 2019
Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Nov 20 06:36:37 2019
Response via : Initial Calibration

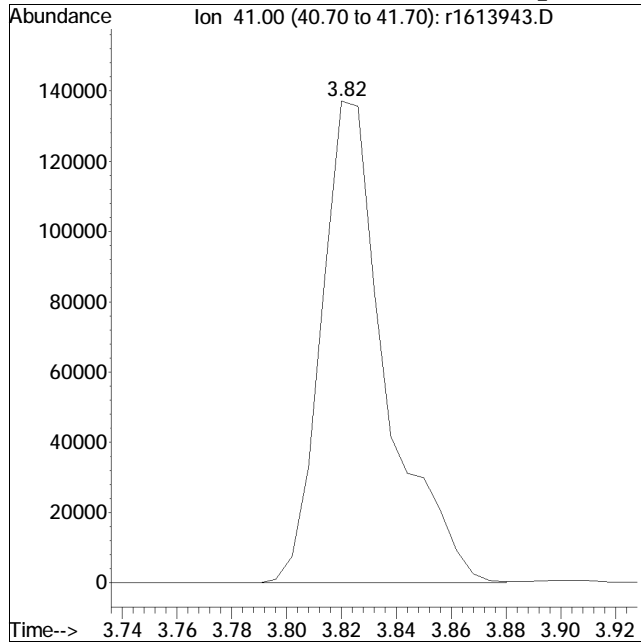
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



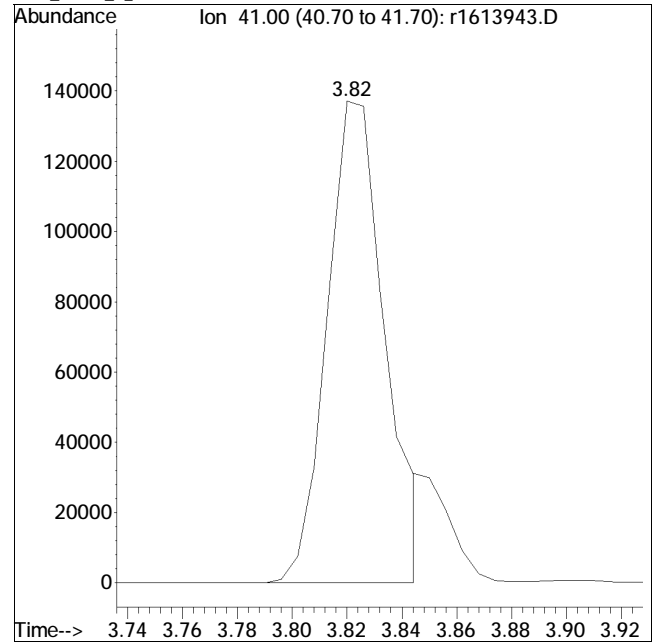
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613943.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 11:37 PM Instrument :
Sample : ITO15-LLSTD020 Quant Date : 11/20/2019 6:37 am

Compound #3: propylene



Original Peak Response = 223807



Manual Peak Response = 200917 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613944.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD050
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:58:26 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.52 | 49 | 276898 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery = | 103.75% | | |
| 43) 1,4-difluorobenzene | 11.80 | 114 | 716311 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery = | 101.55% | | |
| 67) chlorobenzene-D5 | 16.52 | 54 | 102257 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery = | 102.84% | | |
| | | | | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.41 | 65 | 102783 | 9.427 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 94.27% | | |
| 69) toluene-D8 | 14.65 | 98 | 461213 | 9.679 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 96.79% | | |
| 90) bromofluorobenzene | 17.88 | 95 | 334966 | 10.035 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 100.35% | | |
| | | | | | | |
| Target Compounds | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 904279 | 44.965 | ppbV | 99 |
| 3) propylene | 3.82 | 41 | 473696M6 | 42.255 | ppbV | |
| 4) propane | 3.84 | 29 | 656740 | 45.492 | ppbV | 97 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 882717 | 41.498 | ppbV | 99 |
| 6) chloromethane | 4.08 | 50 | 553965 | 43.873 | ppbV | 100 |
| 7) Freon-114 | 4.20 | 85 | 1163385 | 41.168 | ppbV | 99 |
| 8) methanol | 4.28 | 31 | 1167150 | 208.422 | ppbV | 99 |
| 9) vinyl chloride | 4.34 | 62 | 523364 | 44.657 | ppbV | 98 |
| 10) 1,3-butadiene | 4.50 | 54 | 494128 | 44.478 | ppbV | 99 |
| 11) butane | 4.56 | 43 | 823837 | 42.963 | ppbV | 99 |
| 12) acetaldehyde | 4.22 | 29 | 1368849 | 185.319 | ppbV | 96 |
| 13) bromomethane | 4.82 | 94 | 459466 | 44.011 | ppbV | 99 |
| 14) chloroethane | 5.04 | 64 | 252256 | 44.534 | ppbV | 98 |
| 15) ethanol | 5.21 | 31 | 1864744 | 197.927 | ppbV | 98 |
| 16) dichlorofluoromethane | 5.18 | 67 | 916629 | 44.452 | ppbV | 100 |
| 17) vinyl bromide | 5.47 | 106 | 490519 | 43.147 | ppbV | 99 |
| 18) acrolein | 5.62 | 56 | 256279 | 44.025 | ppbV | 98 |
| 19) acetone | 5.78 | 43 | 3149048 | 181.119 | ppbV | 96 |
| 20) acetonitrile | 5.46 | 41 | 446849 | 42.135 | ppbV | 99 |
| 21) trichlorofluoromethane | 6.00 | 101 | 704817 | 42.681 | ppbV | 100 |
| 22) isopropyl alcohol | 6.12 | 45 | 2375419 | 106.661 | ppbV | 100 |
| 23) acrylonitrile | 6.37 | 53 | 538771 | 47.693 | ppbV | 96 |
| 24) pentane | 6.45 | 43 | 1184529 | 51.720 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613944.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD050
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:58:26 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 25) ethyl ether | 6.48 | 31 | 999707 | 46.938 | ppbV | 100 |
| 26) 1,1-dichloroethene | 6.78 | 61 | 754213 | 43.931 | ppbV | 99 |
| 27) tertiary butyl alcohol | 6.84 | 59 | 975467 | 46.862 | ppbV | 97 |
| 28) methylene chloride | 6.94 | 49 | 779063 | 45.591 | ppbV | 98 |
| 29) 3-chloropropene | 7.09 | 41 | 864256 | 41.250 | ppbV | 98 |
| 30) carbon disulfide | 7.24 | 76 | 2049204 | 44.514 | ppbV | 98 |
| 31) Freon 113 | 7.28 | 101 | 1099113 | 44.026 | ppbV | 99 |
| 32) trans-1,2-dichloroethene | 8.08 | 61 | 814860 | 43.716 | ppbV | 99 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 966981 | 43.124 | ppbV | 100 |
| 34) MTBE | 8.39 | 73 | 1628516 | 43.823 | ppbV | 98 |
| 35) vinyl acetate | 8.54 | 43 | 1540881 | 42.432 | ppbV | 97 |
| 36) 2-butanone | 8.80 | 43 | 1439357 | 42.223 | ppbV | 98 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 715724 | 43.775 | ppbV | 99 |
| 38) Ethyl Acetate | 9.63 | 61 | 213397 | 44.160 | ppbV | 79 |
| 39) chloroform | 9.68 | 83 | 992461 | 44.405 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.11 | 42 | 877818 | 42.199 | ppbV | 96 |
| 41) 2,2-dichloropropane | 9.70 | 77 | 816388 | 44.420 | ppbV | 97 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 521504 | 43.020 | ppbV | 96 |
| 44) hexane | 9.59 | 57 | 1014041 | 46.149 | ppbV | 94 |
| 45) diisopropyl ether | 9.60 | 87 | 557163 | 47.452 | ppbV | 78 |
| 46) tert-butyl ethyl ether | 10.23 | 59 | 1720675 | 45.854 | ppbV | 97 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 788298 | 45.062 | ppbV | 99 |
| 49) 1,1-dichloropropene | 11.20 | 75 | 945924 | 45.445 | ppbV | 97 |
| 50) benzene | 11.36 | 78 | 2168569 | 46.397 | ppbV | 100 |
| 51) thiophene | 11.51 | 84 | 4313202 | 45.674 | ppbV | 97 |
| 52) carbon tetrachloride | 11.53 | 117 | 793125 | 46.393 | ppbV | 99 |
| 53) cyclohexane | 11.68 | 56 | 1096492 | 46.996 | ppbV | 96 |
| 54) tert-amyl methyl ether | 12.06 | 73 | 1941715 | 45.798 | ppbV | 97 |
| 55) dibromomethane | 12.29 | 93 | 583530 | 45.354 | ppbV | 97 |
| 56) 1,2-dichloropropane | 12.32 | 63 | 675385 | 44.405 | ppbV | 99 |
| 57) bromodichloromethane | 12.55 | 83 | 1114638 | 47.162 | ppbV | 99 |
| 58) 1,4-dioxane | 12.58 | 88 | 474666 | 47.075 | ppbV | 97 |
| 59) trichloroethene | 12.60 | 130 | 882464 | 46.208 | ppbV | 98 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 3207597 | 45.543 | ppbV | 97 |
| 61) methyl methacrylate | 12.85 | 41 | 1014597 | 39.634 | ppbV | 98 |
| 62) heptane | 12.97 | 43 | 1458785 | 42.801 | ppbV | 94 |
| 63) cis-1,3-dichloropropene | 13.63 | 75 | 1092450 | 46.459 | ppbV | 99 |
| 64) 4-methyl-2-pentanone | 13.65 | 43 | 1731892 | 43.255 | ppbV | 96 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 1005568 | 46.850 | ppbV | 98 |
| 66) 1,1,2-trichloroethane | 14.44 | 97 | 748524 | 45.355 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613944.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD050
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:58:26 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 06:36:37 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 68) toluene | 14.76 | 91 | 2205830 | 44.617 | ppbV | 100 |
| 70) 2-methylthiophene | 14.83 | 97 | 6396908 | 40.642 | ppbV | 98 |
| 71) 1,3-dichloropropane | 14.79 | 76 | 1175523 | 45.342 | ppbV | 95 |
| 72) 2-hexanone | 15.04 | 43 | 1456992 | 38.873 | ppbV # | 81 |
| 73) 3-methylthiophene | 15.03 | 97 | 6477640 | 40.109 | ppbV | 98 |
| 74) dibromochloromethane | 15.21 | 129 | 1149182 | 46.189 | ppbV | 97 |
| 75) 1,2-dibromoethane | 15.46 | 107 | 1211758 | 44.749 | ppbV | 99 |
| 76) butyl acetate | 15.70 | 73 | 313934 | 46.573 | ppbV | 86 |
| 77) octane | 15.79 | 85 | 874823 | 47.043 | ppbV | 85 |
| 78) tetrachloroethene | 15.92 | 166 | 1017033 | 45.990 | ppbV | 97 |
| 79) 1,1,1,2-tetrachloroethane | 16.54 | 131 | 874273 | 45.953 | ppbV | 100 |
| 80) chlorobenzene | 16.55 | 112 | 2003952 | 44.954 | ppbV | 98 |
| 81) ethylbenzene | 16.90 | 91 | 2786352 | 43.935 | ppbV | 100 |
| 82) 2-ethylthiophene | 16.93 | 97 | 6937062 | 39.222 | ppbV | 96 |
| 83) m+p-xylene | 17.06 | 91 | 4540823 | 88.419 | ppbV | 97 |
| 84) bromoform | 17.13 | 173 | 1014952 | 47.898 | ppbV | 92 |
| 85) styrene | 17.38 | 104 | 2182661 | 45.275 | ppbV | 98 |
| 86) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 1811257 | 46.734 | ppbV | 100 |
| 87) o-xylene | 17.48 | 91 | 2279624 | 43.826 | ppbV | 98 |
| 88) 1,2,3-trichloropropane | 17.58 | 75 | 1458678 | 45.900 | ppbV | 99 |
| 89) nonane | 17.68 | 43 | 2188441 | 41.687 | ppbV | 87 |
| 91) isopropylbenzene | 17.99 | 105 | 3319654 | 42.887 | ppbV | 94 |
| 92) bromobenzene | 18.07 | 77 | 1876850 | 46.707 | ppbV | 95 |
| 93) 2-chlorotoluene | 18.40 | 126 | 1038380 | 46.259 | ppbV | 87 |
| 94) n-propylbenzene | 18.43 | 120 | 1180025 | 47.495 | ppbV | 87 |
| 95) 4-chlorotoluene | 18.46 | 126 | 1006136 | 47.014 | ppbV | 93 |
| 96) 4-ethyl toluene | 18.55 | 105 | 3670119 | 42.861 | ppbV | 94 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 2988942 | 42.876 | ppbV | 93 |
| 98) tert-butylbenzene | 18.97 | 119 | 3083305 | 44.307 | ppbV | 98 |
| 99) 1,2,4-trimethylbenzene | 18.97 | 105 | 2831533 | 40.774 | ppbV | 91 |
| 100) decane | 19.05 | 57 | 2245785 | 44.911 | ppbV | 87 |
| 101) Benzyl Chloride | 19.09 | 91 | 2205795 | 48.814 | ppbV | 100 |
| 102) 1,3-dichlorobenzene | 19.10 | 146 | 2171096 | 45.744 | ppbV | 99 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 2084651 | 44.870 | ppbV | 98 |
| 104) sec-butylbenzene | 19.19 | 105 | 4208473 | 42.105 | ppbV | 94 |
| 105) 1,2,3-trimethylbenzene | 19.32 | 105 | 2616307 | 37.633 | ppbV | 92 |
| 106) p-isopropyltoluene | 19.32 | 119 | 3713540 | 43.611 | ppbV | 98 |
| 107) 1,2-dichlorobenzene | 19.45 | 146 | 2004327 | 44.709 | ppbV | 98 |
| 108) n-butylbenzene | 19.69 | 91 | 3039263 | 43.357 | ppbV | 99 |
| 109) indan | 19.51 | 117 | 2928035 | 40.617 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613944.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD050
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:58:26 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 110) indene | 19.58 | 115 | 2429445 | 41.822 | ppbV | 100 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 789794 | 47.165 | ppbV | 95 |
| 112) undecane | 20.13 | 57 | 2531794 | 44.791 | ppbV | 91 |
| 113) 1,2,4,5-tetramethylben... | 20.36 | 119 | 4210996 | 41.666 | ppbV | 98 |
| 114) dodecane | 21.07 | 57 | 2606665 | 47.024 | ppbV | 84 |
| 115) 1,2,4-trichlorobenzene | 21.01 | 180 | 1351116 | 50.600 | ppbV | 98 |
| 116) naphthalene | 21.13 | 128 | 3974792 | 44.745 | ppbV | 99 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 1333270 | 50.227 | ppbV | 98 |
| 118) benzothiophene | 21.19 | 134 | 3790078 | 58.034 | ppbV | 98 |
| 119) hexachlorobutadiene | 21.45 | 225 | 1086667 | 45.125 | ppbV | 98 |
| 120) 2-methylnaphthalene | 22.23 | 142 | 421663 | 73.406 | ppbV | 99 |
| 121) 1-methylnaphthalene | 22.43 | 142 | 642614 | 60.039 | ppbV | 99 |

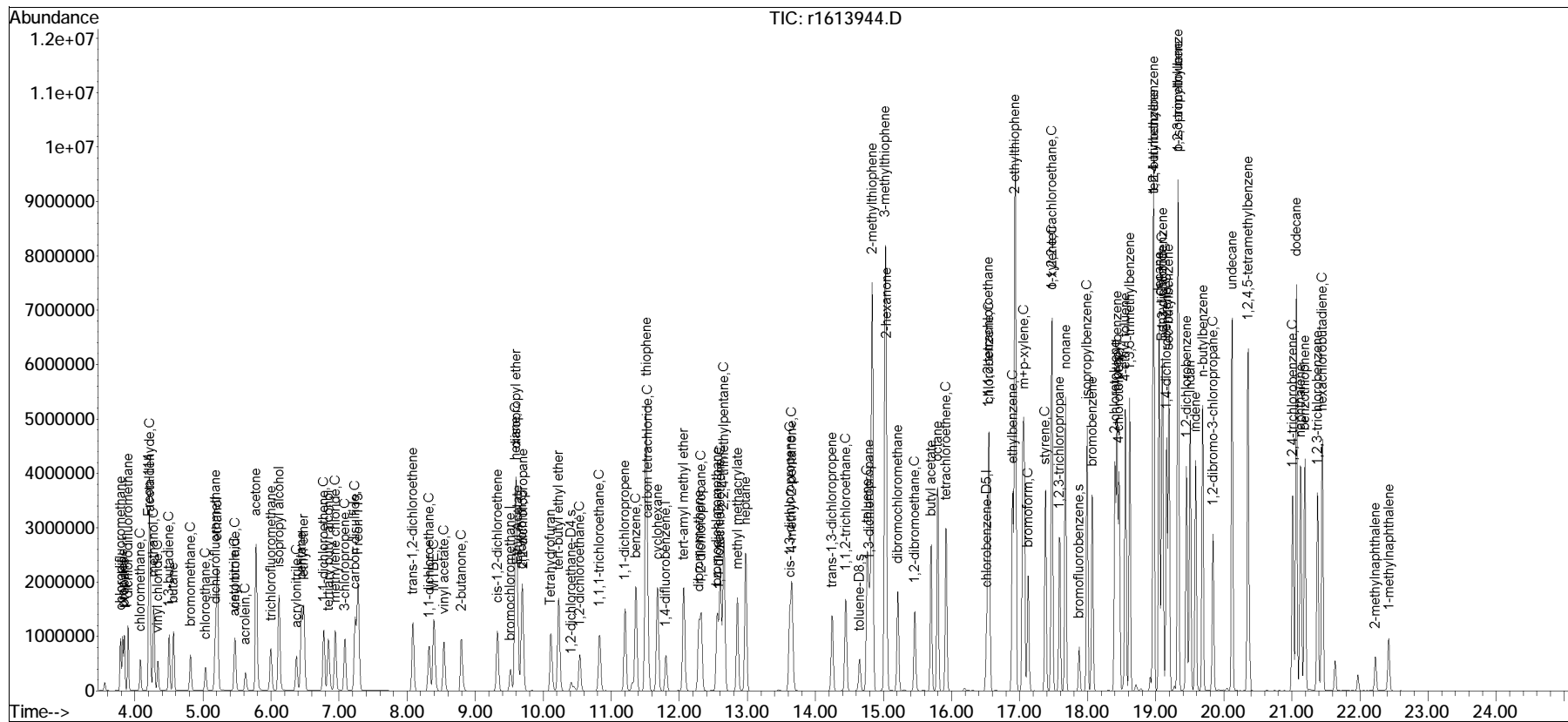
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

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Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Data File : r1613944.D
Acq On    : 20 Nov 2019 12:17 AM
Operator  : AIRLAB16:RY
Sample    : ITO15-LLSTD050
Misc      : WG1312049
ALS Vial  : 0      Sample Multiplier: 1
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Quant Time: Nov 21 14:58:26 2019
Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Nov 20 06:36:37 2019
Response via : Initial Calibration

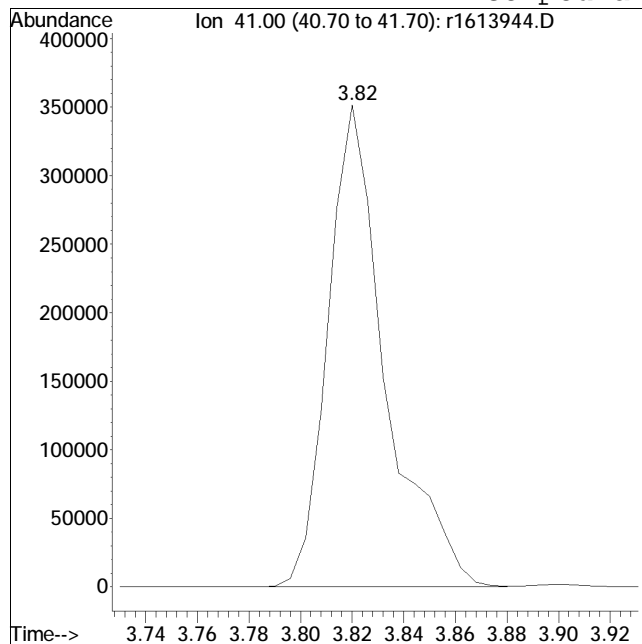
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



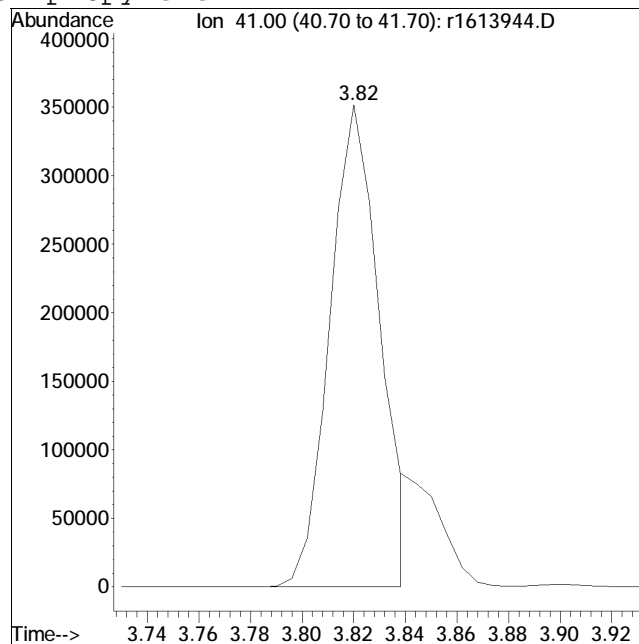
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1613944.D Operator : AIRLAB16:RY
 Date Inj'd : 11/20/2019 12:17 AM Instrument :
 Sample : ITO15-LLSTD050 Quant Date : 11/20/2019 6:37 am

Compound #3: propylene



Original Peak Response = 545745



Manual Peak Response = 473696 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613945.D
 Acq On : 20 Nov 2019 12:59 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD100
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:59:55 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.52 | 49 | 289051 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery = | 108.30% | | |
| 43) 1,4-difluorobenzene | 11.80 | 114 | 725220 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery = | 102.81% | | |
| 67) chlorobenzene-D5 | 16.52 | 54 | 105020 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery = | 105.62% | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.41 | 65 | 100925 | 9.143 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 91.43% | | |
| 69) toluene-D8 | 14.65 | 98 | 450901 | 9.214 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 92.14% | | |
| 90) bromofluorobenzene | 17.88 | 95 | 326661 | 9.528 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 95.28% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 1764013 | 84.027 | ppbV | 99 |
| 3) propylene | 3.82 | 41 | 935313M4 | 79.924 | ppbV | |
| 4) propane | 3.85 | 29 | 1306764 | 86.713 | ppbV | 94 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 1565298 | 70.493 | ppbV | 100 |
| 6) chloromethane | 4.08 | 50 | 1043187 | 79.145 | ppbV | 99 |
| 7) Freon-114 | 4.20 | 85 | 2053073 | 69.596 | ppbV | 98 |
| 8) methanol | 4.28 | 31 | 2238084 | 382.859 | ppbV | 99 |
| 9) vinyl chloride | 4.34 | 62 | 1005043 | 82.152 | ppbV | 100 |
| 10) 1,3-butadiene | 4.50 | 54 | 952803 | 82.159 | ppbV | 98 |
| 11) butane | 4.56 | 43 | 1518789 | 75.875 | ppbV | 98 |
| 12) acetaldehyde | 4.22 | 29 | 2428110 | 314.904 | ppbV | 96 |
| 13) bromomethane | 4.82 | 94 | 864895 | 79.363 | ppbV | 98 |
| 14) chloroethane | 5.04 | 64 | 488808 | 82.666 | ppbV | 98 |
| 15) ethanol | 5.22 | 31 | 3463493 | 352.165 | ppbV | 96 |
| 16) dichlorofluoromethane | 5.18 | 67 | 1696729 | 78.824 | ppbV | 99 |
| 17) vinyl bromide | 5.47 | 106 | 922976 | 77.773 | ppbV | 96 |
| 18) acrolein | 5.62 | 56 | 507135 | 83.456 | ppbV | 98 |
| 19) acetone | 5.78 | 43 | 5717085 | 314.995 | ppbV | 95 |
| 20) acetonitrile | 5.47 | 41 | 854500 | 77.187 | ppbV | 99 |
| 21) trichlorofluoromethane | 6.00 | 101 | 1353643 | 78.525 | ppbV | 98 |
| 22) isopropyl alcohol | 6.12 | 45 | 3914647 | 168.385 | ppbV | 98 |
| 23) acrylonitrile | 6.38 | 53 | 1008203 | 85.496 | ppbV | 99 |
| 24) pentane | 6.44 | 43 | 2213003 | 92.564 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613945.D
 Acq On : 20 Nov 2019 12:59 AM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD100
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:59:55 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 06:36:37 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 25) ethyl ether | 6.48 | 31 | 2012526 | 90.518 | ppbV | 98 |
| 26) 1,1-dichloroethene | 6.77 | 61 | 1480510 | 82.611 | ppbV | 98 |
| 27) tertiary butyl alcohol | 6.85 | 59 | 1975228 | 90.901 | ppbV | 95 |
| 28) methylene chloride | 6.94 | 49 | 1540831 | 86.380 | ppbV | 97 |
| 29) 3-chloropropene | 7.08 | 41 | 1644319 | 75.182 | ppbV | 96 |
| 30) carbon disulfide | 7.23 | 76 | 3949711 | 82.190 | ppbV | 97 |
| 31) Freon 113 | 7.27 | 101 | 2113651 | 81.105 | ppbV | 98 |
| 32) trans-1,2-dichloroethene | 8.08 | 61 | 1606828 | 82.580 | ppbV | 100 |
| 33) 1,1-dichloroethane | 8.32 | 63 | 1897649 | 81.070 | ppbV | 99 |
| 34) MTBE | 8.39 | 73 | 3164205 | 81.568 | ppbV | 97 |
| 35) vinyl acetate | 8.54 | 43 | 2952396 | 77.883 | ppbV # | 95 |
| 36) 2-butanone | 8.79 | 43 | 2741362 | 77.035 | ppbV | 96 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 1411945 | 82.727 | ppbV | 98 |
| 38) Ethyl Acetate | 9.63 | 61 | 420249 | 83.309 | ppbV | 61 |
| 39) chloroform | 9.68 | 83 | 1922336 | 82.393 | ppbV | 98 |
| 40) Tetrahydrofuran | 10.11 | 42 | 1678649 | 77.304 | ppbV | 95 |
| 41) 2,2-dichloropropane | 9.70 | 77 | 1577021 | 82.200 | ppbV | 95 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 1032857 | 81.620 | ppbV | 97 |
| 44) hexane | 9.59 | 57 | 1989160 | 89.415 | ppbV | 80 |
| 45) diisopropyl ether | 9.60 | 87 | 1101925 | 92.694 | ppbV # | 60 |
| 46) tert-butyl ethyl ether | 10.23 | 59 | 3395098 | 89.364 | ppbV | 95 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 1565631 | 88.397 | ppbV | 98 |
| 49) 1,1-dichloropropene | 11.20 | 75 | 1845804 | 87.589 | ppbV | 96 |
| 50) benzene | 11.36 | 78 | 4235777 | 89.513 | ppbV | 98 |
| 51) thiophene | 11.51 | 84 | 7751182 | 81.072 | ppbV | 93 |
| 52) carbon tetrachloride | 11.53 | 117 | 1487599 | 85.946 | ppbV | 99 |
| 53) cyclohexane | 11.68 | 56 | 2203198 | 93.270 | ppbV | 95 |
| 54) tert-amyl methyl ether | 12.06 | 73 | 3739246 | 87.111 | ppbV | 96 |
| 55) dibromomethane | 12.29 | 93 | 1152663 | 88.489 | ppbV | 97 |
| 56) 1,2-dichloropropane | 12.32 | 63 | 1320104 | 85.727 | ppbV | 99 |
| 57) bromodichloromethane | 12.55 | 83 | 2186371 | 91.373 | ppbV | 99 |
| 58) 1,4-dioxane | 12.58 | 88 | 951080 | 93.165 | ppbV | 98 |
| 59) trichloroethene | 12.60 | 130 | 1750503 | 90.535 | ppbV | 95 |
| 60) 2,2,4-trimethylpentane | 12.65 | 57 | 6277218 | 88.032 | ppbV | 96 |
| 61) methyl methacrylate | 12.85 | 41 | 1933580 | 74.605 | ppbV | 95 |
| 62) heptane | 12.97 | 43 | 2684306 | 77.791 | ppbV # | 88 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 2139794 | 89.882 | ppbV | 97 |
| 64) 4-methyl-2-pentanone | 13.66 | 43 | 3243601 | 80.015 | ppbV | 91 |
| 65) trans-1,3-dichloropropene | 14.24 | 75 | 1978281 | 91.037 | ppbV | 97 |
| 66) 1,1,2-trichloroethane | 14.45 | 97 | 1457555 | 87.231 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613945.D
 Acq On : 20 Nov 2019 12:59 AM
 Operator : AIRLAB16:RY
 Sample : IT015-LLSTD100
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:59:55 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 06:36:37 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|---------|--------|----------|
| 68) toluene | 14.76 | 91 | 4307563 | 84.836 | ppbV | 99 |
| 70) 2-methylthiophene | 14.83 | 97 | 10769474 | 66.622 | ppbV | 98 |
| 71) 1,3-dichloropropane | 14.80 | 76 | 2220961 | 83.412 | ppbV | 95 |
| 72) 2-hexanone | 15.05 | 43 | 2402698 | 62.419 | ppbV # | 80 |
| 73) 3-methylthiophene | 15.03 | 97 | 10593245 | 63.867 | ppbV | 97 |
| 74) dibromochloromethane | 15.22 | 129 | 2212725 | 86.596 | ppbV | 97 |
| 75) 1,2-dibromoethane | 15.46 | 107 | 2278575 | 81.932 | ppbV | 100 |
| 76) butyl acetate | 15.70 | 73 | 614845 | 88.814 | ppbV | 76 |
| 77) octane | 15.80 | 85 | 1719814 | 90.048 | ppbV # | 77 |
| 78) tetrachloroethene | 15.92 | 166 | 1924676 | 84.744 | ppbV | 98 |
| 79) 1,1,1,2-tetrachloroethane | 16.54 | 131 | 1618166 | 82.816 | ppbV | 100 |
| 80) chlorobenzene | 16.56 | 112 | 3619588 | 79.061 | ppbV | 98 |
| 81) ethylbenzene | 16.90 | 91 | 5403090 | 82.954 | ppbV | 100 |
| 82) 2-ethylthiophene | 16.94 | 97 | 10941028 | 60.233 | ppbV | 96 |
| 83) m+p-xylene | 17.07 | 91 | 8552347 | 162.151 | ppbV | 94 |
| 84) bromoform | 17.13 | 173 | 1959984 | 90.063 | ppbV | 97 |
| 85) styrene | 17.38 | 104 | 4022822 | 81.250 | ppbV | 95 |
| 86) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 3259686 | 81.893 | ppbV | 99 |
| 87) o-xylene | 17.48 | 91 | 4086855 | 76.503 | ppbV | 99 |
| 88) 1,2,3-trichloropropane | 17.59 | 75 | 2769857 | 84.865 | ppbV | 98 |
| 89) nonane | 17.68 | 43 | 3770854 | 69.941 | ppbV # | 71 |
| 91) isopropylbenzene | 17.99 | 105 | 5968331 | 75.077 | ppbV # | 87 |
| 92) bromobenzene | 18.07 | 77 | 3539625 | 85.769 | ppbV | 92 |
| 93) 2-chlorotoluene | 18.40 | 126 | 2041450 | 88.552 | ppbV | 82 |
| 94) n-propylbenzene | 18.43 | 120 | 2300251 | 90.148 | ppbV | 77 |
| 95) 4-chlorotoluene | 18.47 | 126 | 1999144 | 90.957 | ppbV | 87 |
| 96) 4-ethyl toluene | 18.56 | 105 | 6565945 | 74.663 | ppbV # | 89 |
| 97) 1,3,5-trimethylbenzene | 18.62 | 105 | 5332733 | 74.484 | ppbV | 89 |
| 98) tert-butylbenzene | 18.97 | 119 | 5114161 | 71.557 | ppbV | 93 |
| 99) 1,2,4-trimethylbenzene | 18.98 | 105 | 4802767 | 67.339 | ppbV | 99 |
| 100) decane | 19.05 | 57 | 4297691 | 83.683 | ppbV # | 73 |
| 101) Benzyl Chloride | 19.09 | 91 | 4300972 | 92.675 | ppbV | 95 |
| 102) 1,3-dichlorobenzene | 19.11 | 146 | 3923435 | 80.490 | ppbV | 96 |
| 103) 1,4-dichlorobenzene | 19.16 | 146 | 3885353 | 81.429 | ppbV | 96 |
| 104) sec-butylbenzene | 19.19 | 105 | 7389986 | 71.991 | ppbV # | 87 |
| 105) 1,2,3-trimethylbenzene | 19.33 | 105 | 4465567 | 62.542 | ppbV | 99 |
| 106) p-isopropyltoluene | 19.33 | 119 | 6005833 | 68.676 | ppbV | 91 |
| 107) 1,2-dichlorobenzene | 19.46 | 146 | 3776012 | 82.013 | ppbV | 97 |
| 108) n-butylbenzene | 19.69 | 91 | 5774030 | 80.202 | ppbV | 97 |
| 109) indan | 19.51 | 117 | 5423004 | 73.248 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613945.D
 Acq On : 20 Nov 2019 12:59 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD100
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:59:55 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 110) indene | 19.59 | 115 | 4625221 | 77.527 | ppbV | 97 |
| 111) 1,2-dibromo-3-chloropr... | 19.84 | 75 | 1512857 | 87.969 | ppbV | 88 |
| 112) undecane | 20.13 | 57 | 4794903 | 82.597 | ppbV # | 79 |
| 113) 1,2,4,5-tetramethylben... | 20.36 | 119 | 7445047 | 71.728 | ppbV | 97 |
| 114) dodecane | 21.07 | 57 | 4652798 | 81.728 | ppbV # | 75 |
| 115) 1,2,4-trichlorobenzene | 21.02 | 180 | 2712590 | 98.915 | ppbV | 99 |
| 116) naphthalene | 21.13 | 128 | 7718441 | 84.602 | ppbV | 98 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 2630965 | 96.507 | ppbV | 98 |
| 118) benzothiophene | 21.19 | 134 | 7479531 | 111.515 | ppbV | 97 |
| 119) hexachlorobutadiene | 21.45 | 225 | 1972630 | 79.760 | ppbV | 97 |
| 120) 2-methylnaphthalene | 22.23 | 142 | 970745 | 164.548 | ppbV | 97 |
| 121) 1-methylnaphthalene | 22.43 | 142 | 1419608 | 129.143 | ppbV | 99 |

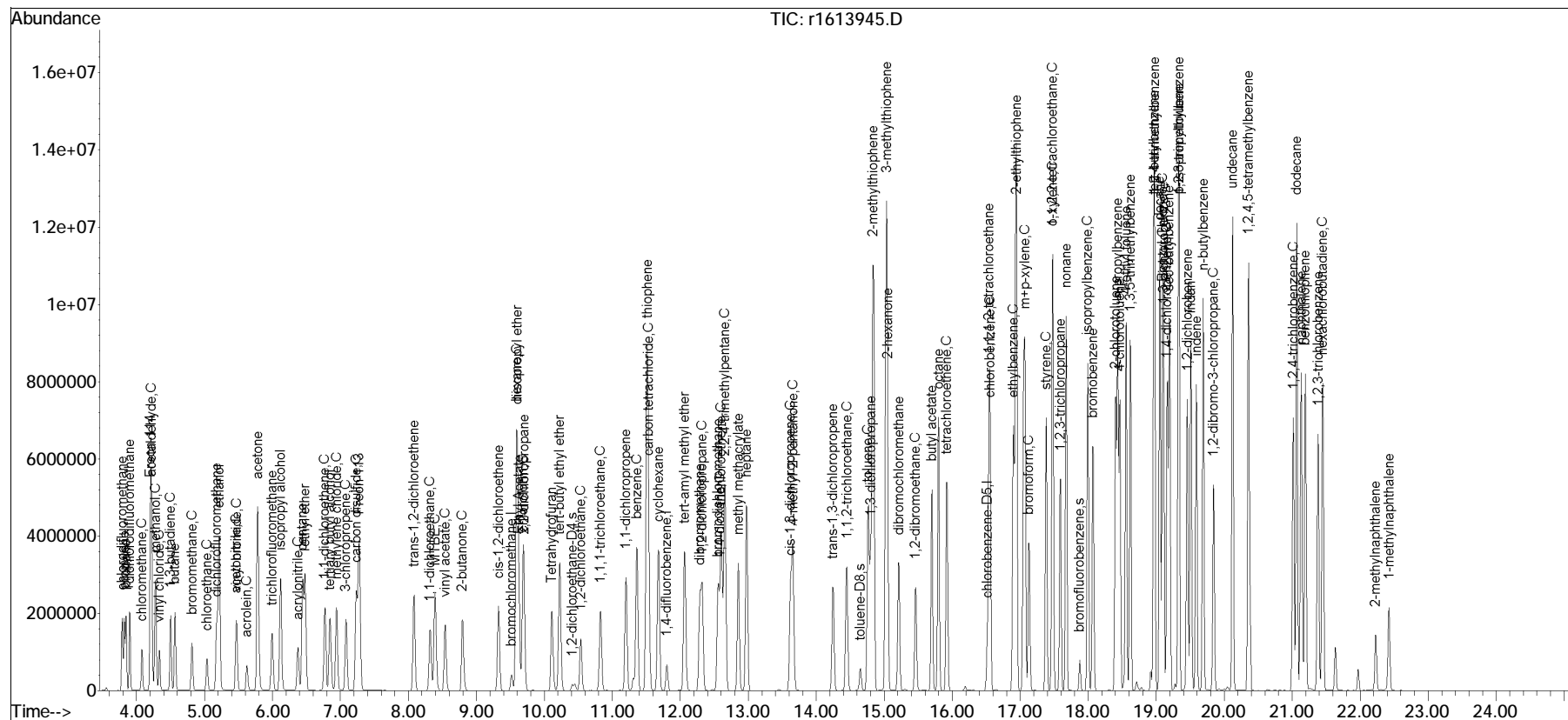
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613945.D
 Acq On : 20 Nov 2019 12:59 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD100
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 14:59:55 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 06:36:37 2019
 Response via : Initial Calibration

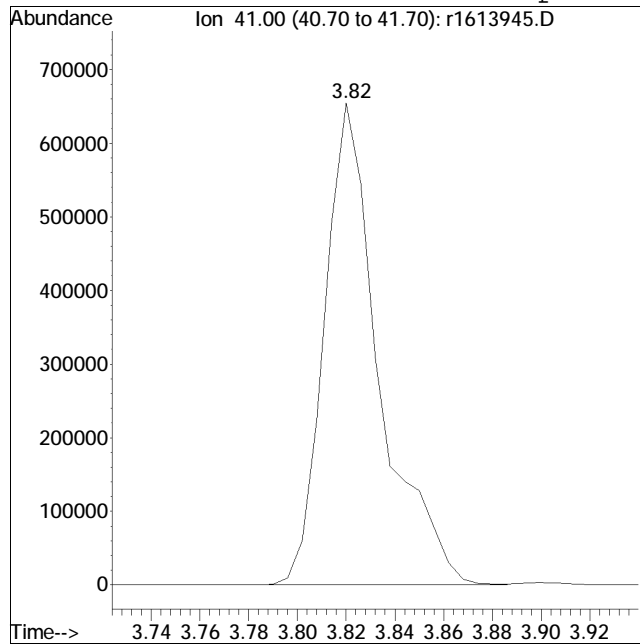
Sub List : Default - All compounds listed9\191119T_ICAL\r1613942.D



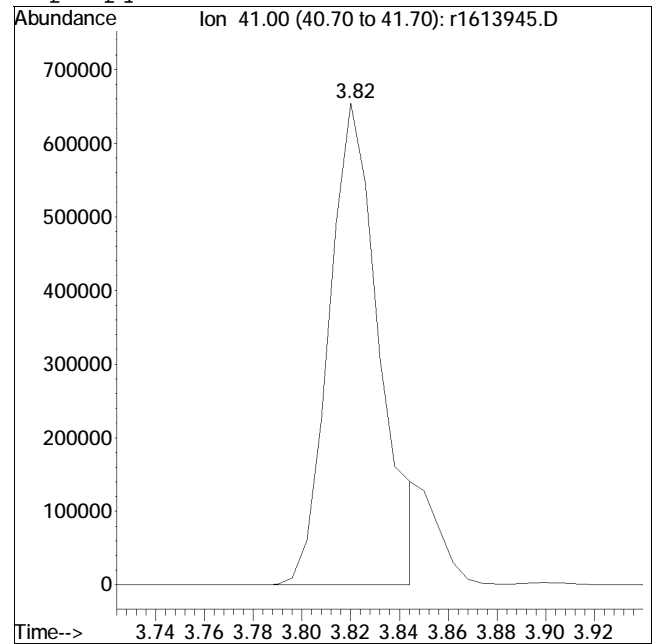
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613945.D Operator : AIRLAB16:RY
Date Inj'd : 11/20/2019 12:59 AM Instrument :
Sample : ITO15-LLSTD100 Quant Date : 11/20/2019 6:37 am

Compound #3: propylene



Original Peak Response = 1025330



Manual Peak Response = 935313 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613948.D
 Acq On : 20 Nov 2019 9:17 AM
 Operator : AIRLAB16:RY
 Sample : CT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 15:10:53 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | 0.716 | 0.645 | 9.9 | 91 | 0.00 |
| 3 | propylene | 0.397 | 0.415 | -4.5 | 105 | 0.00 |
| 4 | propane | 0.518 | 0.471 | 9.1 | 93 | 0.00 |
| 5 | dichlorodifluoromethane | 0.742 | 0.734 | 1.1 | 98 | 0.00 |
| 6 C | chloromethane | 0.451 | 0.433 | 4.0 | 98 | 0.00 |
| 7 | Freon-114 | 0.994 | 0.994 | 0.0 | 100 | 0.00 |
| 8 C | methanol | 0.191 | 0.165 | 13.6 | 84 | 0.00 |
| 9 C | vinyl chloride | 0.418 | 0.409 | 2.2 | 99 | 0.00 |
| 10 C | 1,3-butadiene | 0.400 | 0.407 | -1.7 | 104 | 0.00 |
| 11 | butane | 0.694 | 0.600 | 13.5 | 89 | 0.00 |
| 13 C | bromomethane | 0.374 | 0.357 | 4.5 | 97 | 0.00 |
| 14 C | chloroethane | 0.210 | 0.196 | 6.7 | 99 | 0.00 |
| 15 | ethanol | 0.322 | 0.318 | 1.2 | 96 | 0.00 |
| 16 | dichlorofluoromethane | 0.755 | 0.637 | 15.6 | 88 | 0.00 |
| 17 C | vinyl bromide | 0.408 | 0.374 | 8.3 | 94 | 0.00 |
| 18 C | acrolein | 0.211 | 0.185 | 12.3 | 90 | 0.00 |
| 19 | acetone | 0.597 | 0.466 | 21.9 | 76 | 0.00 |
| 20 C | acetonitrile | 0.409 | 0.331 | 19.1 | 89 | 0.00 |
| 21 | trichlorofluoromethane | 0.597 | 0.560 | 6.2 | 97 | 0.00 |
| 22 | isopropyl alcohol | 0.769 | 0.639 | 16.9 | 82 | 0.00 |
| 23 C | acrylonitrile | 0.409 | 0.371 | 9.3 | 93 | 0.00 |
| 24 | pentane | 0.872 | 0.691 | 20.8 | 86 | 0.00 |
| 25 | ethyl ether | 0.751 | 0.650 | 13.4 | 87 | 0.00 |
| 26 C | 1,1-dichloroethene | 0.599 | 0.588 | 1.8 | 98 | 0.00 |
| 27 | tertiary butyl alcohol | 0.734 | 0.696 | 5.2 | 95 | 0.00 |
| 28 C | methylene chloride | 0.609 | 0.620 | -1.8 | 103 | 0.00 |
| 29 C | 3-chloropropene | 0.717 | 0.729 | -1.7 | 99 | 0.00 |
| 30 C | carbon disulfide | 1.610 | 1.539 | 4.4 | 95 | 0.00 |
| 31 | Freon 113 | 0.878 | 0.871 | 0.8 | 99 | 0.00 |
| 32 | trans-1,2-dichloroethene | 0.653 | 0.616 | 5.7 | 94 | 0.00 |
| 33 C | 1,1-dichloroethane | 0.787 | 0.756 | 3.9 | 96 | 0.00 |
| 34 C | MTBE | 1.284 | 1.298 | -1.1 | 99 | 0.00 |
| 35 C | vinyl acetate | 1.212 | 1.216 | -0.3 | 95 | 0.00 |
| 36 C | 2-butanone | 1.158 | 1.131 | 2.3 | 94 | 0.00 |
| 37 | cis-1,2-dichloroethene | 0.570 | 0.567 | 0.5 | 99 | 0.00 |
| 38 | Ethyl Acetate | 0.168 | 0.165 | 1.8 | 97 | 0.00 |
| 39 C | chloroform | 0.786 | 0.807 | -2.7 | 103 | 0.00 |
| 40 | Tetrahydrofuran | 0.704 | 0.682 | 3.1 | 93 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613948.D
 Acq On : 20 Nov 2019 9:17 AM
 Operator : AIRLAB16:RY
 Sample : CT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 15:10:53 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | 0.642 | 0.592 | 7.8 | 92 | 0.00 |
| 42 C | 1,2-dichloroethane | 0.421 | 0.409 | 2.9 | 96 | 0.00 |
| 43 I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 44 C | hexane | 0.303 | 0.304 | -0.3 | 101 | 0.00 |
| 45 | diisopropyl ether | 0.160 | 0.154 | 3.8 | 95 | 0.00 |
| 46 | tert-butyl ethyl ether | 0.511 | 0.476 | 6.8 | 92 | 0.00 |
| 47 s | 1,2-dichloroethane-D4 | 0.150 | 0.147 | 2.0 | 98 | 0.00 |
| 48 C | 1,1,1-trichloroethane | 0.237 | 0.240 | -1.3 | 100 | 0.00 |
| 49 | 1,1-dichloropropene | 0.283 | 0.277 | 2.1 | 97 | 0.00 |
| 50 C | benzene | 0.646 | 0.647 | -0.2 | 101 | 0.00 |
| 52 C | carbon tetrachloride | 0.229 | 0.244 | -6.6 | 104 | 0.00 |
| 53 | cyclohexane | 0.322 | 0.331 | -2.8 | 103 | 0.00 |
| 54 | tert-amyl methyl ether | 0.575 | 0.548 | 4.7 | 94 | 0.00 |
| 55 | dibromomethane | 0.178 | 0.163 | 8.4 | 92 | 0.00 |
| 56 C | 1,2-dichloropropane | 0.206 | 0.204 | 1.0 | 98 | 0.00 |
| 57 | bromodichloromethane | 0.323 | 0.337 | -4.3 | 104 | 0.00 |
| 58 C | 1,4-dioxane | 0.137 | 0.142 | -3.6 | 102 | 0.00 |
| 59 C | trichloroethene | 0.263 | 0.260 | 1.1 | 99 | 0.00 |
| 60 C | 2,2,4-trimethylpentane | 0.974 | 0.981 | -0.7 | 101 | 0.00 |
| 61 | methyl methacrylate | 0.315 | 0.240 | 23.8 | 68 | 0.00 |
| 62 | heptane | 0.456 | 0.459 | -0.7 | 98 | 0.00 |
| 63 C | cis-1,3-dichloropropene | 0.318 | 0.343 | -7.9 | 106 | 0.00 |
| 64 C | 4-methyl-2-pentanone | 0.527 | 0.539 | -2.3 | 98 | 0.00 |
| 65 | trans-1,3-dichloropropene | 0.288 | 0.269 | 6.6 | 91 | 0.00 |
| 66 C | 1,1,2-trichloroethane | 0.228 | 0.230 | -0.9 | 102 | 0.00 |
| 67 I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 103 | 0.00 |
| 68 C | toluene | 4.770 | 4.631 | 2.9 | 99 | 0.00 |
| 69 s | toluene-D8 | 4.571 | 4.821 | -5.5 | 107 | 0.00 |
| 71 | 1,3-dichloropropane | 2.459 | 2.314 | 5.9 | 94 | 0.00 |
| 72 | 2-hexanone | 3.197 | 3.439 | -7.6 | 97 | 0.00 |
| 74 | dibromochloromethane | 2.298 | 2.486 | -8.2 | 105 | 0.00 |
| 75 C | 1,2-dibromoethane | 2.533 | 2.594 | -2.4 | 101 | 0.00 |
| 76 | butyl acetate | 0.612 | 0.582 | 4.9 | 91 | 0.00 |
| 77 | octane | 1.790 | 1.674 | 6.5 | 95 | 0.00 |
| 78 C | tetrachloroethene | 2.102 | 2.114 | -0.6 | 101 | 0.00 |
| 79 | 1,1,1,2-tetrachloroethane | 1.763 | 1.672 | 5.2 | 93 | 0.00 |
| 80 C | chlorobenzene | 4.150 | 4.281 | -3.2 | 101 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613948.D
 Acq On : 20 Nov 2019 9:17 AM
 Operator : AIRLAB16:RY
 Sample : CT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 15:10:53 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | 5.971 | 5.949 | 0.4 | 99 | 0.00 |
| 83 C | m+p-xylene | 4.892 | 4.830 | 1.3 | 99 | 0.00 |
| 84 C | bromoforn | 1.905 | 2.100 | -10.2 | 104 | 0.00 |
| 85 C | styrene | 4.466 | 4.619 | -3.4 | 101 | 0.00 |
| 86 C | 1,1,2,2-tetrachloroethane | 3.610 | 3.786 | -4.9 | 103 | 0.00 |
| 87 C | o-xylene | 4.916 | 4.963 | -1.0 | 101 | 0.00 |
| 88 | 1,2,3-trichloropropane | 2.950 | 2.844 | 3.6 | 94 | 0.00 |
| 89 | nonane | 4.865 | 4.537 | 6.7 | 91 | 0.00 |
| 90 s | bromofluorobenzene | 3.199 | 3.155 | 1.4 | 100 | 0.00 |
| 91 C | isopropylbenzene | 7.161 | 7.030 | 1.8 | 96 | 0.00 |
| 92 | bromobenzene | 3.745 | 3.639 | 2.8 | 95 | 0.00 |
| 93 | 2-chlorotoluene | 2.100 | 1.954 | 7.0 | 92 | 0.00 |
| 94 | n-propylbenzene | 2.302 | 2.183 | 5.2 | 93 | 0.00 |
| 95 | 4-chlorotoluene | 1.996 | 1.892 | 5.2 | 93 | 0.00 |
| 96 | 4-ethyl toluene | 7.647 | 8.044 | -5.2 | 99 | 0.00 |
| 97 | 1,3,5-trimethylbenzene | 6.380 | 6.543 | -2.6 | 99 | 0.00 |
| 98 | tert-butylbenzene | 6.374 | 6.276 | 1.5 | 95 | 0.00 |
| 99 | 1,2,4-trimethylbenzene | 6.118 | 6.645 | -8.6 | 101 | 0.00 |
| 100 | decane | 4.636 | 4.398 | 5.1 | 93 | 0.00 |
| 101 C | Benzyl Chloride | 3.441 | 4.212 | -22.4 | 98 | 0.00 |
| 102 | 1,3-dichlorobenzene | 4.196 | 4.549 | -8.4 | 101 | 0.00 |
| 103 C | 1,4-dichlorobenzene | 4.044 | 4.413 | -9.1 | 100 | 0.00 |
| 104 | sec-butylbenzene | 9.085 | 8.983 | 1.1 | 95 | 0.00 |
| 106 | p-isopropyltoluene | 7.702 | 6.993 | 9.2 | 87 | 0.00 |
| 107 | 1,2-dichlorobenzene | 3.952 | 4.298 | -8.8 | 101 | 0.00 |
| 108 | n-butylbenzene | 6.132 | 6.396 | -4.3 | 96 | 0.00 |
| 111 C | 1,2-dibromo-3-chloropropane | 1.403 | 1.547 | -10.3 | 97 | 0.00 |
| 112 | undecane | 5.050 | 5.006 | 0.9 | 93 | 0.00 |
| 114 | dodecane | 4.338 | 4.894 | -12.8 | 93 | 0.00 |
| 115 C | 1,2,4-trichlorobenzene | 1.946 | 2.491 | -28.0 | 98 | 0.00 |
| 116 | naphthalene | 6.829 | 7.541 | -10.4 | 89 | 0.00 |
| 117 | 1,2,3-trichlorobenzene | 2.076 | 2.380 | -14.6 | 95 | 0.00 |
| 119 C | hexachlorobutadiene | 2.028 | 2.330 | -14.9 | 102 | 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\Airlab16\2019\191119T_ICAL\
 Data File : r1613948.D
 Acq On : 20 Nov 2019 9:17 AM
 Operator : AIRLAB16:RY
 Sample : CT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 15:10:53 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default-ICV-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 274346 | 10.000 | ppbV | 0.00 |
| Standard Area = 266901 | | | Recovery = | 102.79% | | |
| 43) 1,4-difluorobenzene | 11.79 | 114 | 716962 | 10.000 | ppbV | 0.00 |
| Standard Area = 705404 | | | Recovery = | 101.64% | | |
| 67) chlorobenzene-D5 | 16.51 | 54 | 102502 | 10.000 | ppbV | 0.00 |
| Standard Area = 99431 | | | Recovery = | 103.09% | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 10.40 | 65 | 105236 | 9.769 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 97.69% | | |
| 69) toluene-D8 | 14.64 | 98 | 494139 | 10.546 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 105.46% | | |
| 90) bromofluorobenzene | 17.87 | 95 | 323409 | 9.862 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 98.62% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) chlorodifluoromethane | 3.79 | 51 | 176948 | 9.009 | ppbV | 99 |
| 3) propylene | 3.82 | 41 | 113969M6 | 10.465 | ppbV | |
| 4) propane | 3.84 | 29 | 129278 | 9.088 | ppbV | 96 |
| 5) dichlorodifluoromethane | 3.90 | 85 | 201306 | 9.891 | ppbV | 100 |
| 6) chloromethane | 4.08 | 50 | 118822 | 9.608 | ppbV | 100 |
| 7) Freon-114 | 4.20 | 85 | 272816 | 10.000 | ppbV | 99 |
| 8) methanol | 4.27 | 31 | 226908 | 43.236 | ppbV | 99 |
| 9) vinyl chloride | 4.34 | 62 | 112271 | 9.784 | ppbV | 100 |
| 10) 1,3-butadiene | 4.50 | 54 | 111691 | 10.178 | ppbV | 99 |
| 11) butane | 4.56 | 43 | 164647 | 8.649 | ppbV | 99 |
| 13) bromomethane | 4.81 | 94 | 98008 | 9.551 | ppbV | 100 |
| 14) chloroethane | 5.03 | 64 | 53894 | 9.364 | ppbV | 98 |
| 15) ethanol | 5.19 | 31 | 436017 | 49.295 | ppbV | 96 |
| 16) dichlorofluoromethane | 5.17 | 67 | 174771 | 8.433 | ppbV | 100 |
| 17) vinyl bromide | 5.46 | 106 | 102576 | 9.170 | ppbV | 100 |
| 18) acrolein | 5.62 | 56 | 50687 | 8.760 | ppbV | 99 |
| 19) acetone | 5.77 | 43 | 639882 | 39.069 | ppbV | 96 |
| 20) acetonitrile | 5.45 | 41 | 90919 | 8.108 | ppbV | 99 |
| 21) trichlorofluoromethane | 5.99 | 101 | 153611 | 9.371 | ppbV | 99 |
| 22) isopropyl alcohol | 6.10 | 45 | 438277 | 20.778 | ppbV | 99 |
| 23) acrylonitrile | 6.36 | 53 | 101651 | 9.070 | ppbV | 99 |
| 24) pentane | 6.44 | 43 | 189631 | 7.931 | ppbV | 98 |
| 25) ethyl ether | 6.48 | 31 | 178387 | 8.663 | ppbV | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613948.D
 Acq On : 20 Nov 2019 9:17 AM
 Operator : AIRLAB16:RY
 Sample : CT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 15:10:53 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 15:01:46 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D

Sub List : Default-ICV-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 26) 1,1-dichloroethene | 6.76 | 61 | 161428 | 9.817 | ppbV | 100 |
| 27) tertiary butyl alcohol | 6.84 | 59 | 190999 | 9.484 | ppbV | 98 |
| 28) methylene chloride | 6.93 | 49 | 170169 | 10.181 | ppbV | 100 |
| 29) 3-chloropropene | 7.08 | 41 | 199864 | 10.164 | ppbV | 99 |
| 30) carbon disulfide | 7.23 | 76 | 422262 | 9.562 | ppbV | 98 |
| 31) Freon 113 | 7.27 | 101 | 238927 | 9.918 | ppbV | 98 |
| 32) trans-1,2-dichloroethene | 8.07 | 61 | 169129 | 9.440 | ppbV | 98 |
| 33) 1,1-dichloroethane | 8.31 | 63 | 207287 | 9.604 | ppbV | 99 |
| 34) MTBE | 8.39 | 73 | 356115 | 10.113 | ppbV | 99 |
| 35) vinyl acetate | 8.53 | 43 | 333489 | 10.031 | ppbV | 99 |
| 36) 2-butanone | 8.79 | 43 | 310213 | 9.761 | ppbV | 98 |
| 37) cis-1,2-dichloroethene | 9.32 | 61 | 155554 | 9.942 | ppbV | 98 |
| 38) Ethyl Acetate | 9.62 | 61 | 45275 | 9.844 | ppbV | 80 |
| 39) chloroform | 9.68 | 83 | 221347 | 10.270 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.11 | 42 | 187140 | 9.694 | ppbV | 97 |
| 41) 2,2-dichloropropane | 9.68 | 77 | 162322 | 9.221 | ppbV | 98 |
| 42) 1,2-dichloroethane | 10.53 | 62 | 112152 | 9.701 | ppbV | 96 |
| 44) hexane | 9.58 | 57 | 217901 | 10.018 | ppbV | 98 |
| 45) diisopropyl ether | 9.59 | 87 | 110292 | 9.613 | ppbV | 98 |
| 46) tert-butyl ethyl ether | 10.22 | 59 | 341206 | 9.309 | ppbV | 98 |
| 48) 1,1,1-trichloroethane | 10.82 | 97 | 172349 | 10.137 | ppbV | 99 |
| 49) 1,1-dichloropropene | 11.19 | 75 | 198670 | 9.778 | ppbV | 99 |
| 50) benzene | 11.35 | 78 | 463696 | 10.017 | ppbV | 100 |
| 52) carbon tetrachloride | 11.53 | 117 | 174662 | 10.619 | ppbV | 98 |
| 53) cyclohexane | 11.67 | 56 | 237259 | 10.265 | ppbV | 97 |
| 54) tert-amyl methyl ether | 12.06 | 73 | 393155 | 9.529 | ppbV | 98 |
| 55) dibromomethane | 12.27 | 93 | 116830 | 9.147 | ppbV | 98 |
| 56) 1,2-dichloropropane | 12.31 | 63 | 146092 | 9.887 | ppbV | 99 |
| 57) bromodichloromethane | 12.55 | 83 | 241641 | 10.439 | ppbV | 99 |
| 58) 1,4-dioxane | 12.57 | 88 | 101675 | 10.383 | ppbV | 98 |
| 59) trichloroethene | 12.59 | 130 | 186687 | 9.905 | ppbV | 98 |
| 60) 2,2,4-trimethylpentane | 12.64 | 57 | 703669 | 10.073 | ppbV | 98 |
| 61) methyl methacrylate | 12.85 | 41 | 171952 | 7.604 | ppbV | 98 |
| 62) heptane | 12.97 | 43 | 328810 | 10.061 | ppbV | 98 |
| 63) cis-1,3-dichloropropene | 13.62 | 75 | 245944 | 10.799 | ppbV | 99 |
| 64) 4-methyl-2-pentanone | 13.65 | 43 | 386408 | 10.224 | ppbV | 98 |
| 65) trans-1,3-dichloropropene | 14.23 | 75 | 192541 | 9.311 | ppbV | 97 |
| 66) 1,1,2-trichloroethane | 14.43 | 97 | 165149 | 10.120 | ppbV | 98 |
| 68) toluene | 14.75 | 91 | 474657 | 9.709 | ppbV | 99 |
| 71) 1,3-dichloropropane | 14.78 | 76 | 237196 | 9.411 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613948.D
 Acq On : 20 Nov 2019 9:17 AM
 Operator : AIRLAB16:RY
 Sample : CT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 15:10:53 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default-ICV-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 72) 2-hexanone | 15.03 | 43 | 352460 | 10.757 | ppbV | 99 |
| 74) dibromochloromethane | 15.20 | 129 | 254849 | 10.820 | ppbV | 99 |
| 75) 1,2-dibromoethane | 15.45 | 107 | 265906 | 10.242 | ppbV | 97 |
| 76) butyl acetate | 15.69 | 73 | 59661 | 9.505 | ppbV | 93 |
| 77) octane | 15.79 | 85 | 171588 | 9.352 | ppbV | 95 |
| 78) tetrachloroethene | 15.92 | 166 | 216707 | 10.057 | ppbV | 100 |
| 79) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 171366 | 9.482 | ppbV | 99 |
| 80) chlorobenzene | 16.54 | 112 | 438767 | 10.315 | ppbV | 99 |
| 81) ethylbenzene | 16.89 | 91 | 609796 | 9.963 | ppbV | 99 |
| 83) m+p-xylene | 17.05 | 91 | 990110 | 19.746 | ppbV | 99 |
| 84) bromoform | 17.12 | 173 | 215212 | 11.020 | ppbV | 98 |
| 85) styrene | 17.38 | 104 | 473411 | 10.341 | ppbV | 99 |
| 86) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 388025 | 10.486 | ppbV | 100 |
| 87) o-xylene | 17.47 | 91 | 508673 | 10.095 | ppbV | 100 |
| 88) 1,2,3-trichloropropane | 17.58 | 75 | 291518 | 9.642 | ppbV | 99 |
| 89) nonane | 17.67 | 43 | 465005 | 9.325 | ppbV | 98 |
| 91) isopropylbenzene | 17.98 | 105 | 720596 | 9.818 | ppbV | 99 |
| 92) bromobenzene | 18.06 | 77 | 372992 | 9.717 | ppbV | 97 |
| 93) 2-chlorotoluene | 18.39 | 126 | 200300 | 9.304 | ppbV | 93 |
| 94) n-propylbenzene | 18.43 | 120 | 223785 | 9.485 | ppbV | 99 |
| 95) 4-chlorotoluene | 18.46 | 126 | 193909 | 9.476 | ppbV | 98 |
| 96) 4-ethyl toluene | 18.55 | 105 | 824498 | 10.519 | ppbV | 99 |
| 97) 1,3,5-trimethylbenzene | 18.61 | 105 | 670653 | 10.254 | ppbV | 99 |
| 98) tert-butylbenzene | 18.96 | 119 | 643342 | 9.846 | ppbV | 99 |
| 99) 1,2,4-trimethylbenzene | 18.96 | 105 | 681137 | 10.861 | ppbV | 99 |
| 100) decane | 19.04 | 57 | 450806 | 9.487 | ppbV | 98 |
| 101) Benzyl Chloride | 19.08 | 91 | 431760 | 12.242 | ppbV | 98 |
| 102) 1,3-dichlorobenzene | 19.09 | 146 | 466313 | 10.842 | ppbV | 99 |
| 103) 1,4-dichlorobenzene | 19.15 | 146 | 452364 | 10.913 | ppbV | 98 |
| 104) sec-butylbenzene | 19.18 | 105 | 920796 | 9.888 | ppbV | 98 |
| 106) p-isopropyltoluene | 19.32 | 119 | 716788 | 9.079 | ppbV | 96 |
| 107) 1,2-dichlorobenzene | 19.44 | 146 | 440528 | 10.876 | ppbV | 99 |
| 108) n-butylbenzene | 19.68 | 91 | 655568 | 10.429 | ppbV | 98 |
| 111) 1,2-dibromo-3-chloropr... | 19.83 | 75 | 158578 | 11.027 | ppbV | 95 |
| 112) undecane | 20.12 | 57 | 513102 | 9.912 | ppbV | 100 |
| 114) dodecane | 21.06 | 57 | 501627 | 11.281 | ppbV | 100 |
| 115) 1,2,4-trichlorobenzene | 21.01 | 180 | 255356 | 12.802 | ppbV | 100 |
| 116) naphthalene | 21.13 | 128 | 772938 | 11.042 | ppbV | 100 |
| 117) 1,2,3-trichlorobenzene | 21.38 | 180 | 243943 | 11.463 | ppbV | 98 |
| 119) hexachlorobutadiene | 21.44 | 225 | 238809 | 11.486 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
 Data File : r1613948.D
 Acq On : 20 Nov 2019 9:17 AM
 Operator : AIRLAB16:RY
 Sample : CT015-LLSTD010
 Misc : WG1312049
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 15:10:53 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\r1613942.D
 Sub List : Default-ICV-AP2 - All compounds listed

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

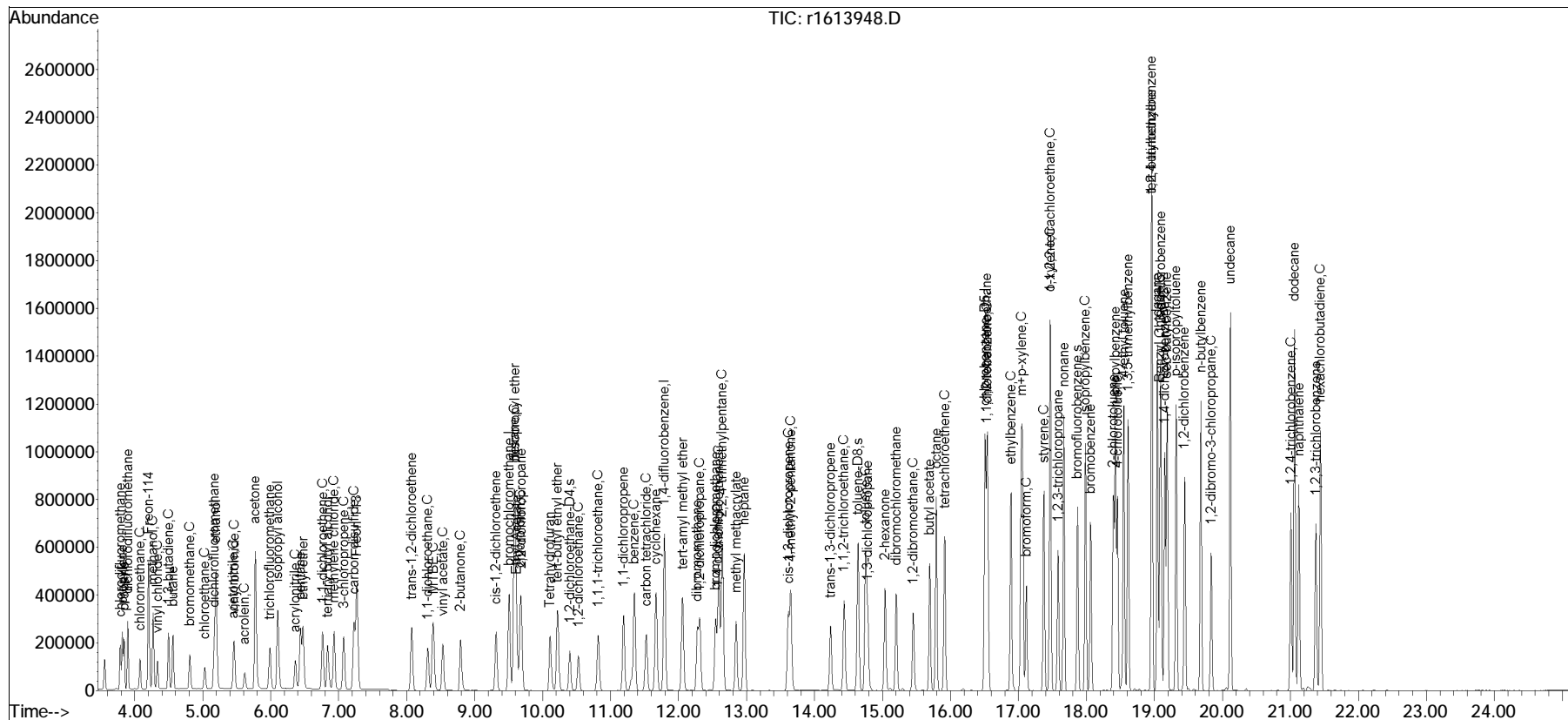
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

```
Data Path : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\
Data File : r1613948.D
Acq On    : 20 Nov 2019    9:17 AM
Operator  : AIRLAB16:RY
Sample    : CTO15-LLSTD010
Misc      : WG1312049
ALS Vial  : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 15:10:53 2019
Quant Method : O:\Forensics\Data\Airlab16\2019\191119T_ICAL\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 21 15:01:46 2019
Response via : Initial Calibration

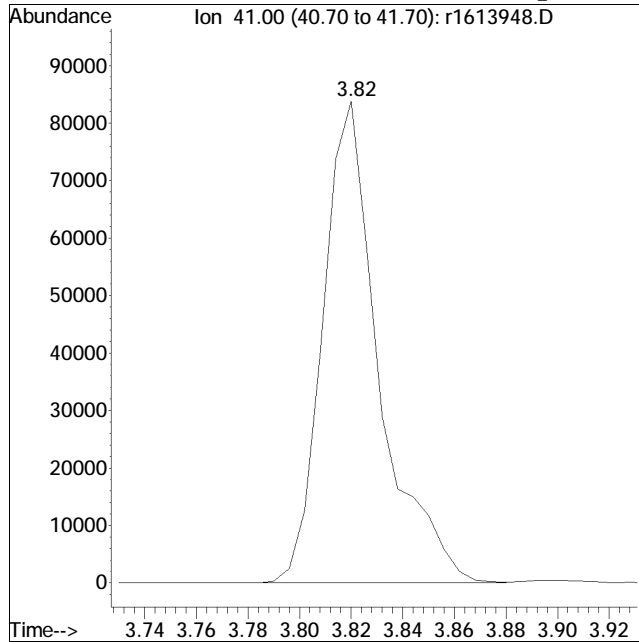
Sub List : Default-ICV-AP2 - All compounds listedT_ICAL\r1613942.D



Manual Integration/Negative Proof Report

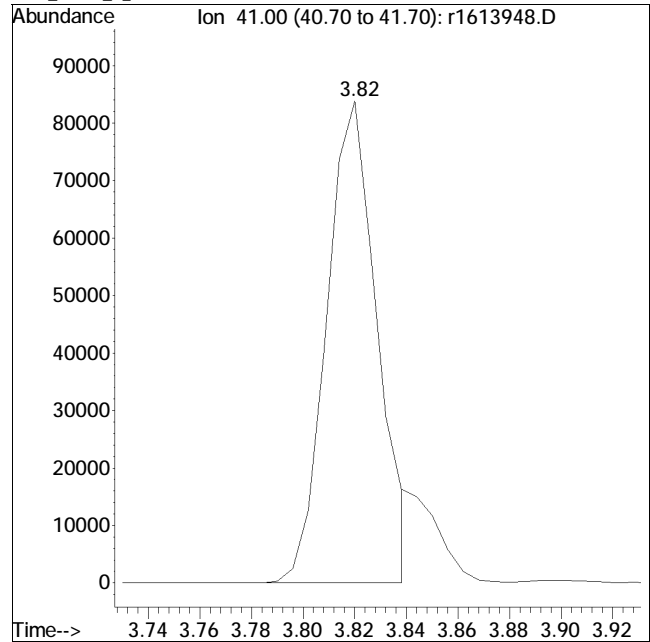
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1613948.D Operator : AIRLAB16:RY
Date Inj'd : 11/20/2019 9:17 AM Instrument :
Sample : CTO15-LLSTD010 Quant Date : 11/21/2019 3:10 pm

Compound #3: propylene



Original Peak Response = 126750

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



Manual Peak Response = 113969 M6

Continuing Calibration

Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Instrument ID : AIRLAB16
 Lab File ID : R1614690
 Sample No : WG1327071-2
 Channel :

Lab Number : L1962003
 Project Number : 170312501
 Calibration Date : 01/04/20 12:17
 Init. Calib. Date(s) : 11/19/19 11/20/19
 Init. Calib. Times : 20:14 00:59

| Compound | Ave. RRF | RRF | Min RRF | %D | Max %D | Area% | Dev(min) |
|--------------------------|----------|-------|---------|------|--------|-------|----------|
| bromochloromethane | 1 | 1 | - | 0 | 30 | 84 | .03 |
| chlorodifluoromethane | 0.716 | 0.587 | - | 18 | 30 | 68 | .01 |
| propylene | 0.397 | 0.42 | - | -5.8 | 30 | 87 | .01 |
| propane | 0.518 | 0.418 | - | 19.3 | 30 | 67 | .02 |
| dichlorodifluoromethane | 0.742 | 0.597 | - | 19.5 | 30 | 65 | .02 |
| chloromethane | 0.451 | 0.391 | - | 13.3 | 30 | 72 | .02 |
| Freon-114 | 0.994 | 0.878 | - | 11.7 | 30 | 72 | .02 |
| methanol | 0.191 | 0.143 | - | 25.1 | 30 | 59 | .02 |
| vinyl chloride | 0.418 | 0.366 | - | 12.4 | 30 | 73 | .02 |
| 1,3-butadiene | 0.4 | 0.33 | - | 17.5 | 30 | 69 | .02 |
| butane | 0.694 | 0.559 | - | 19.5 | 30 | 68 | .02 |
| bromomethane | 0.374 | 0.319 | - | 14.7 | 30 | 71 | .02 |
| chloroethane | 0.21 | 0.174 | - | 17.1 | 30 | 71 | .02 |
| ethanol | 0.322 | 0.255 | - | 20.8 | 30 | 63 | .02 |
| dichlorofluoromethane | 0.755 | 0.575 | - | 23.8 | 30 | 65 | .02 |
| vinyl bromide | 0.408 | 0.33 | - | 19.1 | 30 | 67 | .02 |
| acrolein | 0.211 | 0.151 | - | 28.4 | 30 | 60 | .02 |
| acetone | 0.597 | 0.43 | - | 28 | 30 | 57 | .02 |
| acetonitrile | 0.409 | 0.3 | - | 26.7 | 30 | 66 | .02 |
| trichlorofluoromethane | 0.597 | 0.462 | - | 22.6 | 30 | 65 | .03 |
| isopropyl alcohol | 0.769 | 0.591 | - | 23.1 | 30 | 62 | .03 |
| acrylonitrile | 0.409 | 0.299 | - | 26.9 | 30 | 62 | .02 |
| pentane | 0.872 | 0.633 | - | 27.4 | 30 | 64 | .03 |
| ethyl ether | 0.751 | 0.547 | - | 27.2 | 30 | 60 | .03 |
| 1,1-dichloroethene | 0.599 | 0.539 | - | 10 | 30 | 73 | .02 |
| tertiary butyl alcohol | 0.734 | 0.601 | - | 18.1 | 30 | 67 | .02 |
| methylene chloride | 0.609 | 0.587 | - | 3.6 | 30 | 80 | .02 |
| 3-chloropropene | 0.717 | 0.702 | - | 2.1 | 30 | 78 | .03 |
| carbon disulfide | 1.61 | 1.526 | - | 5.2 | 30 | 77 | .03 |
| Freon 113 | 0.878 | 0.873 | - | 0.6 | 30 | 81 | .03 |
| trans-1,2-dichloroethene | 0.653 | 0.583 | - | 10.7 | 30 | 73 | .03 |
| 1,1-dichloroethane | 0.787 | 0.728 | - | 7.5 | 30 | 75 | .03 |
| MTBE | 1.284 | 1.128 | - | 12.1 | 30 | 71 | .03 |
| vinyl acetate | 1.212 | 1.249 | - | -3.1 | 30 | 80 | .03 |
| 2-butanone | 1.158 | 1.126 | - | 2.8 | 30 | 77 | .02 |
| cis-1,2-dichloroethene | 0.57 | 0.537 | - | 5.8 | 30 | 76 | .03 |
| Ethyl Acetate | 0.168 | 0.171 | - | -1.8 | 30 | 82 | .03 |
| chloroform | 0.786 | 0.731 | - | 7 | 30 | 76 | .03 |
| Tetrahydrofuran | 0.704 | 0.673 | - | 4.4 | 30 | 75 | .03 |
| 2,2-dichloropropane | 0.642 | 0.453 | - | 29.4 | 30 | 57 | .03 |
| 1,2-dichloroethane | 0.421 | 0.341 | - | 19 | 30 | 65 | .03 |
| 1,4-difluorobenzene | 1 | 1 | - | 0 | 30 | 85 | .03 |
| hexane | 0.303 | 0.282 | - | 6.9 | 30 | 78 | .03 |

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Instrument ID : AIRLAB16
 Lab File ID : R1614690
 Sample No : WG1327071-2
 Channel :

Lab Number : L1962003
 Project Number : 170312501
 Calibration Date : 01/04/20 12:17
 Init. Calib. Date(s) : 11/19/19 11/20/19
 Init. Calib. Times : 20:14 00:59

| Compound | Ave. RRF | RRF | Min RRF | %D | Max %D | Area% | Dev(min) |
|---------------------------|----------|-------|---------|--------|--------|-------|----------|
| diisopropyl ether | 0.16 | 0.139 | - | 13.1 | 30 | 72 | .03 |
| tert-butyl ethyl ether | 0.511 | 0.408 | - | 20.2 | 30 | 66 | .03 |
| 1,1,1-trichloroethane | 0.237 | 0.205 | - | 13.5 | 30 | 72 | .03 |
| 1,1-dichloropropene | 0.283 | 0.252 | - | 11 | 30 | 74 | .03 |
| benzene | 0.646 | 0.608 | - | 5.9 | 30 | 79 | .03 |
| carbon tetrachloride | 0.229 | 0.207 | - | 9.6 | 30 | 74 | .03 |
| cyclohexane | 0.322 | 0.307 | - | 4.7 | 30 | 80 | .03 |
| tert-amyl methyl ether | 0.575 | 0.461 | - | 19.8 | 30 | 66 | .03 |
| dibromomethane | 0.178 | 0.162 | - | 9 | 30 | 77 | .03 |
| 1,2-dichloropropane | 0.206 | 0.202 | - | 1.9 | 30 | 81 | .03 |
| bromodichloromethane | 0.323 | 0.306 | - | 5.3 | 30 | 79 | .03 |
| 1,4-dioxane | 0.137 | 0.136 | - | 0.7 | 30 | 83 | .03 |
| trichloroethene | 0.263 | 0.256 | - | 2.7 | 30 | 82 | .03 |
| 2,2,4-trimethylpentane | 0.974 | 0.919 | - | 5.6 | 30 | 80 | .03 |
| methyl methacrylate | 0.315 | 0.234 | - | 25.7 | 30 | 56 | .03 |
| heptane | 0.456 | 0.446 | - | 2.2 | 30 | 80 | .03 |
| cis-1,3-dichloropropene | 0.318 | 0.315 | - | 0.9 | 30 | 82 | .03 |
| 4-methyl-2-pentanone | 0.527 | 0.529 | - | -0.4 | 30 | 81 | .03 |
| trans-1,3-dichloropropene | 0.288 | 0.232 | - | 19.4 | 30 | 66 | .03 |
| 1,1,2-trichloroethane | 0.228 | 0.235 | - | -3.1 | 30 | 87 | .03 |
| chlorobenzene-D5 | 1 | 1 | - | 0 | 30 | 76 | .03 |
| toluene | 4.77 | 5.233 | - | -9.7 | 30 | 82 | .03 |
| 1,3-dichloropropane | 2.459 | 2.478 | - | -0.8 | 30 | 74 | .03 |
| 2-hexanone | 3.197 | 3.659 | - | -14.5 | 30 | 76 | .03 |
| dibromochloromethane | 2.298 | 2.836 | - | -23.4 | 30 | 88 | .02 |
| 1,2-dibromoethane | 2.533 | 2.905 | - | -14.7 | 30 | 83 | .02 |
| butyl acetate | 0.612 | 0.639 | - | -4.4 | 30 | 74 | .02 |
| octane | 1.79 | 1.822 | - | -1.8 | 30 | 76 | .03 |
| tetrachloroethene | 2.102 | 2.723 | - | -29.5 | 30 | 95 | .03 |
| 1,1,1,2-tetrachloroethane | 1.763 | 1.907 | - | -8.2 | 30 | 78 | .02 |
| chlorobenzene | 4.15 | 4.708 | - | -13.4 | 30 | 82 | .02 |
| ethylbenzene | 5.971 | 6.793 | - | -13.8 | 30 | 83 | .03 |
| m+p-xylene | 4.892 | 5.479 | - | -12 | 30 | 83 | .02 |
| bromoform | 1.905 | 2.532 | - | -32.9* | 30 | 93 | .02 |
| styrene | 4.466 | 5.185 | - | -16.1 | 30 | 83 | .02 |
| 1,1,2,2-tetrachloroethane | 3.61 | 4.52 | - | -25.2 | 30 | 90 | .03 |
| o-xylene | 4.916 | 5.658 | - | -15.1 | 30 | 84 | .02 |
| 1,2,3-trichloropropane | 2.95 | 3.217 | - | -9.1 | 30 | 79 | .03 |
| nonane | 4.865 | 5.263 | - | -8.2 | 30 | 78 | .02 |
| isopropylbenzene | 7.161 | 8.05 | - | -12.4 | 30 | 81 | .02 |
| bromobenzene | 3.745 | 4.084 | - | -9.1 | 30 | 79 | .02 |
| 2-chlorotoluene | 2.1 | 2.237 | - | -6.5 | 30 | 77 | .03 |
| n-propylbenzene | 2.302 | 2.481 | - | -7.8 | 30 | 77 | .02 |

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Instrument ID : AIRLAB16
Lab File ID : R1614690
Sample No : WG1327071-2
Channel :

Lab Number : L1962003
Project Number : 170312501
Calibration Date : 01/04/20 12:17
Init. Calib. Date(s) : 11/19/19 11/20/19
Init. Calib. Times : 20:14 00:59

| Compound | Ave. RRF | RRF | Min RRF | %D | Max %D | Area% | Dev(min) |
|----------------------------|----------|--------|---------|--------|--------|-------|----------|
| 4-chlorotoluene | 1.996 | 2.149 | - | -7.7 | 30 | 78 | .03 |
| 4-ethyl toluene | 7.647 | 9.185 | - | -20.1 | 30 | 83 | .02 |
| 1,3,5-trimethylbenzene | 6.38 | 7.507 | - | -17.7 | 30 | 84 | .02 |
| tert-butylbenzene | 6.374 | 7.024 | - | -10.2 | 30 | 78 | .02 |
| 1,2,4-trimethylbenzene | 6.118 | 7.457 | - | -21.9 | 30 | 83 | .03 |
| decane | 4.636 | 5.019 | - | -8.3 | 30 | 78 | .02 |
| Benzyl Chloride | 3.441 | 4.111 | - | -19.5 | 30 | 71 | .03 |
| 1,3-dichlorobenzene | 4.196 | 5.216 | - | -24.3 | 30 | 85 | .02 |
| 1,4-dichlorobenzene | 4.044 | 5.008 | - | -23.8 | 30 | 84 | .02 |
| sec-butylbenzene | 9.085 | 10.361 | - | -14 | 30 | 80 | .02 |
| p-isopropyltoluene | 7.702 | 7.996 | - | -3.8 | 30 | 73 | .02 |
| 1,2-dichlorobenzene | 3.952 | 4.947 | - | -25.2 | 30 | 86 | .03 |
| n-butylbenzene | 6.132 | 7.532 | - | -22.8 | 30 | 83 | .02 |
| 1,2-dibromo-3-chloropropan | 1.403 | 1.636 | - | -16.6 | 30 | 76 | .02 |
| undecane | 5.05 | 5.704 | - | -13 | 30 | 78 | .02 |
| dodecane | 4.338 | 5.378 | - | -24 | 30 | 75 | .02 |
| 1,2,4-trichlorobenzene | 1.946 | 2.718 | - | -39.7* | 30 | 79 | .02 |
| naphthalene | 6.829 | 8.406 | - | -23.1 | 30 | 73 | .02 |
| 1,2,3-trichlorobenzene | 2.076 | 2.657 | - | -28 | 30 | 78 | .02 |
| hexachlorobutadiene | 2.028 | 2.566 | - | -26.5 | 30 | 83 | .02 |

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-2,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | 84 | 0.03 |
| 2 | chlorodifluoromethane | 0.716 | 0.587 | 18.0 | 68 | 0.01 |
| 3 | propylene | 0.397 | 0.420 | -5.8 | 87 | 0.01 |
| 4 | propane | 0.518 | 0.418 | 19.3 | 67 | 0.02 |
| 5 | dichlorodifluoromethane | 0.742 | 0.597 | 19.5 | 65 | 0.02 |
| 6 C | chloromethane | 0.451 | 0.391 | 13.3 | 72 | 0.02 |
| 7 | Freon-114 | 0.994 | 0.878 | 11.7 | 72 | 0.02 |
| 8 C | methanol | 0.191 | 0.143 | 25.1 | 59# | 0.02 |
| 9 C | vinyl chloride | 0.418 | 0.366 | 12.4 | 73 | 0.02 |
| 10 C | 1,3-butadiene | 0.400 | 0.330 | 17.5 | 69 | 0.02 |
| 11 | butane | 0.694 | 0.559 | 19.5 | 68 | 0.02 |
| 13 C | bromomethane | 0.374 | 0.319 | 14.7 | 71 | 0.02 |
| 14 C | chloroethane | 0.210 | 0.174 | 17.1 | 71 | 0.02 |
| 15 | ethanol | 0.322 | 0.255 | 20.8 | 63 | 0.02 |
| 16 | dichlorofluoromethane | 0.755 | 0.575 | 23.8 | 65 | 0.02 |
| 17 C | vinyl bromide | 0.408 | 0.330 | 19.1 | 67 | 0.02 |
| 18 C | acrolein | 0.211 | 0.151 | 28.4 | 60 | 0.02 |
| 19 | acetone | 0.597 | 0.430 | 28.0 | 57# | 0.02 |
| 20 C | acetonitrile | 0.409 | 0.300 | 26.7 | 66 | 0.02 |
| 21 | trichlorofluoromethane | 0.597 | 0.462 | 22.6 | 65 | 0.03 |
| 22 | isopropyl alcohol | 0.769 | 0.591 | 23.1 | 62 | 0.03 |
| 23 C | acrylonitrile | 0.409 | 0.299 | 26.9 | 62 | 0.02 |
| 24 | pentane | 0.872 | 0.633 | 27.4 | 64 | 0.03 |
| 25 | ethyl ether | 0.751 | 0.547 | 27.2 | 60# | 0.03 |
| 26 C | 1,1-dichloroethene | 0.599 | 0.539 | 10.0 | 73 | 0.02 |
| 27 | tertiary butyl alcohol | 0.734 | 0.601 | 18.1 | 67 | 0.02 |
| 28 C | methylene chloride | 0.609 | 0.587 | 3.6 | 80 | 0.02 |
| 29 C | 3-chloropropene | 0.717 | 0.702 | 2.1 | 78 | 0.03 |
| 30 C | carbon disulfide | 1.610 | 1.526 | 5.2 | 77 | 0.03 |
| 31 | Freon 113 | 0.878 | 0.873 | 0.6 | 81 | 0.03 |
| 32 | trans-1,2-dichloroethene | 0.653 | 0.583 | 10.7 | 73 | 0.03 |
| 33 C | 1,1-dichloroethane | 0.787 | 0.728 | 7.5 | 75 | 0.03 |
| 34 C | MTBE | 1.284 | 1.128 | 12.1 | 71 | 0.03 |
| 35 C | vinyl acetate | 1.212 | 1.249 | -3.1 | 80 | 0.03 |
| 36 C | 2-butanone | 1.158 | 1.126 | 2.8 | 77 | 0.02 |
| 37 | cis-1,2-dichloroethene | 0.570 | 0.537 | 5.8 | 76 | 0.03 |
| 38 | Ethyl Acetate | 0.168 | 0.171 | -1.8 | 82 | 0.03 |
| 39 C | chloroform | 0.786 | 0.731 | 7.0 | 76 | 0.03 |
| 40 | Tetrahydrofuran | 0.704 | 0.673 | 4.4 | 75 | 0.03 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-2,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | 0.642 | 0.453 | 29.4 | 57# | 0.03 |
| 42 C | 1,2-dichloroethane | 0.421 | 0.341 | 19.0 | 65 | 0.03 |
| 43 I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 85 | 0.03 |
| 44 C | hexane | 0.303 | 0.282 | 6.9 | 78 | 0.03 |
| 45 | diisopropyl ether | 0.160 | 0.139 | 13.1 | 72 | 0.03 |
| 46 | tert-butyl ethyl ether | 0.511 | 0.408 | 20.2 | 66 | 0.03 |
| 48 C | 1,1,1-trichloroethane | 0.237 | 0.205 | 13.5 | 72 | 0.03 |
| 49 | 1,1-dichloropropene | 0.283 | 0.252 | 11.0 | 74 | 0.03 |
| 50 C | benzene | 0.646 | 0.608 | 5.9 | 79 | 0.03 |
| 52 C | carbon tetrachloride | 0.229 | 0.207 | 9.6 | 74 | 0.03 |
| 53 | cyclohexane | 0.322 | 0.307 | 4.7 | 80 | 0.03 |
| 54 | tert-amyl methyl ether | 0.575 | 0.461 | 19.8 | 66 | 0.03 |
| 55 | dibromomethane | 0.178 | 0.162 | 9.0 | 77 | 0.03 |
| 56 C | 1,2-dichloropropane | 0.206 | 0.202 | 1.9 | 81 | 0.03 |
| 57 | bromodichloromethane | 0.323 | 0.306 | 5.3 | 79 | 0.03 |
| 58 C | 1,4-dioxane | 0.137 | 0.136 | 0.7 | 83 | 0.03 |
| 59 C | trichloroethene | 0.263 | 0.256 | 2.7 | 82 | 0.03 |
| 60 C | 2,2,4-trimethylpentane | 0.974 | 0.919 | 5.6 | 80 | 0.03 |
| 61 | methyl methacrylate | 0.315 | 0.234 | 25.7 | 56# | 0.03 |
| 62 | heptane | 0.456 | 0.446 | 2.2 | 80 | 0.03 |
| 63 C | cis-1,3-dichloropropene | 0.318 | 0.315 | 0.9 | 82 | 0.03 |
| 64 C | 4-methyl-2-pentanone | 0.527 | 0.529 | -0.4 | 81 | 0.03 |
| 65 | trans-1,3-dichloropropene | 0.288 | 0.232 | 19.4 | 66 | 0.03 |
| 66 C | 1,1,2-trichloroethane | 0.228 | 0.235 | -3.1 | 87 | 0.03 |
| 67 I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 76 | 0.03 |
| 68 C | toluene | 4.770 | 5.233 | -9.7 | 82 | 0.03 |
| 71 | 1,3-dichloropropane | 2.459 | 2.478 | -0.8 | 74 | 0.03 |
| 72 | 2-hexanone | 3.197 | 3.659 | -14.5 | 76 | 0.03 |
| 74 | dibromochloromethane | 2.298 | 2.836 | -23.4 | 88 | 0.02 |
| 75 C | 1,2-dibromoethane | 2.533 | 2.905 | -14.7 | 83 | 0.02 |
| 76 | butyl acetate | 0.612 | 0.639 | -4.4 | 74 | 0.02 |
| 77 | octane | 1.790 | 1.822 | -1.8 | 76 | 0.03 |
| 78 C | tetrachloroethene | 2.102 | 2.723 | -29.5 | 95 | 0.03 |
| 79 | 1,1,1,2-tetrachloroethane | 1.763 | 1.907 | -8.2 | 78 | 0.02 |
| 80 C | chlorobenzene | 4.150 | 4.708 | -13.4 | 82 | 0.02 |
| 81 C | ethylbenzene | 5.971 | 6.793 | -13.8 | 83 | 0.03 |
| 83 C | m+p-xylene | 4.892 | 5.479 | -12.0 | 83 | 0.02 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-2,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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) |
|-------|-----------------------------|-------|--------|--------|-------|----------|
| 84 C | bromoform | 1.905 | 2.532 | -32.9# | 93 | 0.02 |
| 85 C | styrene | 4.466 | 5.185 | -16.1 | 83 | 0.02 |
| 86 C | 1,1,2,2-tetrachloroethane | 3.610 | 4.520 | -25.2 | 90 | 0.03 |
| 87 C | o-xylene | 4.916 | 5.658 | -15.1 | 84 | 0.02 |
| 88 | 1,2,3-trichloropropane | 2.950 | 3.217 | -9.1 | 79 | 0.03 |
| 89 | nonane | 4.865 | 5.263 | -8.2 | 78 | 0.02 |
| 91 C | isopropylbenzene | 7.161 | 8.050 | -12.4 | 81 | 0.02 |
| 92 | bromobenzene | 3.745 | 4.084 | -9.1 | 79 | 0.02 |
| 93 | 2-chlorotoluene | 2.100 | 2.237 | -6.5 | 77 | 0.03 |
| 94 | n-propylbenzene | 2.302 | 2.481 | -7.8 | 77 | 0.02 |
| 95 | 4-chlorotoluene | 1.996 | 2.149 | -7.7 | 78 | 0.03 |
| 96 | 4-ethyl toluene | 7.647 | 9.185 | -20.1 | 83 | 0.02 |
| 97 | 1,3,5-trimethylbenzene | 6.380 | 7.507 | -17.7 | 84 | 0.02 |
| 98 | tert-butylbenzene | 6.374 | 7.024 | -10.2 | 78 | 0.02 |
| 99 | 1,2,4-trimethylbenzene | 6.118 | 7.457 | -21.9 | 83 | 0.03 |
| 100 | decane | 4.636 | 5.019 | -8.3 | 78 | 0.02 |
| 101 C | Benzyl Chloride | 3.441 | 4.111 | -19.5 | 71 | 0.03 |
| 102 | 1,3-dichlorobenzene | 4.196 | 5.216 | -24.3 | 85 | 0.02 |
| 103 C | 1,4-dichlorobenzene | 4.044 | 5.008 | -23.8 | 84 | 0.02 |
| 104 | sec-butylbenzene | 9.085 | 10.361 | -14.0 | 80 | 0.02 |
| 106 | p-isopropyltoluene | 7.702 | 7.996 | -3.8 | 73 | 0.02 |
| 107 | 1,2-dichlorobenzene | 3.952 | 4.947 | -25.2 | 86 | 0.03 |
| 108 | n-butylbenzene | 6.132 | 7.532 | -22.8 | 83 | 0.02 |
| 111 C | 1,2-dibromo-3-chloropropane | 1.403 | 1.636 | -16.6 | 76 | 0.02 |
| 112 | undecane | 5.050 | 5.704 | -13.0 | 78 | 0.02 |
| 114 | dodecane | 4.338 | 5.378 | -24.0 | 75 | 0.02 |
| 115 C | 1,2,4-trichlorobenzene | 1.946 | 2.718 | -39.7# | 79 | 0.02 |
| 116 | naphthalene | 6.829 | 8.406 | -23.1 | 73 | 0.02 |
| 117 | 1,2,3-trichlorobenzene | 2.076 | 2.657 | -28.0 | 78 | 0.02 |
| 119 C | hexachlorobutadiene | 2.028 | 2.566 | -26.5 | 83 | 0.02 |

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-2,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|---------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 223987 | 10.000 | ppbV | 0.03 |
| Standard Area = 223987 | | | Recovery | = | 100.00% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 600707 | 10.000 | ppbV | 0.03 |
| Standard Area = 600707 | | | Recovery | = | 100.00% | |
| 67) chlorobenzene-D5 | 16.53 | 54 | 75409 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery | = | 100.00% | |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue | |
|----------------------------|------|-----|---------|--------|--------|-----|
| 2) chlorodifluoromethane | 3.80 | 51 | 131399 | 8.194 | ppbV | 99 |
| 3) propylene | 3.83 | 41 | 93963M6 | 10.568 | ppbV | |
| 4) propane | 3.86 | 29 | 93654 | 8.064 | ppbV | 99 |
| 5) dichlorodifluoromethane | 3.92 | 85 | 133633 | 8.042 | ppbV | 99 |
| 6) chloromethane | 4.10 | 50 | 87558 | 8.672 | ppbV | 98 |
| 7) Freon-114 | 4.22 | 85 | 196581 | 8.826 | ppbV | 99 |
| 8) methanol | 4.29 | 31 | 160573 | 37.476 | ppbV | 98 |
| 9) vinyl chloride | 4.35 | 62 | 82080 | 8.761 | ppbV | 89 |
| 10) 1,3-butadiene | 4.52 | 54 | 73907 | 8.249 | ppbV | 94 |
| 11) butane | 4.58 | 43 | 125266 | 8.059 | ppbV | 100 |
| 13) bromomethane | 4.83 | 94 | 71410 | 8.523 | ppbV | 99 |
| 14) chloroethane | 5.06 | 64 | 38966 | 8.292 | ppbV | 94 |
| 15) ethanol | 5.22 | 31 | 285193 | 39.492 | ppbV | 94 |
| 16) dichlorofluoromethane | 5.19 | 67 | 128836 | 7.614 | ppbV | 99 |
| 17) vinyl bromide | 5.49 | 106 | 73833 | 8.084 | ppbV | 100 |
| 18) acrolein | 5.64 | 56 | 33715 | 7.137 | ppbV | 98 |
| 19) acetone | 5.80 | 43 | 481341 | 35.997 | ppbV | 96 |
| 20) acetonitrile | 5.48 | 41 | 67253 | 7.346 | ppbV | 100 |
| 21) trichlorofluoromethane | 6.02 | 101 | 103393 | 7.726 | ppbV | 97 |
| 22) isopropyl alcohol | 6.13 | 45 | 331211 | 19.233 | ppbV | 99 |
| 23) acrylonitrile | 6.39 | 53 | 67031 | 7.326 | ppbV | 98 |
| 24) pentane | 6.47 | 43 | 141893 | 7.269 | ppbV | 97 |
| 25) ethyl ether | 6.50 | 31 | 122574 | 7.291 | ppbV | 99 |
| 26) 1,1-dichloroethene | 6.79 | 61 | 120837 | 9.001 | ppbV | 92 |
| 27) tertiary butyl alcohol | 6.87 | 59 | 134506 | 8.181 | ppbV # | 91 |
| 28) methylene chloride | 6.96 | 49 | 131459 | 9.633 | ppbV | 96 |
| 29) 3-chloropropene | 7.11 | 41 | 157193 | 9.792 | ppbV | 95 |
| 30) carbon disulfide | 7.26 | 76 | 341836 | 9.481 | ppbV | 96 |
| 31) Freon 113 | 7.30 | 101 | 195558 | 9.943 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-2,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 32) trans-1,2-dichloroethene | 8.11 | 61 | 130501 | 8.922 | ppbV | 95 |
| 33) 1,1-dichloroethane | 8.34 | 63 | 163074 | 9.254 | ppbV | 100 |
| 34) MTBE | 8.43 | 73 | 252724 | 8.790 | ppbV | 98 |
| 35) vinyl acetate | 8.57 | 43 | 279863 | 10.310 | ppbV | 98 |
| 36) 2-butanone | 8.82 | 43 | 252219 | 9.720 | ppbV | 98 |
| 37) cis-1,2-dichloroethene | 9.35 | 61 | 120369 | 9.423 | ppbV | 96 |
| 38) Ethyl Acetate | 9.65 | 61 | 38303 | 10.201 | ppbV | 82 |
| 39) chloroform | 9.71 | 83 | 163639 | 9.299 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.14 | 42 | 150816 | 9.569 | ppbV | 98 |
| 41) 2,2-dichloropropane | 9.72 | 77 | 101523 | 7.063 | ppbV # | 87 |
| 42) 1,2-dichloroethane | 10.56 | 62 | 76463 | 8.101 | ppbV # | 90 |
| 44) hexane | 9.62 | 57 | 169336 | 9.292 | ppbV | 98 |
| 45) diisopropyl ether | 9.63 | 87 | 83640 | 8.701 | ppbV | 100 |
| 46) tert-butyl ethyl ether | 10.25 | 59 | 245260 | 7.987 | ppbV | 97 |
| 48) 1,1,1-trichloroethane | 10.85 | 97 | 123330 | 8.657 | ppbV | 96 |
| 49) 1,1-dichloropropene | 11.23 | 75 | 151306 | 8.888 | ppbV | 95 |
| 50) benzene | 11.39 | 78 | 365267 | 9.418 | ppbV | 99 |
| 52) carbon tetrachloride | 11.56 | 117 | 124480 | 9.033 | ppbV | 98 |
| 53) cyclohexane | 11.70 | 56 | 184579 | 9.532 | ppbV | 97 |
| 54) tert-amyl methyl ether | 12.09 | 73 | 276872 | 8.009 | ppbV | 100 |
| 55) dibromomethane | 12.31 | 93 | 97368 | 9.098 | ppbV | 99 |
| 56) 1,2-dichloropropane | 12.35 | 63 | 121292 | 9.797 | ppbV | 98 |
| 57) bromodichloromethane | 12.58 | 83 | 183851 | 9.479 | ppbV | 99 |
| 58) 1,4-dioxane | 12.61 | 88 | 81935 | 9.986 | ppbV | 94 |
| 59) trichloroethene | 12.63 | 130 | 153520 | 9.721 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 12.67 | 57 | 551890 | 9.429 | ppbV | 98 |
| 61) methyl methacrylate | 12.88 | 41 | 140611 | 7.421 | ppbV | 96 |
| 62) heptane | 13.00 | 43 | 267864 | 9.782 | ppbV | 99 |
| 63) cis-1,3-dichloropropene | 13.65 | 75 | 189029 | 9.906 | ppbV | 96 |
| 64) 4-methyl-2-pentanone | 13.68 | 43 | 318051 | 10.044 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.27 | 75 | 139493 | 8.051 | ppbV | 96 |
| 66) 1,1,2-trichloroethane | 14.47 | 97 | 140889 | 10.305 | ppbV | 97 |
| 68) toluene | 14.78 | 91 | 394612 | 10.971 | ppbV | 99 |
| 71) 1,3-dichloropropane | 14.81 | 76 | 186864 | 10.078 | ppbV | 95 |
| 72) 2-hexanone | 15.07 | 43 | 275919 | 11.447 | ppbV | 97 |
| 74) dibromochloromethane | 15.23 | 129 | 213861 | 12.342 | ppbV | 99 |
| 75) 1,2-dibromoethane | 15.48 | 107 | 219049 | 11.469 | ppbV | 100 |
| 76) butyl acetate | 15.72 | 73 | 48209 | 10.440 | ppbV | 95 |
| 77) octane | 15.82 | 85 | 137392 | 10.178 | ppbV | 100 |
| 78) tetrachloroethene | 15.94 | 166 | 205349 | 12.954 | ppbV | 94 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-2,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------|---------------------------|-------|------|----------|--------|--------|----------|
| 79) | 1,1,1,2-tetrachloroethane | 16.56 | 131 | 143768 | 10.812 | ppbV | 99 |
| 80) | chlorobenzene | 16.57 | 112 | 355029 | 11.345 | ppbV | 99 |
| 81) | ethylbenzene | 16.92 | 91 | 512254 | 11.376 | ppbV | 98 |
| 83) | m+p-xylene | 17.07 | 91 | 826324 | 22.400 | ppbV | 99 |
| 84) | bromoform | 17.14 | 173 | 190943 | 13.290 | ppbV | 94 |
| 85) | styrene | 17.40 | 104 | 391023 | 11.610 | ppbV | 98 |
| 86) | 1,1,2,2-tetrachloroethane | 17.49 | 83 | 340839 | 12.521 | ppbV | 98 |
| 87) | o-xylene | 17.50 | 91 | 426674 | 11.510 | ppbV | 97 |
| 88) | 1,2,3-trichloropropane | 17.61 | 75 | 242577 | 10.906 | ppbV | 98 |
| 89) | nonane | 17.69 | 43 | 396880 | 10.818 | ppbV | 100 |
| 91) | isopropylbenzene | 18.02 | 105 | 607040 | 11.242 | ppbV | 99 |
| 92) | bromobenzene | 18.09 | 77 | 308007 | 10.907 | ppbV | 96 |
| 93) | 2-chlorotoluene | 18.43 | 126 | 168660 | 10.649 | ppbV | 98 |
| 94) | n-propylbenzene | 18.45 | 120 | 187082 | 10.778 | ppbV | 97 |
| 95) | 4-chlorotoluene | 18.48 | 126 | 162045 | 10.764 | ppbV | 99 |
| 96) | 4-ethyl toluene | 18.57 | 105 | 692619 | 12.012 | ppbV | 99 |
| 97) | 1,3,5-trimethylbenzene | 18.64 | 105 | 566069 | 11.765 | ppbV | 99 |
| 98) | tert-butylbenzene | 18.98 | 119 | 529673 | 11.019 | ppbV | 100 |
| 99) | 1,2,4-trimethylbenzene | 18.99 | 105 | 562310 | 12.188 | ppbV | 94 |
| 100) | decane | 19.07 | 57 | 378451 | 10.825 | ppbV | 98 |
| 101) | Benzyl Chloride | 19.11 | 91 | 309974 | 11.946 | ppbV | 99 |
| 102) | 1,3-dichlorobenzene | 19.13 | 146 | 393296 | 12.430 | ppbV | 99 |
| 103) | 1,4-dichlorobenzene | 19.18 | 146 | 377631 | 12.384 | ppbV | 96 |
| 104) | sec-butylbenzene | 19.22 | 105 | 781276 | 11.404 | ppbV | 97 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 602982 | 10.382 | ppbV | 96 |
| 107) | 1,2-dichlorobenzene | 19.48 | 146 | 373057 | 12.519 | ppbV | 98 |
| 108) | n-butylbenzene | 19.71 | 91 | 567971 | 12.282 | ppbV | 94 |
| 111) | 1,2-dibromo-3-chloropr... | 19.86 | 75 | 123386 | 11.663 | ppbV # | 84 |
| 112) | undecane | 20.14 | 57 | 430116 | 11.294 | ppbV | 98 |
| 114) | dodecane | 21.08 | 57 | 405569 | 12.398 | ppbV | 99 |
| 115) | 1,2,4-trichlorobenzene | 21.02 | 180 | 204931 | 13.965 | ppbV | 98 |
| 116) | naphthalene | 21.14 | 128 | 633925 | 12.310 | ppbV | 98 |
| 117) | 1,2,3-trichlorobenzene | 21.39 | 180 | 200385 | 12.799 | ppbV | 99 |
| 119) | hexachlorobutadiene | 21.47 | 225 | 193521 | 12.651 | ppbV | 98 |

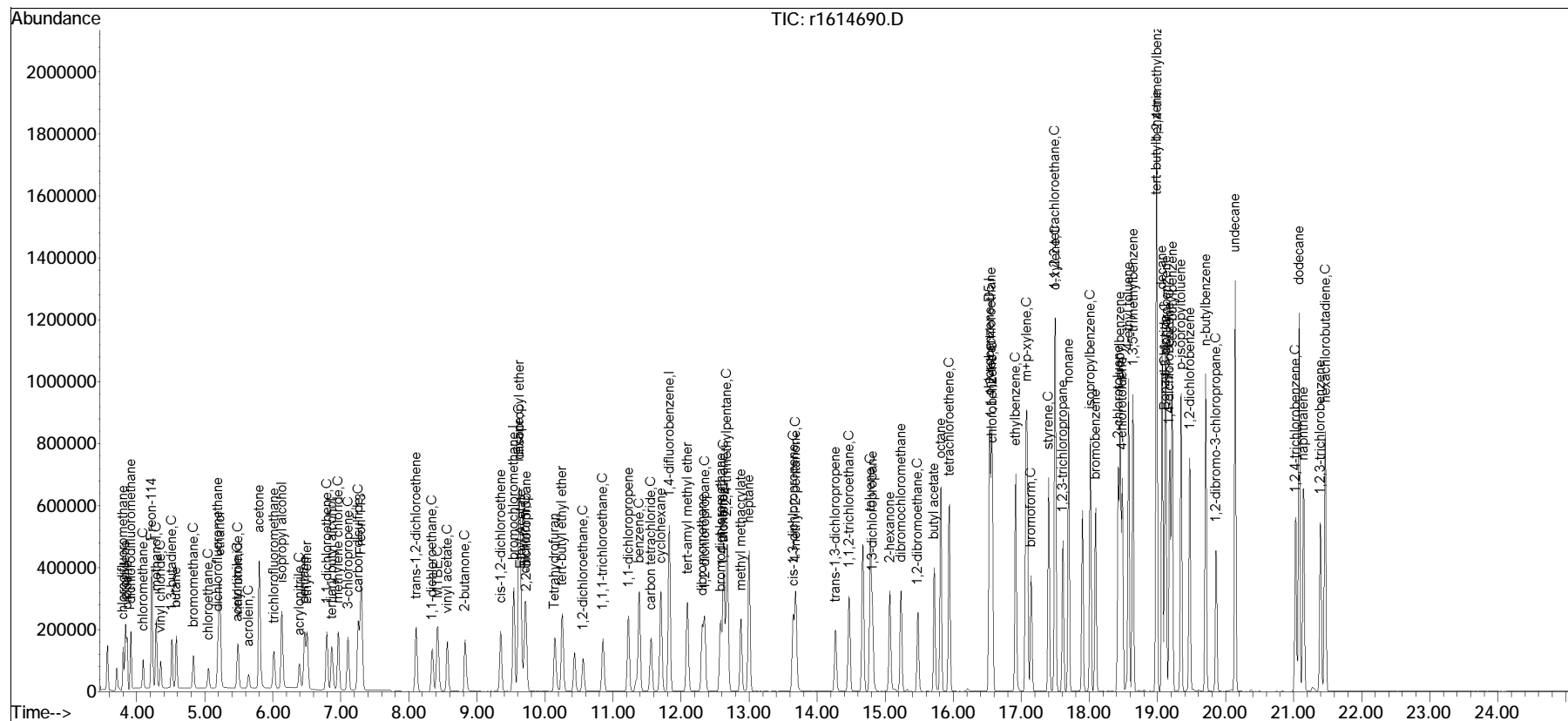
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
Data File : r1614690.D
Acq On    : 4 Jan 2020 12:17 PM
Operator  : AIRLAB16:RY
Sample    : WG1327071-2,3,250,250
Misc      : WG1327071,ICAL16311
ALS Vial  : 0 Sample Multiplier: 1
```

Quant Time: Jan 04 14:46:51 2020
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 21 15:01:46 2019
Response via : Initial Calibration

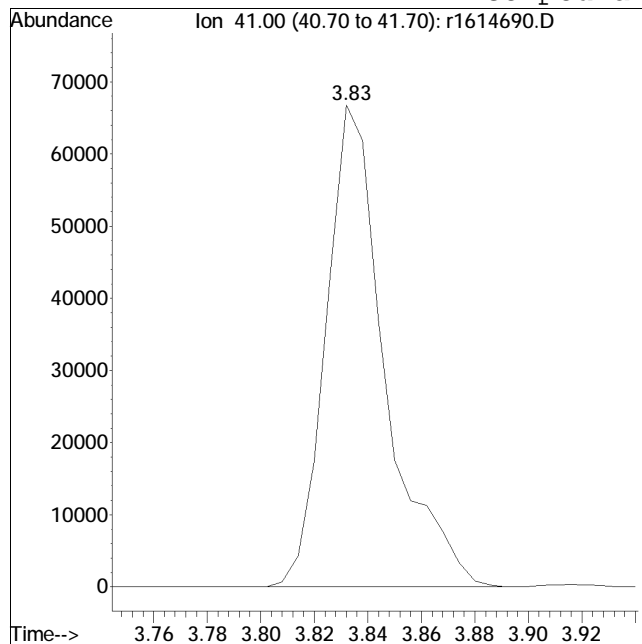
Sub List : Default-LCS-AP2 - All compounds listed\200104T\r1614690.D



Manual Integration/Negative Proof Report

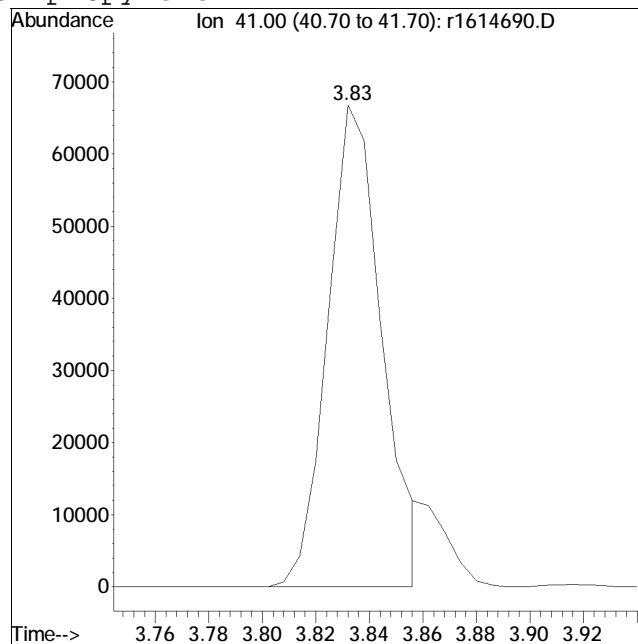
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614690.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:2: 7 Instrument :
Sample : WG1327071-2,3,250,250 Quant Date : 1/4/2020 2:46 pm

Compound #3: propylene



Original Peak Response = 102428

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



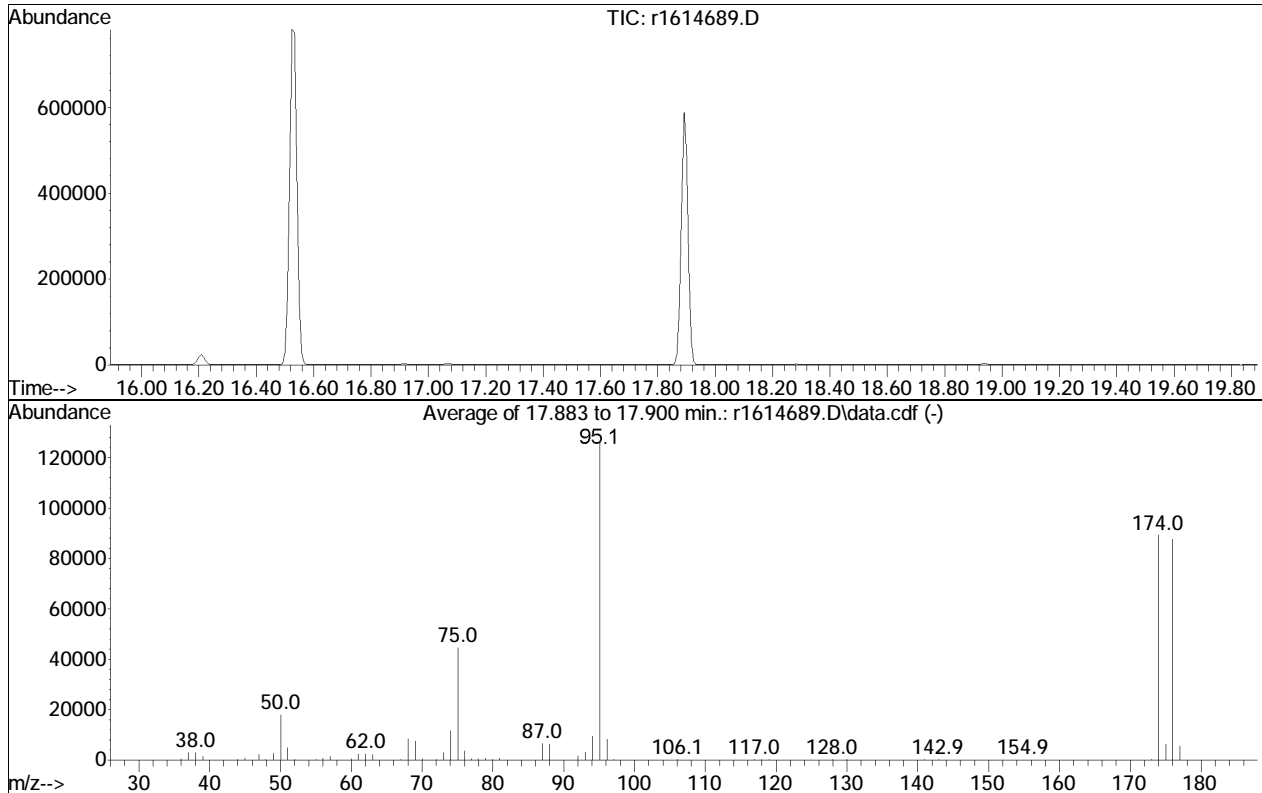
Manual Peak Response = 93963 M6

BFB

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614689.D
 Acq On : 4 Jan 2020 11:34 AM
 Operator : AIRLAB16:RY
 Sample : WG1327071-1,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 21 15:01:46 2019



Spectrum Information: Average of 17.883 to 17.900 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50 | 95 | 8 | 40 | 14.2 | 17980 | PASS |
| 75 | 95 | 30 | 66 | 35.2 | 44621 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 126725 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 8373 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 434 | PASS |
| 174 | 95 | 50 | 120 | 70.6 | 89412 | PASS |
| 175 | 174 | 4 | 9 | 7.0 | 6263 | PASS |
| 176 | 174 | 93 | 101 | 98.0 | 87614 | PASS |
| 177 | 176 | 5 | 9 | 6.3 | 5537 | PASS |

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614692.D
 Acq On : 4 Jan 2020 2:59 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-4,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:28:19 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 218188 | 10.000 | ppbV | 0.03 |
| Standard Area = 223987 | | | Recovery = | | 97.41% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 592776 | 10.000 | ppbV | 0.03 |
| Standard Area = 600707 | | | Recovery = | | 98.68% | |
| 67) chlorobenzene-D5 | 16.53 | 54 | 73101 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery = | | 96.94% | |

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. |
| 13) bromomethane | 0.00 | 0 | N.D. |
| 14) chloroethane | 5.03 | 0 | N.D. |
| 15) ethanol | 5.24 | 0 | N.D. |
| 17) vinyl bromide | 0.00 | 0 | N.D. |
| 19) acetone | 5.83 | 0 | N.D. |
| 21) trichlorofluoromethane | 0.00 | 0 | N.D. |
| 22) isopropyl alcohol | 6.12 | 0 | N.D. |
| 26) 1,1-dichloroethene | 0.00 | 0 | N.D. |
| 27) tertiary butyl alcohol | 0.00 | 0 | N.D. |
| 28) methylene chloride | 6.96 | 0 | N.D. |
| 29) 3-chloropropene | 0.00 | 0 | N.D. |
| 30) carbon disulfide | 7.26 | 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 | 0.00 | 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. |
| 42) 1,2-dichloroethane | 0.00 | 0 | N.D. |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614692.D
 Acq On : 4 Jan 2020 2:59 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-4,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:28:19 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|------|-------|----------|
| 44) hexane | 0.00 | | 0 | | N.D. | |
| 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 | 0.00 | | 0 | | N.D. | |
| 59) trichloroethene | 0.00 | | 0 | | N.D. | |
| 60) 2,2,4-trimethylpentane | 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 | 13.72 | | 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 | 14.78 | | 0 | | N.D. | |
| 72) 2-hexanone | 15.10 | | 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 | 16.92 | | 0 | | N.D. | |
| 83) m+p-xylene | 17.07 | | 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 | 17.50 | | 0 | | N.D. | |
| 96) 4-ethyl toluene | 0.00 | | 0 | | N.D. | |
| 97) 1,3,5-trimethylbenzene | 0.00 | | 0 | | N.D. | |
| 99) 1,2,4-trimethylbenzene | 18.99 | | 0 | | N.D. | |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. | |
| 102) 1,3-dichlorobenzene | 19.18 | | 0 | | N.D. | |
| 103) 1,4-dichlorobenzene | 19.18 | | 0 | | N.D. | |
| 107) 1,2-dichlorobenzene | 19.48 | | 0 | | N.D. | |
| 115) 1,2,4-trichlorobenzene | 21.03 | | 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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614692.D
 Acq On : 4 Jan 2020 2:59 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-4,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:28:19 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

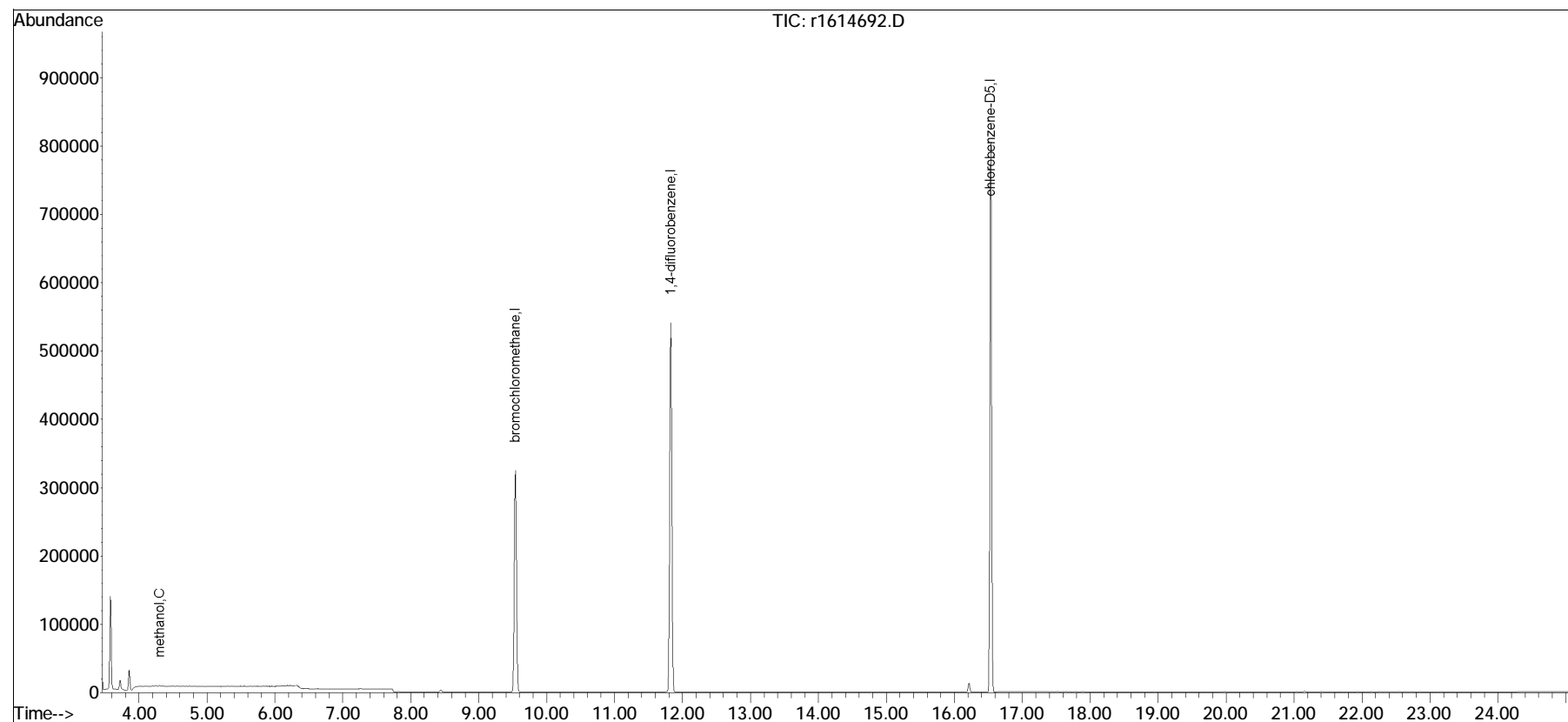
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
Data File : r1614692.D
Acq On : 4 Jan 2020 2:59 PM
Operator : AIRLAB16:RY
Sample : WG1327071-4,3,250,250
Misc : WG1327071,ICAL16311
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:28:19 2020
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 21 15:01:46 2019
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed\200104T\r1614690.D



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614692.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:2: 9 Instrument :
Sample : WG1327071-4,3,250,250 Quant Date : 1/5/2020 8:27 am

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

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614692.D
 Acq On : 4 Jan 2020 2:59 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-4,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Integration Parameters: rteint.p

Integrator: RTE

Smoothing : OFF

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 1 % of largest Peak

Max Peaks: 100

Peak Location: TOP

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

Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: r1614692.D

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1 | 9.542 | 1094 | 1102 | 1114 | rBV | 324453 | 725984 | 53.30% | 22.237% |
| 2 | 11.827 | 1390 | 1399 | 1410 | rVB | 540199 | 1152458 | 84.61% | 35.300% |
| 3 | 16.217 | 1956 | 1963 | 1969 | rVB | 13555 | 24238 | 1.78% | 0.742% |
| 4 | 16.533 | 1996 | 2001 | 2007 | rBV | 806078 | 1362043 | 100.00% | 41.720% |

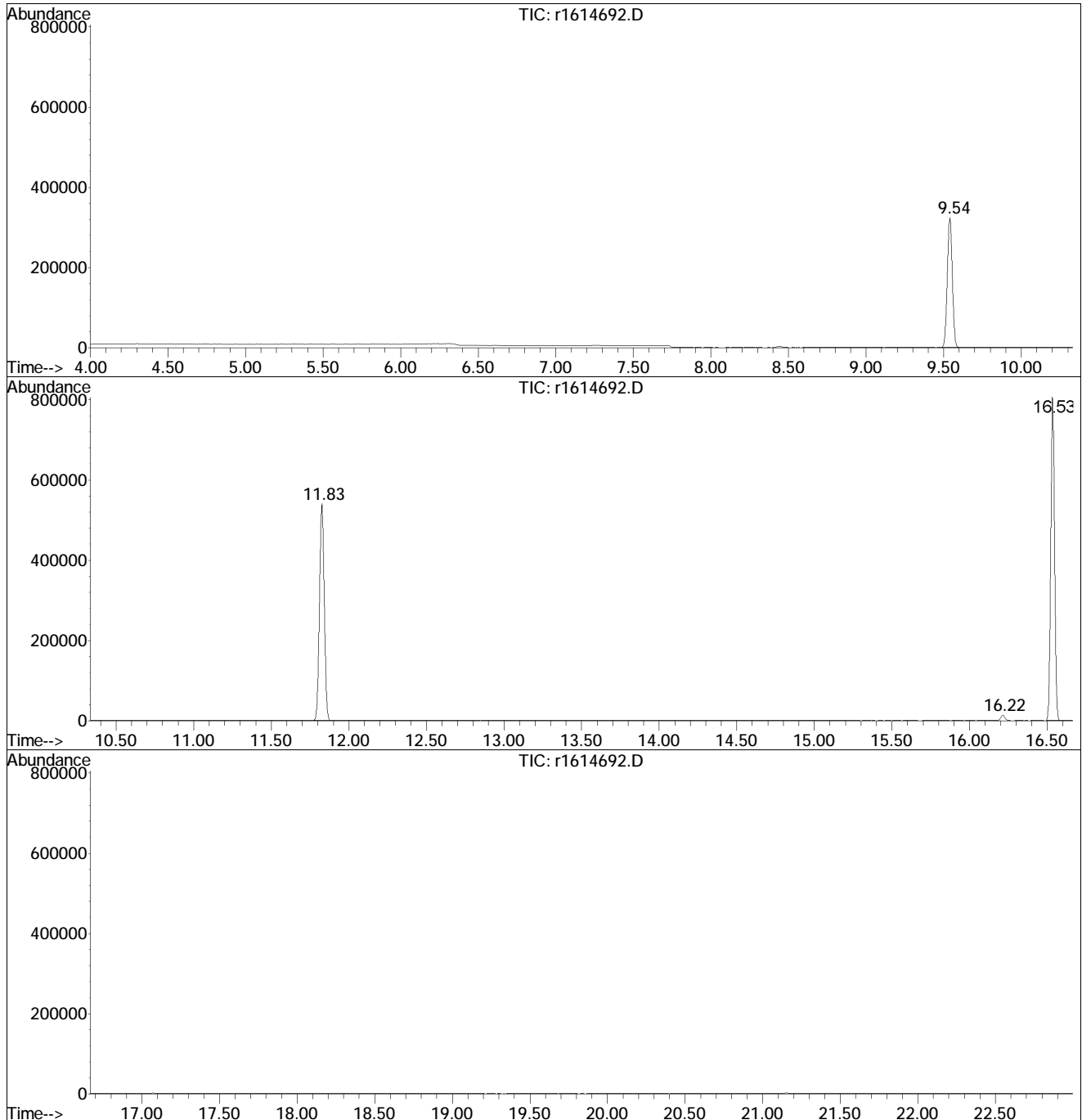
Sum of corrected areas: 3264723

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
Data File : r1614692.D
Acq On : 4 Jan 2020 2:59 PM
Operator : AIRLAB16:RY
Sample : WG1327071-4,3,250,250
Misc : WG1327071,ICAL16311
ALS Vial : 0 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.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\Airlab16\2020\01-JAN\200104T\
Data File : r1614692.D
Acq On : 4 Jan 2020 2:59 PM
Operator : AIRLAB16:RY
Sample : WG1327071-4,3,250,250
Misc : WG1327071,ICAL16311
ALS Vial : 0 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.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\Airlab16\2020\01-JAN\200104T\
 Data File : r1614692.D
 Acq On : 4 Jan 2020 2:59 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-4,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

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

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- | | | |
|------------------|----|---------|-------|----------|------------------------|----|------|------|
| | | | | | # | RT | Resp | Conc |
| ----- | | | | | | | | |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-3,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | Amount | Calc. | %Dev | Area% | Dev(min) |
|------|--------------------------|--------|--------|------|-------|----------|
| 1 I | bromochloromethane | 10.000 | 10.000 | 0.0 | 84 | 0.03 |
| 2 | chlorodifluoromethane | 10.000 | 8.194 | 18.1 | 68 | 0.01 |
| 3 | propylene | 10.000 | 10.568 | -5.7 | 87 | 0.01 |
| 4 | propane | 10.000 | 8.064 | 19.4 | 67 | 0.02 |
| 5 | dichlorodifluoromethane | 10.000 | 8.042 | 19.6 | 65 | 0.02 |
| 6 C | chloromethane | 10.000 | 8.672 | 13.3 | 72 | 0.02 |
| 7 | Freon-114 | 10.000 | 8.826 | 11.7 | 72 | 0.02 |
| 8 C | methanol | 50.000 | 37.476 | 25.0 | 59 | 0.02 |
| 9 C | vinyl chloride | 10.000 | 8.761 | 12.4 | 73 | 0.02 |
| 10 C | 1,3-butadiene | 10.000 | 8.249 | 17.5 | 69 | 0.02 |
| 11 | butane | 10.000 | 8.059 | 19.4 | 68 | 0.02 |
| 13 C | bromomethane | 10.000 | 8.523 | 14.8 | 71 | 0.02 |
| 14 C | chloroethane | 10.000 | 8.292 | 17.1 | 71 | 0.02 |
| 15 | ethanol | 50.000 | 39.492 | 21.0 | 63 | 0.02 |
| 16 | dichlorofluoromethane | 10.000 | 7.614 | 23.9 | 65 | 0.02 |
| 17 C | vinyl bromide | 10.000 | 8.084 | 19.2 | 67 | 0.02 |
| 18 C | acrolein | 10.000 | 7.137 | 28.6 | 60 | 0.02 |
| 19 | acetone | 50.000 | 35.997 | 28.0 | 57 | 0.02 |
| 20 C | acetonitrile | 10.000 | 7.346 | 26.5 | 66 | 0.02 |
| 21 | trichlorofluoromethane | 10.000 | 7.726 | 22.7 | 65 | 0.03 |
| 22 | isopropyl alcohol | 25.000 | 19.233 | 23.1 | 62 | 0.03 |
| 23 C | acrylonitrile | 10.000 | 7.326 | 26.7 | 62 | 0.02 |
| 24 | pentane | 10.000 | 7.269 | 27.3 | 64 | 0.03 |
| 25 | ethyl ether | 10.000 | 7.291 | 27.1 | 60 | 0.03 |
| 26 C | 1,1-dichloroethene | 10.000 | 9.001 | 10.0 | 73 | 0.02 |
| 27 | tertiary butyl alcohol | 10.000 | 8.181 | 18.2 | 67 | 0.02 |
| 28 C | methylene chloride | 10.000 | 9.633 | 3.7 | 80 | 0.02 |
| 29 C | 3-chloropropene | 10.000 | 9.792 | 2.1 | 78 | 0.03 |
| 30 C | carbon disulfide | 10.000 | 9.481 | 5.2 | 77 | 0.03 |
| 31 | Freon 113 | 10.000 | 9.943 | 0.6 | 81 | 0.03 |
| 32 | trans-1,2-dichloroethene | 10.000 | 8.922 | 10.8 | 73 | 0.03 |
| 33 C | 1,1-dichloroethane | 10.000 | 9.254 | 7.5 | 75 | 0.03 |
| 34 C | MTBE | 10.000 | 8.790 | 12.1 | 71 | 0.03 |
| 35 C | vinyl acetate | 10.000 | 10.310 | -3.1 | 80 | 0.03 |
| 36 C | 2-butanone | 10.000 | 9.720 | 2.8 | 77 | 0.02 |
| 37 | cis-1,2-dichloroethene | 10.000 | 9.423 | 5.8 | 76 | 0.03 |
| 38 | Ethyl Acetate | 10.000 | 10.201 | -2.0 | 82 | 0.03 |
| 39 C | chloroform | 10.000 | 9.299 | 7.0 | 76 | 0.03 |
| 40 | Tetrahydrofuran | 10.000 | 9.569 | 4.3 | 75 | 0.03 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-3,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | Amount | Calc. | %Dev | Area% | Dev(min) |
|------|---------------------------|--------|--------|-------|-------|----------|
| 41 | 2,2-dichloropropane | 10.000 | 7.063 | 29.4 | 57 | 0.03 |
| 42 C | 1,2-dichloroethane | 10.000 | 8.101 | 19.0 | 65 | 0.03 |
| 43 I | 1,4-difluorobenzene | 10.000 | 10.000 | 0.0 | 85 | 0.03 |
| 44 C | hexane | 10.000 | 9.292 | 7.1 | 78 | 0.03 |
| 45 | diisopropyl ether | 10.000 | 8.701 | 13.0 | 72 | 0.03 |
| 46 | tert-butyl ethyl ether | 10.000 | 7.987 | 20.1 | 66 | 0.03 |
| 48 C | 1,1,1-trichloroethane | 10.000 | 8.657 | 13.4 | 72 | 0.03 |
| 49 | 1,1-dichloropropene | 10.000 | 8.888 | 11.1 | 74 | 0.03 |
| 50 C | benzene | 10.000 | 9.418 | 5.8 | 79 | 0.03 |
| 52 C | carbon tetrachloride | 10.000 | 9.033 | 9.7 | 74 | 0.03 |
| 53 | cyclohexane | 10.000 | 9.532 | 4.7 | 80 | 0.03 |
| 54 | tert-amyl methyl ether | 10.000 | 8.009 | 19.9 | 66 | 0.03 |
| 55 | dibromomethane | 10.000 | 9.098 | 9.0 | 77 | 0.03 |
| 56 C | 1,2-dichloropropane | 10.000 | 9.797 | 2.0 | 81 | 0.03 |
| 57 | bromodichloromethane | 10.000 | 9.479 | 5.2 | 79 | 0.03 |
| 58 C | 1,4-dioxane | 10.000 | 9.986 | 0.1 | 83 | 0.03 |
| 59 C | trichloroethene | 10.000 | 9.721 | 2.8 | 82 | 0.03 |
| 60 C | 2,2,4-trimethylpentane | 10.000 | 9.429 | 5.7 | 80 | 0.03 |
| 61 | methyl methacrylate | 10.000 | 7.421 | 25.8 | 56 | 0.03 |
| 62 | heptane | 10.000 | 9.782 | 2.2 | 80 | 0.03 |
| 63 C | cis-1,3-dichloropropene | 10.000 | 9.906 | 0.9 | 82 | 0.03 |
| 64 C | 4-methyl-2-pentanone | 10.000 | 10.044 | -0.4 | 81 | 0.03 |
| 65 | trans-1,3-dichloropropene | 10.000 | 8.051 | 19.5 | 66 | 0.03 |
| 66 C | 1,1,2-trichloroethane | 10.000 | 10.305 | -3.0 | 87 | 0.03 |
| 67 I | chlorobenzene-D5 | 10.000 | 10.000 | 0.0 | 76 | 0.03 |
| 68 C | toluene | 10.000 | 10.971 | -9.7 | 82 | 0.03 |
| 71 | 1,3-dichloropropane | 10.000 | 10.078 | -0.8 | 74 | 0.03 |
| 72 | 2-hexanone | 10.000 | 11.447 | -14.5 | 76 | 0.03 |
| 74 | dibromochloromethane | 10.000 | 12.342 | -23.4 | 88 | 0.02 |
| 75 C | 1,2-dibromoethane | 10.000 | 11.469 | -14.7 | 83 | 0.02 |
| 76 | butyl acetate | 10.000 | 10.440 | -4.4 | 74 | 0.02 |
| 77 | octane | 10.000 | 10.178 | -1.8 | 76 | 0.03 |
| 78 C | tetrachloroethene | 10.000 | 12.954 | -29.5 | 95 | 0.03 |
| 79 | 1,1,1,2-tetrachloroethane | 10.000 | 10.812 | -8.1 | 78 | 0.02 |
| 80 C | chlorobenzene | 10.000 | 11.345 | -13.5 | 82 | 0.02 |
| 81 C | ethylbenzene | 10.000 | 11.376 | -13.8 | 83 | 0.03 |
| 83 C | m+p-xylene | 20.000 | 22.400 | -12.0 | 83 | 0.02 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-3,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 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 | Amount | Calc. | %Dev | Area% | Dev(min) |
|-------|-----------------------------|--------|--------|--------|-------|----------|
| 84 C | bromoform | 10.000 | 13.290 | -32.9# | 93 | 0.02 |
| 85 C | styrene | 10.000 | 11.610 | -16.1 | 83 | 0.02 |
| 86 C | 1,1,2,2-tetrachloroethane | 10.000 | 12.521 | -25.2 | 90 | 0.03 |
| 87 C | o-xylene | 10.000 | 11.510 | -15.1 | 84 | 0.02 |
| 88 | 1,2,3-trichloropropane | 10.000 | 10.906 | -9.1 | 79 | 0.03 |
| 89 | nonane | 10.000 | 10.818 | -8.2 | 78 | 0.02 |
| 91 C | isopropylbenzene | 10.000 | 11.242 | -12.4 | 81 | 0.02 |
| 92 | bromobenzene | 10.000 | 10.907 | -9.1 | 79 | 0.02 |
| 93 | 2-chlorotoluene | 10.000 | 10.649 | -6.5 | 77 | 0.03 |
| 94 | n-propylbenzene | 10.000 | 10.778 | -7.8 | 77 | 0.02 |
| 95 | 4-chlorotoluene | 10.000 | 10.764 | -7.6 | 78 | 0.03 |
| 96 | 4-ethyl toluene | 10.000 | 12.012 | -20.1 | 83 | 0.02 |
| 97 | 1,3,5-trimethylbenzene | 10.000 | 11.765 | -17.7 | 84 | 0.02 |
| 98 | tert-butylbenzene | 10.000 | 11.019 | -10.2 | 78 | 0.02 |
| 99 | 1,2,4-trimethylbenzene | 10.000 | 12.188 | -21.9 | 83 | 0.03 |
| 100 | decane | 10.000 | 10.825 | -8.2 | 78 | 0.02 |
| 101 C | Benzyl Chloride | 10.000 | 11.946 | -19.5 | 71 | 0.03 |
| 102 | 1,3-dichlorobenzene | 10.000 | 12.430 | -24.3 | 85 | 0.02 |
| 103 C | 1,4-dichlorobenzene | 10.000 | 12.384 | -23.8 | 84 | 0.02 |
| 104 | sec-butylbenzene | 10.000 | 11.404 | -14.0 | 80 | 0.02 |
| 106 | p-isopropyltoluene | 10.000 | 10.382 | -3.8 | 73 | 0.02 |
| 107 | 1,2-dichlorobenzene | 10.000 | 12.519 | -25.2 | 86 | 0.03 |
| 108 | n-butylbenzene | 10.000 | 12.282 | -22.8 | 83 | 0.02 |
| 111 C | 1,2-dibromo-3-chloropropane | 10.000 | 11.663 | -16.6 | 76 | 0.02 |
| 112 | undecane | 10.000 | 11.294 | -12.9 | 78 | 0.02 |
| 114 | dodecane | 10.000 | 12.398 | -24.0 | 75 | 0.02 |
| 115 C | 1,2,4-trichlorobenzene | 10.000 | 13.965 | -39.6# | 79 | 0.02 |
| 116 | naphthalene | 10.000 | 12.310 | -23.1 | 73 | 0.02 |
| 117 | 1,2,3-trichlorobenzene | 10.000 | 12.799 | -28.0 | 78 | 0.02 |
| 119 C | hexachlorobutadiene | 10.000 | 12.651 | -26.5 | 83 | 0.02 |

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-3,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|---------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 223987 | 10.000 | ppbV | 0.03 |
| Standard Area = 223987 | | | Recovery | = | 100.00% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 600707 | 10.000 | ppbV | 0.03 |
| Standard Area = 600707 | | | Recovery | = | 100.00% | |
| 67) chlorobenzene-D5 | 16.53 | 54 | 75409 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery | = | 100.00% | |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue | |
|------------------------------|-------|-----|--------|--------|--------|-----|
| 5) dichlorodifluoromethane | 3.92 | 85 | 133633 | 8.042 | ppbV | 99 |
| 6) chloromethane | 4.10 | 50 | 87558 | 8.672 | ppbV | 98 |
| 7) Freon-114 | 4.22 | 85 | 196581 | 8.826 | ppbV | 99 |
| 9) vinyl chloride | 4.35 | 62 | 82080 | 8.761 | ppbV | 89 |
| 10) 1,3-butadiene | 4.52 | 54 | 73907 | 8.249 | ppbV | 94 |
| 13) bromomethane | 4.83 | 94 | 71410 | 8.523 | ppbV | 99 |
| 14) chloroethane | 5.06 | 64 | 38966 | 8.292 | ppbV | 94 |
| 15) ethanol | 5.22 | 31 | 285193 | 39.492 | ppbV | 94 |
| 17) vinyl bromide | 5.49 | 106 | 73833 | 8.084 | ppbV | 100 |
| 19) acetone | 5.80 | 43 | 481341 | 35.997 | ppbV | 96 |
| 21) trichlorofluoromethane | 6.02 | 101 | 103393 | 7.726 | ppbV | 97 |
| 22) isopropyl alcohol | 6.13 | 45 | 331211 | 19.233 | ppbV | 99 |
| 26) 1,1-dichloroethene | 6.79 | 61 | 120837 | 9.001 | ppbV | 92 |
| 27) tertiary butyl alcohol | 6.87 | 59 | 134506 | 8.181 | ppbV # | 91 |
| 28) methylene chloride | 6.96 | 49 | 131459 | 9.633 | ppbV | 96 |
| 29) 3-chloropropene | 7.11 | 41 | 157193 | 9.792 | ppbV | 95 |
| 30) carbon disulfide | 7.26 | 76 | 341836 | 9.481 | ppbV | 96 |
| 31) Freon 113 | 7.30 | 101 | 195558 | 9.943 | ppbV | 96 |
| 32) trans-1,2-dichloroethene | 8.11 | 61 | 130501 | 8.922 | ppbV | 95 |
| 33) 1,1-dichloroethane | 8.34 | 63 | 163074 | 9.254 | ppbV | 100 |
| 34) MTBE | 8.43 | 73 | 252724 | 8.790 | ppbV | 98 |
| 36) 2-butanone | 8.82 | 43 | 252219 | 9.720 | ppbV | 98 |
| 37) cis-1,2-dichloroethene | 9.35 | 61 | 120369 | 9.423 | ppbV | 96 |
| 38) Ethyl Acetate | 9.65 | 61 | 38303 | 10.201 | ppbV | 82 |
| 39) chloroform | 9.71 | 83 | 163639 | 9.299 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.14 | 42 | 150816 | 9.569 | ppbV | 98 |
| 42) 1,2-dichloroethane | 10.56 | 62 | 76463 | 8.101 | ppbV # | 90 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-3,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 44) hexane | 9.62 | 57 | 169336 | 9.292 | ppbV | 98 |
| 48) 1,1,1-trichloroethane | 10.85 | 97 | 123330 | 8.657 | ppbV | 96 |
| 50) benzene | 11.39 | 78 | 365267 | 9.418 | ppbV | 99 |
| 52) carbon tetrachloride | 11.56 | 117 | 124480 | 9.033 | ppbV | 98 |
| 53) cyclohexane | 11.70 | 56 | 184579 | 9.532 | ppbV | 97 |
| 56) 1,2-dichloropropane | 12.35 | 63 | 121292 | 9.797 | ppbV | 98 |
| 57) bromodichloromethane | 12.58 | 83 | 183851 | 9.479 | ppbV | 99 |
| 58) 1,4-dioxane | 12.61 | 88 | 81935 | 9.986 | ppbV | 94 |
| 59) trichloroethene | 12.63 | 130 | 153520 | 9.721 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 12.67 | 57 | 551890 | 9.429 | ppbV | 98 |
| 62) heptane | 13.00 | 43 | 267864 | 9.782 | ppbV | 99 |
| 63) cis-1,3-dichloropropene | 13.65 | 75 | 189029 | 9.906 | ppbV | 96 |
| 64) 4-methyl-2-pentanone | 13.68 | 43 | 318051 | 10.044 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.27 | 75 | 139493 | 8.051 | ppbV | 96 |
| 66) 1,1,2-trichloroethane | 14.47 | 97 | 140889 | 10.305 | ppbV | 97 |
| 68) toluene | 14.78 | 91 | 394612 | 10.971 | ppbV | 99 |
| 72) 2-hexanone | 15.07 | 43 | 275919 | 11.447 | ppbV | 97 |
| 74) dibromochloromethane | 15.23 | 129 | 213861 | 12.342 | ppbV | 99 |
| 75) 1,2-dibromoethane | 15.48 | 107 | 219049 | 11.469 | ppbV | 100 |
| 78) tetrachloroethene | 15.94 | 166 | 205349 | 12.954 | ppbV | 94 |
| 80) chlorobenzene | 16.57 | 112 | 355029 | 11.345 | ppbV | 99 |
| 81) ethylbenzene | 16.92 | 91 | 512254 | 11.376 | ppbV | 98 |
| 83) m+p-xylene | 17.07 | 91 | 826324 | 22.400 | ppbV | 99 |
| 84) bromoform | 17.14 | 173 | 190943 | 13.290 | ppbV | 94 |
| 85) styrene | 17.40 | 104 | 391023 | 11.610 | ppbV | 98 |
| 86) 1,1,2,2-tetrachloroethane | 17.49 | 83 | 340839 | 12.521 | ppbV | 98 |
| 87) o-xylene | 17.50 | 91 | 426674 | 11.510 | ppbV | 97 |
| 96) 4-ethyl toluene | 18.57 | 105 | 692619 | 12.012 | ppbV | 99 |
| 97) 1,3,5-trimethylbenzene | 18.64 | 105 | 566069 | 11.765 | ppbV | 99 |
| 99) 1,2,4-trimethylbenzene | 18.99 | 105 | 562310 | 12.188 | ppbV | 94 |
| 101) Benzyl Chloride | 19.11 | 91 | 309974 | 11.946 | ppbV | 99 |
| 102) 1,3-dichlorobenzene | 19.13 | 146 | 393296 | 12.430 | ppbV | 99 |
| 103) 1,4-dichlorobenzene | 19.18 | 146 | 377631 | 12.384 | ppbV | 96 |
| 107) 1,2-dichlorobenzene | 19.48 | 146 | 373057 | 12.519 | ppbV | 98 |
| 115) 1,2,4-trichlorobenzene | 21.02 | 180 | 204931 | 13.965 | ppbV | 98 |
| 119) hexachlorobutadiene | 21.47 | 225 | 193521 | 12.651 | ppbV | 98 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614690.D
 Acq On : 4 Jan 2020 12:17 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-3,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:46:51 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : Default-LCS-AP2 - All compounds listed

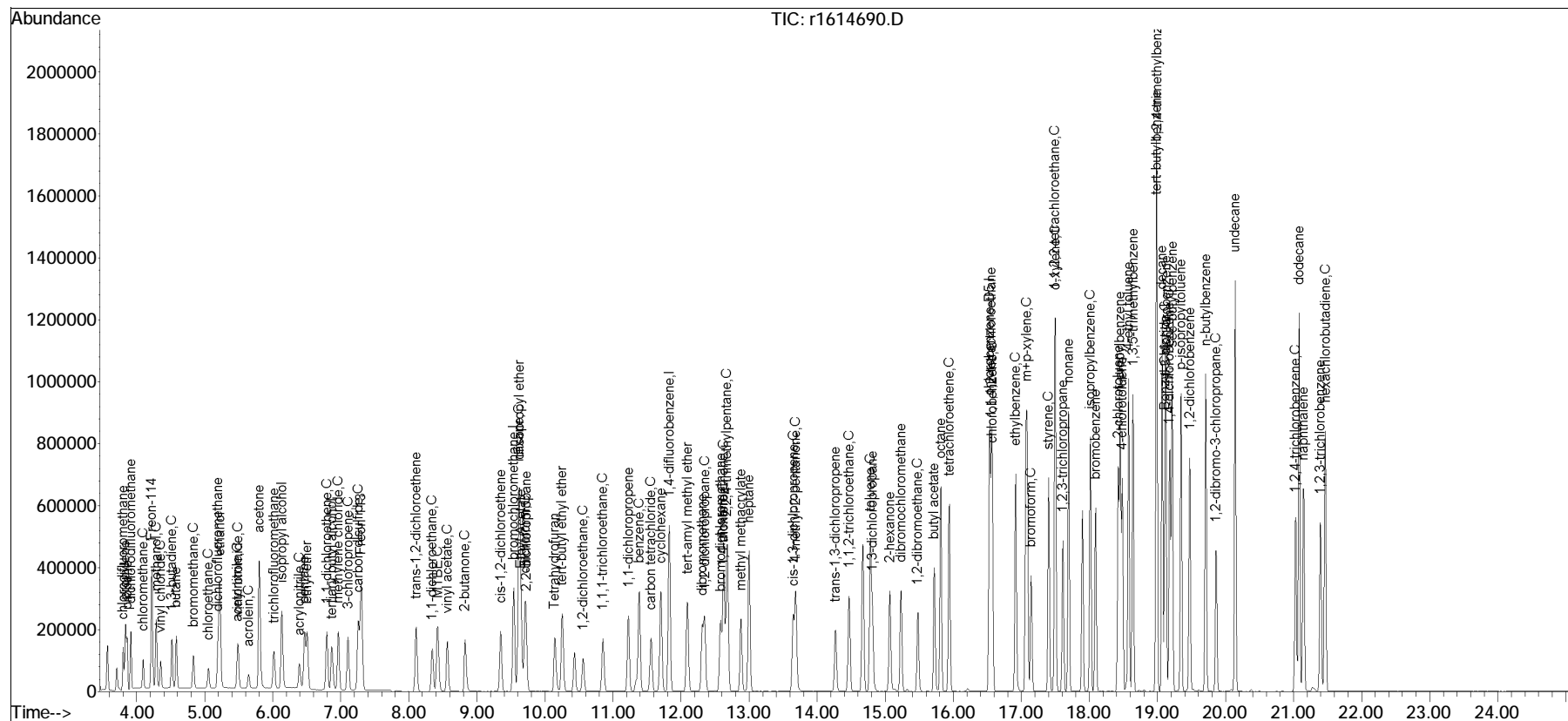
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

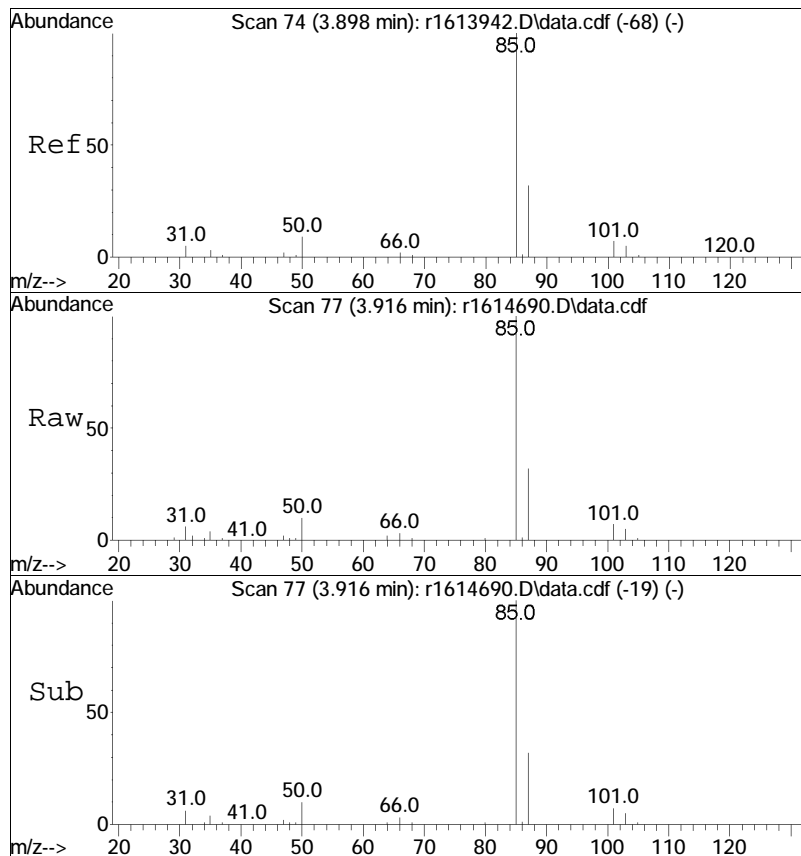
Quantitation Report (QT Reviewed)

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Data Path   : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
Data File  : rl614690.D
Acq On     :  4 Jan 2020   12:17 PM
Operator   : AIRLAB16:RY
Sample     : WG1327071-3,3,250,250
Misc       : WG1327071,ICAL16311
ALS Vial   : 0      Sample Multiplier: 1
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Quant Time: Jan 04 14:46:51 2020
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 21 15:01:46 2019
Response via : Initial Calibration

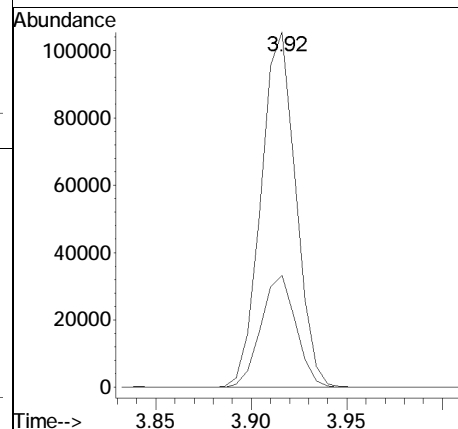
Sub List : Default-LCS-AP2 - All compounds listed\200104T\r1614690.D

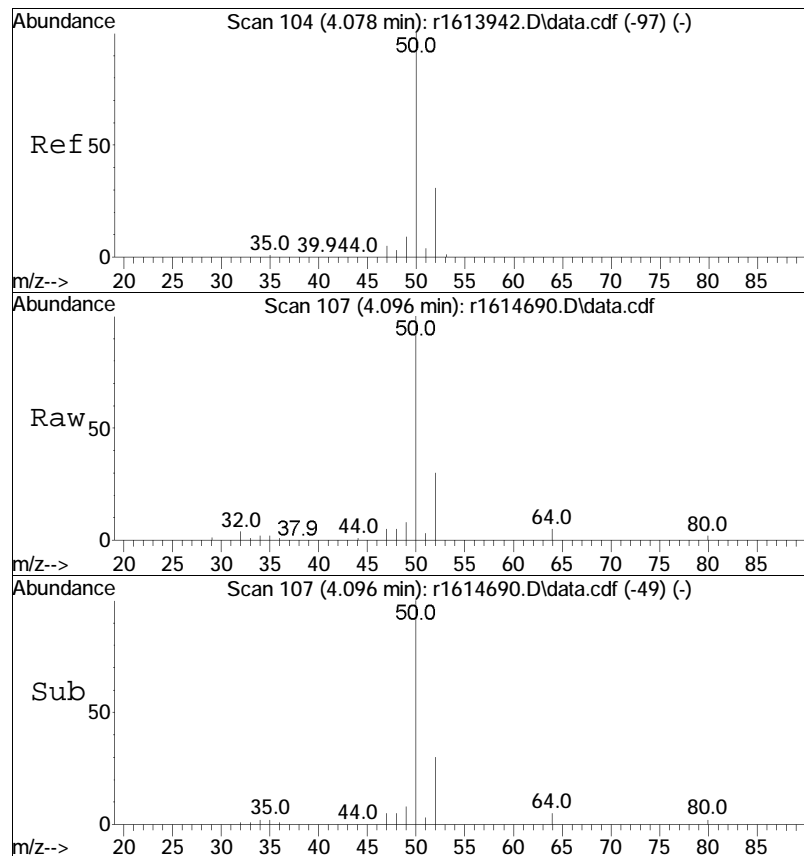




#5
dichlorodifluoromethane
Concen: 8.04 ppbV
RT: 3.92 min Scan# 77
Delta R.T. 0.018 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

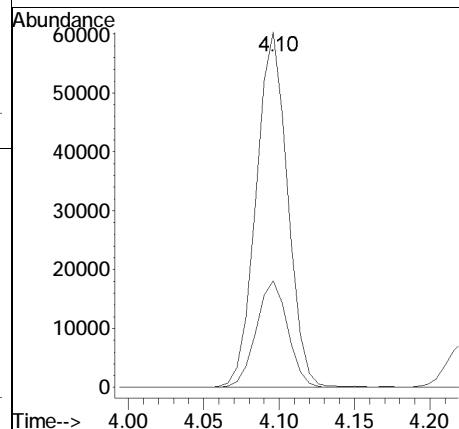
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 85 | 100 | | |
| 87 | 31.6 | 25.5 | 38.3 |

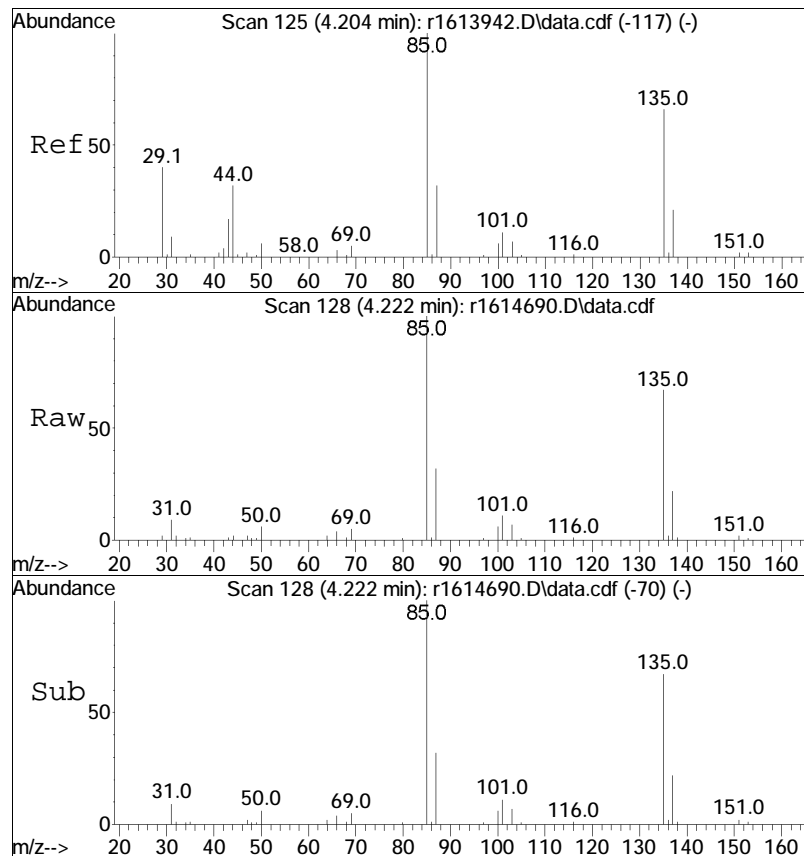




#6
 chloromethane
 Concen: 8.67 ppbV
 RT: 4.10 min Scan# 107
 Delta R.T. 0.018 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

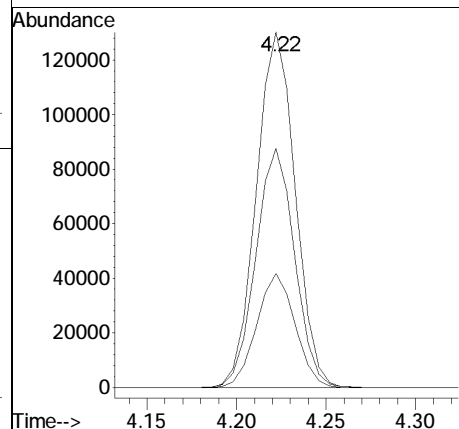
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50 | 100 | | |
| 52 | 30.0 | 24.8 | 37.2 |

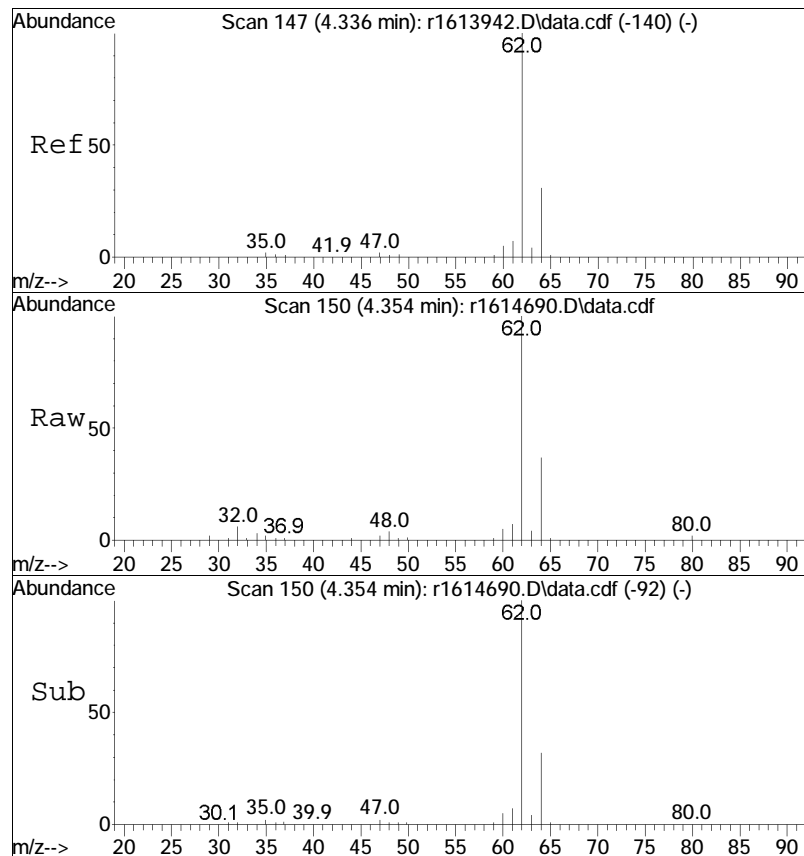




#7
 Freon-114
 Concen: 8.83 ppbV
 RT: 4.22 min Scan# 128
 Delta R.T. 0.018 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

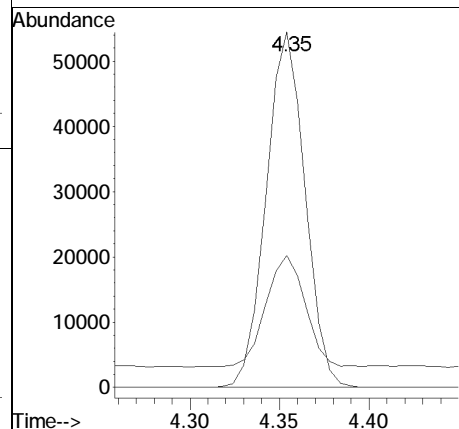
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 85 | Resp: | 196581 |
| Ion Ratio | Lower | Upper | |
| 85 | 100 | | |
| 87 | 32.1 | 25.3 | 37.9 |
| 135 | 67.3 | 52.8 | 79.2 |

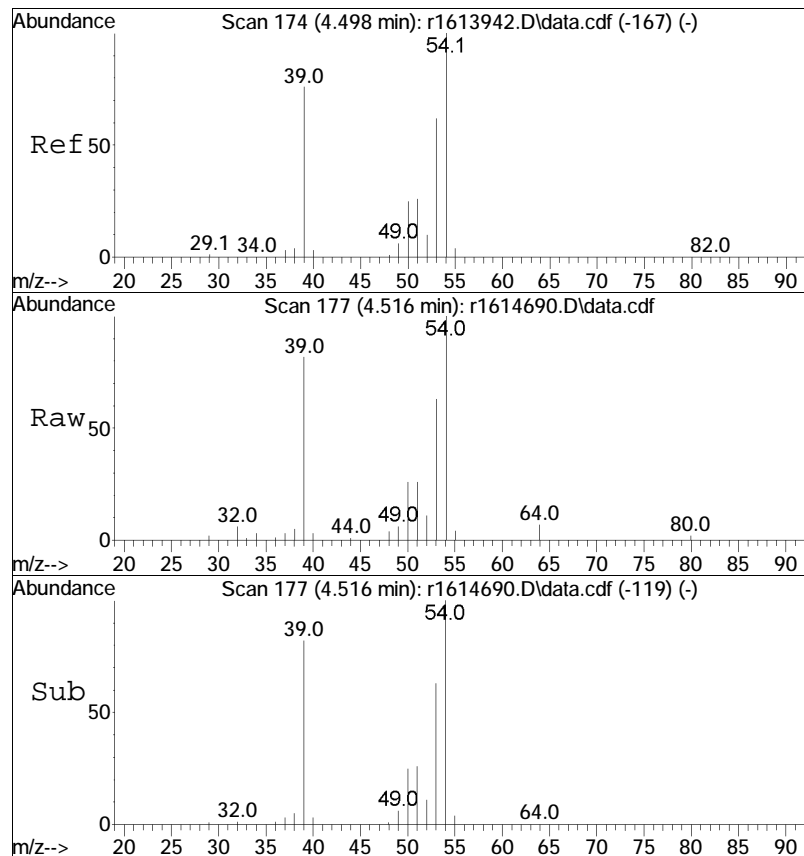




#9
vinyl chloride
Concen: 8.76 ppbV
RT: 4.35 min Scan# 150
Delta R.T. 0.018 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

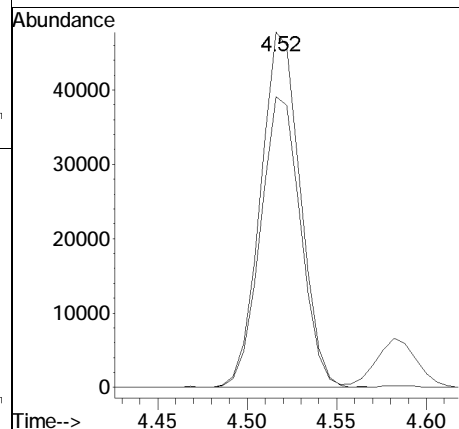
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62 | 100 | | |
| 64 | 37.2 | 24.9 | 37.3 |

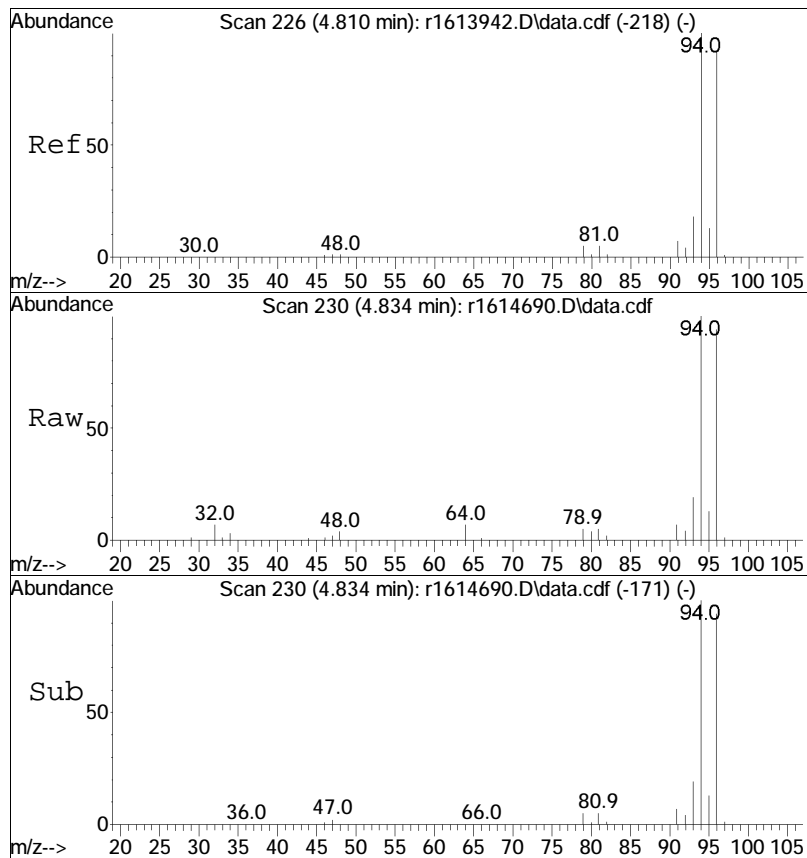




#10
 1,3-butadiene
 Concen: 8.25 ppbV
 RT: 4.52 min Scan# 177
 Delta R.T. 0.018 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

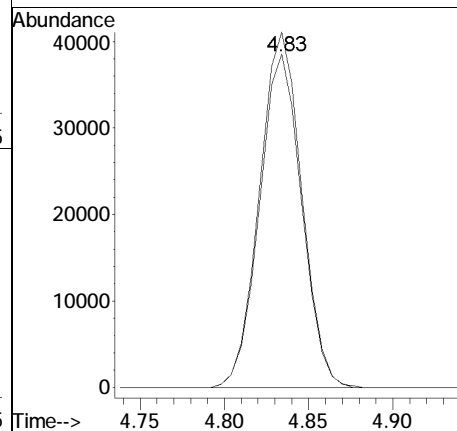
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 54 | 100 | | |
| 39 | 81.8 | 61.1 | 91.7 |

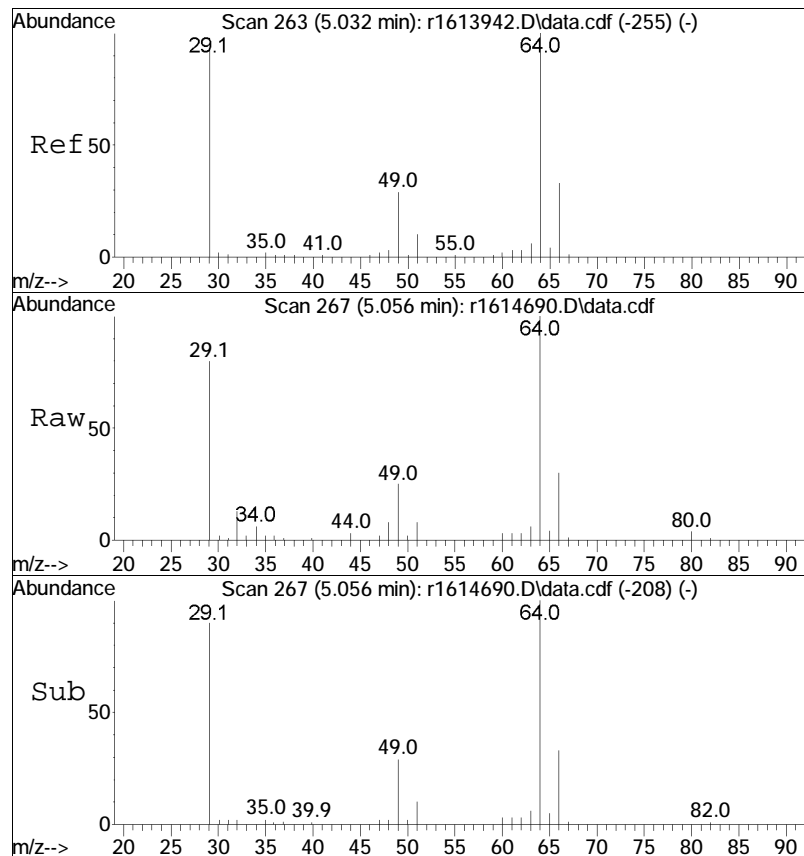




#13
 bromomethane
 Concen: 8.52 ppbV
 RT: 4.83 min Scan# 230
 Delta R.T. 0.024 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

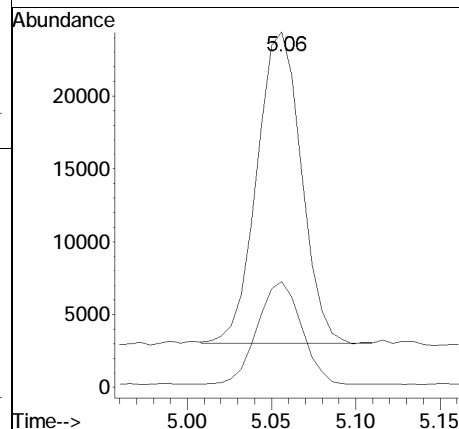
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 94 | 100 | | |
| 96 | 93.8 | 73.9 | 110.9 |

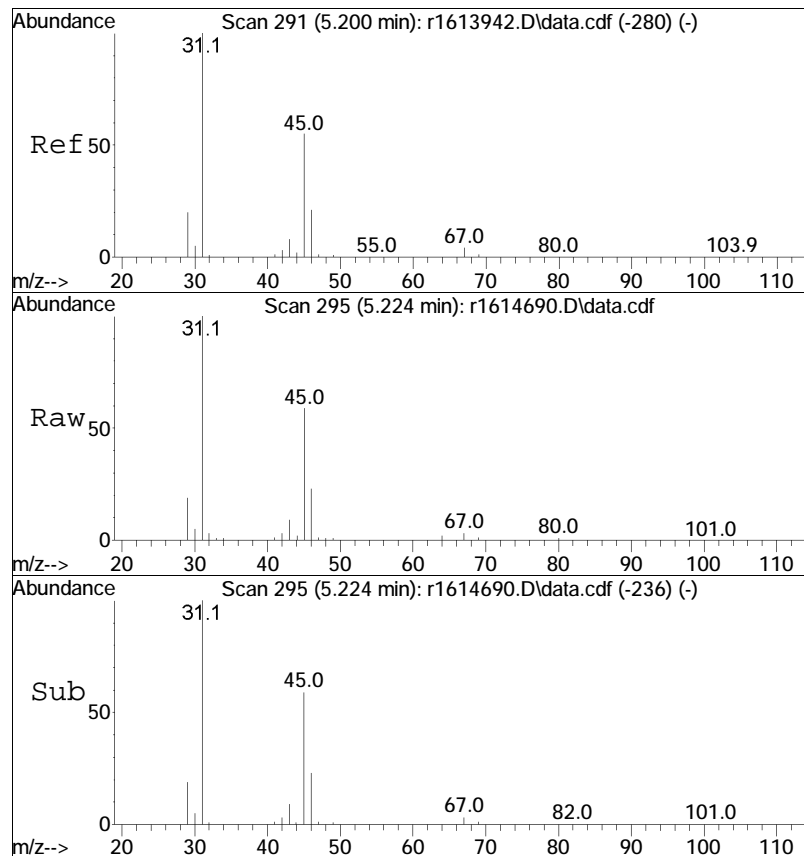




#14
 chloroethane
 Concen: 8.29 ppbV
 RT: 5.06 min Scan# 267
 Delta R.T. 0.024 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

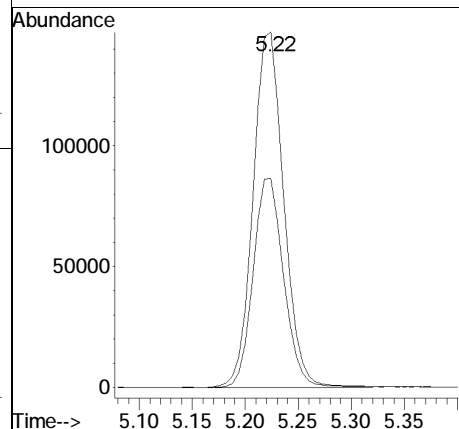
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 64 | 100 | | |
| 66 | 29.8 | 26.5 | 39.7 |

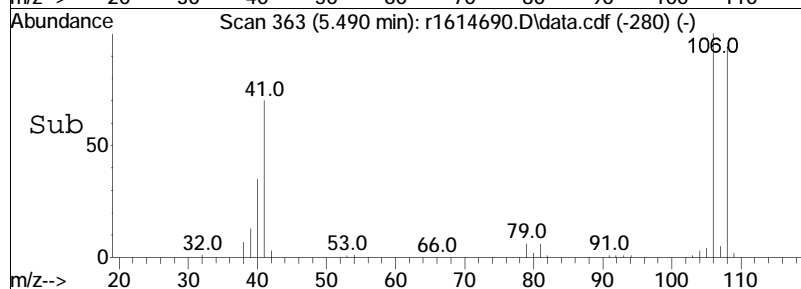
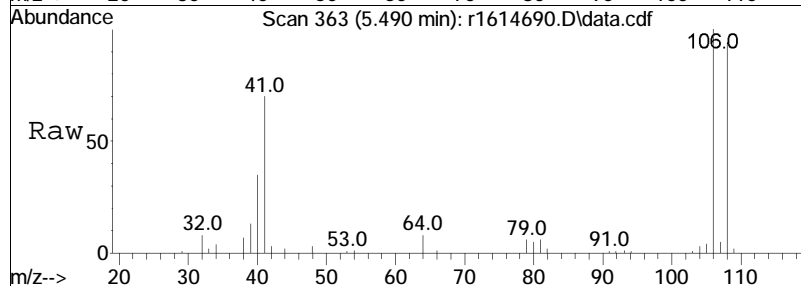
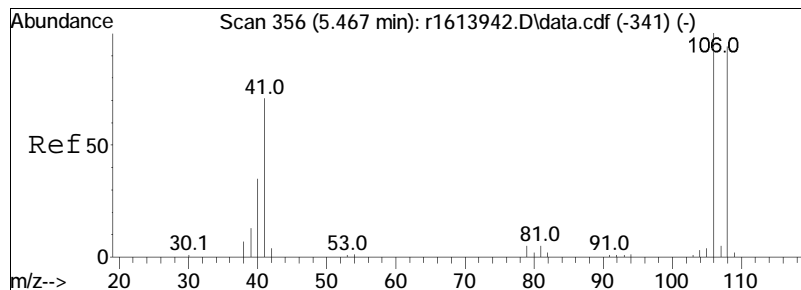




#15
 ethanol
 Concen: 39.49 ppbV
 RT: 5.22 min Scan# 295
 Delta R.T. 0.024 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

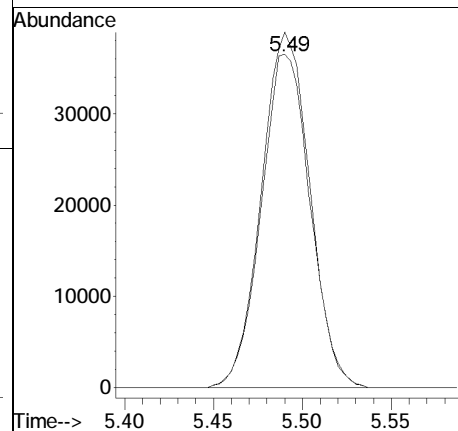
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 31 | Resp: | 285193 |
| Ion Ratio | Lower | Upper | |
| 31 | 100 | | |
| 45 | 58.8 | 43.7 | 65.5 |

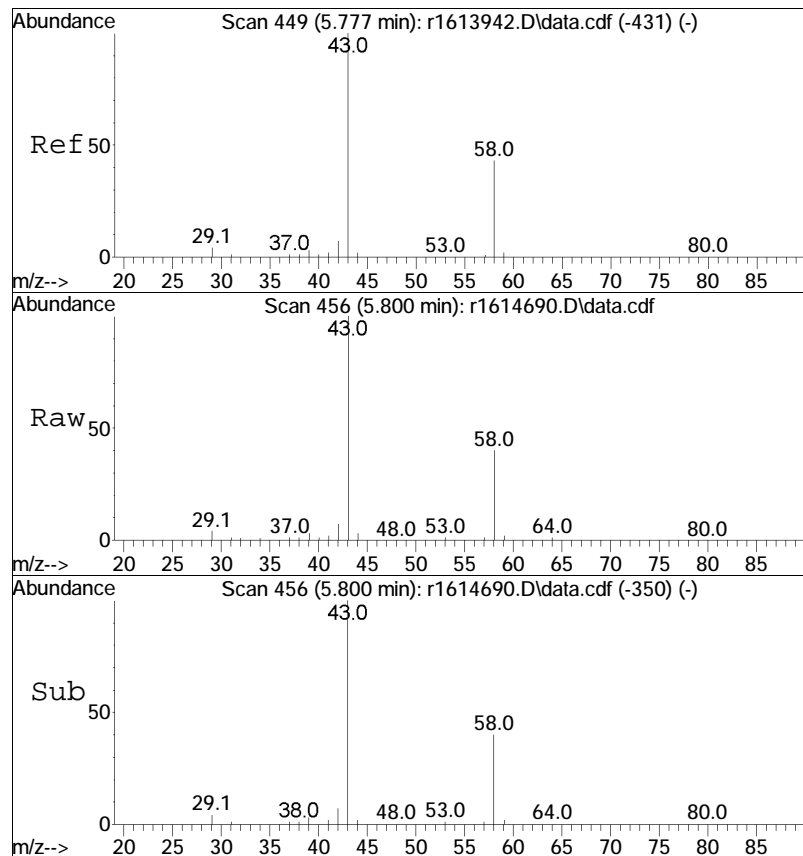




#17
vinyl bromide
Concen: 8.08 ppbV
RT: 5.49 min Scan# 363
Delta R.T. 0.023 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

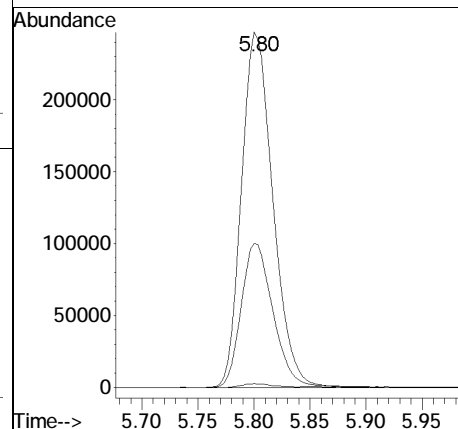
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|-------|-------|-------|
| 106 | 100 | 73833 | | |
| 108 | 93.7 | 75.4 | 113.0 | |

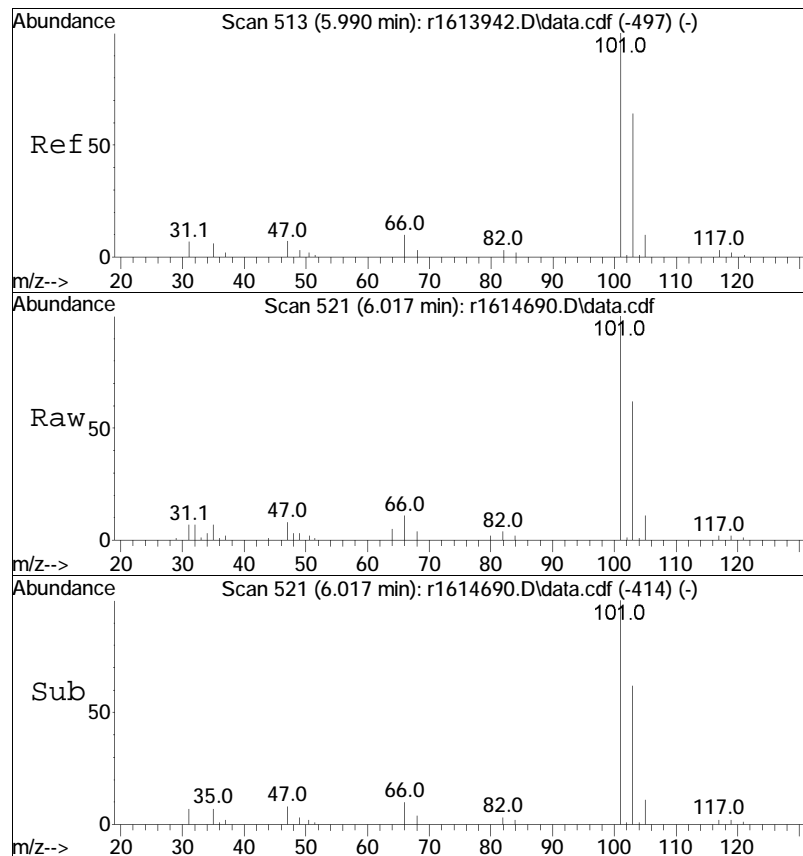




#19
acetone
Concen: 36.00 ppbV
RT: 5.80 min Scan# 456
Delta R.T. 0.023 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

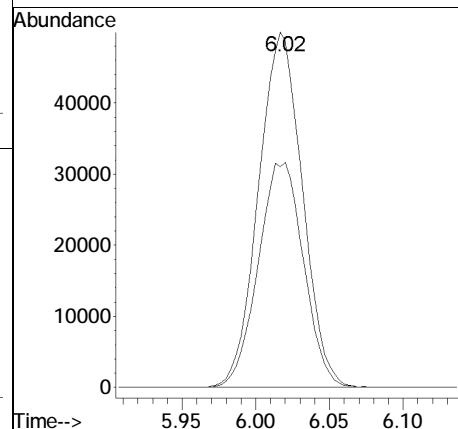
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 43 | 100 | | | |
| 58 | 40.5 | | 34.4 | 51.6 |
| 57 | 1.1 | | 0.9 | 1.3 |

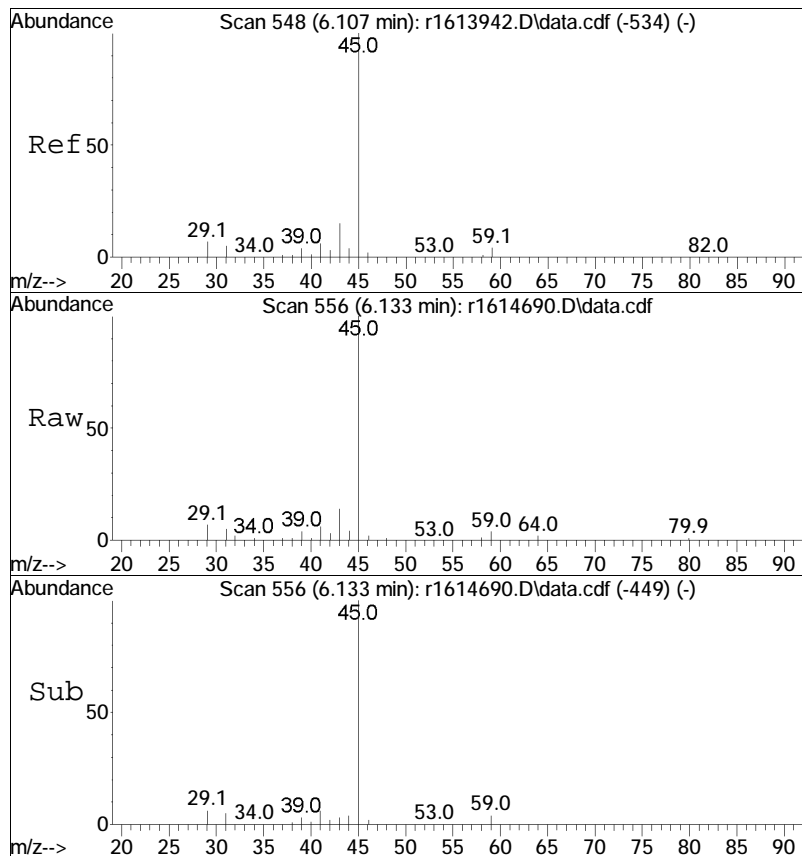




#21
trichlorofluoromethane
Concen: 7.73 ppbV
RT: 6.02 min Scan# 521
Delta R.T. 0.027 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

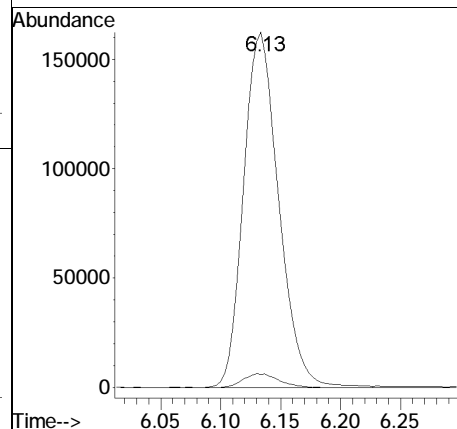
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 62.1 | 51.4 | 77.2 | |

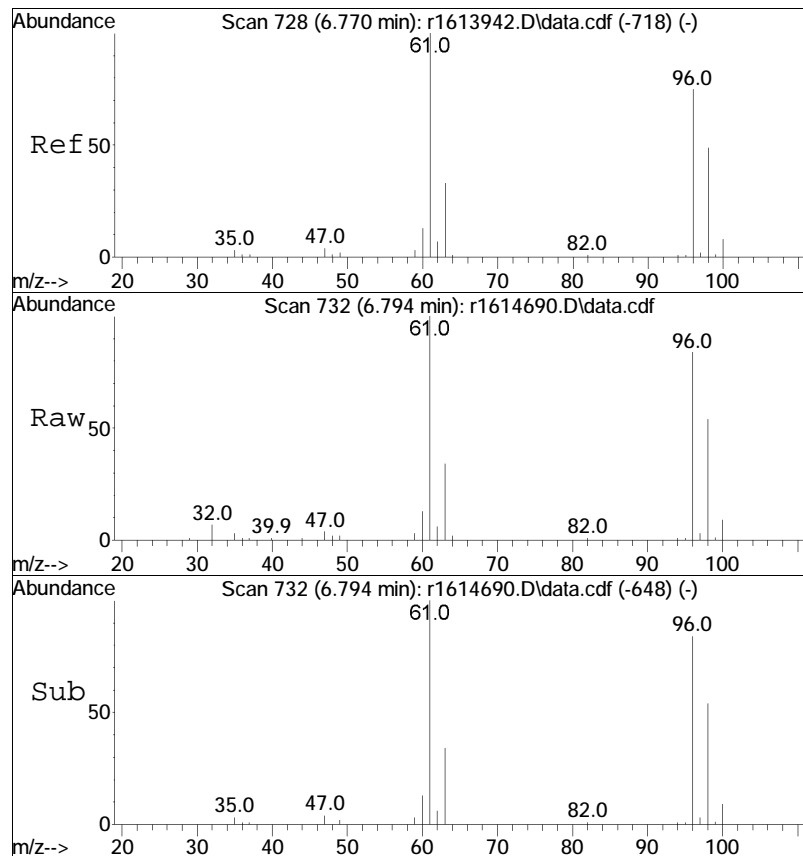




#22
isopropyl alcohol
Concen: 19.23 ppbV
RT: 6.13 min Scan# 556
Delta R.T. 0.027 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

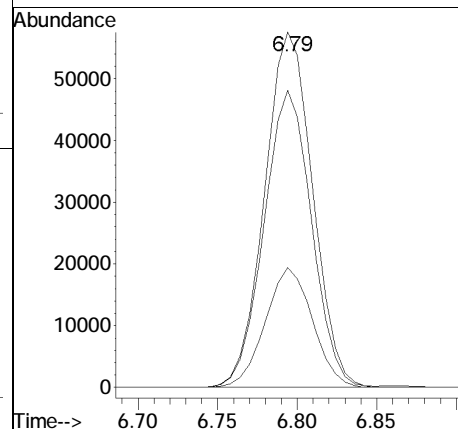
| Tgt | Ion | Resp | Lower | Upper |
|-----|-----|------|-------|-------|
| 45 | 100 | | | |
| 59 | 3.7 | | 3.2 | 4.8 |

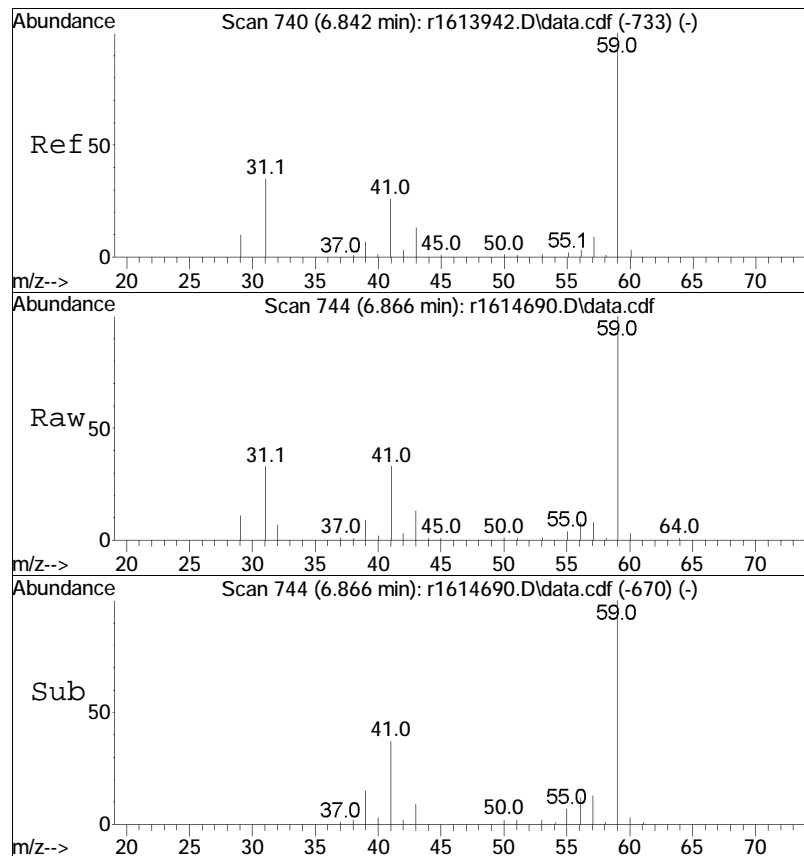




#26
 1,1-dichloroethene
 Concen: 9.00 ppbV
 RT: 6.79 min Scan# 732
 Delta R.T. 0.024 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

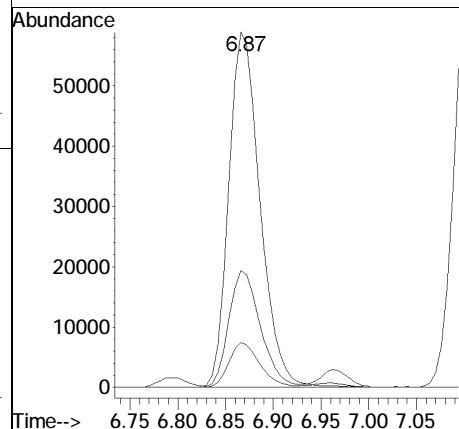
| | | | |
|----------|-------|-------|--------|
| Tgt Ion: | 61 | Resp: | 120837 |
| Ion | Ratio | Lower | Upper |
| 61 | 100 | | |
| 96 | 83.6 | 59.8 | 89.6 |
| 63 | 33.7 | 26.1 | 39.1 |

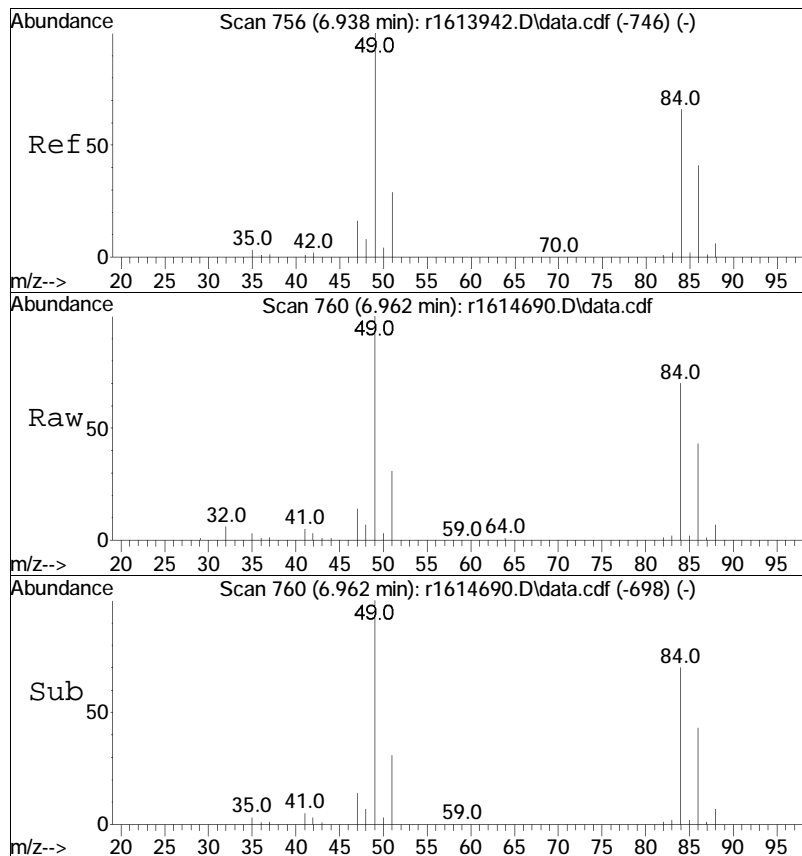




#27
 tertiary butyl alcohol
 Concen: 8.18 ppbV
 RT: 6.87 min Scan# 744
 Delta R.T. 0.024 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

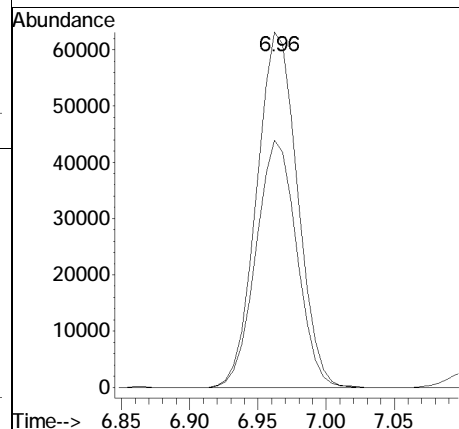
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 59 | Resp: | 134506 |
| Ion Ratio | Lower | Upper | |
| 59 | 100 | | |
| 41 | 32.9 | 20.8 | 31.2# |
| 43 | 12.7 | 10.4 | 15.6 |

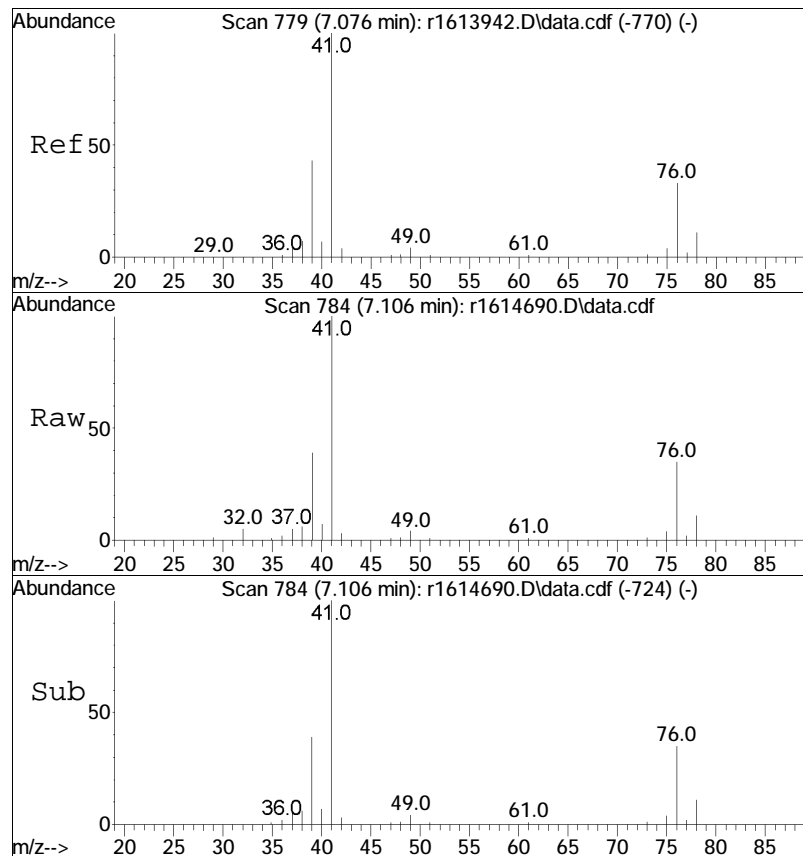




#28
 methylene chloride
 Concen: 9.63 ppbV
 RT: 6.96 min Scan# 760
 Delta R.T. 0.024 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

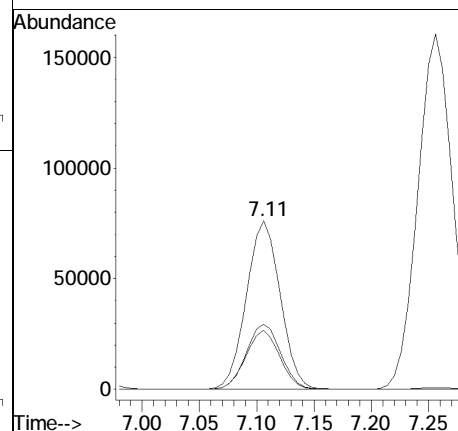
| Tgt Ion: | 49 | 84 | Ratio | 100 | 69.6 | Resp: | 131459 | Lower | 53.0 | Upper | 79.4 |
|----------|-----|------|-------|-----|------|-------|--------|-------|------|-------|------|
| 49 | 100 | | | | | | | | | | |
| 84 | | 69.6 | | | | | | 53.0 | | 79.4 | |

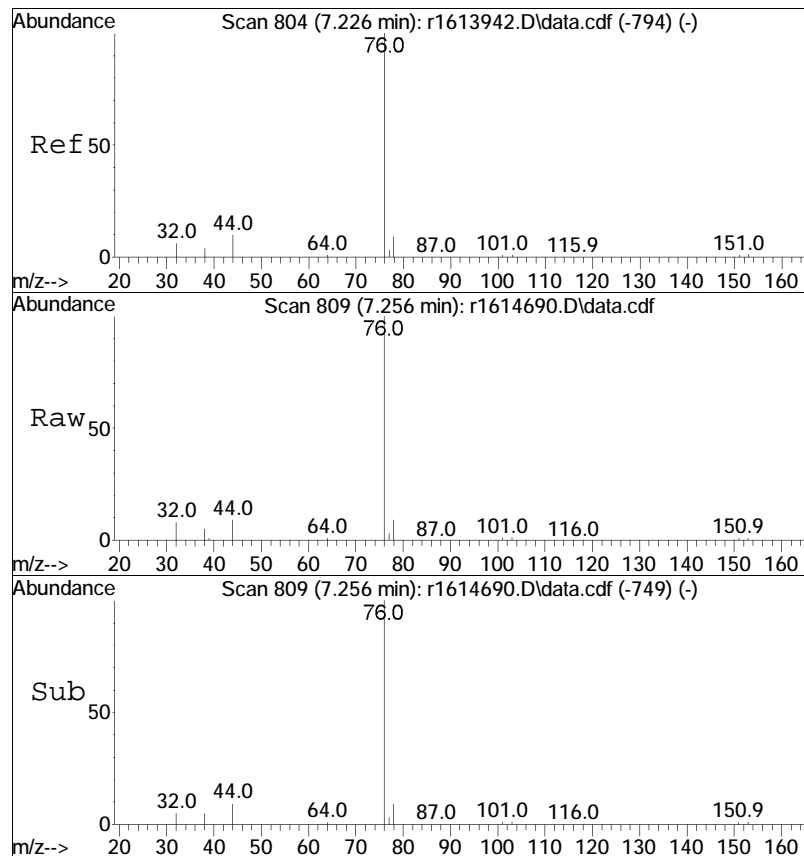




#29
 3-chloropropene
 Concen: 9.79 ppbV
 RT: 7.11 min Scan# 784
 Delta R.T. 0.030 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

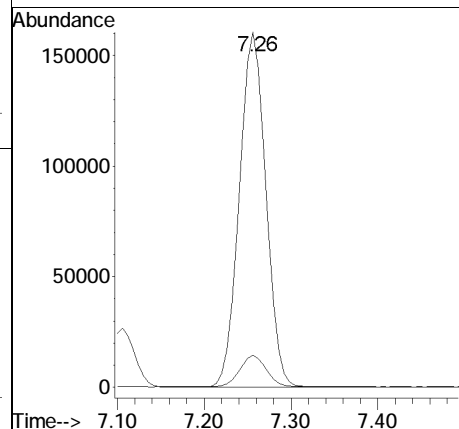
| | | | |
|----------|-------|-------|--------|
| Tgt Ion: | 41 | Resp: | 157193 |
| Ion | Ratio | Lower | Upper |
| 41 | 100 | | |
| 39 | 38.6 | 33.9 | 50.9 |
| 76 | 35.1 | 26.7 | 40.1 |

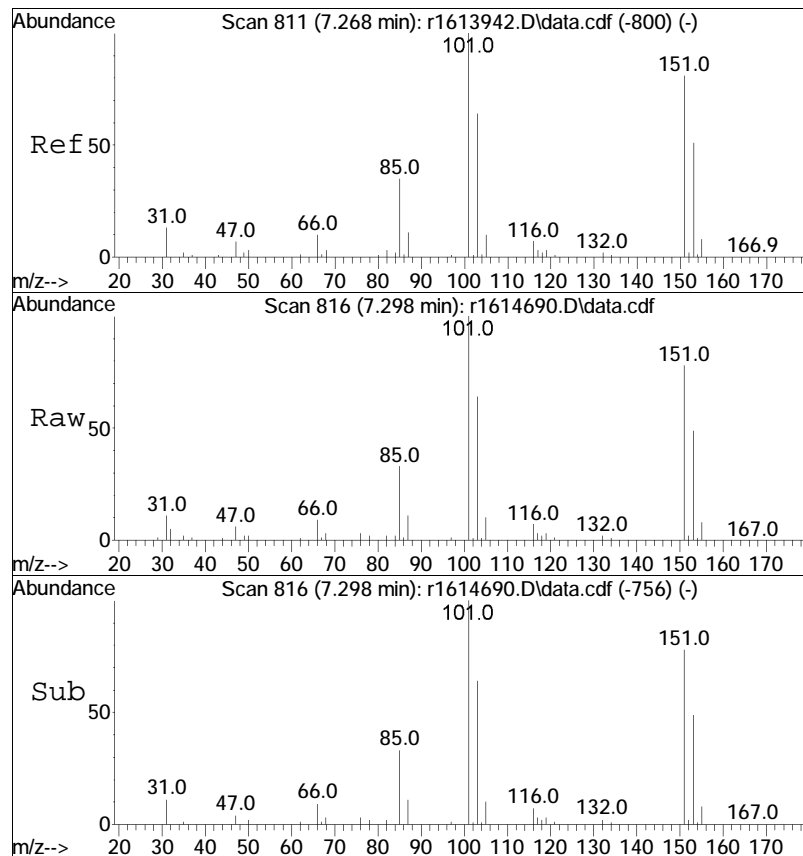




#30
 carbon disulfide
 Concen: 9.48 ppbV
 RT: 7.26 min Scan# 809
 Delta R.T. 0.030 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

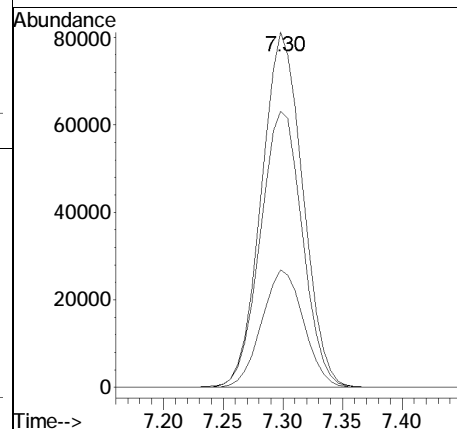
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 9.1 | 8.3 | 12.5 |

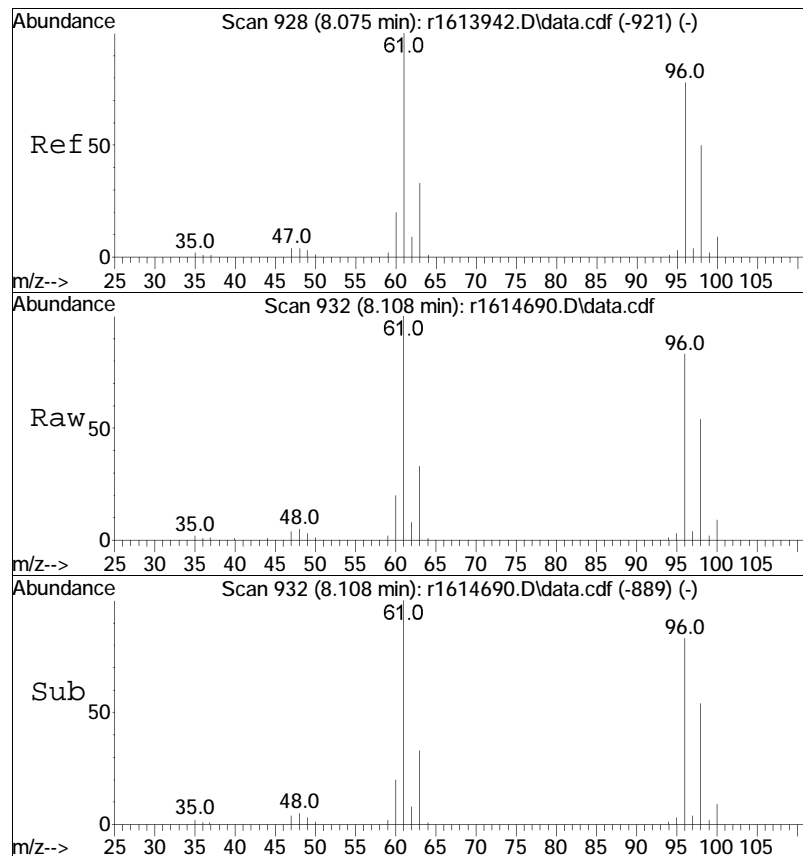




#31
 Freon 113
 Concen: 9.94 ppbV
 RT: 7.30 min Scan# 816
 Delta R.T. 0.030 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

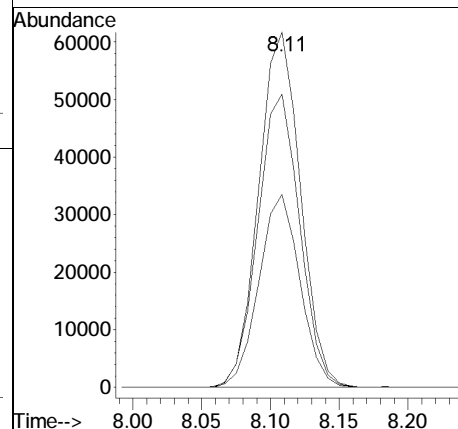
| | | | |
|-----|---------|-------|--------|
| Tgt | Ion:101 | Resp: | 195558 |
| Ion | Ratio | Lower | Upper |
| 101 | 100 | | |
| 85 | 33.1 | 27.8 | 41.6 |
| 151 | 77.7 | 65.0 | 97.6 |

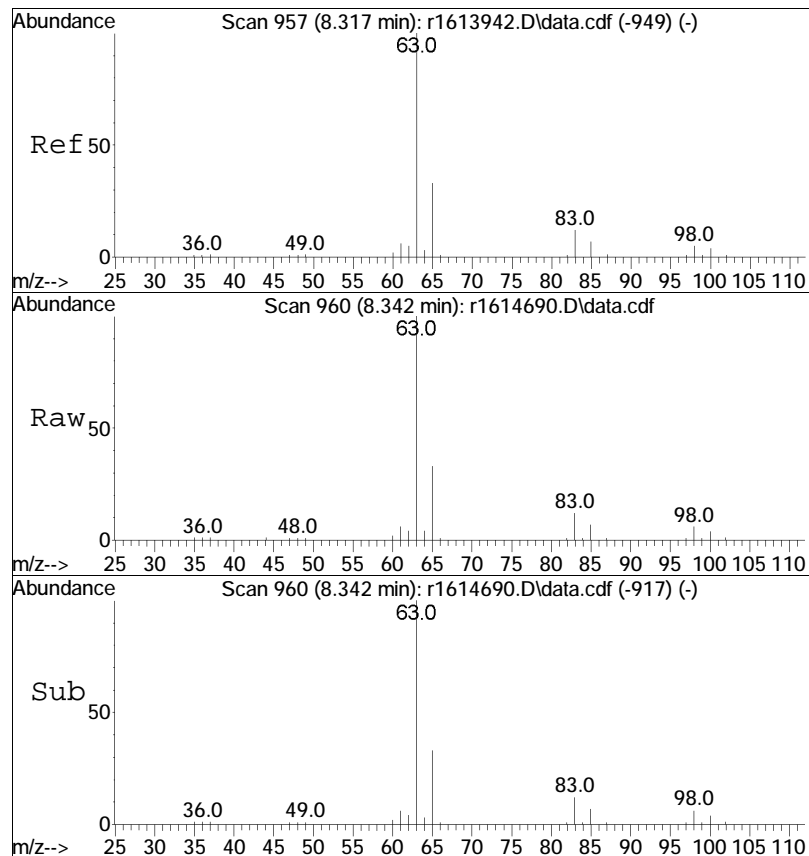




#32
 trans-1,2-dichloroethene
 Concen: 8.92 ppbV
 RT: 8.11 min Scan# 932
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

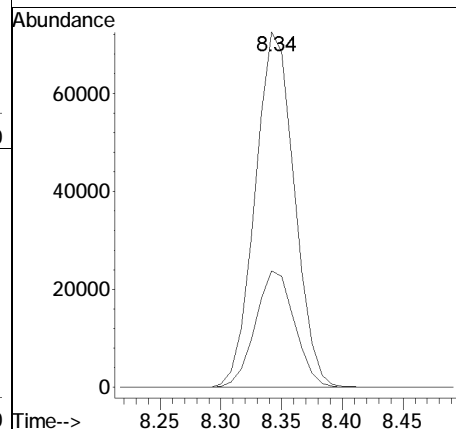
| | | | |
|----------|-------|-------|--------|
| Tgt Ion: | 61 | Resp: | 130501 |
| Ion | Ratio | Lower | Upper |
| 61 | 100 | | |
| 96 | 82.5 | 62.8 | 94.2 |
| 98 | 54.3 | 40.2 | 60.2 |

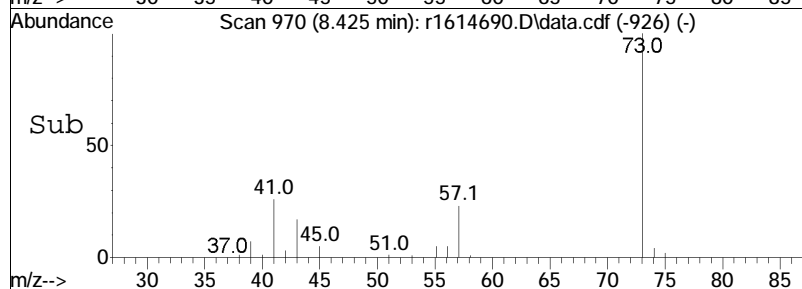
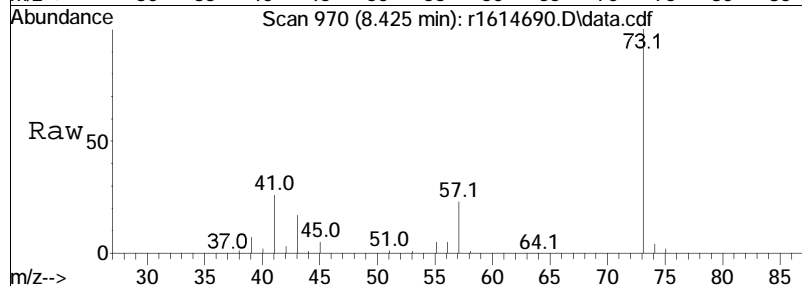
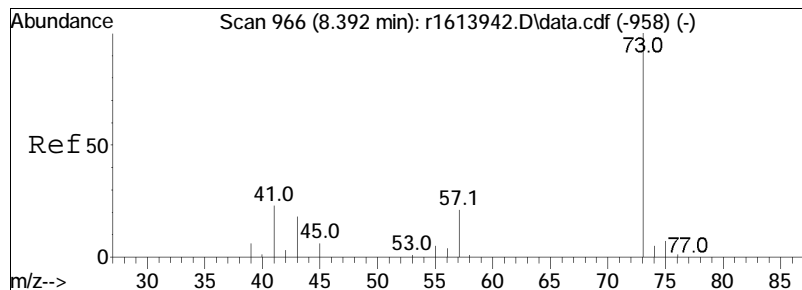




#33
 1,1-dichloroethane
 Concen: 9.25 ppbV
 RT: 8.34 min Scan# 960
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

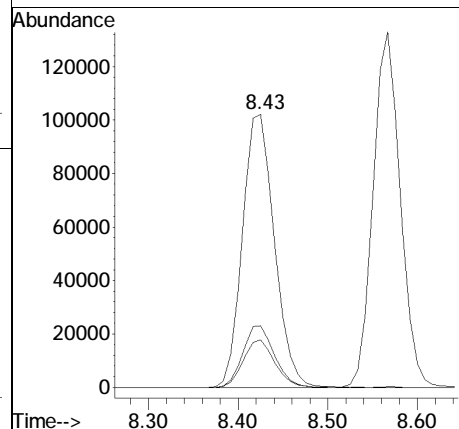
| Tgt Ion: | 63 | Resp: | 163074 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper | |
| 63 | 100 | | |
| 65 | 32.8 | 26.4 | 39.6 |

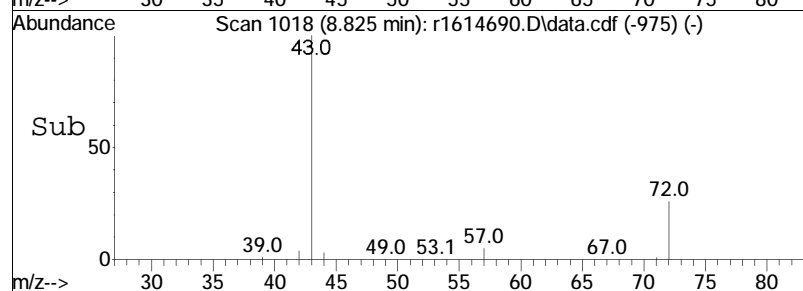
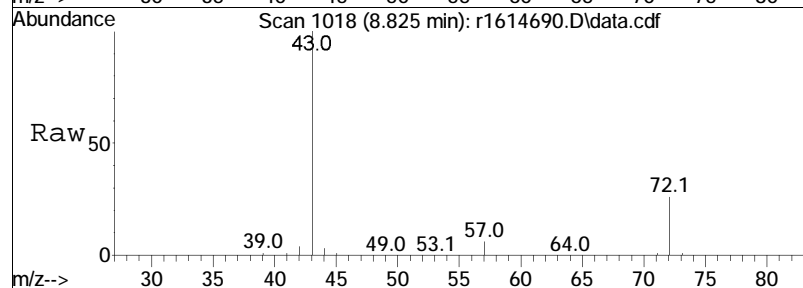
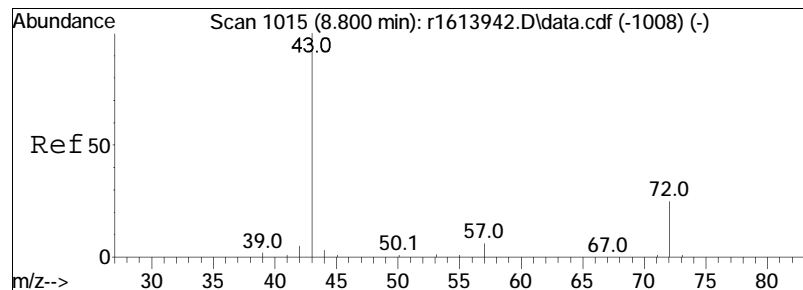




#34
MTBE
Concen: 8.79 ppbV
RT: 8.43 min Scan# 970
Delta R.T. 0.033 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

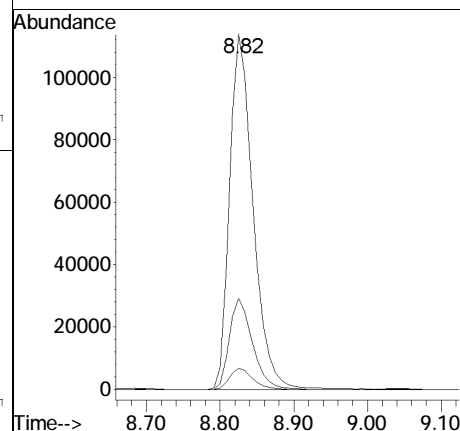
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 73 | 100 | | |
| 57 | 22.6 | 17.0 | 25.6 |
| 43 | 17.5 | 14.1 | 21.1 |

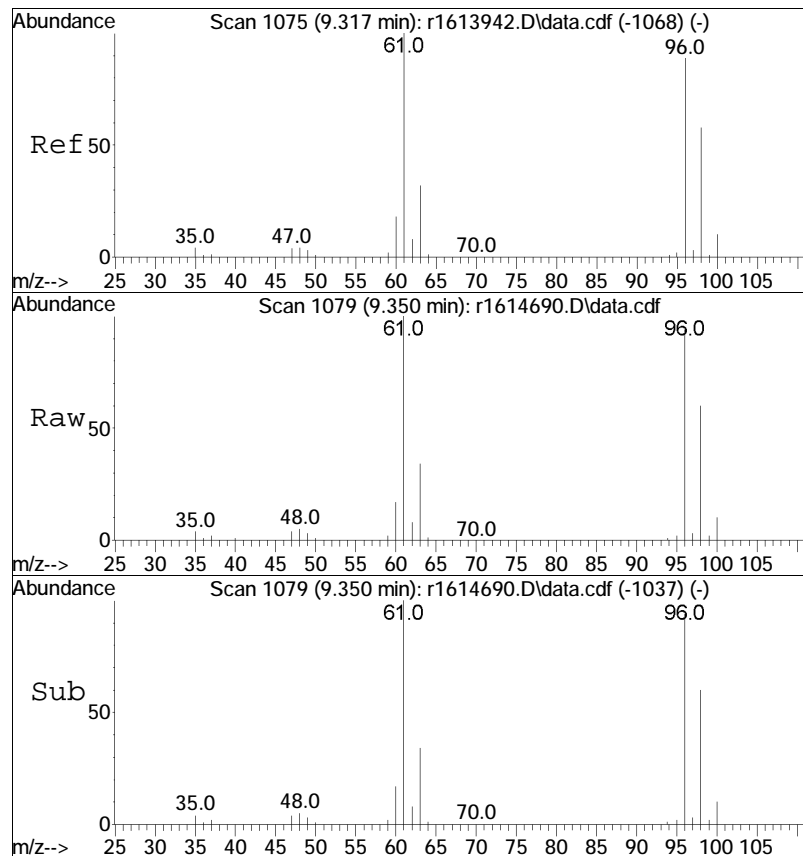




#36
2-butanone
Concen: 9.72 ppbV
RT: 8.82 min Scan# 1018
Delta R.T. 0.025 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

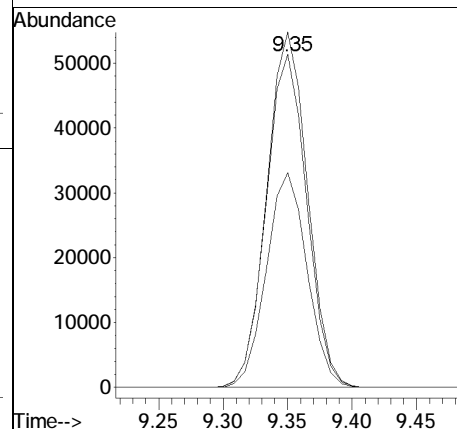
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 25.6 | 19.8 | 29.6 |
| 57 | 5.9 | 4.8 | 7.2 |

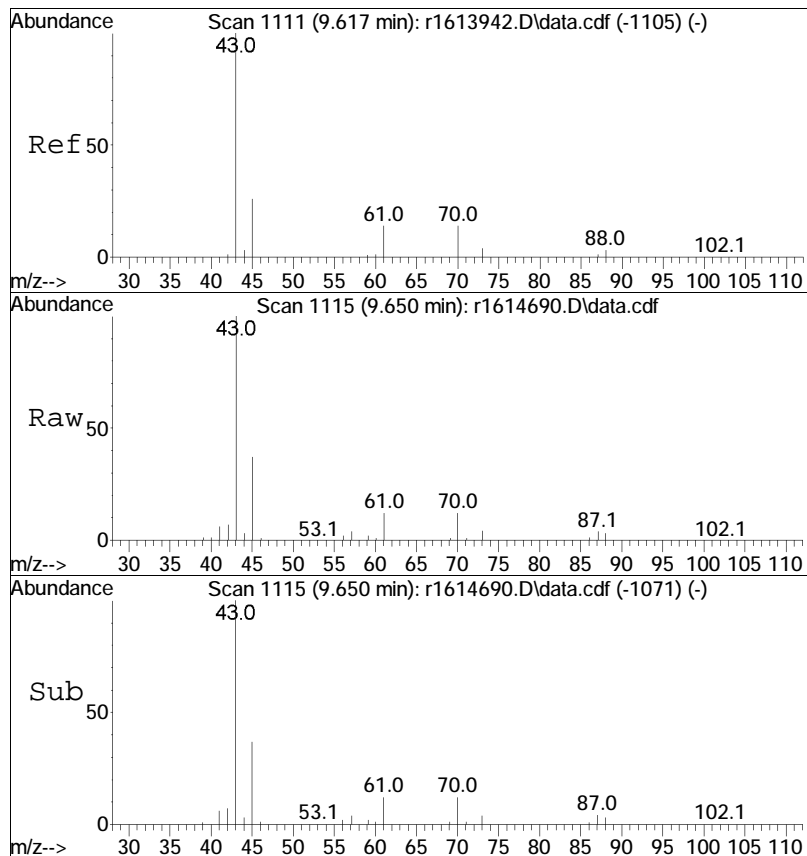




#37
 cis-1,2-dichloroethene
 Concen: 9.42 ppbV
 RT: 9.35 min Scan# 1079
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

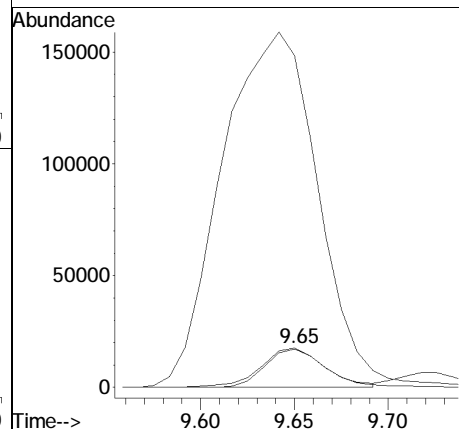
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 61 | Resp: | 120369 |
| Ion Ratio | Lower | Upper | |
| 61 | 100 | | |
| 96 | 93.7 | 71.3 | 106.9 |
| 98 | 60.4 | 46.5 | 69.7 |

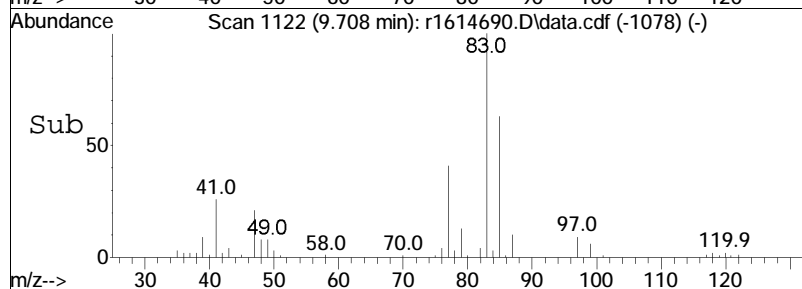
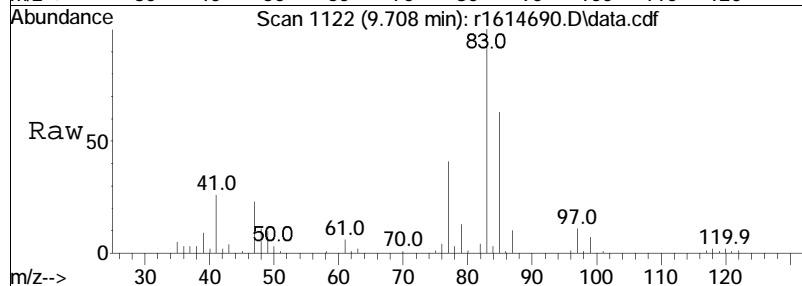
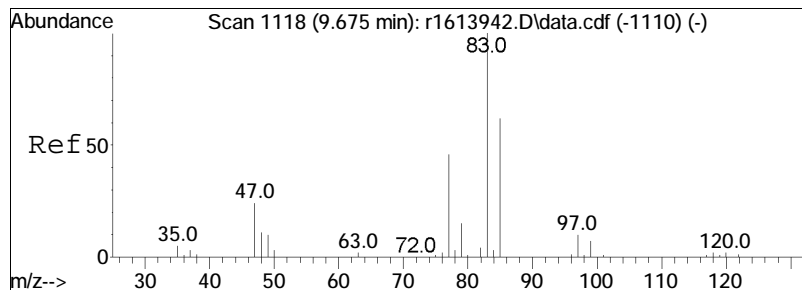




#38
 Ethyl Acetate
 Concen: 10.20 ppbV
 RT: 9.65 min Scan# 1115
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

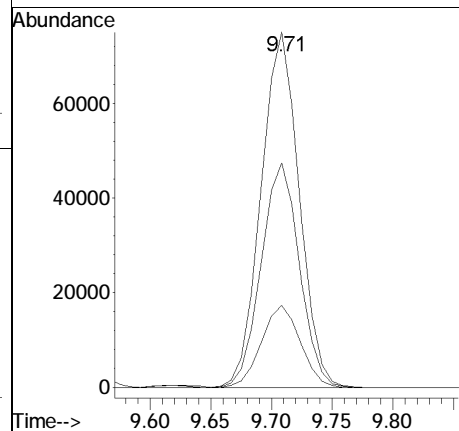
| Tgt Ion | Resp | Lower | Upper |
|---------|-------|-------|--------|
| 61 | 38303 | | |
| 61 | 100 | | |
| 70 | 102.4 | 85.6 | 128.4 |
| 43 | 863.1 | 757.7 | 1136.5 |

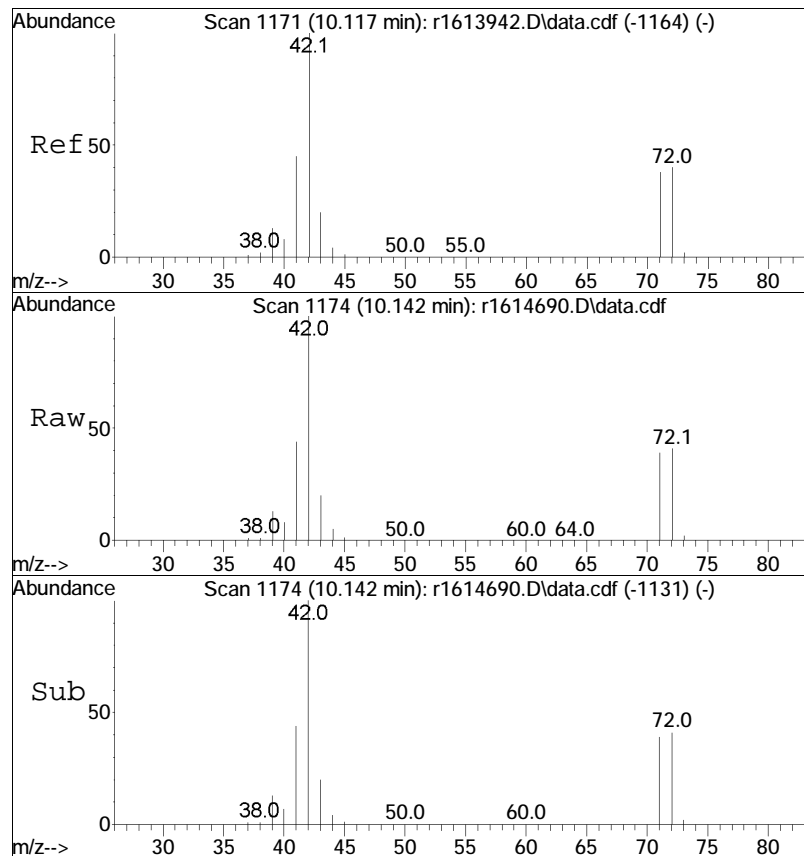




#39
chloroform
Concen: 9.30 ppbV
RT: 9.71 min Scan# 1122
Delta R.T. 0.033 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

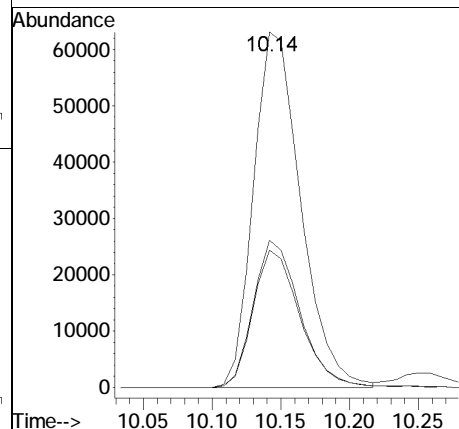
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83 | 100 | | |
| 85 | 63.2 | 50.1 | 75.1 |
| 47 | 23.1 | 19.3 | 28.9 |

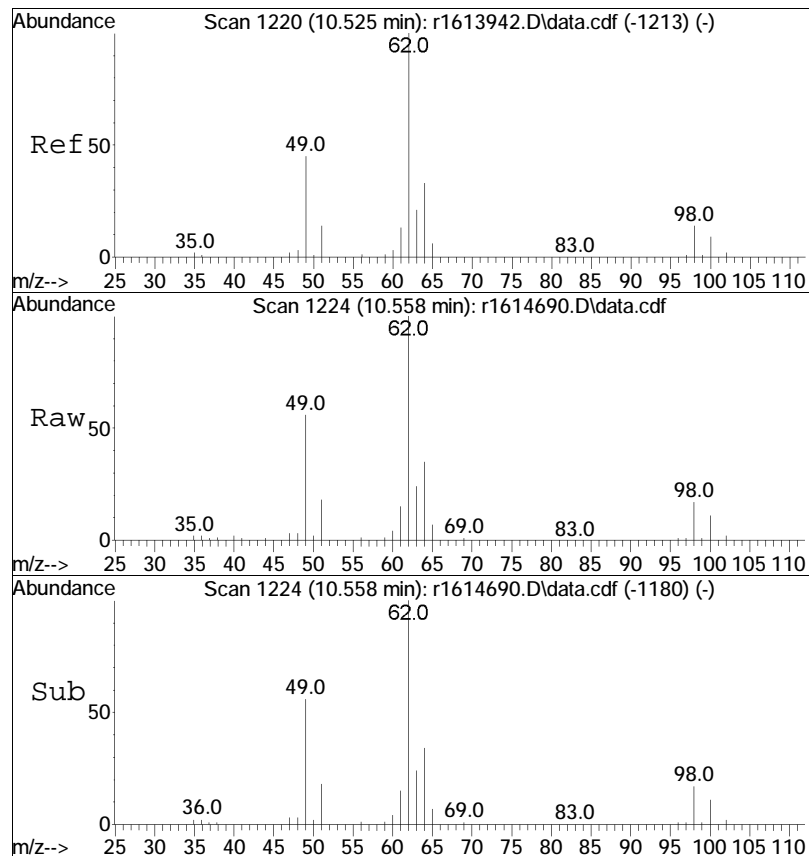




#40
Tetrahydrofuran
Concen: 9.57 ppbV
RT: 10.14 min Scan# 1174
Delta R.T. 0.025 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

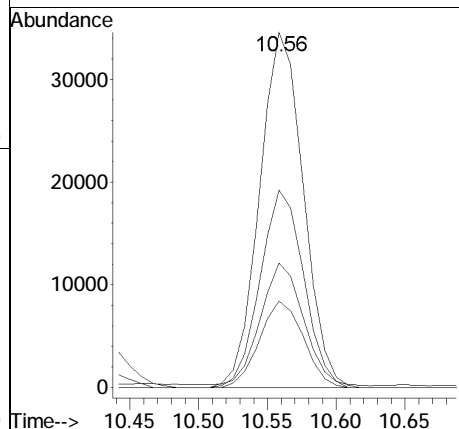
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42 | 100 | | |
| 71 | 38.6 | 30.0 | 45.0 |
| 72 | 41.4 | 31.9 | 47.9 |

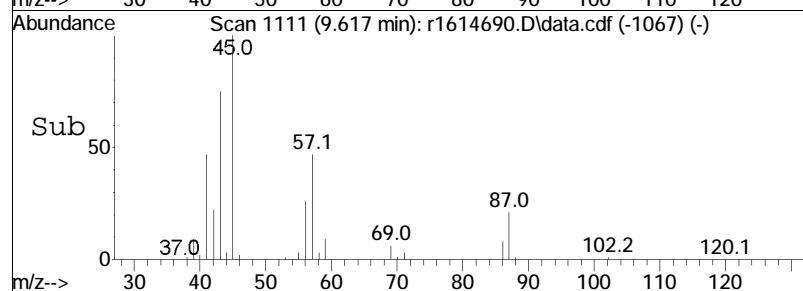
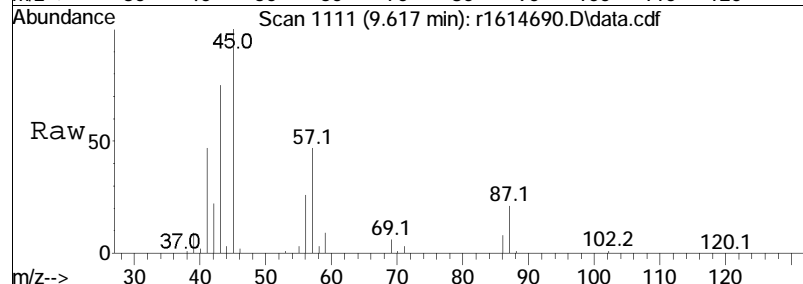
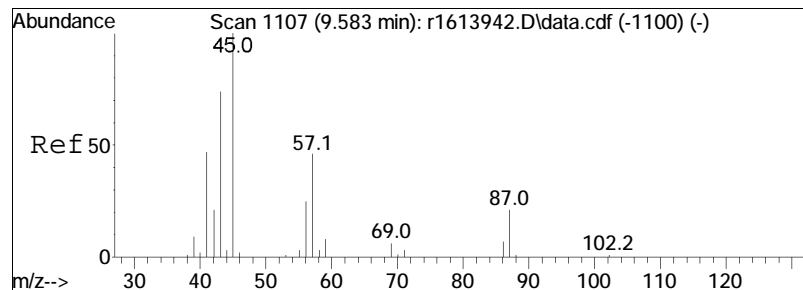




#42
 1,2-dichloroethane
 Concen: 8.10 ppbV
 RT: 10.56 min Scan# 1224
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

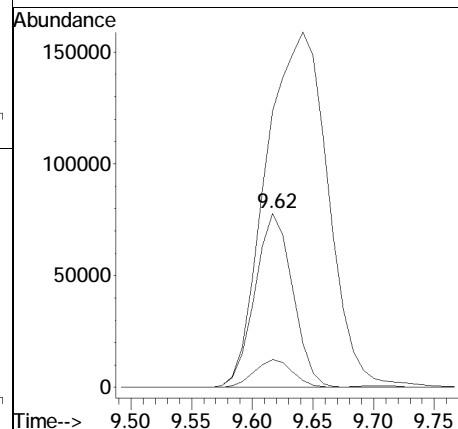
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 62 | Resp: | 76463 |
| Ion | Ratio | Lower | Upper |
| 62 | 100 | | |
| 64 | 35.0 | 26.2 | 39.4 |
| 49 | 55.5 | 36.0 | 54.0# |
| 63 | 24.3 | 17.1 | 25.7 |

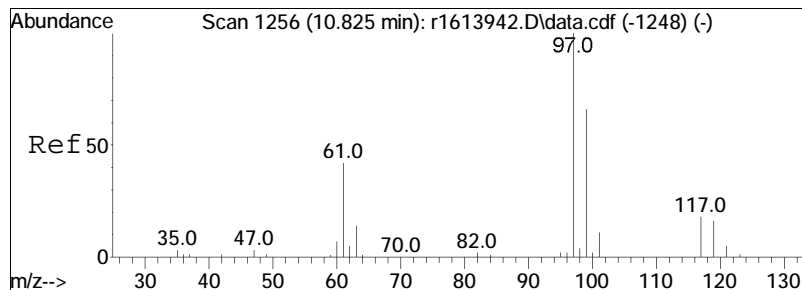




#44
hexane
Concen: 9.29 ppbV
RT: 9.62 min Scan# 1111
Delta R.T. 0.033 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

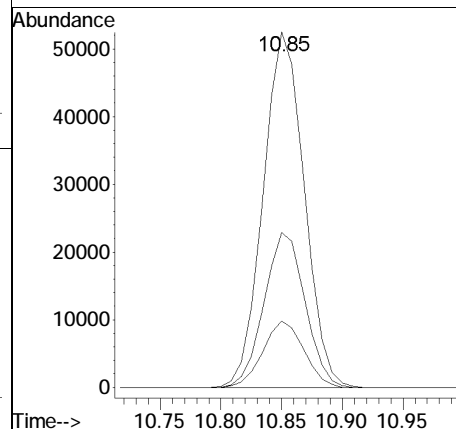
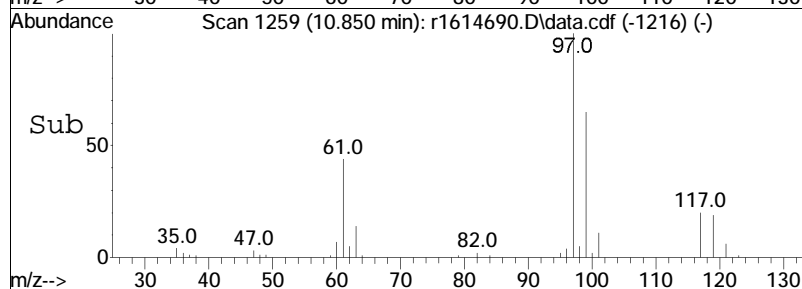
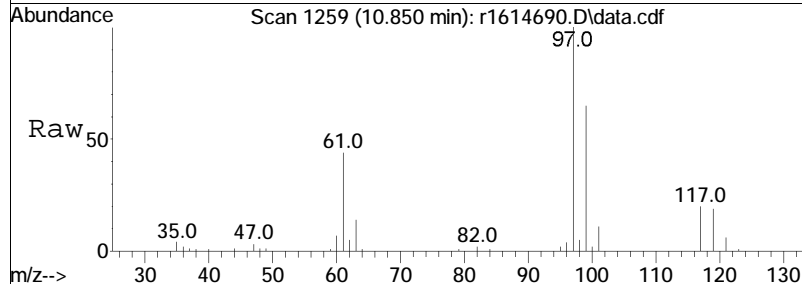
| Tgt Ion | Resp | Lower | Upper |
|---------|--------|-------|-------|
| 57 | 169336 | | |
| 43 | 159.0 | 129.6 | 194.4 |
| 86 | 16.1 | 12.8 | 19.2 |

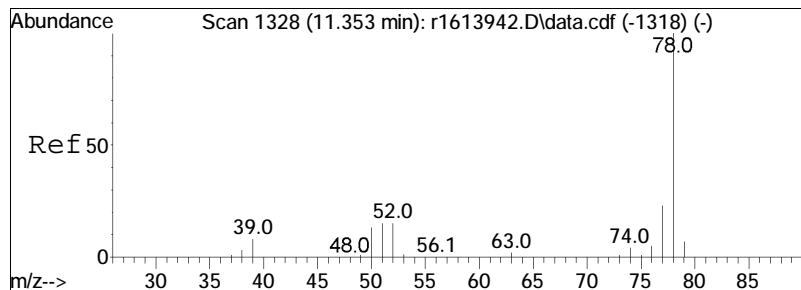




#48
 1,1,1-trichloroethane
 Concen: 8.66 ppbV
 RT: 10.85 min Scan# 1259
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

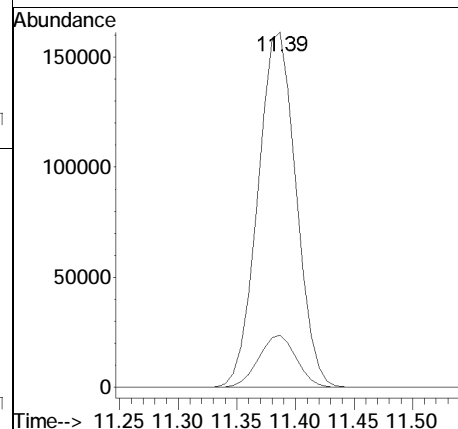
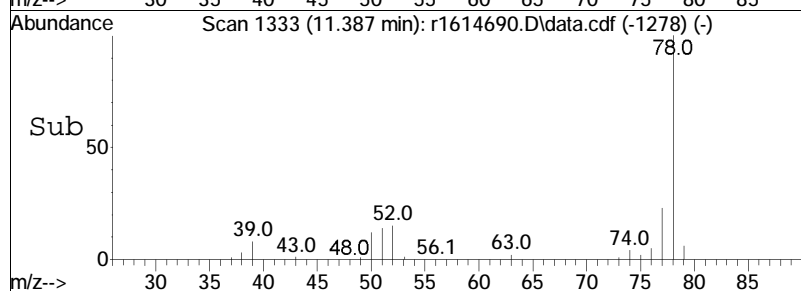
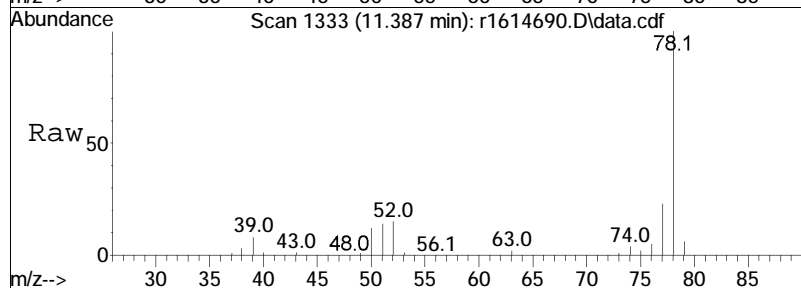
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97 | 100 | | |
| 61 | 43.6 | 33.4 | 50.2 |
| 119 | 18.7 | 13.1 | 19.7 |

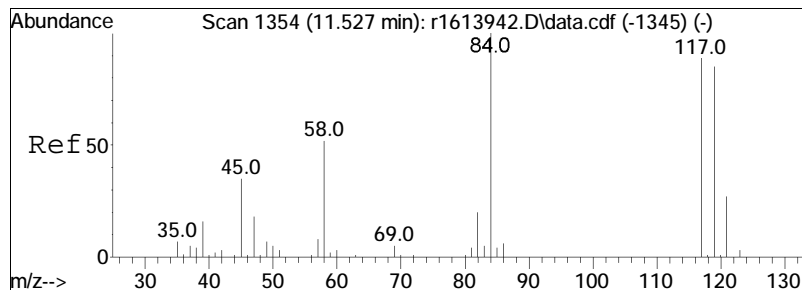




#50
benzene
Concen: 9.42 ppbV
RT: 11.39 min Scan# 1333
Delta R.T. 0.033 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

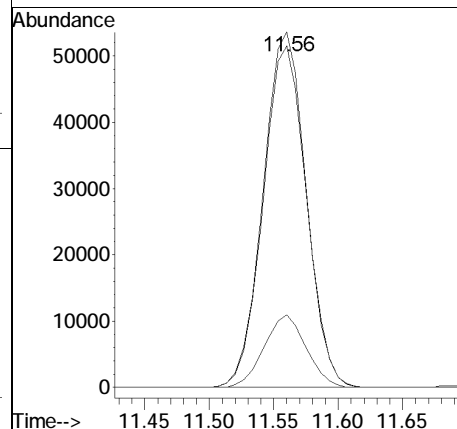
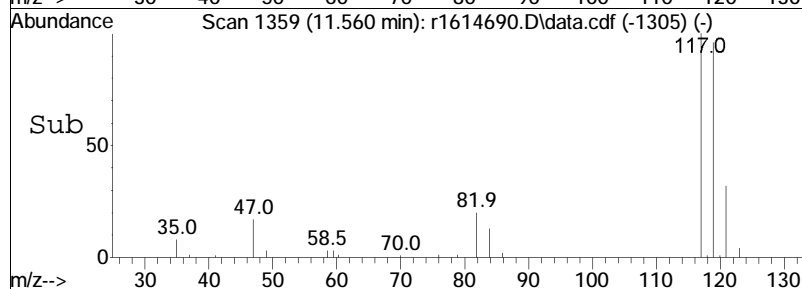
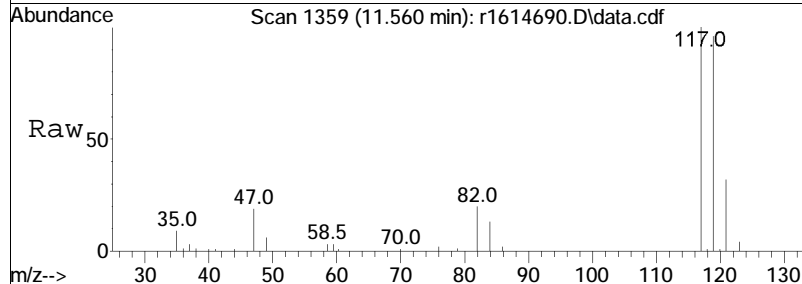
Tgt Ion: 78 Resp: 365267
Ion Ratio Lower Upper
78 100
52 14.7 12.2 18.2

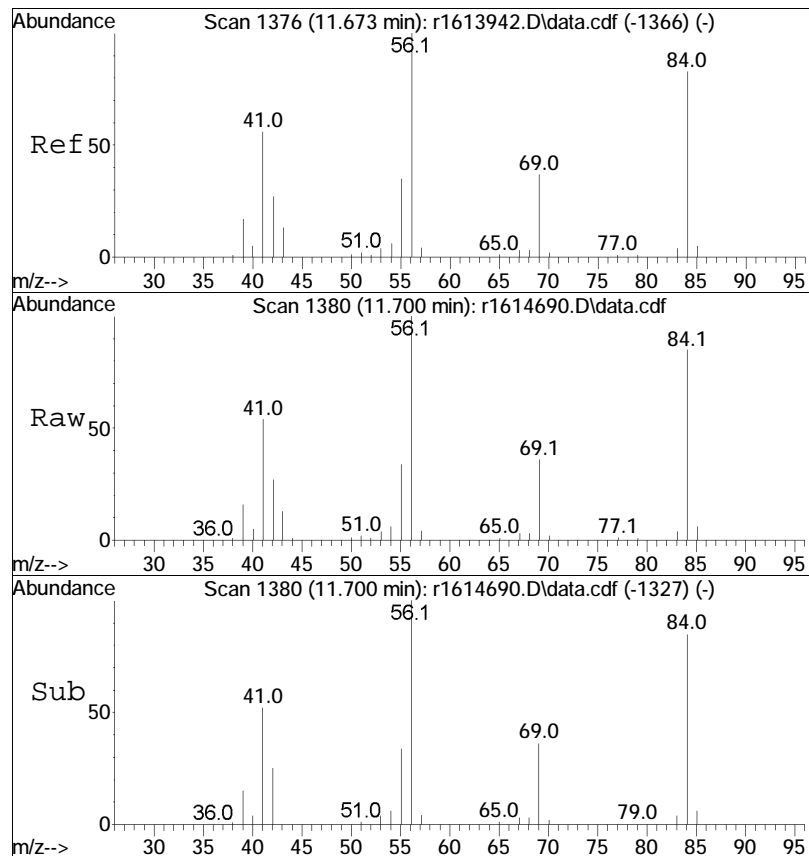




#52
carbon tetrachloride
Concen: 9.03 ppbV
RT: 11.56 min Scan# 1359
Delta R.T. 0.033 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

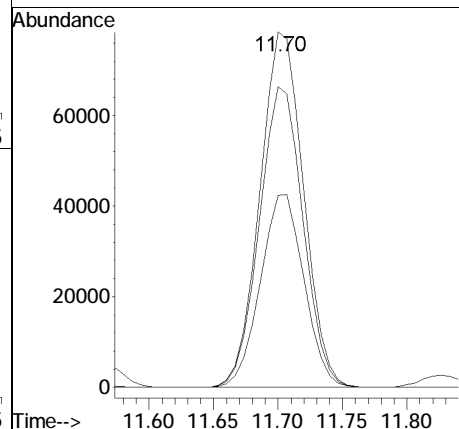
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117 | 100 | | |
| 119 | 96.1 | 76.4 | 114.6 |
| 82 | 20.4 | 18.7 | 28.1 |

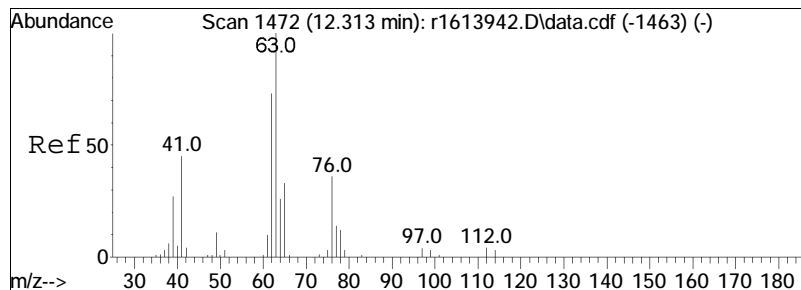




#53
cyclohexane
Concen: 9.53 ppbV
RT: 11.70 min Scan# 1380
Delta R.T. 0.027 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

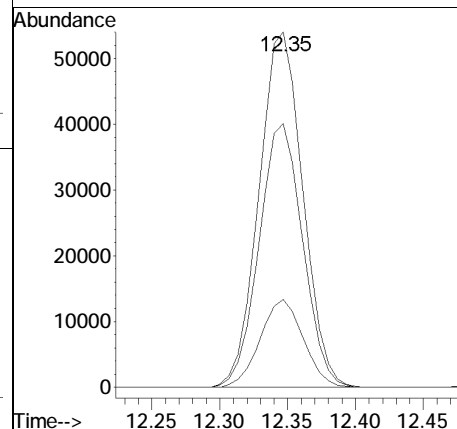
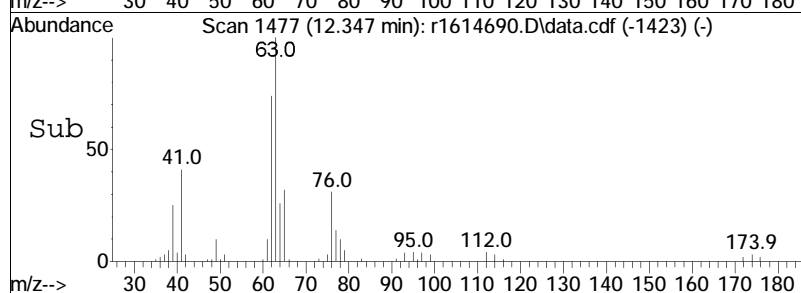
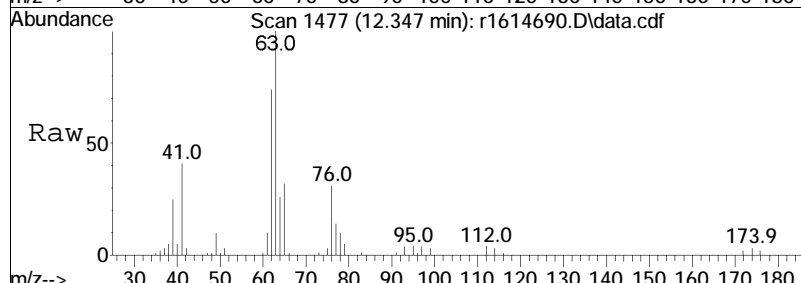
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56 | 100 | | |
| 84 | 84.7 | 66.2 | 99.2 |
| 41 | 54.0 | 45.2 | 67.8 |

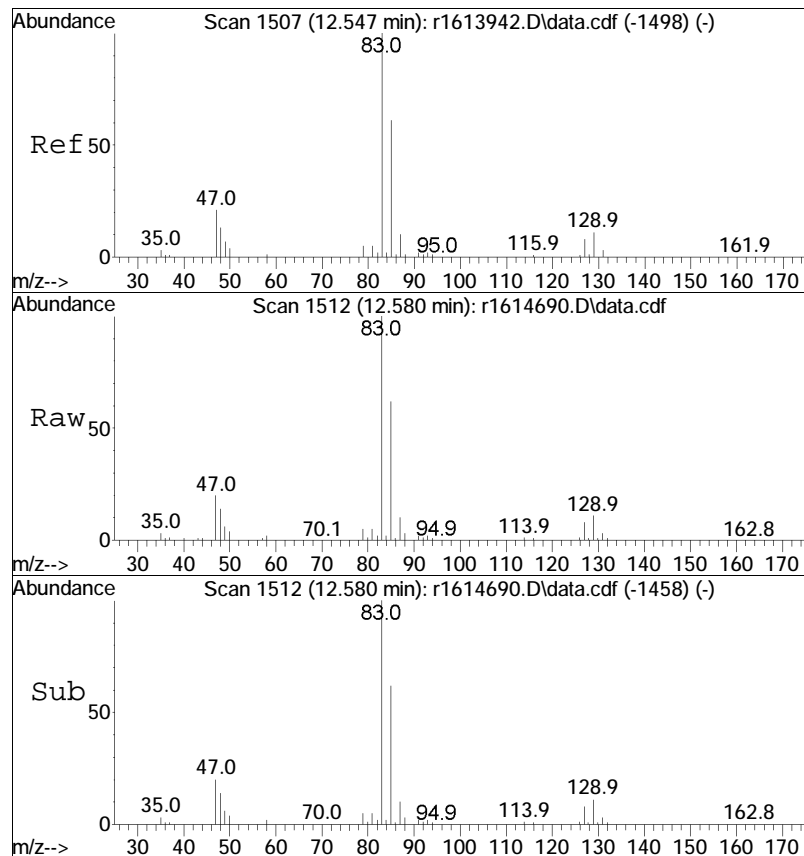




#56
 1,2-dichloropropane
 Concen: 9.80 ppbV
 RT: 12.35 min Scan# 1477
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

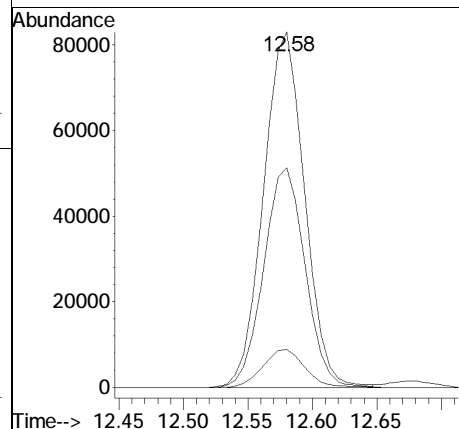
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63 | 100 | | |
| 62 | 74.2 | 58.6 | 87.8 |
| 39 | 24.8 | 21.8 | 32.6 |

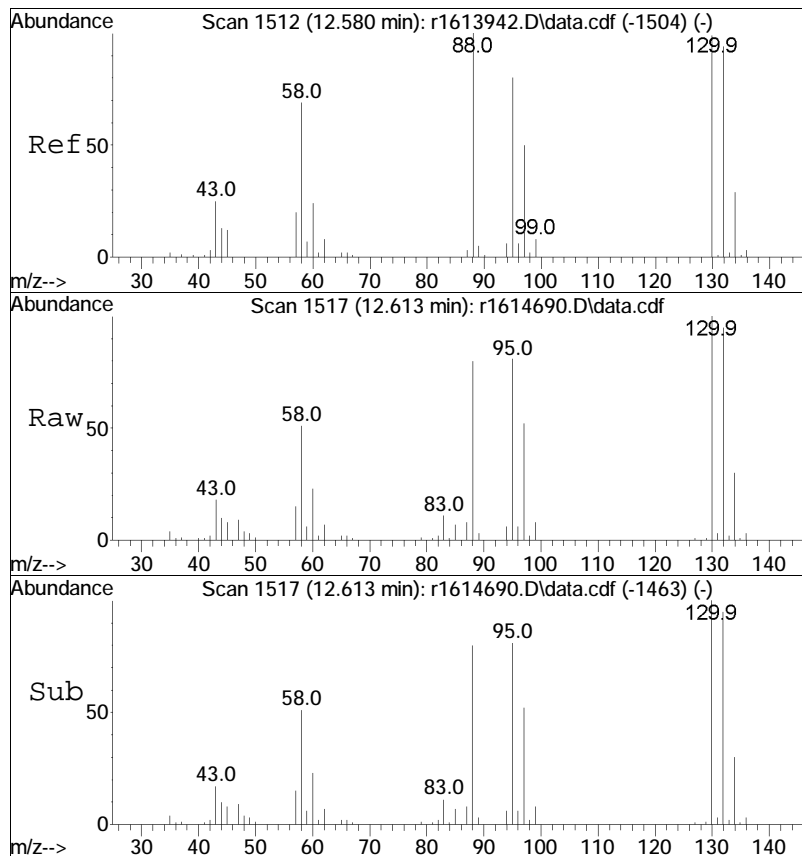




#57
bromodichloromethane
Concen: 9.48 ppbV
RT: 12.58 min Scan# 1512
Delta R.T. 0.033 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

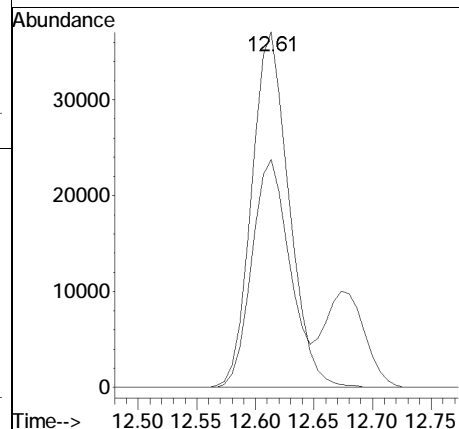
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 83 | 100 | | | |
| 85 | 61.9 | 49.0 | 73.6 | |
| 129 | 10.7 | 8.7 | 13.1 | |

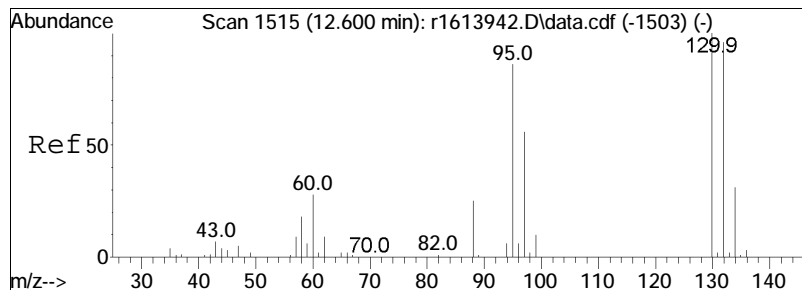




#58
 1,4-dioxane
 Concen: 9.99 ppbV
 RT: 12.61 min Scan# 1517
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

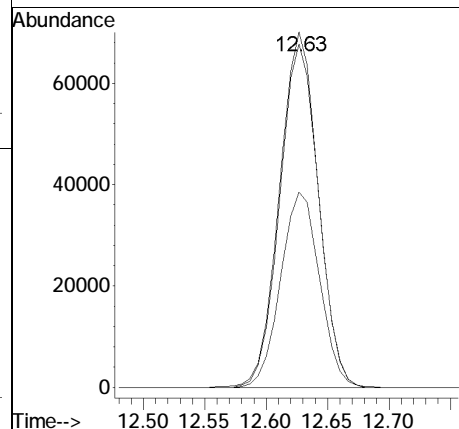
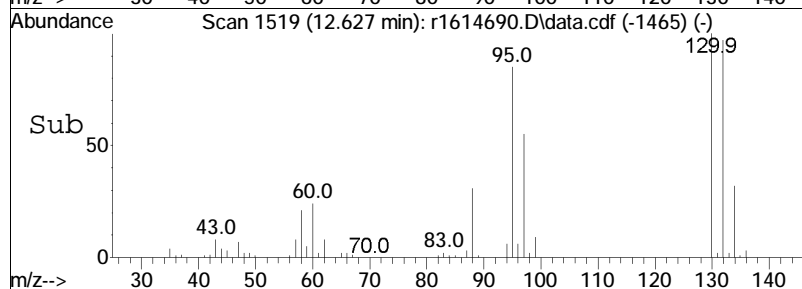
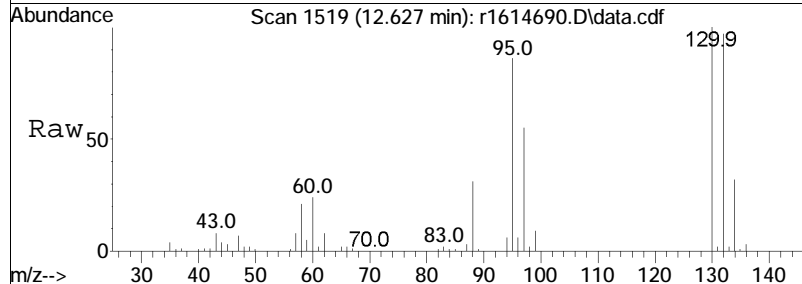
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 88 | 100 | | |
| 58 | 64.1 | 55.0 | 82.4 |

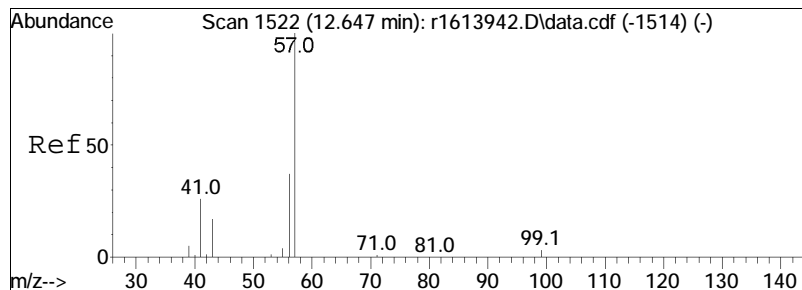




#59
 trichloroethene
 Concen: 9.72 ppbV
 RT: 12.63 min Scan# 1519
 Delta R.T. 0.027 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

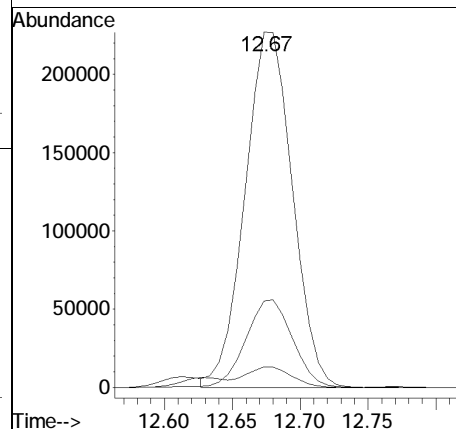
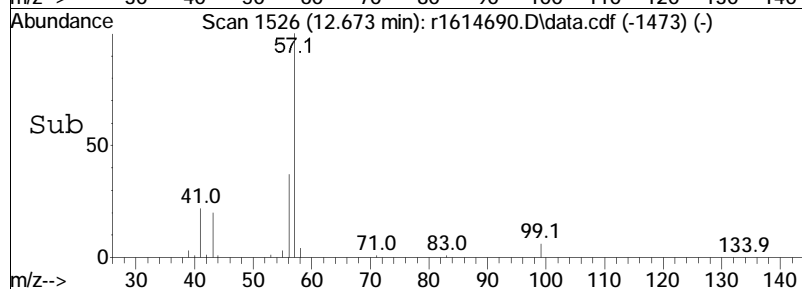
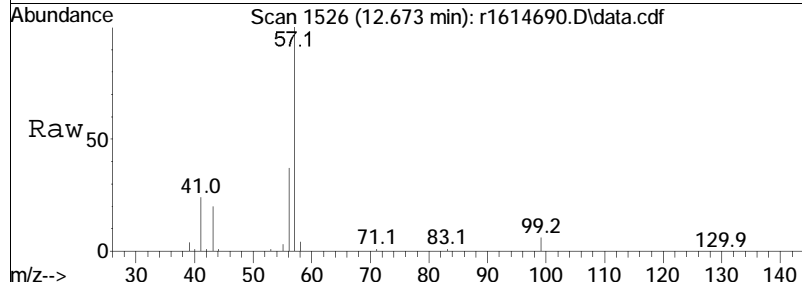
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 130 | 100 | | | |
| 132 | 96.7 | 76.7 | 115.1 | |
| 97 | 55.0 | 45.2 | 67.8 | |

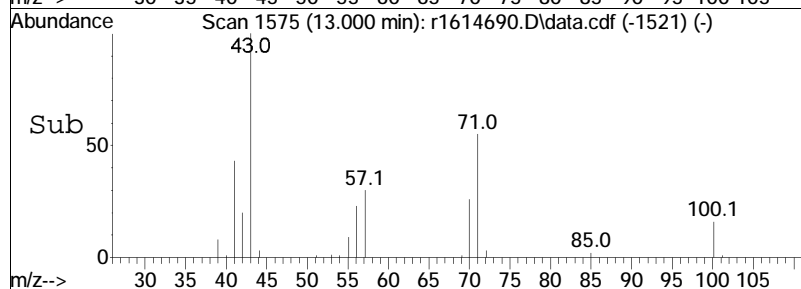
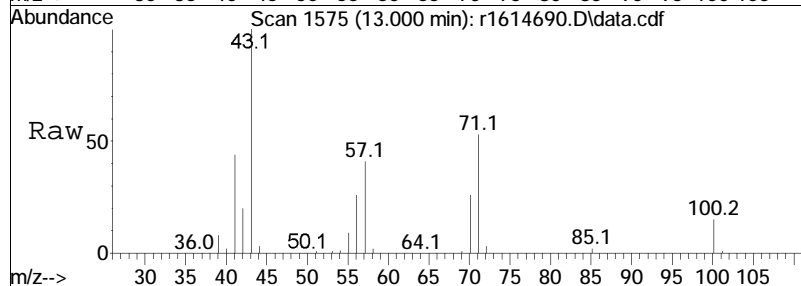
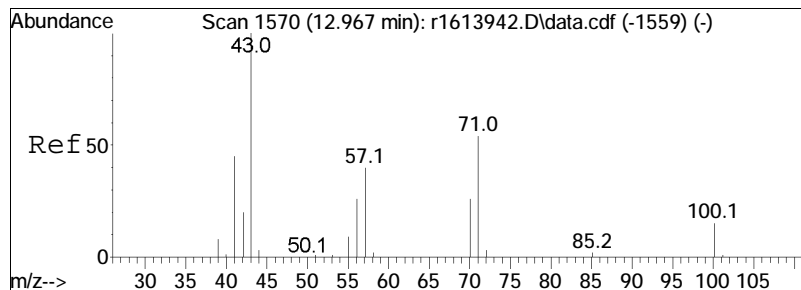




#60
 2,2,4-trimethylpentane
 Concen: 9.43 ppbV
 RT: 12.67 min Scan# 1526
 Delta R.T. 0.027 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

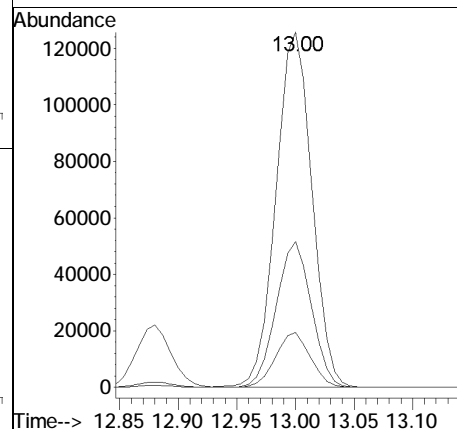
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57 | 100 | | |
| 99 | 5.8 | 4.6 | 6.8 |
| 41 | 24.3 | 20.2 | 30.4 |

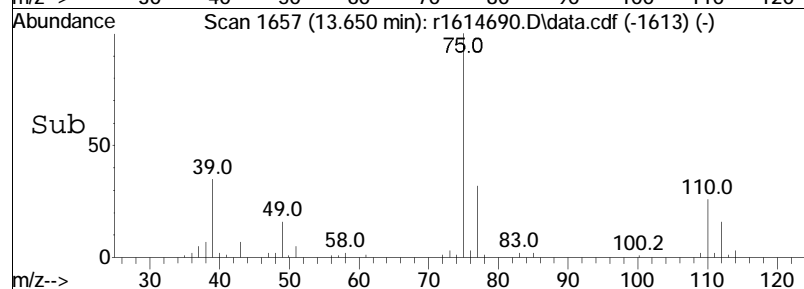
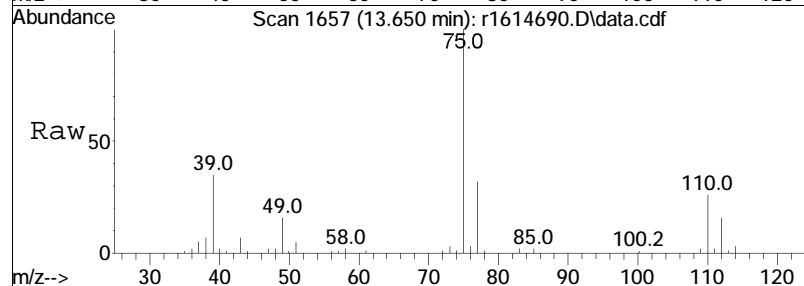
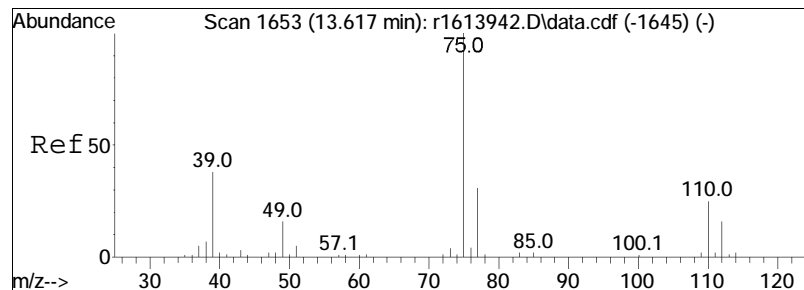




#62
heptane
Concen: 9.78 ppbV
RT: 13.00 min Scan# 1575
Delta R.T. 0.033 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

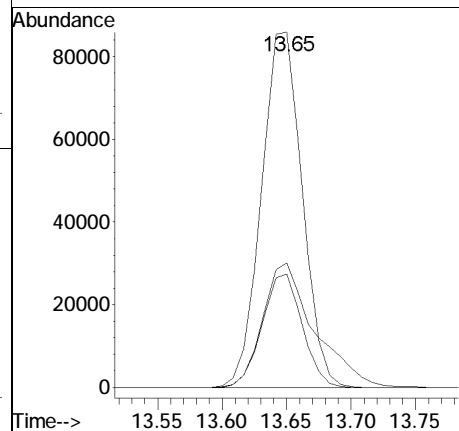
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 41.1 | 32.2 | 48.4 |
| 100 | 15.5 | 11.9 | 17.9 |

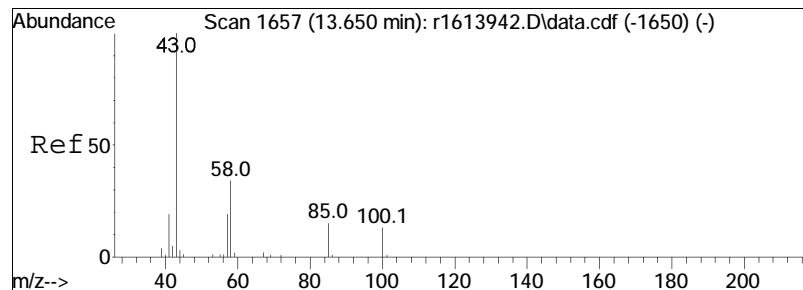




#63
 cis-1,3-dichloropropene
 Concen: 9.91 ppbV
 RT: 13.65 min Scan# 1657
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

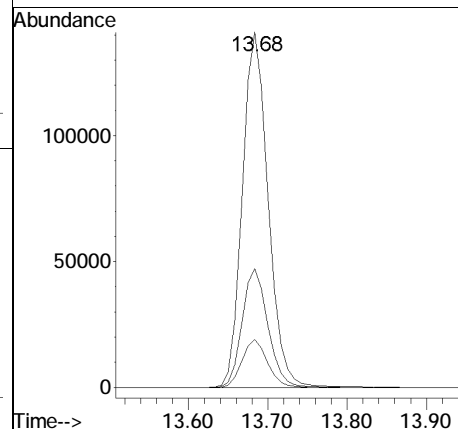
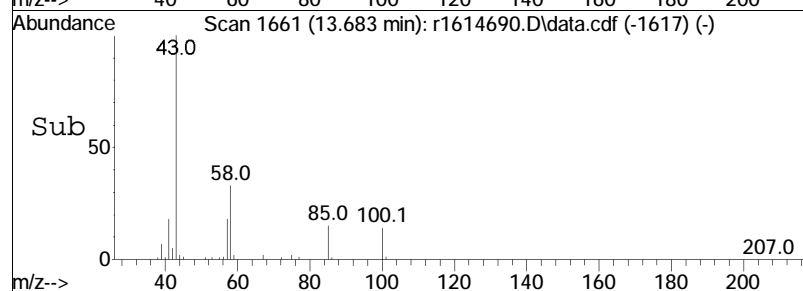
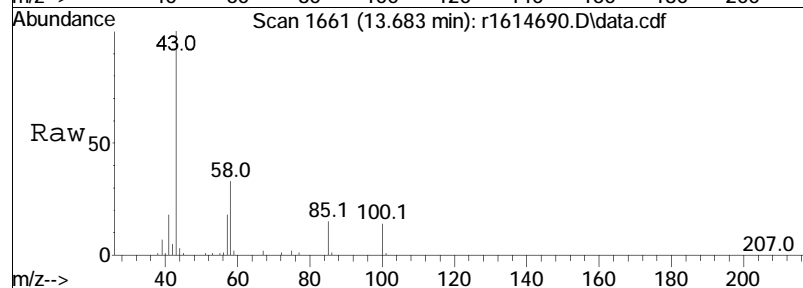
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75 | 100 | | |
| 39 | 35.1 | 30.8 | 46.2 |
| 77 | 31.9 | 24.9 | 37.3 |

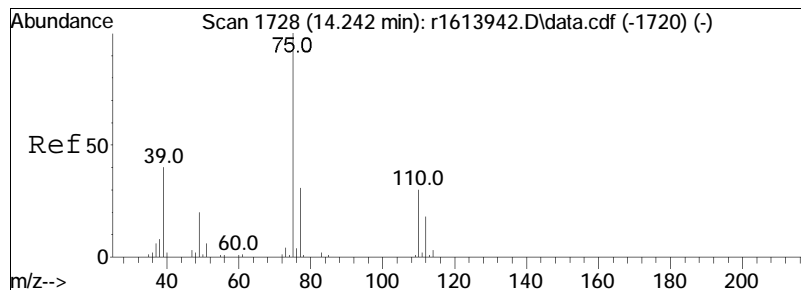




#64
 4-methyl-2-pentanone
 Concen: 10.04 ppbV
 RT: 13.68 min Scan# 1661
 Delta R.T. 0.033 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

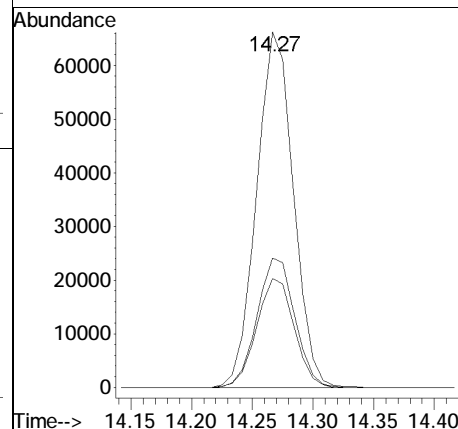
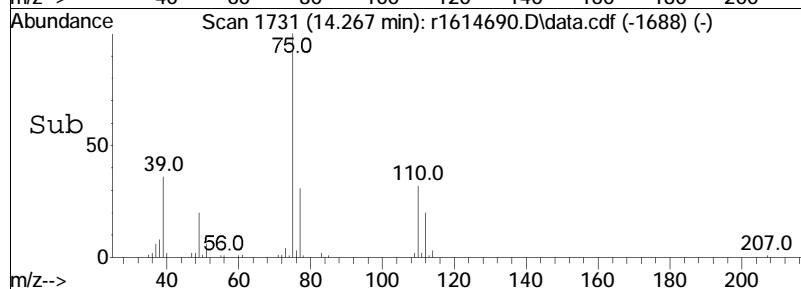
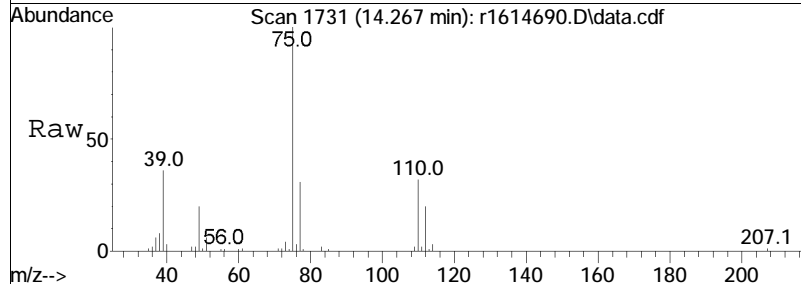
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 33.5 | 27.1 | 40.7 |
| 100 | 13.5 | 10.6 | 16.0 |

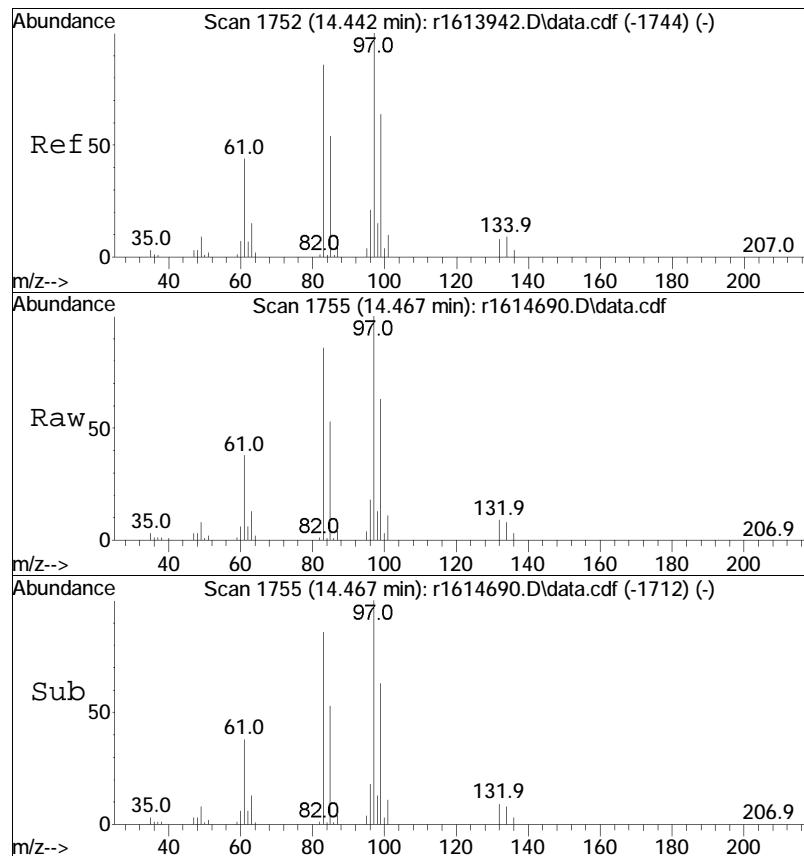




#65
 trans-1,3-dichloropropene
 Concen: 8.05 ppbV
 RT: 14.27 min Scan# 1731
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

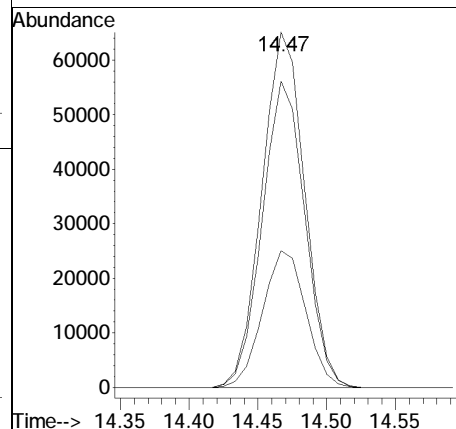
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75 | 100 | | |
| 77 | 30.7 | 24.6 | 37.0 |
| 39 | 36.4 | 32.3 | 48.5 |

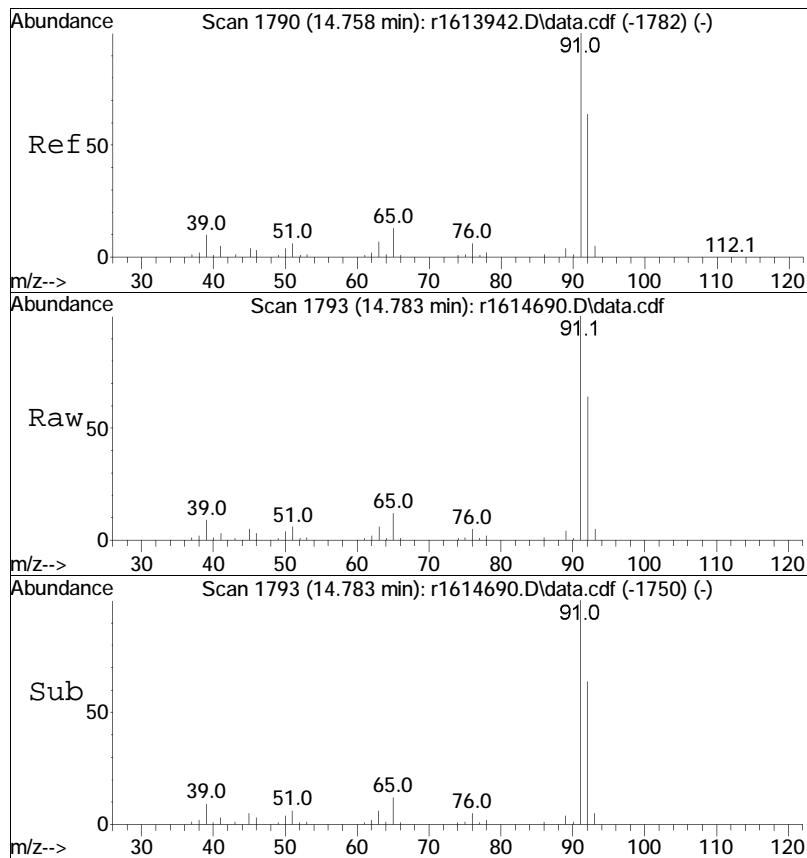




#66
 1,1,2-trichloroethane
 Concen: 10.30 ppbV
 RT: 14.47 min Scan# 1755
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

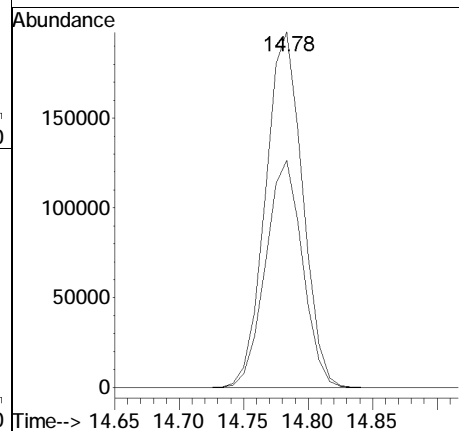
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97 | 100 | | |
| 83 | 86.2 | 68.6 | 102.8 |
| 61 | 38.5 | 35.4 | 53.0 |

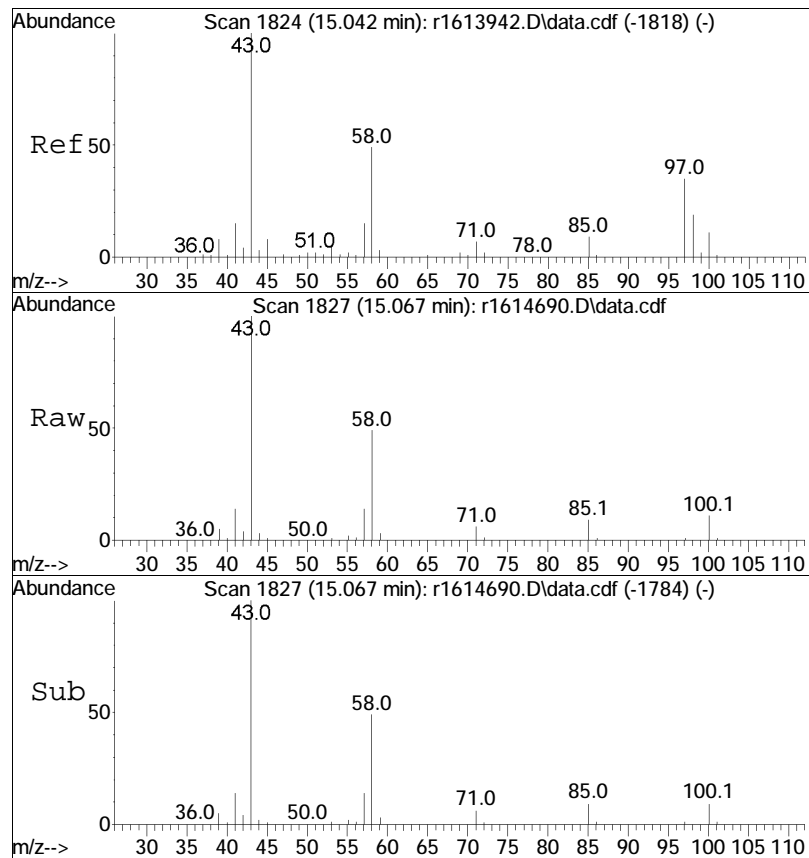




#68
toluene
Concen: 10.97 ppbV
RT: 14.78 min Scan# 1793
Delta R.T. 0.025 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

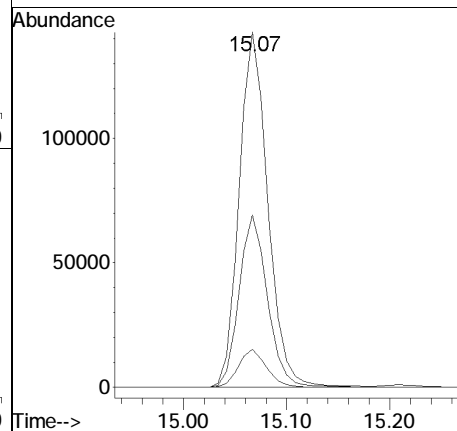
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 63.9 | 51.5 | 77.3 |

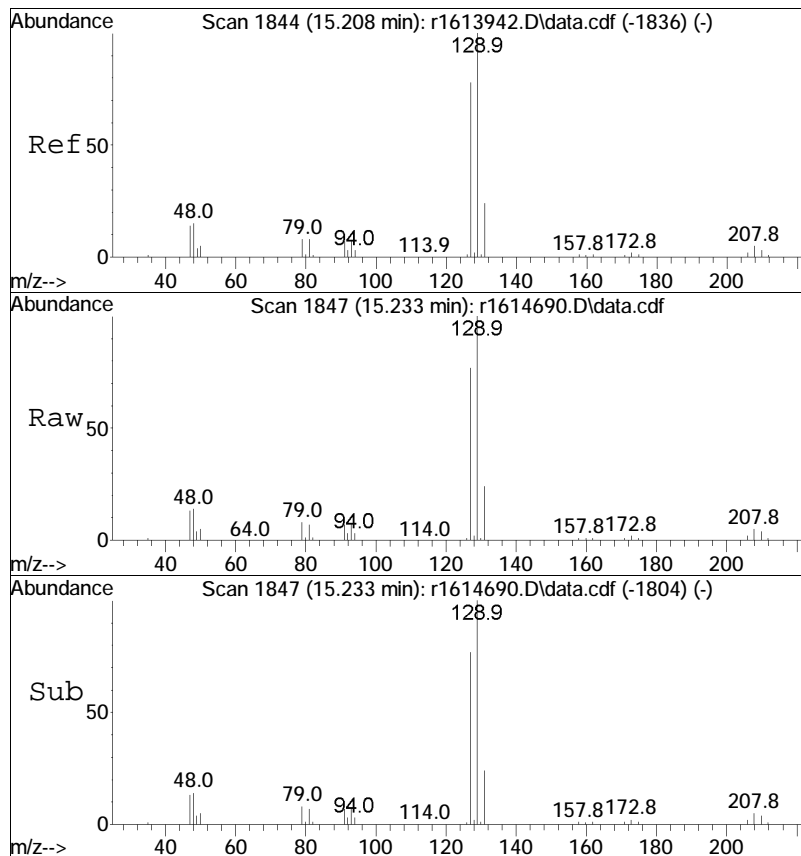




#72
 2-hexanone
 Concen: 11.45 ppbV
 RT: 15.07 min Scan# 1827
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

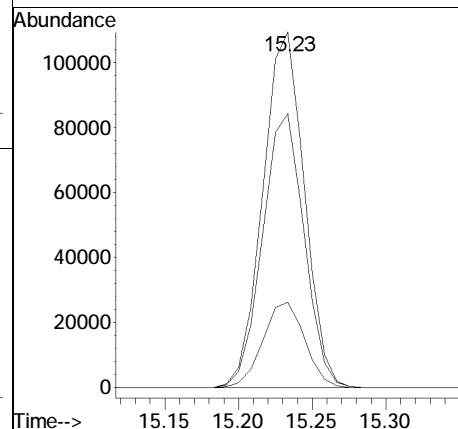
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 43 | Resp: | 275919 |
| Ion Ratio | Lower | Upper | |
| 43 | 100 | | |
| 58 | 48.5 | 40.0 | 60.0 |
| 100 | 10.7 | 9.8 | 14.8 |

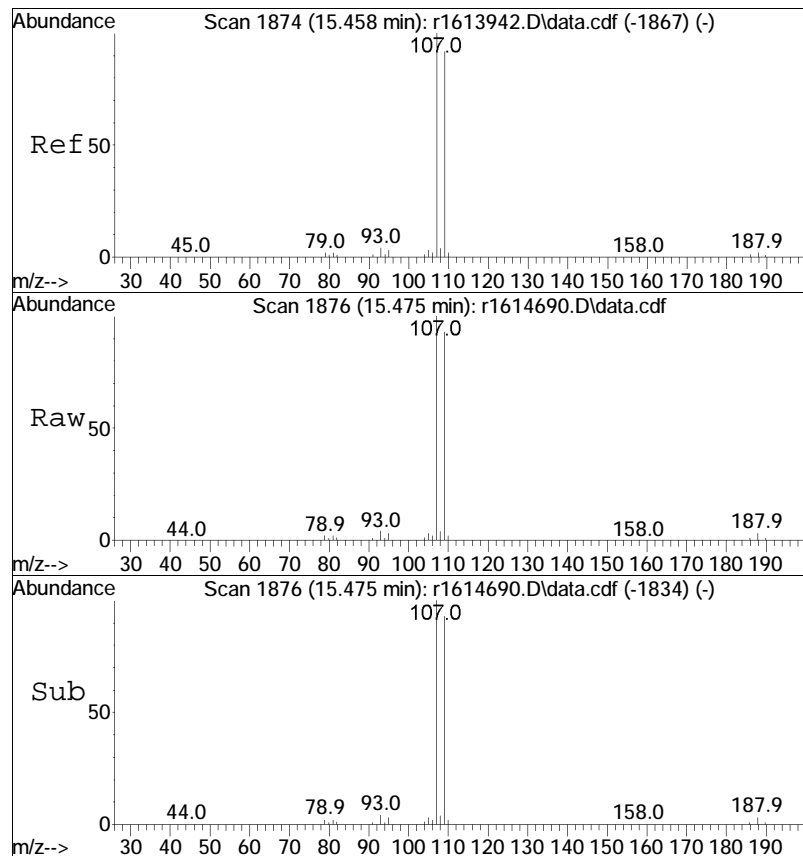




#74
 dibromochloromethane
 Concen: 12.34 ppbV
 RT: 15.23 min Scan# 1847
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

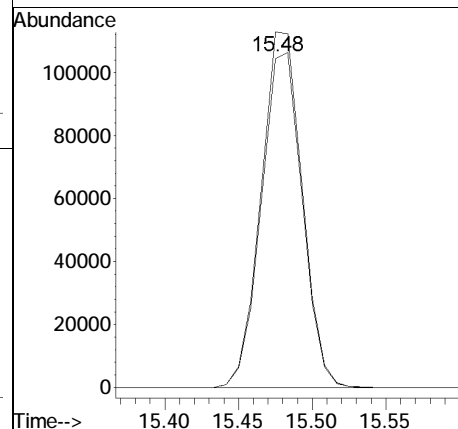
| | | | |
|-----|---------|-------|--------|
| Tgt | Ion:129 | Resp: | 213861 |
| Ion | Ratio | Lower | Upper |
| 129 | 100 | | |
| 127 | 77.1 | 62.4 | 93.6 |
| 131 | 24.0 | 19.6 | 29.4 |

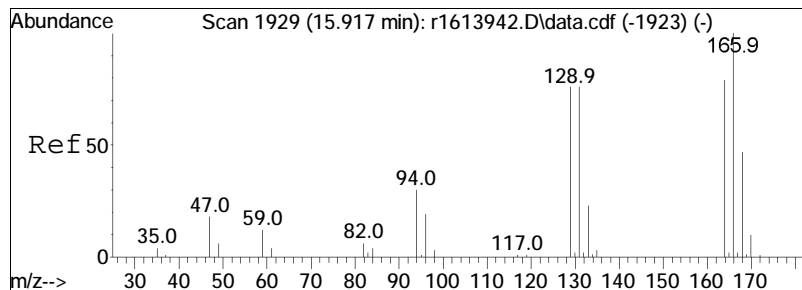




#75
 1,2-dibromoethane
 Concen: 11.47 ppbV
 RT: 15.48 min Scan# 1876
 Delta R.T. 0.017 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

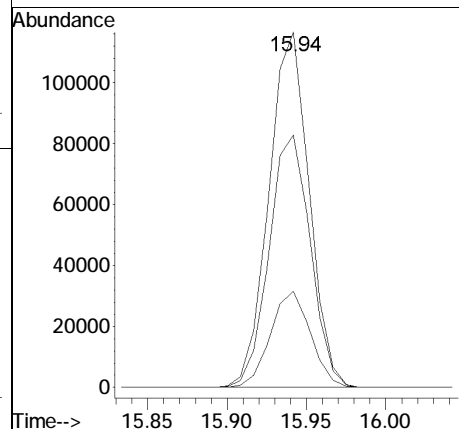
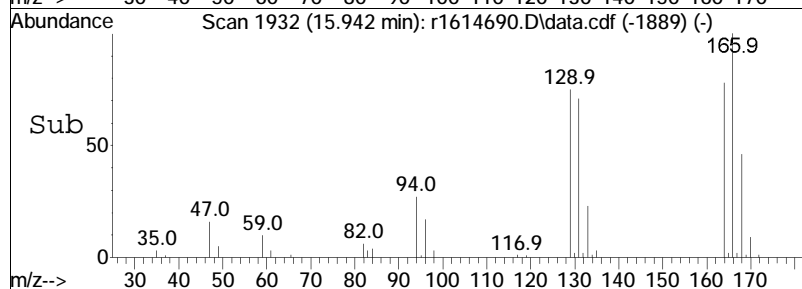
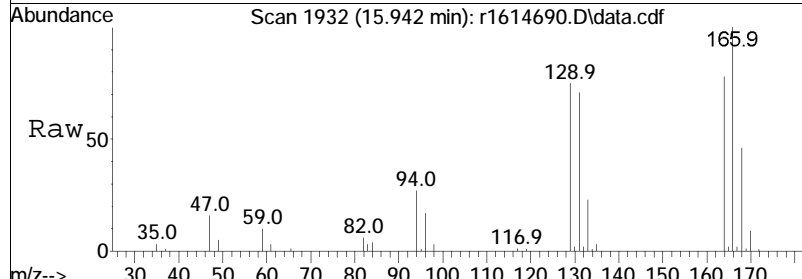
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 107 | 100 | | | |
| 109 | 92.5 | 73.7 | 110.5 | |

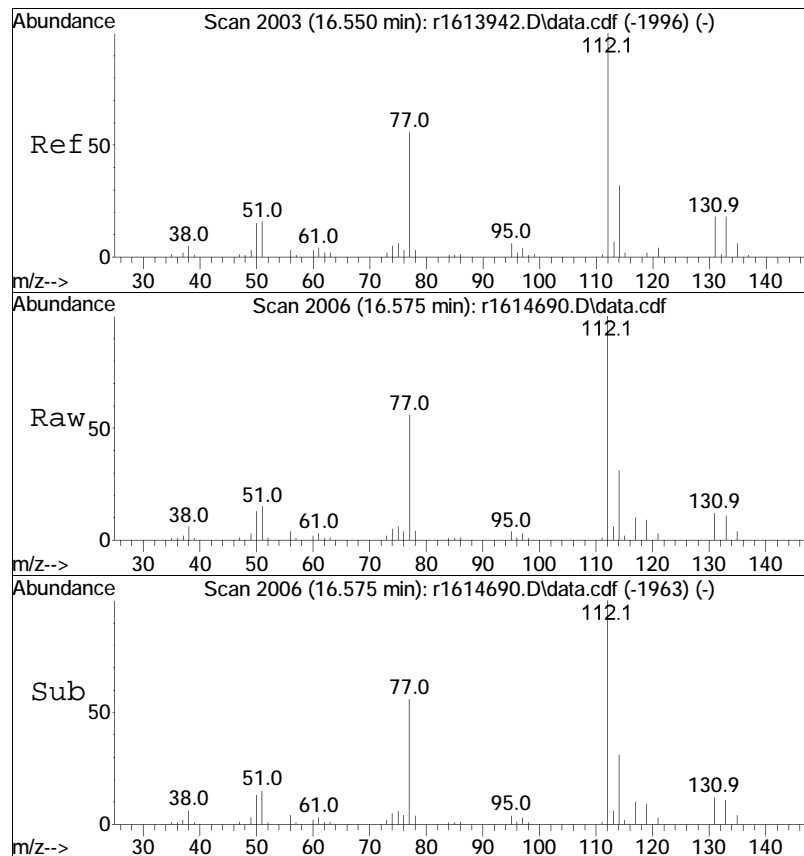




#78
 tetrachloroethene
 Concen: 12.95 ppbV
 RT: 15.94 min Scan# 1932
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

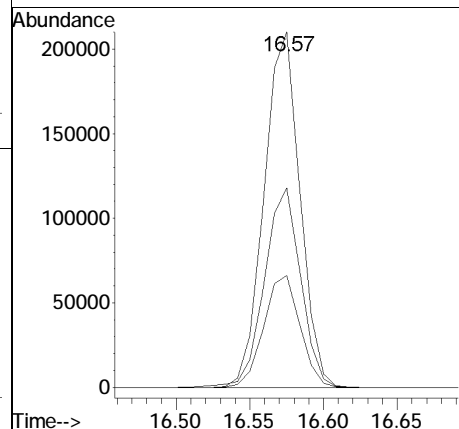
| | | | |
|-----|---------|-------|--------|
| Tgt | Ion:166 | Resp: | 205349 |
| Ion | Ratio | Lower | Upper |
| 166 | 100 | | |
| 131 | 71.0 | 60.6 | 91.0 |
| 94 | 27.0 | 24.0 | 36.0 |

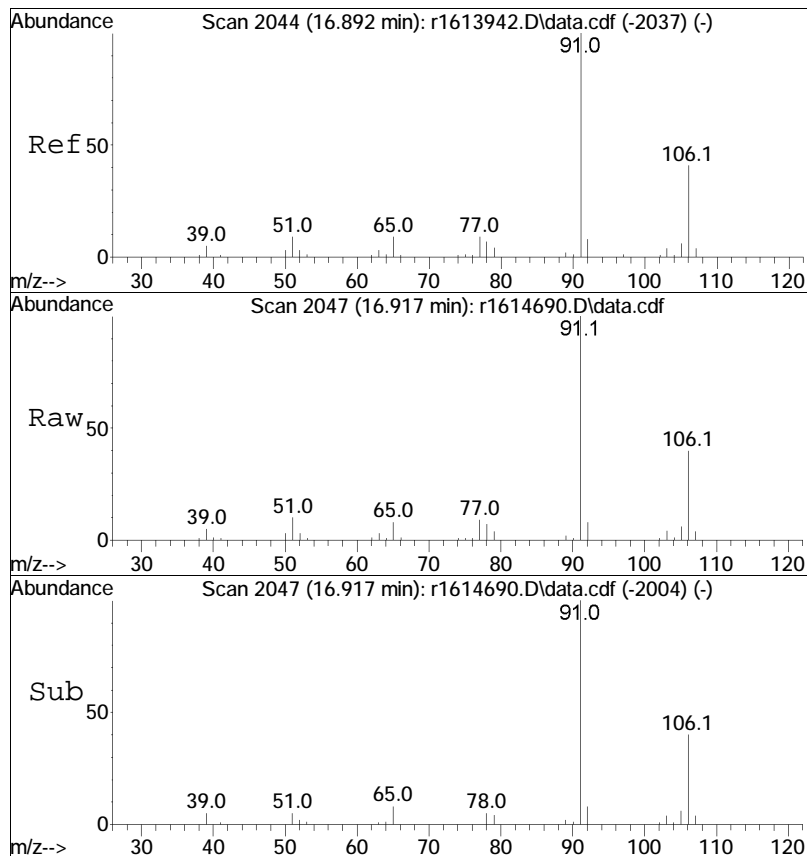




#80
chlorobenzene
Concen: 11.35 ppbV
RT: 16.57 min Scan# 2006
Delta R.T. 0.025 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

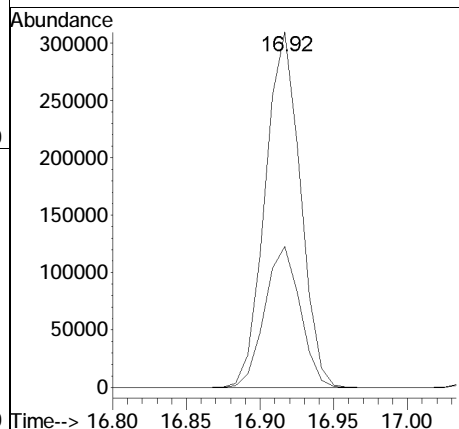
| | | | |
|-----|---------|-------|--------|
| Tgt | Ion:112 | Resp: | 355029 |
| Ion | Ratio | Lower | Upper |
| 112 | 100 | | |
| 114 | 31.5 | 25.4 | 38.0 |
| 77 | 56.1 | 45.3 | 67.9 |

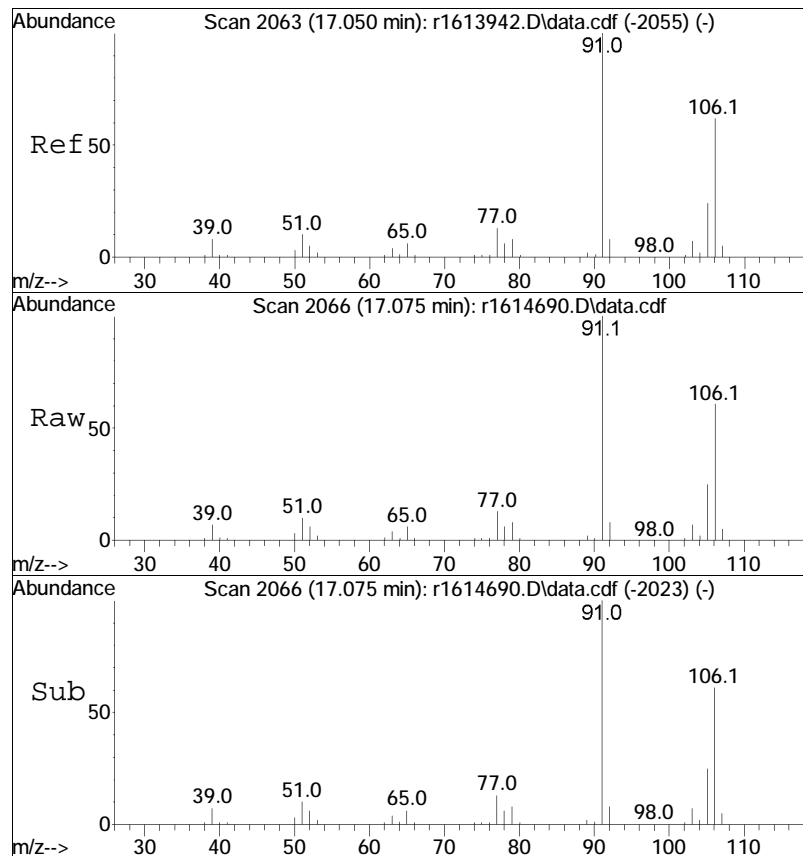




#81
 ethylbenzene
 Concen: 11.38 ppbV
 RT: 16.92 min Scan# 2047
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

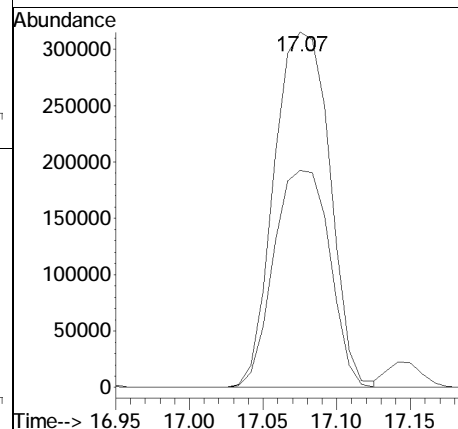
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 39.7 | 32.5 | 48.7 |

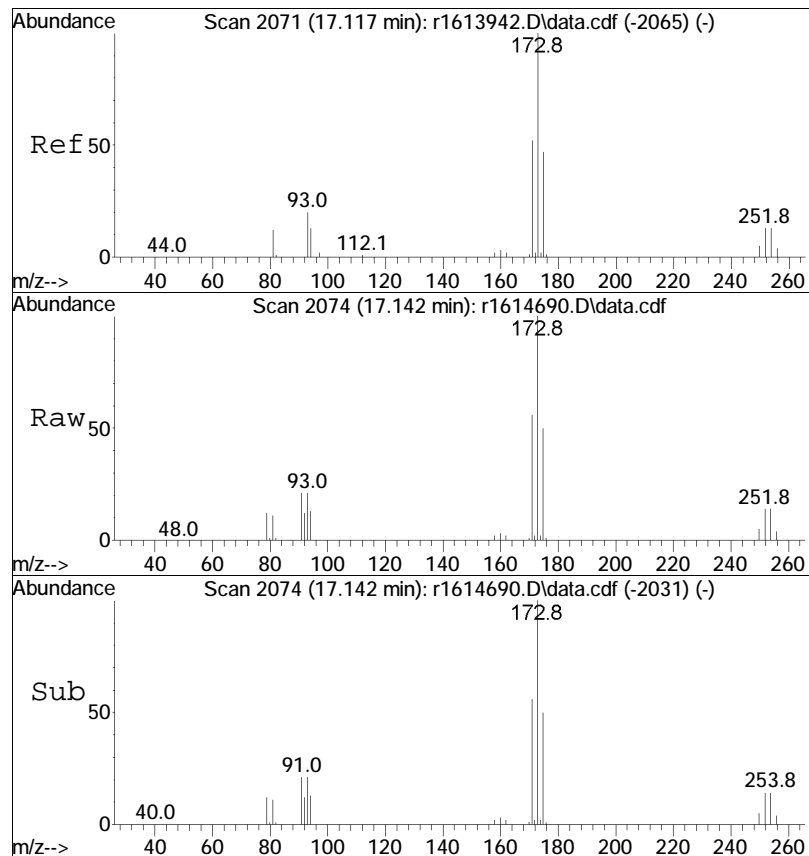




#83
 m+p-xylene
 Concen: 22.40 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

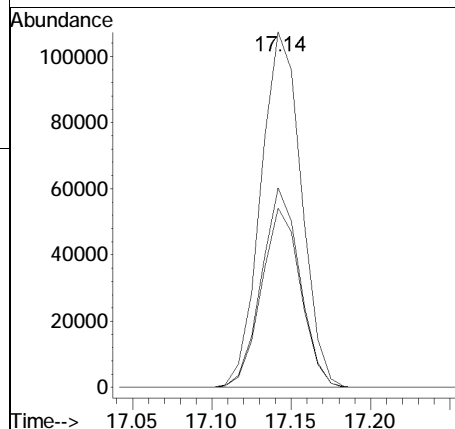
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 61.1 | 49.8 | 74.6 |

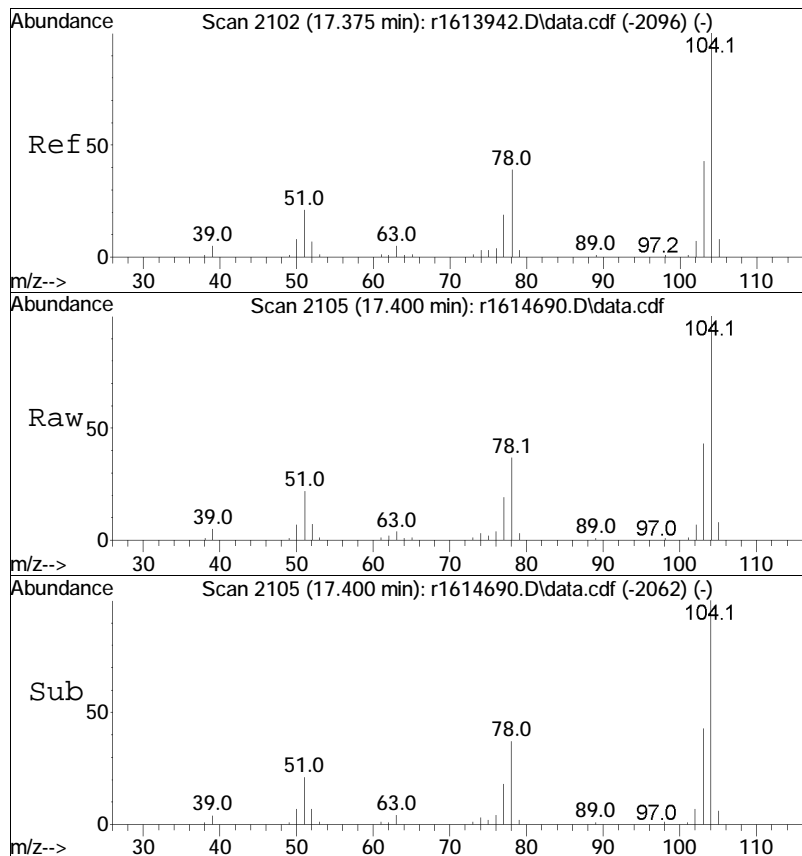




#84
 bromoform
 Concen: 13.29 ppbV
 RT: 17.14 min Scan# 2074
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

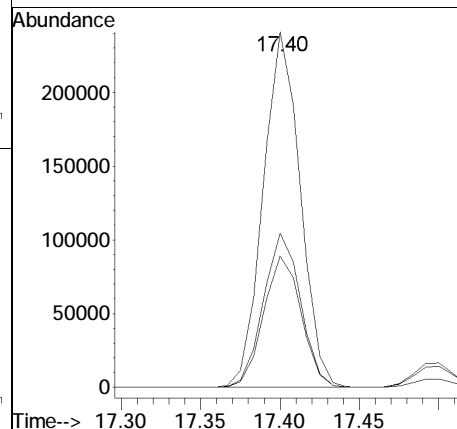
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 173 | 100 | | |
| 175 | 50.4 | 37.6 | 56.4 |
| 171 | 56.2 | 41.3 | 61.9 |

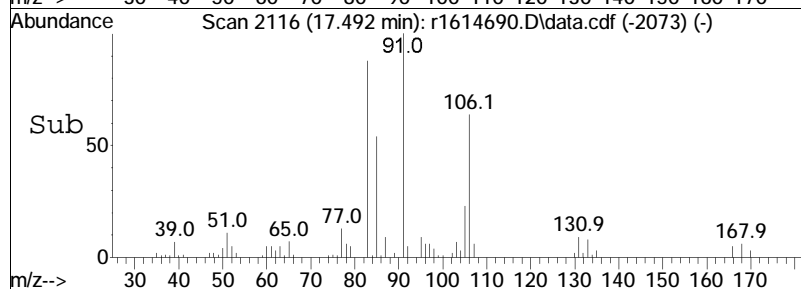
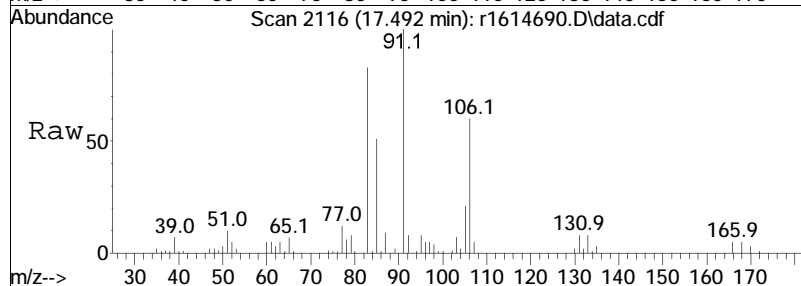
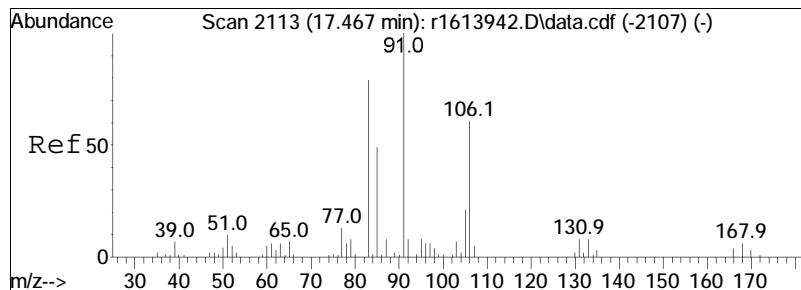




#85
styrene
Concen: 11.61 ppbV
RT: 17.40 min Scan# 2105
Delta R.T. 0.025 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

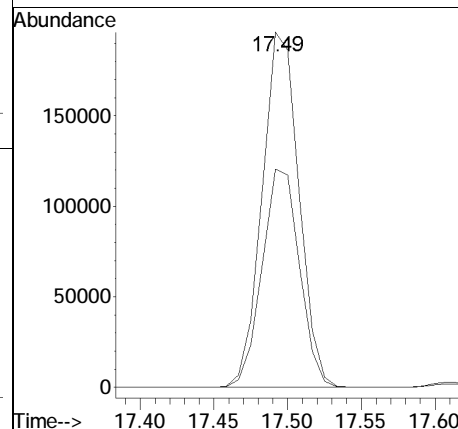
| | | | |
|-----|---------|-------|--------|
| Tgt | Ion:104 | Resp: | 391023 |
| Ion | Ratio | Lower | Upper |
| 104 | 100 | | |
| 103 | 43.4 | 34.2 | 51.2 |
| 78 | 36.9 | 31.2 | 46.8 |

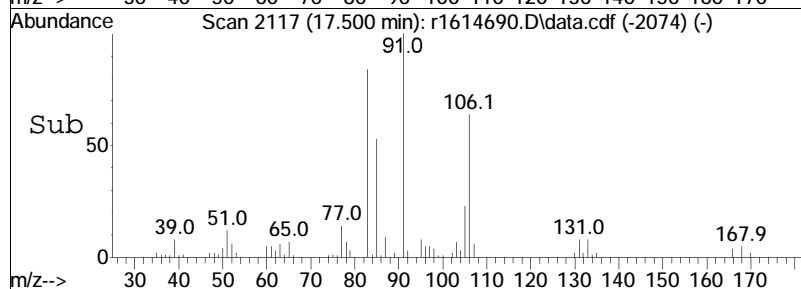
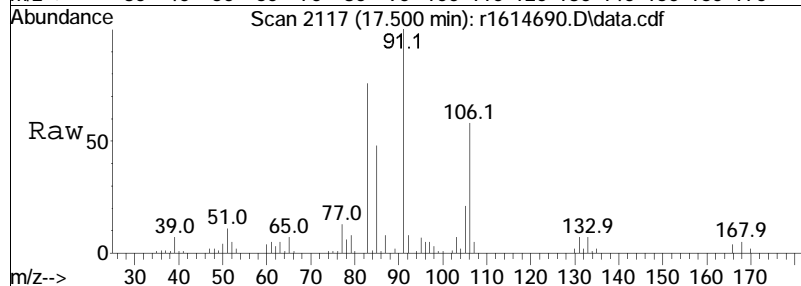
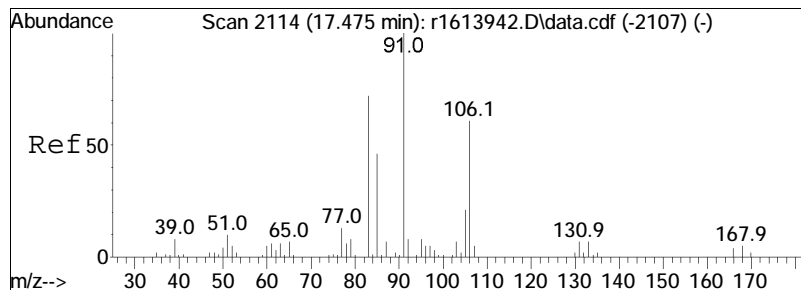




#86
 1,1,2,2-tetrachloroethane
 Concen: 12.52 ppbV
 RT: 17.49 min Scan# 2116
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

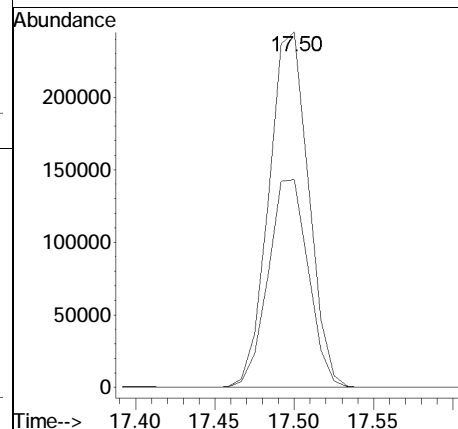
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83 | 100 | | |
| 85 | 61.5 | 50.2 | 75.4 |

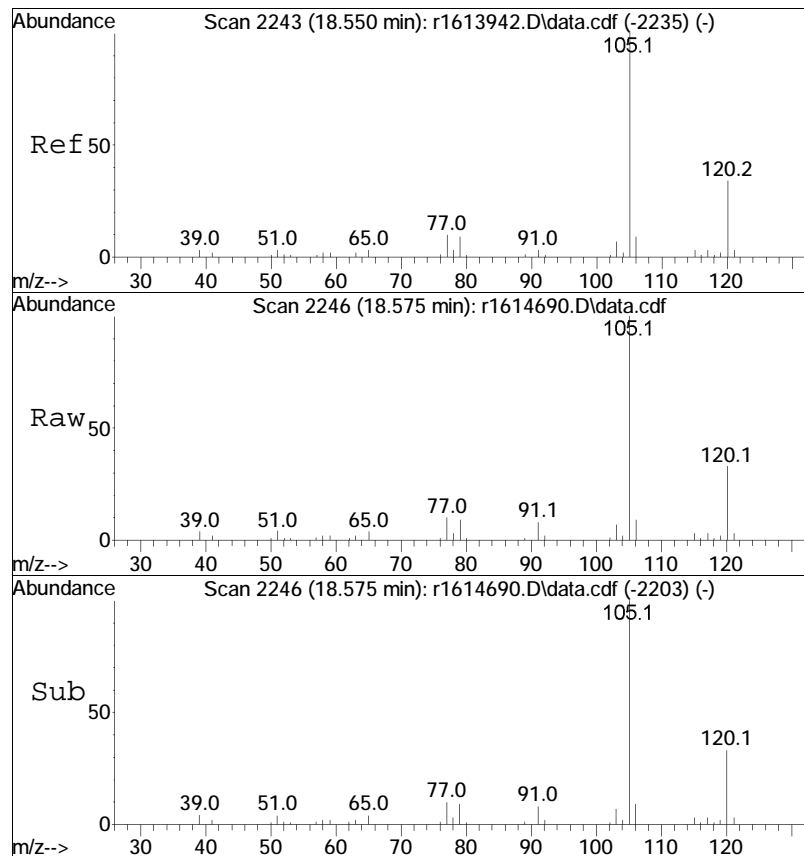




#87
o-xylene
Concen: 11.51 ppbV
RT: 17.50 min Scan# 2117
Delta R.T. 0.025 min
Lab File: r1614690.D
Acq: 4 Jan 2020 12:17 PM

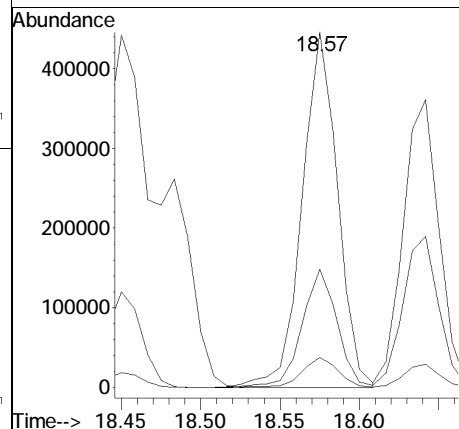
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 58.5 | 48.8 | 73.2 |

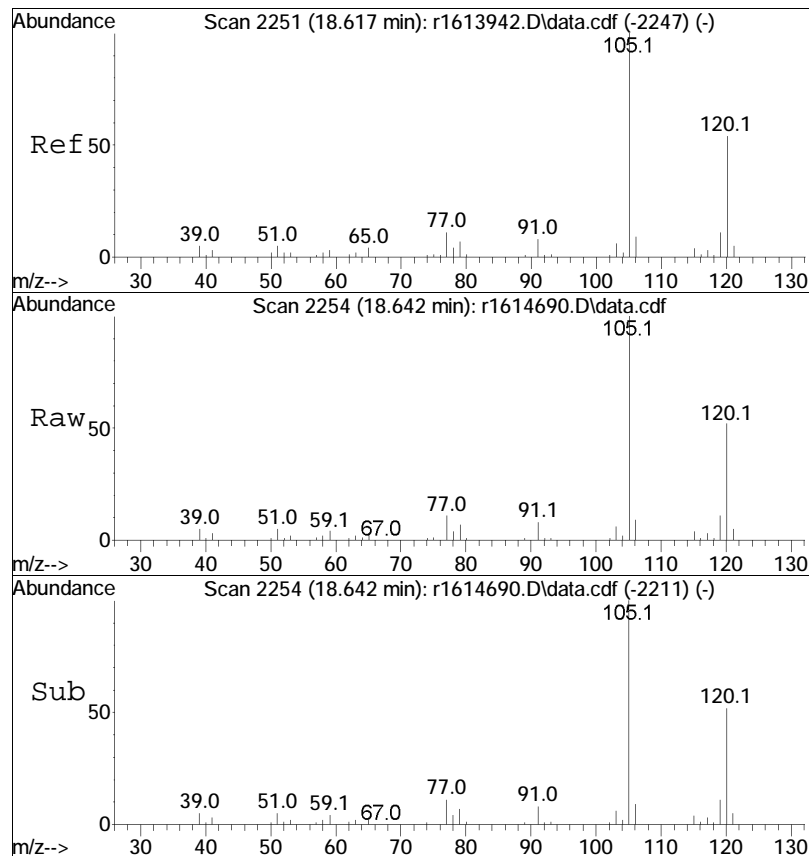




#96
 4-ethyl toluene
 Concen: 12.01 ppbV
 RT: 18.57 min Scan# 2246
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

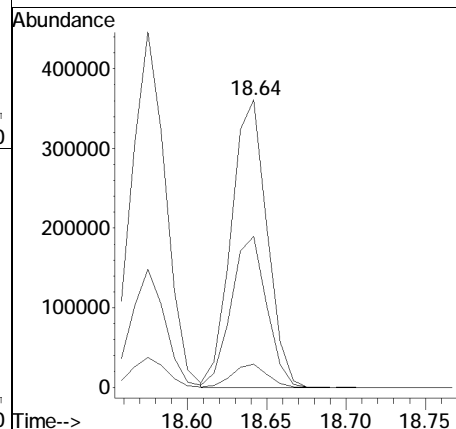
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 105 | Resp: | 692619 |
| Ion Ratio | Lower | Upper | |
| 105 | 100 | | |
| 120 | 33.2 | 27.0 | 40.6 |
| 91 | 8.4 | 6.9 | 10.3 |

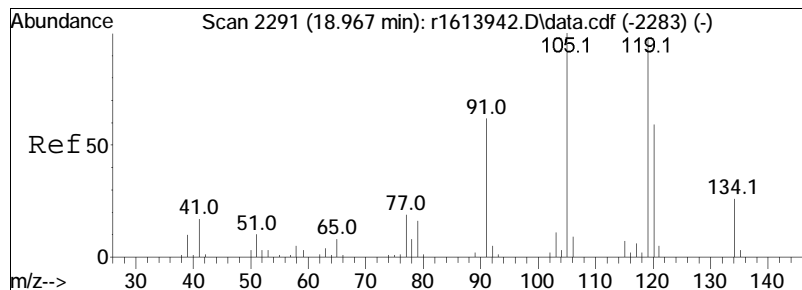




#97
 1,3,5-trimethylbenzene
 Concen: 11.77 ppbV
 RT: 18.64 min Scan# 2254
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

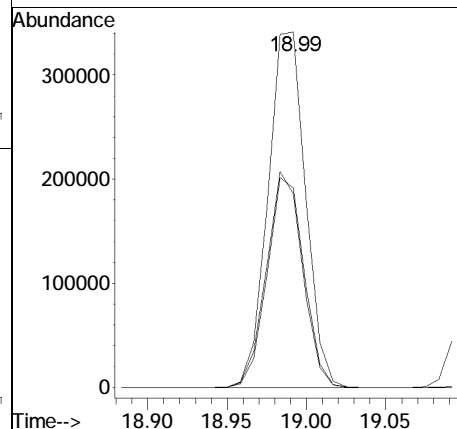
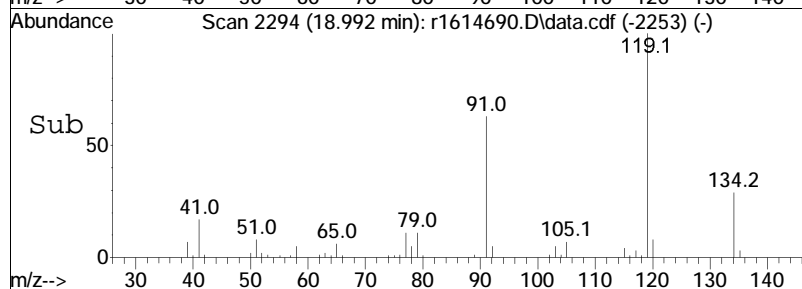
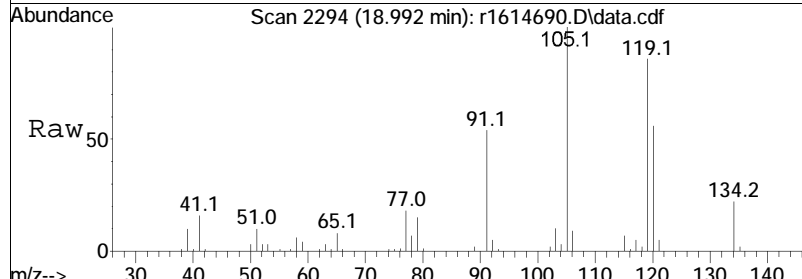
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 52.5 | 42.9 | 64.3 |
| 91 | 8.1 | 6.6 | 9.8 |

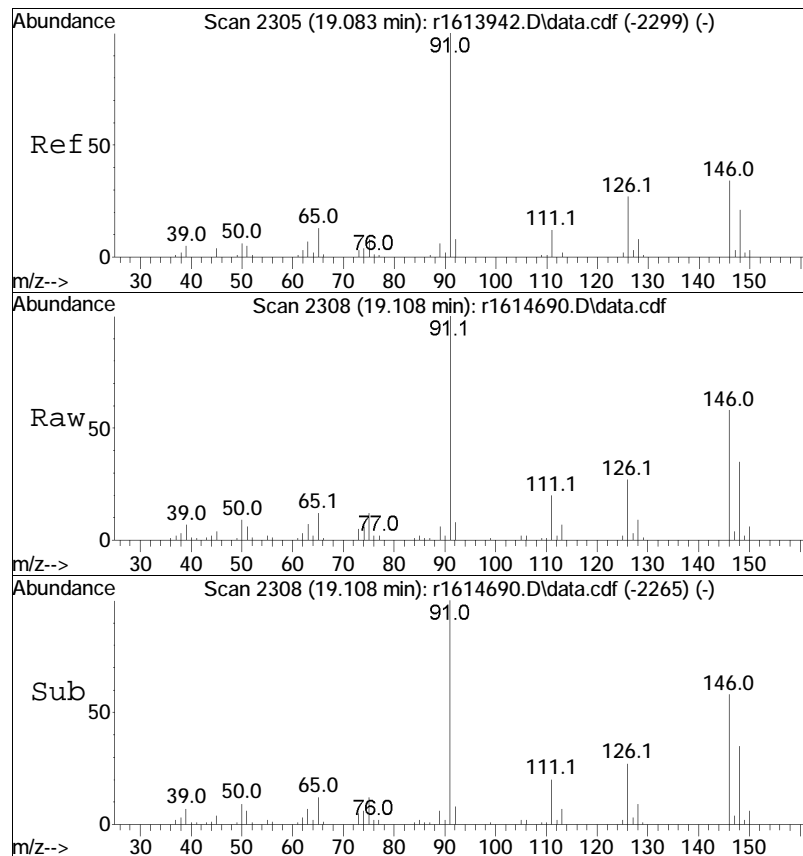




#99
 1,2,4-trimethylbenzene
 Concen: 12.19 ppbV
 RT: 18.99 min Scan# 2294
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

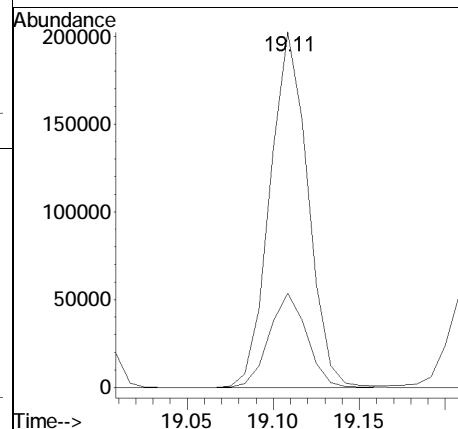
| | | | |
|-----|---------|-------|--------|
| Tgt | Ion:105 | Resp: | 562310 |
| Ion | Ratio | Lower | Upper |
| 105 | 100 | | |
| 120 | 56.1 | 46.9 | 70.3 |
| 91 | 54.5 | 49.3 | 73.9 |

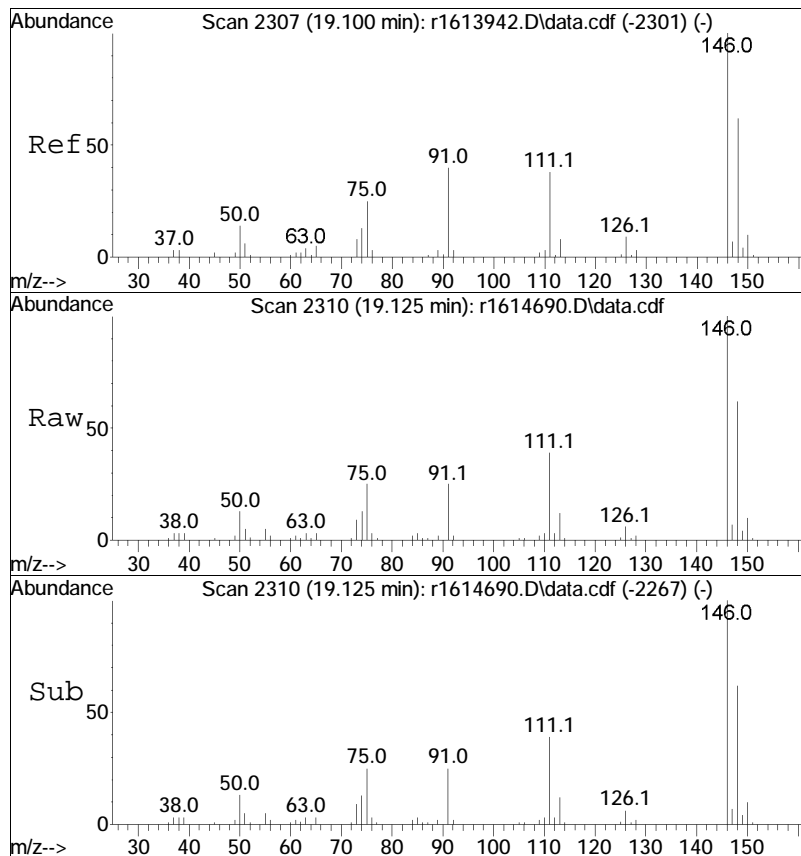




#101
 Benzyl Chloride
 Concen: 11.95 ppbV
 RT: 19.11 min Scan# 2308
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

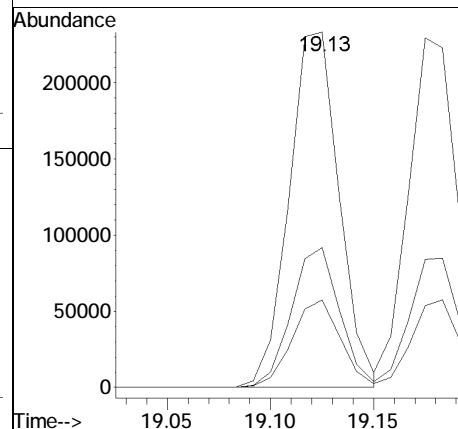
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 126 | 26.5 | 21.8 | 32.6 |

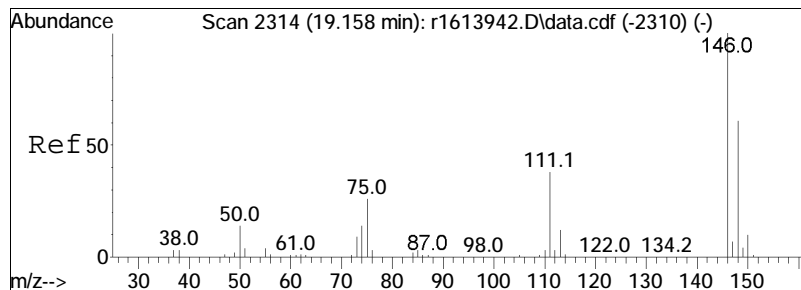




#102
 1,3-dichlorobenzene
 Concen: 12.43 ppbV
 RT: 19.13 min Scan# 2310
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

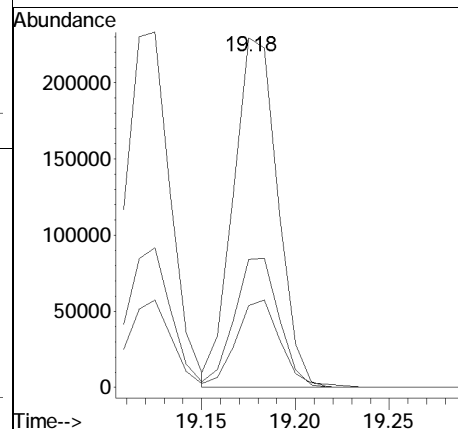
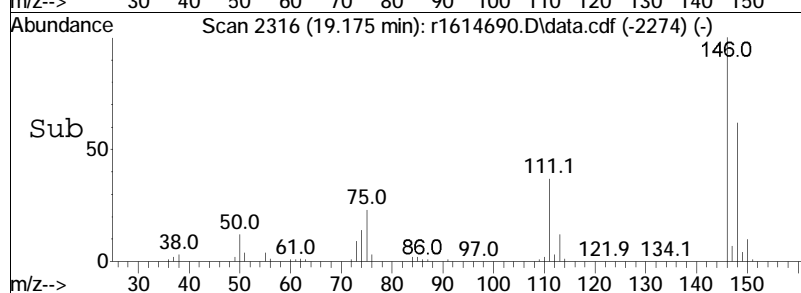
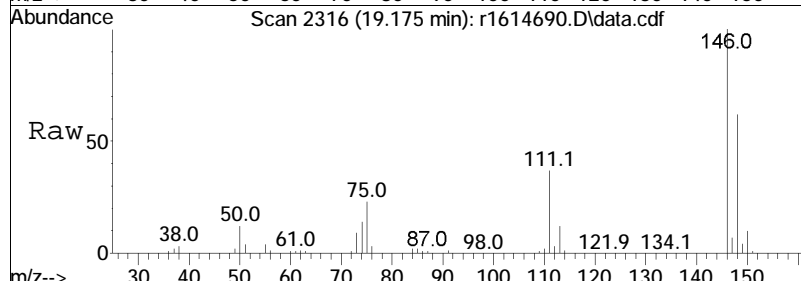
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 146 | 100 | | | |
| 111 | 39.3 | 30.9 | 46.3 | |
| 75 | 24.6 | 20.4 | 30.6 | |

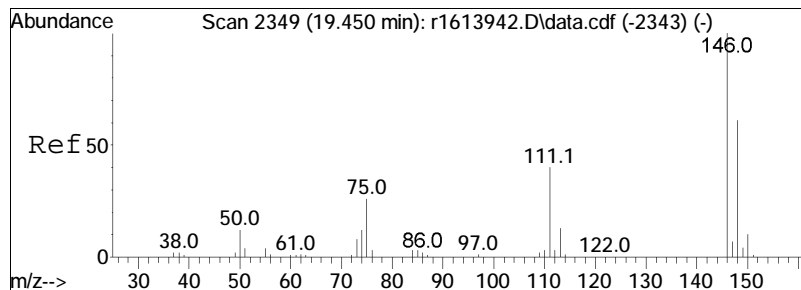




#103
 1,4-dichlorobenzene
 Concen: 12.38 ppbV
 RT: 19.18 min Scan# 2316
 Delta R.T. 0.017 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

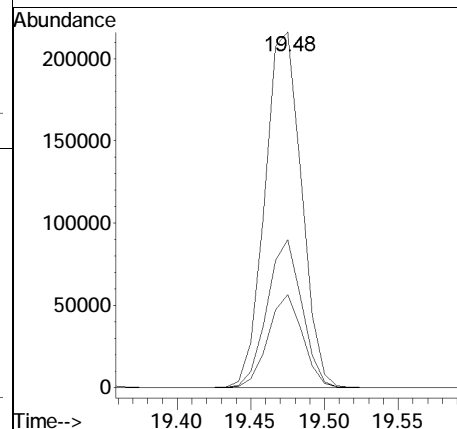
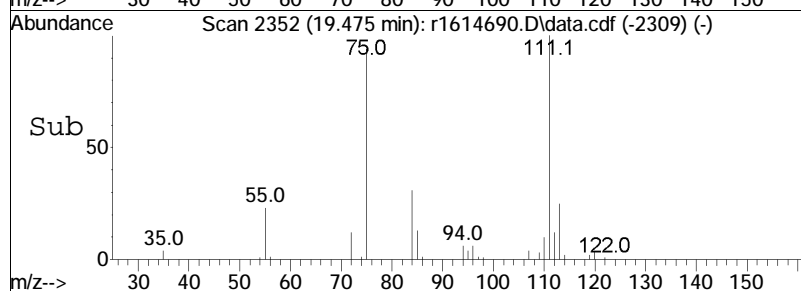
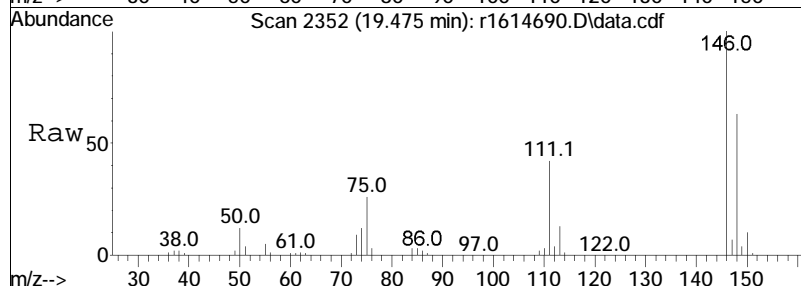
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146 | 100 | | |
| 111 | 36.6 | 30.6 | 46.0 |
| 75 | 23.4 | 21.3 | 31.9 |

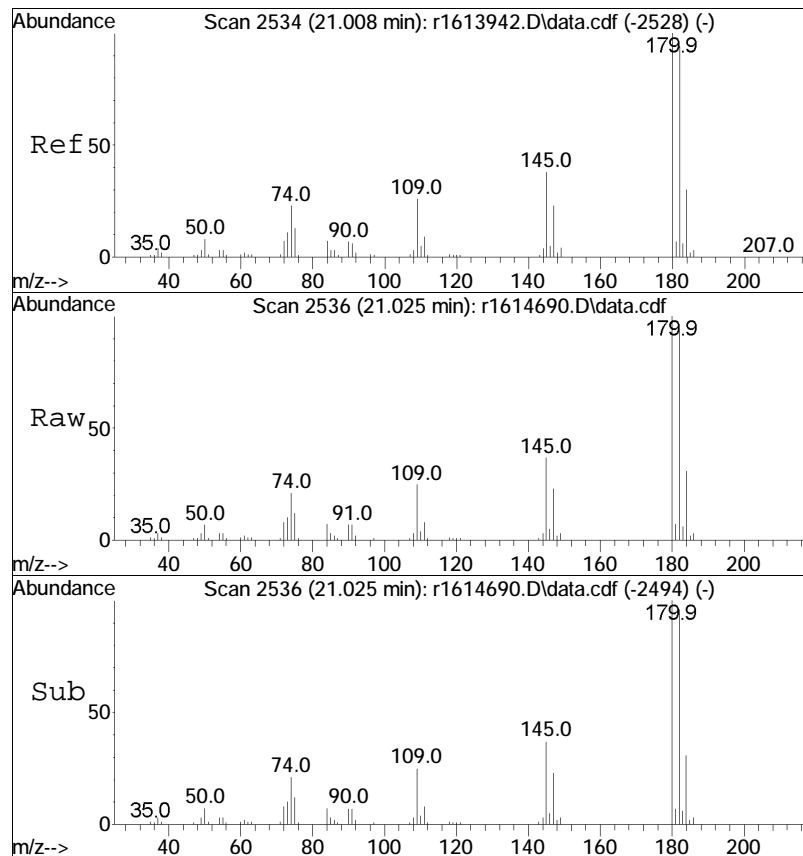




#107
 1,2-dichlorobenzene
 Concen: 12.52 ppbV
 RT: 19.48 min Scan# 2352
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

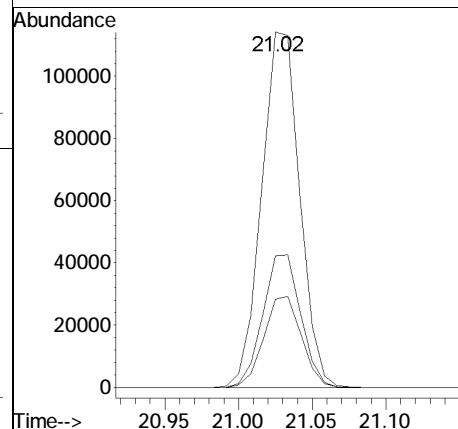
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146 | 100 | | |
| 111 | 41.6 | 32.1 | 48.1 |
| 75 | 26.1 | 21.0 | 31.4 |

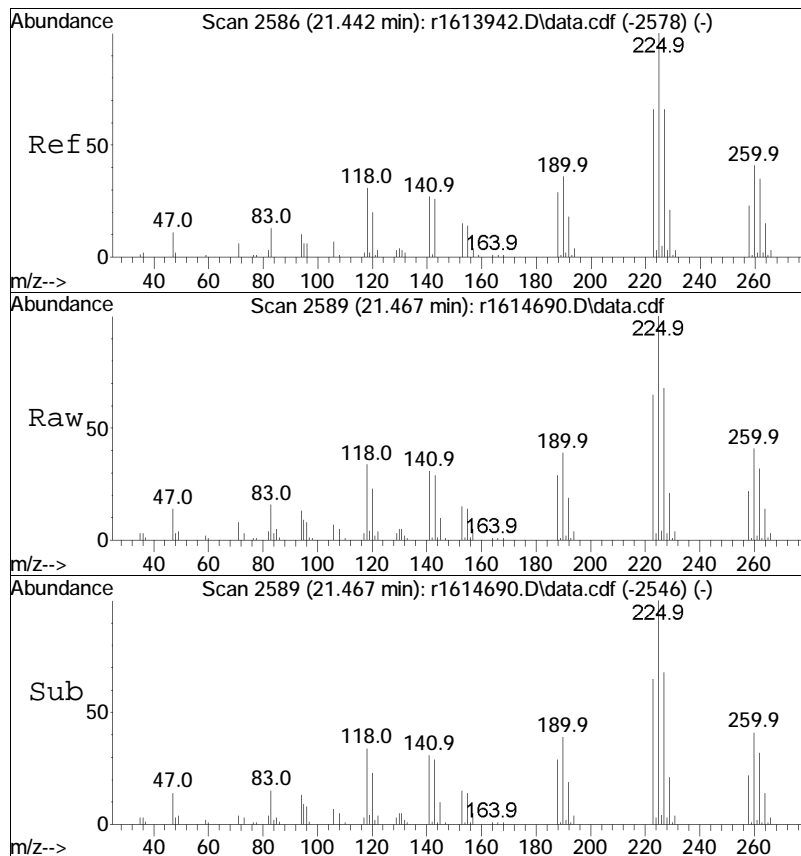




#115
 1,2,4-trichlorobenzene
 Concen: 13.97 ppbV
 RT: 21.02 min Scan# 2536
 Delta R.T. 0.017 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

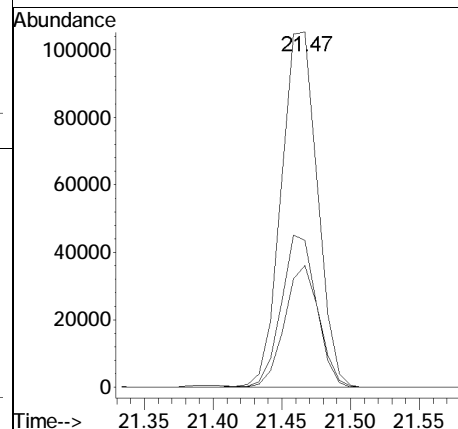
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 180 | 100 | | | |
| 145 | 37.1 | 30.2 | 45.2 | |
| 109 | 24.8 | 20.8 | 31.2 | |





#119
 hexachlorobutadiene
 Concen: 12.65 ppbV
 RT: 21.47 min Scan# 2589
 Delta R.T. 0.025 min
 Lab File: r1614690.D
 Acq: 4 Jan 2020 12:17 PM

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225 | 100 | | |
| 260 | 41.3 | 32.7 | 49.1 |
| 118 | 34.3 | 25.7 | 38.5 |



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614697.D
 Acq On : 4 Jan 2020 8:32 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-5,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:16:16 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 207980 | 10.000 | ppbV | 0.03 |
| Standard Area = 223987 | | | Recovery = | | 92.85% | |
| 43) 1,4-difluorobenzene | 11.83 | 114 | 572856 | 10.000 | ppbV | 0.04 |
| Standard Area = 600707 | | | Recovery = | | 95.36% | |
| 67) chlorobenzene-D5 | 16.54 | 54 | 69798 | 10.000 | ppbV | 0.03 |
| Standard Area = 75409 | | | Recovery = | | 92.56% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 5) dichlorodifluoromethane | 3.93 | 85 | 6112 | 0.396 | ppbV | 98 |
| 6) chloromethane | 4.11 | 50 | 4442 | 0.474 | ppbV | 96 |
| 7) Freon-114 | 4.23 | | 0 | N.D. | | |
| 10) 1,3-butadiene | 4.53 | | 0 | N.D. | | |
| 13) bromomethane | 0.00 | | 0 | N.D. | | |
| 14) chloroethane | 0.00 | | 0 | N.D. | d | |
| 15) ethanol | 5.23 | 31 | 101494 | 15.136 | ppbV # | 82 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 5.82 | 43 | 23288M4 | 1.876 | ppbV | |
| 21) trichlorofluoromethane | 6.02 | 101 | 2226M4 | 0.179 | ppbV | |
| 22) isopropyl alcohol | 6.15 | 45 | 8669 | 0.542 | ppbV | 98 |
| 27) tertiary butyl alcohol | 6.91 | | 0 | N.D. | | |
| 28) methylene chloride | 6.97 | 49 | 2753 | 0.217 | ppbV | 99 |
| 29) 3-chloropropene | 0.00 | | 0 | N.D. | d | |
| 30) carbon disulfide | 7.26 | 76 | 2255 | 0.067 | ppbV # | 16 |
| 31) Freon 113 | 7.30 | 101 | 1979 | 0.108 | ppbV | 95 |
| 32) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 33) 1,1-dichloroethane | 0.00 | | 0 | N.D. | | |
| 34) MTBE | 8.43 | | 0 | N.D. | | |
| 36) 2-butanone | 8.87 | 43 | 4282 | 0.178 | ppbV # | 96 |
| 38) Ethyl Acetate | 9.67 | | 0 | N.D. | | |
| 39) chloroform | 9.72 | | 0 | N.D. | | |
| 40) Tetrahydrofuran | 10.18 | 42 | 1800 | 0.123 | ppbV | 95 |
| 42) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |
| 44) hexane | 9.63 | 57 | 9495 | 0.546 | ppbV # | 46 |
| 50) benzene | 11.39 | 78 | 10477 | 0.283 | ppbV | 96 |
| 53) cyclohexane | 11.71 | 56 | 7881 | 0.427 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614697.D
 Acq On : 4 Jan 2020 8:32 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-5,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:16:16 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\r1614690.D
 Sub List : TO15-NY-7-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 56) 1,2-dichloropropane | 0.00 | | 0 | | N.D. | |
| 57) bromodichloromethane | 12.57 | | 0 | | N.D. | |
| 58) 1,4-dioxane | 0.00 | | 0 | | N.D. | |
| 60) 2,2,4-trimethylpentane | 0.00 | | 0 | | N.D. d | |
| 62) heptane | 13.01 | 43 | 14480 | 0.555 | ppbV | 99 |
| 63) cis-1,3-dichloropropene | 0.00 | | 0 | | N.D. | |
| 64) 4-methyl-2-pentanone | 13.72 | 43 | 6507 | 0.215 | ppbV | 93 |
| 65) trans-1,3-dichloropropene | 0.00 | | 0 | | N.D. | |
| 66) 1,1,2-trichloroethane | 0.00 | | 0 | | N.D. | |
| 68) toluene | 14.79 | 91 | 35225 | 1.058 | ppbV | 98 |
| 72) 2-hexanone | 0.00 | | 0 | | N.D. d | |
| 74) dibromochloromethane | 0.00 | | 0 | | N.D. | |
| 75) 1,2-dibromoethane | 0.00 | | 0 | | N.D. | |
| 80) chlorobenzene | 16.52 | | 0 | | N.D. | |
| 81) ethylbenzene | 16.93 | 91 | 10418 | 0.250 | ppbV | 92 |
| 83) m+p-xylene | 17.07 | 91 | 19523 | 0.572 | ppbV | 96 |
| 84) bromoform | 0.00 | | 0 | | N.D. | |
| 85) styrene | 17.41 | | 0 | | N.D. | |
| 86) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | | N.D. d | |
| 87) o-xylene | 17.51 | 91 | 7730 | 0.225 | ppbV | 94 |
| 96) 4-ethyl toluene | 18.58 | | 0 | | N.D. | |
| 97) 1,3,5-trimethylbenzene | 18.65 | | 0 | | N.D. | |
| 99) 1,2,4-trimethylbenzene | 19.00 | 105 | 7458 | 0.175 | ppbV # | 59 |
| 101) Benzyl Chloride | 0.00 | | 0 | | N.D. d | |
| 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 | 0.00 | | 0 | | N.D. | |
| 119) hexachlorobutadiene | 0.00 | | 0 | | N.D. | |

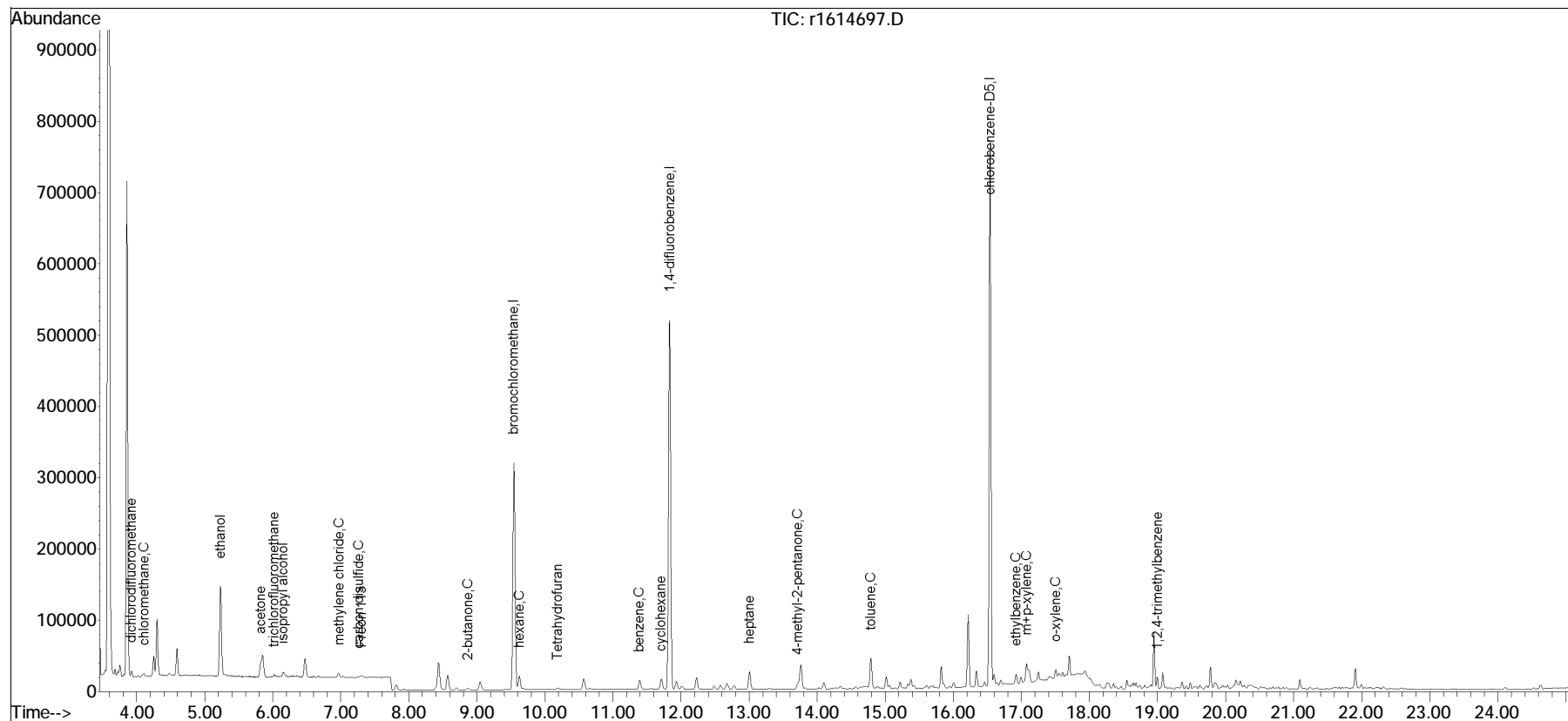
(#) = qualifier out of range (m) = manual integration (+) = signals summed

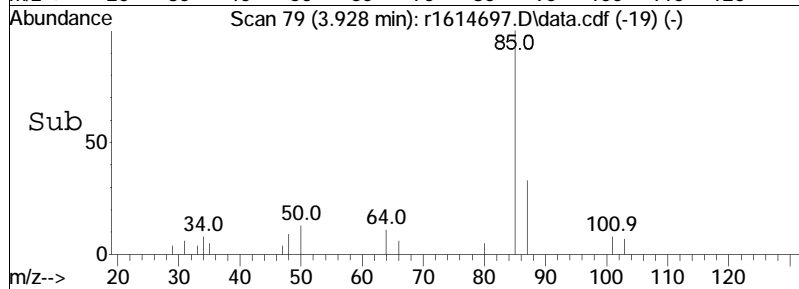
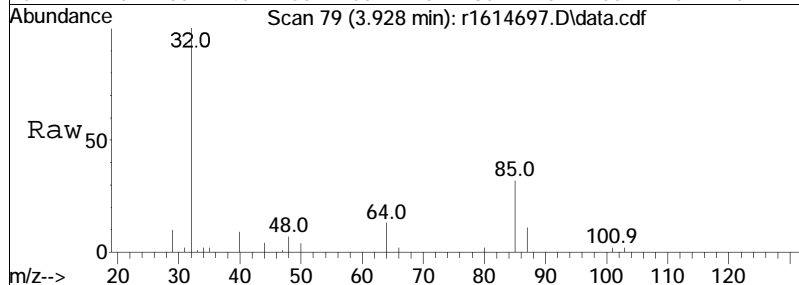
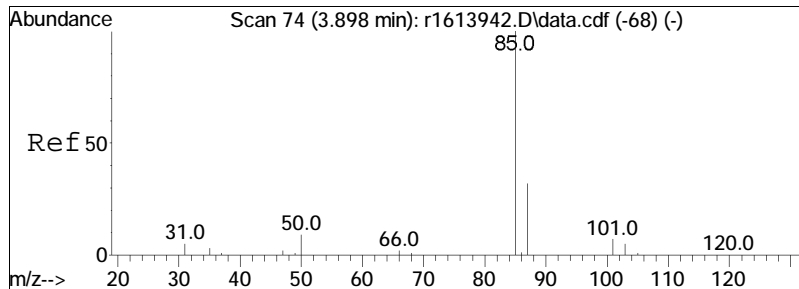
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\
 Data File : r1614697.D
 Acq On : 4 Jan 2020 8:32 PM
 Operator : AIRLAB16:RY
 Sample : WG1327071-5,3,250,250
 Misc : WG1327071,ICAL16311
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 09:16:16 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104T\TFS16_191119.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 15:01:46 2019
 Response via : Initial Calibration

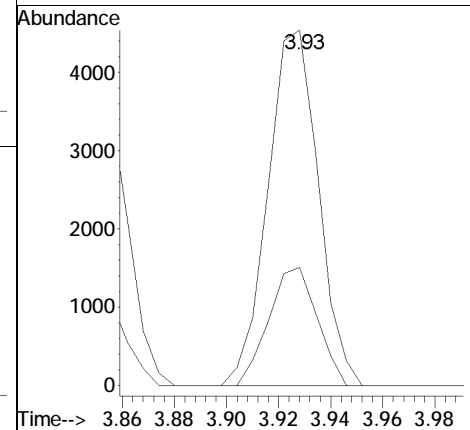
Sub List : TO15-NY-7-SIM - .\Airlab16\2020\01-JAN\200104T\r1614690.D

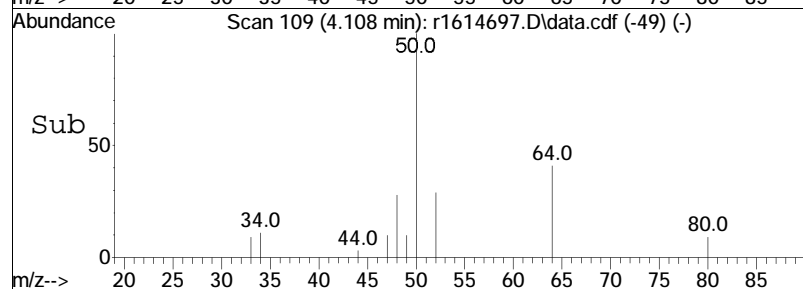
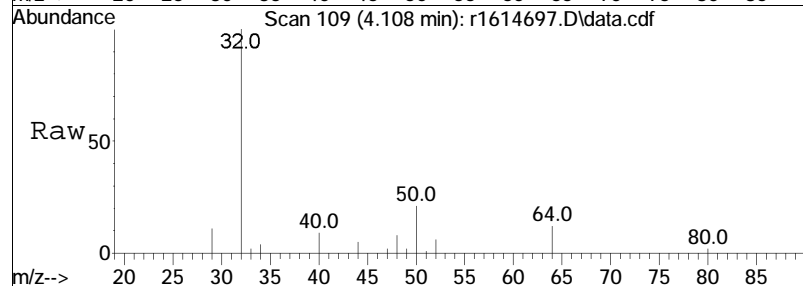
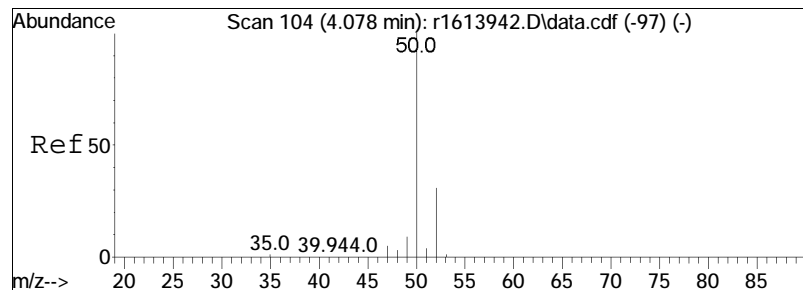




#5
dichlorodifluoromethane
Concen: 0.40 ppbV
RT: 3.93 min Scan# 79
Delta R.T. 0.030 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

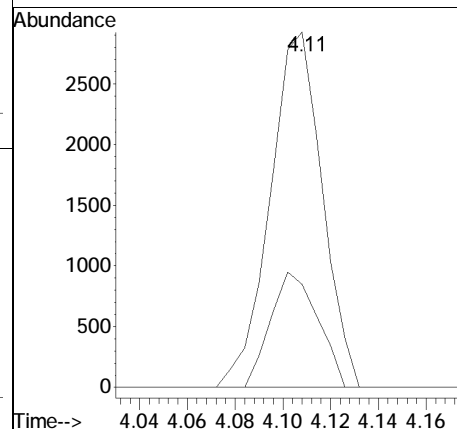
Tgt Ion: 85 Resp: 6112
Ion Ratio Lower Upper
85 100
87 33.2 25.5 38.3

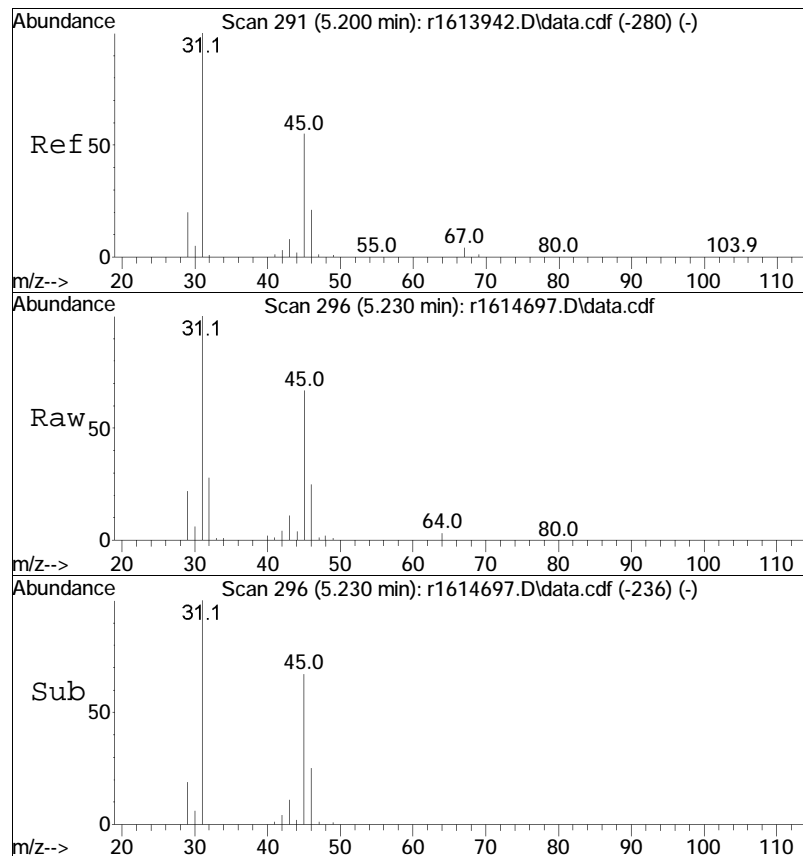




#6
 chloromethane
 Concen: 0.47 ppbV
 RT: 4.11 min Scan# 109
 Delta R.T. 0.030 min
 Lab File: r1614697.D
 Acq: 4 Jan 2020 8:32 PM

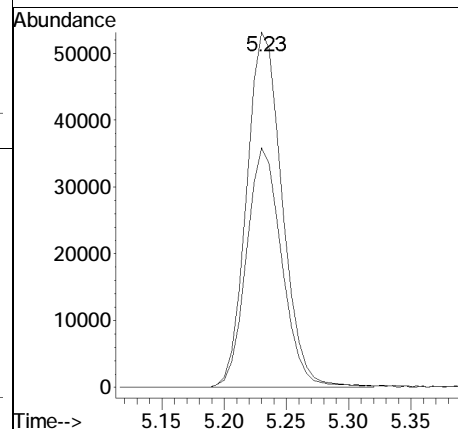
| Tgt | Ion | Resp | Lower | Upper |
|-----|------|------|-------|-------|
| 50 | 100 | | | |
| 52 | 29.0 | 24.8 | 37.2 | |

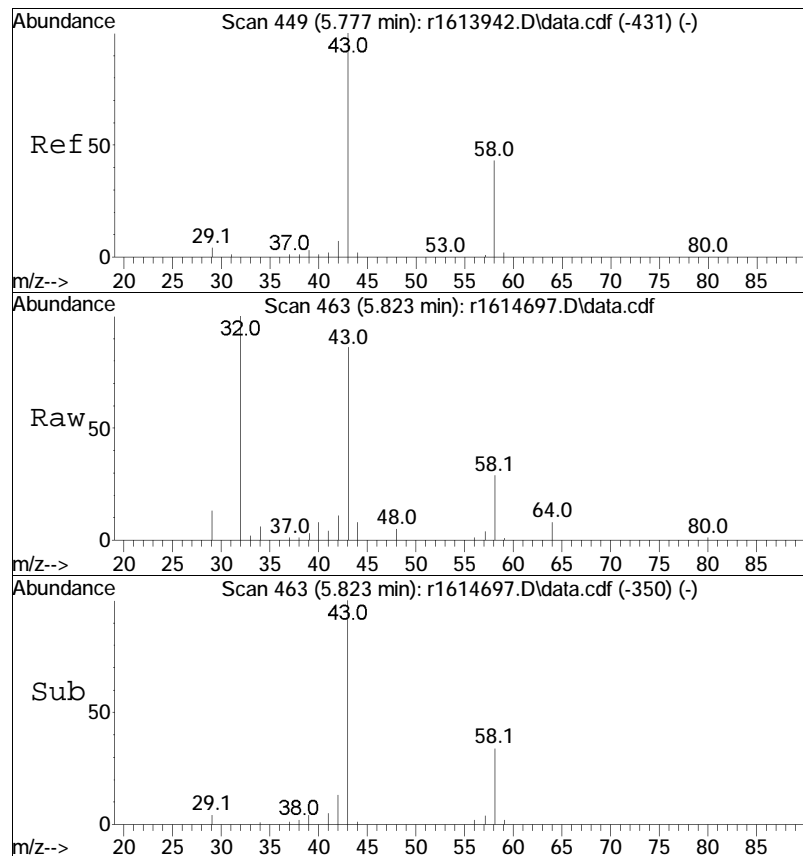




#15
ethanol
Concen: 15.14 ppbV
RT: 5.23 min Scan# 296
Delta R.T. 0.030 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

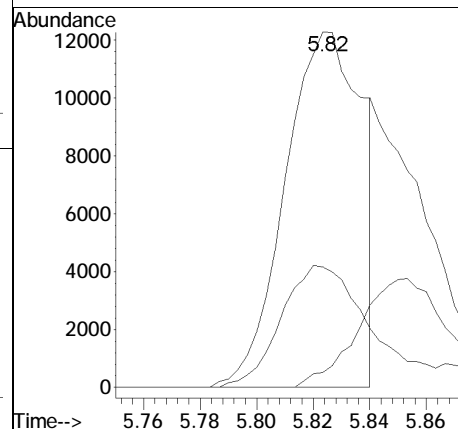
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 31 | 100 | | |
| 45 | 67.4 | 43.7 | 65.5# |

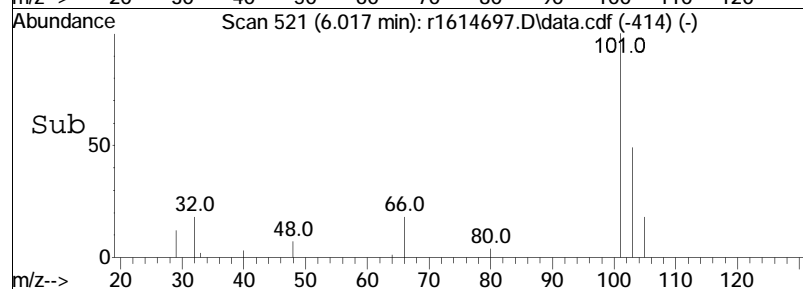
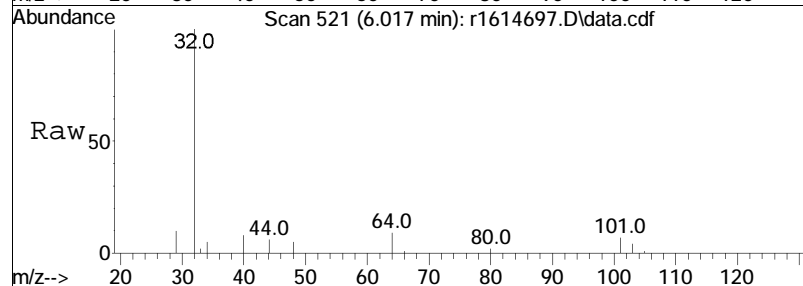
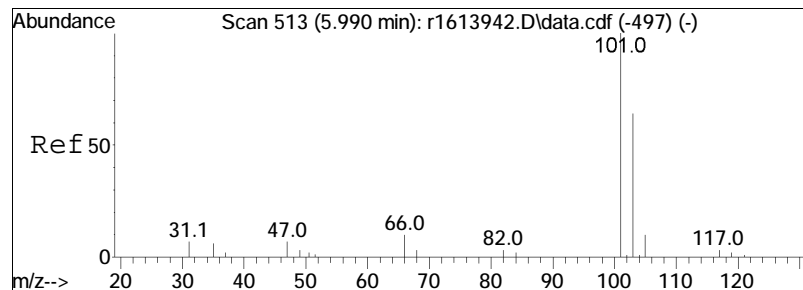




#19
acetone
Concen: 1.88 ppbV m
RT: 5.82 min Scan# 463
Delta R.T. 0.047 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

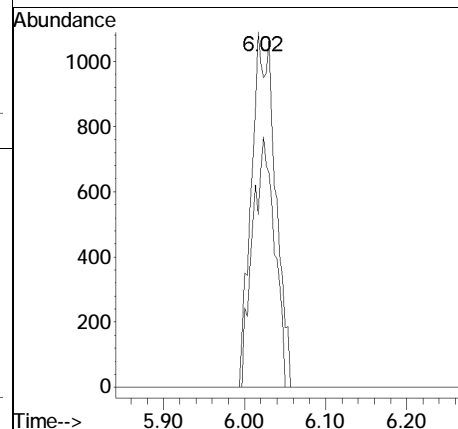
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 33.9 | 34.4 | 51.6# |
| 57 | 4.2 | 0.9 | 1.3# |

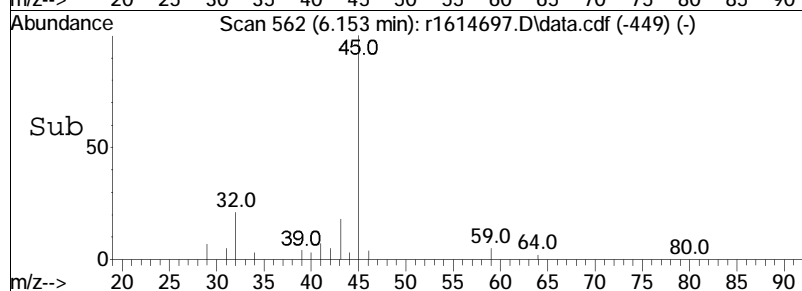
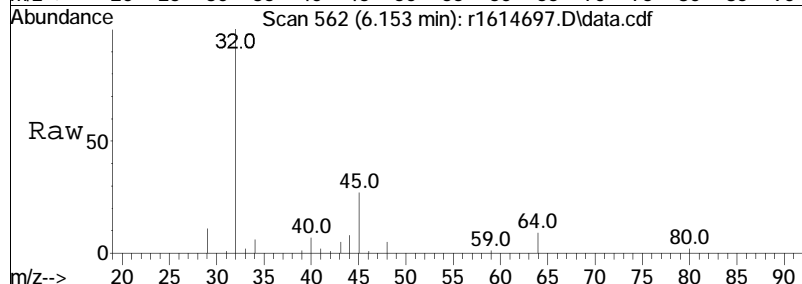
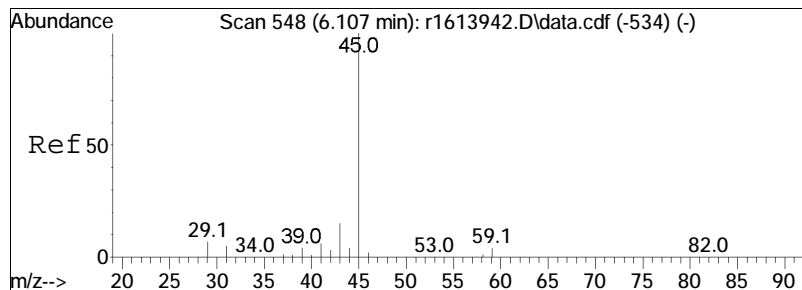




#21
 trichlorofluoromethane
 Concen: 0.18 ppbV m
 RT: 6.02 min Scan# 521
 Delta R.T. 0.027 min
 Lab File: r1614697.D
 Acq: 4 Jan 2020 8:32 PM

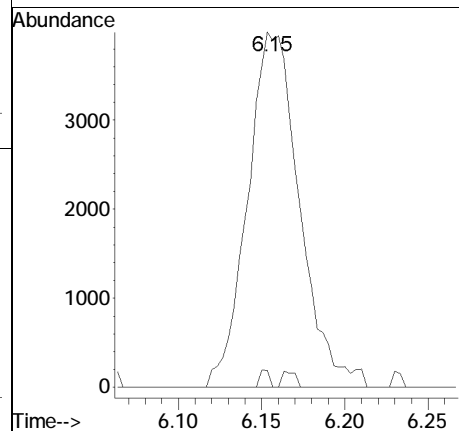
| Tgt | Ion | Ratio | Lower | Upper |
|-----|------|-------|-------|-------|
| 101 | 101 | 100 | | |
| 103 | 48.7 | | 51.4 | 77.2# |

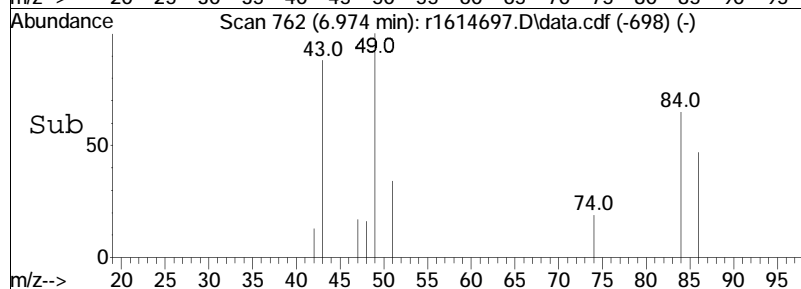
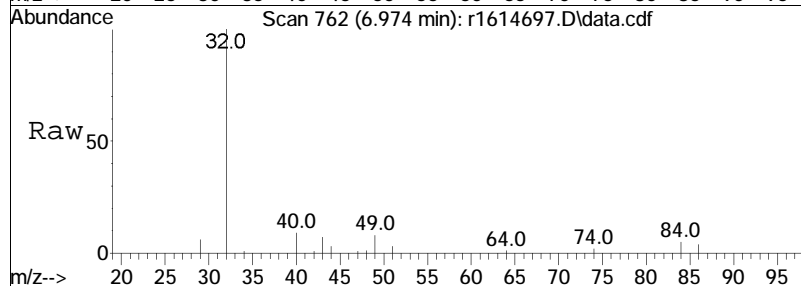
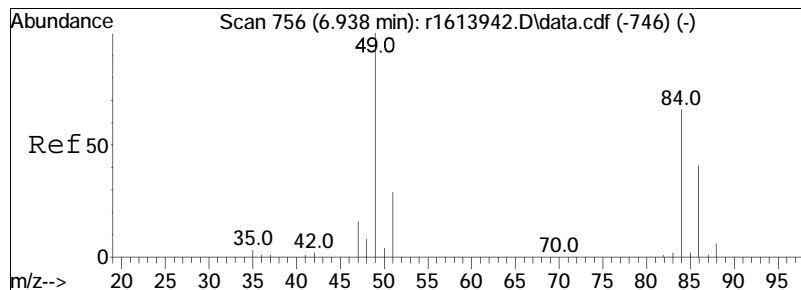




#22
isopropyl alcohol
Concen: 0.54 ppbV
RT: 6.15 min Scan# 562
Delta R.T. 0.047 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

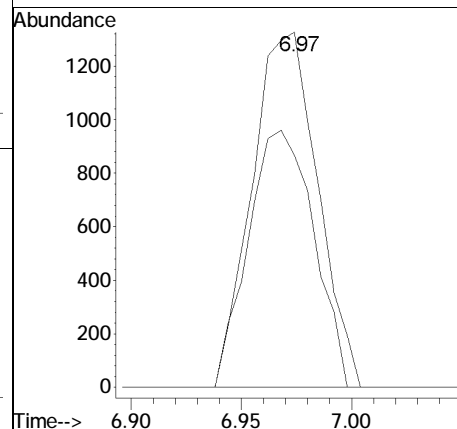
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45 | 100 | | |
| 59 | 4.8 | 3.2 | 4.8 |

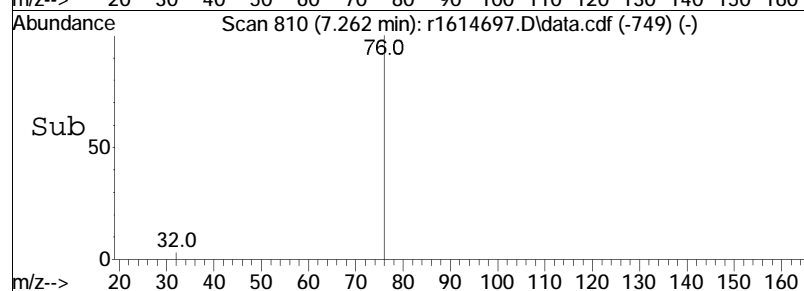
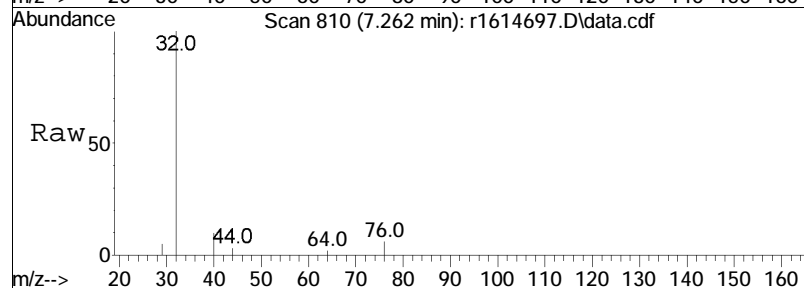
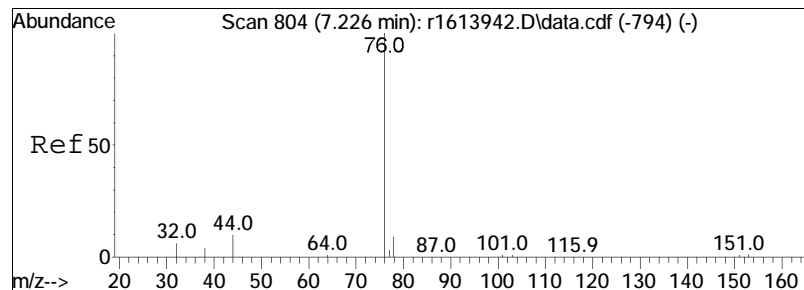




#28
 methylene chloride
 Concen: 0.22 ppbV
 RT: 6.97 min Scan# 762
 Delta R.T. 0.036 min
 Lab File: r1614697.D
 Acq: 4 Jan 2020 8:32 PM

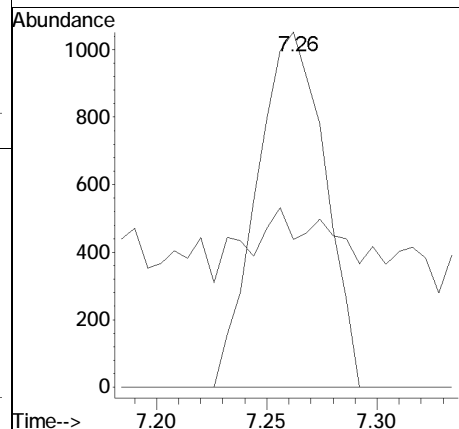
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49 | 100 | | |
| 84 | 65.3 | 53.0 | 79.4 |

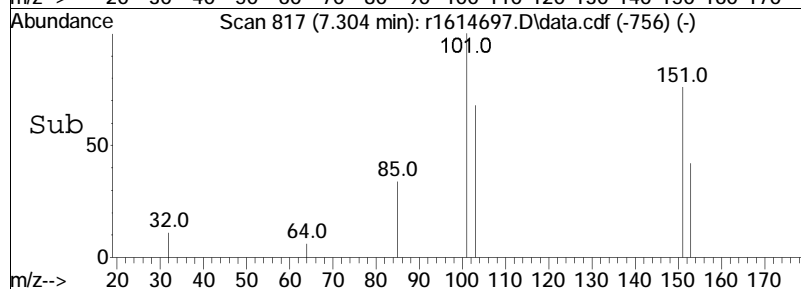
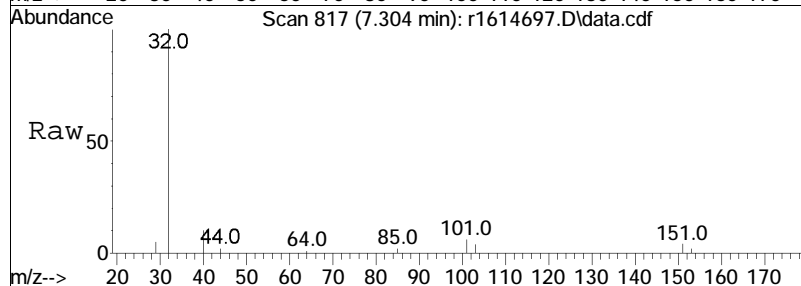
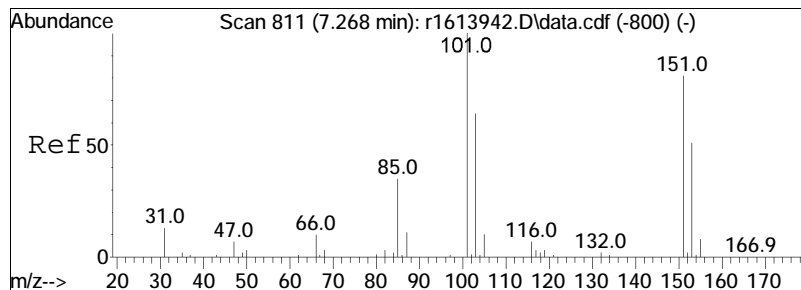




#30
carbon disulfide
Concen: 0.07 ppbV
RT: 7.26 min Scan# 810
Delta R.T. 0.036 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

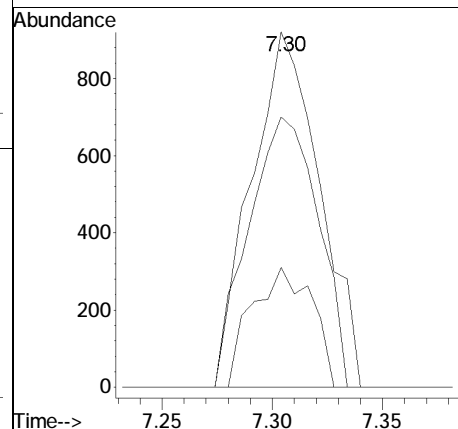
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76 | 100 | | |
| 44 | 41.6 | 8.3 | 12.5# |

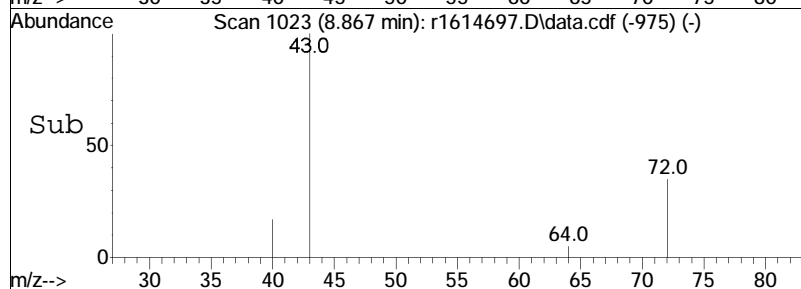
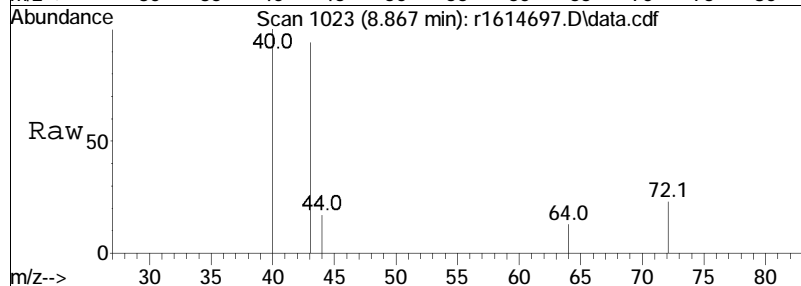
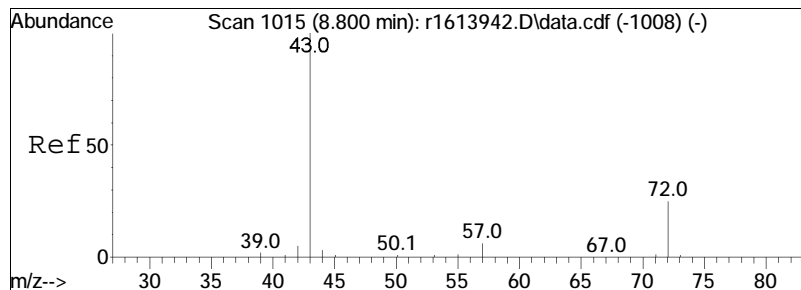




#31
 Freon 113
 Concen: 0.11 ppbV
 RT: 7.30 min Scan# 817
 Delta R.T. 0.036 min
 Lab File: r1614697.D
 Acq: 4 Jan 2020 8:32 PM

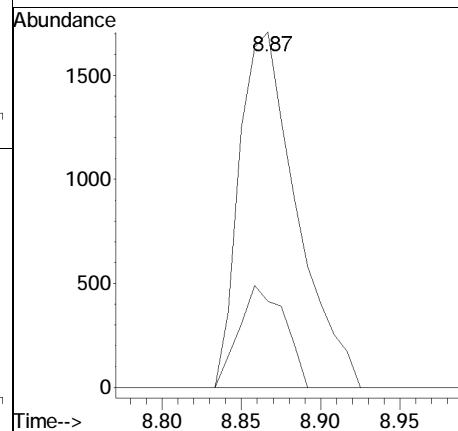
| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 101 | Resp: | 1979 |
| Ion Ratio | Lower | Upper | |
| 101 | 100 | | |
| 85 | 33.7 | 27.8 | 41.6 |
| 151 | 76.1 | 65.0 | 97.6 |

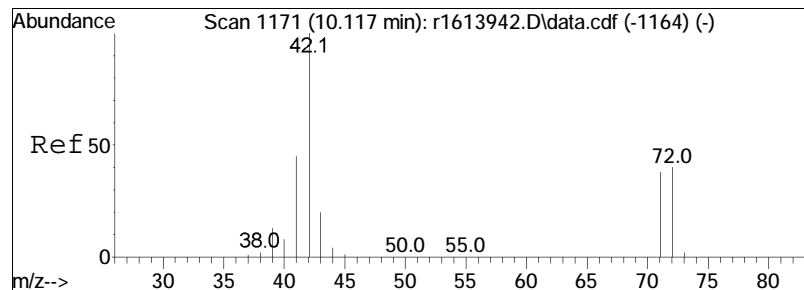




#36
2-butanone
Concen: 0.18 ppbV
RT: 8.87 min Scan# 1023
Delta R.T. 0.067 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

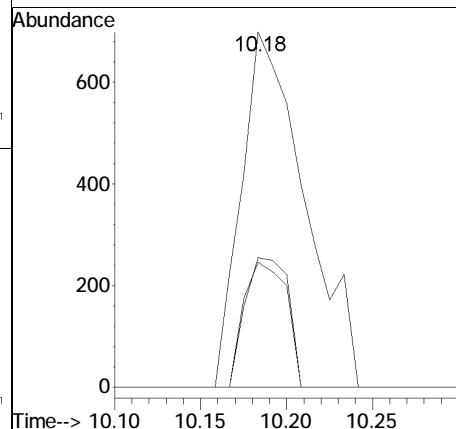
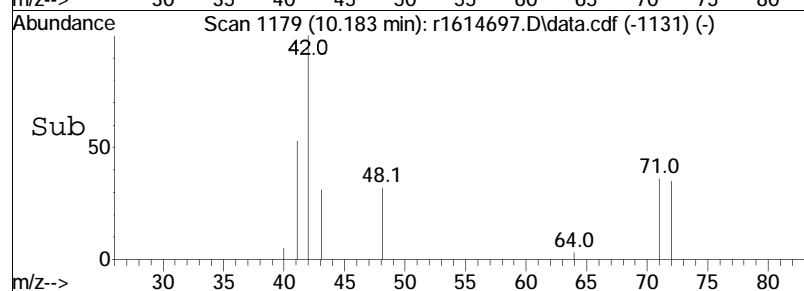
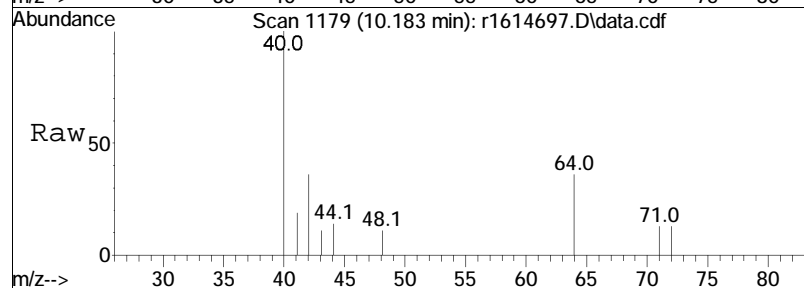
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 72 | 24.2 | 19.8 | 29.6 |
| 57 | 0.0 | 4.8 | 7.2# |

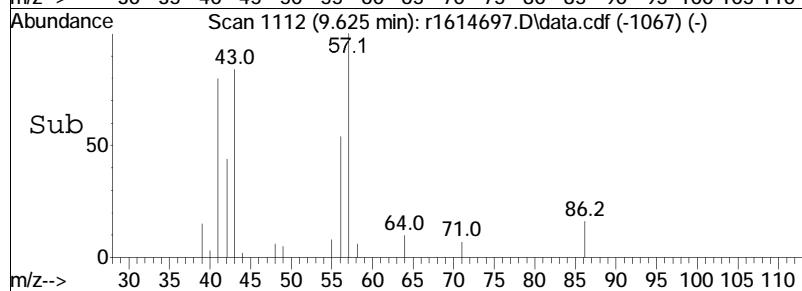
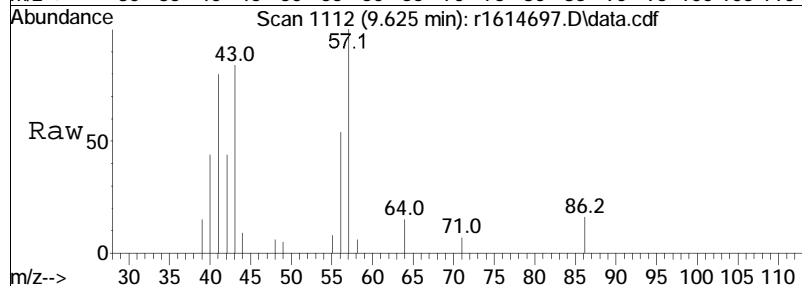
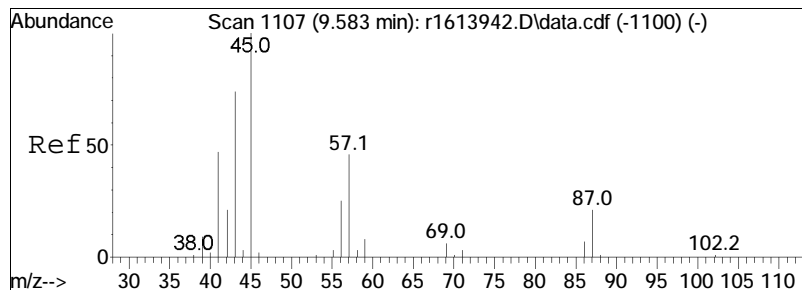




#40
Tetrahydrofuran
Concen: 0.12 ppbV
RT: 10.18 min Scan# 1179
Delta R.T. 0.067 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

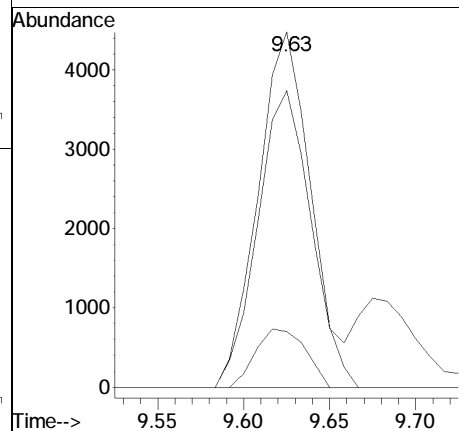
Tgt Ion: 42 Resp: 1800
Ion Ratio Lower Upper
42 100
71 36.5 30.0 45.0
72 35.2 31.9 47.9

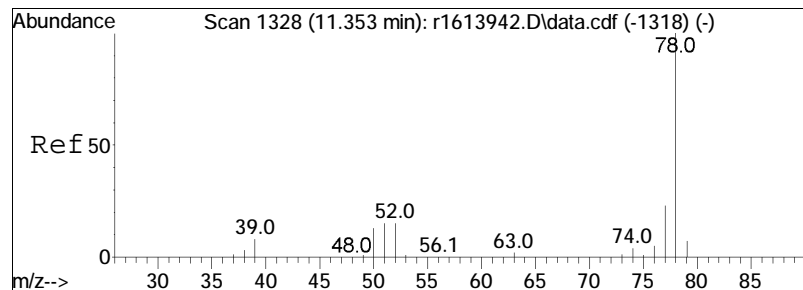




#44
hexane
Concen: 0.55 ppbV
RT: 9.63 min Scan# 1112
Delta R.T. 0.042 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

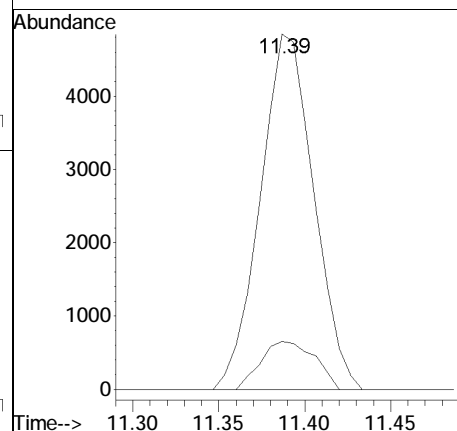
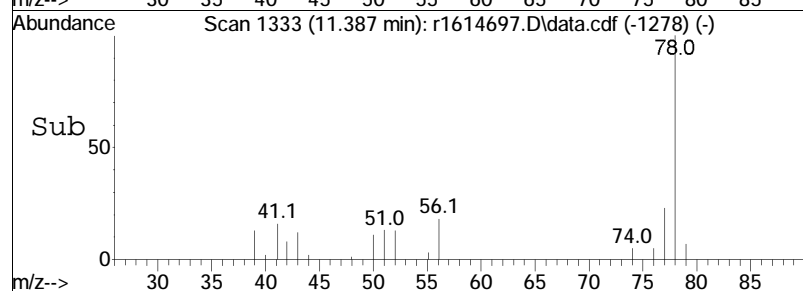
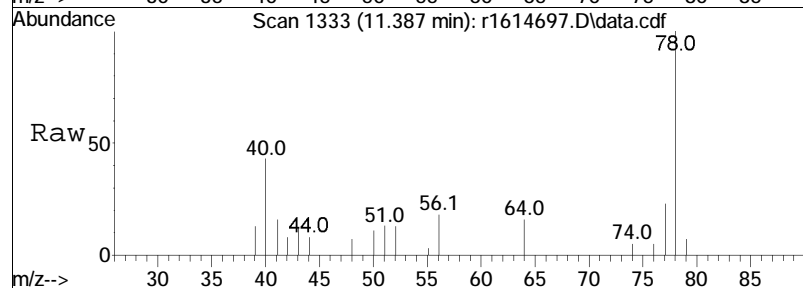
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|--------|
| 57 | 100 | | |
| 43 | 83.5 | 129.6 | 194.4# |
| 86 | 15.7 | 12.8 | 19.2 |

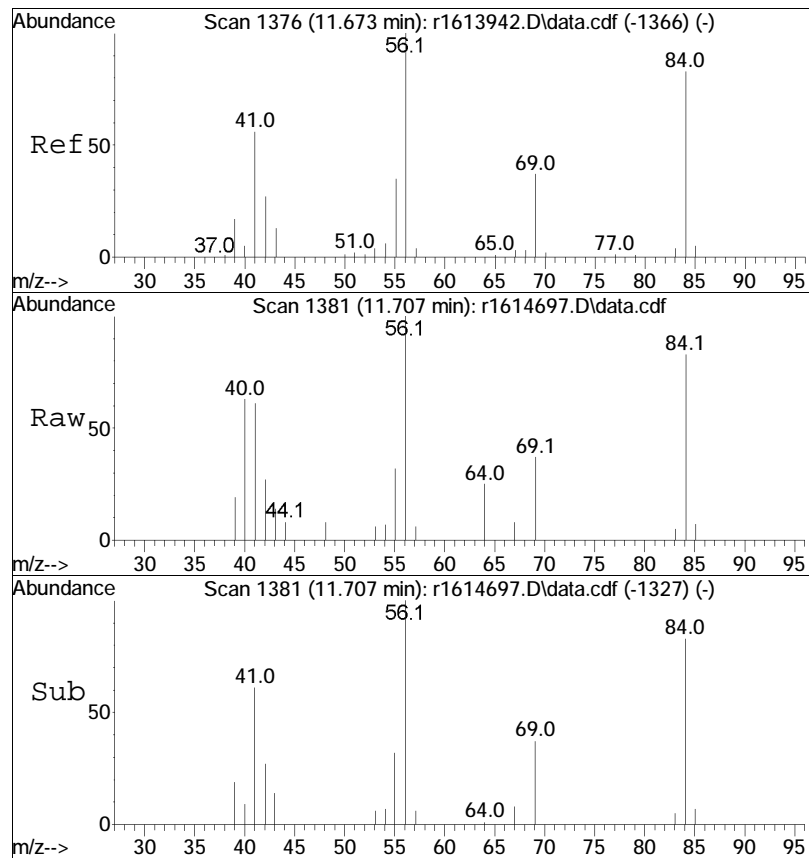




#50
benzene
Concen: 0.28 ppbV
RT: 11.39 min Scan# 1333
Delta R.T. 0.033 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

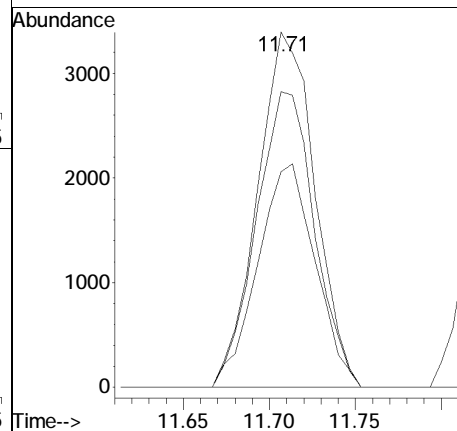
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78 | 100 | | |
| 52 | 13.5 | 12.2 | 18.2 |

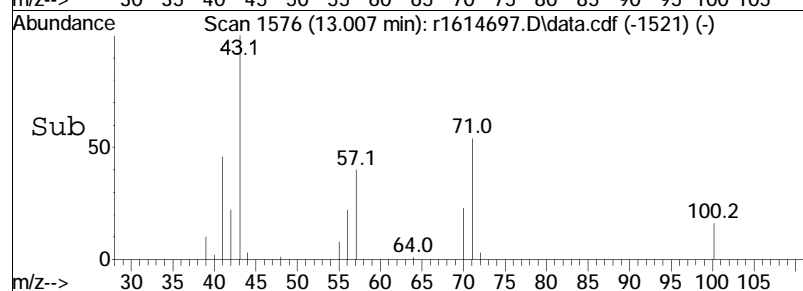
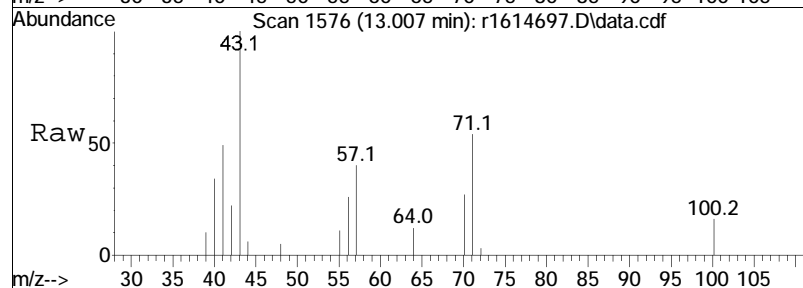
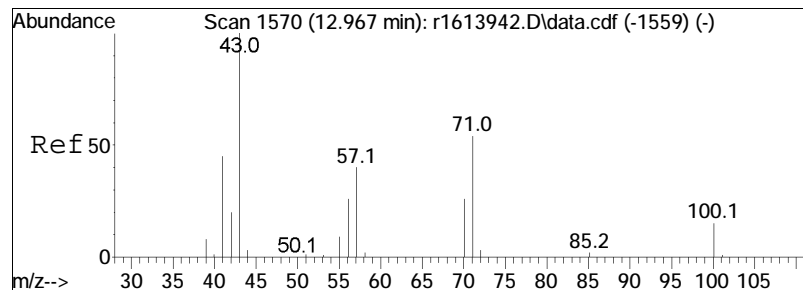




#53
cyclohexane
Concen: 0.43 ppbV
RT: 11.71 min Scan# 1381
Delta R.T. 0.033 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

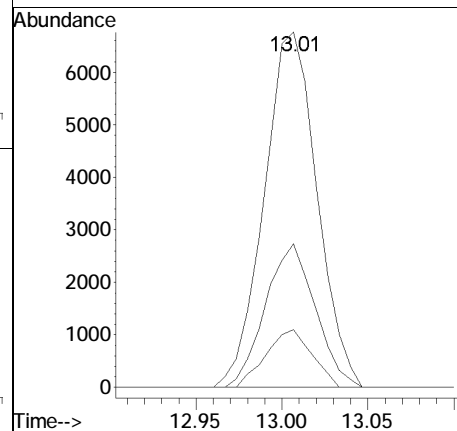
| | | | | |
|-----|-------|-------|-------|------|
| Tgt | Ion: | 56 | Resp: | 7881 |
| Ion | Ratio | Lower | Upper | |
| 56 | 100 | | | |
| 84 | 83.2 | 66.2 | 99.2 | |
| 41 | 60.7 | 45.2 | 67.8 | |

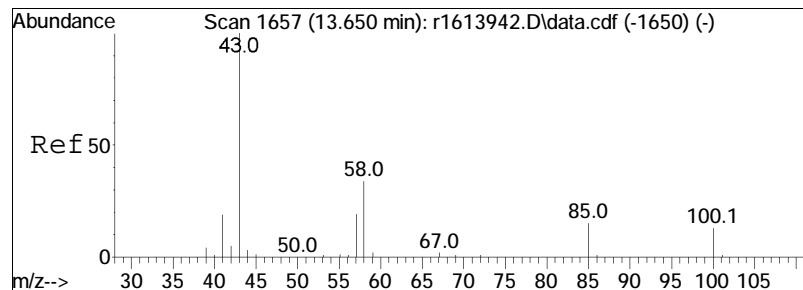




#62
heptane
Concen: 0.55 ppbV
RT: 13.01 min Scan# 1576
Delta R.T. 0.040 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

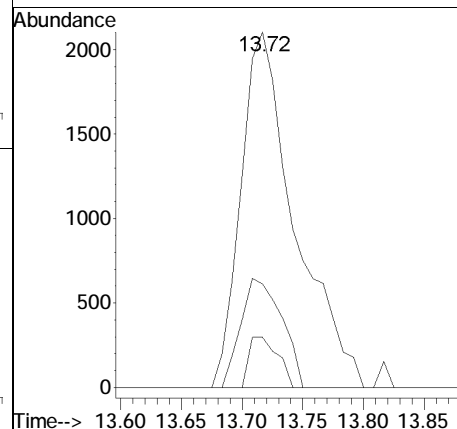
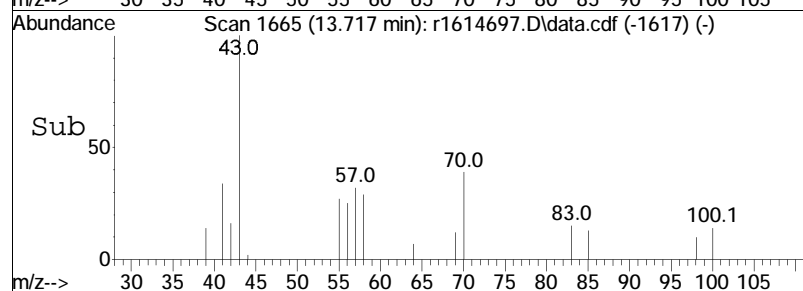
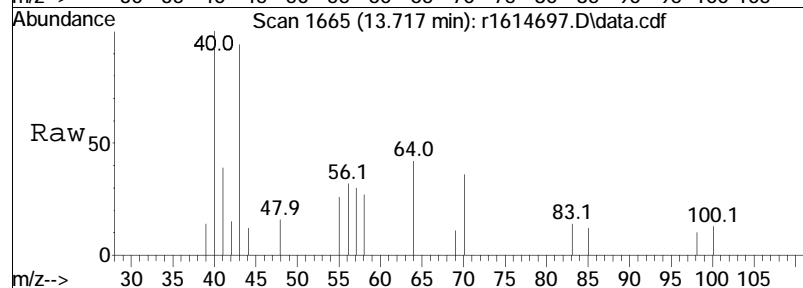
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 57 | 40.4 | 32.2 | 48.4 |
| 100 | 16.3 | 11.9 | 17.9 |

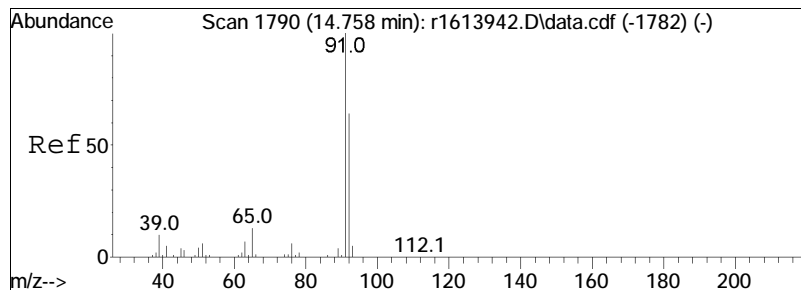




#64
 4-methyl-2-pentanone
 Concen: 0.22 ppbV
 RT: 13.72 min Scan# 1665
 Delta R.T. 0.067 min
 Lab File: r1614697.D
 Acq: 4 Jan 2020 8:32 PM

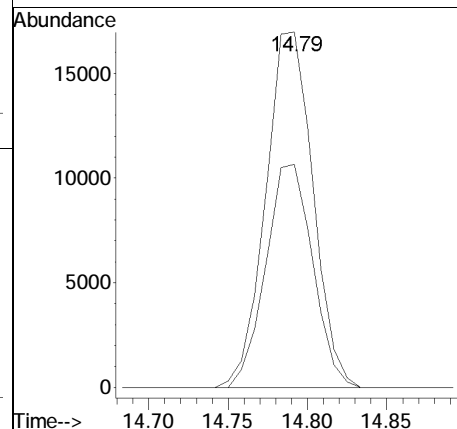
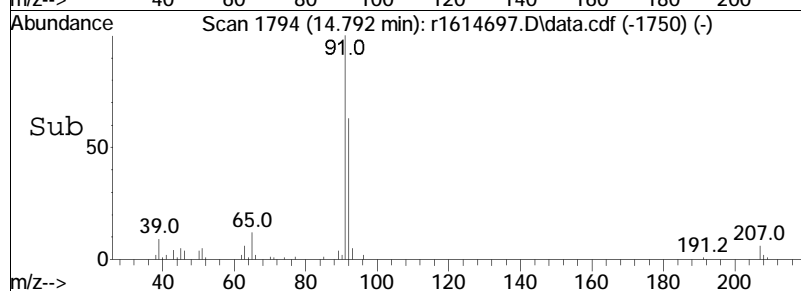
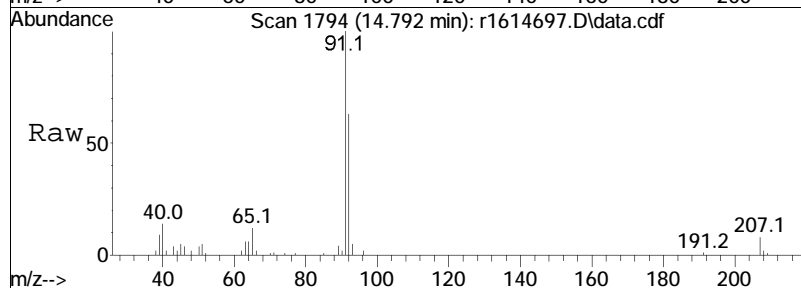
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43 | 100 | | |
| 58 | 29.1 | 27.1 | 40.7 |
| 100 | 14.1 | 10.6 | 16.0 |

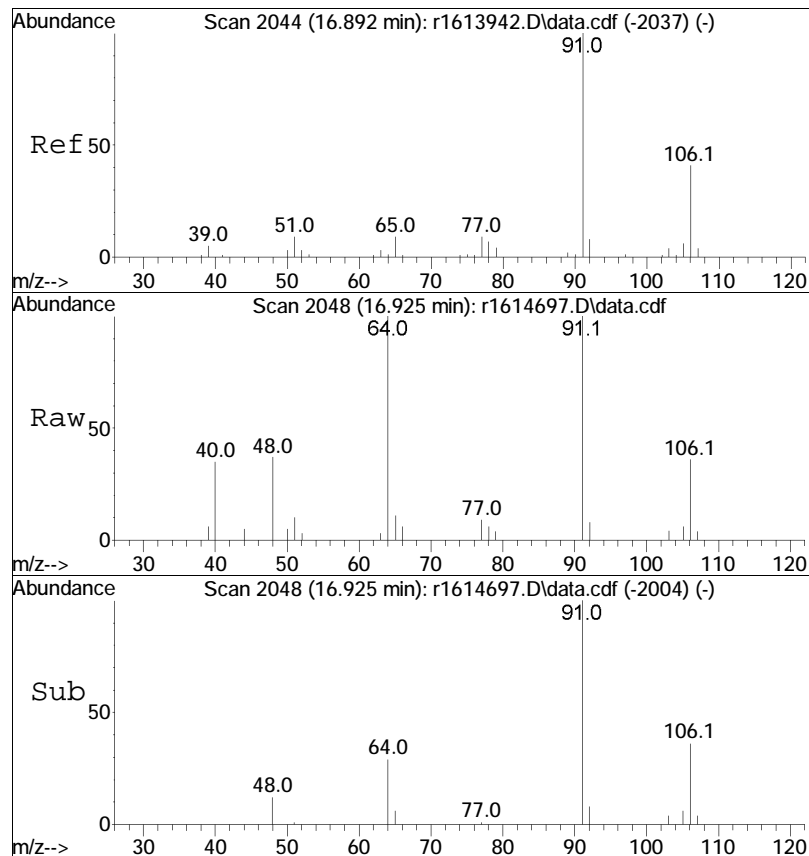




#68
toluene
Concen: 1.06 ppbV
RT: 14.79 min Scan# 1794
Delta R.T. 0.033 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

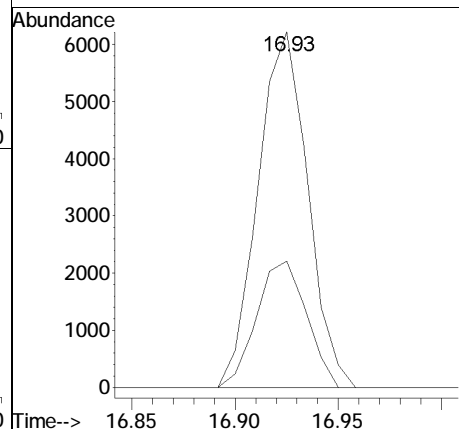
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 92 | 62.8 | 51.5 | 77.3 |

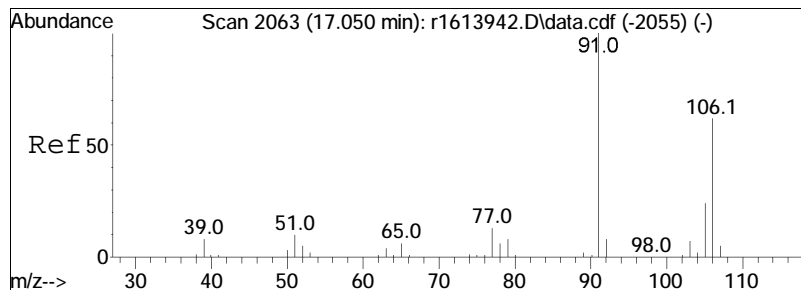




#81
ethylbenzene
Concen: 0.25 ppbV
RT: 16.93 min Scan# 2048
Delta R.T. 0.033 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

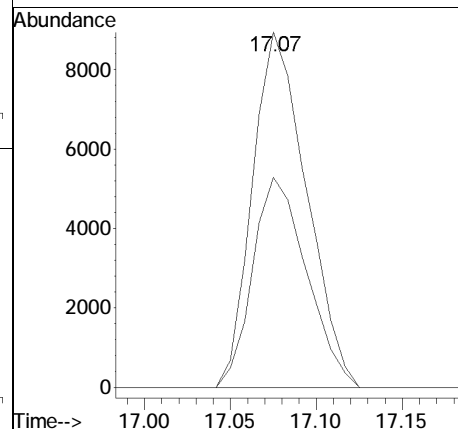
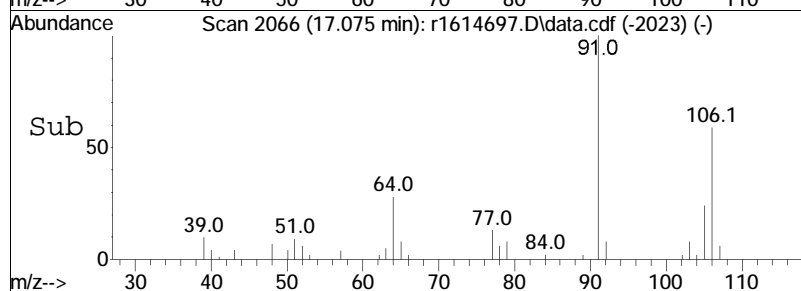
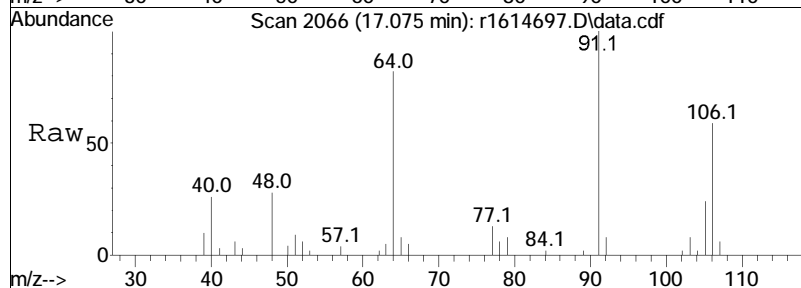
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 35.5 | 32.5 | 48.7 |

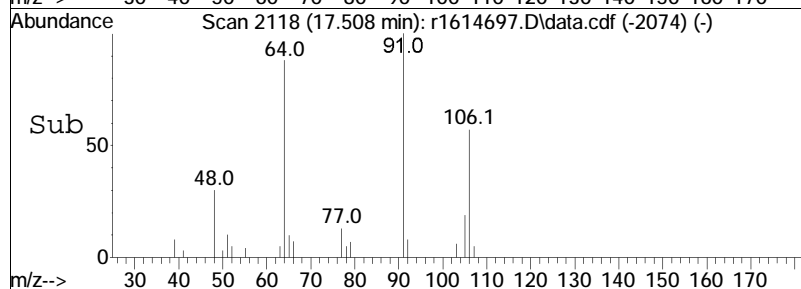
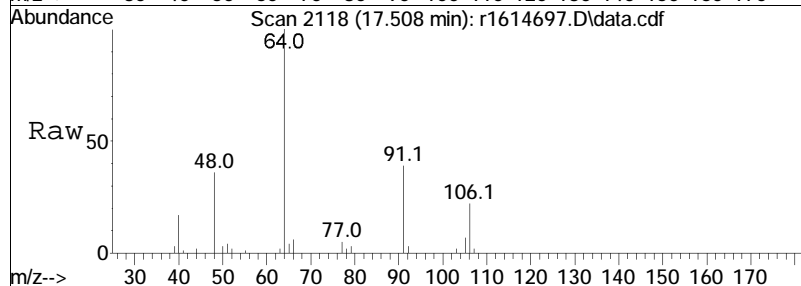
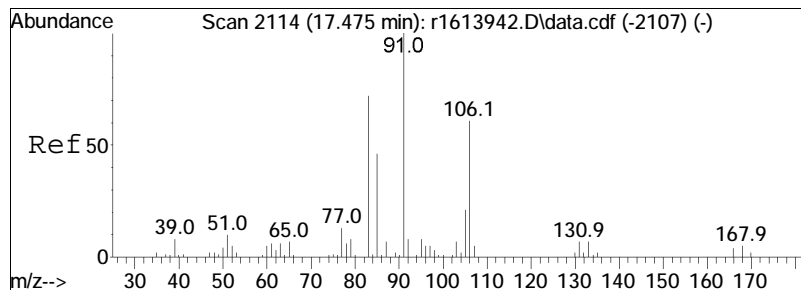




#83
 m+p-xylene
 Concen: 0.57 ppbV
 RT: 17.07 min Scan# 2066
 Delta R.T. 0.025 min
 Lab File: r1614697.D
 Acq: 4 Jan 2020 8:32 PM

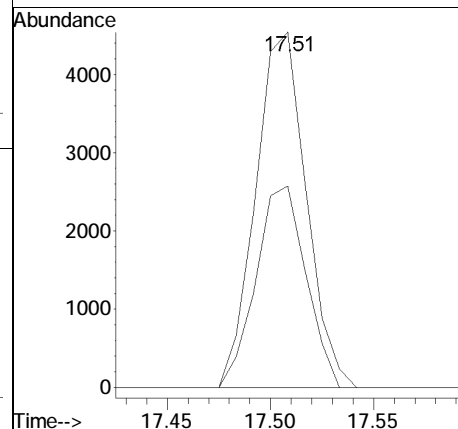
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 59.1 | 49.8 | 74.6 |

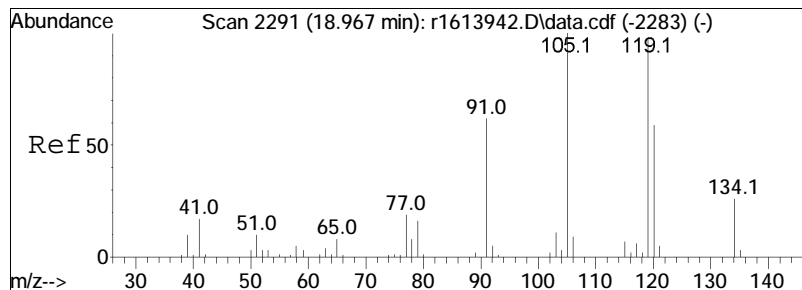




#87
o-xylene
Concen: 0.23 ppbV
RT: 17.51 min Scan# 2118
Delta R.T. 0.033 min
Lab File: r1614697.D
Acq: 4 Jan 2020 8:32 PM

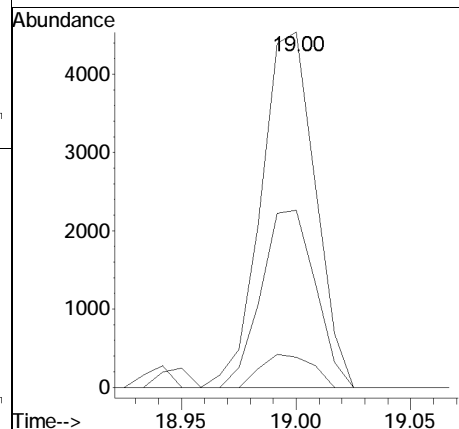
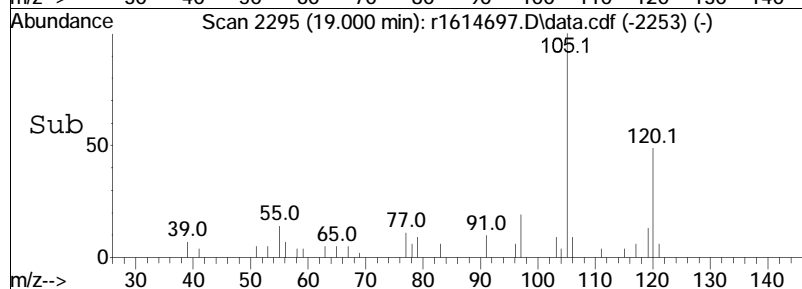
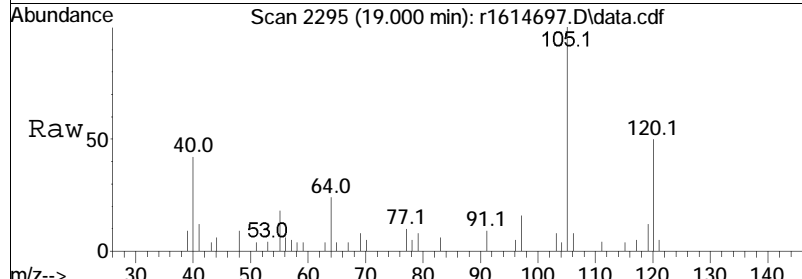
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91 | 100 | | |
| 106 | 56.7 | 48.8 | 73.2 |





#99
 1,2,4-trimethylbenzene
 Concen: 0.17 ppbV
 RT: 19.00 min Scan# 2295
 Delta R.T. 0.033 min
 Lab File: r1614697.D
 Acq: 4 Jan 2020 8:32 PM

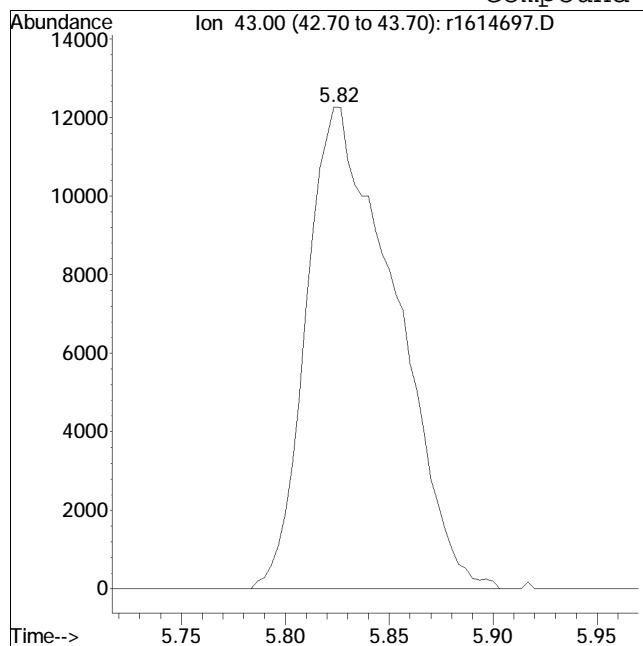
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105 | 100 | | |
| 120 | 49.9 | 46.9 | 70.3 |
| 91 | 8.5 | 49.3 | 73.9# |



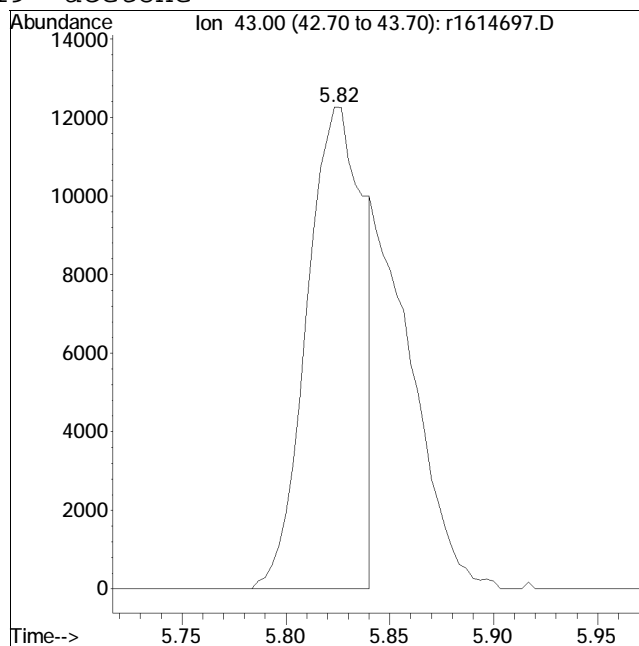
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614697.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:8: 2 Instrument :
 Sample : WG1327071-5,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #19: acetone



Original Peak Response = 36259



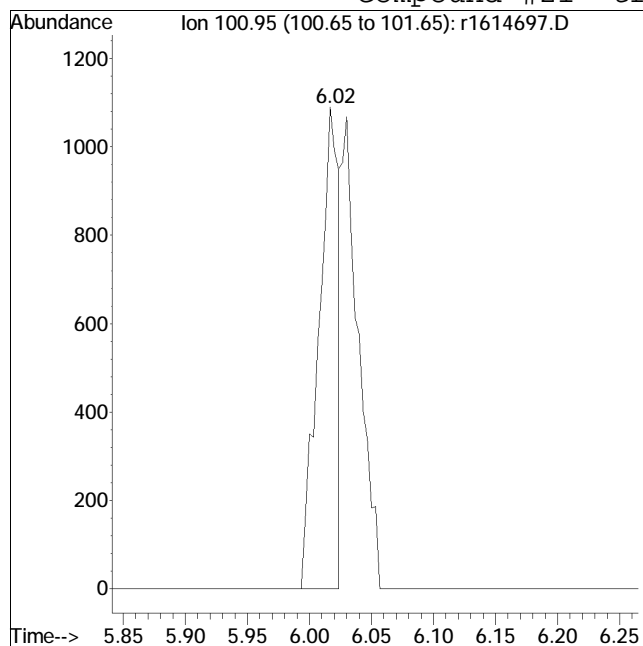
Manual Peak Response = 23288 M4

M4 = Poor automated baseline construction.

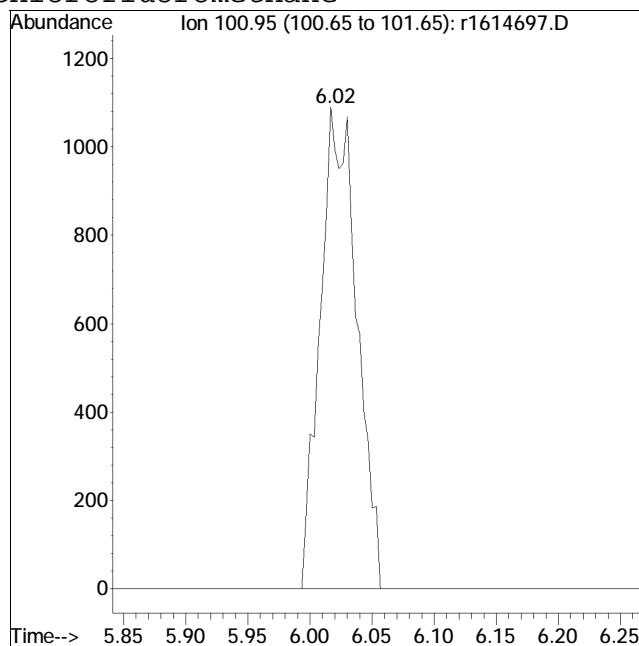
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
Data File : r1614697.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:8: 2 Instrument :
Sample : WG1327071-5,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #21: trichlorofluoromethane



Original Peak Response = 1197



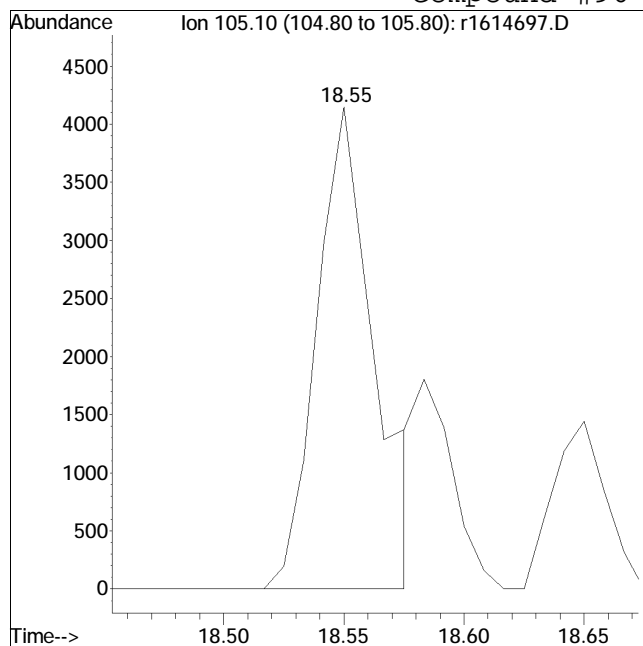
Manual Peak Response = 2226 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

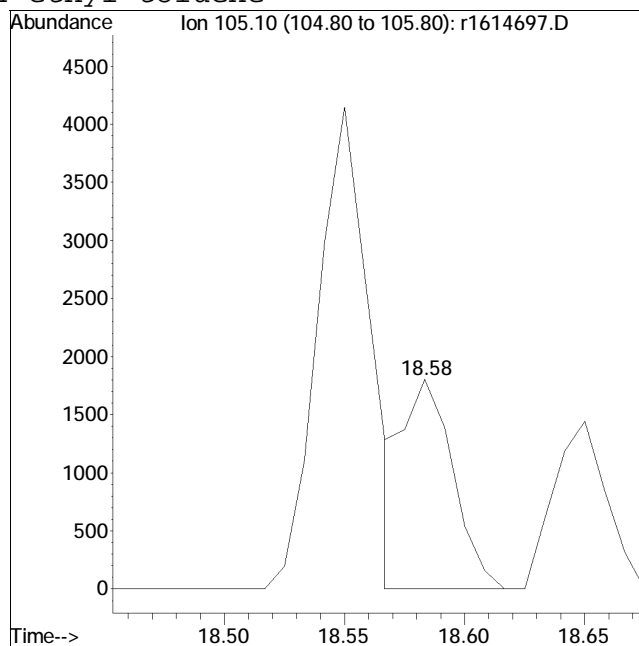
Data Path : O:\Forensics\Data\Airlab16\QMethod : TFS16_191119.M
 Data File : r1614697.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:8: 2 Instrument :
 Sample : WG1327071-5,3,250,250 Quant Date : 1/5/2020 8:29 am

Compound #96: 4-ethyl toluene



Original Peak Response = 6902

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



Manual Peak Response = 2634 M6

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

C_s = Concentration of sample (ppbv)

DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor

$$\text{DF} = V_{\text{cf}} / V_{\text{ci}}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

P =

Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) \times \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI / 14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF / 14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

V_{cf} = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jan 07 2020, 02:54 pm

Work Group: WG1327071 for Department: 3 GC/MS

Created: 04-JAN-20 Due: Operator: EW

| Sample | Client ID | C Product | Matrix | Stat | UA | HOLD | DUE | PR | Location |
|-------------|-----------------------|-----------|------------|------|----|------|------|----|----------|
| L1961900-01 | VAPOR CARBON INFLUENT | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-2.7 |
| L1961900-02 | STACK | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-2.7 |
| L1961984-01 | SV1 | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-2.7 |
| L1961984-02 | SV2 | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-2.7 |
| L1961984-03 | SV3 | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-2.7 |
| L1962003-01 | AA-01_123019 | S TO15-LL | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-02 | DUP-01_123019 | S TO15-LL | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-03 | IA-02_123019 | S TO15-LL | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-04 | SVMF-02_123019 | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-05 | IA-04A_123019 | S TO15-LL | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-06 | SVMF-04A_123019 | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-07 | IA-07_123019 | S TO15-LL | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-08 | SVMF-07_123019 | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-09 | IA-08_123019 | S TO15-LL | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-10 | SVMF-08_123019 | S TO15-LL | SOIL_VAPOR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| WG1327071-1 | MS BFB Tune Standard | S TO15-LL | AIR | DONE | U | | | | |
| WG1327071-1 | MS BFB Tune Standard | S TO15-LL | SOIL_VAPOR | DONE | U | | | | |
| WG1327071-2 | Continuing Calibrati | S TO15-LL | AIR | DONE | U | | | | |
| WG1327071-2 | Continuing Calibrati | S TO15-LL | SOIL_VAPOR | DONE | U | | | | |
| WG1327071-3 | Laboratory Control S | S TO15-LL | AIR | DONE | U | | | | |
| WG1327071-3 | Laboratory Control S | S TO15-LL | SOIL_VAPOR | DONE | U | | | | |
| WG1327071-4 | Laboratory Method Bl | S TO15-LL | AIR | DONE | U | | | | |
| WG1327071-4 | Laboratory Method Bl | S TO15-LL | SOIL_VAPOR | DONE | U | | | | |
| WG1327071-5 | Duplicate Sample | S TO15-LL | SOIL_VAPOR | DONE | U | | | | |
| WG1327071-5 | Duplicate Sample | S TO15-LL | AIR | DONE | U | | | | |
| Comments: | | | | | | | | | |
| WG1327071-5 | L1962003-03 | | | | | | | | |

Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airlab 16

Internal Standard/Surrogate IDs: SS19-014/ SS19-022

Date: 11/19/19

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: AR

Sequence File Name: 191119.S

SIM ICAL#

Full Scan 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 | BA16111901 | TO15_SFS.qgm | R1613931.qgd | 250ML | BLANK | | NA |
| 1 | BA16111902 | TO15_SFS.qgm | R1613932.qgd | 250ML | BLANK | | NA |
| 1 | BA16111903 | TO15_SFS.qgm | R1613933.qgd | 250ML | BLANK | | NA |
| 1 | TA16111901 | TO15_SFS.qgm | R1613934.qgd | 250ML | TUNE | | NA |
| 5 | ITO15-SIMTD0.02 | TO15_SFS.qgm | R1613935.qgd | SS19-028D 50 mL | SIM ONLY | DEF | NA |
| 5 | ITO15-SIMTD0.05 | TO15_SFS.qgm | R1613936.qgd | SS19-028D 125 mL | SIM ONLY | DEF | NA |
| 5 | ITO15-SIMTD0.1 | TO15_SFS.qgm | R1613937.qgd | SS19-028D 250 mL | SIM ONLY | DEF | NA |
| 6 | ITO15-LLSTD0.2 | TO15_SFS.qgm | R1613938.qgd | SS19-028C 50 mL | | DEF | NA |
| 6 | ITO15-LLSTD0.5 | TO15_SFS.qgm | R1613939.qgd | SS19-028C 125 mL | | DEF | NA |
| 6 | ITO15-LLSTD1.0 | TO15_SFS.qgm | R1613940.qgd | SS19-028C 250 mL | | DEF | NA |
| 7 | ITO15-LLSTD5.0 | TO15_SFS.qgm | R1613941.qgd | SS19-028B2 125 mL | | DEF | NA |
| 7 | ITO15-LLSTD010 | TO15_SFS.qgm | R1613942.qgd | SS19-028B2 250 mL | | DEF | NA |
| 8 | ITO15-LLSTD020 | TO15_SFS.qgm | R1613943.qgd | SS19-028A 50 mL | | DEF | NA |
| 8 | ITO15-LLSTD050 | TO15_SFS.qgm | R1613944.qgd | SS19-028A 125 mL | | DEF | NA |
| 8 | ITO15-LLSTD100 | TO15_SFS.qgm | R1613945.qgd | SS19-028A 250 mL | NOT USED FOR SIM | DEF | NA |
| 1 | BA16111901 | TO15_SFS.qgm | R1613946.qgd | 250ML | | DEF | NA |
| 1 | BA16111902 | TO15_SFS.qgm | R1613947.qgd | 250ML | | DEF | NA |
| 2 | CTO15-LLSTD010 | TO15_SFS.qgm | R1613948.qgd | SS19-029F 250 mL | FULL SCAN ICV | DEF | NA |
| 2 | CTO15-SIMSTD5.0 | TO15_SFS.qgm | R1613949.qgd | SS19-029F 125 mL | SIM ICV | DEF | NA |
| | | | | | | | |
| | | | | | | | |

[illegible]

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

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: Airlab 16

Internal Standard/Surrogate IDs: SS19-014/ SS19-022

Date: 01/04/20

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: EW

Sequence File Name: 200104.S

SIM ICAL# 16313

Full Scan ICAL# 16311

APH ICAL# 16314

| 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 | TA16010401 | TO15_SFS.qgm | R1614689.qgd | 250ML | TUNE | | NA |
| 3 | CTO15-LLSTD10.0 | TO15_SFS.qgm | R1614690.qgd | SS19-029F 250 mL | LL LCS | | NA |
| 3 | CTO15-SIMSTD5.0 | TO15_SFS.qgm | R1614691.qgd | SS19-029F 125 mL | SIM LCS | | NA |
| 1 | BA16010401 | TO15_SFS.qgm | R1614692.qgd | 250ML | LL BLANK | | NA |
| 1 | BA16010402 | TO15_SFS.qgm | R1614693.qgd | 250ML | SIM BLANK | | NA |
| 1 | L1962003-01,3,250,250 | TO15_SFS.qgm | R1614694.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 2 | L1962003-02,3,250,250 | TO15_SFS.qgm | R1614695.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 3 | L1962003-03,3,250,250 | TO15_SFS.qgm | R1614696.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 3 | L1962003-03DUP,3,250,250 | TO15_SFS.qgm | R1614697.qgd | WG1327071,ICAL16311 | LL / SIM DUP | NY / 7-SIM | Y |
| 4 | L1962003-05,3,250,250 | TO15_SFS.qgm | R1614698.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 5 | L1962003-07,3,250,250 | TO15_SFS.qgm | R1614699.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 6 | L1962003-09,3,250,250 | TO15_SFS.qgm | R1614700.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 7 | L1962003-04,3,250,250 | TO15_SFS.qgm | R1614701.qgd | WG1327071,ICAL16311 | | NY | Y |
| 8 | L1962003-06,3,250,250 | TO15_SFS.qgm | R1614702.qgd | WG1327071,ICAL16311 | | NY | Y |
| 9 | L1962003-08D,3,6.66,250 | TO15_SFS.qgm | R1614703.qgd | WG1327071,ICAL16311 | | NY | Y |
| 10 | L1962003-10,3,250,250 | TO15_SFS.qgm | R1614704.qgd | WG1327071,ICAL16311 | | NY | Y |
| 11 | L1961984-01,3,250,250 | TO15_SFS.qgm | R1614705.qgd | WG1327071,ICAL16311 | | NY | Y |
| 12 | L1961984-02,3,250,250 | TO15_SFS.qgm | R1614706.qgd | WG1327071,ICAL16311 | | NY | Y |
| 13 | L1961984-03,3,250,250 | TO15_SFS.qgm | R1614707.qgd | WG1327071,ICAL16311 | | NY | Y |
| 14 | L1961900-02D,3,75,250 | TO15_SFS.qgm | R1614708.qgd | WG1327071,ICAL16311 | | STD + NAPH +10 TICs | Y |
| 15 | L1961900-01D,3,2.24,250 | TO15_SFS.qgm | R1614709.qgd | WG1327071,ICAL16311 | | STD + NAPH +10 TICs | Y |

Alpha Analytical Air Lab Instrument Run Log

[illegible]

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, Inc. Canister Dilution Worksheet

[illegible]

*N2 = Nitrogen and H2= Hydrogen

** Reported to 2 decimal places unless 0.01 or less; then 3 decimal places are reported

Analyst data input fields

Analyst Comments:

GC/MS VOA
Air Analysis
Selective Ion Monitoring

Volatiles QC Summary

Lab Duplicate Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Client Sample ID : IA-02_123019
Lab Sample ID : L1962003-03
Lab File ID : R1614696_EV2
Dup Sample ID : WG1327072-5

Lab Number : L1962003
Project Number : 170312501
Matrix : AIR
Analysis Date : 01/04/20 19:52
DUP File ID : r1614697_Ev2
DUP Analysis Date : 01/04/20 20:32

| Parameter | Sample Concentration (ppbV) | Duplicate Concentration (ppbV) | RPD | RPD Limit |
|------------------------|-----------------------------------|--------------------------------------|-----|--------------|
| Vinyl chloride | ND | ND | NC | 25 |
| 1,1-Dichloroethene | ND | ND | NC | 25 |
| cis-1,2-Dichloroethene | ND | ND | NC | 25 |
| 1,1,1-Trichloroethane | ND | ND | NC | 25 |
| Carbon tetrachloride | 0.062 | 0.072 | 15 | 25 |
| Trichloroethene | ND | ND | NC | 25 |
| Tetrachloroethene | 0.052 | 0.051 | 2 | 25 |

Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1962003
 Project Name : 295 LOCUST AVE. Project Number : 170312501
 Matrix : AIR
 LCS Sample ID : WG1327072-3 Analysis Date : 01/04/20 12:57 File ID : r1614691_Ev2
 LCSD Sample ID : Analysis Date : File ID :

| Parameter | Laboratory Control Sample | | | Laboratory Control Duplicate | | | RPD | Recovery Limits | RPD Limit |
|------------------------|---------------------------|--------------|-----|------------------------------|--------------|----|-----|-----------------|-----------|
| | True (ppbV) | Found (ppbV) | %R | True (ppbV) | Found (ppbV) | %R | | | |
| Vinyl chloride | 5 | 4.02 | 80 | | | | - | 70-130 | 25 |
| 1,1-Dichloroethene | 5 | 4.28 | 86 | | | | - | 70-130 | 25 |
| cis-1,2-Dichloroethene | 5 | 4.44 | 89 | | | | - | 70-130 | 25 |
| 1,1,1-Trichloroethane | 5 | 4.08 | 82 | | | | - | 70-130 | 25 |
| Carbon tetrachloride | 5 | 4.29 | 86 | | | | - | 70-130 | 25 |
| Trichloroethene | 5 | 4.75 | 95 | | | | - | 70-130 | 25 |
| Tetrachloroethene | 5 | 6.00 | 120 | | | | - | 70-130 | 25 |

Method Blank Summary
Form 4
Air Volatiles

| | | | |
|---------------|--------------------------------------|----------------|------------------|
| Client | : Langan Engineering & Environmental | Lab Number | : L1962003 |
| Project Name | : 295 LOCUST AVE. | Project Number | : 170312501 |
| Lab Sample ID | : WG1327072-4 | Lab File ID | : r1614693_Ev2 |
| Instrument ID | : AIRLAB16 | | |
| Matrix | : AIR | Analysis Date | : 01/04/20 15:40 |

| Client Sample No. | Lab Sample ID | Analysis Date |
|-------------------|---------------|----------------|
| WG1327072-3LCS | WG1327072-3 | 01/04/20 12:57 |
| AA-01_123019 | L1962003-01 | 01/04/20 18:32 |
| DUP-01_123019 | L1962003-02 | 01/04/20 19:12 |
| IA-02_123019 | L1962003-03 | 01/04/20 19:52 |
| IA-02_123019DUP | WG1327072-5 | 01/04/20 20:32 |
| IA-04A_123019 | L1962003-05 | 01/04/20 21:12 |
| IA-07_123019 | L1962003-07 | 01/04/20 21:51 |
| IA-08_123019 | L1962003-09 | 01/04/20 22:31 |

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

| | |
|---|--------------------------------|
| Client : Langan Engineering & Environmental | Lab Number : L1962003 |
| Project Name : 295 LOCUST AVE. | Project Number : 170312501 |
| Instrument ID : AIRLAB16 | Analysis Date : 11/19/19 17:34 |
| Tune Standard : WG1312118-1 | Tune File ID : r1613934_tune |

| m/e | Ion Abundance Criteria | %Relative Abundance |
|-----|------------------------------------|---------------------|
| 50 | 8.0 - 40.0% of mass 95 | 15 |
| 75 | 30.0 - 66.0% of mass 95 | 38 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.4 (.5)1 |
| 174 | 50.0 - 120.0% of mass 95 | 68.6 |
| 175 | 4.0 - 9.0% of mass 174 | 4.6 (6.7)1 |
| 176 | 93.0 - 101% of mass 174 | 65.4 (95.3)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.3 (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 ID | Lab Sample ID | File ID | Analysis Date/Time |
|------------------|---------------|--------------|--------------------|
| STD0.02 | R1257362-1 | R1613935_EV2 | 11/19/19 18:12 |
| STD0.05 | R1257362-2 | R1613936_EV2 | 11/19/19 18:52 |
| STD0.1 | R1257362-3 | R1613937_EV2 | 11/19/19 19:35 |
| STD0.2 | R1257362-9 | R1613938_EV2 | 11/19/19 20:14 |
| STD0.5 | R1257362-4 | R1613939_EV2 | 11/19/19 20:54 |
| STD1.0 | R1257362-6 | R1613940_EV2 | 11/19/19 21:36 |
| STD5.0 | R1257362-7 | R1613941_EV2 | 11/19/19 22:16 |
| STD010 | R1257362-8 | R1613942_EV2 | 11/19/19 22:58 |
| STD020 | R1257362-5 | R1613943_EV2 | 11/19/19 23:37 |
| STD050 | R1257362-10 | R1613944_EV2 | 11/20/19 00:17 |
| ICV Quant | R1257362-11 | R1613949_EV2 | 11/20/19 09:58 |

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

| | |
|---|--------------------------------|
| Client : Langan Engineering & Environmental | Lab Number : L1962003 |
| Project Name : 295 LOCUST AVE. | Project Number : 170312501 |
| Instrument ID : AIRLAB16 | Analysis Date : 01/04/20 11:34 |
| Tune Standard : WG1327072-1 | Tune File ID : r1614689_tune |

| m/e | Ion Abundance Criteria | %Relative Abundance |
|-----|------------------------------------|---------------------|
| 50 | 8.0 - 40.0% of mass 95 | 14.2 |
| 75 | 30.0 - 66.0% of mass 95 | 35.2 |
| 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 | 0.3 (.5)1 |
| 174 | 50.0 - 120.0% of mass 95 | 70.6 |
| 175 | 4.0 - 9.0% of mass 174 | 4.9 (7)1 |
| 176 | 93.0 - 101% of mass 174 | 69.1 (98)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.4 (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 ID | Lab Sample ID | File ID | Analysis Date/Time |
|------------------|---------------|--------------|--------------------|
| WG1327072-2CCAL | WG1327072-2 | R1614691_EV2 | 01/04/20 12:57 |
| WG1327072-3LCS | WG1327072-3 | R1614691_EV2 | 01/04/20 12:57 |
| WG1327072-4BLANK | WG1327072-4 | R1614693_EV2 | 01/04/20 15:40 |
| AA-01_123019 | L1962003-01 | R1614694_EV2 | 01/04/20 18:32 |
| DUP-01_123019 | L1962003-02 | R1614695_EV2 | 01/04/20 19:12 |
| IA-02_123019 | L1962003-03 | R1614696_EV2 | 01/04/20 19:52 |
| WG1327072-5DUP | WG1327072-5 | R1614697_EV2 | 01/04/20 20:32 |
| IA-04A_123019 | L1962003-05 | R1614698_EV2 | 01/04/20 21:12 |
| IA-07_123019 | L1962003-07 | R1614699_EV2 | 01/04/20 21:51 |
| IA-08_123019 | L1962003-09 | R1614700_EV2 | 01/04/20 22:31 |

Internal Standard Area and RT Summary

Form 8a

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Instrument ID : AIRLAB16
 Sample No : WG1327072-2

Lab Number : L1962003
 Project Number : 170312501
 Analysis Date : 01/04/20 12:57
 Lab File ID : R1614691_EV2

| | Bromochloromethane | | 1,4-Difluorobenzene | | Chlorobenzene-d5 | |
|-------------------|--------------------|------|---------------------|-------|------------------|-------|
| | Area | RT | Area | RT | Area | RT |
| WG1327072-2 | 125267 | 9.53 | 373361 | 11.82 | 44199 | 16.53 |
| Upper Limit | 175374 | 9.86 | 522705 | 12.15 | 61879 | 16.86 |
| Lower Limit | 75160 | 9.20 | 224017 | 11.49 | 26519 | 16.20 |
| Sample ID | | | | | | |
| WG1327072-3 LCS | 125267 | 9.53 | 373361 | 11.82 | 44199 | 16.53 |
| WG1327072-4 BLANK | 121056 | 9.54 | 363454 | 11.83 | 40862 | 16.53 |
| AA-01_123019 | 121222 | 9.53 | 366758 | 11.83 | 42703 | 16.53 |
| DUP-01_123019 | 117681 | 9.54 | 357065 | 11.83 | 40724 | 16.53 |
| IA-02_123019 | 117199 | 9.53 | 356801 | 11.83 | 40762 | 16.53 |
| IA-02_123019 DUP | 117328 | 9.54 | 354666 | 11.83 | 40423 | 16.53 |
| IA-04A_123019 | 115887 | 9.54 | 355104 | 11.83 | 40158 | 16.53 |
| IA-07_123019 | 114994 | 9.54 | 351158 | 11.83 | 40419 | 16.53 |
| IA-08_123019 | 113397 | 9.54 | 349595 | 11.83 | 40431 | 16.53 |

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





Date Created: 11/22/19
Created By: Jason Hebert
File: PM7756-1
Page: 1

Volatile Organics in Air by TO-15 SIM (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

| Analyte | CAS # | RL | MDL | Units | LCS Criteria | LCS RPD | MS Criteria | MS RPD | Duplicate RPD | Surrogate Criteria | | |
|----------------------------|------------|------|--------|-------|--------------|---------|-------------|--------|---------------|--------------------|--|--|
| 1,1,1-Trichloroethane | 71-55-6 | 0.02 | 0.0083 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 0.02 | 0.0053 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.02 | 0.0056 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,1,2-Trichloroethane | 79-00-5 | 0.02 | 0.0058 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,1-Dichloroethane | 75-34-3 | 0.02 | 0.0073 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,1-Dichloroethene | 75-35-4 | 0.02 | 0.0084 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.02 | 0.0043 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,2-Dibromoethane | 106-93-4 | 0.02 | 0.008 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,2-Dichlorobenzene | 95-50-1 | 0.02 | 0.016 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,2-Dichloroethane | 107-06-2 | 0.02 | 0.0097 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,2-Dichloropropane | 78-87-5 | 0.02 | 0.0054 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.02 | 0.0056 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,3-Butadiene | 106-99-0 | 0.02 | 0.0097 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,3-Dichlorobenzene | 541-73-1 | 0.02 | 0.011 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,4-Dichlorobenzene | 106-46-7 | 0.02 | 0.012 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,4-Dioxane | 123-91-1 | 0.1 | 0.032 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 2,2,4-Trimethylpentane | 540-84-1 | 0.2 | 0.0063 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 2-Hexanone | 591-78-6 | 0.2 | 0.015 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 3-Chloropropene | 107-05-1 | 0.2 | 0.0067 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 4-Ethyltoluene | 622-96-8 | 0.02 | 0.0042 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Benzene | 71-43-2 | 0.1 | 0.005 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Benzyl chloride | 100-44-7 | 0.2 | 0.0072 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Bromodichloromethane | 75-27-4 | 0.02 | 0.0067 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Bromoform | 75-25-2 | 0.02 | 0.0065 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Bromomethane | 74-83-9 | 0.02 | 0.0085 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Carbon disulfide | 75-15-0 | 0.2 | 0.043 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Carbon tetrachloride | 56-23-5 | 0.02 | 0.0105 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Chlorobenzene | 108-90-7 | 0.1 | 0.0064 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Chloroethane | 75-00-3 | 0.1 | 0.0135 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Chloroform | 67-66-3 | 0.02 | 0.0089 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Chloromethane | 74-87-3 | 0.2 | 0.024 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| cis-1,2-Dichloroethene | 156-59-2 | 0.02 | 0.0096 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| trans-1,2-Dichloroethene | 156-60-5 | 0.02 | 0.0076 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,2-Dichloroethene (total) | 540-59-0 | 0.02 | 0.0076 | ppbV | | | | 25 | 25 | | | |
| cis-1,3-Dichloropropene | 10061-01-5 | 0.02 | 0.007 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| 1,3-Dichloropropene, Total | 542-75-6 | 0.02 | 0.007 | ppbV | | | | 25 | 25 | | | |
| Cyclohexane | 110-82-7 | 0.2 | 0.0064 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Dibromochloromethane | 124-48-1 | 0.02 | 0.0086 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Dichlorodifluoromethane | 75-71-8 | 0.2 | 0.018 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Ethyl Alcohol | 64-17-5 | 5 | 0.666 | ppbV | 40-160 | 25 | | 25 | 25 | | | |
| Ethyl Acetate | 141-78-6 | 0.5 | 0.0307 | ppbV | 70-130 | 25 | | 25 | 25 | | | |
| Ethylbenzene | 100-41-4 | 0.02 | 0.0049 | ppbV | 70-130 | 25 | | 25 | 25 | | | |

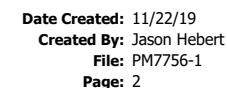
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



Volatiles Sample Data

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-01
 Client ID : AA-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614694_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:24
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 18:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.076 | 0.020 | -- | 0.478 | 0.126 | -- | |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | 0.048 | 0.020 | -- | 0.325 | 0.136 | -- | |

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-02
 Client ID : DUP-01_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614695_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 00:00
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.071 | 0.020 | -- | 0.447 | 0.126 | -- | |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | 0.046 | 0.020 | -- | 0.312 | 0.136 | -- | |

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-03
 Client ID : IA-02_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614696_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 19:52
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.062 | 0.020 | -- | 0.390 | 0.126 | -- | |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | 0.052 | 0.020 | -- | 0.353 | 0.136 | -- | |

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-05
 Client ID : IA-04A_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614698_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 15:33
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:12
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.072 | 0.020 | -- | 0.453 | 0.126 | -- | |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | 0.038 | 0.020 | -- | 0.258 | 0.136 | -- | |

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-07
 Client ID : IA-07_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614699_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:12
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 21:51
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.063 | 0.020 | -- | 0.396 | 0.126 | -- | |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | 0.064 | 0.020 | -- | 0.434 | 0.136 | -- | |

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : L1962003-09
 Client ID : IA-08_123019
 Sample Location : BRONX, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614700_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:10
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 22:31
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.059 | 0.020 | -- | 0.371 | 0.126 | -- | |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | 1.06 | 0.020 | -- | 7.19 | 0.136 | -- | |

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327072-4
 Client ID : WG1327072-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614693_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 01/04/20 15:40
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Lab ID : WG1327072-5
 Client ID : IA-02_123019DUP
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1614697_EV2
 Sample Amount : 250 ml

Lab Number : L1962003
 Project Number : 170312501
 Date Collected : 12/30/19 13:20
 Date Received : 12/30/19
 Date Analyzed : 01/04/20 20:32
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRLAB16
 GC Column : RTX-1

| CAS NO. | Parameter | ppbV | | | ug/m3 | | | Qualifier |
|----------|------------------------|---------|-------|-----|---------|-------|-----|-----------|
| | | Results | RL | MDL | Results | RL | MDL | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.072 | 0.020 | -- | 0.453 | 0.126 | -- | |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 127-18-4 | Tetrachloroethene | 0.051 | 0.020 | -- | 0.346 | 0.136 | -- | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614694_Ev2.D
 Acq On : 4 Jan 2020 6:32 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-01,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:53:38 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : 7-NY-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.53 | 49 | 121222 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery = | | 96.77% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 366758 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery = | | 98.23% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 42703 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery = | | 96.62% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 0.00 | | 0 | | N.D. | |
| 17) 1,1-dichloroethene | 0.00 | | 0 | | N.D. | d |
| 28) cis-1,2-dichloroethene | 9.35 | 61 | 145 | 0.019 | ppbV | 86 |
| 36) 1,1,1-trichloroethane | 10.85 | | 0 | | N.D. | |
| 38) carbon tetrachloride | 11.56 | 117 | 672 | 0.076 | ppbV # | 93 |
| 44) trichloroethene | 12.63 | 130 | 178 | 0.018 | ppbV # | 78 |
| 57) tetrachloroethene | 15.94 | 166 | 470 | 0.048 | ppbV | 97 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614694_Ev2.D
 Acq On : 4 Jan 2020 6:32 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-01,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:53:38 2020

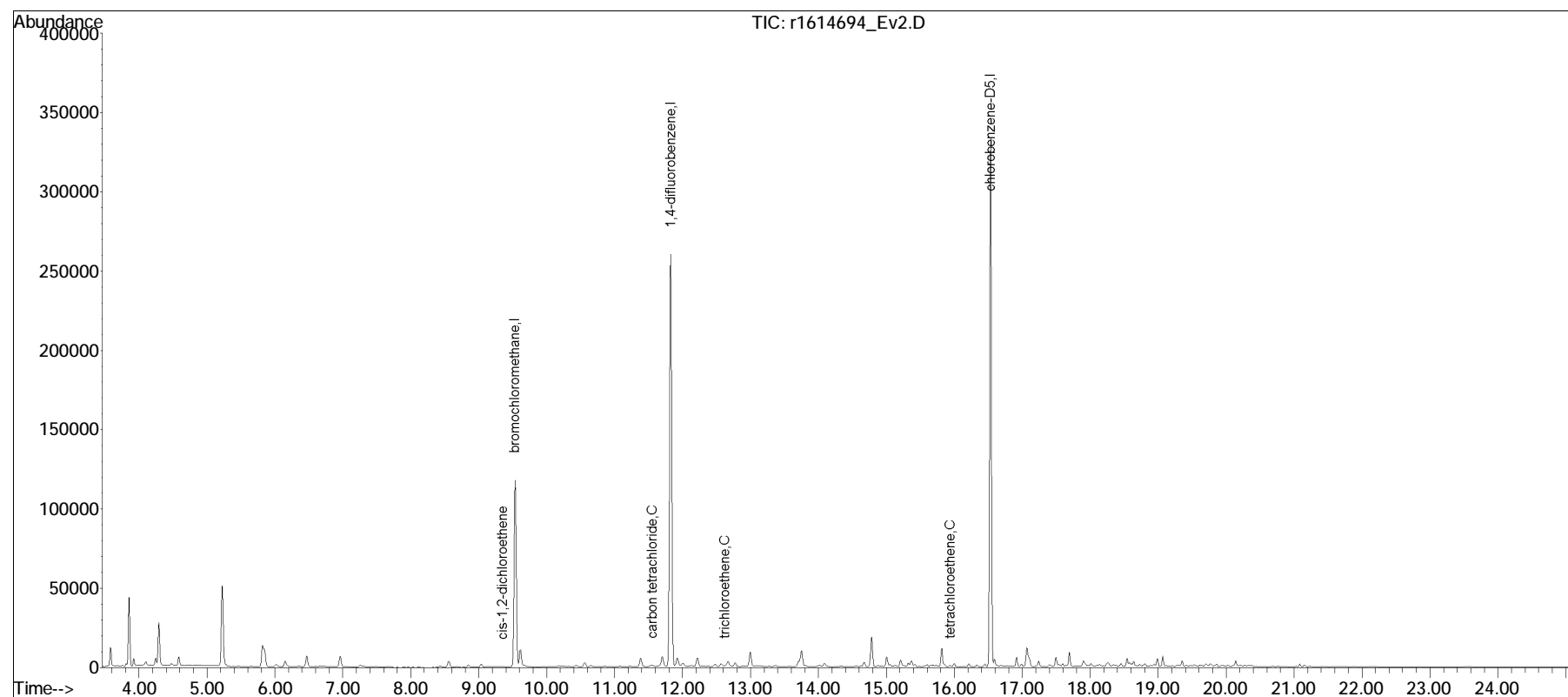
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

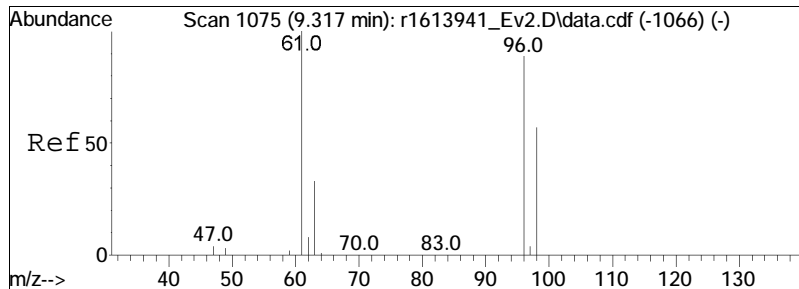
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

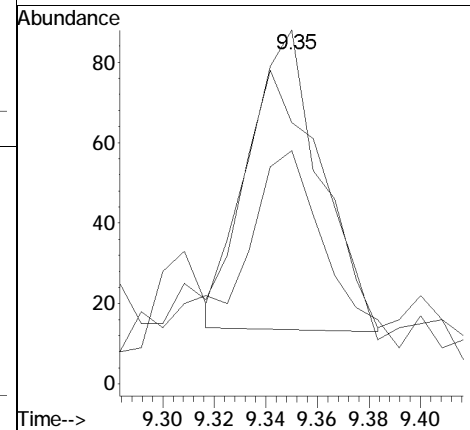
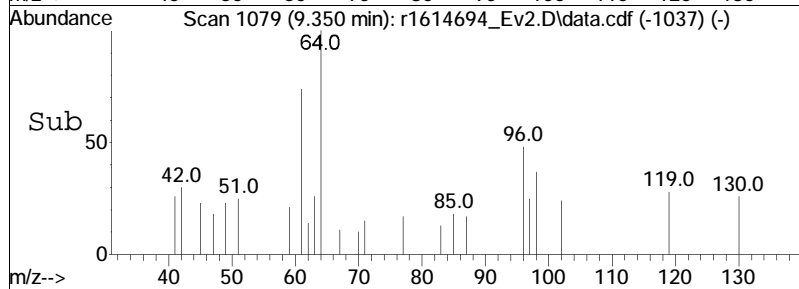
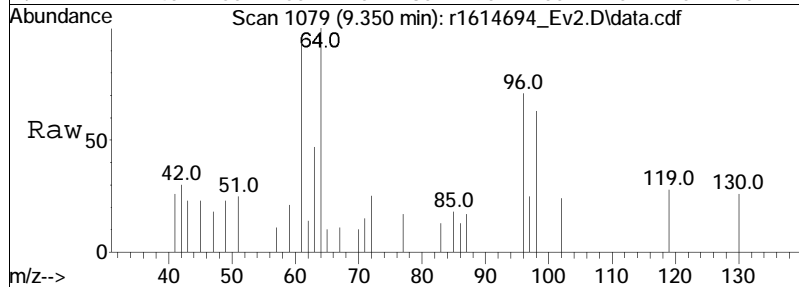
Sub List : 7-NY-SIM - .\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D

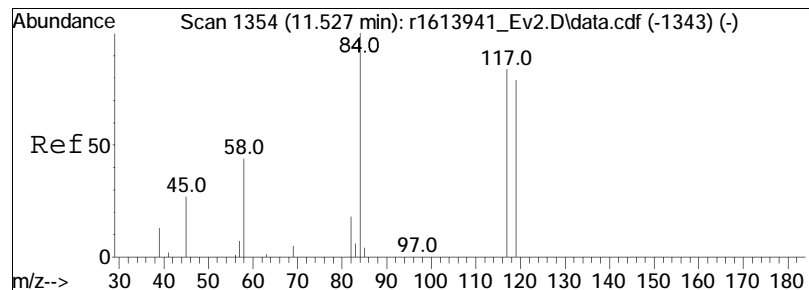




#28
 cis-1,2-dichloroethene
 Concen: 0.02 ppbV
 RT: 9.35 min Scan# 1079
 Delta R.T. 0.033 min
 Lab File: r1614694_Ev2.D
 Acq: 4 Jan 2020 6:32 PM

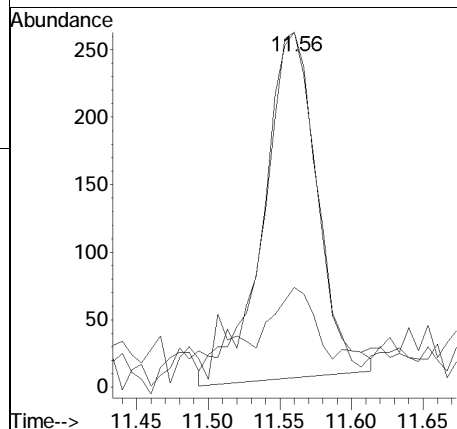
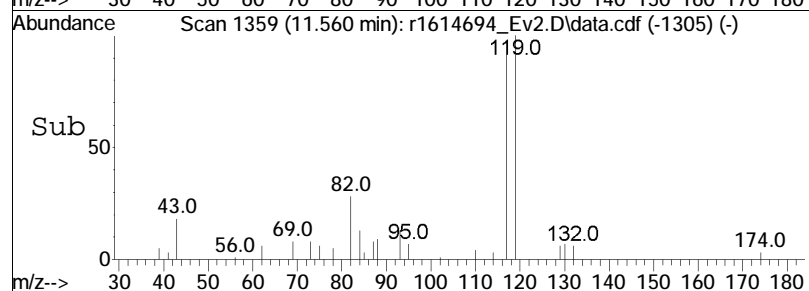
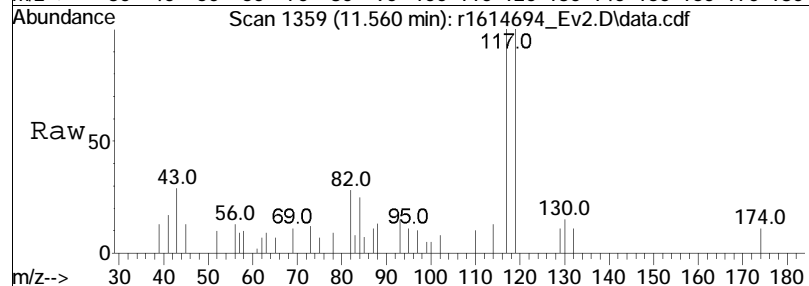
Tgt Ion: 61 Resp: 145
 Ion Ratio Lower Upper
 61 100
 96 73.9 71.3 106.9
 98 65.9 45.8 68.8

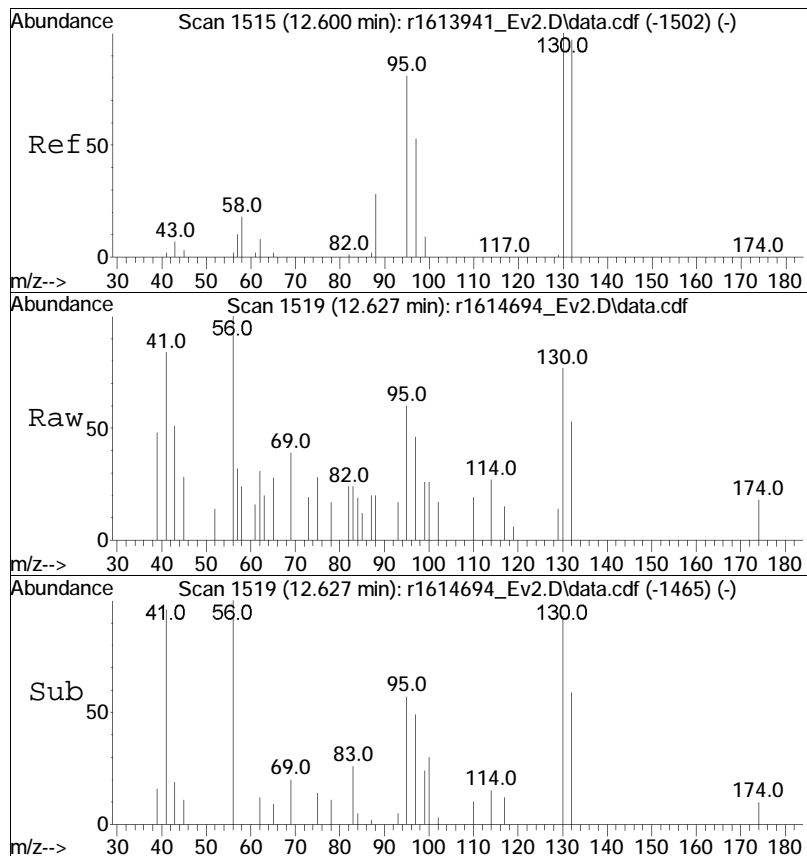




#38
 carbon tetrachloride
 Concen: 0.08 ppbV
 RT: 11.56 min Scan# 1359
 Delta R.T. 0.033 min
 Lab File: r1614694_Ev2.D
 Acq: 4 Jan 2020 6:32 PM

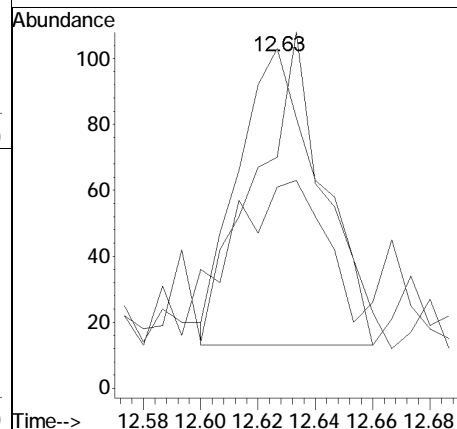
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117 | 100 | | |
| 119 | 100.0 | 75.7 | 113.5 |
| 82 | 28.1 | 17.4 | 26.2# |

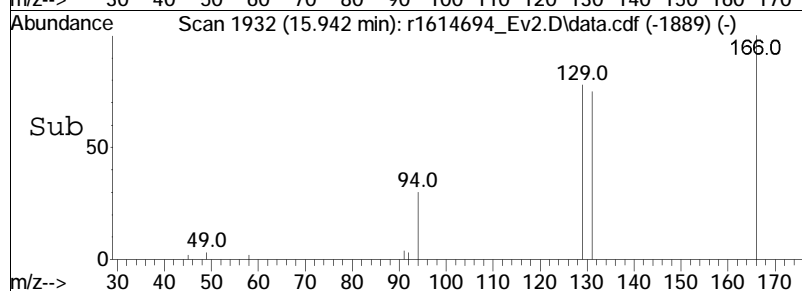
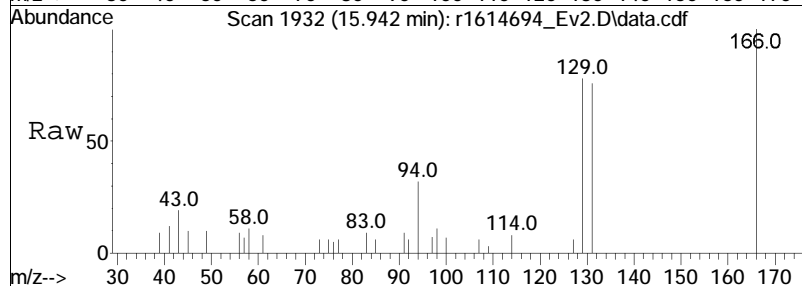
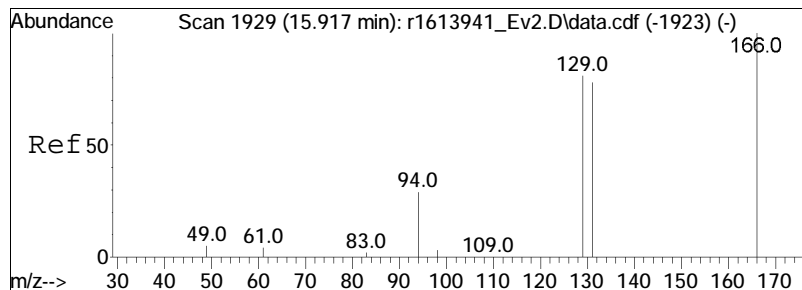




#44
trichloroethene
Concen: 0.02 ppbV
RT: 12.63 min Scan# 1519
Delta R.T. 0.027 min
Lab File: r1614694_Ev2.D
Acq: 4 Jan 2020 6:32 PM

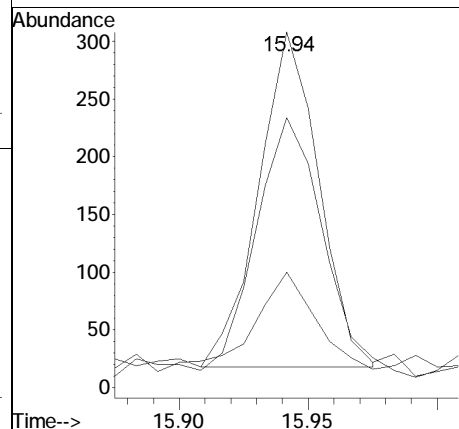
| | | | |
|-----------|-------|-------|--------|
| Tgt Ion: | 130 | Resp: | 178 |
| Ion Ratio | Lower | Upper | |
| 130 | 100 | | |
| 132 | 68.0 | 77.6 | 116.4# |
| 97 | 59.2 | 42.6 | 64.0 |





#57
 tetrachloroethene
 Concen: 0.05 ppbV
 RT: 15.94 min Scan# 1932
 Delta R.T. 0.025 min
 Lab File: r1614694_Ev2.D
 Acq: 4 Jan 2020 6:32 PM

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166 | 100 | | |
| 131 | 76.0 | 62.2 | 93.2 |
| 94 | 32.5 | 23.5 | 35.3 |



Manual Integration/Negative Proof Report

| | | |
|------------|--------------------------------------|-------------------------------|
| Data Path | : O:\Forensics\Data\Airlab16\QMethod | : TSIM16_191119.M |
| Data File | : r1614694_Ev2.D | Operator : AIRLAB16:RY |
| Date Inj'd | : 1/4/2020 0:6: 2 | Instrument : |
| Sample | : L1962003-01,3,250,250 | Quant Date : 1/5/2020 8:39 am |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614695_Ev2.D
 Acq On : 4 Jan 2020 7:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-02,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:39:29 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : 7-NY-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 117681 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery = | | 93.94% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 357065 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery = | | 95.64% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 40724 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery = | | 92.14% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 0.00 | | 0 | | N.D. | |
| 17) 1,1-dichloroethene | 0.00 | | 0 | | N.D. | |
| 28) cis-1,2-dichloroethene | 0.00 | | 0 | | N.D. | |
| 36) 1,1,1-trichloroethane | 0.00 | | 0 | | N.D. | |
| 38) carbon tetrachloride | 11.56 | 117 | 616 | 0.071 | ppbV # | 91 |
| 44) trichloroethene | 12.49 | | 0 | | N.D. | |
| 57) tetrachloroethene | 15.94 | 166 | 432 | 0.046 | ppbV | 95 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614695_Ev2.D
 Acq On : 4 Jan 2020 7:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-02,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:39:29 2020

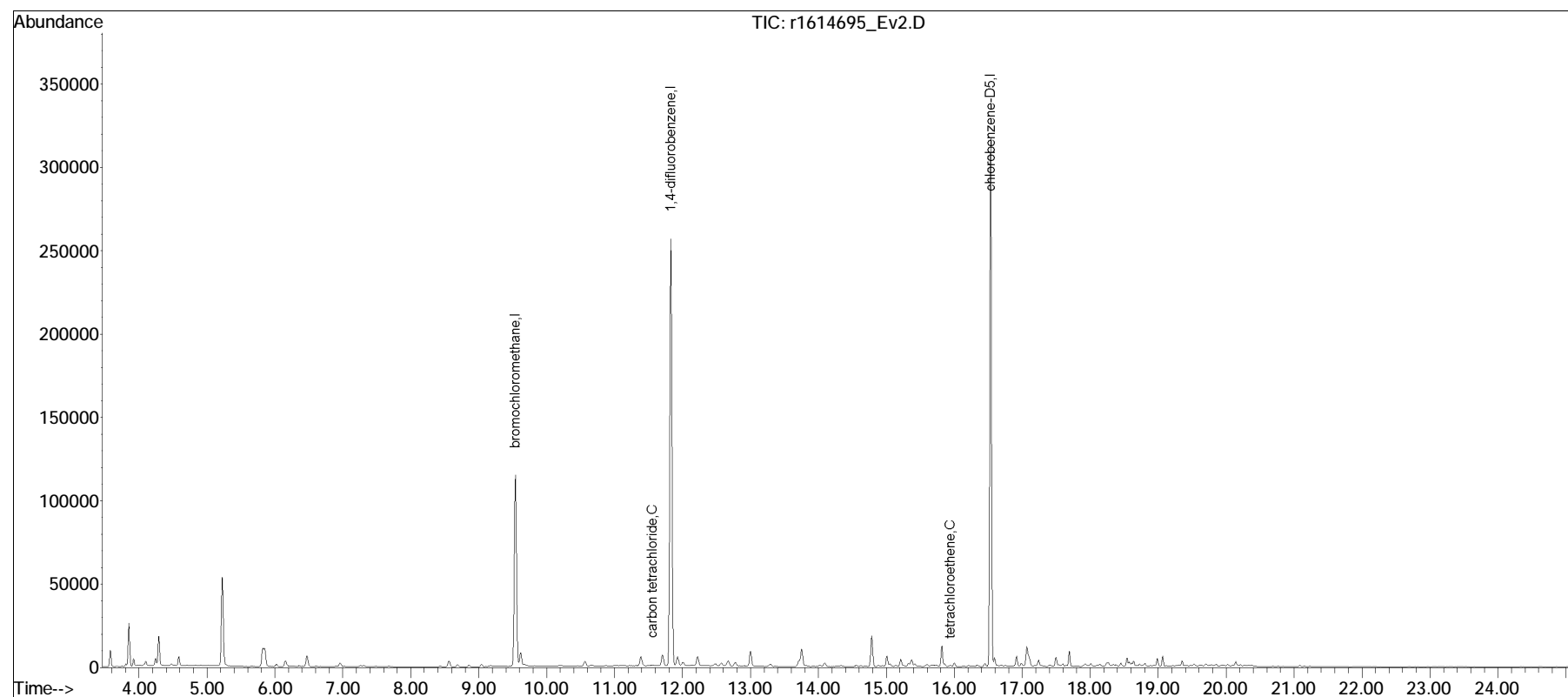
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

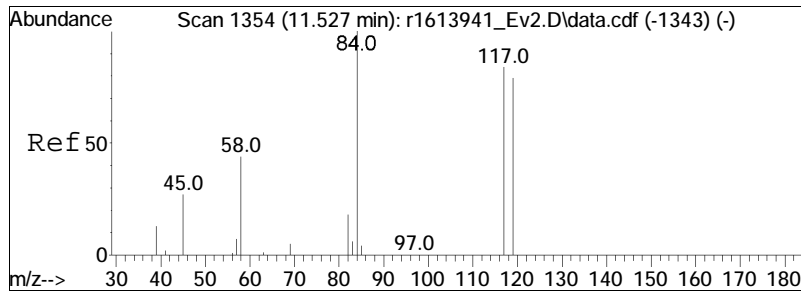
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

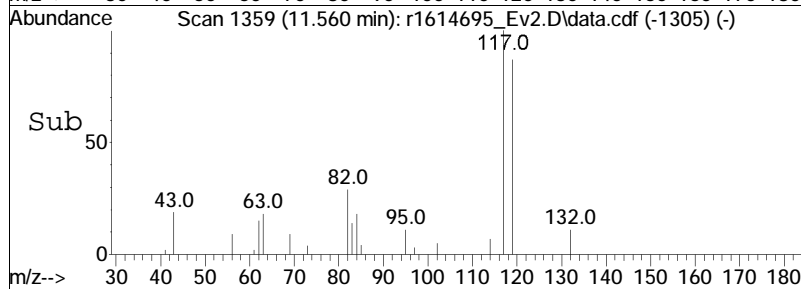
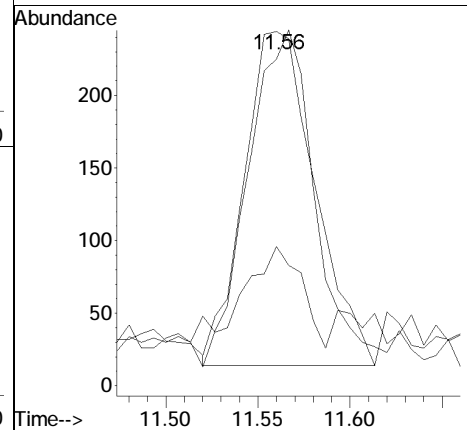
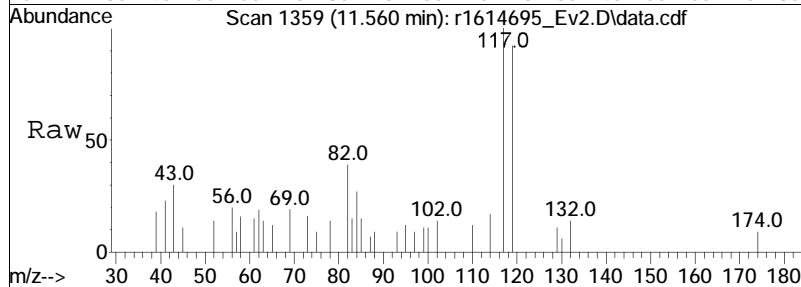
Sub List : 7-NY-SIM - .\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D

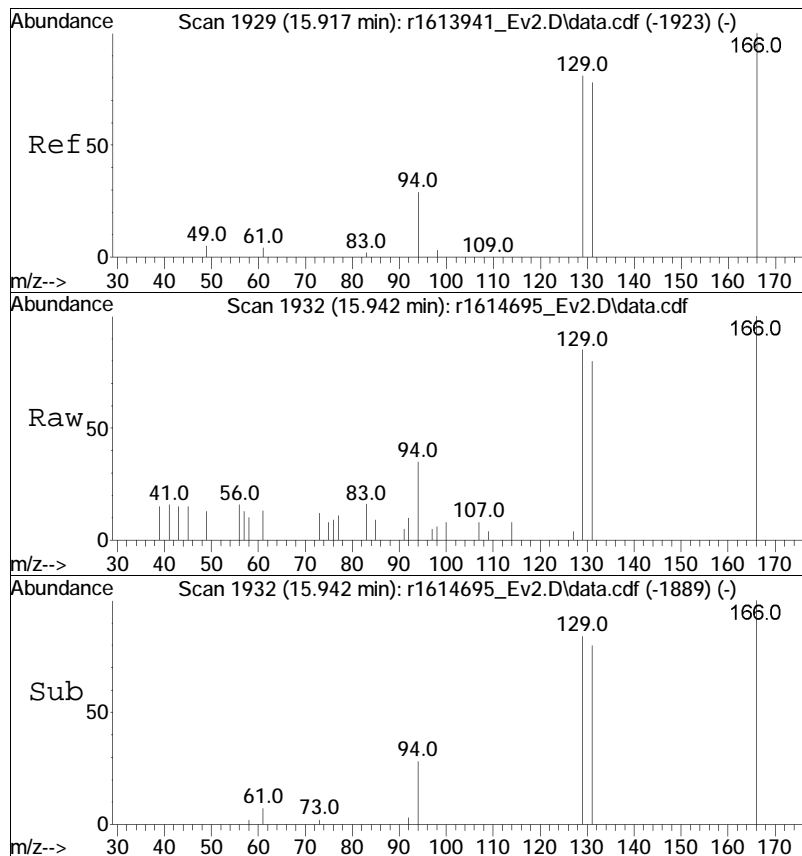




#38
 carbon tetrachloride
 Concen: 0.07 ppbV
 RT: 11.56 min Scan# 1359
 Delta R.T. 0.033 min
 Lab File: r1614695_Ev2.D
 Acq: 4 Jan 2020 7:12 PM

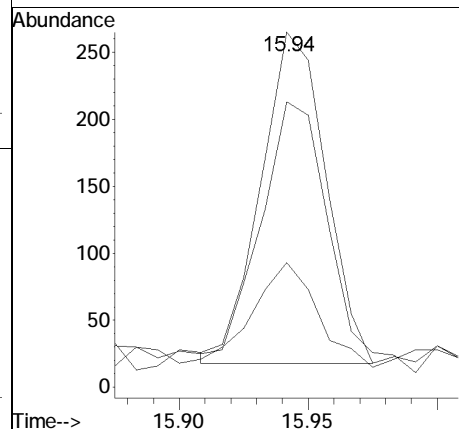
Tgt Ion: 117 Resp: 616
 Ion Ratio Lower Upper
 117 100
 119 92.2 75.7 113.5
 82 39.3 17.4 26.2#





#57
 tetrachloroethene
 Concen: 0.05 ppbV
 RT: 15.94 min Scan# 1932
 Delta R.T. 0.025 min
 Lab File: r1614695_Ev2.D
 Acq: 4 Jan 2020 7:12 PM

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166 | 100 | | |
| 131 | 80.4 | 62.2 | 93.2 |
| 94 | 35.1 | 23.5 | 35.3 |



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1614695_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:7: 2 Instrument :
Sample : L1962003-02,3,250,250 Quant Date : 1/5/2020 8:39 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614696_Ev2.D
 Acq On : 4 Jan 2020 7:52 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-03,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:54:41 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : 7-NY-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.53 | 49 | 117199 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery = | | 93.56% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 356801 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery = | | 95.56% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 40762 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery = | | 92.22% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 0.00 | | 0 | | N.D. | |
| 17) 1,1-dichloroethene | 0.00 | | 0 | | N.D. | d |
| 28) cis-1,2-dichloroethene | 0.00 | | 0 | | N.D. | |
| 36) 1,1,1-trichloroethane | 0.00 | | 0 | | N.D. | |
| 38) carbon tetrachloride | 11.56 | 117 | 539 | 0.062 | ppbV # | 96 |
| 44) trichloroethene | 0.00 | | 0 | | N.D. | |
| 57) tetrachloroethene | 15.94 | 166 | 488 | 0.052 | ppbV # | 96 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614696_Ev2.D
 Acq On : 4 Jan 2020 7:52 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-03,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:54:41 2020

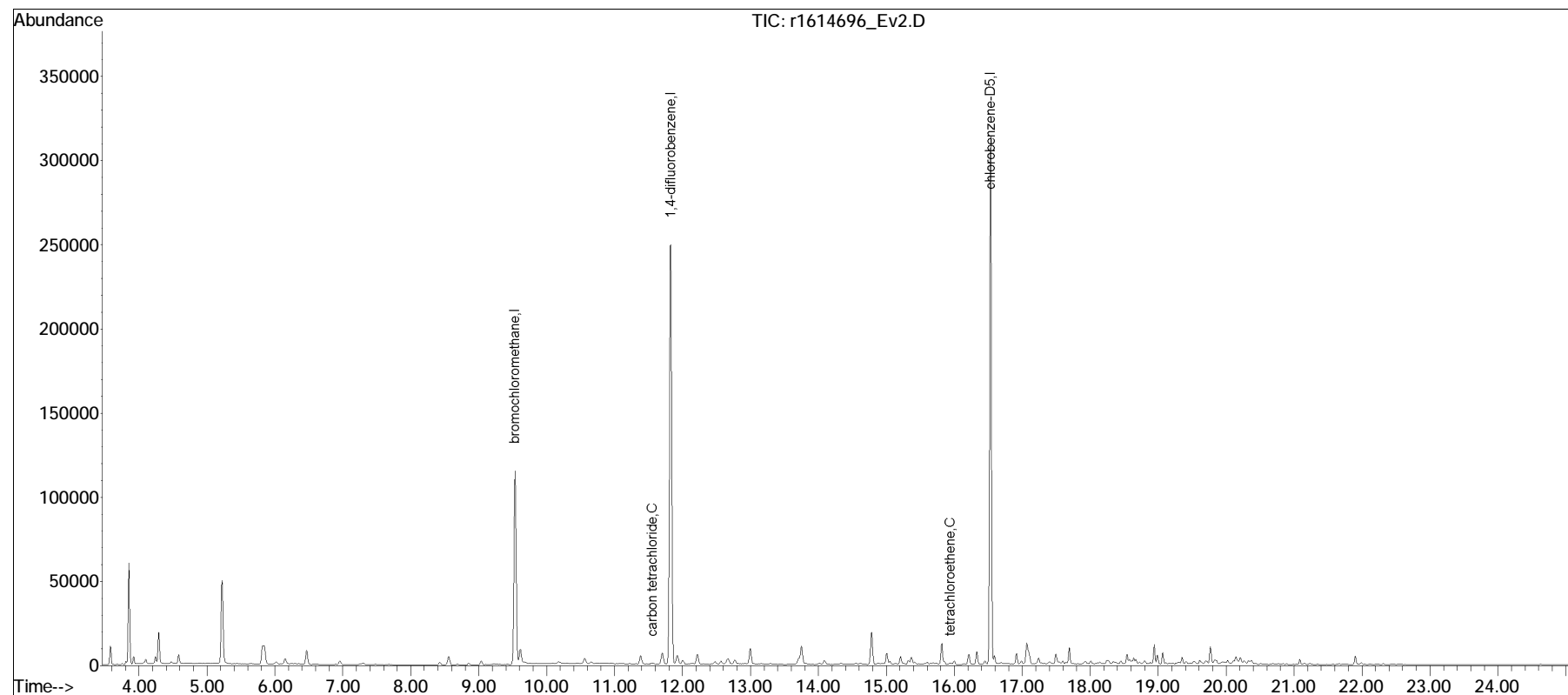
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

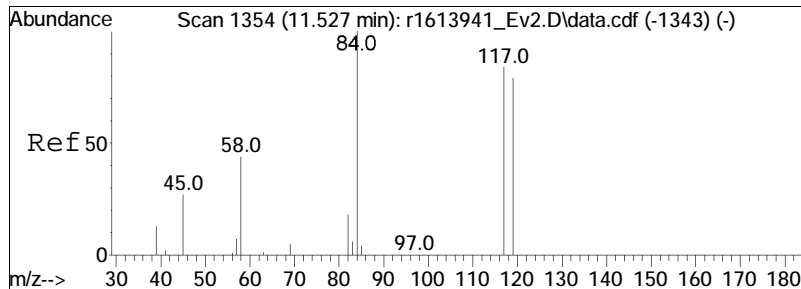
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

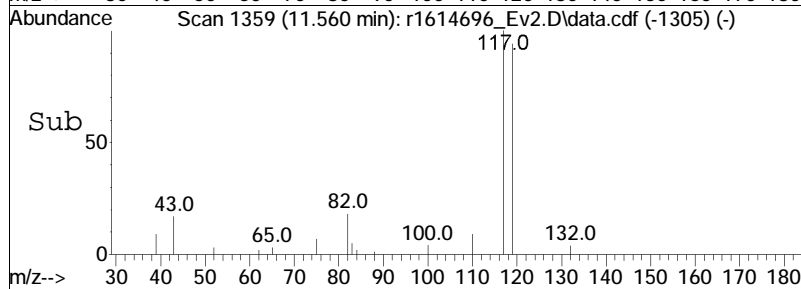
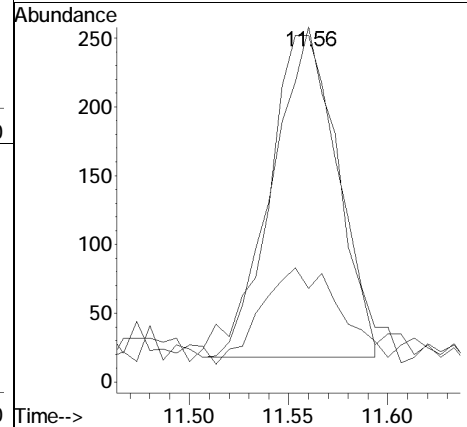
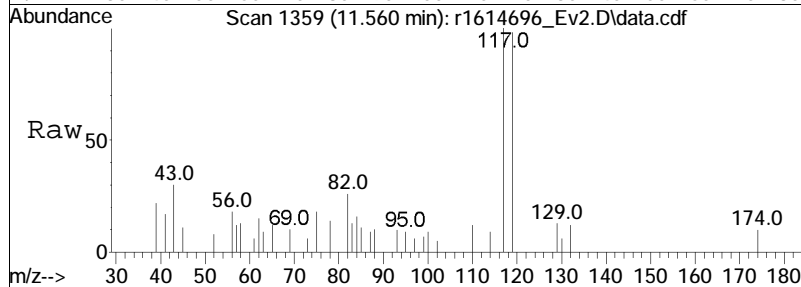
Sub List : 7-NY-SIM - .\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D

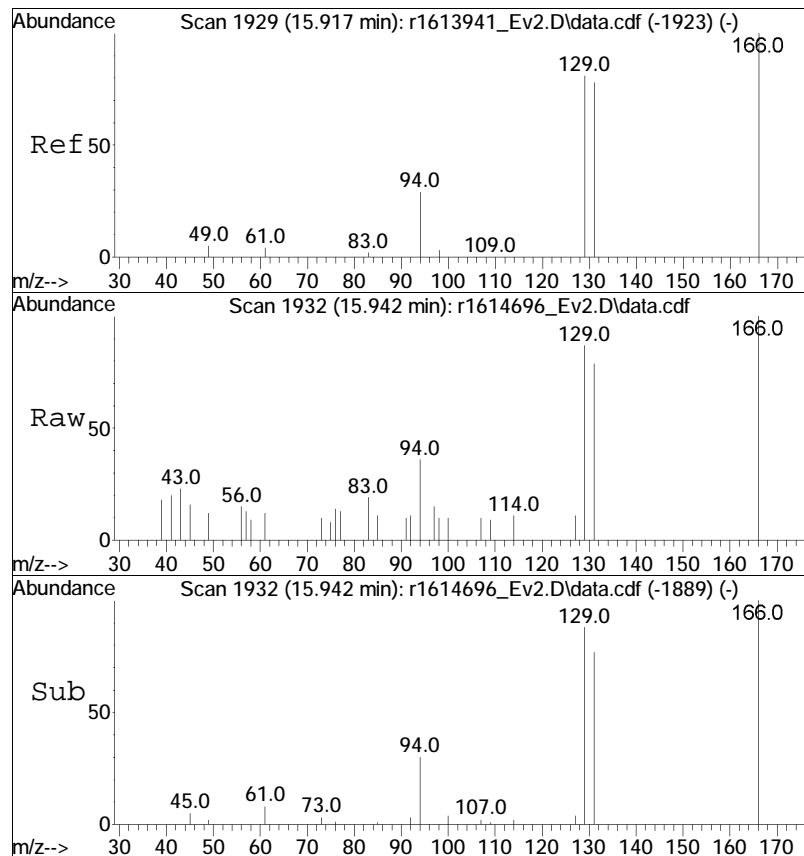




#38
 carbon tetrachloride
 Concen: 0.06 ppbV
 RT: 11.56 min Scan# 1359
 Delta R.T. 0.033 min
 Lab File: r1614696_Ev2.D
 Acq: 4 Jan 2020 7:52 PM

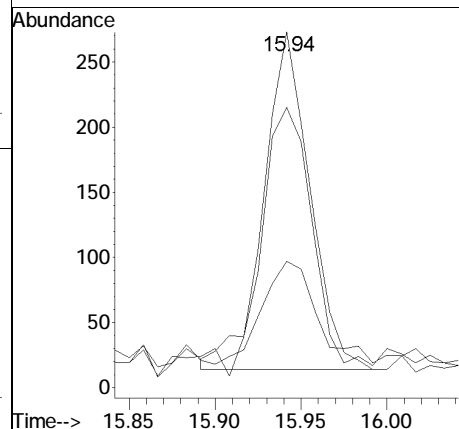
Tgt Ion: 117 Resp: 539
 Ion Ratio Lower Upper
 117 100
 119 97.7 75.7 113.5
 82 26.4 17.4 26.2#





#57
 tetrachloroethene
 Concen: 0.05 ppbV
 RT: 15.94 min Scan# 1932
 Delta R.T. 0.025 min
 Lab File: r1614696_Ev2.D
 Acq: 4 Jan 2020 7:52 PM

| | | | |
|-----------|-------|-------|-------|
| Tgt Ion: | 166 | Resp: | 488 |
| Ion Ratio | Lower | Upper | |
| 166 | 100 | | |
| 131 | 78.8 | 62.2 | 93.2 |
| 94 | 35.5 | 23.5 | 35.3# |



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1614696_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:7: 2 Instrument :
Sample : L1962003-03,3,250,250 Quant Date : 1/5/2020 8:39 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614698_Ev2.D
 Acq On : 4 Jan 2020 9:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-05,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:55:40 2020

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : 7-NY-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 115887 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery = | | 92.51% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 355104 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery = | | 95.11% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 40158 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery = | | 90.86% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 0.00 | | 0 | | N.D. | |
| 17) 1,1-dichloroethene | 0.00 | | 0 | | N.D. | d |
| 28) cis-1,2-dichloroethene | 0.00 | | 0 | | N.D. | |
| 36) 1,1,1-trichloroethane | 0.00 | | 0 | | N.D. | |
| 38) carbon tetrachloride | 11.57 | 117 | 617 | 0.072 | ppbV # | 93 |
| 44) trichloroethene | 0.00 | | 0 | | N.D. | |
| 57) tetrachloroethene | 15.95 | 166 | 348 | 0.038 | ppbV | 99 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614698_Ev2.D
 Acq On : 4 Jan 2020 9:12 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-05,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:55:40 2020

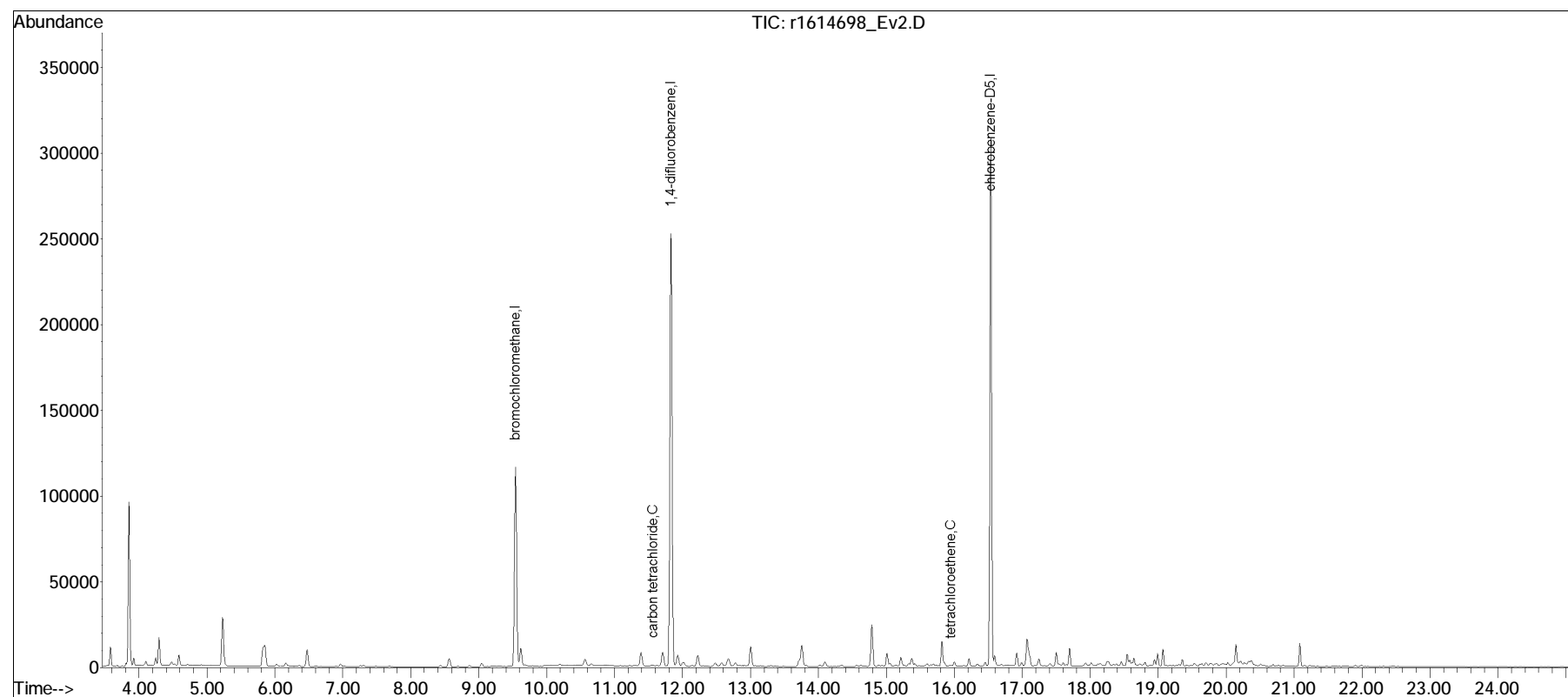
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

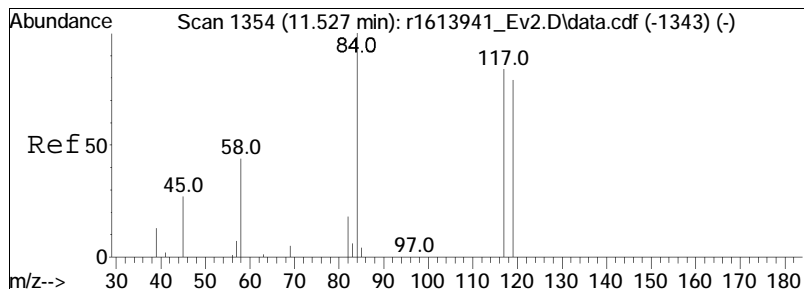
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

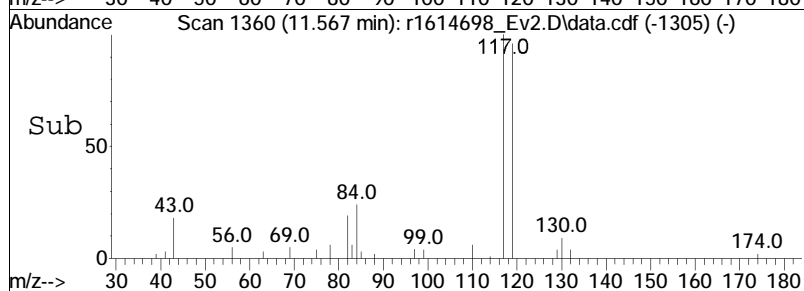
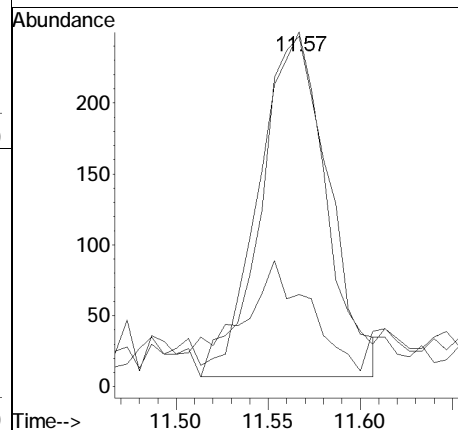
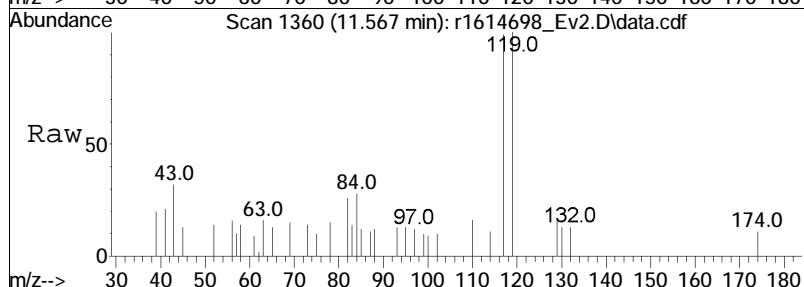
Sub List : 7-NY-SIM - .\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D

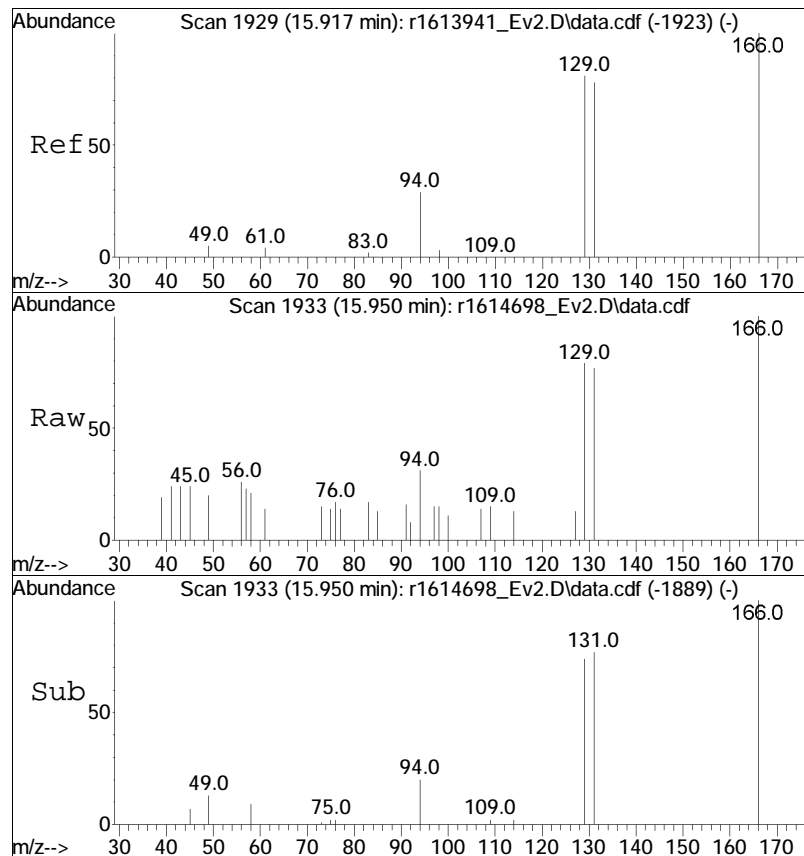




#38
 carbon tetrachloride
 Concen: 0.07 ppbV
 RT: 11.57 min Scan# 1360
 Delta R.T. 0.040 min
 Lab File: r1614698_Ev2.D
 Acq: 4 Jan 2020 9:12 PM

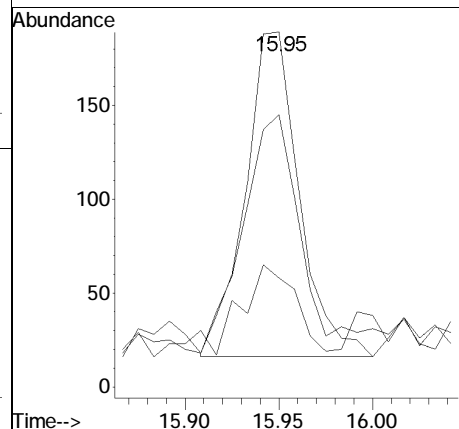
Tgt Ion: 117 Resp: 617
 Ion Ratio Lower Upper
 117 100
 119 101.2 75.7 113.5
 82 26.3 17.4 26.2#





#57
 tetrachloroethene
 Concen: 0.04 ppbV
 RT: 15.95 min Scan# 1933
 Delta R.T. 0.033 min
 Lab File: r1614698_Ev2.D
 Acq: 4 Jan 2020 9:12 PM

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166 | 100 | | |
| 131 | 76.7 | 62.2 | 93.2 |
| 94 | 30.7 | 23.5 | 35.3 |



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1614698_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:9: 2 Instrument :
Sample : L1962003-05,3,250,250 Quant Date : 1/5/2020 8:40 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614699_Ev2.D
 Acq On : 4 Jan 2020 9:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-07,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:56:09 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : 7-NY-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 114994 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery = | | 91.80% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 351158 | 10.000 | ppbV | 0.04 |
| Standard Area = 373361 | | | Recovery = | | 94.05% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 40419 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery = | | 91.45% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 0.00 | | 0 | | N.D. | |
| 17) 1,1-dichloroethene | 0.00 | | 0 | | N.D. | d |
| 28) cis-1,2-dichloroethene | 0.00 | | 0 | | N.D. | |
| 36) 1,1,1-trichloroethane | 0.00 | | 0 | | N.D. | |
| 38) carbon tetrachloride | 11.57 | 117 | 536 | 0.063 | ppbV # | 97 |
| 44) trichloroethene | 0.00 | | 0 | | N.D. | |
| 57) tetrachloroethene | 15.95 | 166 | 593 | 0.064 | ppbV # | 97 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614699_Ev2.D
 Acq On : 4 Jan 2020 9:51 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-07,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 06 08:56:09 2020

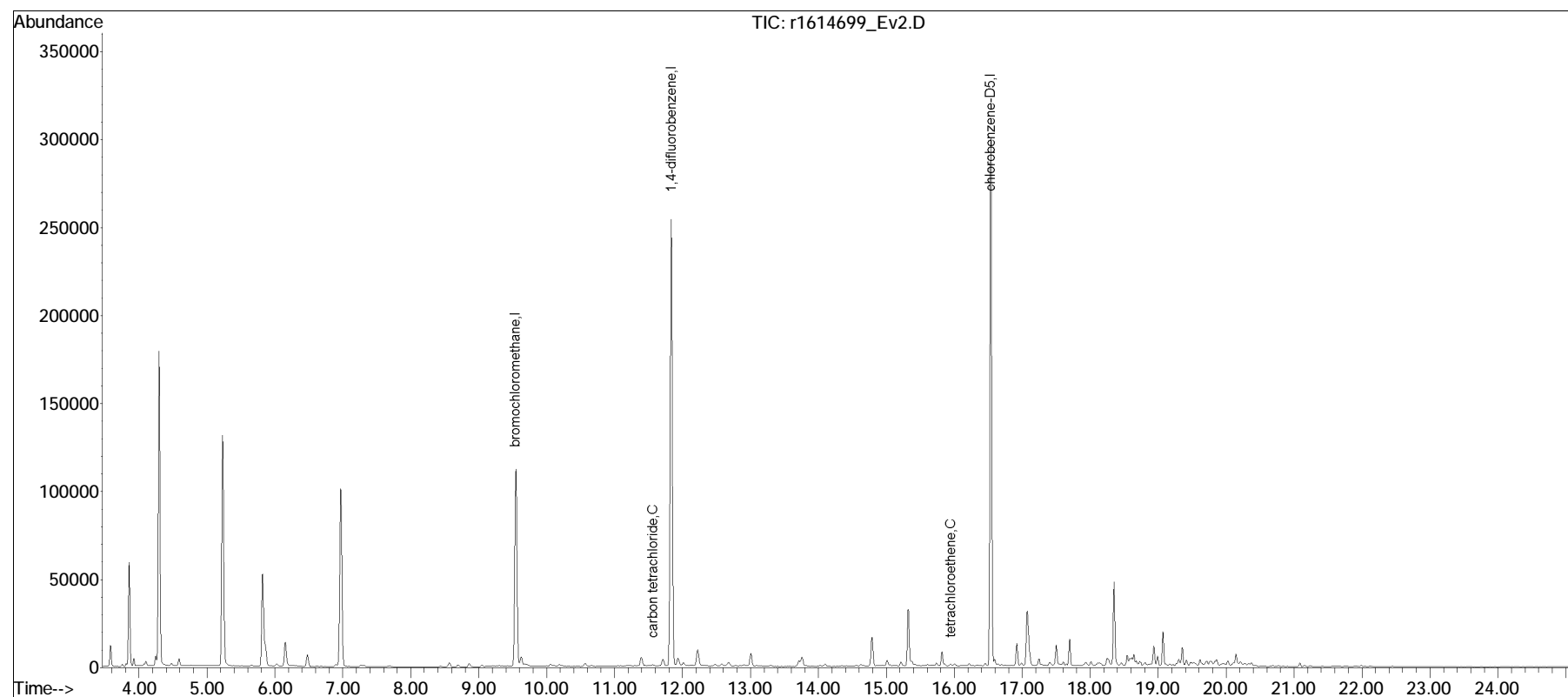
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

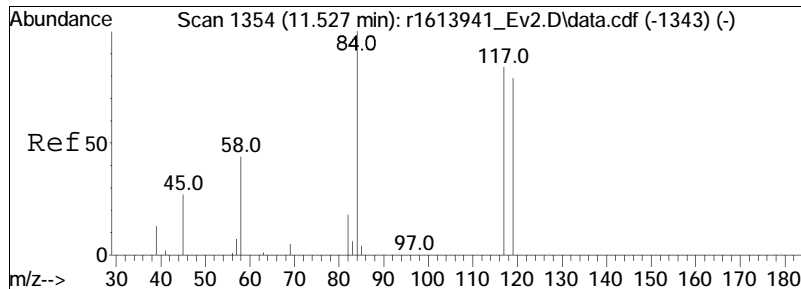
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

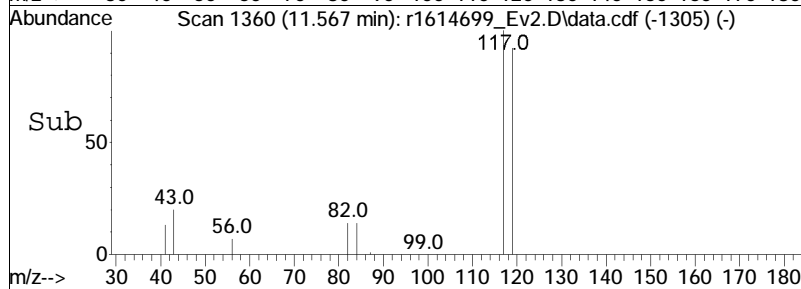
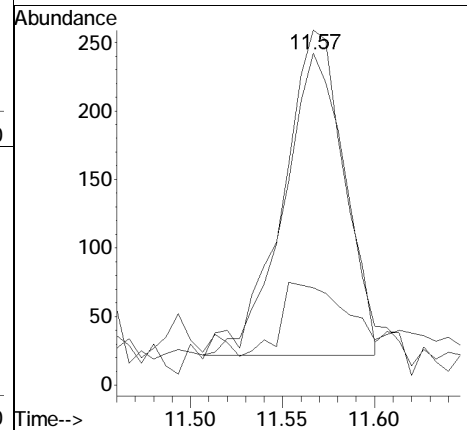
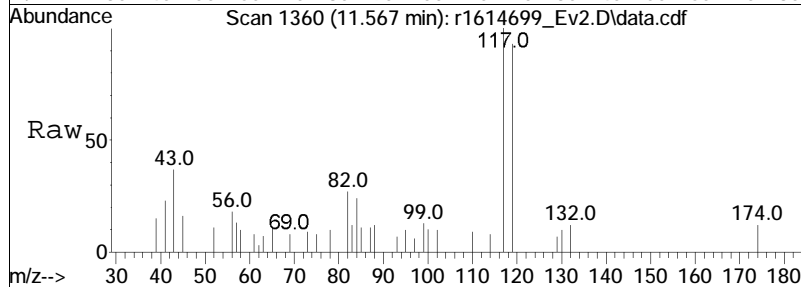
Sub List : 7-NY-SIM - .\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D

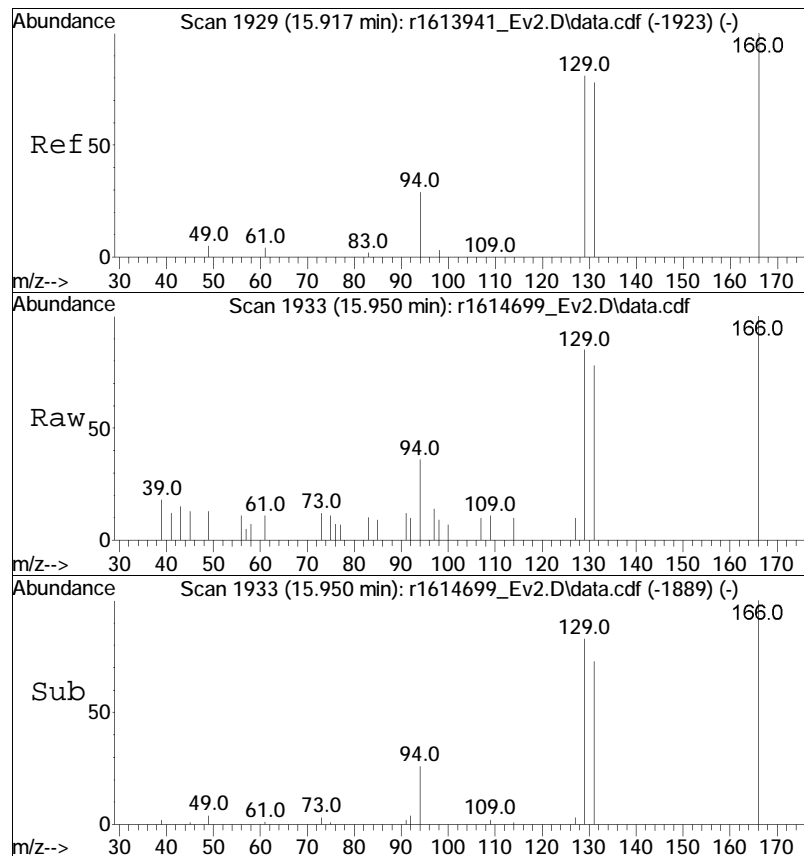




#38
 carbon tetrachloride
 Concen: 0.06 ppbV
 RT: 11.57 min Scan# 1360
 Delta R.T. 0.040 min
 Lab File: r1614699_Ev2.D
 Acq: 4 Jan 2020 9:51 PM

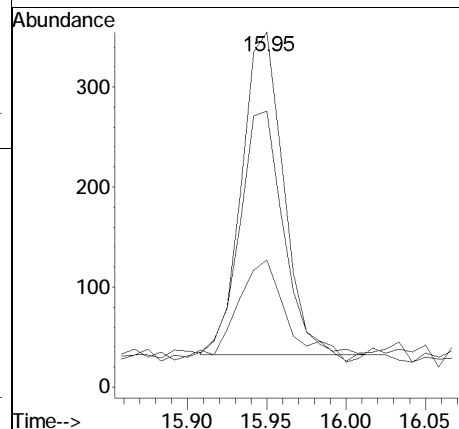
Tgt Ion: 117 Resp: 536
 Ion Ratio Lower Upper
 117 100
 119 93.4 75.7 113.5
 82 27.4 17.4 26.2#





#57
 tetrachloroethene
 Concen: 0.06 ppbV
 RT: 15.95 min Scan# 1933
 Delta R.T. 0.033 min
 Lab File: r1614699_Ev2.D
 Acq: 4 Jan 2020 9:51 PM

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166 | 100 | | |
| 131 | 77.7 | 62.2 | 93.2 |
| 94 | 35.8 | 23.5 | 35.3# |



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1614699_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:9: 1 Instrument :
Sample : L1962003-07,3,250,250 Quant Date : 1/5/2020 8:40 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614700_Ev2.D
 Acq On : 4 Jan 2020 10:31 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-09,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:40:45 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : 7-NY-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 113397 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery | = | 90.52% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 349595 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery | = | 93.63% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 40431 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery | = | 91.47% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 0.00 | | 0 | | N.D. | |
| 17) 1,1-dichloroethene | 0.00 | | 0 | | N.D. | |
| 28) cis-1,2-dichloroethene | 9.34 | | 0 | | N.D. | |
| 36) 1,1,1-trichloroethane | 0.00 | | 0 | | N.D. | |
| 38) carbon tetrachloride | 11.57 | 117 | 498 | 0.059 | ppbV # | 96 |
| 44) trichloroethene | 12.64 | | 0 | | N.D. | |
| 57) tetrachloroethene | 15.94 | 166 | 9761 | 1.055 | ppbV | 98 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614700_Ev2.D
 Acq On : 4 Jan 2020 10:31 PM
 Operator : AIRLAB16:RY
 Sample : L1962003-09,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:40:45 2020

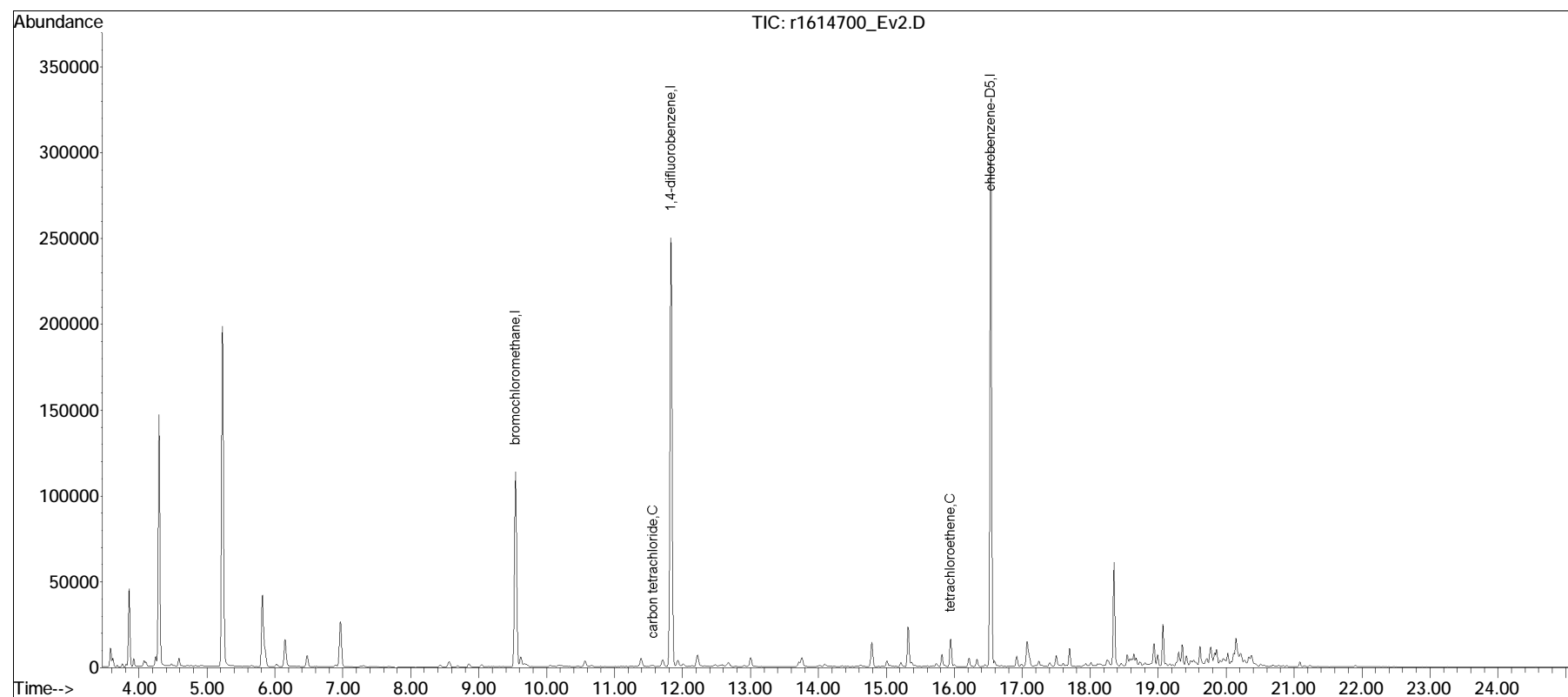
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

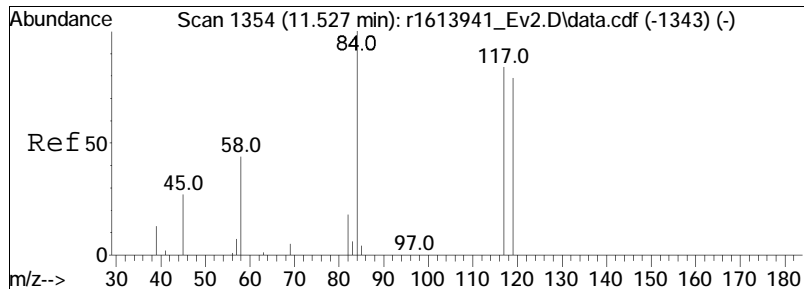
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

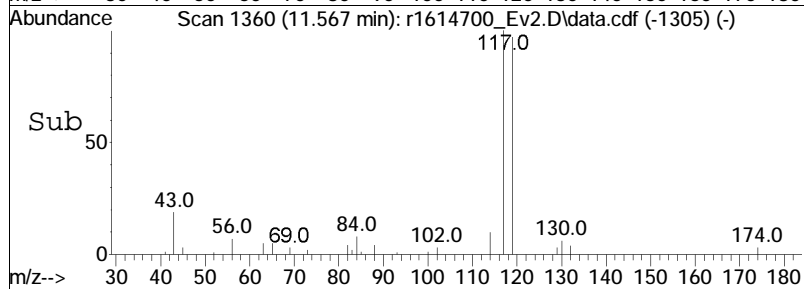
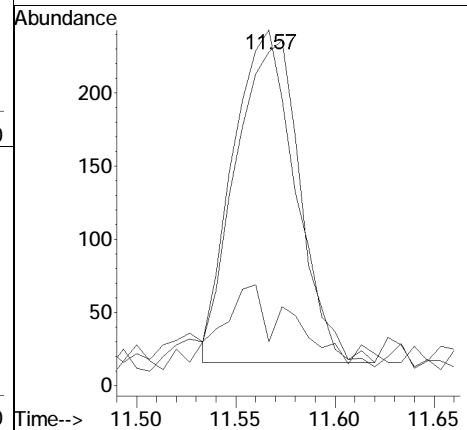
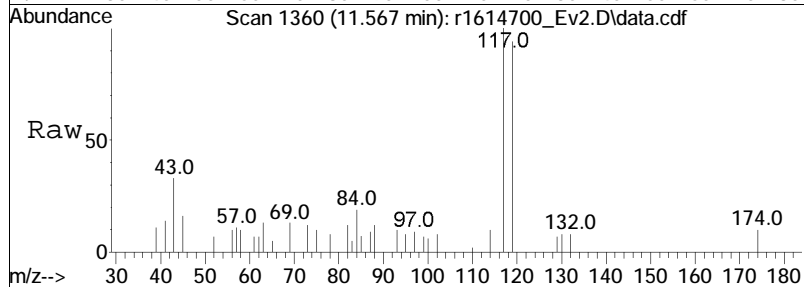
Sub List : 7-NY-SIM - .\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D

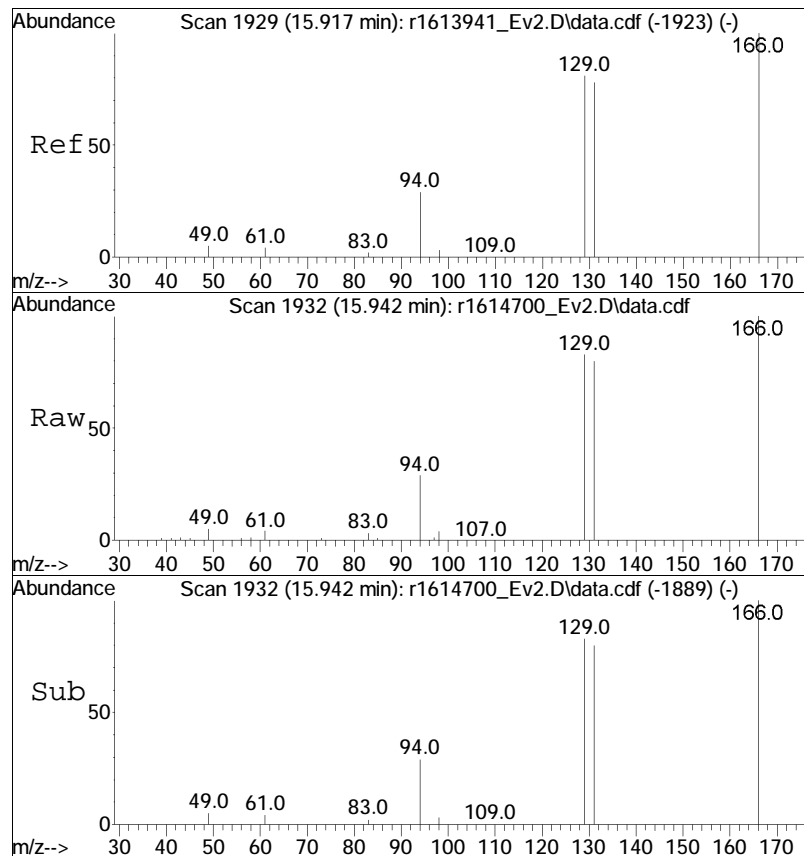




#38
 carbon tetrachloride
 Concen: 0.06 ppbV
 RT: 11.57 min Scan# 1360
 Delta R.T. 0.040 min
 Lab File: r1614700_Ev2.D
 Acq: 4 Jan 2020 10:31 PM

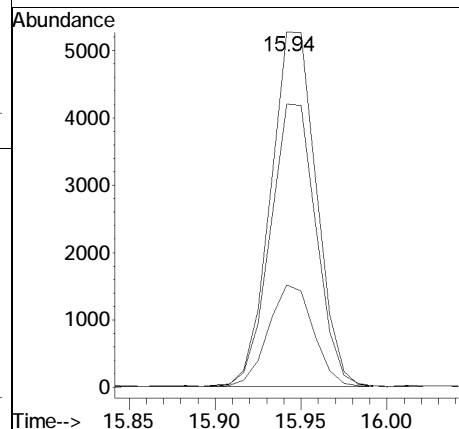
Tgt Ion: 117 Resp: 498
 Ion Ratio Lower Upper
 117 100
 119 93.8 75.7 113.5
 82 12.3 17.4 26.2#





#57
 tetrachloroethene
 Concen: 1.05 ppbV
 RT: 15.94 min Scan# 1932
 Delta R.T. 0.025 min
 Lab File: r1614700_Ev2.D
 Acq: 4 Jan 2020 10:31 PM

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166 | 100 | | |
| 131 | 79.7 | 62.2 | 93.2 |
| 94 | 28.9 | 23.5 | 35.3 |



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1614700_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 1/4/2020 0:0: 1 Instrument :
Sample : L1962003-09,3,250,250 Quant Date : 1/5/2020 8:40 am

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

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Air Volatiles

| | |
|---|--|
| Client : Langan Engineering & Environmental Project Name : 295 LOCUST AVE. Instrument ID : AIRLAB16 Calibration dates : 11/19/19 18:12 11/20/19 00:17 | Lab Number : L1962003 Project Number : 170312501 Ical Ref : ICAL16313 |
|---|--|

Calibration Files

0.02=r1613935_Ev2.D 0.05=r1613936_Ev2.D 0.1 =r1613937_Ev2.D 0.2 =r1613938_Ev2.D 0.5 =r1613939_Ev2.D
 1.0 =r1613940_Ev2.D 5.0 =r1613941_Ev2.D 10.0=r1613942_Ev2.D 20.0=r1613943_Ev2.D 50.0=r1613944_Ev2.D

| Compound | | 0.02 | 0.05 | 0.1 | 0.2 | 0.5 | 1.0 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|----------|--------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 1) I | bromochloromethane | -----ISTD----- | | | | | | | | | | | |
| 2) | propylene | | | | 0.467 | 0.486 | 0.463 | 0.424 | 0.412 | 0.379 | 0.346 | 0.4253 | 11.99 |
| 3) | dichlorodifluoromethane | | | | 0.863 | 0.913 | 0.914 | 0.843 | 0.815 | 0.725 | 0.680 | 0.8220 | 10.94 |
| 4) C | chloromethane | | | | 0.505 | 0.516 | 0.513 | 0.479 | 0.461 | 0.410 | 0.406 | 0.4700 | 9.94 |
| 5) | Freon-114 | | 1.246 | 1.191 | 1.185 | 1.219 | 1.223 | 1.133 | 1.090 | 0.957 | 0.897 | 1.1268 | 10.97 |
| 6) C | vinyl chloride | 0.499 | 0.525 | 0.475 | 0.469 | 0.497 | 0.490 | 0.459 | 0.443 | 0.397 | 0.393 | 0.4648 | 9.32 |
| 7) C | 1,3-butadiene | 0.563 | 0.421 | 0.434 | 0.430 | 0.446 | 0.454 | 0.422 | 0.409 | 0.369 | 0.363 | 0.4311 | 12.80 |
| 8) C | bromomethane | 0.458 | 0.422 | 0.433 | 0.416 | 0.452 | 0.448 | 0.419 | 0.407 | 0.361 | 0.354 | 0.4171 | 8.54 |
| 9) C | chloroethane | | | 0.250 | 0.232 | 0.233 | 0.237 | 0.218 | 0.214 | 0.234 | 0.189 | 0.2258 | 8.20 |
| 10) | ethanol | | | | | 0.380 | 0.384 | 0.357 | 0.325 | 0.290 | 0.250 | 0.3310 | 16.08 |
| 11) C | vinyl bromide | | | | 0.489 | 0.509 | 0.514 | 0.482 | 0.474 | 0.483 | 0.406 | 0.4794 | 7.44 |
| 12) C | acrolein | | 0.308 | 0.285 | 0.237 | 0.230 | 0.231 | 0.209 | 0.207 | 0.196 | 0.185 | 0.2321 | 17.49 |
| 13) | acetone | | | | 0.711 | 0.694 | 0.694 | 0.686 | 0.659 | 0.664 | 0.472 | 0.6546 | 12.59 |
| 14) | trichlorofluoromethane | | 0.708 | 0.760 | 0.706 | 0.750 | 0.751 | 0.699 | 0.681 | 0.743 | 0.583 | 0.7091 | 7.74 |
| 15) | isopropyl alcohol | | | | 0.892 | 0.893 | 0.856 | 0.879 | 0.850 | 0.847 | 0.723 | 0.8484 | 6.91 |
| 16) C | acrylonitrile | | | | 0.420 | 0.435 | 0.436 | 0.411 | 0.408 | 0.385 | 0.387 | 0.4118 | 5.02 |
| 17) C | 1,1-dichloroethene | 0.747 | 0.692 | 0.667 | 0.672 | 0.686 | 0.696 | 0.648 | 0.639 | 0.574 | 0.560 | 0.6580 | 8.61 |
| 18) | tertiary butyl alcohol | | | | | 0.813 | 0.781 | 0.782 | 0.769 | 0.725 | 0.720 | 0.7649 | 4.70 |
| 19) C | methylene chloride | | | | | 0.676 | 0.673 | 0.616 | 0.613 | 0.571 | 0.564 | 0.6189 | 7.75 |
| 20) C | 3-chloropropene | | | | 0.748 | 0.799 | 0.815 | 0.773 | 0.767 | 0.653 | 0.634 | 0.7415 | 9.50 |
| 21) C | carbon disulfide | | | | 1.784 | 1.832 | 1.838 | 1.738 | 1.735 | 1.590 | 1.545 | 1.7233 | 6.64 |
| 22) | Freon 113 | | 1.068 | 1.000 | 1.034 | 1.070 | 1.083 | 1.005 | 0.995 | 0.891 | 0.868 | 1.0016 | 7.64 |
| 23) | trans-1,2-dichloroethene | 0.773 | 0.725 | 0.730 | 0.722 | 0.747 | 0.758 | 0.705 | 0.700 | 0.624 | 0.610 | 0.7095 | 7.57 |
| 24) C | 1,1-dichloroethane | 0.932 | 0.919 | 0.833 | 0.853 | 0.900 | 0.913 | 0.851 | 0.845 | 0.747 | 0.726 | 0.8518 | 8.23 |
| 25) C | MTBE | 1.234 | 1.417 | 1.353 | 1.398 | 1.433 | 1.466 | 1.391 | 1.386 | 1.250 | 1.220 | 1.3548 | 6.53 |
| 26) C | vinyl acetate | | | | | 1.337 | 1.381 | 1.318 | 1.323 | 1.151 | 1.125 | 1.2723 | 8.40 |
| 27) C | 2-butanone | | | | 1.238 | 1.275 | 1.314 | 1.253 | 1.244 | 1.070 | 1.047 | 1.2061 | 8.62 |
| 28) | cis-1,2-dichloroethene | 0.760 | 0.638 | 0.638 | 0.617 | 0.664 | 0.663 | 0.620 | 0.612 | 0.549 | 0.534 | 0.6296 | 9.99 |
| 29) | Ethyl Acetate | | | | | 0.180 | 0.186 | 0.183 | 0.180 | 0.158 | 0.159 | 0.1745 | 7.08 |
| 30) C | chloroform | 0.913 | 0.965 | 0.935 | 0.893 | 0.901 | 0.916 | 0.853 | 0.844 | 0.772 | 0.758 | 0.8750 | 7.76 |
| 31) | Tetrahydrofuran | | | | | 0.785 | 0.788 | 0.765 | 0.762 | 0.659 | 0.642 | 0.7336 | 8.91 |
| 32) C | 1,2-dichloroethane | 0.522 | 0.562 | 0.511 | 0.487 | 0.497 | 0.501 | 0.463 | 0.455 | 0.401 | 0.390 | 0.4787 | 11.11 |
| 33) I | 1,4-difluorobenzene | -----ISTD----- | | | | | | | | | | | |
| 34) C | hexane | | | | 0.282 | 0.299 | 0.300 | 0.282 | 0.285 | 0.261 | 0.262 | 0.2816 | 5.52 |
| 35) s | 1,2-dichloroethane-D4 | 0.146 | 0.149 | 0.148 | 0.149 | 0.148 | 0.150 | 0.146 | 0.147 | 0.139 | 0.137 | 0.1457 | 3.01 |
| 36) C | 1,1,1-trichloroethane | 0.219 | 0.255 | 0.243 | 0.243 | 0.254 | 0.256 | 0.241 | 0.241 | 0.218 | 0.216 | 0.2386 | 6.54 |



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Instrument ID : AIRLAB16
Calibration dates : 11/19/19 18:12 11/20/19 00:17
Lab Number : L1962003
Project Number : 170312501
Ical Ref : ICAL16313

Calibration Files

0.02=r1613935_Ev2.D 0.05=r1613936_Ev2.D 0.1 =r1613937_Ev2.D 0.2 =r1613938_Ev2.D 0.5 =r1613939_Ev2.D
 1.0 =r1613940_Ev2.D 5.0 =r1613941_Ev2.D 10.0=r1613942_Ev2.D 20.0=r1613943_Ev2.D 50.0=r1613944_Ev2.D

| Compound | 0.02 | 0.05 | 0.1 | 0.2 | 0.5 | 1.0 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|---------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| 37) C benzene | 0.718 | 0.669 | 0.645 | 0.667 | 0.662 | 0.625 | 0.626 | 0.626 | 0.582 | 0.579 | 0.6413 | 6.90 |
| 38) C carbon tetrachloride | 0.260 | 0.240 | 0.235 | 0.249 | 0.247 | 0.250 | 0.241 | 0.245 | 0.228 | 0.228 | 0.2423 | 4.18 |
| 39) cyclohexane | | | 0.315 | 0.321 | 0.320 | 0.303 | 0.303 | 0.280 | 0.284 | 0.3036 | | 5.41 |
| 40) Dibromomethane | 0.321 | 0.275 | 0.202 | 0.198 | 0.194 | 0.196 | 0.180 | 0.179 | 0.162 | 0.162 | 0.2069 | 24.74 |
| 41) C 1,2-dichloropropane | 0.230 | 0.248 | 0.222 | 0.216 | 0.211 | 0.216 | 0.203 | 0.204 | 0.182 | 0.181 | 0.2113 | 9.73 |
| 42) bromodichloromethane | 0.338 | 0.329 | 0.296 | 0.316 | 0.327 | 0.329 | 0.316 | 0.322 | 0.297 | 0.302 | 0.3171 | 4.61 |
| 43) C 1,4-dioxane | | 0.134 | 0.130 | 0.134 | 0.131 | 0.136 | 0.137 | 0.124 | 0.128 | 0.1317 | | 3.50 |
| 44) C trichloroethene | 0.282 | 0.292 | 0.265 | 0.286 | 0.289 | 0.293 | 0.277 | 0.276 | 0.254 | 0.256 | 0.2769 | 5.11 |
| 45) C 2,2,4-trimethylpentane | | | 0.955 | 0.990 | 0.994 | 0.921 | 0.913 | 0.836 | 0.832 | 0.9203 | | 7.21 |
| 46) heptane | | | 0.456 | 0.457 | 0.471 | 0.442 | 0.437 | 0.387 | 0.374 | 0.4320 | | 8.54 |
| 47) C cis-1,3-dichloropropene | 0.278 | 0.286 | 0.273 | 0.262 | 0.282 | 0.283 | 0.281 | 0.286 | 0.265 | 0.270 | 0.2768 | 3.14 |
| 48) C 4-methyl-2-pentanone | | | | 0.515 | 0.524 | 0.514 | 0.516 | 0.456 | 0.448 | 0.4954 | | 6.89 |
| 49) trans-1,3-dichloropropene | 0.340 | 0.319 | 0.303 | 0.305 | 0.313 | 0.320 | 0.307 | 0.314 | 0.291 | 0.294 | 0.3106 | 4.54 |
| 50) C 1,1,2-trichloroethane | 0.324 | 0.196 | 0.227 | 0.247 | 0.240 | 0.242 | 0.229 | 0.229 | 0.206 | 0.206 | 0.2345 | 15.29 |
| 51) I chlorobenzene-D5 | -----ISTD----- | | | | | | | | | | | |
| 52) C toluene | 6.766 | 5.741 | 5.568 | 5.452 | 5.447 | 5.083 | 5.010 | 4.571 | 4.470 | 5.3452 | | 12.88 |
| 53) s toluene-D8 | 4.698 | 4.855 | 4.821 | 4.897 | 4.852 | 4.993 | 4.863 | 4.865 | 4.806 | 4.713 | 4.8361 | 1.77 |
| 54) 2-hexanone | | 2.958 | 3.284 | 3.511 | 3.602 | 3.624 | 3.096 | 2.816 | 3.2700 | | | 9.89 |
| 55) dibromochloromethane | 2.527 | 2.304 | 2.465 | 2.495 | 2.607 | 2.713 | 2.677 | 2.683 | 2.515 | 2.493 | 2.5478 | 4.88 |
| 56) C 1,2-dibromoethane | 2.934 | 2.728 | 2.745 | 2.851 | 2.975 | 3.038 | 2.909 | 2.877 | 2.653 | 2.575 | 2.8284 | 5.24 |
| 57) C tetrachloroethene | 2.834 | 2.172 | 2.225 | 2.252 | 2.358 | 2.368 | 2.259 | 2.247 | 2.088 | 2.083 | 2.2887 | 9.36 |
| 58) 1,1,1,2-tetrachloroethane | 2.460 | 1.933 | 1.795 | 1.893 | 2.014 | 2.064 | 2.021 | 2.027 | 1.898 | 1.880 | 1.9986 | 9.14 |
| 59) C chlorobenzene | 4.459 | 4.352 | 4.633 | 4.852 | 4.911 | 4.715 | 4.689 | 4.367 | 4.231 | 4.5788 | | 5.18 |
| 60) C ethylbenzene | 7.855 | 6.695 | 6.321 | 6.567 | 6.712 | 6.813 | 6.505 | 6.417 | 5.826 | 5.700 | 6.5410 | 9.03 |
| 61) C m+p-xylene | 8.117 | 6.232 | 5.583 | 5.501 | 5.598 | 5.606 | 5.317 | 5.214 | 4.732 | 4.592 | 5.6491 | 17.42 |
| 62) C bromoform | 2.086 | 1.782 | 1.751 | 1.847 | 1.920 | 2.017 | 2.078 | 2.167 | 2.079 | 2.107 | 1.9835 | 7.44 |
| 63) C styrene | 4.239 | 4.361 | 4.266 | 4.688 | 4.988 | 5.134 | 5.042 | 5.056 | 4.701 | 4.537 | 4.7013 | 7.29 |
| 64) C 1,1,2,2-tetrachloroethane | 3.292 | 3.233 | 3.341 | 3.573 | 3.887 | 4.014 | 3.926 | 3.933 | 3.643 | 3.654 | 3.6496 | 7.90 |
| 65) C o-xylene | 7.315 | 6.308 | 5.570 | 5.610 | 5.660 | 5.734 | 5.430 | 5.321 | 4.818 | 4.629 | 5.6394 | 13.36 |
| 66) 1,2,3-Trichloropropane | 2.668 | 2.519 | 2.797 | 2.844 | 3.185 | 3.278 | 3.175 | 3.158 | 2.958 | 2.913 | 2.9495 | 8.44 |
| 67) s bromofluorobenzene | 3.175 | 3.220 | 3.158 | 3.310 | 3.374 | 3.399 | 3.374 | 3.445 | 3.430 | 3.423 | 3.3309 | 3.26 |
| 68) C isopropylbenzene | | | 7.821 | 8.289 | 8.445 | 8.061 | 7.986 | 7.374 | 6.955 | 7.8472 | | 6.66 |
| 69) Bromobenzene | 3.483 | 3.449 | 3.435 | 3.764 | 3.982 | 4.061 | 3.966 | 3.999 | 3.765 | 3.755 | 3.7659 | 6.37 |
| 70) 4-ethyl toluene | 6.849 | 6.705 | 6.961 | 7.547 | 8.572 | 9.016 | 8.932 | 8.921 | 8.201 | 7.657 | 7.9362 | 11.49 |
| 71) 1,3,5-trimethylbenzene | 6.184 | 5.887 | 6.018 | 6.818 | 7.252 | 7.525 | 7.308 | 7.211 | 6.615 | 6.223 | 6.7041 | 8.98 |
| 72) tert-butylbenzene | | | 6.926 | 7.302 | 7.549 | 7.309 | 7.303 | 6.773 | 6.438 | 7.0858 | | 5.47 |



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 295 LOCUST AVE.
Instrument ID : AIRLAB16
Calibration dates : 11/19/19 18:12 11/20/19 00:17
Lab Number : L1962003
Project Number : 170312501
Ical Ref : ICAL16313

Calibration Files

0.02=r1613935_Ev2.D 0.05=r1613936_Ev2.D 0.1 =r1613937_Ev2.D 0.2 =r1613938_Ev2.D 0.5 =r1613939_Ev2.D
 1.0 =r1613940_Ev2.D 5.0 =r1613941_Ev2.D 10.0=r1613942_Ev2.D 20.0=r1613943_Ev2.D 50.0=r1613944_Ev2.D

| | Compound | 0.02 | 0.05 | 0.1 | 0.2 | 0.5 | 1.0 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 73) | 1,2,4-trimethylbenzene | 5.469 | 5.644 | 5.734 | 6.452 | 6.894 | 7.294 | 7.221 | 7.188 | 6.496 | 5.930 | 6.4323 | 10.92 |
| 74) C | Benzyl Chloride | | | | 1.719 | 2.227 | 3.178 | 4.146 | 4.571 | 4.194 | 4.458 | 3.4991 | 32.71# |
| 75) | 1,3-dichlorobenzene | 2.685 | 3.108 | 3.527 | 3.781 | 4.684 | 4.969 | 5.032 | 5.140 | 4.761 | 4.621 | 4.2310 | 20.85 |
| 76) C | 1,4-dichlorobenzene | 2.086 | 2.994 | 3.370 | 3.499 | 4.421 | 4.725 | 4.931 | 5.009 | 4.666 | 4.589 | 4.0290 | 24.39 |
| 77) | sec-butylbenzene | | | | 0.982 | 1.046 | 1.084 | 1.052 | 1.045 | 0.955 | 0.883 | 1.0069 | 7.00 |
| 78) | p-isopropyltoluene | | | | 8.130 | 8.733 | 9.008 | 8.920 | 8.929 | 8.139 | 7.722 | 8.5117 | 5.96 |
| 79) | 1,2-dichlorobenzene | 2.810 | 2.960 | 3.336 | 3.523 | 4.340 | 4.728 | 4.769 | 4.875 | 4.415 | 4.367 | 4.0123 | 19.44 |
| 80) | n-butylbenzene | | | | 5.419 | 6.483 | 6.902 | 7.097 | 7.200 | 6.417 | 6.214 | 6.5329 | 9.39 |
| 81) C | 1,2,4-trichlorobenzene | | 0.832 | 0.789 | 0.713 | 1.301 | 1.664 | 2.108 | 2.765 | 2.489 | 2.808 | 1.7189 | 49.83# |
| 82) | naphthalene | | 5.813 | 4.841 | 4.454 | 5.999 | 6.904 | 8.133 | 9.381 | 7.952 | 8.465 | 6.8825 | 24.87 |
| 83) | 1,2,3-trichlorobenzene | | 1.212 | 1.181 | 0.929 | 1.715 | 2.089 | 2.177 | 2.760 | 2.445 | 2.746 | 1.9172 | 36.09# |
| 84) C | hexachlorobutadiene | | 1.711 | 1.699 | 1.479 | 2.182 | 2.404 | 2.161 | 2.488 | 2.205 | 2.260 | 2.0654 | 16.92 |

Response Factor Report

Method Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Method File : TSIM16_191119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Thu Nov 21 17:06:25 2019
Response Via : Initial Calibration

Calibration Files

0.02=r1613935_Ev2.D 0.05=r1613936_Ev2.D 0.1 =r1613937_Ev2.D 0.2 =r1613938_Ev2.D 0.5 =r1613939_Ev2.D
1.0 =r1613940_Ev2.D 5.0 =r1613941_Ev2.D 10.0=r1613942_Ev2.D 20.0=r1613943_Ev2.D 50.0=r1613944_Ev2.D

| Compound | | 0.02 | 0.05 | 0.1 | 0.2 | 0.5 | 1.0 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|----------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| -----ISTD----- | | | | | | | | | | | | | |
| 1) I | bromochloromethane | | | | | | | | | | | | |
| 2) | propylene | | | | 0.467 | 0.486 | 0.463 | 0.424 | 0.412 | 0.379 | 0.346 | 0.4253 | 11.99 |
| 3) | dichlorodifluorome... | | | | 0.863 | 0.913 | 0.914 | 0.843 | 0.815 | 0.725 | 0.680 | 0.8220 | 10.94 |
| 4) C | chloromethane | | | | 0.505 | 0.516 | 0.513 | 0.479 | 0.461 | 0.410 | 0.406 | 0.4700 | 9.94 |
| 5) | Freon-114 | | 1.246 | 1.191 | 1.185 | 1.219 | 1.223 | 1.133 | 1.090 | 0.957 | 0.897 | 1.1268 | 10.97 |
| 6) C | vinyl chloride | 0.499 | 0.525 | 0.475 | 0.469 | 0.497 | 0.490 | 0.459 | 0.443 | 0.397 | 0.393 | 0.4648 | 9.32 |
| 7) C | 1,3-butadiene | 0.563 | 0.421 | 0.434 | 0.430 | 0.446 | 0.454 | 0.422 | 0.409 | 0.369 | 0.363 | 0.4311 | 12.80 |
| 8) C | bromomethane | 0.458 | 0.422 | 0.433 | 0.416 | 0.452 | 0.448 | 0.419 | 0.407 | 0.361 | 0.354 | 0.4171 | 8.54 |
| 9) C | chloroethane | | | 0.250 | 0.232 | 0.233 | 0.237 | 0.218 | 0.214 | 0.234 | 0.189 | 0.2258 | 8.20 |
| 10) | ethanol | | | | | 0.380 | 0.384 | 0.357 | 0.325 | 0.290 | 0.250 | 0.3310 | 16.08 |
| 11) C | vinyl bromide | | | | 0.489 | 0.509 | 0.514 | 0.482 | 0.474 | 0.483 | 0.406 | 0.4794 | 7.44 |
| 12) C | acrolein | | 0.308 | 0.285 | 0.237 | 0.230 | 0.231 | 0.209 | 0.207 | 0.196 | 0.185 | 0.2321 | 17.49 |
| 13) | acetone | | | | 0.711 | 0.694 | 0.694 | 0.686 | 0.659 | 0.664 | 0.472 | 0.6546 | 12.59 |
| 14) | trichlorofluoromet... | | 0.708 | 0.760 | 0.706 | 0.750 | 0.751 | 0.699 | 0.681 | 0.743 | 0.583 | 0.7091 | 7.74 |
| 15) | isopropyl alcohol | | | | 0.892 | 0.893 | 0.856 | 0.879 | 0.850 | 0.847 | 0.723 | 0.8484 | 6.91 |
| 16) C | acrylonitrile | | | | 0.420 | 0.435 | 0.436 | 0.411 | 0.408 | 0.385 | 0.387 | 0.4118 | 5.02 |
| 17) C | 1,1-dichloroethene | 0.747 | 0.692 | 0.667 | 0.672 | 0.686 | 0.696 | 0.648 | 0.639 | 0.574 | 0.560 | 0.6580 | 8.61 |
| 18) | tertiary butyl alc... | | | | | 0.813 | 0.781 | 0.782 | 0.769 | 0.725 | 0.720 | 0.7649 | 4.70 |
| 19) C | methylene chloride | | | | | 0.676 | 0.673 | 0.616 | 0.613 | 0.571 | 0.564 | 0.6189 | 7.75 |
| 20) C | 3-chloropropene | | | | 0.748 | 0.799 | 0.815 | 0.773 | 0.767 | 0.653 | 0.634 | 0.7415 | 9.50 |
| 21) C | carbon disulfide | | | | 1.784 | 1.832 | 1.838 | 1.738 | 1.735 | 1.590 | 1.545 | 1.7233 | 6.64 |
| 22) | Freon 113 | | 1.068 | 1.000 | 1.034 | 1.070 | 1.083 | 1.005 | 0.995 | 0.891 | 0.868 | 1.0016 | 7.64 |
| 23) | trans-1,2-dichloro... | 0.773 | 0.725 | 0.730 | 0.722 | 0.747 | 0.758 | 0.705 | 0.700 | 0.624 | 0.610 | 0.7095 | 7.57 |
| 24) C | 1,1-dichloroethane | 0.932 | 0.919 | 0.833 | 0.853 | 0.900 | 0.913 | 0.851 | 0.845 | 0.747 | 0.726 | 0.8518 | 8.23 |
| 25) C | MTBE | 1.234 | 1.417 | 1.353 | 1.398 | 1.433 | 1.466 | 1.391 | 1.386 | 1.250 | 1.220 | 1.3548 | 6.53 |
| 26) C | vinyl acetate | | | | | 1.337 | 1.381 | 1.318 | 1.323 | 1.151 | 1.125 | 1.2723 | 8.40 |
| 27) C | 2-butanone | | | | 1.238 | 1.275 | 1.314 | 1.253 | 1.244 | 1.070 | 1.047 | 1.2061 | 8.62 |
| 28) | cis-1,2-dichloroet... | 0.760 | 0.638 | 0.638 | 0.617 | 0.664 | 0.663 | 0.620 | 0.612 | 0.549 | 0.534 | 0.6296 | 9.99 |
| 29) | Ethyl Acetate | | | | | 0.180 | 0.186 | 0.183 | 0.180 | 0.158 | 0.159 | 0.1745 | 7.08 |
| 30) C | chloroform | 0.913 | 0.965 | 0.935 | 0.893 | 0.901 | 0.916 | 0.853 | 0.844 | 0.772 | 0.758 | 0.8750 | 7.76 |
| 31) | Tetrahydrofuran | | | | | 0.785 | 0.788 | 0.765 | 0.762 | 0.659 | 0.642 | 0.7336 | 8.91 |

Response Factor Report

Method Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Method File : TSIM16_191119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Thu Nov 21 17:06:25 2019
Response Via : Initial Calibration

Calibration Files

0.02=r1613935_Ev2.D 0.05=r1613936_Ev2.D 0.1 =r1613937_Ev2.D 0.2 =r1613938_Ev2.D 0.5 =r1613939_Ev2.D
1.0 =r1613940_Ev2.D 5.0 =r1613941_Ev2.D 10.0=r1613942_Ev2.D 20.0=r1613943_Ev2.D 50.0=r1613944_Ev2.D

| | Compound | 0.02 | 0.05 | 0.1 | 0.2 | 0.5 | 1.0 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 32) C | 1,2-dichloroethane | 0.522 | 0.562 | 0.511 | 0.487 | 0.497 | 0.501 | 0.463 | 0.455 | 0.401 | 0.390 | 0.4787 | 11.11 |
| 33) I | 1,4-difluorobenzene | -----ISTD----- | | | | | | | | | | | |
| 34) C | hexane | | | | 0.282 | 0.299 | 0.300 | 0.282 | 0.285 | 0.261 | 0.262 | 0.2816 | 5.52 |
| 35) s | 1,2-dichloroethane-D4 | 0.146 | 0.149 | 0.148 | 0.149 | 0.148 | 0.150 | 0.146 | 0.147 | 0.139 | 0.137 | 0.1457 | 3.01 |
| 36) C | 1,1,1-trichloroethane | 0.219 | 0.255 | 0.243 | 0.243 | 0.254 | 0.256 | 0.241 | 0.241 | 0.218 | 0.216 | 0.2386 | 6.54 |
| 37) C | benzene | | 0.718 | 0.669 | 0.645 | 0.667 | 0.662 | 0.625 | 0.626 | 0.582 | 0.579 | 0.6413 | 6.90 |
| 38) C | carbon tetrachloride | 0.260 | 0.240 | 0.235 | 0.249 | 0.247 | 0.250 | 0.241 | 0.245 | 0.228 | 0.228 | 0.2423 | 4.18 |
| 39) | cyclohexane | | | | 0.315 | 0.321 | 0.320 | 0.303 | 0.303 | 0.280 | 0.284 | 0.3036 | 5.41 |
| 40) | Dibromomethane | 0.321 | 0.275 | 0.202 | 0.198 | 0.194 | 0.196 | 0.180 | 0.179 | 0.162 | 0.162 | 0.2069 | 24.74 |
| 41) C | 1,2-dichloropropane | 0.230 | 0.248 | 0.222 | 0.216 | 0.211 | 0.216 | 0.203 | 0.204 | 0.182 | 0.181 | 0.2113 | 9.73 |
| 42) | bromodichloromethane | 0.338 | 0.329 | 0.296 | 0.316 | 0.327 | 0.329 | 0.316 | 0.322 | 0.297 | 0.302 | 0.3171 | 4.61 |
| 43) C | 1,4-dioxane | | | 0.134 | 0.130 | 0.134 | 0.131 | 0.136 | 0.137 | 0.124 | 0.128 | 0.1317 | 3.50 |
| 44) C | trichloroethene | 0.282 | 0.292 | 0.265 | 0.286 | 0.289 | 0.293 | 0.277 | 0.276 | 0.254 | 0.256 | 0.2769 | 5.11 |
| 45) C | 2,2,4-trimethylpen... | | | | 0.955 | 0.990 | 0.994 | 0.921 | 0.913 | 0.836 | 0.832 | 0.9203 | 7.21 |
| 46) | heptane | | | | 0.456 | 0.457 | 0.471 | 0.442 | 0.437 | 0.387 | 0.374 | 0.4320 | 8.54 |
| 47) C | cis-1,3-dichloropr... | 0.278 | 0.286 | 0.273 | 0.262 | 0.282 | 0.283 | 0.281 | 0.286 | 0.265 | 0.270 | 0.2768 | 3.14 |
| 48) C | 4-methyl-2-pentanone | | | | | 0.515 | 0.524 | 0.514 | 0.516 | 0.456 | 0.448 | 0.4954 | 6.89 |
| 49) | trans-1,3-dichloro... | 0.340 | 0.319 | 0.303 | 0.305 | 0.313 | 0.320 | 0.307 | 0.314 | 0.291 | 0.294 | 0.3106 | 4.54 |
| 50) C | 1,1,2-trichloroethane | 0.324 | 0.196 | 0.227 | 0.247 | 0.240 | 0.242 | 0.229 | 0.229 | 0.206 | 0.206 | 0.2345 | 15.29 |
| 51) I | chlorobenzene-D5 | -----ISTD----- | | | | | | | | | | | |
| 52) C | toluene | | 6.766 | 5.741 | 5.568 | 5.452 | 5.447 | 5.083 | 5.010 | 4.571 | 4.470 | 5.3452 | 12.88 |
| 53) s | toluene-D8 | 4.698 | 4.855 | 4.821 | 4.897 | 4.852 | 4.993 | 4.863 | 4.865 | 4.806 | 4.713 | 4.8361 | 1.77 |
| 54) | 2-hexanone | | | | 2.958 | 3.284 | 3.511 | 3.602 | 3.624 | 3.096 | 2.816 | 3.2700 | 9.89 |
| 55) | dibromochloromethane | 2.527 | 2.304 | 2.465 | 2.495 | 2.607 | 2.713 | 2.677 | 2.683 | 2.515 | 2.493 | 2.5478 | 4.88 |
| 56) C | 1,2-dibromoethane | 2.934 | 2.728 | 2.745 | 2.851 | 2.975 | 3.038 | 2.909 | 2.877 | 2.653 | 2.575 | 2.8284 | 5.24 |
| 57) C | tetrachloroethene | 2.834 | 2.172 | 2.225 | 2.252 | 2.358 | 2.368 | 2.259 | 2.247 | 2.088 | 2.083 | 2.2887 | 9.36 |
| 58) | 1,1,1,2-tetrachlor... | 2.460 | 1.933 | 1.795 | 1.893 | 2.014 | 2.064 | 2.021 | 2.027 | 1.898 | 1.880 | 1.9986 | 9.14 |
| 59) C | chlorobenzene | | 4.459 | 4.352 | 4.633 | 4.852 | 4.911 | 4.715 | 4.689 | 4.367 | 4.231 | 4.5788 | 5.18 |
| 60) C | ethylbenzene | 7.855 | 6.695 | 6.321 | 6.567 | 6.712 | 6.813 | 6.505 | 6.417 | 5.826 | 5.700 | 6.5410 | 9.03 |
| 61) C | m+p-xylene | 8.117 | 6.232 | 5.583 | 5.501 | 5.598 | 5.606 | 5.317 | 5.214 | 4.732 | 4.592 | 5.6491 | 17.42 |

Response Factor Report

Method Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Method File : TSIM16_191119.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Thu Nov 21 17:06:25 2019
Response Via : Initial Calibration

Calibration Files

0.02=r1613935_Ev2.D 0.05=r1613936_Ev2.D 0.1 =r1613937_Ev2.D 0.2 =r1613938_Ev2.D 0.5 =r1613939_Ev2.D
1.0 =r1613940_Ev2.D 5.0 =r1613941_Ev2.D 10.0=r1613942_Ev2.D 20.0=r1613943_Ev2.D 50.0=r1613944_Ev2.D

| | Compound | 0.02 | 0.05 | 0.1 | 0.2 | 0.5 | 1.0 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|-------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 62) C | bromoform | 2.086 | 1.782 | 1.751 | 1.847 | 1.920 | 2.017 | 2.078 | 2.167 | 2.079 | 2.107 | 1.9835 | 7.44 |
| 63) C | styrene | 4.239 | 4.361 | 4.266 | 4.688 | 4.988 | 5.134 | 5.042 | 5.056 | 4.701 | 4.537 | 4.7013 | 7.29 |
| 64) C | 1,1,2,2-tetrachlor... | 3.292 | 3.233 | 3.341 | 3.573 | 3.887 | 4.014 | 3.926 | 3.933 | 3.643 | 3.654 | 3.6496 | 7.90 |
| 65) C | o-xylene | 7.315 | 6.308 | 5.570 | 5.610 | 5.660 | 5.734 | 5.430 | 5.321 | 4.818 | 4.629 | 5.6394 | 13.36 |
| 66) | 1,2,3-Trichloropro... | 2.668 | 2.519 | 2.797 | 2.844 | 3.185 | 3.278 | 3.175 | 3.158 | 2.958 | 2.913 | 2.9495 | 8.44 |
| 67) s | bromofluorobenzene | 3.175 | 3.220 | 3.158 | 3.310 | 3.374 | 3.399 | 3.374 | 3.445 | 3.430 | 3.423 | 3.3309 | 3.26 |
| 68) C | isopropylbenzene | | | | 7.821 | 8.289 | 8.445 | 8.061 | 7.986 | 7.374 | 6.955 | 7.8472 | 6.66 |
| 69) | Bromobenzene | 3.483 | 3.449 | 3.435 | 3.764 | 3.982 | 4.061 | 3.966 | 3.999 | 3.765 | 3.755 | 3.7659 | 6.37 |
| 70) | 4-ethyl toluene | 6.849 | 6.705 | 6.961 | 7.547 | 8.572 | 9.016 | 8.932 | 8.921 | 8.201 | 7.657 | 7.9362 | 11.49 |
| 71) | 1,3,5-trimethylben... | 6.184 | 5.887 | 6.018 | 6.818 | 7.252 | 7.525 | 7.308 | 7.211 | 6.615 | 6.223 | 6.7041 | 8.98 |
| 72) | tert-butylbenzene | | | | 6.926 | 7.302 | 7.549 | 7.309 | 7.303 | 6.773 | 6.438 | 7.0858 | 5.47 |
| 73) | 1,2,4-trimethylben... | 5.469 | 5.644 | 5.734 | 6.452 | 6.894 | 7.294 | 7.221 | 7.188 | 6.496 | 5.930 | 6.4323 | 10.92 |
| 74) C | Benzyl Chloride | | | | 1.719 | 2.227 | 3.178 | 4.146 | 4.571 | 4.194 | 4.458 | 3.4991 | 32.71# |
| 75) | 1,3-dichlorobenzene | 2.685 | 3.108 | 3.527 | 3.781 | 4.684 | 4.969 | 5.032 | 5.140 | 4.761 | 4.621 | 4.2310 | 20.85 |
| 76) C | 1,4-dichlorobenzene | 2.086 | 2.994 | 3.370 | 3.499 | 4.421 | 4.725 | 4.931 | 5.009 | 4.666 | 4.589 | 4.0290 | 24.39 |
| 77) | sec-butylbenzene | | | | 0.982 | 1.046 | 1.084 | 1.052 | 1.045 | 0.955 | 0.883 | 1.0069 | 7.00 |
| 78) | p-isopropyltoluene | | | | 8.130 | 8.733 | 9.008 | 8.920 | 8.929 | 8.139 | 7.722 | 8.5117 | 5.96 |
| 79) | 1,2-dichlorobenzene | 2.810 | 2.960 | 3.336 | 3.523 | 4.340 | 4.728 | 4.769 | 4.875 | 4.415 | 4.367 | 4.0123 | 19.44 |
| 80) | n-butylbenzene | | | | 5.419 | 6.483 | 6.902 | 7.097 | 7.200 | 6.417 | 6.214 | 6.5329 | 9.39 |
| 81) C | 1,2,4-trichloroben... | | 0.832 | 0.789 | 0.713 | 1.301 | 1.664 | 2.108 | 2.765 | 2.489 | 2.808 | 1.7189 | 49.83# |
| 82) | naphthalene | | 5.813 | 4.841 | 4.454 | 5.999 | 6.904 | 8.133 | 9.381 | 7.952 | 8.465 | 6.8825 | 24.87 |
| 83) | 1,2,3-trichloroben... | | 1.212 | 1.181 | 0.929 | 1.715 | 2.089 | 2.177 | 2.760 | 2.445 | 2.746 | 1.9172 | 36.09# |
| 84) C | hexachlorobutadiene | | 1.711 | 1.699 | 1.479 | 2.182 | 2.404 | 2.161 | 2.488 | 2.205 | 2.260 | 2.0654 | 16.92 |

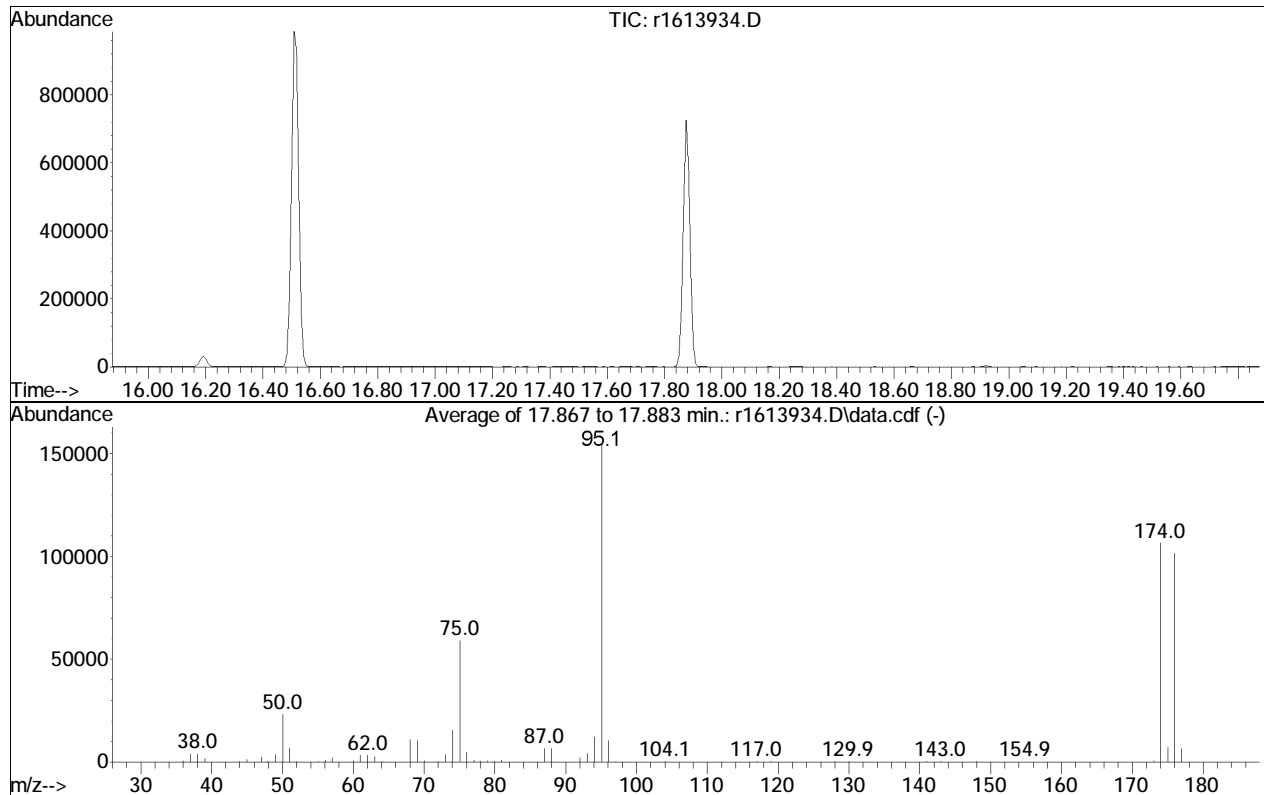
(#) = Out of Range

BFB

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613934.D
 Acq On : 19 Nov 2019 5:34 PM
 Operator : AIRLAB16:RY
 Sample : WG1312118-1,3,250,250
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 21 17:06:25 2019



Spectrum Information: Average of 17.867 to 17.883 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50 | 95 | 8 | 40 | 15.0 | 23222 | PASS |
| 75 | 95 | 30 | 66 | 38.0 | 59043 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 155326 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 10493 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 571 | PASS |
| 174 | 95 | 50 | 120 | 68.6 | 106593 | PASS |
| 175 | 174 | 4 | 9 | 6.7 | 7171 | PASS |
| 176 | 174 | 93 | 101 | 95.3 | 101627 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 6607 | PASS |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613935_Ev2.D
 Acq On : 19 Nov 2019 6:12 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.02
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:54:35 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 157207 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 102.03% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 457960 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 101.52% | | |
| 51) chlorobenzene-D5 | 16.51 | 54 | 60153 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 102.85% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 66818 | 10.021 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 100.21% | | |
| 53) toluene-D8 | 14.64 | 98 | 282571 | 9.660 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 96.60% | | |
| 67) bromofluorobenzene | 17.88 | 95 | 191000 | 9.410 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 94.10% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.82 | 41 | 184 | 0.028 | ppbV # | 88 |
| 3) dichlorodifluoromethane | 3.90 | 85 | 310 | 0.023 | ppbV # | 84 |
| 4) chloromethane | 4.08 | 50 | 208 | 0.028 | ppbV # | 63 |
| 5) Freon-114 | 4.20 | 85 | 365 | 0.020 | ppbV # | 93 |
| 6) vinyl chloride | 4.34 | 62 | 157 | 0.022 | ppbV # | 56 |
| 7) 1,3-butadiene | 4.50 | 54 | 177 | 0.027 | ppbV # | 45 |
| 8) bromomethane | 4.82 | 94 | 144 | 0.022 | ppbV | 93 |
| 9) chloroethane | 5.03 | 64 | 92 | 0.027 | ppbV # | 54 |
| 10) ethanol | 5.21 | 31 | 1064 | 0.190 | ppbV # | 74 |
| 11) vinyl bromide | 5.47 | 106 | 169M4 | 0.022 | ppbV | |
| 12) acrolein | 5.63 | 56 | 72 | 0.022 | ppbV # | 1 |
| 13) acetone | 5.80 | 43 | 2266 | 0.210 | ppbV # | 98 |
| 14) trichlorofluoromethane | 5.99 | 101 | 217 | 0.020 | ppbV # | 79 |
| 15) isopropyl alcohol | 6.13 | 45 | 1134 | 0.082 | ppbV # | 83 |
| 16) acrylonitrile | 6.37 | 53 | 190M4 | 0.029 | ppbV | |
| 17) 1,1-dichloroethene | 6.77 | 61 | 235 | 0.023 | ppbV # | 84 |
| 18) tertiary butyl alcohol | 6.88 | 59 | 236 | 0.019 | ppbV # | 56 |
| 19) methylene chloride | 6.93 | 49 | 338 | 0.035 | ppbV | 96 |
| 20) 3-chloropropene | 7.08 | 41 | 242 | 0.020 | ppbV # | 82 |
| 21) carbon disulfide | 7.23 | 76 | 611 | 0.022 | ppbV # | 1 |
| 22) Freon 113 | 7.27 | 101 | 310 | 0.020 | ppbV # | 83 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 243 | 0.022 | ppbV # | 78 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613935_Ev2.D
 Acq On : 19 Nov 2019 6:12 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.02
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:54:35 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 293 | 0.022 | ppbV # | 68 |
| 25) MTBE | 8.42 | 73 | 388 | 0.018 | ppbV # | 47 |
| 26) vinyl acetate | 8.53 | 43 | 503 | 0.024 | ppbV # | 76 |
| 27) 2-butanone | 8.82 | 43 | 534 | 0.027 | ppbV # | 78 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 239 | 0.025 | ppbV # | 89 |
| 29) Ethyl Acetate | 9.63 | 61 | 53 | 0.018 | ppbV # | 1 |
| 30) chloroform | 9.68 | 83 | 287 | 0.021 | ppbV # | 79 |
| 31) Tetrahydrofuran | 10.15 | 42 | 281 | 0.023 | ppbV # | 87 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 164 | 0.023 | ppbV # | 68 |
| 34) hexane | 9.58 | 57 | 362 | 0.028 | ppbV # | 59 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 201 | 0.018 | ppbV # | 75 |
| 37) benzene | 11.35 | 78 | 736 | 0.026 | ppbV # | 89 |
| 38) carbon tetrachloride | 11.53 | 117 | 238M4 | 0.022 | ppbV | |
| 39) cyclohexane | 11.66 | 56 | 280 | 0.020 | ppbV | 86 |
| 40) Dibromomethane | 12.27 | 93 | 294 | 0.036 | ppbV # | 99 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 211 | 0.023 | ppbV # | 78 |
| 42) bromodichloromethane | 12.54 | 83 | 310 | 0.021 | ppbV # | 84 |
| 43) 1,4-dioxane | 12.62 | 88 | 181 | 0.029 | ppbV | 98 |
| 44) trichloroethene | 12.60 | 130 | 258 | 0.020 | ppbV | 93 |
| 45) 2,2,4-trimethylpentane | 12.64 | 57 | 791 | 0.019 | ppbV # | 72 |
| 46) heptane | 12.97 | 43 | 398 | 0.020 | ppbV # | 86 |
| 47) cis-1,3-dichloropropene | 14.24 | 75 | 255 | 0.020 | ppbV # | 57 |
| 48) 4-methyl-2-pentanone | 13.68 | 43 | 436 | 0.019 | ppbV # | 85 |
| 49) trans-1,3-dichloropropene | 13.62 | 75 | 311 | 0.022 | ppbV # | 61 |
| 50) 1,1,2-trichloroethane | 14.43 | 97 | 297 | 0.028 | ppbV # | 87 |
| 52) toluene | 14.75 | 91 | 1164 | 0.038 | ppbV | 100 |
| 54) 2-hexanone | 15.06 | 43 | 360 | 0.017 | ppbV # | 93 |
| 55) dibromochloromethane | 15.20 | 129 | 304 | 0.019 | ppbV # | 80 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 353 | 0.020 | ppbV | 97 |
| 57) tetrachloroethene | 15.92 | 166 | 341 | 0.025 | ppbV # | 88 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 296 | 0.024 | ppbV # | 83 |
| 59) chlorobenzene | 16.55 | 112 | 557 | 0.020 | ppbV # | 87 |
| 60) ethylbenzene | 16.89 | 91 | 945 | 0.024 | ppbV | 94 |
| 61) m+p-xylene | 17.04 | 91 | 1953 | 0.061 | ppbV | 99 |
| 62) bromoform | 17.12 | 173 | 251 | 0.020 | ppbV | 86 |
| 63) styrene | 17.38 | 104 | 510 | 0.017 | ppbV # | 87 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 396 | 0.017 | ppbV # | 81 |
| 65) o-xylene | 17.47 | 91 | 880 | 0.027 | ppbV | 98 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 321 | 0.017 | ppbV # | 91 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613935_Ev2.D
 Acq On : 19 Nov 2019 6:12 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.02
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:54:35 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 68) isopropylbenzene | 17.99 | 105 | 905 | 0.019 | ppbV | 90 |
| 69) Bromobenzene | 18.06 | 77 | 419 | 0.018 | ppbV | 99 |
| 70) 4-ethyl toluene | 18.55 | 105 | 824 | 0.015 | ppbV # | 87 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 744 | 0.017 | ppbV # | 97 |
| 72) tert-butylbenzene | 18.96 | 119 | 709 | 0.016 | ppbV | 94 |
| 73) 1,2,4-trimethylbenzene | 18.97 | 105 | 658 | 0.015 | ppbV # | 88 |
| 74) Benzyl Chloride | 19.08 | | 0 | N.D. | | |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 323 | 0.011 | ppbV # | 68 |
| 76) 1,4-dichlorobenzene | 19.16 | | 0 | N.D. | | |
| 77) sec-butylbenzene | 19.19 | 105 | 1003 | 0.016 | ppbV # | 87 |
| 78) p-isopropyltoluene | 19.32 | 119 | 820 | 0.015 | ppbV | 98 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 338 | 0.012 | ppbV # | 70 |
| 80) n-butylbenzene | 19.68 | 91 | 457 | 0.011 | ppbV # | 86 |
| 81) 1,2,4-trichlorobenzene | 21.01 | | 0 | N.D. | | |
| 82) naphthalene | 21.13 | 128 | 1175 | 0.024 | ppbV # | 85 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 162 | 0.012 | ppbV # | 48 |
| 84) hexachlorobutadiene | 21.44 | 225 | 198 | 0.015 | ppbV # | 70 |

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

Quantitation Report (QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613935_Ev2.D
Acq On     : 19 Nov 2019    6:12 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-SIMTD0.02
Misc       : WG1312118
ALS Vial   : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 16:54:35 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

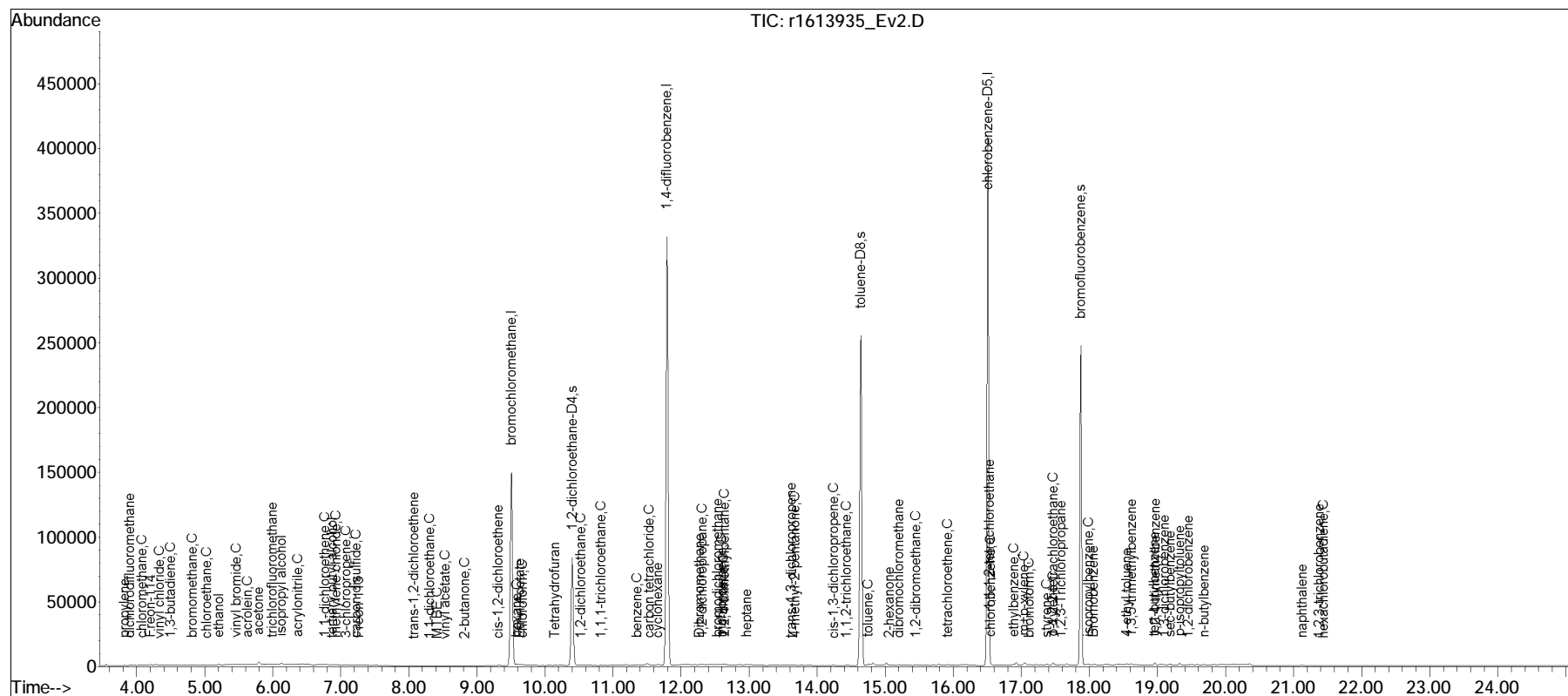
• • • M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

OLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

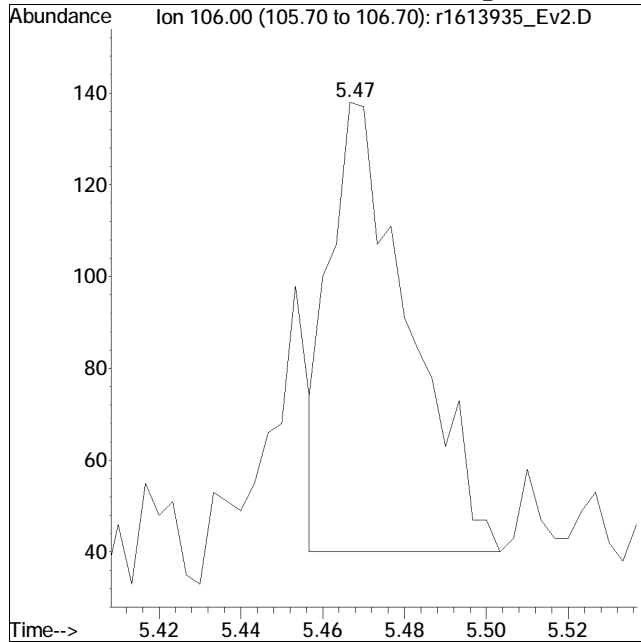
Sub List : Default - All compounds listed9\191119SIM ICAL\r1613941 Ev2.D



Manual Integration/Negative Proof Report

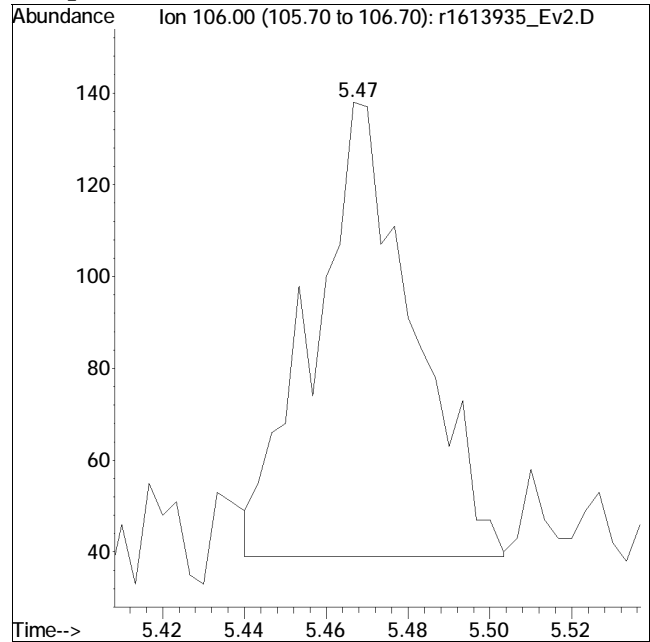
Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613935_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 6:12 PM Instrument :
Sample : ITO15-SIMTD0.02 Quant Date : 11/20/2019 7:17 am

Compound #11: vinyl bromide



Original Peak Response = 133

M4 = Poor automated baseline construction.

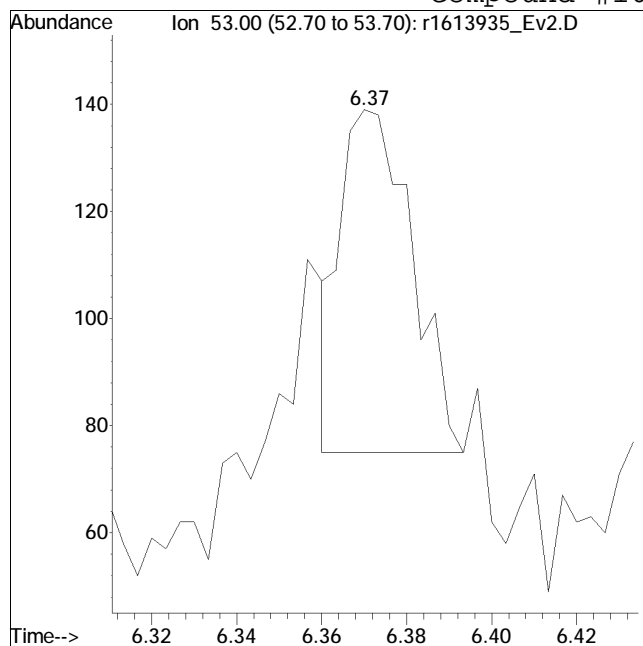


Manual Peak Response = 169 M4

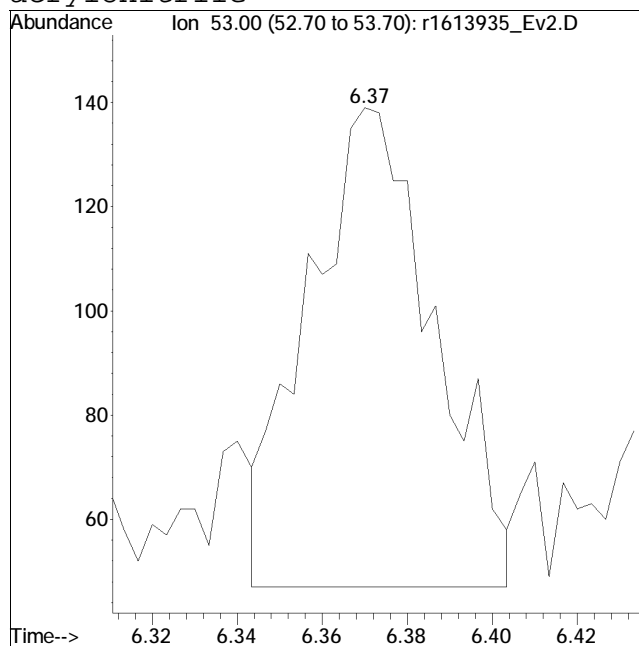
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
 Data File : r1613935_Ev2.D Operator : AIRLAB16:RY
 Date Inj'd : 11/19/2019 6:12 PM Instrument :
 Sample : ITO15-SIMTD0.02 Quant Date : 11/20/2019 7:17 am

Compound #16: acrylonitrile



Original Peak Response = 75



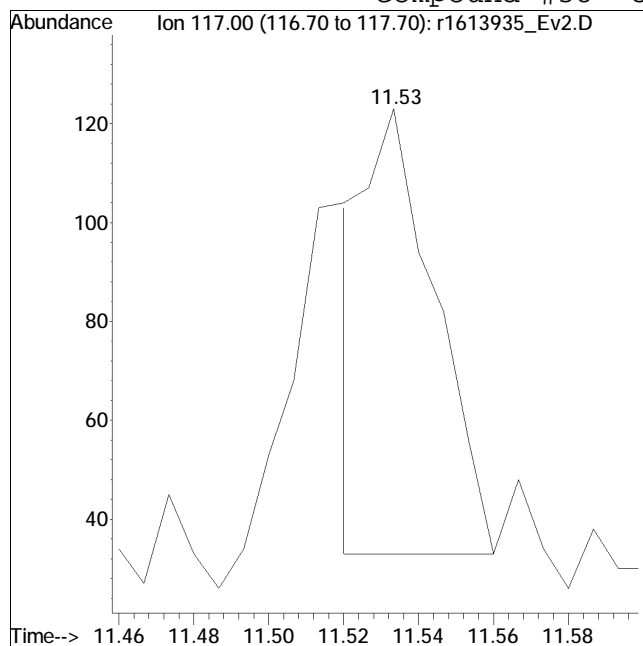
Manual Peak Response = 190 M4

M4 = Poor automated baseline construction.

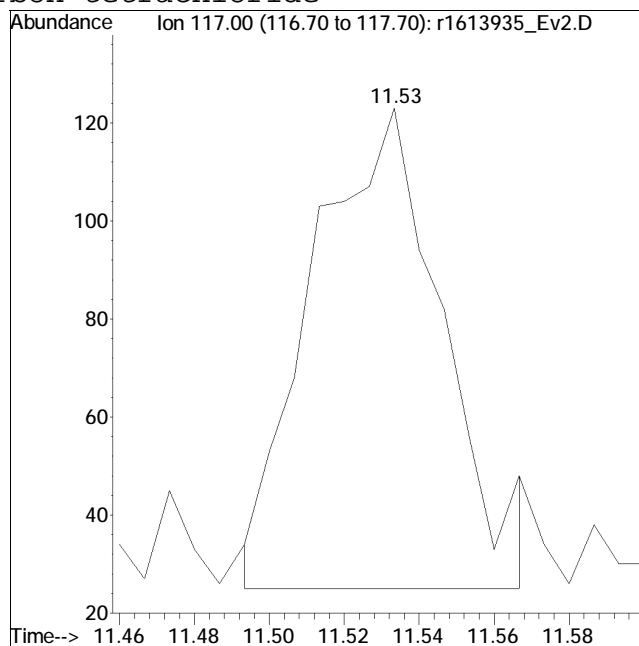
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613935_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 6:12 PM Instrument :
Sample : ITO15-SIMTD0.02 Quant Date : 11/20/2019 7:17 am

Compound #38: carbon tetrachloride



Original Peak Response = 119



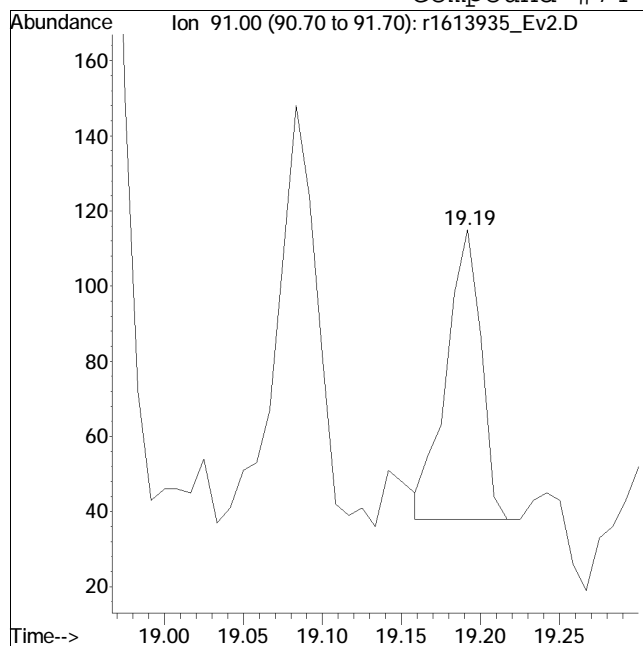
Manual Peak Response = 238 M4

M4 = Poor automated baseline construction.

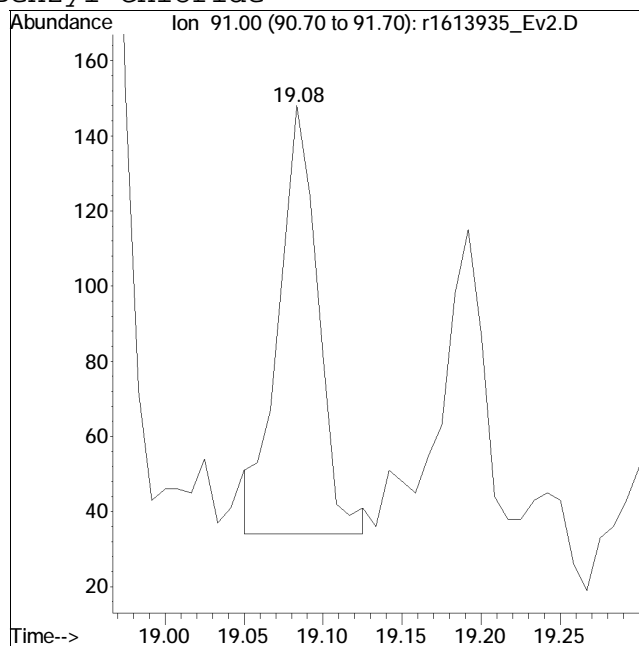
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613935_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 6:12 PM Instrument :
Sample : ITO15-SIMTD0.02 Quant Date : 11/20/2019 7:17 am

Compound #74: Benzyl Chloride



Original Peak Response = 117



Manual Peak Response = 198 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\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613936_Ev2.D
 Acq On : 19 Nov 2019 6:52 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.05
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:55:45 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|--------------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 155836 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = 101.14% | | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 454167 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = 100.68% | | | |
| 51) chlorobenzene-D5 | 16.51 | 54 | 59387 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = 101.54% | | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 67526 | 10.212 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 102.12% | | | |
| 53) toluene-D8 | 14.64 | 98 | 288296 | 9.983 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.83% | | | |
| 67) bromofluorobenzene | 17.88 | 95 | 191235 | 9.543 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 95.43% | | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 411M6 | 0.062 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 748 | 0.057 | ppbV | 94 |
| 4) chloromethane | 4.08 | 50 | 473 | 0.063 | ppbV | 93 |
| 5) Freon-114 | 4.20 | 85 | 971 | 0.055 | ppbV | 97 |
| 6) vinyl chloride | 4.34 | 62 | 409 | 0.057 | ppbV # | 84 |
| 7) 1,3-butadiene | 4.50 | 54 | 328 | 0.050 | ppbV # | 76 |
| 8) bromomethane | 4.81 | 94 | 329 | 0.050 | ppbV | 98 |
| 9) chloroethane | 5.03 | 64 | 212 | 0.062 | ppbV # | 78 |
| 10) ethanol | 5.21 | 31 | 1857 | 0.334 | ppbV | 91 |
| 11) vinyl bromide | 5.47 | 106 | 389 | 0.052 | ppbV | 97 |
| 12) acrolein | 5.63 | 56 | 240M4 | 0.074 | ppbV | |
| 13) acetone | 5.80 | 43 | 3858 | 0.361 | ppbV # | 93 |
| 14) trichlorofluoromethane | 5.99 | 101 | 552 | 0.051 | ppbV | 99 |
| 15) isopropyl alcohol | 6.13 | 45 | 2072 | 0.151 | ppbV # | 93 |
| 16) acrylonitrile | 6.37 | 53 | 356M4 | 0.056 | ppbV | |
| 17) 1,1-dichloroethene | 6.76 | 61 | 539 | 0.053 | ppbV # | 92 |
| 18) tertiary butyl alcohol | 6.87 | 59 | 657 | 0.054 | ppbV # | 93 |
| 19) methylene chloride | 6.93 | 49 | 720 | 0.075 | ppbV | 96 |
| 20) 3-chloropropene | 7.08 | 41 | 576 | 0.048 | ppbV # | 81 |
| 21) carbon disulfide | 7.23 | 76 | 1482 | 0.055 | ppbV # | 1 |
| 22) Freon 113 | 7.27 | 101 | 832 | 0.053 | ppbV | 97 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 565 | 0.051 | ppbV | 93 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613936_Ev2.D
 Acq On : 19 Nov 2019 6:52 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.05
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:55:45 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 716 | 0.054 | ppbV | 93 |
| 25) MTBE | 8.42 | 73 | 1104 | 0.051 | ppbV # | 84 |
| 26) vinyl acetate | 8.53 | 43 | 1009 | 0.049 | ppbV # | 94 |
| 27) 2-butanone | 8.82 | 43 | 1079 | 0.055 | ppbV # | 97 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 497 | 0.051 | ppbV | 98 |
| 29) Ethyl Acetate | 9.64 | 61 | 152 | 0.053 | ppbV # | 47 |
| 30) chloroform | 9.68 | 83 | 752 | 0.057 | ppbV # | 94 |
| 31) Tetrahydrofuran | 10.15 | 42 | 530 | 0.044 | ppbV | 92 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 438 | 0.061 | ppbV # | 82 |
| 34) hexane | 9.58 | 57 | 701 | 0.055 | ppbV # | 66 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 579 | 0.053 | ppbV # | 81 |
| 37) benzene | 11.35 | 78 | 1630 | 0.057 | ppbV | 97 |
| 38) carbon tetrachloride | 11.53 | 117 | 546 | 0.050 | ppbV # | 94 |
| 39) cyclohexane | 11.67 | 56 | 709 | 0.052 | ppbV | 91 |
| 40) Dibromomethane | 12.28 | 93 | 624 | 0.076 | ppbV # | 91 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 563 | 0.061 | ppbV # | 89 |
| 42) bromodichloromethane | 12.55 | 83 | 746 | 0.052 | ppbV # | 95 |
| 43) 1,4-dioxane | 12.61 | 88 | 318 | 0.051 | ppbV # | 80 |
| 44) trichloroethene | 12.59 | 130 | 662 | 0.053 | ppbV | 86 |
| 45) 2,2,4-trimethylpentane | 12.65 | 57 | 2156 | 0.052 | ppbV # | 96 |
| 46) heptane | 12.97 | 43 | 1057 | 0.053 | ppbV | 91 |
| 47) cis-1,3-dichloropropene | 14.24 | 75 | 650 | 0.051 | ppbV # | 82 |
| 48) 4-methyl-2-pentanone | 13.68 | 43 | 1084 | 0.046 | ppbV # | 95 |
| 49) trans-1,3-dichloropropene | 13.62 | 75 | 725 | 0.052 | ppbV # | 86 |
| 50) 1,1,2-trichloroethane | 14.44 | 97 | 444 | 0.043 | ppbV | 94 |
| 52) toluene | 14.75 | 91 | 2009 | 0.067 | ppbV | 98 |
| 54) 2-hexanone | 15.06 | 43 | 834 | 0.039 | ppbV | 99 |
| 55) dibromochloromethane | 15.20 | 129 | 684 | 0.043 | ppbV | 91 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 810 | 0.047 | ppbV | 96 |
| 57) tetrachloroethene | 15.92 | 166 | 645 | 0.048 | ppbV # | 94 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 574 | 0.048 | ppbV | 93 |
| 59) chlorobenzene | 16.55 | 112 | 1324 | 0.047 | ppbV | 95 |
| 60) ethylbenzene | 16.89 | 91 | 1988 | 0.051 | ppbV | 96 |
| 61) m+p-xylene | 17.04 | 91 | 3701 | 0.117 | ppbV | 99 |
| 62) bromoform | 17.12 | 173 | 529 | 0.043 | ppbV | 92 |
| 63) styrene | 17.38 | 104 | 1295 | 0.043 | ppbV | 99 |
| 64) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 960 | 0.041 | ppbV | 95 |
| 65) o-xylene | 17.47 | 91 | 1873 | 0.058 | ppbV | 98 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 748 | 0.040 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613936_Ev2.D
 Acq On : 19 Nov 2019 6:52 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.05
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:55:45 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 68) isopropylbenzene | 17.99 | 105 | 2144 | 0.045 | ppbV | 100 |
| 69) Bromobenzene | 18.07 | 77 | 1024 | 0.043 | ppbV | 95 |
| 70) 4-ethyl toluene | 18.55 | 105 | 1991 | 0.038 | ppbV # | 96 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 1748 | 0.040 | ppbV # | 98 |
| 72) tert-butylbenzene | 18.96 | 119 | 1809 | 0.042 | ppbV | 100 |
| 73) 1,2,4-trimethylbenzene | 18.97 | 105 | 1676 | 0.039 | ppbV | 94 |
| 74) Benzyl Chloride | 19.08 | 91 | 401 | 0.016 | ppbV # | 88 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 923 | 0.031 | ppbV | 94 |
| 76) 1,4-dichlorobenzene | 19.16 | 146 | 889 | 0.030 | ppbV | 93 |
| 77) sec-butylbenzene | 19.19 | 105 | 2541 | 0.041 | ppbV | 100 |
| 78) p-isopropyltoluene | 19.32 | 119 | 2139 | 0.040 | ppbV | 96 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 879 | 0.031 | ppbV # | 87 |
| 80) n-butylbenzene | 19.68 | 91 | 1289 | 0.031 | ppbV | 94 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 247 | 0.020 | ppbV # | 82 |
| 82) naphthalene | 21.13 | 128 | 1726 | 0.036 | ppbV | 99 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 360 | 0.028 | ppbV # | 81 |
| 84) hexachlorobutadiene | 21.44 | 225 | 508 | 0.040 | ppbV | 97 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613936_Ev2.D
Acq On     : 19 Nov 2019    6:52 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-SIMTD0.05
Misc       : WG1312118
ALS Vial   : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 16:55:45 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

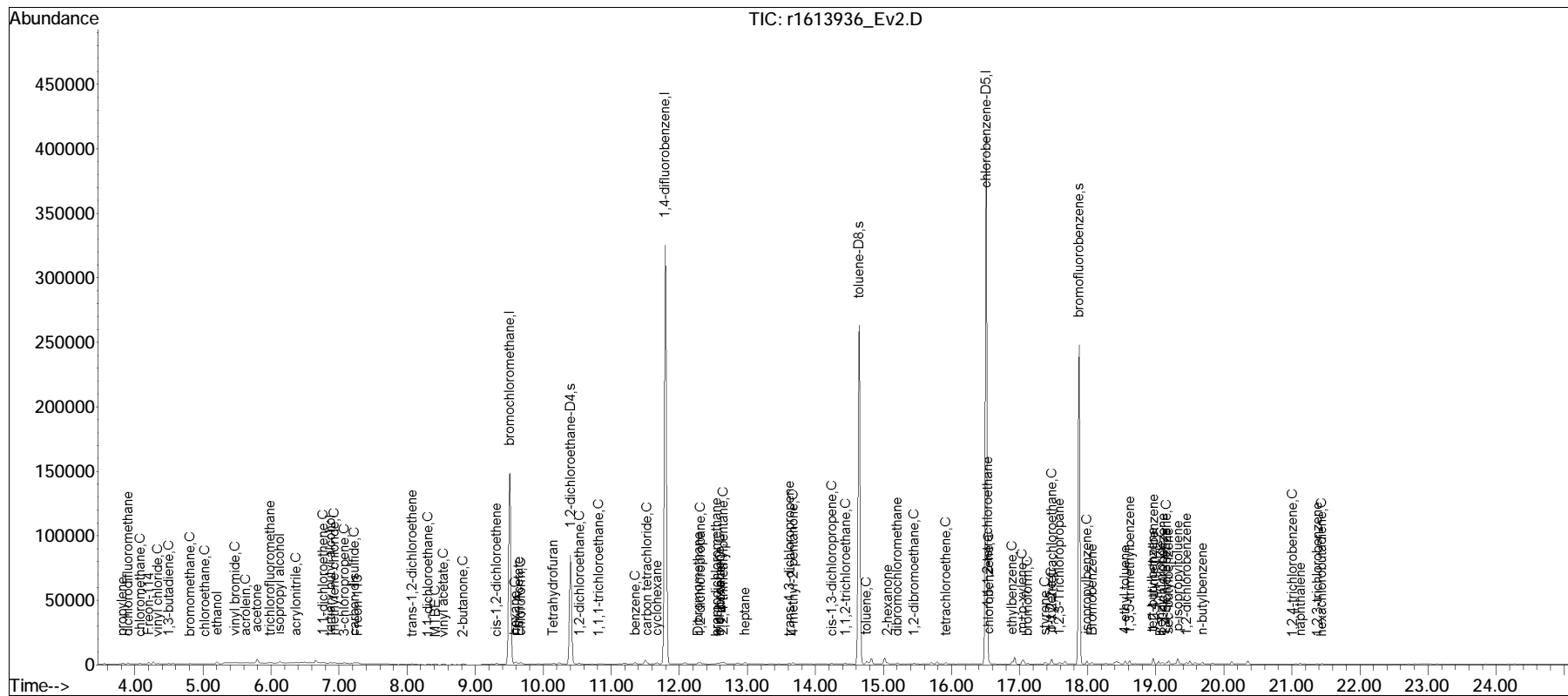
• • • M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

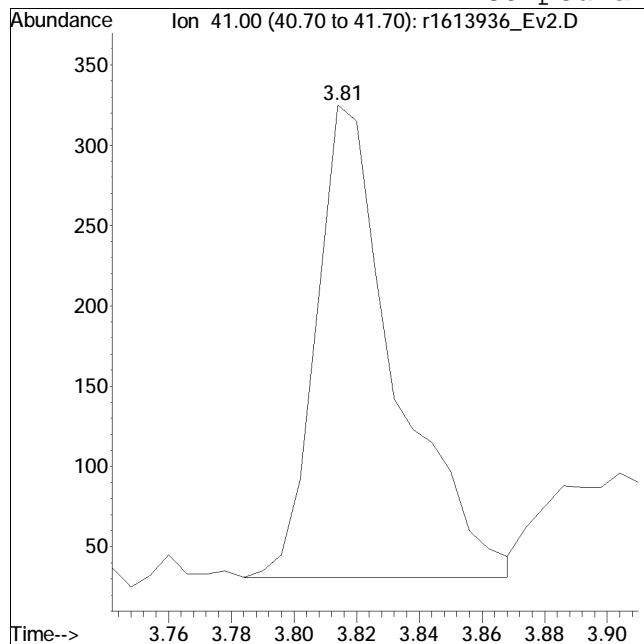
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



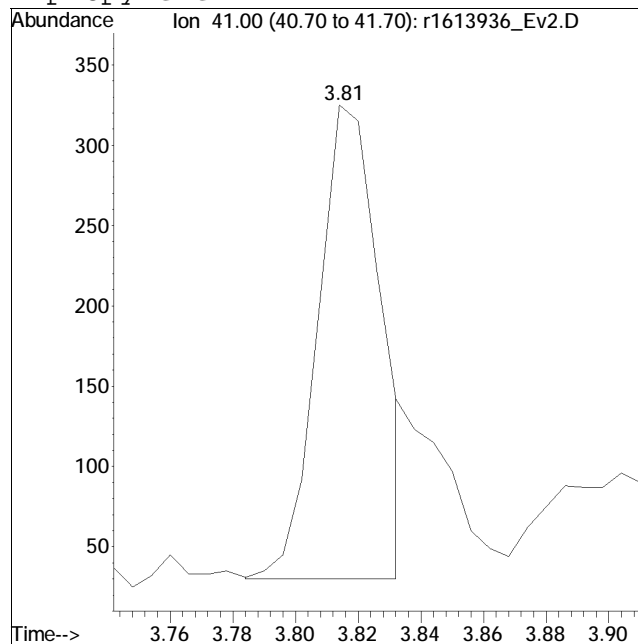
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
 Data File : r1613936_Ev2.D Operator : AIRLAB16:RY
 Date Inj'd : 11/19/2019 6:52 PM Instrument :
 Sample : ITO15-SIMTD0.05 Quant Date : 11/20/2019 7:17 am

Compound #2: propylene



Original Peak Response = 517



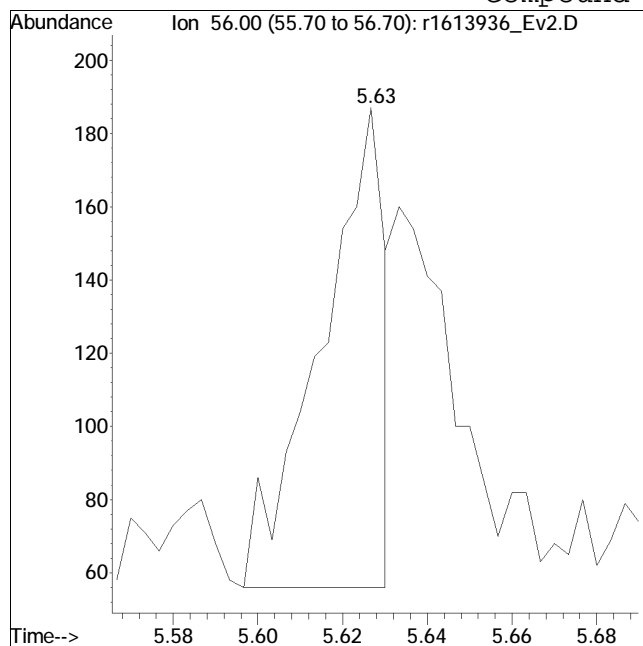
Manual Peak Response = 411 M6

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

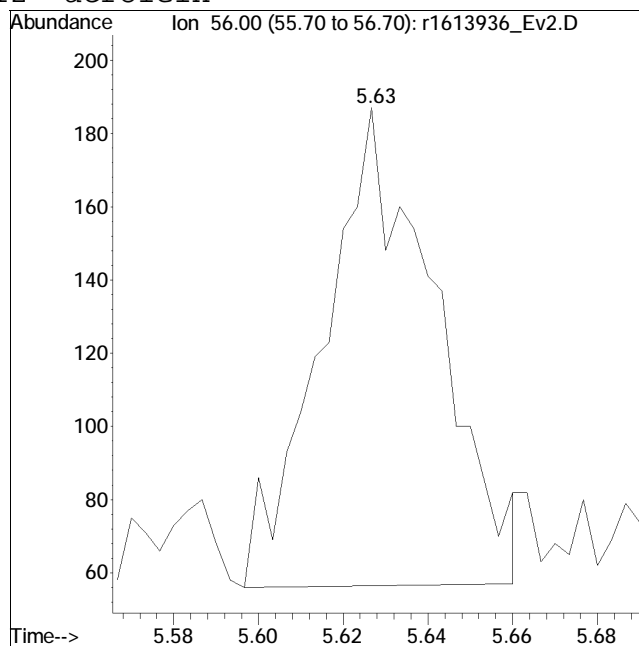
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613936_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 6:52 PM Instrument :
Sample : ITO15-SIMTD0.05 Quant Date : 11/20/2019 7:17 am

Compound #12: acrolein



Original Peak Response = 137



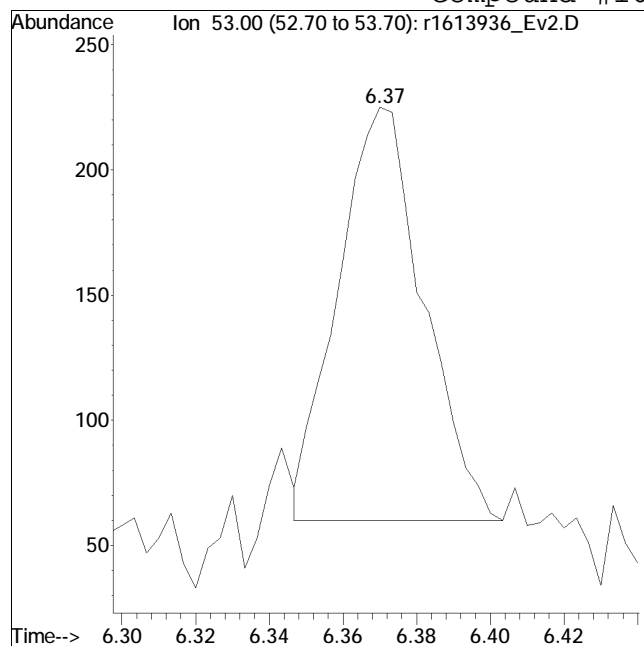
Manual Peak Response = 240 M4

M4 = Poor automated baseline construction.

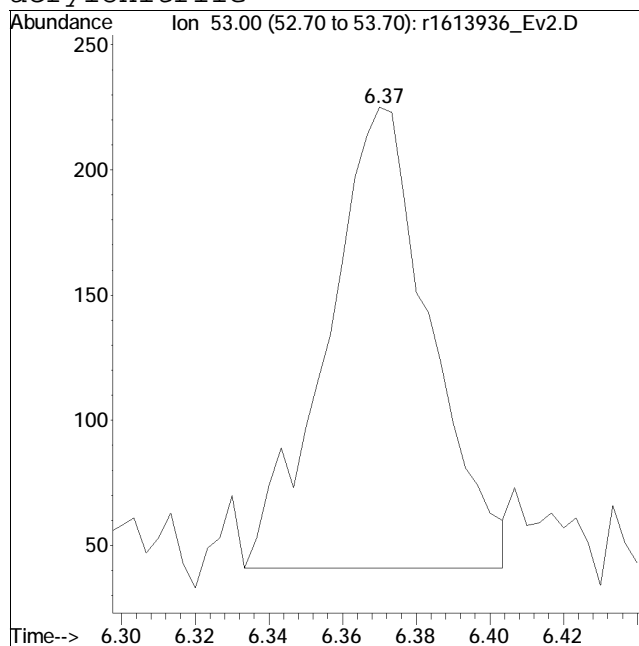
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613936_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 6:52 PM Instrument :
Sample : ITO15-SIMTD0.05 Quant Date : 11/20/2019 7:17 am

Compound #16: acrylonitrile



Original Peak Response = 267



Manual Peak Response = 356 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613937_Ev2.D
 Acq On : 19 Nov 2019 7:35 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.1
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:56:55 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.50 | 49 | 156060 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 101.28% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 453273 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 100.48% | | |
| 51) chlorobenzene-D5 | 16.50 | 54 | 59675 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 102.04% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.39 | 65 | 67246 | 10.189 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 101.89% | | |
| 53) toluene-D8 | 14.64 | 98 | 287668 | 9.913 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 99.13% | | |
| 67) bromofluorobenzene | 17.87 | 95 | 188479 | 9.361 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 93.61% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.82 | 41 | 839M6 | 0.127 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 1426 | 0.108 | ppbV | 97 |
| 4) chloromethane | 4.08 | 50 | 842 | 0.113 | ppbV | 90 |
| 5) Freon-114 | 4.20 | 85 | 1859 | 0.105 | ppbV | 98 |
| 6) vinyl chloride | 4.33 | 62 | 742 | 0.103 | ppbV | 93 |
| 7) 1,3-butadiene | 4.50 | 54 | 677 | 0.103 | ppbV | 84 |
| 8) bromomethane | 4.81 | 94 | 676 | 0.103 | ppbV | 98 |
| 9) chloroethane | 5.03 | 64 | 390 | 0.115 | ppbV # | 86 |
| 10) ethanol | 5.20 | 31 | 3241 | 0.582 | ppbV | 97 |
| 11) vinyl bromide | 5.46 | 106 | 778 | 0.103 | ppbV | 96 |
| 12) acrolein | 5.63 | 56 | 444 | 0.136 | ppbV # | 1 |
| 13) acetone | 5.79 | 43 | 6536 | 0.610 | ppbV # | 99 |
| 14) trichlorofluoromethane | 5.99 | 101 | 1186 | 0.109 | ppbV | 99 |
| 15) isopropyl alcohol | 6.12 | 45 | 3618 | 0.264 | ppbV # | 97 |
| 16) acrylonitrile | 6.37 | 53 | 706 | 0.110 | ppbV # | 93 |
| 17) 1,1-dichloroethene | 6.76 | 61 | 1041 | 0.103 | ppbV | 94 |
| 18) tertiary butyl alcohol | 6.87 | 59 | 1301 | 0.107 | ppbV | 95 |
| 19) methylene chloride | 6.93 | 49 | 1246 | 0.130 | ppbV | 97 |
| 20) 3-chloropropene | 7.07 | 41 | 1191 | 0.099 | ppbV | 92 |
| 21) carbon disulfide | 7.22 | 76 | 2746 | 0.101 | ppbV # | 1 |
| 22) Freon 113 | 7.27 | 101 | 1561 | 0.100 | ppbV | 99 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 1139 | 0.103 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613937_Ev2.D
 Acq On : 19 Nov 2019 7:35 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-SIMTD0.1
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:56:55 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 1300 | 0.098 | ppbV | 95 |
| 25) MTBE | 8.41 | 73 | 2111 | 0.097 | ppbV # | 92 |
| 26) vinyl acetate | 8.53 | 43 | 2064 | 0.100 | ppbV # | 94 |
| 27) 2-butanone | 8.82 | 43 | 2057 | 0.105 | ppbV # | 96 |
| 28) cis-1,2-dichloroethene | 9.31 | 61 | 996 | 0.103 | ppbV | 97 |
| 29) Ethyl Acetate | 9.63 | 61 | 271 | 0.095 | ppbV # | 50 |
| 30) chloroform | 9.67 | 83 | 1459 | 0.110 | ppbV # | 95 |
| 31) Tetrahydrofuran | 10.14 | 42 | 1134 | 0.095 | ppbV | 98 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 797 | 0.110 | ppbV # | 93 |
| 34) hexane | 9.58 | 57 | 1329 | 0.104 | ppbV | 79 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 1102 | 0.101 | ppbV # | 90 |
| 37) benzene | 11.35 | 78 | 3031 | 0.107 | ppbV | 96 |
| 38) carbon tetrachloride | 11.53 | 117 | 1064 | 0.097 | ppbV | 98 |
| 39) cyclohexane | 11.67 | 56 | 1411 | 0.103 | ppbV | 87 |
| 40) Dibromomethane | 12.27 | 93 | 916 | 0.112 | ppbV # | 99 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 1008 | 0.110 | ppbV | 94 |
| 42) bromodichloromethane | 12.55 | 83 | 1342 | 0.094 | ppbV # | 93 |
| 43) 1,4-dioxane | 12.61 | 88 | 609 | 0.099 | ppbV | 99 |
| 44) trichloroethene | 12.59 | 130 | 1202 | 0.096 | ppbV | 96 |
| 45) 2,2,4-trimethylpentane | 12.64 | 57 | 4249 | 0.102 | ppbV | 94 |
| 46) heptane | 12.96 | 43 | 2057 | 0.103 | ppbV | 96 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 1238 | 0.097 | ppbV | 93 |
| 48) 4-methyl-2-pentanone | 13.67 | 43 | 2215 | 0.095 | ppbV | 97 |
| 49) trans-1,3-dichloropropene | 13.61 | 75 | 1372 | 0.099 | ppbV # | 89 |
| 50) 1,1,2-trichloroethane | 14.43 | 97 | 1030 | 0.099 | ppbV | 99 |
| 52) toluene | 14.75 | 91 | 3426 | 0.113 | ppbV | 99 |
| 54) 2-hexanone | 15.05 | 43 | 1682 | 0.078 | ppbV | 98 |
| 55) dibromochloromethane | 15.20 | 129 | 1471 | 0.092 | ppbV | 96 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 1638 | 0.094 | ppbV | 96 |
| 57) tetrachloroethene | 15.92 | 166 | 1328 | 0.099 | ppbV | 97 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 1071 | 0.089 | ppbV | 99 |
| 59) chlorobenzene | 16.54 | 112 | 2597 | 0.092 | ppbV | 93 |
| 60) ethylbenzene | 16.88 | 91 | 3772 | 0.097 | ppbV | 98 |
| 61) m+p-xylene | 17.04 | 91 | 6663 | 0.210 | ppbV | 98 |
| 62) bromoform | 17.12 | 173 | 1045 | 0.084 | ppbV | 97 |
| 63) styrene | 17.38 | 104 | 2546 | 0.085 | ppbV | 100 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 1994 | 0.085 | ppbV | 99 |
| 65) o-xylene | 17.47 | 91 | 3324 | 0.103 | ppbV | 98 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 1669 | 0.088 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613937_Ev2.D
 Acq On : 19 Nov 2019 7:35 PM
 Operator : AIRLAB16:RY
 Sample : IT015-SIMTD0.1
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:56:55 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 68) isopropylbenzene | 17.98 | 105 | 4412 | 0.092 | ppbV | 98 |
| 69) Bromobenzene | 18.06 | 77 | 2050 | 0.087 | ppbV | 99 |
| 70) 4-ethyl toluene | 18.55 | 105 | 4154 | 0.078 | ppbV | 99 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 3591 | 0.082 | ppbV | 98 |
| 72) tert-butylbenzene | 18.96 | 119 | 3780 | 0.087 | ppbV | 99 |
| 73) 1,2,4-trimethylbenzene | 18.96 | 105 | 3422 | 0.079 | ppbV # | 90 |
| 74) Benzyl Chloride | 19.08 | 91 | 917 | 0.037 | ppbV | 95 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 2105 | 0.070 | ppbV | 99 |
| 76) 1,4-dichlorobenzene | 19.16 | 146 | 2011 | 0.068 | ppbV | 99 |
| 77) sec-butylbenzene | 19.18 | 105 | 5249 | 0.084 | ppbV | 95 |
| 78) p-isopropyltoluene | 19.32 | 119 | 4287 | 0.081 | ppbV | 100 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 1991 | 0.070 | ppbV | 95 |
| 80) n-butylbenzene | 19.68 | 91 | 2709 | 0.064 | ppbV | 98 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 471 | 0.037 | ppbV # | 85 |
| 82) naphthalene | 21.13 | 128 | 2889 | 0.060 | ppbV # | 95 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 705 | 0.054 | ppbV # | 88 |
| 84) hexachlorobutadiene | 21.44 | 225 | 1014 | 0.079 | ppbV | 95 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613937_Ev2.D
Acq On     : 19 Nov 2019    7:35 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-SIMTD0.1
Misc       : WG1312118
ALS Vial   : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 16:56:55 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

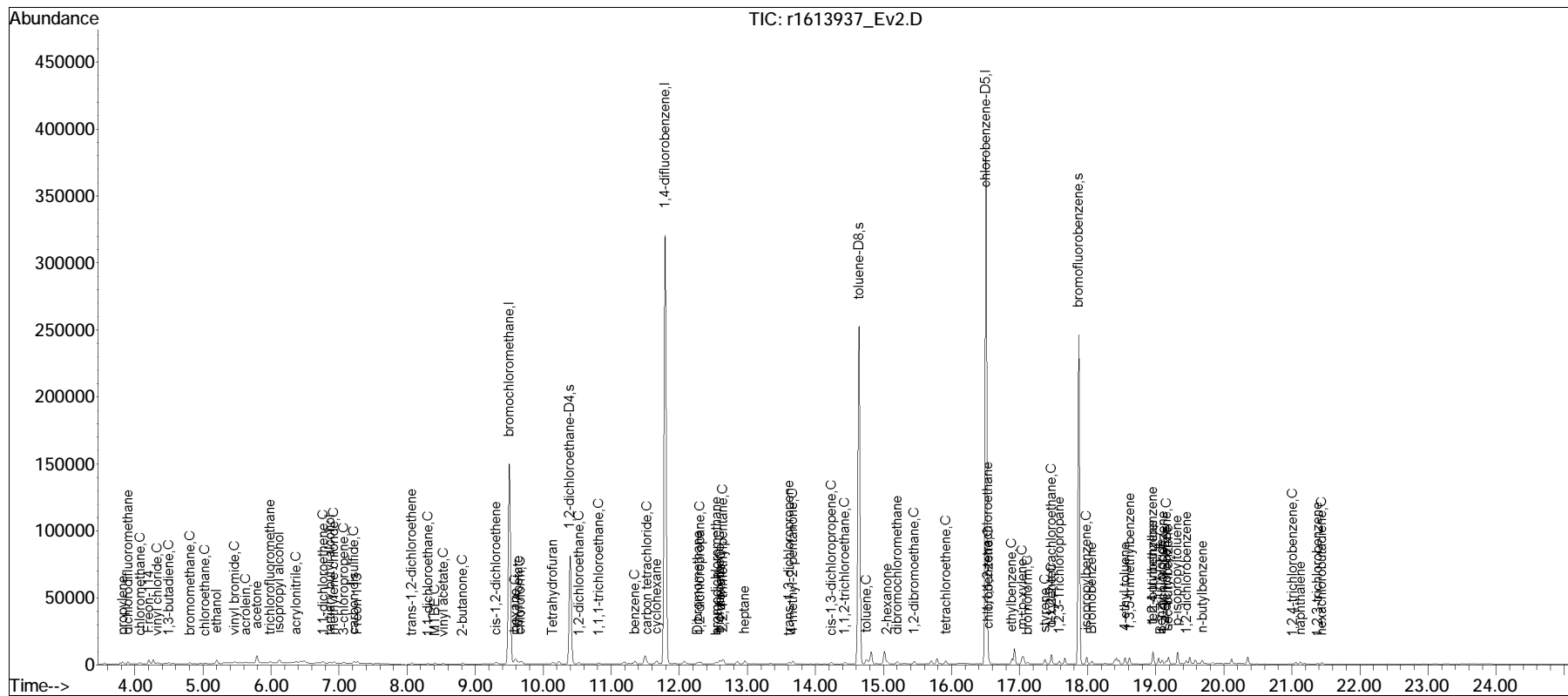
• • • M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

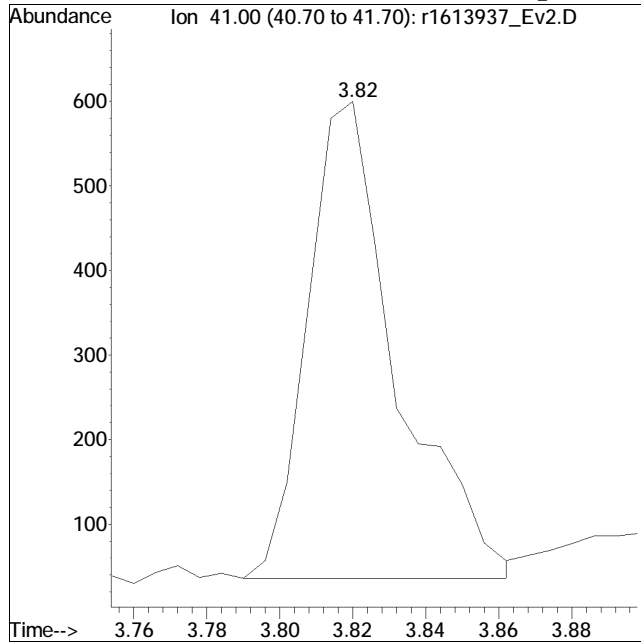
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



Manual Integration/Negative Proof Report

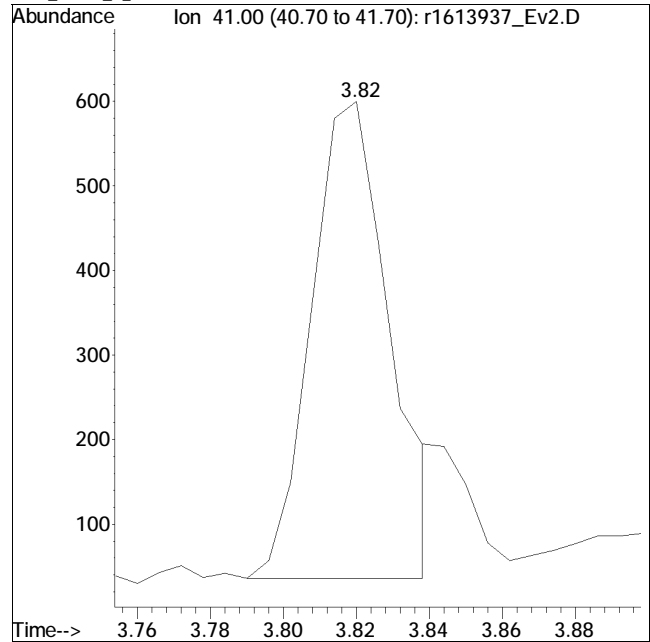
Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613937_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 7:35 PM Instrument :
Sample : ITO15-SIMTD0.1 Quant Date : 11/20/2019 7:18 am

Compound #2: propylene



Original Peak Response = 958

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



Manual Peak Response = 839 M6

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613938_Ev2.D
 Acq On : 19 Nov 2019 8:14 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.2
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:58:07 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 154163 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 100.05% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 448548 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 99.43% | | |
| 51) chlorobenzene-D5 | 16.51 | 54 | 58730 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 100.42% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 66667 | 10.208 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 102.08% | | |
| 53) toluene-D8 | 14.64 | 98 | 287592 | 10.070 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 100.70% | | |
| 67) bromofluorobenzene | 17.87 | 95 | 194402 | 9.810 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 98.10% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 1441M4 | 0.221 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 2661 | 0.205 | ppbV | 99 |
| 4) chloromethane | 4.08 | 50 | 1556 | 0.211 | ppbV | 98 |
| 5) Freon-114 | 4.20 | 85 | 3653 | 0.209 | ppbV | 100 |
| 6) vinyl chloride | 4.33 | 62 | 1445 | 0.204 | ppbV | 95 |
| 7) 1,3-butadiene | 4.50 | 54 | 1327 | 0.204 | ppbV | 93 |
| 8) bromomethane | 4.81 | 94 | 1282 | 0.198 | ppbV | 99 |
| 9) chloroethane | 5.03 | 64 | 714 | 0.212 | ppbV | 94 |
| 10) ethanol | 5.20 | 31 | 5966 | 1.085 | ppbV | 98 |
| 11) vinyl bromide | 5.47 | 106 | 1508 | 0.203 | ppbV | 98 |
| 12) acrolein | 5.63 | 56 | 732 | 0.227 | ppbV # | 30 |
| 13) acetone | 5.79 | 43 | 10962 | 1.036 | ppbV # | 100 |
| 14) trichlorofluoromethane | 5.99 | 101 | 2177 | 0.202 | ppbV | 96 |
| 15) isopropyl alcohol | 6.12 | 45 | 6875 | 0.508 | ppbV | 100 |
| 16) acrylonitrile | 6.37 | 53 | 1296 | 0.205 | ppbV | 94 |
| 17) 1,1-dichloroethene | 6.76 | 61 | 2073 | 0.208 | ppbV | 98 |
| 18) tertiary butyl alcohol | 6.87 | 59 | 2343 | 0.194 | ppbV | 99 |
| 19) methylene chloride | 6.93 | 49 | 2046 | 0.215 | ppbV | 100 |
| 20) 3-chloropropene | 7.07 | 41 | 2307 | 0.193 | ppbV | 96 |
| 21) carbon disulfide | 7.23 | 76 | 5502 | 0.205 | ppbV # | 40 |
| 22) Freon 113 | 7.27 | 101 | 3189 | 0.206 | ppbV | 98 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 2226 | 0.205 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613938_Ev2.D
 Acq On : 19 Nov 2019 8:14 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.2
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:58:07 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 2630 | 0.201 | ppbV | 99 |
| 25) MTBE | 8.41 | 73 | 4310 | 0.201 | ppbV | 98 |
| 26) vinyl acetate | 8.53 | 43 | 3895 | 0.192 | ppbV | 97 |
| 27) 2-butanone | 8.82 | 43 | 3818 | 0.198 | ppbV # | 98 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 1901 | 0.199 | ppbV | 99 |
| 29) Ethyl Acetate | 9.63 | 61 | 586 | 0.208 | ppbV | 62 |
| 30) chloroform | 9.68 | 83 | 2752 | 0.209 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.14 | 42 | 2340 | 0.198 | ppbV | 99 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 1502 | 0.210 | ppbV | 97 |
| 34) hexane | 9.58 | 57 | 2527 | 0.199 | ppbV # | 76 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 2176 | 0.201 | ppbV | 98 |
| 37) benzene | 11.35 | 78 | 5786 | 0.206 | ppbV | 100 |
| 38) carbon tetrachloride | 11.53 | 117 | 2232 | 0.207 | ppbV # | 97 |
| 39) cyclohexane | 11.67 | 56 | 2824 | 0.208 | ppbV | 94 |
| 40) Dibromomethane | 12.28 | 93 | 1779 | 0.221 | ppbV # | 98 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 1934 | 0.212 | ppbV | 94 |
| 42) bromodichloromethane | 12.55 | 83 | 2833 | 0.200 | ppbV # | 95 |
| 43) 1,4-dioxane | 12.60 | 88 | 1170 | 0.191 | ppbV | 99 |
| 44) trichloroethene | 12.59 | 130 | 2564 | 0.207 | ppbV | 98 |
| 45) 2,2,4-trimethylpentane | 12.65 | 57 | 8566 | 0.207 | ppbV | 99 |
| 46) heptane | 12.97 | 43 | 4088 | 0.206 | ppbV | 98 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 2353 | 0.187 | ppbV | 96 |
| 48) 4-methyl-2-pentanone | 13.67 | 43 | 4452 | 0.193 | ppbV | 98 |
| 49) trans-1,3-dichloropropene | 13.62 | 75 | 2740 | 0.199 | ppbV | 97 |
| 50) 1,1,2-trichloroethane | 14.44 | 97 | 2213 | 0.216 | ppbV | 98 |
| 52) toluene | 14.75 | 91 | 6540 | 0.219 | ppbV | 98 |
| 54) 2-hexanone | 15.05 | 43 | 3474 | 0.164 | ppbV | 97 |
| 55) dibromochloromethane | 15.20 | 129 | 2931 | 0.186 | ppbV | 95 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 3349 | 0.196 | ppbV | 97 |
| 57) tetrachloroethene | 15.92 | 166 | 2645 | 0.199 | ppbV | 96 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 2224 | 0.187 | ppbV | 97 |
| 59) chlorobenzene | 16.55 | 112 | 5442 | 0.197 | ppbV | 99 |
| 60) ethylbenzene | 16.88 | 91 | 7714 | 0.202 | ppbV | 98 |
| 61) m+p-xylene | 17.04 | 91 | 12922 | 0.414 | ppbV | 99 |
| 62) bromoform | 17.12 | 173 | 2170 | 0.178 | ppbV | 99 |
| 63) styrene | 17.38 | 104 | 5507 | 0.186 | ppbV | 99 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 4197 | 0.182 | ppbV | 97 |
| 65) o-xylene | 17.47 | 91 | 6589 | 0.207 | ppbV | 98 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 3341 | 0.179 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613938_Ev2.D
 Acq On : 19 Nov 2019 8:14 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.2
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:58:07 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 68) isopropylbenzene | 17.98 | 105 | 9186 | 0.194 | ppbV | 98 |
| 69) Bromobenzene | 18.06 | 77 | 4421 | 0.190 | ppbV | 100 |
| 70) 4-ethyl toluene | 18.55 | 105 | 8865 | 0.169 | ppbV | 99 |
| 71) 1,3,5-trimethylbenzene | 18.61 | 105 | 8009 | 0.187 | ppbV | 98 |
| 72) tert-butylbenzene | 18.96 | 119 | 8135 | 0.190 | ppbV | 99 |
| 73) 1,2,4-trimethylbenzene | 18.96 | 105 | 7578 | 0.179 | ppbV | 93 |
| 74) Benzyl Chloride | 19.08 | 91 | 2019 | 0.083 | ppbV | 96 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 4441 | 0.150 | ppbV | 97 |
| 76) 1,4-dichlorobenzene | 19.15 | 146 | 4110 | 0.142 | ppbV | 93 |
| 77) sec-butylbenzene | 19.18 | 105 | 11539 | 0.187 | ppbV | 97 |
| 78) p-isopropyltoluene | 19.32 | 119 | 9550 | 0.182 | ppbV | 98 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 4138 | 0.148 | ppbV | 99 |
| 80) n-butylbenzene | 19.68 | 91 | 6365 | 0.153 | ppbV | 98 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 837 | 0.068 | ppbV # | 90 |
| 82) naphthalene | 21.13 | 128 | 5232 | 0.110 | ppbV | 98 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 1091 | 0.085 | ppbV # | 88 |
| 84) hexachlorobutadiene | 21.45 | 225 | 1737 | 0.137 | ppbV | 95 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613938_Ev2.D
Acq On     : 19 Nov 2019    8:14 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-LLSTD0.2
Misc       : WG1312118
ALS Vial   : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 16:58:07 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

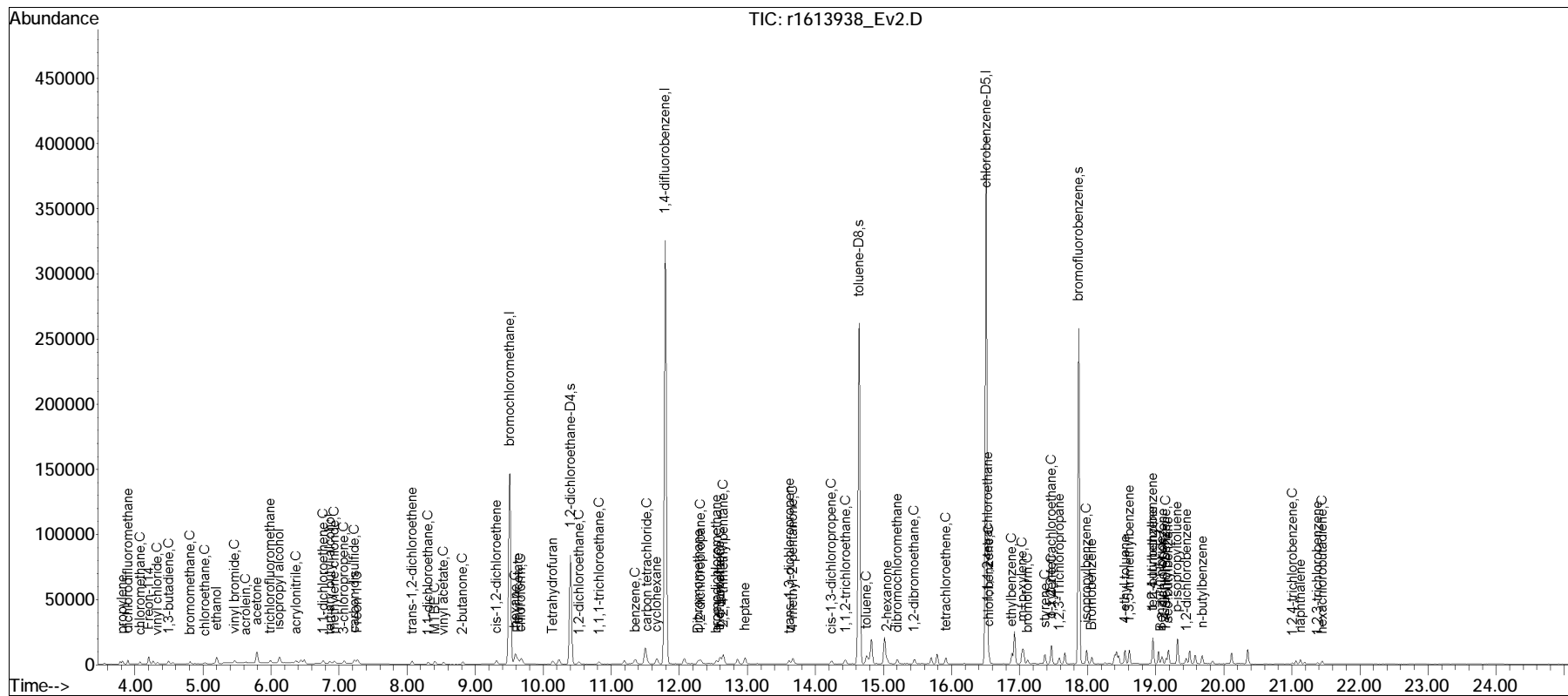
.. .M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

OLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

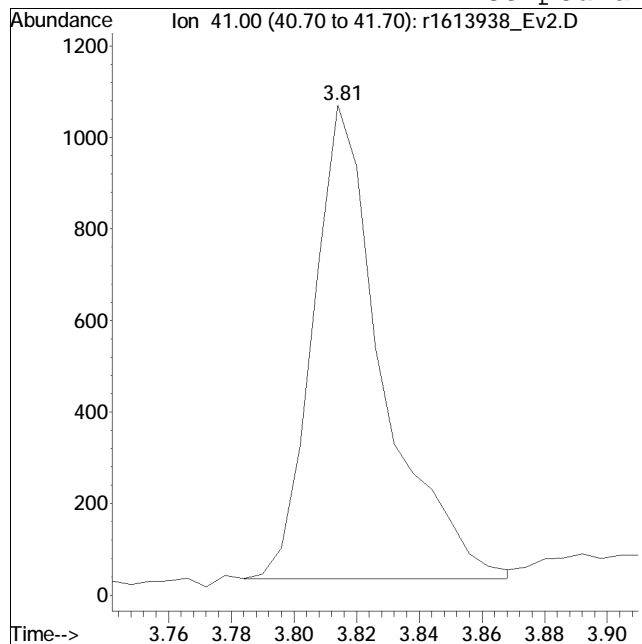
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



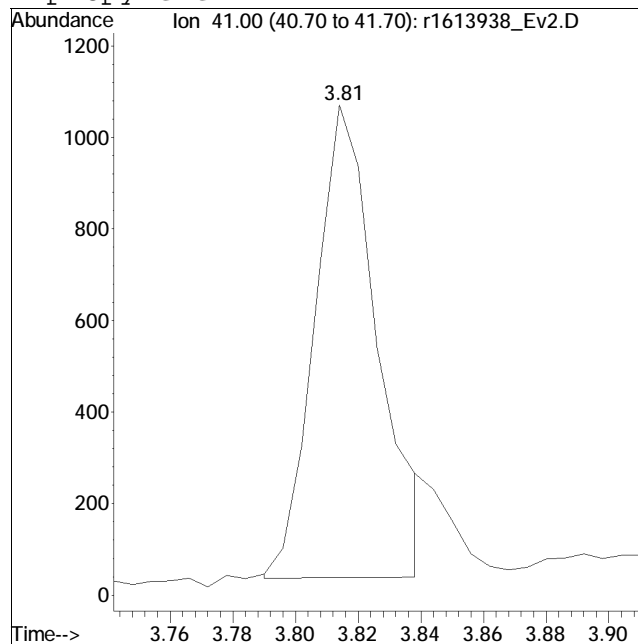
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613938_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 8:14 PM Instrument :
Sample : ITO15-LLSTD0.2 Quant Date : 11/20/2019 7:18 am

Compound #2: propylene



Original Peak Response = 1602



Manual Peak Response = 1441 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613939_Ev2.D
 Acq On : 19 Nov 2019 8:54 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.5
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:59:20 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.50 | 49 | 153575 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 99.67% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 450610 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 99.89% | | |
| 51) chlorobenzene-D5 | 16.50 | 54 | 58833 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 100.60% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 66550 | 10.143 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 101.43% | | |
| 53) toluene-D8 | 14.63 | 98 | 285430 | 9.977 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 99.77% | | |
| 67) bromofluorobenzene | 17.87 | 95 | 198520 | 10.000 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 100.00% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 3735M6 | 0.574 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 7011 | 0.541 | ppbV | 100 |
| 4) chloromethane | 4.08 | 50 | 3963 | 0.538 | ppbV | 95 |
| 5) Freon-114 | 4.20 | 85 | 9357 | 0.538 | ppbV | 99 |
| 6) vinyl chloride | 4.33 | 62 | 3816 | 0.541 | ppbV | 97 |
| 7) 1,3-butadiene | 4.50 | 54 | 3426 | 0.529 | ppbV | 98 |
| 8) bromomethane | 4.81 | 94 | 3474 | 0.539 | ppbV | 100 |
| 9) chloroethane | 5.03 | 64 | 1788 | 0.534 | ppbV | 92 |
| 10) ethanol | 5.20 | 31 | 14574 | 2.661 | ppbV | 99 |
| 11) vinyl bromide | 5.46 | 106 | 3905 | 0.527 | ppbV | 98 |
| 12) acrolein | 5.62 | 56 | 1765 | 0.549 | ppbV # | 66 |
| 13) acetone | 5.79 | 43 | 26660 | 2.529 | ppbV # | 99 |
| 14) trichlorofluoromethane | 5.99 | 101 | 5760 | 0.536 | ppbV | 99 |
| 15) isopropyl alcohol | 6.12 | 45 | 17134 | 1.270 | ppbV | 98 |
| 16) acrylonitrile | 6.37 | 53 | 3339 | 0.529 | ppbV | 98 |
| 17) 1,1-dichloroethene | 6.76 | 61 | 5264 | 0.529 | ppbV | 98 |
| 18) tertiary butyl alcohol | 6.85 | 59 | 6240 | 0.519 | ppbV | 98 |
| 19) methylene chloride | 6.93 | 49 | 5191 | 0.548 | ppbV | 100 |
| 20) 3-chloropropene | 7.07 | 41 | 6134 | 0.516 | ppbV | 98 |
| 21) carbon disulfide | 7.22 | 76 | 14064 | 0.527 | ppbV # | 76 |
| 22) Freon 113 | 7.27 | 101 | 8217 | 0.533 | ppbV | 99 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 5739 | 0.530 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613939_Ev2.D
 Acq On : 19 Nov 2019 8:54 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.5
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:59:20 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 6913 | 0.529 | ppbV | 99 |
| 25) MTBE | 8.40 | 73 | 11006 | 0.515 | ppbV | 99 |
| 26) vinyl acetate | 8.53 | 43 | 10269 | 0.508 | ppbV | 98 |
| 27) 2-butanone | 8.81 | 43 | 9794 | 0.509 | ppbV | 99 |
| 28) cis-1,2-dichloroethene | 9.31 | 61 | 5101 | 0.536 | ppbV | 99 |
| 29) Ethyl Acetate | 9.63 | 61 | 1386 | 0.494 | ppbV | 78 |
| 30) chloroform | 9.67 | 83 | 6920 | 0.528 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.13 | 42 | 6029 | 0.513 | ppbV | 98 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 3815 | 0.536 | ppbV | 99 |
| 34) hexane | 9.58 | 57 | 6737 | 0.529 | ppbV | 92 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 5732 | 0.528 | ppbV | 99 |
| 37) benzene | 11.35 | 78 | 15026 | 0.533 | ppbV | 99 |
| 38) carbon tetrachloride | 11.53 | 117 | 5573 | 0.513 | ppbV | 98 |
| 39) cyclohexane | 11.67 | 56 | 7226 | 0.530 | ppbV | 99 |
| 40) Dibromomethane | 12.27 | 93 | 4362 | 0.539 | ppbV # | 98 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 4764 | 0.521 | ppbV | 99 |
| 42) bromodichloromethane | 12.54 | 83 | 7362 | 0.517 | ppbV | 100 |
| 43) 1,4-dioxane | 12.59 | 88 | 3008 | 0.490 | ppbV | 97 |
| 44) trichloroethene | 12.59 | 130 | 6509 | 0.522 | ppbV | 98 |
| 45) 2,2,4-trimethylpentane | 12.64 | 57 | 22314 | 0.538 | ppbV | 99 |
| 46) heptane | 12.96 | 43 | 10293 | 0.517 | ppbV | 100 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 6364 | 0.503 | ppbV | 98 |
| 48) 4-methyl-2-pentanone | 13.66 | 43 | 11601 | 0.501 | ppbV | 98 |
| 49) trans-1,3-dichloropropene | 13.61 | 75 | 7043 | 0.509 | ppbV | 98 |
| 50) 1,1,2-trichloroethane | 14.43 | 97 | 5415 | 0.525 | ppbV | 98 |
| 52) toluene | 14.75 | 91 | 16037 | 0.536 | ppbV | 100 |
| 54) 2-hexanone | 15.04 | 43 | 9659 | 0.456 | ppbV | 97 |
| 55) dibromochloromethane | 15.20 | 129 | 7670 | 0.487 | ppbV | 97 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 8752 | 0.511 | ppbV | 99 |
| 57) tetrachloroethene | 15.92 | 166 | 6937 | 0.522 | ppbV | 97 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 5925 | 0.498 | ppbV | 98 |
| 59) chlorobenzene | 16.54 | 112 | 14274 | 0.515 | ppbV | 95 |
| 60) ethylbenzene | 16.88 | 91 | 19745 | 0.516 | ppbV | 98 |
| 61) m+p-xylene | 17.05 | 91 | 32937 | 1.053 | ppbV | 98 |
| 62) bromoform | 17.12 | 173 | 5648 | 0.462 | ppbV | 100 |
| 63) styrene | 17.38 | 104 | 14673 | 0.495 | ppbV | 99 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 11433 | 0.495 | ppbV | 99 |
| 65) o-xylene | 17.47 | 91 | 16650 | 0.521 | ppbV | 97 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 9368 | 0.501 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613939_Ev2.D
 Acq On : 19 Nov 2019 8:54 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD0.5
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 16:59:20 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 68) isopropylbenzene | 17.98 | 105 | 24384 | 0.514 | ppbV | 98 |
| 69) Bromobenzene | 18.06 | 77 | 11715 | 0.502 | ppbV | 100 |
| 70) 4-ethyl toluene | 18.55 | 105 | 25216 | 0.480 | ppbV | 99 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 21332 | 0.496 | ppbV | 99 |
| 72) tert-butylbenzene | 18.96 | 119 | 21480 | 0.500 | ppbV | 98 |
| 73) 1,2,4-trimethylbenzene | 18.96 | 105 | 20281 | 0.477 | ppbV | 93 |
| 74) Benzyl Chloride | 19.08 | 91 | 6552 | 0.269 | ppbV | 99 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 13780 | 0.465 | ppbV | 99 |
| 76) 1,4-dichlorobenzene | 19.15 | 146 | 13005 | 0.448 | ppbV | 94 |
| 77) sec-butylbenzene | 19.18 | 105 | 30777 | 0.497 | ppbV | 95 |
| 78) p-isopropyltoluene | 19.32 | 119 | 25690 | 0.490 | ppbV | 98 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 12766 | 0.455 | ppbV | 99 |
| 80) n-butylbenzene | 19.68 | 91 | 19070 | 0.457 | ppbV | 98 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 3826 | 0.308 | ppbV | 97 |
| 82) naphthalene | 21.13 | 128 | 17648 | 0.369 | ppbV | 99 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 5044 | 0.394 | ppbV | 98 |
| 84) hexachlorobutadiene | 21.44 | 225 | 6418 | 0.505 | ppbV | 98 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613939_Ev2.D
Acq On     : 19 Nov 2019    8:54 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-LLSTD0.5
Misc       : WG1312118
ALS Vial   : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 16:59:20 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

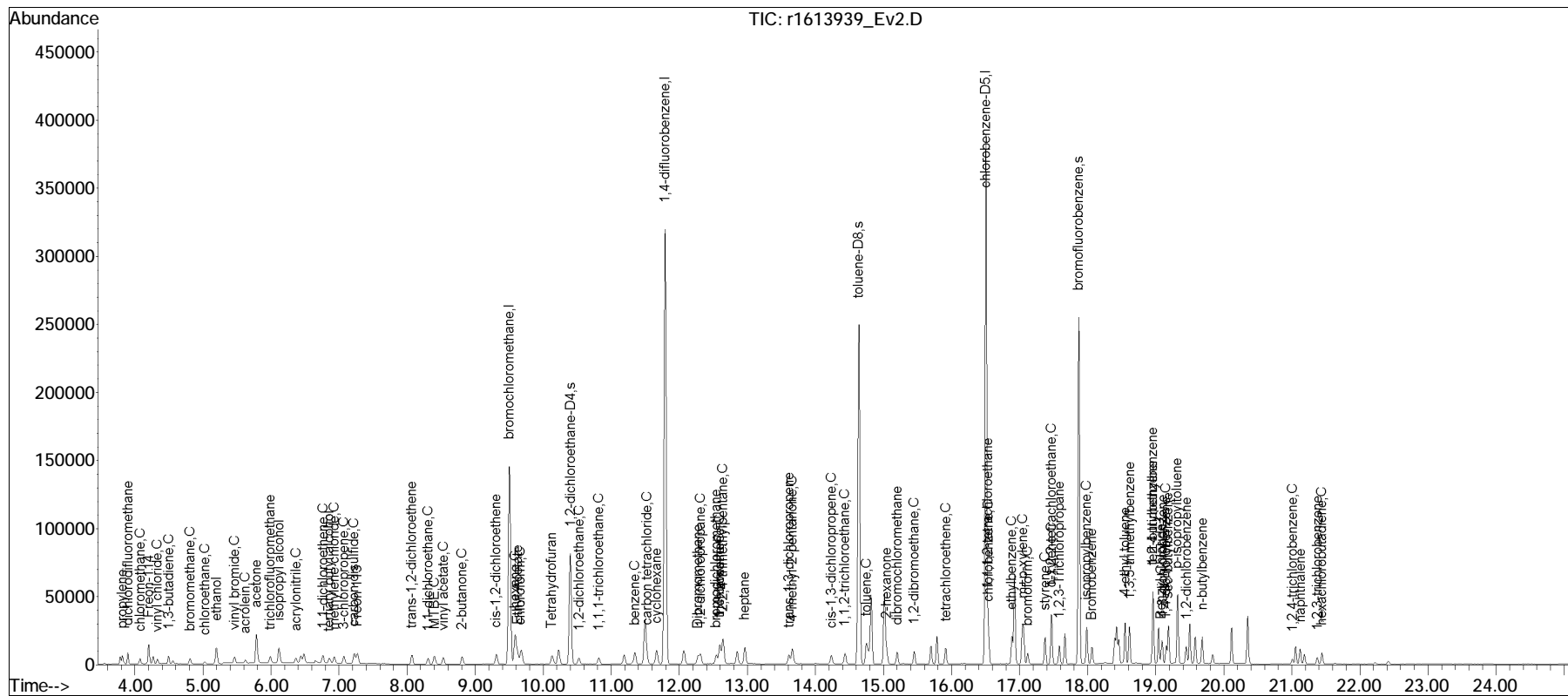
.. .M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

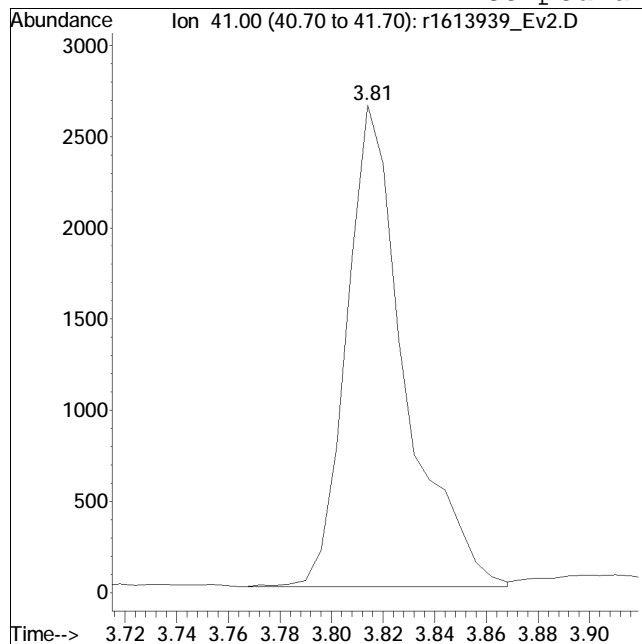
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



Manual Integration/Negative Proof Report

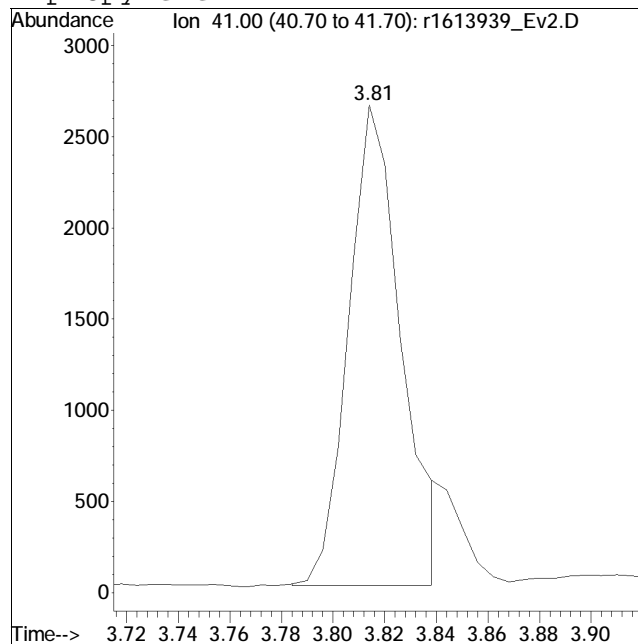
Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613939_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 8:54 PM Instrument :
Sample : ITO15-LLSTD0.5 Quant Date : 11/20/2019 7:18 am

Compound #2: propylene



Original Peak Response = 4165

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



Manual Peak Response = 3735 M6

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613940_Ev2.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD1.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:00:35 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.50 | 49 | 152621 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 99.05% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 449858 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 99.72% | | |
| 51) chlorobenzene-D5 | 16.50 | 54 | 58340 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 99.75% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 67319 | 10.278 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 102.78% | | |
| 53) toluene-D8 | 14.64 | 98 | 291311 | 10.268 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 102.68% | | |
| 67) bromofluorobenzene | 17.87 | 95 | 198283 | 10.073 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 100.73% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 7065M4 | 1.092 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 13955 | 1.084 | ppbV | 99 |
| 4) chloromethane | 4.07 | 50 | 7834 | 1.071 | ppbV | 100 |
| 5) Freon-114 | 4.20 | 85 | 18660 | 1.079 | ppbV | 96 |
| 6) vinyl chloride | 4.33 | 62 | 7477 | 1.066 | ppbV | 97 |
| 7) 1,3-butadiene | 4.49 | 54 | 6930 | 1.077 | ppbV | 94 |
| 8) bromomethane | 4.81 | 94 | 6834 | 1.067 | ppbV | 99 |
| 9) chloroethane | 5.03 | 64 | 3612 | 1.086 | ppbV | 97 |
| 10) ethanol | 5.19 | 31 | 29335 | 5.389 | ppbV | 99 |
| 11) vinyl bromide | 5.46 | 106 | 7839 | 1.065 | ppbV | 99 |
| 12) acrolein | 5.62 | 56 | 3529 | 1.104 | ppbV # | 86 |
| 13) acetone | 5.78 | 43 | 52996 | 5.060 | ppbV | 99 |
| 14) trichlorofluoromethane | 5.99 | 101 | 11460 | 1.074 | ppbV | 100 |
| 15) isopropyl alcohol | 6.11 | 45 | 32664 | 2.436 | ppbV | 99 |
| 16) acrylonitrile | 6.36 | 53 | 6660 | 1.063 | ppbV | 99 |
| 17) 1,1-dichloroethene | 6.76 | 61 | 10618 | 1.074 | ppbV | 98 |
| 18) tertiary butyl alcohol | 6.85 | 59 | 11913 | 0.998 | ppbV | 99 |
| 19) methylene chloride | 6.93 | 49 | 10269 | 1.092 | ppbV | 99 |
| 20) 3-chloropropene | 7.07 | 41 | 12443 | 1.054 | ppbV | 99 |
| 21) carbon disulfide | 7.22 | 76 | 28055 | 1.058 | ppbV # | 88 |
| 22) Freon 113 | 7.27 | 101 | 16525 | 1.078 | ppbV | 99 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 11573 | 1.075 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613940_Ev2.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD1.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:00:35 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 13930 | 1.073 | ppbV | 100 |
| 25) MTBE | 8.40 | 73 | 22380 | 1.054 | ppbV | 99 |
| 26) vinyl acetate | 8.53 | 43 | 21073 | 1.048 | ppbV | 99 |
| 27) 2-butanone | 8.80 | 43 | 20054 | 1.049 | ppbV | 97 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 10123 | 1.070 | ppbV | 95 |
| 29) Ethyl Acetate | 9.63 | 61 | 2837 | 1.017 | ppbV | 82 |
| 30) chloroform | 9.68 | 83 | 13987 | 1.075 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.13 | 42 | 12027 | 1.030 | ppbV | 99 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 7639 | 1.081 | ppbV | 100 |
| 34) hexane | 9.58 | 57 | 13499 | 1.062 | ppbV | 94 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 11518 | 1.063 | ppbV | 96 |
| 37) benzene | 11.35 | 78 | 29778 | 1.059 | ppbV | 100 |
| 38) carbon tetrachloride | 11.53 | 117 | 11250 | 1.038 | ppbV | 99 |
| 39) cyclohexane | 11.67 | 56 | 14388 | 1.057 | ppbV | 97 |
| 40) Dibromomethane | 12.28 | 93 | 8828 | 1.092 | ppbV # | 99 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 9718 | 1.064 | ppbV | 99 |
| 42) bromodichloromethane | 12.55 | 83 | 14786 | 1.040 | ppbV | 99 |
| 43) 1,4-dioxane | 12.59 | 88 | 5874 | 0.958 | ppbV | 99 |
| 44) trichloroethene | 12.59 | 130 | 13177 | 1.059 | ppbV | 96 |
| 45) 2,2,4-trimethylpentane | 12.64 | 57 | 44705 | 1.079 | ppbV | 99 |
| 46) heptane | 12.97 | 43 | 21178 | 1.065 | ppbV | 99 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 12751 | 1.010 | ppbV | 98 |
| 48) 4-methyl-2-pentanone | 13.66 | 43 | 23584 | 1.021 | ppbV | 99 |
| 49) trans-1,3-dichloropropene | 13.62 | 75 | 14398 | 1.042 | ppbV | 100 |
| 50) 1,1,2-trichloroethane | 14.44 | 97 | 10871 | 1.056 | ppbV | 99 |
| 52) toluene | 14.75 | 91 | 31775 | 1.072 | ppbV | 99 |
| 54) 2-hexanone | 15.04 | 43 | 20482 | 0.975 | ppbV | 96 |
| 55) dibromochloromethane | 15.20 | 129 | 15827 | 1.014 | ppbV | 98 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 17723 | 1.044 | ppbV | 100 |
| 57) tetrachloroethene | 15.92 | 166 | 13815 | 1.048 | ppbV | 99 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 12041 | 1.021 | ppbV | 100 |
| 59) chlorobenzene | 16.54 | 112 | 28653 | 1.042 | ppbV | 96 |
| 60) ethylbenzene | 16.88 | 91 | 39745 | 1.047 | ppbV | 98 |
| 61) m+p-xylene | 17.05 | 91 | 65406 | 2.109 | ppbV | 100 |
| 62) bromoform | 17.12 | 173 | 11769 | 0.971 | ppbV | 99 |
| 63) styrene | 17.38 | 104 | 29954 | 1.018 | ppbV | 98 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 23419 | 1.022 | ppbV | 99 |
| 65) o-xylene | 17.47 | 91 | 33455 | 1.056 | ppbV | 98 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 19124 | 1.032 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613940_Ev2.D
 Acq On : 19 Nov 2019 9:36 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD1.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:00:35 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 68) isopropylbenzene | 17.98 | 105 | 49267 | 1.048 | ppbV | 99 |
| 69) Bromobenzene | 18.06 | 77 | 23694 | 1.024 | ppbV | 100 |
| 70) 4-ethyl toluene | 18.55 | 105 | 52602 | 1.009 | ppbV | 98 |
| 71) 1,3,5-trimethylbenzene | 18.61 | 105 | 43903 | 1.030 | ppbV | 98 |
| 72) tert-butylbenzene | 18.96 | 119 | 44042 | 1.033 | ppbV | 98 |
| 73) 1,2,4-trimethylbenzene | 18.96 | 105 | 42555 | 1.010 | ppbV | 96 |
| 74) Benzyl Chloride | 19.08 | 91 | 18543 | 0.767 | ppbV | 99 |
| 75) 1,3-dichlorobenzene | 19.09 | 146 | 28992 | 0.988 | ppbV | 95 |
| 76) 1,4-dichlorobenzene | 19.15 | 146 | 27567 | 0.958 | ppbV | 97 |
| 77) sec-butylbenzene | 19.18 | 105 | 63252 | 1.030 | ppbV | 97 |
| 78) p-isopropyltoluene | 19.32 | 119 | 52552 | 1.010 | ppbV | 99 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 27585 | 0.991 | ppbV | 97 |
| 80) n-butylbenzene | 19.68 | 91 | 40269 | 0.973 | ppbV | 98 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 9710 | 0.789 | ppbV | 98 |
| 82) naphthalene | 21.13 | 128 | 40280 | 0.849 | ppbV | 100 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 12189 | 0.960 | ppbV | 97 |
| 84) hexachlorobutadiene | 21.44 | 225 | 14027 | 1.113 | ppbV | 97 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613940_Ev2.D
Acq On     : 19 Nov 2019    9:36 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-LLSTD1.0
Misc       : WG1312118
ALS Vial   : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 17:00:35 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

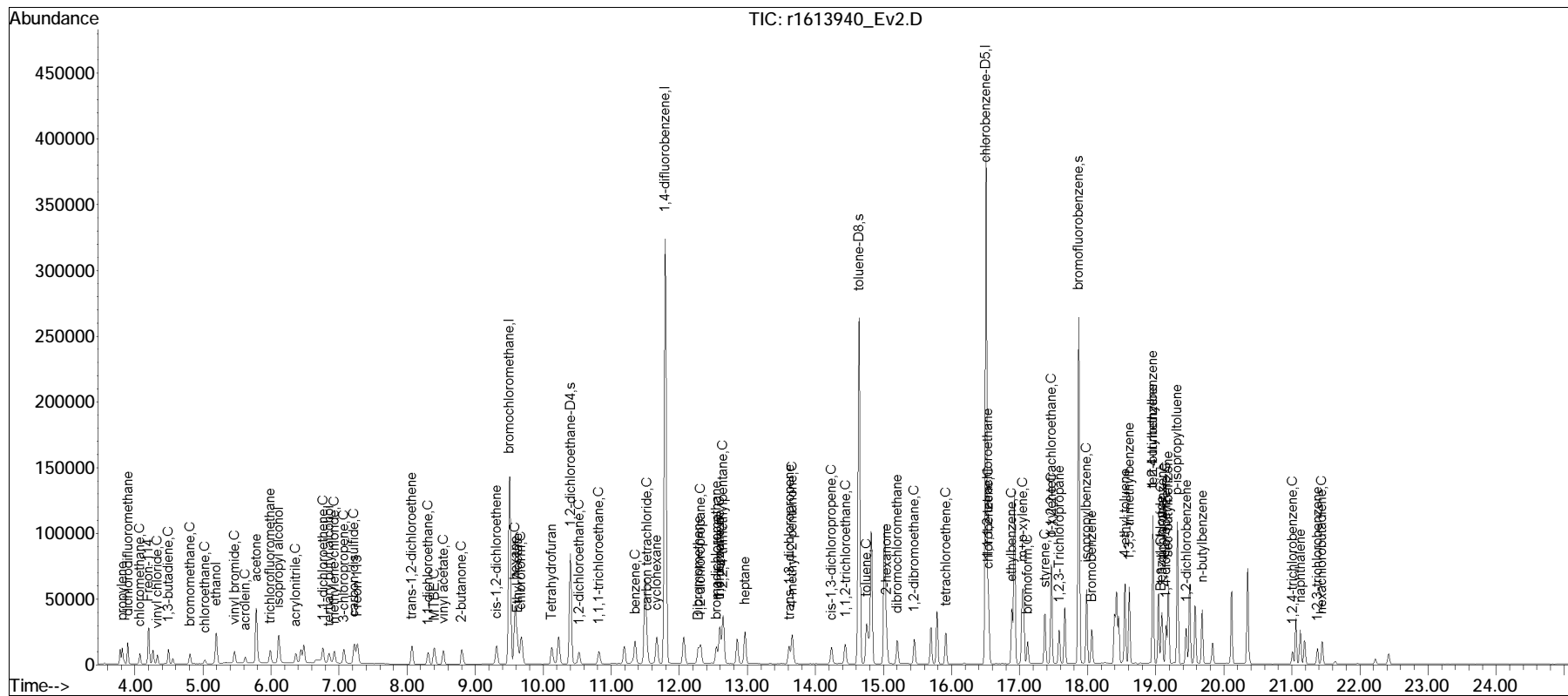
.. .M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

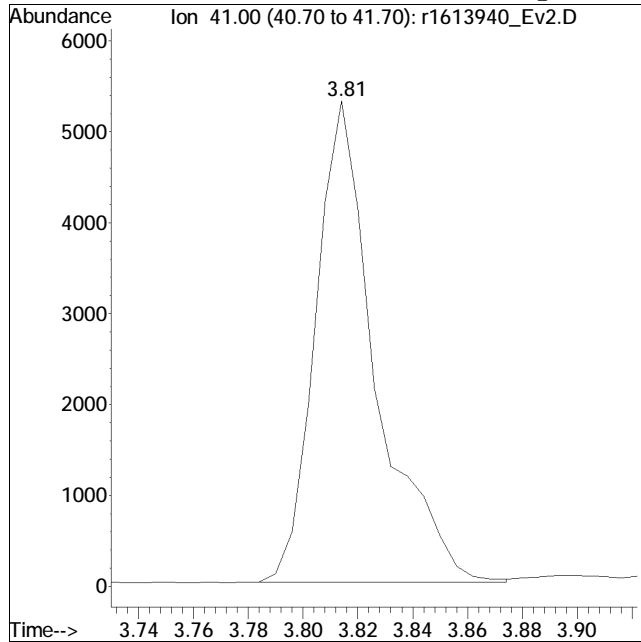
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



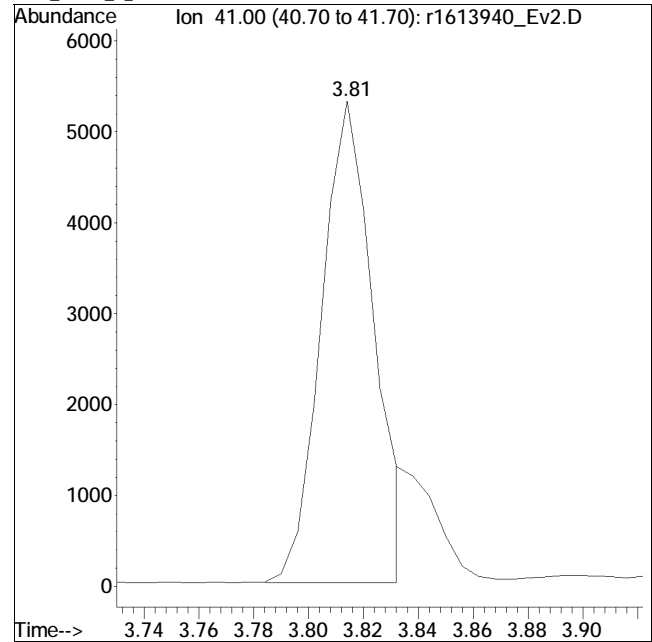
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613940_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 9:36 PM Instrument :
Sample : ITO15-LLSTD1.0 Quant Date : 11/20/2019 7:18 am

Compound #2: propylene



Original Peak Response = 8113



Manual Peak Response = 7065 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613941_Ev2.D
 Acq On : 19 Nov 2019 10:16 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 07:08:46 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Sep 18 15:10:31 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 154085 | 10.000 | ppbV | 0.03 |
| Standard Area = 154085 | | | Recovery = | 100.00% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 451110 | 10.000 | ppbV | 0.02 |
| Standard Area = 451110 | | | Recovery = | 100.00% | | |
| 51) chlorobenzene-D5 | 16.51 | 54 | 58484 | 10.000 | ppbV | # 0.00 |
| Standard Area = 58484 | | | Recovery = | 100.00% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 65682 | 8.695 | ppbV | 0.03 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 86.95% | | |
| 53) toluene-D8 | 14.64 | 98 | 284398 | 12.150 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 121.50% | | |
| 67) bromofluorobenzene | 17.88 | 95 | 197337 | 12.248 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 122.48% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 32656M6 | 4.857 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 64976 | 4.271 | ppbV | 100 |
| 4) chloromethane | 4.07 | 50 | 36924 | 5.448 | ppbV | 97 |
| 5) Freon-114 | 4.20 | 85 | 87262 | 5.054 | ppbV | 95 |
| 6) vinyl chloride | 4.33 | 62 | 35397 | 4.618 | ppbV | 100 |
| 7) 1,3-butadiene | 4.50 | 54 | 32490 | 5.003 | ppbV | 94 |
| 8) bromomethane | 4.81 | 94 | 32319 | 4.865 | ppbV | 100 |
| 9) chloroethane | 5.03 | 64 | 16795 | 4.643 | ppbV | 94 |
| 10) ethanol | 5.19 | 31 | 137402 | 23.274 | ppbV | 93 |
| 11) vinyl bromide | 5.47 | 106 | 37150 | 4.622 | ppbV | 99 |
| 12) acrolein | 5.62 | 56 | 16137 | 4.167 | ppbV | 97 |
| 13) acetone | 5.78 | 43 | 264366 | 20.415 | ppbV | 94 |
| 14) trichlorofluoromethane | 5.99 | 101 | 53875 | 3.840 | ppbV | 99 |
| 15) isopropyl alcohol | 6.11 | 45 | 169241 | 11.566 | ppbV | 100 |
| 16) acrylonitrile | 6.37 | 53 | 31635 | 4.388 | ppbV | 98 |
| 17) 1,1-dichloroethene | 6.76 | 61 | 49900 | 4.337 | ppbV | 94 |
| 18) tertiary butyl alcohol | 6.84 | 59 | 60276 | 4.386 | ppbV | 93 |
| 19) methylene chloride | 6.94 | 49 | 47478 | 4.662 | ppbV | 100 |
| 20) 3-chloropropene | 7.08 | 41 | 59591 | 5.142 | ppbV | 95 |
| 21) carbon disulfide | 7.23 | 76 | 133919 | 5.094 | ppbV | 100 |
| 22) Freon 113 | 7.27 | 101 | 77407 | 4.944 | ppbV | 96 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 54353 | 4.579 | ppbV | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613941_Ev2.D
 Acq On : 19 Nov 2019 10:16 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 07:08:46 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Sep 18 15:10:31 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 24) 1,1-dichloroethane | 8.32 | 63 | 65545 | 4.669 | ppbV | 97 |
| 25) MTBE | 8.39 | 73 | 107174 | 4.909 | ppbV | 95 |
| 26) vinyl acetate | 8.53 | 43 | 101508 | 5.228 | ppbV | 100 |
| 27) 2-butanone | 8.80 | 43 | 96516 | 5.143 | ppbV | 96 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 47736 | 4.401 | ppbV | 89 |
| 29) Ethyl Acetate | 9.62 | 61 | 14075 | 5.289 | ppbV | 80 |
| 30) chloroform | 9.68 | 83 | 65692 | 4.413 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.12 | 42 | 58952 | 5.126 | ppbV | 95 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 35679 | 4.102 | ppbV | 96 |
| 34) hexane | 9.58 | 57 | 63710 | 3.964 | ppbV | 86 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 54329 | 4.156 | ppbV | 96 |
| 37) benzene | 11.35 | 78 | 140999 | 4.453 | ppbV | 96 |
| 38) carbon tetrachloride | 11.53 | 117 | 54336 | 4.653 | ppbV | 98 |
| 39) cyclohexane | 11.67 | 56 | 68231 | 3.905 | ppbV | 91 |
| 40) Dibromomethane | 12.28 | 93 | 40528 | 3.637 | ppbV # | 93 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 45774 | 4.158 | ppbV | 97 |
| 42) bromodichloromethane | 12.55 | 83 | 71294 | 4.455 | ppbV | 100 |
| 43) 1,4-dioxane | 12.59 | 88 | 30747 | 4.447 | ppbV | 96 |
| 44) trichloroethene | 12.60 | 130 | 62400 | 4.383 | ppbV | 98 |
| 45) 2,2,4-trimethylpentane | 12.65 | 57 | 207734 | 3.925 | ppbV | 97 |
| 46) heptane | 12.97 | 43 | 99729 | 4.589 | ppbV | 92 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 63327 | 4.479 | ppbV | 97 |
| 48) 4-methyl-2-pentanone | 13.65 | 43 | 115840 | 4.682 | ppbV | 95 |
| 49) trans-1,3-dichloropropene | 13.62 | 75 | 69256 | 4.538 | ppbV | 96 |
| 50) 1,1,2-trichloroethane | 14.44 | 97 | 51608 | 4.514 | ppbV | 92 |
| 52) toluene | 14.75 | 91 | 148630 | 5.106 | ppbV | 97 |
| 54) 2-hexanone | 15.04 | 43 | 105334 | 6.268 | ppbV | 94 |
| 55) dibromochloromethane | 15.21 | 129 | 78271 | 6.814 | ppbV | 99 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 85063 | 6.191 | ppbV | 99 |
| 57) tetrachloroethene | 15.92 | 166 | 66065 | 5.910 | ppbV | 94 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 59111 | 6.242 | ppbV | 99 |
| 59) chlorobenzene | 16.55 | 112 | 137873 | 6.095 | ppbV | 93 |
| 60) ethylbenzene | 16.89 | 91 | 190211 | 5.332 | ppbV | 90 |
| 61) m+p-xylene | 17.05 | 91 | 310943 | 10.090 | ppbV | 89 |
| 62) bromoform | 17.13 | 173 | 60773 | 7.819 | ppbV | 99 |
| 63) styrene | 17.38 | 104 | 147425 | 6.316 | ppbV | 95 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 114806 | 5.878 | ppbV | 99 |
| 65) o-xylene | 17.48 | 91 | 158771 | 5.233 | ppbV | 88 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 92854 | 6.015 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613941_Ev2.D
 Acq On : 19 Nov 2019 10:16 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 20 07:08:46 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Sep 18 15:10:31 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 68) isopropylbenzene | 17.99 | 105 | 235720 | 6.016 | ppbV | 99 |
| 69) Bromobenzene | 18.07 | 77 | 115978 | 5.622 | ppbV | 97 |
| 70) 4-ethyl toluene | 18.55 | 105 | 261192 | 6.555 | ppbV | 96 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 213706 | 6.246 | ppbV | 96 |
| 72) tert-butylbenzene | 18.97 | 119 | 213733 | 5.663 | ppbV | 93 |
| 73) 1,2,4-trimethylbenzene | 18.97 | 105 | 211146 | 6.396 | ppbV | 92 |
| 74) Benzyl Chloride | 19.08 | 91 | 121241 | 6.187 | ppbV | 99 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 147155 | 6.520 | ppbV | 98 |
| 76) 1,4-dichlorobenzene | 19.16 | 146 | 144202 | 6.613 | ppbV | 99 |
| 77) sec-butylbenzene | 19.19 | 105 | 307768 | 6.114 | ppbV | 100 |
| 78) p-isopropyltoluene | 19.32 | 119 | 260852 | 5.782 | ppbV | 95 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 139456 | 6.544 | ppbV | 98 |
| 80) n-butylbenzene | 19.68 | 91 | 207519 | 5.957 | ppbV | 95 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 61654 | 6.688 | ppbV | 94 |
| 82) naphthalene | 21.12 | 128 | 237833 | 6.409 | ppbV | 100 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 63651 | 6.526 | ppbV | 93 |
| 84) hexachlorobutadiene | 21.44 | 225 | 63181 | 5.781 | ppbV # | 92 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613941_Ev2.D
Acq On     : 19 Nov 2019   10:16 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-LLSTD5.0
Misc       : WG1312118
ALS Vial   : 0      Sample Multiplier: 1
```

Quant Time: Nov 20 07:08:46 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

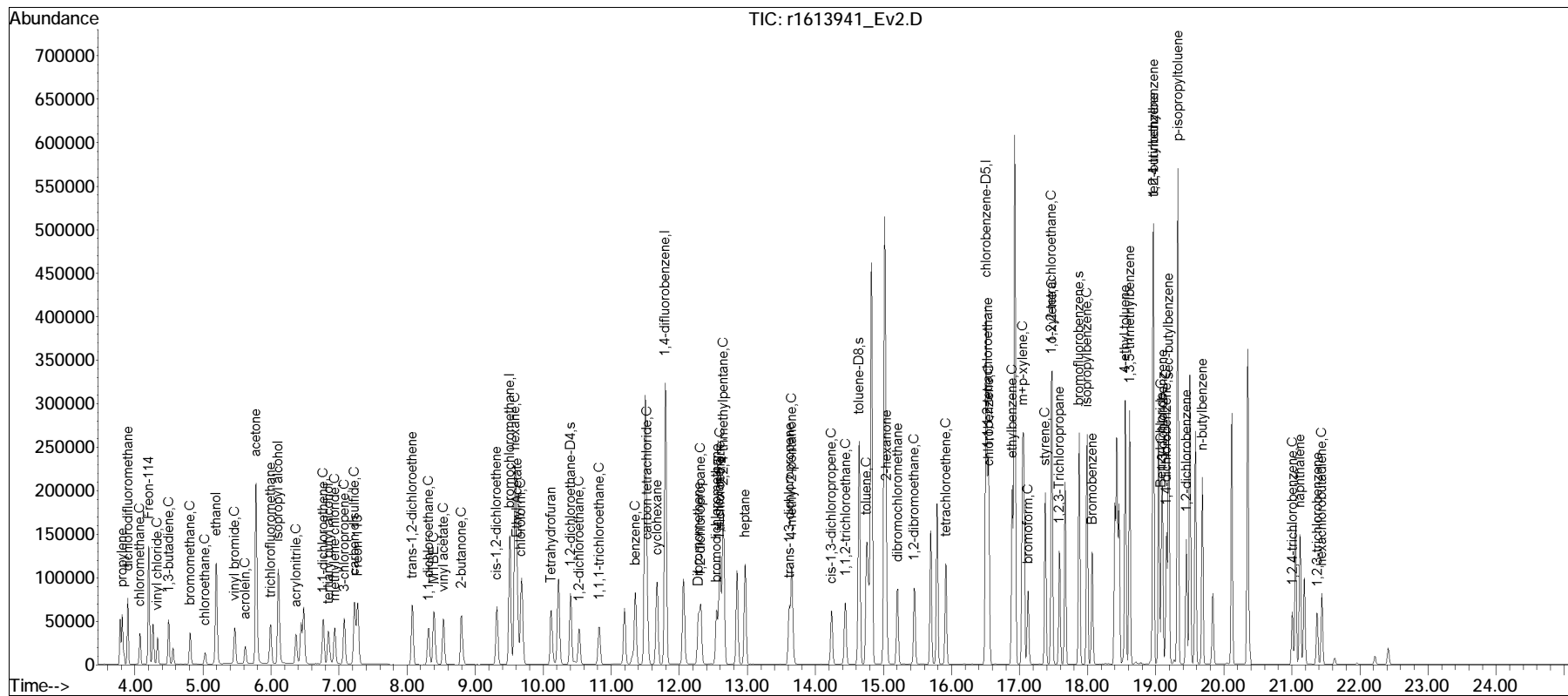
.. .M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Sep 18 15:10:31 2019

Response via : Initial Calibration

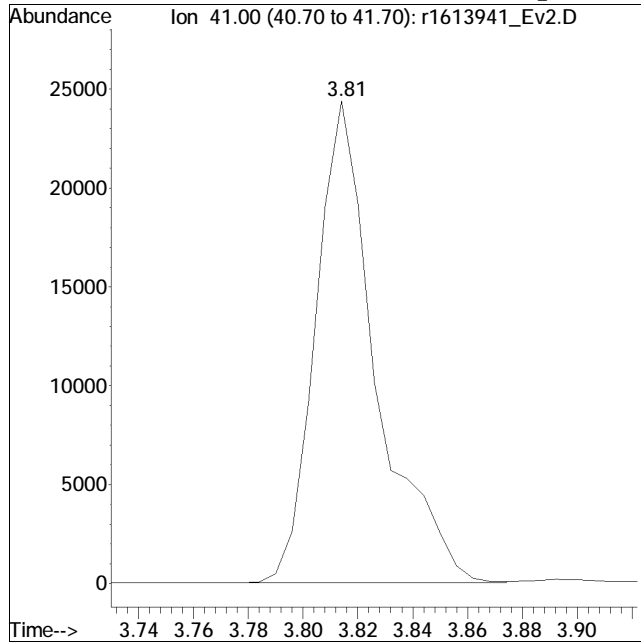
Sub List : Default - All compounds listed9\191119SIM ICAL\r1613941 Ev2.D



Manual Integration/Negative Proof Report

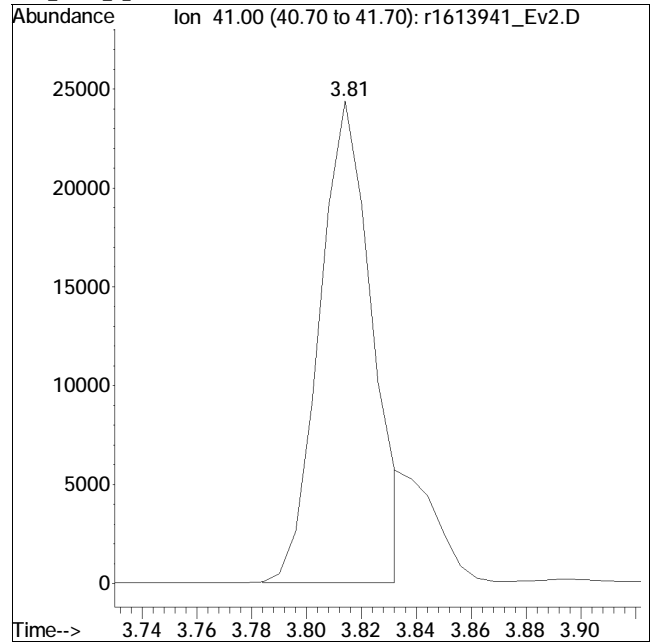
Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613941_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 10:16 PM Instrument :
Sample : ITO15-LLSTD5.0 Quant Date : 11/20/2019 7:08 am

Compound #2: propylene



Original Peak Response = 37435

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



Manual Peak Response = 32656 M6

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613942_Ev2.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD010
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:02:25 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 153255 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 99.46% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 443254 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 98.26% | | |
| 51) chlorobenzene-D5 | 16.50 | 54 | 58425 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 99.90% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 65271 | 10.114 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 101.14% | | |
| 53) toluene-D8 | 14.64 | 98 | 284257 | 10.005 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 100.05% | | |
| 67) bromofluorobenzene | 17.87 | 95 | 201254 | 10.209 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 102.09% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 63158M6 | 9.723 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 124920 | 9.665 | ppbV | 100 |
| 4) chloromethane | 4.08 | 50 | 70638 | 9.617 | ppbV | 98 |
| 5) Freon-114 | 4.20 | 85 | 167061 | 9.624 | ppbV | 100 |
| 6) vinyl chloride | 4.33 | 62 | 67963 | 9.652 | ppbV | 99 |
| 7) 1,3-butadiene | 4.50 | 54 | 62737 | 9.707 | ppbV | 99 |
| 8) bromomethane | 4.81 | 94 | 62384 | 9.704 | ppbV | 99 |
| 9) chloroethane | 5.03 | 64 | 32756 | 9.805 | ppbV | 100 |
| 10) ethanol | 5.19 | 31 | 249257 | 45.597 | ppbV | 100 |
| 11) vinyl bromide | 5.47 | 106 | 72570 | 9.820 | ppbV | 98 |
| 12) acrolein | 5.62 | 56 | 31692 | 9.873 | ppbV | 98 |
| 13) acetone | 5.77 | 43 | 505296 | 48.043 | ppbV | 100 |
| 14) trichlorofluoromethane | 5.99 | 101 | 104436 | 9.745 | ppbV | 100 |
| 15) isopropyl alcohol | 6.10 | 45 | 325495 | 24.171 | ppbV | 100 |
| 16) acrylonitrile | 6.36 | 53 | 62574 | 9.944 | ppbV | 100 |
| 17) 1,1-dichloroethene | 6.76 | 61 | 97917 | 9.864 | ppbV | 99 |
| 18) tertiary butyl alcohol | 6.84 | 59 | 117813 | 9.826 | ppbV | 100 |
| 19) methylene chloride | 6.93 | 49 | 93962 | 9.949 | ppbV | 99 |
| 20) 3-chloropropene | 7.07 | 41 | 117590 | 9.920 | ppbV | 99 |
| 21) carbon disulfide | 7.23 | 76 | 265969 | 9.984 | ppbV | 98 |
| 22) Freon 113 | 7.27 | 101 | 152517 | 9.905 | ppbV | 100 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 107295 | 9.924 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613942_Ev2.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD010
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:02:25 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 129516 | 9.933 | ppbV | 99 |
| 25) MTBE | 8.38 | 73 | 212393 | 9.962 | ppbV | 99 |
| 26) vinyl acetate | 8.53 | 43 | 202693 | 10.038 | ppbV | 99 |
| 27) 2-butanone | 8.79 | 43 | 190706 | 9.933 | ppbV | 100 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 93757 | 9.874 | ppbV | 97 |
| 29) Ethyl Acetate | 9.61 | 61 | 27630 | 9.868 | ppbV | 90 |
| 30) chloroform | 9.68 | 83 | 129280 | 9.893 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.11 | 42 | 116751 | 9.956 | ppbV | 99 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 69658 | 9.815 | ppbV | 100 |
| 34) hexane | 9.58 | 57 | 126226 | 10.082 | ppbV | 88 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 106877 | 10.010 | ppbV | 99 |
| 37) benzene | 11.35 | 78 | 277664 | 10.021 | ppbV | 99 |
| 38) carbon tetrachloride | 11.53 | 117 | 108705 | 10.180 | ppbV | 98 |
| 39) cyclohexane | 11.67 | 56 | 134438 | 10.026 | ppbV | 100 |
| 40) Dibromomethane | 12.28 | 93 | 79227 | 9.948 | ppbV # | 98 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 90244 | 10.032 | ppbV | 100 |
| 42) bromodichloromethane | 12.55 | 83 | 142604 | 10.178 | ppbV | 98 |
| 43) 1,4-dioxane | 12.58 | 88 | 60884 | 10.076 | ppbV | 98 |
| 44) trichloroethene | 12.59 | 130 | 122530 | 9.992 | ppbV | 99 |
| 45) 2,2,4-trimethylpentane | 12.64 | 57 | 404859 | 9.917 | ppbV | 100 |
| 46) heptane | 12.96 | 43 | 193736 | 9.885 | ppbV | 98 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 126792 | 10.188 | ppbV | 99 |
| 48) 4-methyl-2-pentanone | 13.65 | 43 | 228925 | 10.056 | ppbV | 98 |
| 49) trans-1,3-dichloropropene | 13.61 | 75 | 139386 | 10.241 | ppbV | 99 |
| 50) 1,1,2-trichloroethane | 14.43 | 97 | 101506 | 10.009 | ppbV | 98 |
| 52) toluene | 14.75 | 91 | 292724 | 9.857 | ppbV | 100 |
| 54) 2-hexanone | 15.03 | 43 | 211708 | 10.060 | ppbV | 98 |
| 55) dibromochloromethane | 15.20 | 129 | 156735 | 10.022 | ppbV | 98 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 168063 | 9.889 | ppbV | 99 |
| 57) tetrachloroethene | 15.92 | 166 | 131267 | 9.945 | ppbV | 100 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 118402 | 10.025 | ppbV | 99 |
| 59) chlorobenzene | 16.54 | 112 | 273965 | 9.945 | ppbV | 95 |
| 60) ethylbenzene | 16.88 | 91 | 374888 | 9.864 | ppbV | 99 |
| 61) m+p-xylene | 17.05 | 91 | 609299 | 19.615 | ppbV | 99 |
| 62) bromoform | 17.12 | 173 | 126626 | 10.428 | ppbV | 99 |
| 63) styrene | 17.38 | 104 | 295369 | 10.028 | ppbV | 98 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 229806 | 10.019 | ppbV | 100 |
| 65) o-xylene | 17.47 | 91 | 310867 | 9.800 | ppbV | 100 |
| 66) 1,2,3-Trichloropropane | 17.57 | 75 | 184522 | 9.946 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613942_Ev2.D
 Acq On : 19 Nov 2019 10:58 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD010
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:02:25 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 68) isopropylbenzene | 17.98 | 105 | 466555 | 9.906 | ppbV | 99 |
| 69) Bromobenzene | 18.06 | 77 | 233614 | 10.082 | ppbV | 100 |
| 70) 4-ethyl toluene | 18.55 | 105 | 521189 | 9.987 | ppbV | 98 |
| 71) 1,3,5-trimethylbenzene | 18.61 | 105 | 421307 | 9.867 | ppbV | 99 |
| 72) tert-butylbenzene | 18.96 | 119 | 426699 | 9.992 | ppbV | 99 |
| 73) 1,2,4-trimethylbenzene | 18.96 | 105 | 419945 | 9.954 | ppbV | 97 |
| 74) Benzyl Chloride | 19.08 | 91 | 267076 | 11.025 | ppbV | 97 |
| 75) 1,3-dichlorobenzene | 19.09 | 146 | 300318 | 10.214 | ppbV | 95 |
| 76) 1,4-dichlorobenzene | 19.15 | 146 | 292647 | 10.157 | ppbV | 95 |
| 77) sec-butylbenzene | 19.18 | 105 | 610817 | 9.933 | ppbV | 97 |
| 78) p-isopropyltoluene | 19.32 | 119 | 521671 | 10.009 | ppbV | 98 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 284831 | 10.223 | ppbV | 97 |
| 80) n-butylbenzene | 19.68 | 91 | 420643 | 10.145 | ppbV | 96 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 161568 | 13.116 | ppbV | 100 |
| 82) naphthalene | 21.13 | 128 | 548082 | 11.534 | ppbV | 99 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 161252 | 12.680 | ppbV | 99 |
| 84) hexachlorobutadiene | 21.44 | 225 | 145379 | 11.517 | ppbV | 98 |

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

Quantitation Report (QT Reviewed)

```
Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File : r1613942_Ev2.D
Acq On    : 19 Nov 2019  10:58 PM
Operator  : AIRLAB16:RY
Sample    : ITO15-LLSTD010
Misc      : WG1312118
ALS Vial  : 0      Sample Multiplier: 1
```

Quant Time: Nov 21 17:02:25 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

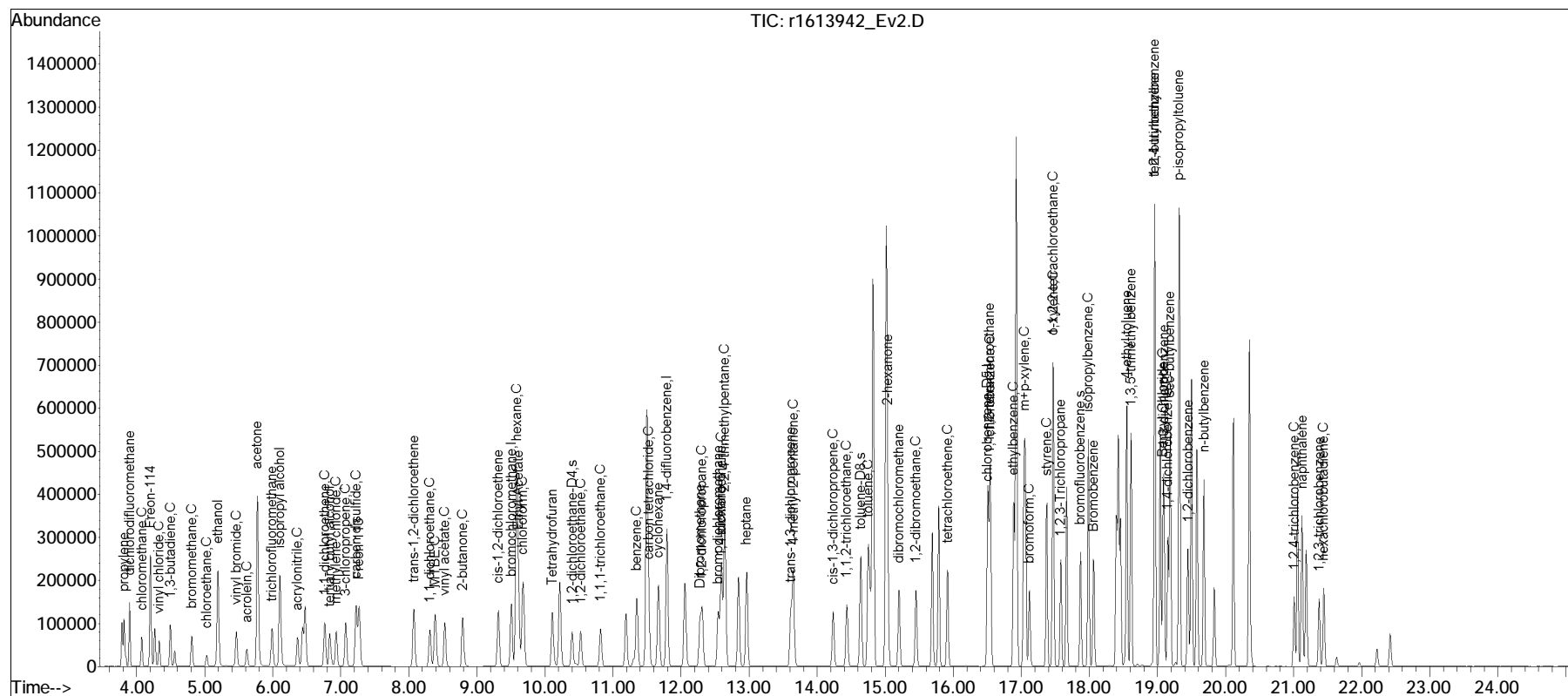
• • • • • M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

OLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

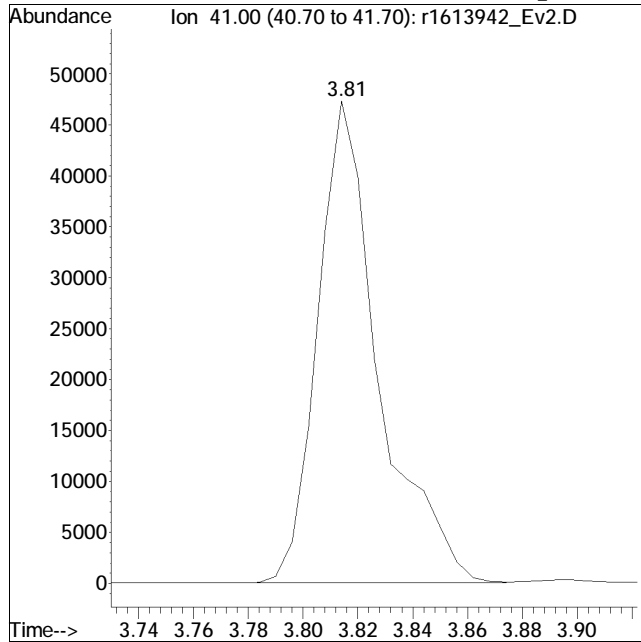
Sub List : Default - All compounds listed9\191119SIM ICAL\r1613941 Ev2.D



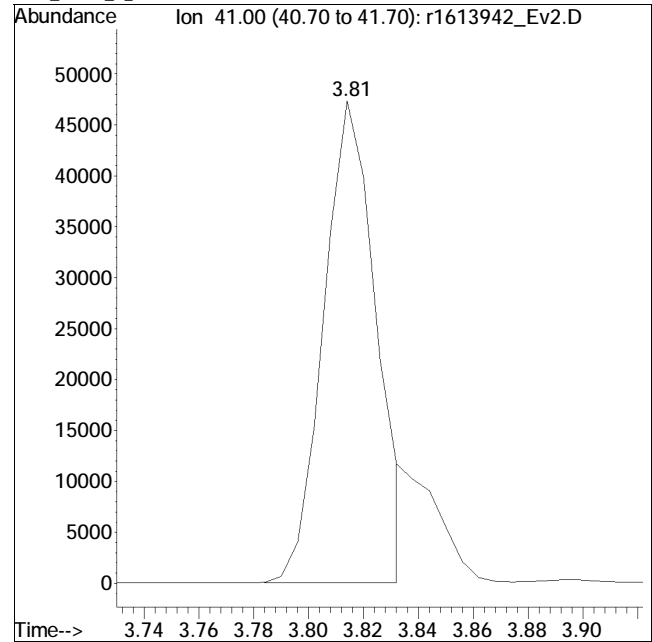
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613942_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 10:58 PM Instrument :
Sample : ITO15-LLSTD010 Quant Date : 11/20/2019 7:18 am

Compound #2: propylene



Original Peak Response = 73092



Manual Peak Response = 63158 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613943_Ev2.D
 Acq On : 19 Nov 2019 11:37 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD020
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:04:16 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.51 | 49 | 154484 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 100.26% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 445981 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 98.86% | | |
| 51) chlorobenzene-D5 | 16.51 | 54 | 58457 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 99.95% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.40 | 65 | 61949 | 9.540 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 95.40% | | |
| 53) toluene-D8 | 14.64 | 98 | 280935 | 9.883 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 98.83% | | |
| 67) bromofluorobenzene | 17.87 | 95 | 200515 | 10.166 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 101.66% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.82 | 41 | 117040M6 | 17.874 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 224021 | 17.194 | ppbV | 100 |
| 4) chloromethane | 4.08 | 50 | 126701 | 17.113 | ppbV | 100 |
| 5) Freon-114 | 4.20 | 85 | 295784 | 16.904 | ppbV | 99 |
| 6) vinyl chloride | 4.34 | 62 | 122694 | 17.286 | ppbV | 99 |
| 7) 1,3-butadiene | 4.50 | 54 | 113895 | 17.482 | ppbV | 100 |
| 8) bromomethane | 4.81 | 94 | 111393 | 17.189 | ppbV | 100 |
| 9) chloroethane | 5.03 | 64 | 72374 | 21.491 | ppbV | 97 |
| 10) ethanol | 5.19 | 31 | 448587 | 81.409 | ppbV | 92 |
| 11) vinyl bromide | 5.47 | 106 | 149359 | 20.050 | ppbV | 100 |
| 12) acrolein | 5.62 | 56 | 60573 | 18.720 | ppbV | 98 |
| 13) acetone | 5.77 | 43 | 1026192 | 96.792 | ppbV | 92 |
| 14) trichlorofluoromethane | 5.99 | 101 | 229648 | 21.258 | ppbV | 99 |
| 15) isopropyl alcohol | 6.10 | 45 | 654337 | 48.204 | ppbV | 99 |
| 16) acrylonitrile | 6.36 | 53 | 118854 | 18.737 | ppbV | 95 |
| 17) 1,1-dichloroethene | 6.77 | 61 | 177220 | 17.712 | ppbV | 98 |
| 18) tertiary butyl alcohol | 6.82 | 59 | 223866 | 18.522 | ppbV | 98 |
| 19) methylene chloride | 6.93 | 49 | 176503 | 18.540 | ppbV | 98 |
| 20) 3-chloropropene | 7.08 | 41 | 201770 | 16.886 | ppbV | 97 |
| 21) carbon disulfide | 7.23 | 76 | 491298 | 18.296 | ppbV | 97 |
| 22) Freon 113 | 7.27 | 101 | 275391 | 17.743 | ppbV | 98 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 192912 | 17.700 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613943_Ev2.D
 Acq On : 19 Nov 2019 11:37 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD020
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:04:16 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 24) 1,1-dichloroethane | 8.31 | 63 | 230761 | 17.558 | ppbV | 99 |
| 25) MTBE | 8.38 | 73 | 386115 | 17.967 | ppbV | 98 |
| 26) vinyl acetate | 8.53 | 43 | 355614 | 17.471 | ppbV | 99 |
| 27) 2-butanone | 8.78 | 43 | 330622 | 17.084 | ppbV | 99 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 169771 | 17.736 | ppbV | 98 |
| 29) Ethyl Acetate | 9.61 | 61 | 48832 | 17.302 | ppbV | 98 |
| 30) chloroform | 9.68 | 83 | 238660 | 18.118 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.10 | 42 | 203670 | 17.230 | ppbV | 98 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 123824 | 17.308 | ppbV | 98 |
| 34) hexane | 9.58 | 57 | 232936 | 18.491 | ppbV | 83 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 194026 | 18.062 | ppbV | 98 |
| 37) benzene | 11.35 | 78 | 518846 | 18.611 | ppbV | 100 |
| 38) carbon tetrachloride | 11.53 | 117 | 203242 | 18.917 | ppbV | 99 |
| 39) cyclohexane | 11.67 | 56 | 250121 | 18.540 | ppbV | 98 |
| 40) Dibromomethane | 12.28 | 93 | 144373 | 18.016 | ppbV # | 96 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 162278 | 17.930 | ppbV | 99 |
| 42) bromodichloromethane | 12.55 | 83 | 264847 | 18.788 | ppbV | 99 |
| 43) 1,4-dioxane | 12.57 | 88 | 110252 | 18.135 | ppbV | 100 |
| 44) trichloroethene | 12.59 | 130 | 226483 | 18.356 | ppbV | 99 |
| 45) 2,2,4-trimethylpentane | 12.65 | 57 | 745743 | 18.156 | ppbV | 98 |
| 46) heptane | 12.97 | 43 | 345183 | 17.505 | ppbV | 96 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 236264 | 18.869 | ppbV | 98 |
| 48) 4-methyl-2-pentanone | 13.64 | 43 | 406392 | 17.743 | ppbV | 98 |
| 49) trans-1,3-dichloropropene | 13.61 | 75 | 259457 | 18.947 | ppbV | 99 |
| 50) 1,1,2-trichloroethane | 14.43 | 97 | 183524 | 17.985 | ppbV | 95 |
| 52) toluene | 14.75 | 91 | 534377 | 17.985 | ppbV | 100 |
| 54) 2-hexanone | 15.03 | 43 | 361961 | 17.190 | ppbV # | 93 |
| 55) dibromochloromethane | 15.20 | 129 | 294068 | 18.794 | ppbV | 97 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 310116 | 18.237 | ppbV | 100 |
| 57) tetrachloroethene | 15.92 | 166 | 244085 | 18.482 | ppbV | 99 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 221953 | 18.783 | ppbV | 99 |
| 59) chlorobenzene | 16.55 | 112 | 510553 | 18.524 | ppbV | 100 |
| 60) ethylbenzene | 16.89 | 91 | 681129 | 17.913 | ppbV | 97 |
| 61) m+p-xylene | 17.05 | 91 | 1106437 | 35.600 | ppbV | 98 |
| 62) bromoform | 17.12 | 173 | 243035 | 20.005 | ppbV | 99 |
| 63) styrene | 17.38 | 104 | 549636 | 18.650 | ppbV | 99 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 425907 | 18.558 | ppbV | 100 |
| 65) o-xylene | 17.47 | 91 | 563262 | 17.746 | ppbV | 99 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 345799 | 18.629 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613943_Ev2.D
 Acq On : 19 Nov 2019 11:37 PM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD020
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:04:16 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 68) isopropylbenzene | 17.98 | 105 | 862166 | 18.296 | ppbV | 100 |
| 69) Bromobenzene | 18.06 | 77 | 440227 | 18.988 | ppbV | 100 |
| 70) 4-ethyl toluene | 18.55 | 105 | 958819 | 18.363 | ppbV | 97 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 773353 | 18.102 | ppbV | 97 |
| 72) tert-butylbenzene | 18.96 | 119 | 791906 | 18.534 | ppbV | 98 |
| 73) 1,2,4-trimethylbenzene | 18.96 | 105 | 759432 | 17.992 | ppbV | 95 |
| 74) Benzyl Chloride | 19.08 | 91 | 490322 | 20.230 | ppbV | 96 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 556616 | 18.921 | ppbV | 99 |
| 76) 1,4-dichlorobenzene | 19.16 | 146 | 545464 | 18.922 | ppbV | 98 |
| 77) sec-butylbenzene | 19.19 | 105 | 1116753 | 18.151 | ppbV | 98 |
| 78) p-isopropyltoluene | 19.32 | 119 | 951532 | 18.247 | ppbV | 100 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 516218 | 18.517 | ppbV | 99 |
| 80) n-butylbenzene | 19.68 | 91 | 750182 | 18.083 | ppbV | 96 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 291054 | 23.615 | ppbV | 99 |
| 82) naphthalene | 21.13 | 128 | 929720 | 19.555 | ppbV | 99 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 285890 | 22.468 | ppbV | 99 |
| 84) hexachlorobutadiene | 21.44 | 225 | 257739 | 20.406 | ppbV | 99 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613943_Ev2.D
Acq On     : 19 Nov 2019   11:37 PM
Operator   : AIRLAB16:RY
Sample     : ITO15-LLSTD020
Misc       : WG1312118
ALS Vial   : 0      Sample Multiplier: 1
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Quant Time: Nov 21 17:04:16 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

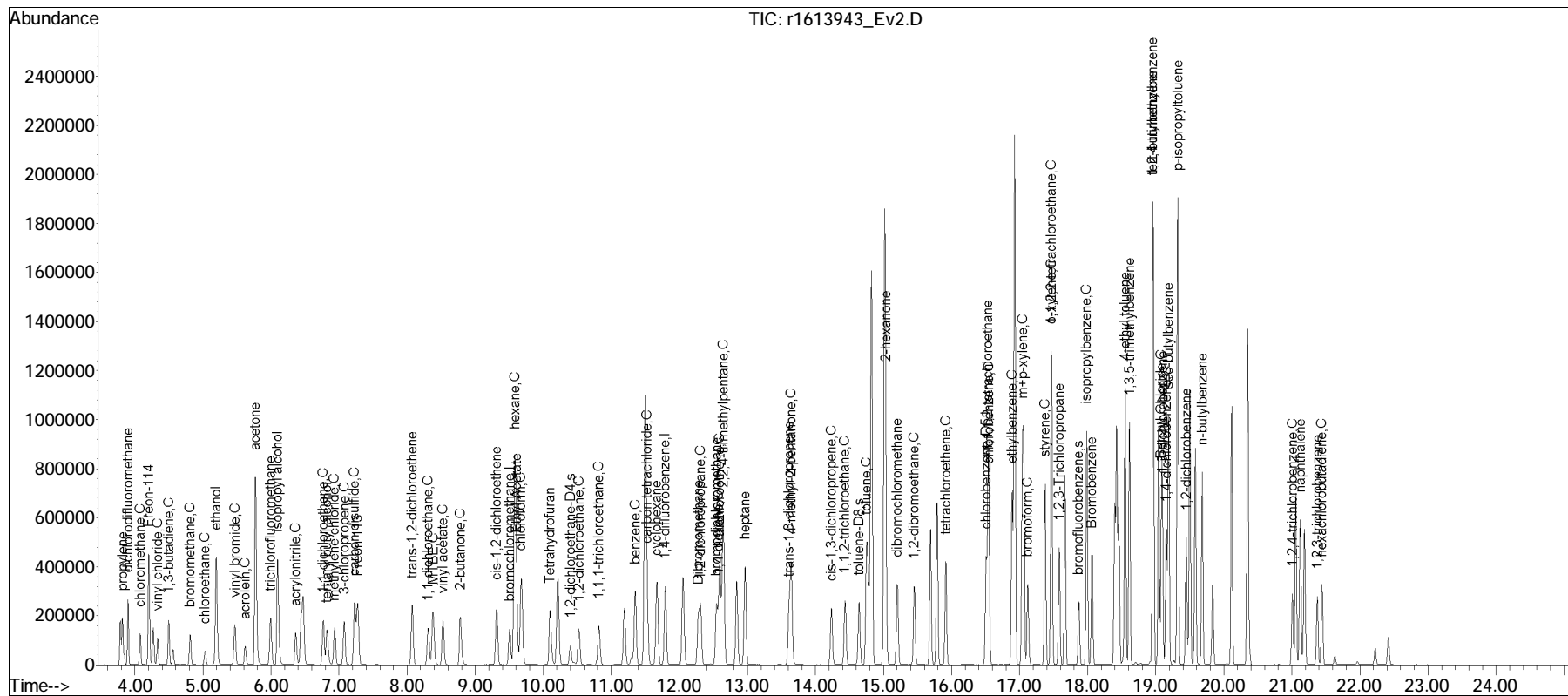
• • • M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

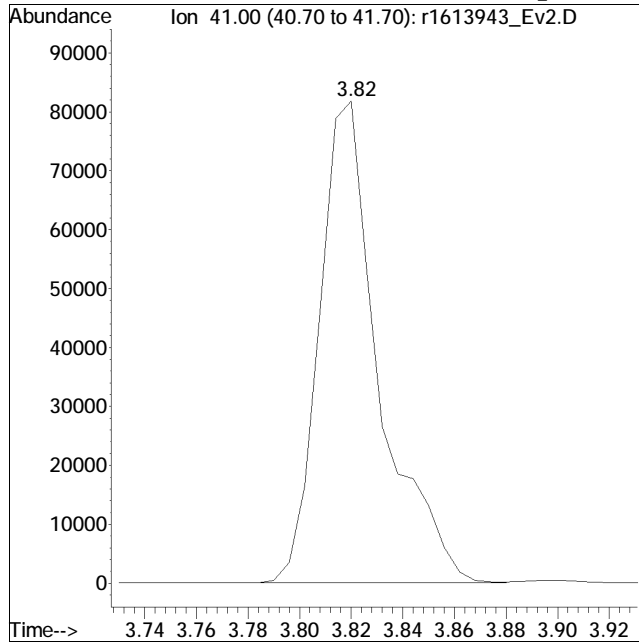
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



Manual Integration/Negative Proof Report

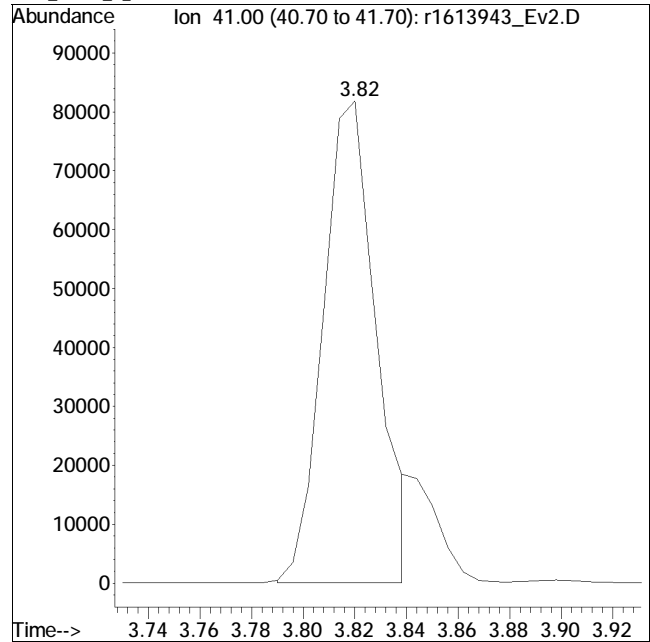
Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613943_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/19/2019 11:37 PM Instrument :
Sample : ITO15-LLSTD020 Quant Date : 11/20/2019 7:18 am

Compound #2: propylene



Original Peak Response = 131458

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



Manual Peak Response = 117040 M6

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613944_Ev2.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD050
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:05:31 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Nov 20 07:13:55 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.52 | 49 | 159357 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 103.42% | | |
| 33) 1,4-difluorobenzene | 11.80 | 114 | 451701 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 100.13% | | |
| 51) chlorobenzene-D5 | 16.51 | 54 | 60196 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 102.93% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.41 | 65 | 61765 | 9.391 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 93.91% | | |
| 53) toluene-D8 | 14.64 | 98 | 283688 | 9.691 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 96.91% | | |
| 67) bromofluorobenzene | 17.87 | 95 | 206050 | 10.145 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 101.45% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 275339M6 | 40.763 | ppbV | |
| 3) dichlorodifluoromethane | 3.90 | 85 | 541999 | 40.328 | ppbV | 100 |
| 4) chloromethane | 4.08 | 50 | 323281 | 42.328 | ppbV | 98 |
| 5) Freon-114 | 4.20 | 85 | 714978 | 39.612 | ppbV | 99 |
| 6) vinyl chloride | 4.34 | 62 | 312818 | 42.725 | ppbV | 99 |
| 7) 1,3-butadiene | 4.50 | 54 | 288964 | 42.998 | ppbV | 99 |
| 8) bromomethane | 4.82 | 94 | 282253 | 42.222 | ppbV | 100 |
| 9) chloroethane | 5.03 | 64 | 150742 | 43.392 | ppbV | 99 |
| 10) ethanol | 5.21 | 31 | 994701 | 174.996 | ppbV | 97 |
| 11) vinyl bromide | 5.47 | 106 | 323128 | 42.051 | ppbV | 99 |
| 12) acrolein | 5.62 | 56 | 147682 | 44.245 | ppbV | 97 |
| 13) acetone | 5.78 | 43 | 1881151 | 172.007 | ppbV | 95 |
| 14) trichlorofluoromethane | 6.00 | 101 | 464166 | 41.653 | ppbV | 100 |
| 15) isopropyl alcohol | 6.12 | 45 | 1439782 | 102.823 | ppbV | 99 |
| 16) acrylonitrile | 6.37 | 53 | 308547 | 47.153 | ppbV | 97 |
| 17) 1,1-dichloroethene | 6.77 | 61 | 445871 | 43.198 | ppbV | 99 |
| 18) tertiary butyl alcohol | 6.84 | 59 | 573974 | 46.037 | ppbV | 98 |
| 19) methylene chloride | 6.94 | 49 | 449304 | 45.752 | ppbV | 99 |
| 20) 3-chloropropene | 7.08 | 41 | 505362 | 41.000 | ppbV | 96 |
| 21) carbon disulfide | 7.23 | 76 | 1230999 | 44.440 | ppbV | 97 |
| 22) Freon 113 | 7.27 | 101 | 691318 | 43.177 | ppbV | 96 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 485792 | 43.210 | ppbV | 96 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613944_Ev2.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD050
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:05:31 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 24) 1,1-dichloroethane | 8.32 | 63 | 578409 | 42.663 | ppbV | 99 |
| 25) MTBE | 8.39 | 73 | 972185 | 43.855 | ppbV | 98 |
| 26) vinyl acetate | 8.53 | 43 | 896097 | 42.679 | ppbV | 98 |
| 27) 2-butanone | 8.79 | 43 | 834630 | 41.807 | ppbV | 97 |
| 28) cis-1,2-dichloroethene | 9.32 | 61 | 425802 | 43.124 | ppbV | 96 |
| 29) Ethyl Acetate | 9.62 | 61 | 127035 | 43.635 | ppbV | 85 |
| 30) chloroform | 9.68 | 83 | 604073 | 44.457 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.11 | 42 | 511547 | 41.951 | ppbV | 95 |
| 32) 1,2-dichloroethane | 10.53 | 62 | 310862 | 42.123 | ppbV | 98 |
| 34) hexane | 9.59 | 57 | 592092 | 46.407 | ppbV | 95 |
| 36) 1,1,1-trichloroethane | 10.82 | 97 | 487890 | 44.843 | ppbV | 98 |
| 37) benzene | 11.36 | 78 | 1306633 | 46.274 | ppbV | 99 |
| 38) carbon tetrachloride | 11.53 | 117 | 514616 | 47.293 | ppbV | 100 |
| 39) cyclohexane | 11.67 | 56 | 640612 | 46.883 | ppbV | 97 |
| 40) Dibromomethane | 12.29 | 93 | 366399 | 45.144 | ppbV # | 96 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 407773 | 44.484 | ppbV | 98 |
| 42) bromodichloromethane | 12.55 | 83 | 681575 | 47.738 | ppbV | 100 |
| 43) 1,4-dioxane | 12.58 | 88 | 288192 | 46.804 | ppbV | 99 |
| 44) trichloroethene | 12.60 | 130 | 579110 | 46.342 | ppbV | 98 |
| 45) 2,2,4-trimethylpentane | 12.65 | 57 | 1879810 | 45.186 | ppbV | 97 |
| 46) heptane | 12.97 | 43 | 845346 | 42.327 | ppbV | 93 |
| 47) cis-1,3-dichloropropene | 14.24 | 75 | 609768 | 48.081 | ppbV | 96 |
| 48) 4-methyl-2-pentanone | 13.65 | 43 | 1011418 | 43.599 | ppbV | 94 |
| 49) trans-1,3-dichloropropene | 13.62 | 75 | 663724 | 47.855 | ppbV | 98 |
| 50) 1,1,2-trichloroethane | 14.44 | 97 | 465015 | 44.994 | ppbV | 95 |
| 52) toluene | 14.76 | 91 | 1345290 | 43.969 | ppbV | 100 |
| 54) 2-hexanone | 15.03 | 43 | 847571 | 39.088 | ppbV # | 77 |
| 55) dibromochloromethane | 15.21 | 129 | 750307 | 46.567 | ppbV | 98 |
| 56) 1,2-dibromoethane | 15.46 | 107 | 775091 | 44.264 | ppbV | 100 |
| 57) tetrachloroethene | 15.92 | 166 | 626966 | 46.101 | ppbV | 98 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 565844 | 46.502 | ppbV | 98 |
| 59) chlorobenzene | 16.55 | 112 | 1273425 | 44.868 | ppbV | 98 |
| 60) ethylbenzene | 16.89 | 91 | 1715524 | 43.813 | ppbV | 99 |
| 61) m+p-xylene | 17.05 | 91 | 2764208 | 86.369 | ppbV | 99 |
| 62) bromoform | 17.13 | 173 | 634255 | 50.698 | ppbV | 98 |
| 63) styrene | 17.38 | 104 | 1365431 | 44.992 | ppbV | 99 |
| 64) 1,1,2,2-tetrachloroethane | 17.47 | 83 | 1099663 | 46.530 | ppbV | 100 |
| 65) o-xylene | 17.47 | 91 | 1393186 | 42.626 | ppbV | 97 |
| 66) 1,2,3-Trichloropropane | 17.58 | 75 | 876659 | 45.864 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613944_Ev2.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD050
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:05:31 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 68) isopropylbenzene | 17.98 | 105 | 2093366 | 43.141 | ppbV | 95 |
| 69) Bromobenzene | 18.06 | 77 | 1130191 | 47.339 | ppbV | 99 |
| 70) 4-ethyl toluene | 18.55 | 105 | 2304685 | 42.864 | ppbV | 92 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 1872879 | 42.573 | ppbV | 92 |
| 72) tert-butylbenzene | 18.96 | 119 | 1937575 | 44.038 | ppbV | 100 |
| 73) 1,2,4-trimethylbenzene | 18.96 | 105 | 1784929 | 41.066 | ppbV | 90 |
| 74) Benzyl Chloride | 19.08 | 91 | 1341719 | 53.759 | ppbV | 94 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 1390791 | 45.912 | ppbV | 99 |
| 76) 1,4-dichlorobenzene | 19.16 | 146 | 1381105 | 46.526 | ppbV | 99 |
| 77) sec-butylbenzene | 19.19 | 105 | 2656308 | 41.927 | ppbV | 93 |
| 78) p-isopropyltoluene | 19.32 | 119 | 2324278 | 43.285 | ppbV | 96 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 1314277 | 45.781 | ppbV | 99 |
| 80) n-butylbenzene | 19.68 | 91 | 1870197 | 43.779 | ppbV | 93 |
| 81) 1,2,4-trichlorobenzene | 21.01 | 180 | 845282 | 66.601 | ppbV | 99 |
| 82) naphthalene | 21.13 | 128 | 2547650 | 52.036 | ppbV | 100 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 826523 | 63.080 | ppbV | 99 |
| 84) hexachlorobutadiene | 21.44 | 225 | 680232 | 52.301 | ppbV | 98 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613944_Ev2.D
 Acq On : 20 Nov 2019 12:17 AM
 Operator : AIRLAB16:RY
 Sample : ITO15-LLSTD050
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:05:31 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

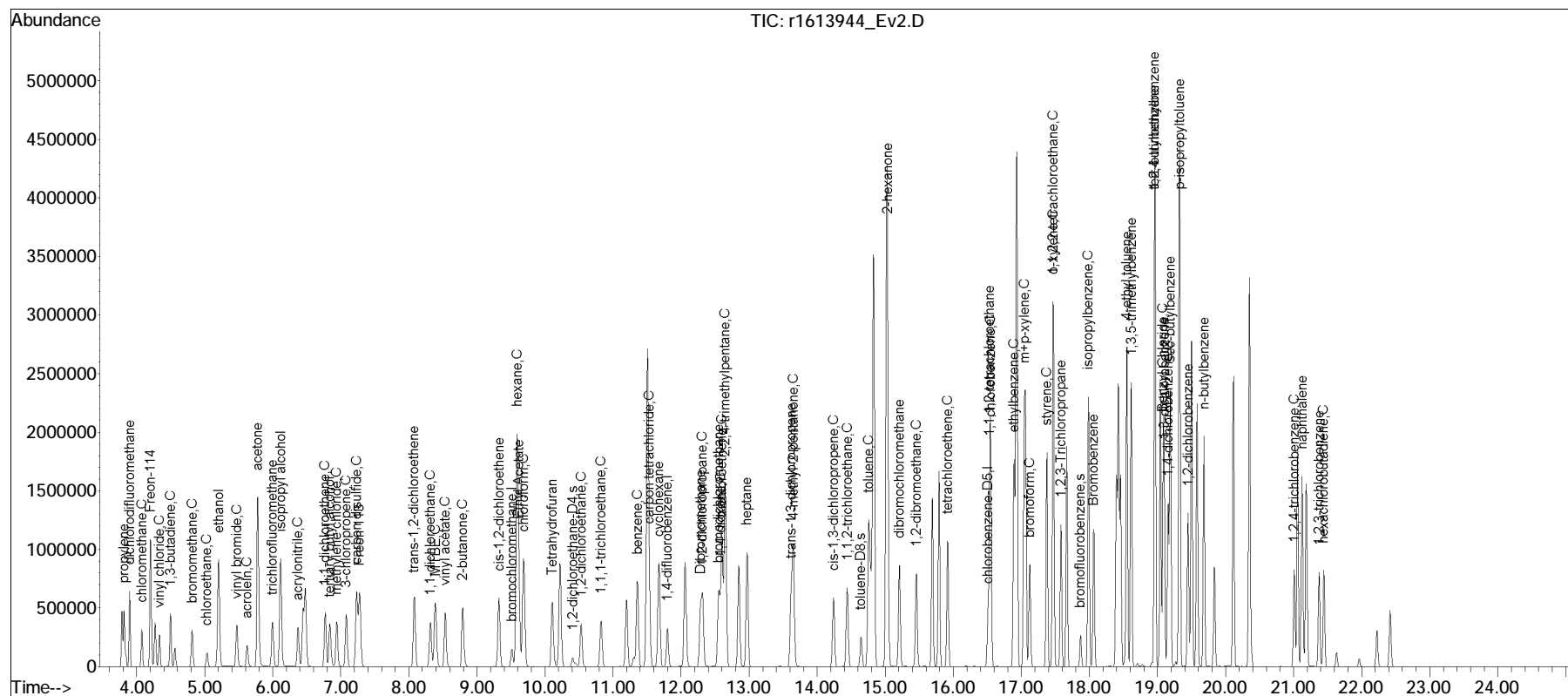
...

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Wed Nov 20 07:13:55 2019

Response via : Initial Calibration

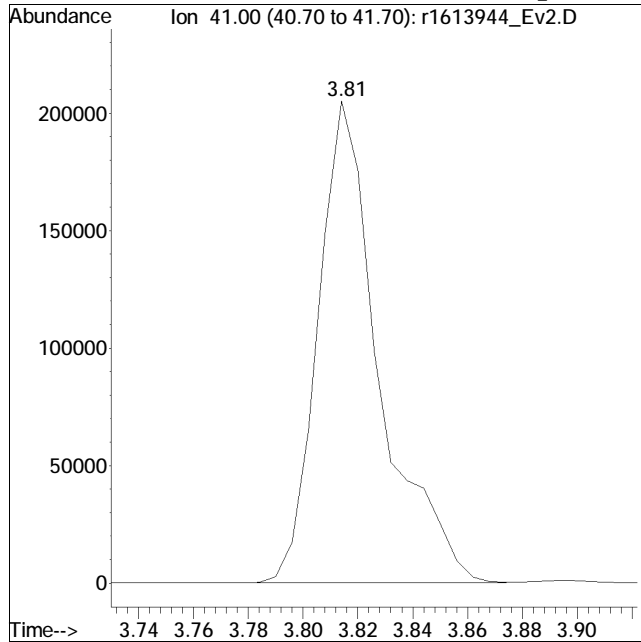
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



Manual Integration/Negative Proof Report

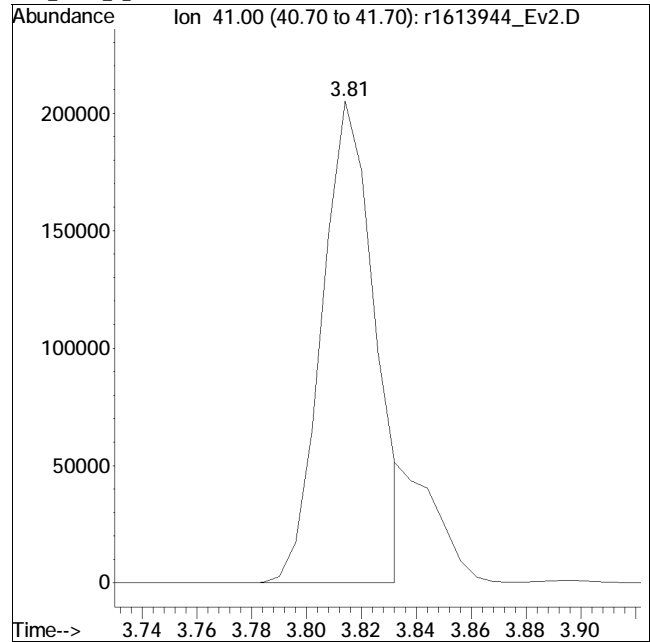
Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613944_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/20/2019 12:17 AM Instrument :
Sample : ITO15-LLSTD050 Quant Date : 11/20/2019 7:18 am

Compound #2: propylene



Original Peak Response = 319210

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



Manual Peak Response = 275339 M6

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613949_Ev2.D
 Acq On : 20 Nov 2019 9:58 AM
 Operator : AIRLAB16:RY
 Sample : CT015-SIMSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:10:44 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 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 | 101 | 0.00 |
| 2 | propylene | 0.425 | 0.426 | -0.2 | 102 | 0.00 |
| 3 | dichlorodifluoromethane | 0.822 | 0.780 | 5.1 | 94 | 0.00 |
| 4 C | chloromethane | 0.470 | 0.434 | 7.7 | 92 | 0.00 |
| 5 | Freon-114 | 1.127 | 1.054 | 6.5 | 94 | 0.00 |
| 6 C | vinyl chloride | 0.465 | 0.422 | 9.2 | 93 | 0.00 |
| 7 C | 1,3-butadiene | 0.431 | 0.413 | 4.2 | 99 | 0.00 |
| 8 C | bromomethane | 0.417 | 0.381 | 8.6 | 92 | 0.00 |
| 9 C | chloroethane | 0.226 | 0.200 | 11.5 | 93 | 0.00 |
| 10 | ethanol | 0.331 | 0.297 | 10.3 | 84 | 0.00 |
| 11 C | vinyl bromide | 0.479 | 0.429 | 10.4 | 90 | 0.00 |
| 12 C | acrolein | 0.232 | 0.182 | 21.6 | 88 | 0.00 |
| 13 | acetone | 0.655 | 0.492 | 24.9 | 73 | 0.00 |
| 14 | trichlorofluoromethane | 0.709 | 0.631 | 11.0 | 92 | 0.00 |
| 15 | isopropyl alcohol | 0.848 | 0.686 | 19.1 | 79 | 0.00 |
| 16 C | acrylonitrile | 0.412 | 0.370 | 10.2 | 91 | 0.00 |
| 17 C | 1,1-dichloroethene | 0.658 | 0.608 | 7.6 | 95 | 0.00 |
| 18 | tertiary butyl alcohol | 0.765 | 0.728 | 4.8 | 94 | 0.00 |
| 19 C | methylene chloride | 0.619 | 0.618 | 0.2 | 102 | -0.01 |
| 20 C | 3-chloropropene | 0.741 | 0.736 | 0.7 | 97 | -0.01 |
| 21 C | carbon disulfide | 1.723 | 1.606 | 6.8 | 94 | 0.00 |
| 22 | Freon 113 | 1.002 | 0.959 | 4.3 | 97 | -0.01 |
| 23 | trans-1,2-dichloroethene | 0.710 | 0.636 | 10.4 | 91 | 0.00 |
| 24 C | 1,1-dichloroethane | 0.852 | 0.786 | 7.7 | 94 | -0.02 |
| 25 C | MTBE | 1.355 | 1.349 | 0.4 | 98 | 0.00 |
| 26 C | vinyl acetate | 1.272 | 1.232 | 3.1 | 95 | 0.00 |
| 27 C | 2-butanone | 1.206 | 1.147 | 4.9 | 93 | -0.02 |
| 28 | cis-1,2-dichloroethene | 0.630 | 0.586 | 7.0 | 96 | 0.00 |
| 29 | Ethyl Acetate | 0.174 | 0.175 | -0.6 | 97 | 0.00 |
| 30 C | chloroform | 0.875 | 0.849 | 3.0 | 101 | 0.00 |
| 31 | Tetrahydrofuran | 0.734 | 0.686 | 6.5 | 91 | 0.00 |
| 32 C | 1,2-dichloroethane | 0.479 | 0.424 | 11.5 | 93 | 0.00 |
| 33 I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 34 C | hexane | 0.282 | 0.277 | 1.8 | 98 | 0.00 |
| 35 s | 1,2-dichloroethane-D4 | 0.146 | 0.135 | 7.5 | 93 | 0.00 |
| 36 C | 1,1,1-trichloroethane | 0.239 | 0.233 | 2.5 | 97 | -0.02 |
| 37 C | benzene | 0.641 | 0.616 | 3.9 | 99 | 0.00 |

TSIM16_191119.M Thu Nov 21 17:16:43 2019

1

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613949_Ev2.D
 Acq On : 20 Nov 2019 9:58 AM
 Operator : AIRLAB16:RY
 Sample : CT015-SIMSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:10:44 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

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) |
|------|---------------------------|-------|-------|-------|-------|----------|
| 38 C | carbon tetrachloride | 0.242 | 0.243 | -0.4 | 101 | 0.00 |
| 39 | cyclohexane | 0.304 | 0.305 | -0.3 | 101 | -0.01 |
| 40 | Dibromomethane | 0.207 | 0.161 | 22.2 | 90 | 0.00 |
| 41 C | 1,2-dichloropropane | 0.211 | 0.194 | 8.1 | 96 | 0.00 |
| 42 | bromodichloromethane | 0.317 | 0.323 | -1.9 | 103 | 0.00 |
| 43 C | 1,4-dioxane | 0.132 | 0.136 | -3.0 | 100 | -0.01 |
| 44 C | trichloroethene | 0.277 | 0.270 | 2.5 | 98 | -0.01 |
| 45 C | 2,2,4-trimethylpentane | 0.920 | 0.912 | 0.9 | 99 | 0.00 |
| 46 | heptane | 0.432 | 0.420 | 2.8 | 95 | 0.00 |
| 47 C | cis-1,3-dichloropropene | 0.277 | 0.251 | 9.4 | 90 | 0.00 |
| 48 C | 4-methyl-2-pentanone | 0.495 | 0.494 | 0.2 | 97 | 0.00 |
| 49 | trans-1,3-dichloropropene | 0.311 | 0.324 | -4.2 | 106 | 0.00 |
| 50 C | 1,1,2-trichloroethane | 0.235 | 0.224 | 4.7 | 98 | 0.00 |
| 51 I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 52 C | toluene | 5.345 | 4.831 | 9.6 | 97 | 0.00 |
| 53 s | toluene-D8 | 4.836 | 4.612 | 4.6 | 97 | 0.00 |
| 54 | 2-hexanone | 3.270 | 3.388 | -3.6 | 96 | 0.00 |
| 55 | dibromochloromethane | 2.548 | 2.728 | -7.1 | 104 | 0.00 |
| 56 C | 1,2-dibromoethane | 2.828 | 2.836 | -0.3 | 99 | 0.00 |
| 57 C | tetrachloroethene | 2.289 | 2.216 | 3.2 | 100 | 0.00 |
| 58 | 1,1,1,2-tetrachloroethane | 1.999 | 1.830 | 8.5 | 92 | 0.00 |
| 59 C | chlorobenzene | 4.579 | 4.668 | -1.9 | 101 | 0.00 |
| 60 C | ethylbenzene | 6.541 | 6.223 | 4.9 | 98 | 0.00 |
| 61 C | m+p-xylene | 5.649 | 5.061 | 10.4 | 97 | 0.00 |
| 62 C | bromoform | 1.984 | 2.150 | -8.4 | 106 | 0.00 |
| 63 C | styrene | 4.701 | 4.945 | -5.2 | 100 | 0.00 |
| 64 C | 1,1,2,2-tetrachloroethane | 3.650 | 3.902 | -6.9 | 101 | 0.00 |
| 65 C | o-xylene | 5.639 | 5.205 | 7.7 | 98 | 0.00 |
| 66 | 1,2,3-Trichloropropane | 2.950 | 2.934 | 0.5 | 94 | 0.00 |
| 67 s | bromofluorobenzene | 3.331 | 3.313 | 0.5 | 100 | 0.00 |
| 68 C | isopropylbenzene | 7.847 | 7.605 | 3.1 | 96 | 0.00 |
| 69 | Bromobenzene | 3.766 | 3.716 | 1.3 | 96 | 0.00 |
| 70 | 4-ethyl toluene | 7.936 | 8.629 | -8.7 | 99 | 0.00 |
| 71 | 1,3,5-trimethylbenzene | 6.704 | 7.078 | -5.6 | 99 | 0.00 |
| 72 | tert-butylbenzene | 7.086 | 6.678 | 5.8 | 93 | 0.00 |
| 73 | 1,2,4-trimethylbenzene | 6.432 | 7.138 | -11.0 | 101 | 0.00 |
| 74 C | Benzyl Chloride | 3.499 | 4.087 | -16.8 | 101 | 0.00 |

TSIM16_191119.M Thu Nov 21 17:16:43 2019

2

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613949_Ev2.D
 Acq On : 20 Nov 2019 9:58 AM
 Operator : AIRLAB16:RY
 Sample : CT015-SIMSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:10:44 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 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) |
|------|------------------------|--------|-------|--------|-------|----------|
| 75 | 1,3-dichlorobenzene | 4.231 | 5.042 | -19.2 | 102 | 0.00 |
| 76 C | 1,4-dichlorobenzene | 4.029 | 4.831 | -19.9 | 100 | 0.00 |
| 77 | sec-butylbenzene | 10.069 | 9.658 | 4.1 | 94 | 0.00 |
| 78 | p-isopropyltoluene | 8.512 | 7.430 | 12.7 | 85 | 0.00 |
| 79 | 1,2-dichlorobenzene | 4.012 | 4.785 | -19.3 | 102 | 0.00 |
| 80 | n-butylbenzene | 6.533 | 6.583 | -0.8 | 95 | 0.00 |
| 81 C | 1,2,4-trichlorobenzene | 1.719 | 2.360 | -37.3# | 114 | -0.02 |
| 82 | naphthalene | 6.883 | 7.767 | -12.8 | 97 | -0.02 |
| 83 | 1,2,3-trichlorobenzene | 1.917 | 2.490 | -29.9 | 117 | -0.02 |
| 84 C | hexachlorobutadiene | 2.065 | 2.477 | -20.0 | 117 | -0.02 |

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613949_Ev2.D
 Acq On : 20 Nov 2019 9:58 AM
 Operator : AIRLAB16:RY
 Sample : CT015-SIMSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:10:44 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.50 | 49 | 156298 | 10.000 | ppbV | 0.00 |
| Standard Area = 154085 | | | Recovery = | 101.44% | | |
| 33) 1,4-difluorobenzene | 11.79 | 114 | 452810 | 10.000 | ppbV | 0.00 |
| Standard Area = 451110 | | | Recovery = | 100.38% | | |
| 51) chlorobenzene-D5 | 16.50 | 54 | 59685 | 10.000 | ppbV | 0.00 |
| Standard Area = 58484 | | | Recovery = | 102.05% | | |
| System Monitoring Compounds | | | | | | |
| 35) 1,2-dichloroethane-D4 | 10.39 | 65 | 60920 | 9.231 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 92.31% | | |
| 53) toluene-D8 | 14.63 | 98 | 275259 | 9.536 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 95.36% | | |
| 67) bromofluorobenzene | 17.88 | 95 | 197726 | 9.946 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 99.46% | | |
| Target Compounds | | | | | | |
| | | | | | Qvalue | |
| 2) propylene | 3.81 | 41 | 33296M4 | 5.009 | ppbV | |
| 3) dichlorodifluoromethane | 3.89 | 85 | 60995 | 4.747 | ppbV | 100 |
| 4) chloromethane | 4.07 | 50 | 33955 | 4.622 | ppbV | 98 |
| 5) Freon-114 | 4.20 | 85 | 82343 | 4.676 | ppbV | 98 |
| 6) vinyl chloride | 4.33 | 62 | 33000 | 4.543 | ppbV | 99 |
| 7) 1,3-butadiene | 4.49 | 54 | 32258 | 4.788 | ppbV | 97 |
| 8) bromomethane | 4.80 | 94 | 29736 | 4.562 | ppbV | 100 |
| 9) chloroethane | 5.03 | 64 | 15627 | 4.429 | ppbV | 99 |
| 10) ethanol | 5.19 | 31 | 116102 | 22.441 | ppbV | 95 |
| 11) vinyl bromide | 5.46 | 106 | 33524 | 4.474 | ppbV | 100 |
| 12) acrolein | 5.62 | 56 | 14251 | 3.929 | ppbV | 98 |
| 13) acetone | 5.77 | 43 | 192152 | 18.781 | ppbV | 96 |
| 14) trichlorofluoromethane | 5.98 | 101 | 49326 | 4.450 | ppbV | 99 |
| 15) isopropyl alcohol | 6.10 | 45 | 134108 | 10.114 | ppbV | 99 |
| 16) acrylonitrile | 6.36 | 53 | 28916 | 4.493 | ppbV | 99 |
| 17) 1,1-dichloroethene | 6.76 | 61 | 47503 | 4.619 | ppbV | 98 |
| 18) tertiary butyl alcohol | 6.84 | 59 | 56880 | 4.758 | ppbV | 98 |
| 19) methylene chloride | 6.93 | 49 | 48295 | 4.993 | ppbV | 99 |
| 20) 3-chloropropene | 7.06 | 41 | 57525 | 4.964 | ppbV | 98 |
| 21) carbon disulfide | 7.22 | 76 | 125469 | 4.658 | ppbV | 98 |
| 22) Freon 113 | 7.26 | 101 | 74948 | 4.788 | ppbV | 97 |
| 23) trans-1,2-dichloroethene | 8.07 | 61 | 49665 | 4.479 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613949_Ev2.D
 Acq On : 20 Nov 2019 9:58 AM
 Operator : AIRLAB16:RY
 Sample : CT015-SIMSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:10:44 2019

Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 24) 1,1-dichloroethane | 8.30 | 63 | 61464 | 4.616 | ppbV | 99 |
| 25) MTBE | 8.38 | 73 | 105430 | 4.979 | ppbV | 98 |
| 26) vinyl acetate | 8.53 | 43 | 96243 | 4.840 | ppbV | 98 |
| 27) 2-butanone | 8.78 | 43 | 89617 | 4.754 | ppbV | 99 |
| 28) cis-1,2-dichloroethene | 9.31 | 61 | 45830 | 4.658 | ppbV | 98 |
| 29) Ethyl Acetate | 9.61 | 61 | 13644 | 5.003 | ppbV | 89 |
| 30) chloroform | 9.67 | 83 | 66365 | 4.853 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.11 | 42 | 53645 | 4.679 | ppbV | 96 |
| 32) 1,2-dichloroethane | 10.52 | 62 | 33153 | 4.431 | ppbV | 97 |
| 34) hexane | 9.57 | 57 | 62631 | 4.912 | ppbV | 92 |
| 36) 1,1,1-trichloroethane | 10.81 | 97 | 52773 | 4.884 | ppbV | 97 |
| 37) benzene | 11.35 | 78 | 139452 | 4.802 | ppbV | 100 |
| 38) carbon tetrachloride | 11.52 | 117 | 54984 | 5.011 | ppbV | 98 |
| 39) cyclohexane | 11.66 | 56 | 69028 | 5.021 | ppbV | 98 |
| 40) Dibromomethane | 12.27 | 93 | 36443 | 3.891 | ppbV # | 97 |
| 41) 1,2-dichloropropane | 12.31 | 63 | 43835 | 4.582 | ppbV | 99 |
| 42) bromodichloromethane | 12.54 | 83 | 73208 | 5.099 | ppbV | 100 |
| 43) 1,4-dioxane | 12.57 | 88 | 30737 | 5.153 | ppbV | 98 |
| 44) trichloroethene | 12.59 | 130 | 61150 | 4.876 | ppbV | 98 |
| 45) 2,2,4-trimethylpentane | 12.64 | 57 | 206457 | 4.955 | ppbV | 98 |
| 46) heptane | 12.96 | 43 | 95037 | 4.859 | ppbV | 97 |
| 47) cis-1,3-dichloropropene | 14.23 | 75 | 56925 | 4.542 | ppbV | 98 |
| 48) 4-methyl-2-pentanone | 13.64 | 43 | 111863 | 4.986 | ppbV | 99 |
| 49) trans-1,3-dichloropropene | 13.61 | 75 | 73300 | 5.212 | ppbV | 97 |
| 50) 1,1,2-trichloroethane | 14.43 | 97 | 50606 | 4.766 | ppbV | 96 |
| 52) toluene | 14.74 | 91 | 144157 | 4.519 | ppbV | 100 |
| 54) 2-hexanone | 15.03 | 43 | 101101 | 5.180 | ppbV | 98 |
| 55) dibromochloromethane | 15.20 | 129 | 81425 | 5.354 | ppbV | 99 |
| 56) 1,2-dibromoethane | 15.45 | 107 | 84622 | 5.013 | ppbV | 99 |
| 57) tetrachloroethene | 15.91 | 166 | 66142 | 4.842 | ppbV | 99 |
| 58) 1,1,1,2-tetrachloroethane | 16.53 | 131 | 54610 | 4.578 | ppbV | 99 |
| 59) chlorobenzene | 16.54 | 112 | 139296 | 5.097 | ppbV | 95 |
| 60) ethylbenzene | 16.89 | 91 | 185721 | 4.757 | ppbV | 100 |
| 61) m+p-xylene | 17.06 | 91 | 302067 | 8.959 | ppbV | 98 |
| 62) bromoform | 17.13 | 173 | 64172 | 5.420 | ppbV | 99 |
| 63) styrene | 17.38 | 104 | 147569 | 5.259 | ppbV | 100 |
| 64) 1,1,2,2-tetrachloroethane | 17.48 | 83 | 116450 | 5.346 | ppbV | 99 |
| 65) o-xylene | 17.48 | 91 | 155343 | 4.615 | ppbV | 98 |
| 66) 1,2,3-Trichloropropane | 17.59 | 75 | 87569 | 4.974 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
 Data File : r1613949_Ev2.D
 Acq On : 20 Nov 2019 9:58 AM
 Operator : AIRLAB16:RY
 Sample : CT015-SIMSTD5.0
 Misc : WG1312118
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Nov 21 17:10:44 2019
 Quant Method : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119
M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\r1613941_Ev2.D
 Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 68) isopropylbenzene | 18.00 | 105 | 226946 | 4.846 | ppbV | 100 |
| 69) Bromobenzene | 18.07 | 77 | 110896 | 4.934 | ppbV | 99 |
| 70) 4-ethyl toluene | 18.56 | 105 | 257524 | 5.437 | ppbV | 99 |
| 71) 1,3,5-trimethylbenzene | 18.62 | 105 | 211237 | 5.279 | ppbV | 98 |
| 72) tert-butylbenzene | 18.97 | 119 | 199303 | 4.713 | ppbV | 98 |
| 73) 1,2,4-trimethylbenzene | 18.97 | 105 | 213009 | 5.548 | ppbV | 97 |
| 74) Benzyl Chloride | 19.09 | 91 | 121978 | 5.841 | ppbV | 96 |
| 75) 1,3-dichlorobenzene | 19.10 | 146 | 150453 | 5.958 | ppbV | 96 |
| 76) 1,4-dichlorobenzene | 19.16 | 146 | 144162 | 5.995 | ppbV | 98 |
| 77) sec-butylbenzene | 19.19 | 105 | 288229 | 4.796 | ppbV | 98 |
| 78) p-isopropyltoluene | 19.32 | 119 | 221717 | 4.364 | ppbV | 98 |
| 79) 1,2-dichlorobenzene | 19.45 | 146 | 142790 | 5.963 | ppbV | 98 |
| 80) n-butylbenzene | 19.68 | 91 | 196462 | 5.039 | ppbV | 99 |
| 81) 1,2,4-trichlorobenzene | 20.99 | 180 | 70429 | 6.865 | ppbV | 99 |
| 82) naphthalene | 21.10 | 128 | 231772 | 5.642 | ppbV | 100 |
| 83) 1,2,3-trichlorobenzene | 21.35 | 180 | 74320 | 6.495 | ppbV | 98 |
| 84) hexachlorobutadiene | 21.43 | 225 | 73919 | 5.996 | ppbV | 98 |

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

(QT Reviewed)

```
Data Path   : O:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\
Data File  : r1613949_Ev2.D
Acq On     : 20 Nov 2019    9:58 AM
Operator   : AIRLAB16:RY
Sample     : CT015-SIMSTD5.0
Misc       : WG1312118
ALS Vial   : 0    Sample Multiplier: 1
```

Quant Time: Nov 21 17:10:44 2019

Quant Method : 0:\Forensics\Data\Airlab16\2019\191119SIM_ICAL\TSIM16_191119

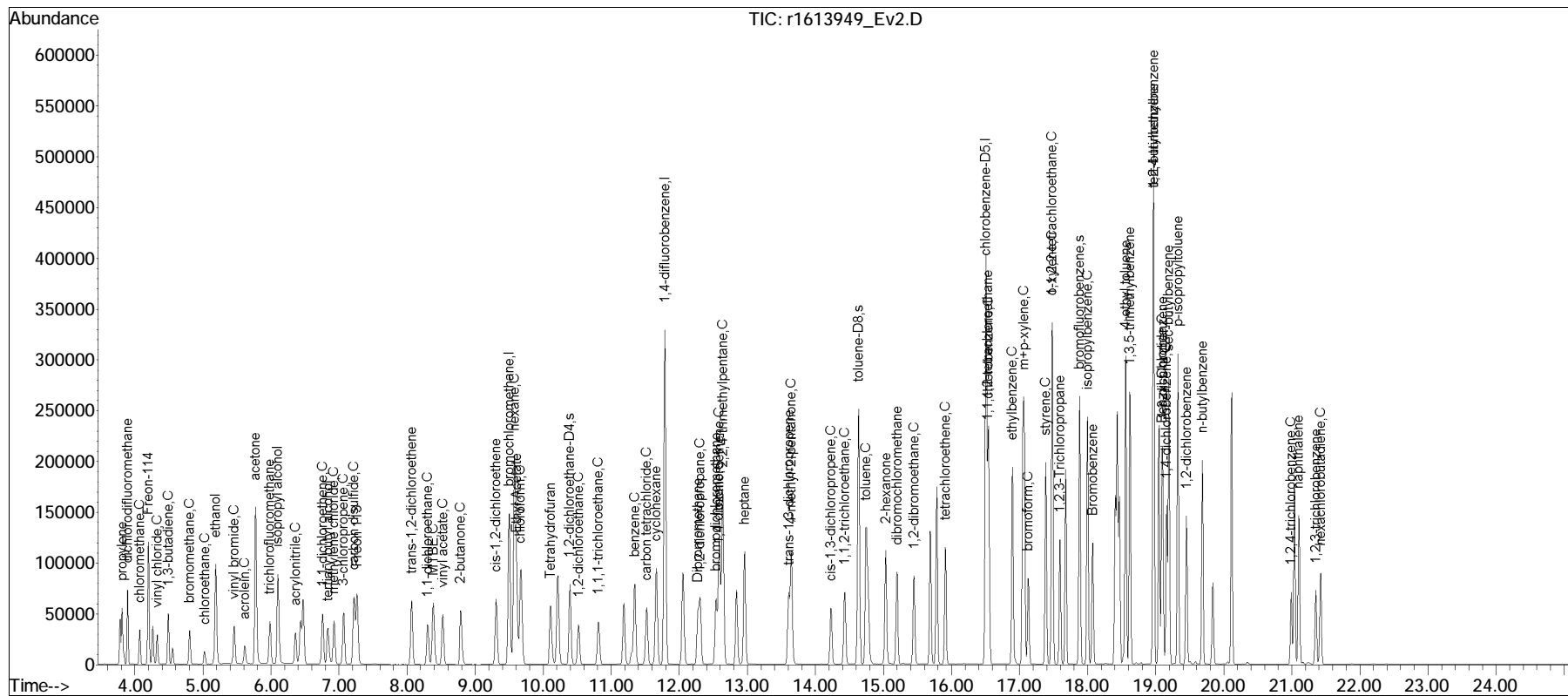
.. .M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

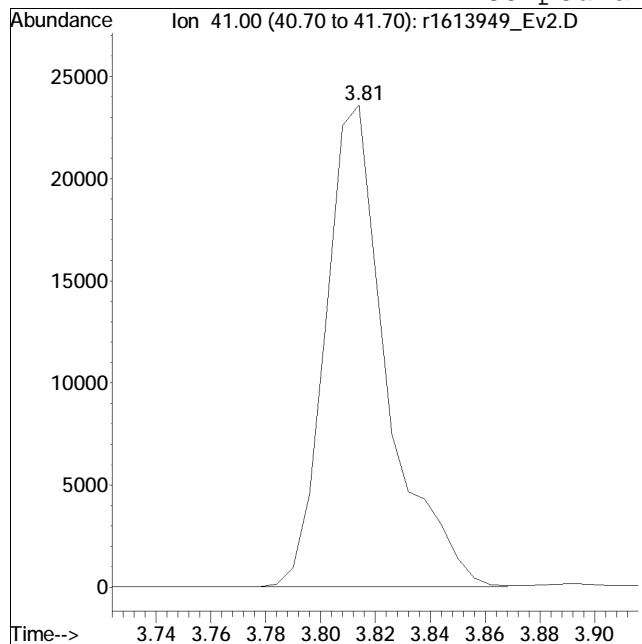
Sub List : Default - All compounds listed9\191119SIM_ICAL\r1613941_Ev2.D



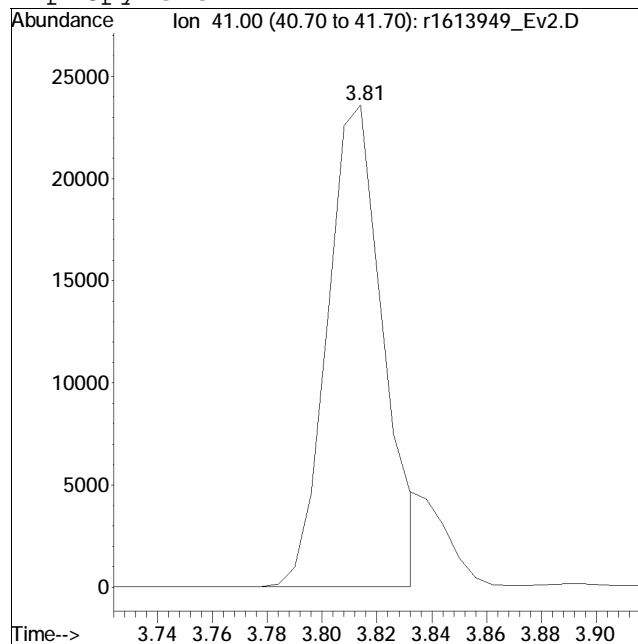
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
Data File : r1613949_Ev2.D Operator : AIRLAB16:RY
Date Inj'd : 11/20/2019 9:58 AM Instrument :
Sample : CTO15-SIMSTD5.0 Quant Date : 11/21/2019 5:09 pm

Compound #2: propylene



Original Peak Response = 36603



Manual Peak Response = 33296 M4

M4 = Poor automated baseline construction.

Continuing Calibration

Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Instrument ID : AIRLAB16
 Lab File ID : R1614691_EV2
 Sample No : WG1327072-2
 Channel :

Lab Number : L1962003
 Project Number : 170312501
 Calibration Date : 01/04/20 12:57
 Init. Calib. Date(s) : 11/19/19 11/20/19
 Init. Calib. Times : 18:12 00:17

| Compound | Ave. RRF | RRF | Min RRF | %D | Max %D | Area% | Dev(min) |
|--------------------------|----------|-------|---------|-------|--------|-------|----------|
| bromochloromethane | 1 | 1 | - | 0 | 30 | 81 | .03 |
| propylene | 0.425 | 0.423 | - | 0.5 | 30 | 81 | .02 |
| dichlorodifluoromethane | 0.822 | 0.632 | - | 23.1 | 30 | 61 | .02 |
| chloromethane | 0.47 | 0.376 | - | 20 | 30 | 64 | .02 |
| Freon-114 | 1.127 | 0.92 | - | 18.4 | 30 | 66 | .02 |
| vinyl chloride | 0.465 | 0.374 | - | 19.6 | 30 | 66 | .02 |
| 1,3-butadiene | 0.431 | 0.335 | - | 22.3 | 30 | 65 | .02 |
| bromomethane | 0.417 | 0.348 | - | 16.5 | 30 | 67 | .02 |
| chloroethane | 0.226 | 0.185 | - | 18.1 | 30 | 69 | .02 |
| ethanol | 0.331 | 0.26 | - | 21.5 | 30 | 59 | .02 |
| vinyl bromide | 0.479 | 0.383 | - | 20 | 30 | 65 | .02 |
| acrolein | 0.232 | 0.154 | - | 33.6* | 30 | 60 | .02 |
| acetone | 0.655 | 0.46 | - | 29.8 | 30 | 54 | .02 |
| trichlorofluoromethane | 0.709 | 0.533 | - | 24.8 | 30 | 62 | .02 |
| isopropyl alcohol | 0.848 | 0.619 | - | 27 | 30 | 57 | .02 |
| acrylonitrile | 0.412 | 0.302 | - | 26.7 | 30 | 60 | .02 |
| 1,1-dichloroethene | 0.658 | 0.563 | - | 14.4 | 30 | 71 | .03 |
| tertiary butyl alcohol | 0.765 | 0.603 | - | 21.2 | 30 | 63 | .02 |
| methylene chloride | 0.619 | 0.581 | - | 6.1 | 30 | 77 | .02 |
| 3-chloropropene | 0.741 | 0.717 | - | 3.2 | 30 | 75 | .02 |
| carbon disulfide | 1.723 | 1.601 | - | 7.1 | 30 | 75 | .03 |
| Freon 113 | 1.002 | 0.958 | - | 4.4 | 30 | 78 | .02 |
| trans-1,2-dichloroethene | 0.71 | 0.607 | - | 14.5 | 30 | 70 | .03 |
| 1,1-dichloroethane | 0.852 | 0.761 | - | 10.7 | 30 | 73 | .03 |
| MTBE | 1.355 | 1.15 | - | 15.1 | 30 | 67 | .02 |
| vinyl acetate | 1.272 | 1.251 | - | 1.7 | 30 | 77 | .03 |
| 2-butanone | 1.206 | 1.14 | - | 5.5 | 30 | 74 | .02 |
| cis-1,2-dichloroethene | 0.63 | 0.56 | - | 11.1 | 30 | 73 | .03 |
| Ethyl Acetate | 0.174 | 0.173 | - | 0.6 | 30 | 77 | .03 |
| chloroform | 0.875 | 0.767 | - | 12.3 | 30 | 73 | .02 |
| Tetrahydrofuran | 0.734 | 0.682 | - | 7.1 | 30 | 72 | .03 |
| 1,2-dichloroethane | 0.479 | 0.355 | - | 25.9 | 30 | 62 | .03 |
| 1,4-difluorobenzene | 1 | 1 | - | 0 | 30 | 83 | .03 |
| hexane | 0.282 | 0.255 | - | 9.6 | 30 | 75 | .02 |
| 1,1,1-trichloroethane | 0.239 | 0.195 | - | 18.4 | 30 | 67 | .03 |
| benzene | 0.641 | 0.574 | - | 10.5 | 30 | 76 | .03 |
| carbon tetrachloride | 0.242 | 0.208 | - | 14 | 30 | 71 | .03 |
| cyclohexane | 0.304 | 0.278 | - | 8.6 | 30 | 76 | .03 |
| Dibromomethane | 0.207 | 0.159 | - | 23.2 | 30 | 73 | .03 |
| 1,2-dichloropropane | 0.211 | 0.194 | - | 8.1 | 30 | 79 | .03 |
| bromodichloromethane | 0.317 | 0.289 | - | 8.8 | 30 | 76 | .03 |
| 1,4-dioxane | 0.132 | 0.128 | - | 3 | 30 | 78 | .03 |
| trichloroethene | 0.277 | 0.263 | - | 5.1 | 30 | 79 | .03 |

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 295 LOCUST AVE.
 Instrument ID : AIRLAB16
 Lab File ID : R1614691_EV2
 Sample No : WG1327072-2
 Channel :

Lab Number : L1962003
 Project Number : 170312501
 Calibration Date : 01/04/20 12:57
 Init. Calib. Date(s) : 11/19/19 11/20/19
 Init. Calib. Times : 18:12 00:17

| Compound | Ave. RRF | RRF | Min RRF | %D | Max %D | Area% | Dev(min) |
|---------------------------|----------|-------|---------|--------|--------|-------|----------|
| 2,2,4-trimethylpentane | 0.92 | 0.845 | - | 8.2 | 30 | 76 | .03 |
| heptane | 0.432 | 0.41 | - | 5.1 | 30 | 77 | .03 |
| cis-1,3-dichloropropene | 0.277 | 0.21 | - | 24.2 | 30 | 62 | .03 |
| 4-methyl-2-pentanone | 0.495 | 0.485 | - | 2 | 30 | 78 | .03 |
| trans-1,3-dichloropropene | 0.311 | 0.289 | - | 7.1 | 30 | 78 | .03 |
| 1,1,2-trichloroethane | 0.235 | 0.228 | - | 3 | 30 | 82 | .03 |
| chlorobenzene-D5 | 1 | 1 | - | 0 | 30 | 76 | .03 |
| toluene | 5.345 | 5.337 | - | 0.1 | 30 | 79 | .03 |
| 2-hexanone | 3.27 | 3.406 | - | -4.2 | 30 | 71 | .03 |
| dibromochloromethane | 2.548 | 3.04 | - | -19.3 | 30 | 86 | .02 |
| 1,2-dibromoethane | 2.828 | 3.058 | - | -8.1 | 30 | 79 | .03 |
| tetrachloroethene | 2.289 | 2.748 | - | -20.1 | 30 | 92 | .03 |
| 1,1,1,2-tetrachloroethane | 1.999 | 2.058 | - | -3 | 30 | 77 | .03 |
| chlorobenzene | 4.579 | 5.053 | - | -10.4 | 30 | 81 | .02 |
| ethylbenzene | 6.541 | 6.984 | - | -6.8 | 30 | 81 | .03 |
| m+p-xylene | 5.649 | 5.62 | - | 0.5 | 30 | 80 | .04 |
| bromoform | 1.984 | 2.589 | - | -30.5* | 30 | 94 | .03 |
| styrene | 4.701 | 5.365 | - | -14.1 | 30 | 80 | .04 |
| 1,1,2,2-tetrachloroethane | 3.65 | 4.514 | - | -23.7 | 30 | 87 | .04 |
| o-xylene | 5.639 | 5.796 | - | -2.8 | 30 | 81 | .03 |
| 1,2,3-Trichloropropane | 2.95 | 3.199 | - | -8.4 | 30 | 76 | .04 |
| isopropylbenzene | 7.847 | 8.422 | - | -7.3 | 30 | 79 | .03 |
| Bromobenzene | 3.766 | 4.026 | - | -6.9 | 30 | 77 | .03 |
| 4-ethyl toluene | 7.936 | 9.539 | - | -20.2 | 30 | 81 | .03 |
| 1,3,5-trimethylbenzene | 6.704 | 7.779 | - | -16 | 30 | 80 | .03 |
| tert-butylbenzene | 7.086 | 7.308 | - | -3.1 | 30 | 76 | .03 |
| 1,2,4-trimethylbenzene | 6.432 | 7.74 | - | -20.3 | 30 | 81 | .03 |
| Benzyl Chloride | 3.499 | 3.647 | - | -4.2 | 30 | 66 | .03 |
| 1,3-dichlorobenzene | 4.231 | 5.494 | - | -29.9 | 30 | 83 | .03 |
| 1,4-dichlorobenzene | 4.029 | 5.292 | - | -31.3* | 30 | 81 | .03 |
| sec-butylbenzene | 10.069 | 10.72 | - | -6.5 | 30 | 77 | .02 |
| p-isopropyltoluene | 8.512 | 8.24 | - | 3.2 | 30 | 70 | .03 |
| 1,2-dichlorobenzene | 4.012 | 5.32 | - | -32.6* | 30 | 84 | .03 |
| n-butylbenzene | 6.533 | 7.453 | - | -14.1 | 30 | 79 | .03 |
| 1,2,4-trichlorobenzene | 1.719 | 2.245 | - | -30.6* | 30 | 80 | 0 |
| naphthalene | 6.883 | 7.659 | - | -11.3 | 30 | 71 | .02 |
| 1,2,3-trichlorobenzene | 1.917 | 2.409 | - | -25.7 | 30 | 84 | 0 |
| hexachlorobutadiene | 2.065 | 2.583 | - | -25.1 | 30 | 90 | 0 |

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-2,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

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 | 81 | 0.03 |
| 2 | propylene | 0.425 | 0.423 | 0.5 | 81 | 0.02 |
| 3 | dichlorodifluoromethane | 0.822 | 0.632 | 23.1 | 61 | 0.02 |
| 4 C | chloromethane | 0.470 | 0.376 | 20.0 | 64 | 0.02 |
| 5 | Freon-114 | 1.127 | 0.920 | 18.4 | 66 | 0.02 |
| 6 C | vinyl chloride | 0.465 | 0.374 | 19.6 | 66 | 0.02 |
| 7 C | 1,3-butadiene | 0.431 | 0.335 | 22.3 | 65 | 0.02 |
| 8 C | bromomethane | 0.417 | 0.348 | 16.5 | 67 | 0.02 |
| 9 C | chloroethane | 0.226 | 0.185 | 18.1 | 69 | 0.02 |
| 10 | ethanol | 0.331 | 0.260 | 21.5 | 59# | 0.02 |
| 11 C | vinyl bromide | 0.479 | 0.383 | 20.0 | 65 | 0.02 |
| 12 C | acrolein | 0.232 | 0.154 | 33.6# | 60# | 0.02 |
| 13 | acetone | 0.655 | 0.460 | 29.8 | 54# | 0.02 |
| 14 | trichlorofluoromethane | 0.709 | 0.533 | 24.8 | 62 | 0.02 |
| 15 | isopropyl alcohol | 0.848 | 0.619 | 27.0 | 57# | 0.02 |
| 16 C | acrylonitrile | 0.412 | 0.302 | 26.7 | 60# | 0.02 |
| 17 C | 1,1-dichloroethene | 0.658 | 0.563 | 14.4 | 71 | 0.03 |
| 18 | tertiary butyl alcohol | 0.765 | 0.603 | 21.2 | 63 | 0.02 |
| 19 C | methylene chloride | 0.619 | 0.581 | 6.1 | 77 | 0.02 |
| 20 C | 3-chloropropene | 0.741 | 0.717 | 3.2 | 75 | 0.02 |
| 21 C | carbon disulfide | 1.723 | 1.601 | 7.1 | 75 | 0.03 |
| 22 | Freon 113 | 1.002 | 0.958 | 4.4 | 78 | 0.02 |
| 23 | trans-1,2-dichloroethene | 0.710 | 0.607 | 14.5 | 70 | 0.03 |
| 24 C | 1,1-dichloroethane | 0.852 | 0.761 | 10.7 | 73 | 0.03 |
| 25 C | MTBE | 1.355 | 1.150 | 15.1 | 67 | 0.02 |
| 26 C | vinyl acetate | 1.272 | 1.251 | 1.7 | 77 | 0.03 |
| 27 C | 2-butanone | 1.206 | 1.140 | 5.5 | 74 | 0.02 |
| 28 | cis-1,2-dichloroethene | 0.630 | 0.560 | 11.1 | 73 | 0.03 |
| 29 | Ethyl Acetate | 0.174 | 0.173 | 0.6 | 77 | 0.03 |
| 30 C | chloroform | 0.875 | 0.767 | 12.3 | 73 | 0.02 |
| 31 | Tetrahydrofuran | 0.734 | 0.682 | 7.1 | 72 | 0.03 |
| 32 C | 1,2-dichloroethane | 0.479 | 0.355 | 25.9 | 62 | 0.03 |
| 33 I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 83 | 0.03 |
| 34 C | hexane | 0.282 | 0.255 | 9.6 | 75 | 0.02 |
| 36 C | 1,1,1-trichloroethane | 0.239 | 0.195 | 18.4 | 67 | 0.03 |
| 37 C | benzene | 0.641 | 0.574 | 10.5 | 76 | 0.03 |
| 38 C | carbon tetrachloride | 0.242 | 0.208 | 14.0 | 71 | 0.03 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-2,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 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) |
|------|---------------------------|--------|--------|--------|-------|----------|
| 39 | cyclohexane | 0.304 | 0.278 | 8.6 | 76 | 0.03 |
| 40 | Dibromomethane | 0.207 | 0.159 | 23.2 | 73 | 0.03 |
| 41 C | 1,2-dichloropropane | 0.211 | 0.194 | 8.1 | 79 | 0.03 |
| 42 | bromodichloromethane | 0.317 | 0.289 | 8.8 | 76 | 0.03 |
| 43 C | 1,4-dioxane | 0.132 | 0.128 | 3.0 | 78 | 0.03 |
| 44 C | trichloroethene | 0.277 | 0.263 | 5.1 | 79 | 0.03 |
| 45 C | 2,2,4-trimethylpentane | 0.920 | 0.845 | 8.2 | 76 | 0.03 |
| 46 | heptane | 0.432 | 0.410 | 5.1 | 77 | 0.03 |
| 47 C | cis-1,3-dichloropropene | 0.277 | 0.210 | 24.2 | 62 | 0.03 |
| 48 C | 4-methyl-2-pentanone | 0.495 | 0.485 | 2.0 | 78 | 0.03 |
| 49 | trans-1,3-dichloropropene | 0.311 | 0.289 | 7.1 | 78 | 0.03 |
| 50 C | 1,1,2-trichloroethane | 0.235 | 0.228 | 3.0 | 82 | 0.03 |
| 51 I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 76 | 0.03 |
| 52 C | toluene | 5.345 | 5.337 | 0.1 | 79 | 0.03 |
| 54 | 2-hexanone | 3.270 | 3.406 | -4.2 | 71 | 0.03 |
| 55 | dibromochloromethane | 2.548 | 3.040 | -19.3 | 86 | 0.02 |
| 56 C | 1,2-dibromoethane | 2.828 | 3.058 | -8.1 | 79 | 0.03 |
| 57 C | tetrachloroethene | 2.289 | 2.748 | -20.1 | 92 | 0.03 |
| 58 | 1,1,1,2-tetrachloroethane | 1.999 | 2.058 | -3.0 | 77 | 0.03 |
| 59 C | chlorobenzene | 4.579 | 5.053 | -10.4 | 81 | 0.02 |
| 60 C | ethylbenzene | 6.541 | 6.984 | -6.8 | 81 | 0.03 |
| 61 C | m+p-xylene | 5.649 | 5.620 | 0.5 | 80 | 0.04 |
| 62 C | bromoform | 1.984 | 2.589 | -30.5# | 94 | 0.03 |
| 63 C | styrene | 4.701 | 5.365 | -14.1 | 80 | 0.04 |
| 64 C | 1,1,2,2-tetrachloroethane | 3.650 | 4.514 | -23.7 | 87 | 0.04 |
| 65 C | o-xylene | 5.639 | 5.796 | -2.8 | 81 | 0.03 |
| 66 | 1,2,3-Trichloropropane | 2.950 | 3.199 | -8.4 | 76 | 0.04 |
| 68 C | isopropylbenzene | 7.847 | 8.422 | -7.3 | 79 | 0.03 |
| 69 | Bromobenzene | 3.766 | 4.026 | -6.9 | 77 | 0.03 |
| 70 | 4-ethyl toluene | 7.936 | 9.539 | -20.2 | 81 | 0.03 |
| 71 | 1,3,5-trimethylbenzene | 6.704 | 7.779 | -16.0 | 80 | 0.03 |
| 72 | tert-butylbenzene | 7.086 | 7.308 | -3.1 | 76 | 0.03 |
| 73 | 1,2,4-trimethylbenzene | 6.432 | 7.740 | -20.3 | 81 | 0.03 |
| 74 C | Benzyl Chloride | 3.499 | 3.647 | -4.2 | 66 | 0.03 |
| 75 | 1,3-dichlorobenzene | 4.231 | 5.494 | -29.9 | 83 | 0.03 |
| 76 C | 1,4-dichlorobenzene | 4.029 | 5.292 | -31.3# | 81 | 0.03 |
| 77 | sec-butylbenzene | 10.069 | 10.720 | -6.5 | 77 | 0.02 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-2,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 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) |
|------|------------------------|-------|-------|--------|-------|----------|
| 78 | p-isopropyltoluene | 8.512 | 8.240 | 3.2 | 70 | 0.03 |
| 79 | 1,2-dichlorobenzene | 4.012 | 5.320 | -32.6# | 84 | 0.03 |
| 80 | n-butylbenzene | 6.533 | 7.453 | -14.1 | 79 | 0.03 |
| 81 C | 1,2,4-trichlorobenzene | 1.719 | 2.245 | -30.6# | 80 | 0.00 |
| 82 | naphthalene | 6.883 | 7.659 | -11.3 | 71 | 0.02 |
| 83 | 1,2,3-trichlorobenzene | 1.917 | 2.409 | -25.7 | 84 | 0.00 |
| 84 C | hexachlorobutadiene | 2.065 | 2.583 | -25.1 | 90 | 0.00 |

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-2,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|---------|----------|
| ----- | | | | | | |
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.53 | 49 | 125267 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery | = | 100.00% | |
| 33) 1,4-difluorobenzene | 11.82 | 114 | 373361 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery | = | 100.00% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 44199 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery | = | 100.00% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|------------------------------|------|------|----------|--------|--------|--------|
| 2) propylene | 3.83 | 41 | 26478M6 | 4.970 | ppbV | |
| 3) dichlorodifluoromethane | 3.92 | 85 | 39558 | 3.842 | ppbV | 100 |
| 4) chloromethane | 4.10 | 50 | 23557 | 4.001 | ppbV | 99 |
| 5) Freon-114 | 4.22 | 85 | 57598 | 4.081 | ppbV | 100 |
| 6) vinyl chloride | 4.35 | 62 | 23406 | 4.020 | ppbV # | 83 |
| 7) 1,3-butadiene | 4.52 | 54 | 20991 | 3.887 | ppbV | 92 |
| 8) bromomethane | 4.83 | 94 | 21778 | 4.168 | ppbV | 98 |
| 9) chloroethane | 5.05 | 64 | 11593 | 4.099 | ppbV | 92 |
| 10) ethanol | 5.22 | 31 | 81537 | 19.664 | ppbV | 94 |
| 11) vinyl bromide | 5.49 | 106 | 24014 | 3.999 | ppbV | 100 |
| 12) acrolein | 5.65 | 56 | 9632 | 3.313 | ppbV | 99 |
| 13) acetone | 5.80 | 43 | 144008 | 17.562 | ppbV | 97 |
| 14) trichlorofluoromethane | 6.02 | 101 | 33412 | 3.761 | ppbV | 99 |
| 15) isopropyl alcohol | 6.13 | 45 | 96866 | 9.115 | ppbV | 100 |
| 16) acrylonitrile | 6.39 | 53 | 18901 | 3.664 | ppbV | 99 |
| 17) 1,1-dichloroethene | 6.79 | 61 | 35288 | 4.281 | ppbV | 93 |
| 18) tertiary butyl alcohol | 6.87 | 59 | 37796 | 3.945 | ppbV # | 88 |
| 19) methylene chloride | 6.96 | 49 | 36406 | 4.696 | ppbV | 97 |
| 20) 3-chloropropene | 7.10 | 41 | 44915 | 4.836 | ppbV | 95 |
| 21) carbon disulfide | 7.26 | 76 | 100245 | 4.644 | ppbV | 95 |
| 22) Freon 113 | 7.30 | 101 | 60002 | 4.782 | ppbV | 99 |
| 23) trans-1,2-dichloroethene | 8.10 | 61 | 38005 | 4.276 | ppbV | 95 |
| 24) 1,1-dichloroethane | 8.34 | 63 | 47650 | 4.465 | ppbV | 100 |
| 25) MTBE | 8.42 | 73 | 72056 | 4.246 | ppbV | 97 |
| 26) vinyl acetate | 8.56 | 43 | 78353 | 4.916 | ppbV | 99 |
| 27) 2-butanone | 8.82 | 43 | 71394 | 4.726 | ppbV | 99 |
| 28) cis-1,2-dichloroethene | 9.34 | 61 | 35049 | 4.444 | ppbV | 96 |
| 29) Ethyl Acetate | 9.64 | 61 | 10852 | 4.965 | ppbV | 93 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-2,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 30) chloroform | 9.70 | 83 | 48041 | 4.383 | ppbV | 99 |
| 31) Tetrahydrofuran | 10.14 | 42 | 42689 | 4.646 | ppbV | 99 |
| 32) 1,2-dichloroethane | 10.55 | 62 | 22228 | 3.706 | ppbV # | 92 |
| 34) hexane | 9.61 | 57 | 47560 | 4.523 | ppbV | 94 |
| 36) 1,1,1-trichloroethane | 10.85 | 97 | 36386 | 4.084 | ppbV | 94 |
| 37) benzene | 11.38 | 78 | 107104 | 4.473 | ppbV | 99 |
| 38) carbon tetrachloride | 11.55 | 117 | 38850 | 4.294 | ppbV | 98 |
| 39) cyclohexane | 11.70 | 56 | 51843 | 4.574 | ppbV | 99 |
| 40) Dibromomethane | 12.31 | 93 | 29694 | 3.845 | ppbV # | 96 |
| 41) 1,2-dichloropropane | 12.34 | 63 | 36125 | 4.580 | ppbV | 98 |
| 42) bromodichloromethane | 12.57 | 83 | 54020 | 4.563 | ppbV | 98 |
| 43) 1,4-dioxane | 12.61 | 88 | 23885 | 4.857 | ppbV | 96 |
| 44) trichloroethene | 12.63 | 130 | 49144 | 4.753 | ppbV | 99 |
| 45) 2,2,4-trimethylpentane | 12.67 | 57 | 157819 | 4.593 | ppbV | 99 |
| 46) heptane | 12.99 | 43 | 76460 | 4.741 | ppbV | 99 |
| 47) cis-1,3-dichloropropene | 14.27 | 75 | 39163 | 3.790 | ppbV | 96 |
| 48) 4-methyl-2-pentanone | 13.68 | 43 | 90620 | 4.899 | ppbV | 99 |
| 49) trans-1,3-dichloropropene | 13.64 | 75 | 54010 | 4.658 | ppbV | 96 |
| 50) 1,1,2-trichloroethane | 14.47 | 97 | 42565 | 4.861 | ppbV | 96 |
| 52) toluene | 14.78 | 91 | 117949 | 4.993 | ppbV | 98 |
| 54) 2-hexanone | 15.07 | 43 | 75267 | 5.208 | ppbV | 98 |
| 55) dibromochloromethane | 15.23 | 129 | 67189 | 5.966 | ppbV | 98 |
| 56) 1,2-dibromoethane | 15.48 | 107 | 67582 | 5.406 | ppbV | 100 |
| 57) tetrachloroethene | 15.94 | 166 | 60719 | 6.002 | ppbV | 98 |
| 58) 1,1,1,2-tetrachloroethane | 16.57 | 131 | 45481 | 5.149 | ppbV | 99 |
| 59) chlorobenzene | 16.57 | 112 | 111658 | 5.517 | ppbV | 98 |
| 60) ethylbenzene | 16.93 | 91 | 154343 | 5.339 | ppbV | 100 |
| 61) m+p-xylene | 17.09 | 91 | 248391 | 9.948 | ppbV | 100 |
| 62) bromoform | 17.16 | 173 | 57216 | 6.526 | ppbV | 99 |
| 63) styrene | 17.42 | 104 | 118554 | 5.705 | ppbV | 97 |
| 64) 1,1,2,2-tetrachloroethane | 17.51 | 83 | 99763 | 6.185 | ppbV | 99 |
| 65) o-xylene | 17.51 | 91 | 128090 | 5.139 | ppbV | 97 |
| 66) 1,2,3-Trichloropropane | 17.63 | 75 | 70707 | 5.424 | ppbV | 98 |
| 68) isopropylbenzene | 18.02 | 105 | 186132 | 5.367 | ppbV | 99 |
| 69) Bromobenzene | 18.10 | 77 | 88968 | 5.345 | ppbV | 98 |
| 70) 4-ethyl toluene | 18.58 | 105 | 210802 | 6.010 | ppbV | 99 |
| 71) 1,3,5-trimethylbenzene | 18.65 | 105 | 171912 | 5.802 | ppbV | 99 |
| 72) tert-butylbenzene | 18.99 | 119 | 161508 | 5.157 | ppbV | 97 |
| 73) 1,2,4-trimethylbenzene | 18.99 | 105 | 171053 | 6.017 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-2,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 74) Benzyl Chloride | 19.12 | 91 | 80594 | 5.211 | ppbV | 98 |
| 75) 1,3-dichlorobenzene | 19.13 | 146 | 121414 | 6.493 | ppbV | 96 |
| 76) 1,4-dichlorobenzene | 19.19 | 146 | 116957M3 | 6.568 | ppbV | |
| 77) sec-butylbenzene | 19.22 | 105 | 236896 | 5.323 | ppbV | 95 |
| 78) p-isopropyltoluene | 19.35 | 119 | 182094 | 4.840 | ppbV | 99 |
| 79) 1,2-dichlorobenzene | 19.48 | 146 | 117578 | 6.630 | ppbV | 95 |
| 80) n-butylbenzene | 19.72 | 91 | 164699 | 5.704 | ppbV | 97 |
| 81) 1,2,4-trichlorobenzene | 21.02 | 180 | 49606 | 6.529 | ppbV | 100 |
| 82) naphthalene | 21.13 | 128 | 169267 | 5.564 | ppbV | 97 |
| 83) 1,2,3-trichlorobenzene | 21.38 | 180 | 53240 | 6.283 | ppbV | 99 |
| 84) hexachlorobutadiene | 21.45 | 225 | 57085 | 6.253 | ppbV | 96 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-2,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020

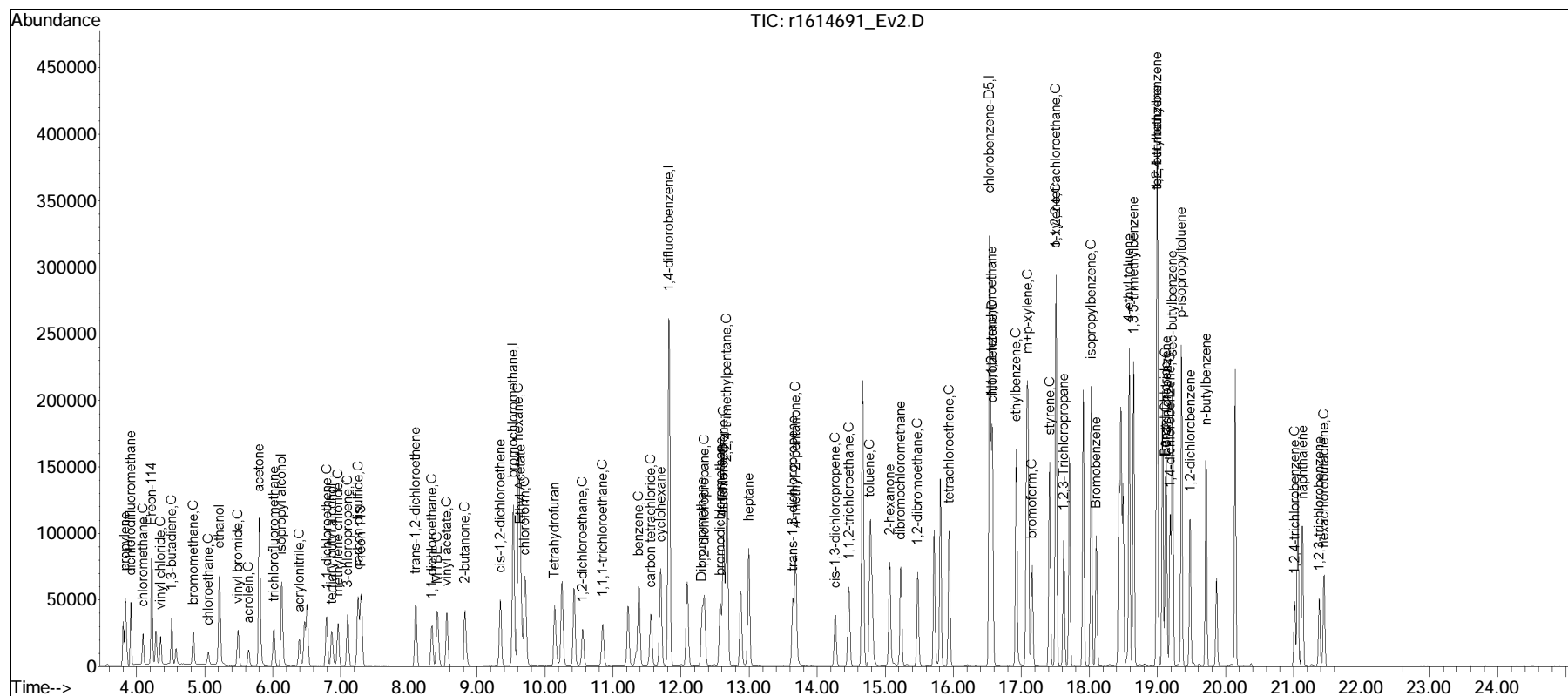
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

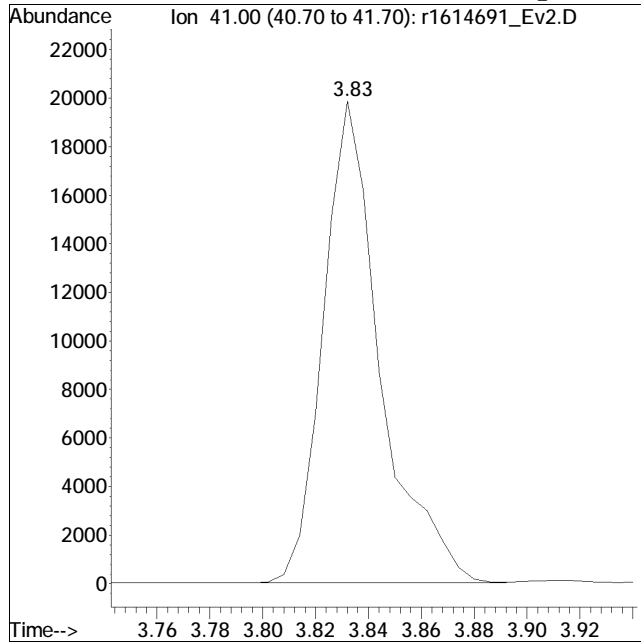
Sub List : Default-LCS-AP2 - All compounds listed\200104SIM\r1614691_Ev2.D



Manual Integration/Negative Proof Report

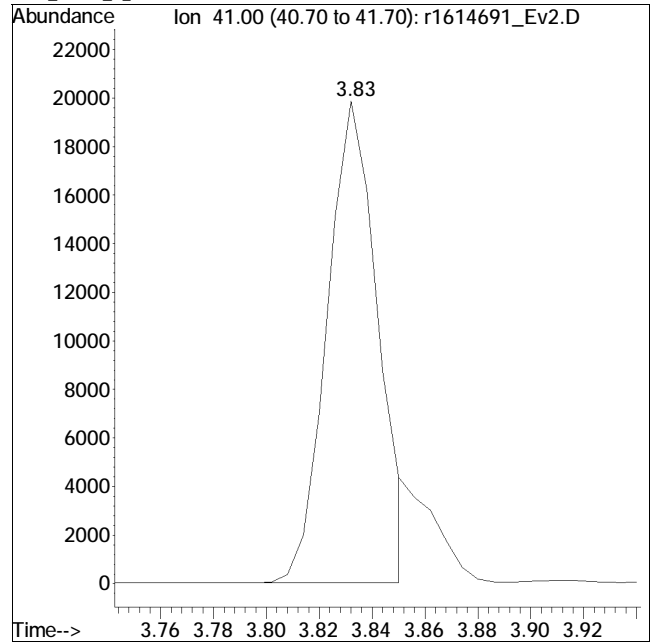
Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
 Data File : r1614691_Ev2.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:2: 7 Instrument :
 Sample : WG1327072-2,3,250,250 Quant Date : 1/4/2020 2:48 pm

Compound #2: propylene



Original Peak Response = 29770

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

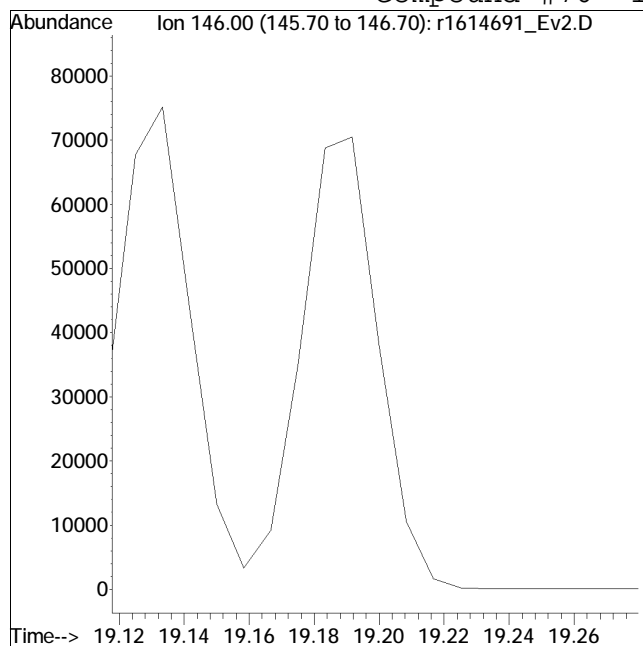


Manual Peak Response = 26478 M6

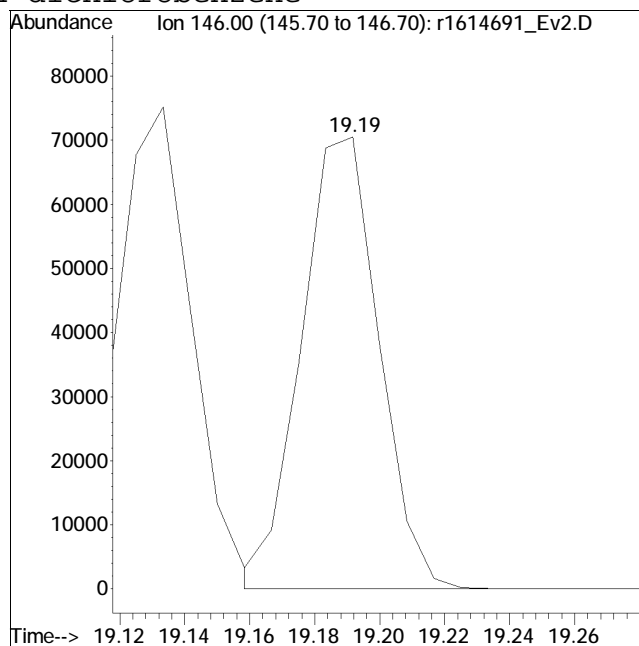
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab16\QMethod : TSIM16_191119.M
 Data File : r1614691_Ev2.D Operator : AIRLAB16:RY
 Date Inj'd : 1/4/2020 0:2: 7 Instrument :
 Sample : WG1327072-2,3,250,250 Quant Date : 1/4/2020 2:48 pm

Compound #76: 1,4-dichlorobenzene



Original Peak Response =



Manual Peak Response = 116957 M3

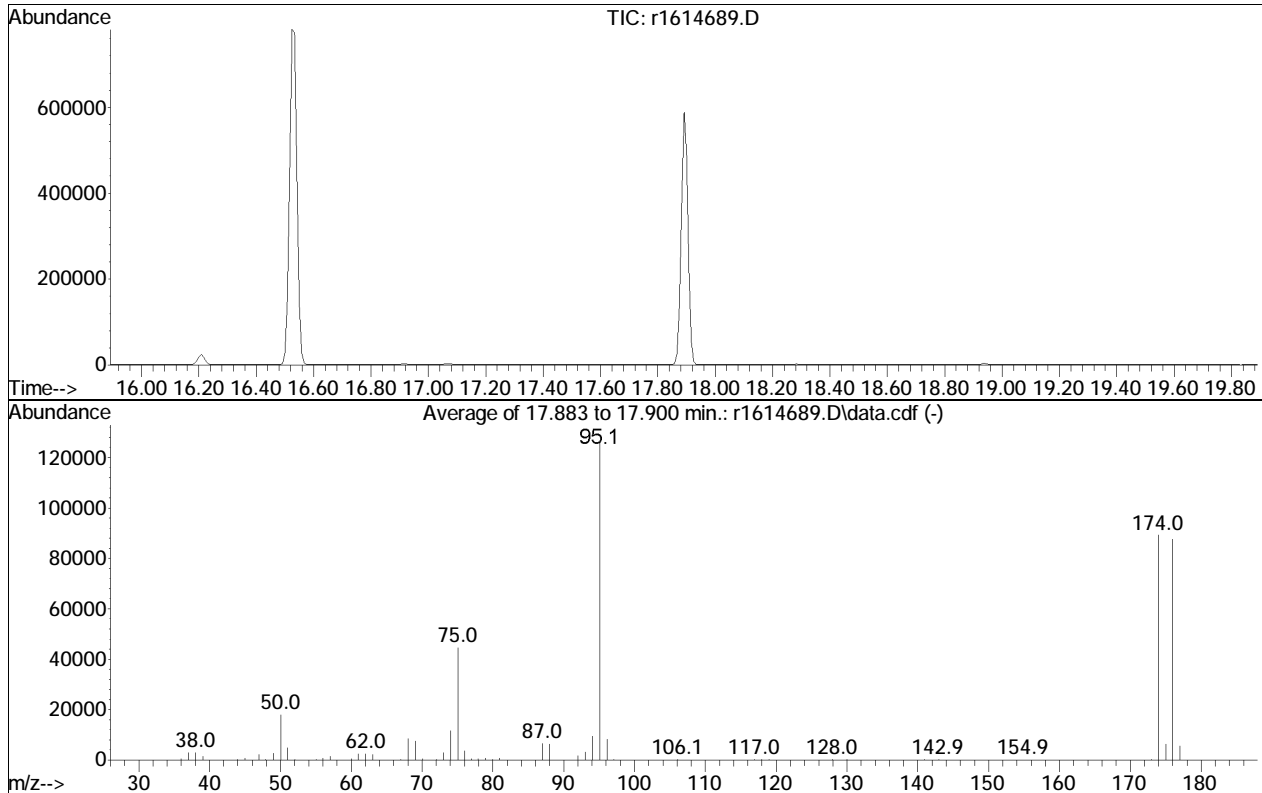
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

BFB

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614689.D
 Acq On : 4 Jan 2020 11:34 AM
 Operator : AIRLAB16:RY
 Sample : WG1327072-1,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_191119.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 21 17:06:25 2019



Spectrum Information: Average of 17.883 to 17.900 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50 | 95 | 8 | 40 | 14.2 | 17980 | PASS |
| 75 | 95 | 30 | 66 | 35.2 | 44621 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 126725 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 8373 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 434 | PASS |
| 174 | 95 | 50 | 120 | 70.6 | 89412 | PASS |
| 175 | 174 | 4 | 9 | 7.0 | 6263 | PASS |
| 176 | 174 | 93 | 101 | 98.0 | 87614 | PASS |
| 177 | 176 | 5 | 9 | 6.3 | 5537 | PASS |

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614693_Ev2.D
 Acq On : 4 Jan 2020 3:40 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-4,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:38:06 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 121056 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery = | | 96.64% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 363454 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery = | | 97.35% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 40862 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery = | | 92.45% | |

System Monitoring Compounds

| Target Compounds | | | Qvalue |
|----------------------------|------|---|--------|
| 6) vinyl chloride | 0.00 | 0 | N.D. |
| 17) 1,1-dichloroethene | 0.00 | 0 | N.D. |
| 28) cis-1,2-dichloroethene | 0.00 | 0 | N.D. |
| 36) 1,1,1-trichloroethane | 0.00 | 0 | N.D. |
| 38) carbon tetrachloride | 0.00 | 0 | N.D. |
| 44) trichloroethene | 0.00 | 0 | N.D. |
| 57) tetrachloroethene | 0.00 | 0 | N.D. |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614693_Ev2.D
 Acq On : 4 Jan 2020 3:40 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-4,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:38:06 2020

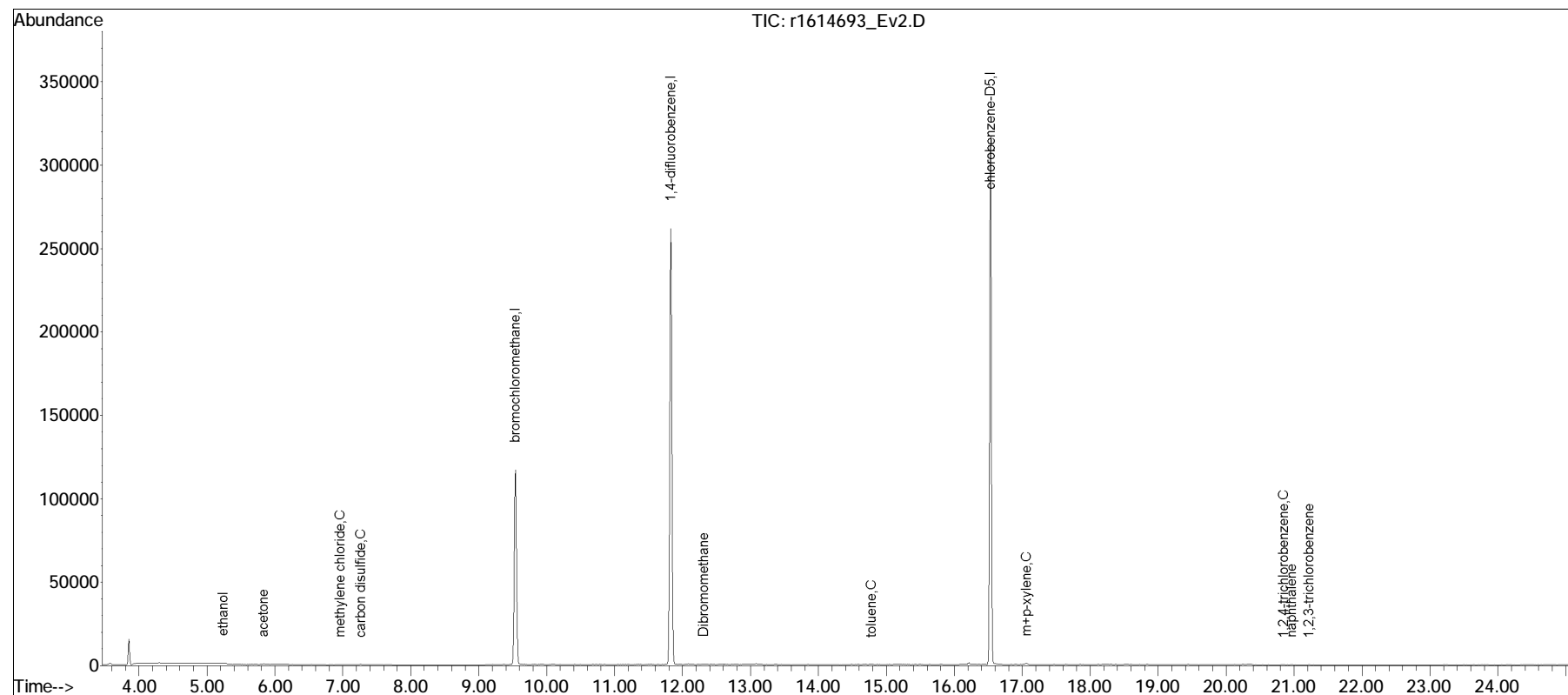
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed\200104SIM\r1614691_Ev2.D



Manual Integration/Negative Proof Report

| | | |
|------------|--------------------------------------|-------------------------------|
| Data Path | : O:\Forensics\Data\Airlab16\QMethod | : TSIM16_191119.M |
| Data File | : r1614693_Ev2.D | Operator : AIRLAB16:RY |
| Date Inj'd | : 1/4/2020 0:3: 0 | Instrument : |
| Sample | : WG1327072-4,3,250,250 | Quant Date : 1/5/2020 8:38 am |

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

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-3,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

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 | Amount | Calc. | %Dev | Area% | Dev(min) |
|------|--------------------------|--------|--------|-------|-------|----------|
| 1 I | bromochloromethane | 10.000 | 10.000 | 0.0 | 81 | 0.03 |
| 2 | propylene | 5.000 | 4.970 | 0.6 | 81 | 0.02 |
| 3 | dichlorodifluoromethane | 5.000 | 3.842 | 23.2 | 61 | 0.02 |
| 4 C | chloromethane | 5.000 | 4.001 | 20.0 | 64 | 0.02 |
| 5 | Freon-114 | 5.000 | 4.081 | 18.4 | 66 | 0.02 |
| 6 C | vinyl chloride | 5.000 | 4.020 | 19.6 | 66 | 0.02 |
| 7 C | 1,3-butadiene | 5.000 | 3.887 | 22.3 | 65 | 0.02 |
| 8 C | bromomethane | 5.000 | 4.168 | 16.6 | 67 | 0.02 |
| 9 C | chloroethane | 5.000 | 4.099 | 18.0 | 69 | 0.02 |
| 10 | ethanol | 25.000 | 19.664 | 21.3 | 59 | 0.02 |
| 11 C | vinyl bromide | 5.000 | 3.999 | 20.0 | 65 | 0.02 |
| 12 C | acrolein | 5.000 | 3.313 | 33.7# | 60 | 0.02 |
| 13 | acetone | 25.000 | 17.562 | 29.8 | 54 | 0.02 |
| 14 | trichlorofluoromethane | 5.000 | 3.761 | 24.8 | 62 | 0.02 |
| 15 | isopropyl alcohol | 12.500 | 9.115 | 27.1 | 57 | 0.02 |
| 16 C | acrylonitrile | 5.000 | 3.664 | 26.7 | 60 | 0.02 |
| 17 C | 1,1-dichloroethene | 5.000 | 4.281 | 14.4 | 71 | 0.03 |
| 18 | tertiary butyl alcohol | 5.000 | 3.945 | 21.1 | 63 | 0.02 |
| 19 C | methylene chloride | 5.000 | 4.696 | 6.1 | 77 | 0.02 |
| 20 C | 3-chloropropene | 5.000 | 4.836 | 3.3 | 75 | 0.02 |
| 21 C | carbon disulfide | 5.000 | 4.644 | 7.1 | 75 | 0.03 |
| 22 | Freon 113 | 5.000 | 4.782 | 4.4 | 78 | 0.02 |
| 23 | trans-1,2-dichloroethene | 5.000 | 4.276 | 14.5 | 70 | 0.03 |
| 24 C | 1,1-dichloroethane | 5.000 | 4.465 | 10.7 | 73 | 0.03 |
| 25 C | MTBE | 5.000 | 4.246 | 15.1 | 67 | 0.02 |
| 26 C | vinyl acetate | 5.000 | 4.916 | 1.7 | 77 | 0.03 |
| 27 C | 2-butanone | 5.000 | 4.726 | 5.5 | 74 | 0.02 |
| 28 | cis-1,2-dichloroethene | 5.000 | 4.444 | 11.1 | 73 | 0.03 |
| 29 | Ethyl Acetate | 5.000 | 4.965 | 0.7 | 77 | 0.03 |
| 30 C | chloroform | 5.000 | 4.383 | 12.3 | 73 | 0.02 |
| 31 | Tetrahydrofuran | 5.000 | 4.646 | 7.1 | 72 | 0.03 |
| 32 C | 1,2-dichloroethane | 5.000 | 3.706 | 25.9 | 62 | 0.03 |
| 33 I | 1,4-difluorobenzene | 10.000 | 10.000 | 0.0 | 83 | 0.03 |
| 34 C | hexane | 5.000 | 4.523 | 9.5 | 75 | 0.02 |
| 36 C | 1,1,1-trichloroethane | 5.000 | 4.084 | 18.3 | 67 | 0.03 |
| 37 C | benzene | 5.000 | 4.473 | 10.5 | 76 | 0.03 |
| 38 C | carbon tetrachloride | 5.000 | 4.294 | 14.1 | 71 | 0.03 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-3,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020

Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

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 | Amount | Calc. | %Dev | Area% | Dev(min) |
|------|---------------------------|--------|--------|--------|-------|----------|
| 39 | cyclohexane | 5.000 | 4.574 | 8.5 | 76 | 0.03 |
| 40 | Dibromomethane | 5.000 | 3.845 | 23.1 | 73 | 0.03 |
| 41 C | 1,2-dichloropropane | 5.000 | 4.580 | 8.4 | 79 | 0.03 |
| 42 | bromodichloromethane | 5.000 | 4.563 | 8.7 | 76 | 0.03 |
| 43 C | 1,4-dioxane | 5.000 | 4.857 | 2.9 | 78 | 0.03 |
| 44 C | trichloroethene | 5.000 | 4.753 | 4.9 | 79 | 0.03 |
| 45 C | 2,2,4-trimethylpentane | 5.000 | 4.593 | 8.1 | 76 | 0.03 |
| 46 | heptane | 5.000 | 4.741 | 5.2 | 77 | 0.03 |
| 47 C | cis-1,3-dichloropropene | 5.000 | 3.790 | 24.2 | 62 | 0.03 |
| 48 C | 4-methyl-2-pentanone | 5.000 | 4.899 | 2.0 | 78 | 0.03 |
| 49 | trans-1,3-dichloropropene | 5.000 | 4.658 | 6.8 | 78 | 0.03 |
| 50 C | 1,1,2-trichloroethane | 5.000 | 4.861 | 2.8 | 82 | 0.03 |
| 51 I | chlorobenzene-D5 | 10.000 | 10.000 | 0.0 | 76 | 0.03 |
| 52 C | toluene | 5.000 | 4.993 | 0.1 | 79 | 0.03 |
| 54 | 2-hexanone | 5.000 | 5.208 | -4.2 | 71 | 0.03 |
| 55 | dibromochloromethane | 5.000 | 5.966 | -19.3 | 86 | 0.02 |
| 56 C | 1,2-dibromoethane | 5.000 | 5.406 | -8.1 | 79 | 0.03 |
| 57 C | tetrachloroethene | 5.000 | 6.002 | -20.0 | 92 | 0.03 |
| 58 | 1,1,1,2-tetrachloroethane | 5.000 | 5.149 | -3.0 | 77 | 0.03 |
| 59 C | chlorobenzene | 5.000 | 5.517 | -10.3 | 81 | 0.02 |
| 60 C | ethylbenzene | 5.000 | 5.339 | -6.8 | 81 | 0.03 |
| 61 C | m+p-xylene | 10.000 | 9.948 | 0.5 | 80 | 0.04 |
| 62 C | bromoform | 5.000 | 6.526 | -30.5# | 94 | 0.03 |
| 63 C | styrene | 5.000 | 5.705 | -14.1 | 80 | 0.04 |
| 64 C | 1,1,2,2-tetrachloroethane | 5.000 | 6.185 | -23.7 | 87 | 0.04 |
| 65 C | o-xylene | 5.000 | 5.139 | -2.8 | 81 | 0.03 |
| 66 | 1,2,3-Trichloropropane | 5.000 | 5.424 | -8.5 | 76 | 0.04 |
| 68 C | isopropylbenzene | 5.000 | 5.367 | -7.3 | 79 | 0.03 |
| 69 | Bromobenzene | 5.000 | 5.345 | -6.9 | 77 | 0.03 |
| 70 | 4-ethyl toluene | 5.000 | 6.010 | -20.2 | 81 | 0.03 |
| 71 | 1,3,5-trimethylbenzene | 5.000 | 5.802 | -16.0 | 80 | 0.03 |
| 72 | tert-butylbenzene | 5.000 | 5.157 | -3.1 | 76 | 0.03 |
| 73 | 1,2,4-trimethylbenzene | 5.000 | 6.017 | -20.3 | 81 | 0.03 |
| 74 C | Benzyl Chloride | 5.000 | 5.211 | -4.2 | 66 | 0.03 |
| 75 | 1,3-dichlorobenzene | 5.000 | 6.493 | -29.9 | 83 | 0.03 |
| 76 C | 1,4-dichlorobenzene | 5.000 | 6.568 | -31.4# | 81 | 0.03 |
| 77 | sec-butylbenzene | 5.000 | 5.323 | -6.5 | 77 | 0.02 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-3,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 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 | Amount | Calc. | %Dev | Area% | Dev(min) |
|------|------------------------|--------|-------|--------|-------|----------|
| 78 | p-isopropyltoluene | 5.000 | 4.840 | 3.2 | 70 | 0.03 |
| 79 | 1,2-dichlorobenzene | 5.000 | 6.630 | -32.6# | 84 | 0.03 |
| 80 | n-butylbenzene | 5.000 | 5.704 | -14.1 | 79 | 0.03 |
| 81 C | 1,2,4-trichlorobenzene | 5.000 | 6.529 | -30.6# | 80 | 0.00 |
| 82 | naphthalene | 5.000 | 5.564 | -11.3 | 71 | 0.02 |
| 83 | 1,2,3-trichlorobenzene | 5.000 | 6.283 | -25.7 | 84 | 0.00 |
| 84 C | hexachlorobutadiene | 5.000 | 6.253 | -25.1 | 90 | 0.00 |

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-3,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|---------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.53 | 49 | 125267 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery | = | 100.00% | |
| 33) 1,4-difluorobenzene | 11.82 | 114 | 373361 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery | = | 100.00% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 44199 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery | = | 100.00% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 4.35 | 62 | 23406 | 4.020 | ppbV # | 83 |
| 17) 1,1-dichloroethene | 6.79 | 61 | 35288 | 4.281 | ppbV | 93 |
| 28) cis-1,2-dichloroethene | 9.34 | 61 | 35049 | 4.444 | ppbV | 96 |
| 36) 1,1,1-trichloroethane | 10.85 | 97 | 36386 | 4.084 | ppbV | 94 |
| 38) carbon tetrachloride | 11.55 | 117 | 38850 | 4.294 | ppbV | 98 |
| 44) trichloroethene | 12.63 | 130 | 49144 | 4.753 | ppbV | 99 |
| 57) tetrachloroethene | 15.94 | 166 | 60719 | 6.002 | ppbV | 98 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614691_Ev2.D
 Acq On : 4 Jan 2020 12:57 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-3,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 04 14:49:45 2020

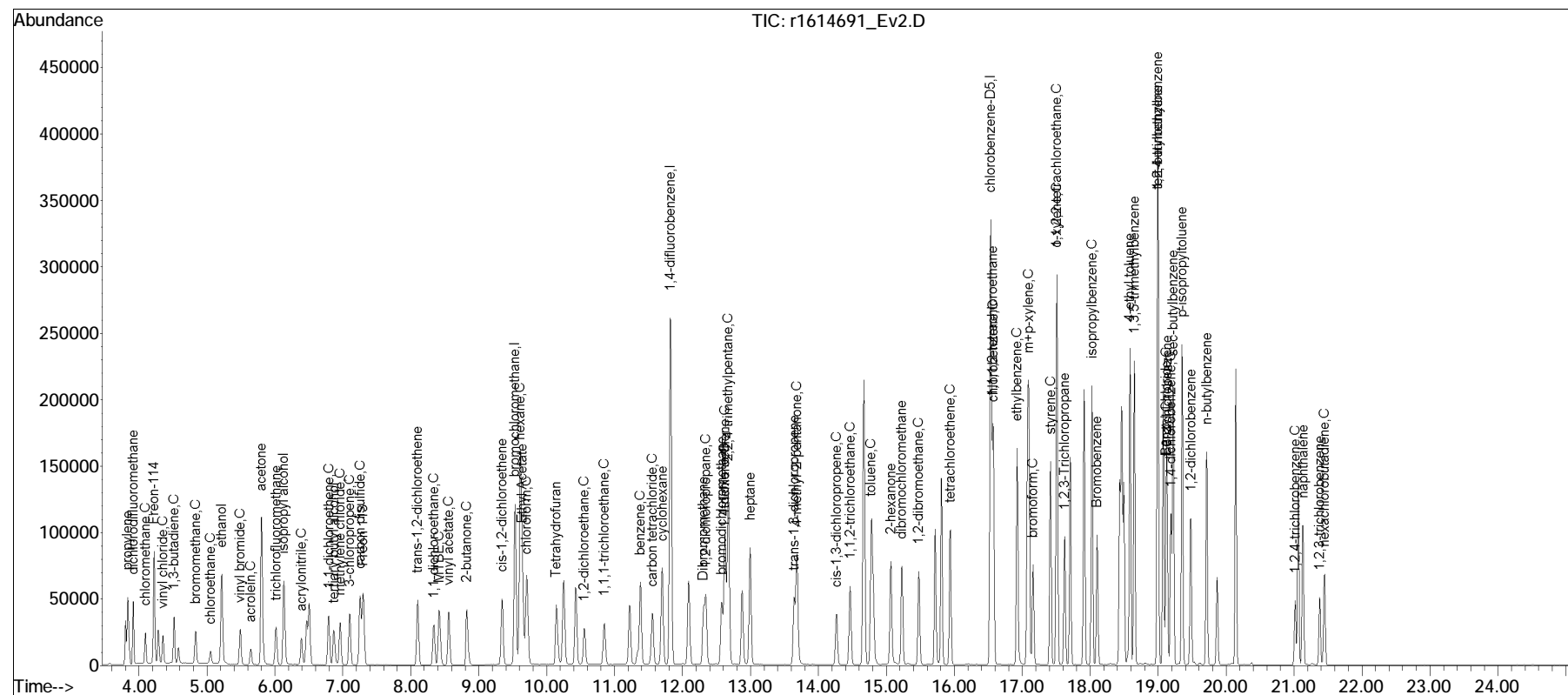
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 19.M

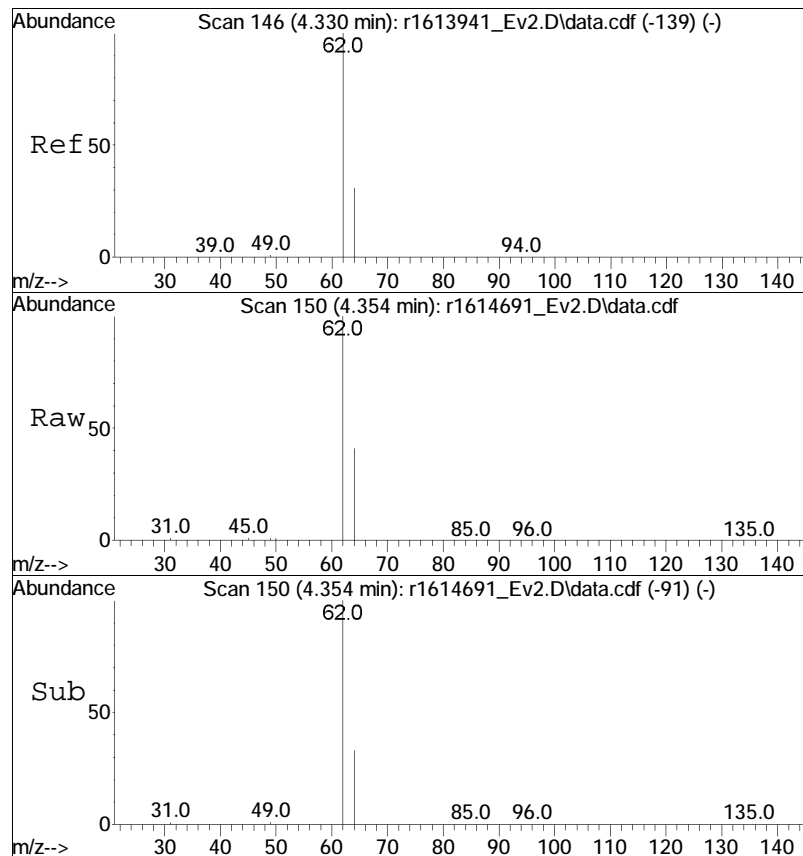
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

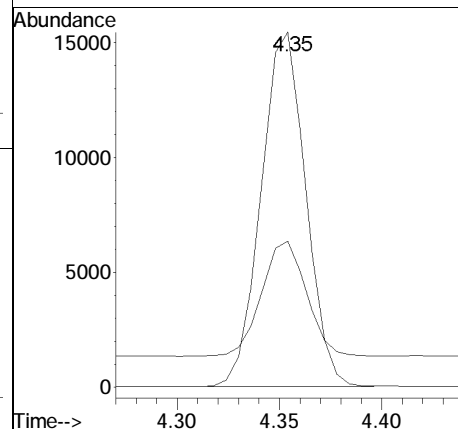
Sub List : Default-LCS-AP2 - All compounds listed\200104SIM\r1614691_Ev2.D

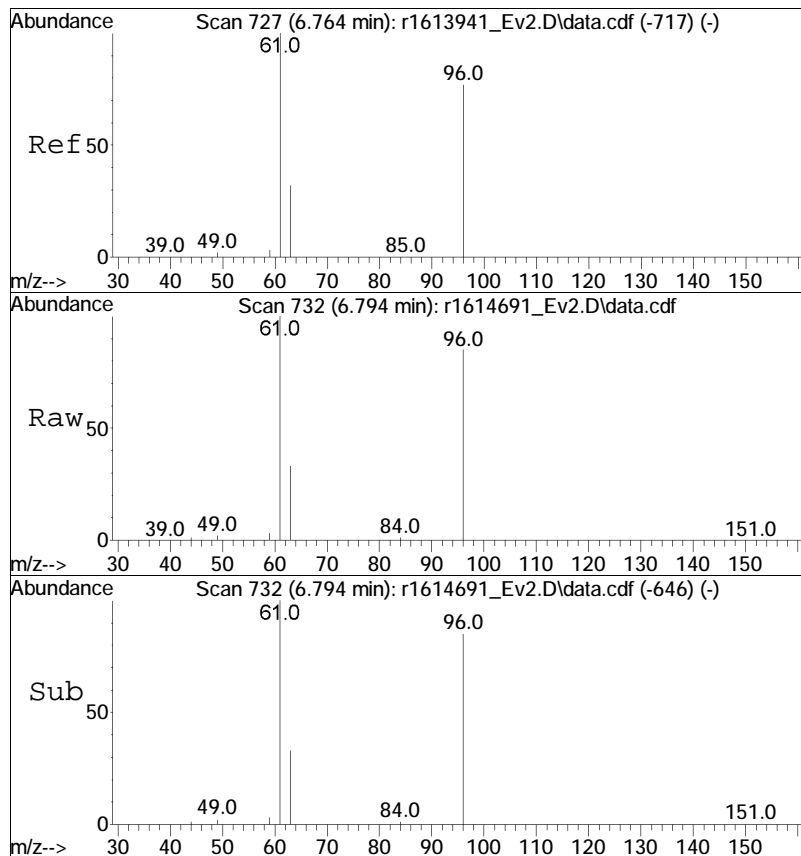




#6
 vinyl chloride
 Concen: 4.02 ppbV
 RT: 4.35 min Scan# 150
 Delta R.T. 0.024 min
 Lab File: r1614691_Ev2.D
 Acq: 4 Jan 2020 12:57 PM

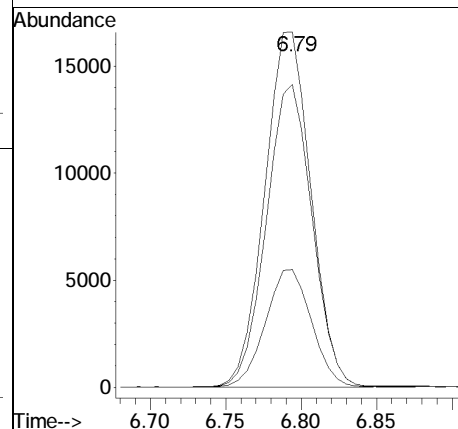
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62 | 100 | | |
| 64 | 41.1 | 25.2 | 37.8# |

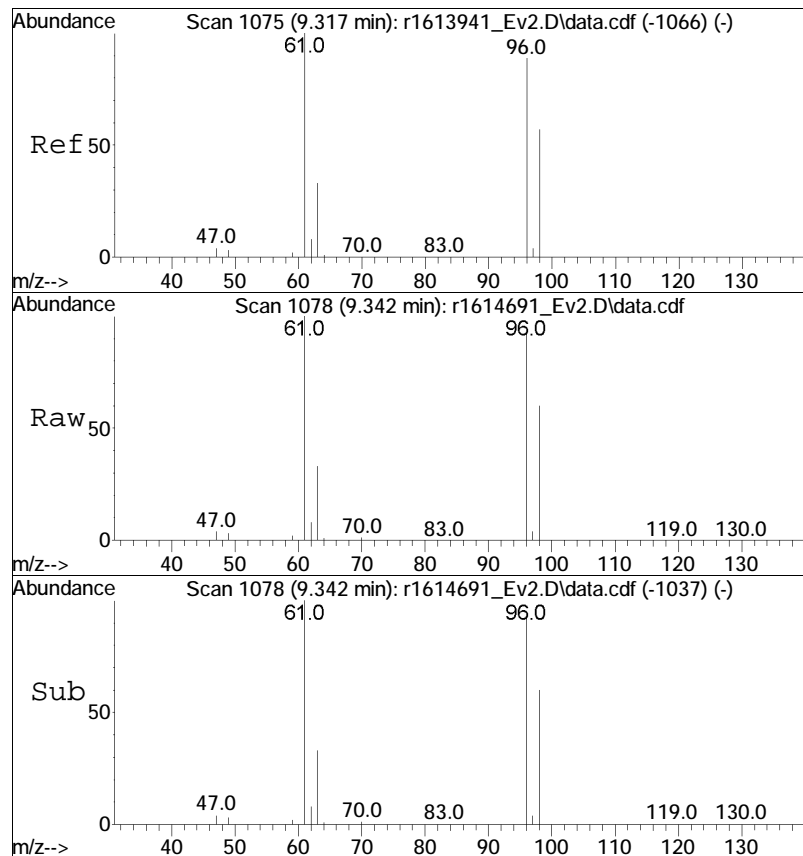




#17
 1,1-dichloroethene
 Concen: 4.28 ppbV
 RT: 6.79 min Scan# 732
 Delta R.T. 0.030 min
 Lab File: r1614691_Ev2.D
 Acq: 4 Jan 2020 12:57 PM

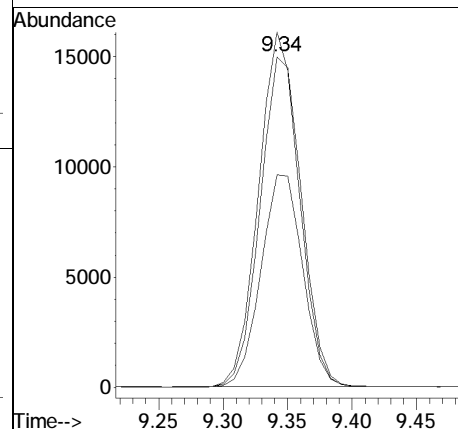
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 61 | Resp: | 35288 |
| Ion | Ratio | Lower | Upper |
| 61 | 100 | | |
| 96 | 85.2 | 61.5 | 92.3 |
| 63 | 33.2 | 26.0 | 39.0 |

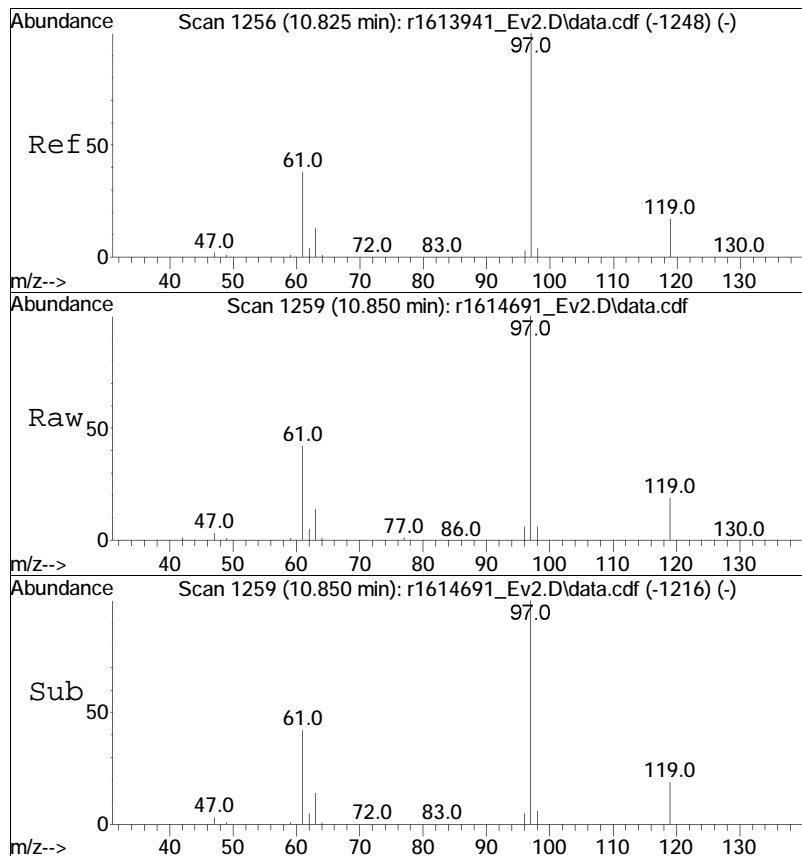




#28
 cis-1,2-dichloroethene
 Concen: 4.44 ppbV
 RT: 9.34 min Scan# 1078
 Delta R.T. 0.025 min
 Lab File: r1614691_Ev2.D
 Acq: 4 Jan 2020 12:57 PM

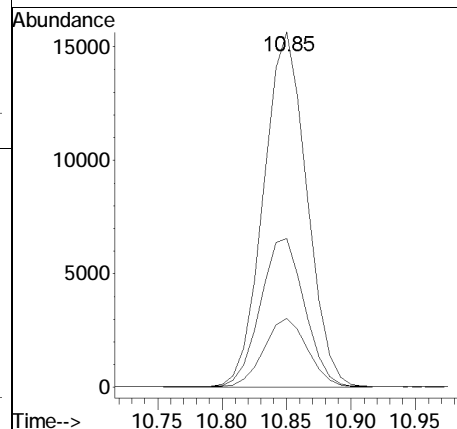
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61 | 100 | | |
| 96 | 93.0 | 71.3 | 106.9 |
| 98 | 59.8 | 45.8 | 68.8 |

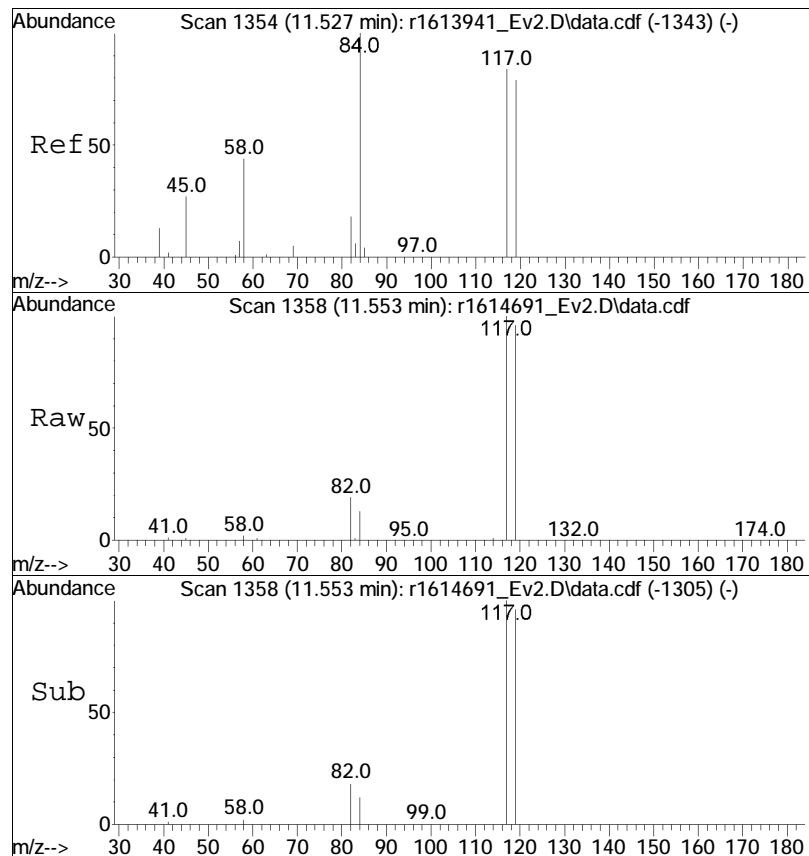




#36
 1,1,1-trichloroethane
 Concen: 4.08 ppbV
 RT: 10.85 min Scan# 1259
 Delta R.T. 0.025 min
 Lab File: r1614691_Ev2.D
 Acq: 4 Jan 2020 12:57 PM

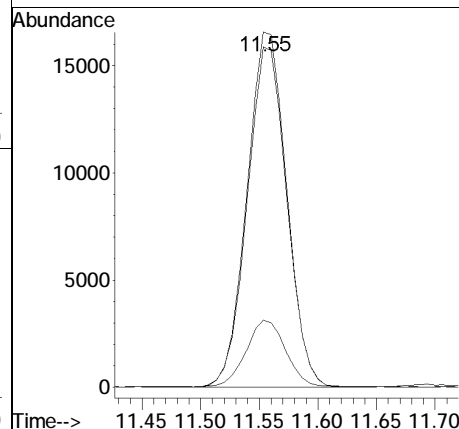
| | | | |
|----------|-------|-------|-------|
| Tgt Ion: | 97 | Resp: | 36386 |
| Ion | Ratio | Lower | Upper |
| 97 | 100 | | |
| 61 | 41.9 | 30.8 | 46.2 |
| 119 | 19.4 | 13.6 | 20.4 |

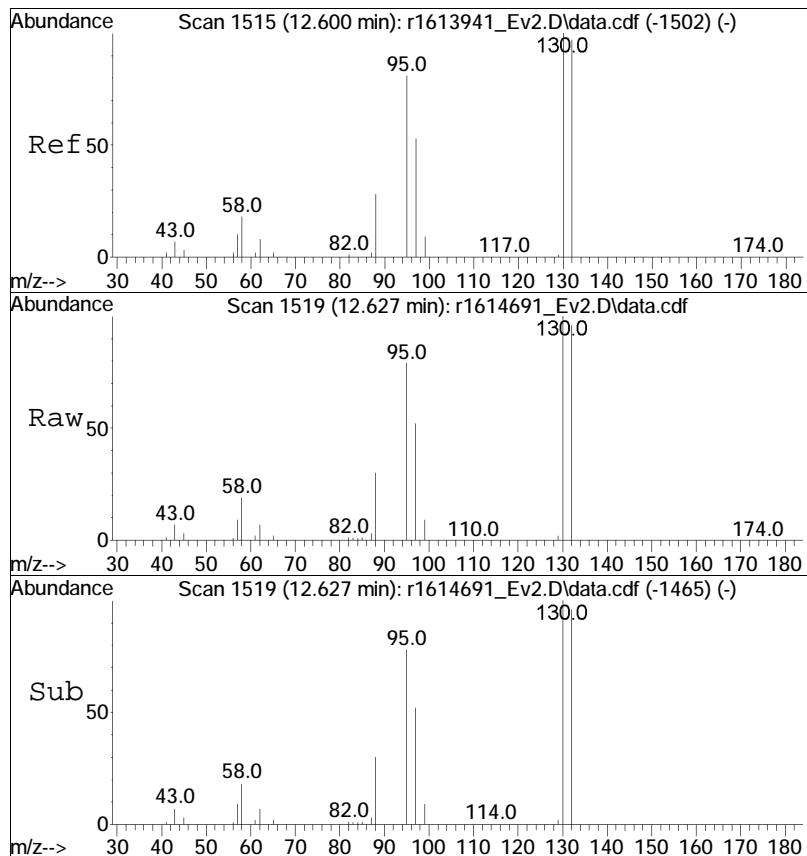




#38
 carbon tetrachloride
 Concen: 4.29 ppbV
 RT: 11.55 min Scan# 1358
 Delta R.T. 0.027 min
 Lab File: r1614691_Ev2.D
 Acq: 4 Jan 2020 12:57 PM

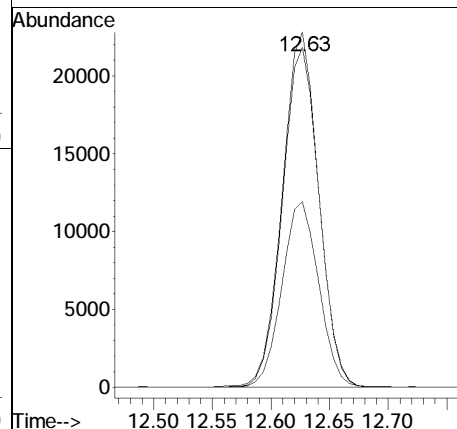
| | | | |
|-----------|-------|-------|-------|
| Tgt Ion: | 117 | Resp: | 38850 |
| Ion Ratio | Lower | Upper | |
| 117 | 100 | | |
| 119 | 95.8 | 75.7 | 113.5 |
| 82 | 18.9 | 17.4 | 26.2 |

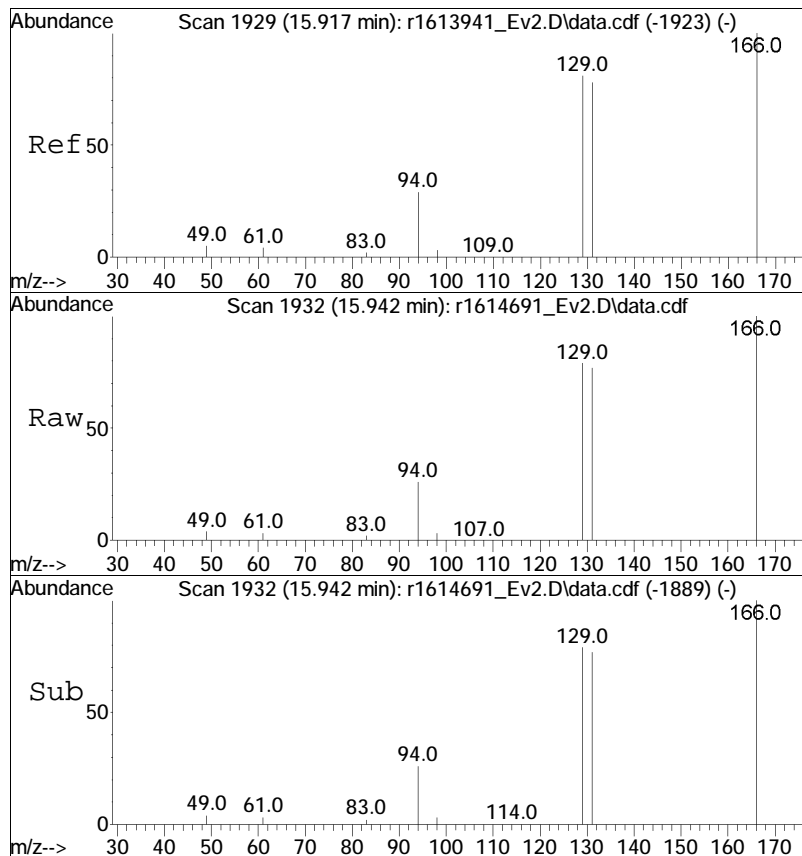




#44
trichloroethene
Concen: 4.75 ppbV
RT: 12.63 min Scan# 1519
Delta R.T. 0.027 min
Lab File: r1614691_Ev2.D
Acq: 4 Jan 2020 12:57 PM

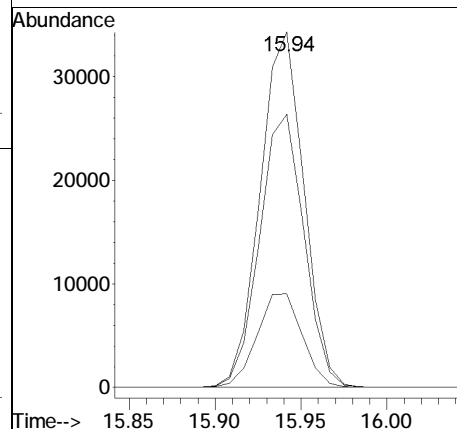
| | | | |
|-----------|-------|-------|-------|
| Tgt Ion: | 130 | Resp: | 49144 |
| Ion Ratio | Lower | Upper | |
| 130 | 100 | | |
| 132 | 95.7 | 77.6 | 116.4 |
| 97 | 52.3 | 42.6 | 64.0 |





#57
 tetrachloroethene
 Concen: 6.00 ppbV
 RT: 15.94 min Scan# 1932
 Delta R.T. 0.025 min
 Lab File: r1614691_Ev2.D
 Acq: 4 Jan 2020 12:57 PM

| | | | |
|-----|---------|-------|-------|
| Tgt | Ion:166 | Resp: | 60719 |
| Ion | Ratio | Lower | Upper |
| 166 | 100 | | |
| 131 | 76.9 | 62.2 | 93.2 |
| 94 | 26.3 | 23.5 | 35.3 |



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614697_Ev2.D
 Acq On : 4 Jan 2020 8:32 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-5,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:39:59 2020
 Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 21 17:06:26 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D
 Sub List : 7-NY-SIM - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|------------|--------|--------|----------|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 9.54 | 49 | 117328 | 10.000 | ppbV | 0.03 |
| Standard Area = 125267 | | | Recovery = | | 93.66% | |
| 33) 1,4-difluorobenzene | 11.83 | 114 | 354666 | 10.000 | ppbV | 0.03 |
| Standard Area = 373361 | | | Recovery = | | 94.99% | |
| 51) chlorobenzene-D5 | 16.53 | 54 | 40423 | 10.000 | ppbV | 0.03 |
| Standard Area = 44199 | | | Recovery = | | 91.46% | |

System Monitoring Compounds

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 6) vinyl chloride | 0.00 | | 0 | | N.D. | |
| 17) 1,1-dichloroethene | 0.00 | | 0 | | N.D. | |
| 28) cis-1,2-dichloroethene | 0.00 | | 0 | | N.D. | |
| 36) 1,1,1-trichloroethane | 10.76 | | 0 | | N.D. | |
| 38) carbon tetrachloride | 11.56 | 117 | 618 | 0.072 | ppbV # | 85 |
| 44) trichloroethene | 12.63 | | 0 | | N.D. | |
| 57) tetrachloroethene | 15.94 | 166 | 474 | 0.051 | ppbV | 95 |

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\
 Data File : r1614697_Ev2.D
 Acq On : 4 Jan 2020 8:32 PM
 Operator : AIRLAB16:RY
 Sample : WG1327072-5,3,250,250
 Misc : WG1327072,ICAL16313
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Jan 05 08:39:59 2020

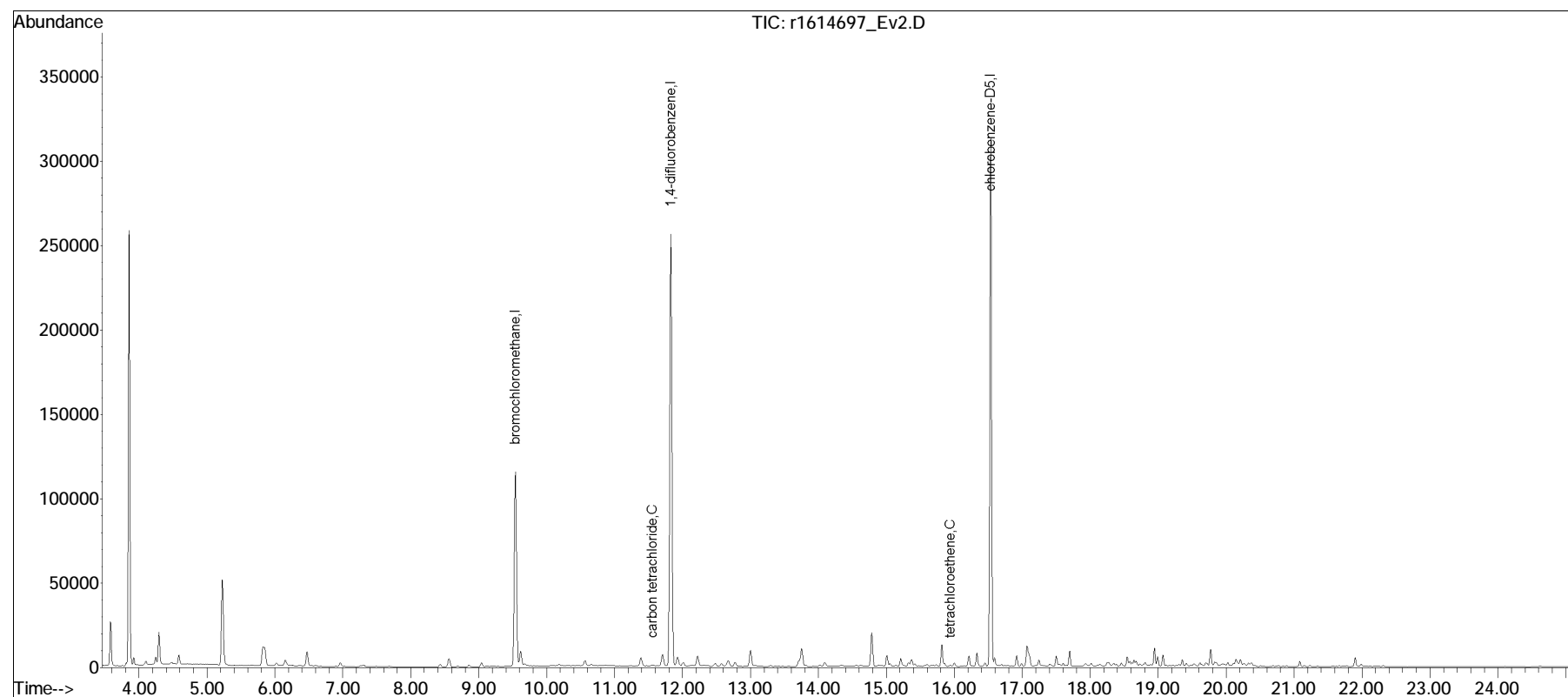
Quant Method : O:\Forensics\Data\Airlab16\2020\01-JAN\200104SIM\TSIM16_1911
 ... 19.M

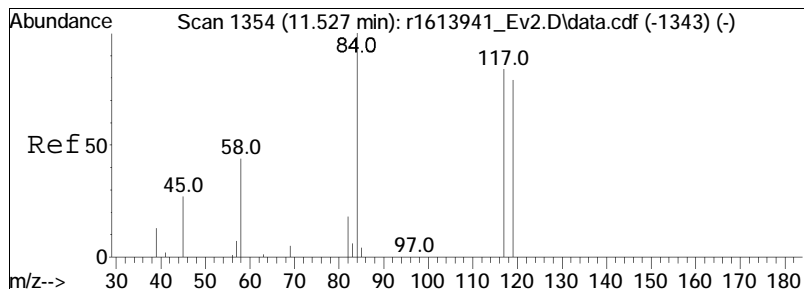
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

QLast Update : Thu Nov 21 17:06:26 2019

Response via : Initial Calibration

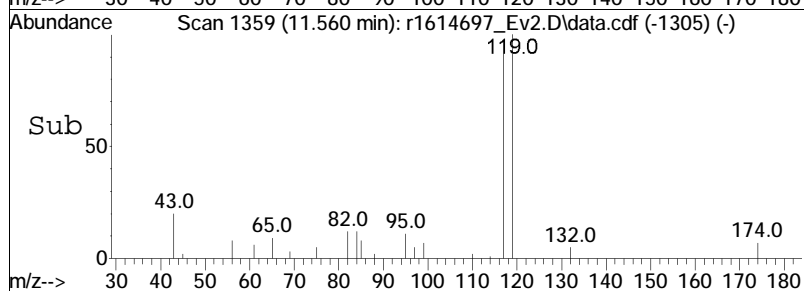
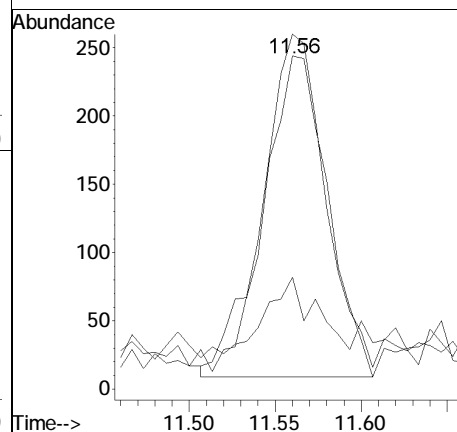
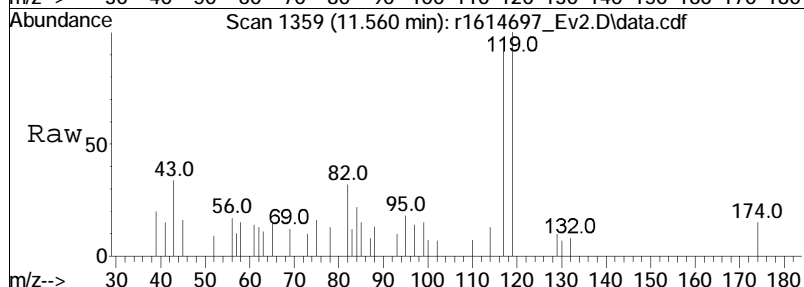
Sub List : 7-NY-SIM - .\Data\Airlab16\2020\01-JAN\200104SIM\r1614691_Ev2.D

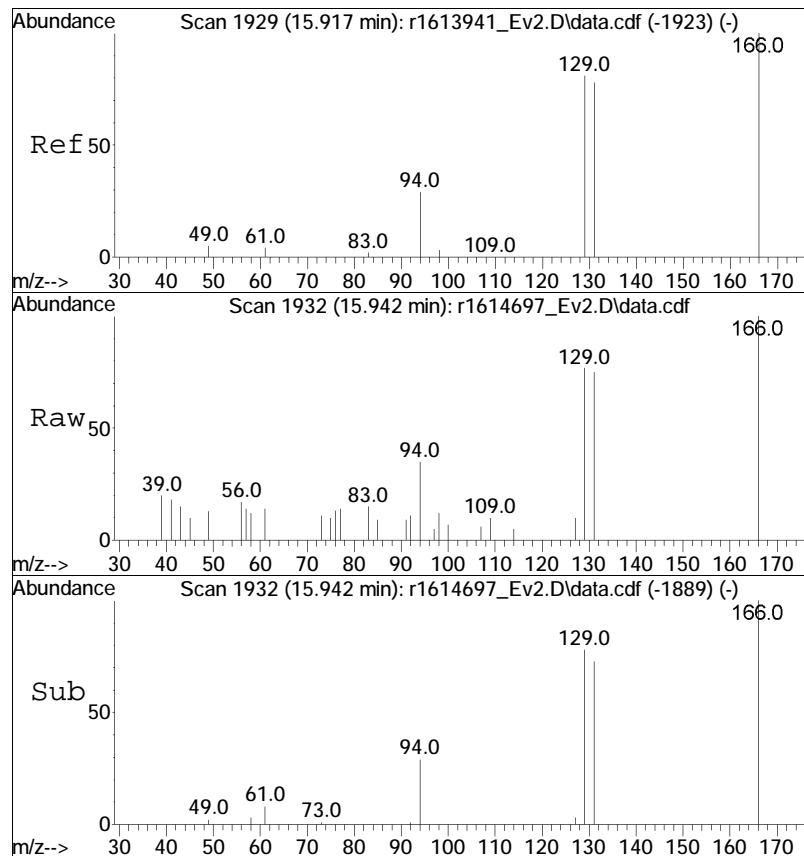




#38
 carbon tetrachloride
 Concen: 0.07 ppbV
 RT: 11.56 min Scan# 1359
 Delta R.T. 0.033 min
 Lab File: r1614697_Ev2.D
 Acq: 4 Jan 2020 8:32 PM

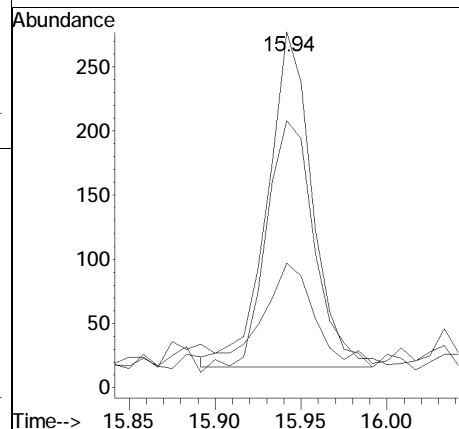
Tgt Ion: 117 Resp: 618
 Ion Ratio Lower Upper
 117 100
 119 106.6 75.7 113.5
 82 33.6 17.4 26.2#





#57
 tetrachloroethene
 Concen: 0.05 ppbV
 RT: 15.94 min Scan# 1932
 Delta R.T. 0.025 min
 Lab File: r1614697_Ev2.D
 Acq: 4 Jan 2020 8:32 PM

| | | | |
|-----------|-------|-------|------|
| Tgt Ion: | 166 | Resp: | 474 |
| Ion Ratio | Lower | Upper | |
| 166 | 100 | | |
| 131 | 75.1 | 62.2 | 93.2 |
| 94 | 35.0 | 23.5 | 35.3 |



Manual Integration/Negative Proof Report

| | | |
|------------|--------------------------------------|-------------------------------|
| Data Path | : O:\Forensics\Data\Airlab16\QMethod | : TSIM16_191119.M |
| Data File | : r1614697_Ev2.D | Operator : AIRLAB16:RY |
| Date Inj'd | : 1/4/2020 0:8: 2 | Instrument : |
| Sample | : WG1327072-5,3,250,250 | Quant Date : 1/5/2020 8:39 am |

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

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

C_s = Concentration of sample (ppbv)

DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor

$$\text{DF} = V_{\text{cf}} / V_{\text{ci}}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

P =

Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) \times \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI / 14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF / 14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

V_{cf} = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jan 07 2020, 02:55 pm

Work Group: WG1327072 for Department: 3 GC/MS

Created: 04-JAN-20 Due: Operator: EW

| Sample | Client ID | C Product | Matrix | Stat | UA | HOLD | DUE | PR | Location |
|-------------|----------------------|------------|--------|------|----|------|------|----|----------|
| L1962003-01 | AA-01_123019 | S TO15-SIM | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-02 | DUP-01_123019 | S TO15-SIM | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-03 | IA-02_123019 | S TO15-SIM | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-05 | IA-04A_123019 | S TO15-SIM | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-07 | IA-07_123019 | S TO15-SIM | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| L1962003-09 | IA-08_123019 | S TO15-SIM | AIR | DONE | U | 0129 | 0107 | S0 | Can-6 |
| WG1327072-1 | MS BFB Tune Standard | S TO15-SIM | AIR | DONE | U | | | | |
| WG1327072-2 | Continuing Calibrati | S TO15-SIM | AIR | DONE | U | | | | |
| WG1327072-3 | Laboratory Control S | S TO15-SIM | AIR | DONE | U | | | | |
| WG1327072-4 | Laboratory Method Bl | S TO15-SIM | AIR | DONE | U | | | | |
| WG1327072-5 | Duplicate Sample | S TO15-SIM | AIR | DONE | U | | | | |
| Comments: | | | | | | | | | |
| WG1327072-5 | L1962003-03 | | | | | | | | |

Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airlab 16

Internal Standard/Surrogate IDs: SS19-014/ SS19-022

Date: 11/19/19

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: AR

Sequence File Name: 191119.S

| SIM ICAL# | | Full Scan 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 | BA16111901 | TO15_SFS.qgm | R1613931.qgd | 250ML | BLANK | | NA |
| 1 | BA16111902 | TO15_SFS.qgm | R1613932.qgd | 250ML | BLANK | | NA |
| 1 | BA16111903 | TO15_SFS.qgm | R1613933.qgd | 250ML | BLANK | | NA |
| 1 | TA16111901 | TO15_SFS.qgm | R1613934.qgd | 250ML | TUNE | | NA |
| 5 | ITO15-SIMTD0.02 | TO15_SFS.qgm | R1613935.qgd | SS19-028D 50 mL | SIM ONLY | DEF | NA |
| 5 | ITO15-SIMTD0.05 | TO15_SFS.qgm | R1613936.qgd | SS19-028D 125 mL | SIM ONLY | DEF | NA |
| 5 | ITO15-SIMTD0.1 | TO15_SFS.qgm | R1613937.qgd | SS19-028D 250 mL | SIM ONLY | DEF | NA |
| 6 | ITO15-LLSTD0.2 | TO15_SFS.qgm | R1613938.qgd | SS19-028C 50 mL | | DEF | NA |
| 6 | ITO15-LLSTD0.5 | TO15_SFS.qgm | R1613939.qgd | SS19-028C 125 mL | | DEF | NA |
| 6 | ITO15-LLSTD1.0 | TO15_SFS.qgm | R1613940.qgd | SS19-028C 250 mL | | DEF | NA |
| 7 | ITO15-LLSTD5.0 | TO15_SFS.qgm | R1613941.qgd | SS19-028B2 125 mL | | DEF | NA |
| 7 | ITO15-LLSTD010 | TO15_SFS.qgm | R1613942.qgd | SS19-028B2 250 mL | | DEF | NA |
| 8 | ITO15-LLSTD020 | TO15_SFS.qgm | R1613943.qgd | SS19-028A 50 mL | | DEF | NA |
| 8 | ITO15-LLSTD050 | TO15_SFS.qgm | R1613944.qgd | SS19-028A 125 mL | | DEF | NA |
| 8 | ITO15-LLSTD100 | TO15_SFS.qgm | R1613945.qgd | SS19-028A 250 mL | NOT USED FOR SIM | DEF | NA |
| 1 | BA16111901 | TO15_SFS.qgm | R1613946.qgd | 250ML | | DEF | NA |
| 1 | BA16111902 | TO15_SFS.qgm | R1613947.qgd | 250ML | | DEF | NA |
| 2 | CTO15-LLSTD010 | TO15_SFS.qgm | R1613948.qgd | SS19-029F 250 mL | FULL SCAN ICV | DEF | NA |
| 2 | CTO15-SIMSTD5.0 | TO15_SFS.qgm | R1613949.qgd | SS19-029F 125 mL | SIM ICV | DEF | NA |
| | | | | | | | |
| | | | | | | | |

Alpha Analytical Air Lab Instrument Run Log

[illegible]

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: Airlab 16

Internal Standard/Surrogate IDs: SS19-014/ SS19-022

Date: 01/04/20

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: EW

Sequence File Name: 200104.S

SIM ICAL# 16313

Full Scan ICAL# 16311

APH ICAL# 16314

| 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 | TA16010401 | TO15_SFS.qgm | R1614689.qgd | 250ML | TUNE | | NA |
| 3 | CTO15-LLSTD10.0 | TO15_SFS.qgm | R1614690.qgd | SS19-029F 250 mL | LL LCS | | NA |
| 3 | CTO15-SIMSTD5.0 | TO15_SFS.qgm | R1614691.qgd | SS19-029F 125 mL | SIM LCS | | NA |
| 1 | BA16010401 | TO15_SFS.qgm | R1614692.qgd | 250ML | LL BLANK | | NA |
| 1 | BA16010402 | TO15_SFS.qgm | R1614693.qgd | 250ML | SIM BLANK | | NA |
| 1 | L1962003-01,3,250,250 | TO15_SFS.qgm | R1614694.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 2 | L1962003-02,3,250,250 | TO15_SFS.qgm | R1614695.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 3 | L1962003-03,3,250,250 | TO15_SFS.qgm | R1614696.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 3 | L1962003-03DUP,3,250,250 | TO15_SFS.qgm | R1614697.qgd | WG1327071,ICAL16311 | LL / SIM DUP | NY / 7-SIM | Y |
| 4 | L1962003-05,3,250,250 | TO15_SFS.qgm | R1614698.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 5 | L1962003-07,3,250,250 | TO15_SFS.qgm | R1614699.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 6 | L1962003-09,3,250,250 | TO15_SFS.qgm | R1614700.qgd | WG1327071,ICAL16311 | | NY / 7-SIM | Y |
| 7 | L1962003-04,3,250,250 | TO15_SFS.qgm | R1614701.qgd | WG1327071,ICAL16311 | | NY | Y |
| 8 | L1962003-06,3,250,250 | TO15_SFS.qgm | R1614702.qgd | WG1327071,ICAL16311 | | NY | Y |
| 9 | L1962003-08D,3,6.66,250 | TO15_SFS.qgm | R1614703.qgd | WG1327071,ICAL16311 | | NY | Y |
| 10 | L1962003-10,3,250,250 | TO15_SFS.qgm | R1614704.qgd | WG1327071,ICAL16311 | | NY | Y |
| 11 | L1961984-01,3,250,250 | TO15_SFS.qgm | R1614705.qgd | WG1327071,ICAL16311 | | NY | Y |
| 12 | L1961984-02,3,250,250 | TO15_SFS.qgm | R1614706.qgd | WG1327071,ICAL16311 | | NY | Y |
| 13 | L1961984-03,3,250,250 | TO15_SFS.qgm | R1614707.qgd | WG1327071,ICAL16311 | | NY | Y |
| 14 | L1961900-02D,3,75,250 | TO15_SFS.qgm | R1614708.qgd | WG1327071,ICAL16311 | | STD + NAPH +10 TICs | Y |
| 15 | L1961900-01D,3,2.24,250 | TO15_SFS.qgm | R1614709.qgd | WG1327071,ICAL16311 | | STD + NAPH +10 TICs | Y |

[illegible]

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

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